

Permission of Special flights

March 30, 2001	First Issue (KOKU-KU-KI-369)
March 29, 2002	Completely Amended (KOKU-KU-KI-1332)
March 28, 2007	Amended (KOKU-KU-KI-1360)
June 30, 2011	Amended (KOKU-KU-KI-282)
January 22, 2014	Amended (KOKU-KU-KI-1079)
June 17, 2020	Amended (KOKU-KU-KI-285)
December 24, 2020	Amended (KOKU-KU-KI-937)

Airworthiness Division, Aviation Safety and Security Department
Japan Civil Aviation Bureau
Ministry of Land, Infrastructure, Transport and Tourism

[Intentionally Blank]

March 30, 2001	First Issue (KOKU-KU-KI-369)
March 29, 2002	Completely Amended (KOKU-KU-KI-1332)
March 28, 2007	Amended (KOKU-KU-KI-1360)
June 30, 2011	Amended (KOKU-KU-KI-282)
January 22, 2014	Amended (KOKU-KU-KI-1079)
June 17, 2020	Amended (KOKU-KU-KI-285)
December 24, 2020	Amended (KOKU-KU-KI-937)

Circular

Director, Airworthiness Division
Aviation Safety and Security Department
Japan Civil Aviation Bureau
Ministry of Land, Infrastructure, Transport and Tourism

Subject: Permission of Special flights

1. Purpose

This circular prescribes necessary items relating to the scope of work, application and approval, etc. for the Permission of Special Flights, which is conducted under the provisos of Article 11, paragraph 1 of the Civil Aeronautics Act (Law) (hereinafter referred to as "CAL"), and the Article 11, paragraph 3, Article 17, paragraph 3 and Article 19, paragraph 3 of CAL applied mutatis mutandis pursuant to Article 11, paragraph 1 of CAL and provides useful guidelines for handling of the special flights.

2. Applicability

The Permission of Special Flight issued under the proviso of Article 11, paragraph 1 of CAL, and Article 11, paragraph 3, Article 17, paragraph 3 and Article 19, paragraph 3 of CAL applied mutatis mutandis pursuant to Article 11, paragraph 1 of CAL allows to operate the aircraft which has no valid airworthiness certificate or is temporarily suspended the effectiveness of the airworthiness certificate, etc. The followings are examples for the applicability.

- (1) Testing flight for investigating and developing the aircraft and/or the relevant equipment performed by the manufacturer or research institution.

Note) This is also applicable to the case, that the final configuration of the subject aircraft is not determined for inspections without accomplishment of voluntary test flights for a long period of time by the applicant, even though the application for Inspection for Type Certificate or Inspection of Repair or Alteration has been accepted.

(2) Flying the aircraft to a base where maintenance (in case the repair is regarded as a major repair, a repair which may affect noise of aircraft or a repair which may affect engine emission) or alteration is to be performed.

(3) Delivering for exporting or importing the aircraft

(4) Flying the aircraft beyond the designated operating limitations (including X category)

Note) The special flight beyond the scope of the applicable airworthiness certificate such as the ferry flight by an inoperative engine is applicable to this matter.

(5) Temporary operation within Japan by a foreign civil aircraft

(6) Flying the foreign civil aircraft, operated within Japan other than the above (5), which is difficult to obtain the airworthiness certificate.

(7) Flying the aircraft which has the airworthiness certificate for EXPERIMENTAL CATEGORY issued by the Federal Aviation Administration.

(8) Flying the aircraft which will be delivered to the Japan Ministry of Defense.

Note) The application for permission of special flight for owner manufactured aircraft shall be complied with the Circular No. 1-006 and the application for the permission of special flight for ultralight aircraft and gyro airplane shall be complied with the Circular No.1-007.

3. Application for the permission of special flight

The entries and the precautions of the application form prescribed under the provisos of Article 16 -14 of the Civil Aeronautics Regulations are as follows.

Except for an emergency situation, the applicant shall have enough time for making the flight plan and submit the application to the Airframe Section, Airworthiness Division, Aviation Safety and Security Department, Civil Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism or Airworthiness Inspectors Office, Air Traffic Service and Safety Department, Regional Civil Aviation Bureau at least three days prior to the anticipated starting date of operation. The place of submission is described in the Appendix 1.

3-1 Name and address of applicant

3-2 Kind and type of aircraft, manufacturer, manufacturing number, nationality and registration marks of aircraft

3-3 Outline of flight plan

3-3-1 Purpose of the flight

3-3-2 Date of Operation ; If it is unable to fix the actual date of operation affected by the weather, etc, shall describe the certain period of time for the operation or describe the proposed duration if continuous operations for a certain period are necessary.

