



# ADVISORY CIRCULARS

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## Maintenance Records and Reports

Flight Standard Department

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## General Administration of Civil Aviation of China

**Advisory Circulars**

No: AC-145-4

Issue Date: Feb.9.2003

Approved by:

**Title: Maintenance Records and Reports**

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### 1. Reference and Purpose

This Advisory Circular is formulated in accordance with China Civil Aviation Regulations Approval of Civil Aircraft Maintenance Organization (CCAR-145-R2) issued and put into effect on 21 December, 2001. It serves as a guide to all maintenance organizations on how to complete the maintenance record.

### 2. Applicability

This AC is applicable to all maintenance organizations.

### 3. Cancel

Maintenance Records and Reports (AC-145-04R1) issued on 1, April, 1992 and revised on 15, April, 1993 is canceled.

### 4. Description

Some forms of CCAR-145 are the general forms based on other civil aviation regulations. This AC does not serve as a guide to how to use these forms on all conditions, but only a guide to the maintenance organizations conditioned by CCAR-145 on how to complete these forms.

### 5. Instructions for completion

5.1 Release Approval/Airworthiness Approval Tag [Form AAC-038(12/94)]

(1) Fill in China. This column shall be preprinted.

(2) Select "airworthiness". This column shall be preprinted.

(3) Fill in Tag Number. For the purpose of control and tracing of this document, the tag numbers shall be preprinted sequentially by means of running numbers, unless the serial number is established by the use of computer program, in

which case the serial numbers may not be preprinted.

(4) Fill in the full name and address of the maintenance organization which uses this tag to release component/part. This column shall be preprinted.

(5) Fill in relevant work-order number/contract number/bill number as decided by the organization. The purpose of this column is for the organization to establish a quick search system by means of referring to work-order number/contract number/bill number or in respect to internal procedures of the organization.

(6) Fill in the item number of the component/part released by this tag. Entry to this column is not compulsory. The item number is provided for the convenience of note making in column 13.

(7) Fill in the nomenclature of the component/part. The nomenclature in Illustrated Part Catalogue (IPC) shall be used preferably.

(8) Fill in the part number of the component/part. The part number in IPC shall be used preferably.

(9) Fill in the type/model of aircraft, engine or propeller on which the component/parts is applicable to be installed. If a component/part is applicable to multiple types/models of aircraft, engine or propeller, "APPLICABLE TO MULTIPLE TYPES" may be filled in. If the type/model to which the component/part is applicable is not known, "NOT KNOWN" may be filled in.

Note: Any information contained in Column 9 must not be used as the instruction approval of the component/part for specified types/models of aircraft, engine or propeller. The component/part user/installer must assure the applicable types/models effectively by means of IPC, service bulletins or other pertinent documents.

(10) Fill in the quantity of the component/part released.

(11) Fill in serial number or batch number of the component. If there is no such number, fill in "NOT APPLICABLE".

(12) Fill in technical status of the component/part in 4 categories:

- (a) Inspected/Tested
- (b) Repaired
- (c) Modified
- (d) Overhauled

(13) In this column, the approved data/manual/technical standards on which the 4 categories contained in Column 12 are based, and the specific data and limitation to the part/component released must be entered to help the user/installer determine the final airworthiness of the part/component. Each involved item shall be pointed out in each description. In case there is no such description available, mark "NONE".

Some examples are listed below to show what contents shall be included in this column:

- a) Identification and revision number of CMM;
- b) Operation limits of repaired product;
- c) Standards for modification;
- d) Approved serviceable spare part/component;
- e) Compliance or non-compliance with AD or service bulletins;
- f) Life time limits;
- g) Condition of the part/component or the referred documents containing such condition in detail;
- h) Effective date;
- i) Date of storage;
- j) Existing defects;

(14) Line through by diagonal to show not applicable;

(15) Self-explainable;

(16) The release must be signed by the individuals authorized by CAAC approved maintenance organization. Autographic signature must be used;

(17) The name of the person who signs shall be printed formally;

(18) Fill in the date on which the release is signed;

(19) Fill in the certificate number issued to the organization/individual by CAAC;

(20) Self-explainable.

## 5.2 Major repair and alteration records [Form AAC-085(12/94)]

(1) Owner: fill in the full name of the owner.

(2) Address of the owner: fill in the address of the geographical location which shall be identical with the one on the registered certificate of the owner.

