



General Administration of Civil Aviation of China

**Civil Aircraft Maintenance Organization
Certification Regulations**

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Civil Aircraft Maintenance Organization Certification

Regulations

Chapter 1 General

§ 145.1 Basis and Purpose

This regulation is formulated in accordance with “The People’s Republic of China Civil Aviation Law” and "The People's Republic of China Regulations for Airworthiness of Civil Aircraft". It is for the purpose of standardizing the administration and supervision of civil aircraft maintenance and to ensure the continued airworthiness and flight safety of civil aircraft.

§ 145.2 Applicability

For the purpose of this regulation, the applicability herein is defined as follows:

1. The General Administration of Civil Aviation of China (hereinafter referred as "CAAC") or CAAC Regional Administration (hereinafter referred as "CAAC RA") certifies the maintenance organization applying for maintenance of civil aircraft or aircraft component (hereinafter referred as "maintenance organization");
2. The CAAC Headquarter Office or the CAAC RA administrates and supervises the maintenance organization which has been granted the CAAC Maintenance Organization Certificate (hereinafter referred as "CAAC MOC").

The aforementioned “maintenance organization” includes the independent maintenance organization, the operator’s maintenance organization and the manufacturer’s maintenance organization. The Independent maintenance organization may include the domestic maintenance organization, the foreign maintenance organization and the regional maintenance organization.

§ 145.3 Definition

For the purpose of this regulation, the following terms are defined as:

- (1) "Civil aircraft" means aircraft other than those used for the military, customs and police purposes.
- (2) "Aircraft Component" means any part and appliance installed or to be installed on aircraft other than the aircraft airframe, including the complete engine/APU, propeller and any operational/emergency equipment, etc.
- (3) "Maintenance" means any inspection/test, repair, defect rectification, scheduled maintenance, overhaul and modification of civil aircraft or aircraft component. The repair under warranty claim for the brand-new OEM products or repair under compensation claim due to design and/or manufacturing fault provided by the civil aircraft or aircraft component manufacturer falls outside the scope of maintenance so defined.
- (4) "Principal Airworthiness Inspector" means the airworthiness inspector, assigned by the CAAC Headquarter Office or the CAAC RA to supervise one particular or several maintenance organization(s).
- (5) "Independent Maintenance Organization" means the maintenance organization, which is independent from the operator and civil aircraft or aircraft component manufacturer, provides maintenance service for the civil aircraft or aircraft components.
- (6) "Operator's Maintenance Organization" means the maintenance organization set up by an operator to provide maintenance service primarily for the operator itself. The operator's maintenance organization shall be treated as an independent maintenance organization while providing maintenance services for the third-party organizations.
- (7) "Manufacturer's Maintenance Organization" means the maintenance organization, which is set up by the civil aircraft or aircraft component manufacturer, has its primary maintenance and management activities integrated with the production line. The

maintenance organization shall be treated as an independent maintenance organization if its primary maintenance and management activities are separate from the production line.

- (8) "Domestic Maintenance Organization" means a maintenance organization whose management and maintenance facility is located in the People's Republic of China other than Hong Kong, Macao Special Administrative Regions and/or Taiwan region of the People's Republic of China.
- (9) "Foreign Maintenance Organization" means a maintenance organization whose management and maintenance facility is located in a country other than the People's Republic of China.
- (10) "Regional Maintenance Organization" means a maintenance organization whose management and maintenance facility is located in Hong Kong, Macao Special Administrative Regions and/or Taiwan region of the People's Republic of China.
- (11) "Approved Standards" means the continual airworthiness data, technical documents, management specifications and working procedures either approved or accepted by the CAAC Headquarter Office or the CAAC RA.
- (12) "Approved by the CAAC" means approved by the CAAC Headquarter Office, the CAAC RA, or organizations or individuals so authorized by the CAAC.
- (13) "Accountable Manager" means the person appointed within a maintenance organization, who is in charge of compliance of the maintenance organization with the requirements of this regulation, and is entitled to administrate and control all necessary resources including the human resource, property and equipment, etc of the maintenance organization so required.
- (14) "Quality Manager" means the person appointed within a maintenance organization, who is authorized by the Accountable Manager to manage and supervise the quality of the maintenance work performed by the maintenance organization. The Quality Manager shall be directly responsible to the Accountable Manager.
- (15) "Production Manager" means the person appointed within a

maintenance organization, who is in charge of planning, preparing and performing of maintenance work.

- (16) “Certifying staff” means the person appointed within a maintenance organization, to ensure the compliance of civil aircraft or aircraft component with the approved standards, and issue a certificate of release to service for the civil aircraft or aircraft component.
- (17) “Maintenance Human Factor” means the basic principle which applies to the maintenance of civil aircraft or aircraft components, with adequate consideration of the impact of human performance and limitations on the effectivity and safety of the maintenance work as well as the perfect harmonization of the human and other factors.
- (18) “In-house fabricated Part” means an aircraft component which is designed and manufactured pursuant to the design data, material or process other than those specified in the continual airworthiness documents published by civil aircraft or aircraft component manufacturer.
- (19) “Working Time of the Maintenance Personnel” is also termed as on-duty time of the maintenance personnel, it means the continuous period from the maintenance personnel reporting for his duty while accepting the maintenance task assigned by the maintenance organization till the maintenance task is completed or terminated. The period the maintenance personnel take from his inhabitation or residence to the reporting place is not included.

§ 145.4 Administrative Department

The CAAC is solely responsible for issuing the CAAC Maintenance Organization Certificate (MOC).

The CAAC Headquarter office is responsible for certifying and supervising the civil aircraft and aircraft component maintenance organizations, as well as for issuing and administrating the CAAC MOC issued to the foreign and regional maintenance organizations.

The CAAC RA is responsible for issuing the CAAC MOC to the domestic maintenance organization whose main management and maintenance

facility is located within its respective administrative region as well as regular supervision and administration thereof and also carries other responsibility for certifying and supervising maintenance organizations so authorized by the CAAC Headquarter office.

§ 145. 5 Means of Administration

The CAAC Headquarter Office and the CAAC RA will audit and supervise the maintenance work of maintenance organizations pursuant to the assigned responsibilities and authorizations so granted. It may be in terms of the following:

- (1) Auditing the maintenance organizations applying for the issue of or a change to the CAAC MOC;
- (2) Performing the annual audit for domestic maintenance organizations, or the renewal audit for the foreign or regional maintenance organization applying for an extension to the term of validity of their CAAC MOC;
- (3) Scheduled and nonscheduled inspection or spot-checks performed by principal airworthiness inspectors;
- (4) Performing joint audits as arranged by the CAAC Headquarter Office or the CAAC RA;
- (5) Investigating maintenance organizations regarding quality and safety related issues;

Other supervision, audit or investigation if the CAAC Headquarter Office or the CAAC RA feels necessary.

Chapter 2 Application, Issuance and Administration of Maintenance Organization Certificates

§ 145. 6 Applicant

The applicant applying for the CAAC MOC shall be:

- (1) A legal person registered under the relevant national law or an organization so authorized in writing by such legal person, which shall be familiar with the requirements of this regulation and competent to perform the maintenance work on the maintenance rating(s)/item(s) being applied;

- (2) The maintenance rating(s)/item(s) that a foreign or regional applicant applies for CAAC approval shall be for China registered civil aircraft or components thereof, and also be approved by the competent Civil Aviation Authority which has jurisdiction over the maintenance organization concerned.

§ 145.7 Application and Acceptance of the application

The applicant applying for CAAC MOC shall submit the following documents to the CAAC Headquarter Office or the CAAC RA:

- (1) Attachment 1 of this regulation: Application for Issue of Maintenance Organization Certificate (F145-1);
- (2) Maintenance Organization Manual as prescribed in the §145.30 of this regulation;
- (3) Attachment 2 of this regulation: Company Maintenance Capability List (F145-2) if applicable;
- (4) Compliance statement to this regulation, including relevant supporting documents;
- (5) The foreign and regional applicant shall submit a copy of the approval issued by the competent Civil Aviation Authority which has jurisdiction over the maintenance organization concerned together with the letter of intent from the Chinese customer(s) requesting maintenance services.

Application materials from domestic applicants shall be completed in Chinese at least, whereas such materials from foreign or regional applicants may be completed in either Chinese or English.

The maintenance organization which has their CAAC MOC revoked may re-apply for the CAAC MOC after 24 months following the date of revocation.

The applicant shall follow the provisions stated in the §145.4 of this regulation to submit the applications to either the CAAC Headquarter Office or the CAAC RA as defined.

The CAAC Headquarter Office or the CAAC RA will by means of a formal letter notify the applicant within 5 working days whether the application material is acceptable after the entire set of hard copy of the application

material is received.

§ 145. 8 Audit

After accepting the formal application material from the applicant, the CAAC Headquarter Office or the CAAC RA will agree with the applicant on the date of on-site audit by means of a formal letter or interview. Except that the date of on-site audit can be changed upon mutual consent between the CAAC and the applicant under the special circumstances, the CAAC Headquarter Office or the CAAC RA will implement the on-site audit according to the schedule confirmed by both sides and charge the applicant with the audit fee prescribed by the CAAC.

§ 145. 9 Approval

Within 30 working days after completing the on-site audit or receiving the written corrective actions regarding the audit findings from the applicant, the CAAC Headquarter Office will issue the CAAC MOC to the foreign or regional maintenance organization which meets the requirements as prescribed in Chapter 4 of this regulation and has already paid the prescribed audit fee.

Within 20 working days after completing the on-site audit or receiving the written corrective actions regarding the audit findings from the applicant, the CAAC RA will issue the CAAC MOC to the domestic maintenance organization which meets the requirements as prescribed in chapter 4 of this regulation and has already paid the prescribed audit fee.

The maintenance organization, which fails to submit the written corrective actions regarding the audit findings within 30 calendar days after receipt of the formal written notification from the CAAC Headquarter Office or the CAAC RA, will be treated as surrendering the application automatically.

§ 145. 10 Special Approval

Under the following circumstances, the CAAC Headquarter Office or the CAAC RA may issue a special approval to the maintenance organization by means of a formal letter for the maintenance rating(s)/item(s) it applying for:

- (1) One-off maintenance or maintenance in the case of emergency;
- (2) When it is so caused by the CAAC Headquarter Office or the CAAC RA that the required audit could not be accomplished within the prescribed time frame;
- (3) Pursuant to the cooperation arrangement between the CAAC, Hong Kong CAD and AACM of Macao, recognizing the maintenance organization approved by Hong Kong CAD and AACM of Macao;
- (4) Pursuant to the mutual agreements between the CAAC and other countries or regions, recognizing the maintenance organization approved by the competent Civil Aviation Authority which has jurisdiction over the maintenance organization concerned.

§ 145.11 Maintenance Organization Certificate

The CAAC MOC consists of the "Maintenance Organization Certificate" page and the "Limitation of Maintenance Items" page (refers to attachment 3 of this regulation). The name and address of the organization together with the approved Maintenance Rating(s) are specified on the "Maintenance Organization Certificate" page, whereas the limited approved Maintenance Items and maintenance functions are specified on the "Limitation of Maintenance Items" page.

