



Advisory Circular

Civil Aviation Administration of China

Doc No: ARD 2023 No. 25

AC No: AC-129-FS-002R1

Date of Issue: August 3, 2023

Operations and Maintenance Standards for Foreign Air Carriers Engaged in Public Air Transport Within China

(This is the translation only for reference)

Contents

1. Statutory Basis and Purpose	1
2. Applicability	1
3. Abolition	1
4. Descriptions	1
5. Aircraft Requirements	2
6. Flight Crew	5
7. Operational Management	5
8. Line Maintenance	6
9. Flight Operation Rules	7
10. The 7th Freedom Rights Operation	9
11. Categorization and Handling of Findings, and Operating Performance Score	10

1. Statutory Basis and Purpose

This Advisory Circular (hereinafter referred to as AC) was developed on the basis of CCAR-129. It aims at providing guidance for foreign air carriers that intend to apply for or hold CCAR-129 Operations Specifications on standardized operation and maintenance within the territory of the People's Republic of China (hereinafter referred to as China).

2. Applicability

This AC applies to foreign air carriers engaged in public air transport (hereinafter referred to as air carriers) applying for the Operations Specifications to operate within the territory of China in accordance with CCAR-129, and also to public air carriers from the Hong Kong and Macao Special Administrative Regions of China managed in accordance with CCAR-129.

3. Abolition

From the date of the issuance of this AC, AC-129-002 - *Aircraft Maintenance of Foreign Air Carriers Within China* issued on May 7, 2006 shall be abolished.

4. Descriptions

Article 129.7 of CCAR-129 stipulates that foreign air carriers engaged in public air transport in the territory of China shall comply with applicable provisions in the following documents:

- (1) CCAR-129 and the Operations Specifications issued in accordance with CCAR-129 (not exceeding the operating conditions and limitations specified in the AOC and Operations Specifications issued by the Civil Aviation Authority of the State of the Operator);
- (2) *Convention on International Civil Aviation* and standards contained in Annex 1 - *Personnel Licensing*, Annex 6 - *Operation of Aircraft*, and Annex 8 - *Airworthiness of Aircraft*;
- (3) The *Basic Flight Rules of the People's Republic of China* and applicable provisions on the operation management, safety management, security and air traffic control of foreign civil aircraft contained in the regulations addressing civil aviation management;
- (4) Other relevant laws, rules and regulations.

Article 129.43 of CCAR-129 further specifies that, in addition to the documents and materials that civil aircraft and crews shall carry as stipulated in Article 129.41, the flight crew and other personnel directly involved in aircraft operation of holders of Operations Specifications shall operate in accordance with the operation manual. Due to the different terms used by the Civil Aviation Authorities of Contracting States for operation manual when converting the standards in Annex 6 to the *Convention on International Civil Aviation* into their own national aviation regulations, the operation manual required by CCAR-129 include both the operation manual described in Appendix 2 of Annex 6 and the maintenance control manual and maintenance program described in Chapter 11, as well as the minimum equipment list described in Chapter 6.

Note: Annex 6 mentioned herein refers to Annex 6 Part I: *International Commercial Air Transport - Aeroplanes*.

The above requirements of CCAR-129 show that for foreign air carriers, the basic responsibility for Operations Specifications issuance and surveillance lies with the Civil Aviation Authorities of the States of the Operators. The Civil Aviation Administration of China (CAAC) issues Operations Specifications and conducts surveillance on foreign air carriers in accordance with CCAR-129. The purpose is to confirm, in accordance with the *Convention on International Civil Aviation* and its Annexes, that they can operate within China in a standardized manner to ensure operational safety, rather than take over the responsibilities of the Civil Aviation Authorities of the States of the Operators.

In addition, the operation of foreign air carriers within China will inevitably involve the representative offices or its staff, as well as the entities or personnel providing services to them, and thus will involve compliance with Chinese laws, rules and regulations governing business activities.

This AC has been developed based on the above principles and provides guidance on the operations and maintenance standards that foreign air carriers shall comply with when operating within China.