3-3-3 Proposed flight route including transit points ; If it is proposed to perform operation at a certain area or place, shall describe the applicable area and place and if necessary attaches the document which shows the detail location on the map. If the special flight is conducted over a wide area, shall specify the alternate airport or the place of emergency landing.

3-4 Name and qualification of flight crew

3-4-1 Qualification, certificate number and limitations described in the Competence Certificate for

pilot

3-4-2 In case of the person who has a qualification of Flight Radiotelephone Operator, Navigator or Flight Engineer, shall describe the qualification, certificate number, any limitations and experience for the applicable type of aircraft or the series of the applicable type of aircraft.

3-4-3 With regard to the paragraph of 3-4-1 and 3-4-2, shall describe the minimum number of personnel by considering the flight and also alternate personnel if any.

3-5 The name of the person who is carried in this aircraft during flight and his/her boarding purpose. The person shall be essential to the purpose of the applicable special flight.

3-6 In case of the person who applies for the approval for the content stipulated in the Article 11, paragraph 1 of CAL applied mutatis mutandis pursuant to the proviso of Article 11, paragraph 3 of CAL, must describe the items which exceed its designated purpose or performance of operating limitations.

3-7 Contents of repairs or maintenance which are to be performed under this permission if the applicant applies the permission under the proviso of Article 11, paragraph 1 of CAL applied mutatis mutandis pursuant to Article 17, paragraph 3 or Article 19, paragraph 3 of CAL.

3-8 Other matters for reference

Items to be submitted or shown depending on the contents of the applied test flights, etc. as necessary are as follows:

(1) The technical standard for the safety of the applicable aircraft and the documents to show the compliance with the standard.

In case of the aircraft manufactured in Japan which will be delivered to the Japan Ministry of Defense, it shall be a notification document pertaining to the issuance of a certificate of aircraft safety issued by the Ministry of Defense (including “Document of Certificate relating to Aircraft Safety” which is issued by the Chief of Engineering Audit, Supervisor or Inspector of the Japan Ministry of Defense). In case of an imported aircraft, it is prescribed in the item 3-8 (5) of this Circular.

(2) In case of the aircraft which has no nationality and registration marks, the sufficient documents (such as three-view drawings or three-view dimensioned photographs) in order to identify the aircraft.

(3) Any operational restriction or method that the applicant considers necessary for safe operation of the aircraft

(4) Safety (protection) for Airmen and necessary actions for the personnel or property on the ground

(5) Permission of special flight issued by the competent authority of exporting country

(6) Drawings and outline of installation if the special flight is conducted with the different configuration when the airworthiness certificate is issued, such as installing an additional fuel tank.

(7) Outline of aircraft design (characteristics, power unit, performance, main structure, equipped systems, etc.)

(8) Outline of maintenance on the aircraft, history of aircraft, operational records, and its outline if

the similar special flight as this application was conducted, or indicates if the airworthiness certificate was issued and if yes, its outline.

- (9) Other provisos required under Aviation Law and outline of procedures for the requirements under the associated regulations (such as the permission under Article 28, paragraph 3 of CAL, License issued by Radio Station under the Radio Act , Article 4)
- (10) Arrangement for the use of training area of the Japan Ministry of Defense.
- (11) Other documents to verify that this flight is safety

4. Evaluation of application and requirements for the permission

4-1 In case the application for the Permission for Special Flight is submitted, it will be evaluated the safety of the flight, anticipated noise or engine emission by reviewing the documents or the applicable aircraft and it will be approved by establishing requirements for the permission as necessary. The permission for the flight will be approved by issuing the Permission for the Special Flight or the permission of endorsement.

4-2 The actual evaluation is to be applied the Appendix 2 to the ferry flight and the Appendix 3 to the demonstration flight of foreign aircraft.

4-3 The examples of requirements for the permission are considered as follows:

- (1) The flight shall be operated Day Visual Flight
- (2) The flight must be conducted to avoid the densely populated areas, congested airways and the surrounding area of airport having heavy air traffic
- (3) The installation of auxiliary tank shall be identified as ○○○Company Drawing Number ○○○
- (4) The flight shall be operated to avoid moderate or severe turbulence
- (5) The operation of aircraft shall be complied with the operational limitation and procedures described in the attachment.
- (6) The operational limitation shall be complied with the flight manual for JA○○○○ other than the limitation described in the Attachment.
- (7) This permission must be carried on the aircraft for an international flight
- (8) After completing the special flight, it shall be reported to the Minister of Ministry of Land, Infrastructure, Transport and Tourism (or the Director General of Regional CAB office)

5. Precautions for the permission of special flight

5-1 The permission of special flight form is “TCF-012A-1 ~ 5”.