The CAAC MOC shall not be transferable.

The CAAC MOC shall be prominently displayed in the main management office of the maintenance organization.

The surrendered, suspended or revoked CAAC MOC shall be returned to the CAAC Headquarter Office or the CAAC RA within 5 calendar days. If not, the CAAC Headquarter Office or the CAAC RA will make an official announcement to declare such CAAC MOC to be cancelled.

§ 145.12 Validity of Maintenance Organization Certificate

Unless the CAAC MOC has been surrendered, suspended or revoked, the term of validity of the certificate will be governed as follows:

- (1) The CAAC MOC issued to the domestic maintenance organizations remains valid continuously;
- (2) After the original issue and every renewal of the CAAC MOC, The

term of validity of the CAAC MOC issued to the foreign and regional maintenance organization will be a maximum of 2 years; the maintenance organization shall submit a written application to apply for extending the term of validity of the current CAAC MOC at least 6 months before the expiration of the certificate.

Except for acquiring the approval or acceptance under other applicable CAAC regulation, or special approval issued by the CAAC, a maintenance organization shall not provide the maintenance services for the China registered civil aircraft or aircraft components thereof when the maintenance organization does not acquire or hold a valid CAAC MOC.

§ 145.13 Obligation of an Approved Maintenance Organization

Maintenance organizations shall at all time take appropriate corrective actions to rectify any defects and deficiencies against this regulation to ensure continued compliance with the requirements of this regulation.

When requested by the operators or other organizations (hereinafter referred as “job sender”) to provide maintenance services for civil aircraft or aircraft components, the maintenance organization shall inform the job sender of its approved scope of work as specified in the CAAC MOC prior to the maintenance work.

The maintenance organization shall make sure that its organization, facilities and staff related to the approved scope of work are available for the audit, supervision and investigation required by the CAAC Headquarter Office or the CAAC RA.

The maintenance organization shall report the following information factually to the CAAC Headquarter Office or the CAAC RA:

- (1) Information prescribed in Attachment 4 of this regulation: Annual Report of Maintenance Organization (F145-4);
- (2) Information prescribed in Attachment 5 of this regulation: Unairworthy Condition Report (F145-5);
- (3) Other information on quality and safety related issues as required by the CAAC Headquarter Office or the CAAC RA.

The maintenance organization shall take the responsibility for ensuring

that the maintenance work performed on the civil aircraft or aircraft component meets the approved standards. In the case that the maintenance work required by the job sender could not ensure the airworthiness of the civil aircraft or aircraft component obviously, the maintenance organization shall inform the job sender about the factual situation, and the maintenance release certificates shall not be issued.

The domestic maintenance organization which uses subcontractors with the CAAC MOC, shall take the responsibility not only for ensuring that the in-house maintenance work meets the approved standards, but also for the validity of the subcontracted maintenance work. The domestic maintenance organization which uses subcontractors without the CAAC MOC as prescribed in paragraph 2 of §145.15, shall take full responsibility for ensuring that the subcontracted maintenance work meets the approved standards.

The foreign or regional maintenance organization shall take the responsibility not only for ensuring that the in-house maintenance work meets the approved standards, but also for ensuring that the subcontracted maintenance meets the approved standards.

§ 145.14 Privilege of an Approved Maintenance Organization

Once being issued with the CAAC MOC, the maintenance organization will be granted the following privileges:

- (1) Pursuant to the approved standards, performing the maintenance of the civil aircraft or aircraft components within the approved scope of work as specified in the CAAC MOC;
- (2) May provide support in the case of emergency or simple aftermarket service at locations other than those specified in the CAAC MOC. Excepting the aforementioned circumstances, the maintenance organization may also perform maintenance work within the approved scope of work on one-off or short-term basis at locations other than those specified in the CAAC MOC provided that the procedure specifying how to comply with the requirements as prescribed in chapter 4 of this regulation has been addressed in the Maintenance Organization Manual (hereinafter referred as "MOM").

It is not allowed to perform such maintenance work except that the maintenance organization has obtained the approval from the CAAC Headquarter Office or the CAAC RA prior to the maintenance work;

- (3) The maintenance organization may issue maintenance release certificate for the maintenance work completed according to the approved standards.
- (4) After being granted the CAAC MOC, a maintenance organization may have the relevant approved maintenance rating(s)/item(s) kept valid in the case of temporary lack of the facilities, tools & equipment, material, airworthiness data and personnel, etc necessary for the approved maintenance work so required provided that such maintenance work is suspended, and the maintenance organization has shown the CAAC Headquarter Office or the CAAC RA its ability to fulfill the relevant requirements within a reasonable short-term period acceptable to the CAAC.

§ 145.15 Subcontract

Except for the major part of maintenance work, final test, certifying and releasing of maintenance, the maintenance organization may subcontract the specific part of maintenance work out within the approved scope of work as specified in the CAAC MOC, such as the specialized working processes, sub-part repairs, etc.

Unless approved as a specialized service organization in accordance with the national standards, the subcontractor to the domestic maintenance organization shall be issued with the CAAC MOC. The subcontractor to the foreign or regional maintenance organization shall be approved by the competent Civil Aviation Authority which has jurisdiction over the maintenance organization concerned.

The maintenance organization, which uses the subcontractors, shall make evaluate on the subcontracted maintenance work under the control of its quality system.

§ 145.16 Changes to an Approved Maintenance Organization

If there is any proposal to make changes to the name, address, the

approved maintenance rating(s), the maintenance organization shall submit the formal written application to the CAAC Headquarter Office or the CAAC RA to apply for change in its CAAC MOC at least 60 calendar days before such changes take place. The application material shall include the "Application for Issue of Maintenance Organization Certificate"(Form F145-1), the information related to the change(s), compliance statement to this regulation and any relevant supporting documents thereof. In addition, the foreign or regional applicant applying for new maintenance rating(s) shall comply with the provision as prescribed in the item (5) of paragraph 1 and paragraph 2 of §145.7 of this regulation.

If there is any proposal to make major changes to the facility, tools & equipment, material, airworthiness data, personnel, organization and the CAAC MOM, etc, the maintenance organization shall inform the CAAC Headquarter Office or the CAAC RA about the proposed changes at least 30 calendar days before such changes take place. The CAAC Headquarter Office or the CAAC RA will determine whether such changes affect the validity of the CAAC MOC, and approve the amendment so made to the CAAC MOM or the CAAC approved company maintenance capability list if applicable.

§ 145.17 Equivalent Means of Compliance

For the small maintenance organization or under other special circumstances, the maintenance organization may propose the following equivalent means of compliance to the CAAC Headquarter Office or the CAAC RA regarding respective articles of this regulation provided that the equivalent safety of the civil aircraft or aircraft components can be ensured.

- (1) For the small size maintenance organization or the maintenance organization that only provides specialized service or line maintenance service, the posts and responsibilities of Accountable Manager, Quality Manager and Production Manager may be taken by one person; the CAAC MOM and the Working Procedures Manual (hereinafter referred as "WPM") may be integrated into one

volume; the internal quality audits may be contracted out to an approved third-party organization, which shall provide copies of the audit reports to the CAAC Headquarter Office or the CAAC RA.

(2) The line maintenance work of the operator's maintenance organization at any other locations other than the main base may be partially or entirely contracted out to the maintenance organization without the CAAC MOC provided that the following requirements are fulfilled:

(a) The contracted maintenance organization shall operate under the control of the quality system of the operator's maintenance organization, and the operator shall take the full responsibility for the line maintenance work;

(b) The operator shall have a specific maintenance agreement/contract with the contracted maintenance organization, and the following information shall be included at least:

- i. The technical documents and data provided by the operator as well as the relevant management procedure and requirement thereof;
- ii. The tools, equipment and material provided by the operator as well as the management requirement thereof, including the borrowed tools, equipment and material;
- iii. The training provided by the operator;
- iv. The scope of work contracted by the operator and the authorizations so granted by the operator;
- v. The means of recording and reporting;
- vi. Other relevant specifications;

(3) For the manufacturer's maintenance organization, no extra or separate production control system is required if the production control system in use can fulfill the requirements of this regulation, but such situation shall be clearly addressed in the CAAC MOM.

Any other equivalent means of compliance acceptable to the CAAC Headquarter Office or the CAAC RA.

Chapter 3 Maintenance Categories

§ 145.18 Classification of Approved Maintenance Function

Maintenance functions, in the context of this regulation, are classified as follows:

- (1) 'Inspection/Test': Verifying serviceability of removed civil aircraft components without disassembling by examination and functional check in accordance with the standards specified in the airworthiness data.
- (2) 'Repair': The restoration of unserviceable civil aircraft or aircraft component to a serviceable condition in accordance with the airworthiness data.
- (3) 'Modification': The general alterations of an item performed in conformity with the airworthiness data approved or accepted by the CAAC. For major alterations, details of the alterations shall be respectively addressed. Modification hereby does not include the approval of the type design change involved in the alternation program.
- (4) 'Overhaul': Restore civil aircraft or aircraft component, by disassembling, cleaning, inspecting, necessary repairing or replacing, reassembling and testing in accordance with the airworthiness data, to its serviceable life or airworthy conditions.
- (5) 'Line maintenance': Routine inspections of civil aircraft in accordance with the worksheets provided by the operator and the rectification of malfunctions and defects encountered during line operation according to the applicable aircraft or engine maintenance manual, including LRU replacement and deferral of malfunctions and defects according to the operator's Minimum Equipment List/Configuration Deviation List of the particular type of aircraft. For the purpose of this regulation, the following services fall outside the scope of line maintenance so defined:
 - (i) Civil aircraft arrival and departure marshalling, parking, pushing out, towing, wheel chocking, and fitting and removal

- of the protection devices;
- (ii) Connect ground power and pneumatic supplies; water servicing (fill and drain); fuelling and de-fuelling; air and oxygen charging;
 - (iii) Necessary cleaning; de-icing and removal of snow and frost;
 - (iv) Other necessary servicing work.
- (6) 'Scheduled maintenance': Inspections and repairs of civil aircraft or aircraft component, which has been in service to a defined time limit, according to the airworthiness data. It applies to airframe and engine/APU, but doesn't include "overhaul" defined herein for the purpose of this regulation.
- (7) Other maintenance functions acceptable to the CAAC.

The CAAC Headquarter Office or the CAAC RA may impose necessary limitations on the above maintenance functions appropriately to the specific circumstance.

§ 145.19 Classification of Approved Maintenance Rating

Maintenance ratings, in the context of this regulation, are classified as follows:

- (1) Airframe;
- (2) Power plant;
- (3) Propeller;
- (4) Component other than complete engine/APU or propeller.;
- (5) Specialized services;
- (6) Other maintenance ratings acceptable to the CAAC.

The maintenance of airframe, engine/APU and propeller may include maintenance on its respective components which are fitted or removed according to the relevant applicable continuous airworthiness data. For such components which are removed and not bound for re-installation on the airframe, engine/APU and propeller that is under maintenance, the maintenance organization shall submit the application to the CAAC Headquarter Office or the CAAC RA to apply for the maintenance rating of component other than complete engine/APU or propeller.

