

Regulation for Enforcement of the Civil Aeronautics Act

(Order of the Ministry of Transport No. 56 of July 31, 1952)

Chapter I General Provisions

(Air Navigation Facilities)

Article 1 Air navigation facilities under the provisions of paragraph (5) of Article 2 of the Civil Aeronautics Act (Act No. 231 of 1952, hereinafter referred to as the "Act") are as follows:

- (i) radio navigation aids that aid the navigation of an aircraft by means of radio waves
- (ii) aeronautical lighting that aids the navigation of an aircraft by means of lights
- (iii) obstacle markings that are designed to make an aircraft recognize the existence of objects which may prevent the navigation of the aircraft by colors or shapes for any aircraft flying during the daytime

(Length of Heliport Final Approach Area)

Article 1-2 The length of heliport final approach area as specified by the Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in paragraph (7) of Article 2 of the Act is the length of not more than 1,000 meters as specified by the Minister of Land, Infrastructure, Transport and Tourism.

(Slope of Approach Surface)

Article 2 The slopes of approach surface which is a horizontal plane as specified by the Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in paragraph (8) of Article 2 of the Act are as follows:

- (i) one-fiftieth in the case of a landing area used for the landing of aircraft using an instrument landing system or used for the landing guided by air traffic controller using precision approach radar
- (ii) slopes specified in the following table, which are categorized according to the type of airport, etc. and class of landing are in the case of landing area (excluding those specified in the preceding item) if it is an onshore airport, etc. and water airport, etc.

Categories of Airports	a	Gradient
Onshore Airports	From A to D	1/40th

	E and F	Gradient of more than 1/40th and not more than 1/30th as specified by the Minister of Land, Infrastructure, Transport and Tourism
	G	1/25th
	H and J	1/20th
Water Airports	A and B	1/40th
	C and D	1/30th
	E	1/20th

(iii) slopes of more than one-eighth as specified by the Minister of Land, Infrastructure, Transport and Tourism in the case of landing area (excluding those prescribed in item (i)) of heliport; provided however, that it is deemed to be particularly necessary taking into account the geographical conditions of the heliport, slopes of more than one-twentieth and not more than one-eighth as specified by the Minister of Land, Infrastructure, Transport and Tourism

(Radial Lengths of Horizontal Surfaces)

Article 3 The radial lengths of horizontal surfaces as specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in paragraph (9) of Article 2 of the Act are as follows:

(i) lengths specified in the following table, which are determined according to the type of airport, etc. and the class of landing area (the longest landing area in the case of airports, etc. having more than 2 landing areas), in the case of onshore airport, etc. and water airport, etc.

Categories of Airports	Classes of Landing Strip	Radius
Onshore Airports	A	4,000 meters
	B	3,500 meters
	C	3,000 meters
	D	2,500 meters
	E	2,000 meters
	F	1,800 meters
	G	1,500 meters
	H	1,000 meters
	J	800 meters
Water Airports	A	4,000 meters
	B	3,500 meters
	C	3,000 meters
	D	2,500 meters
	E	2,000 meters

- (ii) lengths of not more than 200 meters as specified by the Minister of Land, Infrastructure, Transport and Tourism in the case of heliports

(Slope of Heliport Transitional Surface)

Article 3-2 (1) Slope of heliport transitional surface as specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in paragraph (10) of Article 2 of the Act is one-half.

(2) Notwithstanding the provisions of the preceding paragraph, if the slope of transitional surface at the one long side of landing area (hereinafter referred to as "long side A" in this paragraph) includes another long side (hereinafter referred to as "long side B" in this paragraph) within the distance longer twice the length of the short side of the landing area of long side B of outside landing area and no object is projected from the plane with the slopes of one-tenth above the outside of landing area; slopes may be specified as follows;

- (i) if there is no object projected from the horizontal plane including the highest point of the landing area within the distance of three-fourths diameter length of the rotary wings of helicopters for which the heliport located outside the longer side A is expected to be used; slopes of more than one-half as specified by the Minister of Land, Infrastructure, Transport and Tourism
- (ii) in any case than that prescribed in the preceding item, slopes of between one-half and one over one as specified by the Minister of Land, Infrastructure, Transport and Tourism

(Aeronautical Lighting)

Article 4 Aeronautical lighting as specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in paragraph (11) of Article 2 of the Act is as follows:

- (i) aeronautical beacons mean facilities that aid the navigation of an aircraft at night or under the instrument meteorological conditions
- (ii) aerodrome lighting means facilities that aid aircraft takeoffs or landings as specified in Article 114
- (iii) obstacle lights means facilities that are designed to make an aircraft recognize the existence of an object which may prevent the navigation

(Instrument Meteorological Conditions)

Article 5 Low visual meteorological conditions as specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in paragraph (15) of Article 2 of the Act are meteorological conditions (hereinafter referred to as "visual meteorological condition") other than those specified in the following items according to the classification of aircraft specified in the

following items:

- (i) aircraft that flies at altitudes above 3,000 meters (excluding aircraft specified in items (iii) and (iv)): weather conditions that meet the following requirements;
 - (a) flight visibility is over 8,000 meters
 - (b) there is no clouds is within the vertical distance of 300 meters above and below the aircraft respectively
 - (c) there is no clouds within the horizontal distance of 1,500 meters from the aircraft.
- (ii) aircraft that flies at altitudes lower than 3,000 meters (excluding aircraft specified in the following item and item (iv)): weather conditions specified according to the classification of aircraft specified in the following items
 - (a) aircraft that flies in air traffic control area (hereinafter referred to as a "traffic control area"), air traffic control zone (hereinafter referred to as "control zone") or air traffic information zone (hereinafter referred to as "information zone"): weather conditions that meet the following requirements;
 - 1. flight visibility is over 5,000 meters
 - 2. there is no clouds within the vertical distance of 150 meters above and 300 meters below the aircraft
 - 3. there is no clouds within the horizontal distance of 600 meters from the aircraft.
 - (b) aircraft that flies in the airspace other than the control area, control zone and information zone: weather conditions that meet the following requirements;
 - 1. flight visibility is over 1,500 meters.
 - 2. there is no clouds within the vertical distance of 150 meters above and 300 meters below the aircraft.
 - 3. there is no clouds within the horizontal distance of 600 meters from the aircraft.
- (iii) aircraft that flies at altitudes lower than 300 meters from the ground surface or the water surface in the airspace other than the control area, the control zone and the information zone (excluding aircraft specified in the following item): weather conditions that meet the following requirements; (excluding those specified in (a) in case of a helicopter that flies at the speed which enables the pilot to avoid collision with other object)
 - (a) flight visibility is over 1,500 meters.
 - (b) aircraft may fly away from clouds and the pilot may continue to see the ground surface or the water surface.
- (iv) aircraft that is ready to take off or land at an airport, etc. within the control zone or information zone or at an airport, etc. outside the control zone

and information zone designated by the Minister of Land, Infrastructure, Transport and Tourism in the public notice: weather conditions that meet the following requirements:

- (a) ground visibility is more than 5,000 meters (more than 8,000 meters if airport, etc. is located within the control zone which is designated by the Minister of Land, Infrastructure, Transport and Tourism in the public notice).
- (b) height of clouds is more than 300 meters (more than 450 meters if the airport is the one designated by the Minister of Land, Infrastructure, Transport and Tourism in the public notice, as specified in (a)) from the ground surface or water surface.

(Visual Flight Rules)

Article 5-2 Visual Flight Rules (VFR) means rules other than instrument flight rules.

(Gliders)

Article 5-3 Gliders are classified into 4 categories as follows:

- (i) a powered glider (meaning a powered glider specified as a powered glider in the airworthiness category prescribed in Annex 1)
- (ii) soaring gliders (meaning gliders specified as acrobatic glider A and utility glider U in the airworthiness category prescribed in Annex 1 excluding secondary and primary gliders)
- (iii) secondary gliders (among utility gliders U in the airworthiness category specified in Annex 1, gliders which are not suitable for acrobatic flight and aircraft towing but suitable for winch towing (including automobile towing; the same applies in the following item))
- (iv) primary gliders (among utility gliders U in the airworthiness category specified in Annex 1, gliders which are not suitable for acrobatic flight, aircraft towing and winch towing)

(Flight Manual)

Article 5-4 The Flight Manual means the documents that include the following information:

- (i) general description of the aircraft
- (ii) matters relating to aircraft operating limitations
- (iii) various systems that must be operated and other actions that need to be taken in case of emergency
- (iv) operation procedures of various systems under normal conditions
- (v) aircraft performance
- (vi) particulars relating to aircraft noise

(vii) particulars relating to engine emission

(Document for Maintenance Procedures)

Article 5-5 The document for maintenance procedures mean the document that includes the following particulars:

- (i) description of aircraft structures and its equipments and systems
- (ii) methods for periodical inspection of the aircraft, methods for correcting malfunction occurred to aircraft and other particulars relating to aircraft maintenance
- (iii) mandatory replacement limit for using engine, propeller, and equipment specified in paragraph (1) of Article 31, which are installed in the aircraft
- (iv) other necessary matters

(Aircraft Maintenance and Alternation)

Article 5-6 Details of maintenance or alteration work are as prescribed in the following table based on the category of work specified in that table.

Work Categories			Description of Work
Maintenance	Preventive Maintenance	Minor Preventive Maintenance	Replacement for standard equipment or parts without adjustment of rigging or clearance and complex assembly work under simple preventive maintenance work
		General Preventive Maintenance	Preventive maintenance work other than minor preventive maintenance
	Repair	Slight Repair	Repair work whose effect on airworthiness remains minor, which is not complex, and is not required operational check of power system and other complex checks for confirmation of the work
		Minor Repair	Repair work other than slight repair and major repair
		Major Repair	Any of the following repair work (i) Repair work listed in the following items and other complex repair work that has a significant effect on airworthiness (a) Stretching, splicing, welding or similar work that is likely to contribute to a considerable effect on strength of member of primary structure (b) Work that requires complex or special technique or equipment

		(ii) Repair work that uses equipment or parts whose specification is not approved by the Minister of Land, Infrastructure, Transport and Tourism as referred to in paragraph (1) of Article 14 of the Act
Alteration	Minor Alteration	Alteration that does not have a significant effect on weight, strength, function of the engine, flight performance, and other airworthiness of aircraft and that uses equipment or parts whose specification is approved by the Minister of Land, Infrastructure, Transport and Tourism as referred to in paragraph (1) of Article 14 of the Act
	Major Alteration	Alteration other than minor alteration

(Design Changes)

Article 6 Categories and details of design changes are as prescribed in the following table.

Categories of Design Changes	Details of Design Changes
Minor Changes	Changes that do not have a serious effect on weight of the aircraft, strength of the aircraft, function of the engine, flight performance and other airworthiness of aircraft
Major Changes	Changes other than minor changes

Chapter II Aircraft Registration Certificate

(Aircraft Registration Certificate)

Article 7 Format of aircraft registration certificate under Article 6 of the Act is the same as the Form No.3.

Article 8 Any person who has registered the transfer or alteration of aircraft must obtain a renewed aircraft registration certificate.

Article 9 Any person who has lost, torn, or gotten the aircraft registration certificate dirty and intends to apply for reissuance of aircraft registration certificate must submit a request for reissuance of the aircraft registration certificate (Form No.4) to the Minister of Land, Infrastructure, Transport and Tourism along with the currently owned aircraft registration certificate (except the case in which the certificate is lost).

Article 10 If the registration of aircraft is deleted, an owner of a registered

aircraft must return the aircraft registration certificate immediately.

(Stamping Position of Registration Code)

Article 11 The aircraft registration codes under the provisions of paragraph (1) of Article 8-3 of the Act must be engraved on the frame of the aircraft.

Chapter III Safety of Aircraft

Section 1 Airworthiness Certification

Article 12 Gliders specified in paragraph (1) of Article 10 of the Act are primary gliders.

(Airworthiness Certification)

Article 12-2 (1) Any person who intends to apply for airworthiness certification specified in paragraph (1) of Article 10 of the Act or paragraph (1) of Article 10-2 of the Act must submit an airworthiness certificate application form (Form No.7) to the Minister of Land, Infrastructure, Transport and Tourism or the airworthiness inspector.

(2) Document which should be attached to the written application referred to in the preceding paragraph and the time to submit the document depend on the types of airworthiness certificates specified in the following table:

Classification		Documents to be Attached	Period for Submission
(i)	Any aircraft whose type is different from that of the aircraft for which type certificate referred to in paragraph (1) of Article 12 of the Act (excluding aircraft listed in (iii)) has been granted.	Aircraft manufactured in Japan	(i) design plans At the commencement of designing

<p>(ii) design documents</p> <p>(iii) design drawings</p> <p>(iv) parts list</p> <p>(v) manufacturing plans</p>	<p>Prior to the commencement of manufacturing</p>
<p>(vi) flight manual</p> <p>(vii) document for maintenance procedures</p> <p>(viii) documents that provide necessary particulars for computing the weight and the center of gravity of an aircraft</p> <p>(ix) documents certifying that the confirmation of inspection is completed pursuant to the provisions of paragraph (1) of Article 39-4 (limited to aircraft listed in items (iv) and (v) of paragraph (5) of Article 10 of the Act).</p> <p>(x) beyond what is set forth in the preceding items, documents that provide reference information</p>	<p>Prior to the inspection of current condition</p>

<p>Aircraft other than those manufactured in Japan</p>	<p>(i) documents and drawings which can certify that an aircraft conforms to the standards set forth in paragraph (4) of Article 10 of the Act (ii) flight manual (iii) documents issued by governmental institutions of a country of manufacture that certify airworthiness, noise level or engine emissions of an aircraft (iv) In case of an aircraft which has been used for flights, documents that provide the total flight hours and flight hours after the last overhaul inspection as well as technical records of maintenance or alteration thereof (v) document for maintenance procedures (vi) documents that provide necessary particulars for computing the weight and the center of gravity of an aircraft (vii) beyond what is set forth in the preceding three items, documents that provide reference information</p>	<p>By requested inspection date</p>
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(i) an aircraft which has obtained a type certificate referred to in paragraph (1) of Article 12 of the Act (excluding aircraft listed in (iii))	Aircraft manufactured in Japan	Aircraft other than those listed in item (i) of paragraph (6) of Article 10 of the Act	(i) manufacturing plans	Prior to the commencement of manufacturing
			(ii) flight manual (iii) documents that provide necessary particulars for computing the weight and the center of gravity of an aircraft (iv) beyond what is set forth in the preceding three items, documents that provide reference information	Prior to the inspection of current condition
		Aircraft listed in item (i) of paragraph (6) of Article 10 of the Act	(i) a statement of aircraft conformity which is obtained pursuant to the provisions of paragraph (1) of Article 41 (limited to the one which is obtained within 15 days prior to the requested date of inspection, hereinafter the same applies in this Table) (ii) flight manual	By requested inspection date

		(iii) documents that provide necessary particulars for computing the weight and the center of gravity of an aircraft (iv) beyond what is set forth in the preceding three items, documents that provide reference information	
Aircraft other than those manufactured in Japan		(i) flight manual (ii) documents issued by governmental institutions of a country of manufacture that certify airworthiness, noise level or engine emissions of an aircraft (iii) in case of an aircraft which has been used for flights, documents that provide the total flight hours and flight hours after the last overhaul inspection of the aircraft as well as technical records of maintenance or alteration thereof (iv) documents that provide necessary particulars for computing the weight and the center of gravity of an aircraft	By requested inspection date

	<p>法第十条 第六項第 三号に掲 げる航空 機Aircraft listed in item (iii) of paragrap h (6) of Article 10 of the Act</p>	<p>(i) a statement of aircraft conformity which is obtained pursuant to the provisions of paragraph (1) of Article 41</p> <p>(i) flight manual (iii) documents that provide necessary particulars for computing the weight and the center of gravity of an aircraft (iv) beyond what is set forth in the preceding three items, documents that provide reference information</p>	
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Article 12-3 (1) If the aircraft use referred to in in paragraph (3) of Article 10 of the Act (including as applies mutatis mutandis to paragraph (2) of Article 10-2 of the Act; hereinafter the same applies in this Article) is designated, airworthiness category as specified in Annex No.1 must be defined.

(2) Aircraft operating limitations as specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in paragraph (3) of Article 10 of the Act are limitations on the aircraft referred to in item (ii) of Article 5-4.

Article 13 Designation under paragraph (3) of Article 10 of the Act (including as applies mutatis mutandis to the provisions of paragraph (2) of Article 10-2 of the Act) must be implemented by delivering documents stating the particulars set forth in the preceding Article (hereinafter referred to as "document of designation for operating limitations") to an applicant.

Article 14 (1) Standards referred to in item (i) of paragraph (4) of Article 10 of the Act (including as applied mutatis mutandis to the provisions of paragraph (2) of Article 10-2 of the Act) are standards specified by Annex 1 (in the case of

components and parts; standards specified in Annex 1 or the types or the specifications approved by the Minister of Land, Infrastructure, Transport and Tourism (in the case of radio station under the Radio Act (Act No. 131 of 1950); technical standards specified by that Act)).

- (2) Aircraft specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism with regard to matters provided in item (ii) of paragraph (4) of Article 10 of the Act (including as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 10-2 of the Act; hereinafter the same applies in this paragraph) are aircraft subject to Annex 2 and standards of that item are standards specified in Annex 2.
- (3) Aircraft specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism with regard to matters provided in item (iii) of paragraph (4) of Article 10 of the Act (including as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 10-2 of the Act; hereinafter the same applies in this paragraph) are aircraft subject to Annex 3 and standards of that item are standards specified in Annex 3.

Article 14-2 (1) Any person who intends to apply for approval of the types or the specifications under paragraph (1) of the preceding Article must submit a written application for component type (specification) approval (Form No.7-2) to the Minister of Land, Infrastructure, Transport and Tourism.

- (2) The following documents must be attached to the written application referred to in the preceding paragraph:
 - (i) documents that state the type or specification
 - (ii) documents and drawings certifying that the design pertaining to the type or specification conform to the type or specification under the preceding item
 - (iii) documents certifying that the uniformity of components or parts concerning the type or specification is assured
 - (iv) beyond what is set forth in the preceding three items, documents that include the reference information
- (3) A type approval or specification approval under paragraph (1) of the preceding Article are granted by issuing a component type (specification) approval (Form No.7-3) to an applicant.
- (4) Any person who obtained an approval under paragraph (1) of the preceding Article must obtain an approval from the Minister of Land, Infrastructure, Transport and Tourism when the person intends to change the approved type or specification.
- (5) The provisions of paragraphs (1) through (3) apply mutatis mutandis to the case referred to in the preceding paragraph.
- (6) When a person who obtained an approval under paragraph (1) of the preceding Article and been certified for the capability specified in item (v) of

paragraph (1) of Article 20 of the Act is certified that the design change pertaining to the approved type or specification (limited to minor changes under the design change categories listed in the table under Article 6) has been examined pursuant to the provisions of Article 35, item (vii) and is confirmed that the design change comply with the type or specification pursuant to the provisions of paragraph (2) of Article 40, with regard to the application of the provisions of paragraph (4), the person is deemed to have obtained the approval referred to in that paragraph.

- (7) A person who confirmed the type or specification pursuant to the provisions of the preceding paragraph must submit a written notice stating the following particulars to the Minister of Land, Infrastructure, Transport and Tourism without delay.
 - (i) the name and address
 - (ii) the name and location of the approved organization
 - (iii) the number of the component type (specification) approval, and the name of type or specification of component or parts
 - (iv) details of the design change that has been confirmed
- (8) The following documents must be attached to the written notice referred to in the preceding paragraph:
 - (i) documents specified in items of paragraph (2) (limited to the changed part)
 - (ii) a copy of the statement of design conformity issued pursuant to the provisions of paragraph (2) of Article 41
- (9) The Minister of Land, Infrastructure, Transport and Tourism may revoke the approval when it is obvious that the safety or uniformity of any components or parts of the approved type or specification referred to in paragraph (1) of the preceding Article is not assured or when the components or parts are not used.
- (10) A person who manufactures components or parts of the approved type or specification referred to in the paragraph (1) of the preceding Article must affix an indication to the components or parts to the effect that the approval referred to in that paragraph has been granted.
- (11) Indication method to be used pursuant to the provisions of the preceding paragraph is designated by a component type (specification) approval under paragraph (3).

Article 15 (1) Upon receipt of an application, the Minister of Land, Infrastructure, Transport and Tourism inspects whether or not the components or parts comply with the types referred to in paragraph (1) of Article 14 and certifies that the components or parts comply with the relevant types when the minister finds that they comply with the types.

- (2) Type of inspection to be performed pursuant to the provisions of the preceding paragraph are designated by a component type (specifications) approval under

paragraph (3) of the preceding Article.

- (3) Certified components or parts referred to in paragraph (1) are deemed to comply with the standards set forth in item (i) of paragraph (4) of Article 10 of the Act in the inspections referred to in paragraph (4) of Article 10 of the Act or paragraph (2) of Article 17 of the Act.

Article 16 Form of airworthiness certificate under paragraph (7) of Article 10 of the Act as applied mutatis mutandis pursuant to the provisions of paragraph (7) of Article 10 of the Act or paragraph (2) of Article 10-2 is the same as Form No.8.

Article 16-2 When an aircraft operator who has lost, torn or gotten an airworthiness certificate soiled and intends to apply for reissue of airworthiness certificate, the person must submit a request for reissuance (Form No.8-2) to the person who issued the airworthiness certificate, together with the airworthiness certificate (excluding the case when it is lost).

Article 16-3 A person who holds or retains an airworthiness certificate which falls under any of the following items must return the airworthiness certificate to the person who issued it without delay. In this case, a document that states the reason to return the certificate must be attached.

- (i) airworthiness certificate whose validity period is expired
- (ii) former airworthiness certificate when a new airworthiness certificate is issued before the effective period of the airworthiness certification expires
- (iii) airworthiness certificate when the airworthiness certificate becomes invalid

(Airworthiness Inspectors)

Article 16-4 Qualifications and experiences under paragraph (1) of Article 10-2 of the Act are as follows:

- (i) qualifications
 - (a) a person turns 23 years old by the date on which the person files a requests for approval referred to in paragraph (1) of Article 10-2 of the Act.
 - (b) a person who holds a certificate of competency for the qualification of first class aircraft maintenance technician or second class aircraft maintenance technician (certificates restricted to powered gliders) or a certificate of competency (restricted to the matters related to airframe structures, aircraft components, piston engines and propellers) for the qualification of aircraft overhaul technician, or has competence which is recognized as equal to or greater than these qualifications.
- (ii) experiences

- (a) a person who has engaged in manufacturing, alteration or repair, or inspection of gliders more than two years;
- (b) a person who completed the training provided by the Minister of Land, Infrastructure, Transport and Tourism regarding the standards specified in item (ii) and item (iii) of paragraph (4) of Article 10 of the Act.

Article 16-5 Gliders under paragraph (1) of Article 10 of the Act are secondary gliders, soaring gliders and powered gliders.

Article 16-6 None of the following person may apply for the certification referred to in paragraph (1) of Article 10-2 of the Act:

- (i) a person who does not have Japanese nationality
- (ii) a person whose certificate has been revoked pursuant to the provisions of Article 16-11 of the Act and two years have not passed since the certificate was revoked
- (iii) a person who has been sentenced to imprisonment without work or severer punishment and two years have not passed since either execution of the sentence was completed or ceased to be subject to the sentence
- (iv) an adult ward or a person under curatorship

Article 16-7 (1) A person who intends to apply for a certification referred to in paragraph (1) of Article 10-2 of the Act must submit an application for certification of airworthiness inspector including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name, date of birth and address (if the person has another business office, its name and address must be provided as well)
 - (ii) if the person is a member of a company or other organizations, the name and location of its principal office
 - (iii) category and number of the technical certificate
- (2) Two copies of photos (of the person's upper body without a hat taken within the past six months which are not affixed to the form, (3 cm height and 2.4 cm width); hereinafter the same applies in this Chapter) and the following documents must be attached to an application form referred to in the preceding paragraph:
- (i) an abstract copy of the person's family register
 - (ii) a certificate of registered information prescribed in paragraph (1) of Article 10 of the Act on Guardianship Registration (Act No. 152 of 1999)
 - (iii) personal resume
 - (iv) documents certifying that the person has experience provided by item (ii) of Article 16-4

Article 16-8 (1) The Minister of Land, Infrastructure, Transport and Tourism issues an identification card that identifies the person's status (Form No. 8-3, hereinafter referred to as "identification card of airworthiness inspector") to airworthiness inspector when the minister grant an approval set forth in paragraph (1) of Article 10-2.

(2) Airworthiness inspector, when the inspector engages in their duties, must carry an identification card of airworthiness inspector specified in the preceding paragraph.

Article 16-9 When an airworthiness inspector who has lost, torn or gotten the identification card dirty or has changed their name or address intends to apply for reissuance of the identification card of airworthiness inspector, the inspector must submit an application for reissuance stating the following particulars to the Minister of Land, Infrastructure, Transport and Tourism together with two copies of their photo and the identification card of airworthiness inspector (excluding the case when the certificate is lost).

(i) name and address

(ii) approval number

(iii) reasons to apply for reissuance of the certificate

Article 16-10 (1) Airworthiness inspector must prepare a report and an inspection record stating particulars specified in the following items, and submit them to the Minister of Land, Infrastructure, Transport and Tourism without delay when the inspector granted an airworthiness certificate referred to in paragraph (1) of Article 10-2 of the Act or performed inspection pursuant to the provisions of paragraph (2) of Article 16 of the Act; provided, however, that the inspection record are to be submitted only when the Minister of Land, Infrastructure, Transport and Tourism requests it.

(i) report

(a) name and address

(b) approval number

(c) registration number of the glider

(d) type, manufacturing number, name of manufacturer and manufacturing date of the glider

(e) name and address of the applicant

(f) date and place of inspection

(g) issuance date of airworthiness certificate and the airworthiness certificate number (limited to the case when an airworthiness certification referred to in paragraph (1) of Article 10-2 of the Act is granted)

(ii) inspection record

(a) when an airworthiness certificate referred to in paragraph (1) of Article

10-2 of the Act is granted

1. Particulars concerning inspection of materials, parts and assembling parts

2. Particulars concerning internal inspection, general assembling inspection and flight inspection

(b) when inspection referred to in paragraph (2) of Article 16 of the Act is performed

1. Particulars concerning the repair and alteration (design documents and design drawings must be attached)

2. Particulars concerning the inspection of materials, parts and assembling parts

3. Particulars concerning the general assembling inspection and flight inspection

(2) A copy of the flight manual of the glider must be attached to the report referred to in the preceding paragraph (limited to that pertaining to airworthiness certificate referred to in paragraph (1) of Article 10-2 of the Act); provided, however, that this does not apply to a glider for which airworthiness certificate referred to in paragraph (1) of Article 10 of the Act or paragraph (1) of Article 10-2 of the Act has been granted and the particulars of its flight manual have not been changed.

(3) If an airworthiness certificate referred to in paragraph (1) of Article 10-2 of the Act is granted to a glider which is different from the one for which the type certificate referred to in paragraph (1) of Article 12 of the Act has been granted, design documents and design drawings of the glider must be attached to the report under paragraph (1).

Article 16-11 The Minister of Land, Infrastructure, Transport and Tourism may revoke the certificate for airworthiness inspector if the inspector falls under any of the following items:

(i) when the inspector dies or has been declared disappeared

(ii) if the inspector falls under item (i), (iii) or (iv) of Article 16-6

(iii) if the inspector violates the provisions of the Act or an order under the Act

(iv) if the inspector is certified through illegal means

(v) when the certificate of competency of the inspector is revoked or the inspector is ordered to suspend their aeronautics services

(vi) if an inspector engages in misconduct or commits a serious error in performing their duties as an airworthiness inspector

Article 16-12 With regard to the certificate of airworthiness inspector, the Minister of Land, Infrastructure, Transport and Tourism gives a public notice when the minister receives a notice of loss of the certificate referred to in

Article 283 or an application for reissuance of the certificate referred to in paragraph (9) of Article 16 of the Act, or revokes the certificate pursuant to the provisions of the preceding Article.

Article 16-13 When the certificate of the airworthiness inspector is revoked pursuant to the provisions of the preceding Article or the lost certificate of airworthiness inspector is found after the inspector received a reissued certificate, a person who holds or retains the certificate must return it to the Minister of Land, Infrastructure, Transport and Tourism without delay, along with the document stating the relevant reason.

(Permission for Test Flights)

Article 16-14 A person who intends to obtain a permission referred to in the proviso to paragraph (1) of Article 11 of the Act (including as applied mutatis mutandis pursuant to the provisions of paragraph (3) of that Article, paragraph (3) of Article 16 of the Act and paragraph (3) of Article 19 of the Act) must submit a written application including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
- (ii) type of the aircraft and nationality and registration marks of the aircraft
- (iii) outline of the flight plan (purpose of flight, date and time and route must be specified)
- (iv) name and qualifications of an operator
- (v) name of fellow passenger and their purpose
- (vi) the details of particulars that may go beyond the designated use or operating limitations, in the case of a person who intends to obtain a permission referred to in the proviso to paragraph (1) of Article 11 as applied mutatis mutandis pursuant to the provisions of paragraph (3) of Article 11 of the Act
- (vii) the details of repair, alteration or maintenance pertaining the permission in the case of a person who intends to obtain a permission referred to in the proviso to paragraph (1) of Article of the Act as applied mutatis mutandis pursuant to the provisions of paragraph (3) of Article 16 of the Act or paragraph (3) of Article 19 of the Act
- (viii) any other particulars that may be used as reference

(Type Certificate)

Article 17 (1) A person who intends to apply for type certificate referred to in paragraph (1) of Article 12 of the Act must submit an application for type certificate (Form No. 9) to the Minister of Land, Infrastructure, Transport and Tourism.

(2) The document which must be attached to the application referred to in the preceding paragraph and the time to submit the document depends on the categories specified in the following table:

Classification		Documents to be Attached	Period for Submission
(i)	an aircraft for which any foreign state that is a Contracting State to the Convention on International Civil Aviation, performed a type certification or other acts in regard to designs of the relevant type	<p>(i) documents and drawings which are sufficient enough to certify that the aircraft conforms to the standards set forth in paragraph (4) of Article 10 of the Act</p> <p>(ii) documents issued by governmental institutions of the country certifying that the country performed a type certification and other acts</p> <p>(iii) drawing list</p> <p>(iv) parts list</p> <p>(v) specifications</p> <p>(vi) flight manual</p> <p>(vii) document for maintenance procedures</p> <p>(viii) documents that provide necessary particulars for computing the weight and the center of gravity of an aircraft</p> <p>(ix) beyond what is set forth in the preceding items, documents that provide reference information</p>	By requested inspection date
(ii)	Aircraft other than those listed in item (i)	(i) design plans	At the commencement of designing
		<p>(ii) design documents</p> <p>(iii) drawing list</p> <p>(iv) design drawings</p> <p>(v) parts list</p> <p>(vi) manufacturing plans</p>	Prior to the commencement of manufacturing

	(vii) specifications (viii) flight manual (ix) document for maintenance procedures (x) documents that provide necessary particulars for computing the weight and the center of gravity of an aircraft (xi) documents certifying that the confirmation of inspection is completed pursuant to the provisions of paragraph (1) of Article 39-4 (limited to aircraft listed in items (ii) of paragraph (2) of the following Article) (xii) beyond what is set forth in the preceding items, documents that provide reference information	Prior to the inspection of current condition
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Article 18 (1) Inspections to conduct type certification are performed for the design of the relevant type, and manufacturing process and current conditions of one aircraft pertaining to its design.

(2) Notwithstanding the provisions of the preceding paragraph, some of the inspections for design or manufacturing process may be omitted for aircraft specified in the following items:

- (i) an aircraft that any foreign state, a Contracting State to the Convention on International Civil Aviation, conducted a type certification or performed other acts in regard to the designs of the relevant type
- (ii) an aircraft which was designed and post-design inspections thereof have been conducted by a person who files a request for type certification referred to in paragraph (1) of Article 12 of the Act, who has obtained the certificate referred to in item (i) of paragraph (1) of Article 20 of the Act for the competency referred to in that paragraph, pursuant to the provisions of Article 35, item (vii)

Article 19 Format of type certificate under paragraph (3) of Article 12 of the Act is the same as Form No.10.

(Change of Type Certificate)

- Article 20 (1) A person who intends to obtain an approval referred to in paragraph (1) of Article 13 of the Act must submit a written application for type design change (Form No.11) to the Minister of Land, Infrastructure, Transport and Tourism, together with the current type certificate and an attached document including particulars pertaining to the relevant changes according to the categories in the table under paragraph (2) of Article 17.
- (2) The provisions of paragraph (2) of Article 17 apply mutatis mutandis to the time of submission of the attached document referred to in the preceding paragraph.

Article 21 The provisions of Article 18 apply mutatis mutandis to the case referred to in the preceding Article.

Article 22 An approval referred to in paragraph (1) of Article 13 of the Act is granted by issuing a new type certificate.

Article 22-2 (1) Changes specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in paragraph (4) of Article 13 of the Act are minor changes under the design change categories specified in the table under Article 6, which do not fall under the following changes.

- (i) the following design changes of an aircraft referred to in item (ii) of paragraph (4) of Article 10 of the Act and other design changes which are likely to affect the noise of the aircraft
- (a) design change accompanied by the change of nacelle shape and other major change of aircraft shape
 - (b) design change pertaining to an engine or its parts to be installed in an aircraft (limited to noise absorbing materials and other parts which affect the noise of an aircraft)
 - (c) design change accompanied by any major change of aircraft takeoff and landing performance
- (ii) the following design changes for an aircraft referred to in item (iii) of paragraph (4) of Article 10 of the Act and other design changes which are likely to affect engine emissions of the aircraft
- (a) design change accompanied by change of shape of an air intake of engines
 - (b) design change accompanied by change of engine, fuel system or their parts (limited to combustion chamber and other parts which affect engine emissions) installed in an aircraft
 - (c) design change accompanied by any major change in engine performance
- (2) Notwithstanding the provisions of the preceding paragraph, when a design is changed based on an order of the Minister of Land, Infrastructure, Transport

and Tourism pursuant to the provisions of paragraph (1) of Article 13 of the Act, the change is not included in the change referred to in paragraph (4) of Article 13 of the Act.

Article 22-3 (1) A person who intends to submit the notice stating that the person has confirmed the design change pursuant to the provisions of paragraph (5) of Article 13 of the Act, must submit a written notice including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
- (ii) the name and location of the approved organization
- (iii) type certificate number and type of the aircraft
- (iv) details of the design change that has been confirmed

(2) Following documents must be attached to the notice referred to in the preceding paragraph (limited to the part pertaining to the changes in the case of documents specified in items (i) through (viii)).

- (i) design documents
- (ii) drawing lists
- (iii) design drawings
- (iv) parts list
- (v) specifications
- (vi) flight manual
- (vii) document for maintenance procedures
- (viii) documents that state necessary particulars for computing the weight and the center of gravity of the aircraft
- (ix) a copy of the statement of design conformity issued pursuant to the provisions of paragraph (1) of Article 41
- (x) beyond what is set forth in the preceding items, documents that include the particulars that may be used as reference

(Approval for Supplemental Type Certificates for Aircraft Designs)

Article 23 (1) A person who intends to request for an approval referred to in paragraph (1) of Article 13-2 of the Act for the partial design change of the aircraft by any person other than a holder of the type certificate for the aircraft for which the type certificate has been granted (hereinafter referred to as supplemental type certificate for aircraft design"), must submit a written application for supplemental type certificate for aircraft design (Form No.11-2) to the Minister of Land, Infrastructure, Transport and Tourism.

(2) Any document which must be attached to the written application referred to in the preceding paragraph and the time to submit the document depend on the category specified in the following table:

Classification	Documents to be Attached	Period for Submission
(Aircraft for which any foreign state that is a Contracting State to the Convention on International Civil Aviation, granted approval and performed other acts in regard to supplemental type design thereof)	(i) documents and drawings which are sufficient enough to certify that the aircraft conforms to the standards set forth in paragraph (4) of Article 10 of the Act (limited to the part pertaining to changes) (ii) documents issued by governmental institutions of the country certifying that the country approved supplemental type design and performed other acts (iii) drawing lists (iv) parts list (v) specifications (vi) flight manual (limited to the part pertaining to changes) (vii) document for maintenance procedures (limited to the part pertaining to changes) (viii) documents that provide necessary particulars for computing the weight and the center or gravity of an aircraft (ix) beyond what is set forth in the preceding items, documents that provide reference information	By the requested inspection date
(Aircrafts other than those listed in item (i))	(i) design plans pertaining to supplemental type design (ii) design documents (iii) drawing lists (iv) design drawings (v) parts list (vi) manufacturing plans	At the commencement of designing Prior to the commencement of manufacturing

	<p>(vii) specifications</p> <p>(viii) flight manual (limited to the part pertaining to changes)</p> <p>(ix) document for maintenance procedures (limited to the part pertaining to changes)</p> <p>(x) documents that provide necessary particulars for computing the weight and the center of gravity of an aircraft</p> <p>(xi) documents certifying that the confirmation of inspection is completed pursuant to the provisions of paragraph (1) of Article 39-4 (limited to aircraft listed in items (ii) of paragraph (2) of the following Article)</p> <p>(xii) beyond what is set forth in the preceding items, documents that provide reference information</p>	<p>Prior to the inspection of current condition</p>
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Article 23-2 (1) Inspections to grant the supplemental type certificate for aircraft design are performed for the design pertaining to the supplemental type, and manufacturing process and current conditions of one aircraft pertaining to its design.

(2) Notwithstanding the provisions of the preceding paragraph, a part of inspection of design or manufacturing process may be omitted for designs pertaining to supplemental type or the aircraft pertaining to the following designs:

(i) an aircraft for which any foreign state, a Contracting State to the Convention on International Civil Aviation has granted an approval and performed any other acts in regard to supplemental type certificate for the design thereof

(ii) an aircraft which was designed and post-design inspections thereof have been conducted by a person who files a request for approval referred to in paragraph (1) of Article 13-2 of the Act, who has obtained the certificate referred to in Article 20, paragraph (1), item (i) of the Act for the competence referred to in that paragraph, pursuant to the provisions of item (vii) of

Article 35

Article 23-3 An approval under paragraph (1) of Article 13-2 of the Act is granted by issuing a supplemental type certificate (Form No.11-3) to an applicant.

(Approval for Changes in Supplemental Type Certificates for Aircraft Designs)

Article 23-4 (1) A person who intends to obtain an approval referred to in paragraph (3) of Article 13-2 of the Act must submit a request for changes in supplemental type certificate for aircraft design (Form No.11-4) to the Minister of Land, Infrastructure, Transport and Tourism, together with the current supplemental type certificate for aircraft design and an accompanying document that provides particulars regarding the changes according to the categories specified in the table under paragraph (2) of Article 23.

(2) The provisions of paragraph (2) of Article 23 apply mutatis mutandis to the time when the attached document under the preceding paragraph is submitted.

Article 23-5 The provisions of Article 23-2 apply mutatis mutandis to the case referred to in the preceding Article.

Article 23-6 An approval referred to in paragraph (3) of Article 13-2 of the Act is granted by issuing a new supplemental type certificate for aircraft design.

Article 23-7 (1) Changes specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in paragraph (4) of Article 13-2 of the Act are minor changes under the categories of design changes specified in the table under Article 6, which do not fall under design changes specified in items of paragraph (1) of Article 22-2.

(2) Notwithstanding the provisions of the preceding paragraph, when the design is changed based on an order of the Minister of Land, Infrastructure, Transport and Tourism under the provision of paragraph (1), Article 13-3 of the Act, the change is not included in the changes referred to in paragraph (4) of Article 13-2 of the Act.

Article 23-8 (1) A person who intends to submit the notice stating that the person has confirmed the design change pursuant to the provisions of paragraph (5) of Article 13 of the Act as applied mutatis mutandis pursuant to the provisions of paragraph (5) of Article 13-2 of the Act, the person must submit a written notice including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

(i) name and address

- (ii) the name and location of the approved organization
 - (iii) number of supplemental type certificate for aircraft design and its details
 - (iv) details of the design change that has been confirmed
- (2) The following documents (limited to the part pertaining to changes in the case of documents prescribed in items (i) through (viii)) must be attached to a written notice referred to in the preceding paragraph.
- (i) design documents
 - (ii) drawing lists
 - (iii) design drawings
 - (iv) parts list
 - (v) specifications
 - (vi) flight manual
 - (vii) document for maintenance procedures
 - (viii) documents that state necessary matters for computing the weight and the center of gravity of the aircraft
 - (ix) copy of the statement of design conformity issued pursuant to the provisions of paragraph (1) of Article 41
 - (x) beyond what is set forth in the preceding items, documents that include the particulars used as reference

(Submission of Type Certificate)

Article 23-9 A person to whom a type certificate has been granted or whose supplemental type certificate for aircraft design has been approved (hereinafter referred to as a "type certificate, etc." in this Article) must submit the type certificate or the supplemental type certificate for aircraft design pertaining to the type certificate, etc. the Minister of Land, Infrastructure, Transport and Tourism immediately, when type certificate, etc. is revoked pursuant to the provisions of paragraph (2) of Article 13-3 of the Act.

(Start Date of Valid Period of Airworthiness Certificates)

Article 23-10 Start date of valid period of an airworthiness certificate is the date on which the airworthiness certificate pertaining to the airworthiness certification is issued, provided, however, that it starts on the following day of expiration date of the valid period, if a new airworthiness certificate is issued during the period from one month before the expiration date of the valid period to the expiration date.

(Submission of Airworthiness Certificate)

Article 23-11 (1) An aircraft operator must submit the airworthiness certificate of the aircraft to the Minister of Land, Infrastructure, Transport and Tourism immediately when the validity of the airworthiness certificate of the aircraft

ceases to be effective pursuant to the provisions of paragraph (2) of Article 14-2 of the Act.

- (2) An aircraft operator must present the airworthiness certificate or document of designation for operating limitations of the aircraft to the Minister of Land, Infrastructure, Transport and Tourism immediately when the valid period of the aircraft is shortened or designated matters are modified pursuant to the provisions of paragraph (2) of Article 14-2 of the Act.

(Aircraft That Must Not be Used for Air Navigation)

Article 23-12 The aircraft specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in item (ii), Article 15 of the Act are the aircraft equipped with turbojet engines or turboprop engines which do not meet the standards under paragraph (2) of Article 14 and its maximum takeoff weight exceeds 34,000 kilograms.

(Repair and Alteration Inspections)

Article 24 Any repair or alteration which is subject to inspections referred to in paragraph (1), Article 16 of the Act specified by Order of the Minister of Land, Infrastructure, Transport and Tourism, is listed in each item of the right column in the following table according to the classification of aircraft listed in each item of left column in that table.

Classification of Aircraft	The Scope of Repair or Alteration
(i) an aircraft referred to in paragraph (1) of Article 19 of the Act	Alteration falling under the categories of work listed in the table referred to in Article 5-6
(ii) an aircrafts other than those listed in the preceding item	<p>(a) major repair or alteration falling under the categories of work listed in the table referred to in Article 5-6 (Major repair or major alteration in the case of a glider)</p> <p>(b) the following repair or alterations to an aircraft referred to in item (ii) of paragraph (4) of Article 10 of the Act and other repair or alteration which is likely to affect the noise of the aircraft</p> <ol style="list-style-type: none"> 1. Any repair or alteration accompanying the change of nacelle shape and other major change of aircraft shape 2. Any repair or alteration accompanying the change of engine or its parts to be installed in an aircraft (limited to noise absorbing materials and other parts that affect the noise of aircraft) 3. Any repair or alteration accompanying any major change in the takeoff and landing performance

	<p>(c) the following repair or alteration to an aircraft referred to in item (iii) of paragraph (4) of Article 10 of the Act and other repair or alteration which is likely to affect engine emissions of the aircraft</p> <ol style="list-style-type: none"> 1. Any repair or alteration accompanying the change of shape of air intake of engines 2. Any repair or alteration accompanying the change of engine, fuel system or their parts to be installed in an aircraft (limited to combustion chamber and other parts which affect engine emissions) 3. Any repair or alteration accompanying any major change in an engine performance
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Article 24-2 The repair categories prescribed by Order of the Ministry of Land, Infrastructure, Transport and Tourism, for which inspection under paragraph (1) of Article 16 of the Act is not required are the major repairs under the repair categories listed in the table of Article 5-6, which do not fall under the repair categories listed in the column (b) and (c) of item (ii) of the table under the preceding Article.

Article 25 (1) A person who intends to receive inspections specified in paragraph (1) or paragraph (2) of Article 16 of the Act must submit a request for inspection of repair and alteration (Form 12) to the Minister of Land, Infrastructure, Transport and Tourism or an airworthiness inspector.

(2) Documents which must be attached to the request form under the preceding paragraph and the time to submit are specified in the following table:

Documents to be Attached	Period for Submission
(i) plans for repair or alteration	Prior to the commencement of work
(ii) flight manual (limited to the part pertaining to changes) (iii) document for maintenance procedures (limited to the part pertaining to changes) (iv) documents that provide necessary particulars for computing the weight and the center of gravity of an aircraft (v) documents certifying that the confirmation of inspection is completed pursuant to the provisions of paragraph (1) of Article 39-4 (limited to aircraft listed in paragraph (2) of the following Article) (vi) beyond what is set forth in the preceding items, documents that provide reference information	Prior to the inspection of current condition

Article 26 (1) Inspections specified in paragraphs (1) or (2) of Article 16 of the

Act are performed for plans, processes of aircraft repair or alteration and the current conditions of the aircraft after completion of its repair or alteration.

(2) Notwithstanding the provisions of the preceding paragraph, as for an aircraft which was designed and post-design inspections thereof have been conducted by a person who has obtained the certificate referred to in item (i) of paragraph (1) of Article 20 of the Act for the competency referred to in that paragraph, pursuant to the provisions of item (vii) of Article 35, some of the inspections included in the plans or processes of repair or alteration may be omitted.

Article 26-2 When the Minister of Land, Infrastructure, Transport and Tourism or the airworthiness inspector finds, based on the results of the inspection referred to in paragraph (1) or (2) of Article 16 of the Act, that an aircraft conforms to each standard listed in the right column of the following table according to the classification of aircraft listed in the left column of the table and the repair or alteration categories listed in the middle column of that table, the aircraft is to pass the inspection.

Classification of Aircraft	The Scope of Repair or Alteration	Standards
(i) an aircraft referred to in paragraph (1) of Article 19 of the Act	(a) alteration listed in the right column of item (i) in the table of Article 24 (excluding alterations listed in (b) and (c))	Standards referred to in item (i) of paragraph (4) of Article 10 of the Act
	(b) alteration listed in the right column (b) of item (ii) in the table of Article 24	Standards referred to in items (i) and (ii) of paragraph (4) of Article 10 of the Act
	(c) alteration listed in the right column (c) of item (ii) in the table of Article 24	Standards referred to in items (i) and (iii) of paragraph (4) of Article 10 of the Act
(ii) an aircraft other than those listed in the preceding item	(a) repair or alteration listed in the right column (a) of item (ii) in the table of Article 24 (excluding alterations listed in (b) and (c))	Standards referred to in item (i) of paragraph (4) of Article 10 of the Act
	(b) repair or alteration listed in the right column (b) of item (ii) in the table of Article 24	Standards referred to in items (i) and (ii) of paragraph (4) of Article 10 of the Act
	(c) repair or alteration listed in the right column (c) of item (ii) in the table of Article 24	Standards referred to in items (i) and (iii) of paragraph (4) of Article 10 of the Act

(Spare Parts Certification)

Article 27 Components which are critical for the aircraft safety specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in paragraph (1) of Article 17 of the Act are those specified in the following items:

- (i) rotor wings
- (ii) transmissions
- (iii) instruments
- (iv) starter, magnet generator, airborne generator, fuel pump, propeller governor, carburetor, hydraulic pump, cabin super-charger, combustion heater for de-icing, de-icing fluid pump, air compressor, vacuum pump, inverter, landing gear, float, ski, skid, constant-speed drive unit for generator, water or alcohol injection pump, exhaust turbine, cabin combustion heater, rudder, elevator, aileron, flap, fuel injection pump, lubricating oil pump, cooling-liquid pump, feathering pump, fuel control unit, de-icing system controller, oxygen regulator, pressure regulator for air-conditioning system, high-pressure air regulator, high-pressure air controller, voltage regulator, high-pressure oil regulator, high-pressure oil controller, oil cooler, cooling-liquid cooler, fuel tank (excluding integral type), oil tank, flight control actuator, landing gear actuator, actuator for power unit, ignition distributor, ignition exciter, engine mount and navigation equipment (excluding radio equipment of radio station under the Radio Act)

Article 28 A person who intends to obtain a spare parts certificate referred to in paragraph (1) of Article 17 of the Act must submit a request for spare parts certificate (Form No.13) to the Minister of Land, Infrastructure, Transport and Tourism.

Article 29 (1) Inspections under paragraph (2) of Article 17 of the Act are performed for designs, manufacturing processes, processes of maintenance or alteration and current condition.

(2) Notwithstanding the provisions of the preceding paragraph, as for a component which was designed and post-design inspections thereof have been conducted by a person who has obtained the certificate referred to in item (v) of paragraph (1) of Article 20 of the Act for the competency referred to in that paragraph, pursuant to the provisions of item (vii) of Article 35, some of the inspections specified in the respective items may be omitted according to the categories specified in the following items.

- (i) component which is manufactured: inspection of design or manufacturing process of the component
- (ii) component of which maintenance is performed: inspections of design or

- maintenance process of the component
- (iii) component which is altered: inspections of design or alteration process of the component

Article 30 Spare parts certificate set forth in paragraph (2) of Article 17 of the Act are granted by issuing a spare parts certificate (Form No.14) or by indicating that spare part have passed the inspection (Form No.15 or Form No.15-2) for the component that have passed the inspection referred to in that paragraph.

(Imported Components of which Spare Parts Certificate is Deemed to Have been Granted)

Article 30-2 Imported components specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in item (iv) of paragraph (3) of Article 17 of the Act are those set forth in the following items:

- (i) components for which any foreign state, a Contracting State to the Convention on International Civil Aviation certified their airworthiness or performed other acts to certify the airworthiness thereof
- (ii) components that, in a foreign state that has been authorized by the Minister of Land, Infrastructure, Transport and Tourism as the state having the standards and procedures comparable to or better than those of Japan with regard to certification of capacity to manufacture, repair or alter the components, are manufactured, repaired or altered by or airworthiness thereof are confirmed by a person who has obtained the certificate or the like through other acts based on the relevant standards and procedures.

(Lapse of Spare Parts Certificates)

Article 30-3 Repair or alteration categories specified by Order of the Minister of Land, Infrastructure, Transport and Tourism set forth in paragraph (4) of Article 17 of the Act includes major repair or alteration (excluding minor alteration of spare parts installed in gliders) of the repair or alteration categories prescribed in the table of Article 5-6.

(Maintenance of Engines)

Article 31 (1) Components which are crucial for securing the aircraft safety as specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in Article 18 of the Act mean oil pumps, carburetors, magnet generators, exhaust gas turbines, ignition distributors, fuel control units, fuel injection pumps, engine driven fuel pumps and propeller governors.

(2) The time as specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in Article 18 of the Act is the time as

designated in public notice by the Minister of Land, Infrastructure, Transport and Tourism in consideration of the structure and performance of engine, propeller and components listed in the preceding paragraph (hereinafter referred to as an "engine, etc.") and the method as specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in that Article is the overhaul, provided, however that as for an engine, etc. which may be kept in a good condition by maintaining it by using a method other than an overhaul, the amount of time and method designated by the Minister of Land, Infrastructure, Transport and Tourism in consideration of the maintenance condition, structure and performance of the engine at the request of the aircraft operator pertaining to the engine or is the one prescribed in the maintenance manual (limited to the case in which an operator of the engine is an air carrier in Japan and the amount of time and the method is prescribed in the maintenance manual of the air carrier in Japan).

(Aircraft specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in paragraph (1) of Article 19 of the Act)

Article 31-2 An aircraft specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in paragraph (1) of Article 19 of the Act is an aircraft and a rotorcraft with more than 30 seats or its maximum takeoff weight exceeds 15,000 kilogram.

(Minor Preservative Maintenance)

Article 32 Minor preservative maintenance as specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in paragraph (1) of Article 19 of the Act is minor preservative maintenance under the categories of work listed in the table of Article 5-6.

(Confirmation of Aircraft Maintenance or Alteration)

Article 32-2 Plans for aircraft maintenance or alteration and its processes and the current condition after the relevant work has been completed are to be confirmed pursuant to the provisions of paragraph (2) of Article 19 of the Act, using a signature or a sign and seal on an aircraft flight logbook (glider flight logbook in the case of gliders).

Section 2 Approval of Organizations

(Scope of and Limitations on Services)

Article 33 (1) An approval of organization specified in Article 20 paragraph (1) of the Act (hereinafter simply referred to as "approval") is given for one or more of scopes of services listed in the right column of the following table according to

the categories of service capabilities listed in the left column of that table:

Classification of Service Capabilities	Scope of Services
(i) services capabilities listed in Article 20, paragraph (1), items (i) through (iv) of the Act	1 Services pertaining to aircraft with a maximum takeoff weight not more than 5,700 kg (excluding rotorcraft) 2 Services pertaining to aircraft with a maximum takeoff weight more than 5,700 kg (excluding rotorcraft) 3 Services pertaining to rotorcraft
(i) services capabilities listed in Article 20, paragraph (1), items (v) through (vii) of the Act	1 Services pertaining to piston engines 2 Services pertaining to turbine engines 3 Services pertaining to fixed pitch propellers 4 Services pertaining to variable pitch propellers 5 Services pertaining to rotors 6 Services pertaining to transmissions 7 Services pertaining to mechanical instruments 8 Services pertaining to electrical instruments 9 Services pertaining to gyro instruments 10 Services pertaining to electronic instruments 11 Services pertaining to mechanical accessories 12 Services pertaining to electrical accessories 13 Services pertaining to electronic accessories 14 Services pertaining to radio communication equipment (excluding radio facilities of the radio stations subject to the Radio Act) 15 Services pertaining to main component parts 16 Other services pertaining to components designated in public notice by the Minister of Land, Infrastructure, Transport and Tourism

(2) Restrictions listed in the right column of the following table may be imposed on an approval to provide a service according to the categories listed in the left column of that table.

Classification of Approval	Limitations
(i) approval for service capabilities listed in item (i) in the table of the preceding paragraph	Limitations to the types of aircraft, limitations to the categories of services or description of services listed in the table of Article 5-6, limitations to the categories of design changes, details of design changes listed in the table of Article 6 or other limitations.
(ii) approval for service capabilities listed in item (ii) of the table of the preceding paragraph	Limitations to the kinds and types of components, limitations to the work categories or description of work listed in the table of Article 5-6, limitations to the categories of design changes, details of design changes listed in the table of Article 6 or other limitations.

(Request for Approval to Provide Services)

Article 34 A person who intends to request for approval to provide a service must submit a request for approval of an organization to provide a service (Form No.16) for each organization to the Minister of Land, Infrastructure, Transport and Tourism, together with documents explaining that the organization conforms to the technical standards referred to in the following Article.

(Criteria for Approval of Organizations to Provide Services)

Article 35 Technical standards referred to in Article 20 paragraph (1) of the Act are as follows:

- (i) an applicant must possess the following facilities;
 - (a) facilities necessary for services pertaining to the approval (hereinafter referred to as "certified services" in this Section)
 - (b) workshop having appropriate space necessary for the certified services, equipment for temperature and humidity control, lighting facilities and other facilities
 - (c) facilities to appropriately store the materials, parts and components required for the certified services
- (ii) each organization that provides services must appropriately share the certified services and their respective authorities and responsibility are clearly defined.
- (iii) personnel capable of properly performing the certified services are appropriately assigned to each organization specified in the preceding item.
- (iv) personnel who completed educations and trainings regarding the Civil Aeronautics Act and operations for quality control system under item (vi) and satisfies requirements listed in the middle column of that table or a person who is certified by

the Minister of Land, Infrastructure, Transport and Tourism as having the ability comparable to or superior to that of the person is selected as the person who confirms inspections listed in the right column in that table. (hereinafter referred to as "certifying staff"), in accordance with the categories of the certified services listed in the left column in the following table.

Classification of Certified Services	Requirements for Certifying Staff	Classification of Confirmations
Certified services pertaining to Article 20, paragraph (1), item (i) of the Act	A person must be a graduate of a university or college of technology under the School Education Act (Act No. 26 of 1947) after completing the prescribed courses of engineering department, in regard to the approved service listed in the left column, must have at least 6 years' experience for university graduates (excluding junior college graduates, hereinafter the same applies in this table) or at least 8 years' experience for a person other than university graduates and must have professional knowledge of necessary areas for providing the service such as structure, electric and others.	Confirmation referred to in Article 13, paragraph (4) of the Act or Article 13-2, paragraph (2) of the Act, or confirmation of inspections referred to in item (i) in the table of Article 39-4, paragraph (1).
Certified services pertaining to Article 20, paragraph (1), item (ii) of the Act	A person must be a graduate of a university or college of technology under the School Education Act after completing the prescribed courses of aeronautical engineering or mechanical engineering and, in regard to the approved services listed in the above column, must have at least 3 years' experience for university graduates or at least 5 years' experience for a person other than university graduates.	Confirmation referred to in Article 10, paragraph (6), item (i) of the Act or Article 17, paragraph (3), item (ii) of the Act
Certified services pertaining to Article 20, paragraph (1), item (iii) of the Act	A person who must have a certificate of competency for qualification of first class aircraft maintenance technician, second class aircraft maintenance technician or aircraft overhaul technician corresponding to the certified service listed in the left column and must have at least 3 years' experience for the approved service.	Confirmation referred to in Article 10, paragraph (6), item (iii) of the Act

<p>Certified services pertaining to Article 20, paragraph (1), item (iv) of the Act</p>	<p>A person who must have a certificate of competency for qualification of first class aircraft maintenance technician, second class aircraft maintenance technician first class aircraft line maintenance technician, second class aircraft line maintenance technician or aircraft overhaul technician corresponding to the approved services listed in the left column and must have at least 3 years' experience for the approved services; provided, however, that for an aircraft which has been altered, it is sufficient for a person who must have competence certification for qualification of first class aircraft maintenance technician or second class aircraft maintenance technician, completed educations and trainings regarding alteration of the type of aircraft pertaining to the alteration and must have at least 3 years' experience for alternation of the type of aircraft pertaining to the alteration.</p>	<p>Confirmation referred to in Article 19, paragraph (1) of the Act or Article 19-2 of the Act</p>
<p>Certified services pertaining to Article 20, paragraph (1), item (v) of the Act</p>	<p>A person must be a graduate of a university or college of technology under the School Education Act after completing the prescribed courses of engineering department, in regard to the certified service listed in the left column, must have at least 6 years' experience for university graduates or at least 8 years' experience for a person other than university graduates and must have professional knowledge of necessary areas for providing the service such as structure, electricity and others.</p>	<p>Confirmation referred to in Article 14-2, paragraph (6) or confirmation of inspections referred to in item (ii) in the table of Article 39-4, paragraph (1).</p>
<p>Certified services pertaining to Article 20, paragraph (1), item (vi) of the Act</p>	<p>A person must be a graduate of a university or college of technology under the School Education Act after completing the prescribed courses of engineering and, in regard to the certified service listed in the left column, must have at least 3 years' experience for university graduates or at least 5 years' experience for a person other than university graduates.</p>	<p>Confirmation referred to in Article 17, paragraph (3), item (i) of the Act</p>

<p>Certified services pertaining to Article 20, paragraph (1), item (vii) of the Act</p>	<p>A person must satisfy the requirements listed in 1 or 2 below:</p> <p>1 A person who must have a certificate of competency for qualification of aircraft overhaul technician corresponding to the certified service listed in the left column and must have at least 3 years' experience for the certified service.</p> <p>2 A person must be a graduate of a university or college of technology under the School Education Act after completing the prescribed courses of engineering and, in regard to the certified service listed in the left column, must have at least 3 years' experience for university graduates or at least 5 years' experience for a person other than university graduates.</p>	<p>Confirmation referred to in Article 17, paragraph (3), item (iii) of the Act</p>
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- (v) implementation method of work (excluding methods pertaining to a quality control system under the following item) is appropriate for the proper implementation of the certified services. (as for the implementation method of work regarding the certified services under Article 20, paragraph (1), item (iii) of the Act, the necessary maintenance for the aircraft based on the result of inspection of structure of the aircraft and conditions of its components and system is to be carried out, which is appropriate for the proper implementation of the certified services);
- (vi) quality control system including the following systems is appropriate for the proper implementation of the certified services;
 - (a) a system relating to the maintenance of facilities referred to in item (i)
 - (b) a system relating to education and training of personnel referred to in item (iii)
 - (c) a system relating to revision of work implementation method referred to in the preceding item
 - (d) a system relating to procurement, administration and operation of technical data
 - (e) a system relating administration of materials, parts and components
 - (f) a system relating to receiving inspection of materials, parts and

components, etc. and acceptance inspection, in-process inspection and completion inspection of aircraft and components

- (g) a system relating to process control
- (h) a system relating to the management of the service provided by the contracted person if it is the service is contracted out
- (i) a system relating to the management of the records of the services
- (j) a system relating to the audits conducted by any organization independent from the organization that provides the service
- (k) a system relating to the management of design documents and other documents pertaining to design (hereinafter referred to as "design documents" in this Section) and inspection for the documents, for the certified services under Article 20, paragraph (1), item (i) or (v) of the Act
- (l) a system relating to inspections in order to manage test specimen and to maintain its quality, for the certified services under Article 20, paragraph (1), item (i) or (v) of the Act

(vii) as for the certified services listed in the left column in the following table, inspections listed in the middle column in that table are conducted using the methods listed in the right column in that table.

Classification of Certified Services	Classification of Inspections	Method of Implementing Inspection
Certified services under Article 20, paragraph (1), item (i) of the Act	Post-design inspection referred to in Article 10, paragraph (5), item (iv) of the Act, Article 13, paragraph (4) of the Act, Article 13-2, paragraph (4) of the Act, Article 18, paragraph (2), item (ii) (including as applied mutatis mutandis pursuant to Article 21), Article 23-2, paragraph (2), item (ii) (including as applied mutatis mutandis pursuant to Article 23-5) or Article 26, paragraph (2)	Examination of design documents, ground test, flight test and other methods
Certified services under Article 20, paragraph (1), item (ii) of the Act	Post-completion inspection of an aircraft referred to in Article 10, paragraph (6), item (i) of the Act	Ground test and flight test
Certified services under Article 20, paragraph (1), item (iii) of the Act	Post-maintenance inspection of an aircraft referred to in Article 10, paragraph (6), item (iii) of the Act	

Certified services under Article 20, paragraph (1), item (v) of the Act	Post-design inspection of an aircraft referred to in Article 10, paragraph (5), item (v) of the Act, Article 14-2, paragraph (6) or Article 29, paragraph (2)	Examination of design documents, functional test and other methods
Certified services under Article 20, paragraph (1), item (vi) of the Act	Post-completion inspection of an aircraft referred to in Article 17, paragraph (3), item (i) of the Act	Functional test and other methods

(Issuance of Authorization Certificate)

Article 36 Authorization is given by issuing an authorization for place of business (Form No.16-2) to an applicant.

(Validity Period for Authorization)

Article 37 Validity period for authorization is 2 years.

(Changes to Limitations)

Article 38 (1) When an authorized person intends to make changes to particulars which are limited, the person must submit a request for changes to limitations (Form No.16-3) to the Minister of Land, Infrastructure, Transport and Tourism and obtain the approval.

(2) Authorization under the preceding paragraph is to be given by examining whether or not service capacity pertaining to changes conform to the technical standards set forth in Article 35.

(3) Approval under paragraph (1) is given by issuing a written approval for changes to limitations (Form No.16-4) to an applicant.

(Matters regarding providing services and application for approval of approved organization exposition)

Article 39 (1) Matters regarding providing services as specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in Article 20, paragraph (2) of the Act are as follows:

(i) capacity and scope of the certified services and the limitations thereon

(ii) matters regarding facilities, workshops, storage facilities and other facilities used for the services

(iii) matters regarding organization and personnel that provide the services

(iv) matters regarding quality control system and other methods for providing the services

- (v) particulars regarding certification service provided by certifying staff
 - (vi) other necessary matters regarding provision of the services
- (2) A person who intends to apply for approval of establishment or changes to approved organization exposition pursuant to the provisions of Article 20, paragraph (2) of the Act must submit a request for approval of establishment of (changes to) approved organization exposition (Form No.16-5) to the Minister of Land, Infrastructure, Transport and Tourism, together with documents stating the following particulars:
- (i) an approved organization exposition that a person intends to establish or change (in case of changes, a comparison between the original and new approved organization exposition must be specified)
 - (ii) documents explaining that the operational rules under the preceding item conform to the technical standards under the following Article

(Technical Standards)

Article 39-2 Technical standards as specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth under paragraph (3) of Article 20 the Act are as follows:

- (i) with regard to the particulars referred to in item (i) of paragraph (1) of the preceding Article, capacity and scope of the certified services and limitations thereon are clearly defined in accordance with the provisions of Article 33.
- (ii) particulars set forth in items (ii) through (iv) of paragraph (1) of the preceding Article conform to the standards listed in each item of Article 35.
- (iii) particulars set forth in item (v) of paragraph (1) of the preceding Article appropriately prescribe methods to perform certification service in accordance with the provisions of Article 39-4 through Article 41.

(Operation of Certified Services)

Article 39-3 A certified person must provide the certified services fairly and in accordance with the approved organization exposition specified in Article 20, paragraph (2) of the Act.

(Methods for Certification of Inspection)

Article 39-4 (1) The certifying staff who provides the certified services under Article 20, paragraph (1), item (i) or (v) of the Act are to perform each inspection listed in the right column in the following table according to the categories listed in the left column in that table and then are to sign or sign and seal the document certifying that the staff have confirmed that all inspections have been conducted properly and the inspection results have been recorded if the staff has confirmed these.

Classification of Certified Services	Inspection to be Confirmed
(i) certified services under Article 20, paragraph (1), item (i) of the Act	Post-design inspection referred to in Article 10, paragraph (5), item (iv) of the Act, Article 13, paragraph (4) of the Act, Article 13-2, paragraph (4) of the Act, Article 18, paragraph (2), item (ii) (including as applied mutatis mutandis pursuant to Article 21), Article 23-2, paragraph (2), item (ii) (including as applied mutatis mutandis pursuant to Article 23-5) or Article 26, paragraph (2)
(ii) certified services under Article 20, paragraph (1), item (v) of the Act	Post-design inspection referred to in Article 10, paragraph (5), item (v) of the Act, Article 14-2, paragraph (6) or Article 29, paragraph (2)

(2) The certifying staff who took charge of design which is subject to inspections set forth in the preceding paragraph must not give the confirmation under the preceding paragraph.

(Method to Confirm Compliance with the Standards under Article 10, paragraph (4) of the Act)

Article 40 (1) Confirmations of compliance with the standards set forth in paragraph (4) of Article 10 of the Act are to be given by certifying staff (excluding persons who took charge of design pertaining to the confirmation for item (iii) and (iv) of that table) for each particular listed in the middle column of the following table according to the categories listed in the left column of that table, and confirmations by the certifying staff are given by signing or signing and sealing the statement of conformity or the flight logbook listed in the right column of that table.

Classification of Confirmations	Particulars	Statement of Conformity or Flight Logbook
(i) confirmation referred to in Article 10, paragraph (6), item (i) of the Act	For manufacturing processes of the aircraft and current conditions after it is completed, the aircraft must conform to the standards referred to in Article 10, paragraph (4) of the Act.	Statement of aircraft conformity and aircraft flight logbook referred to in paragraph (1) of the following Article (glider flight logbook in the case of a glider)

(ii) confirmation referred to in Article 10, paragraph (6), item (iii) of the Act	For maintenance processes of the aircraft and current conditions after the post-maintenance thereof, the aircraft must conform to the standards referred to in Article 10, paragraph (4) of the Act.	
(iii) confirmation referred to in Article 13, paragraph (4) of the Act	For a design change of the aircraft for which the type certificate is obtained, the aircraft after the relevant design change must conform to the standards referred to in Article 10, paragraph (4) of the Act.	Statement of design conformity referred to in paragraph (1) of the following Article
(iv) confirmation referred to in Article 13, paragraph (2), item (iv) of the Act	For a design change of the aircraft of which supplemental type certificate has been obtained, the aircraft after the relevant design change must conform to the standards referred to in Article 10, paragraph (4) of the Act.	
(v) confirmation referred to in Article 17, paragraph (3), item (i) of the Act	For manufacturing processes of equipment and current conditions after the completion thereof, the equipment must conform to the standards referred to in Article 10, paragraph (4), item (iv) of the Act.	Authorized release certificate referred to in paragraph (1) of the following Article
(vi) confirmation referred to in Article 17, paragraph (3), item (ii) of the Act	For manufacturing processes of equipment (limited to equipment to be manufactured) and current conditions after the completion thereof, the relevant equipment must conform to the standards referred to in Article 10, paragraph (4), item (i) of the Act.	
(vii) confirmation referred to in Article 17, paragraph (3), item (iii) of the Act	For plans and processes of repair or alteration of equipment and the current conditions after the completion of the work, the relevant equipment must conform to the standards referred to in Article 10, paragraph (4), item (i) of the Act.	

(viii) confirmation referred to in Article 19, paragraph (1) of the Act or Article 19-2 of the Act	For plans and processes of maintenance or alteration of the aircraft and current conditions after the completion of the work, aircraft listed in the following items (a) through (c) must conform to the standards referred to in (a) through (c) respectively. (a) a maintained or altered aircraft (excluding aircraft listed in (b) and (c)): standards referred to in Article 10, paragraph (4), item (i) of the Act (b) a repaired or altered aircraft listed in the right column (b) of item (ii) in the table of Article 24: standards referred to in Article 10, paragraph (4), items (i) and (ii) of the Act (c) a repaired or altered aircraft listed in the right column (c) of item (ii) in the table of Article 24: Standards referred to in Article 10, paragraph (4), items (i) and (iii) of the Act	Aircraft flight logbook (glider flight logbook in the case of a glider)
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(2) Confirmations set forth under paragraph (6) of Article 14-2 are to be given regarding design changes of components or parts of approved type or specifications referred to in paragraph (1) of Article 14, and regarding whether or not the design changes of components or parts comply with the approved type or specifications by certifying staff (excluding persons who took charge of design pertaining to the relevant confirmation) and the certifying staff is to confirm these by signing or signing and sealing the statement of design conformity under paragraph (2) of the following Article.

(Issuance of Statement of Conformity)

Article 41 (1) A certified person must issue the statement of conformity listed in the middle column of the following table to persons who are listed in the right column of that table when the person has confirmed that the standards set forth in Article 10, paragraph (4) of the Act listed in the left column of that table are met.

Classification of Confirmations	Classification of Statement of Conformity	Person who is certified
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Confirmation set forth in items (i) and (ii) in the tables of paragraph (1) of the preceding Article	Statement of aircraft conformity (Form 17)	Operator of the relevant aircraft
Confirmation set forth in item (iii) in the table of paragraph (1) of the preceding Article	Statement of design conformity (Form 17-2)	Person who obtained the type certificate
Confirmation set forth in item (iv) in the table of paragraph (1) of the preceding Article		Person who obtained the supplemental type certificate
Confirmation set forth in items (v) through (vii) of the table of paragraph (1) of the preceding Article	Authorized release certificate (Form 18)	User of the relevant equipment

(2) A certified person must issue a statement of design conformity to a person who has obtained the type or specification approval referred to in Article 14, paragraph (1) prescribed in paragraph (2) of the preceding Article when the certified person has confirmed that the aircraft falls under these categories.

(Training)

Article 41-2 Upon receiving a notice stating that a training will be provided for the necessary matters regarding the enforcement of the Civil Aeronautics Act and other certified services from the Minister of Land, Infrastructure, Transport and Tourism, a certified person who must designate an appropriate person from among personnel under Article 35, item (iii) to have the person participate in the training.

Chapter IV Airmen

(Application for Certificate for Competency)

Article 42 (1) A person who intends to apply for certificate of competency referred to in Article 22 of the Act (excluding those apply pursuant to the provisions of Article 57; referred to as an "applicant for a certificate of competency" in paragraph (3)) must submit a written application for certificate of competency (Format 19 (in the case of a person who intends to be exempted from written tests pertaining to all subjects (hereinafter referred to as an "applicant exempted from all written tests") Format 19-2)) to the Minister of Land, Infrastructure, Transport and Tourism.

(2) The written application referred to in the preceding paragraph must be accompanied by one copy of photograph (that of the applicant which was taken within six months prior to the application date, without a hat, showing their

upper body, and not pasted to an application form (3 cm in height and 2.5 cm in width), with the applicant's name on the backside, the same applies hereafter), as well as the documents prescribed in item (i) or item (ii), or the documents prescribed in item (iii) must be presented and a photocopy thereof must be attached.

(i) in the case of a person who intends to be exempted from written tests in whole or in part pursuant to the provisions of Article 48 or 48-2, a photocopy of the document referred to in Article 47

(ii) in the case of a person who intends to be exempted from paper examinations in whole or in part pursuant to the provisions of Article 49, a photocopy of the certificate of competency

(iii) in the case of a person who holds a license certificate pertaining to the skills required for air navigation services granted by a foreign government which is a contracting state of the Convention on International Civil Aviation and intends to be exempted from examinations, the relevant license certificate

(3) When an applicant for certificate of competency (excluding the applicant for exemption from all written tests) who has passed the written test must submit an application for practical test (Format 19-2) to the Minister of Land, Infrastructure, Transport and Tourism, together with one copy of photograph and a photocopy of the document referred to in Article 47 (limited to those pertaining to the written test that the applicant has passed), and a the documents specified in item (i) as necessary, or the documents prescribed in item (ii) must be presented together with a photocopy thereof.

(i) in the case of a person who intends to be exempted from practical tests in whole or in part pursuant to the provisions of Article 49, a photocopy of the certificate of competency

(ii) in the case of a person who holds a license certificate pertaining to the skills required for air navigation services granted by a foreign government which is a contracting state of the Convention on International Civil Aviation and intends to be exempted from practical tests, the relevant license certificate

(4) An applicant for certificate of competency pursuant to the provisions of paragraph (1) must submit the abstract of their family register or a certificate of family register description or a copy of the resident record which states their registered domicile (or in the case of a foreigner, a certificate from a consular officer of their country which certifies their nationality, name, date of birth and gender (in the case of a person who is unable to submit a certificate from a consular official of their country, a document which certifies those particular issued by a competent authority);the same applies hereinafter) and a document which proves their aeronautical career and other career listed in Appended

Table 2 to the Minister of Land, Infrastructure, Transport and Tourism within two years from the date of notice referred to in Article 47 regarding their passing of a written test pertaining to the application (or in the case of an applicant for exemption from all written tests, the date on which an application for certificate of competency is submitted).

- (5) A person applying for certificate of competency pertaining to qualifications for aeronautical radio operators pursuant to the provisions of paragraph (1) must submit a photocopy of their radio operator license to the Minister of Land, Infrastructure, Transport and Tourism within two years from the date on which an application for certificate of competency was submitted.

(Requirements for Certificate of Competency)

Article 43 (1) A certificate of competency or an instrument rating referred to in Article 34, paragraph (1) of the Act or flight instructor's certificate referred to in Article 34, paragraph (2) cannot be issued to a person under 17 years of age in the case of qualifications for a private pilot, second class flight navigator or aeronautical radio operator (certificates pertaining to gliders among the certificates for private pilots, 16 years of age), a person under 18 years of age in the case of a commercial pilot, first class flight navigator, flight engineer, first class aircraft line maintenance technician, second class aircraft line maintenance technician and aircraft overhaul technician, a person under 19 years of age in the case of a second class aircraft maintenance technician, a person under 20 years of age in the case of a first class aircraft maintenance technician, and a person under 21 year of age in the case of an airline transport pilot, and maintains the aeronautical career and other career listed in Appended Table 2.

- (2) The qualifications specified by Order of the Minister of Land, Infrastructure, Transport and Tourism referred to in Article 26 paragraph (2) of the Act are the qualifications for first class general radiotelephone operator, second class general radiotelephone operator or flight radiotelephone operator.

(Proof of Aeronautical Career)

Article 44 The aeronautical career and other career referred to in Article 42, paragraph (4) and paragraph (1) of the preceding Article must be certified through the methods specified below; provided, however, that this does not apply to the career built up prior to the enforcement of the Act.

- (i) in the case of a holder of a certificate of competency, their aeronautical career pertaining to the qualifications must be certified by the relevant captain when each flight ends.
- (ii) as for the aeronautical career pertaining to flying for the flight training specified in each item of Article 35, paragraph (1) of the Act must are be

certified each time by the supervisor.

(iii) as for beyond what is set forth in the preceding two items, their achievement must be certified each time by the user, instructor or a person equivalent thereto.