It shall be especially noted that for operation and safety management, the civil aviation regulations mentioned in Article 129.7 b (3) of CCAR-129 refers to CCAR-91, specifically some of the provisions in Chapters A, C, D, and H. This AC also provides explanations on some relevant aspects, but does not involve dangerous goods transport, security, and air traffic control, the requirements on which can be found in the following China civil aviation regulations and related regulatory documents:

Regulations on the Management of Dangerous Goods Transported by Air (CCAR-276); Regulations on Aviation Security for Public Air Transport Enterprises (CCAR-343); and Regulations on Civil Aviation Air Traffic Management (CCAR-93TM).

5. Aircraft Requirements

5.1 Basic conditions

Aircraft operating within China shall be those included in the approval list in the Operations Specifications or equivalent documents approved by the Civil Aviation Authority of the State of the Operator, and shall demonstrate its ability to carry out operation involved, including:

(1) RVSM operation

(References: Article 91.371 of CCAR-91R4; ICAO Reference: Annex 6, Chapter 7)

(2) CAT II and III operation

(References: Article 91.381 of CCAR-91R4; ICAO Reference: Annex 6, 4.2.8.3)

(3) PBN operation

(References: Article 91.385 of CCAR-91R4; ICAO Reference: Annex 6, 7.2)

(4) Low visibility operation using HUD/EVS

(References: Article 91.387 of CCAR-91R4; ICAO Reference: Annex 6, 6.24)

(5) EDTO operation

(ICAO reference: Annex 6, 4.7)

If using a landplane for extended operation over water, airworthiness certification shall be conducted to demonstrate the compliance with the ditching performance or that ditching can be performed to the equivalent safety level.

(References: Article 91.201 of CCAR-91R4; ICAO Reference: Annex 6, 6.5)

If a wet-leased aircraft is used, it shall comply with the limitations in Article 129.11 of CCAR-129.

5.2 Certificates and documents that shall be carried

When applying for the permit to fly into and operate within China, aircraft shall have and carry the following valid certificates and documents in electronic or paper format approved by the appropriate authority of the State of the Operator:

(1) Certificate of Registration

The Certificate of Registration shall generally be issued by the State of the Operator. If the State of Registry is not the State of the Operator, proof of a liability transfer agreement concluded in accordance with Article 83 bis of the *Convention on International Civil Aviation* shall also be provided.

(References: Article 91.201 of CCAR-91R4; ICAO reference: Article 29 and Article 83 bis of *Convention on International Civil Aviation*)

(2) Certificate of Airworthiness

Except for instances where special flight permits are issued, the Certificate of Airworthiness shall be a standard airworthiness certificate. In addition, unless a liability transfer agreement is signed in accordance with Article 83 bis of the *Convention on International Civil Aviation*, the airworthiness certificate shall be issued by the Civil Aviation Authority of the State of the Operator.

(References: Article 91.201 of CCAR-91R4; ICAO reference: Article 29 and Article 83 bis of *Convention on International Civil Aviation*)

(3) Radio Station License

The Radio Station License shall be issued by the Civil Aviation Authority of the State of the Operator or an organization authorized by it. If the Radio Station License is issued by a State other than the State of the Operator, proof of a liability transfer agreement concluded in accordance with Article 83 bis of the *Convention on International Civil Aviation* shall also be provided.

(References: Article 91.201 of CCAR-91R4; ICAO reference: Article 29 of *Convention on International Civil Aviation*)

(4) Flight Manual

Flight manual, including the flight crew operating manual (FCOM), quick reference handbook (QRH), and configuration deviation list (CDL), shall be approved or validated by the CAA of the State of the Operator.

(ICAO reference: Annex 6, 6.2.3)

(5) Minimum Equipment List

The minimum equipment list shall be approved by the CAA of the State of the Operator. The minimum equipment list can be provided on the ground instead of being carried on board, but in this case it needs to be provided at all stations.

(ICAO reference: Annex 6, 6.1.3)

(6) Journey Log Books

Journey log books include technical log book (applicable to passenger and cargo flights) and cabin log book (applicable to passenger flights only).

(ICAO reference: Annex 6, 11.4)

(7) Aeronautical Charts

The aeronautical charts shall be the effective version.

(ICAO reference: Annex 6, 6.2.3)

5.3 Instruments and Equipment

When applying for the permit to fly into and operate within China, aircraft shall be equipped with the following instruments and equipment:

(1) Basic Flight Instruments and Equipment

Basic flight instruments and equipment shall comply with the requirements of instrument flight rules and shall be equipped with altimeters that display altitude in meters, or equivalent measures shall be taken to ensure the proper use by pilots.

