## INTERNATIONAL CIVIL AVIATION ORGANIZATION

## FIRST MEETING OF DIRECTORS OF CIVIL AVIATION OF THE CARIBBEAN REGION (CAR/DCA/1)

(Grand Cayman, Cayman Islands, 8-11 October 2002)

Agenda Item 2: Safety Oversight

## SPECIAL APPROVALS AND AUTHORIZATIONS: ROLE OF FOREIGN CIVIL AVIATION AUTHORITIES AND OPERATORS IN REGARDS TO OPERATIONS IN U.S. AIRSPACE

(Presented by the United States of America)

## **SUMMARY**

This paper summarizes the special approvals and authorizations required of Civil Aviation Authorities in ICAO provisions, as well as the related U.S. requirements for these same operations by foreign carriers in U.S. airspace

#### 1.0 Introduction

1.1 The purpose of this paper is to describe the necessary approvals and authorizations that must be issued by Civil Aviation Authorities (CAA) in relation to oversight of their air carriers in relation to special operations such as Cat II/III, RVSM, and LAHSO operations.

1.2 Annex 6, Part 1, 4.2.2.1 and 4.2.2.2 require an air carrier holding an air operator certificate (AOC) to provide an operations manual for the use and guidance of its personnel and that this manual be reviewed and approved or accepted by the CAA (State of the Operator).

1.3 Annex 6, Appendix 2 (Contents of an Operation Manual) further specifies that this manual should contain specific operations authorized, instructions for the conduct of instrument approaches, aerodrome minima, etc.

1.4 Additionally, operations in U.S. airspace require that certain special operations be approved/authorized by the State of the Operator and also authorized by the FAA in accordance with established criteria in order to ensure safety among all U.S. airspace users. The FAA authorization for these operations in U.S. airspace is contained in the operations specifications (OpSpecs) issued to foreign operators under U.S. regulations (14 CFR 129).

### 2.0 Discussion

The following is a summary of the standards, guidance and approvals/authorizations established by ICAO for each of the following operations and any additional FAA requirements for operation in U.S. airspace.

## 2.1 Aerodrome Operating Minima and Cat II/III Operations

2.1.1 <u>ICAO requirements</u>. ICAO provisions (Annex 6, Part 1, Standard 4.2.2.1) require that an operator provide a manual for the use and guidance of its personnel. Appendix 2 of this annex lists the items that must be included in this manual. One of the items that must be included in the manual is aerodrome operating minima.

Standard 4.2.2.2 requires that the Civil Aviation Authority (State of the Operator) review and accept and, where required, approve the operations manual. This same Standard also specifically requires that aerodrome operating minima be <u>approved</u> in the manual including:

- The methods for determining aerodrome operating minima.
- Aerodrome operating minima for each of the aerodromes that are likely to be used as aerodromes of intended landing or as alternate aerodromes.
- The increase of aerodrome operating minima in case of degradation of approach or aerodrome facilities.

Criteria to be used by the CAA in approving such minima are included in Standard 4.2.7.

ICAO guidance for the CAA (State of the Operator) approval of Cat II/III operations is included in *the Manual of All-Weather Operations (Doc 9365).* 

2.1.2. <u>FAA requirements for Category II operations in the U.S.</u> Requirements for Category II operations by foreign operators is included in Section 11 of FAA Advisory Circular 120-29 (criteria has been excerpted from the latest version of this AC, 120-29A, soon to be released) as follows:

Acceptable Criteria:

a. Criteria acceptable for use in an assessment of a foreign operator's applications for Category II at U.S. airports includes this AC, equivalent JAA criteria, or the ICAO Manual of All Weather Operations (Doc 9365/AN910).

b. Foreign operators previously approved by FAA in accordance with earlier criteria may continue to apply that earlier criteria. Foreign operators seeking credit for operations addressed only by this revision of AC 120-29A (e.g., Category II heads-up display (HUD) operations) must meet criteria of this AC, or equivalent criteria acceptable to FAA, for those applicable provisions.

# Foreign Operator AFM Provisions:

Unless otherwise authorized by FAA, aircraft used by foreign operators for Category II operations within the United States should have AFM provisions reflecting an appropriate level of Category II capability as demonstrated to or authorized by FAA, or demonstrated to or authorized by an authority recognized by FAA as having acceptable equivalent Category II airworthiness criteria (e.g., European JAA, Canada MOT, UK CAA).