(Public Notice and Notification of Examination Dates)

Article 45 (1) When the Minister of Land, Infrastructure, Transport and Tourism conducts examinations pursuant to the provisions of Article 29, paragraph (1) of the Act (including as applied mutatis mutandis pursuant to the provisions of Article 29-2 of the Act, paragraph (2), Article 33, paragraph (3) of the Act, and Article 34, paragraph (3) of the Act), the minister publicly notifies in the official gazette the date and location of examinations, qualifications for the certificate of competency for which the examinations will be conducted, the time to submit an application for certificate of competency referred to in Article 42, paragraph (1), a request for change of competency rating referred to in Article 57, paragraph (1), application for aviation English proficiency certificate referred to in Article 63, paragraph (1), or an instrument rating or flight instructor's certificate referred to in Article 64, paragraph (1), and any other necessary matters.

(2) After receiving an application for certificate of competency referred to in Article 42, paragraph (1), request for change of competency rating referred to in Article 57, paragraph (1), application for aviation English proficiency certificate referred to in Article 63, paragraph (1), or application for instrument rating or flight instructor's certificate referred to in Article 64, paragraph (1), the Minister of Land, Infrastructure, Transport and Tourism notifies the applicant or requestor the details of examinations and other required matters referred to in Article 29, paragraph (1) of the Act (including as applied mutatis mutandis pursuant to the provisions of Article 29-2, paragraph (2) of the Act, Article 33, paragraph (3) of the Act, and Article 34, paragraph (3) of the Act).

(Examination Subjects)

Article 46 The examinations referred to in Article 29, paragraph (1) of the Act (including as applied mutatis mutandis pursuant to Article 29-2 paragraph (2) of the Act, Article 33, paragraph (3) of the Act, and Article 34, paragraph (3) of the Act) are conducted for the subjects listed in Appended Table 3; provided, however, that among the practical examination subjects, some of the subjects that are considered unnecessary by the Minister of Land, Infrastructure, Transport and Tourism due to the strength, structure or performance of the aircraft used for the practical examination will not be conducted.

Article 46-2 The Minister of Land, Infrastructure, Transport and Tourism may conduct all or part of the practical examinations using a flight simulator or an operational flight trainer, when conducting a practical test for the subjects listed in Appended Table 3.

(Notice of Passing Written Examination)

Article 47 The Minister of Land, Infrastructure, Transport and Tourism notifies in writing the person who has passed the written examinations or the person who has achieved a passing score for some of the subjects of the written examinations.

(Exemption from Examinations)

Article 48 When a person who has passed the written examinations applies for a certificate of competency for the same qualification as the one pertaining to the examination that the person has passed and for the same category of aircraft (in the case of aircraft overhaul technician qualification, services in the same category), or if a person applies for aviation English proficiency certificate referred to in Article 33, paragraph (1) or for instrument rating or flight instructor's certificate, the person will, upon application, be exempted from written examinations to be conducted within two years from the date on which the notice pertaining to the passing examination referred to in the preceding Article was issued.

Article 48-2 When a person who sat written examinations of all subjects and achieved passing scores in some of the subjects applies for a certificate of competency for the same qualification as the one pertaining to the written examinations, the person will be exempted from the written examinations pertaining to the subjects in which the person achieved passing scores, upon application, only for the written examinations to be conducted within one year from the date on which a notice referred to in Article 47 pertaining to the relevant written examinations was issued, in the written examinations pertaining to all of the relevant subjects and following the written examinations pertaining to all of the relevant subjects until the written examinations pertaining to the relevant application.

Article 48-3 If a person who holds an aviation English proficiency certificate applies for an aviation English proficiency certificate another time, the person will be exempted from written examinations pertaining to the application, upon application, only when the person sits the practical examination pertaining to the application prior to the validity period of their current aviation English proficiency certificate.

Article 49 In relation to the examinations for a person who applies for a certificate of competency for qualifications other than the one that the person currently holds, or for changes of competency rating, or for instrument rating or for flight instructor's certificate, if the subjects are the same as the examination subjects pertaining to the current certificate of competency, instrument rating or flight instructor's certification may be omitted if the Minister of Land, Infrastructure, Transport and Tourism deems the examinations to be equivalent or higher level.

Article 50 (1) In the case of a person who holds a license certificate pertaining to the skills required for air navigation services granted by a foreign government which is a contracting state for the Convention on International Civil Aviation, the Minister of Land, Infrastructure, Transport and Tourism may, upon application, grant a certificate of competency, change of competency rating, aviation English proficiency certificate or instrument rating without conducting all or parts of the written examinations (excluding those relating to the Japan's Aviation Act listed in Appended Table 3) and practical examinations.

(2) In the case of a person who holds a licence certificate pertaining to the skills required for air navigation services granted by a foreign government which is a contracting state for the Convention on International Civil Aviation, if the Minister of Land, Infrastructure, Transport and Tourism deems that the relevant government conducts the examinations equivalent to or higher than those under the provisions of Article 46, the minister may, upon application, grant a certificate of competency, change of competency rating, aviation English proficiency certificate or instrument rating without conducting any examination.

(3) In the cases referred to in the two preceding paragraphs (excluding the case in which an aviation English proficiency certificate is to be granted), the person must pass the examinations that the Minister of Land, Infrastructure, Transport and Tourism deems necessary to determine as to whether the person possesses Japanese or English language skills required for an airman.

Article 50-2 (1) In the case of a person who has completed the course at the Independent Administrative Institution Civil Aviation College, upon application, the written examinations for certificate of competency for qualifications of flight radiotelephone operator or for aviation English proficiency certificate or the practical examinations for certificate of competency for qualifications of a commercial pilot or private pilot or for change of competency rating or instrument rating will not be conducted;

provided, however, that this does not apply if one year has passed from the completion date of the course at the Civil Aviation College.

- (2) If an application is filed pursuant to the provisions of the preceding paragraph, a document certifying the completion of the course at the Independent Administrative Institution Civil Aviation College must be attached.
- (3) In the case of the examinations for a person who has completed the course at an airman training school designated by the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of Article 29, paragraph (4) of the Act (hereafter called "designated airman training school"), as specified by the Minister of Land, Infrastructure, Transport and Tourism in the public notice, upon application, all or part of the practical tests will not be conducted; provided, however, that this does not apply if one year has passed from the completion date of the course at the relevant designated airman training school (in the case of a course pertaining to the subjects of basic maintenance technique referred to in item (ii), paragraph (3) of the following Article, if two years have passed).
- (4) In the case of a person who has completed the course of designated airman training school pertaining to certificate of competency pertaining to qualifications of flight radiotelephone operator or for aviation English proficiency certificate, upon application, written examinations pertaining to the relevant certificate of competency or aviation English proficiency certificate will not be conducted; provided, however, that this does not apply if one year has passed from the completion date of the course of the relevant airman training school.
- (5) When filing an application pursuant to the provisions of the preceding two paragraphs, a course completion certificate (Format 19-3) issued by the administrator of the designated airman training school must be attached.
- (6) In the case of a person who is assessed to have the knowledge and ability of aviation English by a Japanese air carrier designated by the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of Article 29, paragraph (4) of the Act, as applied mutatis mutandis pursuant to the provisions of Article 33, paragraph (3) of the Act following the deemed replacement of terms (hereafter called "designated air carrier assessing aviation English language proficiency"), upon application, the examinations pertaining to aviation English language proficiency certification will not be conducted; provided, however, that this does not apply if one year has passed from the date of assessment.
- (7) When filing an application pursuant to the provisions of the preceding paragraph, a certificate of English language proficiency test (Format 19-3-2) issued by the administrator of the designated air carrier assessing aviation

English language proficiency.

(Application for Designation of Airman Training School)

Article 50-3 (1) A person who intends to be designated as an airman training school under the provisions of Article 29, paragraph (4) of the Act must submit a written application for designation of airman training school (Format 19-4) to the Minister of Land, Infrastructure, Transport and Tourism.

- (2) The written application referred to in the preceding paragraph must be accompanied by two copies of the regulations for training and a document including the training records.
- (3) The regulations for training referred to in the preceding paragraph include the following particulars.
 - (i) name and resume of the administrator of the relevant training school
 - (ii) Ratings referred to in Article 25 paragraph (1), (2) and (3) of the Act, rating pertaining to the change referred to in Article 29-2 paragraph (1) of the Act, aviation English proficiency certificate referred to in Article 33 paragraph (1) of the Act, instrument rating referred to in Article 34 paragraph (1) of the Act, or a course specified separately for each subject of basic maintenance technique pertaining to a certificate of competency for qualifications of first class aircraft maintenance technician, second class aircraft maintenance technician, first class aircraft line maintenance technician, second class aircraft line maintenance technician, and aircraft overhaul technician referred to in Appended Table 3
 - (iii) name, resume and qualifications of a theory instructors as a airman
 - (iv) name, resume and qualifications of a flight instructors as a airman
 - (v) name, resume and qualifications of competency assessor as a airman (meaning a person who is engaged in assessment of practical or theory competency pertaining to the course at the relevant school; the same applies hereinafter)
 - (vi) outline of the training facility
 - (vii) contents and methods of training
 - (viii) method for competency assessment
 - (ix) other matters that are sufficient to prove compliance with standards set forth in items of the following Article

(Standards for Designation of Airmen Training School)

Article 50-4 The designation of airmen training school referred to in Article 29, paragraph (4) of the Act are implemented when the following standards are met.

- (i) it is a training school established by an establisher who satisfies the following requirements.

- (a) The person is not a person who has, in the last two years, engaged in unlawful conduct in relation to an issuance of completion certificate at a designated airmen training school or examinations referred to in Article 29, paragraph (1) of the Act (including as applied mutatis mutandis pursuant to the provisions of Article 29-2, paragraph (2), Article 33, paragraph (3), and Article 34, paragraph (3)), or a person who has violated the Act and was sentenced to a fine or severer punishment and two years have not elapsed since the day on which the execution of the sentence was completed or ceased to be executed (hereafter referred to as a "disqualified person" in this Article).
- (b) the person is deemed to be capable of properly and reliably operate the training school.
- (c) the person has achieved significant performance in airmen training.
- (d) if the establisher is a judicial person, the officer (regardless of title, a person whose authority or controlling power is equivalent thereof or higher) of the relevant judicial person is not a disqualified person.
- (ii) an administrator who satisfies the following requirements are assigned.
 - (a) a person is 25 years of age or over.
 - (b) a person is not a disqualified person.
 - (c) the person is deemed to be capable of properly managing the operations of the relevant school.
 - (d) the person has the knowledge and experience required for airmen training.
- (iii) more than the required number of theory instructors who satisfy the following requirements are assigned.
 - (a) a person is 21 years of age or over.
 - (b) the person holds a certificate of competency, aviation English language proficiency certificate or instrument rating corresponding to the course at the relevant training school, or the person has sufficient knowledge and ability in the subject pertaining to the course at the relevant training school and has sufficient practical experience in the relevant subject.
 - (c) the person has sufficient knowledge and ability to teach the theory pertaining to the course at the relevant training school and has received the necessary training as an instructor.
- (iv) more than the required number of practical instructors who satisfy the following requirements are assigned.
 - (a) a person is 21 years of age or over.
 - (b) the person holds a certificate of competency, aviation English language proficiency certificate, instrument rating or flight instructor's certificate (including the certificate pertaining to the skills required for air navigation services granted by a foreign government which is a contracting state of

Convention on International Civil Aviation comparable to this) required for practical training pertaining to the course at the relevant training school, or a person who has work experience, knowledge and ability comparable to or higher than those of the former.

- (c) the person has sufficient knowledge and ability to provide the practical training pertaining to the course at the relevant training school and has received the necessary training for an instructor.
- (v) more than the required number of competency assessors who have been certified by the Minister of Land, Infrastructure, Transport and Tourism as those who satisfy the following requirements.
 - (a) the person is 25 years of age or over.
 - (b) the person is not a disqualified person.
 - (c) when conducting a competency assessment pertaining to the course pertaining to a certificate of competency or instrument rating, among the courses at the relevant training school, a person who holds the certificate of competency or instrument rating that is required for the competency assessment.
 - (d) the person has the ability to carry out a competency assessment pertaining to the course at the relevant training school.
- (vi) it has a training facility that satisfies the following requirements.
 - (a) buildings and other facilities required to teach the subjects
 - (b) an aircraft and other equipment and facilities required to provide practical training
- (vii) the subjects of the theory training and practical training pertaining to the course at the relevant training school and number of training hours for each subject are appropriate.
- (viii) following systems for proper operation of the relevant training facility are established.
 - (a) a system relating to the management of theory instructors and practical instructors
 - (b) a system relating to the competency assessment results
 - (c) a system relating to the maintenance and management of training facilities
 - (d) a system relating to the management of training and performance records
 - (e) a system relating to the audits of the relevant training facilities

(Operation of Services Provided by Designated Airmen Training School)

Article 50-5 The administrator of a designated airmen training school must provide their services fairly and in accordance with the regulations for training set forth in Article 50-3, paragraph (2) so as to comply with the standards set forth in items of the preceding Article

(Designation of Airmen Training School)

Article 50-6 (1) Designation of airman training school pursuant to the provisions of Article 29 paragraph (4) of the Act is to be implemented for each facility.

(2) The designation referred to in the preceding paragraph is to specify the limitations on courses.

(Issuance of Certificate of Designation of Airman Training School)

Article 50-7 Designation of an airmen training school is implemented by issuing a certificate of designation of airmen training school (Format 19-5).

(Certification of Competency Assessor)

Article 50-8 (1) A certification procedure for competency assessor prescribed in Article 50 paragraph (4) item (v) is performed per course.

(2) A deadline may be set for the certification procedure referred to in the preceding paragraph.

(Changes to Limitations on the Course at Designated Airmen Training School)

Article 50-9 (1) If a designated person intends to change the limitations imposed on a course at the relevant designated airmen training school, the designated person must submit a request for change of limitations (Format 19-6) to the Minister of Land, Infrastructure, Transport and Tourism accompanied by two copies of the regulations for training to be changed and a document including the training records and obtain an approval from the minister.

(2) The approval referred to in the preceding paragraph is to be granted after examining whether or not the particulars pertaining to the changes comply with the standards set forth in Article 50-4.

(3) The approval referred to in paragraph (1) is granted by issuing a certificate of change of limitations (Format 19-7) to the applicant.

(Limitations on Issuance of Completion Certificate)

Article 50-10 The administrator of a designated airmen training school must not issue a completion certificate under the provisions of Article 50-2, paragraph (5) to anyone other than a person who has completed the course at the relevant designated airmen training school and has passed the competency assessment conducted by a competency assessor referred to in Article 50-4, item (v) for the subjects of examinations from which the person is exempted pursuant to the provisions of the provisions of paragraphs (3) and (4) of that Article.

(Revocation of Certificate of Competency Assessor)

Article 50-11 The Minister of Land, Infrastructure, Transport and Tourism may

revoke the certificate of a competency assessor certified pursuant to the provisions of Article 50-4, item (v), if the minister finds that the competency assessor engaged in wrongful conduct in performing a competency assessment or that the standards referred to in that item are not met.

(Designation of Aircraft)

Article 51 The aircraft specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 28, paragraph (3) of the Act are as follows.

- (i) primary gliders and secondary gliders
- (ii) The aircraft which flies between the places outside Japan which is navigated (including handling of airframe and engines of the aircraft on board) by a person on board who is specified in a public notice by the Minister of Land, Infrastructure, Transport and Tourism as a person who has sufficient knowledge and ability required to engage in air navigation services on the relevant aircraft

Article 51-2 A person who intends to obtain an approval referred to in Article 28, paragraph (3) of the Act must submit a written application including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
- (ii) category, class and type of the aircraft and the country code and registration number of the aircraft
- (iii) outline of the flight plan (purpose, date and time, and route of the flight must be specified).
- (iv) name and qualifications of the pilot
- (v) name and purpose of the fellow passengers
- (vi) other particulars used as reference

(Format of Certificate of Competency)

Article 52 The form of a certificate of competency referred to in Article 23 of the Act is the same as Form 20.

(Rating on Competence Certificate)

Article 53 (1) A rating pertaining to aircraft categories referred to in Article 25, paragraph (1) of the Act and a rating pertaining to aircraft classes referred to in paragraph (2) of that Article are granted based on the aircraft used for the practical examination. In this case, the class of aircraft is the class of aircraft listed in the lower column of that table corresponding to the category of aircraft listed in the upper column of the following table.

Categories of Aircraft	Classes of Aircraft
Airplane	Single- Engine Piston (Land)
	Single- Engine Turbine (Land)
	Multi-Engine Piston (Land)
	Multi-Engine Turbine (Land)
	Single-Engine Piston (Sea)
	Single-Engine Turbine (Sea)
	Multi-Engine Piston (Sea)
	Multi-Engine Turbine (Sea)
Rotorcraft	Same as the classes of airplanes
Glider	Motor Glider without Tow Hook
	Motor Glider with Tow Hook
	Soaring Glider
	Secondary Glider
Airship	Same as the classes of airplanes

(2) In the case referred to in the preceding paragraph, if the class of aircraft used in the practical examination is the class listed in the upper column of the following table, with regard to a certificate of competency for an airline transport pilot, commercial pilot and private pilot and flight engineer (only when the category of the class of aircraft for the rating is limited to airplane or airship), the class of aircraft which is rated is the class listed in the lower column of the following table.

Classes of Aircraft used in the Practical Test	Class Rating for Aircraft
Single-engine Piston (Land) or Single-engine Turbine (Land)	Single-engine Piston (Land) and Single-engine Turbine (Land)
Multi-engine Piston (Land) or Multi-engine Turbine (Land)	Multi-engine Piston (Land) and Multi-engine Turbine (Land)
Single-engine Piston (Sea) or Single-engine Turbine (Sea)	Single-engine Piston (Sea) and Single-engine Turbine (Sea)
Multi-engine Piston (Sea) or Multi-engine Turbine (Sea)	Multi-engine Piston (Sea) and Multi-engine Turbine (Sea)

(3) In the case referred to in paragraph (1), with regard to a certificate of competency for first class aircraft maintenance technician, second class aircraft maintenance technician, first class aircraft line maintenance technician and second class aircraft line maintenance technician qualification, if the class of aircraft that is used in the practical examination is the class listed in the upper column of the following table, the class of aircraft which is rated is the class of aircraft listed in the lower column of that table.

Classes of Aircraft used in the Practical Test	Class Rating for Aircraft
Single-engine Piston (Land), Multi-engine Piston (Land), Single-engine Piston (Sea) or Multi-engine Piston (Sea)	Single-engine Piston (Land), Multi-engine Piston (Land), Single-engine Piston (Sea) and Multi-engine Piston (Sea)
Single-engine Turbine (Land), Multi-engine Turbine (Land), Single-engine Turbine (Sea) or Multi-engine Turbine (Sea)	Single-engine Turbine (Land), Multi-engine Turbine (Land), Single-engine Turbine (Sea) and Multi-engine Turbine (Sea)
Motor Glider without Tow Hook or Motor Glider with Tow Hook	Motor Glider without Tow Hook, Motor Glider with Tow Hook, Soaring Glider, Secondary Glider
Soaring Glider	Soaring Glider and Secondary Glider

Article 54 A rating pertaining to aircraft types referred to in Article 25, paragraph (2) of the Act is granted in accordance with the following classes based on the aircraft used in the practical examination.

- (i) in the case of qualifications for a pilot, for an aircraft which requires two pilots due to its structure or the aircraft type specified by the Minister of Land, Infrastructure, Transport and Tourism, the relevant aircraft type
- (ii) in the case of qualifications for a flight engineer, the relevant aircraft type
- (iii) in the case of qualifications for a first class aircraft maintenance technician and first class aircraft line maintenance technician qualification, the following aircraft types
 - (a) for the aircraft specified in Article 56-2, the relevant aircraft type
 - (b) for the aircraft type specified by the Minister of Land, Infrastructure, Transport and Tourism, the relevant aircraft type
- (iv) in the case of a second class aircraft maintenance technician and second class aircraft line maintenance technician, if the aircraft type is specified by the Minister of Land, Infrastructure, Transport and Tourism, the relevant aircraft type

Article 55 A rating in relation to the types of operations referred to in Article 25, paragraph (3) of the Act granted separately for airframe structures, components of an aircraft, piston engine, turbine engine, propellers, instruments, electronic equipment, electrical equipment, or radio communication equipment, based on the type of operation pertaining to the examinations.

Article 56 If a person who holds a pilot license obtains a certificate of competency that is superior to their current license (based on the order under the provisions of Article 24 of the Act) for the same category (in the case of a

glider, the class) of aircraft, the ratings pertaining to their previous license is valid for the newly acquired license.

(Aircraft Having their Uses for which Second Class Aircraft Maintenance Technician and Second Class Aircraft Line Maintenance Technician is Unable to Carry out Post-Maintenance Checks)

Article 56-2 The aircraft having their uses specified in Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in the paragraphs pertaining to second class aircraft maintenance technician and second class aircraft line maintenance technician in the Appended Table are the aircraft that falls under the airworthiness categories prescribed in Annex 1 are airplane transport C, airplane transport T, rotorcraft transport class TA and rotorcraft transport class TB.

Article 56-3 A minor repair specified in Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in the paragraphs pertaining to first class line aircraft maintenance technician and second class aircraft line maintenance technician in Appended Table is a minor repair that falls under the repair category listed in the table referred to in Article 5-6.

(Change of Rating of Certificate of Competency)

Article 57 (1) A person who intends to file a request for change of the rating of certificate of competency under the provisions of Article 29-2, paragraph (1) of the Act must submit a request for change of competency rating (Format 19 (Format 19-2 in the case of an applicant for exemption from all theory examination subjects)) to the Minister of Land, Infrastructure, Transport and Tourism.

(2) The provisions of Article 42 paragraphs (2) through (4) apply mutatis mutandis to the application referred to in the preceding paragraph. In this case, the term "one copy" in paragraph (2) of the Article is deemed to be replaced with "one copy (except for the applicant for exemption from all theory examination subjects)", the term "one copy of photograph and a photocopy of the document referred to in Article 47" is deemed to be replaced with a "photocopy of the document referred to in Article 47", the term an "applicant for certificate of competency" in paragraph (4) of the Article is deemed to be replaced with an "requestor for change of competency rating (limited to a person who files a request for change of competency rating if the required aeronautical career or other career is not the same as the aeronautical career or other career required for the grant of their current certificate of competency)", and the term the " abstract of their family register or a certificate of entry in the family register or a copy of the resident record which

states their permanent domicile (or in the case of a foreigner, a certificate from a consul officer of their country which certifies their nationality, name, date of birth and gender (in the case of a person who is unable to submit a certificate issued by a consul officer from their country, a document which certifies those particulars issued by a competent authority); the same applies hereafter) and aeronautical career and other career listed in Appended Table 2" is deemed to be replaced with "aeronautical career and other career listed in Appended Table 2".

(Notice of Revocation of Certificate of Competency)

Article 58 The Minister of Land, Infrastructure, Transport and Tourism, when imposing a disposition pursuant under the provisions of Article 30 of the Act (including as applied mutatis mutandis pursuant to the provisions of Article 35 paragraph (5) of the Act), notifies the the airman or student pilot (a person who has obtained a license referred to in Article 35 paragraph (1) item (i) of the Act; the same applies hereinafter) who is subject to the disposition of the disposition and the reason.

(Suspension of Air Navigation Services)

Article 59 An airman or student pilot who has received the notice referred to in the preceding Article regarding suspension of air navigation services or flight training must promptly submit the certificate of competency or student pilot permit to the Minister of Land, Infrastructure, Transport and Tourism.

(Special Provisions for the Method of Hearing)

Article 60 (1) When conducting a hearing, the Minister of Land, Infrastructure, Transport and Tourism must issue a notice referred to in the provisions of Article 15, paragraph (1) of the Administrative Procedure Act (Act No. 88 of 1993) by 10 days prior to the date of the hearing.

(2) A person who receives a notice under the provisions of Article 15 paragraph (1) of Administrative Procedure Act from the Minister of Land, Infrastructure, Transport and Tourism (including the person who is is deemed to have received the notice pursuant to the provisions of the second sentence of paragraph (3) of the Article; hereinafter referred to as the "party") must, if an assistant in court is appointed, submit a document stating the address, name and the contents of the testimony of the assistant in court to the president by the day before hearing.

(3) The party must, if there is a person testifying for themselves (excluding a person participating in the proceedings in relation to the hearing under the provisions of Article 17, paragraph (1) of the Act, hereinafter referred to as a "witness"), submit a document stating the person's address, name and the

contents of the testimony to the Minister of Land, Infrastructure, Transport and Tourism by the day before the hearing date.

- (4) If a witness intends to speak or to submit evidence, a permission from the president must be obtained.
- (5) The proceedings on the date of the hearing referred to in the previous two paragraphs must be open to the public; provided, however, that this does not apply if the party requests that the proceedings will be conducted in camera.

(Application for Airman Medical Certificate)

Article 61 (1) A person who intends to apply for an airman medical certificate referred to in Article 31, paragraph (1) of the Act must submit an application for airman medical certificate to the Minister of Land, Infrastructure, Transport and Tourism or a designated aviation medical examiner (which shows the results of the examinations undertaken within one month prior to application at a medical institution etc designated by the Minister of Land, Infrastructure, Transport and Tourism (hereinafter referred to as a "designated aviation medical examination institution", Form 22)).

- (2) The written application referred to in the preceding paragraph must be accompanied by the records of the examination results pertaining to the previous airman medical certificate (hereinafter referred to as a "medical examination"), except for when applying for airman medical certificate for the first time.

(Medical Standards and Airman Medical Certificate)

Article 61-2 (1) The medical standards prescribed in Order the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 31, paragraph (3) of the Act and the airman medical certificate referred to in paragraph (2) of the Article are as prescribed in the following table.

Qualifications	Medical standards	Airman medical certificate
Airline transport pilot Commercial pilot First class navigator Flight engineer	Class 1	airman medical certificate (class 1)
Private pilot Second class navigator Flight radiotelephone operator	Class 2	airman medical certificate (class 2)

- (2) The contents of the medical standards listed in the table referred to in the

preceding paragraph are as listed in Appended Table 4, and the form of airman medical certificate is the same as Form 24.

- (3) When a person does not conform to some of the provisions prescribed in Appended Table 4, if the Minister of Land, Infrastructure, Transport and Tourism finds that the person does not have any difficulty in operating the aircraft on board, taking into consideration their experience and ability, the person is deemed to conform to the medical standards notwithstanding the provisions of the Table. In this case, when the person applies for a new airman medical certificate, the Minister of Land, Infrastructure, Transport and Tourism may, if the minister finds it necessary, instruct the person to undergo examinations, etc. of their symptoms of injury or illness which did not meet some of the requirement provisions of the Table (hereinafter referred to as "symptoms" in this Article).
- (4) A person who was deemed to have met the medical standards pursuant to the provisions of the preceding paragraph is, in the following cases, deemed to have met some of the provisions of Appended Table 4 that the person does not conform to, when applying for a new airman medical certificate.
 - (i) a person is diagnosed with chronic symptoms when the Minister of Land, Infrastructure, Transport and Tourism certifies the person pursuant to the provisions of the preceding paragraph.
 - (ii) when the person's condition is deemed to be stable as the results of examinations, etc. based on the instruction from the Minister of Land, Infrastructure, Transport and Tourism under the provisions of the preceding paragraph.
- (5) When the Minister of Land, Infrastructure, Transport and Tourism finds it necessary for ensuring safe navigation of aircraft, the minister may add requirements to airman medical certificates that are required when providing air navigation services, and may also change such conditions.
- (6) A holder of a class 1 airman medical certificate is deemed to be a holder of a class 2 airman medical certificate.

(Start Date of Validity Period of Airman Medical Certificate)

Article 61-3 The validity period of airman medical certificate starts on the date of issue of the airman medical certificate pertaining to the airman medical certification; provided, however, that if a new airman medical certificate is issued during the period 45 days prior to the expiry date of the validity period of airman medical certificate to the expiry date of the validity period, it starts on the day after the expiry date of the validity period.

(Application for Airman Medical Certificate to be Returned)

Article 61-4 (1) The Minister of Land, Infrastructure, Transport and Tourism or

the designated aviation medical examiner is to return the application for aviation medical certificate that states the specified particulars to the applicant for airman medical certificate that states the specified particulars.

- (2) After conducting a medical examination, a designated aviation medical examiner must submit a photocopy of the application for aviation medical certificate that states the specified particulars to the Minister of Land, Infrastructure, Transport and Tourism within 10 days.
- (3) If a designated aviation medical examiner deems that an applicant attempted to obtain an airman medical certificate by deception or other wrongful means, the medical examiner must promptly report this to the Minister of Land, Infrastructure, Transport and Tourism.

(Designated Aviation Medical Examiners)

Article 61-5 (1) A person who intends to be designated as prescribed in Article 31, paragraph (1) of the Act must submit an application for designated aviation medical examiner to the Minister of Land, Infrastructure, Transport and Tourism (Format 23), attaching the following documents.

(i) curriculum vitae

(ii) a photocopy of their medical license

(iii) a documentary certifying that the person is a member of the designated aviation medical examination institution

(2) The requirements specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 31, paragraph (1) of the Act are as follows.

(i) a person must be a medical practitioner who is a member of a designated aviation medical examination institution.

(ii) a person must have attended a training session on aviation medical certification provided by the Minister of Land, Infrastructure, Transport and Tourism, or must have the knowledge of aviation medical certification that is deemed to be equivalent to or higher than that of the person who have attended the training session.

(iii) a person must have five years or more of experience in clinical or aviation medicine.

(iv) a person is not be a person whose designation referred to in Article 31, paragraph (1) of the Act was revoked pursuant to the provisions of Article 62 paragraph (2), and two years have not elapsed from the date of revocation.

(3) Designation referred to in Article 31, paragraph (1) of the Act is implemented by issuing a certificate of designated aviation medical examiner (Format 23-2). In this case, the designation expiration date may be specified.

(4) The Minister of Land, Infrastructure, Transport and Tourism is to issue a public notice of designation when the minister implements a designation

referred to in the preceding paragraph.

Article 62 (1) The designation referred to in Article 31, paragraph (1) of the Act ceases to be effective if the designated aviation medical examiner falls under any of the following items.

- (i) when the expiration date set for the designation expires pursuant to the provisions of the paragraph (3) of the preceding Article.
- (ii) when a person is no longer a member of the designated aviation medical examination institution.
- (iii) when the designated aviation medical examination institution of which a person is a member ceases to be a designated aviation medical examination institution.
- (iv) when the medical license is revoked pursuant to the provisions of Article 7, paragraph (2) of the Medical Practitioner Act (Act No. 201 of 1948).

(2) The Minister of Land, Infrastructure, Transport and Tourism may revoke the designation referred to in Article 31, paragraph (1) of the Act if the designated aviation medical examiner falls under any of the following items.

- (i) if a person violates the Act or an order under the Act.
- (ii) when a person is suspended from medical services pursuant to the provisions of Article 7, paragraph (2) of the Medical Practitioner Act.
- (iii) if a person engages in delinquency or acts of gross negligence in the course of their duties as a designated aviation medical examiner.

(3) When the designation expires pursuant to the provisions of the paragraph (1) or if the designation is revoked pursuant to the provisions of the preceding paragraph, the Minister of Land, Infrastructure, Transport and Tourism is to issue a public notice regarding this matter.

(Designated Aviation Medical Examination Institutions)

Article 62-2 (1) A person who seeks designation referred to in Article 61, paragraph (1) must submit to the Minister of Land, Infrastructure, Transport and Tourism an application for designated aviation medical examination institution (Format 24-2) accompanied by a document certifying that the person meets the requirements in the items of the following paragraph.

(2) Designation referred to in Article 61 (1) is implemented to medical institutions, etc that conform to the requirements set forth in each of the following items.

- (i) The institution must be a hospital or a clinic that has obtained a license under Article 7 of the Medical Care Act (Act No. 205 of 1948) or a clinic that has submitted a notice under Article 8 of the Act or a medical institution, etc., outside of Japan that has been designated as an institution that conducts aviation medical examinations by a contracting state of the Convention in

International Civil Aviation.

- (ii) more than the required number of medical practitioners that conduct medical examinations in each examination section are assigned.
 - (iii) an institution has the necessary equipment and devices to carry out medical examinations.
 - (iv) when part of medical examinations is conducted by another medical institution, etc., the relevant medical institution must conform to the requirements set forth in the preceding three items in relation to the medical examinations conducted by them.
 - (v) a member of the institution who has sufficient knowledge of aviation medical certification and can properly manage the administration pertaining to medical examinations (hereinafter referred to as a "medical administrator") is assigned.
 - (vi) an institution has examination systems that enable the person to properly conduct medical examinations.
- (3) Designation referred to in Article 61, paragraph (1) is implemented by issuing a certificate of designated an aviation medical examination institution (Format 24-3). In this case, the designation expiration date may be set.
- (4) The Minister of Land, Infrastructure, Transport and Tourism is to issue a public notice of the designation when the minister implements designation referred to in the preceding paragraph.

(Expiration and Revocation of Designation)

Article 62-3 (1) The designation referred to in Article 61, paragraph (1) ceases to be effective if the designated aviation medical examination institution falls under any of the following items.

- (i) when the the designation of which expiration date was set pursuant to the provisions of paragraph (3) of the preceding Article expires.
 - (ii) when the establisher of the medical institution, etc., that was designated pursuant to the provisions of Article 61, paragraph (1) discontinues the medical institution, etc.
 - (iii) when the license to open the institution is revoked pursuant to the provisions of Article 29, paragraph (1) of the Medical Care Act.
- (2) The Minister of Land, Infrastructure, Transport and Tourism may revoke the designation referred to in Article 61, paragraph (1) if the designated aviation medical examination institution falls under any of the following items.
- (i) if a person violates an order under the Act.
 - (ii) if medical examinations are suspended for a long period of time.
 - (iii) if the institution is ordered to close pursuant to the provisions of Article 29, paragraph (1) of the Medical Care Act.
 - (iv) if the institution ceases to conform to the requirements of paragraph (2),

- items (ii) through (vi) of the preceding Article.
- (3) If the designation expires pursuant to the provisions of paragraph (1) or if the designation is revoked pursuant to the provisions of the preceding paragraph, the Minister of Land, Infrastructure, Transport and Tourism is to issue a public notice regarding this matter.

(Aviation English Language Proficiency Certificate)

Article 63 (1) An applicant for aviation English language proficiency certificate (referred to as an "applicant for aviation English language proficiency certificate" in paragraph (3)) must submit an application for aviation English language proficiency certificate (Format 19 (an applicant for exemption from theory examinations uses Format 19-2)) to the Minister of Land, Infrastructure, Transport and Tourism.

- (2) The application referred to in the preceding paragraph must be accompanied by one copy of a photograph (except for the applicant for exemption from theory examinations), and the documents specified in item (i) or item (ii) must be attached as necessary, or the documents specified in item (iii) must be presented and a photocopy thereof must be attached.

(i) in the case of a person who intends to be exempted from theory examinations pursuant to the provisions of Article 48, a photocopy of documents prescribed in Article 47

(ii) in the case of a person who intends to be exempted from theory examinations pursuant to the provisions of Article 48, paragraph (3), a photocopy of their certificate of competency

(iii) in the case of a person who holds a certificate of competency pertaining to the skills required for air navigation services granted by a foreign government which is a contracting state of the Convention on International Civil Aviation and intends to be exempted from examinations, the relevant certificate

- (3) When applying for a practical examination (including when intending to be exempted from the practical examination), an applicant for aviation English language proficiency certificate (excluding applicant for exemption from theory examinations) who has passed the theory examinations must submit an application for practical examination (Format 19-2) to the Minister of Land, Infrastructure, Transport and Tourism, which is accompanied by the documents prescribed in item (i), and the applicant must present the document prescribed in item (ii) as necessary and a photocopy thereof must be attached to it.

(i) a photocopy of the document referred to in Article 47 (limited to those pertaining to passing theory examination)

(ii) in the case of a person who holds a certificate of competency pertaining to

the skills required for air navigation services granted by a foreign government which is a contracting state of the Convention on International Civil Aviation and intends to be exempted from practical examinations, the relevant certificate

Article 63-2 Aviation English language proficiency certificate is granted by stating the relevant proficiency in the person's certificate of competency.

(Categories of Aircraft which Require Aviation English Proficiency Certificate)

Article 63-3 The categories of aircraft specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 33 paragraph (1) of the Act include airplanes and rotorcraft.

(Air Navigation which Require Aviation English Language Proficiency Certificate)

Article 63-4 The navigation specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 33, paragraph (1) of the Act are prescribed as follows (except for navigation for which the Minister of Land, Infrastructure, Transport and Tourism deems that an aviation English language proficiency certificate is not required).

- (i) navigation of aircraft implemented between a place within Japan and a place outside Japan
- (ii) navigation of aircraft implemented between places outside Japan (limited to those flying within territories of countries other than Japan)
- (iii) navigation of aircraft that leaves Japan and arrives in Japan, passing territories of a country other than Japan without landing

(Validity Period of Aviation English Language Proficiency Certificate)

Article 63-5 (1) The period specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 33, paragraph (2) of the Act is the period specified in the respective items, according to the levels specified in the following items.

- (i) when the person is assessed to possess the knowledge and ability in aviation English language corresponding to the Language Proficiency Level 4 or 5 specified in Amendment 164 to Annex 1 of the Convention on International Civil Aviation: 3 years
- (ii) when the person is assessed to possess the knowledge and ability in aviation English language corresponding to the Language Proficiency Level 6 specified in Amendment 164 to Annex 1 of the Convention on International Civil Aviation: Lifetime

(2) The start date of the period specified in the items of the preceding paragraphs

is the date of passing the practical examination; provided, however, that if a person passes the practical examination during the period three months prior to the expiry of the validity period of the current aviation English language proficiency certificate to the expiry date of the relevant validity period, then the period starts on the day after the expiry date of the validity period.

- (3) Notwithstanding the provisions of the preceding two paragraphs, the validity period of aviation English language proficiency certificate granted without theory examination or practical examination pursuant to the provisions of Article 50, paragraph (1) or (2) is the period determined by the Minister of Land, Infrastructure, Transport and Tourism, which is not later than the expiration date of the validity period of the certificate of competency pertaining to the skills required for air navigation services granted by a foreign government of a contracting state of the Convention on International Civil Aviation (limited to those pertaining to aviation English language proficiency certificate).
- (4) With regard to the application of provisions of paragraphs (1) and (2) if none of the practical tests is conducted pursuant to the provisions of Article 50-2, paragraph (3), the term "has passed the practical examination" in that paragraph is deemed to be replaced with "has completed the course".
- (5) With regard to the application of provisions of paragraphs (1) and (2) if none of the practical tests is conducted pursuant to the provisions of Article 50-2, paragraph (6), the term "has passed the practical examination" in that paragraph is deemed to be replaced with "has been assessed to have knowledge and ability in aviation English".

(Application for Designated Air Carrier Assessing Aviation English Language Proficiency)

Article 63-6 (1) A person who intends to be designated as a designated air carrier assessing aviation English language proficiency must submit an application stating the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name or company name and address
 - (ii) the name and address of the principal office where the services pertaining to the designation are to be provided
 - (iii) the number of pilots hired by the person, the number of persons who are subject to proficiency assessment (meaning the assessment as to whether the person has knowledge and ability in aviation English; the same applies hereinafter), and the number of persons holding an aviation English language proficiency certificate
 - (iv) other particulars used as reference
- (2) The written application referred to in the preceding paragraph must be

accompanied by procedure for proficiency assessment (hereinafter referred to as a "procedure for assessment").

- (3) The procedure for assessment referred to in the preceding paragraph must include the following particulars.
- (i) name and resume of the assessment administrator in relation to proficiency assessment
 - (ii) name and resume of the proficiency assessor (meaning a person who is engaged in proficiency assessment; the same applies hereinafter)
 - (iii) method of proficiency assessment
 - (iv) particulars relating to issuance of certificate of proficiency assessment
 - (v) particulars relating to retention of confidential information that was acquired in connection with proficiency assessment
 - (vi) methods of keeping and storing records concerning proficiency assessment
 - (vii) other particulars that are sufficient to certify compliance with the standards specified in items of the following Article.

(Criteria for Designation of Air Carrier Assessing Aviation English Language Proficiency)

Article 63-7 Designation of air carrier assessing aviation English language proficiency is implemented when the carrier meets the following criteria.

- (i) an administrator who satisfies the following requirements.
 - (a) a person 25 years of age or over.
 - (b) The person is not a person who has, in the last two years, engaged in wrongful conduct in relation to issuance of certificate of proficiency assessment by a designated air carrier assessing aviation English language proficiency or in relation to an examination referred to in Article 29, paragraph (1) of the Act as applied mutatis mutandis pursuant to Article 33, paragraph (3), or a person who has violated the Act and was sentenced to a fine or severer punishment and two years have not elapsed from the day since the day on which the execution of the sentence was completed or ceased to be executed (hereafter referred to as a "disqualified person" in this Article).
 - (c) a person who is deemed to be a person capable of properly administering the operations of services in relation to proficiency assessment.
 - (d) a person has knowledge required for aviation English proficiency certification.
- (ii) more than the required number of proficiency assessors certified by the Minister of Land, Infrastructure, Transport and Tourism as those who meet the following requirements are assigned.
 - (a) a person 25 years of age or over.
 - (b) a person is not a disqualified person.

- (c) a person has knowledge and ability required for aviation English and proficiency assessment.
- (iii) the contents and standards of proficiency assessment comply with the contents and assessment standards of the examinations referred to in Article 29, paragraph (1) of the Act as applied mutatis mutandis pursuant to Article 33 paragraph (3), conducted by the Minister of Land, Infrastructure, Transport and Tourism.
- (iv) a system for proper operation of services in relation to proficiency assessment by the following carrier.
 - (a) a system relating to the proficiency assessment results
 - (b) a system relating to the management of proficiency assessment records
 - (c) a system relating to the audits of proficiency assessment service

(Operation of Services by Designated Air Carrier Assessing Aviation English Proficiency)

Article 63-8 The administrator of a designated air carrier assessing aviation English proficiency must operate the services fairly and in accordance with the criteria referred to in items of the preceding Article and according to the assessment rules prescribed in Article 63-6, paragraph (2).

(Certification of Proficiency Assessors)

Article 63-9 An expiration date may be set for a certificate of proficiency assessor specified in Article 63-7, paragraph (2).

(Restrictions on Issuance of Certificate of Proficiency)

Article 63-10 The administrator of a designated air carrier assessing aviation English proficiency must not issue a certificate of proficiency under the provisions of Article 50-2, paragraph (7) to anyone other than a person who has been assessed to have the knowledge and ability of aviation English by a proficiency assessor prescribed in the provisions of Article 63-7, paragraph (2).

(Revocation of Certificate of Proficiency Assessor)

Article 63-11 The Minister of Land, Infrastructure, Transport and Tourism may revoke the certificate of proficiency assessor which was granted under the provisions of Article 63-7 item (ii), if the minister deems that the assessor has engaged in wrongful conduct when the proficiency assessment was conducted or that the assessor does not meet the criteria referred to in that item.

(Instrument Rating and Flight Instructor's Certificate)

Article 64 (1) An applicant for instrument rating or flight instructor's certificate must submit an application for instrument rating or an application for flight

instructor's certificate (Form 19 (an applicant for exemption from all theory examination subjects uses Form 19-2)) to the Minister of Land, Infrastructure, Transport and Tourism.

- (2) The provisions of Article 42 paragraphs (2) through (4) apply mutatis mutandis pursuant to the application referred to in the preceding paragraph. In this case, the term "one copy" in paragraph (2) of the Article is deemed to be replaced with "one copy (except for the applicant for exemption from all theory examination subjects)", the term "one copy of photograph and a photocopy of the document referred to in Article 47" in paragraph (3) of that Article is deemed to be replaced with a "copy of the document referred to in Article 47", and the term the "abstract of family register or a certificate of family register or a copy of the resident record which states their permanent domicile (or in the case of a foreigner, a certificate from a consul officer of their country which certifies their nationality, name, date of birth and gender (in the case of a person who is unable to submit a certificate issued by a consul officer from their country, a document which certifies those particulars issued by a competent authority); the same applies hereafter), and a document which certifies that the applicant possesses the aeronautical career and other career prescribed in Appended Table 2" in paragraph (4) of the Article is deemed to be replaced with "aeronautical career and other career specified in Appended Table 2".

Article 65 Instrument rating or flight instructor's certificate is granted by stating the rating or certificate in the person's certificate of competency.

(Categories of Aircraft which Require a Instrument Rating to Fly under Instrument Flight Rules (IFR))

Article 65-2 The categories of aircraft specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 34, paragraph (1) of the Act include aircraft other than airplanes.

(Distance and Time under Instrument Flight Rules)

Article 66 The distance specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 34, paragraph (1) item (ii) of the Act is 110 kilometers, and the time specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in item is 30 minutes.

(Aircraft Flight Training)

Article 67 (1) A person intending to obtain an approval referred to in Article 35, paragraph (1), item (i) of the Act must submit an application for student pilot

certificate (which states the results of the medical examination conducted at a designated aviation medical examination institution within one month prior to the application, Format 26) to the Minister of Land, Infrastructure, Transport and Tourism.

- (2) The application referred to in the preceding paragraph must be accompanied by two copies of photograph and the abstract of their family register or a certificate of their family register or a copy of their resident record which states their registered domicile.

Article 68 (1) The form of the student pilot certificate referred to in Article 35, paragraph (4) of the Act is the same as Form 27.

- (2) The validity period of the approval referred to in the preceding paragraph is as specified by the Minister of Land, Infrastructure, Transport and Tourism, which is one year or less.

Article 69 The designation referred to in Article 35, paragraph (1), item (iii) of the Act is implemented by issuing a certificate of designated flight instructor (Form 27-2). In this case, the expiration date is to be set for the designation.

Article 69-2 (1) The person specified in Article 35, paragraph (2) of the Act (hereinafter referred to as a "flight instructor") must check the particulars prescribed in the following items before the person who learns to fly a plane referred to in each item of Article 35, paragraph (1) of the Act (hereinafter referred to as a "student pilot") commences their flight training.

(i) the contents of the training plans are suitable.

(ii) the student pilot has sufficient knowledge and ability for the training.

(iii) the meteorological conditions in the airspace in which the airplane flies are suitable for the training.

(iv) the aircraft to be used has the required performance and equipment to carry out the training.

- (2) the flight instructor must sit on a seat which can be switched with that of a student pilot so that the instructor can pilot an aircraft instead of the student while the student pilot on board the aircraft is piloting the aircraft.

- (3) When a student pilot intends to learn to fly solo flight using a particular type of aircraft for the first time, the flight instructor must not give instructions to the student pilot who learns to fly the aircraft, unless the instructor checks the following particulars.

(i) the student pilot has sufficient experience to undergo the flight training using the relevant aircraft.

(ii) the student pilot alone can complete a takeoff and landing.

- (4) The flight instructor must not permit the student pilot to undergo their first

solo flight training unless the training falls under any of the following items.

- (i) flight training to be provided continuously after the takeoff and landing training accompanied by the flight instructor on board.
 - (ii) flight training provided using a airfield traffic pattern during daytime
- (5) When a student pilot intends to learn to fly solo flight to a place more than 40 kilometers away from the starting place for the first time, the flight instructor must not give instructions to the student pilot, unless the flight instructor confirms that the student pilot has the knowledge of navigation required to undergo that training.

(Instrument Flight Training)

Article 69-3 The provisions of Article 69 apply mutatis mutandis pursuant to the designation referred to in Article 35-2, paragraph (1), item (iii) of the Act. In this case, the term a "certificate for designated flight instructor (Format 27-2)" is deemed to be replaced with a "certificate for designated instrument flight instructor (Format 27-3)".

Article 70 (1) The provisions of Article 69-2, paragraph (1) apply mutatis mutandis to the person who conducts instrument flight training referred to in Article 35-2, paragraph (2) (hereinafter referred to as an "instrument flight training instructor "). In this case, the terms a "person who undergoes flight training referred to in each item of Article 35, paragraph (1) of the Act (hereinafter referred to as a "person who undergoes flight training")", and a "person who undergoes flight training" are deemed to be replaced with a "person who undergoes instrument flight training, etc.", and the term "flight training" is deemed to be replaced with " instrument flight etc training".

- (2) The instrument flight instructor must not provide instructions pertaining to the relevant training without checking the particulars specified in the following items regarding the student who undergoes instrument flight training.
 - (i) the instructor must obtain materials and information necessary to conduct the training and has the knowledge of their meaning and contents.
 - (ii) the instructor must carry tools necessary to conduct the training and knows how to use those tools well.
- (3) The instrument flight instructor must be on board with a student pilot when the student pilot undergoes instrument flight flies for the training, and must seated in a position where they are able to control the aircraft.

(Reissuance of Certificate of Competency)

Article 71 (1) If an airman or pilot student who apply for reissue of certificate of competency or airman medical certificate or a student pilot permit who has lost,

torn or got those soiled, or due to change of the registered domicile, address or name, the airman or a student pilot must submit a written application for reissue (Format 28) to the Minister of Land, Infrastructure, Transport and Tourism (in the case of an airman medical certificate issued by a designated aviation medical examiner, the relevant designated aviation medical examiner; the same applies in paragraph (3)).

- (2) The written application of the preceding paragraph must be accompanied by one copy of their photograph and the following documents if applying for reissue of a certificate of competency, or be accompanied by the following documents if applying for reissue of airman medical certificate, and two copies of their photograph and the following documents if applying for reissue of student pilot permit.
- (i) the certificate of competency or airman medical certificate or a student pilot permit (except when it has been lost)
 - (ii) the abstract of their family register or a certificate of their family register description or a copy of their resident record which states their registered domicile (only when the registered domicile or name has changed)
 - (iii) the reason why they lost it and time and date of loss (only when applying for reissue within 30 days from the loss)
- (3) The Minister of Land, Infrastructure, Transport and Tourism reissues the certificate of competency or airman medical certificate or a student pilot permit if the minister deems the application referred to in paragraph (1) is legitimate.

(Surrendering Certificate of Competency)

Article 72 A person who holds or keeps a certificate of competency, airman medical certificate or a student pilot permit specified in the following items must surrender this to the Minister of Land, Infrastructure, Transport and Tourism within 10 days accompanied by a document stating the reason.

- (i) if the certificate of competency or the approval referred to in Article 35, paragraph (1), item (i) of the Act (including as applied mutatis mutandis pursuant to the provisions of Article 35, paragraph (5) of the Act) is revoked pursuant to the provisions of Article 30 of the Act, the relevant certificate of competency (in the case of a person relating to aircrew license, the certificate of competency and airman medical certificate; the same applies in item (iv)) or the student pilot permit
- (ii) when an advanced-level certificate of competency under the same category has been issued, the certificate pertaining to the current qualification
- (iii) if the lost document that was once lost and reissued pursuant to the provisions of the preceding Article is found, the found document
- (iv) if an airman or student pilot has died or declared missing, their certificate of competency or student pilot permit

(Certificate of Competency in a Foreign Language)

Article 73 (1) An airman who engages in navigation of aircraft specified in each item of Article 126, paragraph (1) of the Act must, when they intend to apply for an issue of a certificate of competency in English, French or Spanish in addition to the certificate of competency referred to in Article 52, apply for the issue to the Minister of Land, Infrastructure, Transport and Tourism together with the certificate of competency they currently hold, accompanied by a photograph.

(2) The amount of issue fee under the provisions of the preceding paragraph is the same as the reissue fee for a certificate of competency under the provisions of Article 71.

(Public Notice of Invalidation)

Article 74 The Minister of Land, Infrastructure, Transport and Tourism issues a public notice of invalidation when the minister receives a notice of loss of a certificate of competency, airman medical certificate or a student pilot permit referred to in Article 238 or a written application for reissue referred to in Article 71 (only when it is filed due to loss) or if any of these has not been returned when it must be returned pursuant to the provisions of Article 72 (except for item (iii)).

Chapter V Airports and Air Navigation Facilities

Section 1 Airports

(Categories of Airports and Classes of Landing Strips)

Article 75 (1) Airports are classified into four categories, onshore airports, onshore heliports, water airports and water heliports.

(2) The classes of landing strips are categorized by length of runway for onshore airports, and by length of landing area for water airports, as specified in the following table:

Types of Airports	Classes of runway strips	Length of Runway or Runway Strip
Onshore Airports	A	Longer than 2,550 meters
	B	Longer than 2,150 meters and shorter than 2,550 meters
	C	Longer than 1,800 meters and shorter than 2,150 meters
	D	Longer than 1,500 meters and shorter than 1,800 meters

	E	Longer than 1,280 meters and shorter than 1,500 meters
	F	Longer than 1,080 meters and shorter than 1,280 meters
	G	Longer than 900 meters and shorter than 1,080 meters
	H	Longer than 500 meters and shorter than 900 meters
	J	Longer than 100 meters and shorter than 500 meters
Water Airports	A	Longer than 4,300 meters
	B	Longer than 3,000 meters and shorter than 4,300 meters
	C	Longer than 2,000 meters and shorter than 3,000 meters
	D	Longer than 1,500 meters and shorter than 2,000 meters
	E	Longer than 300 meters and shorter than 1,500 meters

(Application for Approval to Establish Airport)

Article 76 (1) A person who intends to apply for approval to establish an airport, etc., pursuant to the provisions of paragraph (2) of Article 38 of the Act must submit three copies of written application including the following particulars, to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) purpose for establishing the airport (whether or not it is established for public use must be added.)
- (ii) name and address
- (iii) name and location of an airport and location of an airport reference point (including the altitude; the same applies hereinafter)
- (iv) planned airport site planned water surface and the names and addresses of the owners
- (v) category of airport, class of landingstrip, and strength of runway (for onshore airports and onshore heliports, soil foundation included) or depth of landing strip
- (vi) in the case of an airport used for instrument landing or night landing, the relevant information must be provided.
- (vii) category and type of aircraft that are intended to use the airport, etc.
- (vii)-2 length of approach area, slope of approach surface, length of the radius of horizontal surface or slope of transitional surface, for which an application for designation is filed with the Minister of Land, Infrastructure, Transport and Tourism
- (viii) outline of facilities at the airport
- (ix) outline of the air navigation facilities to be established

- (x) costs required to establish the airport
- (xi) schedule commencement and completion dates of the construction work
- (xii) administrative plan (Costs required for administration must be provided.)
- (xiii) if there is any object that is higher than the approach surface transitional surface, or horizontal surface of a planned airport, or any object that is located extremely close these surfaces, the following particulars:
 - (a) location and type of the object
 - (b) The height above the approach surface, transition surface or horizontal surface of the or the degree of proximity to these surfaces
 - (c) the name and address of the owner of the object or the holder of other title
 - (d) whether or not the object is to be removed
 - (e) costs required to remove the object
 - (f) scheduled commencement and completion dates of construction work pertaining to the removal of the object
- (2) The following documents and drawings must be attached to the written application prescribed in the preceding paragraph:
 - (i) documents prescribing the methods for procuring the following matters
 - (a) costs required to establish the airport, land, water surface and objects
 - (b) costs required for the removal of the objects referred to in item (xiii) of the preceding paragraph
 - (ii) documents describing the breakdown of costs required for administration and the relevant procurement method
 - (ii)-2 documents certifying whether the applicant has the ownership or any other title to use the airport site, or the applicant is able to surely acquire the title or ownership
 - (iii) the construction design drawings, specifications and construction budget document for airport
 - (iv) measured drawings
 - (v) In the case of airports, wind speed and direction chart (the chart of the wind direction and wind speed at places in a planned airport site or planned water or its vicinity must be prepared based on the data collected for more than three years for an onshore airport and water airport, or more than one year for a heliport.)
 - (v)-2 in the case of airports, documents describing the air temperature on the planned airport site or planned water their vicinities (the documents must be prepared based on the data collected for more than five years in accordance with the criteria set forth by the Minister of Land, Infrastructure, Transport and Tourism.)
 - (vi) in the case of airports, documents describing the categories, types, and the estimated number of aircraft that use the airport in a year and the basis of the calculation of the number

- (vii) deleted
- (viii) in the case of a local government, documents certifying the decision made for the establishment of the airport
- (ix) in the case of a corporation other than local governments, the following documents:
 - (a) an article of incorporation or an article of endowment and a certificate of registered information
 - (b) balance sheet for the latest business fiscal year
 - (c) a list of officers or employees and their personal history
 - (d) documents certifying the decisions made on the establishment of the airport
- (x) in the case of a union without a legal personality, the following documents:
 - (a) copy the written partnership agreement
 - (b) inventory of the assets of partners
 - (c) a list of partners and their personal history
- (xi) for an individual, the following documents:
 - (a) inventory of assets
 - (b) abridged copy of family register
 - (c) personal history
- (xii) in the case of a person who currently manages other business, documents describing the category and outline of the business

(Measured drawings)

Article 77 The measured drawings referred to in item (iv), paragraph (2), of the preceding Article are as follows:

- (i) floor plan: is to represent it at a scale of 1:5,000 or smaller and to indicate the following matters:
 - (a) Scale and orientation
 - (b) boundary lines of an airport site
 - (c) geoterrain of the surrounding areas more than 100 kilometers away from the airport and names of the municipalities area therein
 - (d) location of planned airport facilities
 - (e) roads that connect major roads, urban area and public transportation systems
- (ii) vertical cross-sectional drawing of a landing strip: the vertical cross-sectional drawing of a landing strip is to represent the drawing at a scales of 1:5,000 or smaller in the transverse direction and 1:500 or small in the longitudinal direction and is to specify the following particulars.
 - (a) survey station number, distance between survey stations (it must be 100 meters), and incremental distance.
 - (b) height of the land, construction foundation surface and embankment and

- depth of the cut earth at each survey station
- (iii) transverse cross-sectional drawing of a landing strip: the transverse cross-section of a landing strip is to be determined at its three locations, namely, at its both ends and center, representing it at a scale of 1:1,000 or smaller in the transverse direction and 1:50 or smaller in the longitudinal direction, and indicates the following particulars:
- (a) survey station number and distance between survey stations
 - (b) height of the land, construction foundation surface and embankment and depth of the cut earth at each survey station
- (iv) map of the surrounding area: the map is to clearly represent the project plane of the approach surface, transitional surface and horizontal surface of objects and a planned airport referred to in item (xiii) of paragraph (1) of Article 76 at a scale of 1:10000, and the particulars set forth in (a) and (b) of that item must be specified in a drawing of the area where the relevant objects exist at a scale of 1:5,000.

(Public Notice of Application for Approval to Establish Airport)

- Article 78 (1) Particulars that must be announced to the public and posted pursuant to the provisions of paragraph (3) of Article 38 of the Act, when an application for approval to establish an airport is filed, are particulars set forth in that paragraph and particulars set forth in items (i) through (v) of paragraph (1) of Article 76 and particulars set forth in items (viii) and (ix) of that paragraph.
- (2) The provisions referred to in the preceding paragraph apply mutatis mutandis to the case when the Minister of Land, Infrastructure, Transport and Tourism establishes an airport.

(Criteria for Establishing Airports)

- Article 79 (1) The criteria referred to in item (i) of paragraph (1) of Article 39 of the Act (including as applied mutatis mutandis pursuant to paragraph (2) of Article 43 of the Act) are as follows:
- (i) building structures, plants and other objects being located in the vicinity of an airport, which are deemed by the Minister of Land, Infrastructure, Transport and Tourism that those do not prevent take-offs or landings of aircraft; provided, however, that this does not apply when the minister finds that the object can be definitely removed by the scheduled completion date of the construction work of the airport.
 - (ii) airspace for circling approaches (meaning a specific airspace above an airport which is deemed to be the minimum airspace for aircraft waiting for safe landing, the same applies hereinafter) does not overlap an airspace for circling approaches previously designated for an existing airport.

(iii) in the case of an onshore airport, except when the airport obviously has a special reason, must have a runway, landing strip and taxiway conforming to the standards listed in the following table, which depends on the class of landing strip:

Classes of Runway Strips		A	B	C	D	E	F	G	H	J
Runway	Width	Over 45 meters	Over 45 meters	Over 45 meters	Over 45 meters	Over 45 meters	Over 30 meters	Over 30 meters	Over 25 meters	Over 15 meters
	Maximum longitudinal slope	(i) a section located at a distance of one-fourth length of a runway	0.8%	0.8%	0.8%	1%	1%	1%	1.5%	2%
		(ii) section other than that specified in (i)	1%	1%	1%	1%	1%	1%	1%	2%
	Maximum transverse slope	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	2%	3%
Runway Strip	Length	The length obtained by extending the longer side of a runway by 60 meters towards both shorter sides								

Distance from the longitudinal centerline of the runway in the longitudinal direction to one of the longer side of a runway strip	For instrumental landing	Over 150 meters	Over 150 meters	Over 150 meters	Over 150 meters	Over 150 meters	Over 150 meters	Over 150 meters	Over 75 meters	Over 75 meters
	For non-instrumental landing	Over 75 meters	Over 75 meters	Over 75 meters	Over 75 meters	Over 60 meters	Over 60 meters	Over 30 meters	Over 30 meters	Over 30 meters
Maximum longitudinal slope of a section within the smallest area required for non-instrumental landing		1.5%	1.5%	1.75%	1.75%	2%	2%	2%	2%	2%
Maximum transverse slope	(i) a section within the smallest area required for non-instrumental landing	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	3%
	(ii) a section other than that specified in (i)	5%	5%	5%	5%	5%	5%	5%	5%	5%

T a x i w a y	Width	Over 23 meters	ov er 23 m et er s	ov er 23 m et er s	ov er 18 m et er s	ov er 18 m et er s	ov er 18 m et er s	ov er 18 m et er s	ov er 9 m et er s	ov er 6 m et er s
	Maximum longitudin al slope	1.5%	1. 5 %	1. 5 %	1. 5 %	3 %	3 %	3 %	3 %	3 %
	Maximum transverse slope	1.5%	1. 5 %	1. 5 %	1. 5 %	1. 5 %	1. 5 %	1. 5 %	1. 5 %	1. 5 %
	Clearance between a taxiway edge and a fixed obstacle	Over 39 meters	Ov er 39 m et er s	Ov er 30 m et er s	Ov er 30 m et er s	Ov er 26 m et er s	Ov er 26 m et er s	Ov er 26 m et er s	Ov er 16 m et er s	Ov er 16 m et er s

(iv) in the case of onshore airports and onshore heliports, runways, taxiways and aprons (each of them include foundation ground, the same applies in item (vii) and item (i) of Article 85) and underground structures that may affect the strength of the facilities must possess sufficient strength to withstand the estimated number of operations of aircraft.

(v) in the case of an onshore airport and onshore heliport, there must be a sufficient distance between the runway and taxiway and both of them must have proper angle and shape at each connection point in order to secure the safety of the aircraft that fly over the runway and taxiway.

(vi) in the case of an onshore airport and onshore heliport, each edge of the runway, taxiway and apron must be provided with a shoulder having an adequate width, strength and surface.

(vii) in the case of an onshore airport, the runway, landing strip and apron must have the following performance characteristics:

(a) runways

1. Damages caused by its own weight, earth pressure, earthquake motion [of the earthquake motion that is expectedly to occur on the planned facility site, which is limited to those likely to occur during the period in which the designs of facilities will be used (meaning the period determined as the period in which the design continues to satisfy the performance required for the facilities, the same applies hereinafter) of the facilities by considering the relationships between the return

period of earthquake motion and the period in which the designs of facilities will be used, the same applies hereinafter], water pressure, waves (of the waves that is expected to occur on the planned facility site, which is limited to those likely to occur during the period in which the design of the facilities will be used, the same applies hereinafter), etc. should neither impair the functions of the facilities nor affect their continuous use thereof.

2. A runway must have proper surface in consideration of natural conditions, usage status and various other conditions of the facilities.

(b) landing strip

1. Damages caused by its own weight, earth pressure, earthquake motion, water pressure, waves, etc. should neither impair the functions of the facilities nor affect their continuous use.
2. A landing strip has proper surface in consideration of natural conditions, usage status and various other conditions of the facilities.

(c) taxiway

1. Damages caused by its own weight, earth pressure, earthquake motion, water pressure, waves, etc. should neither impair the functions of the facilities nor affect their continuous use.
2. A taxiway must have proper surface in consideration of natural conditions, usage status and various other conditions of the facilities.

(d) apron

1. Damages caused by its own weight, earth pressure, earthquake motion, water pressure, waves, etc. should neither impair the functions of the facilities nor affect their continuous use.
2. An apron must have proper surface in consideration of natural conditions, usage status and various other conditions of the facilities.
3. In order for aircraft to be parked safely, an apron must have adequate surface area and proper shape.

(viii) in the case of onshore heliports, it must have a runway(s) and landing strip(s), and when a taxiway(s) is built, the taxiway must conform to the standards listed in the following table; provided, however, that this does not apply when there is a special reason.

Classification		Establishment Criteria
Runway and runway strip	Length	1.2 times of the length of the projected plane of aircraft that may avail the facilities
	Width	More than 1.2 times longer than the width of the projected plane of aircraft expected to be used

	Maximum longitudinal slope	2%
	Maximum transverse slope	2.5%
Taxiway	Width	More than two times longer than the width of landing gear of an aircraft expected to be operated
	Maximum longitudinal slope	3%
	Maximum transverse slope	3%
Clearance between taxiway edge and fixed obstacle		The length longer than the length obtained by subtracting the width of landing gear from the width of project plane of an aircraft expected to be operated

(ix) in the case of an onshore heliport and a water heliport, the departure route and approach route pertaining to the heliport must have the site conditions in which the helicopter can land safely without endangering people or objects on the land or water, when the the motor of a helicopter alone stops while flying.

(x) in the case of an onshore heliport to be built on a building structure, it must have the following ancillary facilities:

- (a) aircraft fallout prevention facility
- (b) fuel spill prevention facility

(xi) in the case of a water airport, it must have a landing strip, water area for circling approaches and waterway taxi conforming to the standards set forth in the following table, according to the class of landing strip:

Classes of Runway Strip		A	B	C	D	E
Runway Strip	Width	Over 255 meters	Over 255 meters	Over 255 meters	Over 255 meters	Over 255 meters
	For non-instrumental landing	Over 255 meters	Over 180 meters	Over 150 meters	Over 100 meters	Over 65 meters

Circling approach water area	Diameter	Over 510 meters	Over 360 meters	Over 300 meters		
Taxi waterway	Width	Over 120 meters	Over 105 meters	Over 90 meters	Over 75 meters	Over 40 meters

(xii) in the case of a water airport and a water heliport, the landing strip, water area for circling approaches and waterway taxi must have a sufficient depth at low tide, and the conditions of water surface are suited for the safe navigation of aircraft.

(xiii) in the case of a water heliport, it must have a landing strip and taxiing waterway conforming to the standards listed in the following table:

Classification		Establishment Criteria
Runway strip	Length	More than five times longer than the length of projected plane of an aircraft expected to be operated
	Width	More than three times longer than the width of projected plane of an aircraft expected to be operated
Width of taxi waterway		More than two times longer than the width of projected plane of an aircraft expected to be operated

(xiv) it must have the airport sign (according to the forms given in the appended table 5) according to the classification specified in the following table; provided, however, that it may be omitted in the case of an unpaved runway or taxiway on which it is difficult to build runway markings or taxiway markings.

Types of airport sign board	Particulars to be marked	Airport or runway that needs to be established	Place to install
Airport name signs	Name of airport, etc.	Airport, etc. (except those whose name can be identified by land features in the peripheral area)	Place that can readily be identified from aircraft in flight

Landing strip markings		Boundary line of a runway strip	Onshore heliport, water airport and water heliport (limited to the case where boundary of a runway strip is not clearly recognizable)	Longer side of a runway strip
Runway markings	Runway designation markings	Bearing of a runway observed from the approaching direction that is determined in the clockwise direction from the magnetic north and, in the case of a parallel runway, the order from the left side	Runway of an onshore airport	A location near the threshold of a runway
	Runway centerline markings	Runway centerline in the longitudinal direction		On the runway centerline in the longitudinal direction
	Runway threshold markings	Threshold of a runway	Runway for instrument landing of an aircraft at an onshore airport	A location 6 meters away from the threshold of the runway
	Runway midpoint markings	Runway centerline in the transverse direction	Runway of an onshore airport, etc. (except those on which runway distance marker lights are installed)	On the runway centerline in the transverse direction

Aiming point markings	Landing aiming point on a runway	A runway at an onshore airport over 1,200 meters and a runway for instrument landing shorter than 1,200 meters	A location more than 150 meters away from the threshold of runway
Touchdown zone markings	Landing touchdown zone on a runway	A runway at an onshore airport over 1,200 meters, and a runway for instrument landing over 900 meters and shorter than 1,200 meters for instrument approach and landing, and an onshore heliport	In the case of a runway of an onshore airport, a location between 922.5 meters to 150 meters from the threshold of a runway and in the case of an onshore heliport, the center of a runway
Runway side stripe markings	Boundary of a runway	Runway at an onshore airport, etc. (limited to runways for instrument approach and landing and other runways with indefinite boundaries)	Longer side of the runway
Snow-covered takeoff/landing area indicators	A zone of a snow-covered runway that can be used for take-off-and-landing	Runway of an onshore airport (limited to the case when boundaries are not clearly visible due to snow)	Longer side of the runway that can be used for take-off-and-landing
Overrun area markings	Overrun area	Onshore airport, etc.	Paved overrun area

Taxiway markings	Taxiway centerline markings	Longitudinal centerline of a taxiway and the paths to and from a runway	Onshore airport, etc.	On the longitudinal centerline of a taxiway and on the paths to and from a runway
	Runway holding position marking	A position where aircraft should make a temporary stop before entering a runway		A location on a taxiway that is 30 meters away from the longitudinal centerline of a runway
	Mandatory instruction markings	Particulars indicated by taxiing guidance signs (limited to those indicating a location where aircraft should make a temporary stop; hereinafter the same applies in this paragraph)	Onshore airport, etc. (limited to the case where taxiing guidance signs cannot be installed or the width of a taxiway exceeds 60 meters, except when no taxiing guidance signs need to be installed)	A location on the both sides of a taxiway centerline markings and in the holding area before the runway holding position marking, which is at least one meter away from each marking
	Taxiway side stripe markings	Boundary of a taxiway	Onshore airport, etc. (limited to the case where taxiway boundaries are indefinite)	Edge of the taxiway
Wind direction indicators		Wind direction	Airport, etc.	A location not affected by air disturbance due to neighboring objects and can be readily identified by an aircraft

(2) particulars necessary for performance verification of the runway, landing strip, taxiway, apron, and underground structures that may affect the strength thereof and for shoulders specified in items (iv) through (vii) of preceding paragraph are determined by the Minister of Land, Infrastructure, Transport and Tourism.

(3) Notwithstanding the provisions of paragraph (1), if the installation of

aerodrome sign does not conform to the standards prescribed in that paragraph because of temporary situation in construction work and other situation, the sign may be installed in a method different from the standards.

(Interested Persons)

Article 80 The interested person prescribed in paragraph (2) of Article 39 of the Act, (including as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 43 of the Act, paragraph (2) of Article 55-2 of the Act and paragraph (2) of Article 56-2 of the Act.) mean the person specified in the following items:

- (i) applicant for approval
- (ii) a person who holds the ownership, superficies right, farming rights, servitude, stone quarrying rights, pledge, mortgage, rights created by loan for use and lease of land or buildings which are located within the area of airport, etc., approach area or transitional surface, extended approach surface, conical surface or outer horizontal surface and other rights pertaining to land or buildings
- (iii) a person who holds mining rights, right to use hot springs, fishing rights or piscary, rights to utilize running water, sea water or other kinds of water within the areas referred to in the preceding item
- (iv) local government administering the areas referred to in item (ii)
- (v) a person who uses an airport, etc.

(Public Notice and Notification)

Article 81 (1) The Minister of Land, Infrastructure, Transport and Tourism must, when the minister intends to hold a public hearing under the provisions of paragraph (2) of Article 39 of the Act, (including as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 43 of the Act, paragraph (2) of Article 55-2 of the Act and paragraph (2) of Article 56-2 of the Act), issue a public notice in the official gazette including the details of the matter, date and time, venue, chairperson, application form of public statement, and where to submit the application, due date, and number of copies of public statement, no later than ten days before the public hearing.

(2) When a public hearing does not end within the day and time referred to in the preceding paragraph, it is sufficient for the chairperson to orally notify the date and time and venue of the subsequent public hearing, notwithstanding the provisions of the preceding paragraph.

(Appointment of Chairperson)

Article 81-2 A public hearing is chaired by a person who is appointed by the Minister of Land, Infrastructure, Transport and Tourism from among the

officials who are deemed to have no special interest in the topic.

(Application for Public Statement)

Article 81-3 (1) An interested person who intends to present a public statement must submit an application for public statement and a public statement to the Minister of Land, Infrastructure, Transport and Tourism by the due date specified in the public notice issued pursuant to the provisions of paragraph (1) of Article 81.

(2) An application for public statement must include the name, address, occupation age (in the case of a judicial person, its name and address, and the name, occupation and age of the person who gives public statement as a representative), and if the person is for or against the matter and particulars explaining the interest in the matter.

(3) A public statement must include the details of the statement that the interested person intends to make in a public hearing.

(4) The Minister of Land, Infrastructure, Transport and Tourism may, when the minister finds it necessary, request that the person who intends to make a statement in a public hearing as an interested person submit documents certifying the interest in the matter by specifying where to submit, due date and number of copies thereof.

(Selection of Speaker at Public Hearing)

Article 81-4 The Minister of Land, Infrastructure, Transport and Tourism may, when the minister finds the details of public statement are either beyond the scope of the matter or the like, select a speaker at the public hearing from among the interested persons who have applied for public statement.

(Commissioning Witness)

Article 81-5 The Minister of Land, Infrastructure, Transport and Tourism may, when the minister finds it necessary, have a person other than an interested person attend the public hearing and present their opinions or make a report.

(Cancellation of Holding of Public Hearing)

Article 81-6 The Minister of Land, Infrastructure, Transport and Tourism must, when the minister finds that it is no longer necessary to hold a public hearing after the date on which public notice was issued pursuant to the provisions of paragraph (1) of Article 81, promptly notify the known interested persons of the cancellation of the public hearing and concurrently issue a public notice by an appropriate means.

(Changes of Date and Time of Public Hearing)

Article 81-7 The Minister of Land, Infrastructure, Transport and Tourism may, when the minister finds it necessary to change the matters that have been publicly notified or announced pursuant to the provisions of Article 81 due to a natural disaster or any other emergency and inevitable situations, change the matters that have been publicly notified or announced by promptly notifying the known interested persons of the changes.

(Time Limitations for Making a Public Statement)

Article 81-8 The chairperson may, when the chairperson finds it necessary to keep the meeting in order, limit the time assigned to a speaker at the public hearing.

(Public Statement)

Article 81-9 The public statement by a speaker at a public hearing must be made according to the written public statement; provided, however, that this does not apply to the case when the speaker answers questions by the chairperson or the chairperson finds it particularly necessary and permits the speaker.

(Discontinuation of Public Statement)

Article 81-10 (1) The chairperson may, when the chairperson finds that a public statement by a speaker at a public hearing falls under any of the following items, have the speaker stop their public statement:

- (i) if a public statement is made beyond the time assigned by the chairperson pursuant to the provisions of Article 81-8.
- (ii) if a public statement overlaps the matters that have already been stated in the public hearing or it is beyond the scope of the matter.
- (iii) if a public statement violates the provisions of the preceding Article.

(2) The chairperson may, when a speaker at a public hearing fails to follow the instructions to stop under the provisions of the preceding paragraph, have the speaker leave the public hearing.

(Reading a Public Statement for Speaker)

Article 81-11 When a speaker at a public hearing is unable to attend the public hearing due to illness or any other inevitable situation, a public statement is to be made by another person who reads it for the speaker at the public hearing.

(Documentary Evidence)

Article 81-12 The chairperson may, when the chairperson finds it necessary, request a speaker at the public hearing to submit documents that certify the matters stated at public hearing by specifying where to submit, due date and number of copies thereof.

(Records of Public Statement)

Article 81-13 (1) Matters stated at a public hearing must be recorded by stenography or other means.

(2) The record referred to in the preceding paragraph, when it is requested by the public, must be made available for public inspection.

(Issuance of Tickets for Observers)

Article 81-14 The Minister of Land, Infrastructure, Transport and Tourism may, when the minister finds it necessary, issue tickets for observers and allow only the ticket holders to observe the public hearing.

(Rules to be Observed)

Article 81-15 (1) An observer must, when entering or leaving the venue of public hearing, follow the instructions given by the chairperson or the relevant official(s) appointed by the chairperson.

(2) The chairperson may have an observer who fails to follow the instructions under the preceding paragraph leave the public hearing.

(3) The provisions referred to in the preceding two paragraphs apply mutatis mutandis to a speaker at a public hearing when the speaker is not making a public statement.

(Request for Change of Scheduled Construction Completion Date)

Article 82 A person who intends to obtain the approval under the provisions of the main clause of paragraph (2) of Article 41 of the Act must submit a request for change of scheduled construction completion date providing the particulars set forth in the following items to the Minister of Land, Infrastructure, Transport and Tourism.