The CAAC Headquarter Office or the CAAC RA may impose necessary

limitations on the maintenance rating(s) as appropriate under the specific circumstances, including those limitations in terms of manufacturer, type, designation, etc listed in Attachment 6 – “Maintenance Function and Maintenance Rating(s) Classification Table”, or any other limitations if the CAAC feels necessary. For the maintenance rating of component other than complete engine/APU or propeller, the company maintenance capability list (Form F145-2) prescribed in the attachment 2 of this regulation shall be provided.

Chapter 4 Requirements for Certification of Maintenance Organization

§ 145.20 Facility Requirements

The maintenance organization shall be provided with the appropriate working environment and maintenance facilities, office, training and storage facilities that comply with the following requirements:

- (1) The maintenance facilities shall fulfill the needs of performing the maintenance work, which is within the approved scope of work as specified in the CAAC MOC, as well as protecting the maintenance work from being affected by all weather elements. The facilities so required shall also meet the following requirements:
 - i. With the exception of line maintenance, the hangar of the maintenance organization with the approval of airframe rating shall be large enough to accommodate the approved maintenance rating(s)/item(s). Where the aircraft hangar is rented, the maintenance organization shall provide valid proof of tenancy. For other approved maintenance rating(s)/item(s), workshops with enough room appropriate for the maintenance work shall be available. The aircraft hangar and workshop shall be equipped with hoisting and access equipment appropriate for the intended maintenance work.
 - ii. The maintenance organization shall ensure that the aircraft hangar and workshop can effectively protect the maintenance

work from being affected by local weather elements, such as rain, snow, ice, hail, wind and dust etc., foreseen throughout the year. Although an aircraft hangar is not necessary for some maintenance work of the approved airframe rating(s), the maintenance organization shall also ensure that such maintenance work can be protected from being affected by all weather elements.

- (2) The working environment shall be appropriate for the intended maintenance work and comply with the following requirements:
- i. Appropriate temperature and humidity control in aircraft hangar and workshop shall be available to ensure the quality of maintenance work and the effectiveness of maintenance personnel. Effective measures for dust prevention shall be taken in the working area, visible dust contamination on civil aircraft and aircraft component surfaces is not acceptable.
 - ii. The aircraft hangar and workshop shall be equipped with water, electricity and pneumatic supplies appropriate for the intended maintenance work. The lighting shall be such that effectiveness of each inspections and maintenance works can be ensured.
 - iii. Noise shall be controlled to a level to prevent the maintenance personnel from being distracted from carrying out the relevant maintenance work. Where it is impractical to control the noise, the maintenance personnel shall be provided with the necessary protection devices.
 - iv. Working environment shall be appropriate for the intended maintenance work. Where maintenance work could not be performed due to the factors such as temperature, humidity, rain, snow, ice, hail, wind, light and dust contamination etc, the maintenance work shall be stopped immediately and suspended until the normal working environment resumes normal.
 - v. For the maintenance work under the special working environment such as electrostatic sensitive, radiation, dust, or

potential hazards which may cause injury to the maintenance personnel, etc, the effective control, protection devices and first aid equipment so required shall be provided. For the maintenance work to be carried out above the ground more than 2 meters high, the fall-protection devices so required shall be provided.

- (3) The office shall comply with the following requirements:
 - i. Ensuring that the maintenance work can be effectively performed and standardization of administration can be achieved.
 - ii. Various administration staff may be accommodated in the same office provided that there is sufficient room and necessary segregation.
 - iii. Provisions for the maintenance personnel to consult the relevant documents and complete maintenance records shall be available. For line maintenance, an appropriate resting area shall be provided for the maintenance personnel required to work continuously. The resting area so required shall be as close as feasible to the working site to prevent fatigue to the maintenance personnel.
- (4) Training facility shall meet the training requirements. The maintenance organization shall submit valid proof of tenancy to the CAAC Headquarter Office or the CAAC RA when the training facility is rented.
- (5) Appropriate facilities for storage of tools and equipment, material, airworthiness data and maintenance records shall be available. The storage facility shall meet the following storage requirements appropriate for the stored objects:
 - i. The storage of tools and equipment shall ensure the safekeeping of the tools and equipment to prevent inadvertent damage. The storage of special tools shall meet the requirements of the manufacturer.
 - ii. Facilities for material storage shall ensure the safekeeping of the stored material. The storage of serviceable and

unserviceable parts shall be segregated. The storage environment shall meet the requirements of cleanliness, ventilation, temperature and humidity. The storage of special material shall meet the requirements of the manufacturer.

- iii. The storage facility for airworthiness data shall ensure the safekeeping of the master copy of all airworthiness data. The storage facility for the internal distributed copies of the airworthiness data shall ensure easy access by the users and adequate segregation from the "For Reference Only" data.
- iv. Storage facility for maintenance records shall protect the records from being affected by the unsafe issues such as water, fire, loss, unauthorized alteration, etc.

§ 145.21 Tools & Equipment Requirements

The maintenance organization shall determine the tools and equipment necessary for the maintenance work according to the approved scope of work as specified in the CAAC MOC and the relevant airworthiness data, and fulfill the following requirements to effectively control and keep the tools and equipment to ensure that the tools and equipment are in good and serviceable conditions:

- (1) The maintenance organization shall keep sufficient tools and equipment to ensure that the relevant maintenance work could be resumed in a reasonable short-term period in the case of failure of the tools and equipment which are used for maintenance work at that time.
- (2) The maintenance organization may use alternative tools and equipment that the function is equivalent to that of the tools and equipment required or recommended in the relevant airworthiness data. It is prohibited to use such tools and equipment for maintenance work unless the equivalency of such tools and equipment has been demonstrated and such tools and equipment have been approved or accepted by the CAAC Headquarter Office or the CAAC RA.

- (3) The maintenance organization may borrow or lease certain special equipment that is rarely used or requires large investment, but the maintenance organization shall provide the CAAC Headquarter Office or the CAAC RA with the valid proof of tenancy, and show the CAAC Headquarter Office or the CAAC RA its ability to control the availability & serviceability of such equipment.
- (4) The maintenance organization shall set up the identification marks and roster for each special tools & equipment, establish an effective control over these tools and equipment to avoid the abnormal failure and loss, and to ensure the tools and equipment necessary for the maintenance work remain in serviceable condition.
- (5) The maintenance organization shall establish a system to calibrate the measuring tools or testing equipment. The calibration of the general measuring tool shall be traceable to the applicable national standards. Where there is no national standard available or the standard required by the manufacturer is stricter than the national standard, the calibration of such equipment shall be traceable to the standard of the manufacturer. Detailed records shall be set for the calibration of tools and equipment; such records shall also be controlled and managed as part of maintenance records. The calibration of tools and equipment can be contracted out but the administration and control responsibility for the calibration remains with the maintenance organization. The maintenance organization shall establish the following management requirements to prevent the maintenance personnel from using tools & equipment that are expired from the calibration due date for the maintenance work:
 - i. Retrieving the tools & equipments called for calibration.
 - ii. Affixing the calibration label on the prominent position on tools & equipment and requiring the maintenance personnel to verify whether tools & equipment are expired from the calibration due date prior to use.
 - iii. Segregating the tools & equipments that are expired from the calibration due date, or affixing secure warning labels to the tools & equipment that could not be segregated.

- (6) The requirements prescribed in the various articles of the aforementioned sections apply equally to the personal tools if used.
- (7) In the case that the automatic test equipment is used for maintenance, the validity of the testing software shall be controlled.

§ 145.22 Materials Requirements

The maintenance organization shall fulfill following requirements to keep the material necessary for the intended maintenance work, have effective control and management over it to ensure its conformity:

- (1) Material used for maintenance work shall comply with the requirements of the relevant airworthiness data. In the case of using the material from other organizations via contract/agreement, the maintenance organization shall keep the valid contract/agreement.
- (2) Material used by the maintenance organization shall bear the valid certificate of conformity. The receiving inspection system for incoming material shall be established within the maintenance organization to prevent material that is found with nonconformity or is unapproved from being used for maintenance. The certificate of conformity of material may be in terms of the following:
 - i. Standard parts or raw material shall come with the Certificate of Approval or Certificate of Conformity.
 - ii. The brand new non-standard part or non-raw material shall come with the Airworthiness Approval Tag or Authorized Release Certificate issued by the manufacturer.
 - iii. Used material shall come with the Authorized Release Certificate/Airworthiness Approval Tag as prescribed in the Attachment 7 of this regulation, issued by the maintenance organization approved by the CAAC Headquarter Office or the CAAC RA in accordance with this regulation.
- (3) The maintenance organization shall inform the operator about the factual situation in the case of using material provided by the suppliers which are not approved by the civil aircraft manufacturer, and acquire the approval from the CAAC Headquarter Office or the CAAC RA via the operator prior to the use.

- (4) An operator's maintenance organization may build small amount of in-house fabricated parts for its own internal maintenance purpose in accordance with the working procedure approved by the CAAC Headquarter Office or the CAAC RA. This case is only limited to the aircraft components that their malfunction, failure or defect will not result in any one of the conditions listed in the Article 4 of Section 5 of CCAR Part 21 "Certification of Civil Aviation Products and Parts". The maintenance organization other than the operator's maintenance organization which builds the aforementioned in-house fabricated parts shall inform the operator about the factual situation and obtain the approval from the CAAC Headquarter Office or the CAAC RA via the operator prior to the use. The in-house fabricated parts shall not be sold.
- (5) The maintenance organization shall make evaluation on the supplier and perform the receiving inspections on the incoming materials under the control of the quality system to prevent unqualified material from being used in the maintenance work; The stored material shall be properly identified, kept and distributed to avoid misplacement and damage of the material and shall ensure that the material remain in good serviceable conditions and is properly used.
- (6) Regarding material subject to shelf life control, the maintenance organization shall establish effective measures to prevent shelf life expired material from being used in maintenance work.
- (7) Regarding chemical products and materials subject to electrostatic protection requirement, effective measures shall be taken to safely protect the materials according to the manufacturer's requirements.
- (8) The maintenance organization shall establish a system to segregate unserviceable materials and destroy scrapped materials in order to prevent the unserviceable or scrapped materials from being used in maintenance work.

§ 145.23 Personnel Requirements

The maintenance organization shall have sufficient maintenance and

management personnel, certifying and supporting staff that complies with the following requirements:

- (1) The maintenance organization shall nominate at least an Accountable Manager, a Quality Manager and a Production Manager. The post and responsibility of the Accountable Manager shall be taken by the legal person of the maintenance organization or by a person so authorized by the legal person according to the legal procedure. The posts and responsibilities of the Quality manager and Production Manager shall not be taken by one person. The aforementioned management positions shall not be taken by the Accountable Manager or Quality Manager or Production Manager transferred from an organization with the CAAC MOC being revoked.
- (2) The maintenance, management personnel and certifying, and supporting staff shall be physically healthy and competent for the assigned duties and responsibilities, every year such personnel shall be provided with the valid proof of the physical examination issued by a legal medical organization.
- (3) The Accountable Manager, Quality Manager and Production Manager shall fulfill the following qualification requirements:
 - i. Be familiar with the requirements of the regulations regarding the civil aircraft maintenance management.
 - ii. Be experienced in the maintenance management.
 - iii. The aforementioned management personnel of the domestic maintenance organization shall obtain the maintenance management personnel qualification certificate as prescribed in CCAR Part 66 "Licensing of Civil Aircraft Maintenance Personnel".
 - iv. The management personnel of the foreign or regional maintenance organizations shall be able to interpret the requirements of this regulation correctly, and the qualification thereof shall be equivalent to that for the maintenance management personnel qualification certificate as prescribed in CCAR Part 66 "Licensing of Civil Aircraft Maintenance

Personnel".