Foreign Operator Category II Demonstrations:

a. Foreign operators meeting FAA criteria, or criteria acceptable to FAA (e.g., European JAA, ICAO criteria including Doc 9365/ AN91 0), and having more than six months' experience in use of Category II operations with the applicable aircraft type may be approved for Category II operations in accordance with provisions of their own CAA, or in accordance with standard provisions of FAA-issued operations specifications issued pursuant to 14 CFR 129, whichever is the more restrictive.

b. For foreign operators not having the above experience, FAA will confer with the CAA of the State of the Operator and with the operator to jointly determine suitable provisions for a U.S. Category II authorization for that operator. Foreign operators not meeting above provisions may be subject to the demonstration requirements of 10.5.2 and 10.9 equivalent to those necessary for U.S. operators, as determined applicable by FAA.

Issuance of 14 CFR 129 Operations Specifications (OpSpecs):

Foreign operators operating to U.S. airports that meet applicable provisions above are approved for Category II through issuance of OpSpecs. Operators intending Category II operations at U.S.-designated irregular terrain airports, or airports otherwise requiring special assessments, must successfully complete those assessments prior to use of those facilities.

Use of Certain Restricted U.S. Facilities:

a. Foreign operator Category I and II operations may be conducted at facilities not having published Category I and II standard instrument approaches (SIAPS), or may be conducted to minima lower than those published as 14 CFR 97 Category I and II SIAPS <u>if</u> they meet criteria equivalent to that required of a U.S. operators, and they are approved by FAA, and the operations are acceptable to the CAA of the State of the Operator. Similarly, operations may be authorized at other special facilities identified on the FAA Category 11/111 Status List.

b. For such authorizations the following guidance applies:

(1) The foreign operator and the pertinent CAA of the state of that operator must be advised of the facility status,

(2) The foreign operator must be approved by the CAA of the State of the Operator, and

(3) FAA must have evidence from that CAA that the operator is specifically authorized at that U.S. facility. Foreign operators typically use Category II procedures in the United States which are available as unrestricted public use procedures. However, FAA may also authorize certain restricted public use procedures and special Category II approach procedures for foreign operators. Typically, these procedures require special airborne equipment capability, special training, or non-standard facility and obstacle assessments. These special procedures are identified on the Category II/III Status List and are not usually published as a 14 CFR 97 Category II SIAP.

c. Foreign operators may be eligible to use certain of these procedures if they meet the same special criteria as would apply to a U.S. operator and if they are approved by their own CAA specifically for the use of the procedure. Some procedures may not be eligible for foreign use because of other applicable restrictions such as a restriction placed on private facility use. Special or restricted procedures require both FAA authorization and specific authorization from the CAA of the State of the Operator that controls the issuance of the authority for each procedure. This is to ensure that both the foreign operator and its CAA are aware of the special provisions needed, and to ensure equivalent safety in the use of standard ICAO criteria.

d. Each foreign operator seeking Category II procedure authorization at a facility not published as a standard and unrestricted Category II SIAP, or at any other facilities identified as special or restricted on the FAA Category II/III Status List, and that operator's controlling authority must:

(1) Be aware of the restrictions applicable to the procedure (e.g., facility status),

(2) Provide evidence to FAA of the controlling authority's approval of the operator for each special procedure requested, and

(3) Must have the applicable limitations and conditions included in that operator's 14 CFR 129 OpSpecs for each procedure to be used.

e. Foreign operators shall not normally be authorized for special Category II operations to minima lower than those specified in 14 CFR 97 Category II SIAPS consistent with ICAO criteria.

The FAA authorization for these operations in U.S. airspace is contained in OpSpecs paragraph C059 issued to the foreign operator under 14 CFR 129.

2.1.3 <u>FAA requirements for Category III operations in the U.S.</u> Requirements for Category III operations by foreign operators is included in section 11 of FAA Advisory Circular 120-28D as follows:

#### Acceptable Criteria:

Criteria acceptable for use in an assessment of a foreign operator's applications for Category III operations at U.S. airports includes this AC, equivalent JAA criteria, or the ICAO Manual of All Weather Operations (Doc 9365/AN910, as amended). Foreign operators previously approved by FAA in accordance with earlier criteria may continue to apply that earlier criteria. Foreign operators seeking credit for operations addressed only by this revision of AC 120-28D (e.g., Category III HUD operations) must meet criteria of this AC, or equivalent criteria acceptable to FAA, for those applicable provisions.