(i) name and address

(ii) name and location of the airport

(iii) scheduled completion date after it is changed

(iv) reasons for the change

(Valid Period Referred to in Proviso to Paragraph (2) of Article 41 of the Act)

Article 82-2 The valid period specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism set forth in the proviso to paragraph (2) of Article 41 of the Act is one year.

(Notice of Change of Scheduled Construction Completion Date)

Article 82-3 A person who intends to submit a notice of change of scheduled construction date pursuant to the provisions of paragraph (3) of Article 41 of

the Act is to submit a request for change of scheduled construction completion date including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
- (ii) name and location of the airport
- (iii) changed scheduled date
- (iv) reasons for the change

(Request for Construction Completion Inspection)

Article 83 (1) Pursuant to the provisions of paragraph (2) of Article 42 of the Act, a person who intends to request for construction completion inspection for an airport, etc., must submit a request for construction completion inspection for airport including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
- (ii) name and location of the airport
- (iii) construction completion date

(2) Provisions of the preceding paragraph apply mutatis mutandis to the request for construction completion inspection pertaining to the alteration of airport, etc., pursuant to the provisions of paragraph (1) of Article 42 of the Act as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 43 of the Act.

(Notice of Service Commencement Date)

Article 84 (1) Pursuant to the provisions of paragraph (3) of Article 42 of the Act, a person who intends to submit a notice of service commencement date of an airport, etc., must submit a notice of service commencement date of airport, etc. including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
- (ii) name and location of the airport, etc.
- (iii) service commencement date

(2) Provisions of the preceding paragraph apply mutatis mutandis to the notice of service recommencement date of airport, etc. that has been altered or whose services have been suspended pursuant to the provisions of paragraph (3) of Article 42 of the Act as applied mutatis mutandis pursuant to the provisions of paragraph (5) of Article 44 of the Act, as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 43 of the Act, paragraph (5) of Article 44 of the Act or paragraph (2) of Article 45 of the Act, respectively.

(Significant Changes and Alterations)

Article 85 Significant changes and alterations for which the applicant must obtain the permission under in the provisions of paragraph (1) of Article 43 of the Act depends on the categories of an airport as follows:

- (i) onshore airports and onshore heliports
 - (a) change in the location of reference point
 - (b) new construction of a runway, landing strip, taxiway or apron
 - (c) change in the length, width or strength of a runway or landing strip
 - (d) change in the width or strength of a taxiway
 - (e) extension of or change in the strength of an apron
- (ii) water airports and water heliports
 - (a) change of location of reference point
 - (b) new construction of landing strip, taxi waterway or water area for circling approaches
 - (c) change in the length, width or depth of a landing strip
 - (d) change in the width or depth of a taxiing waterway or change in the diameter or depth of the water area for circling approaches

(Application for Permission to Make Alterations)

Article 86 (1) A person intending to apply for permission to make alterations to an airport, etc. pursuant to the provisions of paragraph (2) of Article 38 of the Act as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 43 of the Act is to submit three copies of the written application for permission to make alterations to airport, etc., including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
 - (ii) name and location of the airport, etc.
 - (iii) particulars to be altered (documents and drawings comparing the old and new particulars must be attached.)
 - (iv) costs required to make alterations
 - (v) scheduled construction commencement and completion dates
 - (vi) if an administrative plan is changed, the administrative plan after the change
 - (vii) reasons for the alteration
- (2) The following documents and drawings must be attached to the written application referred to in the preceding paragraph:
- (i) documents describing the costs required for alterations and the methods for procuring land and objects
 - (ii) drawings and documents for construction design, specifications and construction budget statement
 - (iii) when an alterations is made to the airport site, etc., documents certifying whether the applicant has the ownership for the site pertaining to the

alteration or any other title to use the airport site, or the applicant is definitely able to acquire the title or ownership.

- (iv) if an applicant is a judicial person or partnership, documents certifying the decision made by the applicant on the alteration.

(Public Notice of Application for Permission to Make Alterations)

Article 87 (1) Particulars that must be announced to the public and posted pursuant to the provisions of paragraph (3) of Article 38 of the Act are as follows, as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 43 of the Act:

- (i) name and address of the applicant
 - (ii) name and location of the airport, etc.
 - (iii) particulars to be changed
 - (iv) if an alteration is made to approach surface, transition surface or horizontal surface, the approach surface, transition surface or horizontal surface after the alteration
- (2) The provisions of the preceding paragraph apply mutatis mutandis to the case where the Minister of Land, Infrastructure, Transport and Tourism makes alteration to facilities including an airport.

(Application for Permission to Suspend or Discontinue Services)

Article 88 (1) Pursuant to the provisions of paragraph (1) of Article 44 of the Act, a person intending to apply for permission to suspend or discontinue the provision of an airport, must submit an application for permission to suspend(discontinue) the provision of airport including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
 - (ii) name and location of the aerodrome
 - (iii) in the case of application for permission to suspend, the scheduled suspension commencement date and the period of suspension
 - (iv) in the case of application for permission to discontinue the provision, the scheduled provision discontinued date
 - (v) reasons for the suspension or discontinuation
- (2) If an applicant is a judicial person or partnership, the documents certifying the decision made by the applicant on the suspension or discontinuation must be attached to the written application referred to in the preceding paragraph.
- (3) The provisions of the preceding two paragraphs apply mutatis mutandis to a notice of suspension or discontinuation of a private airport. In this case, the terms a "person intending to apply for permission" and "application for permission" in paragraph (1) of this Article are deemed to be replaced with a "person intending to submit a notice" and the term "application" in the

preceding paragraph is deemed to be replaced with "notice".

(Request for Inspection of Airport Resuming its Provision)

Article 89 (1) A person intending to file a request for inspection of airport resuming its provision pursuant to the provisions of paragraph (4) of Article 44 of the Act (including as applied mutatis mutandis pursuant to the provisions of paragraph (2) Article 45 of the Act) is to submit a written application for inspection of airport resuming its provision including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

(i) name and address

(ii) name and location of the airport

(iii) scheduled provision recommencement date

(2) If an applicant is a judicial person or partnership, the documents certifying the decision made by the applicant on the recommencement of provision must be attached to the written application referred to in the preceding paragraph.

(Public Notice of Provision Commencement)

Article 90 (1) Pursuant to the provisions of Article 46 of the Act, the particulars that must be announced to the public when a notice of the provision commencement date of airport are as prescribed below:

(i) name and address of the establisher

(ii) name and location of the airport

(iii) provision commencement date

(2) The provisions of the preceding paragraph apply mutatis mutandis to the case where the Minister of Land, Infrastructure, Transport and Tourism establishes an airport.

(Public Notice of Change or Suspension)

Article 91 Pursuant to the provisions of Article 46 of the Act, the particulars that must be announced to the public if any change is made to the particulars about the airport that have been announced to the public or when the provision of airport is suspended, resumed or discontinued (including as apply mutatis mutandis pursuant to the provisions of Article 55, paragraph (2), item (ii) of the Act) are as follows, beyond what is set forth in items (i) and (ii) of paragraph (1) of the preceding Article:

(i) if any change is made to the particulars that have been publicly notified: the particulars that have been changed

(ii) in the case of a suspension, the scheduled commencement date for the suspension and the period for suspension

(iii) in the case of a resumption or discontinuation: the scheduled date

(Standards for Safety and Security)

Article 92 The standards for safety and security referred to in paragraph (1) of Article 47 of the Act (including as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 55-2) are as set forth below.

- (i) an airport must be maintained according to the standards prescribed in Article 79 (excluding those set forth in paragraph (1), item (ii)).
- (ii) The functions of facilities of an airport must be maintained by conducting inspections and cleaning.
- (iii) when conducting improvement work or any other construction work is to be implemented, the navigation of aircraft must be ensured by taking appropriate measures such as setting necessary signs.
- (iv) the prohibited acts prescribed in Article 53 of the Act must be displayed so that the public may recognize it easily.
- (v) signs, etc. to define the borders in the restricted area referred to in paragraph (3) of Article 53 of the Act must be built, and measures to prevent people or vehicles, etc., from entering there must be taken without good reason.
- (vi) fire-extinguishing facilities and rescue facilities required for fire on an aircraft and other accidents in an airport, etc., must be installed, and if an accident occurs, necessary measures must be taken immediately.
- (vii) when the situation that may prevent safe take-off and landing of an aircraft occurs, due to natural disaster or other causes, necessary measures to prevent critical situation, such as those for immediately suspending the provision of airport must be taken and the system to communicate with the Minister of Land, Infrastructure, Transport and Tourism required in these situations must be established.
- (viii) an airport must have facilities that may be used for communication with relevant administrative organs.
- (ix) an airport must keep a logbook for airport and record the following particulars and retain it for one year:
 - (a) status of facilities including an airport
 - (b) details of construction works implemented
 - (c) when a disaster or accident has occurred, the time, causes, situation, and countermeasures taken
 - (d) particulars communicated with relevant organs
 - (e) usage of an airport by aircraft
 - (f) other particulars required for administration of an airport
- (x) in the case of an airport, when the Minister of Land, Infrastructure, Transport and Tourism finds it necessary, the facilities required for meteorological observation must be installed, which are used by aircraft taking off and landing at the airport, and the meteorological observation

must be conducted.

- (xi) in the case of an airport, when the Minister of Land, Infrastructure, Transport and Tourism finds it necessary, a wireless telephone system for aeronautical communications must be installed, and information required for the navigation of aircraft while taking off and landing at the airport must be offered.
- (xii) in the case of an airport, a person engaged in business at the airport must take preventive measures against unlawful seizure of aircraft (meaning the measures for preventing unlawful seizure and destruction of aircraft; the same applies hereinafter).
- (xiii) in the case of an airport, a council composed of the airport establisher and relevant organs must be formed to have necessary consultations with the relevant organs on preventive measures against the acts of unlawful seizure of aircraft taken at the airport.
- (xiv) in the case of an airport, beyond what is set forth in the preceding items, necessary measures must be taken to ensure the safety of personnel engaged in aviation traffic and services provided at the airport.
- (xv) in the case of an airport, an airport guidebook including the following particulars accompanied by a measured drawings must be kept:
 - (a) name and address of the airport establisher
 - (b) name and location of an airport and location of a reference point
 - (c) airport site and the name and address of the site owner
 - (d) category of airport, class of landing strip, and the strength of a runway (for onshore airports, foundation ground is included) or the depth of a landing strip
 - (e) length of the approach area, slope of the approach surface, length of the radius of the approach surface or slope of the transition surface
 - (f) outline of facilities in the airport
 - (g) outline of air navigation facilities
 - (h) if there is any object that is higher than the approach surface, transition surface, or horizontal surface, or any object that is located extremely close to these surfaces, the following particulars
 1. Location and category of the object
 2. The height above the approach surface of the object, transition surface or horizontal surface or the degree of proximity to these surfaces
 - (i) documents describing the air temperature at the airport site or nearby place (the documents must be prepared based on the data collected for five years or more with the standards set forth by the Minister of Land, Infrastructure, Transport and Tourism.)
 - (j) specific method to administer in compliance with the standards prescribed in sub-item (a) to the preceding item

(Exceptions of limitation of objects)

Article 92-2 The objects prescribed in Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in the proviso to paragraph (1) of Article 49 of the Act (including as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 55-2 of the Act and paragraph (2) of Article 56-3 of the Act) are as follows.

- (i) temporary structures
- (ii) the lightning protection system that must be installed pursuant to the provisions of Article 33 of the Building Standards Act (Act No. 201 of 1950)
- (iii) objects that do not particularly hinder the safety of aircraft in flight in regard to terrain or in relation to existing objects

(Prohibited Acts)

Article 92-3 The important facilities in an airport referred to in paragraph (1) of Article 53 of the Act include landing strip taxiway, apron, hangar, airport signs and refueling facilities.

Article 92-4 The acts referred to in paragraph (2) of Article 53 of the Act, which are likely to cause a danger to flight operations include those set forth below:

- (i) throwing any objects at an aircraft
- (ii) leaving metallic pieces, cloth or any other objects on the landing strips, taxiways or aprons
- (iii) using fire without good reason on landing strips, taxiways, aprons, hangar floors, and at places where the fire prohibited sign according to the form (d) referred to in item (xxviii) are displayed by the Minister of Land, Infrastructure, Transport and Tourism or the aerodrome establisher.

(Notification of Airport Charges)

Article 93 (1) Pursuant to the provisions of paragraph (1) of Article 54 of the Act, a person intending to submit a notice of determined airport charges or a notice of change thereof must submit a written notice of determined airport charges and (change of airport charges) including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
- (ii) name and location of the aerodrome
- (iii) the category and amount of airport charges to be determined or changed (in the case of a notice of change, the comparison between the old and new must be specified).
- (iv) scheduled implementation date
- (v) in the case of a notice of change, reasons for the change

- (2) The written notice prescribed in the preceding paragraph must be accompanied by documents describing the basis for calculating the airport charges.

(Administrative Rules)

Article 93-2 (1) An airport establisher must set forth an administrative rules on the matters specified below:

- (i) operating hours at an airport
 - (ii) if a method for using a runway or a taxiway by an aircraft is to be specified, the relevant method.
 - (iii) when the places for boarding or disembarking an aircraft, cargo loading or unloading, refueling, places for aircraft maintenance or inspections, or methods and place to park aircraft are to be specified, the places and methods.
 - (iv) particulars regarding airport charges of which notice referred to in paragraph (i) of Article 54 of the Act has been submitted and their collection and refunding.
 - (v) if the airport establisher intends to restrict persons from entering the airport, the method for restricting entry.
 - (vi) if the airport establisher intends to restrict acts, the restricted acts
 - (vii) other particulars required as requirements for providing airport facilities
- (2) The provisions of the preceding paragraph apply mutatis mutandis to the case where the Minister of Land, Infrastructure, Transport and Tourism establishes an airport.

(Request for Approval for Successor in Title of the Airport Establisher)

Article 94 (1) A person intending to obtain approval for the successor in title of the airport establisher, etc. must submit a written application for approval for successor in title of airport establisher including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address of the successor
 - (ii) name and address of the inheritee
 - (iii) name and location of the airport, etc.
 - (iv) requirements to be a successor
 - (v) date on which the requestor intends to succeed the airport
 - (vi) reason why the person needs to succeed the airport
- (2) The following documents must be attached to the written request prescribed in the preceding paragraph:
- (i) documents certifying the requirements for successor
 - (ii) In the case of a local public entity, documents certifying the decisions made on the succession

- (iii) In the case of a judicial person other than local governments, the following documents:
 - (a) article of incorporation or articles of endowment and certificate of registered information
 - (b) balance sheet for the latest business fiscal year
 - (c) name list and personal history of officers or members
 - (d) documents certifying the decision made on the succession
 - (e) documents providing other particulars for reference
- (iv) in the case of a partnership having no legal personality, the following documents:
 - (a) copy of partnership agreement
 - (b) inventory of the assets of partners
 - (c) name list and personal history of partners
 - (d) documents providing other particulars for reference
- (v) for an individual, the following documents:
 - (a) inventory of assets
 - (b) extract copy of family register
 - (c) personal history
 - (d) documents providing other particulars for reference

(Notice of Successor in Title of Airport Establisher due to Succession)

Article 95 (1) A heir intending to submit a notice of successor in title of the airport establisher, etc., under the provision of paragraph (4) of Article 55 of the Act is to submit a notice of successor in title of airport establisher providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address of notifier and the relationship between the heir and the decedent
 - (ii) name and address of the decedent
 - (iii) name and location of the airport, etc.
 - (iv) commencement date for inheritance
- (2) The following documents must be attached to the written notice prescribed in the preceding paragraph:
- (i) documents certifying the relationships between the notifier and the decedent
 - (ii) if there are any heir(s) other than the notifier, documents describing the name and address of that person(s) and a written consent of the relevant person(s)

(Conical Surface)

Article 96 The gradient and length of the radius under the provisions of

paragraph (3) of Article 56 of the Act are as specified below:

(i) an airport used for aircraft landing using the instrumental landing system or aircraft landing using the precision approach radar

(a) gradient: 1/50th

(b) length of radius: 16,500 meters

(ii) in the case of onshore airports, etc. other than those prescribed in the preceding item, gradient and length of radius depend on the class of landing strip as prescribed in the following table (in the case of an airport having two or more landing strips, the longest landing strip):

Classes of landing strip	Gradient	Length of radius
A	1/40th	10,000 meters
B	1/40th	8,000 meters
C and D	1/40th	6,000 meters
E	1/30th	6,000 meters
F	1/20th	4,000 meters

(Outer Horizontal Surface)

Article 96-2 Length of the radius under the provisions of paragraph (4) of Article 56 of the Act is 24,000 meters.

(Public Notice of Specifications for Extended Approach Surface)

Article 96-3 Particulars that must be publicly notified and posted pursuant to the provisions of paragraph (3) of Article 38 of the Act as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 56-2 of the Act are as prescribed below:

(i) name and location of the airport

(ii) extended approach surface, conical surface or outer horizontal surface that are to be specified or altered

(Public Notice of Designated Public Facilities)

Article 96-4 Particulars to be publicly notified pursuant to the provisions of paragraph (2) of Article 56-4 of the Act are as prescribed below:

(i) name and location of facilities and outline of installations

(ii) commencement date to provide facilities

(iii) requirements to use facilities

Section 2 Radio Navigation Aids

(Categories of Radio Navigation Aids)

Article 97 The categories of radio navigation aids prescribed in item (i) of Article 1 are as specified below:

- (i) non-directional (radio) beacon (meaning a non-directional radio beacon; the same applies hereinafter)
- (ii) directional radio range beacon
- (iii) z-marker beacon
- (iv) VOR (meaning a VHF omni-directional radio range; the same applies hereinafter)
- (v) TACAN (tactical air navigation system)
- (vi) ILS (meaning the instrument landing system; the same applies hereinafter)
- (vii) DME (meaning a distance measuring equipment; the same applies hereinafter)
- (viii) LORAN A (meaning long-range navigation A; the same applies hereinafter)
- (ix) SBAS (meaning the satellite-based augmentation system; the same applies hereinafter)

(Application for Permission to Establish Aeronautical Radio Navigation Aids)
 Article 98 (1) Pursuant to the provisions of paragraph (2) of Article 38 of the Act, a person intending to apply for permission to establish radio navigation aids, must submit three copies of applications for permission to establish radio navigation aids providing the particulars prescribed below, to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
 - (ii) purpose of establishment
 - (iii) categories and names of radio navigation aids
 - (iv) locations and addresses of radio navigation aids
 - (v) name and address of owner of the site in which the radio navigation aids will be built
 - (vi) outline of facilities (if the facilities indicate course directions, at least its direction, rated output of and frequencies assigned to a transmitter must be provided)
 - (vii) management plan (preferred operating hours must be provided.)
 - (viii) estimated costs for the establishment and management
 - (ix) scheduled construction commencement and completion dates
- (2) The provisions of paragraph (2) of Article 76 (excluding those pertaining to the provisions of item (i) (b) and items (iv) through (vi)) apply mutatis mutandis to the application referred to in the preceding paragraph.

(Standards for Establishing Aeronautical Radio Navigation Aids)
 Article 99 (1) The establishment standards, such as location and structure of the radio navigation aids prescribed in paragraph (1) of Article 39 of this Act

(including as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 43) are as prescribed below:

- (i) aids must be installed in ways that do not impair the functions of existing radio navigation aids.
- (ii) aids must be installed in a place where the functions of radio navigation aids are least affected by land features, and concurrently, in ways that the functions thereof are not impaired by building structures, plants and other objects.
- (iii) in the case of an NDB, it must have the following performance characteristics and structure:
 - (a) the horizontal radiation characteristics of a radio wave must be non-directional if possible and its polarized wave must be a vertically polarized wave, which do not include a horizontally polarized wave as much as possible.
 - (b) it must emit a carrier wave that is amplitude-modulated at an audible frequency.
 - (c) NDB in which a modulated audible frequency is key-operated in order to transmit an identifier code.
 - (d) the modulated frequency must be 1,020 Hz and its deviation does not exceed 50 Hz.
 - (e) it must transmit the identifier code at a speed of seven words per minute, and two consecutive times every 30 seconds (in the case of an NDB specified by the Minister of Land, Infrastructure, Transport and Tourism, which is used for aircraft approach or holding, eight times or more per minute).
 - (f) it must have radiation characteristics that during the transmitting an identifier code, it can definitely identify the code within a range not exceeding a rated effective coverage (meaning a distance in which the vertical electric intensity of a radiated radio wave reaches 70 microvolts per meter during daytime; hereafter the same applies to NDB)
 - (g) the carrier power does not change its value whenever possible when an identification code is sent.
 - (h) the rated effective coverage does not decrease to less than 90% of its value due to variation of antenna constant or power supply voltage.
 - (i) The modulation of a superfluous audible frequency must be controlled in ways that the amplitude of an audible frequency does not exceed 5% of that of the carrier wave.
 - (j) The configuration of a transmitting antenna system must be the one that may minimize the loss of its each part and the magnitude of standing wave generated in the feeder cable must be as low as possible.
 - (k) The antenna system must not generate a space wave that causes damages

- to the functions of the radio navigation aids.
- (l) two pairs of transmitting equipment must be provided so that they can be used any time alternately.
 - (m) a dummy antenna system must be provided.
 - (n) a backup private electric generator must be provided.
 - (o) a monitor equipment that can determine whether or not a transmission of identification code is properly performed must be provided.
- (iv) in the case of a directional radio range beacon, it must have the performance characteristics and structures prescribed below:
- (a) it must radiates non-directional non-radio wave into space and concurrently radiates directional A-A radio wave that is key-operated by using a Morse code for the letter A and the other pair with the letter N alternately; provided, however, that the carrier frequency for directional radio waves must be 1,020 Hz higher than those for non-directional radio waves and its deviation must not exceed 50 Hz.
 - (b) in the direction including true north, the N signal must be transmitted; provided, however, that when a course bearing north, the N signal must be transmitted in the north-west direction.
 - (c) the A signal must be transmitted following the N signal respectively.
 - (d) twelve N signals and twelve A signals must be transmitted following an identification code, respectively.
 - (e) an identification code must be transmitted at a speed of seven words per minute, and must be repeated for two consecutive times every 30 seconds.
 - (f) it must have radiation characteristics that during transmitting an identification code, it can definitely identify the code within a range not exceeding a rated effective coverage (meaning a distance in which vertical electric intensity of non-directional radio waves radiated on the route from the relevant facility becomes 70 microvolts per meter during daytime; hereinafter the same applies to a directional radio beacon facility).
 - (g) the intensity ratio of vertical electric field of the directional radio waves and non-directional radio waves on a course must be 30% or more and not exceeding 95%.
 - (h) a course in which continuous sounds may be heard perfectly when those were received, and its width must be approximately 3 degrees.
 - (i) the variation of a course must not exceed the allowable deviations specified below:
 1. if a course is oriented in the direction of the centerline of a runway, it must be zero degree.
 2. if a course is oriented in the direction of an airport, etc., it must be 1 degree 30 minutes.
 3. in the case a course other than that specified in 1 and 2, it must be 3

- degrees.
- (j) it does not create a false course if at all possible.
 - (k) In order to confirm that an aircraft has passed over a directional radio range beacon, a silent zone exists over the center of the facility, and it has a range from 1.5 seconds or more if it takes an aircraft flying at an altitude of 300 meters and at a speed of 250 kilometers per hour, to 5 seconds or more when it is flying at an altitude of 1.5 kilometers and at a speed of 250 kilometers per hour.
 - (l) a rated effective coverage must not decrease less than 90% due to the variation of antenna constant or power supply voltage.
 - (m) the modulation of a superfluous audible frequency must be controlled in ways that the amplitude of an audible frequency does not exceed 5% of that of the carrier wave.
 - (n) radiated radio waves must not contain key clicking noise whenever possible.
 - (o) The configuration of an antenna system must be such that in the case of radiating a directional radio wave, the variation of its antenna constant and the loss in its feeder cable are minimum possible, and, the phase and amplitude of a pair of antenna due to variation of antenna constant will remain unchanged to the highest possible extent, and also, in the case of that radiating a non-directional radio wave, the loss of each section will be minimized, and additionally, the standing wave generated in the feeder cable is suppressed to a minimum.
 - (p) two pairs of transmitter equipments must be provided so that they can be used any time alternately.
 - (q) a dummy antenna must be provided.
 - (r) a backup private power generator must be provided.
 - (s) a monitoring equipment that can determine if an identification code is transmitted or not and if a course is appropriate or not must be installed at a places on a course which is located single wavelength away from the facility in ways that it can be checked within the facility at any time during operation hours.
 - (v) a Z marker beacon must have the performance characteristics and structures prescribed below:
 - (a) it must continuously emits a reverse conical, vertically directional radio waves that are amplitude-modulated with an audible frequency.
 - (b) a transmitting equipment must only emit a radio wave at a frequency of 75 MHz.
 - (c) a radio wave must be a horizontal polarized wave which does not contain vertical polarized wave whenever possible.
 - (d) the axis of radial electric field profile must be vertical whenever possible.

- (e) the electric field intensity must be symmetric about the axis of the radial electric field profile whenever possible.
- (f) the radial electric field must be free from any region with no reception.
- (g) the coverage of horizontal radiation must be designed so that, when an aircraft equipped with a Z marker beacon receiver passes a radial electric field, the lighting time of indication light of the receiver is from 10 to 15 seconds in the case of an aircraft cruising at an altitude of 300 meters and a speed of 250 kilometers per hours or from 18 to 24 seconds at an altitude of 1.5 kilometers and a speed of 250 kilometers per hour.
- (h) the configuration of a transmitting antenna system may reduce the loss of each part of it and the magnitude of standing wave generated in the feeder cable is as low as possible.
- (i) two pairs of transmitting equipments must be provided so that they can be used any time alternately.
- (j) a dummy antenna must be provided.
- (k) a backup private power generator must be provided.
- (vi) a VOR must have the following performance characteristics and structures:
 - (a) it must, in order to provide an aircraft during flight with a magnetic bearing using the relevant facility as reference, be designed to emit radio waves carrying reference phase signals (meaning a signal of a uniform intensity in all magnetic bearings; the same applies hereinafter), variable phase signals (meaning signals whose phase constitutes a phase difference, in combination with a reference phase signal, and the difference corresponds to a magnetic bearing; the same applies hereinafter) and identification signals.
 - (b) radio waves must be horizontal polarization waves which do not contain vertical polarization waves whenever possible.
 - (c) main carrier waves must be amplitude-modulated with the modulation waves specified below:
 1. a subcarrier that is frequency-modulated with a reference phase signal (in the case of a Doppler VOR, variable phase signal).
 2. a variable phase signal (in the case of a Doppler VOR, a reference phase signal)
 3. an identification signal
 - (d) the frequency of a reference phase signal and a variable phase signal must be 30 Hz and its deviation must not exceed 1%.
 - (e) the degree of modulation of amplitude-modulation with a subcarrier and that with variable phase signal (in the case of a Doppler VOR, a reference phase signal) must, in a space of an attack angle of 5 degree or less from the center of an antenna part, be 30% and its deviation must not exceed 2%.
 - (f) the frequency of a subcarrier must be 9,960 Hz and its deviation must not

- exceed 1%.
- (g) the modulation index of the frequency-modulation with a reference phase signal (in the case of a Doppler VOR, variable phase signal) must be 15 or more but less than 17.
 - (h) a subcarrier must not be amplitude-modulated exceeding the degree of modulation specified below:
 - 1. in the case of a standard VOR, the degree of modification must be 5%.
 - 2. in the case of a Doppler VOR, it must be 40% at a location 300 meters away from the center of antenna part.
 - (i) the difference of a magnetic bearing provided by the facility must not exceed 2 degrees at a point approximately 4 times further than the wavelength of the main carrier from the center of antenna part (in the case of a Doppler VOR, approximately 18 times) and at a point in a space with an attack angle of 40 degrees or less from the center.
 - (j) the modulation frequency must be 1,020 Hz and its deviation must not exceed 50 Hz.
 - (k) the degree of modulation of amplitude modulation with an identification signal must not exceed 10% and close to 10% whenever possible.
 - (l) it must transmit an identification code composed of three international Morse code at a speed of seven words per minute, for more than three times in 30 seconds.
 - (m) two pairs of transmitting equipment must be provided so that they can be used any time alternately.
 - (n) a dummy antenna must be provided.
 - (o) a private electric power generator must be provided.
 - (p) a monitor equipment must be installed at a location approximately 4 times further than the wavelength of main carrier from the center of an antenna part (in the case of Doppler VOR, approximately 18 times) .
 - (q) the monitor equipment must, when any of the following situations occurs, be capable of promptly informing the control station of the relevant situation, capable of switching to a backup transmitting equipment, and also when the situation remains unchanged even after the backup transmitting equipment has been activated, must be capable of disconnecting the transmission of radio waves from a VOR.
 - 1. when the magnetic bearing provided by a VOR varies more than 1 degree from the predetermined bearing
 - 2. when the degree of modulation of amplitude modulation by a subcarrier or the degree of modulation of amplitude modulation by a variable phase signal (in the case of a Doppler VOR, a reference phase signal) decreases by 15% of the predetermined degree of modulation
 - 3. when the monitoring function of a monitoring equipment is out of order

- (vii) in the case of a TACAN (tactical air navigation system), it must have the performance characteristics and structures specified below:
- (a) it must have functions that, in order to provide an aircraft during flight with a magnetic bearing using the facility as a reference point, emit a main reference bearing signal (meaning a signal simultaneously emitted in all magnetic directions which is used for the rough measurement; the same applies hereinafter), auxiliary reference bearing signal (meaning a signal simultaneously emitted in all directions which is used for the precision measurement of a bearing; the same applies hereinafter), main variable bearing signal (meaning a signal having a phase that varies with magnetic bearing which is used for the rough measurement of a bearing; the same applies hereinafter), and auxiliary variable bearing signal (meaning a signal having a phase that varies with magnetic bearing which is used for the precision measurement of a bearing; the same applies hereinafter), and in order to provide the aircraft with the distance from the facility, emit a response signal to a query signal emitted from an on-board TACAN system or DME antenna, and also emit an aircraft identification signal.
 - (b) the main reference bearing signal, auxiliary reference bearing signal, response signal, aircraft identification signal, and random pulse pairs must be a radio wave of a pulse pairs.
 - (c) pulses must conform to the requirements specified below:
 1. A pulse rise time (meaning a time required for the amplitude of a pulse to rise from 10% of its maximum amplitude at its leading edge to 90% of the amplitude) and a pulse fall time (meaning a time required for the amplitude of a pulse to fall from 90% of its maximum amplitude at its trailing edge to 10% of the amplitude) must be 2.5 microseconds whenever possible and must not exceed 3 microseconds.
 2. A pulse width (meaning a time required for the amplitude of a pulse to rise from 50% of its maximum amplitude in the leading edge to 50% of its maximum amplitude in the trailing edge) must be 3 microseconds or more and less than 4 microseconds.
 3. The amplitude of a pulse, during the time when it rises from 95% of its maximum amplitude at the leading edge to 95% of the trailing edge, must be 95% or more at its maximum amplitude.
 - (d) A pulse interval (meaning a time required for a pulse pair to rise from 50% of its maximum amplitude at the leading edge of first pulse to 50% of its maximum amplitude at the leading edge of second pulse: the same applies hereinafter) must be 12 microseconds in channel X or 30 microseconds in channel Y, and, the deviation must not exceed 0.25 microseconds.
 - (e) The difference in peak power between the first and the second pulse must

- be less than 1 dB.
- (f) the main reference bearing signal, auxiliary reference bearing signal, response signal, aircraft identification signal, and random pulse pair must be those amplitude-modulated with the main variable bearing signal and auxiliary variable bearing signal.
 - (g) the frequency of a main variable bearing signal must be 15 Hz and its deviation must not exceed 0.23%.
 - (h) the frequency of an auxiliary variable bearing signal must be 35 Hz and its deviation must not exceed 0.23%.
 - (i) the degree of modulation of a main variable bearing signal and of an auxiliary bearing signal must be more than 12% and less than 30%.
 - (j) the higher harmonics included in a main variable bearing signal and of an auxiliary variable bearing signal must not exceed 20%.
 - (k) when the amplitude of a main variable bearing signal is maximum, the amplitude of an auxiliary bearing signal must be maximum.
 - (l) the number of pulse pairs constituting a main reference bearing signal must be more than 11 and less than 13.
 - (m) the pulse pair interval of a main bearing signal (meaning a time required for adjacent pulse pairs, from the amplitude reaches 50% of its maximum at the leading edge of the second pulse of the former pulse pair to 50% of its maximum at the leading edge of the second pulse of the latter pulse pair; the same applies hereinafter) must be 30 microseconds, and, its deviation must not exceed 0.3 microseconds.
 - (n) the number of pulse pairs constituting an auxiliary reference bearing signal must be 6 or 7.
 - (o) the pulse pair interval of an auxiliary reference bearing signal must be 24 microseconds, and, its deviation must not exceed 0.3 microseconds.
 - (p) a main reference bearing signal must be emitted when the amplitude of a main variable bearing signal becomes maximum in the magnetic direction using the facility as a reference point in the direction at 90 degrees.
 - (q) an auxiliary reference bearing signal must be emitted when the amplitude of an auxiliary variable bearing signal becomes maximum in the magnetic direction using the facility as a reference point in the direction at 90 degrees (except when the amplitude of the main variable bearing signal becomes maximum in the relevant direction).
 - (r) the difference of the magnetic direction provided by the facility must not exceed 1.5 degrees.
 - (s) the delay in response time (meaning a time from the second pulse of a query signal is received to the second pulse of a query signal in response to the query signal is transmitted; hereafter the same applies in this item and item (ix)) must be 50 microseconds, and, its deviation must not exceed

- 1 microsecond; provided, however, that this does not apply to TACAN that consists part of ILS.
- (t) the total number of transmissions of response signal pulse pairs and that of random pulse pairs must be 2,700 per second, and, its deviation must not exceed 90 per second.
 - (u) the response signal must not be transmitted while reference bearing signals, auxiliary bearing signals or aircraft identification signal are transmitted.
 - (v) the random pulse pair must not be transmitted while reference bearing signals, auxiliary bearing signals, response signals or aircraft identification signals are transmitted.
 - (w) the aircraft identification signal must be composed of a pulse pair having a pulse pair interval of more than 90 microseconds and less than 110 microseconds.
 - (x) The number of transmissions of aircraft identification signal pulse pair must be 2,700 per second and its deviation must not exceed 20 per second.
 - (y) the intervals between pulse pairs, both of which constitute an aircraft identification signal, must be as equal as possible.
 - (z) an aircraft identification code composed of three letters of international Morse code must be transmitted at a speed of seven words per minute, at an interval of 30 seconds.
 - (aa) the time to transmit an aircraft identification code must not exceed 5 seconds each time.
 - (bb) the identification signal must not be transmitted when reference bearing signals or auxiliary bearing signals are transmitted.
 - (cc) the aircraft identification code of TACAN that is used in combination with VOR or ILS must be transmitted during a period obtained by dividing 30 seconds into 4 or more periods, and the identification code of VOR or ILS that is used in combination with the TACAN must be transmitted during a period other than the periods in which the identification code of the TACAN is transmitted.
 - (dd) the maximum sensitivity of a receiving equipment (meaning the sensitivity of the central frequency (meaning the peak power of the query signal when the response ratio to the query signal reaches 70%; hereafter the same applies in this item and item (ix)); hereafter the same applies in this item and item (ix)) must be less than minus 125 dB using 1 Watt as a reference while receiving a query signal of 200 pulse pairs per second.
 - (ee) the maximum sensitivity of a receiving equipment must not vary more than 1 dB when the number of transmissions of response signal pulse pair are less than 90% of its maximum number.
 - (ff) the sensitivity of a receiving equipment at a frequency 100 kHz deviated

- from the central frequency must be within 3 dB from the maximum sensitivity.
- (gg) the receiving equipment must not have response rate 70% or over to a query signal whose frequency deviates 900 kHz from the central frequency and whose peak power is less than the electric power to which 80 dB was added to the maximum sensitivity.
 - (hh) the sensitivity of the receiving equipment must, when 8 microseconds have elapsed since the first pulse of a query signal whose peak power had been less than the electric power to which 60 dB had been added to the maximum sensitivity, must be recovered to a range within 3 dB from the maximum sensitivity.
 - (ii) the spurious response of a receiving equipment must be 80 dB or more in the case of intermediate frequency response or 75 dB or more in the case of image frequency response or other spurious responses.
 - (jj) the reception downtime of a receiving equipment must be the time from the query signal is received to the response signal is transmitted and intervals less than 60 microseconds after a response signal is submitted (or 150 seconds if the influence of reflective waves that may be generated by topographical conditions must be avoided).
 - (kk) the decoder of a receiving equipment must not function in response to any pulse pair other than the pulse pair of a query signal.
 - (ll) the decoder of a receiving equipment must function without fail in response to the pulse pair of a query signal even if another pulse is added before or after the pulse pair or in between them.
 - (mm) the antenna system must transmits and receives the radio wave of a vertical polarized wave.
 - (nn) the TACAN antenna used in combination with VOR must be installed on a vertical line including the center of VOR antenna; provided, however, that if it is difficult to do so, in the case of TACAN which is used mainly for approach and stand-by of aircraft, the antennal must be installed at a location not exceeding 30 meters (80 meters if the VOR is of a Doppler VOR) from the center of VOR antenna part, or in the case of other types of TACAN, at a location not exceeding 600 meters from the center of VOR antenna part.
 - (oo) two pairs of transceivers must be provided so that they can be used alternately any time.
 - (pp) a dummy antenna must be provided.
 - (qq) a backup private electric power generator must be provided.
 - (rr) a monitoring system must be provided.
 - (ss) the monitoring system must, when any of the situations continues for more than 4 seconds, be capable of promptly informing the control station

of the situation, capable of switching to a backup transceiver, and also, when the situation remains unchanged even after the backup transceiver is activated, must be capable of disconnecting the transmission of radio wave from a TACAN.

1. When the magnetic direction provided by a TACAN varies more than 1 degree from the predetermined bearing
 2. When the delay in response time to the query signal, of which peak power represents the maximum sensitivity of a receiving system to which 6 dB was added, ceases to conform to the standards referred to in subitem (s)
 3. when the power of an antenna drops below 50%
 4. When the monitoring function of a monitoring equipment is in failure
- (tt) the number of pulse pairs transmitted by a monitoring system does not exceed 120 per second.

(viii) in the case of an ILS, it must have the performance characteristics and structures specified below:

(a) An ILS must be composed of the systems specified below; provided, however, that when a TACAN or DME is installed, the installation of either one or both of the marker beacon systems specified in sub-sub-item 3., a and b may be omitted.

1. localizer
2. glide slope
3. marker beacon systems listed below:
 - a. outer marker
 - b. middle marker
 - c. inner marker (only when it is required.)

(b) the localizer must have the performance characteristics and structures specified below:

1. In order to provide an aircraft performing a precision approach along an ILS course with the deviation value in the horizontal direction from the course using the difference in degrees of modulation between two modulation waves, the system must transmits a radio wave that carries these modulation waves and an aircraft identification signal.
2. It must transmits a carrier that is amplitude-modulated with a wave modulated at 90 Hz, a wave modulated at 150 Hz and an aircraft identification signal.
3. The composite electric field must be such that, on the right side of the course line (meaning a virtual straight line obtained by taking the average of selected loci that are closest to the runway centerline or its extended line among the loci of points of which DDM (one-hundredth of absolute value of difference in the degree of modulation between two modulation waves; the same applies hereinafter) based on the horizontal polarized

wave on an arbitrary horizontal plane of a radio wave emitted by localizer; the same applies hereinafter) which is viewed from the direction in which an aircraft approaches using the ILS, the degree of modulation of a modulated wave that is modulated with a modulation wave of 150 Hz is greater than that of 90 Hz, while on the left side of the course line, the degree of modulation of a modulated wave that is modulated with a modulation wave of 90 Hz is greater than that of 150 Hz.

4. The radio wave must not be a horizontal polarized wave, which does not contain the horizontal polarize wave exceeding the following values:

a. in the case of a localizer of ILS under Category I (meaning an ILS of which the minimum height for an aircraft to perform a precision approach by using the ILS is more than 60 meters above the horizontal plane including the approach end of runway; hereinafter the same applies in this Article (which refers to the end of a runway on the landing side for the aircraft using said ILS; hereinafter the same applies in this Article); the same applies hereinafter), the value at which the DDM-equivalent value indicated by the receiver of a localizer on board of an aircraft that is on a course line and transversely inclined by 20 degrees against the horizontal line reaches 0.016.

b. in the case of a localizer of ILS under Category II (meaning an ILS of which the minimum height for an aircraft to perform a precision approach by using the ILS is more 30 than 60 meters and less than 30 meters above the horizontal plane including the approach end of runway; the same applies hereinafter), the value at which the DDM-equivalent value indicated by the receiver of a localizer on board of an aircraft that is on a course line and transversely inclined by 20 degrees against the horizontal line becomes 0.008.

c. in the case of a localizer of ILS under Category III (meaning an ILS on which the minimum height for an aircraft to perform a precision approach by using the ILS is less than 30 meters above the horizontal plane including the approach end of runway; the same applies hereinafter), the value at which the DDM-equivalent value indicated by the receiver of a localizer on board of an aircraft that is on a course line and transversely inclined by 20 degrees against the horizontal line becomes 0.005 within a range where the value of DDM based on a horizontal polarized wave remains within 0.02 or less.

5. In the case of a localizer of ILS under Category III, the range of variation of a course line must not exceed 0.005 in terms of DDM-equivalent value within a frequency band from 0.01 Hz to 10 Hz.

6. The horizontal electric field intensity of a radio wave transmitted from a localizer must be more than 40 microvolts per meter within the rated

effective coverage indicated in the following figure:

Horizontal projection (omitted)

Vertical projection (omitted)

Remarks

- (i) a rated effective coverage are as marked with diagonal lines.
- (ii) if it is inevitable due to terrain or it does not affect aircraft operation, the distance from C to A must be 33.3 kilometers and that from C to B must be 18.5 kilometers.
- (iii) point C must be the axis of the localizer antenna
- (iv) P1 is a point vertically above A, while P2 is a point vertically above B, whichever is higher at a point 600 meters away from the horizontal plane including the approach end of the runway or 300 away from the highest ground surface within the intermediate approach airspace and final approach airspace.
- (v) point E must be the approach end of runway.

7. it must meet the standards prescribed in 6, and, the horizontal electric field intensity of a radio wave transmitted from a localizer must meet the following standards:

a. in the case of a localizer of ILS under Category I, the horizontal electric field intensity must be more than 90 microvolts per meter at a point in a course sector (meaning a fan-shaped area with a DDM value of 0.155 or less of a horizontal plane including a course line; the same applies hereinafter), within a distance of 18.5 kilometers from the axis of the antenna, and at a height of 60 meters or more from a horizontal plane including an approach end of the runway.

b. in the case of a localizer of ILS under Category II, it must emit more than the following microvolts:

1) 100 microvolts per meter at a point in a course sector which is 18.5 kilometers away from the axis of the antenna

2) 200 microvolts per meter at a point in a course sector at a height of 15 meters from a horizontal plane including an approach end of the runway

c. in the case of a localizer of ILS under Category III, it must emit more than the following microvolts:

1) 100 microvolts per meter at a point in a course sector which is 18.5 kilometers away from the axis of the antenna

2) 200 microvolts per meter at a point in a course sector at a height of 6 meters from a horizontal plane including an approach end of the runway

3) 100 microvolts per meter at a point on a glide path (meaning a virtual straight line obtained by taking the average of selected loci that are closest to the runway centerline or its extended line among the loci of points of which DDM based on the horizontal polarization wave of a radio wave

transmitted by a glide slope on a vertical plane including a runway; the same applies hereinafter) and a point on a straight line connecting a point at a height of 6 meters above the horizontal plane including the approach end of a runway and a point vertically 4 meters above a touch-down point (meaning a point 300 meters above the runway centerline from the approach end of a runway to the end of a runway (meaning the end of a runway opposite to the approach end of a runway; the same applies in this Article); the same applies in this Article), and a point vertically 4 meters above a point on the runway centerline from the touch-down point to the center point of runway end.

8. In the case of a localizer transmitting two carrier waves, most of the electric field of one of the carrier waves must be generated within the electric field of the other carrier waves, and, in a course sector, the horizontal electric field intensity of the carrier wave of which electric field is generated inside must be 10 dB or more higher than that of the horizontal electric field intensity of the carrier wave of which electric field is generated outside.

9. The frequency deviation of modulation frequencies at 90 Hz and 150 Hz must not exceed 2.5% in the case of a localizer of ILS under Category I, 1.5% in the case of a localizer of ILS under Category II, and 1.0% in the case of a localizer of ILS Category III localizer, respectively.

10. The phase characteristics of a modulation wave at 90 Hz and a modulation wave at 150 Hz in a semi-course sector (meaning a fan-shaped area having a DDM value of 0.0775 or less of the horizontal plane including a course line; the same applies hereinafter) must be as prescribed below:

a. the voltage of modulation wave at 90 Hz and 150-Hz must turn to zero respectively in the same direction in every half cycle of their synthetic wave during a period not exceeding 370 microseconds in the case of a localizer of ILS under Category I or Category II or 186 microseconds in the case of a localizer of ILS under Category.

b. in the case of a localizer transmitting two carrier waves, the voltage of both modulation waves at 90 Hz must turn to zero in the same direction during a period not exceeding 617 microseconds in the case of a localizer of ILS under Category I or Category II, or 308 microseconds in the case of a localizer of ILS under Category III; and the voltage of both modulation waves at 150 Hz must turn to zero during the period not exceeding 370 microseconds in the case of a localizer of ILS under Category I or Category II, or 185 microseconds in the case of a localizer of ILS under Category III.

11. The degree of modulation of waves modulated at 90 Hz and at 150 Hz must be 20% on a course line, and its deviation must not exceed 2%.

12. The higher harmonics included in the waves modulated at 90 Hz and 150 Hz must not exceed 10%, and in the case of a localizer of ILS under Category III, the second higher harmonics included in the wave modulated at 90 Hz

must not exceed 5%.

13. In the case of a localizer of ILS under Category III, the degree of modulation of the waves modulated at a power supply frequency, its higher harmonics and other unnecessary frequency components must not exceed 0.5%, and, the degree of modulation of the waves modulated at 90 Hz and 150 Hz and of the higher harmonics at a power supply frequency that causes a deviation from a course line by intermodulation of these higher harmonics and other unnecessary frequency components must not exceed 0.05%.

14. The DDM at each point on a course line must be the numerical value specified in the lower column of the following table according to the categories listed in the upper column of the following table:

Classification		DDM
Types	Location of a Point on a Course Line	
Localizer of ILS Category I	A point located on a course line from the far end within the rated coverage from the vertical plane to the runway centerline or its extended line including ILS Point A (hereinafter simply referred to as "vertical plane" in this table and the table of item (xiv) (c)).	0.031 or less
	A point on a course line from the vertical plane including ILS Point A to the vertical plane including ILS Point B	A distance not longer than the distance obtained by adding 0.015 to the distance obtained by multiplying it by 0.0025 (in the unit of kilometer) between the vertical plane including the point and the vertical point including ILS Point B
	A point on a course line from the vertical plane including ILS Point A to the vertical plane including ILS Point C	0.015 or less
Localizer of ILS Category II	A point located on a course line within a range from the far end of a rated coverage from the vertical plane including ILS Point A	0.031 or less

	A point on a course line from the vertical plane including ILS Point A to the vertical plane including ILS Point B	A distance not longer than the distance obtained by adding 0.005 to the distance obtained by multiplying it by 0.0041 (in the unit of kilometer) between the vertical plane including the point and the vertical point including ILS Point B
	A point on a course line from the vertical plane including ILS Point B to the vertical plane including ILS reference datum point	0.005 or less
Localizer of ILS Category III	A point located on a course line within a range from the far end of a rated coverage from the vertical plane including ILS Point A	0.031 or less
	A point located on a course line from the vertical plane including ILS Point A to the vertical plane including ILS Point B	A distance not longer than the distance obtained by adding 0.005 to the distance obtained by multiplying it by 0.041 (in the unit of kilometer) between the vertical plane including the point and the vertical plain including ILS Point B
	A point located on a course line from the vertical plane including ILS Point B to the vertical plane including ILS Point D	0.005 or less
	A point located on a course line from the vertical plane including ILS Point D to the vertical plane including ILS Point E	A distance not longer than the distance obtained by adding 0.005 to the distance obtained by dividing the distance obtained by multiplying it by 0.005 (in the unit of kilometer) between the vertical plain including the point and the vertical plane including ILS Point D (in the unit of kilometer) between the vertical plane including ILS Point D and the vertical plane including E

Remarks:

- (i) ILS Point A means a point on a glide path, whose projection coincides with the point 7.41 kilometers away from the approach end of a runway on the extended line of the runway centerline; the same applies hereinafter.
- (ii) ILS Point B means a point on a glide path, whose projection coincides with the point 1.05 kilometers away from the approach end of a runway on the extended line of the runway centerline; the same applies hereinafter.
- (iii) ILS Point C means the intersection of a glide path with a horizontal plane including the point 30 meters above the center of the approach end of a runway in a vertical direction; the same applies hereinafter.
- (iv) ILS reference datum means a point on a glide path, whose projection coincides with the center of the approach end of a runway; the same applies hereinafter.
- (v) ILS Point D means a point 4 meters vertically above the point 900 meters from the approach end of a runway toward the end of the runway.
- (vi) ILS Point E means a point 4 meters vertically above the point 600 meters from the end of the runway toward the approach end of a runway.

15. The distance between the projection line of a course line and the center of the approach end of a runway in the case of a localizer of ILS under Category I must not exceed 10.5 meters or the distance between the course line and the point where DDM value becomes 0.015 whichever is shorter; in the case of a localizer of ILS under Category II it must not exceed 7.5 meters; and in the case of a localizer of ILS under Category III it must not exceed 3.0 meters.

16. The DDM or its rate of variation of a horizontal plane including a course line must be as follows:

a. The deviation sensitivity (meaning a ratio of the changes in DDM to the changes in distance) must be 0.00145 per minute on the line of intersection of semi course sector with a vertical plane including the approach end of a runway, and its deviation in the case of a localizer of ILS under Category I or ILS under Category II must not exceed 17%; and in the case of a localizer of ILS under Category III, it must not exceed 10%.

b. until a horizontal angle from a course line to a point at which DDM reaches 0.180 (meaning an angle formed by a line connecting the point and the course line on a horizontal plane including the course line; the same applies hereinafter) the DDM must increase at a constant rate along with the increase in horizontal angle whenever possible.

c. while a horizontal angle at which DDM reaches 0.180 increases to 10 degrees, the DDM must be 0.180 or greater.

d. when a horizontal angle exceeds 10 degrees or less than 35 degrees, the DDM must be 0.155 or greater.

17. The angle of a course sector must be less than 6 degrees.

18. The frequency of an aircraft identification signal must be 1,020 Hz, and, its deviation must not exceed 50 Hz.
19. The degree of modulation of an aircraft identification signal must be greater than 5% or less than 15%.
20. it must transmit an aircraft identification code composed of three international Morse code at a speed of seven words per minute, and more than 6 times per minute at equal intervals as much as possible.
21. In the case of a localizer transmitting two carrier waves, the two aircraft identification signals must have a phase characteristic that does not make it difficult to identify the aircraft identification codes.
22. If two localizers are to be installed at a runway (except for a case where the two localizers are those of ILS under Category I which transmit different frequencies, and those do not make the operations difficult when the radio waves are transmitted simultaneously), the two localizers must be equipped with an interlock system so that the two localizers do not transmit radio waves simultaneously.
23. An antenna must be installed on a line segment extended from runway centerline at the end of the runway.
24. Two pairs of transmitters must be provided so that they can be used alternately any time.
25. A dummy antenna must be provided.
26. A backup private electric power generator must be provided.
27. Monitoring equipment must be provided.
28. A monitoring equipment must, when any of the following situations occurs, be capable of informing the control station of the situation in the shortest possible time, specifically, within 10 seconds in the case of a localizer of ILS under Category I, within 5 seconds in the case of a localizer of ILS under Category II, or within 2 seconds in the case of a localizer of ILS under Category III, and concurrently, be capable of switching to a backup transmitter, and be capable of disconnecting the transmission of radio waves from the localizer when the situation remains unchanged after the backup transmitter has been activated.
 - a. when the location of a course line does not conform to the standards prescribed in sub-item 15; provided, however, that in the case of a localizer of ILS under Category III, when the distance between the projection line of the course line and the center point of the approach end of a runway exceeds 6.0 meters.
 - b. when the deviation of deviation sensitivity on the line intersection of semi-course sector and a vertical plane including the approach end of a runway exceeds 17%
 - c. in the case of a localizer transmitting a carrier wave, when its antenna

output power decreases by more than 50% of its normal value if the localizer meets the standards prescribed in 6. through 14., or in the case of a localizer transmitting two carrier waves, when its antenna output power of either of the carrier waves decreases by more than 80% of its normal value if the localizer meets the standards prescribed in 6. through 14., by more than 50% of its normal value).

d. when the monitoring system of a monitoring equipment is out of order

(c) the glide slope indicator must have the performance characteristics and structures specified below:

1. In order to provide an aircraft performing a precision approach along the ILS course with the deviation value in the vertical direction from the course by means of the difference in degree of modulation between two modulation waves, the indicator must transmit radio waves that carry these modulation waves.

2. The indicator must transmit carrier waves that are amplitude-modulated with a wave modulated at 90 Hz, a wave modulated at 150 Hz, and must generate a synthetic electric field in the space.

2-2. In the case of a glide slope indicator transmitting two carrier waves, it must generate a synthetic electric field with one of the carrier waves, it also must transmit the other carrier wave that is amplitude-modulated with a wave modulated at 150 Hz to create an electric field in the space.

3. A synthetic electric field must, on an upper glide path, the degree of modulation with the wave modulated at 90-Hz is greater than that modulated at 150-Hz as far as the vertical angle (meaning an angle, in a vertical plane including a glide path, formed by a line connecting its point of glide path with the intersection point of the glide path and a runway; the same applies hereinafter) up to 1.75 times greater than the angle formed by the glide path and horizontal plane, while on a lower glide path, the degree of modulation with the wave modulated at 150-Hz is greater than that of the wave modulated at 90-Hz.

4. The radio wave must be a horizontal polarization wave which does not contain vertical polarization wave whenever possible.

5. In the case of a glide slope indicator of ILS under Category III, the deviation from a glide path must not exceed 0.02 in DDM within a frequency range from 0.01 Hz to 10 Hz.

6. The angle formed by a glide path and a horizontal plane must be greater than 2 degrees and smaller than 4 degrees.

7. The angle formed by a glide path and a horizontal plane must not deviate more than 7.5% of the predetermined value in the case of a glide slope indicator of ILS under Category I or more than 4.0% in the case of a glide slope indicator of ILS under Category III.

8. The horizontal electric intensity of a radio wave transmitted from a glide slope indicator must be more than 400 microvolts per meter in the rated effective coverage shown in the following figure. (in the case of a glide slope indicator of ILS under Category I, its height is limited to 30 meters or higher from the horizontal plane including the approach end of runway, or in the case of glide slope indicators of ILS under Category II or Category III, its height is limited to 15 meters or higher from the horizontal plane including the approach end of runway).

Horizontal Projection (Omitted)

Vertical Projection (Omitted)

Remarks

- (i) a rated effective coverage must be as marked with diagonal lines.
- (ii) point R must be the intersection point of a glide path and a runway.
- (iii) the theta must be the angle formed by a glide path and a horizontal plane.

9. The frequency deviation of waves modulated at 90 Hz and 150 Hz must not exceed 2.5% in the case of a glide slope indicator of ILS under Category I, or 1.5% in the case of a glide slope indicator of ILS under Category II, and 1.0% in the case of a glide slope indicator of ILS under Category III, respectively.

10. The phase characteristics of the waves modulated at 90 Hz and 150 Hz in a semi-course sector (meaning a fan-shaped area of vertical plane including a glide path having a DDM less than 0.0875) must be as prescribed below:

a. The voltage of the respective waves modulated at 90-Hz and 150-Hz must turn to zero in the same direction in every half cycle of these synthetic waves within 370 microseconds in the case of a glide slope indicator of ILS under Category I or Category II or within 185 microseconds in the case of a glide slope indicator of ILS under Category III.

b. In the case of a glide slope indicator transmitting two carrier waves, the voltage of the respective two waves modulated at 150-Hz must turn to zero in the same direction within 370 microseconds in the case of a glide slope indicator of ILS under Category I or Category II, or within 185 microseconds in the case of a glide slope indicator of ILS under Category III.

11. The degree of modulation of waves modulated at 90 Hz and 150 Hz must be 40% on a glide path, and its deviation must not exceed 2.5%.

12. The higher harmonics included in the waves modulated at 90 Hz and 150 Hz must not exceed 10%, and in the case of a glide slope indicator of ILS under Category III, the higher harmonics included in the waves modulated at 90 Hz must not exceed 5%.

13. In the case of a glide slope indicator of ILS under Category III, the degree of modulation of waves modulated by frequency of power supply, of its higher harmonics and of other unnecessary frequency components must not exceed 1.0%.

14. The DDM at each point on a glide path must be the numerical value listed in the lower column of the following table in accordance with the categories listed in the upper column of that table:

Classification		DDM
Types	Location of a point on a glide path	
Glide slope of ILS Category I	A point located on a glide path from the limits of rated coverage from the ILS Point C.	0.035 or less
Glide slope of ILS Category II or Category III	A point located on a glide path from the limits of rated coverage from the ILS Point A.	0.035 or less
	A point located on a glide path from the ILS Point A to Point B.	The distance shorter than the distance obtained by adding 0.023 to the value obtained by multiplying the distance (in the unit of kilometer) between the vertical plane including said point and the vertical plain including ILS Point B by 0.0019
	A point located on a glide path from the ILS Point B to the ILS reference datum	0.023 or less

15. The height of ILS reference datum must be 15 meters from the axis of the approach end of runway (allowable deviation must be 3 meters upward).

16. The DDM on a vertical plane including a glide path or its deviation rate must be as specified below:

a. The point where DDM is 0.0875 must be determined within the ranges specified below:

1) In the case of a glide slope indicator of ILS under Category I, the vertical angle must be within a range from 0.86 times to 0.93 times greater than the angle formed by a glide path and a horizontal plane (hereinafter referred to as "theta" in c) and a range from 1.07 times to 1.14 times greater than theta.

2) In the case of a glide slope indicator of ILS under Category II, the vertical angle must be within a range from 0.86 times to 0.90 times greater than theta, and a range from 1.07 times to 1.14 times greater than theta.

3) In the case of a glide slope indicator of ILS under Category III, the vertical

- angle must be within a range from 0.86 times to 0.90 times greater than theta, and a range from 1.10 times to 1.14 times greater than theta.
- b. until the vertical angle increases to the point where DDM becomes 0.22 on a glide path and down below it, DDM must increase at a constant rate whenever possible against the decrease in vertical angle.
 - c. the vertical angle at a point down below a glide path where DDM becomes 0.22 must be more than 0.3 times greater than theta. In this case, when the vertical angle at a point where DDM becomes 0.22 is more than 0.45 times greater than theta, as for the vertical angle at that point to the vertical angle 0.45 times greater than theta, the DDM must be greater than 0.22.
17. The vertical angle at a point down below a glide path where DDM is 0.0875 must not be greater than the vertical angle obtained by multiplying the vertical angle by the following percentage after subtracting the predetermined vertical angle at the point from theta:
- a. in the case of a glide slope indicator of ILS under Category I: 25 percent
 - b. in the case of a glide slope indicator of ILS under Category II: 20 percent
 - c. in the case of a glide slope indicator of ILS under Category III: 15 percent
18. Two pairs of transmitters must be provided so that they can be used alternately any time.
19. A dummy antenna must be provided.
20. A backup electric power generator must be provided.
21. A monitoring system must be provided.
22. Monitoring equipment must, when any of the following situations occurs, be capable of informing the control station of the situation within the shortest possible time, specifically, within 6 seconds in the case of a glide slope indicator of ILS under Category I, or within 2 seconds in the case of a glide slope indicator of ILS under Category II or Category III, and concurrently, be capable of switching to a backup transmitter, and be capable of disconnecting the transmission of radio waves from a glide slope indicator when the situation remains unchanged after the backup transmitter has been activated.
- a. when the angle formed by a glide path and a horizontal plane changes more than 0.925 times greater than the predetermined angle or less than 1.10 times
 - b. at a point down below a glide path, when the vertical angle at a point where DDM is 0.0875 increases more than the value given below:
 - 1) In the case of a glide slope indicator of ILS under Category I, 0.0375 times greater than theta
 - 2) In the case of a glide slope indicator of ILS under Category II or Category III, the value obtained by multiplying the numerical value which is obtained by subtracting the predetermined vertical angle at the point from theta by

0.25

c. at the lower limit of the rated effective coverage of a glide path, when DDM decreases below 0.175

d. in the case of a glide slope indicator transmitting a carrier wave, when it meets the standards prescribed in 6. through 14., the antenna output power decreases below 50% of its normal value; and in the case of a glide slope indicator transmitting two carrier waves, when the antenna output power for either carrier wave decreases below 80% of its normal value (when it meets the standards prescribed in 6. through 14., the antenna output power decreases below 50% of its normal value").

e. when the monitoring system of a monitoring equipment is out of order

(d) the marker beacon must have the performance characteristics and structures specified below:

1. In order to inform an aircraft performing a precision approach along an ILS course that the aircraft has reached a location at a specific distance from a runway, it must transmit vertically directional fan-shaped radio waves amplitude-modulated with modulation waves in the upward direction.

2. Radio waves must be horizontal polarized waves which do not contain vertical polarized waves whenever possible.

3. The axis of the radial electric field must be vertical whenever possible.

4. The horizontal electric intensity must be symmetric about the axis of the radial electric field whenever possible.

5. An antenna must be installed at any of the following locations whenever possible:

- a. In the case of an outer marker, at a place more than 6.5 kilometers and less than 11.1 kilometers away from the runway centerline at the approach end of runway (7.2 kilometers if possible), the place less than 75 meters away from the point on a straight line forming a right angle with the line extended from runway centerline.

- b. In the case of a middle marker, at a place more than 900 meters and less than 1,200 meters away from the runway centerline at the approach end of runway, the place less than 75 meters away from the point on a straight line forming a right angle with the line extended from runway centerline.

- c. In the case of an inner marker, at a place more than 75 meters and less than 450 meters away from the runway centerline at the approach end of runway, the place less than 30 meters away from the point on a straight line forming a right angle with the line extended from runway centerline.

6. The rated effective coverage (meaning a range of which horizontal electric intensity of a radio wave transmitted from the relevant facility on the glide path is higher than 1.5 millivolts per meter; hereinafter the same

applies in 7.) must be as specified below:

a. in the case of an outer marker, more than 400 meters or less than 800 meters

b. in the case of a middle marker, more than 200 meters or less than 400 meters

c. in the case of an inner marker, more than 100 meters or less than 200 meters

7. The maximum horizontal electric intensity of a radio wave within the rated radiation coverage must be higher than 3.0 millivolts per meter.

8. The frequency of a modulation wave must be as specified below, and its deviation must not exceed 2.5%:

a. in the case of an outer marker, 400 Hz

b. in the case of a middle marker, 1,300 Hz

c. in the case of an inner marker, 3,000 Hz

9. The degree of modulation of modulation wave must be 95%, and its deviation must not exceed 4%.

10. The higher harmonics included in modulation waves must not exceed 15%.

11. The configuration of an aircraft identification code must be as specified below:

a. in the case of an outer marker, continuous dashes

b. in the case of a middle marker, alternate continuous dashes and dots

c. in the case of an inner marker, continuous dots

12. The speed of transmission of dashes composing an aircraft identification code is two times per second, and, its deviation must not exceed 15%.

13. The speed of transmission of dots composing an aircraft identification code is six times per second, and its deviation must not exceed 15%.

14. Two pairs of transmitters must be provided so that they can be used alternately any time.

15. A dummy antenna must be provided.

16. A backup electric power generator must be provided.

17. A monitoring equipment must be provided.

18. The monitor equipment must, when any of the following situations occurs, be capable of promptly informing the control station of the situation, be capable of switching to a backup transmitting equipment, and, when the situation remain unchanged after activation of the backup transmitting equipment has been activated, is capable of disconnecting the transmission of radio waves from a marker beacon.

a. when the degree of modulation does not meet the standards prescribed in 9

- b. when the power of an antenna drops by more than 50%
 - c. when the monitoring system of a monitoring equipment is out of order
- (ix) in the case of DME, it must have the performance characteristics and structures specified below:
- (a) in order to provide an aircraft during flight with the distance information from the relevant facility, the equipment must transmit a response signal to a query signal transmitted from an on-board TACAN or DME, and also transmits an aircraft identification signal.
 - (b) response signal, an aircraft identification signal and random pulse pair must be a radio wave of a pulse pair.
 - (c) pulses must meet the requirements prescribed in item (vii), (b).
 - (d) the pulse interval must be 12 microseconds in the case of channel X or 30 microseconds in the case of channel Y, and, the deviation must not exceed 0.25 microseconds.
 - (e) the difference in peak power between the first pulse and the second must be less than 1 dB.
 - (f) the delay in response time must be 50 microseconds, and, its deviation must not exceed 1 microsecond; provided, however, that this does not apply in the case of DME consisting part of ILS.
 - (g) the equipment must be capable of transmitting pulse pairs of response signals 2,700 times (allowable deviation is 90) per second.
 - (h) The total number of pulse pair transmissions of a response signal and random pulse pairs must be more than 700 times or less than 2,790 per second.
 - (i) the response signals must not be transmitted while aircraft identification signals are transmitted.
 - (j) the random pulse pairs must not be transmitted while response signals or aircraft identification signals are transmitted.
 - (k) the aircraft identification signals must be composed of pulse pairs having pulse pair intervals of more than 90 microseconds or less than 110 microseconds.
 - (l) the number of aircraft identification signals to be transmitted must be as specified below:
 1. An aircraft identification signal composed of a single pulse pair: 1,350 (allowable deviation is 10) per second
 2. An aircraft identification signal composed of a pair(s) of pulse pairs: 2,700 (allowable deviation is 20) per second
 - (m) the interval between a single pulse pair of aircraft identification signals specified in (l), 1. and the interval between pulse pairs of aircraft identification signals specified in (l), 2. must be the same whenever possible.

- (n) the configuration, transmission speed, and number of transmissions of aircraft identification codes must meet the standards prescribed in item vii, (z).
- (o) the time required to transmit an aircraft identification code must meet the standards prescribed in item vii, (aa).
- (p) the aircraft identification code of DME that is used in combination with a VOR or ILS must be transmitted within a period of seconds obtained by dividing 30 seconds into 4 or more, and the aircraft identification code of a VOR or ILS that is used in combination with the DME must be transmitted within a period of seconds in which the aircraft identification code of the relevant DME is not transmitted.
- (q) the receiving equipment must meet the standards prescribed in items vii, (dd) through (ll).
- (r) the antenna system must transmit and receive the radio waves of vertical polarized waves.
- (s) the antenna system of a DME used in combination with a VOR must be installed on a vertical line including the axis of VOR antenna; provided, however, that if it is difficult to do so, in the case of a DME that is combined with VOR and mainly used for the aircraft approaching or holding, the antenna system must be installed at a place less than 30 meters away from the axis of the VOR antenna (if the VOR is a Doppler VOR, less than 80 meters) and in the case of other types of VORs, at a place less than 600 meters away from the axis of the VOR antenna.
- (t) two pairs of transceivers must be provided so that they can be used alternately any time.
- (u) a dummy antenna must be provided.
- (v) a backup electric power generator must be provided.
- (w) a monitoring equipment must be provided.
- (x) the monitoring equipment must, when any of the following situations continues for more than 4 seconds, be capable of promptly informing the control station of the situation, be capable of switching to a backup transceiver, and when the situation remains unchanged after the backup transceiver has been activated, be capable of disconnecting the transmission of radio waves from a DME.
 1. When the delay in response time to the query signal, of which peak power represent the maximum sensitivity of a receiving system to which 6 dB was added, ceases to conform to the standards prescribed in subitem (f)
 2. When the power of an antenna drops by more than 50%
 3. When the monitoring system of a monitoring equipment is out of order
- (y) the number of pulse pairs transmitted by a monitoring equipment for monitoring must not exceed 120 per second.

(2) In the case of radio navigation aids which may not be governed by the standards prescribed in the preceding paragraph due to topographical or other inevitable reasons, may be governed by the standards set forth by the Minister of Land, Infrastructure, Transport and Tourism notwithstanding the standards prescribed in that paragraph.

(Request for Construction Completion Inspection)

Article 100 (1) A person intending to file a request for construction completion inspection of radio navigation aids pursuant to the provisions of paragraph (1) of Article 42 of this Act must submit a written request for construction completion inspection of radio navigation aids providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

(i) name and address

(ii) name and address of radio navigation aids

(iii) construction completion date

(2) Provisions of the preceding paragraph apply mutatis mutandis to the request for construction completion inspection of alterations made to radio navigation aids, pursuant to the provisions of paragraph (1) of Article 42 of this Act as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 43 of this Act.

(Notification of Service Commencement Date)

Article 101 (1) A person intending to submit a notice of service commencement date for radio navigation aids pursuant to the provisions of paragraph (3) of Article 42 of this Act must submit a written notice of service commencement date for radio navigation aids providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

(i) name and address

(ii) name and address of radio navigation aids

(iii) service commencement date

(2) Provisions of the preceding paragraph apply mutatis mutandis to the notice of service commencement date for the radio navigation aids to which alterations have been made or whose services have been suspended pursuant to the provisions of paragraph (3) of Article 42 of this Act, as applied mutatis mutandis pursuant to the provisions of paragraph (5) of Article 44 of the Act, as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 43 and paragraph (2) of Article 45 of this Act.

(Significant Changes)

Article 102 The significant changes that require permission for the radio navigation aids under the provisions of paragraph (1) of Article 43 of this Act,

are as follows:

- (i) change in course direction
- (ii) change in location of antenna system
- (iii) change in structure of the antenna system
- (iv) change in method or providing transmitting-receiving aids
- (v) changes in the structure and circuit of transmitter-receiver (limited to cases in which the relevant change affects radio frequencies, antenna power, aircraft identification code, and electrical characteristics of radio navigation aids)
- (vi) expanding transmitter-receiver and power supply facility.

(Application for Permission to Change Particulars)

Article 103 (1) A person intending to apply for permission to change particulars concerning radio navigation aids pursuant to the provisions of paragraph (2) of Article 38 of this Act as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 43 of this Act must submit three copies of written application for permission to change particulars concerning radio navigation aids providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
 - (ii) name and address of radio navigation aids
 - (iii) particulars to be changed (documents and drawings comparing the old and new particulars must be attached.)
 - (iv) costs of making changes
 - (v) scheduled construction commencement and completion dates
 - (vi) when a management plan changes, the management plan after the change
 - (vii) reasons for the change
- (2) The following documents must be attached to the written application prescribed in the preceding paragraph:
- (i) documents describing the costs required for the change and the methods for procuring land and objects
 - (ii) construction design drawings, construction specifications and budget statement
 - (iii) if an applicant is a judicial person or partnership, documents certifying the decision made on the change.

(Notification of Suspension or Discontinuation of Provision)

Article 104 (1) A person intending to submit a notice of suspension or discontinuation of providing radio navigation aids pursuant to the provisions of paragraph (1) of Article 45 of this Act must submit a written notice of suspension (discontinuation) of providing radio navigation aids providing the

following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
 - (ii) name and address of radio navigation aids
 - (iii) in the case of notice of discontinuation, the scheduled discontinuation date
 - (iv) in the case of notice of suspension, the scheduled suspension commencement date and suspension period
 - (v) reasons for suspension or discontinuation
- (2) If an applicant is a judicial person or partnership, the documents certifying the decision made on the suspension or discontinuation must be attached to the written notice prescribed in the preceding paragraph.

(Request for Inspection of Aeronautical Radio Navigation Aids to Resume their Provision)

Article 105 (1) A person intending to undergo an inspection to resume the provision of radio navigation aids pursuant to the provisions of paragraph (4) of Article 44 of this Act as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 45 of this Act must submit the written request for inspection to resume provision of radio navigation aids providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
 - (ii) name and address of radio navigation aids
 - (iii) scheduled re-commencement date for provision of services
- (2) If an applicant is a judicial person or partnership, the documents certifying the decision made on the re-commencement of provision of services must be attached to the written request prescribed in the preceding paragraph.

(Public Notice of Commencement of Provision of Services)

Article 106 (1) Pursuant to the provisions of Article 46 of this Act, the particulars that must be publicly notified when a notice of commencement date for provision of radio navigation aids has been submitted are as follows:

- (i) name and address of the establisher
- (ii) category and name of radio navigation aids
- (iii) location and address of radio navigation aids
- (iv) carrier frequency
- (v) antenna power
- (vi) direction of course
- (vii) aircraft identification code
- (viii) operation hours
- (ix) service commencement date
- (x) Special instructions when using radio navigation aids

(2) The provisions of the preceding paragraph apply mutatis mutandis to the case where the Minister of Land, Infrastructure, Transport and Tourism establishes radio navigation aids.

(Public Notice of Change or Suspension)

Article 107 Pursuant to the provisions of Article 46 of this Act (including as applied mutatis mutandis pursuant to the provisions of Article 55, paragraph (2), item (ii) of the Act) the particulars that must be publicly notified if the provision of radio navigation aids is suspended, resumed or discontinued are be as specified below, beyond what is set forth in items (i), (ii) and (iii) of paragraph (1) of the preceding Article:

- (i) if any of the particulars that have been publicly notified, the changed particulars
- (ii) in the case of a suspension, the scheduled suspension commencement date and suspension period
- (iii) in the case of a re-commencement or discontinuation, the scheduled date

(Criteria for Management)

Article 108 The criteria for managing radio navigation aids pursuant to the provisions of paragraph (1) of Article 47 of this Act, (including as applied mutatis mutandis pursuant to the provisions of Article 55, paragraph (2), item (ii) of the Act) are as specified below:

- (i) the operation of the relevant aids must be constantly maintained during a regular operation hours.
- (ii) the radio navigation aids must be sustained in perfect conditions by refurbishing and cleaning the aids.
- (iii) the prohibited acts prescribed in Article 53 of this Act must be displayed so that the public may recognize it easily.
- (iv) if the functions of the radio navigation aids may be impaired by building structures, plants or other objects, necessary measures such as removal of the relevant objects must be taken.
- (v) the system to communicate with the Minister of Land, Infrastructure, Transport and Tourism must be established, which will be required when the operation of radio navigation aids is suspended, or rated effective coverage and course are changed, or aircraft identification code may not be transmitted or the functions of the radio navigation aids are impaired due to unavoidable reasons and when the operation or functions of the radio navigation aids are recovered.
- (vi) when the operation of radio navigation aids is affected by natural disasters or other accidents, efforts must be made immediately to recover the operation and take appropriate measures to prevent disruption in aviation,

- such as continuing the operation as much as possible.
- (vii) when refurbishment or construction work is implemented for radio navigation aids, appropriate measures must be taken so that air navigation will not be restricted.
 - (viii) in a place where radio navigation aids are located, one-thirds of a number of parts composing circuit of transmitter-receiver currently used must be secured as spare parts.
 - (ix) the administrator of radio navigation aids must maintain a daily activity log at the place of radio navigation aids and keep it for one year to record the matters listed below:
 - (a) results of monitoring using a monitoring equipment (at least once a day) and the date and time of recording
 - (b) if the operation of the aids has been suspended or other incident occurred, the date and time of the incident, cause(s) and measures taken for it
 - (c) particulars notified to the Minister of Land, Infrastructure, Transport and Tourism and the date and time of the notification
 - (d) other particulars used as reference

(Notification of Service Charges to Use Aeronautical Radio Navigation Aids)

Article 109 (1) A person intending to submit a notification of services charges or change in service charges to use radio navigation aids provided for public use pursuant to the provisions of paragraph (1) of Article 54 of the Act must submit a written notice of service charges (change in service charges) to use radio navigation aids providing the particulars specified below to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
 - (ii) name and address of radio navigation aids
 - (iii) The type and amount of service charges to be set or changed (in the case of a notice of change, the comparison between the old and new service charges must be clearly indicated).
 - (iv) scheduled implementation date
 - (v) in the case of a notice of change, reasons for the change
- (2) The written notice prescribed in the preceding paragraph must be accompanied by documents describing the basis for calculation of the charges.