(References: Article 91.203 of CCAR-91R4; ICAO reference: Annex 6, 6.4-6.10)

(2) Emergency and Survival Equipment

Emergency and survival equipment includes equipment applicable to the cockpit, cabin, galley, and cargo compartment.

(References: Article 91.205 of CCAR-91R4; ICAO reference: Annex 6, 6.2, 6.16 and 6.17)

(3) Communication, Navigation and Surveillance Equipment

Communication, navigation and surveillance equipment includes aircraft type-specific equipment that is flown in controlled airspace in accordance with instrument flight rules.

(References: Article 91.207 of CCAR-91R4; ICAO reference: Annex 6, 7.1-7.3)

(4) Recording Equipment

Recording equipment includes aircraft type-specific flight data recorder and cockpit voice recorder.

(See Article 91.209 of CCAR-91R4 and ICAO reference: Annex 6, 6.3 and 6.18)

Where any of the above-mentioned instruments and equipment is inoperative, in addition to acting in accordance with the flight manual during flight, the aircraft shall meet the minimum equipment list and obtain a maintenance release as required before taking off.

(References: Article 91.201 of CCAR-91R4; ICAO reference: Annex 6, 6.1.3)

5.4 Airworthy Condition

When operating within China, an aircraft shall be maintained in an airworthy condition, in addition to complying with the configuration deviation list or the minimum equipment list and obtaining maintenance release as required.

(References: Article 91.201 of CCAR-91R4; ICAO reference: Annex 6, 8.1.1)

6. Flight Crew

When an aircraft is operating within China, its flight crew shall be subject to the following requirements:

(1) Holding valid licenses and being able to demonstrate qualifications for operating the aircraft concerned, including the aircraft category and type. Where a license is issued by the Civil Aviation Authority of a State other than the State of the Operator, proof of validation from the latter shall also be provided.

(ICAO reference: Annex 1, 1.2)

(2) Completing training on the following types of operation.

a. RVSM operation

(References: Article 91.371 of CCAR-91R4; ICAO reference: Annex 6, 7.2.7)

b. CAT II/III operation

(References: Article 91.381 of CCAR-91R4; ICAO reference: Annex 6, 4.2.8)

c. PBN operation

(References: Article 91.385 of CCAR-91R4; ICAO reference: Annex 6, 7.2.3)

d. Low-visibility operation using HUD/EVS

(References: Article 91.385 of CCAR-91R4; ICAO reference: Annex 6, 6.24.2)

e. EDTO operation

(ICAO reference: Annex 6, 4.7.1 and Appendix C)

(3) Being familiar with the flight routes, terminal areas and arrival and departure operating procedures within China, and at least one flight crew member on duty is capable of two-way radio communications in Chinese or English.

(References: Article 91.711 of CCAR-91R4; ICAO reference: Annex 6, 3.1.8)

(4) Observing alcohol and drug intake restrictions.

(References: Article 91.111 of CCAR-91R4; ICAO reference: Annex 1, 1.2.7)

(5) Pilots who reach age 65 shall not act as pilots-in-command.

(ICAO reference: Annex 1, 2.1.10)

7. Operational Management

When operating at an airport within China, the air carrier shall comply with the following requirements in terms of operational management:

(1) Acting in accordance with the operational management manual approved by the Civil Aviation Authority of its country, and being aware of the management specifications for dispatch, meteorological data, airport data, and Notice to Airmen (NOTAM) at airports within China.

(ICAO reference: Annex 6, 4.3.3 and Chapter 10)

(2) Providing sufficient personnel, facilities and equipment, and technical data for the operation of the aircraft based on the flight plan and the type of operating aircraft.

(ICAO reference: Annex 6, 4.1.1)

(3) Dispatchers shall hold a valid dispatcher license or have received training in accordance with the requirements of the Civil Aviation Authority of the State of the Operator, and shall be able to demonstrate their qualifications for dispatching aircraft.

(ICAO reference: Annex 6, Chapter 10, and Annex 1, 1.2.2)

(4) Dispatch shall be carried out in accordance with the operation standards approved by the Civil Aviation Authority of the State of the Operator, as well as the minimum operation standards for airports and runways specified in the Aeronautical Information Publication (AIP) issued by China.