- (4) The maintenance personnel who work on civil aircraft or aircraft component directly shall fulfill the following qualification requirements:
- i. Have received training on the relevant civil aviation laws and regulations, national or industrial standards, technical knowledge, basic skill, working procedures and maintenance human factors.
 - ii. The maintenance personnel who work independently shall obtain authorization from the organization on the specific working item(s).
 - iii. The personnel performing non-destructive testing and other works with specific qualification requirements as stated in the relevant national standards shall also fulfill the requirements of the national standards.
- (5) The certifying staff shall fulfill the following qualification requirements:
- i. Except the case prescribed in the Article (2) of §145.17 of this regulation, being employed by the maintenance organization.
 - ii. Have received training on the relevant civil aviation laws and regulations, national or industrial standards, technical knowledge, basic skill, working procedures and maintenance human factors.
 - iii. The certifying staff of the domestic maintenance organization for the airframe rating(s) shall obtain the civil aircraft maintenance personnel license issued under CCAR Part 66 "Licensing of Civil Aircraft Maintenance Personnel", the type(s) of aircraft certified by such personnel shall be consistent with the maintenance rating(s)/item(s) registered on his license. For the line maintenance, the scheduled maintenance up to and including "A" check or equivalent as well as the modification incorporated thereof, the certifying staff so required shall have the Category I authorization as a

- minimum; for the scheduled maintenance and other modification heavier than "A" check or equivalent regarding the transport category airplane and commuter category airplane, the certifying staff so required shall have the Category II authorization as a minimum.
- iv. The aircraft component certifying staff of the domestic maintenance organization shall obtain the civil aircraft component maintenance personnel license issued under CCAR Part 66 "Licensing of Civil Aircraft Maintenance Personnel". The aircraft components certified by such personnel shall be consistent with the maintenance rating(s) /item(s) registered on the license.
 - v. The certifying staff of the foreign or regional maintenance organization shall obtain the equivalent maintenance personnel license issued by the competent Civil Aviation Authority which has jurisdiction over the certifying staff concerned, and shall be able to listen, speak, read and write in English.
 - vi. The certifying staff shall obtain the authorization from the maintenance organization on the specific maintenance rating(s)/item(s). The certifying staff certifying the line maintenance shall also obtain the appropriate authorization from the operator(s).
- (6) The management and supporting staff who is directly involved in the civil aircraft or aircraft component maintenance work shall fulfill the following qualification requirements:
- i. Have received training on the relevant civil aviation law and regulations, national or industrial standards, technical knowledge, working procedures and maintenance human factors.
 - ii. The personnel assigned with the responsibilities and functions of the quality, engineering and production control that are directly related to the civil aircraft or aircraft component maintenance shall obtain the civil aircraft maintenance

personnel license or the civil aircraft component maintenance personnel license issued under CCAR Part 66 "Licensing of Civil Aircraft Maintenance Personnel"

§ 145.24 Airworthiness Data

The maintenance organization shall keep the following documents related to the civil aircraft maintenance:

- (1) The civil aviation regulation of the People's Republic of China, Civil Aviation Administration Procedure, Advisory Circulars, administration documents and other documents regarding the civil aircraft maintenance issued by the CAAC, including the relevant national standards quoted in the aforementioned documents;
- (2) The relevant airworthiness data prescribed by the civil aircraft or aircraft component manufacturer(s) or other documents approved or accepted by the CAAC which are necessary for the maintenance work, including all kinds of manuals, documents, service bulletins, service letters as well as the relevant international or industrial standards quoted in the aforementioned documents;
- (3) The relevant documents provided by the "job sender" pursuant to the maintenance rating(s)/item(s) specified in the maintenance contract, including the operator's maintenance program, manual and worksheet, etc.

The maintenance organization shall fulfill the following requirements to establish the effective control over the airworthiness data to ensure the airworthiness data is valid and ready for use:

- (1) The maintenance organization shall keep the master of the airworthiness data under centralized control, establish a relevant management procedure to control the airworthiness data effectively and ensure the distributed copies are identical to the master. An effective backup system shall be available when using a computer system to save airworthiness data.
- (2) The maintenance organization shall review the index of the valid airworthiness data catalog issued by the publisher periodically or check with the publisher directly to verify the status of validity of the

airworthiness data. In the case that the validity of the airworthiness data in use is controlled by the "job sender", the maintenance organization shall obtain of a formal statement on validity of the airworthiness data from the "job sender" prior to the use.

- (3) The non-valid airworthiness data and other uncontrolled reference data shall be distinctively marked and segregated to avoid being mixed up with the valid and controlled airworthiness data.
- (4) The maintenance organization shall ensure that the maintenance personnel can readily get access to the necessary airworthiness data for the maintenance, and the necessary reading device so required shall be provided.

§ 145.25 Quality System

The maintenance organization shall establish a quality system which is under the charge of the Accountable Manager. The quality system shall fulfill the following requirements:

- (1) A clear quality management policy issued by the Accountable Manager to clarify the duties and responsibilities of each department and individual post. The responsibility of each department and individual post shall avoid duplication or overlapping.
- (2) The maintenance organization shall establish the qualification requirements for each post according to the duties and responsibilities thereof, make evaluation on the competence of each post-holder, and grant the respective authorization in writing to the person that is competent for such post. Authorization to the maintenance personnel may be issued by the Quality Manager or the person(s) so authorized by him. The authorization to the certifying staff shall only be issued by the Accountable Manager or the Quality Manager so authorized by him.
- (3) All authorization records so made for the various maintenance personnel shall be kept in the Quality Department and the copies thereof shall be kept in the relevant working area. All authorization

records for certifying staff shall be kept by the Quality Manager and the copies thereof shall be kept in the relevant working area.

- (4) The maintenance organization shall establish the necessary working procedures and define the duties and responsibilities of each department and individual post. The aforementioned working procedures shall cover all the applicable requirements of this regulation. The establishment and amendment of such working procedures shall be approved by the Accountable Manager or the Quality Manager so authorized by him prior to becoming effective.

The maintenance organization shall establish the quality management system that complies with the following requirements:

- (1) The quality department shall be independent from the production control system and under the charge of the Quality Manager. Its primary function is to ensure the effective implementation of the quality management policy.
- (2) The Quality Manager shall be directly responsible to the Accountable Manager. Staff of the quality department shall execute the quality management function independently, and the duties and responsibilities thereof shall not overlap those of the production control system. Staff of the quality department shall have a veto regarding the poor quality of the maintenance work.
- (3) The Quality Manager may report directly to the CAAC Headquarter Office or the CAAC RA for the circumstances deemed having direct effects on the airworthiness of civil aircraft or aircraft components.

§ 145.26 Internal Quality Audit System

The maintenance organization shall establish an independent self-quality audit system that complies with the following requirements, or endow the quality department with the function to designedly assess the compliance of the maintenance work with the requirements of this regulation, verify the effectiveness of the quality management system and make self-improvements:

- (1) The scope of internal quality audit shall include the evaluation on the compliance of all maintenance work on the maintenance

- rating(s)/item(s) being applied for or approved with the requirements of this regulation.
- (2) The audit interval for any department or system of the organization shall not exceed 12 months. For a department or system with more findings or serious problems occurred during the previous audits, the audit frequency for such department or system shall be appropriately increased.
 - (3) The internal quality audit shall be implemented according to the audit schedule. The maintenance organization shall set up the audit schedule in one year cycle as a minimum. All the aspects needed to be audited according to the scope of audit shall be covered in the annual audit schedule, and the following information shall be included as a minimum:
 - i. Department or system to be audited.
 - ii. Progress and time of the audit schedule.
 - iii. Name of the responsible auditor.
 - (4) The audit schedule may be adjusted to address the specific circumstances in the maintenance organization at that time to ensure the integrity and effectiveness of the audit.
 - (5) The auditor shall be familiar with the CAAC requirements regarding civil aircraft maintenance and the CAAC approved MOM of the organization. On completion of the training on the relevant audit knowledge, the auditor shall have the ability to perform planning, coordination and analysis. The auditor may be full time or part time, but his assigned duties and responsibilities shall be independent from that of the department being audited.
 - (6) The maintenance organization shall set up the audit checklist and perform the audit pursuant to the checklist. The audit checklist shall be for the standardization and integrity of internal quality audits. Relevant requirements to be fulfilled by each department or system shall be listed in the checklist.
 - (7) The maintenance organization shall record immediately the audit process and the findings during the internal quality audit. The audit records shall include the detailed comments made on all items

being audited and the details of audit findings.

- (8) On completion of an audit, the person in charge of the department or system that has been audited shall be informed about the audit findings by means of the formal audit report and shall be requested to take the appropriate corrective actions within a prescribed limited period. The quality department shall follow up the status of the corrective actions and perform another audit to verify the status of correction if necessary. The audit findings as well as the corrective actions thereof shall be reported directly to the Accountable Manager. The audit report shall include the following information as a minimum:
- i. Department or system being audited.
 - ii. Date of audit.
 - iii. Responsible auditor.
 - iv. The audit findings.
 - v. Corrective actions so required.
 - vi. Corrective actions that have been taken.
 - vii. Result of verification of the status of the corrective actions.
- (9) Audit reports shall be retained for no less than 2 years after the internal quality audit has been closed.

§ 145.27 Engineering and Technical System

The maintenance organization shall establish the engineering and technical system to fulfill the engineering and technical management responsibilities, including the establishment of the following maintenance technical documents:

- (1) The maintenance organization shall follow the requirements of the relevant airworthiness data as well as that of the "job sender" to set up the maintenance worksheets which shall comply with the following requirements:
- i. Worksheets may be established by the maintenance organization itself or provided by the "job sender", and shall define the working sequence and process. When the relevant airworthiness data has been amended, the worksheets shall

- be assessed to verify whether amendment is necessary and the assessment so made shall be documented. The worksheets shall be amended immediately if necessary.
- ii. The worksheets shall include the following information at least:
 - (a) Name of the organization.
 - (b) Worksheet number.
 - (c) Title/subject of the maintenance work.
 - (d) The basic maintenance document to perform the maintenance work and its revision status.
 - (e) Aircraft registration number or the component part number.
 - (f) Detailed working information and the records so required in accordance with the sequence of the working process.
 - (g) Autographic signature or stamp of the responsible maintenance personnel.
 - (h) Date of issuance or revision.
 - (i) Record of the working man-hours.
 - (j) Date of completion.
 - iii. The reference material quoted in the worksheets shall be indicated with the document number and the title/subject. The working information contained in the worksheets shall be detailed and unambiguous. The actual test value shall be recorded where required and the unit of the value shall also be defined. The part number of the relevant material or ID number of special tools/equipment shall be indicated in the worksheets if required.
 - iv. The worksheets used by the domestic maintenance organizations shall be in Chinese at least, in the case of request from the foreign or regional “job sender”, the worksheets used by the domestic maintenance organizations may be in English while carrying out the maintenance on the civil aircraft registered in the other countries or special

administrative regions or Taiwan region of the People's Republic of China or aircraft component thereof, but the maintenance organization shall ensure that the maintenance personnel can correctly understand the information contained in the worksheets. The foreign and regional maintenance organizations shall ensure their maintenance personnel can correctly understand the information contained in the worksheets.

