

Circular No. 1-306

## Procedures for Issuing Type Inspection Authorization

September 30, 2005	First Issue
June 30, 2011	Amended

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

(translated on July 12, 2016)

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September 30, 2005 First issue (KOKU-KU-KI-5029)  
June 30, 2011 Amended (KOKU-KU-KI-282)

JCAB Circular

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

Subject: Procedures for Issuing Type Inspection Authorization

1. Purpose

This Circular aims to stipulate the requirements for initiating the official flight test performed by the Japan Civil Aviation Bureau (hereinafter referred to as “TC flight test”) as well as the standard practices for the confirmation methods and the issuing procedures for Type Inspection Authorization (hereinafter referred to as “TIA”), etc. when the Japan Civil Aviation Bureau (JCAB) performs inspection for type certification, etc. of Japanese manufactured Aircraft.

2. Applicability

In Type Certification, etc., there are some matters needed to be completed prior to the TC flight test, from the perspective of ensuring the soundness, certainty, and safety of the TC flight test.

When performing a TC flight test, etc., the JCAB will issue a TIA when it confirmed that, prior to said flight test, the applicant has already completed the matters required for safe implementation of the flight test.

TIA is the record that the JCAB confirmed upon the applicant’s declaration that, with regard to the aircraft under inspection for type certification, etc., the compliance with the certification basis has reached a satisfactory level to initiate the TC flight test.

For the services specified in this section and Section 3 of this Circular concerning inspection related to the confirmation based on the provision of Article 40 of the Ordinance for Enforcement of the Civil Aeronautics Act by the any person who is granted approval under Article 20, paragraph (1), item (i) of the Civil Aeronautics Act, reference to government offices shall be replaced by “Approved Design Organization,” and reference to government officials shall be replaced by “certifying staff who is appropriate for the said services stipulated in the Approved Organization Expedition .”

3. TIA

3-1 Points to Be Checked for Issuance of TIA

With regard to performing the TC flight test, the required conditions such as that for the items in the

certification basis designated by the JCAB, technical investigation of the items other than flight test for compliance shall be completed, the test articles (test aircraft) shall be produced in accordance with the design data specified in the approved test plan and the requirements for ensuring flight safety, etc. shall be established, will be stipulated through the review of the Pre-flight Type Certification Board Meeting.

The JCAB shall confirm Section 3-1-1 through 3-1-3 listed below by reviewing the applicant's reports, etc. to make sure that matters which shall be completed prior to the TC flight test and other matters to be required for ensuring flight test safety have been satisfied before the TC flight test is performed.

#### 3-1-1 Completion of Compliance Finding

The JCAB confirms that technical investigation has been completed at a satisfactory level for the items in the certification basis that require compliance finding to be completed prior to the issuance of the TIA, which are agreed by the Pre-flight Type Certification Board Meeting, by reviewing the technical data, etc. specified in the latest approved Certification Plan and the compliance checklist, etc. submitted by the applicant.

#### 3-1-2 Test Articles (Test Aircraft)

In order to ensure the safety and integrity of the TC flight test which is conducted after issuance of the TIA, test articles (test aircraft) shall be produced in accordance with the design data specified in the test plan whose compliance finding has been completed and that have been approved by the JCAB. Therefore, the JCAB shall confirm that the predetermined items are satisfied based on the statement by the applicant.

#### 3-1-3 Ensuring Flight Safety

TC flight test plans shall be approved and Statement of Compliance shall be issued by the JCAB.

The JCAB may request the applicant for reports on the results of applicant's flight tests in order to identify the soundness and safety of the test articles (test aircraft) and the feasibility of the TC flight tests.

The report must include matters such as the applicant's flight test implementation system, safety management system, implementation status of the test, testing details and results, any failures that occurred during flight tests, and the aircraft's condition, which are required to determine the feasibility of the safe and secure TC flight tests.

It is expected that TC flight test will include a flight beyond the operational limitations and in an emergency condition; therefore, the applicant shall fully understand the potential risk of the flight test performed under such circumstances and take necessary measures to avoid and minimize any possible risk.

### 3-2 Issuance of TIA

Upon completion of confirming the necessary matters in Section 3-1, the JCAB will issue a TIA to the applicant.

The format of the TIA and description information are shown in Appendix 1.

### 3-3 In Cases of Design Change to Type Certification

With regard to relatively minor design changes that are claimed by the applicant to obviously have no risk to the said test and have no appreciable effect on other features of aircraft (e.g., strength, flying characteristics, performance, fire resistance, and electromagnetic interference), the JCAB may omit the Pre-flight Type Certification Board Meeting specified in Section 3-1-1 for issuance of the said TIA and may choose not to request the applicant to provide the results of applicant's flight tests specified in Section 3-1-3, if documents submitted by the applicant demonstrate that the test aircraft conforms to the design data and that the airworthiness of the part other than tested part are guaranteed.