5-2 The issue number of the Permission of Special Flight is specified by each office of Head Office or Regional CAB.

5-3 In case the part of airworthiness of the applicable aircraft on an international flight is not complied with the standard prescribed in the ICAO Annex 8 and/or noise or engine emission is not complied with the standard prescribed in the ICAO Annex 16, it will be described the applicable matters in the remarks column.

5-4 If the alternate person is required, it shall be described separated from the normal person.

6. Procedures after completing the special flight

In case the aircraft having an airworthiness certificate is conducted the operation by installing the special equipment or conducting the flight beyond the specified operating limitations under the provisos of paragraph 1 of CAL applied mutatis mutandis pursuant to Article 11, paragraph 3 of CAL, the applicant shall obtain an airworthiness certificate for the aircraft in order for the aircraft to be operated again after conducting the operation under this Permission of Special Flight except in the case of the situation that the required work to revert to the same condition of aircraft before conducting the special flight is regarded as a minor repair.

Appendix

Appendix 1 “Location where Application should be submitted”

Appendix 2 “General policies on inspections for ferry flight permission”

Appendix 3 “Handling of foreign registered commercial aircraft airworthiness performing demonstration flight”

Supplementary Provisions

1. This Circular shall be enforced on April 1, 2002. However, until September 30, 2002, it is accepted to comply with the previous Circular No. 1-005.
2. The Permission of Special Flight conducting before issuing of this Circular remains in effect within the time limit of the permission after issuing this Circular.

Supplementary Provisions (March 28, 2007)

1. This Circular shall be enforced on March 30, 2007.

Supplementary Provisions (June 30, 2011)

1. This Circular shall be enforced on July 1, 2011.

Supplementary Provisions (January 22, 2014)

1. This Circular shall be enforced on January 22, 2014.

Supplementary Provisions (June 17, 2020)

1. This Circular shall be enforced on June 18, 2020.

Supplementary Provisions (December 24, 2020)

1. This Circular shall be enforced on January 1, 2021.

Please contact for questions or comments (as to the system, etc.) regarding this Circular to:

Airframe Section, Airworthiness Division, Aviation Safety and Security Department,
Civil Aviation Bureau, Ministry of Land, Infrastructure and, Transport and Tourism

2-1-3 Kasumigaseki, Chiyoda-ku, Tokyo, 100-8918

Tel 03-5253-8735

Fax 03-5253-1661

Responsible engineer for Article 11 of CAL, Airworthiness Inspectors Office, Air Traffic Service and Safety Department, Tokyo Regional Civil Aviation Bureau

1-1-15 Kudan-minami Chiyoda-ku, Tokyo, 102-0074

Tel 03-5275-9325

Fax 03-5216-5571

Responsible engineer for Article 11 of CAL, Airworthiness Inspectors Office, Air Traffic Service and Safety Department, Osaka Regional Civil Aviation Bureau

4-1-67 Otemae Chuou-ku, Osaka-City, Osaka, 540-0008

Tel 06-6949-6325

Fax 06-6945-6313

(Note 1) ○○第 号 Approval No.		
許 可 書 Special Flight Permit 第 号 Number		
(申請者) 殿 To:		
年 月 日付け○○第 号で申請のあった耐空証明を受けずに 行う飛行については、航空法第 11 条第 1 項ただし書の規定により、下記のと おり許可する。 The flight to perform without having an airworthiness certificate, of which application was made on DD/MM/YYYY with (document no.), is permitted as follows, in accordance with the proviso of paragraph 1 of article 11 of the Civil Aeronautics Law.		
航 空 機 Aircraft	種 類 Category	国籍記号及び 登録記号 Nationality and registration marks
	型 式 Type/Model	製 造 番 号 Serial number
	所 有 者 住所・氏名 Address/name of owner	
飛 行 経 路 Flight route		飛行の目的 Purpose of flight
経 由 地 Via		飛 行 日 時 Date of flight
操 縦 者 氏 名 ・ 資 格 Flight crew name/license		
同 乗 者 氏 名 同 乗 の 目 的 Passenger name/purpose of boarding		
許 可 の 条 件 Condition of Permit		(上記及び本欄で指定された事項以外は、裏面に記載された事項を遵守すること。) (In addition to the specified matters in the foregoing and this block, matters mentioned on the reverse side should be observed.)
備 考 Remarks		
年 月 日 Date of Issue : DD/MM/YYYY		
(Note 2) 国 土 交 通 大 臣 ○ ○ ○ ○ 印 Minister of Land, Infrastructure, Transport and Tourism, Japan		

(Note 1) Registration No.