- v. Amendments made to the worksheets shall comply with the prescribed procedures approved or accepted by CAAC, and shall be approved by the authorized person. The approval for the amendments shall be dated and signed by the responsible person using either autographic signature or stamp.

- (2) The maintenance organization shall fulfill the following requirements to establish the basic maintenance documents pursuant to the relevant airworthiness data:

The basic maintenance document for the maintenance work means the technical document defining the methods and the standards to perform the specific maintenance work. The information of the relevant airworthiness data may be quoted directly in such document in the case that the information of the relevant airworthiness data has already been verified as applicable and can be understood correctly by the maintenance personnel.

- i. Where the relevant airworthiness data cannot be used directly due to language or the usage of alternate tools/equipment or material, the maintenance organization shall develop its own basic maintenance document for the specific maintenance work. When the relevant airworthiness data has been amended, the basic maintenance document shall be assessed to verify whether amendment is necessary and the assessment so made shall be recorded. The basic maintenance document shall be amended in a timely manner if necessary.
- ii. The basic maintenance documents established by the

maintenance organization shall be in the language that could be understood correctly by the maintenance personnel. The basic maintenance documents established by the domestic maintenance organizations shall be in Chinese at least.

§ 145.28 Production Control System

The maintenance organization shall establish production control system within the organization itself, which shall consist of all associated production departments and maintenance workshops, the production system so established shall fulfill the following requirements:

- (1) The production control system shall ensure that the facilities, tools/equipment, material, qualified maintenance personnel, airworthiness data and technical document necessary for the maintenance work are available prior to the maintenance work.
- (2) The maintenance schedule arranged by the production control system shall match the maintenance man-hours available at that time. The maintenance man-hours available shall be defined according to the qualification, authorization and competence of maintenance personnel, shift arrangement, etc.
- (3) If it may adversely affect the safety or quality of the maintenance while carrying out some maintenance working process simultaneously, the production control system shall arrange the working process appropriately to avoid such situations from occurring. When the maintenance in process has to be suspended due to break time or shift handover, etc, the production control system shall control the integrity of working process and the maintenance records to ensure the continuity of the maintenance work.
- (4) The production control system shall establish control and management over the maintenance man-hours for each piece of maintenance work. The maintenance organization shall record the actual maintenance man-hours used and compare it with the theoretical man-hours to ensure integrity of the maintenance work performed. The maintenance man-hours shall be measured in the

unit of man per hour. The theoretical man-hours shall be defined upon the work scope, competence of the maintenance personnel, the availability of tools /equipment and the working conditions, etc. The initial establishment of the theoretical man-hours may follow the standards recommended by the civil aircraft or aircraft component manufacturer or the practice of similar maintenance organizations, the maintenance organization shall make continued adjustment on the theoretical man-hours based on statistics and analysis.

§ 145.29 Training Program and Personnel Technical Files

The maintenance organization shall establish the training program for each post pursuant to the requirements as prescribed in the §145.23 of this regulation, set up the technical record for each post-holder and fulfill the following requirements:

- (1) The training program shall define the scope of training, the objective of training, training time requirement, the means of training, examination requirement, training organization and training management responsibilities, etc. The training program and any amendment thereof shall be approved by the CAAC Headquarter Office and the CAAC RA.

- (2) Each post-holder of the maintenance organization shall complete the training on the training items as required in the training program and be appropriately qualified before undertaking the specific maintenance task or maintenance management or supporting work independently, and shall complete the following recurrent training and continuation training as appropriate:
 - i. Receiving the recurrent training on amendments or changes made to the relevant civil aviation laws and regulation, national or industrial standards, technical knowledge, working procedures and maintenance human factors if applicable, and receiving the continuation training on the assigned job in two years cycle as a minimum.

- ii. The post-holder, which has quit the specific work continuously for more than two years, shall complete the training on all the applicable items as prescribed in the training program before resuming working.
 - iii. Where a new technique or equipment is introduced to the civil aircraft maintenance or maintenance management, the personnel involved shall complete the training on such technique or equipment prior to the use.
- (3) The maintenance organization shall establish the annual training schedule for each post in accordance with the aforementioned training requirements, and may make adjustment to the schedule if necessary.
- (4) The maintenance organization shall establish and safe keep technical files and training records for each post-holder, the technical files and training records so established shall fulfill the following requirements:
- i. Be readily accessed by the CAAC Headquarter Office, the CAAC RA or the maintenance organization itself to make evaluation on the qualification requirement for each post.
 - ii. The personnel technical file shall include the following information as a minimum:
 - (a) The current post and scope of work;
 - (b) The technical resume in year and month;
 - (c) The training completed, the means of training, the training time
and examination score if applicable;
 - (d) The proof of the education and the copy of the Certificate of Qualification.
- (5) The maintenance organization shall update the personnel technical file and training records in a timely manner to ensure the validity thereof.
- (6) The personnel technical files and training records shall be properly kept to prevent them from being accessed and amended by unauthorized personnel. The technical file of the individual person shall be

retained for at least two years after the person quit from the organization.

§ 145.30 Maintenance Organization Manual

The maintenance organization shall develop the Maintenance Organization Manual (MOM) to define how to comply with the requirements of this regulation. The Maintenance Organization Manual shall consist of Maintenance Management Manual (MMM) and the Working Procedures Manual (WPM). The Maintenance Management Manual that defines the general requirements and basis to perform the approved maintenance work shall be approved by the CAAC. The Working Procedures Manual that defines the specific working procedures of each individual department or workshop according to the requirements as defined in the Maintenance Management Manual shall be accepted by the CAAC. The department approving or accepting these manuals may raise amendment requirements.

The establishment, amendment and distribution of the Maintenance Management Manual and the Working Procedures Manual shall comply with the following format and requirements:

- (1) The Maintenance Management Manual and the Working Procedures Manual may be integrated into one volume, or divided into volumes. If such manual is divided into volumes, the appropriate cross reference shall be made in the Maintenance Management Manual, and all applicable maintenance management requirements shall be covered in the manual;
- (2) The manuals of the domestic maintenance organization shall be in Chinese at least. The manuals of the foreign or regional maintenance organization may be in either Chinese or English;
- (3) The Maintenance Management Manual shall be loose-leaf, and include the cover page, the index of content, the revision records, and the list of effective pages; the manual shall also have the name of the organization, the title of the manual, the chapter/section number, the date of issuance or revision, page number, etc. on each page.
- (4) The format of the Working Procedures Manual may be decided by

the maintenance organization itself, but the manual shall be easy for keeping, referring, amending and controlling.

- (5) The maintenance organization shall keep one complete set of the valid Maintenance Organization Manual as the master, and the approval page of the master shall be the original. Copies of the Maintenance Organization Manual shall be at least distributed to the Accountable Manager, Quality Manager and Production Manager. The Working Procedures Manual shall be distributed entirely or partially to the relevant department or system according to the assigned duties and responsibilities. More copies shall be distributed to a department or system when necessary. The distributed copies of the manual shall be amended as soon as possible once the maintenance organization manual has been amended.

The Maintenance Management Manual shall include at least the following information and be in the following format:

- (1) PART 1 - The Statement of the Accountable Manager:

The statement signed by the Accountable Manager to declare that the Maintenance Management Manual and the Working Procedures Manual has been verified to comply with the requirements of this regulation and will be in the compliance with the requirements of this regulation at all times.

- (2) PART 2 - Amendment and distribution:

Amendment & distribution procedure of the Maintenance Management Manual and the Working Procedures Manual.

- (3) PART 3 - Facilities:

The description of facilities at the locations as listed in the CAAC MOC, including the layout and text description. Where the relevant facilities at the non-approved locations are used, the layout and the text description for such facilities shall also be included.

- (4) PART 4 - Personnel:

The total number of personnel and the number of maintenance personnel, certifying staff and auditors involved in the approved maintenance work shall be included. The maintenance organization

may update the aforementioned numbers in one year cycle if there is any change in these numbers.

(5) PART 5 - Organization

The organization chart and the description thereof that shall be able to indicate the relationships among the departments/systems.

(6) PART 6 - Senior management personnel:

The name, qualification, experience and duties and responsibilities of the Accountable Manager, Quality Manager and Production Manager.

(7) PART 7 – Duties and Responsibilities:

The description of the duties and responsibilities assigned to each department and each post.

(8) PART 8 - Scope of work:

The description of the capability to perform the maintenance work which is within the scope of approval as specified in the CAAC MOC.

(9) PART 9 - Management requirements:

- i. The technical documents management requirements, including the management requirements for airworthiness data, worksheets as well as basic maintenance documents developed by maintenance organizations.
- ii. Staff training management requirements.
- iii. Tools & equipment management requirements.
- iv. Material management requirements.
- v. Production control requirements.
- vi. Subcontracted items and subcontractors management requirements.
- vii. Maintenance recording and reporting requirements.
- viii. The quality control requirements for the complete maintenance process from receiving of the maintenance work to the final release of that.

(10) PART 10 - Internal quality audit requirements.

(11) PART 11 - The roster of the certifying staff and samples of the autographic signature or stamp of the certifying staff

(12) PART 12 - List of subcontractors and subcontracted items.

(13) PART 13 - Samples of the forms and tags used by the maintenance organization.

(14) PART 14 – The statement of compliance to this regulation.

The Working Procedures Manual shall include the following applicable subjects at least:

- (1) The basis;
- (2) Applicability;
- (3) The qualification for each post;
- (4) Necessary tools/equipment and material;
- (5) Working or operating procedures;
- (6) Working standards;
- (7) Maintenance recording requirements;
- (8) Samples of the forms and tags used.