(Request for Approval for Successor in Title of the Radio Navigation Aids Establisher)

Article 110 (1) A person intending to obtain approval for successor in title of the radio navigation aids establisher pursuant to the provisions of paragraph (1) of Article 55 of this Act must submit a written application for permission of the successor in title of radio navigation aids establisher describing the particulars

specified below to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address of the successor
 - (ii) name and address of the inheritee
 - (iii) location and address of radio navigation aids
 - (iv) requirements to be a successor
 - (v) date on which the applicant intends to succeed the aids
 - (vi) reasons for the succession
- (2) The documents and drawings listed below must be attached to the written application prescribed in the preceding paragraph:
- (i) documents certifying the conditions of succession
 - (ii) in the case of a judicial person or partnership, documents certifying the decision made on the succession
 - (iii) documents certifying that the successor possesses the capabilities sufficient enough to administrate the radio navigation aids

(Notification of Successor in Title of Radio Navigation Aids Establisher, by Inheritance)

Article 111 (1) A person intending to submit the notification of successor in title of radio navigation aids establisher pursuant to the provisions of paragraph (4) of Article 55 of this Act must submit a written notice of successor in title of radio navigation aids establisher providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address of the notifier
 - (ii) name and address of decedent and the relationship between the heir and the decedent
 - (iii) location and address of radio navigation aids
 - (iv) commencement date for inheritance
- (2) The documents specified below must be attached to the written notice prescribed in the preceding paragraph:
- (i) documents certifying the relationships between the notifier and the decedent
 - (ii) if there is an heir(s) other than the notifier, documents describing the name and address of the person(s) and the written consent from the relevant person(s)

Article 112 Deleted

Section 3 Aeronautical Lighting

(Types of Aeronautical Beacons)

Article 113 The types of aeronautical beacons prescribed in item (i) of Article 3

are the three types specified below:

- (i) airway beacons (lights installed to indicate a point on an air route to an aircraft during flight)
- (ii) landmark beacons (lights installed to indicate a specific point to an aircraft during flight)
- (iii) hazard beacons (lights installed to indicate an area that may be particularly dangerous for an aircraft during flight)

(Aerodrome Lighting)

Article 114 The types of aerodrome lighting prescribed in item (ii) of Article 4 are as specified below:

- (i) aerodrome beacon (a beacon installed in an airport and its surrounding area other than identification beacons which indicates the location of airport, etc. to an aircraft during flight)
- (ii) identification beacon (a beacon that blinks in Morse code to indicate the location of an airport, etc. to the aircraft during flight)
- (iii) approach lighting system (arrays of lights installed in an approach area and landing strip to indicate the location of final approach path to an aircraft intending to land)
- (iv) precision approach path indicator (a light installed near a runway threshold in the case of an onshore airport or near a landing area in the case of an onshore heliport which indicates an aircraft intending to land whether its approach slope is appropriate or not)
- (v) circling guidance lights (arrays of lights installed on the outside of a runway that project a beam of light outward and upward of the runway to indicate the location of runway to an aircraft while performing a circling approach)
- (vi) approach light beacon (a light other than an approach lighting system installed to indicate key points within an approach area to an aircraft intending to land)
- (vii) approach guidance lights (arrays of lights installed to indicate a flight path to an aircraft that has taken off, or to indicate the approach path to an aircraft intending to land until it reaches the final approach path)
- (viii) runway edge lights (arrays of lights installed on both sides of a runway to indicate the runway to an aircraft intending to take off or land)
- (ix) runway threshold lights (arrays of lights installed at both ends of a runway to indicate the ends of a runway, other than emergency runway edge lights, to an aircraft intending to take off or land)
- (x) wing bar lights (arrays of lights installed near the runway threshold lights to assist their function)
- (xi) runway threshold identification lights (arrays of lights, other than

- threshold wing bar lights, installed near the both ends of a runway to indicate the ends of a runway to an aircraft intending to land)
- (xii) runway centerline lights (arrays of lights installed on the centerline of a runway to indicate it to an aircraft intending to take off or land)
 - (xiii) runway touchdown zone lights (arrays of lights installed in the touch-down zone to indicate it to an aircraft intending to land)
 - (xiv) runway distance marker lights (arrays of lights installed to indicate the distance to the end of a runway ahead to an aircraft taxiing on a runway)
 - (xv) overrun area edge lights (arrays of lights installed near an overrun zone to indicate it to an aircraft intending to take off or land)
 - (xvi) take-off aiming lights (arrays of lights installed as a landmark to indicate a direction to take off to an aircraft intending to take off)
 - (xvii) emergency runway lights (transportable lights used temporarily when runway edge lights and runway threshold lights are out of order)
 - (xviii) channel lights (arrays of lights installed on either side or both sides of a landing strip of a water airport, etc., to indicate the landing strip)
 - (xix) channel threshold lights (arrays of lights installed on both ends of a landing strip of a water airport, etc. to indicate the ends)
 - (xx) taxiway edge lights (arrays of lights installed to indicate the edges of a taxiway (excluding a turning area (meaning an area located adjacent to a runway that allows an aircraft to turn directions near the end of a runway; the same applies hereinafter); the same applies in this Section;) and the edges of an apron to aircraft taxiing on the ground)
 - (xxi) taxiway centerline lights (arrays of lights installed along the centerline of a taxiway or ramp from or to a runway or an apron to indicate the centerline or ramp to an aircraft taxiing on the ground)
 - (xxi)-2 stop bar lights (arrays of lights installed to indicate whether or not an aircraft taxiing on the ground needs to make a temporary stop and where to make a temporary stop)
 - (xxi)-3 runway guard lights (arrays of lights installed to indicate where to make a temporary stop to an aircraft taxiing on the ground before entering a runway)
 - (xxi)-4 intermediate holding position lights (arrays of lights other than stop bar lights and runway guard lights installed to indicate where to make a temporary stop to an aircraft taxiing on the ground)
 - (xxii) taxiway guidance signs (arrays of lights installed to indicate the destination, path, branch point, etc. to an aircraft taxiing on the ground)
 - (xxii)-2 turning point identifier lights (arrays of lights installed near a turning area to indicate the turning radius in that area to an aircraft taxiing on the ground)
 - (xxii)-3 visual docking guidance system (arrays of lights installed to indicate

- the deviation from the taxiing path to a docking position in an apron and the distance to the docking position to an aircraft taxiing on the ground)
- (xxiii) taxi-channel lights (arrays of lights placed to indicate a taxi channel to an aircraft)
 - (xxiv) landing direction indicator lights (arrays of lights installed to indicate T day shapes or tetrahedron day shapes to indicate the landing direction to an aircraft intending to land)
 - (xxv) wind direction indicator lights (arrays of lights installed to indicate wind direction to an aircraft)
 - (xxvi) direction signal lights (arrays of lights installed to send signals necessary for the safety in air traffic control to an aircraft, etc.)
 - (xxvii) unserviceability lights (arrays of lights installed to indicate a not-in-service area to an aircraft)
 - (xxviii) landing area floodlights (arrays of lights installed to illuminate a landing area)
 - (xxix) boundary lights (arrays of lights installed in an area surrounding the area where an aircraft may land and take off so as to indicate the relevant area)
 - (xxx) water boundary lights (arrays of lights installed around a water area where an aircraft may land and take off so as to indicate the relevant area to an aircraft intending to take off or land)
 - (xxxi) range lights (arrays of lights installed in parallel with boundary lights in order to indicate a direction suitable for landing and take off to an aircraft intending to take off or land)
 - (xxxii) water range lights (arrays of lights having distinctive colors to be placed in parallel with water boundary lights in order to indicate a direction suitable for landing and take off to an aircraft intending to take off or land)

(Application for Permission to Install Aeronautical Lights)

Article 115 (1) A person intending to apply for permission to install aeronautical lighting pursuant to the provisions of paragraph (2) of Article 38 must submit three copies of written application for permission to install aeronautical lighting providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) purpose of installation
- (ii) name and address
- (iii) type and name of aeronautical lighting
- (iv) location and address of aeronautical lighting
- (v) name and address of owner of the site where aeronautical lighting is to be installed
- (vi) outline of the facilities

- (vii) management plan
 - (viii) costs required for installation and management
 - (ix) scheduled construction commencement and completion dates
- (2) the documents referred to in items (i) through (iii) and items (viii) through (xi) of paragraph (2) of Article 76 must be attached to the written application prescribed in the preceding paragraph.

Article 116 The installation criteria, such as the location, structure, etc. of aeronautical beacons prescribed in paragraph (1) of Article 39 of the Act (including as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 43) are as specified below:

- (i) airway beacon
 - (a) an airway beacon must be installed at a location in the proximity of the centerline of an airway so that it is visible from all the directions above the horizontal plane including the light source center.
 - (b) lights must be alternate red and white flashing lights.
 - (c) I the number of flashes per minute must be from 12 to 20.
 - (d) the effective intensity of white light must be higher than 150,000, and the effective intensity of red light must be higher than 23,000 candela
- (ii) landmark beacons
 - (a) beacons emitting flashing lights
 1. the color of beacon light must be white.
 2. The number of flashes per minute must be from 12 to 100.
 3. The effective intensity of light must be higher than 8,000 candela.
 - (b) Beacons emitting beacon signal in Morse code
 1. The signal must be sent in international Morse code.
 2. it must transmit signals at a speed of 6 to 8 words per minute, and the duration of each dot must be from 0.15 to 1.0 seconds.
 3. The color of beacon light must be white or red if it is installed in parallel with an airway beacon, or white in other cases.
 4. The maximum intensity of light must be higher than 2,000 candela.
 5. it must emit lights to all directions to an angles of 45 degrees from the horizontal plane.
- (iii) hazard beacons
 - (a) a hazard beacon must be installed at a place where an obstacle which is not appropriate to be made visible by using obstacle lights is located, or the place where it is particularly dangerous for an aircraft while in flight.
 - (b) the lights must be a flashing red lights.
 - (c) I the number of flashes per minute must be from 20 to 60.
 - (d) The effective intensity of light must be higher than 3,000 candela.
 - (e) I a hazard beacon must emit lights in all directions from 5 degrees below

the horizontal plane in an upward direction.

(Criteria to Install Aerodrome Lighting)

Article 117 (1) The installation criteria, such as the location, structure, etc. of aeronautical lighting prescribed in paragraph (1) of Article 39 of the Act (including as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 43) are as prescribed below:

- (i) aerodrome lighting at an onshore airport and an onshore heliport that is used for the instrument landing system that allow a nighttime landing or precision approach must be installed as prescribed in Tables 1, 2 and 3 according to the classes of airports and runways.

Table 1. Aerodrome Lighting at Onshore Airports

Aerodrome beacon	o
Identification beacon	x
Taxiway edge lights	o
Taxiway centerline lights	x
Stop bar lights	x
Runway guard lights	x
Intermediate holding position lights	x
Taxiway guidance signs	x
Turning point identification lights	x
Visual docking guidance system	x
Landing direction indicator lights	x
Wind direction indicator lights	o
Direction signaling lights	x
Unserviceability lights	x

Legend o: lights that must be installed

Legend X: Arrays of lights to be installed when it is obviously necessary for an aircraft to take off or land safely from the viewpoint of geographical conditions of the airport, etc.

Table 2. Aerodrome Lighting at Onshore Airports

	Runways for instrument landing by precision approach		Runway for nighttime landing
	Runway for Category I precision approach	Runways for Category II precision approach and Category III precision approach	
Approach lighting systems	o	o	x

Precision approach path indicator	o	o	x
Circling guidance lights	x	x	x
Approach light beacon	x	x	x
Approach guidance lights	x	x	x
Runway edge lights	o	o	o
Runway threshold lights	o	o	o
Wing bar lights	x	x	x
Runway threshold identification lights	x	x	x
Runway centerline lights	x	o	x
Runway Touchdown zone light	x	o	x
Runway distance marker lights	x	x	x
Overrun area edge lights	x	x	x
Take-off aiming lights	x	x	x
Emergency runway lights	x	x	x

Remarks:

(i) Legend o: Lights that must be Installed

Legend X: Arrays of lights that must be installed when it is obviously necessary for an aircraft to take off or land safely from the viewpoint of geographical conditions of the airport, etc.

(ii) Category I precision approach means precision approach when the minimum descent altitude (meaning the minimum altitude from a horizontal plane comprising the approach end of runway (meaning the runway threshold on the near side as seen from an aircraft intending to land; the same applies hereinafter) attainable by instrumental flight; the same applies hereinafter) is 60 meters or more, and the runway visual range (meaning the maximum distance in which a runway markings, runway edge light or runway centerline can be visually recognized from an aircraft on a runway centerline; the same applies hereinafter) is 550 meters or more, or the visibility range is 800 meters or more; the same applies hereinafter.

- (iii) Category II precision approach means precision approach when the minimum descent altitude is more than 30 meters and less than 60 meters, and the runway visual range is 350 meters or more; the same applies hereinafter.
- (iv) Category III precision approach means precision approach when the minimum descent altitude is less than 30 meters or has not yet been determined, and the runway visual range is more than 350 meters; the same applies hereinafter.

Table 3. Aerodrome Lighting at Onshore Heliports

Aerodrome beacon	x
Identification beacon	x
Precision approach path indicator	x
Taxiway edge lights	x
Wind direction indicator lights	o
Direction signaling lights	x
Unserviceability lights	x
Landing area flood lights	x
Boundary lights	o
Range lights	x

Legend

Legend o: Light that must be Installed

x: arrays of lights that must be installed when it is obviously necessary for an aircraft to take off or land safely from the viewpoint of geographical conditions of the airport, etc.

- (i)-2 as to aerodrome lighting of onshore airports, etc. other than those used for nighttime landing or instrument landing of an aircraft performing a precision approach, when it is obviously necessary for aircraft to land safely from the viewpoint of geographical conditions, etc. of the airport, etc., a precision approach path indicator system and runway threshold identification lights must be installed.

- (ii) the aerodrome lighting of water airports, etc. and heliports must be installed as prescribed in the following table:

	Airport, etc., comprising a large water landing strip	Other airports, etc.
Aerodrome beacon	o	o
Identification beacon	x	x
Channel lights		o
Channel threshold lights		o
Taxi channel lights		x
Landing direction indicator lights	x	x

Wind direction indicator lights	o	o
Direction signaling lights	x	x
Unserviceability lights	x	x
Water boundary lights	o	
Water range lights	o	

(iii) aerodrome lighting must be located or have the performance characteristics and structure, etc. specifically designed, for the respective light types as listed below:

(a) aerodrome beacon

1. The aerodrome beacon must be installed in a location in an airport or area surrounding it where a beam of light does not prevent the operation of an aircraft taking off or landing and the control tower so that it is visible from all the directions above the horizontal plane including the light center.
2. If it is difficult to install the beacon in the location prescribed in sub-item 1, an identification beacon must be installed in the location and the beacon must be installed in another suitable place.
3. The lights must be alternate white and green flashing lights or white flashing lights in the case of an offshore airport, while in the case of a water airport, it must be alternate white and yellow flashing lights or white flashing lights, and in the case of a heliport, it must be white flashing lights.
4. The flashing lights must be emitted as specified below:
 - a. in the case of an onshore airport, etc. or water airport, etc., the number of flashes per minute must be from 20 to 30.
 - b. in the case of a heliport, flashing lights for more than 0.5 milliseconds and less than 2 milliseconds must be emitted 4 times at equal intervals in 0.8 second and discontinued for 1.2 seconds.
5. The effective intensity of lights must be higher than 2,000 candela in the case of an onshore airport, etc. or water airport, etc. and higher than 2,500 candela in the case of a heliport.

(b) identification beacon

1. an identification beacon to be installed under subitem (a) 2, or if another airport is located adjacent to the relevant airport, etc., it must be installed in the location prescribed in sub-tem (a) 1 in order to verify the identity of the relevant airport, etc.
2. The color of the lights must be green for an offshore airport, etc. and yellow for a water airport, etc.
3. The lights of beacon must have the performance characteristics specified in item (ii) b of Article 116 (excluding sub-sub-item 3).

(c) approach lighting system

1. An approach lighting system must be either a precision approach lighting system or simple approach lighting system; provided, however, that, in the case of an approach lighting system at a runway for an aircraft performing a precision approach using the instrument landing system, the precision approach lighting system must be installed.

2. Precision Approach Lighting System

a. the lighting system must be installed in the location indicated in the following Figure A or B; provided, however that in the cases of the lights at the runways under Category II and III used for precision approach, the lighting system must be installed in the location indicated in Figure C, which is within 300 meters away from runway thresholds.

Figure A (Omitted)

Figure B (Omitted)

Figure C (Omitted)

Remarks:

- (i) approach center line means an array of light units, each consisting of a single or two light units or barrette (meaning an array of more than 3 light units, which are visible from an aircraft as an array of light units closely installed side by side; the same applies hereinafter), positioned on the line extended from runway centerline; the same applies hereinafter.
 - (ii) a side row barrette means a row of barrettes symmetrically arranged along both sides of an approach centerline 270 meters away from the runway thresholds; the same applies hereinafter.
 - (iii) a crossbar means an array of light units (excluding the approach centerline and side row barrettes) arranged on a straight line perpendicular to the line extended from runway centerline at a location within a specific distance from runway threshold; the same applies hereinafter.
- b. besides the light units prescribed in a, flash lights may be installed in addition to the light units prescribed in a that are installed along the line extended from runway centerline, from 60 meters away from the runway thresholds to more than 420 meters or less than 900 away from the runway thresholds.
- c. the lights at the approach centerline and crossbars prescribed in a must be variable, white lights, while side row barrettes must be constant, red lights, and the lights prescribed in b, must be flashing white lights.
- d. in the case prescribed in a, the beam of light from those used for precision approach must be visible from an aircraft intending to land at least within the range listed in the right-hand side column of the following table according to the respective categories given in the left-hand side column in that table, and the cross-section surface of light

pillar in the vertical plane perpendicular to the line extended from runway centerline must be oval.

Classification		Range of a Beam of Light
Light composition	Light unit position	
Approach centerline and crossbar	A section within 315 meters away from the runway threshold	In azimuth angles, a range comprising the light source center, and 10 degrees each leftward and rightward from a vertical plane comprising the runway centerline or from a vertical plane parallel to the runway centerline, and another range of 11 degrees upward from a horizontal plane comprising the light source center
	A section between 315 meters and 475 meters from the runway threshold	In azimuth angles, a range comprising the light source center, and 10 degrees each leftward and rightward from a vertical plane comprising the runway centerline or from a vertical plane parallel to the runway centerline, and another range of 0.5 to 11.5 degrees upward from a horizontal plane comprising the light source center
	A section between 475 meters and 640 meters from the runway threshold	In azimuth angles, a range comprising the light source center, and 10 degrees each leftward and rightward from a vertical plane comprising the runway centerline or from a vertical plane parallel to the runway centerline, and another range of 1.5 to 12.5 degrees upward from a horizontal plane comprising the light source center
	A section between 640 meters and 900 meters from the runway threshold	In azimuth angles, a range comprising the light source center, and 10 degrees each leftward and rightward from a vertical plane comprising the runway centerline or from a vertical plane parallel to the runway centerline (in the case of a crossbar in a section more than 22.5 meters away from the extended line of runway centerline, a range of 12 degrees or less toward the runway centerline and 8 degrees or less toward the other side), and another range of 2.5 to 13.5 degrees upward from a horizontal plane comprising the light source center

Side row barrette	A section within 115 meters from the runway threshold	In azimuth angles, a range comprising the light source center, and 9 degrees from a vertical plane parallel to the runway centerline toward the runway centerline and 5 degrees toward the other side, and another range of 0.5 to 10.5 degrees upward from a horizontal plane comprising the light source center
	A section between 115 meters and 215 meters from runway threshold	In azimuth angles, a range comprising the light source center, and 9 degrees from a vertical plane parallel toward the runway centerline and 5 degrees toward the other side, and another range of 1 to 11 degrees upward from a horizontal plane comprising the light source center
	A section between 215 meters and 270 meters from the runway threshold	In azimuth angles, a range comprising the light source center, and 9 degrees from a vertical plane parallel to the runway centerline toward the runway centerline and 5 degrees toward the other side, and another range of 1.5 to 11.5 degrees upward from a horizontal plane comprising the light source center

e. the intensity of beam of light prescribed in a must be higher than 20,000 candela in the case of an approach centerline for precision approach, higher than 5,000 candela in the case of a side row barrette, or higher than 2,000 candela in the case of others, and the effective intensity of the lights prescribed in b must be higher than 5,000 candela.

f. the light distribution must not be too bright for an aircraft.

g. A light unit, in the case of an embedded type, must be designed to support the load of aircraft wheels passing on it and it will not affect the landing and taking off of an aircraft, and in the case of other types, when an aircraft runs into it, it will not cause damages to the light unit and it will not affect the functions of other light units.

h. flashing lights must be emitted in a sequential order from an approaching end toward the runway threshold and the number of flashes must be 2 times per second.

i. a control unit that can promptly control the light intensity (hereafter referred to as control unit) must be installed.

j. a system that can monitor the operation of flashing lights and, if any trouble occurs while in operation, can inform the trouble to a control station (hereafter referred to as a "monitoring system") must be installed.

k. a backup power-supply system must be provided.

3. Simple Approach Lighting System

a. The light unit must be installed as prescribed below:

i. a light unit must be installed at each location between the runway threshold and the locations more than 420 meters and less than 900 meters away from the line extended from a runway centerline, which is 60 meters apart from others.

ii. the light unit must be installed at the fifth point from the runway threshold among the points prescribed in i on the 30 meter-long straight line that crosses the line extended from a runway centerline (hereinafter referred to as "orthogonal cross point" in ii and iii), on a 4-meter straight line whose center matches the orthogonal cross point, 2 or 4 units are arranged in the positions in a section of more than 4.5 meters or less than 6 meters farther away from the orthogonal cross point and symmetrically against the line extended from runway centerline with approximately equal spacing of more than 0.9 meters or less than 3.6 meters.

iii. two or four light units may be installed on the 4-meter straight line with its center matching the the orthogonal cross point and intersecting the line extended from runway centerline at the point prescribed in i (excluding the orthogonal cross point) symmetrically against the centerline at equal intervals provided, however that the number of the light units must be the same as that of the 4-meter section of the straight line with its center matching the orthogonal cross point on the 30-meter long straight line that crosses the line extended from a runway centerline.

b. the lights must be constant red lights, yellow lights, white lights or variable white lights.

c. the light intensity toward an approaching aircraft must be higher than 500 candela.

d. the light distribution must not be too bright for an aircraft.

e. a light unit, in the case of an embedded type, must be designed to support the load of aircraft wheels passing on it and it will not affect the landing and taking off of an aircraft, and in the case of other types, when an aircraft runs into it, it will not cause damages to the aircraft and it will not affect the functions of other light units.

f. a control system must be installed.

g. a monitoring system must be installed.

h. a backup power supply system must be provided.

(d) precision approach path indicator

1. the light unit must conform to the installation criteria specified below:

a. in the case of an offshore airport, etc. of which landing strip falls under either of the classes A through F, the installation criteria of PAPI lights.

b. in the case of an offshore airport, etc. of which landing strip falls under

either of the classes G through J, either the installation criteria of PAPI Lights or APAPI Lights.

c. in the case of an offshore heliport, either of the installation criteria of PAPI Lights, the installation criteria of light units pursuant to APAPI Lights, or the installation criteria of HPAPI Lights.

2. Installation Criteria of PAPI Lights

a. in the location indicated in Figure 1, 4 light units must be installed on the left side when seen from an aircraft; provided, however, that in the case of an offshore airport, etc., when it is obviously necessary, such as when no approach lighting system is installed in the relevant airport, 8 light units must be installed in the location indicated in Figure 2 so that they are symmetrical positioned against the runway centerline.

Figure 1 (omitted)

Figure 2 (omitted)

b. each light unit must emit a beam of white light or variable white light from its upper layer and red light from its lower layer toward the direction of an approaching aircraft at an angle indicated in Figure 2.

Figure 3 (omitted)

Remark: The angles "a" through angle "d" must be the angle formed by the boundary plane of the upper and lower layers of a beam of light from light units A through D and the horizontal plane.

c. The intensity of a beam of light from each light unit must be, within a cone comprising a boundary plane between the upper and lower layers of the beam of light and the light source center and an axis formed by a cross-line of a vertical plane parallel to the runway centerline and the light source center as the apex with apical angle against the light source of 4 degrees, the lower layer must be higher than 15,000 candela and the upper layer must be more than 2 times and less than 6.5 times than the intensity of the lower layer; and within a space corresponding to the locus in the case of a cone with said cross-line as an axis and the apex with an apical angle of 7 degrees is allowed to rotate around the apex for 4.5 degrees toward left and right along the boundary plane between the upper and lower layers of the anode light, the lower layer must be 4,000 candela or more and the upper layer must be 2 times to 6.5 times of the intensity of the lower layer.

d. the light distribution must not be too bright for an aircraft.

e. the light unit must not cause damage to an aircraft when the aircraft runs into it, and will not affect the functions of other light units.

f. a control system must be installed.

g. in the case of an onshore airport, etc., a monitoring system must be installed.

h. in the case of an onshore airport, etc., a backup power-supply system must be provided.

3. Installation Criteria of APAPI Lights

a. in the location indicated in Figure 4, 2 light units must be installed on the left side as seen from an aircraft. In the case of an offshore airport, etc.; provided, however, that when an approach lighting system is deemed necessary, for instance, when no approach lighting system is installed in the relevant airport, 4 light units must be installed in the location indicated in Figure 5 so that they are positioned symmetrical about the runway centerline.

Figure 4 (omitted)

Figure 5 (omitted)

b. each light unit must emit a beam of white light or variable white light from its upper layer and of red light from its lower layer toward the direction of an approaching aircraft at an angle indicated in Figure 6.

Figure 6 (omitted)

Remark: Angle "e" and angle "f" must be the angle formed by the boundary plane of upper and lower layers of the beam of light from light unit E and unit F and the horizontal plane, respectively.

c. The intensity of a beam of light from each light unit must be, within a cone comprising a boundary plane between the upper and lower layers of the beam of light and the light source center and an axis formed by a cross-line of a vertical plane parallel to the runway centerline and the light source center as the apex with apical angle against the light source of 4 degrees, the lower layer must be higher than 5,000 candela and the upper layer must be 2 times to 6.5 times higher than the intensity of the lower layer; and within a space corresponding to the locus in the case of a cone with the cross-line as an axis and the apex with an apical angle of 7 degrees is allowed to rotate around the apex for 4.5 degrees toward left and right along the boundary plane between the upper and lower layers of the beam of light, the lower layer must be higher than 1,500 candela and the upper layer must be 2 times to 6.5 times higher than the intensity of lower layer.

d. the relevant units must conform to the standards listed in 2, d and e.

e. in the case of an onshore airport, the relevant units must conform to the standards listed in 2, g and h.

4. Installation Criteria of HAPI Lights

b. the light unit must be installed in the place peripheral to a landing area in ways that it will not become an obstacle to an aircraft during flight.

b. the light unit must emits a blinking green light, a constant green light and a constant red light and blinking red light toward the direction of an

approaching aircraft at an angle indicated in Figure 7.

Figure 7 (omitted)

- c. the number of blinks per minute must be 120 or more.
- d. the maximum light intensity of a constant light and a blinking light must be, in the azimuth angles, a range within 3 degrees each leftward and rightward from a vertical plane comprising the light source center and take-off or landing path, or a vertical plane parallel to the path, and a range within 2 degrees upward and downward from the boundary plane between green and red, the intensity being higher than 9,000 candela and in the azimuth angles, a range within 15 degrees each leftward and rightward from a vertical plane comprising the light source center and take-off or landing path, or a vertical plane parallel to the path, and a range within 10 degrees upward and downward from the boundary plane between green and red, the intensity is higher than 375 candela, and, the cross-section of the beam of light in the plane perpendicularly intersecting the crossing line of a vertical plane comprising the take-off or landing path or a vertical plane parallel to the path and the boundary plane between green and red must be oval.
- e. the relevant units must conform to the standards listed in 2, e and f.

(e) circling guidance lights

1. the light units must be installed in a place less than 300 meters at almost equal intervals on a straight line parallel to the outer runway centerline of the array of runway edge lights where circling approaches are performed.
2. Lights must be constant white lights, variable white lights, or constant yellow lights.
3. The maximum intensity of lights in the direction of an aircraft circling path must be higher than 2,000 candela.
4. the light unit must not cause damage to an aircraft when the aircraft runs into it.

(f) Approach Light Beacon

1. the light unit must be installed at the 600-meter point and at the 900-meter point from the runway threshold on the line extended from a runway centerline; provided, however, that if an approach lighting system is not installed, the light unit must also be installed at the 300-meter point from the runway threshold on line extended from a runway centerline.
2. Lights must be flashing white lights.
3. The number of flashes per minute must be 60.
4. The light distribution must not be too bright for an aircraft.

(g) Approach Guidance Lights

1. Lights must be flashing or constant white lights or yellow lights.

2. The number of flashes must be 2 per second.
3. The effective intensity of flashing lights must be higher than 5,000 candela, and in the case of a constant light, higher than 10,000 candela.

(h) Runway Edge Lights

1. In the case of the lights pertaining to instrument landing runway, high intensity runway edge lights must be employed, while in the case of others, low intensity runway edge lights must be employed.
2. High Intensity Runway Edge Lights
 - a. the light units must be installed on two straight lines arranged on both sides of a runway or further outside by 3 meters in parallel with the runway centerline at equal intervals of 60 meters or less and symmetrical about the runway centerline whenever possible.
 - b. the lights must be constant lights that are variable white lights; provided, however, that if the light units are installed within a range of one-third of the length of the runway or 600 meters away from the runway threshold ahead whichever is shorter (meaning the runway threshold ahead as seen from an aircraft intending to land; the same applies hereinafter), lights must be yellow lights.
- c. the beam of light from runway edge lights must be visible from an aircraft intending to land within the minimum range listed in the right-hand side column of the following table corresponding to the intervals between the runway edge lights given in the left-hand side column of the table, and in the case of the cross-section of the beam of light on the vertical plane perpendicularly intersecting the line extended from an array of runway edge lights, the lights must be visible from all the angles at least up to 15 degrees from the horizontal plane comprising the light source center and all the bearing directions.

Intervals Between an Array of Runway Edge Lights	Range of a Beam of Light
Over 60 meters	In azimuth angles, a range of 11 degrees from a vertical plane comprising an array of runway edge lights toward the runway centerline, another range of 2 degrees toward the opposite side, and a range of 7 degrees upward from a horizontal plane comprising the light source
Shorter than 60 meters	In azimuth angles, a range of 9 degrees from a vertical plane comprising an array of runway edge lights toward the runway centerline, another range of 2 degrees toward the opposite side, and a range of 7 degrees upward from a horizontal plane comprising the light source

- d. The intensity of a beam of light must be higher than 10,000 candela or in the case of that for precision approach, and in other cases, it must be higher than 1,000 candela; provided, however, that in the case of yellow lights, the intensity must be higher than 40%.
- e. the light distribution must not be too bright for an aircraft.
- f. a light unit, in the case of an embedded type, must be designed to support the load of aircraft wheels passing on it and will not prevent the landing and taking off of an aircraft, and in the case of other types, a light unit must not cause damage to an aircraft when the aircraft runs into it, and will not affect the functions of other light units.
- g. the height of a light unit must not exceed 60 centimeters above the ground surface.
- h. a control system must be installed.
- i. a monitoring system must be installed.
- j. a backup power-supply system must be provided.

3. Low Intensity Runway Edge Lights

- a. the light units must be installed on two straight lines arranged on both sides of a runway or 3 meters outside of it in parallel with the runway centerline at equal intervals of 100 meters or less and symmetrical about the runway centerline.
- b. the light must be constant white light or variable white lights and visible from all the angles at least up to 15 degrees from the horizontal plane comprising the light source center and all the bearing directions.
- c. the light intensity toward an approaching aircraft must be higher than 50 candela.
- d. the light unit must not cause damage to an aircraft when the aircraft runs into it, and will not affect the functions of other light units.
- e. the light units must conform to the standards listed in 2, e, g and j.

(i) runway threshold lights

1. In the case of runway threshold lights pertaining to a runway intended for instrument landing, high intensity runway threshold lights must be employed, while in other cases, low intensity runway threshold lights must be employed.

2. High Intensity Runway Threshold Lights

a. the light units must be installed on a straight line perpendicularly intersecting the line extended from a runway centerline and 3 meters or less apart from the runway threshold toward the approaching area side, and between the two points each crossing the line extended from the array of runway edge lights in either of the following ways; provided, however, that in the case of those installed at a runway intended for Category II precision approach and Category III precision approach, the light units

- must be installed pursuant to the provisions of the proviso to sub-subitem i.
- i. more than 6 light units must be symmetrically installed about the line extended from a runway centerline at equal intervals (2 of the 6 units must be installed on the line extended from the array of runway edge lights); provided, however, that in the case of those units pertaining to a runway intended for instrument landing by means of precision approach, more than 12 units must be installed symmetrical about the line extended from a runway centerline at equal intervals of 3 meters or less (2 of the 12 units must be installed on the line extended from the array of runway edge lights).
 - ii. light units must be installed at intervals of 18 to 22.5 meters centering around the line extended from a runway centerline, and 6 or more units must be installed at equal intervals and outside the line symmetrically about the line extended from the runway centerline (2 of the 6 units must be installed on the line extended from the array of runway edge lights); provided, however, that in the case of light units pertaining to a runway intended for instrument landing by means of precision approach, those must be installed at intervals of 18 to 22.5 meters centering around the line extended from a runway centerline, and a number of light units equal to or more than the number required in the case of installation pursuant to the proviso to sub-subitem i must be installed at equal intervals and outside the line symmetrically about the line extended from a runway centerline (2 of the light units must be installed on the line extended from the arrays of runway edge lights)
 - b. lights must be constant green lights in the case of those indicating the approach end of runway as seen from an aircraft intending to land or constant red lights in the case of those indicating the runway threshold ahead.
 - c. in the case of light units indicating the approach end of a runway as seen from an aircraft intending to land, all of them must be visually recognizable, and in the case of those indicating the end of runway, more than 6 units must be visually recognizable.
 - d. The beam of light from the lights for precision approach must be visible from an aircraft intending to land at least within the range listed in the right-hand side column of the following Table according to the respective classes given in the left-hand side column in that Table, and the cross-section surface in the vertical plane perpendicular to the line extended from a runway centerline must be oval.

Types of Runway Threshold	Range of a Beam of Light
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Approach end of runway	In azimuth angles, a range comprising the light source center, and 9 degrees from a vertical plane parallel toward the runway centerline and 2 degrees toward the other side (in the case that a light source is on the line extended from the runway centerline, up to 2 degrees from the vertical plane comprising the runway centerline), and another range from 1 to 10 degrees upward from a horizontal plane comprising the light source center
Runway threshold	In azimuth angles, a range comprising the light source center, and up to 6 degrees leftward and rightward respectively from a vertical plane comprising the runway centerline or from a vertical plane parallel to the runway centerline, and another range from 0.25 to 4.75 degrees upward from a horizontal plane comprising the light source center

e. The intensity of a beam of light must be, in the case of those indicating an approach end of runway, higher than 10,000 candela for precision approach, and for other purposes, higher than 1,000 candela, while in the case of those indicating the end of runway higher than 2,500 candela for precision approach, and for other purposes, higher than 250 candela.

f. the light distribution must not be too bright for an aircraft.

g. a light unit, in the case of an embedded type, must be designed to support the load of aircraft wheels passing on it and it will not prevent the landing and taking off of an aircraft, and in the case of other types, when an aircraft runs into it, it will not cause damage to the aircraft and will not affect the functions of other light units.

h. a control system must be installed.

i. a monitoring system must be installed.

j. a backup power-supply system must be provided.

3. Low Intensity Runway Threshold Lights

a. the light units must be installed on a straight line perpendicularly intersecting the line extended from a runway centerline and 3 meters or less apart from the runway threshold toward the approaching area, and between the two points crossing the line extended from the array of runway edge lights in either of the following ways:

i. a total of 6 or more light units must be symmetrically installed about the line extended from a runway centerline at equal intervals (2 of the 6 units must be installed on the line extended from the array of runway edge lights).

ii. light units must be installed at intervals of 18 to 22.5 meters centering around the line extended from a runway centerline, and 6 or more units must be installed at equal intervals and outside the line symmetrically

- about the line extended from a runway centerline (2 of the 6 units must be installed on the line extended from the arrays of runway edge lights)
- b. the light intensity toward an approaching aircraft must be higher than 50 candela.
 - c. the light units must conform to the standards listed in 2, b" c, f, g and j.
- (j) wing bar lights
1. More than 10 light units must be installed symmetrically about the line extended from a runway centerline at equal intervals along the line for 10 meters or more outside the intersection of the line extended from the array of runway threshold lights and the line extended from the array of runway edge lights.
 2. Lights must be constant green lights.
 3. The beam of light from wing bar lights for precision approach must at least include the light source center, within the minimum azimuth as seen from an aircraft intending to land, and is visible in a range up to 9 degrees toward the runway centerline and 5 degrees toward the other side from a vertical plane that is parallel to the runway centerline, and in a range of 0.5 to 10.5 degrees upward from a horizontal plane comprising the light source center; and the cross-section of the beam of light must be oval.
 4. The intensity of the beam of light must be higher than 10,000 candela in the case of the light intended for precision approach.
 5. The light unit must conform to the standards listed in 2, f, g, h. and i.
- (k) runway threshold identification lights
1. light units must be installed so that 1 unit is installed symmetrically about the line extended from a runway centerline for 10 to 20 meters from the intersection of the line extended from of the array of runway threshold lights and the line extended from the array of runway edge lights.
 2. Lights must be flashing white lights.
 3. The number of flashes per minute must be 60 to 120.
 4. The effective intensity of lights must be higher than 5,000 candela.
 5. The light distribution must not be too bright for an aircraft.
 6. The light unit must not cause damage to an aircraft when the aircraft runs into it, and it will not affect the functions of other light units.
 7. A backup power-supply system must be provided.
- (l) runway centerline lights
1. The light units must be installed at equal intervals of approximately 15 meters or 30 meters at the places along the runway centerline (in the case of those installed at a runway intended for Category II precision approach or Category III precision approach, at equal intervals of 15 meters only).
 2. Lights must be, in the case of those located within a range of 300 meters away from the end of runway as seen from an aircraft intending to land,

constant red lights, while in the case of those more than 300 meters and less than 900 meters away from the end of runway (in the case of a runway less than 1,800 meters long, one-half of its length), constant lights that are alternate red lights and variable white lights, and in other cases, constant lights that are variable white lights.

3. The beam of light from the lights for precision approach must be visible from an aircraft intending to land at least within the range listed in the right-hand side column of the following Table according to the respective classes given in the left-hand side column in that Table, and the cross-section surface in the vertical plane perpendicular to the line extended from a runway centerline must be oval.

Intervals Between Light Units	Range of a Beam of Light
Approximately 30 meters	In azimuth angles, a range comprising the light source center, and up to 5 degrees leftward and rightward respectively from a vertical plane comprising the runway centerline and another range of 7 degrees upward from a horizontal plane comprising the light source center
Approximately 15 meters	In azimuth angles, a range comprising the light source center, and up to 5 degrees or less leftward and rightward respectively from a vertical plane comprising the runway centerline and another range of 9 degrees upward from a horizontal plane comprising the light source center

4. The intensity of the beam of light of lights intended for precision approach must be higher than 2,500 candela in the case of those installed at the intervals of approximately 15 meters (in the case of those intended for Category III precision approach, higher than 5,000 candela), in the case of those installed at the intervals of 30 meters, higher than 5,000 candela; provided, however, that in the case of red lights, the intensity must be higher than 15% of it.

5. The light distribution must not be too bright for an aircraft.

6. A light unit must be designed to support the load of aircraft wheels passing on it and not to prevent the landing and taking off of an aircraft.

7. A control system must be installed.

8. A monitoring system must be installed.

9. A backup power-supply system must be provided.

(m) runway touchdown zone lights

1. The light units must be installed on a runway from the end of runway to the point 900 meters away from there at equal intervals of 60 meters (in the case of those for a runway intended for Category II or Category III precision approach, at approximately 30 meters intervals), and

symmetrical about the runway centerline as shown in the following table; provided, however, that in the case of a runway less than 1,800 meters long, the light units must be installed within a range not exceeding one-half of the runway length.

Figure (omitted)

2. Lights must be constant lights that are variable white lights
3. The beam of light from runway touchdown zone lights must at least include the light source center, within the azimuth as seen from an aircraft intending to land, and must be visible in a range up to 9 degrees toward the runway centerline and 1 degree toward the other side from a vertical plane that is parallel to the runway centerline, and in a range of 2 to 9 degrees upward from a horizontal plane comprising the light source center; and the cross-section surface of the beam of light in the vertical plane intersecting the line extended from the runway center line must be oval.
4. The intensity of a beam of light must be higher than 5,000 candela.
5. The light distribution must not be too bright for an aircraft.
6. A light unit must be designed to support the load of aircraft wheels passing on it and will not prevent the landing and taking off of an aircraft.
7. A control system must be installed.
8. A monitoring system must be installed.
9. A backup power-supply system must be provided.

(n) runway distance marker lights

1. Light units must be installed at each place at equal intervals of approximately 300 meters on a straight line, in parallel with the runway centerline outside the arrays of runway edge lights connecting the end of runway.
2. Light units installed at a point approximately 300 meters away from the line extended from the end of runway must show the Arabic number "1", those installed at a point approximately 600 meters away from there must show "2", and those installed beyond at intervals of approximately 300 meters must show numbers in the same sequence, and the relevant figures must be sufficiently visible both during daytime and nighttime.
3. Lights must be constant yellow lights, white lights, or variable white lights.
4. The light distribution must not be too bright for an aircraft.
5. Light unit must not affect the functions of other lights.

(o) overrun area edge lights

1. More than 3 light units must be installed on both sides of an overrun zone at equal intervals of approximately 60 meters or less and along the end of the overrun zone almost symmetrically about the runway centerline.
2. The height of a light unit must not exceed 60 centimeters above the

ground surface.

3. Lights must be constant red lights.

4. The light intensity toward the runway centerline and its extended line must be higher than 30 candela.

5. The light distribution must not be too bright for an aircraft.

6. The light unit must not cause damage to an aircraft when the aircraft runs into it, and will not affect the functions of other light units.

(p) take-off aiming lights

1. More than one light unit must be installed on the line extended from a runway centerline or more than 2 units must be installed symmetrically about the extended line outside the landing strip.

2. Lights must be constant red lights, yellow lights, white lights or variable white lights.

3. The light distribution must not be too bright for an aircraft.

4. Light unit must not affect the functions of other lights.

(q) emergency runway lights

1. Light units must be installed on two straight lines along both sides of a runway for less than 180 meters, symmetrically about the runway centerline whenever possible.

2. Lights must be constant lights of variable white lights.

3. The light intensity toward an approaching aircraft must be higher than 10 candela.

4. Light unit must not cause damage to an aircraft when the aircraft runs into it.

(r) channel lights

1. A channel light must be either a single array lights or multi-array channel lights.

2. Single-array Channel Lights

a. More than 8 light units must be installed at equal intervals on a straight line less than 300 meters long along the left-hand side of a landing strip as seen from an approach area

b. lights must be constant green lights which are visible from all the angles up to at least 30 degrees from the horizontal plane comprising the light source center

c. the light intensity must be higher than 10 candela.

d. the light unit must not cause damage to an aircraft when the aircraft runs into it, and will not affect the functions of other light units.

3. Multi-array Channel Lights

a. the light units must be installed on two straight lines less than 300 meters long on both sides of a landing strip in parallel with the landing strip centerline at equal intervals of 150 meters or less which are

- symmetrical about the landing strip centerline
 - b. lights must be constant green lights, which are visible from all the angles up to at least 30 degrees from the horizontal plane comprising the light source center.
 - c. the light intensity must be higher than 10 candela.
 - d. the light unit must not cause damage to an aircraft when the aircraft runs into it, and will not affect the functions of other light units.
- (s) channel threshold lights
1. If single array channel lights are to be installed, single array threshold lights must be installed, and if multi-array channel lights are to be installed, multi-array channel threshold lights must be installed.
 2. Single-array Channel Threshold Lights
 - a. the light unit must be installed on the respective lines extended from the arrays of channel lights at a distance specified in (r), 2, a from both ends of the arrays of channel lights. When the width of a landing strip needs to be indicated, one light unit may be installed at a point 150 to 300 meters away from the landing strip to the right as seen from the approach area and, when the landing strip threshold needs to be indicated, additional light units may be installed between the light units at intervals of 100 meters or less.
 - b. the lights must be constant yellow lights and visible from all the angles up to at least 30 degrees from the horizontal plane comprising the light source center.
 - c. the light intensity must be higher than higher than 10 candela.
 - d. the light unit must not cause damage to an aircraft when the aircraft runs into it, and will not affect the functions of other light units.
 3. Mull-array Channel Threshold Lights
 - a. The light units must be installed on a straight line perpendicularly intersecting the landing strip centerline at both ends of the landing strip, and if the landing strip is less than 150 meters wide, two light units must be installed at both ends of the arrays of channel lights, and if the landing strip is more than 150 meters wide, the light units must be installed at equal intervals of 60 to 100 meters.
 - b. lights must be constant yellow lights and visible from all the angles up to at least 30 degrees from the horizontal plane comprising the light source center.
 - c. the light intensity must be higher than 10 candela.
 - d. the light unit must not cause damage to an aircraft when the aircraft runs into it, and will not affect the functions of other light units.
- (t) taxiway edge lights
1. The light units must be installed on both sides of a taxiway and on the

edges of an apron area or lines outside the apron less than 3 meters away from the taxiway or apron, and in the case of a straight line, the light units must be installed at intervals almost equal to 60 meters or less and in the case of a curved line, those must be installed at intervals in ways that the curved line can be clearly made visible.

2. In a place where a taxiway is connected with a runway or an apron area, a light unit must be installed on both sides of the entrance to indicate the entrance in any of the following ways.

- a. two light units must be installed respectively at intervals of 1.5 meters.
- b. a light unit having a light-emitting tube more than 1.5 meters long must be installed at each location.

3. Lights must be constant blue lights, which are visible from all the angles up to at least 30 degrees from the horizontal plane comprising the light source center.

4. The light distribution must not be too bright for an aircraft.

5. The light unit must not cause damage to an aircraft when the aircraft runs into it, and will not affect the functions of other light units.

(u) taxiway centerline lights

1. The light units must be installed on the taxiway centerline and on the taxiway to a runway or an apron area, and in the case of a curved line and its vicinity, those must be installed at intervals in ways that the curved line can be clearly made visible, and in the other areas, at equal intervals of approximately 30 meters or less (15 meters in the case of a high speed exit taxiway and a taxiway that can be used when runway visual range is less than 350 meters (hereafter referred to as "low visibility taxiway")).

2. Lights must be constant green lights; provided, however, that if those are to be installed along the taxiway to a runway in order to indicate the taxiway centerline and taxiway to an aircraft intending to exit the runway, lights must be alternate constant green and yellow lights.

3. The beam of light from the lights installed along a low visibility taxiway must be visually recognizable from a taxiing aircraft at least within the range prescribed in the right-hand side column of the following Table according to classes in the left-hand side columns of that Table.

Classification	Range of a Beam of Light
Section of straight line (1)	In azimuth angles, a range comprising the light source center, and up to 10 degrees leftward and rightward respectively from a vertical plane comprising the tangential line of runway centerline, and another range from 1 to 8 degrees upward from a horizontal plane comprising the light source center

Section of straight line (2)	In azimuth angles, a range comprising the light source center, and up to 3.5 degrees leftward and rightward respectively from a vertical plane comprising the runway centerline, and another range from 1 to 8 degrees upward from a horizontal plane comprising the light source center
Section of curved line	In azimuth angles, a range comprising the light source center, and up to 35 degrees toward the runway centerline and up to 3.5 degrees toward the opposite side from a vertical plane comprising the tangential line of the runway centerline, and another range from 1 to 10 degrees upward from a horizontal plane comprising the light source center

Remark:

- (i) a straight line (1) means a straight line(s) of a taxiway, which is located near a curved line and a curved line of which curvature radius exceeds 400 meters; the same applies hereinafter.
- (ii) a straight line (2) means a straight line(s) of a taxiway other than the straight line (1); the same applies hereinafter.
- (iii) a curved line means a curved line(s) of a taxiway other than the straight line (1); the same applies hereinafter.

4. The intensity of a beam of light from those installed on a low visibility taxiway must be higher than 200 candela if those are installed on a straight line (1) and (2), higher than 100 candela on a curved line, or higher than 20 candela if those are installed on other taxiways.

5. The light distribution must not be too bright for an aircraft.

6. A light unit must be designed to support the load of aircraft wheels passing on it and not to prevent taxiing of an aircraft on the ground.

7. If a light unit is installed on a low visibility taxiway, a control system must be installed.

8. If a light unit is installed on a low visibility taxiway, a monitoring system must be installed.

9. If a light unit is installed on a low visibility taxiway, a backup power-supply system must be provided.

(v) stop bar lights

1. The light units must be installed as many as necessary at a place to make a temporary stop on a straight line perpendicular to the taxiway centerline within a taxiway at equal intervals of approximately 3 meters, and if necessary, two light units must be installed at intervals of approximately more than 3 meters outside a taxiway for more than 3 meters along both sides of a taxiway.

2. Lights must be constant red lights.

3. A light unit, in the case of an embedded type, must be designed to

support the load of aircraft wheels passing on it and it will not prevent a taxiing of aircraft on the ground, and in the case of other types, it must not cause damage to an aircraft when the aircraft runs into it, and will not affect the functions of other light units.

4. A backup power-supply system must be provided.

5. The light unit must conform to the standards prescribed in (u) 3, 4, 5, 7 and 8.

(w) runway guard lights

1. The light units must be installed at a place to make a temporary stop before entering a runway on a straight line perpendicular to a taxiway centerline; two light units along the both sides of the taxiway or as many as necessary at almost equal intervals of approximately 3 meters within a taxiway, which must be symmetrical about the taxiway centerline.

2. Lights must be blinking yellow lights.

3. The number of blinking per minute must be 30 to 60.

4. The beam of light must, if the light units are to be installed along both sides of a taxiway, be visible at least within the 16-degree apex angle of a cone having the light source center at its apex, and in the case of those installed within a taxiway, those must at least include the light source center and must be visible in azimuth angles, up to 10 degrees leftward and rightward from a vertical plane including the taxiway centerline or the tangential line of the taxiway centerline at least 1 to 8 degrees upward from a horizontal plane comprising the light source center.

5. The effective intensity of lights must, in the case of light units installed on both sides of a taxiway, be higher than 300 candela, or in the case of light units installed within a taxiway, be higher than 200 candela.

6. The light distribution must not be too bright for an aircraft.

7. A light unit, in the case of an embedded type, must be designed to support the load of aircraft wheels passing on it and will not prevent a taxiing of aircraft on the ground, and in the case of other types, it must not cause damage to an aircraft when the aircraft runs into it, and will not affect the functions of other light units.

8. A control system must be installed.

9. A monitoring system must be installed.

10. A backup power-supply system must be provided.

(x) intermediate holding position lights

1. More than three light units must be installed at a place where aircraft make a temporary stop on a straight line perpendicular to the taxiway centerline in a taxiway at almost equal intervals of approximately 1.5 meters, which must be almost symmetrical about the taxiway centerline.

2. Lights must be constant yellow lights.

3. The light units must conform to the standards prescribed in (u) 3 through 9.

(y) taxiing guidance signs

1. The light units must be installed at a place near a taxiway junction, a point connecting a taxiway with a runway or apron area, or at a place where those do not prevent taxiing of an aircraft on the ground near the apron so that those can be seen from an aircraft taxiing on the ground without any difficulties.

2. A sign board with symbols, Arabic numbers, or capital roman letters of a light unit must be clearly recognizable at daytime and nighttime by lighting or illuminating the board.

3. Lights must be constant red lights, yellow lights, white lights or variable white lights.

4. The following colors must be used for sign boards:

a. if a sign board indicates a place where aircraft should make a temporary stop or a not-in-service area in an airport to an aircraft taxiing on the ground, white must be used for symbols and red for background.

b. if a sign board indicates points other than those at which an aircraft taxiing on the ground must make a temporary stop, yellow must be used for symbols and black for background, and if the sign board is installed independently, the board must have a yellow border.

c. in the case of others, black must be used for symbols, etc. and yellow for background.

5. The mean luminance of the surface of sign board must be higher than 10 candela per square meter for red, higher than 50 candela per square meter for yellow, and higher than 100 candela per square meter for white; provided, however, that the mean luminance of those used when runway visual range is less than 800 meters, must be higher than 30 candela per square meter for red, higher than 150 candela per square meter for yellow, and higher than 300 candela per square meter for white.

6. The light distribution must not be too bright for an aircraft.

7. The light unit must not affect the functions of other light units.

8. For the light units board used when runway visual range is less than 800 meters, a control system must be installed.

(z) turning point identifier lights

1. The light units must be installed at a location on the edges of a turning area where a turning radius can be indicated, and 3 units must be installed on the straight line in parallel with the runway centerline passing the turning start point (meaning a point where an aircraft starts to make a turn on its turning radius;) and parallel to the runway centerline, and further 3 units must be installed with equal spacing of 5 meters on a

straight line passing the turning start point and intersecting the runway centerline and from the intersection with the left side shoulder outer edge as seen from an aircraft intending to turn and from approximately 1 meter toward outside of the shoulder.

2. Lights must be constant blue lights.
3. The light distribution must not be too bright for an aircraft.
4. The light unit must not cause damage to an aircraft when the aircraft runs into it, and will not affect the functions of other light units.

(aa) visual docking guidance system

1. The light units must be installed in a place where those will not prevent an aircraft taxiing on the ground near an apron area in ways that an aircraft taxiing on the ground may recognize those easily.
2. The light unit must clearly display the deviation from taxiing path to parking position indicated with symbols, Arabic numbers or capital roman letters and the distance to the parking position by radiating light at daytime and nighttime.
3. Lights must be constant red lights, yellow lights, green lights, white lights or variable white lights.
4. The light distribution must not be too bright for an aircraft.

(bb) taxi-channel lights

1. The light unit must be installed on a line along a taxi channel.
2. Lights must be constant blue lights and visible from all the angles up to at least 30 degrees from the horizontal plane comprising the light source center.
3. The light unit must not cause damage to an aircraft when the aircraft runs into it, and will not affect the functions of other light units.

(cc) landing direction indicator lights

1. The light light must be installed at a location within an airport, etc, that is easily visible from above.
2. T day shapes or tetrahedron day shapes must be made visible by using red lights, green lights as shown in the following figures:
Figure (omitted)
3. Lights must be visible from all the directions above a horizontal plane comprising the lights and their light intensity must be high enough to be recognized visually at an altitude of 300 meters.
4. T day shapes or tetrahedron day shapes must meet the criteria in terms of sizes and colors specified in the following Figure:
Figure (omitted)
5. The light lights must be capable of controlling directions to be indicated.

(dd) wind direction indicator lights

indicator lights must radiate lights in ways that the direction indicated by

the wind direction indicator can be clearly recognized from above during nighttime at an altitude of at least 300 meters.

(ee) direction signal lights

1. Lights must be signal lights that can be changed to any of red lights, green lights and white lights, and can be directed to an arbitrary object.
2. The light beam angle must be from 1 to 3 degrees.
3. The intensity of a beam of light must be higher than 6,000 candela and the intensity of light in the directions greater than 3 degrees from the beam axis must be negligibly small.
4. The light unit must be capable of transmitting Morse code at a speed of 4 words or more per minute.

(ff) Unserviceability lights

1. The light units, if a runway or taxiway is located in the area where use of aircraft is restricted, must be installed at both ends at almost equal intervals of less than 3 meters, and if the not-in-service area is located at a place other than a runway or a taxiway within the airport, must be installed on the boundary line of the not-in-service area or in the middle of that area.
2. Lights must be constant red lights and visible from all the angles above the horizontal plane comprising the light source center.
3. The light intensity must be higher than 10 candela.

(gg) landing area flood lights

1. The light unit must be installed in a place peripheral to a landing area in ways that it will not become an obstacle to an aircraft during flight.
2. Lights must be constant lights that are variable white lights.
3. The light distribution must be designed to illuminate the entire landing area and must not be too bright for an aircraft.
4. The normal luminance at the center of an illuminated touch-down zone must be higher than 10 lux.

(hh) boundary lights

1. More than eight light units must be installed on the boundary line of a landing area in the case of an onshore heliport, at almost equal intervals of 15 meters or less, and in the case of other airport, etc., those must be installed at almost equal intervals of 100 meters or less; provided, however, that in the case of a building area where part of the boundary of landing area is properly made visible by using lights for an apron area, the light units in the relevant area may be omitted.
2. Light must be constant white light or yellow lights and visible from all the angles up to at least 30 degrees from the horizontal plane comprising the light source center.
3. The light intensity must be higher than 10 candela.

(ii) water boundary lights

1. The light units must be installed on the boundary line in a water landing area at equal intervals of approximately 150 meters.
2. Lights must be constant green lights and visible from all the angles up to at least 30 degrees from the horizontal plane comprising the light source center.
3. The light intensity must be higher than 10 candela.

(jj) range lights

1. The light unit must be installed on a straight line perpendicular to the take-off or landing path near where the boundary line of landing area to be symmetrical about the take-off or landing path; provided, however, that if there are more than two take-off or landing paths, a different number of light units must be installed along each path.
2. Lights must be constant green lights and visible from all the angles up to at least 30 degrees from the horizontal plane comprising the light source center.
3. The light intensity must be over 50% of the intensity of a boundary light.

(kk) water range lights

1. The light unit must be installed on the straight line perpendicular to take off or landing path near the crossing where take-off or landing path meet up with the boundary line of landing area, to be symmetrical about the take-off or landing path.
2. Lights must be constant yellow lights and visible from all the angles up to at least 30 degrees from the horizontal plane comprising the light source center.
3. The light intensity must be higher than 10 candela.

(2) The provisions of paragraph (2) of Article 99 apply mutatis mutandis to the installation of aerodrome lighting. In this case, the term "preceding paragraph" in that paragraph is deemed to be replaced with "paragraph (1) of Article 117" and the "radio navigation aids" is deemed to be replaced with "aerodrome lighting."

(Request for Construction Completion Inspection)

Article 118 (1) A person intending to request for construction completion inspection of aeronautical lighting pursuant to the provision of paragraph (1) of Article 42 of the Act must submit a written request for construction completion inspection of aeronautical lighting providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

(i) name and address

(ii) name and address of aeronautical lighting

(iii) construction completion date

(2) The provisions of the preceding paragraph apply mutatis mutandis to the request for construction completion inspection of alteration to aeronautical lighting pursuant to the provisions of paragraph (1) of Article 42 of the Act as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 43 of the Act.

(Notification of Service Commencement Date)

Article 119 (1) A person who intends to submit a notification of service commencement date of aeronautical lighting pursuant to the provisions of paragraph (3) of Article 42 of the Act must submit a written notification of service commencement of aeronautical lighting providing following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

(i) name and address

(ii) name and address of aeronautical lighting

(iii) service commencement date

(2) Provisions of the preceding paragraph apply mutatis mutandis to the notification of service resumption date of aeronautical lighting that has been altered or whose services has been suspended pursuant to the provisions of paragraph (3) of Article 42 of the Act as applied mutatis mutandis pursuant to the provisions of paragraph (5) of Article 44 of the Act as applied mutatis mutandis pursuant to the provision of paragraph (2) of Article 43 of the Act and paragraph (2) of Article 45 of the Act, respectively.

(Significant Changes or Alterations)

Article 120 Significant changes and alterations for which the applicant must obtain the permission prescribed in paragraph (1) of Article 43 of the Act are as follows:

(i) changes in light quality, light intensity or range of a beam of light

(ii) in the case of aerodrome lighting, changes in layout and combination of lights

(iii) changes in structure or circuits of control system or in constant current circuits (limited to cases where the changes may affect the light quality, light intensity, or other optical properties of lights)

(iv) new installation or expansion of a control system or expansion of power-supply system

(Application for Permission for Change)

Article 121 (1) A person intending to apply for permission to change aeronautical lighting, pursuant to the provisions of paragraph (2) of Article 38 of the Act as applied mutatis mutandis pursuant to the provisions of paragraph (2) of Article 43 of the Act must submit two copies of written applications for permission to

change aeronautical lighting providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
 - (ii) name and address of aeronautical lighting
 - (iii) particulars to be changed (documents and drawings comparing the old and new particulars must be attached.)
 - (iv) costs required for the changes
 - (v) scheduled construction commencement and completion dates
 - (vi) if administrative plans is changed, the administrative plan after the change
 - (vii) reasons for the change
- (2) The documents and drawings specified below must be attached to the written application prescribed in the preceding paragraph:
- (i) documents describing the costs required for the change and the methods for procuring land and objects
 - (ii) construction design drawings and documents, and construction budget statement and specifications
 - (iii) if an applicant is a judicial person or partnership, documents certifying the decision made on the change.

(Notification of Suspension or Discontinuation of Services)

Article 122 (1) A person intending to submit a notification of suspension or discontinuation of services of aeronautical lighting pursuant to the provisions of paragraph (1) of Article 45 of the Act must submit a written notification of suspension (discontinuation) of aeronautical lighting providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
 - (ii) name and address of aeronautical lighting
 - (iii) in the case of notification of discontinuation, the scheduled service discontinuation date
 - (iv) in the case of notification of suspension, the scheduled suspension commencement date and the suspension period
 - (v) reasons for the suspension or discontinuation
- (2) If an applicant is a judicial person or partnership, the documents certifying the decision made on the suspension or discontinuation must be attached to the written notification" prescribed in the preceding paragraph.

(Request for Services Resumption Inspection)

Article 123 (1) A person intending to undergo a service resumption inspection of aeronautical lighting pursuant to the provisions of paragraph (4) of Article 44 of the Act as applied mutatis mutandis pursuant to the provisions of paragraph

(2) of Article 45 of the Act must submit a written request for service resumption inspection of aeronautical lighting providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
- (ii) name and address of aeronautical lighting
- (iii) scheduled service resumption date

(2) If an applicant is a judicial person or partnership, the documents certifying the decision made on the resumption of services must be attached to the written request prescribed in the preceding paragraph.

(Public notice of services commencement)

Article 124 (1) Particulars that must be notified to the public pursuant to the provisions of Article 46 of the Act when a notification of service commencement date of aeronautical lighting is submitted are as specified below:

- (i) name and address
- (ii) type and name of aeronautical lighting
- (iii) location and address of aeronautical lighting
- (iv) light quality, light intensity, layout and other important matters concerning the performance of aeronautical lighting
- (v) operation hours
- (vi) service commencement date
- (vii) special notes on the use of aeronautical lighting

(2) The provisions of the preceding paragraph apply mutatis mutandis to the case where the Minister of Land, Infrastructure, Transport and Tourism installs aeronautical lighting.

(Public Notice of Change or Suspension)

Article 125 The particulars that must be publicly notified when any change is made to the particulars concerning aeronautical lighting or when the services of aeronautical lighting is restricted, resumed or discontinued pursuant to the provisions of Article 46 of this Act (including as applied mutatis mutandis pursuant to the provisions of Article 55, paragraph (2), item (ii) of the Act) are as specified below, beyond what is set forth in items (i), (ii) and (iii) of paragraph (1) of the preceding Article:

- (i) if any changes are made to the particulars that have been publicly notified, the particulars that have been changed
- (ii) in the case of a suspension, the scheduled suspension commencement date and the suspension period
- (iii) in the case of a resumption or discontinuation, the scheduled date

(Air Navigation Facilities for Which Public Notice is not Required)

Article 125-2 Air navigation facilities specified by Order of Minister of Land, Infrastructure, Transport and Tourism referred to in Article 46 of the Act are aerodrome lighting at airfields not open for public use.

(Criteria for Administration)

Article 126 The criteria for aeronautical lighting administration pursuant to the provisions of paragraph (1) of Article 47 of the Act (including as applied mutatis mutandis pursuant to the provisions of Article 55, paragraph (2), item (ii) of the Act) are as specified below:

- (i) the operation of the lighting must be steadily maintained during a specified operation hours.
- (ii) the aeronautical lighting must be sustained in perfect conditions by refurbishing and cleaning the lighting, etc.
- (iii) the prohibited acts prescribed in Article 53 of the Act must be displayed so that the public may recognize it easily.
- (iv) when the functions of aeronautical lighting may be damaged by other objects including building structures and plants, necessary measures such as removal of the objects must be taken.
- (v) the system to communicate with the Minister of Land, Infrastructure, Transport and Tourism must be established, which will be required when the operation of aeronautical lighting is suspended or the functions thereof may be damaged due to unavoidable grounds as well as when the operation or functions of aeronautical lighting are restored.
- (vi) when the operation of aeronautical lighting is affected by natural disasters or other accidents, efforts must be made immediately to recover the operation and take appropriate measures to prevent disruption in aviation, such as continuing the operation as much as possible.
- (vii) when refurbishment or other construction work is to be implemented for aeronautical lighting, appropriate measures must be taken so that air navigation will not be restricted.
- (viii) the administrator of aeronautical lighting must keep a s logbook for the lighting and record the following matters and store it for one year:
 - (a) in the case of aeronautical lighting, results of monitoring by a monitoring system (number of recording must be at least once a day) and the date and time of recording
 - (b) results of light inspection and the date and time of inspection
 - (c) if any accident such as suspension of operation of aeronautical lights has occurred, the date and time of the accident, cause(s) and measures taken for it
 - (d) particulars reported to the Minister of Land, Infrastructure, Transport and Tourism and the date and time of the report

- (e) other particulars used as reference
- (ix) for aeronautical lighting, necessary number of parts of light units and devices composing lighting system must be secured as spare parts.
- (x) aerodrome beacons and aeronautical beacons must be continuously lit during the specified operation hours.
- (xi) aerodrome lighting (except aerodrome beacons) must be lit, when an aircraft takes off or lands or when it is required to assist aircraft flying over the airport, through the methods specified below (in the case of aerodrome lighting other than precision approach path indicator, runway threshold identification light, and runway distance marker light, only during nighttime, or when aerodrome, etc. is under instrument meteorological conditions, or when visibility is restricted)
 - (a) when an aircraft is scheduled to land, preparation for lighting must be made 1 hour before the scheduled landing time, and the light must be lit at least 10 minutes before the landing time; provided, however, that this does not apply if it is required for emergency.
 - (b) when an aircraft takes off, the lights must be kept on for at least 5 minutes.
- (xii) the aerodrome lighting administrator at an airport must keep the aerodrome lighting guidebook providing the following particulars at the aerodrome lighting:
 - (a) name and address of the aerodrome lighting establisher
 - (b) type and name of aerodrome lighting
 - (c) location and address of aerodrome lighting
 - (d) name and address of the owner of the site where aerodrome lighting is located
 - (e) outline of aerodrome lighting
 - (f) specific methods for administering aerodrome lights pursuant to the standards prescribed in item (i) through the preceding item

(Types of Obstacle Lights and Criteria for Installation)

Article 127 (1) Obstacle lights to be installed pursuant to the provisions of paragraphs (1) and (2) of Article 51 of the Act (including as applied mutatis mutandis pursuant to the provisions of paragraph (2) or (3) of Article 55-2 of the Act) must include high intensity obstacle lights, medium intensity white obstacle lights, medium intensity red obstacle lights, and low intensity white obstacle lights, and the criteria for installation are as follows:

- (i) performance characteristics of obstacle lights are classified as shown below for high intensity obstruction light, medium intensity white obstacle lights, medium intensity red obstacle lights, and low intensity obstacle lights, respectively:

(a) high intensity obstacle lights

1. Lights must be flashing white lights and visible from all the directions upward from 5 degrees below horizontal plane comprising the light source center.
2. The number of flashes per minute must be 40 to 60.
3. Effective intensity of lights must conform to the standards specified below:
 - a. the maximum effective intensity of lights must be lower than 250,000 candela.
 - b. the effective intensity of lights on the horizontal plane comprising the light source must be higher than 150,000 candela and lower than 250,000 candela.
 - c. the effective intensity of lights at 1 degree below the horizontal plane comprising the light source must be higher than 75,000 candela and lower than 112,500 candela.
 - d. the effective intensity of lights at 10 degrees below the horizontal plane comprising the light source must be lower than 7,500 candela.
 - e. the effective intensity thereof may be changed pursuant to the provisions of Article 128, item (vii).
4. If more than two obstacle lights are installed for a single object, these lights must be capable of emitting flashing lights simultaneously.

(b) medium intensity white obstacle lights

1. Lights must flashing white lights and visible from all the directions upward from 5 degrees below horizontal plane comprising the light source center.
2. The number of flashes per minute must be 20 to 60.
3. Effective intensity of lights must conform to the standards specified below:
 - a. the maximum effective intensity of lights must be lower than 25,000 candela.
 - b. the effective intensity of lights on the horizontal plane comprising the light source must be higher than 15,000 candela and lower than 25,000 candela.
 - c. the effective intensity of lights at 1 degree below the horizontal plane comprising the light source must be higher than 7,500 candela and lower than 11,250 candela.
 - d. the effective intensity of lights at 10 degrees below the horizontal plane comprising the light source must be lower than 750 candela.
 - e. the effective intensity thereof may be changed pursuant to the provisions of Article 128, item (viii).
4. If more than two obstacle lights are installed for a single object, these

lights must be capable of emitting flashing lights simultaneously.

(c) medium intensity red obstacle lights

1. Light must be blinking red lights and visible from all the directions upward from 15 degrees below horizontal plane comprising the light source center.

2. The number of blinks per minute must be 20 to 60.

3. Effective intensity of lights must conform to the standards specified below; provided, however, that if the Minister of Land, Infrastructure, Transport and Tourism finds that it is technically difficult to install a light having an intensity prescribed in a, b and c, the intensity of the light must be the one set forth by the Minister of Land, Infrastructure, Transport and Tourism.

a. the maximum effective intensity of lights must be lower than 2,500 candela.

b. the effective intensity of lights on the horizontal plane comprising the light source center must be higher than 1,500 candela and lower than 2,500 candela.

c. the effective intensity of lights at 1 degree below the horizontal plane comprising the light source center must be higher than 750 candela and lower than 1,125 candela.

(d) low intensity obstacle lights

1. Lights must be constant red lights and visible from all the directions upward from 15 degrees below horizontal plane comprising the light source center.

2. The intensity of lights must conform to the standards specified below:

a. in the case of obstacle lights used at a location prescribed in item (x), sub-item "a" and those used for the object referred to in item (xi), at the alternate location prescribed in sub-item "c" of that item that is lower than the location prescribed in item (x), sub-item "a" (except for the lowest location), the light intensity at 10 degrees above the horizontal plane comprising the light source center must be higher than 100 candela, and at 3 degrees below the horizontal plane comprising the light source center must be higher than 100 candela and less than 150 candela.

b. in the case of medium intensity red obstacle lights or those used for the object prescribed in item (xi) in combination with those prescribed in sub-item "a" (except those prescribed in sub-item "a"), the light intensity at 6 degrees and 10 degrees above the horizontal plane comprising the light source center must be higher than 32 candela.

c. In the case of obstacle lights other than those prescribed in sub-item "a" and "b", the light intensity at 6 degrees and 10 degrees above the horizontal plane comprising the light source center must be higher than 10

candela.

- (ii) in the case of objects specified in Article 132-2, paragraph (1), items (i), (ii) and (v) (except branch lines) and those higher than 150 meters (except those for which the Minister of Land, Infrastructure, Transport and Tourism finds that it is not appropriate to install high intensity obstacle lights in relation to terrain, in relation to existing objects, or how the relevant object is installed), in the locations specified below (an object (except lightening rod; hereafter referred to as "supporting object") that supports the objects listed in paragraph (1), item (ii) of Article 132-2, sub-item (a) is excluded), one or more high intensity obstacle light(s) must be installed so that the object can be recognized by an aircraft in all the directions.
 - (a) top of an object (except lightning rods; hereafter the same applies to this item, item (iv), a, b and c, item (v), a, b and c, and item (x), a, b, c and d); provided, however, that, when installing a high intensity obstacle lights on top of a stack or other tall object, if there is a risk of affecting the functions of the light, those must be installed 1.5 to 3 meters below its top and if the Minister of Land, Infrastructure, Transport and Tourism finds that it is technically difficult to install a high intensity obstacle lights, the lights must be installed at the highest position.
 - (b) in the case of an object of which location prescribed in (a) (limited to that of which vertical distance of the section corresponding to the prescriptions in paragraph (1) item (i), (ii) and (v) of Article 132-2) is higher than 150 meters, at locations almost equal intervals less than vertically 105 meters between the relevant location to the bottom of the object.
 - (c) in the case of a bridge or similar other object of which width is remarkably greater than its height, at a location prescribed in sub-item (a) or (b) and locations that the Minister of Land, Infrastructure, Transport and Tourism finds appropriate
- (iii) in the case of an object that the Minister of Land, Infrastructure, Transport and Tourism finds it difficult to install high intensity obstacle lights on its top pursuant to the proviso to the preceding item, sub-item "a", the vertical distance between the highest location where a high intensity obstacle lights can be installed (hereinafter referred to as "mountable location") and the top exceeds 12 meters, one or more medium intensity white obstacle lights must be installed at the highest possible location between the mountable location and the top; provided, however, that this does not apply for an object on which the Minister of Land, Infrastructure, Transport and Tourism finds it technically difficult to install a medium intensity white obstacle lights.
- (iv) in the case of objects specified in Article 132-2, paragraph (2), items (i), (ii) and (v) (except branch lines) and those higher than 150 meters (except those

on which the Minister of Land, Infrastructure, Transport and Tourism finds it inappropriate to install a medium intensity obstacle lights and those for which obstacle markings are indicated due to geography, in relation to existing objects, or how the object is installed), one or more medium intensity white obstacle light(s) must be installed in the locations specified below (in the case of a supporting object, sub-item "a" must be excluded) so that the object can be recognized by an aircraft in all the directions.

- (a) top of an object; provided, however, that, when installing a medium intensity white obstacle lights on top of a stack or other tall object, and if there is a risk of affecting the functions of the obstacle lights, those must be installed 1.5 to 3 meters below the top and in case of an object down below the approach surface or transition surface, the nearest location to these surfaces, and in the case of an antenna and object that the Minister of Land, Infrastructure, Transport and Tourism finds it technically difficult to install medium intensity white obstacle lights on its top, those must be installed at the highest possible position.
- (b) in the case of an object of which installation height prescribed in (a) exceeds 105 meters (limited to those of which vertical distance of the part that falls under Article 132-2, paragraph (1), item (i), (ii) and (v) exceeds 105 meters), between the location from the relevant position to the bottom of the object at almost equal intervals.
- (c) in the case of a bridge or other object of which width is remarkably greater than its height, at a location prescribed in sub-item (a) or (b) and location that the Minister of Land, Infrastructure, Transport and Tourism finds it appropriate
- (v) on the objects other than those prescribed in item (ii) and the preceding item (limited to those listed in each item of paragraph (1) of Article 132 (excluding item (iii))), one or more medium intensity red obstacle light(s) or low intensity obstacle light(s) must be installed on the location(s) specified below (in the case of a supporting object, item (a) is excluded) so that an aircraft in all directions may recognize the object(s).
 - (a) top of an object; provided, however, that, when installing a medium intensity red obstacle lights or low intensity obstacle lights on top of a stack or other tall object, in the case of an object that may affect the functions of the light, those must be installed 1.5 to 3 meters below the top, in the case of an object that is down below an approach surface or transition surface, those must be installed at the nearest location to the relevant surface.
 - (b) in the case of an object higher than 45 meters, the lights must be installed at a location having a vertical distance of 52.5 meters or less between the top of the object and the ground at almost equal intervals.