(3) Repair or alteration items:

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- a) Mark “x” in the block of airframe, power plant, propeller, or appliance in accordance with the item to be repaired or modified.
- b) In the block of Unit, fill in the name of the item to be repaired or modified.
- c) In the block of Manufacturer, fill in the name of the manufacturer that has manufactured the item.
- d) In the block of Model, fill in the model/type number of the item.
- e) In the block of Serial Number, fill in the serial number of the item.
- f) Mark “x” in the block of Repair and Alteration to show the type of maintenance work.

(4) Conformity statement:

- a) In the block of Name and Address of Maintenance Organization, fill in the full name and address of the maintenance organization which shall be the same as those on the maintenance organization certificate.
- b) In the block of Maintenance Organization Certificate No. , fill in the certificate number.
- c) In the block of Date, fill in the date on which the form is entered.
- d) In the block of Signature of Authorized Individual, the signature of the accountable manager in the organization or the quality manager authorized by him shall be signed.

(5) Approval for return to service;

- a) The final release person mark “x” in the box of Approved or Rejected to indicate whether the item is approved or not;
- b) Mark “x” in the box of Repair Station Certificated by CAAC;
- c) In the block of Date of Approval or Rejection, fill in the date on which the approval or the rejection is decided;
- d) In the block of Signature, fill in the name of the release personnel and his maintenance license number.

(6) Summarize the accomplished maintenance work. The summary should be simple, correct and to the point, especially the contents of the repair or alteration shall be clear. List the data and criteria which were referred when approval for return to service was made. The detailed requirement is as follows:

- a) The repair or alteration shall be described firstly, giving the name and

work scope of the item. Then, describe the process of repair or alteration in detail in which case the involved regulations of CCAR and the data approved by the airworthiness shall be pointed out to verify the airworthiness conformity of the repair or alteration.

As for the parts affected by the repair or alteration and other additional work, there shall be a statement guaranteeing that the affected parts have been checked and are in good condition.

- b) The data used for approving major repair and alteration item to return to service must be authorized by the airworthiness. Such as airworthiness regulation (airworthiness directives), Technical Standards Order (TSO), Parts Manufacturer Approval (PMA), work illustration of the manufacturer approved by the airworthiness, material package and Type Certificate Data Sheet (TCDS) and relevant technical criterion.
- c) Supported data and material used in major repair and alteration such as stress analysis, experiment report, drawing or pictures should be attached on form AAC-085.
- d) For the major repair and alteration of the airframe, the registered country and registered number of the aircraft and the date on which all the work is accomplished shall be entered.
- e) Weight and balance changes after repair and /or alteration shall be entered.

### 5.3 Defects and unairworthy conditions reports [Form F145-5 (10/2001)]

(1) Enter the aircraft registered number which has been found malfunction and defect on airframe, power plant, propeller or parts.

(2) Fill in the respective blocks corresponding with the airframe, power plant, propeller and aircraft parts.

- a) Manufacturer: fill in the manufacturers' name corresponding with the airframe, power plant, propeller or parts;
- b) Type/model: fill in the type or part number corresponding with the airframe, power plant, propeller or parts;
- c) Serial number: fill in the serial number or batch number corresponding with the airframe, power plant, propeller or parts;
- d) Owner: fill in the operator of the aircraft on which the airframe, power

plant, propeller or parts are installed.

(3) Fill in the cause of defect and unairworthy conditions and detailed information about defect and unairworthy conditions:

- a) Name: enter the name of malfunction or defect part. The nomenclature in Illustrated Part Catalogue (IPC) shall be used preferably;
- b) Part number: enter the part number of malfunction or defect part. The part number in IPC shall be used;
- c) ATA Chapter: enter the ATA chapter number which includes the system the malfunction or defect parts belongs to;
- d) Location of malfunction or defect part;

e) The consequence or signs of consequence caused by defect and unairworthy conditions, some factors such as the time period and circumstances (if applicable) shall be described first. Then describe the maintenance work being performed, the work time of discovering malfunction or defect part, trouble-shooting or repair work of defect and unairworthy conditions. Explain the cause of defect and unairworthy conditions which has been analyzed and tested and put forward the suggestion about how to prevent such defect and unairworthy conditions from reoccurring.