(Note 2) In the case of certifications issued by the Regional Office, it will be the Director-General Regional Civil Aviation Bureau

1. 本許可に基づく飛行中は、本許可書又はその写しを航空機内に備えること。
A copy of this permit should be displayed in the aircraft at all times when operating under the terms of this permit.
2. 登録国により指定された国籍記号及び登録記号を、登録国の要件に従って機体に表示すること。
The nationality and registration marks assigned to the aircraft by the State of Registry should be displayed on the aircraft in conformity with the requirements of that State.
3. 有償で旅客又は貨物を輸送してはならない。
Persons or property should not be carried for compensation or hire.
4. 飛行の目的達成のために必須であって、本許可の内容及び当該航空機の耐空性の現状を理解している人員以外は搭乗してはならない。
No person should be carried in the aircraft unless that person is essential to the purpose of the flight and has been advised of the contents of the authorization and the airworthiness status of the aircraft.
5. 航空機の登録国が発行するか又は有効と認めた適当な証書又は資格を有する乗務員以外は、当該航空機を操縦してはならない。
The aircraft should be operated only by crew holding appropriate certificates or licenses issued or validated by the State of Registry.
6. 飛行経路に係る全ての国の運航規則に従うこと。
All flights should be conducted in accordance with the applicable general operating rules of the States in or over which the operations are conducted.
7. 航空交通が混雑している空域及び飛行により人又は物件へ危害を及ぼすおそれのある地域を避けて飛行すること。
All flights should be conducted so as to avoid areas having heavy traffic or any other areas where flights might create hazardous exposure to persons or property.
8. 飛行規程に記載された運用限界及び特定の飛行について登録国が特に定めた運用限界の範囲を超えて飛行してはならない。
All flights should be conducted within the performance operating limitations prescribed in the Aircraft Flight Manual and those additional limitations specified by the State of Registry for the particular flight.
9. 「飛行日時」欄に記載された期間以外の時期に、本許可書に基づいて飛行してはならない。
All flights should be conducted within the period stated in the block of "Date of flight".
10. 他国領域内の飛行については、別途当該国の許可が必要である。
This flight permit does not constitute an authorization to fly over or into the territory of any foreign country without the permission of each respective country.

(Note 1)		
○○第 号		
Approval No.		
<p style="font-size: 24px; margin: 0;">許 可 書</p> <p style="margin: 0;">Special Flight Permit</p> <p style="font-size: 24px; margin: 0;">第 号</p> <p style="margin: 0;">Number</p>		
(申請者) 殿		
To:		
<p>年月日付け○○第 号で申請のあった耐空証明において指定された用途又は運用限界を超えて行う飛行については、航空法第 11 条第 3 項において準用する同法第 11 条第 1 項ただし書の規定により、下記のとおり許可する。</p> <p>The flight to perform in excess of the categories or the operating limitations of airworthiness certificate, of which application was made on DD/MM/YYYY with (document no.), is permitted as follows, in accordance with the proviso of paragraph 1 of article 11 applied mutatis mutandis to paragraph 3 of article 11 of the Civil Aeronautics Law.</p>		
航空機 Aircraft	種類 Category	国籍記号及び 登録記号 Nationality and registration marks
	型式 Type/Model	製造番号 Serial number
	所有者 住所・氏名 Address/name of owner	
飛行経路 Flight route		飛行の目的 Purpose of flight
経由地 Via		飛行日時 Date of flight
操縦者 氏名・資格 Flight crew name/license		
同乗者氏名 同乗の目的 Passenger name/purpose of boarding		
許可の条件 Condition of Permit		(上記及び本欄で指定された事項以外は、裏面に記載された事項を遵守すること。) (In addition to the specified matters in the foregoing and this block, matters mentioned on the reverse side should be observed.)
備考 Remarks		
年月日 Date of Issue : DD/MM/YYYY		
<p style="font-size: 24px; margin: 0;">国土交通大臣</p> <p style="margin: 0;">Minister of Land, Infrastructure, Transport and Tourism, Japan</p>		<p style="margin: 0;">(Note 2)</p> <p style="font-size: 24px; margin: 0;">○○○○ 印</p>

(Note 1) Registration No.

(Note 2) In the case of certifications issued by the Regional Office, it will be the Director-General Regional Civil Aviation Bureau.