- (c) in the case of an object having a width exceeding 45 meters at an elevation of 45 meters, or an object having a width of 45 meters at a point that is extremely close to an approach surface, transition surface or horizontal plane, the lights must be installed at points that indicate the general form of the object and the neighboring points do not exceed a horizontal distance of 45 meters.
- (vi) some of the objects specified below (limited to those specified in the preceding item), at positions of an object prescribed in item (a) (excluding the case where the object is a supporting object) which are deemed particularly dangerous for an aircraft in flight by the Minister of Land, Infrastructure, Transport and Tourism and every other position downward from the position prescribed in item (b) (excluding the lowest position), medium intensity red obstacle lights must be installed.
- (a) objects higher than 9 meters
- (b) a gas tank, oil tank, and other object that may cause serious disaster when an aircraft collides with it
- (c) objects located in the path of aircraft frequently flying at a low altitude
- (vii) for the objects specified in Article 132-2, paragraph (1), item (iii), on top of a supporting object (excluding those that the Minister of Land, Infrastructure, Transport and Tourism finds it inappropriate to install high intensity obstacle lights because of the terrain, in relation to existing objects or how the object is installed) instead of the object, one or more high intensity obstacle light(s) must be installed so that an aircraft in all directions may recognize the object; provided, however, that if the intervals of the objects (limited to those lower than 150 meters) are 1,200 meters or less and the Minister of Land, Infrastructure, Transport and Tourism find it appropriate, one or more medium intensity white obstacle light(s) must be installed on top of the object so that an aircraft in all directions may recognize the object.
- (viii) on an supporting object other than those prescribed in the preceding item, one or more medium intensity red obstacle light(s) must be installed on top of the object so that an aircraft in all directions may recognize the object.
- (ix) some of the objects prescribed in items (ii) and (iv) and the supporting objects prescribed in item (vii), which the Minister of Land, Infrastructure, Transport and Tourism finds it inappropriate to operate high intensity obstacle light(s) or medium intensity white obstacle light(s) during nighttime, the light(s) must be substituted by, notwithstanding the provisions of items (ii) through (iv) and item (vii), a medium intensity red obstacle light(s) or a low intensity obstacle light(s) installed in the case of objects prescribed in items (ii) and (iv) during nighttime pursuant to the provisions of items (v) and (vi), and in the case of the supporting object prescribed in item (vii), a

- medium intensity red obstacle light(s) must be installed.
- (x) the objects other than those prescribed in items (ii), (iv), (v) and (vii), one or more medium intensity red obstacle light(s) or low intensity obstacle light(s) in the positions specified below (in the case of supporting object, those under sub-items (a) and (b) must be excluded) so that an aircraft in all directions may recognize the object.
 - (a) on top of an object (excluding those installed on a tower or on the roof of similar objects; provided, however, that this does not apply to objects other than those prescribed in sub-item (d) where a medium intensity red obstacle light(s) (limited to medium intensity red obstacle light(s) in the case of an object higher than 150 meters) or low intensity obstacle light(s) are installed in the position(s) prescribed in sub-item (b)); provided, however, that in the case of an object located down below an approach surface or transition surface, those must be installed at the nearest position to the relevant surface, and in the case of those the Minister of Land, Infrastructure, Transport and Tourism finds it difficult to install medium intensity red obstacle light(s) or low intensity obstacle light(s) on top of the object, the lights must be installed at the highest possible position.
 - (b) on top of an object if those are installed on a tower or on the roof of similar objects; provided, however, that this does not apply to those that are approved by the Minister of Land, Infrastructure, Transport and Tourism.
 - (c) in the case of an object higher than 150 meters, the light(s) must be installed at positions downward from the position prescribed in sub-item (a) at almost equal intervals of 52.5 meters or less (in the case of a position on the object lower than 150 meters high, limited to the highest position).
 - (d) in the case of an object more than 45 meters wide at an elevation of 45 meters or more, or an object more than 45 meters wide at a point that is extremely close to an approach surface, transition surface or horizontal plane, the lights must be installed at points that indicate the general form of the object (in the case of the low intensity obstacle lights to be installed at points specified in (b), the points where a horizontal distance between the neighboring points do not exceed 90 meters).
 - (xi) Of the objects specified below (limited to those falls under those prescribed in the preceding item), at each of their positions of an object prescribed in item (a) are deemed to be particularly dangerous for an aircraft in flight by the Minister of Land, Infrastructure, Transport, one or more medium intensity red obstacle light(s) must be installed so that an aircraft in all directions may recognize the object.
 - (a) an object higher than 150 meters

(b) an object that may cause serious disaster when an aircraft collide with it
(c) an object located in the path of aircraft frequently flying at a low altitude
(xii) in the case of the objects specified below, a medium intensity red obstacle light(s) must be installed at locations which the Minister of Land, Infrastructure, Transport and Tourism deemed to be appropriate, notwithstanding the provisions of items (v) through the preceding item (excluding items (vii) and (viii)):

(a) mountains, hills and forests

(b) broadly-based object which the Minister of Land, Infrastructure, Transport and Tourism finds that making visible the object by using low intensity obstacle lights are inappropriate

(2) If the installation of obstacle lights under the preceding paragraph is deemed inappropriate by the Minister of Land, Infrastructure, Transport and Tourism because of terrain, in relation to existing objects, or the structural design of the object, the light(s) may be installed in a location or by changing its light intensity deemed appropriate by the Minister of Land, Infrastructure, Transport and Tourism, or may be omitted, notwithstanding the provisions of that paragraph.

(Objects on Which Obstacle Lights are Installed)

Article 127-2 The objects on which an obstacle light(s) must be installed pursuant to the provisions of paragraph (2) of Article 51 of the Act (including as applied mutatis mutandis pursuant to the provisions of Article 55, paragraph (2), item (ii) of the Act) are as prescribed below:

(i) an object that is extremely close to approach surface, transition surface or horizontal surface

(ii) an Object other than those prescribed in the preceding item which may heavily affect the safety of an aircraft during flight

(Methods to Manage Obstacle Lights)

Article 128 Obstacle lights are to be managed by using the following methods pursuant to the provisions of paragraph (5) of Article 51 of the Act (including as applied mutatis mutandis pursuant to the provisions of Article 55, paragraph (2), item (ii) of the Act):

(i) obstacle lights must be sustained in perfect conditions by refurbishing and cleaning the lights.

(ii) when the functions of obstacle lights may be affected by other objects including building structures and plants, necessary measures such as removal of the objects must be taken.

(iii) The system to communicate with the Minister of Land, Infrastructure, Transport and Tourism must be established which will be required when the

operation of obstacle lights are sustained or the functions of the obstacle lights are affected due to unavoidable reasons as well as when the operation or functions of obstruction lights are restored.

- (iv) when the operation of obstacle lights is affected by natural disasters or other accidents, efforts must be made to immediately restore the operation and appropriate measures must be taken to avoid disruption in aviation, such as continuing the operation as much as possible.
- (v) obstacle lights must be provided with electric bulbs and fuses as spare parts.
- (vi) in the case of a high intensity obstacle light(s) and medium intensity white obstacle light(s), the lights must be constantly kept on throughout the day (in the case of high intensity obstacle light(s) and medium intensity white obstacle light(s) pertaining to a supporting object(s) prescribed in Article 127, paragraph (1), item (vii) , and during the nighttime, the continued lighting is deemed unnecessary by the Minister of Land, Infrastructure, Transport and Tourism and the high intensity obstacle light(s) and medium intensity white obstacle light(s) pertaining to objects prescribed in said paragraph, item (xi), the lighting must be limited to daytime.), while in the case of medium intensity red obstacle light(s) and low intensity obstacle light(s), the lights must be kept on during nighttime; provided, however, that this does not apply to decorative lights, outdoor light projectors and other lighting systems which are kept on, and the Minister of Land, Infrastructure, Transport and Tourism finds that their respective functions are compatible with those of obstacle lights.
- (vii) in the case of a high intensity obstacle light(s), while the light is kept on, it must emit the light with the effective intensity given in the right-hand column of the following table according to the categories of background luminosity indicated in the left-hand side column of that table.

Background Luminance	Effective Intensity of Lights			
	Maximum effective intensity of lights	Effective intensity of lights on a horizontal plane comprising a light source center	Effective intensity of lights at 1 degree below a horizontal plane comprising a light source center	Effective intensity of lights at 10 degrees below a horizontal plane comprising a light source center

Lower than 50 candela per square meter	Lower than 2,500 candela	Between 1,500 candela and 2,500 candela	Between 750 candela and 1,125 candela	Lower than 75 candela
Between 50 candela per square meter and 500 candela per square meter	Lower than 25,000 candela	Between 15,000 candela and 25,000 candela	Between 7,500 candela and 11,250 candela	Lower than 750 candela
Higher than 500 candela per square meter	Lower than 250,000 candela	Between 150,000 candela and 250,000 candela	Between 75,000 candela and 112,500 candela	Lower than 7,500 candela

(viii) in the case of a medium intensity white obstacle light(s), while the light is kept on, it must emit the light with the effective intensity given in the right-hand column of the following table according to the categories of background luminosity indicated in the left-hand side column of that table.

Background luminance	Effective intensity of lights			
	Maximum effective intensity of lights	Effective intensity of lights on a horizontal plane comprising a light source center	Effective intensity of lights at 1 degree below a horizontal plane comprising a light source center	Effective intensity of lights at 10 degrees below a horizontal plane comprising a light source center
Lower than 50 candela per square meter	Lower than 2,500 candela	From 1,500 candela to 2,500 candela	From 750 candela to 1,125 candela	Lower than 75 candela
Over 50 candela per square meter	Lower than 25,000 candela	From 15,000 candela to 25,000 candela	From 7,500 candela to 11,250 candela	Lower than 750 candela

(Notification of charges for using facilities)

Article 129 (1) A person intending to submit a notification on schedule of service charges or change of service charges for aeronautical lighting for public use pursuant to the provisions of paragraph (1) of Article 54 of the Act must submit a written notification of schedule of aeronautical lighting service charges (change) describing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
 - (ii) name and address of aeronautical lighting
 - (iii) the type and amount of the charges to be set or changed (in the case of a notification of change, the comparison between the old and new types and amounts must be clearly indicated).
 - (iv) scheduled implementation date
 - (v) in the case of a notification of change, reasons for the change
- (2) The written notification prescribed in the preceding paragraph must be accompanied by documents describing the basis for calculation of the service charges.

(Request for Approval for Successor in Title of Aeronautical Lighting Establisher)

Article 130 (1) A person intending to obtain approval for successor in title of the aeronautical lighting establisher pursuant to the provisions of paragraph (1) of Article 55 of the Act, must submit a written request for approval for successor in title of aeronautical lighting establisher describing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address of the successor
 - (ii) name and address of the inheritee
 - (iii) Name and address of aeronautical lighting
 - (iv) requirements to be a successor
 - (v) date on which the person intends to succeed the aeronautical lights
 - (vi) reasons for the succession
- (2) The documents specified below must be attached to the written request prescribed in the preceding paragraph:
- (i) documents certifying the conditions of succession
 - (ii) In the case of a corporate entity or union, documents certifying the decision made on the succession
 - (iii) documents certifying that the successor possesses the capabilities sufficient enough to manage the aeronautical lighting

(Notification of Successor in title of Aeronautical Lighting Establisher, as a Result of Inheritance)

Article 131 (1) A heir intending to submit a notification of the successor in title of aeronautical lighting establisher under the provisions of paragraph (4) of Article 55 of the Act must submit a written request for approval for successor in title of aeronautical lighting establisher describing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address of notifier and the relationship with the decedent
- (ii) name and address of the decedent
- (iii) name and address of aeronautical lighting
- (iv) commencement date for inheritance

(2) The documents specified below must be attached to the written notification prescribed in the preceding paragraph:

- (i) documents certifying the relationships between the notifier and the decedent
- (ii) if there are any heir(s) other than the notifier, documents describing the name and address of the heir (s) and the written consent thereof in relation to the notification

Article 132 Deleted

Section 4 Obstacle Markings

(Objects on Which Obstacle Markings are Indicated)

Article 132-2 (1) The objects on which obstacle markings must be indicated pursuant to the provisions of paragraph (1) of Article 51-2 of the Act, are as specified below (except those on which obstacle markings are deemed unnecessary to be indicated by the Minister of Land, Infrastructure, Transport and Tourism and those on which high intensity obstacle lights and medium intensity white obstacle lights are installed):

- (i) chimney, steel towers, columns, and other objects whose width is extremely narrow compare to its height (including their stay wires)
 - (ii) objects of skeleton structure
 - (iii) overhead wire specified in public notice by the Minister of Land, Infrastructure, Transport and Tourism
 - (iv) captive balloons (including their extension cables)
 - (v) gas tanks, oil tanks, and other similar objects having colors that make it difficult to distinguish these objects from background scenery as observed from an aircraft (limited to those located within an area coinciding with the projection area of an approach surface, horizontal surface, transition surface, extended approach surface, conical surface or outer horizontal surface area)
- (2) The objects on which obstacle markings are indicated pursuant to the provisions of paragraph (2) of Article 51-2 of the Act must include, in addition

to the objects specified in the preceding paragraph, those within a landing strip or those located within an area coinciding with the projection area of an approach surface, horizontal surface, transition surface, extended approach surface, conical surface or outer horizontal surface area, which may seriously affect the safety of an aircraft while in flight.

(Types of Obstacle Markings and Criteria for Indication)

Article 132-3 (1) The obstacle markings to be indicated pursuant to the provisions of paragraph (1) or (2) of Article 51-2 of the Act must include paint colors, flags and signs and the criteria for installation are as specified in the following table, which depend on the types of the object:

Types of Objects		Types of Obstruction Markings	Painting Method
(i) objects other than those listed in items (ii), (iii) and (iv)	(a) both height and width of the projection area onto any vertical surface of an object must be less than 1.5 meters.	Paint Colors	The paint color must be all red or yellow-red.
	(b) Both height and width of the projection onto any vertical plane must be over 4.5 meters and the object must have the undivided surface (except those having a width which is extremely narrow relative to its height)		<p>(i) the object must be painted red and white or yellow-red and white checkered on its side, which must be over 1.5 meters and less than 10 meters. In this case, each corner must be painted other than white.</p> <p>(ii) portions that are shielded with peripheral object(s) need not be painted.</p> <p>(iii) a spherical part of the object or other parts similar thereto may be painted checkered that is suitable for their shapes.</p>

	(c) objects other than (a) and (b)	(i) yellow red and white stripes must be painted on an object alternately from the top. In this case, the width of the stripe must be one-seventh of the height of object if it is less than 210 meters high, while in other cases, the height of object is the height divided by an odd number, which does not exceed 30 meters and is closest to 30 meters. (ii) portions that are shielded with peripheral object(s) need not be painted.
(ii) wires	Flags	A square or rectangular flag, all red or all yellow-red, or a diagonal bicolor flag painted red and white or yellow-red and white, whose shorter side is longer than 0.6 meters must be put out at the center of wire stay.
(iii) overhead wires	Markings	A spherical sign all red or all yellow-red, and a spherical sign all white, whose diameter exceeds 0.5 meters must be installed alternately at equal intervals of 45 meters.
(iv) captive balloons (excluding its tethers) and the objects listed in paragraph (2) item (v) of the preceding Article	Coating Colors	An object must be painted in ways that the object can show a clear contrast with the background.

(2) The provisions of (2) of Article 127 apply mutatis mutandis to the indication of obstacle markings. In this case, the term "preceding paragraph" in that

paragraph is deemed to be replaced with "paragraph (1) of Article 132-3" and "obstacle lights" with "obstacle markings" and "light intensity of" with "type of".

(Method to Manage Obstacle Markings)

Article 132-4 Obstacle markings must be maintained by using the methods specified below:

- (i) Obstacle markings must be maintained in order to conform to the criteria prescribed in the preceding Article.
- (ii) the system to communicate with the Minister of Land, Infrastructure, Transport and Tourism must be established that will be required when the function of obstacle markings (other than flags) is lost (limited to a case where it takes more than 7 days to restore its function) and when the function is restores.

Chapter VI Operation of Aircraft

(Aircraft Nationality and Registration Marks)

Article 133 Aircraft nationality must be displayed as "JA" in Roman capital letters (hereinafter referred to as "nationality mark") without ornamentation.

Article 134 Registration marks under the provisions of Article 5 of this Act (hereinafter referred to as "registration marks") must be displayed as four Arabic numerals or as four capital Roman letters, without ornamentation.

(Method of Displaying Aircraft Nationality and Registration Marks and their Locations)

Article 135 Nationality marks and registration marks must be displayed clearly, using a durable display method.

Article 136 Registration mark must be displayed following nationality mark.

Article 137 The method of displaying nationality marks and registration marks and their locations are as follows.

- (i) for airplane and gliders, the marks must be displayed on the primary wing and the tail surface; or on the primary wing and the fuselage.
 - (a) when nationality marks and registration marks are displayed on the primary wing, they must be located on the top right corner and bottom left corner thereof, which are equidistant from the front edge and trail edge of the primary wing, and the tops of the nationality marks and registrations marks are to point at the front edge of the primary wing; provided, however, that the respective marks must not be displayed on the ailerons

- or flaps.
- (b) marks on the tail fin surface are to be displayed vertically or horizontally on both outermost sides of the vertical tail fin, more than 5 cm away from each edge of the tail fin.
- (c) marks on the fuselage are to be displayed vertically or horizontally on both outermost sides of the fuselage between the primary wings and tail fin, immediately in front of the front edge of the horizontal stabilizer.
- (ii) for rotorcraft, marks are displayed on the bottom and on the sides of the fuselage.
 - (a) when marks are to be displayed on the bottom of the fuselage, they are to be placed near the largest cross-sectional area of the fuselage, with the top of each mark pointing at the left side of the fuselage.
 - (b) when marks are displayed on the both sides of the fuselage, the marks are to be displayed vertically or horizontally on both sides of the fuselage between the main rotor axis and the auxiliary rotor axis; or on both sides of the fuselage near the power unit.
- (iii) for airships, marks are to be displayed on the hull surface; or on the surfaces of the horizontal stabilizers and vertical stabilizers.
 - (a) when marks are displayed on the hull surface, they are to be placed on the top and both sides near the largest cross sectional area, which is perpendicular to the axis of symmetry.
 - (b) when nationality marks and registration marks are displayed on the surface of the horizontal stabilizer, they are to be located on the upper right surface and lower left surface, with the tops of the marks pointing at the front edge of the horizontal stabilizer.
 - (c) when nationality marks and registration marks are displayed on the surface of the vertical stabilizers, the marks are to be located horizontally on both sides of the lower vertical stabilizer.

Article 138 Letters and numerals used for nationality marks and registration marks (hereinafter referred to as "both marks") must be of the following height:

- (i) airplane and gliders
 - (a) greater than fifty centimeters, if marks are displayed on a primary wing surface.
 - (b) greater than fifteen centimeters, if marks are displayed on a vertical stabilizer.
 - (c) greater than fifteen centimeters, if marks are displayed on the fuselage.
- (ii) rotorcraft
 - (a) greater than fifty centimeters, if marks are displayed on the bottom of the fuselage.

- (b) greater than fifteen centimeters, if marks are displayed on the side of the fuselage.
- (iii) airships
 - (a) greater than fifty centimeters, if marks are displayed on the hull.
 - (b) greater than fifteen centimeters, if marks are displayed on a horizontal stabilizer or vertical stabilizer.

Article 139 Width and line thickness of each mark and intervals between marks and their colors are as prescribed below:

- (i) width of letters and numerals must be two-thirds of their height; provided, however, that this does not apply to the Arabic numeral "1".
- (ii) line thickness of letters and numerals must be one-sixth of their height, which must be regular solid lines.
- (iii) intervals between both marks must be greater than one-fourth of their width, and less than one-half of their width.
- (iv) colors must be those which can clearly distinguish the marks from the background color on which marks are displayed.

Article 140 Notwithstanding the provisions of Article 37 through the preceding Article, this does not apply if the Minister of Land Infrastructure, Transport and Tourism finds that there is no problem in doing so.

(Identification Plate)

Article 141 An identification plate made of fireproof materials, which is 7 centimeters long and 5 centimeters wide, on which the name or title and the address of the owner of the aircraft, the nationality mark and the registration mark of the aircraft are inscribed, must be affixed to an exit of the aircraft in ways that the plate is easily recognizable.

(Aircraft Logbook)

Article 142 (1) The aircraft logbook which the aircraft operator is required to keep pursuant to the provisions of Article 58, paragraph (1) of the Act are: for aircraft other than those specified in items of Article 131 of the Act, a flight logbook, an engine logbook and a propeller logbook or glider logbook; and for aircraft specified in items of Article 131 of the Act, a flight logbook.

- (2) Information to be entered into an aircraft logbook pursuant to the provisions of Article 58 paragraph (2) of the Act are as follows:
 - (i) flight logbook
 - (a) nationality, registration mark, registration number and registration date of the aircraft;
 - (b) category, type and type certificate number of the aircraft;

- (c) airworthiness category and airworthiness certificate number;
- (d) name of the manufacturer, and serial number and manufacturing date of the aircraft;
- (e) engine type and propeller type;
- (f) records of flight as specified below:
 - 1 Date of flight;
 - 2 Names and duties of flight crew members;
 - 3 Purpose of flight or flight number;
 - 4 Place and time of departure;
 - 5 Destination and time of arrival;
 - 6 Flight hours;
 - 7 Matters affecting the safety of aircraft in flight;
 - 8 Signature of Pilot in Command;
- (g) total flight hours after manufacturing and total flight hours after the latest overhaul;
- (h) records concerning replacement of the engine and propeller as specified below:
 - 1 Date and location where the engine and propeller were replaced;
 - 2 Name of manufacturer and serial number of the engine and propeller;
 - 3 Date and component parts of the engine and propeller which were replaced;
- (i) records concerning the execution of repairs, alterations, or maintenance as specified below:
 - 1 Date and place where repair, modification, or maintenance was carried out;
 - 2 Reason why repair, modification, or maintenance was carried out, and the component parts thereof and the names of the parts replaced;
 - 3 Date of confirmation, and the signature or the name and seal affixed by the person who carried out the confirmation;
- (ii) engine logbook and propeller logbook:
 - (a) the engine type or propeller type;
 - (b) the manufacturer, serial number and the manufacturing date of the engine and propeller;
 - (c) the following records concerning the replacement of the engine and propeller:
 - 1 Date and place where the replacement the engine and propeller was carried out;
 - 2 Type, nationality, registration mark and registration number of the aircraft in which engine or propeller was installed;
 - 3 Reason why the engine or propeller was replaced;
 - (d) the following records concerning the repairs, alterations, or maintenance

- of the engine or propeller:
 - 1 Date and place where the repair, modification, or maintenance was carried out;
 - 2 Reason why repair, modification, or maintenance was carried out, and the component parts thereof and the name of the parts replaced;
 - 3 Date of confirmation, and the signature or the name and seal affixed by the person who carried out the confirmation;
- (e) the following records of the use of the engine and propeller:
 - 1 Date and hours to use;
 - 2 Total number of hours the engine or propeller was used after manufacturing and total number hours that was used after the latest overhaul;
- (iii) glider Logbook
 - (a) glider nationality, registration mark, registration number and the date of registration;
 - (b) glider type and type certificate number of the glider;
 - (c) airworthiness category and the airworthiness certificate number;
 - (d) manufacturer, serial number and the manufacturing date of glider;
 - (e) the following records concerning the flight:
 - 1 Date of flight;
 - 2 Names of flight crew members;
 - 3 Purpose of flight;
 - 4 Flight sectors and destination;
 - 5 Flight time or number of flight;
 - 6 Matters affecting the safety of the glider in flight;
 - 7 Signature of the pilot in command;
 - (f) the following records of repairs, alterations, or maintenance:
 - 1 Date and place where repair, modification, or maintenance was carried out;
 - 2 Reason why repair, modification, or maintenance was carried out, and the component parts and name of the parts replaced;
 - 3 Date of confirmation, and the signature or the name and seal affixed by the person who carried out the confirmation;
- (3) Notwithstanding the provisions of the preceding paragraph, the particulars specified in item (i) (a) and (f) of that paragraph have to be entered into an aircraft flight logbook specified in items of Article 131 of the Act.

Article 143 Aircraft specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 59 of the Act are gliders.

Article 144 Flight logbooks referred to in Article 59, item (iii) of the Act are on-

board flight logbooks.

Article 144-2 (1) Documents necessary for a safe flight as specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 59, item (iv) of the Act are those specified below:

- (i) document of designation for operating limitations
- (ii) flight manual
- (iii) aeronautical charts appropriate for flight sectors, flight rules, and other flight characteristics
- (iv) Operations Manuals (limited to operations of air transport services)

(2) Notwithstanding the provisions of the preceding paragraph, if an operations manual contains particulars equivalent to a flight manual, a flight manual is not to be included in the documents required for a safe flight referred to in Article 59, item (iv) of the Act.

(Devices for Ensuring the Safety of Aircraft While in Flight)

Article 145 (1) An aircraft flying under instrument flight rules, etc. pursuant to the provisions of Article 60 of the Act must be equipped with devices as specified in the device column of the following table, and the number of devices must exceed that of those specified in the column of that table according to the flight category; provided, however, that aircraft equipped with a gyroscope attitude indicator capable of indicating all kinds of aircraft attitudes are not required to be equipped with a gyro turn and slip indicator; aircraft types specified by the Minister for Land, Infrastructure, Transport and Tourism used by Self Defense Forces are not be required to be equipped with an outside air (free air) temperature gauge; and aircraft other than airplanes whose maximum take-off weight exceeding 5,700 kilograms used for air transport services (limited to aircraft required to be equipped with a VOR receiver pursuant to the provisions of the following Table) are not required to be equipped with a DME interrogator.

Classification of flights	Instruments	Quantities
Instrument Flight	1. Gyroscopic Attitude Indicator	1, (or 2 in the case of an aircraft used for air transport services, whose maximum take-off weight exceeding 5,700 kilograms).
	2. Gyroscopic Heading Indicator	1
	3. Gyroscopic Turn Indicator	1
	4. Slip Indicator	1

	5. Sensitive Altimeter	1, (or 2 in the case of an aircraft used for air transport services, whose maximum take-off weight exceeding 5,700 kilograms).
	6. Rate of Climb and Descent Indicator	1
	7. Speedometer with a deicing system for pilot tubes	1, (or 2 in the case of an aircraft used for air transport services, whose maximum take-off weight exceeding 5,700 kilograms).
	8. Outside Air Temperature Gauge	1
	9. Clock with seconds	1
	10. Onboard DME Interrogator	1
	11. Among the following instruments, those that are capable of receiving signals at all times from NDB, VOR or TACAN during the flight (a) Direction Finding Equipment (b) VOR Receiver (c) Onboard TACAN Unit	1, (or 2 in the case of an aircraft used for air transport services, whose maximum take-off weight exceeding 5,700 kilograms)
Flights set forth in Article 34, paragraph (1), item (ii) of the Act.	Instruments listed in items 8 through 11 of paragraph regarding the instrument flight.	Quantities specified in the relevant items, which depend on the instruments listed in items 8 through 11 of paragraph regarding the instrument flight.
Flight under IFR	1. Instruments listed in items 1 through 10 of paragraph regarding the instrument flight.	Quantities specified in the relevant items, which depend on the instruments listed in items 1 through 10 of paragraph regarding the instrument flight.
	2. Among the following instruments, those that are used for receiving signals from NDB, VOR, or TACAN which navigates the flight route, depending on the flight route. (a) Direction Finding Equipment (b) VOR Receiver (c) Onboard TACAN Unit	1, (or 2 in the case of an aircraft used for air transport services, whose maximum take-off weight exceeding 5,700 kilograms).

(2) Notwithstanding the provisions of the preceding paragraph, direction finder,

VOR receiver, and onboard TACAN unit are not required for aircraft in flight specified in Article 191-2, paragraph (1), item (v).

Article 146 An aircraft that flies in control areas, control zones, information zone, or civil training and testing area pursuant to the provisions of Article 60 of the Act, must be equipped with the devices specified in the respective items, and their numbers must exceed those specified in the respective items.

(i) When an aircraft flies in an traffic control area or control zone, a radio-telephone capable of communicating with air traffic control authorities at all times: one (1) radio-telephone; or two (2) radio-telephones are required for aircraft used for air transport services whose minimum take-off weight exceeding 5,700 kilograms.

(ii) when an aircraft flies in traffic control areas or control zones in accordance with the flight rules pertaining to the designated airspaces, which are designated in public notice for instrument flight rules or visual flight rules respectively by the Minister of Land, Infrastructure, Transport and Tourism, the aircraft must be equipped with one (1) airborne automatic identification transponder. The relevant transponder must have more than 4,096 codes, and also must be capable of responding to interrogator codes in Mode A or Mode 3, and capable of reporting flight altitude in response to interrogator codes in Mode C.

(iii) when an aircraft flies in an t information zone or civil training and testing area (excluding cases falling under Article 202-5, paragraph (1), item (i) or paragraph (2), item (i)), the aircraft must be equipped with one (1) radiotelephone capable of communicating at all times with air traffic control authorities or with organizations providing the aircraft with flight information of other aircraft in the relevant airspace (hereinafter referred to as "air traffic information").

Article 147 Devices that must be installed in an aircraft used for air transport services pursuant to the provisions of Article 60 of the Act are those specified in the following items, and their numbers must exceed those specified in the respective items.

(i) one (1) radiotelephone capable of communicating with air traffic control authorities at all times during flight; or two (2) radiotelephones in the case of aircraft whose maximum take off weight exceeding 5,700 kilograms.

(ii) one (1) ILS receiver (limited to airplanes landing at an airport where ILS is installed, etc., whose maximum take off weight exceeding 5,700 kilograms).

(iii) one (1) weather radar (meaning a radar for detecting cloud configuration) (limited to airplane whose maximum take off weight exceeding 5,700 kilograms).

- (iv) one (1) ground proximity warning system which has functions specified below (limited to airplanes with more than nine passenger seats or whose maximum take-off weight exceeding 5,700 kilograms, and in which turbine engines are installed).
 - (a) capability to issue a warning signal to inform excessive descent rate.
 - (b) capability to issue a warning signal to inform excessive terrain closure rate.
 - (c) capability to issue a warning signal to inform excessive altitude loss after take-off or after a go-around.
 - (d) capability to issue a warning signal when the distance to terrain is not sufficient, when landing gear strut is not extended and flaps are also not in flap configuration for landing.
 - (e) capability to issue a warning signal to inform excessive downward deviation from the glide path.
 - (f) capability to issue a warning signal to inform excessive closure to the terrain ahead.
- (iv)-2 one (1) ground proximity warning system with the following capabilities (limited to airplane with more than nine passenger seats or whose maximum take-off weight exceeding 5,700 kilograms, and in which piston engines are installed).
 - (a) the capabilities specified in (a), (c) and (f) of the preceding item
 - (b) capabilities to issue a warning signal when the distance between the aircraft and terrain is not sufficient.
- (v) one (1) airborne collision avoidance system in compliance with the standards prescribed in Amendment 77 to Annex 10, Vol. 4 of the Convention on International Civil Aviation (limited to airplane with more than nineteen passenger seats or whose maximum take-off weight exceeding 5,700 kilograms, and in which turbine engines are installed).
- (vi) as for a cockpit door that can prevent handgun bullets or fragmentation from hand grenades from penetrating it and can prevent those who are not allowed to enter a cockpit from entering the cockpit and can be locked or unlocked from the pilot's seat (limited to airplanes for transporting passengers, with more than sixty passenger seats or whose maximum take-off weight exceeding 45,500 kilograms); the number of doors between a cabin and a cockpit.

Article 147-2 Equipment that must be installed in airplanes other than those used for air transport services pursuant to the provisions of Article 60 of the Act (limited to airplanes with more than nine passenger seats or whose maximum take-off weight exceeding 5,700 kilograms and in which turbine engines are installed, but those used by the Self-Defense Forces are excluded)

is a ground proximity warning system which has the capabilities specified below.

- (i) capabilities specified in (a), (c), and (f) of the preceding Article.
- (ii) capability to issue a warning signal when the distance between the aircraft and the terrain is not sufficient.

Article 147-3 Equipment that must be installed in aircraft used for flights specified in Article 191-2, paragraph (1) pursuant to the provisions of Article 60 of the Act are equipment specified in public notice according to the types of flights by the Minister of Land, Infrastructure, Transport and Tourism as those necessary for ensuring the safety of aircraft in flight, and their numbers must exceed those prescribed in the public notice.

(Application for Permission in Proviso to Article 60 of the Act)

Article 148 A person who intend to obtain permission referred to in the proviso to Article 60 of the Act must submit an application containing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
- (ii) aircraft type, and aircraft nationality and registration mark.
- (iii) summary of flight plan (purpose of flight, date and time and flight route (if a persons intends to obtain permission to install equipment specified in Article 146, purpose of flight, date and time, and flight route, and which rules are used; the instrument flight rules or visual flight rules) must be clearly stated).
- (iv) categories of flights as specified in the items of Article 34 paragraph (1) of the Act (limited to cases in which a person intends to obtain permission relating to installation of equipment specified in Article 145 paragraph (1)).
- (v) number and names of equipment which cannot be installed
- (vi) reason why equipment cannot be installed
- (vii) name and qualifications of the pilot
- (viii) other particulars used as reference

(Equipment for Recording Aircraft Operational Parameters)

Article 149 (1) Equipment for recording aircraft operational parameters that must be installed in aircraft listed in the aircraft category column of the following Table (excluding those used by Self-Defense Forces) and must be activated pursuant to the provisions of Article 61 paragraph (1) of the Act, are equipment listed in equipment column of that Table..

Categories of Aircraft	Devices
<p>Airplane</p> <p>An airplane used for the purpose of air transport services whose maximum take-off weight exceeding 5,700 kilograms, and an airworthiness certificate under Article 10, paragraph (1) of the Act, or a first certificate of airworthiness was issued or actions were taken by a foreign country that is a Contracting State to the Convention on International Civil Aviation (hereinafter referred to as "airworthiness certificate" in this table) before 11 October 1991.</p>	<p>1. Flight data recorder capable of recording the following information</p> <ul style="list-style-type: none"> <li>(a) time or passage of time <li>(b) pressure altitude <li>(c) airspeed <li>(d) heading <li>(e) pitch angle <li>(f) roll angle <li>(g) vertical acceleration <li>(h) lateral acceleration <li>(i) rudder pedal selection or rudder position, pitch control selection or elevator position, or lateral control selection or aileron position (for aircraft equipped with non-mechanical controls - levels of rudder pedal selection and rudder position, pitch control selection and elevator position, and also lateral control selection and aileron position) <li>(j) pitch trim position <li>(k) flap trim selection or flap position <li>(l) power and thrust of each engine <li>(m) thrust reverser position <li>(n) time in contact with air traffic control authorities

	2. A cockpit voice recorder capable of recording the voice information for at least consecutive last 30 minutes
An airplane used for the purpose of air transport services whose maximum take-off weight exceeding 5,700 kilograms and less than 27,000 kilograms, for which a first airworthiness certificate was first issued on or after 11 October 1991 and on or before January 1, 2003.	<p>1. A flight data recorder capable of recording the following information (hereinafter referred to as "Type II flight data recorder" in this table)</p> <ul style="list-style-type: none"> (a) time or passage of time (b) pressure altitude (c) outside air temperature (d) airspeed (e) heading (f) pitch angle (g) roll angle (h) vertical acceleration (i) lateral acceleration (j) rudder pedal selection or rudder position, pitch control selection or elevator position, or lateral control selection or aileron position (for aircraft equipped with non-mechanical controls - levels of rudder pedal selection and rudder position, pitch control selection and elevator position, and also lateral control selection and aileron position) (k) pitch trim position (l) leading edge flap trim selection or leading edge flap position (m) trailing edge flap trim selection or trailing edge flap position (n) ground spoiler selection or ground spoiler position, and speed brake selection or speed brake position (o) power and thrust of each engine (p) thrust reverser position

	<p>(q) operations and operation mode of the auto-pilot system, and auto-throttle engine power or thrust of automatic flight control system</p> <p>(r) time in contact with air traffic control authorities</p> <p>2. Cockpit voice recorder capable of recording the voice information for at least the last consecutive 30 minutes</p>
<p>An airplane used for the purpose of air transport services whose maximum take-off weight exceeding 27,000 kilograms, for which a first airworthiness certificate was issued on or after October 11, 1991 and on or before January 1, 2003.</p>	<p>1. An aircraft used for purposes of air transport services must be equipped with a Type I flight data recorder specified in Annex 6 to the Convention on International Civil Aviation, Part I, 47th edition, or an aircraft used for purposes other than air transport services must be equipped with a Type I data flight recorder specified in that Annex, Part II, 22th edition (hereinafter simply referred to as "Type I flight data recorder" in this table).</p> <p>2. Cockpit voice recorder capable of recording the voice information for at least the last consecutive 30 minute</p>
<p>An airplane used for the purpose of air transport services whose maximum take-off weight exceeding 5,700 kilograms and less than 27,000 kilograms, for which a first airworthiness certificate was issued on or after January 1, 2003 and on or before January 1, 2005.</p>	<p>1. Type II Flight Data Recorder</p> <p>2. Cockpit voice recorder capable of recording the voice information for at least the last consecutive 2 hours</p>
<p>An airplane whose maximum take-off weight exceeding 27,000 kilograms, for which a first airworthiness certificate was issued on or after January 1, 2003 and on or before January 1, 2005</p>	<p>1. Type I flight data recorder</p>

		2. Cockpit voice recorder capable of recording the voice information for at least the last consecutive 2 hours
	An airplane whose maximum take-off weight exceeding 5,700 kilograms, for which a first airworthiness certificate was issued on or after January 1, 2005	1. An aircraft must be equipped with Type IA flight data recorder specified in Annex 6 to the Convention on International Civil Aviation, Part I, 27th edition, and an aircraft used for purposes other than air transport services must be equipped with a Type IA flight data recorder specified in that Annex, Part II, 22th edition. 2. Cockpit voice recorder capable of recording the voice information for at least the last consecutive 2 hours
Rotorcraft	A rotorcraft used for the purpose of air transport services whose maximum take-off weight exceeding 3,180 kilograms and less than 7,000 kilograms, for which a first airworthiness certificate was issued on or after October 11, 1991.	Cockpit voice recorder capable of recording the voice and main rotor speed information (excluding the cases where the main rotor speed information is recorded by the flight data recorder) for at least the last consecutive 30 minutes.
	A rotorcraft whose maximum take-off weight exceeding 7,000 kilograms, for which a first airworthiness certificate was issued on or after October 11, 1991.	(i) Flight data recorder capable of recording the following information: (a) time or passage of time (b) pressure altitude (c) outside air temperature (d) airspeed (e) heading (f) pitch angle (g) roll angle (h) vertical acceleration (i) lateral acceleration (j) acceleration for shaft (k) yawing angular acceleration speed or angular speed

(l) rudder pedal selection or tail rotor pitch position, cyclic lever selection or cyclic pitch position, and corrective lever selection or corrective pitch position (for aircraft equipped with non-mechanical controls - rudder pedal selection and tail rotor pitch position, cyclic lever selection and cyclic pitch position, and also corrective lever selection and corrective pitch position)

(m) power of each engine

(n) oil pressure for main gearbox

(o) oil temperature of main gearbox

(p) main rotor speed

(q) selected position of landing gear operating unit and position of landing gear

(r) operations and operation mode of the auto-pilot system, auto-throttle that adjusts engine power or thrust and the automatic flight control system

(s) operations of stability augmentation system

(t) frequency selected for inertial navigation system (limited to digital input frequency)

(u) onboard DME interrogator reading (limited to digital input data)

(v) deviation from glide path

(w) deviation from course line

(x) passing marker beacon

(y) signal altitude

(z) operations of major warning devices

(aa) operations of all low-pressure warning devices for each hydraulic system

(bb) navigation data (longitude, latitude, and ground speed) (limited to the relevant data that can be input)

(cc) loading of external hanging

(dd) time in contact with air traffic control authorities

	(ii) cockpit voice recorder capable of recording voice for at least the latest consecutive 30 minutes
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- (2) Flight Data Recorder must be activated continuously from the time when the aircraft starts to take-off until it completes the landing.
- (3) Voice recording devices must be activated continuously from the time when the engine is started for the purpose of flight until the engine is stopped after the flight.

(Application for Permission under Proviso of Article 61 paragraph (1) of the Act)

Article 149-2 A persons who intends to obtain permission referred to in the proviso to Article 61, paragraph (1) of the Act must submit a written application containing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
- (ii) aircraft type, and aircraft nationality mark and registration mark
- (iii) summary of flight plan (purpose, date and time, and flight route must be clearly stated)
- (iv) Equipment that cannot be installed or activated
- (v) reason why equipment cannot be installed or reason why those cannot be activated
- (vi) name and qualifications of the pilot
- (vii) other particulars used as reference

(Records Required to be Kept by Aircraft Operators Referred to in Article 61, Paragraph (2) of the Act)

Article 149-3 The records that the aircraft operator must keep pursuant to the provisions of paragraph (2) of Article 61 of the Act, are records recorded by a flight data recorder related to the operational parameters specified below (excluding the time when the engine(s) are stopped) (excluding those recorded more than 60 days ago).

- (i) if the aircraft concerned is the airplane, the operational parameters for the last 25 hours
- (ii) if the aircraft concerned is the rotorcraft, the operational parameters for the last 10 hours

(Emergency Equipment)

Article 150 (1) An aircraft must not be used for flights unless it is equipped with the emergency equipment as specified in the Table below.

Classification	Items	Quantities	Conditions
(i) (a) in case that multi-engine airplane (limited to aircraft used for air transport purposes) falling under any of the following cases, when making a flight over water that is the equivalent to 2 hours flying distance at cruising speed or 740 kilometers away from land suitable for an emergency landing, whichever is shorter in distance	Emergency signal lights	1	(i) lifejackets or emergency equipment equivalent thereto must be placed so as to be readily accessible from each passenger seat, and the passengers must be informed of the location and usage of this equipment.
(i) an aircraft able to fly and maintain the minimum safe altitude prescribed in the operations manual and to land at the destination airport etc. or the alternative airport etc., even if a critical engine is inoperative	Waterproof portable lights	1	(ii) lifeboats must be capable of accommodating all persons on board.
(ii) an aircraft able to land at an airport etc. suitable for an emergency landings even if two engines are inoperative	Lifejackets or emergency equipment equivalent thereto	Numbers equal to the number of persons on board	(iii) first aid kits must contain a full set of medical supplies.

<p>(b)in case that a multi-engine aircraft (excluding aircraft used for air transport services) is able to land at an airport etc. suitable for emergency landings even if one engines is inoperative flying over the water 370 kilometers away from land or further suitable for an emergency landing</p>	<p>Lifeboats (excluding rotorcraft making a flight specified in c) or d), not used for air transport services carrying passengers, and which are not making a flight over the water beyond 30 minutes flying distance at cruising speed or 185 kilometers away from land suitable for an emergency landing, whichever is shorter).</p>		<p>(iv) emergency flotation equipment must be the one that enables safe water landing.</p>
<p>(c)in case that a multi-engine rotorcraft is flying over the water beyond the distance equivalent to 10 minutes flight at cruising speed from land suited to an emergency landing</p>	<p>First aid kit</p>	<p>1</p>	
<p>(d) in case that a single engine rotorcraft is flying over the water beyond the point where it is possible to make a landing on the shore by using autorotation.</p>	<p>Emergency rations</p>	<p>three meals for the number of persons on board</p>	

<p>(e) in case that an aircraft other than those listed in (a) through (d) is making a flight over the water that is the equivalent to 30 minutes flying distance at cruising speed or 185 kilometers away from land suitable for an emergency landing, whichever is shorter</p>	<p>Emergency flotation equipment (limited to rotorcraft making a flight specified in (c) or (d), not used for air transport services to carry passengers, and which are not making a flight over the water that is equivalent to 30 minutes flying distance at cruising speed or 185 kilometers away from land suitable for an emergency landing, whichever is shorter. (In all cases, excluding rotorcraft capable of landing safely in water without using emergency flotation equipment.))</p>	
<p>(i) multi-engine aircraft (limited to aircraft used for air transport services) falling under any of the following cases, when making a flight over the water beyond 93 kilometers away from land suitable for an emergency landing. (i) an aircraft able to fly and maintain the minimum safe altitude specified in the operations manual and to land at the destination airport etc. or an alternative airport etc., even if a critical engine is inoperative</p>	<p>Emergency signal lights</p>	<p>1</p>
	<p>Waterproof portable lights</p>	<p>1</p>

(ii) an aircraft able to land at an airport etc. suitable for an emergency landings even if two engines are inoperative (b) in case that a multi-engine aircraft (excluding rotorcraft, and aircraft used for air transport services) is flying over the water beyond 93 kilometers away from land suitable for an emergency landing (c) in case that a multi-engine aircraft other than those listed in (a) (limited to aircraft used for air transport services) and a single engine aircraft (excluding rotorcraft) are flying over the water beyond a point where an emergency landing can be made on the shore (d) when take-off or landing path is over the water	Lifejackets or emergency equipment equivalent thereto	Numbers equal to the number of persons on board
	First aid kit	1
(i i i)	Emergency signal lights	1
	Portable lights	1
	Lifejackets or emergency equipment equivalent thereto	Numbers equal to the number of persons on board

	First aid kit	1
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- (2) An aircraft used for air transport services (excluding those used for air transport services by the persons specified in the items of paragraph (1) of Article 4 of the Act) with more than 60 passenger seats, must be equipped with medicines and medical equipment for emergency use.
- (3) The aircraft specified below must be equipped with sufficient number of parachutes so that all persons on board may use those.
- (i) an aircraft that flies after obtaining a permission referred to in the proviso to paragraph (1) of Article 11 of the Act (including as applied mutatis mutandis pursuant to the provisions of paragraph (3) of that Article, paragraph (3) of Article 16 of the Act, and paragraph (3) of Article 19 of the Act), which is designated by the Minister of Land, Infrastructure, Transport and Tourism.
- (ii) an aircraft that performs aerobatics specified in Article 197-3
- (4) An aircraft must be equipped with an emergency locator transmitter of which number are specified in the middle column of the following Table, which depends on the categories specified in the left column of that Table, must be equipped in accordance with the requirements specified in the right column.

Classification	Q	u	a	n	t	i	e	s	Conditions
(i) (a) airplane used for air transport services	Airplanes with 19 or more seats	An airplane of which airworthiness certificate under Article 10, paragraph (1) of the Act, or the first airworthiness certificate etc. is issued or other actions are taken by a Contracting State to the Convention on International Civil Aviation (hereinafter referred to as a "airworthiness certificate etc." in this table) before June 30, 2008 (limited to an aircraft equipped with an emergency locator transmitter activated automatically by the shock)	1	(i) emergency locator transmitters must simultaneously broadcast signals on both 121.5MHz and 406MHz.					

	An airplane of which first airworthiness certificate etc. is issued before June 30, 2008 (excluding aircraft equipped with an emergency locator transmitter activated automatically by the shock) and aircraft of which first airworthiness certificate etc. is issued after July 1, 2008	2	(ii) an airplane (limited to an airplane of which first airworthiness certificate etc. is issued after July 1, 2008) and rotorcraft must be equipped with one emergency locator transmitter to be activated automatically by the shock.
	Airplanes with 19 or less seats	1	(iii) rotorcraft listed in paragraph (ii) (a) or (b) must be equipped with one emergency locator transmitter to be activated manually (excluding those listed in the preceding item), and it must be installed in a life jacket or emergency equipment or a life boat equivalent thereto.
	(b) airplane other than those listed in (a)	1	
(ii)	(a) in case that a multi engine rotorcraft flying over the water beyond 10 minutes flying distance at cruise speed from land suitable for an emergency landing	2	
	(b) in case that a single engine rotorcraft is flying over the water beyond the point can make an emergency landing by using autorotation	2	
	(c) in case that a rotorcraft is making a flight other than those listed in (a) or (b)	1	

(i i i)	in case that an aircraft other than those listed in (i) and (ii) is flying over the water equivalent to 30 minutes flying distance at cruise speed or 150 kilometers away from land suitable for an emergency landing, whichever is shorter in distance.	1
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Article 151 Emergency equipment to be installed in aircraft must be inspected at following intervals; provided, however, that equipment to be installed in aircraft used for air transport services must be inspected at intervals prescribed in the air carrier's maintenance manuals.

- (i) parachutes, 60 days
- (ii) emergency signal lights, portable lights and waterproof portable lights, 60 days
- (iii) life jackets, emergency equipment equivalent thereto and lifeboats, 180 days
- (iv) first aid kit, 60 days
- (v) emergency rations, 180 days
- (vi) emergency locator transmitter, 12 months

(Inspection of Specified Emergency Equipment)

Article 152 (1) Performance characteristics and structures of the emergency signal lights, life jackets or emergency equipment equivalent thereto, lifeboats, emergency locator transmitters and parachutes to be installed in an aircraft pursuant to the provisions of Article 150 (hereinafter referred to as "specified emergency equipment") must have passed the inspection by the Minister of Land, Infrastructure, Transport and Tourism; provided, however, that this does not apply to equipment whose type have been approved by the Minister of Land, Infrastructure, Transport and Tourism, and to equipment to be installed in aircraft used by the Self Defence Forces, whose performance characteristics and structures have been considered by the Minister of Defense as appropriate.

- (2) A person who intends to file a request for approval of emergency equipment types referred to in the proviso to the preceding paragraph must submit a request for approval of specified emergency equipment types (Form 28-3 format).
- (3) Approval of emergency equipment types referred to in the proviso to paragraph (1) is granted by issuing a written approval of specified emergency equipment types (Form 28-4) to the applicant.

- (4) The Minister of Land, Infrastructure, Transport and Tourism may revoke the approval if the minister finds that effectiveness or uniform quality of approved specified emergency equipment referred to in the proviso to paragraph (1) is not ensured or that the relevant specified emergency equipment is not being used.
- (5) A person who manufactures approved specified emergency equipment referred to in the proviso to paragraph (1) must affix a label on the relevant specified emergency equipment indicating that approval referred to in the proviso to paragraph (1) has been granted.
- (6) The method to indicate approval pursuant to the provisions of the preceding paragraph is specified in the written approval of specified emergency equipment types referred to in paragraph (3).

Article 153 The quantity of fuel that an aircraft must carry pursuant to the provisions of Article 63 of the Act is the quantity of fuel specified in the following Table, which depends on the classification listed in the left column of that Table.

Classification		Quantities of Fuel
(i) airplane used for air transport services, equipped with turbo jet engines or turbofan engines	An airplane intends to fly under IFR (Instrument Flight Rules) of which flight plan indicates the alternate airport etc.	Following quantities of fuel, whichever is smaller: i) quantity of fuel sufficient enough to complete a flight to the destination, plus a quantity of fuel sufficient enough to complete a flight to the alternate airport etc. (where there are two alternate airports, whichever is further from the destination; hereinafter the same applies in this table.), and sufficient fuel to hold above the relevant alternate airport, etc. at an altitude of 450 meters, plus the quantity of fuel specified in public notice by the Minister of Land, Infrastructure, Transport and Tourism in consideration of the contingency.

		ii) quantity of fuel sufficient enough to complete a flight to the alternate airport via the points along the flight route to the [original] destination, plus sufficient fuel to hold for 30 minutes above the relevant alternate airport, etc. at an altitude of 450 meters, plus the quantity of fuel specified in public notice by the Minister of Land, Infrastructure, Transport and Tourism in consideration of the contingency (limited to cases where the quantity of fuel is smaller than that required to complete a flight to the relevant destination plus a quantity of fuel sufficient enough to hold for two hours at cruising altitude).
	An airplane intends to fly under IFR of which flight plan does not indicate the alternate airport, etc.	Quantity of fuel sufficient enough to complete a flight to the destination, plus sufficient fuel to hold for 30 minutes above the relevant alternate airport, etc. at an altitude of 450 meters, plus the quantity of fuel specified in public notice by the Minister of Land, Infrastructure, Transport and Tourism in consideration of the contingency (or plus sufficient fuel to fly for two hours at cruising altitude, if there is no suitable alternate airport, etc).
	An airplane intends to fly under VFR (Visual Flight Rules)	Quantity of fuel sufficient enough to complete a flight to the destination, plus the following quantities of fuel: i) when flying during the night, a quantity of fuel sufficient enough to fly 45 minutes at cruising altitude ii) when flying during the In cases where daytime flight is intended, a quantity of fuel sufficient enough to fly 30 minutes at cruising altitude.
(ii) propeller airplane used for air transport services	A propeller airplane intends to fly under IFR of which flight plan indicates the alternate airport, etc.	Following quantities of fuel, whichever is smaller :

	<p>i) quantity of fuel sufficient enough to complete a flight to the destination, plus sufficient fuel to complete a flight from that destination to the alternate airport, etc., plus sufficient fuel to fly 45 minutes at cruising altitude</p> <p>ii) quantity of fuel sufficient enough to complete a flight to the alternate airport via the points along the flight route to the [original] destination, plus sufficient fuel to fly 45 minutes at cruising altitude (limited to cases where the quantity of fuel is smaller than that required to complete a flight to the relevant destination plus a sufficient quantity of fuel to fly for hours equivalent to 15% of the flight time at cruising altitude to the destination, plus a quantity of fuel sufficient to hold for two hours at cruising altitude).</p>
A propeller aircraft intends to fly under IFR of which flight plan does not indicate the alternate airport, etc.	Quantity of fuel sufficient enough to complete a flight to the destination, plus sufficient fuel to fly 45 minutes at cruising altitude (or if there is no suitable alternate airport, etc., plus sufficient fuel to complete a flight to the destination, plus a sufficient quantity of fuel to fly for hours equivalent to 15% of the flight time at cruising altitude to the destination, or plus sufficient fuel to fly 2 hours at cruising altitude, whichever is smaller in quantity).
A propeller airplane intends to fly under VFR	<p>Quantity of fuel sufficient enough to complete a flight to the destination, plus the following quantity</p> <p>i) when flying during the night, a quantity of fuel sufficient enough to fly 45 minutes at cruising altitude</p> <p>ii) when flying during the daytime, a quantity of fuel sufficient enough to fly 30 minutes at cruising altitude.</p>

(iii) rotorcraft used for air transport services	A rotorcraft intends to fly under IFR of which flight plan indicates the alternate airport, etc.	Quantity of fuel sufficient enough to complete a flight to the destination, plus sufficient fuel to complete a flight from that destination to the alternate airport, etc, plus sufficient fuel to hold for 30 minutes above the relevant alternate airport, etc. at an altitude of 450 m, plus the quantity of fuel prescribed by Order of the Minister of Land, Infrastructure, Transport and Tourism in consideration of the contingency.
	A rotorcraft intends to fly under IFR of which flight plan does not indicate the alternate airport, etc.	Quantity of fuel sufficient enough to complete a flight to the destination, plus sufficient fuel to hold for 30 minutes above the relevant alternate airport, etc. at an altitude of 450 m, plus the quantity of fuel prescribed by Order of the Minister of Land, Infrastructure, Transport and Tourism in consideration of the contingency (or plus sufficient fuel to hold above the destination for two hours at cruising altitude, if there is no suitable alternate airport, etc.)
	A rotorcraft intends to fly under VFR	Quantity of fuel sufficient enough to complete a flight to the destination, plus sufficient fuel to fly 20 minutes at a speed the aircraft can fly the longest distance, plus a sufficient quantity of fuel to fly for hours equivalent to 10% of the flight time to the destination, plus the quantity of fuel specified by Order of the Minister of Land, Infrastructure, Transport and Tourism in consideration of the contingency.
(iv) airplane intended to fly under IFR (excluding those used for air transport services).	An airplane of which flight plan indicates the alternate airport etc.	Quantity of fuel sufficient enough to complete a flight to the destination, plus a quantity of fuel sufficient enough to fly from that airport to the alternate airport, etc. and a quantity to fly 45 minutes at cruising altitude.
	An airplane of which flight plan does not indicate the alternate airport, etc.	Quantity of fuel sufficient enough to complete a flight to the destination, plus a quantity of fuel sufficient enough to fly 45 minutes at cruising altitude.

(v) rotorcraft intended to fly under IFR (excluding those used for air transport services).	A rotorcraft of which flight plan indicates the alternate airport, etc.	Quantity of fuel sufficient enough to complete a flight to the destination, plus sufficient fuel to complete a flight from that destination to the alternate airport, etc. and to hold for 30 minutes above that alternate airport, etc. at an altitude of 450 meters, plus the quantity of fuel prescribed by Order of the Minister of Land, Infrastructure, Transport and Tourism in consideration of the contingency.
	A rotorcraft of which flight plan does not indicate the alternate airport, etc.	Quantity of fuel sufficient enough to complete a flight to the destination, plus sufficient fuel to hold for 30 minutes above that destination at an altitude of 450 meters, plus the quantity of fuel prescribed by Order of the Minister of Land, Infrastructure, Transport and Tourism in consideration of the contingency (or if there is no suitable alternate airport, etc., sufficient fuel to complete the flight to the destination, plus sufficient fuel to hold above the destination for two hours.)

(Aircraft Lights)

Article 154 When an aircraft flies in the sky or taxis on the ground during night, the aircraft must be made visible by anti-collision lights, starboard lights, port lights, and tail lights pursuant to the provisions of Article 64 of the Act; provided, however, that this does not apply to cases where an aircraft being towed is made visible by using the towing vehicle's lights while taxiing on the ground or where the aircraft is made visible by using starboard lights, port lights, and tail lights when there is a possibility that making aircraft visible may cause a negative effect on the aircraft itself or other aircraft.

Article 155 Deleted

Article 156 Deleted

Article 157 When an aircraft is parked in an airport used during the night hours, etc. pursuant to the provisions of Article 64 of the Act, the aircraft must be made visible according to the following classifications.

- (i) when an airport has lighting facilities for aircraft, the relevant facilities.
- (ii) when the facilities referred to in the preceding item are not available, starboard lights, port lights, and tail lights of the aircraft.

(Equipment for Calculating Aircraft Position and Orientation and Aeronautical Charts)

Article 157-2 Equipment used for calculating aircraft position and orientation and aeronautical charts specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism specified in the Table of paragraph (1) of Article 66 of the Act, are inertial navigation systems, precision doppler radar systems, or satellite navigation systems.

(Criteria for Crew Assignment)

Article 157-3 The criteria prescribed by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 68 of the Act are as follows.

- (i) flight crew duty time (meaning time during which crew-members on board are on duty; the same applies hereinafter) for which there are limits to the number of working hours, at least per 24-hours, one calendar month, 3 calendar months, and one calendar year.
 - (a) aircraft types
 - (b) as for the pilot, the number of other pilots or flight crew-members on duty who are on board the same aircraft
 - (c) conditions of the aircraft's flight route and the distance between the airports etc. that the aircraft uses
 - (d) flight rules
 - (e) whether or not the aircraft has appropriate nap room.
- (ii) crew members' regular working hours and other working hours are allocated so that the safety of aircraft during flight will not be adversely affected by crew-members who are fatigued.

(Recent Flight Experience)

Article 158 (1) A pilot in the flight crew members operating an aircraft used for air transport services must have made at least three take-offs and landings respectively using the same type of aircraft used for air transport services within the preceding 90 days from the operation date.

(2) When a pilot intends to operate a flight referred to in the preceding paragraph which includes a take-off or landing at night, at least one of the flights referred to in that paragraph must be the one accomplished at night; provided, however, that this does not apply if aircraft operation referred to in that paragraph falls under any of the following items:

- (i) the aircraft used for air transport services referred to in the preceding paragraph is to be operated by a person who holds a commercial pilot license (limited to a restricted license whose aircraft category is limited to airplanes),

- or instrument rating referred to in paragraph (1) of Article 34 of the Act.
- (ii) operations must be carried out by using an aircraft equipped with the equipment required to fly blind or operate under the instrument flight rules, pursuant to the provisions of Article 60 of the Act (excluding aircraft which are permitted to fly blind without the equipment due to the permission referred to in the proviso to that Article).
 - (iii) A takeoff and the ascending flight after that, or a landing and descending flight for the landing at night time must be performed on the routes prescribed by the Minister of Land, Infrastructure, Transport and Tourism, or the routes determined based on the instruction of the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of the paragraph (1) of Article 96 of the Act, or the routes determined by foreign states that are contracting states to the Convention on International Civil Aviation that adopt the standards and rules adopted as Annex 6 and Annex 11 to the Convention on International Civil Aviation, or routes determined based on the instruction provide by the relevant foreign states, or on the routes that the Minister of Land, Infrastructure, Transport and Tourism deems as appropriate.
- (3) Experience in maneuvering a flight simulator for the aircraft types referred to in paragraph (1) according to the methods designated by the Minister of Land, Infrastructure, Transport and Tourism is regarded as flight experience referred to in paragraph (1) or the preceding paragraph.

Article 159 (1) A flight engineer in the flight crew members that engage in the operation of an aircraft used for air transport services pursuant to the provisions of Article 69 of the Act must have at least 50 hours flight experience within the preceding one year from the date of flight operation on board the relevant aircraft or the aircraft of the same type used for the air transport services.

- (2) With respect to the application of the provisions of the preceding paragraph, experience in maneuvering a flight simulator or operational flight trainer for the types referred to in the preceding paragraph under the rules specified by the Minister of Land, Infrastructure, Transport and Tourism are deemed as flight experience up to 25 hours.

Article 160 (1) An aircrew other than aircrews specified in the preceding two Articles must have the following flight experience, pursuant to the provisions of Article 69 of the Act.

- (i) as for an aircrew who is able to operate wireless equipment, more than 25 hours of flight experience within the preceding one year from the date of flight operation.

(ii) as for an aircrew who is able to calculate aircraft position and orientation and aeronautical charts must have at least 50 hours flight experience within the preceding one year from the date on which they engage in operation of an aircraft; provided, however, that an aircrew must have at least 25 hours flight experience if the aircrew engages in operation of an aircraft used for domestic air transport services.

(2) With respect to the application of the preceding paragraph, experience in maneuvering a flight simulator or an operational flight trainer according to the rules designated by the Minister of Land, Infrastructure, Transport and Tourism is regarded as flight experience.

Article 161 (1) A aircrew who flies blind pursuant to the provisions of Article 69 of the Act must have at least 6 hours blind flight experience (including simulated blind flights) within preceding 180 days from the date of aircraft operation.

(2) With respect to the application of the provisions of the preceding paragraph, experience of maneuvering a flight simulator or operational flight trainer according to rules designated by the Minister of Land, Infrastructure, Transport and Tourism is be regarded as experience of carrying out an instrument flight.

Article 162 A person who provides flight training referred to in Article 34, paragraph (2) of the Act pursuant to the provisions of Article 69 of the Act must not provide flight training unless they have at least 10 hours of flight experience as a flight instructor within the preceding one year from the date on which they provide flight training (in the case of gliders, flight experience as a flight instructor for over 2 hours and more than 10 times).

Article 162-2 Notwithstanding the provisions of paragraph (1) of Article 159, paragraph (1) of Article 160, paragraph (1) of Article 161, and Article 162, persons listed in the left-hand column of the Table below, if the Minister of Land, Infrastructure, Transport and Tourism finds that the person has the same or more flying experiences than those listed in the middle column of the Table below may engage in the acts listed in the right-hand column of the Table below.

Flight Engineer	Flight experience referred to in Article 159, paragraph (1)	Engaged in operation of aircraft.
Flight crew-members listed in items of Article 160, paragraph (1)	Flying experience listed in items of Article 160, paragraph (1).	Engaged in operation of aircraft.

Pilot	Flying experience referred to in Article 161, paragraph (1).	Instrument flight
	Flying experience referred to in Article 162.	Flight training referred to in Article 34, paragraph (2) of the Act.

(Requirements for Pilot in Command on Board an Aircraft Used for Air Transport Services)

Article 163 (1) Aircraft prescribed by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in paragraph (1) of Article 72 of the Act are airplanes whose maximum take-off weight exceeds 5,700 kg and rotorcraft whose maximum take-off weight exceeds 9,080 kg (excluding the aircraft specified below).

- (i) aircraft used for air transport services operated by persons specified in paragraph (1) of Article 4 of the Act.
- (ii) aircraft operated by an entrustee who has received permission referred to in paragraph (1) of Article 113-2 of the Act, if the trustee is the person who falls under items of paragraph (1) of Article 4 of the Act.
- (iii) aircraft operated by a pilot in command on board to whom a license referred to in paragraph (5) of Article 72 of the Act has been granted, if the entrustee to whom a license referred to in paragraph (1) of Article 113-2 of the Act has been granted is the designated domestic air carrier.

(2) Knowledge and skills prescribed by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in paragraph (1) of Article 72 of the Act are knowledge and skills concerning the following particulars:

- (i) the following particulars related to the operation of aircraft
 - (a) pre take-off checks
 - (b) aircraft dispatcher's approval for aircraft departure and changes to flight plan.
 - (c) supervision for aircrews and cabin crew-members
 - (d) safety management in operating aircraft including measures to prevent safety-threatening behaviors and crisis measures.
- (ii) aircraft operations and measures in normal and abnormal operating conditions.

Article 163-2 Authorization referred to in paragraph (1) of Article 72 of the Act is given to a limited aircraft type.

Article 164 (1) A person intending to request for the authorization referred to in Article 72, paragraph (1) of the Act must submit a written application

providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
 - (ii) name and address of the domestic air carrier
 - (iii) the certificate of competency certifying qualifications, restrictions and number and airman medical certificate number
 - (iv) aircraft type pertaining to the approval
 - (v) total flight time and flight time as a pilot-in-command
 - (vi) other particulars used as reference
- (2) The approval referred to in Article 72, paragraph (1) of the Act is to be granted by means of oral examination and practical examination; provided, however, that when the Minister of Land, Infrastructure, Transport and Tourism finds that it is not particularly necessary, part of the oral examination or part or whole of the practical examination may be omitted.
- (3) The practical examination referred to in the preceding paragraph is conducted by having personnel appointed by the Minister of Land, Infrastructure, Transport and Tourism to be on board of an aircraft of the same type pertaining to licensing accompanying the person intending to receive the license, or by using a flight simulator or operational flight trainer of the same aircraft type pertaining to the licensing.

Article 164-2 (1) The examination referred to in Article 72, paragraph (2) of the Act is to be conducted once a year; provided, however, that the examination of knowledge and skills pertaining to the particulars specified in Article 163, paragraph (2), item (ii) is to be conducted twice a year except for those who are receiving the training designated by the Minister of Land, Infrastructure, Transport and Tourism in that year.

- (2) The provision of the preceding Article apply mutatis mutandis to the examination referred to in the preceding paragraph.

Article 164-3 The provisions of paragraphs (2) and (3) of Article 164 apply mutatis mutandis to the examination referred to in Article 72, paragraph (3) of the Act.

(Request for Designation of Designated Domestic Air Carrier)

Article 164-4 (1) A person intending to request for designation as a designated domestic air carrier referred to in the provisions of Article 72, paragraph (5) of the Act must submit a written request providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
- (ii) number of assigned pilots and persons who have received the approval

- prescribed under Article 72 paragraph (1) of the Act
- (iii) other particulars used as reference
- (2) The written request referred to in the preceding paragraph must be accompanied by training and examination regulations.
 - (3) The training and examination regulations referred to in the preceding paragraph must include the particulars specified below:
 - (i) particulars specified below concerning a person to whom an approval under Article 72, paragraph (5) of the Act is to be granted (hereinafter referred to as a "candidate for a pilot-in-command") by a designated domestic air carrier and a person by whom a designation referred to in paragraph (9) of that Article is to be implemented to a domestic air carrier (hereinafter referred to as a "pilot examiner candidate")
 - (a) selecting method
 - (b) training system
 - (c) training method
 - (ii) particulars specified below concerning the approval referred to in paragraph (5) of Article 72 of the Act and the examination referred to in paragraph (6) of that Article
 - (a) organizational structure
 - (b) implementing method
 - (iii) methods for preparation and storage of records of the particulars specified in the preceding two items

(Criteria for Designation of Designated Domestic Air Carrier)

Article 164-5 The designation of designated domestic air carrier referred to in Article 72, paragraph (5) of the Act must be implemented if the air carrier comply with the criteria specified below:

- (i) an air carrier must have an organization for selecting the candidates for pilot-in-command and pilot examiner candidates and the criteria for selecting these candidates are appropriate.
- (ii) the air carrier must have an organization to provide training to candidates for pilot in command and pilot examiner candidates and maintain more than the required number of instructors and the facilities for training these candidates must be fully equipped.
- (iii) the subjects, time and other training methods for training the candidates for pilot in command and pilot examiner candidates must be adequate.
- (iv) the air carrier must have more than a required number of personnel fulfilling the requirements prescribed in items of Article 164-9 so as to grant approval referred to in Article 72, paragraph (5) of the Act and conduct examinations referred to in paragraph (6) of that Article.
- (v) it is guaranteed that the authority of the designated person (hereinafter

referred to as the "pilot examiner") referred to in Article 72, paragraph (9) of the Act is independent pertaining to the implementation of examination referred to in Article 72, paragraph (6) of the Act and the approval referred to in paragraph (5) of that Article.

- (vi) The approval referred to in paragraph (5) of Article 72 of the Act and the items of examination and evaluation criteria referred to in paragraph (6) of that Article must comply with the approval referred to in paragraph (1) of Article 72 of the Act and the items of examination and evaluation criteria referred to in paragraph (2) and (3) of that Article which are specified by the Minister of Land, Infrastructure, Transport and Tourism.
- (vii) the methods for preparation and storage of the related records must be appropriate.

Article 164-6 (1) The provisions of Article 163-2 apply mutatis mutandis to the approval granted by a designated domestic air carrier referred to in Article 72, paragraph (5) of the Act.

- (2) The provisions of paragraphs (2) and (3) of Article 164 apply mutatis mutandis to the approval referred to in paragraph (5) of Article 72 of the Act and to the examination referred to in paragraph (6) of that Article conducted by a designated domestic air carrier. In this case, the term the "personnel appointed by the Minister of Land, Infrastructure, Transport and Tourism" in paragraph (3) of Article 164 is deemed to be replaced with the "pilot examiner".
- (3) The provisions of Article 164-2, paragraph (1) apply mutatis mutandis to the examination conducted by a designated domestic air carrier pursuant to the provisions of paragraph (6) of Article 72 of the Act.

(Operation of Services of Designated Domestic Air Carriers)

Article 164-7 A designated domestic air carrier must operate its services fairly in compliance with the training and examination regulations prescribed in paragraph (2) of Article 164-4 so as to conform the criteria specified in items of Article 164-5.

(Designation of Pilot Examiners)

Article 164-8 The designation of a pilot examiner must be implemented by limiting the aircraft type.

(Requirements for Designated Pilot Examiners)

Article 164-9 Requirements prescribed by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in paragraph (9) of the Article 72 of the Act are as prescribed below:

(i) in accordance with the aircraft classification pertaining to the designation listed in the left hand column of the following Table, a pilot examiner must fulfill the requirements listed in the right hand column of that Table, and must have received the training required to become a pilot examiner.

Aircraft Classification Pertaining to the Designation		Requirements
Airplane	(1) an airplane having over 60 passenger seats or a maximum take-off weight over 27,000 kilograms	The flight time as a pilot in command of an aircraft used for air transport services whose maximum take-off weight exceeding 5,700 kilograms must be 2,000 hours or more.
	(ii) an airplane other than those listed in (i), which are equipped with turbojet engines or turbofan engines	The flight time as a pilot-in-command of an airplane used for air transport services whose maximum take-off weight exceeding 5,700 kilograms must be 1,000 hours or more and the flight time of the pilot as a captain of an airplane must be 2,000 hours or more.
	(iii) an airplane other than those listed in (i) and (ii)	The flight time as a pilot in command of an airplane used for air transport services whose take-off weight exceeding 5,700 kilograms must be 300 hours or more and the flight time of the pilot as a captain of an aircraft must be 2,000 hours or more.
Rotorcraft		The flight time as a pilot in command of a rotary wing aircraft used for air transport services whose maximum take-off weight exceeding 9,080 kilograms must be 500 hours or more and the flight time of the pilot as a captain of a rotary wing aircraft must be 1,000 hours or more.

(ii) the pilot examiner must have obtained a license referred to in paragraph (1) or (5) of the Article 72 of the Act for the aircraft type pertaining to the designation.

(iii) a pilot examiner must have knowledge and skills required to conduct an examination referred to in paragraph (5) of the Article 72 of the Act and to conduct an examination referred to in paragraph (6) of that Article.

(iv) a pilot examiner must not be a person who has been sentenced to a fine or heavier punishment for violating the Act, and for whom two years have not elapsed since the day on which execution of the sentence was completed or the person has ceased to be subject to the execution of the sentence.

(Application for Designated Pilot Examiner)

Article 164-10 (1) A designated domestic air carrier intending to file the application referred to in paragraph (9) of the Article 72 of the Act must submit a written application providing the name, address and the following particulars pertaining to the pilot examiner candidate to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
 - (ii) the certificate of competency certifying qualification, restrictions and number thereof and airman medical certificate number
 - (iii) aircraft type pertaining to the designation
 - (iv) other particulars used as reference
- (2) The written application referred to in the preceding paragraph must accompany the documents explaining that the pilot examiner candidate meets the requirements prescribed in item (i) and item (ii) of paragraph (1) of the preceding Article.
- (3) The Minister of Land, Infrastructure, Transport and Tourism is to conduct screening of applications, written examination, practical examination to determine if the pilot examiner candidate meets the requirements prescribed in the items of the preceding Article; provided, however, that when the Minister of Land, Infrastructure, Transport and Tourism deems unnecessary, the all or part of the written examination or practical examination may be disposed of.
- (4) The practical examination prescribed in the preceding paragraphs is conducted by personnel designated by the Minister of Land, Infrastructure, Transport and Tourism to be on board of the aircraft of the same type pertaining to the aircraft to be designated accompanied by the pilot examiner candidate, or by using a flight simulator or operational flight trainer of the same type as that of the aircraft pertaining to the designation.

Article 164-11 (1) The Minister of Land, Infrastructure, Transport and Tourism is to examine whether or not a pilot examiner meets the requirements listed in the items of Article 164-9 once a year.

- (2) The provisions of the preceding Article apply mutatis mutandis to the examination prescribed in the preceding paragraph.

Article 164-12 (1) The Minister of Land, Infrastructure, Transport and Tourism is to examine, when the minister deemed it necessary, whether a pilot examiner meets the requirements listed in items of Article 164-9.

- (2) The provisions of paragraphs (3) and (4) of Article 164-10 apply mutatis mutandis to the examination prescribed in the preceding paragraph. In this

case, the term "pilot examiner candidate" prescribed in paragraph (4) of that Article is deemed to be replaced with "pilot examiner."

(Lapse and Revocation of Appointment of Pilot Examiners)

Article 164-13 (1) The designation referred to in paragraph (9) of the Article 72 of the Act cease to be effective when a pilot examiner falls under any of the following items:

- (i) when failing to receive the examination prescribed in paragraph (1) of the Article 164-11 or rejecting the examination prescribed in paragraph (1) of the preceding Article
- (ii) when failing to pass the examination prescribed in paragraph (1) of the Article 164-13 or paragraph (1) of the preceding Article
- (iii) when a pilot examiner ceased to belong to a designated domestic air carrier pertaining to the designation
- (iv) when the designated domestic air carrier pertaining to the designation ceased to be the designated domestic air carrier

(2) The Minister of Land, Infrastructure, Transport and Tourism may, when a pilot examiner falls under any of the following items, revoke the designation prescribed in paragraph (9) of the Article 72 of the Act concerning the pilot examiner:

- (i) when a pilot examiner violating the Act or the provision of the order under the Act
- (ii) when illegitimacy occurs upon receiving the designation referred to in paragraph (9) of the Article 72 of the Act
- (iii) when illegitimacy occurs in granting the approval referred to in paragraph (5) of the Article 72 of the Act or in conducting the examination referred to in paragraph (6) of that Article

(Confirmation Before Departure)

Article 164-14 (1) Matters that must be confirmed by the pilot in command pursuant to the provisions of Article 73-2 of the Act are as specified below:

- (i) maintenance status of the aircraft and its equipment
- (ii) take-off weight, landing weight, location of the center of gravity, and weight distribution
- (iii) information offered by the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of Article 99 of the Act (hereinafter referred to as "aeronautical information").
- (iv) weather information required for the flight
- (v) loading quantity of fuel and lubricant, and their quality
- (vi) safety of payloads

(2) A pilot in command must, when confirming the matters prescribed in item (i),

conduct the inspection of aircraft logbook and other records on maintenance services, inspection of the exterior of aircraft and ground trial run of engines, and other operational check of aircraft.

(Prohibition of Safety-threatening Behaviors)

Article 164-15 The safety-threatening behaviors prescribed by the Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in paragraph (5) of the Article 73-4 of the Act are as listed below:

- (i) an act of operating the opening and closing device of an entrance or an emergency door without any just cause
- (ii) an act of smoking in a toilet
- (iii) an act of impeding execution of the duty of personnel on board of aircraft and consequently may affect the maintenance of safety of the aircraft, the protection of persons other than the one who commits the act or properties within the aircraft, or the maintenance of order or discipline within the aircraft
- (iv) an act of activating a mobile telephone or any other electronic device without just cause that may hinder the safety of aircraft in flight, which is set forth in a public notice issued by the Minister of Land, Infrastructure, Transport and Tourism
- (v) an act of failing to fasten a safety belt without just cause during a take-off, landing, or any other case where the pilot in command instructs to fasten it.
- (vi) an act of failing during take-off or landing to return the back of a seat, table, or foot rest to its original position without any just cause
- (vii) an act of placing the baggage without any just cause on an aisle or any other place, eventually blocking evacuation in an emergency
- (viii) an act of operating or displacing an emergency device or equipment, or damaging the functions thereof, which are set forth in a public notice issued by the Minister of Land, Infrastructure, Transport and Tourism

Article 164-16 A pilot in command must, when the pilot gives a direction pursuant to the provisions of paragraph (5) of the Article 73-4 of the Act, issue a written direction describing particulars listed below to the person who has committed a safety-threatening behaviors specified in that paragraph:

- (i) details of the safety-threatening behavior committed by the relevant person
- (ii) a statement that the act must not be repeated or continued

(Report on Accidents)

Article 165 A pilot in command or the user must report the matters listed below to the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of paragraph (1) of the Article 76 of the Act,;

- (i) name of the pilot in command or the aircraft operator
- (ii) date, time and place of accident
- (iii) nationality, registration mark, type of aircraft and call sign of radio station assigned to the aircraft
- (iv) outline of the aircraft accident
- (v) outline of casualty or the damage to the objects
- (vi) when the death or missing person is involved, name of them and other matters used as reference

Article 165-2 The death of a person on board of aircraft set forth by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in item (iii) of the paragraph (1) of the Article 76 of the Act are as follows:

- (i) natural death
- (ii) death caused by a fatal act done by oneself or any other person
- (iii) death of a person who was hiding in an area where none of aircraft crew, cabin attendants or passengers normally enters

Article 165-3 Accidents related to aircraft prescribed in Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in item (v) of paragraph (1) of Article 76 of the Act are cases (excluding cases where the repair of the aircraft does not fall under the major repair work among the work classifications listed in the Table of Article 5-6) where aircraft in flight is damaged (except the sole damage of engine, cowling, propeller, wing tip, antenna, tire, brake or fairing).

