



CAAC

# **ADVISORY CIRCULAR**

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Number: AC-145-2R1

Issue Date: 18 Jun, 2011

## Application Guide for Foreign/Regional Maintenance Organization Certificate

Flight Standard Department

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The auditing fees for foreign/regional maintenance organization are calculated based on man-hour cost and the applicable standards established by the People's Republic of China.

## **5 . Application precondition**

5.1 The applicant shall have the capability or available conditions to perform maintenance of one of the following functions and ratings as defined in article 18 and 19 of CCAR-145:

- (1) Maintenance functions: Inspection/Test, Repair, Modification, Overhaul, Line maintenance, Scheduled maintenance;
- (2) Maintenance ratings: Airframe, Power Plant, Propeller, Components other than complete engine/APU or propeller, Specialized Service.

5.2 The applicant must hold maintenance organization certificate approved by its national /regional civil aviation authority.

5.3 The applied maintenance items shall be Chinese-registered aircraft, or power plants, propellers or aircraft components to be installed on the Chinese-registered aircraft.

5.4 The following letter of intent acceptable to CAAC is necessary for initial application and adding new functions/ratings:

- (1) A letter of intent from Chinese customer;
- (2) A letter of intent from non-Chinese customer, the supplemental proof document shall be included or submitted separately to show the business intent may be traced back to the demands of Chinese customer eventually

5.5 The applicant who applies for renewal of a Maintenance Organization Certificate must submit *Maintenance Organization Annual Report* (Form F145-4) for work performed in the previous year prior to Feb. 01 each year.

5.6 If the applicant delegates any agent to assist in application of a maintenance organization approval, the agent must be authorized by the applicant and be properly trained of the relevant regulations. The agent shall be familiar with CCAR-145 and the maintenance approval application procedures. The applicant shall report the agent's information to CAAC to put on record.

5.7 Any adverse records of the applicant kept by CAAC in the past may result in an unacceptable application. The adverse records include but not limit to following:

- (1) The application was cancelled or audit was refused by the applicant after CAAC had issued the Notification of Acceptance for Application;
- (2) The applicant refused to cooperate with CAAC for audits and or investigations organized by CAAC regarding to the maintenance quality;
- (3) The applicant does not pay for the concerned auditing fees after the audit being conducted by CAAC;
- (4) The applicant does not submit the concerned information to CAAC according to the concerned requirement;
- (5) Serious maintenance quality problems occurred on the aviation products of Chinese customer;
- (6) The applicant provided false information to CAAC deliberately.

## **6. Responsible Managing Unit**

Application and approval of foreign/regional applicants is under the responsibility of:

**Continued Airworthiness & Maintenance Division  
Flight Standards Department of CAAC:**

155# Dong Si Street West, DongCheng District, Beijing, 100710

Fax: 86-10-64030987

## **7 . Application Procedure**

7.1 First of all, the applicant shall study the current CCAR-145 and the applicable Advisory Circulars (AC), which may be obtained from the responsible managing unit listed in paragraph 6 of this AC or by visiting concerned website (i.e. *Civil Aviation Maintenance of China*: <http://www.china-cam.cn>).

7.2 Applicant shall complete the application form for maintenance organization certificate and prepare the materials required. The copy of the application form may be used, but the contents being filled in and the signature shall be original. In the case

of applying for renewal the maintenance certificate, or only changing the maintenance capability list but not changing the approved ratings on the maintenance organization certificate, the application form is not required.

7.3 Application materials shall be submitted to the Managing Division listed in paragraph 6 of this AC. CAAC accepts application materials posted or submitted by the applicant, or passed on by the agent described in 5.6 of this AC.

7.4 The applicant applying for initial approval shall meet the person-in-charge of the Managing Division listed in paragraph 6 of this AC to confirm the issues related to the application. The meeting shall be scheduled at a time agreed by both parties. For renewal of an approval, application shall be forwarded to CAAC at least 6 months before the expiry date of the certificate or upon notification by CAAC.

7.5 CAAC shall issue the Notification of Acceptance for Application to those applicants who are qualified for the application preconditions stated in paragraph 5 of this AC, accept the audit plan given by CAAC and are willing to pay the auditing fee.

7.6 All applications, except those for changing the maintenance organization name only, must undergo on site audit performed by CAAC, who will assign an audit team to perform on site audit after issuing the Notification of Acceptance for Application. The audit team shall notify the applicant of the detailed audit plan at least 30 days prior to the audit.