(Note 1) ○○第 号 Approval No.		
許 可 書 Special Flight Permit 第 号 Number		
(申請者) 殿 To:		
年 月 日付け○○第 号で申請のあった修理改造検査を受け ずに行う飛行については、航空法第 17 条第 3 項において準用する同法第 11 条 第 1 項ただし書の規定により、下記のとおり許可する。 The flight to perform without making the requisite inspection of repair or modification, of which application was made on DD/MM/YYYY with (document no.), is permitted as follows, in accordance with the proviso of paragraph 1 of article 11 applied mutatis mutandis to paragraph 3 of article 17 of the Civil Aeronautics Law.		
航 空 機 Aircraft	種 類 Category	国籍記号及び 登録記号 Nationality and registration marks
	型 式 Type/Model	製 造 番 号 Serial number
	所 有 者 住所・氏名 Address/name of owner	
飛 行 経 路 Flight route		飛行の目的 Purpose of flight
経 由 地 Via		飛 行 日 時 Date of flight
操 縦 者 氏 名 ・ 資 格 Flight crew name/license		
同 乗 者 氏 名 同 乗 の 目 的 Passenger name/purpose of boarding		
許 可 の 条 件 Condition of Permit		(上記及び本欄で指定された事項以外は、裏面に記載された事項を遵守すること。) (In addition to the specified matters in the foregoing and this block, matters mentioned on the reverse side should be observed.)
備 考 Remarks		
年 月 日 Date of Issue : DD/MM/YYYY		
国 土 交 通 大 臣 Minister of Land, Infrastructure, Transport and Tourism, Japan		(Note 2) ○ ○ ○ ○ 印

(Note 1) Registration No.

(Note 2) In the case of certifications issued by the Regional Office, it
will be the Director-General Regional Civil Aviation Bureau.

(Note 1)		
○○第 号 Approval No.		
許 可 書 Special Flight Permit 第 号 Number		
(申請者) 殿 To:		
<p>年 月 日付け○○第 号で申請のあった航空機整備改造認定事業場の確認主任者の確認を受けずに行う飛行については、航空法第 19 条第 3 項において準用する同法第 11 条第 1 項ただし書の規定により、下記のとおり許可する。</p> <p>The flight to perform without the requisite authorization of the Certifying Staff of Approved Maintenance Organization for Aircraft, of which application was made on DD/MM/YYYY with (document no.), is permitted as follows, in accordance with the proviso of paragraph 1 of article 11 applied mutatis mutandis to paragraph 3 of article 19 of the Civil Aeronautics Law.</p>		
航 空 機 Aircraft	種 類 Category	国籍記号及び 登録記号 Nationality and registration marks
	型 式 Type/Model	製 造 番 号 Serial number
	所 有 者 住所・氏名 Address/name of owner	
飛 行 経 路 Flight route		飛行の目的 Purpose of flight
経 由 地 Via		飛 行 日 時 Date of flight
操 縦 者 氏 名 ・ 資 格 Flight crew name/license		
同 乗 者 氏 名 同 乗 の 目 的 Passenger name/purpose of boarding		
許 可 の 条 件 Condition of Permit		(上記及び本欄で指定された事項以外は、裏面に記載された事項を遵守すること。) (In addition to the specified matters in the foregoing and this block, matters mentioned on the reverse side should be observed.)
備 考 Remarks		
年 月 日 Date of Issue : DD/MM/YYYY		
(Note 2)		
国 土 交 通 大 臣 ○ ○ ○ ○ 印 Minister of Land, Infrastructure, Transport and Tourism, Japan		

(Note 1) Registration No.

(Note 2) In the case of certifications issued by the Regional Office, it will be the Director-General Regional Civil Aviation Bureau.