Article 166 A pilot in command must report on the matters listed below to the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of paragraph (2) of Article 76 of the Act.

- (i) name of the pilot in command
- (ii) date and time when the pilot in command was aware of the accident occurrence and place where the accident occurred
- (iii) outline of the accident and other matters used as reference

(Report on Abnormality)

Article 166-2 The abnormal cases on which the pilot in command must report pursuant of paragraph (3) of the Article 76 of the Act are as listed below:

- (i) failure in functions of airports and air navigation facilities
- (ii) turbulence of air and other abnormal weather conditions
- (iii) volcanic explosions and other violent changes in terrestrial and watery phenomena
- (iv) cases impeding the safety of aircraft in flight in addition to those listed in

the preceding items

Article 166-3 A pilot in command must report on the matters listed below to the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of paragraph (3) of Article 76 of the Act.

- (i) name and address of the pilot in command
- (ii) date and time when the pilot in command was aware of the occurrence of the case and the place where the case occurred
- (iii) outline of the case and other matters used as reference

(Reporting on Cases that are Likely to Cause an Accident)

Article 166-4 The cases prescribed in Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 76-2 of the Act are as follows:

- (i) take-off from a closed runway or a runway being used by other aircraft or aborted take off
- (ii) landing on a closed runway or a runway being used by other aircraft or attempt of landing
- (iii) overrun, undershoot and deviation from a runway (limited to when an aircraft is unable to perform taxiing)
- (iv) case where emergency evacuation was conducted by using the emergency evacuation slide
- (v) case where aircraft crew executed an emergency operation during flight in order to avoid crash into water or contact with the ground
- (vi) damage to the engine (limited to a case where fragments penetrated the casing of the engine or a major damage occurred inside the engine)
- (vii) the engine is stopped continuously or loss of power or thrust thereof (except when the engine(s) are stopped with an attempt of assuming the engine(s) of a motor glider) of engines (in the case of multiple engines, 2 or more engines) in flight
- (viii) case where any of aircraft propeller, rotary wing, landing gear, rudder, elevator, aileron or flap is damaged and thus flight of the aircraft may not be continued
- (ix) multiple malfunctions in one or more systems installed on aircraft impeding the safe flight of aircraft
- (x) occurrence of fire or smoke inside an aircraft and occurrence of fire within an engine fire-prevention area
- (xi) abnormal decompression inside an aircraft
- (xii) shortage of fuel requiring urgent measures
- (xiii) case where aircraft operation is impeded by an encounter with air disturbance or other abnormal weather conditions, failure in aircraft

- equipment, or a flight at a speed exceeding the airspeed limit, limited payload factor limit operating altitude limit
- (xiv) case where aircraft crew was unable to perform normal duties due to injury or disease
- (xv) case where parts fell from aircraft collided with persons
- (xvi) case equivalent to those listed in the preceding items

Article 166-5 A pilot in command must report on the matters listed below to the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of Article 76-2 of the Act.

- (i) name and address of the pilot in command
- (ii) nationality, registration mark and type of aircraft
- (iii) Date, time and place where the case pertaining to the report occurred
- (iv) outline of the case and other matters pertaining to the report used as reference

(Aircraft Requiring Approval of Flight Dispatcher)

Article 166-6 The aircraft specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 77 of the Act, are the aircraft whose maximum take-off weight exceeding 5,700 kilograms and rotorcraft whose take-off weight exceeding 9,080 kilograms (except the aircraft listed below).

- (i) aircraft operated by the persons listed in items of Article 4, paragraph (1) of the Act used for air transport services
- (ii) aircraft operated by an entrustee who receives permission referred to in paragraph (1) of the Article 113-2 of the Act, where the entrustee is a person who is specified in items of paragraph (1) of the Article 4 of the Act.

(Eligibility Requirements to Receive Examination for Aircraft Dispatcher)

Article 167 (1) A person eligible to receive the competence examination for aircraft dispatcher pursuant to the provisions of paragraph (3) of the Article 78 of the Act (hereafter called "competency test") must be 21 years of age until the date on which the examination is conducted, and as regards the operation of aircraft whose maximum take-off weight exceeding 5,700 kilograms used for air transport services or rotary wing aircraft whose maximum take-off weight exceeding 9,080 kilograms, having experience of 2 years or more of number 1 among item (i) to item (v) listed below and among these experiences, the experience of number 2 for 2 year or more of each and 1 year or more of experience in item (vi).

- (i) experience in aircraft operation
- (ii) experience in air navigation

- (iii) experience in providing weather observation services
 - (iv) experience in operating wireless facilities on board of aircraft
 - (v) experience in providing air traffic control services
 - (vi) experience in providing auxiliary services for the services of aircraft dispatcher
- (2) Notwithstanding the provisions of the preceding paragraph, a person deemed by the Minister of Land, Infrastructure, Transport and Tourism to have the same or more experiences prescribed in that paragraph may receive the competency test.

Article 167-2 The provisions of Article 44 (except item (i) and item (ii)) apply mutatis mutandis to the certification of the experience referred to in paragraph (1) of the preceding Article.

(Application for Competency Test)

Article 168 (1) A person intending to receive the competency test must submit a written application for competency test for aircraft dispatcher (Form No. 19 (in the case of an applicant exempted from all the subjects of written examination, Form No.19-2)) accompanied by one photograph and documents listed below or by presenting documents listed in item (v), and by attaching their copies, to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) personal history
- (ii) in the case of an applicant exempted from all subjects of written examination, an extract copy of family register or certification of family register description, or a copy of resident record bearing the permanent domicile
- (iii) in the case of a person having experiences prescribed in paragraph (1) of the Article 167, documents certifying the fact
- (iv) In the case of an applicant intending to be exempted from receiving part or whole of the written examination pursuant to the provisions of Article 170-3 or Article 170-4, a copy of the documents listed in Article 170-2
- (v) in the case an applicant intending to be exempted from the examination pursuant to the provisions of paragraph (1) or (2) of the Article 170-5, documents certifying that the applicant has passed the competency test conducted by the government of the relevant foreign state
- (vi) in the case of an applicant intending to be exempted from some of the practical tests pursuant to the provisions of Article 178-6 (limited to an applicant for exemption from all the subjects of a written examination), the completion certificate (Form No. 19-3) issued by the administrator of a training facility designated by the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of paragraph (4) of the

Article 29 of the Act applied mutatis mutandis pursuant to paragraph (4) of the Article 78 of the Act (hereafter referred to as "designated aircraft dispatcher training facility").

- (2) A person intending to undergo the competency test (except the applicant for the exemption from all the subjects of a written examination) and having passed the written examination, when the person intends to undergo the practical test (including the case where a person intends to be exempted from a practical test pertaining to the whole or part of the subjects), must submit a written application for practical test (Form No. 19-2) accompanied by a copy of photograph and documents listed in the following items to the Minister of Land, Infrastructure, Transport and Tourism.
- (i) an extract of family register or certification of family register description, or a duplicate of resident record bearing the permanent domicile
 - (ii) a duplicate of the documents listed in Article 170-2
 - (iii) in the case of an applicant intending to be exempted from the practical test pursuant to the provisions of paragraph (1) or (2) of the Article 170-5, documents certifying that the applicant has passed the competency test conducted by the government of the relevant foreign state
 - (iv) in the case of an applicant intending to be exempted from some of the practical tests pursuant to the provisions of Article 170-6, the completion certificate (Form No. 19-3) issued by the administrator of a designated aircraft dispatcher training facility

(Public Notice and Notification of Date of Examination)

Article 169 (1) The Minister of Land, Infrastructure, Transport and Tourism, when conducting an examination pursuant to the provisions of paragraph (1) of the Article 29 of the Act as applied mutatis mutandis pursuant to paragraph (4) of the Article 78 of the Act, must publicly notify by way of Official Gazette of the data and venue of the examination, submission due date of the competency test application pursuant to the provisions of paragraph (1) of the preceding Article, and other necessary matters.

- (2) The Minister of Land, Infrastructure, Transport and Tourism, when receiving an application for the competency test referred to in paragraph (1) of the preceding Article, must notify the applicant of the details of the competency test and other necessary matters.

(Written Examination)

Article 170 The written examination is conducted on the subjects listed below:

- (i) aircraft: the structure, performance, and matters relative to fuel consumption of aircraft used for air transport services
- (ii) aircraft operation: basic principles of weight distribution and the influence

- of weight distribution on aircraft navigation
- (iii) air navigation facilities: specification, function/usage and operational procedures of air navigation facilities.
- (iv) radio communications: outline of radio communication facilities, communication system and facility operating methods and procedures
- (v) knowledge of aeronautical meteorology, wind system, air disturbance, cloud, ice accretion, aerial discharge, fog and other meteorological phenomena having influence on aircraft operation and meteorological observation methods
- (vi) weather information: weather information system and report system
- (vii) explanation on weather charts: weather symbols, technical terms, and general principles of meteorological analysis
- (viii) aerial navigation: common knowledge on radio navigation and dead reckoning navigation and principles and operation of navigation instruments
- (ix) regulations: domestic aviation laws and regulations, and international civil aviation acts and regulations

(Notification of Passing Written Examination)

Article 170-2 The Minister of Land, Infrastructure, Transport and Tourism notifies each person who has passed all or part of the written examination referred to in the preceding Article of the result in writing.

(Exemption from Examination)

Article 170-3 When a person who has passed the written examination referred to in Article 170 applies for the practical examination, the person is exempted from the written examination upon application, which is to be conducted within a period of 2 years from the day when the notification pertaining to subject passing prescribed in the preceding Article was issued.

Article 170-4 When a person who has received all the subjects of the written examination and achieved passing marks for part of the subjects applies for the practical examination, will be exempted, upon application, from the written examination pertaining to the subjects on which passing marks were achieved for the subjects on which the passing marks were achieved, limited to the forthcoming written examination to be conducted within 1 year from the date of notification pertaining to the passing referred to in Article 170-2.

Article 170-5 (1) The Minister of Land, Infrastructure, Transport and Tourism may, upon application, grant a person who has passed the aircraft dispatcher competency test conducted by the government of a foreign state that is a contracting state to the Convention on International Civil Aviation, exempt the

person from the examination referred to in Article 170 (excluding those pertaining to the domestic aviation law referred to in item (ix) of that Article) in whole or part of the examination referred to in Article 171.

- (2) The Minister of Land, Infrastructure, Transport and Tourism may, upon application, exempt a person, who has passed the aircraft dispatcher competency test conducted by the government of a foreign state that is a contracting state to the Convention on International Civil Aviation and is deemed by the Minister of Land, Infrastructure, Transport and Tourism as to conduct the skills of aircraft dispatcher equivalent to or higher than the skills referred to in Article 170 and Article 171, from all of the examinations .
- (3) In the case referred to in the two preceding paragraphs, an applicant must pass the examination deemed necessary by the Minister of Land, Infrastructure, Transport and Tourism to determine whether the applicant has proficiency in Japanese or English language necessary for the aircraft dispatcher.

Article 170-6 The practical test referred to in the following Article will not be conducted, upon application, for a person who has completed the courses at designated air dispatcher training facility; provided, however, that this does not apply when 1 year has passed from the day on which the person completed the courses at the designated air dispatcher training facility.

(Practical Tests)

Article 171 The practical test is conducted on the subjects listed below:

- (i) explanation of weather charts: Forecasting weather conditions relative to aircraft navigation by analyzing weather charts such as surface charts and upper air charts
- (ii) aircraft navigation: Support for navigation under assumed bad weather conditions

(Aircraft Dispatcher Certificate)

Article 171-2 A person who has passed the competency test is to acquire an aircraft dispatcher certificate (Form No. 29).

(Aircraft Dispatcher Training Facility)

Article 171-3 The provisions of Article 50-3, Article 50-4, Article 50-5, Article 50-6, Article 50-7, paragraph (2) of the Article 50-8, Article 50-10 and Article 50-11 apply mutatis mutandis to the training facility of aircraft dispatchers pursuant to the provisions of paragraph (4) of the Article 29 of the Act as applied mutatis mutandis pursuant to the provisions of paragraph (4) of the Article 78 of the Act. In this case, the term "application for designation of

airman training facility (Form No. 19-4)" in paragraph (1) of the Article 50-3 is deemed to be replaced with "application for designation of aircraft dispatchers training facility (Form No. 29-2)"; the term "restrictions referred to in paragraph (1), paragraph (2) and paragraph (3) of the Article 25 of the Act, restrictions pertaining to the alteration referred to in paragraph (1) of the Article 29-2 of the Act, certificate of aeronautical English proficiency in paragraph (1) of the Article 33 of the Act, instrument rating in paragraph (1) of the Article 34 of the Act or the courses specified for each subject of basic techniques for maintenance pertaining to the certificate for competency for the qualification of first class aircraft maintenance technician, second class aircraft maintenance technician, first class aircraft line maintenance technician, second class aircraft line maintenance technician and aircraft overhaul technician prescribed in Attachment 3" in paragraph (1) of the Article 50-3 is deemed to be replaced with the "courses pertaining to the aircraft dispatcher competency test referred to in paragraph (1) of the Article 78 of the Act"; the term the "examinations referred to in paragraph (1) of the Article 29 of the Act (including as applied mutatis mutandis pursuant to Article 29-2 paragraph (2) of the Act, paragraph (3) of the Article 33 of the Act or paragraph (3) of the Article 34 of the Act)" in paragraph (1) of the Article 50-4, item (1)(a) is deemed to be replaced with "examinations in paragraph (1) of the Article 29 as applied mutatis mutandis pursuant to paragraph (4) of the Article 78 of the Act"; the term "paragraph (4) of the Article 29 of the Act" in paragraph (1) of the Article 50-6 is deemed to be replaced with "paragraph (4) of the Article 29 of the Act as applied mutatis mutandis pursuant to paragraph (4) of the Article 78 of the Act"; the term a "certificate of designation of airman training facility (Form 19-5)" in Article 50-7 is deemed to be replaced with a "certificate of designation of aircraft dispatcher training facility (Form 29-3)"; the term "preceding paragraph" in paragraph (2) of the Article 50-8 is deemed to be replaced with "competence examiner"; the term "paragraph (5) of the Article 50-2" in Article 50-10 is deemed to be replaced with "item (vi) of paragraph (1) of Article 168"; the term "paragraphs (3) and (4) of Article 50-2" is deemed to be replaced with "Article 170-6".

(Aircraft That can Take off and Land on Places Other Than Airports)

Article 172 The aircraft specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism pursuant to the provisions of Article 79 of the Act mean gliders.

Article 172-2 A person intending to request for the approval prescribed in the proviso to Article 79 of the Act must submit a written request providing the particulars listed below to the Minister of Land, Infrastructure, Transport and

Tourism.

- (i) name and address
- (ii) type of aircraft and nationality and registration marks of aircraft
- (iii) date, time and place of take-off or landing (sketches of the place must be attached.)
- (iv) reasons for take-off or landing
- (v) measures to prevent accidents
- (vi) outline of flight plan (purpose of flight, date and time, and paths must be clearly stated.)
- (vii) name qualification of the pilot
- (viii) other particulars used as reference

(Non-fly Zones)

Article 173 The zones in which aircraft are prohibited to fly pursuant to the provisions of Article 80 of the Act are set forth in public notice for no-fly zones (aircraft flight over the area is totally forbidden) and restricted zones (aircraft flight over the area is forbidden under certain conditions) respectively; provided, however that when there is no time to specify the zones in public notice as the no-fly zones for aircraft needs to be urgently decided, the Minister of Land, Infrastructure, Transport and Tourism may determine a non-fly zone or flight restriction zone without issuing public notice.

(Permission for Flights within No-fly Zones or Restricted Zones)

Article 173-2 A person intending to request for the permission prescribed in the proviso to Article 80 of the Act must submit a written request providing the particulars listed below to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
- (ii) type of aircraft and nationality and registered marks of aircraft
- (iii) outline of flight plan (purpose of flight, date and time, and paths must be clearly stated.)
- (iv) reason to fly in the no-fly zone or restricted zone
- (v) name and qualification of the pilot
- (vi) name of co-pilot or fellow passenger and the purpose for flying together
- (vii) other particulars used as reference

(Minimum Safety Altitude)

Article 174 The minimum safety altitude pursuant to the provisions of Article 81 of the Act is as follows:

- (i) in the case of aircraft navigating under the visual flight rules, the altitude at which landing is feasible, when only the power system is stopped during a

flight, without causing danger to human beings or objects on the ground or on water or the following altitudes, whichever is higher:

- (a) in the case of the airspace over an area having large number of population or houses, an altitude of 300 meters above the top edge of the highest object located within the area with a horizontal distance of 600 meters centering around the aircraft.
- (b) in the case of airspace above an area having small number of population or houses, or above the large surface area of waters, an altitude at which an aircraft can continue to fly while maintaining at least 150 meters away from human beings or objects on the ground or on water.
- (c) in the case of the airspace above an area other than those prescribed in (a) and (b), an altitude of 150 meters above the ground or water surface.
- (ii) in the case of aircraft navigating under the instrument flight rules, the altitude set forth in public notice.

(Permission for Flight at Minimum Safety Altitude)

Article 175 A person intending to obtain permission referred to in proviso to Article 81 of the Act must submit a written request providing the particulars listed below to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
- (ii) type of aircraft and nationality and registered marks of the aircraft
- (iii) outline of flight plan (purpose of flight, date and time, and paths must be clearly stated.)
- (iv) reason for navigating at an altitude lower than a minimum safety altitude
- (v) name and qualification of the pilot
- (vi) name of co-pilot or fellow passenger and the purpose of being on board together
- (vii) other particulars used as reference

(Special Provisions for Search or Rescue)

Article 176 The aircraft specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 81-2 of the Act are as listed below:

- (i) aircraft used by the Ministry of Land, Infrastructure, Transport and Tourism, Ministry of Defense, National Police Agency, prefectural police departments, or fire authority of local governments whose mission is to search or rescue
- (ii) aircraft used for search or rescue activities upon receipt of the request or report from the organizations listed in preceding item

(Cruising Altitude)

Article 177 The cruising altitude of aircraft pursuant to the provisions of paragraph (1) of the Article 82 of the Act is, if an aircraft listed in the middle column of the following Table navigates toward the direction listed in the left-hand side column of that Table, is to fly at the altitude listed in the right-hand side column of that Table (if an altitude is designated pursuant to the provisions of paragraph (1) of the Article 96 of the Act, the designated altitude).

Flight Direction	Aircraft		Altitude
Magnetic bearing 0 deg. through 179 deg.	Aircraft flying under Visual Flight Rules		altitude lower than 29,000 feet, which is the altitude calculated by adding 500 feet to the number calculated by multiplying 1,000 feet by an odd number
	Aircraft flying under Instrumental Flight Rules	An aircraft for which the permission under Article 83-2 of the Act is granted for making a flight set forth in item (i) of paragraph (1) of Article 191-2, and aircraft set forth in each item of paragraph (2) of Article 191-2 permitted to make a flight set forth in item (i) of paragraph (1) of that Article pursuant to the provisions of paragraph (2) of that Article.	In case of an altitude lower than 41,000 feet, an altitude calculated by multiplying 1,000 feet by an odd number In case of an altitude exceeding 41,000 feet, an altitude calculated by adding the number multiplied by 4,000 feet to 45,000 feet
	Other types of aircraft		In case of an altitude lower than 29,000 feet, an altitude calculated by multiplying 1,000 feet by an odd number In case of an altitude exceeding 41,000 feet, an altitude calculated by adding the number multiplied by 4,000 feet to 45,000 feet

Magnetic bearing 180 deg. through 359 deg.	Aircraft flying under Visual Flight Rules		An altitude lower than 29,000 feet, calculated by adding 500 feet to the product of 1,000 feet multiplied by an even number
	Aircraft flying under Instrumental Flight Rules	Aircraft for which the permission under Article 83-2 of the Act is granted for making a flight set forth in item (i) of paragraph (1) of Article 191-2, and aircraft set forth in each item of paragraph (2) of Article 191-2 permitted to make a flight set forth in item (i) of paragraph (1) of that Article pursuant to the provisions of paragraph (2) of that Act	In case of an altitude lower than 41,000 feet, an altitude calculated by multiplying 1,000 feet by an even number In case of an altitude exceeding 41,000 feet, an altitude calculated by adding the number multiplied by 4,000 feet to 43,000 feet
	Other types of aircraft		In case of an altitude lower than 29,000 feet, an altitude calculated by multiplying 1,000 feet by an even number In case of an altitude exceeding 41,000 feet, an altitude calculated by adding the number multiplied by 4,000 feet to 43,000 feet

(Calibration of Pressure Altimeter)

Article 178 The pilot in command must calibrate the pressure altimeter by using the following method:

- (i) in the case of navigating at an altitude lower than 14,000 feet above the mean sea level, the pressure altimeter must be calibrated by employing the QNH value of a point on the flight path (when the QNH value of the point of departure is unavailable at departure time, it must be calibrated using the altitude of the departure point).
- (ii) in a case other than those referred to in the preceding item, it must be

calibrated by using the standard atmospheric pressure (1,013.2 hPa).

(Speed Limitation in Air Traffic Control Zones)

Article 179 (1) The speeds prescribed by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 82-2f of the Act are the speeds specified in the following items:

(i) in the case of aircraft navigating in an airspace prescribed in item (i) of Article 82-2 of the Act, which is lower than an altitude of 900 meters, the indicated air speed specified for the respective classifications of aircraft specified below:

(a) aircraft equipped with reciprocating engines: 160 knots

(b) aircraft equipped with turbine engines: 200 knots

(ii) in the case of aircraft navigating in an airspace referred to in item (i) of Article 82-2 of the Act, which is higher than an altitude of 900 meters, or aircraft navigating in an airspace referred to in item (ii) of Article 82-2 of the Act, the indicated air speed is 250 knots.

(2) Notwithstanding the provisions of the preceding paragraph, the speeds prescribed by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 82-2 of the Act pertaining to the types of aircraft used by the Self Defense Forces and designated by the Minister of Land, Infrastructure, Transport and Tourism, which it is deemed to be inevitable to navigate at a speed exceeding the speed prescribed in that paragraph are the speeds specified by the Minister of Land, Infrastructure, Transport and Tourism; provided, however, that this does not apply when the navigation speed is likely to impede the safety of other aircraft.

(3) Notwithstanding the provisions of the two preceding paragraphs, the speeds specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 82-2 of the Act pertaining to the aircraft specified in the following items are the speeds listed in the respective items.

(i) aircraft instructed by the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of Article 96 paragraph (1) of the Act to navigate at a speed exceeding the speed specified in the two preceding paragraphs: the speed pertaining to the instructions

(ii) aircraft required to navigate at a speed exceeding the speed specified in the two preceding paragraphs because of inevitable reasons for ensuring the safety of aircraft in flight: the appropriate speed deemed to be necessary to ensure the safety of the aircraft in flight

(Application for Permission for Flight at Speeds Exceeding Speed Limits)

Article 179-2 A person intending to request for the permission prescribed in the proviso to Article 82-2 of the Act must submit a written request providing the

particulars listed below to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
- (ii) type of aircraft and nationality and registered marks of the aircraft
- (iii) the speed when navigating at a speed exceeding that specified in the preceding Article (hereinafter referred to as "speed limit")
- (iv) date, time and place of flight at a speed exceeding the speed limit
- (v) reasons for navigating at a speed exceeding the speed limit
- (vi) outline of flight plan (purpose of flight, date and time, and paths must be clearly stated.)
- (vii) name and qualification of the pilot
- (viii) other particulars used as reference

(Right of Way)

Article 180 When the flight paths of two aircraft intersect or come close to each other, the right of way is given to the aircraft in accordance with the following priorities:

- (i) gliders
- (ii) aircraft towing an object
- (iii) airships
- (iv) airplanes, rotorcraft and motorized gliders

Article 181 When the flight paths of two aircraft with equal priority intersect or come close to each other, the aircraft that sees the other aircraft to its right must give the right of way to the other.

Article 182 When two aircraft with equal priority approach each other at head on angle or nearly head on angle, each aircraft must change its flight path to the right.

Article 183 An aircraft in its final approach path for landing or aircraft performing the landing operation has the right of way priority over the aircraft in flight, aircraft operating on the ground or on water.

Article 184 Between the two aircraft approaching the airport for landing, the aircraft flying at a lower altitude has the right of way; provided, however, that the aircraft must not cut in front or overtake the aircraft on its final approach path.

Article 185 When aircraft overtakes another aircraft flying ahead of it (including the overtaking another aircraft by ascending or descending), the aircraft

behind must pass the right side of the aircraft ahead.

Article 186 The aircraft having the right of way must maintain its flight path and speed.

(Separation Maintenance)

Article 187 When an aircraft flies close to another aircraft, the aircraft must maintain distance from another to prevent collision with it.

(Movement on Ground)

Article 188 When an aircraft moves on the ground in airport etc., it must comply with the following criteria:

- (i) a person who moves an aircraft must look ahead well.
- (ii) the power unit must be controlled or the speed of the aircraft must be maintained at which it may stop quickly and safely by using brake unit slightly.
- (iii) when there is a danger of the aircraft colliding with another aircraft or other objects, the ground guide must be assigned.

(Navigation Rules in the Vicinity of Airport)

Article 189 (1) Aircraft in or near the airport etc. must be navigated in accordance with the criteria listed in the following items; provided, however, that this does not apply if the directions from the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of paragraph (1) of Article 96 of the Act are given, which are different from the criteria listed in items (i), (iv) through (vii) and if the aircraft used by the Self Defense Forces that navigates in or near the airport built by the Self Defense Force and designated by the minister has difficulty in complying with these criteria in performing its assignment due to special circumstances and there is no risk of causing danger to others than the Self Defense Forces.

- (i) the aircraft must follow the approach procedure under the instrumental flight rules and the flight rules established for the relevant airport, etc.
- (ii) the aircraft must not take off when the instrumental flight rules are being used for take off and the meteorological conditions at the airports, etc. do not meet the minimum conditions for take off.
- (iii) the landing approach must not be continued when the aircraft intends to land under the instrumental flight rules, which falls under the conditions listed below:
 - (a) the meteorological conditions do not meet the minimum conditions for continuing the landing approach at the relevant airport when the aircraft passes above the approach height threshold at a specified location.

- (b) the position of the aircraft cannot be confirmed by visual reference of landmarks at a point below the approach height threshold.
 - (iv) when an aircraft is to take off after another aircraft, it must not initiate the taxiing for take off before the preceding aircraft has taken off and passed the end of the landing strip.
 - (v) when an aircraft is to land after another aircraft, it must not enter the relevant airport zone for landing before the preceding aircraft has landed and left the landing strip.
 - (vi) when an aircraft is to land following another aircraft which is taking off, it must not enter the relevant airport zone for landing before the preceding aircraft has taken off and passed the end of the landing strip.
 - (vii) when an aircraft is to take off following another aircraft which is landing, it must not initiate the taxiing for take off before the preceding aircraft has landed and left the landing strip.
- (2) The Minister of Land, Infrastructure, Transport and Tourism is to establish for each airport the flight rules referred to in item (i) of the preceding paragraph, the meteorological conditions pursuant to the provisions of items (ii) and (iii) of that paragraph and the approach height threshold, the specific location at a higher altitude than the approach height threshold and visual landmarks under the provisions of item (iii) of that paragraph.

Article 190 Deleted.

(Special Provisions for Emergency Cases)

Article 191 Notwithstanding the provisions of Articles 180 through 189, when an aircraft learns that another aircraft is in emergency state due to a failure of its engine, fuel shortage etc., the aircraft must be navigated not to violate the emergency measure taken by another aircraft.

(Air Navigation under Particular Flight Rules)

Article 191-2 (1) The air navigation under particular flight rules established by the Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 83-2 of the Act are as follows:

- (i) the flight under reduced vertical separation minimum to another aircraft.
- (ii) Category II Navigation (meaning the navigation used for approach and landing using the instrumental landing system when the decision height (meaning the height above the landing edge of runway which necessitates the go around when the precision approach is performed and the visual land mark needed for approach and landing cannot be confirmed; hereinafter the same applies in this paragraph) is higher than 30 meters or lower than 60 meters and the runway visual range is longer than 350 meters.)

- (iii) Category IIIA Navigation (meaning the navigation used for approach and landing mainly with auto pilot using the instrumental landing system when there is no decision height or the decision height is lower than 30 meters and the runway visual range is longer than 200 meters.)
 - (iv) Category IIIB Navigation (meaning the navigation used for approach, landing and rollout mainly with auto pilot using the instrumental landing system when there is no decision height or the decision height is lower than 15 meters and the runway visual range is longer than 50 meters and lower than 200 meters.)
 - (v) the flight under the RNAV (area navigation) on the flight path or airspace for which acceptable navigation accuracy is specified (meaning the flight of an aircraft that flies optional path by receiving the radio signals from DME, SBAS and other wireless facilities or utilizes the inertial navigation system).
- (2) Notwithstanding the provision of the preceding paragraph, the navigations listed in items of the preceding paragraph to be performed by the aircraft listed below are not to be included in the air navigations under particular flight rules specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 83-2 of the Act.
- (i) The aircraft of the foreign state that is a contracting state using the standards, rules and procedures that have been adopted as the Annex to the Convention on International Civil Aviation, and has been authorized by the relevant foreign state (if the relevant foreign state and the foreign state that is a contract in state in which the aircraft operator registers their address have concluded the agreement referred to in Article 83 of the Convention on International Civil Aviation; the foreign state that grants certification, license or performs other acts pertaining to the aircraft under the agreement) to operate navigations listed in each item of the preceding paragraph, and has been deemed appropriate by the Minister of Land, Infrastructure, Transport and Tourism.
 - (ii) the aircraft used by the Self Defense Forces that has been recognized by the Minister of Defense to be compliant with the standards listed in each item of Article 191-4 to operate the navigations listed in items of the preceding paragraph.

(Application for the Permit to Air Navigation under Particular Flight Rules)
 Article 191-3 (1) A person who intends to apply for a permit referred to in Article 83-2 of the Act must submit an application providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name or title and address
- (ii) aircraft type, nationality and registration marks
- (iii) the air navigation to be operated under particular flight rules to be used

- (iv) the system required for the air navigation under the particular flight rules
 - (v) the planned start date for air navigation under the particular flight rules
 - (vi) other particulars used as references
- (2) The summary of operations providing the following particulars must be attached to the written application referred to in the preceding paragraph.
- (i) the aircraft operations and inspections needed for the flight under the particular flight rules to be performed by the aircraft crew and the particulars regarding the necessary measures to be taken in case of system failures.
 - (ii) particulars related to the maintenance intervals for the system needed for air navigation under particular flight rules, principle items for maintenance and the method for the maintenance.
 - (iii) the method for providing the aircraft crew, the aircraft maintenance personnel and the flight dispatcher with the knowledge for relevant air navigation under particular flight rules, and training subjects and duration, other training methods and particulars concerning competency test.
 - (iv) other information needed to secure a safe navigation under particular flight rules.

(Criteria for Granting Permit for Air Navigation under Particular Flight Rules)

Article 191-4 The permit referred to in Article 83-2 of the Act is given to the person that complies with the following criteria:

- (i) the aircraft must have the functionality and the system needed for air navigation under the particular flight rules.
- (ii) the aircraft crew, the aircraft maintenance personnel and the flight dispatcher must have the knowledge and ability needed for air navigation under the particular flight rules.
- (iii) the operational procedures are appropriately defined for each navigation type and aircraft type under the particular flight rules.
- (iv) other necessary measures must be taken to secure a safe navigation of aircraft.

(Application for Permit for Formation Flights)

Article 192 A person who intends to apply for a permit referred to in paragraph (1) of Article 84 of the Act must submit an written application with the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
- (ii) aircraft type, nationality and registration marks
- (iii) outline of flight plan (purpose of flight, date and time of flight and flight path must be clearly stated)

- (iv) date, time and location where the formation flight is performed
- (v) name and qualification of the pilot
- (vi) name of the fellow passenger and their purpose of flying together
- (vii) other particulars used as reference

(Pre-flight Meeting for the Formation Flights)

Article 193 The particulars on which the pilot in command must have a meeting pursuant to the provisions of paragraph (2) of Article 84 of the Act are as follows:

- (i) summary of the formation flight operation
- (ii) shape of the formation flight
- (iii) summary of circular flight and other movements
- (iv) signals and their meanings
- (v) other necessary information

(Articles Prohibited from Being Transported)

Article 194 (1) Articles specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in the paragraph (1) of Article 86 of the Act are as follows:

- (i) explosives: gunpowder, explosives, pyrotechnic and other items with explosive characteristic
- (ii) pressurized gas: substance with over 300 kilopascal of evaporated gas absolute pressure at 50 degrees centigrade or substance that turns completely into gas at 20 degrees centigrade with 101.3 kilopascal of evaporated gas absolute pressure.
 - (a) inflammable gases: when it is mixed with air at 20 degrees centigrade and 101.3 kilopascal of evaporated gas absolute pressure, its lower explosive limit is less than 13 % and the difference between its higher and lower explosive limits is 12% or more.
 - (b) toxic gases: gases that cause strong toxic effects if humans inhale those.
 - (c) other gases: any gas other than (a) or (b) and is liquefied or whose gauge pressure becomes 280 and 200 kilopascal or more at 20 degrees centigrade.
- (iii) inflammable liquids: liquid with flash point (meaning a flash point measured by the continuous closed cup flash point (CCCFP) measurement method; the same applies hereinafter) of lower than 60 degrees centigrade (excluding the case when the liquid with flash point of over 35 degrees centigrade and with inability to burn continuously is transported at a temperature below the relevant flash point.) or liquid substance with flash point over 60 degrees centigrade (excluding the case when the substance is transported at a temperature below the relevant flash point.)
- (iv) flammable substances are listed below:

- (a) flammable substance: substance that is easily ignited by flame and promotes the burning during fire.
 - (b) self igniting substance: substance that self heats or easily self ignites in the normal transportation condition due to friction, absorption of moist or chemical reaction.
 - (c) water-reactive inflammable substance: substance that generates inflammable gas by reacting with water.
 - (v) oxidizing substances are listed below:
 - (a) oxidizing substance: substance other than organic peroxides that oxidizes other substances.
 - (b) organic peroxides: organic substance that readily releases active oxygen to oxidize other substances.
 - (vi) toxic substances are listed below:
 - (a) toxic substance:-substance that show strong toxic effects if humans inhale or ingest it, or when their skin is exposed to toxic substance.
 - (b) infectious substance that promotes transmission of disease: substance that includes pathogens and disease agent or to which disease agent is obviously struck.
 - (vii) radioactive material etc.: radioactive substance (meaning substance that naturally radiates ionizing radiation) and the substance contaminated by the radioactive material (excluding the substances and articles specified by public notice).
 - (viii) corrosive substance: substance that causes severe damage to biological tissue due to chemical reaction when it comes into contact with the tissue or if it leaks, it will cause damage to the aircraft frame and cargo.
 - (ix) other harmful substances: substance other than the ones listed in the preceding items and cause damage to humans or damages to other article (listed to the ones specified in public notice).
 - (x) articles such as weapons, guns and knives etc. with sufficient capability to kill or injure humans.
- (2) Notwithstanding the provision of the preceding paragraph, the articles listed in the following items are not to be included in articles specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in paragraph (1) of Article 86 of the Act.
- (i) articles (excluding the radioactive substances, etc.) specified by public order and transported in accordance with the following provisions:
 - (a) the technical standards specified by public order must be followed.
 - (b) the articles specified by public notice must be the ones that have passed the inspection conducted by the Minister of Land, Infrastructure, Transport and Tourism to verify that its container or packaging is compliant with the safety standards specified by public notice; provided,

however, that this does not apply when the container or packaging is compliant with the safety standards established by foreign regulations which the Minister deems appropriate.

- (ii) the radioactive material etc. specified by public notice and to be transported in accordance with the following provisions:
 - (a) the radioactive material etc. which have been specified by public notice must be categorized as one of the radioactive material (meaning radioactive material etc. that are packed in containers or packages; the same applies hereinafter) corresponding to their classifications as defined in the following items (i), (ii), (iii) and (iv), or in accordance with the public notice with the approval of the Minister of Land, Infrastructure, Transport and Tourism, the radioactive material etc. must be designated as a radioactive material other than the ones defined in the following items (i), (ii), (iii) and (iv). In this case, for the radioactive material etc. listed in item (i), (ii) or (iii) that correspond to the radioactive material listed in item (iv), they may be designated as the radioactive packages listed in item (iv).
 1. Type L Package: radioactive material, etc., specified by public notice as those for which there is an extremely small risk;
 2. Type A Package: radioactive material, etc., (excluding the substances listed in 1.) with radioactivity which does not exceed the level specified by public notice;
 3. Type BM or Type BU Package: radioactive material, etc., (excluding the substances listed in item 1.) with radioactivity which exceeds the level specified in public notice referred to in item 2., but does not exceed the level specified by public notice.
 4. Type IP-1, IP-2 or IP-3 Package: LSA radioactive material (meaning radioactive material with low concentration radioactivity specified in public notice as those with little risk) or surface-contaminated objects (meaning non-radioactive solid material which have been specified by public notice whose surface is contaminated with radioactive materials.).
 - (b) the technical standards and other standards for radioactive packages specified by public notice must be followed.
 - (c) Type BM or Type BU Package listed in (a)3 must have been confirmed by the Minister of Land, Infrastructure, Transport and Tourism that it complies with the technical standard for radioactive packages specified by public notice referred to in (b) before it is loaded into the aircraft; provided, however, that this does not apply to type BU Package which is transported from a foreign country to Japan or between the foreign countries and has received a confirmation in accordance with the foreign laws and

- regulations specified by public notice.
- (d) the radioactive packages consisting of stored or packaged uranium hexafluoride specified in public notice must have been confirmed by the Minister of Land, Infrastructure, Transport and Tourism that it complies with the technical standard specified by public notice before it is loaded onto the aircraft.
 - (e) Type BM or Type BU package or the radioactive packages listed in (d) must have been confirmed by the Minister of Land, Infrastructure, Transport and Tourism pursuant to public notice that it complies with the standards (excluding the technical standards related to the radioactive packages) specified by public notice referred to in (b).
 - (f) the radioactive packages in which radioactive material etc. specified in public notice as those for which measures to protect humans are particularly necessary, must have been confirmed by the Minister of Land, Infrastructure, Transport and Tourism that they comply with the standards specified by public notice referred to in (b) f. In this case, the confirmation that they comply with the technical standards for the radioactive packages specified by public notice referred to in (b) must be received from the minister before they are loaded onto the aircraft.
 - (iii) articles to be transported by the relevant aircraft for aircraft operation, keeping human lives in the aircraft as well as for other purposes specified by public notice (excluding the substances specified by public notice.)
 - (iv) articles to be put on, carried around by or carried by the passengers
 - (v) articles to be transported with the approval of the Minister of Land, Infrastructure, Transport and Tourism when it is impossible or inappropriate to use other carriers beside aircraft.
 - (vi) articles to be transported from a foreign country to Japan or between the foreign countries with the approval in accordance with the foreign laws and regulations which is deemed appropriate by the Minister of Land, Infrastructure, Transport and Tourism.
- (3) If the article passes the inspection conducted by the Director of the District Transport Bureau or the registered inspection organization pursuant to the provisions of paragraph (1) of Article 113 of the Regulations for the Carriage and Storage of Dangerous Goods by Ships (Order of Ministry of Transportation No. 30 of 1957), the article is deemed to have passed the inspection prescribed in item (i)(b) of the preceding paragraph.
- (4) If a confirmation (including a confirmation in accordance with Article 61-26 of the Act of the Regulations of Nuclear Source Material, Nuclear Fuel Material and Reactors (Act No. 166 of 1957) by the Japan Nuclear Energy Safety Organization) is received from the competent minister in accordance with the provisions of paragraph (2) of Article 59 in that Act or a confirmation is

received from the Minister of Land, Infrastructure, Transport and Tourism or the Director of the District Transport Bureau pursuant to the provisions of paragraph (1) of Article 87 of the Regulations for the Carriage and Storage of Dangerous Goods by Ships, the article is deemed to have been confirmed as specified by public notice referred to in item (ii)c, (ii)d or (ii)f (limited to technical standards for transported radioactive packages).

- (5) If a confirmation is received for the transported package referred to in paragraph (2) of Article 18 of the Act Concerning Prevention of Radiation Hazards due to Radioisotopes (Act No. 167 of 1957), the confirmation referred to in item (ii) c of paragraph (2) of Article 18 is deemed to have been received.

(Towing of Objects)

Article 195 In accordance with the provisions of Article 88 of the Act, the safety standards for aircraft towing a glider are as follows:

- (i) a liaison must be on board the aircraft that can carry two or more people (except when it is possible that the aircraft and the glider can communicate over the radio.)
- (ii) the following particulars need to be discussed before the towing begins:
 - (a) signals and their meanings.
 - (b) departure and methods of towing.
 - (c) timing, location and method for releasing the towline
 - (d) other necessary information
- (iii) the standard length of the towline must be longer than 40 meters and shorter than 80 meters.
- (iv) when a take off is to be performed, a ground liaison must be positioned to thoroughly support the communication between the aircraft and the glider.
- (v) when an aircraft releases the towline, the ground liaison must notify the aircraft whether or not the towline is released.
- (vi) the towline must be normally released at the altitude equivalent to or greater than 80% of the towline length.
- (vii) the towing must not be conducted in clouds or during the night. (excluding the case where a permit is granted by the Minister of Land, Infrastructure, Transport and Tourism.)

Article 196 In accordance with the provisions of Article 88 of the Act, the safety standards for aircraft towing an object other than glider are as follows:

- (i) the towline must be marked with red and white cloth at 20 meters intervals.
- (ii) the ground liaison must be positioned when aircraft is to take off.
- (iii) when aircraft releases an object other than the glider, the ground liaison must notify the aircraft whether or not the object has released the object.

(Notification of Object to be Dropped from Aircraft)

Article 196-2 A person who intends to submit a notification referred to in proviso to Article 89 of the Act must submit a notification of object to be dropped from aircraft including the following particulars to the director of airport administrative office.

- (i) name and address
- (ii) aircraft type, nationality and registration marks of the relevant aircraft
- (iii) purpose of flight, date, time, path and altitude of the flight
- (iv) purpose of dropping the objects
- (v) description of the object to be dropped and the location
- (vi) name of and qualification of the pilot
- (vii) other reference information

(Application for Parachute Permission)

Article 196-3 A person who intends to apply for a permit referred to in Article 90 of the Act must submit an application for parachute permission including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
- (ii) aircraft type, nationality and registration marks of the relevant aircraft
- (iii) summary of flight plan (purpose, date, time, path and altitude of flight must be clearly stated)
- (iv) purpose, date, time and location of the parachute diving
- (v) name and qualification of the pilot
- (vi) type of parachute and other necessary information about the relevant parachute
- (vii) other reference information

(Altitude Permitted for Acrobatic Flights)

Article 197 The altitude permitted for acrobatic flights of aircraft pursuant to the provisions of main clause of paragraph (1) of Article 91 of the Act is specified in the following items:

- (i) for the acrobatic flights or the aircraft test flights prescribed in Article 197-3 (excluding the flight that falls under the flights referred to in the following item.), the altitude is listed below for each aircraft category:
 - (a) aircraft other than the gliders: altitude of 500 meters above the top of the highest obstruction within the area covered by 500 meter radius centering around the aircraft
 - (b) gliders: altitude of 300 meters above the top of the highest obstruction within the area covered by 300 meter radius centering around the aircraft
- (ii) the altitude for the extremely high speed flight prescribed in Article 197-4

is the altitude at which the shock wave from the relevant aircraft may not cause danger or damage to people or objects on the ground or water

(Flight Visibility Permitted for Acrobatic Flights)

Article 197-2 Flight Visibility prescribed by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in paragraph (1) of Article 91 of the Act are the distance listed in the following items:

- (i) For the acrobatic flights or the aircraft test flights (excluding the flights that fall under the flights referred to in the following item) prescribed in the following Article, the distance listed below for each air space category:
 - (a) the air space over 3,000 meters: 8,000 meters
 - (b) the air space below 3,000 meters: 5,000 meters
- (ii) for an extremely high speed flight as prescribed in Article 197-4: 10,000 meters

(Acrobatic Flights)

Article 197-3 The acrobatic flights prescribed by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in paragraph (1) of Article 91 of the Act are the loop, roll, turn, inversion, screw dive, hip stall and other flights that involve sudden changes in direction and speed of an aircraft.

(Extremely High Speed Flights)

Article 197-4 The extremely high speed flights prescribed by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in paragraph (1) of Article 91 of the Act are the flights performed at a speed faster than the sonic speed.

(Application for Permission for Acrobatic Flights)

Article 198 A person who intends to obtain permission referred to in proviso to paragraph (1) of Article 91 of the Act must submit an application providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
- (ii) aircraft type, nationality and registration marks of the aircraft
- (iii) summary of flight plan (purpose, date, time and path of the flight must be clearly stated)
- (iv) details of acrobatic flights etc. as well as date, time and location of the relevant flight
- (v) reason for performing the acrobatic flights etc.
- (vi) name and qualification of the pilot
- (vii) name and the objective of the passenger

(viii) other reference information

(Flights that may Interfere with the Safety in Air Traffic Control)

Article 198-2 The flights prescribed by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in paragraph (1) item (iii) of Article 92 of the Act that are likely to interfere with the safe air traffic are listed in the following items: (excluding the flights operated to ensure the safe navigation due to the reason deemed to be unavoidable.)

- (i) flight involving frequent changes in aircraft attitude
- (ii) flight that induces stall
- (iii) flight that radically changes aircraft altitude

(Application for Permission for Flight Training)

Article 198-3 A person who intends to obtain permission referred to in proviso to paragraph (1) of Article 92 of the Act must submit an application providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
- (ii) aircraft type, nationality and registration marks of the aircraft
- (iii) summary of flight plan (purpose, date, time, path and altitude of the flight must be clearly stated)
- (iv) details of flight training, etc. (meaning flights listed in items of paragraph (1) of Article 92 of the Act; the same applies hereinafter) as well as date, time and location of the relevant flights
- (v) reason for providing the flight training, etc.
- (vi) name and qualification of the pilot as well as name and qualification of the flight instructor for the flights listed in items (i) and (ii) of paragraph (1) of Article 92 of the Act
- (vii) name and qualification of the pilot for the flight listed in item (iii) of paragraph (1) of Article 92 of the Act
- (viii) name and the purpose of passenger
- (ix) other reference information

(Flight Rules When Flying in the Controlled Zones, etc. by Obtaining Permission under the Provisions of Proviso to Article 94 of the Act)

Article 198-4 Aircraft must follow the standards listed in items below when it flies in the control zone (airspace under special control is excluded) or the information zone by obtaining permission under the provisions of proviso to Article 94 of the Act; provided, however, that this does not apply if the requirements different from these standards are set for the relevant permission.

- (i) aircraft must fly away from the cloud
- (ii) aircraft must maintain visibility of 1500 meters or more
- (iii) aircraft must fly maintaining the visibility of ground or water surface
- (iv) When an aircraft flies in the information zone or flies in the control zone at the time specified by public notice referred to in paragraph (6) of Article 96 of the Act, the aircraft must constantly maintain contact with the organization that gives permission under the provisions of proviso to Article 94 of the Act through the organization that provides the air traffic information for the relevant information zone or control zone.

(Designation Criteria for Air Space under Special Control)

Article 198-5 (1) When the Minister of Land, Infrastructure, Transport and Tourism designates an air space under special control pursuant to the provisions of paragraph (1) of Article 94 of the Act, the minister must classify it as one of the air spaces listed below:

- (i) Air Space A under Special Control: the air space in which ban of flight under the visual flight rules is most required among the control areas and control zones in order to secure the safe air traffic.
 - (ii) Air Space B under Special Control: the air space among the control areas and control zones, which is congested and not recognized to be the one in item (i), and for which it is deemed necessary for the authority performing the air traffic control operations (meaning directives under the provisions of paragraphs (1) and (2) in Article 96 of the Act as well as the operations to be performed by the Minister of Land, Infrastructure, Transport and Tourism under the provisions of paragraph (3) of that Article; the same applies hereinafter) to issue directives to maintain safe distance between all aircraft that fly in the relevant air space.
 - (iii) Air Space C under Special Control: the air space among the control areas and control zones, which is not recognized to be the one in the preceding two items, which is congested with air traffic due to aircraft flying under the instrument flight rules, and for which it is deemed necessary for the authority performing the control operations to issue a directive to maintain safe distance between all aircraft that fly under the instrument flight rules in the relevant air space.
- (2) The Minister of Land, Infrastructure, Transport and Tourism is to grant permission under the provisions of proviso to paragraph (1) in Article 94-2 of the Act only under the cases specified in the following items for air space listed in the respective items:
- (i) the air space listed in item (i) of the preceding paragraph: sudden unpredictable worsening of weather or otherwise there are unavoidable circumstances.

- (ii) the air space listed in item (ii) of the preceding paragraph: sudden unpredictable worsening of weather, other unavoidable circumstances or the determination by the Minister of Land, Infrastructure, Transport and Tourism that the relevant air space does not interfere with smooth navigation of aircraft flying under the instrument flight rules in the relevant air space and allows all aircraft to maintain safe distance with each other.
- (iii) the air space listed in item (iii) of the preceding paragraph: sudden unpredictable worsening of weather, other unavoidable circumstances or the determination by the Minister of Land, Infrastructure, Transport and Tourism that the relevant air space does not interfere with smooth navigation of aircraft flying under the instrument flight rules in the relevant air space and allows all aircraft to maintain safe distance with each other.

(Altitude Prescribed by Order of the Ministry of Land, Infrastructure, Transport and Tourism Referred to in Paragraph (1) of Article 94-2 of the Act)

Article 198-6 The altitude prescribed by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in paragraph (1) of Article 94-2 of the Act is 29,000 feet.

(The Criteria for Permission for Air Space above the Altitude Pursuant to the Provisions of Proviso to Paragraph (1) of Article 94-2 of the Act Prescribed by Order of the Ministry of Land, Infrastructure, Transport and Tourism Referred to in that Paragraph)

Article 198-7 The Minister of Land, Infrastructure, Transport and Tourism is to grant permission under the provisions of proviso to paragraph (1) in Article 94-2 of the Act to the aircraft used by the Self-Defense Forces for the air space above the altitude prescribed by the preceding Article only if the aircraft flies for the execution of its mission or there is a sudden worsening of weather or other unavoidable circumstances.

(Flight Rules upon Receipt of Permission under the Provisions of Proviso to Paragraph (1) of Article 94-2 of the Act)

Article 198-8 When aircraft is granted permission under the provisions of proviso to paragraph (1) of Article 94-2 of the Act, it must fly in accordance with the criteria listed below:

- (i) it must fly while maintaining the visible weather condition.
- (ii) it must constantly maintain contact with the authority that performs control operations in the relevant air space; provided, however, that this does not apply when the aircraft used by the Self-Defense Forces operates the flight that is deemed unavoidable for the execution of its mission and

authorized by the Minister of Land, Infrastructure, Transport and Tourism.

(Air Transportation Services Prescribed by Order of the Ministry of Land, Infrastructure, Transport and Tourism Referred to in Paragraph (1) of Article 95-2 of the Act)

Article 198-9 The air transportation services prescribed by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in paragraph (1) of Article 95-2 of the Act are the scheduled domestic air transportation business and international air transportation business.

(Information Which May Affect the Safe Aircraft Navigation)

Article 198-10 The information defined by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in paragraph (3) of Article 95-2 of the Act are the flight plans, positions, altitudes and flight paths of other aircraft.

(Aircraft Defined by Order of the Ministry of Land, Infrastructure, Transport and Tourism Referred to in Article 95-3 of the Act)

Article 198-11 The aircraft specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 95-3 of the Act are other than the ones used by the Self Defense Forces.

(Flight that Requires Approval for the Plan for Training or Test)

Article 198-12 The flights which are specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism of Article 95-3 of the Act are the acrobatic flight, pilot training flight, and other flights for aircraft pilot training.

(Plan for Training or Test)

Article 198-13 (1) The plan for training or test under the provisions of paragraph (3) of Article 95 of the Act must specify the following particulars:

- (i) radio call sign of the aircraft
- (ii) type of the aircraft
- (iii) name of the pilot
- (iv) details of flight and date and time of the relevant flight (flight altitude for the civil training and testing area as well as the planned time to enter the civilian training and test air space and the planned time to leave the relevant air space must be specified.)
- (v) name of the civil training and testing area to fly
- (vi) other reference information

(2) If the approved plan for the training and test referred to in Article 95-3 of the Act is to be changed, it is sufficient to report only the radio call sing of the

aircraft, date and time of flight and the particulars to be changed.

Article 199 (1) Types of air traffic control services are as follows;

- (i) airways control services: air traffic control services for an aircraft in flight under the instrument flight rules and for an aircraft within positive control airspace or flying at or above the altitude specified in Article 198-6, other than those listed in the following item through item (v).
 - (ii) aerodrome control services: air traffic control services for aircraft taking off or landing at airports, etc specified by the Minister of Land, Infrastructure, Transport and Tourism, for aircraft flying in the vicinity of the applicable airports etc, or for those involved in services of the relevant airports, etc, other than those listed in the following item through item (v).
 - (iii) approach control services: air traffic control services for aircraft flying under the instrument flight rules and aircraft flying within the positive control airspace that are on climb after taking off or on descent for the purpose of landing, or aircraft flying under the instrument flight rules and crossing the paths of the aircraft or in close proximity thereof, other than those listed in the following item or item (v).
 - (iv) terminal radar control services: air traffic control services carried out with a radar for aircraft flying under the instrument flight rules and aircraft flying within the positive control airspace that are on climb after taking off or on descent for the purpose of landing, or aircraft flying under the instrument flight rules and crossing the paths of the aircraft or in close proximity thereof, other than those listed in the following item.
 - (v) ground controlled approach services: Air traffic control services whereby radar control for approach is provided to aircraft flying under the instrument flight rules.
- (2) Air traffic control service providers conducting services listed in items of the preceding paragraph (excluding the Air Traffic Control Center) must issue a public notice of the name of the airport or the positive control airspace where they provide air traffic control services, along with other details of their air traffic control services.

Article 200 (1) The aircraft intending to operate a flight listed in item (i) through item (iii) of Article 96 (3) of the Act (excluding the aircraft listed in paragraph (6)) must contact the aerodrome control service provider pertaining to the relevant control zone, other than in the cases where it should contact the approach control service provider or terminal radar control service provider pursuant to the provisions of the following paragraph or paragraph (3).

- (2) An aircraft intending to climb as referred to in item (i) of Article 96, paragraph (3) of the Act, to descend as specified in item (ii) of that paragraph,

or to conduct air navigation listed in item (iii) of that paragraph, under the instrument flight rules, or an aircraft intending to conduct a flight listed in item (iv) of that paragraph, must contact the approach control service provider for the relevant control zone or approach control area, other than in the cases where it should contact the terminal radar control service provider pursuant to the provisions of the following paragraph.

- (3) An aircraft intending to climb as referred to in item (i) of Article 96, paragraph (3) of the Act, to descend as referred to in item (ii) of that paragraph or to operate a flight referred to in item (iii) of that paragraph, under the instrument flight rules, or an aircraft intending to operate a flight listed in item (iv) of that paragraph, in a control zone or an approach control area where terminal radar control service is provided, must contact the relevant terminal radar control service provider.
- (4) Notwithstanding the provisions of the preceding three paragraphs, an aircraft flying under the instrument flight rules must contact the relevant ground controlled approach service provider via the approach control service provider for the relevant control zone or approach control area (or if the relevant approach control services are provided by the airways control service provider, then the aerodrome control service provider) or terminal radar control service provider, when intending to descend referred to in item (ii) of Article 96, paragraph (3) of the Act or descend referred to in item (iv) of that paragraph under radar control.
- (5) An aircraft intending to operate a flight listed in item (v) or item (vi) of Article 96, paragraph (3) of the Act must contact the airways control service provider, except for when it should contact the air traffic control service provider for the relevant positive control airspace pursuant to the provisions of the following paragraph.
- (6) An aircraft intending to operate a flight listed in item (vi) of Article 96, paragraph (3) of the Act and an aircraft intending to operate a flight listed in item (i) through item (iii) of Article 96, paragraph (3) of the Act in a positive control airspace within the control zone and not under the instrument flight rules must contact the air traffic control service provider for the relevant positive control airspace.
- (7) If the aircraft receives an instruction from the air traffic control service provider from whom it is currently receiving instructions that it should contact an air traffic control service provider other than the provider it should contact under the provisions of the preceding 6 paragraphs, then notwithstanding those provisions, the aircraft must contact the air traffic control service provider with which it was instructed to contact.

Article 201 The aircraft must report to the air traffic control provider that

issued the instruction without delay if it flies not following the instruction under the provisions of Article 96, paragraph (1) of the Act due to an unavoidable circumstances such as change in weather conditions etc.

Article 201-2 The Minister of Land, Infrastructure, Transport and Tourism is to issue an instruction referred to in Article 96 (1) of the Act when an aircraft operates a flight listed in item (i) through (v) of Article 96, paragraph (3) of the Act under the instrument flight rules or when it operates a flight listed in item (i) through item (iii) of that paragraph under the visual flight rules or a flight listed in item (vi) of that paragraph (excluding the flight specified in Article 202-3).

Article 202 The abbreviations, signals and other communication methods between an aircraft and air traffic control service provider are specified in public notice.

(Works at airports etc)

Article 202-2 The construction work at airport, etc specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 96, paragraph (2) of the Act is the construction, repair or maintenance work on landing strips, taxiways, apron and other facilities within the airport, etc.

(Flights specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism Referred to in Item (vi) of Article 96, paragraph (3) of the Act)

Article 202-3 A flight specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in item (vi) of Article 96, paragraph (3) of the Act is a flight of an aircraft used by the Self Defence Forces in an airspace at an altitude above that specified in Article 198-6, that is deemed by the Minister of Land, Infrastructure, Transport and Tourism to be unavoidable in the course of performing their duties.

(Communications for Obtaining Air Traffic Information)

Article 202-4 When an aircraft operates a flight in a control zone, information zone or civil training and testing area, the aircraft pursuant to the provisions of Article 96-2, paragraph (1) of the Act (including as applied mutatis mutandis pursuant to the provisions of Article 96, paragraph (6) of the Act), the aircraft must contact the air traffic information provider specified in public notice for each of the airspace by the Minister of Land, Infrastructure, Transport and Tourism.

(When Communication or Collecting Information is Difficult)

Article 202-5 (1) The cases deemed to be difficult to communicate referred to in Article 96-2, paragraph (1) of the Act as specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism are as follows.

- (i) when an aircraft that is deemed by the Minister of Land, Infrastructure, Transport and Tourism to be structurally difficult to be equipped with radiotelephone equipment flies within a civil training and testing areas
 - (ii) when an aircraft flies in a civil training and testing area where it is difficult for the aircraft to contact the provider specified in the preceding Article due to reasons such as geographical features
 - (iii) beyond what is set forth in the two preceding items, when operating a flight that the Minister of Land, Infrastructure, Transport and Tourism deems to be difficult to contact the provider specified in the preceding Article due to the necessity to make constant contact with other aircraft or for other special circumstances
- (2) The cases specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism in which it is difficult to perform hearing referred to in Article 96, paragraph (2) of the Act are as follows.
- (i) when an aircraft that is deemed by the Minister of Land, Infrastructure, Transport and Tourism to be structurally difficult to be equipped with radiotelephone equipment flies within a civil training and testing area
 - (ii) when an aircraft flies in a civil training and testing area where it is difficult for the aircraft to contact the provider specified in the preceding Article and to hear the air traffic information due to reasons such as geographical features
 - (iii) beyond what is set forth in the two preceding items, when conducting a flight that the Minister of Land, Infrastructure, Transport and Tourism deems to be difficult to contact the provider specified in preceding Article and to collect the air traffic information due to the necessity to make constant contact with other aircraft or for other special circumstances

(Flight Plans)

Article 203 (1) A flight plan under the provisions of Article 97, paragraphs (1) and (2) of the Act must specify the following particulars (excluding those listed in item (x) in the case of a flight under the instrument flight rules for which an alternate airport, etc is not specified or in the case of a flight under the visual flight rules).

- (i) nationality and registration marks, and radio call sign of the aircraft
- (ii) aircraft type and the number of aircraft
- (iii) name of the pilot in command (however, in the case of a formation flight, the formation leader's name)
- (iv) instrument flight rules or visual flight rules

- (v) place of departure and time to commence movement
 - (vi) cruising altitude and flight path
 - (vii) first place of landing and time required from take-off to arriving above the relevant place of landing
 - (viii) true airspeed at cruising altitude
 - (ix) radio equipment to be used
 - (x) alternate airport, etc
 - (xi) fuel on board expressed in number of hours of endurance
 - (xii) total number of persons on board
 - (xiii) any other reference information which may be useful for air traffic control and search and rescue
- (2) Notification is to be made verbally (including notification by radiotelephone) or in writing.
- (3) If the flight plan for which the approval referred to in the provisions of Article 97, paragraph (1) of the Act has been obtained or the flight plan that has been notified pursuant to the provisions of paragraph (2) of that Article is changed, it is sufficient to notify the radio call sign (if there is no radio equipment, nationality and registration marks) and the particulars to be changed.
- (4) Notwithstanding the provisions of the preceding 3 paragraphs, if an aircraft used by the Self Defence Forces engages in a special task specified by the Minister of Land, Infrastructure, Transport and Tourism, the particulars that must be specified in the relevant flight plan and the method of notification of the relevant flight plan is specified by the Minister of Land, Infrastructure, Transport and Tourism.
- (5) If a flight plan is to be reported after the flight has commenced pursuant to the provisions of the proviso to Article 97, paragraph (2) of the Act, the aircraft must report it without delay from the airspace above the area within 9 kilometer radius centering around the point of departure.
- (6) The hours of conducting administrative affairs at airport offices or airport branch offices (including airport / airways surveillance radar offices) pertaining to notification of flight plans under the provisions of Article 97, paragraphs (1) and (2) of the Act and notification under the provisions of Article 98 of the Act are specified in public notice.

Article 204 In the case of specifying a flight plan referred to in the provisions of Article 97, paragraph (1) or (2) of the Act, the alternate airport, etc referred to in item (x) of paragraph (1) of the preceding Article must be the airport where the weather conditions on arrival of the aircraft is expected to be the same or better than the weather conditions specified by the Minister of Land, Infrastructure, Transport and Tourism.

Article 205 (1) The cases specified by Ordinances of the Ministry of Land, Infrastructure, Transport and Tourism referred to in the main clause of Article 97, paragraph (2) of the Act are the cases where the aircraft flies above the area within 9 kilometer radius centering around the place of departure and lands at a location within the area.

(2) The cases set forth by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in the proviso to Article 97, paragraph (2) of the Act are as follows.

- (i) when there is no time for the aircraft set out in Article 176 to notify the flight plan prior to commencing flight
- (ii) when there is no means for the aircraft set out in Article 79 of the Act that is departing from the location pertaining to the permission referred to in the proviso to Article 79 of the Act to notify the flight plan

(Air Navigation in Case of Communication System Failure)

Article 206 An aircraft must follow the following methods when the failure of communication system occurs and intends to navigate in a control area, control zone or information zone.

- (i) if an aircraft flies under the visual meteorological conditions (excluding the cases specified in the following item through item (iv)), it must maintain visual meteorological conditions and continue its flight, and must land at the nearest airport, etc where is deemed to be possible to land safely, and must immediately notify the air traffic control provider of its landing.
- (ii) If an aircraft flies under the visual meteorological conditions but it is difficult to land at the nearest airport, etc. while maintaining visual meteorological conditions (limited to the case of an aircraft flying under the instrument flight rules) or under the instrument meteorological conditions, the aircraft must navigate under the following rules.
 - (a) an aircraft must fly above the first place of landing (hereinafter referred to as "destination") (in the case where radio navigation aids or a point is specified as an approach point to the destination, above that point; hereinafter the same applies in this Article) in accordance with the applicable flight plan, following the routes in the flight plan that was approved pursuant to the provisions of Article 97, paragraph (1) of the Act (hereinafter referred to as "approved route"); provided, however, that if there is temporary deviation from the approved route based on the instruction received from air traffic control provider prior to the communication system failure (hereinafter referred to as "instruction prior to the failure"), return to the approved route at the nearest reporting point (if the instruction prior to the failure made clear the point where it returns to the approved route, then the relevant point), and fly along the relevant

- approved route.
- (b) an aircraft must fly maintaining the altitude according to the instruction prior to the failure or minimum altitude determined by the Minister of Land, Infrastructure, Transport and Tourism taking account the distance from land surface, water surface or obstacles for each route determined by the Minister of Land, Infrastructure, Transport and Tourism, whichever is higher, and the speed according to the instruction prior to the failure (hereinafter referred to as "altitude, etc according to the instruction prior to the failure") and fly until the time specified by the Minister of Land, Infrastructure, Transport and Tourism, and then maintain the altitude and speed of the flight plan notified; provided, however, that if the instruction prior to the failure has instructed to descend for the purpose of landing, then maintain an altitude, etc according to the instruction prior to the failure.
 - (iii) when an aircraft arrived above the destination pursuant to the provisions of the preceding item, if an approach clearance for the purpose of landing has been given by the instruction prior to the failure (hereinafter referred to as "approach clearance"), then promptly, and in other cases after waiting above the relevant point until the time listed below, commence descent (if it has not been possible to commence descent at the relevant time, commence descent as soon as possible).
 - (a) if the expected time when the instruction for approach clearance is to be given is specified according to the instruction prior to the failure (hereinafter referred to as "expected time of approach"), at the relevant expected time of approach
 - (b) if there was no instruction prior to the failure that made the expected time of approach clear, and if the aircraft has notified the air traffic control service provider of the expected time of arrival above the destination prior to failure of the communication system, at the relevant expected time of arrival
 - (c) in the cases other than A and B, at the time when the required period of time referred to in item (vii) of Article 203, paragraph (1) has elapsed from the time of take off.
 - (iv) if an aircraft flies under the visual meteorological conditions and if it is difficult to land at the nearest airport, etc while maintaining visual meteorological conditions (limited to the cases where the flight is conducted under the instrument flight rules), or when flies under the instrument meteorological conditions and it has arrived above the destination prior to the failure of the communication system, and if it has been instructed to wait at the relevant point by an instruction prior to the failure, wait above the relevant point until the time listed as follows, and then commence descent (if

it has not been possible to commence descent at the relevant time, commence descent as soon as possible).

- (a) if the instruction prior to failure specified the expected time of approach, the applicable time of approach
- (b) if the expected time of approach was not specified by the instruction prior to the failure, and if the time when the next instruction is to be given is specified, the relevant time
- (c) in the cases other than A and B, at the time when the period of time referred to in item (vii) of Article 203, paragraph (1) has elapsed from the time of take off.

(Method of flying for the aircraft approved pursuant to Article 97 (1) of the Act)
Article 207 An aircraft flying under the instrument flight rules must, when intending to fly on an airway within the control area or control zone, fly along the centerline of the relevant airway except for unavoidable cases.

Article 208 Deleted

(Position Reporting)

Article 209 The aircraft that should report its position to the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of Article 97, paragraph (4) of the Act must report the following particulars to the air traffic control service provider or air traffic information provider, for aircraft flying under the instrument flight rules at the point specified in public notice as a reporting point by the Minister of Land, Infrastructure, Transport and Tourism and in the case of other aircraft at the point instructed by air traffic control service provider or air traffic information provider.

- (i) registration mark or the radio call sign of the aircraft
- (ii) time and altitude at the relevant point
- (iii) the expected arrival time at the next reporting point (limited to an aircraft that has obtained an approval referred to in Article 97, paragraph (1) of the Act)
- (iv) unforecasted, special weather conditions
- (v) other information that affects the safety of the aircraft in flight

(Aeronautical Information)

Article 209-2 (1) Contents of aeronautical information are particulars listed below.

- (i) particulars concerning commencement, suspension, re-commencement or discontinuation of provision of airport, etc and air navigation facilities, significant changes to these facilities and particulars concerning the

- operation of these facilities
 - (ii) particulars pertaining to the obstruction of aircraft operations at airport, etc
 - (iii) particulars pertaining to no-fly zones and flight restricted zones referred to in Article 173
 - (iv) flight rules referred to in item (i) of Article 189, paragraph (1), weather conditions under the provisions of item (ii) and item (iii) of that paragraph, minimum altitude, specific point at an altitude above the minimum altitude and visually identifiable object under the provisions of item (iii) of that paragraph, and particulars pertaining to weather conditions under the provisions of Article 204.
 - (v) particulars pertaining to air traffic control
 - (vi) particulars that may affect the flight of the aircraft such as launching of rocket or fireworks, and aircraft flying in a group and others
 - (vii) information pertaining to the weather and other information required for aircraft operation
- (2) Aeronautical information is to be provided in writing or verbally (including the provision thereof via the radiotelephone), and the place where the aeronautical information is to be provided and other matters concerning the provision of aeronautical information are specified in public notice.

(Situations Caused by Actions of Persons That are Likely to Affect Flights)

Article 209-3 (1) The situations caused by actions of persons that may affect a flight of an aircraft referred to in paragraph (1) of Article 99-2 of the Act, that are specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism are the situations caused by actions of persons specified in the following items.

- (i) launching of rocket, fireworks, rockoon or other objects into an airspace referred to in paragraph (1) of the Article 99-2 of the Act (if the relevant airspace is a control zone or flight information region, it is limited to the airspace 150 meters above the land or water surface and airspace above the approach surface, transition surface or horizontal surface, or extended approach surface, conical surface or outer external horizontal surface specified by the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of paragraph (1) of the Article 56 of the Act).
 - (ii) releasing or floatating a balloon (excluding a toy balloon and those with the similar structure) into the airspace referred to in the preceding item.
 - (iii) flying a model aircraft within the airspace referred to in item (i).
 - (iv) flying aircraft in a group within the airspace referred to in item (i).
 - (v) flying a hang glider or paraglider within the airspace referred to in item (i).
- (2) A person intending to obtain a permission referred to in the proviso to

paragraph (1) of the Article 99-2 of the Act must submit a written request to the Minister of Land, Infrastructure, Transport and Tourism stating the following particulars.

- (i) name, address and the point of contact
- (ii) purpose of the action
- (iii) details of the actions of the person and the time and location of the relevant action
- (iv) other reference information

Article 209-4 (1) The situations caused by actions of persons that may affect aircraft flight referred to in paragraph (2) of the Article 99-2, that are specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism are the situations caused by actions of persons specified in the following items.

- (i) launching of rocket, fireworks, rockoon or other objects into the following airspace among the airspaces specified in paragraph (2) of the Article 99-2 of the Act
 - (a) airspace above the approach surface, transition surface or horizontal surface, or extended approach surface, conical surface or outer horizontal surface specified by the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of paragraph (1) of Article 56 of the Act
 - (b) airspace above 150 meters from the land or water surface within airways
 - (c) airspace above 250 meters from the land or water surface
- (ii) releasing or floatating a balloon (except for a toy balloon and those with similar structure) into the airspace referred to in the preceding item.
- (iii) flying a model aircraft within the airspace referred to in item (i).
- (iv) flying aircraft in a group within the airspace referred to in item (i).
- (v) flying a hang glider or paraglider within the airspace referred to in item (i)
 - (a).

(2) A person intending to take the action to cause the situation referred to in the preceding paragraph must notify the Minister of Land, Infrastructure, Transport and Tourism the particulars listed in items (i), (iii) and (iv) of paragraph (2) of the preceding Article.

Chapter VII Air Transportation Services

Section 1 Air Transportation Services

(Granting of Business License)

Article 210 (1) The particulars included in the operation plan referred to in Article 100, paragraph (2), item (ii) of the Act are the following particulars.

- (i) principal area of business activities
- (ii) nationality, type, and registration mark of the aircraft to be used

- (iii) outline of the aircraft operation control facilities and aircraft maintenance facilities
 - (iv) Types of the aircraft to be used by the operation control facility or maintenance facility referred to in the preceding item
 - (v) whether or not the applicant intends to operate international air transport services
 - (vi) whether or not the applicant intends to operate domestic scheduled air transport services
 - (vii) details of preventive measures against the acts of unlawful seizure of an aircraft
- (2) The particulars related to the international air transport services specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 100, paragraph (3) of the Act are the following particulars.
- (i) in case the applicant intends to operate international air transport services by using aircraft operated for the scheduled services with fixed time and route, airports to be used for each route, frequency of flights, departure and arrival time, and type of each aircraft to be used.
 - (ii) in case of intending to operate code-sharing flights (meaning transportation operated jointly by any domestic air carrier with another air carrier, and using the transportation services provided by another air carrier; hereinafter the same applies in this item and Article 219, paragraph (1), item (iii)) following the conclusion of agreement referred to in Article 110, item (ii) with approval referred to in Article 111 paragraph (1), following particulars:
 - (a) section for code-sharing and name and address of the counterparty (in case the counterparty is a foreign air carrier, address and the location of principal business office or agency's office in Japan).
 - (b) procedure to provide information related to the details of the code-sharing to passenger or shipper.
- (3) The documents including the particulars specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 100, paragraph (4) of the Act are as follows:
- (i) documents including the following particulars:
 - (a) explanation that the application concerned complies with the criteria listed in each item of Article 101, paragraph (1) of the Act.
 - (b) financial plan providing the total amount, breakdown and method of raising the capital necessary for the management of the service.
 - (c) if managing the domestic scheduled air transport services, the proposed operation commencement date, proposed route and number of flights.
 - (d) estimated volume of passengers and cargo.
 - (ii) in case of a corporation, the articles of incorporation, the certificate of registered information and the recent profit and loss statement, balance

sheet and business report.

Article 210-2 The companies specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 101, paragraph (1), item (v) (e) of the Act are the following companies.

- (i) holding companies specified by Article 9, paragraph (5), item (i) of the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade (Act No. 54 of 1947).
- (ii) the company of which the ratio of total acquisition value (or other value if it is so listed in the latest balance sheet) in order to obtain its subsidiary company's (meaning subsidiary companies prescribed in Article 2, paragraph (10) of the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade and including those that are deemed to be subsidiary companies in Article 9, paragraph (4) of that Act; hereinafter the same applies in this item) share to the remaining value which total sum of the company's loan to the subsidiary company is deducted from the value of total asset of the company is fifty percent or more.

Article 210-3 (1) The Minister of Land, Infrastructure, Transport and Tourism is to issue the license (hereinafter referred to as a "business license") providing following particulars to a domestic air carrier, when the minister grants a license referred to in Article 100, paragraph (1) of the Act.

- (i) name and address
 - (ii) date of license
 - (iii) particulars specified in Article 210, paragraph (1), item (i), (ii), (v) and (vi) (for the particulars specified in item (ii), limited to the types of aircraft to be used).
- (2) A domestic air carrier must, when intending to file an application for renewal of license due to changes in the particulars of the business license, submit the application for renewal of business license including the following particulars together with the business license to the Minister of Land, Infrastructure, Transport and Tourism.
- (i) name and address
 - (ii) date of license
 - (iii) particulars that have changed (comparison between the previous and new particulars must be specified).
 - (iv) date of change
- (3) A domestic air carrier must, when intending to file an application for reissue of license because it is lost, torn, or soiled, submit an application for reissue of business license accompanied by the business license to the Minister of Land, Infrastructure, Transport and Tourism (excluding the case when it is lost).

- (i) name and address
 - (ii) issue date of license
- (4) A domestic air carrier must, when the air carrier has been subject to disposition of revocation of business license under the provisions of Article 119 of the Act, when it has discontinued its business, or when the air carrier finds the lost business license after the license has been reissued, return the business license to the Minister of Land, Infrastructure, Transport and Tourism without delay.

(Inspection of Flight Operations Facilities)

Article 211 A person who intends to undergo an inspection of flight operations facility, etc. pursuant to the provisions of Article 102, paragraph (1) of the Act must submit a request for facility inspection providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism, at least ten days prior to the request date for inspection:

- (i) name and address
- (ii) request date for inspection
- (iii) location of facilities to be inspected.
- (iv) scheduled date for commencing the provision of facility.

Article 212 (1) The facilities required for ensuring the safety of aircraft operations specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 102, paragraph (1) of the Act are the facilities listed below.

- (i) facility for flight operations of aircraft
 - (ii) facility for maintenance of aircraft
 - (iii) training facility for those who engage in flight operations and maintenance of aircraft.
 - (iv) beyond what is set forth in items (i) through (iii), facilities which are deemed to be necessary for any domestic air carrier to carry out their services safely and properly and designated by the Minister of Land, Infrastructure, Transport and Tourism.
- (2) The significant changes specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 102, paragraph (1) of the Act are the following changes:
- (i) new construction or expansion of workplace included in the facilities listed in item (ii) of the preceding paragraph.
 - (ii) change of facilities listed in items (i) through (iii) of the preceding paragraph because of additional types of aircraft to be used.
 - (iii) beyond what is set forth in items (i) and (ii), change of facilities deemed to be necessary for any domestic air carrier to carry out their services safely

and properly and designated by the Minister of Land, Infrastructure, Transport and Tourism.