§ 145.31 Maintenance Criteria

The maintenance organization shall comply with the following criteria while carrying out maintenance work:

- (1) Performing the maintenance work pursuant to the basic maintenance document which complies with the requirements, standards etc, as specified in the airworthiness data.
- (2) The maintenance organization shall inform the operator in the case where the maintenance works that will be performed in compliance with the standards which exceed these prescribed in the airworthiness data. The data, process and instruction for such maintenance work or modification so developed shall be approved by the CAAC Headquarter Office or the CAAC RA via the operator prior to the maintenance work or modification.
- (3) Tools & equipment shall comply with the requirements prescribed in the airworthiness data and technical documents and be in good and serviceable conditions. The accuracy of the measuring tools shall comply with the requirements prescribed in the technical documents. The complicated equipment shall be appropriately maintained and come with the operating instruction.
- (4) Materials used for the maintenance or intended for the

maintenance shall come with the valid certificates of conformity and be in good and serviceable condition. The serviceable parts, which are maintained by a maintenance organization itself and intended for re-installation, shall be attached with the internal serviceable tags issued by the maintenance organization itself. The serviceable parts, which are maintained by subcontractors, shall be provided with the maintenance release certificates as required by the maintenance organization which uses the subcontractors. Aircraft components stored in the working area shall be clearly marked. Serviceable and unserviceable parts shall be stored with segregation and properly protected during transportation.

- (5) The work that each post-holder is undertaking shall be consistent with the scope of work so authorized for such person. Apprentices and unauthorized personnel shall work under the supervision of the properly qualified and authorized personnel regarding the specific maintenance work.
- (6) The maintenance organization shall adequately consider the impacts of the maintenance human factors on the maintenance work, to avoid imposing the requirements on the maintenance personnel which is beyond their normal human performance limitations. Unless approved by the local labor administrative department, the working time of the maintenance personnel working on the aircraft or aircraft component directly shall not exceed 8 hours per day, the total working time per week shall not exceed 40 hours. Under special circumstances, the working time of the maintenance personnel can be extended appropriately to up to 3 hours per each day, but the total overtime per month shall not exceed 36 hours; the maintenance organization shall also ensure that the maintenance personnel are not disturbed by psychoactive substances such as drugs, alcohol, etc during the working time.
- (7) The status of the maintenance work shall be recorded for each step soon after the completion to ensure the continuity and integrity of the maintenance work.
- (8) The following measures shall be taken to prevent the foreign

objects from being left in the aircraft or aircraft components:

- i. For the maintenance work required for assembling or access opening, an inspection/check to verify whether the foreign objects have been left in the aircraft or aircraft component shall be performed on the completion of assembly work or before the closure of the opening access.
- ii. For the line maintenance, the tools used in the working area shall be checked to confirm that there is no tool left in the aircraft prior to the release of aircraft.

§ 145.32 Maintenance Record

The maintenance records of the maintenance organization shall meet the following requirements:

- (1) The maintenance work shall be performed in such a way that the integrity of the maintenance records can be ensured. The maintenance records shall include at least but not limited to the completed worksheets, records of defects found and rectifications taken, components replaced and the associated certificates of conformity thereof, the list of airworthiness directives and service bulletins incorporated, deferred items, testing records, maintenance release certification, etc. "Major repair and modification Report" prescribed in Attachment 8 of this regulation shall be completed for all major repair and modification work carried out.
- (2) The maintenance records shall be completed according to the following requirements:
 - i. The same work shall be recorded on a standard worksheet or form. With the exception of records required by the foreign/regional "job sender" and some self-produced testing records that may be in English, the maintenance records of the domestic maintenance organization shall be in Chinese at least. The maintenance records of the foreign or regional maintenance organization other than the worksheets shall be in English as least.
 - ii. The maintenance records shall be completed clearly, tidily

- and accurately with the use of ink or ball pen. Actual testing value shall be recorded for testing item. Any amendment made to the maintenance records shall be approved by the personnel so authorized.
- iii. The maintenance records may be completed in either paper or computerized documents. When using the paper documents, the paper used shall withstand normal handling and be in good condition during the transfer and preservation. When using the computer system to make the records, the information shall be checked to ensure effective transmission, and the access authorization control matching with the authorization so made for each post-holder shall be established.
- (3) The maintenance records shall be kept in accordance with the following requirements:
- i. The maintenance records shall be properly kept to avoid damage due to water, fire, loss, etc. Where the computer system is used to preserve the maintenance records, an effective backup system and security protection measures shall be established to prevent records from being amended by the unauthorized personnel.
 - ii. The maintenance records shall be kept at least two years whereas the records of the line maintenance work shall be kept at least 30 days upon completion of the records.
 - iii. The maintenance organization shall take effective measures to enable the damaged records to be retrieved via other effective means.
 - iv. When the operation of the maintenance organization terminates, all maintenance records completed within the two years prior to the termination shall be returned to the relevant "job sender".

§ 145.33 Maintenance Release Certificate

On completion of maintenance work on the aircraft or aircraft component,

the maintenance release certificate shall be issued by the certifying staff in such a way that is approved or accepted by the CAAC. The maintenance release certificates approved or accepted by the CAAC are as follows:

- (1) The line maintenance, the scheduled maintenance up to and including "A" check or equivalent as well as the modification incorporated thereof may be certified by the personnel so authorized by the operator via completing the records in the aircraft flight logbook on the completion of such works.
- (2) For the scheduled maintenance work and the modification heavier than "A" check or equivalent, the format of the release certificate for such maintenance works may be devised by the maintenance organization itself, but the format of the certificate shall be in a standard format and the following information shall be included at least:
 - i. Name, address of the maintenance organization and its CAAC MOC number.
 - ii. Name and address of the "job sender" and the repair/purchase order number.
 - iii. Manufacturer, type and nationality registration number of the aircraft and the service time of the aircraft measured in flight hours, landing cycles, etc prior to the maintenance work.
 - iv. Subject of the scheduled maintenance, the significant defects found and the actions taken, together with the listing of parts replaced, deferred items and the completed airworthiness directives, service bulletins and other additional works incorporated into the scheduled maintenance works.
 - v. The compliance statement that all maintenance works completed for the aircraft and other maintenance works incorporated thereof comply with the requirements of the CAAC regulations.
 - vi. Name, the license number and the autographic signature of the certifying staff as well as the date of release.
- (3) The release of aircraft components shall be in the form of the Release Certificate/Airworthiness Approval Tag (Form AAC-038)

issued by the certifying staff so authorized by the maintenance organization. In the case that the maintenance of any component is just part of the whole process for another maintenance work performed by the maintenance organization itself, the maintenance certificate required for such component may be in the form of the internal certificate used by the maintenance organization itself only. The maintenance release certificates issued by the maintenance organization shall meet the following requirements:

- i. The maintenance release certificates shall only be issued to the civil aircraft or aircraft components maintained by the maintenance organization itself.
- ii. The maintenance release certificate shall not be amended randomly or used for other purposes.
- iii. The maintenance organization may make adjustments on the maintenance release certificate only under the specific circumstance to ensure the information is complete; such adjustments however, shall not change the information specified in the original certificate.
- iv. The usage of the maintenance release certificate shall not lead to the confusion on the airworthiness of the civil aircraft or aircraft component.

The approved maintenance organization shall provide the "job sender" with the maintenance release certificate together with the summary of all maintenance works carried out. The maintenance release certificate as well as the summary report provided by the domestic maintenance organization shall be in Chinese at least except when requested by the foreign or regional maintenance organization it may be in English. The maintenance release certificate as well as the summary report provided by the foreign or regional maintenance organization for the China registered aircraft or components thereof shall be in English at least.

The copy of the maintenance release certificate shall be kept together with the maintenance records.

§ 145. 34 Unairworthy Condition Report

The maintenance organization shall report to the CAAC Headquarter Office or the CAAC RA within 72 hours of the following significant defects, unairworthy conditions or other important incidents found during maintenance or occurring with maintenance that affect the operation safety of the aircraft and the airworthiness of the civil aircraft or aircraft components.

- (1) Serious cracks, permanent deformation, burning damage or serious corrosion of structure found in the aircraft, engine, propeller or helicopter rotor systems.
- (2) Any defect that may affect the functions of engine, landing gear and flight control systems.
- (3) Any emergency system that failed the operational check or functional test.
- (4) The significant defect or malfunction of the civil aircraft or aircraft component which occurred due to the maintenance errors.

The unairworthy conditions shall be reported with the "Unairworthy Condition Report" (Form F145-5). The maintenance organization shall complete the form based on the facts encountered. In the case that the required form could not be completed within the prescribed time frame, the report shall be made by fax, telex, telephone or e-mail, etc first and then followed with the formal report completed pursuant to the "Unairworthy condition report" (Form F145-5).

The unairworthy conditions shall be reported to the "job-sender" at the same time. The relevant information shall also be reported to the civil aircraft or aircraft component manufacturer when such conditions have been deemed as design or manufacturing faults or defects.

Chapter 5 Penalties**§ 145. 35 Warning**

The maintenance organization that violates the requirements of this regulation in any one of the following circumstances will be warned and

directed by the CAAC Headquarter Office or the CAAC RA to take the corrective actions within the limited time frame prescribed by CAAC:

- (1) Violating §145.11 of this regulation: not displaying the CAAC MOC prominently in the main office of the organization.
- (2) Violating §145.13 of this regulation: not informing the "job sender" of the approved scope of work, or not reporting the factual information as prescribed in this regulation to the CAAC Headquarter Office or the CAAC RA.
- (3) Violating §145.16 of this regulation: not informing the CAAC Headquarter Office or the CAAC RA of the major changes happened to the facilities, tools and equipment, material, airworthiness data, personnel, organization structure and the CAAC MOM as prescribed in this regulation.
- (4) Violating §145.32 of this regulation: not properly recording the maintenance work or preserving the maintenance records pursuant to the requirements prescribed in this regulation.
- (5) Violating §145.33 of this regulation: not providing the "job sender" with the maintenance release certificate or properly keeping the maintenance release certificate.
- (6) Violating §145.34 of this regulation: not reporting on the defects and unairworthy conditions found pursuant to the requirements prescribed in this regulation.

§ 145.36 Fine and Confiscation of the Illegal Revenue

The maintenance organization that violates this regulation in any one of the following circumstances will be directed by the CAAC Headquarter Office or the CAAC RA to cease the illegal practice and take corrective actions within the limited time frame as prescribed by the CAAC, and be subject to a fine of more than \$10,000 up to less than \$30,000. The revenue so made with the illegal practice will be confiscated:

- (1) Not completing the corrective action to comply with the relevant CAAC requirements within the prescribed time frame after being warned by the CAAC Headquarter Office or the CAAC RA.
- (2) The maintenance work and the advertisement thereof falls outside

the approved scope of work as prescribed in the CAAC MOC.

- (3) Violating §145.13 of this regulation: Issuing a maintenance release certificate for the maintenance work performed only pursuant to the maintenance requirements of the “job sender” where such requirements obviously can not ensure the airworthiness of the aircraft/aircraft component.
- (4) Violating §145.33 of this regulation: not properly issuing and using the maintenance release certificate pursuant to the requirements prescribed in this regulation.