(ICAO reference: Annex 6, 4.2.8)

(5) After dispatch, appropriate records and signed release documents shall be kept on the ground, and measures shall be taken to prevent anyone from tampering or damaging them.

(ICAO reference: Annex 6, 4.3.3)

The above-mentioned personnel (including dispatchers) may be office staff or those hired by the air carrier's representative office, or may be persons dispatched by contractual service providers that have operating qualifications within China.

Note: The above-mentioned entities with operating qualifications generally refer to corporate legal entities based within China. Separate qualification approval is not required. In addition, if an air carrier wishes to use personnel from another foreign air carrier's representative office within China (including office staff or those hired by the office), it shall be clearly stated in the latter's business registration certificate that it is allowed to provide such services.

8. Line Maintenance

When operating at an airport within China, the air carrier shall carry out line maintenance on its aircraft in accordance with the following requirements:

(1) Acting in accordance with the maintenance control manual approved or recognized by the Civil Aviation Authority of its country, and being aware of the specifications for quality control, technical support, and record keeping at airports within China.

(ICAO reference: Annex 6, 8.2, 8.1.4 and 8.7.2)

(2) Providing sufficient personnel, facilities and equipment, tools and technical materials for maintenance of aircraft based on the flight plan and the operating aircraft model. If the Civil Aviation Authority of the State of the Operator requires approval for a line maintenance permit, the air carrier shall demonstrate that its line maintenance activities at airports within China has been approved.

(ICAO reference: Annex 6, 8.5, 8.7.5, 8.7.6 and 8.7.8)

(3) Maintenance release personnel shall hold a valid maintenance personnel license, and shall be able to demonstrate their qualifications for maintaining and releasing aircraft. Where a license is issued by the CAA of a country other than the State of the Operator, proof of validation from the latter shall also be provided.

(ICAO reference: Annex 6, 8.7.6; and Annex 1, 1.2.2 and 4.2.2)

(4) Routine check items in maintenance tasks shall be as specified in the type maintenance program approved by the CAA of the State of the Operator, and faults and defects found during checks or reported by crews shall be dealt with in a timely manner. If there are any faults or defects that need to be postponed for maintenance, it shall be confirmed that they meet the release standards stipulated in the minimum equipment list or the configuration deviation list approved by the CAA of the State of the Operator before maintenance release.

(Reference: ICAO Annex 6, 3.3, 6.1.3 and 11.3)

(5) After maintenance release, maintenance records and signed release documents shall be kept on the ground, and measures shall be taken to prevent anyone from tampering or damaging them.

(ICAO reference: Annex 6, 8.4 and 8.8)

The above-mentioned personnel (including maintenance release personnel) may be office staff or those hired by the air carrier's representative office or flight engineers or may be persons dispatched by contractual service providers that have operating qualifications within China.

Note: The above-mentioned entities with operating qualifications generally refer to corporate legal entities based within China. Line maintenance permit is not required. In addition, if an air carrier wishes to use personnel from another foreign air carrier's representative office within China (including office staff or those hired by the office), it shall be clearly stated in the latter's business registration certificate that it is allowed to provide such services.

(Reference: *Regulations on the Registration of Permanent Representative Offices of Foreign Enterprises in the People's Republic of China*)

9. Flight Operation Rules

9.1 General Rules

Aircraft operating within China shall meet the following general rules:

(1) Flight crew members on duty shall remain at their positions and keep their seat belts fastened in accordance with the requirements of different operation phases.

(References: Article 91.309 of CCAR-91R4; ICAO reference: Annex 6, 4.4.4)

(2) Measures shall be taken to ensure that all persons on the aircraft use seat belts, shoulder straps, and child restraints as required.

(References: Article 91.311 of CCAR-91R4; ICAO reference: Annex 6, 4.2.12)

(3) Aircraft performance operating limitations shall be observed.

(References: Article 91.303 of CCAR-91R4; ICAO reference: Annex 6, Chapter 5)

(4) Air traffic control instructions and rules governing flights in restricted areas shall be observed.