(Scale of Services of Domestic Air Carriers that Establish the Safety Management Rules)

Article 212-2 The scale of services specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 103-2, paragraph (1) of the Act must be the scale that the aircraft has the capacity to accommodate 30 passengers or whose maximum take-off weight is 15 thousands kilograms.

(Notification of the Safety Management Rules)

Article 212-3 (1) A person who intends to notify the establishment of the safety management rules pursuant to the provisions of the first sentence of Article 103-2, paragraph (1) must submit the notification of establishment of the safety management rules providing the following particulars and the established safety management rules prior to the operation commencement day.

(i) name and address

(ii) proposed operation commencement date

(2) A person who intends to submit a notification of change of the safety management rules pursuant to the provisions of the second sentence of Article 103-2, paragraph (1) must submit the notification of change of the safety management rules providing the following particulars and the changed safety management rules prior to the date on which the safety management rules become effective.

(i) name and address

(ii) the date on which the changed safety management rules become effective.

(iii) the particulars that have changed (indicating comparison between the old and the new)

(iv) reason for the change

(Details of the Safety Management Rules)

Article 212-4 As for the contents of the safety management rules specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 103-2, paragraph (2) of the Act, the particulars listed in the upper column of the following table are those specified in the lower column of that table.

Particulars concerning policies in providing services to ensure the transportation safety	(i) particulars related to the basic policy
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	(ii) particulars related to the compliance with relevant laws, safety management manual and other rules and regulations to ensure the transportation safety (iii) particulars related to the efforts
Particulars concerning the implementation of services and its management system to ensure the transportation safety	(i) particulars related to organizational structure (ii) particulars related to responsibilities of the person responsible for managing the business to ensure the transportation safety (iii) particulars related to the authority and responsibilities of a safety manager
Particulars concerning the implementation of services and its management method to ensure the transportation safety	(i) particulars related to the communication and information sharing (ii) particulars related to considerations for and the implementation of preventive measures against accident, etc. (iii) particulars related to response in case of an accident, disaster etc. (iv) particulars related to the implementation of internal audit and other services and the confirmation of its management status. (v) particulars related to the education and training (vi) particulars related to the preparation and management of documents for transportation safety (vii) particulars related to the implementation of services and the improvement of its management
Particulars concerning appointment of a safety manager	Particulars concerning the method of appointment of a safety manager

(Requirements for Safety Managers)

Article 212-5 The requirements specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 103-2, paragraph (2), item (iv) of the Act, must be those fall under any of the following items.

- (i) a person who has an experience in enforcement or management of air transport services over three years, or the Minister of Land, Infrastructure, Transport and Tourism admitted as a person who is deemed to have the

equivalent or superior experience.

- (ii) a person must not be a person who is dismissed by the order pursuant to the provisions of Article 103-2, paragraph (7) of the Act, for whom two years have not passed from the day of dismissal.

(Notification of Appointment and Dismissal of Safety Managers)

Article 212-6 (1) A person who intends to notify an appointment or dismissal of a safety manager pursuant to the provisions of Article 103-2, paragraph (5) of the Act must submit the written notice of appointment (dismissal) of the safety manager providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
 - (ii) name and the date of birth of the safety manager who was appointed or dismissed.
 - (iii) date of appointment or dismissal
 - (iv) in case of dismissal, the reason thereof.
- (2) The written notice of appointment of safety manager referred to in the preceding paragraph must be accompanied by the document certifying that the appointed safety manager is in the management position that allows them to take part in the important decision-making process on business operations and meets the requirements specified in the preceding Article.

(Request for Approval for Operations Manual and Maintenance Manual)

Article 213 Any person who intends to file a request for approval for establishment or change of the operations manual or maintenance manual pursuant to the provisions of Article 104, paragraph (1) of the Act must submit a request for approval for establishment (change) of operations manual or a request for approval for establishment (change) of maintenance manual providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
- (ii) operations manual or maintenance manual to be established or changed (in case of change, indicating comparison between the current and the new)
- (iii) reason for change in case of the request for approval for change.

(Operations Manual and Maintenance Manual)

Article 214 The particulars related to flight operations and maintenance of aircraft specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 104, paragraph (1) of the Act are as specified in the left column of the following table, and the technical standard defined by Order referred to in paragraph (2) of that Article are as specified in the right

column of that table for the particulars listed in the left column of the table respectively.

(i) Operations Manual	
(a) Procedures for performing operations management	Scope and content of duties performed by flight dispatcher including the determinations on whether departure of aircraft is appropriate or not, selection of route, determination on take-off and landing weight and others, must be specified approximately according to the type of aircraft, characteristics of aerodrome, flight rules and route of flight, as well as weather conditions.
(b) duties of flight crew and cabin crew (for duties of cabin crew, limited to the cases in which cabin crew are on board the aircraft to provide the service)	Scope and content of duties performed by flight crew and cabin crew in each phase of pre-flight, in-flight and post-flight must be clearly specified.
(c) composition of flight crew and cabin crew (for composition of cabin crew, limited to the cases in which cabin crew are on board the aircraft to provide the service)	Composition of flight crew must be specified according to the type of aircraft, flight rules and route of flight, while composition of cabin crew must be specified according to the type of aircraft, seating capacity or number of passengers on board.
(d) assignment of duties of flight crew and cabin crew and limit for working hours of flight dispatcher (for division of duties of cabin crew, limited to the cases in which cabin crew are on board the aircraft to provide the service)	Flight crew assignment must be made in accordance with the standards referred to in Article 157-3, cabin crew assignment must be specified, so as not to prevent the performance of duties, and the working hours of flight dispatcher must be limited, taking the frequency of operations into account, so as not to prevent the performance of duties.
(e) procedures for competency tests and training of flight crew, cabin crew and flight dispatcher (for procedures for competency tests and training of cabin crew, limited to the cases in which cabin crew are on board the aircraft to provide the services)	Subjects, procedures for implementation and hours (limited to training), and qualifications required of persons who conduct competency tests or training must be properly specified.

(f) procedures to have flight crew acquire experience and knowledge necessary for flight operations	In response to the airline route, procedures to provide flight crew with experience and other knowledge such as characteristics of the airport, procedures for flight operation, weather conditions necessary for operation of the aircraft must be specified.
(g) minimum weather conditions in which an aircraft may take-off or land	Minimum weather conditions at all airports intended for use must be specified corresponding to the type of aircraft, characteristics of the airport, status of air navigation facilities and pilot's knowledge and experience.
(h) minimum flight altitude	Minimum flight altitude shall be specified such that an aircraft is able to maintain continuous radio contact with the ATC unit, taking into account the effects of navigational error and air turbulence, and in the case of a multi-engined aircraft, that it is able to land at any suitable aerodrome in case of the failure of one engine.
(i) emergency procedures	Emergency procedures to be performed by flight crew, flight dispatcher, cabin crew and other staff in order to secure the safety of aircraft and passengers in response to each case of emergency such as engine failure, radio failure, interception, or emergency landing, and the location of emergency equipment on board aircraft, must be clearly specified.
(j) operational procedures and operating limitations for aircraft	Operational procedures and operating limitations of aircraft must be specified according to the degree of the pilot's familiarity with the aircraft, characteristics of the airport and meteorological conditions.
(k) procedures for operation and inspection of aircraft	Procedures must be specified in order that proper operation and inspection can be carried out in accordance with the type of aircraft.
(l) criteria for minimum equipment list (MEL) if components, parts, emergency equipment (hereinafter referred to as "components,etc.") do not work properly.	Minimum equipment list (MEL) must be specified so as not to affect the safe operation of an aircraft if there are other components,etc. which can function in place of the components, etc. or if the components,etc. are not necessary for the operation of aircraft.
(m) status of airports, etc., air navigation facilities and radio communication facilities and procedures for reporting a position	Information prepared must be in conformity with the contents of Aeronautical Information Publications and must be readily available to flight crew and flight dispatcher.

(n) procedures for entrustment of services relating to the operation of aircraft (limited to the entrustment of services relating to the operation of aircraft)	Scope and description of work to be entrusted, method for managing the work performed by an entrustee and other procedures for entrustment must be specified appropriately.
(ii) maintenance manual	
(a) duties of persons engaged in maintenance of aircraft	Status of assignments, scope and responsibilities, and shift system, and procedures for relieving the duties of persons having the qualifications of first-class aircraft maintenance technician, second-class aircraft maintenance technician, first-class aircraft line maintenance technician, second-class aircraft line maintenance technician, aircraft overhaul technician and other staff who engaged in the maintenance of aircraft, must be clearly specified.
(b) establishment of maintenance stations and facilities and equipment for maintenance stations	Selection of maintenance stations, classification of maintenance work carried out at the maintenance station and facilities and equipment necessary for maintenance work at the maintenance stations, must be appropriate for the quality and workload of aircraft maintenance work.
(c) procedures for maintenance of airframes and equipment, etc.	Intervals and principal items of maintenance work must be clearly specified for the respective categories of daily maintenance, scheduled maintenance and overhaul.
(d) procedures for performing maintenance of airframes and equipment, etc.	Procedures must be specified in order to perform the appropriate maintenance, in accordance with the technical guidelines for maintenance prepared by the manufacturers of airframes and equipment, etc.
(e) mandatory replacement limit for equipment, etc.	Procedures for establishing or changing mandatory replacement limit for equipment, etc. must be specified, based on the mandatory replacement limit specified by the manufacturers of equipment, etc. and according to the number of times the equipment was used.
(f) procedures for preparation and storage of maintenance records.	Procedures must be specified in order that the results of maintenance work are recorded accurately, according to the categories and the principal items of maintenance, and the lines of responsibility for the preparation and storage of the records must be specified.

(g) criteria for minimum equipment list (MEL) if equipment, etc. do not work properly.	Minimum equipment list (MEL) must be specified so as not to impede the safe operation of an aircraft if there are other equipment, etc. which can function in place of the equipment, etc. or where the equipment, etc. are not necessary for the operation of an aircraft.
(h) procedure for training provided for persons engaged in maintenance work	Subjects, procedures and hours of training, and the qualifications for maintenance instructors, must be properly specified.
(i) procedures for entrustment of services relating to the maintenance of aircraft (limited to the entrustment of services relating to the maintenance of aircraft)	Scope and responsibilities of work to be entrusted, method for managing the work performed by an trustee and other procedures for entrustment must be specified appropriately.

(Notification of Air Fares and Charges)

Article 215 A person who intends to notify the establishment or change of air fares and charges pursuant to the provisions of Article 105, paragraph (1) of the Act must submit a written notice of establishment (change) of air fares and charges providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
- (ii) types and amount of air fares or charges to be established or changes and, the period of time, zone and other conditions (in case of notification of change, indicating a comparison between the current and the proposed.)

(Request for Approval for Air Fares and Charges for International Air Transport Services)

Article 216 A person who intends to file a request for approval for establishment or change of air fares and charges for international air transport services pursuant to the provisions of Article 105, paragraph (3) of the Act must submit a request for approval for establishment (change) of air fares and charges providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
- (ii) types of air fares and charges to be established or changed and the amounts, period of time, zones and other conditions (in case of the request for approval, indicating a comparison between the current and the proposed.)
- (iii) explanation that air fares and charges pertaining to the request conforms to the standard referred to in Article 105, paragraph (4) of the Act.
- (iv) reason for change in case of the request for approval for change.

(Request for Approval for General Conditions for Transport Services)

Article 217 A person who intends to file a request for approval for establishment or change of general conditions for transport services pursuant to the provisions of Article 106, paragraph (1) of the Act must submit a request for approval for establishment (change) of general conditions for transport services, providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
- (ii) general conditions for transport services to be established or changed (in case of request for approval for change, clearly indicating a comparison between the current and proposed general conditions.)
- (iii) reason for change in case of the request for approval for change.

(Particulars Included in General Conditions for Transport Services)

Article 218 The particulars included in the general conditions for transport services under the provisions of Article 106, paragraph (1) of the Act are as follows:

- (i) particulars related to the receipt and refund of fares and charges.
- (ii) particulars related to ticketing
- (iii) types and items of cargo.
- (iv) particulars related to the receipt, delivery and custody of cargo.
- (v) particulars related to compensation for damage and other responsibilities.
- (vi) other particulars necessary to be included in the general conditions for transport services.

(Flight Plans)

Article 219 (1) The particulars included in the flight plan referred to in Article 107, paragraph (2) of the Act are the following particulars.

- (i) airports to be used, number of flights, departure/arrival times and type of the aircraft used for each route respectively.
- (ii) if the flights are limited to the specific season, season when flights are operated.
- (iii) in case the applicant intends to arrange code-sharing, the following particulars:
 - (a) zone of code-sharing and name and address of the counterparty.
 - (b) procedures to provide information related to the details of the code-sharing to passengers or shippers.

(2) A person who intends to notify the flight plan pursuant to the provisions of Article 107, paragraph (2) of the Act must submit a written notice of establishment of flight plan to the Minister of Land, Infrastructure, Transport

- and Tourism.
- (i) name and address
 - (ii) flight Plan
 - (iii) scheduled date of flight.
- (3) A person who intends to notify the change of the flight plan pursuant to the provisions of Article 107-2, paragraph (2) of the Act must submit the written notice of change of flight plan providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:
- (i) name and address
 - (ii) particulars to be changed (indicating the difference between the current and the proposed).
 - (iii) proposed date for change.
- (4) The cases specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism, which are deemed not to impair the convenience of users referred to in Article 107-2, paragraph (3) of the Act, are the following cases:
- (i) the case where other domestic air carriers are expected to provide domestic scheduled air transport services for the route to be discontinued.
 - (ii) the case where the Minister of Land, Infrastructure, Transport and Tourism deems that it is possible to ensure the convenience of users by using other transport services other than aviation.
- (5) A person who will intends to notify the change of the flight plan related to discontinuation of the route pursuant to the provisions of Article 107-2, paragraph (3) of the Act must submit the written notice of change of flight plan for discontinued route providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:
- (i) name and address
 - (ii) route to be discontinued
 - (iii) proposed date of discontinuation.
 - (iv) explanation that the discontinuation would not impede the convenience of users (only if the notification will not be submitted 6 months prior to the proposed date of the discontinuation)
- (6) The cases specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism, which is deemed not to impair the convenience of users referred to in Article 107-2, paragraph (4) of the Act, are the cases specified in items of paragraph (4).
- (7) A person who intends to discontinue the domestic scheduled air transport services pursuant to the provisions of Article 107-2, paragraph (4) of the Act must submit the written notice of discontinuation of domestic scheduled air transport services providing following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
- (ii) proposed date of discontinuation
- (iii) explanation that the discontinuation would not impede the convenience of users (only when the discontinuation is not notified 6 months prior to the proposed date of discontinuation.)

(Special Provisions pertaining to Congested Airports)

Article 219-2 (1) Airports specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 107-3, paragraph (1) of the Act are as specified in the upper column of the following table, as well as the number of years defined by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in paragraph (5) of that Article are as specified in the lower column of that table for each airport listed in the upper column of that table respectively.

Narita New Tokyo International Airport	Five years
Kansai International Airport	Five years
Tokyo International Airport	Five years
Osaka International Airport	Five years

- (2) A person who intends to obtain the license referred to in Article 107-3, paragraph (1) of the Act pursuant to the provisions of paragraph (2) of that Article must submit a written application for license for flight operation using congested airports providing following particulars to the Ministry of Land, Infrastructure, Transport and Tourism:
 - (i) name and address
 - (ii) flight plan for the route using the relevant congested airports
 - (iii) proposed e flight date.
- (3) A person who intends to file a request for approval for change of flight plan referred to in Article 103-3, paragraph (2) of the Act pursuant to the provisions of Article 107-3, paragraph (6) must submit the request for approval for change of flight plan using the congested airport providing the following particulars to the Ministry of Land, Infrastructure, Transport and Tourism.
 - (i) name and address
 - (ii) particulars to be changed (indicating the difference between the current and the proposed).
 - (iii) proposed date for implementing changed flight plan.
- (4) The cases specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 107-3, paragraph (8) of the Act, which are deemed not to impair the convenience of users are the cases specified in items of paragraph (4) of the preceding Article.

- (5) A person who intends to discontinue the domestic scheduled air transport services using the congested airports pursuant to the provisions of Article 107-3, paragraph (8) of the Act must submit the written notice of discontinuation of domestic scheduled air transport services using congested airports providing following particulars to the Minister of Land, Infrastructure, Transport and Tourism:
- (i) name and address
 - (ii) proposed date of discontinuation
 - (iii) explanation that the discontinuation would not impede the convenience of users (only in case when the notice of discontinuation is not submitted at least 6 months prior to the proposed date).
- (6) In the case referred to in Article 107-3, paragraph (10) of the Act, the part of the flight plan referred to in Article 107-2, paragraph (1) of the Act, which was notified by the domestic air carrier referred to in that Article (hereinafter referred as "old flight plan" in this paragraph), are deemed as the flight plan referred to in Article 107-3, paragraph (2) of the Act, and the relevant domestic air carrier is deemed to have submitted a notice stating that the old flight plan will be changed to the flight plan which does not include the route using the congested airports concerned pursuant to the provisions of Article 107-2, paragraph (2) of the Act.
- (7) In the case referred to in Article 107-3, paragraph (11) of the Act, if the domestic air carrier referred to in that paragraph has notified the flight plan referred to in Article 107-2, paragraph (1), the domestic air carrier is deemed to have submitted the notification stating that the flight plan will be changed to the flight plan including the route using the congested airports concerned pursuant to the provisions of Article 107-2, paragraph (2) of the Act, and if the notification of flight plan referred to in paragraph (1) of that Act has not been submitted, the domestic air carrier is deemed to have submitted the notification of the flight plan for the route using the airports concerned pursuant to the provisions of that paragraph.

(Change of Business Plan)

Article 220 A person who intends to request for approval for change of business plan pursuant to the provisions of Article 109, paragraph (1) of the Act must submit a request for approval for the change of business plan providing the following particulars, to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
- (ii) particulars to be changed (indicating difference between the current and the proposed).
- (iii) the date on which operation plan will be changed.

(iv) reason for the change

Article 220-2 (1) The change of business plan specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 109, paragraph (3) of the Act are the change of particulars listed in the provisions of Article 210, paragraph (1), items (i), (iii) (only when the use of the specified airports is discontinued), (iv) and (vi).

(2) A person who intends to notify the change of the business plan referred to in the preceding paragraph must submit the notice of change of the business plan providing the following particulars in advance, to the Minister of Land, Infrastructure, Transport and Tourism:

(i) name and address

(ii) particulars to be changed (indicating the difference between the current and the proposed).

(iii) proposed date on which the business plan is changed.

(3) Change of business plan specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 109, paragraph (4) of the Act change of particulars specified in Article 210, paragraph (1), item (ii) (except for additional types of aircraft to be used) and change of particulars listed in item (vii) of that paragraph, which the Minister of Land, Infrastructure, Transport and Tourism finds that the change is unlikely to affect the effect of preventive measures against the acts of unlawful seizure of an aircraft.

(4) A person who intends to notify the change of business plan referred to in the preceding paragraph must submit the ex post facto written notice of change of business plan providing the the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

(i) name and address

(ii) particulars that have been changed (indicating the difference between the former and the current).

(iii) the date of change

(Agreement on Transportation)

Article 221 (1) A person who intends to file a request for approval to conclude or change the agreement with another air carrier pursuant to the provisions of Article 111, paragraph (1) must submit to the Minister of Land, Infrastructure, Transport and Tourism a request for approval for conclusion (change) of agreement providing the following particulars (except for the particulars related to items (ii) and (iii) if a request for approval for change is filed).

(i) name and address

(ii) name and address of the other party of the agreement (in case of the foreign

- air carrier, address and the location of its principal business office or agency's office in Japan).
- (iii) if there is an office that supervises the affairs concerned to the agreement, its name and location.
 - (iv) outline of the business being currently managed by the party.
 - (v) draft of the agreement to be concluded (in case of change, particulars to be changed; the same applies hereinafter)
 - (vi) effective date and the term of the agreement to be concluded
 - (vii) reason for conclusion or change of the agreement
- (2) A written request referred to in the preceding paragraph must, in case the agreement to be concluded is the agreement referred to in Article 110, paragraph (1) of the Act, be accompanied by the document showing the decrease in demand for air transportation service for the route to be operated with the partner and income and expenditure statement of the business.
- (3) If the agreement to be concluded is written in any language other than the Japanese, a request referred to in paragraph (1) must be accompanied by the document translated into Japanese.

(Report of Situations which Affect Safety)

Article 221-2 The situations defined by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 111-4 of the Act are the following situations:

- (i) the accident specified in each item of Article 76, paragraph (1) of the Act.
- (ii) situations specified in Article 76-2 of the Act.
- (iii) following situations which occurs to an aircraft during flight.
 - (a) any situations in which the structure of the aircraft was damaged (except for the cases in which repair of the aircraft does not fall under major repair or minor repair listed in the table of Article 5-6)
 - (b) any situation in which any system important to safety installed in the aircraft does not function normally.
 - (c) any situation in which emergency equipment or emergency parachutes, lifejackets, etc. do not function normally.
 - (d) any situation in which an aircraft exceeds operating limitations or significantly deviates from the designated airway or altitude.
 - (e) beyond what is set forth in (a) through (d), any other situations in which emergency operation or any urgent action to maintain safety of the flight is required.
- (iv) beyond what is set forth in the preceding three items, any situation in which the structure of the aircraft was damaged, emergency equipment is in failure, wrong equipment or parts are installed in the aircraft or any other situation which affects the safety of normal operations of any aircraft.

Article 221-3 A domestic air carrier must, when any situation specified in the preceding Article occurs, report the following particulars to the Minister of Land, Infrastructure, Transport and Tourism pursuant to the provisions of Article 111-4 of the Act, without delay.

- (i) name
- (ii) nationality, registration mark, and type of the aircraft.
- (iii) date, time and place where the situation to be reported occurred.
- (iv) outline of the situation to be reported and the measures taken against this.
- (v) any other reference information.

(Release of Information on Transportation Safety by the Minister of Land, Infrastructure, Transport and Tourism)

Article 221-4 (1) The information on transportation safety defined by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 111-5 of the Act are the following particulars.

- (i) particulars related to the situation reported pursuant to the provisions of Article 111-4 of the Act.
 - (ii) particulars related to the disposition under the provisions of Article 112, Article 113-2, paragraph (3) or Article 119 of the Act (limited to disposition implemented on the transportation safety) and any other particulars concerning the measures taken by the Minister of Land, Infrastructure, Transport and Tourism against any air carrier to maintain the transportation safety.
 - (iii) particulars related to national policy for air transport services to ensure transportation safety.
 - (iv) beyond what is set forth in the preceding three items, the particulars that significantly relates to transportation safety, if any.
- (2) Release of information under the provisions of Article 111-5 of the Act is to be performed by using the Internet or through any other appropriate means.

(Release of Safety Reports to the Public by Domestic Air Carriers)

Article 221-5 (1) Release of safety report under the provisions of Article 11-6 of the Act must be performed within 6 months after the end of every business year.

- (2) Release of information under the provisions of Article 111-6 of the Act must be performed by using Internet or through any other appropriate means.

Article 221-6 Information on transportation safety specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 111-6 of the Act are as follows:

- (i) particulars concerning the basic policies for operations of services to ensure the transportation safety
- (ii) particulars concerning the implementation of operations and its management system to ensure the transportation safety.
- (iii) particulars concerning reports under the provisions of Article 111-4 of the Act.
- (iv) particulars concerning the measures taken or to be taken to ensure the transportation safety.

(Entrusted Management of Operations)

Article 222 (1) A person who intends to obtain permission for entrusted management of operations or maintenance of aircraft pursuant to the provisions of Article 113-2, paragraph (1) of the Act must submit a request for permission for entrusted management providing the following particulars and countersigned by both parties concerned to the Minister of Land, Infrastructure, Transport and Tourism,.

- (i) name and address of the entruster and the trustee (address and location of principal business offices or agency's office in Japan for the person specified in Article 4, paragraph (1), items (i) through (iii) of the Act).
 - (ii) the description of operations to be entrusted and the method of implementation.
 - (iii) explanation of the fact that the request complies with the criteria listed in each item of Article 113-2, paragraph (2).
- (2) a written request referred to in the preceding paragraph must be accompanied by the following documents.
- (i) copy of the contract for entrusted management.
 - (ii) if the trustee is a corporation, the articles of incorporation, the certificate of registered information and the recent profit and loss statement, balance sheet and business report (for foreign corporation, the articles of incorporation or the documents equivalent thereto and the recent profit and loss statement, balance sheet and business report or the documents equivalent thereto)
 - (iii) if the trustee is a person specified in Article 4, paragraph (1), items (i) through (iii) and also manages air transport services, the document that certifying that the person have obtained the permission of air transport services concerned from the foreign state of which applicant has the citizenship.

(Transfer of Business and Request for Permission for Transfer of Business)

Article 223 (1) A person who intends to file a request for permission for transfer of scheduled air transportation services pursuant to the provisions of Article

114, paragraph (1) of the Act must submit a request for permission for transfer of scheduled air transport services, providing the following particulars and countersigned by both parties concerned to the Minister of Land,

Infrastructure, Transport and Tourism:

- (i) name and address of transferor and transferee
- (ii) selling price and buying price of the transferred business.
- (iii) proposed date of transfer.
- (iv) reasons for the transfer
- (v) explanation that transferee complies with the criteria listed in Article 101, paragraph (1), items (iii) and (v) of the Act.

(2) A written request set forth in the preceding paragraph must be accompanied by the following documents.

- (i) copy of the contract for transfer.
- (ii) if the transferee is a corporation, the articles of incorporation, the certificate of registered information and the recent profit and loss statement, balance sheet and business report.
- (iii) if the transferor or transferee is a corporation, the minutes of the resolution adopted at shareholders meetings or general meeting of members related to the transfer, or the certificate of consent of members with unlimited liability or all members.

(Request for Approval for Corporate Merger and Demerger)

Article 224 (1) A person who intends to file a request for approval for corporate merger or demerger of a juridical person that is a domestic air carrier pursuant to the provisions of Article 115, paragraph (1) of the Act must submit a request for approval for merger of air carrier or approval for demerger of air carrier, providing the following particulars and countersigned by both parties (in case of the incorporation-type company split, signature by the party) to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) names and addresses of both parties concerned and names of their representatives and officers.
- (ii) method and conditions of merger or demerger
- (iii) proposed date of merger or demerger
- (iv) reasons for the merger or demerger
- (v) explanation that the juridical person who continues to exist after the merger or is established by the merger, or the juridical person succeeds to air transport services upon demerger, complies with the criteria listed in Article 101, paragraph (1), items (iii) and (v) of the Act.

(2) A written request referred to in the preceding paragraph must be accompanied by the following documents.

- (i) copy of the contract for merger and statement of the ratio of merger or copy

- of the contract for demerger (in case of incorporation-type company split, split plan) and statement of the ratio of demerger.
- (ii) if a juridical person is established by the merger or the split, the articles of incorporation, statement of financial plan including the total amount, breakdown and method for raising the capital necessary for the management of the service.
 - (iii) if the juridical person who succeeds to air transport services after the absorption-type company split does not manage air transport service yet, the articles of incorporation, the certificate of registered information of the juridical person concerned and the recent profit and loss statement, balance sheet and business report.
 - (iv) minutes of the resolution adopted at shareholders meeting or general meeting of members related to the merger or demerger, or the certificate of consent of members with unlimited liability or all members.

(Request for Approval for Succession of Business by Heir)

Article 225 (1) A heir who intends to file a request for approval for the succession of air transportation services pursuant to the provisions of Article 116, paragraph (2) of the Act must submit a written request for approval for succession of air transportation services, providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
 - (ii) relationship between the heir and the decedent
 - (iii) if there are any heirs other than the applicant, their names and addresses
 - (iv) date of death of the decedent
 - (v) explanation that the applicant complies with the criteria listed in Article 101, paragraph (1), items (iii) and (v) of the Act.
- (2) A written request referred to in the preceding paragraph must be accompanied by the following documents.
- (i) copy of heir's family register
 - (ii) certificate of consensus of all heirs other than the applicant for succession of the air transportation services by the applicant.

(Notification of Discontinuation of Business)

Article 226 A person who intends to file a notification of discontinuation of an air transportation services pursuant to the provisions of Article 118 of the Act must submit a written notification of discontinuation of air transportation services, providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism:

- (i) name and address
- (ii) date of discontinuation

(Shares and Public Notice)

- Article 226-2 (1) Shares specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 120-2, paragraph (1) of the Act are shares registered as those of which buying price or selling price traded in over-the-counter market is announced as specified by the regulation of the Securities Dealers Association (meaning the Securities Dealers Association specified in Article 67, paragraph (1) of the Securities Exchange Act (Act No. 25 of 1948)).
- (2) Public notice referred to in Article 120-2, paragraph (2) are to be issued for each shareholders meeting by means of the public notice defined by the article of incorporation.
- (3) The rate defined by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in proviso to Article 120-2, paragraph (2) of the Act is 1/4.

Section 2 Business Aviation

(Grant of Business License)

- Article 227 (1) Particulars to be included in the business plan referred to in Article 100, paragraph (2), item (ii), as applied mutatis mutandis pursuant to the provisions of Article 123, paragraph (2) of the Act are as follows:
- (i) principal area of business activities
 - (ii) nationality, type, and registration mark of the aircraft to be used.
 - (iii) outline of the facilities for operations management and maintenance of the aircraft.
 - (iv) type of each aircraft used that is maintained and whose operation is to be managed in the operations management facilities and maintenance facilities referred to in the preceding item.
 - (v) details of preventive measures against the acts of unlawful seizure of an aircraft.
- (2) Documents including the particulars specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 100, paragraph (4) as applied mutatis mutandis pursuant to the provisions of Article 123, paragraph (2) of the Act are as follows:
- (i) document including the following particulars:
 - (a) explanation that the request complies with the criteria listed in each item (except item (iv)) of Article 101, paragraph (1), as applied mutatis mutandis pursuant to the provisions of Article 123, paragraph (2) of the Act.
 - (b) financial plan including the total amount, breakdown and method of

raising the capital necessary for the management of the service.

(c) estimated number of contracts for work by types.

(ii) in case of a corporation, the articles of incorporation, the certificate of registered information and the recent profit and loss statement, balance sheet and business report.

(Change of Business Plan)

Article 228 (1) The change of business plan specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 109, paragraph (3) of the Act as applied mutatis mutandis pursuant to Article 124 of the Act, are the change of particular specified in paragraph (1), items (i) and (iv) of the preceding Article.

(2) The change of business plan specified by Order of the Ministry of Land, Infrastructure, Transport and Tourism referred to in Article 109, paragraph (4) of the Act as applied mutatis mutandis pursuant to Article 124 of the Act, is the change of particulars specified in paragraph (1), item (ii) of the preceding Article (except for additional types of aircraft to be used) and the particulars listed in item (v) of that paragraph, which is deemed to be unlikely to affect the effect of preventive measures for the acts of unlawful seizure of an aircraft by the Minister of Land, Infrastructure, Transport and Tourism.

(Mutatis Mutandis Application of Provisions for Air Transport Services)

Article 229 The provisions of Article 211, Article 212, Article 220, Article 220-2, paragraphs (2) and (4), Article 221-2, Article 221-3 and the provisions of Articles 223 through 226 apply mutatis mutandis to business aviation. In this case, the terms the "preceding paragraph" in Article 220-2, paragraph (2) is deemed to be replaced with "Article 228, paragraph (1)" and the "preceding paragraph" in paragraph (4) of that Article is deemed to be replaced with "Article 228, paragraph (3)".

Chapter VIII Foreign Aircraft

(Application for Permission for Foreign Aircraft to Enter or Depart from Japan)

Article 230 A person who intends to obtain permission referred to in Article 126, paragraph (1) or (2) of the Act must submit an application including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism at least ten days prior to the scheduled date of the flight.

(i) name, address and nationality of the person

(ii) nationality, type and registration mark of the aircraft, and call sign of aircraft radio station

(iii) route of the flight (indicating the airports for stopover) and the date and

- the time of the flight
- (iv) purpose of flight
- (v) names and qualifications of the pilot in command and flight crew.
- (vi) names and nationalities of passengers, and purpose of trip
- (vii) description of cargo loaded on the aircraft

Article 230-2 A person who intends to obtain permission referred to proviso to paragraph (5) of Article 126 of the Act must submit an application including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism at least ten days (three days in case when transporting only individual(s) or officer(s) of any corporation who enter Japan for business purpose (including the person(s) who accompany the officers)) prior to the scheduled date of landing or taking off.

- (i) name, address and nationality
- (ii) nationality, type and registration mark of the aircraft, and call sign of aircraft radio station
- (iii) name of the airport in which the aircraft intends to land or take off and the date and time of landing or take off
- (iv) reason for landing at or take off from the relevant airport, etc.
- (v) route of the flight
- (vi) names and qualifications of the pilot in command and flight crew.
- (vii) other particulars that the Minister of Land, Infrastructure, Transport and Tourism deems necessary.

(Application for Permission for Use of Foreign Aircraft in Japan)

Article 231 Any person who intends to obtain permission referred to in proviso to Article 127 of the Act must submit a written application including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism at least three days prior to the date on which the use of aircraft starts,

- (i) name, address and nationality
- (ii) nationality, type and registration mark of the aircraft, and call sign of aircraft radio station
- (iii) names and qualifications of the pilot in command and flight crew.
- (iv) purpose for using the aircraft
- (v) details of the plan to use the aircraft
- (vi) aircraft operating area (if the airports, etc. used for take off or landing and air routes are specified for the flights, the route must be specified.)
- (vii) proposed commencement date of operation and period of operation

(Munitions)

Article 231-2 Munitions specified by Order of the Ministry of Land,

Infrastructure, Transport and Tourism referred to in Article 128 of the Act are weapons and ammunition used for military.

Article 231-3 A person who intends to obtain permission referred to in Article 128 of the Act must submit an application including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism at least three days prior to the proposed date of operation.

- (i) name, address and nationality
- (ii) nationality, type and registration mark of the aircraft, and call sign of aircraft radio station
- (iii) names of munitions to be transported and the quantities thereof in detail
- (iv) reason for the transportation
- (v) flight path from which airport the munition is transported to another airport and the date and time of flight

(Application for License for International Air Transport Services by Foreign Nationals)

Article 232 (1) A person who intends to obtain permission referred to in Article 129, paragraph (1) of the Act must submit a written application including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism at least three months prior to the proposed date on which the services start.

- (i) name, address and nationality
- (ii) in case of a corporation, the names and nationalities of its representatives and officers.
- (iii) names and locations of the principal business office and other places of business in Japan.
- (iv) amount of stated capital and ratio of amount of investment by nationality of investors, by state, and by public entity or private individuals.
- (v) purport for providing the international air transport services and the proposed date on which the services start.
- (vi) outline of air transport services, if any, which is managed by the applicant at the time of application.
- (vii) business plan
 - (a) airport of departure, airport for stopover, destination and airports to be used along the routes, and distances between the relevant airports (the distance must be specified by using an air route map).
 - (b) a total number of aircraft to be used, nationality, type, loading capacity by passengers and cargo, and registration mark of each aircraft, and call sign of each aircraft radio station.
 - (c) number of services and date and time of flights (those must be specified

- by using a diagram).
 - (d) outline of the aircraft maintenance facilities and operations management facilities
 - (e) details of preventive measures against the acts of unlawful seizure of an aircraft.
- (2) A written application referred to in the preceding paragraph must be accompanied by the following documents.
- (i) document certifying that the applicant has obtained the license for air transport services on the concerned route from the foreign state where the applicant has nationality.
 - (ii) if the applicant is a corporation, the articles of incorporation or document equivalent thereto.
 - (iii) the recent profit and loss statement and a balance sheet
 - (iv) General Conditions for Transport Services

(Request for Approval for Air Fares and Charges)

Article 233 A person who intends to obtain approval to establish or change the air fares and charges referred to in Article 129-2 of the Act must submit a written request for approval to establish (or change) and charges including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism at least thirty days prior to the proposed date of implementation.

- (i) name, address and nationality
- (ii) amount of fares or charges to be established or changed and the basis for calculation (in case of change, comparison between the current and the proposed must be indicated).
- (iii) effective date
- (iv) in case of change of air fares and charges, reason for the change.

(Request for Approval for Change of Business Plan)

Article 233-2 A person who intends to obtain approval for change of business plan referred to in Article 129-3, paragraph (2) of the Act must submit a written request for approval for change of business plan including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism at least forty-five days prior to the proposed date of service in case of change in the number of services and when the person intends to change the type of aircraft to the one whose loading capacity is extremely different from the aircraft; at least thirty days prior to the proposed date of service in case of change of airport, etc. to be used and change of flight schedule (except temporary changes); at least ten days prior to the proposed date of service for other cases.

- (i) name, address and nationality

- (ii) particulars to be changed (indicating the difference between the current and the proposed).
- (iii) proposed date of change
- (iv) reason for the change

(Notification of Change of Business Plan)

Article 233-3 (1) Change of minor particulars referred to in proviso to paragraph (2) of Article 129-3 are as follows:

- (i) Temporary change of airport of departure, (except for the case where it continues 10 days or more) of points of origin, points of intermediate stops or points of destination, and airport etc. to be used, which do not involve addition of new point, airport to be used and change of schedule time at the points in Japan
 - (ii) Change relating merely to total number of aircraft to be used, registration mark of each aircraft, and call sign of each aircraft, among the matters listed under Article 232 paragraph (1) item (vii) (b).
 - (iii) Matters listed in the Article 232, paragraph (1), item (vii) (e), of which the Minister of Land, Infrastructure, Transport and Tourism finds that there is no risk to affect the effect of preventive measures against the acts of unlawful seizure of an aircraft.
- (2) The provision of the Article 220-2, paragraph (2) apply mutatis mutandis to the notification of change of the business plan pursuant to the provision of Article 129-3, paragraph (3) of the Act. In this case, the term "name and address" in Article 220-2, paragraph (2), item (i) is deemed to be replaced with "name, address and nationality".

(Request for Domestic Air Transport License by Foreign Nationals)

Article 234 A person who intends to obtain permission referred to in provision to Article 130 of the Act must submit a written request providing the following particulars to the Minister of Land, Infrastructure, Transport and Tourism at least 10 days prior to the proposed transportation commencement date.

- (i) name, address and nationality
- (ii) nationality, type and registration mark of the aircraft, and call sign of aircraft radio station
- (iii) name and nationality of passengers to be carried for airfares.
- (iv) names and quantities of cargo to be transported for airfreight charges.
- (v) reason to carry passengers or transport cargo for fares or charges.
- (vi) flight path on which passengers will be carried for fares or cargo will be transported for charges and the date and time of flight.

(Request for License for Carrying Passengers by Aircraft Departing from or

Arriving in Japan)

Article 234-2 A person who intends to obtain permission referred to in Article 130-2 of the Act must submit a written request including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism at least ten days prior to the proposed date of flight in case its business office or agent is located in Japan (three days in case of carrying only individual(s) or officer(s) of any corporation enter Japan for business purpose (including person(s) who accompany them)), and in other cases, at least thirty days prior to the proposed date of flight.

- (i) name, address and nationality
- (ii) nationality, type and registration mark of the aircraft, and call sign of aircraft radio station
- (iii) name and qualifications of the pilot-in-command and flight crew (excluding the case where the person who intends to obtain the permission is the international air carrier operated by a foreign national, and intending to operate an aircraft by using its employees).
- (iv) reason for the carriage or transportation.
- (v) types and amount of fares for passengers or charges for cargo
- (vi) route of flight (indicating the airport for stopover), and flight path on which passengers to be carried for fares or cargo to be transported for charges
- (vii) in case its office or agent is located in Japan, name and address thereof.
- (viii) other particulars which the Minister of Land, Infrastructure, Transport and Tourism finds necessary.

(Approval for Certificates)

Article 235 (1) Any certification, licensing or other action, and qualification certificates and other documents thereof, made or issued by a foreign state, which are regarded, pursuant to the provisions of Article 131 of the Act, as an aircraft registration certificate under Article 6 of the Act, competence certification referred to in Article 22 of the Act, certificate of competency referred to in Article 23 of the Act, airman medical certificate referred to in Article 31, paragraph (1) of the Act, airman medical certificate referred to in paragraph (2) of that Article, aviation English proficiency certificate referred to in Article 33, paragraph (1), or instrument rating referred to in Article 34, paragraph (1) of the Act, must be those granted or issued by the foreign state (if an agreement referred to in Article 83-2 of the Convention on International Civil Aviation exists between any foreign state of which the aircraft concerned has nationality and any other foreign state in which the aircraft operator concerned has its address, limited to the foreign state designated to issue certification for the aircraft concerned, license and take any other action)

which is a Contracting State adopting the standards, practices and procedures provided for in the Annexes to the Convention on International Civil Aviation or those recognized as appropriate by the Minister of Land, Infrastructure, Transport and Tourism.

(2) Any certification, other actions and certificate concerned and other documents thereof (hereinafter referred to as "certification, etc." in this paragraph) of airworthiness, noise and engine emission of an aircraft, granted or issued by a foreign state pursuant to the provisions of Article 131 of the Act, which are regarded as airworthiness certification under Article 10, paragraph (1) of the Act or an airworthiness certificate under paragraph (7) of that Article, must be certification, etc. (in case of certification, etc. for noise level of the aircraft which has been installed with a turbo-jet engine or turbo-fan engine and its maximum takeoff weight is more than 34,000kgs, to be limited to certification, etc. in compliance with the standards and procedures specified by Annex 16 Volume I Chapter III and Chapter IV to the Convention on International Aviation) granted or issued by the foreign state (if an agreement under Article 83-2 of the Convention on International Civil Aviation exists between any foreign state of which the aircraft concerned has nationality and any other foreign state in which the aircraft operator concerned has its address, limited to the foreign state designated to issue certification for the aircraft concerned, license and take any other action) which is a Contracting State adopting the standards, practices and procedures provided for in the Annexes to the Convention on International Civil Aviation or those recognized as appropriate by the Minister of Land, Infrastructure, Transport and Tourism.

Article 235-2 Deleted

Article 235-3 Deleted

(Special Provisions for Application Period)

Article 235-4 Application under the provisions of Articles 230, Article 230-2, Article 231, Article 231-3, Article 233-2 and Article 234-2 is deemed to be acceptable and valid even when it is received after the expiration of the application period, if the Minister of Land, Infrastructure, Transport and Tourism in consideration of the circumstances involved, recognizes the reasons for the delay as being unavoidable due to urgent or other causes.

Chapter IX Miscellaneous Provisions

(Notification of Air Transport Agent)

Article 236 (1) Pursuant to the provisions of Article 133, paragraph (1) of the Act,

A person who intends to file a notification of operation of air transport agent must submit a written notification of operation of air transport agent stating the following particulars, together with their agency contract to the Minister of Land, Infrastructure, Transport and Tourism.

- (i) name and address
 - (ii) If the person who files the notification is a cooperation, names of the representative and officers
 - (iii) name and address of the other party to the agency contract
 - (iv) name and address of the office or place of business
 - (v) summary of the agency contract
 - (vi) If the person who files the notification is already operating a business, outline of the business
 - (vii) the scheduled operation start date
- (2) A person who intends to file a notification of change of the services listed in each item of the preceding paragraph pursuant to the provisions of second sentence of paragraph (1) of Article 133 of the Act must submit a written notification of change of services of an air transport agent including the following particulars, to the Minister of Land, Infrastructure, Transport and Tourism.
- (i) name and address
 - (ii) the address and name of the other party to the agency contract
 - (iii) the particulars to be changed and the reasons thereof
 - (iv) the scheduled date of change
- (3) A person who intends to file a notification of discontinuation of services of air transport agent pursuant to the provisions of Article 133, paragraph (2) of the Act must submit a written notification of discontinuation of services of air transport agent including the following particulars to the Minister of Land, Infrastructure, Transport and Tourism.
- (i) name and address
 - (ii) the address and name of the other party to the agency contract
 - (iii) the reason why discontinuation of services was required
 - (iv) date of discontinuation

Article 237 Deleted

(Notification)

Article 238 A person who is listed in the first column of the following table must, when the person falls under any of the case in the second column of that table, report the fact accompanied by the particulars, name, address and other necessary particulars to the Minister of Land, Infrastructure, Transport and Tourism without delay (within 10 days in the case of an airworthiness

inspector who has lost the certificate of airworthiness inspector, within 10 days, within 30 days in the case of an airman or student pilot who has lost their certificate of competency or airman medical certificate or student pilot permit, at least 10 days prior to the change in the case of a provider of aeronautical radio navigation aids or aeronautical lights intends to change the hours of operation of the facility).

Person Who must File a Notification	When Filing of a Notification is Required	Notes
(i) airworthiness inspector	When the certificate of airworthiness inspector is lost (except for the case when a reissue is requested within 10 days pursuant to the provisions of Article 16-9)	The reason for the loss and date and time
	When the fees are set or changed	(i) license number (ii) the type and amount of fees to be set or changed
(ii) provider of designated airman training school or a provider of flight dispatcher training school pursuant to the provisions of Article 29 paragraph (4) of the Act as applied mutatis mutandis pursuant to Article 78, paragraph (4)	When the training manual is changed	
(ii)-2 provider of aviation medical examination facility	When part of a medical examination is to be carried out by another medical facility etc, or when the relevant medical facility, etc. is changed	(i) the date on which a medical examination is to be carried out or the date when the relevant medical facility is changed (ii) the name of the applicable other medical facility, etc. and address
(ii)-3 designated air carrier that makes an assessment of aviation English proficiency	When the assessment manual is changed	

(iii) airman or student pilot	When the certificate of competency or airman medical certificate or student pilot permit is lost (except for the case when a reissue is requested within 30 days pursuant to the provisions of Article 71)	The reason for the loss and date and time
(iv) relatives living with an airman or student pilot	If an airman or student pilot has died or declared missing, and when their certificate of competency or student pilot permit is lost	
(v) provider of airport, etc	When management of an airport, etc is entrusted	(i) the date of entrustment (ii) the name of the other party
	When there is a change to airport, etc. other than the changes listed in Article 85	The date of change
	When the name or address is changed	The date of change
	In the case of a corporation or a firm, when the name, address of the main office, officers or employees or articles of incorporation or bylaw are changed	The date of change
	When any change is made to the airport manual	The date of change
(vi) provider of radio navigation aids	When the management of radio navigation aids is entrusted	(i) the date of entrustment (ii) the name of the other party
	When any change is made to radio navigation aids other than changes listed in Article 102 (other than the change of operating hours)	The date of change
	When intending to change the operating hours of radio navigation aids	(i) operating hours after the change (ii) scheduled date of change
	When the name or address is changed	The date of change

	In the case of a corporation or a firm, when the name, address of the main office, officers or employees or articles of incorporation or bylaw are changed	The date of change
(vii) provider of obstacle lights	When an obstacle light is installed pursuant to the provisions of Article 51, paragraph (1) or (2) of the Act	(i) the date of installation (ii) the address and latitude and longitude of the installed object (iii) type, height and altitude and height above sea level of the installed object (iv) a diagram showing the installation position, type and quantity
(viii) provider of aeronautical lights	When the management of aeronautical lights is entrusted	(i) the date of entrustment (ii) the name of the other party
	When any change is made to aeronautical lights other than changes listed in Article 120 (other than the change of operating hours)	The date of change
	When intending to change the operating hours of aeronautical lights	(i) operating hours after the change (ii) scheduled date of change
	When the name or address is changed	The date of change
	In the case of a corporation or a firm, when the name, address of the main office, officers or employees or articles of incorporation or bylaw are changed	The date of change

	When any change is made to the aerodrome lighting manual	The date of change
(ix) provider of obstacle markings	When an obstacle marking is installed pursuant to the provisions of Article 51-2, paragraph (1) of the Act	(i) the date of installation (ii) the address and latitude and longitude of the installed object (iii) type, height and altitude and height above sea level of the installed object (iv) a diagram showing the method of installation
(x) designated Japanese air carrier	When the training and assessment manual referred to in Article 164-4, paragraph (2) is changed	The date of change
(xi) domestic air carrier, business aviation operator	When the name or address is changed.	The date of change

(Approval of Flight Simulator Device etc)

Article 238-2 A flight simulator specified in paragraph (3) of Article 158 and a flight simulator and operational flight trainer specified in paragraph (2) of Article 159, paragraph (2) of Article 160, paragraph (2) of Article 161, paragraph (3) of Article 164 (including as applied mutatis mutandis pursuant to paragraph (2) of Article 164-2, Article 164-3 and paragraph (2) of Article 164-6), paragraph (4) of Article 164-10 (including as applied mutatis mutandis pursuant to paragraph (2) of Article 164-11 and paragraph (2) of Article 164-12) and Appended Table 2 must be the device that has been approved by the Minister of Land, Infrastructure, Transport and Tourism.

(Identification Card of Inspector)

Article 239 The format of the identification card referred to in Article 134, paragraph (3) of the Act is the same as Format 30.

(Written Application etc used for OCR)

Article 239-2 (1) A written request and written request application specified by this Order for which OCR is to be used (hereinafter referred to as "OCR written

request, etc" in this Article and the following Article) must conform to the standards of paper quality and printing as specified by the Minister of Land, Infrastructure, Transport and Tourism.

(2) OCR written request, etc must not be folded or damaged by dirt.

(3) The method of completing OCR written request, etc is set out by public notice.

(Method of Payment of Fees Pertaining to Requests by Filing OCR Written Request)

Article 239-3 The payment of fees pertaining to an application or request by filing OCR written request, etc is made by attaching revenue stamps corresponding to the amount of the fees to a payment form (Format 31) pursuant to the provisions of Article 3, paragraph (1) of the Act on the Use of Information and Communications Technologies for Administrative Procedures (Act No. 151 of 2002), when filing the applicable application or request using an electronic data processing system pursuant to the provisions of that Article, payment may be made in cash when making a payment using the payment information obtained through making the application or request.

(Delegation of Authority)

Article 240 (1) The following authorities of the Minister of Land, Infrastructure, Transport and Tourism specified by the Act and this Order are delegated to the Director of the Regional Civil Aviation Bureau.

(i) Airworthiness certification under the provisions of Article 10, paragraph (1) of the Act (except for first airworthiness certification of the aircraft type of which type certification has not been conducted pursuant to the provisions of Article 12, paragraph (1) of the Act)

(ii) approval under the provisions of the proviso to Article 11, paragraph (1) (including as applied mutatis mutandis pursuant to paragraph (3) of the Article) (in the case of the aircraft registered in Japan, limited to cases pertaining to the aircraft other than the aircraft that is used by a Japanese air carrier that operates air carrier business that is conducted by using the aircraft which exceeds 100 passenger seats or maximum take off weight of 50,000 kg (hereinafter referred to as "specified Japanese air carrier" in this paragraph and paragraphs referred to in Table 5 referred to in Article 243, paragraph (1)), and in the case of the aircraft registered in a foreign country, limited to cases pertaining to the aircraft which takes off and lands at the same airport, etc)

(iii) approval under the provisions of Article 13-2, paragraph (1) and (3) of the Act

(iii)-2 acceptance of notification under the provisions of Article 13, paragraph (5) of the Act as applied mutatis mutandis pursuant to Article 13-2,

- paragraph (5)
- (iii)-3 The authority under the provisions of paragraph (1) and paragraph (2) of Article 13-3 (limited to cases pertaining to supplemental type design)
 - (iv) approval under the provisions of the proviso to Article 11, paragraph (1) of the Act as applied mutatis mutandis pursuant to Article 16, paragraph (3) and Article 19, paragraph (3) of the Act
 - (v) inspection under the provisions of Article 16, paragraph (1) of the Act
 - (vi) certification of spare parts under the provisions of Article 17, paragraph (1) of the Act
 - (vi)-2 approval under the provisions of Article 20, paragraph (1) of the Act (except for the cases pertaining to a place of business for which a request for approval is filed for the first time)
 - (vi)-3 approval under the provisions of Article 20, paragraph (2) of the Act (except for the cases pertaining to an approval for approved organisation for which a request approval is filed for the first time)
 - (vii) license under the provisions of Article 28, paragraph (3) of the Act (in the case of a person who is on board a foreign aircraft, limited to the cases pertaining to those that takes off and lands at the same airport, etc)
 - (viii) Permission under the provisions of Article 35, paragraph (1), item (i) of the Act
 - (viii)-2 designation under the provisions of Article 35, paragraph (1), item (iii) of the Act
 - (viii)-3 designation under the provisions of Article 35-2, paragraph (1), item (iii) of the Act
 - (ix) permission under the provisions of Article 38, paragraph (1) of the Act (limited to cases pertaining to heliport provided for public use (hereinafter referred to as "public heliport"), airfields not open for public use, air navigation facilities required to ensure safe take-offs and landings of aircraft at a public heliport (hereinafter referred to as "air navigation facilities at public heliport") and air navigation facilities other than the air navigation facilities provided for public use (hereinafter referred to as "air navigation facilities not open for public use"))
 - (x) authority under the provisions of Article 39, paragraph (2) of the Act (including as applied mutatis mutandis pursuant to Article 43, paragraph (2) of the Act and Article 55-2, paragraph (2) of the Act) (limited to cases pertaining to public heliport and airfields not open for public use)
 - (xi) permission under the provisions of the main clause of Article 41, paragraph (2) of the Act (limited to cases pertaining to public heliport and airfields not open for public use) and acceptance of notification under the provisions of the paragraph (3) of that Article
 - (xii) inspection under the provisions of Article 42, paragraph (1) of the Act

- (including as applied mutatis mutandis pursuant to Article 43, paragraph (2))
- (xiii) acceptance of notification under the provisions of Article 42, paragraph (3) of the Act (including as applied mutatis mutandis pursuant to Article 43, paragraph (2) of the Act) (limited to cases pertaining to public heliport, airfields not open for public use, air navigation facilities of public heliport and air navigation facilities not open for public use)
- (xiii)-2 acceptance of notification under the provisions of Article 42, paragraph (3) of the Act, as applied mutatis mutandis pursuant to Article 44, paragraph (5) of the Act (limited to cases pertaining to public heliport)
- (xiii)-3 acceptance of notification under the provisions of Article 42, paragraph (3) of the Act, as applied mutatis mutandis pursuant to Article 44, paragraph (5) of the Act, as applied mutatis mutandis pursuant to Article 45, paragraph (2) of the Act
- (xiv) permission under the provisions of paragraph (1) of Article 43 of the Act (limited to cases pertaining to public heliport, air navigation facilities in public heliport and air navigation facilities not open for public use)
- (xiv)-2 permission under the provisions of paragraph (1) of Article 44 of the Act (limited to cases pertaining to public heliport)
- (xv) inspection under the provisions of Article 44, paragraph (4) of the Act (including as applied mutatis mutandis pursuant to Article 45, paragraph (2))
- (xvi) acceptance of notification under the provisions of paragraph (1) of Article 45 of the Act
- (xvii) inspection under the provisions of Article 47, paragraph (2) of the Act
- (xviii) authority under the provisions of Article 48 of the Act (limited to cases pertaining to public heliport, airfields not open for public use, air navigation facilities of public heliport and non-public air navigation facilities)
- (xix) approval under the provisions of Article 49, paragraph (1) of the Act, as applied mutatis mutandis pursuant to Article 55-2, paragraph (2) and Article 56-3, paragraph (2) of the Act
- (xx) authority under the provisions of Article 49, paragraph (2) of the Act, as applied mutatis mutandis pursuant to Article 55-2, paragraph (2) and Article 56-3, paragraph (3) of the Act
- (xxi) authority under the provisions of Article 49, paragraph (3) of the Act, as applied mutatis mutandis pursuant to Article 55-2, paragraph (2) and Article 56-3, paragraph (3) of the Act
- (xxii) permission under the provisions of the proviso to Article 51, paragraph (1) of the Act
- (xxii)-2 acceptance of notification under the provisions of Article 54, paragraph (1) of the Act (limited to cases pertaining to public heliport and air

- navigation facilities for public heliport)
- (xxii)-3 authority under the provisions of Article 54, paragraph (2) of the Act
(limited to cases pertaining to public heliport and air navigation facilities for public heliport)
- (xxii)-4 approval under the provisions of Article 54-2, paragraph (2) of the Act
(limited to cases pertaining to public heliport)
- (xxiii) approval under the provisions of Article 55, paragraph (1) of the Act
(limited to cases pertaining to public heliport, airfields not open for public use, air navigation facilities in public heliport and non-public air navigation facilities not open for public use)
- (xxiv) acceptance of notification under the provisions of Article 55, paragraph (4) of the Act (limited to cases pertaining to public heliport, airfields not open for public use, air navigation facilities in public heliport and non-public air navigation facilities not open for public use)
- (xxiv)-2 permission under the proviso to Article 60 of the Act (in the case of equipment (excluding wireless telephone) specified in Article 145, paragraph (1) and Article 147, limited to cases pertaining to the aircraft other than the aircraft used by specified Japanese air carrier (except for foreign aircraft))
- (xxiv)-3 permission under the proviso to paragraph (1) of Article 61 of the Act
(limited to cases pertaining to the aircraft other than the aircraft used by specified Japanese air carrier (except for foreign aircraft))
- (xxiv)-4 The following authorities pertaining to persons other than persons belong to specified Japanese air carrier
- (a) certification under the provisions of Article 72, paragraph (1) of the Act
- (b) examination under the provisions of Article 72, paragraphs (2), (3) and (8) of the Act
- (xxiv)-5 designation under the provisions of Article 72, paragraph (5) of the Act
(limited to cases pertaining to Japanese air carrier other than the specified Japanese air carrier)
- (xxiv)-6 designation under the provisions of Article 72, paragraph (5) of the Act
(limited to cases pertaining to Japanese air carrier other than the specified Japanese air carrier)
- (xxv) permission under the provisions of the proviso to Article 79 of the Act
- (xxvi) permission under the provisions of the proviso to Article 80 of the Act
- (xxvii) permission under the provisions of the proviso to Article 81 of the Act
- (xxvii)-2 permission under the provisions of the proviso to Article 82-2 of the Act
- (xxvii)-3 permission under the provision of Article 61, paragraph (1) of the Act
(limited to cases pertaining to the aircraft other than the aircraft used by specified Japanese air carrier (except for foreign aircraft))
- (xxviii) permission under the provisions of Article 84, paragraph (1) of the Act

- (xxix) acceptance of notification under the provisions of the proviso to Article 89 of the Act
- (xxx) permission pursuant to the provisions of Article 90 of the Act
- (xxxi) permission under the provisions of the proviso to paragraph (1) of Article 91 of the Act (limited to the case pertaining to aerobatic flight and an aircraft that is intended for a flight test)
- (xxxii) permission under the provisions of the proviso to Article 92, paragraph (1) of the Act
- (xxxii)-2 permission under the provisions of the proviso to Article 95 of the Act
- (xxxiii) services pertaining to instruction under the provisions of Article 96, paragraphs (1) and (2) of the Act and communication under the provisions of paragraph (3) of that Article, pertaining to services of aerodrome control services, terminal and radar control services and ground controlled approach services.
- (xxxiii)-2 authority under the provisions of Article 96, paragraphs (1) and (2) of the Act (except for those listed in Article 242-2, paragraph (1), item (vii))
- (xxxiv) acceptance of notification of flight plan under the provisions of Article 97, paragraph (2) of the Act
- (xxxv) acceptance of notification under the provisions of Article 98 of the Act (limited to cases pertaining to flight plan that has been notified pursuant to the provisions of Article 97, paragraph (2) of the Act)
- (xxxvi) permission under the provisions of the proviso of Article 99-2, paragraph (1) of the Act
- (xxxvi)-2 acceptance of notification under the provisions of Article 99-2, paragraph (2) of the Act
- (xxxvii) the following authorities pertaining to air carrier services conducted by Japanese air carrier other than specified Japanese air carrier
 - (a) permission under the provisions of Article 100, paragraph (1) of the Act
 - (b) inspection under the provisions of Article 102, paragraph (1) of the Act
 - (c) acceptance of notification under the provisions of Article 103-2, paragraph (1) of the Act
 - (d) authority under the provisions of Article 103-2, paragraph (3) of the Act
 - (e) acceptance of notification under the provisions of Article 103-2, paragraph (5) of the Act
 - (f) authority under the provisions of Article 103-2, paragraph (7) of the Act
 - (g) approval under the provisions of Article 104, paragraph (1) of the Act
 - (h) acceptance of notification under the provisions of Article 105, paragraph (1) of the Act
 - (i) authority under the provisions of Article 105, paragraph (2) of the Act
 - (j) approval under the provisions of Article 105, paragraph (3) of the Act
 - (k) approval under the provisions of Article 106, paragraph (1) of the Act

- (l) acceptance of notification under the provisions of Article 107-2, paragraph (1) of the Act
- (m) acceptance of notification under the provisions of Article 107-2, paragraph (2) of the Act
- (n) acceptance of notification under the provisions of Article 107-2, paragraph (3) of the Act
- (o) acceptance of notification under the provisions of Article 107-2, paragraph (4) of the Act
- (p) authority under the provisions of Article 108, paragraph (2) of the Act
- (q) approval under the provisions of Article 109, paragraph (1) of the Act
- (r) acceptance of notification under the provisions of Article 109, paragraph (3) of the Act
- (s) acceptance of notification under the provisions of Article 109, paragraph (4) of the Act
- (t) acceptance of report under the provisions of Article 111-4 of the Act
- (u) authority under the provisions of Article 112 of the Act
- (v) permission under the provisions of Article 113-2, paragraph (1) of the Act
- (w) approval under the provisions of Article 114, paragraph (1) of the Act
- (x) approval under the provisions of Article 115, paragraph (1) of the Act
- (y) approval under the provisions of Article 116, paragraph (2) of the Act
- (z) acceptance of notification under the provisions of Article 118 of the Act
- (aa) authority under the provisions of Article 119 of the Act
- (bb) authority under the provisions of Article 125, paragraph (1) of the Act
- (xxxvii)-2 permission under the provisions of Article 123, paragraph (1) of the Act
- (xxxvii)-3 inspection under the provisions of Article 102, paragraph (1) of the Act, as applied mutatis mutandis pursuant to Article 124 of the Act
- (xxxvii)-4 authority under the provisions of Article 108, paragraph (2) of the Act, as applied mutatis mutandis pursuant to Article 124 of the Act
- (xxxvii)-5 approval under the provisions of Article 109, paragraph (1) of the Act, as applied mutatis mutandis pursuant to Article 124 of the Act
- (xxxvii)-6 acceptance of notification under the provisions of Article 109, paragraph (3) of the Act, as applied mutatis mutandis pursuant to Article 124 of the Act
- (xxxvii)-6-2 acceptance of notification under the provisions of Article 109, paragraph (4) of the Act, as applied mutatis mutandis pursuant to Article 124 of the Act
- (xxxvii)-6-3 acceptance of report under the provisions of Article 109, paragraph (4) of the Act, as applied mutatis mutandis pursuant to Article 124 of the Act
- (xxxvii)-7 authority under the provisions of Article 112 of the Act, as applied mutatis mutandis pursuant to Article 124 of the Act

- (xxxvii)-8 approval under the provisions of Article 114, paragraph (1) of the Act, as applied mutatis mutandis pursuant to Article 124 of the Act
- (xxxvii)-9 approval under the provisions of Article 115, paragraph (1) of the Act, as applied mutatis mutandis pursuant to Article 124 of the Act
- (xxxvii)-10 approval under the provisions of Article 116, paragraph (2) of the Act, as applied mutatis mutandis pursuant to Article 124 of the Act
- (xxxvii)-11 acceptance of notification under the provisions of Article 118 of the Act, as applied mutatis mutandis pursuant to Article 124 of the Act
- (xxxviii) authority under the provisions of Article 119 of the Act as applied mutatis mutandis pursuant to Article 124 of the Act
- (xxxix) authority pursuant to the provisions of Article 125, paragraph (1) of the Act, pertaining to business aviation
- (xl) permission under the provisions of the proviso of Article 127 (limited to cases pertaining to an aircraft that takes off and lands at the same airport, etc.)
- (xli) acceptance of notification under the provisions of Article 133, paragraph (1) or (2) of the Act, pertaining to domestic air transport services
- (xlii) deleted
- (xliii) deleted
- (xliv) approval under the provisions of Article 14, paragraph (1)
- (xlv) authority under the provisions of Article 35, item (iv) (except for the cases pertaining to a place of business that files a request for approval for the first time)
- (xlvi) approval under the provisions of Article 38, paragraph (1)
- (xlvii) deleted
- (xlviii) deleted
- (xlix) acceptance of request under the provisions of Article 42
- (l) notice under the provisions of Article 45, paragraph (2)
- (li) notice under the provisions of Article 47
- (lii) acceptance of request under the provisions of Article 57
- (lii)-2 acceptance of request under the provisions of Article 63
- (lii)-3 acceptance of request under the provisions of Article 64
- (liii) authority under the provisions of Article 127, paragraph (1), items (i) through (iv), item (vi), item (vii) and item (ix) through (xii) and paragraph (2) (including as applied mutatis mutandis pursuant to Article 132-3, paragraph (2))
- (liv) authority under the provisions of Article 128, item (vi)
- (lv) deleted
- (lvi) authority under the provisions of Article 132-2, paragraph (1)
- (lvii) deleted
- (lviii) deleted

- (lix) authority under the provisions of Article 140
- (lx) inspection under the provisions of the main clause of Article 152, paragraph (1)
- (lx)-2 designation under the provisions of the proviso to Article 164-2, paragraph (1) of the Act (including as applied mutatis mutandis pursuant to Article 164-6, paragraph (3)) (limited to cases pertaining to Japanese air carrier other than the specified Japanese air carrier)
- (lxi) acceptance of request under the provisions of Article 168
- (lxii) notice under the provisions of Article 169, paragraph (2)
- (lxiii) notice under the provisions of Article 170-2
- (lxiv) permission under the provisions of Article 195, item (vii)
- (lxiv)-2 the following authorities pertaining to air transport services conducted by Japanese air carrier other than specified Japanese air carrier
 - (a) issuance of operating approval certificate pursuant to the provisions of Article 210-3, paragraph (1)
 - (b) issuance of renewed business license under the provisions of Article 210-3, paragraph (2)
 - (c) re-issuance of business license under the provisions of Article 210-3, paragraph (3)
 - (d) acceptance of return of business license under the provisions of Article 210-3, paragraph (4)
- (lxv) acceptance of notification under the provisions of Article 238 (limited to acceptance of notification pertaining to the paragraph of Table 5 in that Article (limited to cases pertaining to public heliport and airport not open for public use), acceptance of notification pertaining to paragraph of the Table 6 (limited to cases pertaining to air navigation facilities for public heliport and air navigation facilities not open for public use), acceptance of notification pertaining to paragraph of the Table 7, acceptance of notification pertaining to paragraph of the Table 8 (limited to cases pertaining to air navigation facilities for public heliport and air navigation facilities) not open for public use, acceptance of notification pertaining to paragraph of the Table 9, acceptance of notification pertaining to paragraph of the Table 10 (limited to cases pertaining to Japanese air carrier other than a specified Japanese air carrier) and acceptance of notification pertaining to paragraph of the Table 11 (excluding cases pertaining to specified Japanese air carrier))
- (2) The following authorities of the Minister of Land, Infrastructure, Transport and Tourism specified by the Act and this Order may also be delegated to the Director of the Regional Civil Aviation Bureau.
 - (i) authority under the provisions of Article 14-2, paragraphs (1) and (2) of the Act
 - (ii) authority under the provisions of Article 20, paragraph (5) of the Act

- (iii) authority under the provisions of Article 51, paragraph (6) of the Act (including as applied mutatis mutandis pursuant to Article 51-2, paragraph (3))
- (iv) authority under the provisions of Article 52, paragraph (2) of the Act
- (v) authority under the provisions of Article 86-2, paragraph (2) of the Act
- (vi) authority under the provisions of Article 99 (except for those listed in Article 242-2, paragraph (1), item (xi))
- (vii) authority under the provisions of Article 134, paragraph (1) or (2) of the Act

Article 240-2 (1) The Director of the Regional Civil Aviation Bureau is to have the director of airport administrative office exercise the authority pursuant to paragraph (1), items (viii) and (xx) of the preceding Article, authority referred to in item (xxiv)-2 of that paragraph (limited to cases pertaining to wireless telephone and air traffic control transponder), authority referred to in item (xxv) of that paragraph (excluding cases pertaining to an aircraft used for air transport service and rotorcraft that intends to take off from or land on a ship or structures), authority referred to in item (xxvii) of that paragraph (excluding cases pertaining to an aircraft used for air transport service, an aircraft intending to fly under instrument flight rules or at night and rotorcraft intending to transport an object by attaching it to the exterior of the aircraft, suspending it or towing it), authority referred to in item (xxvii)-2 and item (xxix) of that paragraph, authority referred to in item (xxxii) of that paragraph (limited to cases pertaining to an aircraft intending to conduct an aircraft test flight under visual flight rules within the control zone during daytime), authority referred to in item (xxxii) of that paragraph (limited to cases pertaining to an aircraft intending to operate a pilot training flight under visual flight rules within the control zone during daytime), authority referred to in item (xxxvi) of that paragraph (limited to cases pertaining to persons who intend to engage in an action pertaining to a control zone and positive control airspace within the connected approach control area and information zone), and authority referred to in items (xxxvi)-2, (xxxvii)-U, (xxxvii)-11, (xli) and (lxiv)-2-D of that paragraph.

- (2) The Director of the Regional Civil Aviation Bureau is to have the director of airport administrative office and the director of airport branch office (including director of airport / airway surveillance radar administrative office; the same applies hereinafter) exercise the authority referred to in paragraph (1), items (xxxii)-2 through (iiiv) of the preceding Article and the authority referred to in paragraph (2), item (vi) of the preceding Article.
- (3) The authority referred to in paragraph (2), items (v) and (vii) of the preceding Article may also be delegated to the director of airport administrative office.

Article 241 The term the "Minister of Land, Infrastructure, Transport and Tourism" in this Order is deemed to be replaced with the terms in the second column of the Table when it is listed in the first column of the Table.

(i) if the authority pertaining to the particulars are exercised by the Director of the Regional Civil Aviation Bureau pursuant to the provisions of Article 240, paragraph (1)	The Director of the Regional Civil Aviation Bureau
(ii) if the authority pertaining to the particulars can also be exercised by the Director of the Regional Civil Aviation Bureau pursuant to the provisions of Article 240, paragraph (2)	The Minister of Land, Infrastructure, Transport and Tourism or Director of the Regional Civil Aviation Bureau
(iii) if the authority pertaining to the particulars is exercised by the Director of Airport Administrative Office pursuant to the provisions of paragraph (1) or (2) of the preceding Article	The Director of the Airport Administrative Office
(iv) if the authority pertaining to the particulars can also be exercised by the Director of the Airport Administrative Office pursuant to the provisions of paragraph (3) of the preceding Article	The Minister of Land, Infrastructure, Transport and Tourism, Director of the Regional Civil Aviation Bureau, or Director of the Airport Administrative Office
(v) if the authority pertaining to the particulars are exercised by the Director of the Airport Branch Office pursuant to the provisions of paragraph (2) of the preceding Article	The Director of the Airport Branch Office

Article 242 The authority listed in the first column of the following table is delegated to the director of the Regional Civil Aviation Bureau, director of airport administrative office, or director of airport branch office, as listed in the first column of that table.

(i) the authority referred to in Article 240, paragraph (1), item (i), (iii), (iii)-2, (v) through (vi)-3, (ix) through (xix), (xxi) through (xxiv), (xliv) through (xlv), (liii), (liv), (lvi) and (lx), and authority referred to in item (lxv) of that paragraph (excluding the acceptance of notification pertaining to Article 238, paragraphs in Table 10 and 11)	The Director of the Regional Civil Aviation Bureau with jurisdiction over the location of the relevant place of business, airport etc, air navigation facilities or object
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<p>(ii) the authority referred to in paragraph (1), items (ii), (iv) and (vii), authority referred to in item (xxiv)-2 of that paragraph (excluding the cases pertaining to wireless telephone and air traffic control transponder), authority referred to in item (xxiv)-3 of that paragraph, authority referred to in item (xxv) of that paragraph (limited to cases pertaining to an aircraft provided for air transport services and a rotorcraft that intends to take off from or land on a ship or building), authority referred to in item (xxvi) of that paragraph, authority referred to in item (xxvii) of that paragraph (limited to cases pertaining to an aircraft used for the purpose of air transport service, an aircraft intending to fly under the instrument flight rules or at night and a rotorcraft intending to transport an object by attaching it to the exterior of the aircraft, suspending it or towing it), authority referred to in item (xxviii) and (xxx) of that paragraph, authority referred to in item (xxxi) of that paragraph (excluding cases pertaining to aircraft intending to conducting an aircraft test flight under the visual flight rules within the control zone during daytime), authority referred to in item (xxxii) of that paragraph (excluding cases pertaining to an aircraft intending to conducting a pilot training flight under the visual flight rules within the control zone during daytime), authority referred to in item (xxxvi) of that paragraph (excluding cases pertaining to persons who intend to engage in an action pertaining to control zone and positive control airspace within the connected approach control area and information zone), and authority referred to in items (xl) and (lxiv) of that paragraph</p>	<p>The Director of the Regional Civil Aviation Bureau having the jurisdiction over the location where the action that needs approval is to be taken</p>
<p>(iii) authority referred to in Article 240, paragraph (1), item (xxiv)-4 through (xxiv)-6, authority referred to in item (xxxvii) of that paragraph (excluding cases pertaining to Z in that item), authority referred to in item (xxxvii)-2 through (xxxvii)-10 of that paragraph, item (xxxviii), item (xxxix) and item (lx)-2, authority referred to in item (lxiv)-2 of that paragraph (excluding cases pertaining to D in that item), and authority referred to in item (lxv) of that paragraph (limited to cases pertaining to acceptance of notification pertaining to paragraph in Tables 10 and 11 of Article 238)</p>	<p>The Director of the Regional Civil Aviation Bureau having the jurisdiction over the address of the person who intends to manage the services or the person who manages the services</p>

<p>(iv) authority referred to in Article 240, paragraph (1), item (iii)-3, (viii)-2, (viii)-3, (xxvii)-3, (xlix) through (lii)-3, (lix) and (lxi) through (lxiii)</p>	<p>The Director of the Regional Civil Aviation Bureau having the jurisdiction over the address of the person who intends to be designated, approved, certified or who intends to change rating for the certification, the person to whom the type certificate has been granted, or the owner of the aircraft</p>
<p>(v) authority referred to in Article 240, paragraph (1), item (viii)</p>	<p>The Director of the Airport Administrative Office having the jurisdiction over the address of the person intending to obtain the approval</p>
<p>(vi) authority referred to in Article 240, paragraph (1), item (xx)</p>	<p>The Director of the Airport Administrative Office having the jurisdiction over the location of the airport, etc.</p>
<p>(vii) authority referred to in Article 240, paragraph (2), item (iv)</p>	<p>The Director of the Regional Civil Aviation Bureau or the Director of the Airport Administrative Office having the jurisdiction over the location where the aircraft intends to take-off</p>

<p>(viii) authority referred to in Article 240, paragraph (1), item (xxiv)-2 (limited to cases pertaining to wireless telephone and air traffic control transponder), authority referred to in item (xxv) of that paragraph (excluding cases pertaining to an aircraft used for air transport service and a rotorcraft that intends to take off from or land on a ship or building), authority referred to in item (xxvii) of that paragraph (excluding cases pertaining to an aircraft used for the purpose of air transport service, an aircraft intending to fly under the instrument flight rules or at night and a rotorcraft intending to transport an object by attaching it to the exterior of the aircraft, suspending it or towing it), authority referred to in item (xxvii)-2 and item (xxix) of that paragraph, authority referred to in item (xxxii) of that paragraph (limited to cases pertaining to aircraft intending to conduct an aircraft test flight under the visual flight rules within the control zone during daytime), authority referred to in item (xxxii) of that paragraph (limited to cases pertaining to an aircraft intending to conduct a pilot training flight under the visual flight rules within the control zone during daytime), authority referred to in item (xxxvi) of that paragraph (limited to cases pertaining to persons who intend to engage in an action pertaining to the control zone and positive control airspace within the connected approach control area and information zone), and authority referred to in item (xxxvi)-2</p>	<p>The Director of the Airport Administrative Office having the jurisdiction over the location where the action that needs approval, notification or reporting, is to be taken</p>
<p>(ix) authority referred to in Article 240, paragraph (1), item (xxxii)-2</p>	<p>The Director of the Airport Administrative Office having the jurisdiction over the control zone where the action that needs the approval is to be taken (if there is the Director of the Airport Branch Office at the airport to which the control zone is designated, the relevant Director of the Airport Branch Office)</p>

(x) authority referred to in Article 240, paragraph (1), item (xxxiv) and (xxxv)	Either the Director of the Airport Administrative Office or the Director of the Airport Branch Office
(xi) authority referred to in Article 240, paragraph (1), item (xxxvii)Z, item (xxxvii)-11, (xli) and (lxiv)-2D	The Director of the Airport Administrative Office who has the jurisdiction over the address of the person who intends to provide the services or the person who provides the services

- Article 242-2 (1) The following authorities of the Minister of Land, Infrastructure, Transport and Tourism referred to in the provisions of the Act are delegated to the director of the Air Traffic Control Center.
- (i) permission under the provisions of the proviso to Article 94 of the Act
 - (ii) permission under the provisions of the proviso to Article 94-2, paragraph (1) of the Act
 - (iii) authority under the provisions of Article 95-2, paragraphs (1) and (4) of the Act
 - (iv) approval under the provisions of Article 95-3 of the Act
 - (v) services for the instruction under the provisions of Article 96, paragraph (1) of the Act and the communication under the provisions of paragraph (3) of that Act pertaining to air traffic control service for aircraft flying along the air routes
 - (vi) services in connection with instruction under the provisions of Article 96, paragraph (1) of the Act and communication under the provisions of paragraph (3) of that Act pertaining to approach control services
 - (vii) the authority under the provisions of Article 96-2, paragraphs (1) and (2) of the Act (limited to the authority for the provision of air traffic information conducted in connection with airways control service or approach control service)
 - (viii) approval under the provisions of Article 97, paragraph (1) of the Act
 - (ix) acceptance of report under the provisions of Article 97, paragraph (4) of the Act
 - (x) acceptance of notification under the provisions of Article 98 of the Act (limited to notification pertaining to flight plan that has been approved under the provisions of Article 97 paragraph (1) of the Act)
 - (xi) authority under the provisions of Article 99 of the Act (limited to authority

for the provision of air traffic information by wireless telephone conducted in connection with air traffic control service for aircraft flying along the air routes or approach control service)

- (2) The director of the Air Traffic Control Center may delegate the authority specified in item (i) to (vi) and items (viii) through (x) of the preceding paragraph to the director of airport administrative office.
- (3) The director of the Air Traffic Control Center may delegate the authority listed in items (vii) and (xi) of paragraph (1) to the director of Airport Administrative Office or the director of Airport Branch Office.