§ 145.37 Suspension of Approved Maintenance Rating(s) or Item(s)

The maintenance organization that violates this regulation in any one of the following circumstances will be directed by the CAAC Headquarter Office or the CAAC RA to take corrective actions within prescribed limited time frame, and be subject to have its approved maintenance rating(s) or item(s) suspended by the CAAC Headquarter Office or the CAAC RA based on the situation:

- (1) Not paying the fine and completing the corrective action within the limited time frame prescribed by the CAAC Headquarter Office or the CAAC RA after being fined.
- (2) Violating §145.13 of this regulation: Not continuously complying with the requirements of this regulation, or refusing or not accepting or refusing the audit, supervision and investigation required by the CAAC Headquarter Office or the CAAC RA.
- (3) Violating §145.14 of this regulation: Carrying out the approved maintenance work without availability of the necessary facilities, tools and equipment, material, airworthiness data and personnel.
- (4) Violating §145.14 of this regulation: Carrying out maintenance work on civil aircraft or aircraft component which is beyond the approved scope of work.
- (5) Violating §145.15 of this regulation: Not following the standards as prescribed in this regulation to perform the contracted out maintenance.

- (6) Violating §145.16 of this regulation: Not applying for the variation to the CAAC MOC when making changes to the name, address and the approved maintenance rating(s).
- (7) Violating §145.28 of this regulation: Carrying out the maintenance work in the cases where the actual maintenance man-hours differ greatly from the theoretical maintenance man-hours and the integrity of such work can not be ensured.
- (8) Violating §145.31 of this regulation: Not carrying out the Maintenance work according to the required maintenance criteria.
- (9) Violating §145.32 of this regulation: Not completing the records for the maintenance work on the civil aircraft or aircraft component pursuant to the requirements prescribed in this regulation.
- (10) Violating the §145.33 of the regulation: Not providing the "job sender" with the maintenance release certificate on completion of the maintenance work on civil aircraft or aircraft component.

The suspension of the approved maintenance rating(s) or item(s) shall be determined by the CAAC Headquarter Office or the CAAC RA according to the illegal practice.

The duration of suspension of the approved maintenance rating(s) or item(s) shall be determined by the CAAC Headquarter Office or the CAAC RA according to the illegal practice. If the maintenance organization cannot complete the corrective action and correct the illegal practice within the prescribed limited time frame, the CAAC Headquarter Office or the CAAC RA may raise another penalty to suspend the approved maintenance rating(s) or item(s) without time limit until the maintenance organization complete the corrective action and fully comply with the CAAC requirements.

The maintenance organization shall cease the maintenance work on the approved maintenance rating(s) or item(s) suspended during the prescribed time frame. At the end of the suspension, the approved maintenance rating(s) or item(s) suspended can not be resumed unless the CAAC Headquarter Office or the CAAC RA complete the audit for such rating(s) or item(s) being suspended and ensure that the relevant requirements prescribed in this regulation have been fulfilled.

§ 145.38 Revocation of Maintenance Organization Certificate

The maintenance organization that violates this regulation in any one of the following circumstances will have its CAAC MOC revoked by the CAAC Headquarter Office or the CAAC RA:

- (1) Not returning the CAAC MOC or continue the maintenance work illegally during the approved maintenance rating(s) or item(s) being suspended.

Making falsification on the requirements of this regulation or performing the associated maintenance work in the case of knowing that the relevant requirements prescribed in this regulation cannot be met.

Chapter 6 Supplementary Provisions**§ 145.39 Effectivity and Repeal**

The requirements regarding the maintenance management personnel qualification certificate, the civil aircraft maintenance personnel license or the civil aircraft component maintenance personnel license as prescribed in (3), (6) of the §145.23 of this regulation will become effective on 1 January, 2008. The requirements regarding the training program as prescribed in the §145.29 of this regulation as well as the working time requirements for the maintenance personnel as prescribed in item (6) of the §145.31 of this regulation will become effective on 30 June, 2006.

Except as required in the aforementioned paragraph of this section, this regulation will become effective on 31 December 2005. The "Approval of Civil Aircraft Maintenance Organization" (CCAR-145 Revision 2) published on 21 December 2001 will be repealed at the same time.

Attachment 1-CAAC MOC Application Form [F145-1(10/2001)]

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

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 of organization
- (4) 改变机构或名称/Change in organization structure or name
- (5) 其它/Others

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

- | | |
|---|---|
| <input type="checkbox"/> 机体/Airframe | <input type="checkbox"/> 动力装置/Powerplant |
| <input type="checkbox"/> 螺旋桨/Propeller | <input type="checkbox"/> 航空器部件/Components |
| <input type="checkbox"/> 特种作业/Specialized service | <input type="checkbox"/> 其它/Others |

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

Attachment 2-Company Maintenance Capability List [Form F145-2(08/2005)]

× × × × COMPANY MAINTENANCE CAPABILITY LIST

Date: _____

CAAC Certificate No: _____

Revision No.: _____

No.	Part Number	Description	ATA Chapter	Manufacturer	Maintenance functions	Technical Data	Major Equipment	Remark
								(12)
Total								

Attachment 3-CAAC Maintenance Organization Certificate [Form F145-3(10/2001)]**中国民用航空总局****GENERAL ADMINISTRATION OF CIVIL AVIATION OF CHINA****维修许可证****MAINTENANCE ORGANIZATION CERTIFICATE**

编号/No. _____

单位名称

Name of the organization _____

单位地址

Location of business _____

经审查，该单位符合中国民用航空规章—145 部的要求，可以从事如下类别的维修工作：

Upon finding that the organization complies with the requirements of China Civil Aviation Regulation – Part 145, the above organization is adequate to accomplish maintenance of the following ratings:

本许可证除被放弃，暂停或吊销，在下述期限内将一直有效。

This certificate, unless cancelled, suspended, or revoked, shall continue in effect until:

局长授权

For the Minister of CAAC

签 字 _____

Signature

职 务

Position _____

颁发日期

Date issued

Date reissued _____

F145-3(10/2001)**1/2**

中国民用航空总局
GENERAL ADMINISTRATION OF CIVIL AVIATION OF CHINA

许可维修项目
LIMITATION OF MAINTENANCE ITEMS

限定:

Limitation:

对第_____号许可证所列维修类别或维修项目作如下限定:

Maintenance items set forth on Maintenance Organization Certificate

No. _____ is/are limited to the following:

局长授权

For the Minister of CAAC

签字_____

Signature

职务

Position _____

颁发日期

Date issued

Date reissued _____

F145-3(10/2001)

2/2

Attachment 4-Annual Report of Maintenance Organization [Form F145-4(08/2005)]**Annual Report of Maintenance Organization**

(CAAC Certificate No.)

(Name of Company)

(Address of Company)

Report from MM____YY____to____MM____YY

Quality Manager _____ (Print Name)

_____ (Signature)

____DD____MM____YY

Instructions:

1. This report shall be submitted annually, included the information from 1st January last year to 1st January of this year, and submitted to CAAC before 1st February.
2. The CAAC address is as follows:
Continue Airworthiness & Maintenance Division
Flight Standards Department of CAAC
155 Dongsu Street West, Beijing 100710, P. R. China
Tel: 86-10-64092423/64091402 Fax:86-10-64030987
3. This report shall be filled carefully, clean and tidy, better in printing.
4. If the blank given is not enough, please write in attached pages and mark clearly in the form.

F145-4(08/2005)**1/5**

1. Any changes in the following of the company:

_____Amendment to the Maintenance Organization Manual; (refer to §145.30 of CCAR145)

_____Significant change in Facilities; (refer to §145.20 of CCAR145)

_____Significant change in Tools and Equipment; (refer to §145.21 of CCAR145)

_____Significant Change in Personnel; (refer to §145.23 of CCAR145)

_____Significant change in Procedures;

_____Other significant change.

If “Yes”, please tick “×” before the above item, and give details in the blank below.

Details of the change:

Have the changes been reported to CAAC? _____Yes _____No

3. Major repair and modification provided to Chinese Customer within the year of report.

Maintenance Item	Maintenance Function	Date of Completion	Quality feedback

Have been reported to CAAC and filled out the Form AAC-085? ____Yes____No

4. Unairworthy condition report to CAAC within the year of report.

Content of report	Description for the related aircraft or its component	Date of report

Have been reported to CAAC and filled out the Form F145-5? ____Yes____No

5. Self-audit within the year of report:

(1) Have been developed self-audit plan of the year?

_____Yes _____No

(2) Was the self-audit conducted according to the plan?

_____Yes _____No

If “No”, please give the reason of plan change or un-conduct in the blank below:

(3) Major findings from self-audit: (Please describe in the blank below)

(4)Corrective status of the major findings:(Please describe in the blank below)

Comment of Principal Inspector: (For CAAC use only)

Attachment 5-Unairworthy Condition Report [Form F145-5(10/2001)]

1. REGISTRATION NO. B-		GENERAL ADMINISTRATION OF CIVIL AVIATION OF CHINA (CAAC) UNAIRWORTHY CONDITION REPORT			FOR CAAC USE ONLY
					CONTROL NO.
2. MAJOR EQUIPMENT IDENTITY					
CATEGORY	MAKE	MODEL	SERIAL NO.	OWNER	
AIRCRAFT					
POWERPLANT					
PROPELLER					
APPLIANCE					
3.PROBLEM DESCRIPTION AND COMMENTS					
SPECIFIC PART (of component) CAUSING TROUBLE				PART/DEFECT LOCATION	
NAME	P/N	ATA			
Describe the unairworthy condition and the circumstances under which it occurred. State probable cause and recommendations to prevent recurrence.					
SUBMITTED BY:				DATE:	
NAME OF ORGANIZATION					

F145-5(10/2001)**1/1**

Attachment 6-Maintenance Function and Maintenance Rating(s) Classification**Maintenance Function and Maintenance Rating(s) Classification**

RATING	MAINTENANCE FUNCTION CLASSIFICATION	LIMITATION
Airframe	<ul style="list-style-type: none"> – Line maintenance – Scheduled Maintenance (e.g. A, B, C check; ××hours inspection) – Repair(include structure repair) – Modification – Overhaul(also termed as major repair, D check) 	– The detailed information on the manufacturer, type or series of the aircraft.
Power plant	<ul style="list-style-type: none"> – Repair – Modification – Overhaul – Others(e.g. hot section inspection, Module change etc) 	– The detailed information on the manufacturer, type or series of the engine/APU.
Propeller	<ul style="list-style-type: none"> – Repair – Modification – Overhaul 	– The detailed information on the manufacturer, type or series of the propeller.
Component other than complete engine/APU or propeller	<ul style="list-style-type: none"> – Inspection/Test – Repair – Modification – Overhaul 	– The detailed information on the description, the ATA chapter and the manufacturer of the component, as well as the manufacturer and type or series of aircraft on which such component installed, attached with the “Company Maintenance Capability list”.
Specialized service	– The specific description on the specialized service	

Note:

1.Unless otherwise specified, this table basically defines the scope for all approved maintenance ratings. The maintenance organization shall follow the defined scope listed in the aforementioned table to select the appropriate maintenance rating(s) while making an application, and provide the detailed information as prescribed in the “LIMITATION” column of the aforementioned table appropriately.

2.The maintenance rating of power plant includes engine and auxiliary power unit (APU).

3.The maintenance rating of propeller includes the helicopter rotor.

4.The ATA chapters for the maintenance rating of the component other than complete engine/APU or propeller is listed in the chart below.

5.The specialized service include non destructive test, heat treatment and surface treatment, external spray painting, composite material repair, etc which is applicable to multiple types of aircraft or multiple kinds of aircraft component.