(References: Articles 91.329, 331, 337, 339, 341, 343, 345 and 377 of CCAR-91R4; ICAO reference: Annex 6, 3.1 and 4.4.7)

(5) Lights shall be turned on or displayed as required, and safety as well as priority rules shall be observed when operating near other aircraft.

(References: Articles 91.313, 317 and 319 of CCAR-91R4; ICAO reference: Annex 6, Appendix 1)

9.2 Prior to Take-off

An aircraft shall meet the following requirements before taking off at an airport within China:

(1) Confirm the flight plan to be used, have the aircraft appropriately refueled, and obtain ATC clearance.

(References: Articles 91.357, 359 and 363 of CCAR-91R4; ICAO reference: Annex 6, 4.3.3 and 4.3.6)

(2) The flight crew shall carry out pre-flight preparations.

(References: Article 91.305 of CCAR-91R4; ICAO reference: Annex 6, 4.3)

(3) Comply with the airport's taxiing rules.

(References: Article 91.305 of CCAR-91R4; ICAO reference: Annex 6, 4.2.4)

(4) For the purpose of operating under ground icing conditions, the aircraft shall have a deicing/anti-icing program approved or validated by the CAA of the State of the Operator, and shall complete deicing/anti-icing and pre-take-off checks as required.

(ICAO reference: Annex 6, 4.3.5)

9.3 Terminal Area

The aircraft shall meet the following requirements when operating in the airport's terminal area within China:

(1) Minimum flight altitude shall be observed.

(References: Articles 91.325, 327 and 367 of CCAR-91R4; ICAO reference: Annex 6, 4.2.7)

(2) Taking-off and landing standards and requirements shall be observed.

(References: Articles 91.365 of CCAR-91R4; ICAO reference: Annex 6, 4.2.8)

(3) Flight procedural requirements shall be observed.

(References: Articles 91.327 and 381 of CCAR-91R4; ICAO reference: Annex 6, 4.4.8)

9.4 En-route

En-route operation within China shall comply with the following requirements:

(1) Aircraft speed requirements shall be observed.

(References: Articles 91.323 of CCAR-91R4; ICAO reference: Annex 6, 3.1)

(2) Cruising altitude and flight level requirements shall be observed.

(References: Articles 91.369 and 371 of CCAR-91R4; ICAO reference: Annex 6, 3.1)

(3) Flight path requirements shall be observed.

(References: Article 91.373 of CCAR-91R4; ICAO reference: Annex 6, 3.1)

9.5 Information Reporting

When operating within China, the aircraft shall comply with the following information reporting requirements:

(1) Reporting to ATC

Reporting to ATC shall be carried out without delay when any of the following circumstances occur:

- a. meteorological conditions that have not been forecasted;
- b. navigation, approach or communication equipment failure;
- c. any other emergency that affects the safety of the flight.

(References: Article 91.103, 375 and 379 of CCAR-91R4; ICAO reference: Annex 6, 3.1)

(2) Reporting to the appropriate flight standards department

A detailed report shall be submitted to the appropriate flight standards department in a timely manner when any of the following circumstances occurs:

- a. priority given by ATC for handling an emergency;
- b. deviation from the flight operation rules described in this document to ensure the safety of aircraft and personnel in an emergency that requires handling without delay.

(References: Article 91.103 and 329 of CCAR-91R4; ICAO reference: Annex 6, 3.1)

The above-mentioned “in a timely manner” generally means within 24 hours after landing, and no later than 48 hours.

Note: The above-mentioned “appropriate flight standards department” refers to the CAAC Regional Administration that undertakes the task of operator certification. Specifically, reports can be submitted to the Principal Operation Inspector (POI) designated by the Regional Administrations.

10. The 7th Freedom Rights Operation

10.1 Basic Requirements

The 7th freedom rights operation within China shall be implemented by means of establishing an operation sub-base within China. The operation sub-base shall have at least one regular aircraft for operation, and shall have a flight base and maintenance base to ensure its normal operation.

The Certificate of Registration of the above-mentioned regular aircraft shall be issued by the State of the Operator.

Note: According to the slot management system of CAAC, establishing an operation sub-base is a key condition for applying for originating flights. In addition, to avoid overly complex liability relationships, aircraft with a Certificate of Registration issued by a State other than the State of the Operator cannot be used for operation under the 7th freedom rights operation.