(4) Information of organization reporting defect or unairworthy conditions:

- a) Reporter: quality manager of the maintenance organization or the personnel authorized by him. His name shall be printed formally first then autographic signature must be used;
- b) Report date: fill in the date on which the form is entered;
- c) Report organization: fill in the full name of the maintenance organization and its maintenance certificate number.



Maintenance Records and Reports

**Attachment 1**

1. Country	2. CAAC <input type="checkbox"/> Conformity <input type="checkbox"/> Airworthiness <b>AUTHORIZED RELEASE CERTIFICATE/AIRWORTHINESS APPROVAL TAG</b>					3. Form Tracking No.	
4. Organization					5. Work Order/Contract/Invoice		
6. Item	7. Description	8. Part No.	9. Eligibility	10. Qty	11. Serial/Batch No.	12. Status/Work	
13. 备注 Remarks							
14. New Parts Certifies that the Part(s) identified above except as otherwise specified in block 13 was (were) manufactured/inspected in accordance with the airworthiness regulations of the stated country and/or in the case of parts to be exported with the approved design data and with the notified special requirements of the importing country.				15. Used Parts Certifies that the work specified above except as specified in block 13 was carried out in accordance with the airworthiness regulations of the stated country and the notified special requirements of the importing country and in respect to that work, the part(s) is (are) in condition for safe operation and considered ready for release to service. (over)			
16. Signature		18. Date		19. Issued by or on behalf of the CAAC			
17. Name (Printed)							

AUTHORIZED RELEASE CERTIFICATE/AIRWORTHINESS APPROVAL TAG

**USER/INSTALLER RESPONSIBILITIES**

- (1) It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.
- (2) Where the user/installer works in accordance with the national regulations of an Airworthiness Authority different than the Airworthiness Authority of the country specified in block 1 it is essential that the user/installer ensure that his/her Airworthiness Authority accepts parts/components/assemblies from the Airworthiness Authority of the country specified in block 1.
- (3) Statements 14 and 15 do not constitute installation certification. In all cases the aircraft maintenance record must contain an installation certification issued in accordance with the national regulation by the user/installer before the aircraft may be flown.

**Attachment 2**

Civil Aviation Authority of China  <b>MAJOR REPAIR AND ALTERATION</b> (Airframe, Powerplant, Propeller, or Appliance)	155 Dongsu-east street Beijing China (100710) Fax: 86-10-64030987				
1. Owner					
2. Owner Address					
3. Repair or Alteration Items					
Airframe <input type="checkbox"/> Powerplant <input type="checkbox"/> Propeller <input type="checkbox"/> Appliance <input type="checkbox"/>					
Name	Manufacturer	Type number	Serial Number	Type	
				Repair	Alteration
4. Conformity Statement					
Name and Address of Maintenance Organization			Maintenance License Number		
I certify that the repair and/or alteration described in the item 3 above and work description in item 6 have been made in accordance with requirements of CCAR and the information furnished herein is true and correct to the best of my knowledge.					
Date			Signature of responsible personnel of maintenance organization		
5. Approval to Return to Service					
Pursuant to the authority given persons specified below. The unit identified in item 3 was inspected in the manner prescribed by CAAR and is APPROVED <input type="checkbox"/> REJECTED <input type="checkbox"/>					
CAAC Airworthiness Inspector <input type="checkbox"/> CAAC Deputed Airworthiness Inspection Representative <input type="checkbox"/> CAAC Approved Maintenance Organization <input type="checkbox"/> Other <input type="checkbox"/>					

Date of approved or rejected	Signature:
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Notice: Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

6. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration number, experimental data, the major problem in maintenance and correct measure and accomplished date.

**Attachment 3**

1. Aircraft Registration Number  B-	CIVIL AVIATION AUTHORITY OF CHINA			For CAAC use only
	<b>MALFUNCTION OR DEFECT REPORT</b>			Control Number:
2. The main equipment concerned				
Class	Manufacturer	Type Number	Serial Number	Owner
Airframe				
Powerplant				
Propeller				
Appliance				
3. Description, cause and treatment				
Condition of malfunction or defect part			Location of malfunction or defect part:	
Name	Part Number	ATA Chapter		
Describe the malfunction or defect and the circumstances under which it occurred. State probable cause and recommendations to prevent reoccurrence.				
Reporter:			Date:	
Report Organization:				

F145-5(10/2001)

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