7.7 After receiving the Notification of Acceptance for Application, applicant shall pay the auditing fees per the method stipulated on the notification. CAAC only accepts the payment by wire transfer as stipulated on the notification, and the received amount of auditing fees must be the same as that specified on the Notification. All handling charges of remittance shall be paid by the applicant. After paying the auditing fees, the maintenance organization shall provide the proof of payment (i.e. the copy of the wire transfer) to the audit team or the responsible managing unit listed in paragraph 6 of this AC

7.8 The audit team will give the recommendations of approval to the responsible managing unit listed in paragraph 6 of this AC by means of audit report while the on-site audit was completed. The responsible managing unit is responsible for the audit report reviewing and approval.

7.9 Once the audit report had been reviewed and accepted by the responsible managing unit listed in paragraph 6 of this AC, the CAAC will issue the maintenance organization certificate to the applicant; If the applicant failed for maintenance organization certificate approval, the applicant will be notified by the notification letter issued by CAAC.

## 8. Submission of Documents

8.1 For initial application, the applicant shall submit the following documents:

- (1) Application for issue of maintenance organization certificate (F145-1);
- (2) Maintenance Management Manual (Refer to AC-145-5 for instructions on development of the manual;
- (3) Maintenance capability list (only for applicant applying for aircraft component or line maintenance function of Airframe ratings);

Refer to Attachment 2 of this AC for component capability list and Attachment 3 of AC145-06R1 for line maintenance capability list.

- (4) Letter of Intent from the customer;
- (5) A copy of latest valid Maintenance Organization Certificate issued by the national/regional civil aviation authority.

8.2 For application of changing maintenance ratings or items, the applicant shall submit the following documents:

- (1) Application for issue of maintenance organization certificate (F145-1);
- (2) Draft amendment of the Maintenance Management Manual, with obvious revision markings to identify and highlight the changes of the amendment.
- (3) Draft amendment of the Maintenance Capability List (if applicable), with obvious revision markings to identify and highlight the changes of the amendment.
- (4) Letter of Intent for newly applied items from the customer;
- (5) A copy of latest valid Maintenance Organization Certificate issued by the national/regional civil aviation authority;
- (6) Background introduction of the applied changes.

8.3 For applications of changing location or facilities, the applicant shall submit the following documents:

- (1) Application for issue of maintenance organization certificate (F145-1);

(2) Draft amendment to the Maintenance Management Manual, with obvious revision markings to identify and highlight the changes of the amendment;

(3) A copy of latest valid Maintenance Organization Certificate issued by the national/regional civil aviation authority.

(4) Plan for the location or facilities changes and supporting documentation (example, Quality Assessment Report, Risk Assessment Report, Approval of the national/regional Civil Aviation Authority, background of the changes and etc.;

(5) Draft Amendment to the Maintenance capability list (if applicable), obvious revision markings to identify and highlight the changes of the amendment.

8.4 For applications of changing organization structure or name, the applicant shall submit the following documents:

(1) Application for issue of maintenance organization certificate (F145-1);

(2) Justifications for the organization structure or name change;

(3) Draft amendment of the Maintenance Management Manual, with obvious revision marking to identify and highlight the changes of the amendment;

(4) A copy of latest valid Maintenance Organization Certificate issued by the national/regional civil aviation authority.

(5) Maintenance capability list (if applicable), with obvious revision marking to identify and highlight the changes of the amendment;

8.5 As for renewal application of the maintenance organization certificate, only correspondence signed by the Accountable Manger or the quality manager authorized by the Accountable Manager is required to express the intention for maintenance organization certificate renewal and commitment to pay for the required fees and charges.

8.6 For application of changing maintenance capability list only, the applicant shall submit the following documents:

(1) Draft Amendment to the Maintenance capability list (if applicable), obvious revision markings to identify and highlight the changes of the amendment ;

(2) The letter of intent from the customer with the part numbers going to be added;

- (3) The internal maintenance capability evaluation report and the evaluation record of the part numbers going to be added, signed by the quality manager.
- (4) Proof or statement testifying that the applied new item has been approved by the national/regional civil aviation authority

8.7 For other applications, the applicant shall submit the following documents:

- (1) The application letter signed by the Accountable Manager or the Quality Manager authorized by the Accountable Manager;
- (2) Supporting documents as applicable.

## **9. Instructions for completion of the Application for issue of Maintenance Organization Certificate F145-1 (10/2001)**

9.1 The applications from foreign maintenance organizations shall be filled out in English; the applications from regional maintenance organization shall be filled out either in English or Chinese. Except for signatures, the other contents shall be printed out.

9.2 Requirements for filling out the application:

- (1) Name of the applicant: the full legal name of the applicant, which shall be that one on the maintenance organization certificate issued by the national/local administration.
- (2) Address: the mailing address of the applicant (including postcode).
- (3) Telephone/ Fax: the telephone and fax number offered must ensure the normal communication between CAAC and the Accountable Manager.
- (4) Reason for application: Mark "X" in the corresponding column according to application purpose; if mark "X" in the column of "other reasons", detailed information is required.
- (5) Maintenance functions applied for: Mark "X" in the corresponding column according to function applied for. If mark "X" in the column of "other items", detailed information is required.
- (6) Accountable Manager: shall be the one specified in the Maintenance Management

Manual submitted by the organization:

- a) Name: shall be printed.
- b) Title: the full name of the position actually held in the maintenance organization;
- c) Signature: autographic signature by the Accountable Manager himself;
- d) Date: date on which the Accountable Manager signs.