(Note 1)			
○○第 号 Approval No.			
<p style="font-size: 24px; margin: 0;">許 可 書</p> <p style="margin: 0;">Special Flight Permit</p> <p style="font-size: 24px; margin: 0;">第 号</p> <p style="margin: 0;">Number</p>			
(申請者) 殿			
To:			
<p style="text-align: center;">年 月 日付け○○第 号で申請のあった有資格整備士の確認を受けずに行う飛行については、航空法第 19 条第 3 項において準用する同法第 11 条第 1 項ただし書の規定により、下記のとおり許可する。</p> <p style="font-size: 10px;">The flight to perform without the requisite authorization of the qualified aircraft maintenance technician, of which application was made on DD/MM/YYYY with (document no.), is permitted as follows, in accordance with the proviso of paragraph 1 of article 11 applied mutatis mutandis to paragraph 3 of article 19 of the Civil Aeronautics Law.</p>			
航空機 Aircraft	種類 Category		国籍記号及び 登録記号 Nationality and registration marks
	型式 Type/Model		製造番号 Serial number
	所有者 住所・氏名 Address/name of owner		
飛行経路 Flight route			飛行の目的 Purpose of flight
経由地 Via			飛行日時 Date of flight
操縦者 氏名・資格 Flight crew name/license			
同乗者氏名 同乗の目的 Passenger name/purpose of boarding			
許可の条件 Condition of Permit		(上記及び本欄で指定された事項以外は、裏面に記載された事項を遵守すること。) (In addition to the specified matters in the foregoing and this block, matters mentioned on the reverse side should be observed.)	
備考 Remarks			
<p style="margin: 0;">年 月 日</p> <p style="margin: 0;">Date of Issue : DD/MM/YYYY</p>			
<p style="margin: 0;">(Note 2)</p> <p style="font-size: 24px; margin: 0;">国 土 交 通 大 臣 ○ ○ ○ ○ 印</p> <p style="margin: 0;">Minister of Land, Infrastructure, Transport and Tourism, Japan</p>			

(Note 1) Registration No.

(Note 2) In the case of certifications issued by the Regional Office, it will be the Director-General Regional Civil Aviation Bureau.

JCAB office where application should be submitted

Permission for the Proviso of Article 11, Paragraph 1 of CAL								
Permission of the Proviso of Article 11, Paragraph 1 applied mutatis mutandis pursuant to the Article 11, Paragraph 3 of CAL								
		Domestic Use (Note 2)			From International locations to Japan (Also domestic flights connecting to this flight)	From Japan to International locations (Also domestic flights connecting to this flight)	From International locations to Japan and also from Japan to International locations	From international locations to international locations
		Use the airport covered by the same regional office having jurisdiction over the airport		Use the airports covered by the several regional offices having jurisdiction over the airports				
		Take off and landing in the same airport	Take off and landing in the several airports					
1-005 (15) Japanese aircraft	Aircraft for air transportation conducted by specific Japanese air carrier (Note 1)	Head Office	Head Office	Head Office	Head Office	Head Office	Head Office	Head Office
	Other than the above	Jurisdiction Regional Office	Jurisdiction Regional Office	Jurisdiction Regional Office for the first take off airport	Head Office	Head Office	Head Office	Head Office
Foreign Aircraft		Jurisdiction Regional Office	Head Office	Head Office	Head Office	Head Office	Head Office	— — —
Permission of Special Flight under the proviso of Article 11, Paragraph 1 pursuant to the Article 17 Paragraph 3 of CAL								
Permission of Special Flight under the proviso of Article 11, Paragraph 1 applied mutatis mutandis pursuant to the Article 19, Paragraph 3 of CAL								
Aircraft having Japanese Airworthiness Certificate		Jurisdiction Regional Office	Jurisdiction Regional Office	Jurisdiction Regional Office for the first take off airport	Head Office	Head Office	Head Office	Head Office

(Note 1) Include ferry flight of aircraft operated by a specific Japanese air carrier

(Note 2) If it is used for domestic flight by Japanese aircraft and its operation has connections, the permission for all connecting flights will be approved by the regional office having jurisdiction over the first departure airport.

General policies on inspections for ferry flight permission

While there might have been an inconsistency on handling of inspections for airworthiness and operational safety regarding ferry flights due to absence of an applicable regulation, this circular prescribes the general policies on inspections for the ferry flight permission as follows.

1. General

1.1 Ferry flight outbound to foreign countries with Japanese registration

Installation of temporary appliance(s) and/or a change in an operational limitation for ferry flight is deemed as a “major repair” as specified in the Article 5-6 of the Ordinance for Enforcement of the CAL. Therefore, the aforementioned case(s) must be handled in accordance with this circular based on the procedures of the Article 17 of the CAL which prescribes an application for inspection of repair or alteration.

Notwithstanding above, removal of temporary appliance(s) for ferry flight, or installation of appliance(s) and a change in an operational limitation for ferry flight previously approved by the inspection of repair or alteration on that airplane may be deemed as a “minor repair” as prescribed in the Article 5-6 of the Ordinance for Enforcement of the CAL.