#### Foreign Operator AFM Provisions:

Unless otherwise authorized by FAA, aircraft used by foreign operators for Category III operations within the U.S. should have AFM provisions reflecting an appropriate level of Category III capability as demonstrated to or authorized by FAA, or demonstrated to or authorized by a CAA recognized by FAA as having acceptable equivalent Category III airworthiness criteria (e.g., European JAA, Canada MOT, UK CAA).

#### Foreign Operator Category III Demonstrations:

Foreign operators meeting FAA criteria, or criteria acceptable to FAA (e.g., European JAA, ICAO criteria including Doc 9365/AN910), and having more than six months' experience in use of Category III operations with the applicable aircraft type may be approved for Category III operations in accordance with provisions of their own CAA, or in accordance with standard provisions of 14 CFR 129 OpSpecs, whichever is the more restrictive. A separate demonstration period is not required for FAA if the State of the Operator does not require it. However, operators approved in accordance with this provision may nonetheless be subject to additional FAA demonstration for special situations, such as at airports with irregular underlying terrain (see 11.3), or for aircraft types not having flown to U.S. facilities having Category III procedures. For foreign operators having a current U.S. Category III authorization, the Category III demonstration period may be reduced or waived for addition of a new type aircraft to the existing Category III authority. The demonstration period may be reduced or waived to the extent that a successful demonstration has been accepted by FAA for that aircraft type for any other U.S. or foreign operator. Foreign operators not meeting the above provisions may be subject to the demonstration described at 10.5.2 and 10.9 (equivalent to those necessary for U.S. operators) as determined applicable by FAA (7/13/99 AC 120-28D).

Issuance of 14 CFR 129 Operations Specifications (OpSpecs):

Foreign operators operating to U.S. airports which meet the applicable provisions above are approved for Category III through issuance of 14 CFR 129 OpSpecs. Operators intending Category III operations at U.S. designated irregular terrain airports, or airports otherwise requiring special assessments must successfully complete those assessments prior to use of those facilities.

Use of Certain United States Facilities:

Foreign operators typically use Category III procedures in the U.S. which are available as unrestricted public use procedures. However, FAA may also authorize certain restricted public use procedures and special Category III approach procedures for foreign operators. Typically, these procedures require special airborne equipment capability, special training, or non-standard facility and obstacle assessments. These special procedures are identified on the Category II/III status checklist and are not usually published as a 14 CFR 97 Category III SIAP. Foreign operators may be eligible to use certain of these procedures if they meet the same special criteria as would apply to a U.S. operator, and if they are approved by their own CAA specifically for the use of the procedure. Some procedures may not be eligible for foreign use because of other applicable restrictions such as a restriction placed on private facility use. Special or restricted procedures require both FAA authorization and specific authorization from the CAA of the State of the Operator for each procedure. This is to ensure that both the foreign operator and its CAA are aware of the special provisions needed, and to ensure equivalent safety to use of standard ICAO criteria. Each foreign operator seeking Category III procedure authorization at a facility not published as a standard and unrestricted Category III SIAP, or at any other facilities identified as special or restricted on the FAA Category II/III Status checklist, and that operator's controlling authority must:

1. Be aware of the restrictions applicable to the procedure (e.g., facility status),

2. Provide evidence to FAA of the CAA's approval of the foreign operator for each special procedure requested, and

3. Must have the applicable limitations and conditions included in that operator's 14 CFR 129 OpSpecs for each procedure to be used. Foreign operators shall not normally be authorized special Category III operations to minima lower than those specified in 14 CFR 97 Category III SIAPS consistent with ICAO criteria.

The FAA authorization for these operations in U.S. airspace is contained in Operations Specifications paragraph C060 issued to the foreign operator under 14 CFR 129.