(Route of Filing Requests)

Article 243 (1) A person who intends to request, report, notify or register (hereinafter referred to as 'request, etc') to the Minister of Land, Infrastructure, Transport and Tourism under the provisions of the Act or this Order may do so via the director of Airport Administrative Office or the director of Airport Branch Office as specified below.

Requests, etc.	The Director of the Airport Administrative Office or the Director of the Airport Branch Office
(i) requests, etc. under this Ministerial Order pertaining to the provisions of Chapter V of the Act and the provisions of that Chapter	The Director of the Airport Administrative Office having the jurisdiction over the location of the airport, etc. or air navigation facilities
(ii) requests, etc. under this Ministerial Order pertaining to Article 76 and Article 76-2 of the Act	The Director of the nearest Airport Administrative Office or the Director of the nearest Airport Branch Office
(iii) requests, etc. under this Ministerial Order pertaining to the provisions of Article 79, 81, 82-2, 89, 90, 91, paragraph (1), 92 paragraph (1) and 99-2 paragraph (1) of the Act	The Director of the Airport Administrative Office having the jurisdiction over the location where the action that needs the request, etc. is to be taken or the Director of the nearest Airport Branch Office
(iv) report under Article 97, paragraph (1)	The Director of Airport Administrative Office or the Director of the Airport Branch Office (if reporting is to be made during flight, the Director of the nearest Airport Administrative Office or the Director of the nearest Airport Branch Office)

(v) requests, etc. under Article 100, paragraph (2) of the Act, Article 102, paragraph (1) of the Act, Article 103-2, paragraph (1) and (5) of the Act, Article 104, paragraph (1) of the Act, Article 105, paragraph (1) and (3) of the Act, Article 106, paragraph (1) of the Act, Article 107-2 of the Act, Article 109, paragraph (1), (3) and (4) of the Act, Article 111-4 of the Act, Article 113-2, paragraph (1) of the Act, Article 114, paragraph (1) of the Act, Article 115, paragraph (1) and (3) of the Act and Article 116, paragraph (2) of the Act, and the provisions of this Ministerial Order (excluding those pertaining to specified Japanese air carrier) and Article 123, paragraph (2) of the Act and Article 124, paragraph of the Act and the provisions of this Ministerial Order and the provisions of paragraph of Table 11 of Article 238.	The Director of the Airport Administrative Office having the jurisdiction over the address of the person who intends to provide the services or the person who provides the services
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(2) A person who intends to file a request, etc. to the director of Airport Administrative Office pursuant to the provisions of the Act may do so via the director of Airport Administrative Office or the director of Airport Branch Office as specified below.

Requests, etc.	The Director of the Airport Administrative Office or the Director of the Airport Branch Office
(i) requests, etc. under Articles 79, 81, 82-2, 89, Article 91, paragraph (1), Article 92, paragraph (1) of the Act	The Director of the Airport Administrative Office having the jurisdiction over the location where the aircraft intends to take-off or the Director of the Airport Branch Office which is located at the place to take-off
(ii) requests, etc. under Article 99-2, paragraph (2) of the Act	The Director of the nearest Airport Administrative Office or the Director of the nearest Airport Branch Office

(3) A person who intends to file a request, etc. to the director of the Air Traffic Control Center pursuant to the provisions of the Act may do so via the director of Airport Administrative Office or the director of Airport Branch Office as specified below.

Requests, etc.	A
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(i) requests, under the proviso to Article 94 and 94-2, paragraph (1) of the Act	The Director of Airport Administrative Office having the jurisdiction over the place where the aircraft intends to take-off or the Director of the Airport Branch Office which is located at the place where the aircraft intends to take-off
(ii) report under Article 97, paragraph (1) of the Act	The Director of the Airport Administrative Office or Director of the Airport Branch Office (if reporting is to be made during flight, the Director of the nearest Airport Administrative Office or Director of the nearest Airport Branch Office)
(iii) report under Article 97, paragraph (4) of the Act	The Director of the nearest Airport Administrative Office or the Director of the nearest Airport Branch Office
(iv) notification under Article 98	The Director of the Airport Administrative Office having the jurisdiction over the place where the aircraft made a landing or the Director of the Airport Branch Office which is located at the place where the aircraft made a landing

- (4) A person intending to file a report to the director of the Air Traffic Control Center pursuant to the provisions of Article 95-3 of the Act during flight is able to report via the head of the agency to whom a reporting is mandated pursuant to the provisions of Article 202-4.

Supplementary Provisions

- (1) This Ministerial Order comes into effect on the day of its promulgation and is applied from the enforcement day of the Act. (July 15, 1952).
- (2) The particulars defined by the Ministry of Transport referred to in paragraph (10) of the Supplementary Provisions of the Act are as follows:
- (i) purpose for the establishment of the airport
 - (ii) types and classifications of the aerodrome
 - (iii) the scope of the aerodrome
 - (iv) summary of the aerodrome facility
 - (v) the landing zone
 - (vi) the approach area
 - (vii) the slope of approach surface
 - (viii) horizontal surface radius
 - (ix) the commence date of the airport service.
- (3) The provisions of item (xii) of paragraph (1) of Article 241 do not apply to the Narita International Airport until otherwise provided by law.

Appended form (Re: Paragraph (6) of the Supplementary Provisions)

Appended Table 1
Deleted

Appended Table 2 (Re: Art. 42 and 43)

Qualification or Certification	Flying Career or Other Careers
Airline transport pilot	<p>A person must have at least 1500 flight hours (Flight hours in which the person operated Time to navigate an aircraft as a pilot; the same applies hereinafter) including the following flights in an airplane (If a person has flight hours in simulator or flight training system under the flight rules specified by the Minister of Land, Infrastructure, Transport and Tourism (hereinafter referred to as "flight hours in simulator"), such hours can be included in the flight hours (up to 100 hours, but 25 hours in flight training system)) (If a person has a pilot license of airplane, a half of the flight hours as other than pilot-in-command of an airplane (up to 50 hours for a private pilot) can be included, and if a person has a pilot license of glider, rotorcraft, or airship, one third of the flight hours or 200 hours (whichever is fewer) as a pilot-in-command can be included).</p> <p>(a) at least 250 flight hours as a pilot-in-command including at least 100 hours of open air flight (If a person has flight hours as an apprentice under the supervision of a pilot-in-command, such hours can be included (maximum of 150 hours))</p> <p>(b) at least 200 hours of open air flight (flight hours of rotorcraft or airship can be included up to 50 hours; provided, however, that flight hours of an airship can be included up to 25 hours only)</p> <p>(c) at least 100 hours of night flight (flight hours of a rotorcraft or an airship can be included up to 40 hours; provided, however, that flight hours of an airship can be included up to 20 hours only)</p> <p>(d) at least 75 hours of instrument flight (flight hours in simulator can be included up to 30 hours)</p> <p>2 When applying for a license of rotorcraft</p>

A person must have at least 1,000 hours of flight hours including the following flights by rotorcraft (If a person has flight hours in simulator, such hours (up to 100 hours, but 25 hours for the flight training system) can be included) (If a person has a pilot license of rotorcraft, a half of the flight hours as other than pilot-in-command by rotorcraft can be included (up to 50 hours for a private pilot), and if a person has a pilot license of airplane, glider, or airship, the flight hours as a pilot of airplane (a half of the flight hours for the flight as other than pilot-in-command (up to 50 hours for a private pilot)) or 200 hours (whichever is shorter), or one third of the flight hours as a pilot-in-command of glider or airship or 200 hours (whichever is shorter) can be included).

(a) at least 250 hours of flight as a pilot-in-command including at least 100 hours of open air flight (If a person has flight hours as an apprentice under the supervision of a pilot-in-command, such hours can be included (up to 150 hours))

(b) at least 200 hours of open air flight (Up to 50 hours of an airplane or an airship flight can be included; provided, however, that flight of an airship can be included up to 25 hours only)

(c) at least 50 hours of night flight (Up to 20 hours of an airplane or an airship flight can be included; provided, however, that flight of an airship can be included up to 10 hours only)

(d) at least 30 hours of instrument flight (If a person has flight hours in simulator, such hours can be included (up to 10 hours)) (Including flight simulator instrument flight training; hereinafter the same applies in this table.) (Up to 10 hours of flight in an airplane can be included)

3 When applying for the license of airship

A person must have at least 1,000 hours of flight hours including the following flights by airship (If a person has flight hours in simulator, such hours (up to 100 hours, but 25 hours for the flight training system) can be included) (If a person has a pilot license of an airship, a half of the flight hours as other than pilot-in-command of an airship can be included (up to 50 hours for a private pilot), and if a person has a pilot license of aircraft, glider, or rotorcraft, the flight hours as a pilot of an airplane (a half of the flight hours for the flight a sub-pilot (up to 50 hours for a private pilot)) or 200 hours (whichever is fewer), or one third of the flight hours as a pilot-in-command in a glider or rotorcraft or 200 hours (whichever is fewer) can be included).

(a) at least 200 hours of flight as a pilot-in-command including over 50 times of takeoffs and landings (If a person has flight hours as an apprentice under the supervision of a pilot-in-command, such hours can be included (up to 150 hours))

(b) at least 100 hours of open air flight (Up to 25 hours of flight in an aircraft or rotorcraft can be included)

	<p>(c) at least 25 hours of night flight (Up to 10 hours of flight in an aircraft or rotorcraft can be included)</p> <p>(d) at least 30 hours of instrument flight (If a person has flight hours in simulator, such hours can be included (up to 20 hours)) (Up to 10 hours of flight in an aircraft or rotorcraft can be included)</p>
<p>Commercial pilot</p>	<p>1 When applying for the license of aircraft</p> <p>A person must have at least 200 hours of flight hours including the following flights by aircraft (If a person has flight hours in simulator, such hours can be included (up to 10 hours)) (If a person has a pilot license of aircraft, a half of the flight hours as other than pilot-in-command in an aircraft or 50 hours (whichever is fewer) can be included, and if a person has a pilot license of glider, rotorcraft, or airship, one third of the flight hours as a pilot-in-command or 50 hours (whichever is fewer) can be included), or a person must complete at least 150 hours of flight training including the following flights at the Independent Administrative Institution Civil Aviation College, Ministry of Land, Infrastructure and Transportation Civil Aviation College, Ministry of Transport Civil Aviation College, or designated aviation business training facility (flight simulator training hours (up to 10 hours) can be included).</p> <p>(a) at least 100 hours of flight as a pilot-in-command (70 hours for a person who had a flight training at independent administrative institutions of Civil Aviation College, Ministry of Land, Infrastructure and Transportation Civil Aviation College, Ministry of Transport Civil Aviation College, or designated aviation business training facility)</p> <p>(b) at least 20 hours of open air flight as a pilot-in-command including at least 540 km of flight distance from the point of departure and at least two times of full stop-and-go in between (Up to six hours of rotorcraft or airship flight can be included. However only up to three hours can be included for airship flight)</p> <p>(c) at least five hours of night flight as a pilot-in-command including at least five times of landing and takeoff (Up to two hours of rotorcraft or airship flight can be included. However only up to one hours can be included for airship flight)</p> <p>(d) at least 10 hours of instrument flight (If a person has flight hours in simulator, such hours can be included (up to five hours))</p> <p>2 When applying for the license of glider</p> <p>(a) powered glider without towing attachment</p> <p>A person must complete the following flight in a glider; provided, however, that if a person has a license of airplane, at least 10 hours of gliding and at least 10 times of landings after gliding in a solo flight must be completed.</p>

(1) at least 15 hours of solo flight in a glider and at least 20 times of landings after gliding, and at least 25 hours of powered flight (including those in an airplane) by solo flight and more than 20 times of landings while an engine is on (including those in an airplane)

(2) at least 240 km of open air flight from the point of departure including at least two times of landings and takeoffs in between (including those in an airplane)

(3) at least five times of implementation of recovery from stall (including those in an airplane)

(b) powered glider with towing attachment

A person must complete the following flight in a glider provided; however, that if a person has a license of airplane, at least 10 hours of gliding and at least 10 times of landings after gliding in a solo flight must be completed.

(1) at least 15 hours of solo flight in a glider and at least 20 times of landings after gliding, and at least 25 hours of powered flight (including those in an airplane) in a solo flight and at least 20 times of landings while an engine is on (including those in an airplane); provided, however, that landing while an engine is on can be excluded for any landings that are not suitable for a landing while the engine is on.

(2) at least 75 times of gliding being towed including at least 15 times of gliding being towed by an aircraft and at least 15 times of gliding being towed by a winch or vehicle.

(3) at least five times of the implementation of stall recovery (including those in an airplane)

(c) Soaring glider

A person must complete at least 15 hours of gliding as a pilot-in-command including the following gliding; provided, however, that if a person has a license of airplane, at least 30 times of gliding being towed as a pilot-in-command including a gliding being towed by an aircraft and by a winch or vehicle must be completed.

(1) at least 75 times of gliding in a glider being towed including at least 15 times of gliding being towed and at least 15 times of gliding being towed by an aircraft, and by a winch or vehicle.

(2) at least five times of the implementation of stall recovery

3 When applying for a license of rotorcraft

A person must have at least 150 flight hours including the following flights in a rotorcraft (If a person has flight hours in simulator, such hours can be included (up to 10 hours)) (If a person has a pilot license of rotorcraft, a half of the flight hours as other than pilot-in-command of rotorcraft or 50 hours (whichever is fewer) can be included, and if a person has a pilot license of airplane, glider, or airship, the flight hours as a pilot-in-command of an airplane (a half of flight hours for the flight other than pilot-in-command (up to 50 hours for a private pilot) or 100 hours (whichever is fewer)), or one third of flight hours as a pilot-in-command of a glider or airship or 50 hours (whichever is fewer) can be included), or a person must complete at least 100 hours of flight training including the following flights at the Independent Administrative Institution Civil Aviation College, Ministry of Land, Infrastructure and Transportation Civil Aviation College, Ministry of Transport Civil Aviation College, or designated aviation business training facility (Up to 50 hours of flight in an airplane and flight hours in simulator (up to 10 hours) can be included).

(a) at least 35 hours of flight as a pilot-in-command

(b) at least 10 hours of open air flight as a pilot-in-command for at least 300 km away from the point of departure including at least two times of full stop-and-go in between (Up to three hours of flight in an airplane or airship can be included; provided, however that only up to two hours of flight in an airship can be included)

(c) at least five hours of night flight as a pilot-in-command including at least five times of takeoffs and landings (Up to two hours of flight in an airplane or airship can be included; provided, however, that only up to one hour of flight in an airship can be included)

(d) at least 10 flight hours in instrumentor (If a person has flight hours in simulator, such hours can be included (up to five hours)) (Up to three hours of flight in an airplane can be included)

(e) autorotation landing

4 When applying for a license of airship

A person must have at least 200 flight hours (If a person has flight hours in simulator, such hours can be included (up to 10 hours)) (If a person has a pilot license of airship, a half of the flight hours or 50 hours (whichever is fewer) can be included for the flight as other than pilot-in-command of an airship, and if a person has a pilot license of airplane, glider, or rotorcraft, the flight hours as a pilot of an airplane or 100 hours (whichever is fewer) can be included (a half of the flight hours for the flight other than pilot-in-command (up to 50 hours for a private pilot)), or one third of flight hours as a captain of a glider or rotorcraft or 50 hours (whichever is fewer) can be included).

	<p>(a) at least 50 hours of flight as a pilot-in-command including at least 20 times of takeoffs and landings</p> <p>(b) at least 10 hours of open air flight at least 180 km away from the point of departure including at least two times of full stop-and-go in between (Up to three hours of flight in an airplane or rotorcraft can be included)</p> <p>(c) at least 10 hours of night flight (Up to four hours of flight in an airplane or rotorcraft can be included)</p> <p>(d) at least 10 hours of instrument flight (If a person has flight hours in simulator, such hours can be included (up to five hours)) (Up to three hours of flight in an airplane or rotorcraft can be included)</p>
Private pilot	<p>1 When applying for a license of airplane</p> <p>A person must have at least 40 flight hours (If a person has flight simulator training hours, such hours can be included (up to five hours)) (If a person has a pilot license of glider, rotorcraft or airship, one third of the flight hours as a pilot-in-command or 10 hours (whichever is fewer) can be included for a person with a private pilot license, and a half of the flight hours as a pilot-in-command or 20 hours (whichever is fewer) can be included for a person with a airline transport pilot or commercial pilot license).</p> <p>(a) at least 10 hours of solo flight</p> <p>(b) at least five hours of solo open air flight at least 270 km away from the point of departure including at least two times of full stop-and-go in between.</p> <p>(c) at least 20 hours of dual flight including takeoffs, landings, and navigation at night.</p> <p>2 When applying for a license of glider</p> <p>(a) powered glider without towing attachment</p> <p>A person must complete the following flight in a glider; provided, however, that if a person has the pilot license of airplane, at least two hours of gliding and at least five times of landings after gliding must be completed.</p> <p>(1) at least three hours of solo flight in a glider (Up to one hour of dual flight with an instructor can be included) and at least 10 times of landings after gliding and at least 15 hours of powered flight in a solo flight (including those in an airplane) (Up to five hours of dual flight with an instructor can be included) and at least 10 times of landings while an engine is on (including those in an airplane)</p> <p>(2) Open air flight at least 120 km away from the point of departure including at least one full stop-and-go in between (including those in an airplane)</p> <p>(3) Implementation of stall recovery (including those in an airplane)</p> <p>(b) powered glider with towing attachment</p>

A person must complete the following flight in a glider; provided, however, that if a person has the pilot license of airplane, at least two hours of gliding and at least five times of landings in an glider must be completed.

(1) at least three hours of solo flight in a glider (Up to one hour of dual flight with an instructor can be included) and at least 10 times of landings in an glider and at least 15 hours of powered flight in a solo flight (including those in an airplane) (Up to five hours of dual flight with an instructor can be included) and at least 10 times of landings while an engine is on (including those in an airplane)

(2) at least 30 times of flights in a glider being towed

(3) Implementation of stall recovery (including those in an airplane)

(c) Soaring glider

A person must complete at least three hours of solo flight in a glider including the following flights; provided, however, that if a person has the pilot license of airplane, at least 15 times of solo flight being towed must be completed.

(1) at least 30 times of flights being towed

(2) Implementation of stall recovery

3 When applying for a pilot license of rotorcraft

A person must have at least 40 flight hours including the following flights in a rotorcraft (If a person has flight hours in simulator, such hours can be included (up to five hours))

(Flying careers for the application for the private pilot license of airplane can be included in the flight hours (up to 15 hours))

(a) at least 10 hours of solo flight

(b) at least five hours of solo open air flight at least 180 km away from the point of departure including at least two times of full stop-and-go in between.

(c) at least 20 hours of dual flight including takeoffs landings, and navigation at night

(d) autorotation landing

4 When applying for the pilot license of airship

A person must have at least 50 flight hours including the following flights in an airship (If a person has flight hours in simulator, such hours can be included (up to five hours))

(Flying careers for the application for the private pilot license of airplane can be included in the flight hours (up to 10 hours))

(a) At least five hours of solo flight including at least 10 times of takeoffs

(b) at least five hours of open air flight at least 90 km away from the point of departure including at least one full stop-and-go in between.

First class flight navigator	<p>1 A person must complete at least 200 hours of flight under the flight rules including at least 30 hours of open air flight at night (If a person has flight hours in an airplane as a pilot for air transport services, such hours can be included (up to 100 hours)); provided, however, that at least 100 hours of operation under the flight rules must be completed for a person who has a qualification of first class ship officer (sailing) or second class ship officer (sailing) specified in Article 5, paragraph (1), item (v) of the Maritime Officer and Small Craft Operator Act (Act No. 149 of 1951).</p> <p>2 A person must have determined all the position of aircraft during a night flight with night astronomical observation at least 25 times, and determined all the position of aircraft during a flight with radio position line, observation position line or other navigation data at least 25 times, and conduct field triaging utilizing them for navigation.</p>
Second class flight navigator	<p>A person must complete at least 50 hours of field training of navigation in an aircraft including geonavigation, dead reckoning navigation, and radio navigation; provided, however, that a person who has a license of commercial pilot or private pilot, or a instrument rating, or license of airline transport pilot or high class commercial pilot complete at least five hours of field training of dead navigation in an aircraft.</p>
Flight engineer	<p>A person must compete at least 100 hours of practical training for flight engineer in an aircraft requiring a flight engineer (If a person has flight hours in simulator under the flight rules specified by the Minister of Land, Infrastructure and Transportation, such hours can be included (up to five hours)); provided, however, that at least 50 hours of practical training for flight engineer in an aircraft requiring a flight engineer must be completed for a person who has experience for at least one year in aircraft maintenance (including experience for six months or more for equivalent or higher class of aircraft for which a license is applied).</p>
First class aircraft maintenance technician	<p>1 A person applying for the license of airplane must have any of the following experiences.</p> <p>(a) at least four years of experience in aircraft maintenance including at least six months of maintenance of an airplane classified as airplane transport C or T specified in Annex 1.</p> <p>(b) at least two years of experience in airplane maintenance including at least six months of maintenance of an aircraft classified as airplane transport C or T for airworthiness specified in Annex 1 if a person has completed the training course of maintenance specified by the Minister of Land, Infrastructure, Transport and Tourism.</p> <p>2 A person applying for the license of rotorcraft must have any of the following experiences.</p>

	<p>(a) at least four years of experience in aircraft maintenance including at least six months of experience in maintenance of rotorcraft classified as rotorcraft transport TA or TB class for airworthiness specified in Annex 1.</p> <p>(b) at least two years of experience in aircraft maintenance including at least six months of experience in maintenance of rotorcraft classified as rotorcraft transport TA or TB class for airworthiness specified in Annex 1 if a person has completed the training course of maintenance specified by the Minister of Land, Infrastructure, Transport and Tourism.</p>
Second class aircraft maintenance technician	<p>A person must have any of the following experiences.</p> <p>(a) at least three years of experience in aircraft maintenance including at least six months of experience in maintenance of the same aircraft for which the license is applied.</p> <p>(b) at least one year of experience in aircraft maintenance including at least six months of experience in maintenance of the same type of aircraft for which the license is applied if a person has completed the training course for maintenance specified by the Minister of Land, Infrastructure, Transport and Tourism.</p>
First class aircraft line maintenance technician	<p>(1) A person applying for the license of airplane must have any of the following experiences.</p> <p>(a) at least two years of experience in aircraft maintenance including at least six months of experience in maintenance of airplane classified as airplane transport C or T specified in Annex 1.</p> <p>(b) at least one year of experience in aircraft maintenance including at least six months of experience in maintenance of aircraft classified as airplane transport C or T for airworthiness specified in Annex 1 if a person has completed the training course for maintenance specified by the Minister of Land, Infrastructure, Transport and Tourism.</p> <p>(2) A person applying for the license of rotorcraft must have any of the following experiences.</p> <p>(a) at least two years of experience in aircraft maintenance including at least six months of experience in maintenance of rotorcraft classified as rotorcraft transport TA or TB class for airworthiness specified in Annex 1.</p> <p>(b) at least one year of experience in aircraft maintenance including at least six months of experience in maintenance of rotorcraft classified as rotorcraft transport TA or TB class for airworthiness specified in Annex 1 if a person has completed the training course for maintenance specified by the Minister of Land, Infrastructure, Transport and Tourism.</p>

Second class aircraft line maintenance technician	<p>A person must have any of the following experiences.</p> <p>(a) at least two years of experience in aircraft maintenance including at least six months of experience in maintenance of the same type of aircraft for which the license is applied.</p> <p>(b) at least one year of experience in aircraft maintenance including at least six months of experience in maintenance of the same type of aircraft for which the license is applied if a person has completed the training course for maintenance specified by the Minister of Land, Infrastructure, Transport and Tourism.</p>
Aviation overhaul technician	<p>A person must have any of the following experiences.</p> <p>(a) at least two years of experience in maintenance and alteration in relation to the type of service for which the license is applied.</p> <p>(b) at least one year of experience in maintenance and alteration in relation to the type of service for which the license is applied.</p>
Instrument flight certification	<p>(1) A person must complete at least 50 hours of open air flight as a pilot-in-command including at least 10 hours of flight in the same type of aircraft for which the license is applied.</p> <p>(2) A person must complete at least 40 hours of training of instrument flight, etc. (Flight hours in simulator can be included (up to 30 hours); provided, however, that flight hours in flight training system under the flight rules specified by the Minister of Land, Infrastructure, Transport and Tourism can be included up to 20 hours)</p>
Flight instructor certification	A person must have the pilot license or career as a commercial pilot.

Appended Table 3 (Re: Art. 46 and 46-2)

Subjects of the Written Examination

Qualification or Certification	Type or Class of an Aircraft or Service for Which the License Rating is Applied	Subject
Airline transport pilot	Airplane, rotorcraft or airship	<p>1 Aeronautical engineering</p> <p>(a) general knowledge of flight theory</p> <p>(b) general knowledge of the structure and function of airplane, rotorcraft, or airship</p>

		<p>(c) general knowledge of engine of airplane, rotorcraft, or airship, or of propellers or blades</p> <p>(d) general knowledge of measuring equipment of airplane, rotorcraft, or airship, or other accessories</p> <p>(e) basic rules of loading and weight distribution and the impact on the aircraft during flight</p> <p>2 Aviation weather</p> <p>(a) knowledge required for explanation and analysis of a weather map (including upper layer weather map for an airplane)</p> <p>(b) overview of weather observation law and aviation weather report (including airborne report)</p> <p>(c) general knowledge of weather front and cloud and knowledge of turbulent, icing, static, fog, and other visibility hindrance phenomenon that may affect aircraft flight</p> <p>(d) general knowledge of upper level weather (limited for rotorcraft or airship)</p> <p>3 Aerial navigation</p> <p>(a) geonavigation, dead reckoning navigation, radio navigation, and self-contained navigation</p> <p>(b) general knowledge of astronomy</p> <p>(c) knowledge required for flight planning (limited to the operations under the visual flight rules for rotorcraft or airship)</p> <p>(d) general knowledge of operation method</p> <p>(e) general knowledge of human ability and its limit</p> <p>4 Aviation communication (summary)</p> <p>General knowledge of aviation communication (limited to operations under the visual flight rules for rotorcraft or airship)</p> <p>5 Aviation Act</p> <p>(a) Domestic Aviation Act</p> <p>(b) International Aviation Act (summary)</p>
Commercial pilot	Airplane, rotorcraft or airship	<p>1 Aeronautical engineering</p> <p>(a) general knowledge of flight theory</p> <p>(b) general knowledge of the structure and function of airplane, rotorcraft, or airship</p> <p>(c) general knowledge of engine of airplane, rotorcraft, or airship, or of propellers or blades</p>

	<p>(d) general knowledge of measuring equipment of airplane, rotorcraft, or airship, or other accessories</p> <p>(e) basic rules of loading and weight distribution and the impact on an aircraft during flight</p> <p>2 Aviation weather</p> <p>(a) knowledge required for interpretation of a weather map</p> <p>(b) knowledge of classification of cloud and cloud shape</p> <p>(c) general knowledge of upper level weather</p> <p>3 Aerial navigation</p> <p>(a) geonavigation and dead reckoning navigation</p> <p>(b) general knowledge of radio navigation</p> <p>(c) knowledge required for flight planning for operation under the visual flight rules</p> <p>(d) general knowledge of operation method</p> <p>(e) general knowledge of human ability and its limit</p> <p>4 Aviation communication (summary) general knowledge of aviation communication regarding the operation under the visual flight rules</p> <p>5 Aviation Act</p> <p>(a) Domestic Aviation Act</p> <p>(b) International Aviation Act (summary)</p>
Glider	<p>1 Aeronautical engineering</p> <p>(a) general knowledge of flight theory</p> <p>(b) knowledge of handling of glider and operation limitation</p> <p>(c) general knowledge of glider engine and propeller (limited to powered glider)</p> <p>(d) knowledge of glider measuring equipment</p> <p>(e) basic rules of loading and weight distribution and the impact on an aircraft during flight</p> <p>2 Weather regarding glider flight</p> <p>3 Aerial navigation</p> <p>(a) utilization of flight chart</p> <p>(b) geonavigation and dead reckoning navigation (limited to powered glider)</p> <p>(c) knowledge required for flight planning by visual flight rules operation</p> <p>(d) general knowledge of operation method</p> <p>(e) general knowledge of human ability and its limitation</p>

		<p>4 Aviation communication (summary) (limited to powered glider) General knowledge of aviation communication under the visual flight rules operation</p> <p>5 Domestic aviation act</p>
Private pilot	Airplane, rotorcraft or airship	<p>1 Aeronautical engineering</p> <p>(a) general knowledge of flight theory (b) general knowledge of the structure and function of airplane, rotorcraft, or airship (c) basic rules of loading and weight distribution and the impact on an aircraft during flight</p> <p>2 Aviation weather (brief summary)</p> <p>3 Aerial navigation</p> <p>(a) geonavigation and dead reckoning navigation (summary) (b) knowledge required for flight planning by visual flight rules operation (c) summary of operation method (d) general knowledge of human ability and limits</p> <p>4 Aviation communication (summary) Knowledge of aviation communication for operation under the visual flight rules</p> <p>5 Aviation Act</p> <p>(a) Domestic Aviation Act (b) International Aviation Act (summary)</p>
	Glider	<p>1 Aeronautical engineering</p> <p>(a) general knowledge of flight theory (b) knowledge of handling of glider and operation limitation (c) basic rule of loading and weight distribution and the impact on an aircraft during flight</p> <p>2 Weather regarding glider flight (summary)</p> <p>3 Aerial navigation</p> <p>(a) geonavigation and dead reckoning navigation (summary) (limited to powered glider) (b) knowledge required for flight planning for flights under the visual flight rules (c) general knowledge of operation method (d) general knowledge of human ability and limits</p> <p>4 Aviation communication (summary) (limited to powered glider)</p>

		<p>General knowledge of aviation communication for flights under the visual flight rules</p> <p>5 Domestic Aviation Act (summary)</p>
First class flight navigator		<p>1 Aerial navigation</p> <p>(a) geonavigation, dead reckoning navigation, radio navigation and self-contained navigation</p> <p>(b) general knowledge of astronomy and celestial navigation</p> <p>(c) principles and handling method of navigation measuring equipment</p> <p>(d) knowledge required for flight planning</p> <p>(e) summary of operation method</p> <p>(f) general knowledge of human ability and limits</p> <p>2 Aviation weather</p> <p>(a) knowledge required for interpretation and analysis of high level weather map</p> <p>(b) knowledge of observation and estimation of high level winds</p> <p>(c) knowledge of weather observation methods and aviation weather report (including airborne reports)</p> <p>(d) general knowledge of front and cloud and knowledge of turbulent, icing, static, fog, and other visibility hindrance phenomenon that may affect aircraft operation</p> <p>3 Aviation communication (summary)</p> <p>4 Aerospace engineering</p> <p>(a) general knowledge of flight theory</p> <p>(b) summary of airplane structure</p> <p>(c) impact of loading and weight distribution on an aircraft during flight</p> <p>5 Aviation Act</p> <p>(a) Domestic Aviation Act</p> <p>(b) International Aviation Act (summary)</p>
Second class flight navigator		<p>1 Aerial navigation</p> <p>(a) geonavigation, dead reckoning navigation, radio navigation, and self-contained navigation</p> <p>(b) brief knowledge of celestial navigation</p> <p>(c) principles and handling method of navigation measuring equipment</p> <p>(d) knowledge required for flight planning</p>

		<ul style="list-style-type: none"> (e) summary of operation method (f) general knowledge of human ability and limits 2 Aviation weather <ul style="list-style-type: none"> (a) Knowledge required for interpretation of a weather map (b) knowledge of classification of cloud and cloud shapes (c) general knowledge of aerology 3 Aviation communication (summary) 4 Aerospace engineering <ul style="list-style-type: none"> (a) general knowledge of flight theory (b) summary of airplane structure 5 Aviation Act <ul style="list-style-type: none"> (a) Domestic Aviation Act (b) International Aviation Act (summary)
Flight engineer	Airplane or rotorcraft	<ul style="list-style-type: none"> 1 Flight and aerodynamics theory and knowledge of calculation of aircraft barycenter 2 Knowledge of strength, structure, performance, and maintenance of airframe (including blades for rotorcraft) 3 Knowledge of structure, performance, and maintenance of airplane engine, engine accessories, propeller, and propeller regulator and knowledge of aviation fuel and lubricant 4 Knowledge of structure, performance, and maintenance of airplane accessories 5 Knowledge of control of engine, propeller, and accessories during flight 6 Navigation <ul style="list-style-type: none"> (a) Navigation (brief summary) (b) general knowledge of human ability and limits 7 Aviation weather (brief summary) 8 Aviation communication (summary) 9 Aviation Act <ul style="list-style-type: none"> (a) Domestic Aviation Act (b) International Aviation Act (summary)
Flight communication operator		<ul style="list-style-type: none"> 1 Aviation communication (summary) 2 Structure of airplane (summary) 3 Navigation <ul style="list-style-type: none"> (a) Navigation (brief summary) (b) general knowledge of human ability and limits 4 Aviation weather (brief summary)

		<p>5 Aviation Act (a) Domestic Aviation Act (b) International Aviation Act (summary)</p>
<p>First class aircraft maintenance technician or second class aircraft maintenance technician</p>	<p>Airplane, rotorcraft, glider or airship</p>	<p>1 Airframe</p> <p>(a) knowledge of hydrodynamics theory (b) knowledge of aerodynamics theory (c) knowledge of material mechanics theory (d) knowledge of strength, structure, function, and maintenance of airframe (e) knowledge of airframe performance (f) knowledge of materials of airframe (g) knowledge of strength, structure, function, and maintenance of airframe accessories</p> <p>2 Engine (except glider other than powered glider without towing attachment and glider with towing attachment) (a) knowledge of thermodynamics theory (b) knowledge of structure, function, performance, and maintenance of piston engine, piston engine accessories, and piston engine's indicating system (limited to an aircraft with piston engine) (c) knowledge of structure, function, performance, and maintenance of turbine engine, turbine engine accessories, and turbine engine's indicating system (limited to an aircraft with turbine engine) (d) knowledge of structure, function, performance, and maintenance of propeller, propeller accessories, and propeller's indicating system (e) knowledge of aircraft fuel and lubricant</p> <p>3 Electronic accessory etc. (a) knowledge of electrotechnics and electronics theories (b) knowledge of structure, function, and maintenance of machine instrument, electric instrument, gyroscopic instrument, and electronic instrument</p>

		<p>(c) knowledge of structure, function, and maintenance of electronic accessory, electric accessory, and radio communication device</p> <p>4 Aviation Act, etc.</p> <p>(a) Domestic Aviation Act</p> <p>(b) general knowledge of human ability and limits</p>
<p>First Class Aircraft line maintenance technician or second class aircraft line maintenance technician</p>	<p>Airplane, rotorcraft, glider or airship</p>	<p>1 Airframe and electronic accessory, etc.</p> <p>(a) general knowledge of hydrodynamics theory</p> <p>(b) general knowledge of aerodynamics theory</p> <p>(c) general knowledge of material mechanics theory</p> <p>(d) general knowledge of strength, structure, function, and maintenance of airframe</p> <p>(e) general knowledge of airframe performance</p> <p>(f) general knowledge of materials of airframe</p> <p>(g) general knowledge of strength, structure, function, and maintenance of airframe accessories</p> <p>(h) general knowledge of electrotechnics and electronics theories</p> <p>(i) general knowledge of structure, function, and maintenance of machine instrument, electric instrument, gyroscopic instrument, and electronic instrument</p> <p>(j) general knowledge of structure, function, and maintenance of electronic accessory, electric accessory, and radio communication device</p> <p>2 Engine (except glider other than powered glider without tow attachment and glider with tow attachment)</p> <p>(a) general knowledge of thermodynamics theory</p>

		<p>(b) general knowledge of structure, function, performance, and maintenance of piston engine, piston engine accessories, and piston engine's indicating system (limited to an aircraft with piston engine)</p> <p>(c) general knowledge of structure, function, performance, and maintenance of turbine engine, turbine engine accessories, and turbine engine's indicating system (limited to an aircraft with turbine engine)</p> <p>(d) general knowledge of structure, function, performance, and maintenance of propeller, propeller accessories, and propeller's indicating system</p> <p>(e) general knowledge of aircraft fuel and lubricant</p> <p>3 Aviation Act, etc.</p> <p>(a) Domestic Aviation Act</p> <p>(b) general knowledge of human ability and limits</p>
Aviation overhaul technician	Air frame structure-related knowledge	<p>1 Aeronautical engineering</p> <p>(a) general knowledge of hydrodynamics theory</p> <p>(b) general knowledge of aerodynamics theory</p> <p>(c) general knowledge of structure, function, and handling of airframe</p> <p>(d) general knowledge of structure, function, and handling of airframe accessory</p> <p>(e) general knowledge of structure, function, and handling of engine, engine accessories, and engine's indicating system</p> <p>(f) general knowledge of structure, function, and handling of propeller, propeller accessory, and propeller's indicating system</p> <p>(g) general knowledge of structure, function, and handling of machine instrument, electric instrument, gyroscopic instrument, and electronic instrument</p> <p>(h) general knowledge of structure, function, and handling of electronic accessory, electric accessory, and radio communication device</p> <p>2 Airframe structure</p>

	<p>(a) knowledge of material mechanics theory</p> <p>(b) knowledge of strength, structure, maintenance, remodeling, and test of airframe</p> <p>(c) knowledge of airframe performance</p> <p>(d) knowledge of materials of airframe</p> <p>3 Aviation act, etc.</p> <p>(a) Domestic aviation act</p> <p>(b) general knowledge of human ability and limits</p>
<p>Air frame accessory-related knowledge</p>	<p>1 Aeronautical engineering</p> <p>(a) general knowledge of hydrodynamics theory</p> <p>(b) general knowledge of aerodynamics theory</p> <p>(c) general knowledge of structure, function, and handling of airframe</p> <p>(d) general knowledge of structure, function, and handling of airframe accessory</p> <p>(e) general knowledge of structure, function, and handling of engine, engine accessories, and engine's indicating system</p> <p>(f) general knowledge of structure, function, and handling of propeller, propeller accessory, and propeller's indicating system</p> <p>(g) general knowledge of structure, function, and handling of machine instrument, electric instrument, gyroscopic instrument, and electronic instrument</p> <p>(h) general knowledge of structure, function, and handling of electronic accessory, electric accessory, and radio communication device</p> <p>2 Airframe accessories</p> <p>(a) knowledge of structure, function, performance, maintenance, remodeling, and test of airframe accessory</p> <p>(b) knowledge of material of airframe accessory</p> <p>3 Aviation Act, etc.</p> <p>(a) Domestic Aviation Act</p> <p>(b) general knowledge of human ability and limits</p>

Piston engine-related knowledge	<p>1 Aeronautical engineering</p> <p>(a) general knowledge of hydrodynamics theory</p> <p>(b) general knowledge of aerodynamics theory</p> <p>(c) general knowledge of structure, function, and handling of airframe</p> <p>(d) general knowledge of structure, function, and handling of airframe accessory</p> <p>(e) general knowledge of structure, function, and handling of engine, engine accessories, and engine's indicating system</p> <p>(f) general knowledge of structure, function, and handling of propeller, propeller accessory, and propeller's indicating system</p> <p>(g) general knowledge of structure, function, and handling of machine instrument, electric instrument, gyroscopic instrument, and electronic instrument</p> <p>(h) general knowledge of structure, function, and handling of electronic accessory, electric accessory, and radio communication device</p> <p>2 Piston engine</p> <p>(a) knowledge of thermodynamics theory</p> <p>(b) knowledge of structure, function, performance, maintenance, remodeling, and testing of piston engine</p> <p>(c) knowledge of structure, function, performance, maintenance, remodeling, and testing of piston engine accessory</p> <p>(d) knowledge of aircraft fuel and lubricant</p> <p>3 Aviation Act, etc.</p> <p>(a) Domestic Aviation Act</p> <p>(b) general knowledge of human ability and limits</p>
Turbine engine-related knowledge	<p>1 Aeronautical engineering</p> <p>(a) general knowledge of hydrodynamics theory</p> <p>(b) general knowledge of aerodynamics theory</p> <p>(c) general knowledge of structure, function, and handling of airframe</p>

	<p>(d) general knowledge of structure, function, and handling of airframe accessory</p> <p>(e) general knowledge of structure, function, and handling of engine, engine accessories, and engine's indicating system</p> <p>(f) general knowledge of structure, function, and handling of propeller, propeller accessory, and propeller's indicating system</p> <p>(g) general knowledge of structure, function, and handling of machine instrument, electric instrument, gyroscopic instrument, and electronic instrument</p> <p>(h) general knowledge of structure, function, and handling of electronic accessory, electric accessory, and radio communication device</p> <p>2 Turbine engine</p> <p>(a) knowledge of thermodynamics theory</p> <p>(b) knowledge of structure, function, performance, maintenance, remodeling, and testing of turbine engine</p> <p>(c) knowledge of structure, function, performance, maintenance, remodeling, and testing of turbine engine accessory</p> <p>(d) knowledge of aircraft fuel and lubricant</p> <p>3 Aviation Act, etc.</p> <p>(a) Domestic Aviation Act</p> <p>(b) general knowledge of human ability and limits</p>
Propeller-related knowledge	<p>1 Aeronautical engineering</p> <p>(a) general knowledge of hydrodynamics theory</p> <p>(b) general knowledge of aerodynamics theory</p> <p>(c) general knowledge of structure, function, and handling of airframe</p> <p>(d) general knowledge of structure, function, and handling of airframe accessory</p> <p>(e) general knowledge of structure, function, and handling of engine, engine accessories, and engine's indicating system</p>

	<p>(f) general knowledge of structure, function, and handling of propeller, propeller accessory, and propeller's indicating system</p> <p>(g) general knowledge of structure, function, and handling of machine instrument, electric instrument, gyroscopic instrument, and electronic instrument</p> <p>(h) general knowledge of structure, function, and handling of electronic accessory, electric accessory, and radio communication device</p> <p>2 Propeller</p> <p>(a) knowledge of structure, function, performance, maintenance, remodeling, and testing of propeller</p> <p>(b) knowledge of structure, function, performance, maintenance, remodeling, and testing of propeller accessory</p> <p>3 Aviation Act, etc.</p> <p>(a) Domestic Aviation Act</p> <p>(b) general knowledge of human ability and limits</p>
Instrument-related knowledge	<p>1 Aeronautical engineering</p> <p>(a) general knowledge of hydrodynamics theory</p> <p>(b) general knowledge of aerodynamics theory</p> <p>(c) general knowledge of structure, function, and handling of airframe</p> <p>(d) general knowledge of structure, function, and handling of airframe accessory</p> <p>(e) general knowledge of structure, function, and handling of engine, engine accessories, and engine's indicating system</p> <p>(f) general knowledge of structure, function, and handling of propeller, propeller accessory, and propeller's indicating system</p> <p>(g) general knowledge of structure, function, and handling of machine instrument, electric instrument, gyroscopic instrument, and electronic instrument</p>

	<p>(h) general knowledge of structure, function, and handling of electronic accessory, electric accessory, and radio communication device</p> <p>2 Instrument</p> <p>(a) knowledge of electrotechnics and electronics theories</p> <p>(b) knowledge of structure, function, performance, maintenance, remodeling, and testing of machine instrument</p> <p>(c) knowledge of structure, function, performance, maintenance, remodeling, and testing of electric instrument</p> <p>(d) knowledge of structure, function, performance, maintenance, remodeling, and testing of gyroscopic instrument</p> <p>(e) knowledge of structure, function, performance, maintenance, remodeling, and testing of electronic instrument</p> <p>3 Aviation Act, etc.</p> <p>(a) Domestic Aviation Act</p> <p>(b) general knowledge of human ability and limits</p>
Electronic accessory-related knowledge	<p>1 Aeronautical engineering</p> <p>(a) general knowledge of hydrodynamics theory</p> <p>(b) general knowledge of aerodynamics theory</p> <p>(c) general knowledge of structure, function, and handling of airframe</p> <p>(d) general knowledge of structure, function, and handling of airframe accessory</p> <p>(e) general knowledge of structure, function, and handling of engine, engine accessories, and engine's indicating system</p> <p>(f) general knowledge of structure, function, and handling of propeller, propeller accessory, and propeller's indicating system</p> <p>(g) general knowledge of structure, function, and handling of machine instrument, electric instrument, gyroscopic instrument, and electronic instrument</p>

	<p>(h) general knowledge of structure, function, and handling of electronic accessory, electric accessory, and radio communication device</p> <p>2 Electronic accessories</p> <p>(a) knowledge of electrotechnics and electronics theories</p> <p>(b) knowledge of structure, function, performance, maintenance, remodeling, and testing of electronic accessory</p> <p>3 Aviation Act, etc.</p> <p>(a) Domestic Aviation Act</p> <p>(b) general knowledge of human ability and limits</p>
Electrical accessory-related knowledge	<p>1 Aeronautical engineering</p> <p>(a) general knowledge of hydrodynamics theory</p> <p>(b) general knowledge of aerodynamics theory</p> <p>(c) general knowledge of structure, function, and handling of airframe</p> <p>(d) general knowledge of structure, function, and handling of airframe accessory</p> <p>(e) general knowledge of structure, function, and handling of engine, engine accessories, and engine's indicating system</p> <p>(f) general knowledge of structure, function, and handling of propeller, propeller accessory, and propeller's indicating system</p> <p>(g) general knowledge of structure, function, and handling of machine instrument, electric instrument, gyroscopic instrument, and electronic instrument</p> <p>(h) general knowledge of structure, function, and handling of electronic accessory, electric accessory, and radio communication device</p> <p>2 Electric accessory</p> <p>(a) knowledge of electrotechnics and electronics theories</p> <p>(b) knowledge of structure, function, performance, maintenance, remodeling, and test of electric accessory</p> <p>3 Aviation Act, etc.</p>

		(a) Domestic Aviation Act (b) general knowledge of human ability and limits
Wireless radio-related knowledge		1 Aeronautical engineering (a) general knowledge of hydrodynamics theory (b) general knowledge of aerodynamics theory (c) general knowledge of structure, function, and handling of airframe (d) general knowledge of structure, function, and handling of airframe accessory (e) general knowledge of structure, function, and handling of engine, engine accessories, and engine's indicating system (f) general knowledge of structure, function, and handling of propeller, propeller accessory, and propeller's indicating system (g) general knowledge of structure, function, and handling of machine instrument, electric instrument, gyroscopic instrument, and electronic instrument (h) general knowledge of structure, function, and handling of electronic accessory, electric accessory, and radio communication device 2 Radio communication devices (a) knowledge of electrotechnics and electronics theories (b) knowledge of structure, function, performance, maintenance, remodeling, and test of radio communication device 3 Aviation Act, etc. (a) Domestic Aviation Act (b) general knowledge of human ability and limits
Aviation English proficiency certification		Listening of aviation English
Instrument flight certification		1 Dead reckoning navigation and radio navigation 2 aircraft measurement instrument (summary)

		<ul style="list-style-type: none"> 3 Aviation weather (summary) 4 Aviation weather report 5 Flight planning of instrument flight, etc. 6 Aviation Act on instrument flight, etc. 7 General knowledge of aviation communication 8 General knowledge of human ability and limits to instrument flight, etc.
Flight instructor certification		<ul style="list-style-type: none"> 1 Guidelines for flight instructions 2 Hazard and accident prevention methods 3 First aid methods

Subjects of Practical Tests

Qualification or Certification	Type or Class of an Aircraft or Service for which the Rating of Certificate of Competency is Applied	Subjects
Airline transport pilot	Airplane	<ul style="list-style-type: none"> 1 Knowledge required for operation 2 Pre-flight work 3 Operation at an airport, etc. and traffic pattern 4 Types of takeoffs and landings, and go-around and rejected takeoffs 5 Flight with basic instruments 6 Operations in the air and flight based on the characteristics of aircraft type 7 Flight under the instrument flight rules including the following flights <ul style="list-style-type: none"> (a) transition to instrument flying at takeoff (b) standard instrument departures and instrument arrivals (c) holding procedures (d) instrument approach procedures (e) missed approach procedure (f) instrument approach and landing

	<p>8 Open air flight under the instrument flight rules</p> <p>9 Normal operation of flight in general</p> <p>10 Operation at abnormal and emergency situation</p> <p>11 Contact with the air traffic control authority, etc.</p> <p>12 Cooperation among air-crew members</p> <p>13 Comprehensive ability</p>
Rotorcraft	<p>1 Knowledge required for operation</p> <p>2 Pre-flight work</p> <p>3 Operation near the ground</p> <p>4 Operation at an airport, etc. and traffic pattern</p> <p>5 Types of takeoffs and landings, and go-around and rejected takeoffs</p> <p>6 Flight with basic instruments</p> <p>7 Operation in the air including the flight utilizing external visual target and flight in accordance with the characteristics of aircraft type</p> <p>8 Open air flight</p> <p>9 Normal operation of flight in general</p> <p>10 Operation at abnormal and emergency situation</p> <p>11 Contact with the air traffic control authority, etc.</p> <p>12 Cooperation among air-crew members</p> <p>13 Comprehensive ability</p>
Airship	<p>1 Knowledge required for operation</p> <p>2 Pre-flight work</p> <p>3 Operation at an airport, etc. and traffic pattern</p> <p>4 Types of takeoffs and landings and go-around</p> <p>5 Flight with basic instruments</p> <p>6 Operation in the air including the flight utilizing external visual target</p> <p>7 Open air flight</p> <p>8 Normal operation of flight in general</p>

		<p>9 Operation at abnormal and emergency situation</p> <p>10 Contact with the air traffic control authority, etc.</p> <p>11 Cooperation among air-crew members</p> <p>12 Cooperation with ground staff</p> <p>13 Comprehensive ability</p>
Commercial pilot	Airplane	<p>1 Subjects for airplane section and transport pilot section (excluding subjects in items 6 through 8 and 12)</p> <p>2 Operation in the air including the flight utilizing external visual target and flight in accordance with the characteristics of aircraft type</p> <p>3 Open air flight</p>
	Glider	<p>Powered glider without towing attachment</p> <p>1 Knowledge required for operation</p> <p>2 Pre-flight work</p> <p>3 Operation at an airport, etc. and traffic pattern</p> <p>4 Types of takeoffs and landings and go-around</p> <p>5 Operation in the air including the flight utilizing external visual target</p> <p>6 Soaring</p> <p>7 Open air flight</p> <p>8 Operation at abnormal and emergency situation</p> <p>9 Contact with the air traffic control authority, etc.</p> <p>10 Comprehensive ability</p>
		<p>Powered glider with towing attachment</p> <p>1 Knowledge required for operation</p> <p>2 Pre-flight work</p> <p>3 Operation at an airport, etc. and traffic pattern</p> <p>4 Types of takeoffs and landings and go-around</p> <p>Aircraft in flight being towed by an aircraft</p> <p>6 Operation in the air including the flight utilizing external visual target</p>

			7 Soaring 8 Operation at abnormal and emergency situation 9 Contact with the air traffic control authority, etc. 10 Comprehensive ability
		Soaring glider	1 Knowledge required for operation 2 Pre-flight work 3 Operation at an airport, etc. and traffic pattern 4 Types of takeoffs and landings 5 Aircraft in flight being towed by an aircraft 6 Operation in the air including the flight utilizing external visual target 7 Soaring 8 Operation at abnormal and emergency situation 9 Comprehensive ability
		Rotorcraft	Exam subjects for airline transport pilot section and rotorcraft section (excluding exam subjects in items 9 and 12)
		Airship	Subjects for airline transport pilot section and airship section (excluding subjects in items 8 and 11)
Private pilot	Airplane		Subjects for commercial pilot section and airplane section
	Glider	Powered glider without towing attachment	Subjects for commercial pilot section and powered glider without towing attachment section
		Powered glider with towing attachment	Subjects for commercial pilot section and powered glider with towing attachment section
		Soaring glider	1 Subjects for commercial pilot section and soaring glider section (excluding item 5) 2 Aircraft in flight being towed
		Rotorcraft	Subjects for commercial pilot section and rotorcraft section
		Airship	Subjects for commercial pilot section and airship section

First class flight navigator		<p>1 Dead reckoning navigation</p> <p>2 Radio navigation</p> <p>3 Celestial navigation</p>
Second class flight navigator		<p>1 Dead reckoning navigation</p> <p>2 Radio navigation</p>
Flight engineer	Airplane or rotorcraft	<p>1 Handling and inspection methods of airframe, engine, propeller, and other equipment</p> <p>2 Distribution of loaded weight of an aircraft and calculation of barycentric coordinates</p> <p>3 Control of engine output and calculation of fuel consumption based on the weather condition or flight plan</p> <p>4 Measures to be taken if an aircraft has technical issues or partial failure of at least one of the engines occurs</p>
First class aircraft maintenance technician or second class aircraft maintenance technician	Airplane, rotorcraft, glider, or airship	<p>1 Basic maintenance techniques</p> <p>(a) knowledge of flight rules, maintenance rules, and other rules necessary for maintenance</p> <p>(b) basic techniques of work and inspection necessary for maintenance</p> <p>2 Knowledge necessary for maintenance</p> <p>(a) knowledge of airframe structure and airframe performance</p> <p>(b) knowledge of structure, function, and operation of airframe accessories (including towing line and detachable towing unit for a glider)</p>

(c) knowledge of structure, function, performance, and operation of engine, engine accessory, and engine's command system (excluding an glider other than powered glider without towing attachment and powered glider with towing attachment)

(d) knowledge of structure, function, performance, and operation of propeller, propeller accessory, and propeller's command system (excluding a glider other than powered glider without towing attachment and powered glider with towing attachment)

(e) knowledge of structure, function, and operation of machine instrument, electric instrument, gyroscopic instrument, and electronic instrument

(f) knowledge of structure, function, and operation of electronic accessory, electric accessory, and radio communication device

3 Techniques necessary for maintenance

(a) methods of handling, maintenance, and inspection of airframe structure

(b) methods of handling, maintenance, and inspection of airframe accessory (including towing line and attach/remove system for a glider)

(c) methods of handling, maintenance, and inspection of engine, engine accessory, and engine's command system (excluding an glider other than powered glider without towing attachment and powered glider with towing attachment)

		<p>(d) methods of handling, maintenance, and inspection of propeller, propeller accessory, and propeller's command system (excluding an glider other than powered glider without towing attachment and powered glider with towing attachment)</p> <p>(e) methods of handling, maintenance, and inspection of machine instrument, electric instrument, gyroscopic instrument, and electronic instrument</p> <p>(f) methods of handling, maintenance, and inspection of electronic accessory, electric accessory, and radio communication device</p> <p>4 Inspection of an aircraft</p> <p>5 Operation of power unit (excluding an glider other than powered glider without towing attachment and powered glider with towing attachment)</p> <p>(a) operational test of engine on the ground</p> <p>(b) functional and operational test of each system</p> <p>(c) operation and maintenance in case of the occurrence of failures</p>
<p>First class aircraft line maintenance technician or second class aircraft line maintenance technician</p>	<p>Airplane, rotorcraft, glider, or airship</p>	<p>1 Basic maintenance techniques</p> <p>(a) knowledge of flight rules, maintenance rules, and other rules necessary for maintenance</p> <p>(b) basic techniques of work and test necessary for maintenance</p>

2 Knowledge necessary for maintenance

(a) general knowledge of airframe structure and airframe performance
(b) general knowledge of structure, function, and operation of airframe accessories (including towing line and detachable towing unit for an glider)

(c) general knowledge of structure, function, performance, and operation of engine, engine accessory, and engine's command system (excluding an glider other than powered glider without towing attachment and powered glider with towing attachment)

(d) general knowledge of structure, function, performance, and operation of propeller, propeller accessory, and propeller's command system (excluding an glider other than powered glider without towing attachment and powered glider with towing attachment)

(e) general knowledge of structure, function, and operation of machine instrument, electric instrument, gyroscopic instrument, and electronic instrument

(f) general knowledge of structure, function, and operation of electronic accessory, electric accessory, and radio communication device

3 Techniques necessary for maintenance

(a) basic methods of handling, maintenance, and inspection of airframe structure

		<p>(b) basic methods of handling, maintenance, and inspection of airframe accessory (including towing line and detachable towing unit for a glider)</p> <p>(c) basic methods of handling, maintenance, and inspection of engine, engine accessory, and engine's command system (excluding an glider other than powered glider without towing attachment and powered glider with towing attachment)</p> <p>(d) basic methods of handling, maintenance, and inspection of propeller, propeller accessory, and propeller's command system (excluding an glider other than powered glider without towing attachment and powered glider with towing attachment)</p> <p>(e) basic methods of handling, maintenance, and inspection of machine instrument, electric instrument, gyroscopic instrument, and electronic instrument</p> <p>(f) basic methods of handling, maintenance, and inspection of electronic accessory, electric accessory, and radio communication device</p> <p>4 Daily inspection of an aircraft</p>
Flight overhaul technician	Air frame structure-related knowledge	<p>1 Basic maintenance techniques</p> <p>(a) knowledge of flight rules, maintenance rules, and other rules necessary for maintenance</p> <p>(b) operation and inspection methods for basic techniques necessary for maintenance</p>

	<p>2 Knowledge of quality control necessary for maintenance and alteration</p> <p>3 Airframe structure</p> <p>(a) knowledge necessary for structure, maintenance, alteration, and testing of airframe structure</p> <p>(b) methods of handling, maintenance, alteration, and testing of airframe structure</p>
<p>Air frame accessory-related knowledge</p>	<p>1 Basic maintenance techniques</p> <p>(a) knowledge of flight rules, maintenance rules, and other rules necessary for maintenance</p> <p>(b) operation and inspection methods for basic techniques necessary for maintenance</p> <p>2 Knowledge of quality control necessary for maintenance and alteration</p> <p>3 Airframe accessory</p> <p>(a) knowledge necessary for structure, function, maintenance, alteration, and testing of airframe accessory</p> <p>(b) methods of handling, maintenance, alteration, and testing of airframe accessory</p>
<p>Piston engine-related knowledge</p>	<p>1 Basic maintenance techniques</p> <p>(a) knowledge of flight rules, maintenance rules, and other rules necessary for maintenance</p> <p>(b) operation and inspection methods for basic techniques necessary for maintenance</p> <p>2 Knowledge of quality control necessary for maintenance and alteration</p>

	<p>3 Piston engine (a) knowledge necessary for structure, function, performance, maintenance, alteration, and testing of piston engine, piston engine accessory, and piston engine's command system (b) methods of handling, maintenance, alteration, and testing of piston engine, piston engine accessory, and piston engine's command system</p>
<p>Turbine engine-related knowledge</p>	<p>1 Basic maintenance techniques</p> <p>(a) knowledge of flight rules, maintenance rules, and other rules necessary for maintenance (b) operation and testing methods for basic techniques necessary for maintenance</p> <p>2 Knowledge of quality control required for maintenance and alteration</p> <p>3 Turbine engine (a) knowledge necessary for structure, function, performance, maintenance, alteration, and testing of turbine engine, turbine engine accessory, and turbine engine's command system (b) methods of handling, maintenance, alteration, and testing of turbine engine, turbine engine accessory, and turbine engine's command system</p>
<p>Propeller-related knowledge</p>	<p>1 Basic maintenance techniques</p> <p>(a) knowledge of flight rules, maintenance rules, and other rules necessary for maintenance</p>

	<p>(b) operation and testing methods for basic techniques necessary for maintenance</p> <p>2 Knowledge of quality control necessary for maintenance and alteration</p> <p>3 Propeller</p> <p>(a) knowledge necessary for structure, function, maintenance, alteration, and testing of propeller, propeller accessory, and propeller's command system</p> <p>(b) methods of handling, maintenance, alteration, and testing of propeller, propeller accessory, and propeller command system</p>
<p>Instrument-related knowledge</p>	<p>1 Basic maintenance techniques</p> <p>(a) knowledge of flight rules, maintenance rules, and other rules necessary for maintenance</p> <p>(b) operation and testing methods for basic techniques necessary for maintenance</p> <p>2 Knowledge of quality control necessary for maintenance and alteration</p> <p>3 Instruments</p> <p>(a) knowledge necessary for structure, function, maintenance, alteration, and testing of machine instrument, electric instrument, gyroscopic instrument, and electronic instrument</p> <p>(b) methods of handling, maintenance, alteration, and testing of mechanical instrument, electric instrument, gyroscopic instrument, and electronic instrument</p>

<p>Electronic accessory -related knowledge</p>	<p>1 Basic maintenance techniques</p> <p>(a) knowledge of flight rules, maintenance rules, and other rules necessary for maintenance (b) operation and testing methods for basic techniques necessary for maintenance</p> <p>2 Knowledge of quality control necessary for maintenance and alteration</p> <p>3 Electronic accessories (a) knowledge necessary for structure, function, maintenance, alteration, and testing of electronic accessory (b) methods of handling, maintenance, alteration, and testing of electronic accessory</p>
<p>Electrical accessory -related knowledge</p>	<p>1 Basic maintenance techniques</p> <p>(a) knowledge of flight rules, maintenance rules, and other rules necessary for maintenance (b) operation and testing methods for basic techniques necessary for maintenance</p> <p>2 Knowledge of quality control necessary for maintenance and alteration</p> <p>3 Electric accessories (a) knowledge necessary for structure, function, maintenance, alteration, and testing of electric accessory (b) methods of handling, maintenance, alteration, and testing of electric accessory</p>

	<p>Wireless radio-related knowledge</p>	<p>1 Basic maintenance techniques</p> <p>(a) knowledge of flight rules, maintenance rules, and other rules necessary for maintenance</p> <p>(b) operation and testing methods for basic techniques necessary for maintenance</p> <p>2 Knowledge of quality control necessary for maintenance and alteration</p> <p>3 Radio communication devices</p> <p>(a) knowledge necessary for structure, function, maintenance, alteration, and testing of radio communication devices</p> <p>(b) methods of handling, maintenance, alteration, and testing of radio communication devices</p>
<p>Aviation English proficiency certification</p>		<p>Conversation in aviation English</p>
<p>Instrument rating</p>		<p>1 Knowledge required for operation</p> <p>2 Pre-flight work</p> <p>3 Flight with basic instruments</p> <p>4 Operation in the air and flight based on the characteristics of aircraft type</p> <p>5 Flight under the instrument flight rules including the following flights</p> <p>(a) transition to instrument flight at takeoff</p> <p>(b) standard instrument departure procedure and instrument arrival procedure</p> <p>(c) holding procedure</p> <p>(d) instrument approach procedure</p> <p>(e) missed approach procedure</p> <p>(f) instrument approach and landing</p>

		6 Open air flight under the instrument flight rules 7 Operation at abnormal and emergency situation 8 Contact with the air traffic control etc. 9 Comprehensive ability
Flight instructor certification		Subjects for commercial pilot as well as the guidelines for flight training assuming an examiner as a student pilot

Appended Table 4 (Re: Art. 61-2)

Criteria for Medical Examination

Inspection Items	Class 1	Class 2
1 General	<p>(1) A person must not have anomaly, deformity, or dysfunction in the head, face, neck, trunk, or extremities that may disrupt flight operation.</p> <p>(2) A person must not have excessive obesity that may disrupt flight operation.</p> <p>(3) A person must not have malignancy or its previous history, or possibility of malignancy, or benign tumor that may disrupt flight operation.</p> <p>(4) A person must not have any serious infectious diseases or their possibility.</p> <p>(5) A person must not have endocrine disorder or metabolic disorder, or organ damage or dysfunction due to these disorders that may disrupt flight disorders.</p> <p>(6) A person must not have rheumatic disease, connective tissue disease, or immune deficiency disease that may disrupt flight operation.</p> <p>(7) A person must not have any allergic diseases that may disrupt flight operation.</p>	<p>(1) A person must not have anomaly, deformity, or dysfunction in the head, face, neck, trunk, or extremities that may disrupt flight operation.</p> <p>(2) A person must not have excessive obesity that may disrupt flight operation.</p> <p>(3) A person must not have malignancy or its previous history, or possibility of malignancy, or benign tumor that may disrupt flight operation.</p> <p>(4) A person must not have any serious infectious diseases or their possibility.</p> <p>(5) A person must not have endocrine disorder or metabolic disorder, or organ damage or dysfunction due to these disorders that may disrupt flight disorders.</p> <p>(6) A person must not have rheumatic disease, connective tissue disease, or immune deficiency disease that may disrupt flight operation.</p> <p>(7) A person must not have any allergic diseases that may disrupt flight operation.</p>

	(8) A person must not have sleep disorder causing sleepiness that may disrupt flight operation.	(8) A person must not have sleep disorder causing sleepiness that may disrupt flight operation.
2 Respiratory system	(1) A person must not have any respiratory diseases or pleural or mediastinal disease that may disrupt flight operation. (2) A person must not have spontaneous pneumothorax or its previous history. (3) A person must not have after effects of thoracic surgery that may disrupt flight operation.	(1) A person must not have any respiratory diseases or pleural or mediastinal disease that may disrupt flight operation. (2) A person must not have spontaneous pneumothorax or its previous history. (3) A person must not have after effects of thoracic surgery that may disrupt flight operation.
3 Circulatory system and vascular system	(1) A person must have systolic blood pressure less than 160 mm mercury and diastolic blood pressure less than 95 mm mercury, and must not have orthostatic hypotension accompanying subjective symptom. (2) A person must not have myocardial dysfunction or its sign. (3) A person must not have coronary artery disease or its sign. (4) A person must not have congenital heart disease that may disrupt flight operation. (5) A person must not have acquired valvular disease or its previous history that may disrupt flight operation. (6) A person must not have any pericardial diseases that may disrupt flight operation. (7) A person must not have heart failure or its previous history. (8) A person must not have disorder of impulse formation or excitation-conduction that may disrupt flight operation.	(1) A person must have systolic blood pressure less than 160 mm mercury and diastolic blood pressure less than 95 mm mercury, and must not have orthostatic hypotension accompanying subjective symptom. (2) A person must not have myocardial dysfunction or its sign. (3) A person must not have coronary artery disease or its sign. (4) A person must not have congenital heart disease that may disrupt flight operation. (5) A person must not have acquired valvular disease or its previous history that may disrupt flight operation. (6) A person must not have any pericardial diseases that may disrupt flight operation. (7) A person must not have heart failure or its previous history. (8) A person must not have disorder of impulse formation or excitation-conduction that may disrupt flight operation.

	(9) A person must not have arterial disease, venous disease, or lymphatic disease that may disrupt flight operation.	(9) A person must not have arterial disease, venous disease, or lymphatic disease that may disrupt flight operation.
4 Digestive system (excluding oral cavity and teeth.)	(1) A person must not have a disease or dysfunction in digestive system and peritoneum that may disrupt flight operation. (2) A person must not have any gastroenterological diseases or after effects of surgery that may disrupt flight operation.	(1) A person must not have a disease or dysfunction in digestive system and peritoneum that may disrupt flight operation. (2) A person must not have any gastroenterological diseases or after effects of surgery that may disrupt flight operation.
5 Blood and hematopoietic system	(1) A person must not have anemia that may disrupt flight operation. (2) A person must not have any blood system diseases or diseases of the hematopoietic organ that may disrupt flight operation. (3) A person must not have any diseases with bleeding tendency that may disrupt flight operation.	(1) A person must not have anemia that may disrupt flight operation. (2) A person must not have any systemic diseases of blood or hematopoietic organ that may disrupt flight operation. (3) A person must not have any diseases with bleeding tendency that may disrupt flight operation.
6 Kidney, urinary system, and reproductive system	(1) A person must not have any diseases in kidney or after effects of kidney disease that may disrupt flight operation. (2) A person must not have any diseases in urinary organs or after effects of urinary disease that may disrupt flight operation. (3) A person must not have any diseases in reproductive organ or after effects of reproductive disease that may disrupt flight operation.	(1) A person must not have any diseases in or after effects of kidney disease that may disrupt flight operation. (2) A person must not have any diseases in urinary organs or after effects of urinary disease that may disrupt flight operation. (3) A person must not have any diseases in reproductive organ or after effects of reproductive disease that may disrupt flight operation.

	(4) A person must not be pregnant.	(4) A person must not disrupt flight operation due to pregnancy.
7 Motor system	(1) A person must not have anomaly, deformity, deflection, or dysfunction in motor organs that may disrupt flight operation. (2) A person must not have any diseases or deformities in spine that may disrupt flight operation.	(1) A person must not have anomaly, deformity, deflection, or dysfunction in motor organs that may disrupt flight operation. (2) A person must not have any diseases or deformities in spine that may disrupt flight operation.
8 Mental and nervous system	(1) A person must not have serious mental disorder or its previous history. (2) A person must not have personality disorder or behavioral disorder or their previous history that may disrupt flight operation. (3) A person must not have drug dependence or alcohol dependence or their previous history. (4) A person must not have epilepsy or its previous history. (5) A person must not have impaired consciousness or convulsive seizure or their previous history. (6) A person must not have previous history or after effects of head injury that may disrupt flight operation. (7) A person must not have serious central nervous system disorders or their previous history. (8) A person must not have disorder of peripheral nerves or automatic nerves that may disrupt flight operation.	(1) A person must not have serious mental disorder or its previous history. (2) A person must not have personality disorder or behavioral disorder or their previous history that may disrupt flight operation. (3) A person must not have drug dependence or alcohol dependence or their previous history. (4) A person must not have epilepsy or its previous history. (5) A person must not have impaired consciousness or convulsive seizure or their previous history. (6) A person must not have previous history or after effects of head injury that may disrupt flight operation. (7) A person must not have serious central nervous system disorders or their previous history. (8) A person must not have disorder of peripheral nerves or automatic nerves that may disrupt flight operation.
9 Eyes	(1) A person must not have any diseases or dysfunction in external eye and eye adnexa that may disrupt flight operation.	(1) A person must not have any diseases or dysfunction in external eye and eye adnexa that may disrupt flight operation.

	<p>(2) A person must not have glaucoma.</p> <p>(3) A person must not have any diseases in optic media, eyeground, or optic pathway that may disrupt flight operation.</p>	<p>(2) A person must not have glaucoma.</p> <p>(3) A person must not have any diseases in optic media, eyeground, or optic pathway that may disrupt flight operation.</p>
10 Visual performance	<p>(1) A person must fall under either following (a) or (b); provided, however, that criteria of (b) must be applied only to a person who regularly wears glasses for everyday use (meaning glasses for vision correction that are used during flight operation) and carrying secondary glasses for flight operation is required by the airman medical certificate.</p> <p>(a) A person must have at least 0.7 vision with each naked eye and 1.0 distant vision with both eyes.</p> <p>(b) A person must be able to improve their vision of each eye to at least 0.7 and 1.0 for both eyes with glasses that the person wears on a daily basis which do not have more than eight diopter (\pm) of lens refractivity.</p> <p>(2) A person must be able to read at least 0.2 vision of the target of near vision chart (for 30 cm vision) with each naked eye from 80 cm away from the person or by wearing glasses for vision correction with each eye.</p> <p>(3) A person must be able to read at least 0.5 vision of the target of near vision chart (for 30 cm vision) with each naked eye from 30 cm to 50 cm away, or by wearing glasses for vision correction with each eye.</p> <p>(4) A person must not have binocular vision abnormality that may disrupt flight operation.</p>	<p>(1) A person must fall under either following (a) or (b); provided, however, that criteria of (b) must be applied only to a person who regularly wears glasses for everyday use (meaning glasses for vision correction that are used during flight operation) and carrying secondary glasses for flight operation is required by the flight physical examination certificate.</p> <p>(a) A person must have at least 0.7 distant vision with each naked eye.</p> <p>(b) A person must be able to improve their vision of each eye to at least 0.7 by wearing (\pm) 8-prism glasses for everyday use.</p> <p>(2) A person must be able to read at least 0.5 vision of the target of near vision chart (for 30 cm vision) with each naked eye 30 cm to 50 cm away from the person, or by wearing glasses for vision correction.</p> <p>(3) A person must not have binocular vision abnormality that may disrupt flight operation.</p> <p>(4) A person must not have visual field abnormality that may disrupt flight operation.</p>

	<p>(5) A person must not have visual field abnormality that may disrupt flight operation.</p> <p>(6) A person must not have ocular motion abnormality that may disrupt flight operation.</p> <p>(7) A person must not have color vision abnormality that may disrupt flight operation.</p>	<p>(5) A person must not have ocular motion abnormality that may disrupt flight operation.</p> <p>(6) A person must not have color vision abnormality that may disrupt flight operation.</p>
11 Ears, nose, and throat	<p>(1) A person must not have any diseases that may disrupt flight operation in the inner ear, middle ear (including mastoid), or external ear.</p> <p>(2) A person must not have equilibrium disorder.</p> <p>(3) A person must not have eardrum abnormality that may disrupt flight operation.</p> <p>(4) A person must not have eustachian tube dysfunction.</p> <p>(5) A person must not have any diseases that may disrupt flight operation in nasal cavity, nasal sinus, or laryngopharynx.</p> <p>(6) A person must not have deviation of nasal septum that significantly prevents air flow of nasal cavity.</p> <p>(7) A person must not have dysphemia, phonation disorder, or speech dysfunction.</p>	<p>(1) A person must not have any diseases that may disrupt flight operation in the inner ear, middle ear (including mastoid), or external ear.</p> <p>(2) A person must not have equilibrium disorder.</p> <p>(3) A person must not have eardrum abnormality that may disrupt flight operation.</p> <p>(4) A person must not have eustachian tube dysfunction.</p> <p>(5) A person must not have any diseases that may disrupt flight operation in nasal cavity, nasal sinus, or laryngopharynx.</p> <p>(6) A person must not have deviation of nasal septum that significantly prevents air flow of nasal cavity.</p> <p>(7) A person must not have dysphemia, phonation disorder, or speech dysfunction.</p>
12 Hearing	<p>In the room of which background noise is less than 50 db (A), a person must not have hearing loss greater than 35 db at 500, 1000, and 2000 Hz, and hearing loss greater than 50 db at 3000 Hz in each ear.</p>	<p>(1) For a person having an instrument rating, in the room of which background noise is less than 50 db (A) , a person must not have hearing loss greater than 35 db at 500, 1000, and 2000 Hz, and hearing loss greater than 50 db at 3000 Hz in each ear.</p> <p>(2) A person other than those specified in (1) must fall under any of the following items.</p>

		(a) A person must not have hearing loss greater than 45 db in each ear at 500, 1000, and 2000 Hz in the room of which background noise is less than 50 db (A). If a person does not meet these criteria, the person must not have hearing loss greater than 30 db in each ear at 500, 1000, and 2000 Hz in the room of which background noise is less than 50 db (A). (b) A person must be able to correctly hear the conversation spoken from 2 meters behind in the room of which background noise is less than 50 db (A) in both ears.
13 Oral cavity and teeth	A person must not have any diseases or dysfunction in the oral cavity and teeth that may disrupt flight operation.	A person must not have any diseases or dysfunction in the oral cavity and teeth that may disrupt flight operation.
14 Total	A person must not have any physical and mental disorder that may disrupt flight operation.	A person must not have any physical and mental disorder that may disrupt flight operation.

Appended Table 5 (Omitted) (Re: Art. 79)

3-(viii)

Width of runway	Number of vertical stripes
60 m	16
45 m	12
30 m	8
25 m	6
15 m	4