10.2 Flight Base

The flight base built by the air carrier for the implementation of the 7th freedom rights operation shall be equipped with a sufficient number of flight crew members and have the facilities, equipment, personnel, and information necessary for scheduling management and pre-flight preparations.

The requirements for the flight crew are the same as paragraph 6 of this document, except that the flight crew shall be relatively fixed, registered with CAAC, and be able to display the required licenses and records for training, examination and experience at the flight base.

Note: “Relatively fixed” means the flight crew shall be permanently stationed or rotate at regular intervals.

The operation management requirements for the flight base are the same as paragraph 7 of this document, except that the dispatchers shall be personnel stationed at or hired by the air carrier and be able to display the required licenses and records for training and authorization at the operation base.

10.3 Maintenance Base

The maintenance base built by the air carrier for the implementation of the 7th freedom rights operation shall, as a minimum, be equipped with the facilities, equipment, personnel, tools and technical materials necessary for the implementation of maintenance activities at the operation sub-base, and shall put in place the necessary production plan, quality control and technical support systems.

The personnel for maintenance management and release in the maintenance base shall be personnel stationed at or hired by the air carrier and be able to display the required licenses and records for training and authorization at the operation base. In addition, the maintenance base shall be able to display the files and maintenance records of each of the regular aircraft used for operation under the 7th freedom rights operation.

Note: The line maintenance carried out at the operation sub-base in this paragraph is different from the line maintenance that is carried out off-site mentioned in paragraph 8 of this document. It involves the control of aircraft, with higher requirements for the handling of faults and defects and maintenance release control, and may involve the full or partial control of all of the maintenance tasks and plans of the regular aircraft.

11. Categorization and Handling of Findings, and Operating Performance Score

11.1 Categorization and Handling of Findings

Where during an air carrier’s operation within China, if problems have occurred or findings are detected that do not comply with the operations and maintenance standards described in this document, they will be categorized and handled in accordance with the following principles:

Category 0 (L0): Findings of this category have no direct impact on safety, but the operation has minor differences with the standards. Such findings do not require immediate corrective measures or follow-up actions.

Category 1 (L1): Findings of this category have minor impact on safety. If a finding of this category can be rectified immediately, the air carrier does not need to take further measures following rectification. If immediate rectification is not possible, the air carrier is required to submit further corrective measures.

Category 2 (L2): Findings of this category have significant impact on safety. If a finding of this category can be rectified immediately, the air carrier does not need to submit corrective measures following rectification, but needs to submit the preventive actions taken. If immediate rectification is not possible, the air carrier is required to submit further corrective measures as well as the preventive actions taken.

Category 3 (L3): Findings of this category have major impact on safety. If a finding of this category can be rectified immediately, the air carrier still needs to submit a description of the finding, including corrective measures, and submit the preventive actions taken following rectification. Besides, CAAC may conduct incident investigations as appropriate and take necessary operational restrictions based on the investigation results. If a finding can no longer be rectified, it will directly be subjected to CAAC's incident investigation procedures, and follow-up measures will be taken based on the investigation results.

If any of the above findings are identified during ramp inspections, the pilot-in-command will be notified in a timely manner so that immediate corrective measures can be taken, and the air carrier's designated contact person will be notified subsequently. If any of the above findings are identified during incident investigations, the air carrier's designated contact person will be notified directly, and the results of the investigation will be reported to the CAA of the State of the Operator as appropriate.

Where corrective and preventive measures need to be submitted by the air carrier, they shall be submitted through the air carrier's designated contact person without delay, and no later than 30 calendar days. A failure to submit the measures in a timely manner may result in an upgrade of the findings categorization and affects the operating performance score.

11.2 Operating Performance Score

CAAC evaluates the safety performance of air carriers operating within China using the following formula (P is the safety performance score):

$$P = 0 - \frac{0.1 * L0 + 0.25 * L1 + 1 * L2 + 2 * L3}{N}$$

Note: N is the number of inspections performed, which shall generally be no less than 10. For the same flight, an inspection carried out by POI or PMI either independently or jointly, as well as an occurrence investigation are all calculated as one inspection.

The operating performance score can affect the acceptance of the air carrier's application to amend the Operations Specifications and surveillance activities undertaken on the air carrier, and in severe cases, it may lead to RA's decision to amend the air carrier's Operations Specifications.