#### 2.2 Land and Hold Short Operations (LAHSO)

When they conduct Land and Hold Short Operations in the U.S., foreign operators subject to 14 CFR 129 must comply with provisions contained in FAA Handbook Bulletin 8400.10, 0014A and paragraph A027 of 14 CFR 129 OpSpecs. A summary of these requirements follows:

(1) The foreign operator must receive authorization to conduct LAHSO from the appropriate CAA having oversight responsibility for their operations.

(2) The CAA having oversight responsibility must establish and maintain a representative point of contact with the appropriate FAA Flight Standards International Field Office (IFO) that issues 14 CFR 129 OpSpecs to their operators that operate to the U.S. The CAA representative will receive instructions from the IFO on:

a. Policies for authorization and approval of operators to conduct LAHSO,

b. Operational requirements and procedures for participation, and

c. Oversight requirements for ensuring standard performance required of the operator for safety.

(3) The CAA representative is required to certificate training, authorize operations as to the completion of training and qualification of the flight crewmembers to conduct LAHSO, and provide the FAA written notice of that authorization.

<u>Note</u>: The training and qualification of flight crewmembers must be equivalent to that specified in the FAA Handbook Bulletin.

(4) The 14 CFR 129 OpSpecs must indicate approval to participate in LAHSO operations. Written notification of the CAA authorization must be received by the IFO prior to FAA issuance of OpSpecs to the foreign operator.

(5) The appropriate CAA must certify the landing and stopping capabilities and airworthiness requirements of the airplanes that will conduct LAHSO.

(6) The foreign operators must be identified in the local air traffic directives before they can participate in LAHSO. Specific foreign operators must be approved to conduct LAHSO prior to FAA air traffics facilities permitting the conduct of such operations.

(7) The appropriate FAA IFO must receive the necessary written documentation from the appropriate CAA certifying the successful accomplishment of its responsibilities.

The FAA authorization for these operations in U.S. airspace is contained in paragraph A027 of 14 CFR 129 OpSpecs.

### 2.3 Reduced Vertical separation Minimum (RVSM) Operations

2.3.1 <u>ICAO requirements</u>. Requirements for RVSM are contained in Annex 6, Part I, Standard 7.2.3. Aircraft shall be provided with equipment which is capable of:

- Indicating to the flight crew the flight level being flown
- Automatically maintaining a selected flight level
- Providing an alert to the flight crew when a deviation occurs from the selected flight level. The threshold for the alert shall not exceed 90 m (300 ft)
- Automatically reporting pressure-altitude

Approval or authorization for RVSM must be given by the CAA (State of the Operator) for operation in RVSM airspace.

ICAO guidance material relating to aircraft equipment necessary for flight in RVSM airspace is contained in the *Manual on Implementation of a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive (Doc 9574).* 

2.3.2 At the present time RVSM is not used in domestic U.S. airspace. There is no FAA authorization for these operations in U.S. airspace required in OpSpecs issued to the foreign operator under 14 CFR 129. However, the U.S. intends to implement RVSM in domestic U.S. airspace in January 2005.

## 2.4 Minimum Navigation Performance Specifications (MNPS) Operations

2.4.1 <u>ICAO requirements</u>. Requirements for MNPS operations are contained in Annex 6, Part I, Standard 7.2.2. For flights in defined portions of airspace where, based on Regional Air Navigation Agreements, minimum navigation performance specifications (MNPS) are prescribed, an airplane shall be provided with navigation equipment which continuously provides indications to the flight crew of adherence to or departure from the track to the required degree of accuracy at any point along that track MNPS operations must be approved or authorized by the CAA (State of the Operator) for the MNPS operations concerned.

ICAO guidance material relating to the prescribed minimum navigation performance specifications and the procedures governing their application are published in the *Regional Supplementary Procedures (Doc 7030).* 

# 2.5 Required Navigation Performance (RNP) Operations

2.5.1 <u>ICAO requirements</u>. Requirements for RNP operations are contained in Annex 6, Part I, Standard 7.2.1. An airplane shall be provided with navigation equipment, which will enable it to proceed:

- In accordance with its operational flight plan
- In accordance with prescribed RNP types
- In accordance with the requirements of air traffic services; except when, if not so precluded by the appropriate authority

ICAO guidance material relating to RNP and associated procedures is contained in *Manual on Required Navigation Performance (RNP) (Doc 9613).* 

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