For higher level assembly or component which includes sub-items (e.g. sub-assemblies or sub-parts), a maintenance organization may carry out maintenance work on sub-items by itself or subcontract them out under the CAAC approval for the particular higher level assembly or component. If a maintenance organization intends to maintain and certify the sub-item individually, the specific maintenance rating(s) and item(s) which apply to such particular sub-items shall be listed in its CAAC MOC.

For example, the engine overhaul may include the repair for blade, but if a maintenance organization only intends to maintain and certify the blade individually, the component rating as prescribed in this regulation and the specific maintenance item which applies to blade repairing shall be listed in its CAAC MOC.

ATA Chapter

ATA Chapter	Title
Aircraft System	
21	Air Conditioning
22	Auto Flight
23	Communications
24	Electrical Power
25	Equipment/Furnishings
26	Fire Protection
27	Flight Controls
28	Fuel
29	Hydraulic Power
30	Ice and Rain Protection
31	Indication/Recording Systems
32	Landing Gear
33	Lights
34	Navigation
35	Oxygen
36	Pneumatic
37	Vacuum/Pressure
38	Water/Waste
39	Electrical/Electronic Panels And Multipurpose Components
41	Water Ballast
44	Cabin Systems
45	Central Maint. System
46	Information Systems
49	Airborne Aux. Power
50	Cargo and accessory compartments
Structure	
52	Doors
53	Fuselage
54	Nacelles/Pylons
55	Stabilizers
56	Windows
57	wings
Propeller/Rotor	
61	Propellers
62	Rotor(s)
63	Rotor Drive(s)
64	Tail Rotor

65	Tail Rotor Drive
66	Folding Blades/pylon
67	Rotors Flight Control
Power Plant	
71	Power Plant
72	Engine
73	Engine Fuel & Control
74	Ignition
75	Bleed Air
76	Engine Controls
77	Engine Indicating
78	Engine Exhaust
79	Engine Oil
80	Starting
81	Turbines (Reciprocating Eng)
82	Water Injection
83	Remote Gear Boxes (Eng Dr)
84	Propulsion Augmentation

Attachment 7-Authorized Release Certificate/Airworthiness Approval Tag [Form AAC-038(12/94)]

1 国家 Country		2. 中国民用航空总局 CAAC <input type="checkbox"/> 符合性 Conformity <input type="checkbox"/> 适航性 Airworthiness				3 证书编号 Certificate Ref. No.	
批准放行证书/适航批准标签 AUTHORIZED RELEASE CERTIFICATE/AIRWORTHINESS APPROVAL TAG							
4 单位 Organization					5 工作单/合同单/货单 Work Order/Contract/Invoice		
6 序号 Item	7 内容 Description	8 件号 Part No.	9 适用性 Eligibility	10 数量 Qty	11 系列号/批号 Serial/Batch No.	12 产品状态 Status/Work	
13 备注 Remarks							
14 新产品 New Parts 兹声明上述产品除第 13 项的其它规定以外,已按照上述国家适航条例进行制造/检查,并且该产品(出口产品)符合经批准的型号设计资料和进口国提出的专用要求。 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 使用过的产品 Used Parts 兹声明上述产品除第 13 项的其它规定以外,已按照上述国家适航条例和进口国通知的特殊要求进行了工作,该产品处于安全可用状态可以批准放行使用。 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 批准人签名 Signature		18 批准日期 Date		19 中国民航总局授权 Issued by or on behalf of the CAAC			
17 批准人姓名(打印的) Name(Printed)							

AAC-038(12/94)

*参阅产品目录详细查找适用性

Cross-check eligibility for more details with parts catalogue

批准放行证书/适航批准标签

AUTHORIZED RELEASE CERTIFICATE/AIRWORTHINESS APPROVAL TAG


使用者/安装者职责

USER/INSTALLER RESPONSIBILITIES

- (1) 必须明确：本文件并不批准零件/组件/部件可以装到有关产品上。
 - (2) 当使用者/安装者使用的是所在国适航当局的条例，而不是本表第 1 项中所指国家适航当局的条例时，使用者/安装者必须保证所在国的适航当局能接受所指国家适航当局批准出口的零件/组件/部件。
 - (3) 表中第 14 项、第 15 项的陈述，并不说明本表是安装批准。在所有情况下，航空器使用前，航空器使用者/安装者应把按本国适航条例颁发的安装批准放入维修记录中。
- (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.

AAC-038(12/94)

Attachment 8-Major Repair and Modification Report [Form AAC-085(08/2005)]

		General Administration of Civil Aviation of China CAAC MAJOR REPAIR AND MODIFICATION (Airframe, Powerplant, Propeller and Appliance)		Beijing, P.R. China (100710) 155 Dongsu Street West Fax: 86-10-64030987	
1. Aircraft	Maker		Model		
	Serial No.		Nationality & Registration No.		
2.Owner	Name		Address		
3. Unit Identification Airframe <input type="checkbox"/> Powerplant <input type="checkbox"/> Propeller <input type="checkbox"/> Appliance <input type="checkbox"/>					
Unit	Maker	Model	Serial No.	Type	
				Repair	Modification
4. Conformity Statement					
Name and address of Agency		Kind of Agency		Agency's certificate No.	
		<input type="checkbox"/> CAAC Authorized Mechanic <input type="checkbox"/> CAAC Certified Organization <input type="checkbox"/> Manufacturer <input type="checkbox"/> Manufacturer Authorized Organization			
I certify that the repair and/or modification made to unit(s) identified in item 3 above and described in item 6 of this form have been made in accordance with requirements of CCAR of P.R.C. and that the information furnished herein is true and correct to the best of my acknowledge.					
Date:		Signature of authorized individual:			
5. Approval for return to service					
Pursuant to the authority given to persons specified below, the unit identified in item 3 was inspected in the manner prescribed by the minister of CAAC and is Approved <input type="checkbox"/> Rejected <input type="checkbox"/>					
<input type="checkbox"/>	CAAC Flt. Standards inspector	<input type="checkbox"/>	CAAC designee		
<input type="checkbox"/>	CAAC certified maintenance organization	<input type="checkbox"/>	Other		
Date of approval or rejection:		Signature of Authorized individual:			

By:

AAC-085(08/2005)

1/2

Note: Weight and balance of operating limitation changes shall be entered in the appropriate aircraft record. A modification must be compatible with all previous modification to assure continued conformity with the applicable airworthiness requirements.

6. Description of work accomplished (applied technical standard and/or document in repair operation. Any other hidden malfunction found and corrected result in shop repairing and final test data sheet shall be included.)

Attachment 9-General Introduction to the Third Revision of CCAR Part 145

1. Background

CCAR Part 145 was formulated and released on Nov 2, 1988, and has undergone the first revision released on Feb 3, 1993 and second revision released on Dec 21, 2001. The purpose of this regulation and the revisions thereof is to meet the needs of the development of the civil aviation industry in China and make continual improvement on the CAAC regulations system regarding the continual airworthiness administration. During the rule-making proceeding, the first revision of CCAR Part 66 and the CCAR Part 121 has been issued and come into effect, so the harmonization among CCAR-145, CCAR-66 and CCAR-121 as well as the relevant requirements prescribed in the previously released advisory circular, working procedure and administration documents has been properly incorporated in the second revision of CCAR-145. In addition, to meet the needs of the possible international corporation in the future, the second revision of CCAR-145 adopts the applicable ICAO requirements, at the same time, the counterpoint of requirements of the relevant FAA, EASA, and other authorities' regulations has been taken into account in the second revision of CCAR-145.

Along with the release of “the People’s Republic of China Administrative law” on July 1, 2004, the requirements on the term of the application, acceptance of application as well as the approval prescribed in the second revision of CCAR-145 need to be revised to comply with the relevant requirements specified in “the People’s Republic of China Administrative law”; In addition, pursuant to the analysis and research made on the maintenance human factor and the conclusions thereof as well as the requirement to reinforce the training to the maintenance personnel, the further improvement needs to be made to include such requirements in the CCAR-145; Also to address the defects of the second revision of CCAR-145 found during the last three years since the release, the second revision of CCAR-145 has to be revised to clarify the relevant requirements and standards.

2. Consideration of revision

The considerations of CAAC to make this revision are as follows:

- (1) Pursuant to the relevant requirements of “the People’s Republic of China Administrative law”, revising or clarifying the requirements on the time limit of the acceptance, review and approval of the MOC application;
- (2) Pursuant to the analysis and research made on the maintenance human factor and the conclusions thereof, introducing the requirements on the physical check-up and working time limitation of the maintenance personnel in this revision;
- (3) Revising the relevant requirement on the qualification and training of the personnel so required by CAAC as prescribed in the second revision of CCAR-145, also reinforcing the requirement on the training management of the maintenance personnel;
- (4) Pursuant to the “the People’s Republic of China Administrative Penalty law”, revising the enactment and description of the penalty prescribed in the second revision;
- (5) Pursuant to the feedback opinion and suggestion collected during the implementation of the second revision of CCAR-145, revising and improving the terms and clauses which are impractical.

3. Proceeding of revision

Since the release of the second revision of CCAR-145, CAAC has started to collect the information on the problem encountered and feedback opinion and suggestion during the implementation of the second revision to make the preparation for this revision. In May of 2004, CAAC completed the process to collect the advice of the public on this revision, in which 87 pieces of feedback opinion and suggestion were collected in total, and 45 pieces of those were adopted in this revision, CAAC also addressed the reasons to the public why the rest of feedback information was not adopted. In June of 2004, the final draft version was made in the proposed rule-making seminar held in Beijing. On September 27, 2005, the minister of CAAC approved and issued this revision in form of the CAAC statute.

4. Major aspects of revision

The following major aspects are involved in this revision:

- (1) Introducing some new terms are introduced, including the definition for maintenance human factor, in-house fabricated part and working time;
- (2) Specifying the time limit of acceptance, review and approval of the CAAC MOC application;
- (3) Defining the cooperation arrangement between CAAC, Hong Kong CAD and AACM Macao as one kind of CAAC special approval individually;
- (4) Specifying the limitation on the remote maintenance in the article 145.14 “Privilege of an Approved Maintenance Organization”;
- (5) Introducing the new requirements on the safety protection of maintenance in the article 145.20 “Facility Requirement”;
- (6) Introducing the new requirements on evaluation of supplier and receiving inspection of material are introduced in article 145.22 “Material Requirement”;
- (7) Introducing the new requirements on the physical check-up of the personnel of the maintenance organization, clarifying more detailed requirements on the qualification and training of the maintenance management and supporting staff, and other personnel of the maintenance organization in 145.23 “Personnel Requirement”;
- (8) Introducing the new requirement on the training program is introduced in the article 145.29 “Training Program and Personnel Technical Files”;
- (9) Introducing the new requirement on the working time limitation of the maintenance personnel is introduced in the article 145.31 “Maintenance Criteria”;
- (10) Revising the enactment and description of the penalty appropriately pursuant to “the People’s Republic of China Administrative Penalty law”;
- (11) Specifying and limiting the use of English in the worksheets and the maintenance records of the domestic maintenance organization.