(7) Detailed maintenance functions applied for and facilities location: refer to Attachment 6 of CCAR-145 to fill out the maintenance functions applied for. The facilities location could be omitted from the list if it is same as that mentioned in item (2); but if the location is different from or more than that specified in item (2), detailed information of the locations and maintenance functions applied for each location shall be listed clearly.

(8) Maintenance functions contracted to outside agencies: only those contracted maintenance functions related to the applied function are required.

## **10 . Fees and Charges**

### 10.1 Fees for initial approval (To)

(1) Fees for initial approval (To) are the summation of application acceptance fee (A), on site audit fee (C) and supplementary fee (S).

(2) Application acceptance fee (A) is calculated per standard man-hour multiplied by man-hour fee.

(3) On site audit fee (C) is calculated per standard man-hour multiplied by man-hour fee.

(4) Standard man-hour equals benchmark man-hour multiplied by weighting coefficient.

Benchmark man-hour (H) is classified into two categories: application acceptance benchmark man-hour (Ha) and maintenance function benchmark man-hour (Hc), among which, the application acceptance benchmark man-hour (Ha) is set up at 12 man-hours, the maintenance function benchmark man-hour is calculated as follow:

a) Airframe: 40 man-hours for each maintenance production line, extra 12 man-hours for one more aircraft type of the same maintenance production line; For the line maintenance, 8 man-hours for each type of aircraft.

b) Power plant (including APU): 24 man-hours for each maintenance production line, and extra 8 man-hours for one more power plant type of the same production

line.

c) Propeller: 16 man-hours for each maintenance production line, and extra 4 man-hours for one more propeller type of the same production line.

d) Components: 24 man-hours for less than 30 (included) items; 48 man-hours for 30 to 100 (included) items; 72 man-hours for 100 to 200 (included) items; 96 man-hours for 200 to 500 (included) items; 120 man-hours for 500 to 1000 (included) items; 144 man-hours for 1000 to 3000 (included) items; 168 man-hours for 3000 to 5000 (included) items; 192 man-hours for 5000 to 10000 (included) items; For items above 10000, on the basis of 192 man-hours, add 24 man-hours for addition of any items up to 10000 man-hours.

e) Specialized service: 4 man-hours for each special process.

(5) Weighting coefficient of standard man-hour (K1): it is 1 when Chinese is the working language, and it's 4 when English or other language is the working language;

(6) Man-hour fee (N): it is 200 Yuan per man-hour.

(7) Supplementary fee (S) includes costs for accommodations, air tickets, ground transportations, and other costs during certification process. (The supplementary fee will not be charged if those costs may be provided or covered by the maintenance organization).

Calculation formula:

$$T_o = A + C + S = H * K_1 * N + S = (H_a + H_c) * K_1 * N + S$$

Note: "H<sub>a</sub>" is the application acceptance benchmark man-hour; "H<sub>c</sub>" is maintenance function benchmark man-hour.

## 10.2 Re-audit fee for maintenance organization (T<sub>a</sub>)

(1) Re-audit fee for maintenance organization (T<sub>a</sub>) is the summation of application acceptance fee (A), on site audit fee (C) and supplementary fee (S).

(2) Application acceptance fee (A) and on site audit fee (C) is calculated as standard man-hour for original auditing multiplied by coefficient K<sub>2</sub> (K<sub>2</sub>=0.6)

(3) Supplementary fee (S) includes costs for accommodations, air tickets, ground transportations, and other costs during certification process. (The supplementary fee will not be charged if those costs may be provided or covered by the maintenance organization).

Calculation formula:

$$T_a = A + C + S = H * K_1 * N * K_2 + S = (H_a + H_c) * K_1 * N * K_2 + S$$

Note: "Ha" is the application acceptance benchmark man-hour; "Hc" is maintenance function benchmark man-hour.

### 10.3 Fee for changing maintenance organization certificate (Tc)

(1) If the organization applies for changing organization name only, the organization will be charged for the application acceptance fee (A) only.

$$T_c = A = H_a \times K_1 \times N$$

Note: Ha is the application acceptance benchmark man-hour

(2) Fee for location changing is the summation of application acceptance fee (A), on site audit fee (C) and supplementary fee (S).

a) Application acceptance fee (A) and on site audit fee (C) will be calculated as standard man-hour for original auditing multiplied by coefficient K3 (K3=0.8)

b) Supplementary fee (S) includes costs for accommodations, air tickets, ground transportations, and other costs during certification process. (The supplementary fee will not be charged if those costs may be provided or covered by the maintenance organization).