## 4. Miscellaneous Provision

Regardless of the provisions in this Circular, TIA may be issued by other means when it is deemed necessary by the Director of the Aircraft Engineering and Certification Center.

### Supplementary Provision

1. This Circular shall be enforced on October 1, 2005.

### Supplementary Provision (June 30, 2011)

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

Contact the following for inquiries, opinions, etc. concerning this Circular.

Aircraft Engineering and Certification Center

Airworthiness Division

Aviation Safety and Security Department

Japan Civil Aviation Bureau

Ministry of Land, Infrastructure, Transport and Tourism

Nagoya Airport, Toyoba, Toyoyama-cho, Nishi-kasugai-gun, Aichi Prefecture 480-0202

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<b>TYPE INSPECTION AUTHORIZATION</b>							1/	Date			
							Project No.				
Name of Applicant					Address						
<b>1. Inspection Authorized for</b>											
	Airplane	Other		New Model							
	Engine			Altered Model				TC Data Sheet No.			
	Propeller										
	Rotorcraft										
2. Certification Basis											
<b>3. Category—for Airplane Only</b>											
	Normal		Utility		Acrobatic		Transport		Commuter		Other
4. Description of Alteration											
5. Design Speed (EAS)				6. Maximum Mach No. (Design)				7. Design Weights			
8. Maximum Operating Altitude				9. Maximum Cabin Pressure Differential				10. C.G. Limits			
11. Cargo and Baggage Compartments: Location and Maximum Loads						12. Structural/Maneuvering Limits					
<b>13. Operational Limitations</b>											
Engine Make and Model							Engine Data Sheet No.				
Item	On T/O	Low Ratio Super Charger		High Ratio Super Charger		Maximum Allowable Temp.		°C			
		Sea Level	ALT. High	ALT. (Min)	ALT.(Max)	Cylinder Head	Washer				
						Cylinder Base					
IN. HG.						Oil Inlet					
RPM						Minimum Carburetor Heat Rise Req. @MC Power					
HP											
<b>14. Propeller</b>											
Make and Model						Data Sheet No.		Diameter			
Hub Model No.			Blade Model No.			Limitation					
<b>15. Rotorcraft</b>				Maximum	Minimum	<b>16. Inspection Report</b>					
PWR. On Rotor Limits—RPM						100HR Inspection Completed		Yes			
PWR. Off Rotor Limits—RPM								No			
<b>17. Equipment List</b>					<b>18. Issue of Type Inspection Authorization</b>						
Is Equipment List Correct as to Weight and Arm of Each Item					Yes	Section 3-1 Completed					
					No						
Equipment List Attached		Yes	MFGR. REPORT No.		Note						
		No									
Originated By			Concurrences								
			Title	Initials	Title	Initials	Title	Initials			
<b>Approval</b>											
Date			Title (Approved Organization No.)			Signature					

1. Project No.: Enter the JCAB project number established for the project.
2. Date: Enter the date when the Type Inspection Authorization is issued.
3. Name of applicant: Enter the name as shown on the project application.
4. Address: Enter the address as shown on the project application.
5. Section 1 – Inspection Authorized For: Identify type of product whether new or altered, and if altered, the original TC number.
6. Section 2 – Certification Basis: Enter the complete certification basis for the project. A reference may be made to additional pages as required.
7. Section 3 – Category: For aircraft only, identify the proper category.
8. Section 4 – Description of Alteration: For alteration, include a complete description of the alteration being made. A reference may be made to additional pages as required.
9. Sections 5 through 10 and 12: Reference page that identifies approved limitations, or reference to approved flight manual.
10. Section 11: Identify location and maximum loads of cargo and baggage compartments.
11. Section 13: Identify engine information, operation limitations, and TCDS number. For turbine engine operating limitations, reference supplemental page that identifies approved limitations, or reference to approved flight manual or engine operating instructions.
12. Section 14: Identify propeller information and TCDS number. Reference supplemental page that identifies approved limitations, or reference to approved flight manual.
13. Section 15: For rotorcraft, identify rotor rpm limits.
14. Section 16: Identify if 100-hour inspection or equivalent has been completed.
15. Section 17: For equipment list, identify if it has been verified for correct weight and moment arm of each item of installed equipment. Indicate if equipment list is attached and identify the manufacturer's report number, if appropriate.
16. Section 18: Indicate that the provision in Section 3-1 of this Circular has been completed.
17. Originated By: Indicate the office responsible for Type Inspection Authorization.
18. Concurrences: Identify the offices that agree with issuing said Type Inspection Authorization.
19. Approval: Identify date and title of approval authority.