1.2 Ferry flight outbound to foreign countries following domestic operation with foreign registration

This ferry flight must be handled in accordance with the procedures for permission by the provisos of the Article 127 of the CAL. In this case, the inspection by Japanese authority may be omitted when the inspection by authority of the responsible country is conducted for the ferry permission. When the inspection by authority of the responsible country is not conducted, and installation of temporary appliance(s) and/or a change in an operational limitation for ferry flight is performed, a confirmation for airworthiness by aircraft inspector of Japanese authority must be added as a condition for the permission by the provisos of the Article 127 of the CAL by applying the procedures of this circular accordingly.

In this case, however, articles 2 and 3 in this circular may not be applied if appropriate procedures, instead, can be found applicable.

2. Flight manual for ferry flight

2.1 The applicant must submit two sets of flight manual for the ferry flight (in English) as applying for the permission which includes the followings:

- (1) Outline of the airplane
- (2) Outline of the flight
- (3) Any items that do not comply with the ICAO Annex 8
- (4) Any operational limitations and restrictions required for ferry flight safety which are not specified in or to be changed in the basic flight manual
- (5) Handling procedures, installation procedures, and inspection procedures for temporary appliance(s)
- (6) Procedures to restore to its original appliance(s) and to inspect the restoration

- (7) Weight and balance data for the ferry flight
 - (8) Any other information considered necessary for references
- 2.2 The responsible aircraft inspector must review the flight manual for the ferry flight, approve it by the stamp, enter the approval date, and return one set of them to the applicant. This flight manual must be equipped with the airplane during the ferry flight.
3. Entry into the flight log
- When approved, the responsible aircraft inspector must enter the followings into the flight log of the airplane:
- (1) “Qualified by the inspection of repair or alteration (overview of the inspection of repair or alteration)” in accordance with the circular No. 3-021, “Entry into the flight log following the authority inspection etc.”, and inspector’s signature
 - (2) The following statement in English

“This aircraft complies with the International Airworthiness Standards of Annex 8 to the Convention on International Civil Aviation except for the items listed on the Flight Manual for Ferry Flight.
It is certified that this aircraft has been inspected as required by Civil Aeronautics Law and Regulations of Japan and found to be airworthy for the ferry flight intended.”
4. Additional operational limitations and other restrictions
- Examples of restrictions to be described in the paragraph (4) of the flight manual for the ferry flight are shown as follows:
- a. Take-off in the overweight condition shall be made from runway or under Specified meteorological conditions
 - b. The route of flight shall be over open water, sparsely-inhabited or uninhabited terrain.
 - c. Max. quantity of fuel Carried in temporary tanks must not exceed gallons.
 - d. The carriage of cargo or persons other than the crew members necessary for the purpose of the flight is prohibited.
 - e. Acrobatics are prohibited.
 - f. Smoking is prohibited in personnel compartments where temporary fuel tanks are installed.)
 - g. Use of autopilot while in overweight condition is prohibited.
 - h. When an overweight landing is made or the aircraft has been flown through moderate or severe turbulence while in overweight condition, the aircraft must be inspected for damage after landing.

The inspections performed and the findings must be entered in the aircraft log. The pilot must determine, before the next take-off, that the aircraft is airworthy.)
 - i. Prior to requesting clearance to takeoff position, the pilot in command must advise the tower of the overweight condition and of any limitations with respect to a specific runway or prescribed meteorological conditions.
5. Inspection criteria for ferry flights

5.1 Support structures to support temporary installation such as ferry fuel tank(s) must be proved that they withstand the following load factors. In order to prove the strength, factor of safety of 1.5 must be applied.

	Transport category (g)	Except for Transport category (g)
downward	2.5	3.2
forward	2.0	2.0
rearward	1.0	1.0
sideward	1.0	1.0
upward	1.0	1.0

5.2 When a temporary fuel tank system is installed, following criteria must be met.

- a. Each fuel tank must have an expansion space of not less than 2 percent of the tank capacity. However, this is not applicable when the discharge of fuel from the vent outlet does not spray on the aircraft in any expected flight conditions and on ground.
- b. Each vent of fuel tank must be arranged to avoid lower location where water can accumulate. In addition, each vent must be arranged to avoid stoppage by dirt or ice formation.
- c. Sump and outlet filter with 1.4~2.8 mm mesh (8~16 mesh / in) must be equipped. When the capacity of sump is insufficient, sump drain must be equipped.
- d. The fuel tank must withstand an internal pressure of 3.5psi (lb/in²) or 0.245kg/cm² without failure or excessive deformation. The flexible fuel tank must pass the internal pressure test without failure or excessive deformation during the test. When the fuel tank is to be installed for a pressurized flight, the internal pressure applied at the tank test must be modified in consideration to decompression, or a placard stating that the flight is limited to unpressurized flight must be provided.