Calculation formula:

$$T_c = A + C + S = H * K_1 * N * K_3 + S = (H_a + H_c) * K_1 * N * K_3 + S$$

Note: "Ha" is the application acceptance benchmark man-hour; "Hc" is maintenance function benchmark man-hour.

(3) Fee for maintenance rating or items changing: for adding items, the fee standard is same as that one of the original application; for reducing items, no charge is required and also no more charge for this item in the next re-audit of the maintenance organization. When only apply for changing maintenance capability list without changing the maintenance organization certificate, the fee shall be counted from next re-audit instead of being charged separately.

#### **Attachment 1** ISSUE OF MAINTENANCE ORGANIZATION CERTIFICATE **Attachment 2** AIRCRAFT COMPONENT MAINTENANCE CAPABILITY LIST

#### **Notes:**

1. "The same maintenance production line" means at the same maintenance

area with the same housing & facilities, the same personnel and management methods.

**2. The charge above is calculated by Chinese currency-RMB.** The amount will be converted into USD according to the exchange rate published by the Bank of China and documented in the issued Notification of Acceptance for Application.

中国民用航空总局

GENERALADMINISTRATION OF CIVILAVIATION OF CHINA

维修许可证申请书

APPLICATION FOR ISSUE OF MAINTENANCE ORGANIZATION CERTIFICATE

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1. 申请单位名称/Name of applicant\_\_\_\_\_

\_\_\_\_\_

2. 单位通讯地址/Address\_\_\_\_\_

\_\_\_\_\_

3. 电话/Telephone\_\_\_\_\_传真/Fax\_\_\_\_\_

4. 申请理由/Reason for application

- (1) 初次申请/Original application for certificate
- (2) 改变维修类别或项目/Change in maintenance rating or items
- (3) 改变地点或设施/Change in location or facilities
- (4) 改变机构或名称/Change organization structure or name
- (5) 其它/0thers

5. 申请的维修项目/Maintenance functions applied for

- 机体/Airframe                       动力装置/Powerplant
- 螺旋桨/Propeller                       航空器部件/Components
- 特种作业/Specialized service       其它/0thers

6. 责任经理/Accountable Manager

姓名/Name\_\_\_\_\_职务 Title\_\_\_\_\_

签名/Signature\_\_\_\_\_日期/Date\_\_\_\_\_

7. 具体申请维修项目及地点/Detail maintenance functions applied for and facilities location

8. 外委维修项目/Maintenance functions contracted to outside agencies

\_\_\_\_\_ Company  
**Maintenance  
capability list**

Certificate No. \_\_\_\_\_

Revision No. \_\_\_\_\_

Revision date: \_\_\_\_\_

Organization address: \_\_\_\_\_.

**Statement on Maintenance Capability List**

It certifies that all items listed in this maintenance capability list are within the approved scope of maintenance organization certificate issued by CAAC (certificate No.\_\_\_\_\_). It is guaranteed that the maintenance organization is qualified for housing & facility, tools & equipment, materials, airworthiness documentation and personnel listed in the maintenance capability list, has the working instruction as CCAR-145 requested in place and meets CCAR-145 requirements constantly.

Any change and revision of this maintenance capability list has to be reported to CAAC for approval.

Name: \_\_\_\_\_ (printed)

Signature: \_\_\_\_\_ (signature)

Date: \_\_\_\_\_

(this statement shall be signed by the accountable manager or the quality manager authorized by him )



**×××× company maintenance capability list**  
 ×××× year ×× month ×× day

S/N	P/N	Name	ATA Chapter No.	Manufacturer	Maintenance working rating	Basis documentation	Main Equipment	Notes
<p>Notes:</p> <ol style="list-style-type: none"> <li>1. Maintenance organization could work out its own maintenance capability list based on above format, but the items must be within the approved scope of maintenance organization certificate.</li> <li>2. Paper size used for maintenance capability list shall be A4 or similar one; if the list runs lots of pages, effective page list shall be used to control the validity.</li> <li>3. The sequence number is running number and the tactic sequence if these items shall follow ATA chapter order.</li> <li>4. If the basis documentation and mainly used equipment for parts with same P/N but different tail numbers are the same, it does not have to list these tail numbers separately.</li> <li>5. Maintenance work items shall be any one or combination of testing, repairing, alteration, modification and overhaul. However the word overhaul cannot be used for non-lifetime control parts and those without basis documentation.</li> <li>6. Basis documentation shall be airworthiness material and technical documentation offered by aircraft parts manufacturer.</li> <li>7. The main equipment shall be final testing equipment in general.</li> </ol>								