Each fuel tank must be supported so that tank loads won't be concentrated on unsupported tank surfaces and the supporting structure. There must be appropriate pads to prevent chafing between the tank and its supports, and electrical bonding.

- e. All plumbing and fittings must have a proven quality suitable to aviation use.

When two or more temporary tanks are installed, they must be designed so that each tank can supply fuel into powerplant independently.

- f. Each fuel tank must have vent(s) outboard.

In order to prevent hazard of fire, explosion, or toxicity, appropriate ventilation must be provided in the chamber where the fuel tank is located. In case electric device(s) is installed by the fuel tank, special attention must be paid.

- g. All fuel valves must be identified by the placard indicating relating fuel tank(s) and established operation procedures to supply fuel. Each temporary fuel tank must have a fuel shut-off valve to isolate it from the main fuel tank.

These fuel valves must be located so that the operating person can access easily.

- h. A means to readily determine the fuel quantity in the tank must be provided. Each tank must be

identified with tank capacity and the required minimum class of fuel. For refueling, installation of three inch long filler neck is recommended. In any situation, each fuel tank filler connection must prevent spillage of fuel outside of the airplane.

- i. Installation of an external fuel tank previously not type certificated or approval of type of component must be examined carefully in regard to the airworthiness.
- j. The temporary fuel system as installed must be certified for the proper performance of its function.
- k. The oil supply provided for each engine is sufficient ensuring satisfactory cooling and system circulation by the remaining quantity after the oil supply for the duration of the flight is consumed.

In order to determine the oil supply to fulfill this requirement, actual oil consumption rate within minimum of 25 hours of operation or an average consumption rate specified by the engine manufacturer must be used.

- l. An additional oil tank required for additional engine oil must meet the requirements for the tank installation and test of the ferry flight fuel tank. However, internal pressure of 5 psi (lb/in²) or 0.35 kg/cm² must be applied for the engine oil tank.

When the additional engine oil tank is arranged to transfer the oil to the original tank or sump, an appropriate means must be provided to ensure that the required oil quantity for the safe engine operation specified by the engine manufacturer is maintained.

In addition, an appropriate means must be provided to avoid an excessive quantity of the oil transferring to the original tank during the flight.

- m. For the engines that require the fuel return to a carburetor or injector, the temporary fuel system must be provided with an appropriate means for the return.

5.3 Any temporary appliance (such as special navigation and communication equipment) other than above must be provided with the similar consideration as above. Especially, ferry flights require installation of the special navigation and communication equipment suitable to the ferry flight.

For the long range over water flight, HF communication equipment must be installed.

5.4 For the flight where the proposed maximum weight exceeds 110 percent of the maximum certificated weight, the applicant must prove that there is a sufficient safety margin in operational characteristics and performance of the aircraft.

For the flight where the CG limits exceed the certified limits, the aircraft manufacturer must conduct technical evaluation in regard to the airworthiness, and the applicant must prove the airworthiness by the flight test.

In this regard, the estimated power off stall speed [V_{S1(New)}] and the estimated take-off or lift-off speed must be obtained by the following formula, and be indicated on the instrument panel at a readily visible location by the pilots.

$$V_{S1(New)} = V_{S1} \sqrt{\frac{W_2}{W_1}}$$

The estimated take-off or lift-off speed = 1.1 × V_{S1 (New)}

Where W₁ = Maximum take-off weight, W₂ = Over weight

Appendix 3

Handling of foreign registered commercial aircraft airworthiness performing demonstration flight

Class		Related airworthiness regulation articles	Related work
Aircraft of ICAO Member states	With Airworthiness certificate conforming to the ICAO Annex 8 1) Inbound through air route	The provisos of CAL Article 127 (Permission of domestic use) Restate of Airworthiness certificate etc. (CAL Article 131)	(Check of the airworthiness certificate as necessary)
	Ditto 2) Inbound except for air route (such as see vessel)	The provisos of CAL Article 127 The provisos of CAL Article 11 (Permission for aviation use)	Check of the airworthiness certificate and the actual aircraft
	Without Airworthiness certificate conforming to the ICAO Annex 8	The provisos of CAL Article 127 The provisos of CAL Article 11	1. Review of the safety related items within article 3 of this circular 2. Check of the actual aircraft 3. Establishment of required condition for permission
Aircraft other than above		The proviso of CAL article 127 The proviso of CAL Article 11	1. Review of the safety related items within Article 3 of this Circular 2. Check of the actual aircraft 3. Establishment of required condition for permission