

## SAFETY NOTICE

**SUBJECT: Rescue and Fire Fighting Services (RFFS) Levels**

**GENERAL:** Safety Notices (SNs) are issued by the Civil Aviation Authority – Macao, China to convey advisory information to Macao aviation entities to enhance safety. SNs contain safety-related recommendations, guidance and/or industrial best practices to specific subjects which may or may not have been addressed by established requirements and regulations.

**RELATED REGULATIONS:** AC/OPS/002 – Operations Manual Requirements

**APPLICABILITY:** This SN applies to all Macao AOC holders who are conducting operations with aeroplane.

**CANCELLATION:** This SN is the first SN issued on this subject.

**REFERENCES:** The following material was referred to for the development of this SN:

- ICAO Annex 6 Part I Attachment K – Rescue and Fire Fighting Services (RFFS) Levels

### 1. Introduction

1.1 As cited in AC/OPS/002 – Operations Manual Requirements, operators shall, as part of their safety management systems, assess the level of rescue and fighting service (RFFS) protection available at any aerodrome intended to be specified in the operational flight plan in order to ensure that an acceptable level of protection is available for the aeroplane intended to be used, information related to the level of RFFS protection that is deemed acceptable by the operator shall be contained in the operations manual. This Safety Notice reproduces ICAO Annex 6 Part I Attachment K which contains guidance on assessing an acceptable level of RFFS protection at aerodromes for a particular operation or circumstance.

### 2. Basic Concepts

2.1 While all aeroplane operators should aim to have the level of RFFS protection required by ICAO Annex 14, Volume I, Chapter 9, 9.2, some of the aerodromes currently used do not meet these requirements. Furthermore, ICAO Annex 14, Volume I provisions relate to the level of aerodrome RFFS to be provided for aeroplanes normally using an aerodrome.

2.2 If an aerodrome is exposed to a temporary reduction of its RFFS capability, ICAO Annex 14, Volume I, 2.11.3, requires that: “Changes in the level of protection normally available at an aerodrome for rescue and fire fighting shall be notified to the appropriate air traffic services units and aeronautical information services units to enable those units to provide the necessary information to arriving and

departing aircraft. When such a change has been corrected, the above units shall be advised accordingly.”

- 2.3 The following guidance is intended to assist operators in making the assessment for an acceptable level of rescue and fire fighting service (RFFS) protection. It is not intended that this guidance limit or regulate the operation of an aerodrome.

### **3. Glossary of Terms**

**Aerodrome RFFS category.** The RFFS category for a given aerodrome, as published in the appropriate Aeronautical Information Publication (AIP).

**Aeroplane RFFS category.** The category derived from ICAO Annex 14, Volume I, Table 9-1 for a given aeroplane type.

**RFFS category.** Rescue and fire fighting services category as defined in ICAO Annex 14, Volume I, Chapter 9.

**Temporary downgrade.** RFFS category as notified, including by NOTAM, and resulting from the downgrade of the level of RFFS protection available at an aerodrome, for a period of time not exceeding 72 hours.

### **4. Minimum Acceptable Aerodrome RFFS Category**

#### **4.1 Planning**

- 4.1.1 In principle, the published RFFS category for each of the aerodromes used for a given flight should be equal to or better than the aeroplane RFFS category. However, if the aeroplane RFFS category is not available at one or more of the aerodromes required to be specified in the operational flight plan, an operator should ensure that the aerodrome has the minimum level of RFFS which is deemed acceptable for the intended use in accordance with the instructions contained in the operations manual. When establishing acceptable levels of minimum RFFS for these situations, the operator may use the criteria in Table K-1.

- 4.1.2 Intended operations to aerodromes with RFFS categories below the levels specified in ICAO Annex 14, Volume I, Chapter 9, 9.2, should be coordinated between the aeroplane operator and the aerodrome operator.

Table K-1

Minimum acceptable aerodrome category for rescue and fire fighting

<b>Aerodromes</b> (Required to be specified in the operational flight plan) <sup>(1)</sup>	<b>Minimum acceptable aerodrome RFFS category</b> (Based on published aerodrome RFFS category)
Departure and destination aerodrome	RFFS category for each aerodrome should be equal to or better than the aeroplane RFFS category. <b>One</b> category <sup>(2)</sup> below the aeroplane RFFS category may be accepted where provided as a remission in accordance with ICAO Annex 14, Volume I, 9.2, but not lower than Category 4 for aeroplanes with maximum certificated take-off mass of over 27 000 kg and not lower than Category 1 for other aeroplanes.
Departure and destination aerodrome in case of temporary downgrade and Take-off alternate, destination alternate and en-route alternate aerodromes	<b>Two</b> categories below the aeroplane RFFS category, but not lower than Category 4 for aeroplanes with maximum certificated take-off mass of over 27 000 kg and not lower than Category 1 for other aeroplanes.
ETOPS en-route alternate aerodrome	RFFS category 4 for aeroplanes with maximum certificated take-off mass of over 27 000 kg or not lower than Category 1 for all other aeroplanes, under the condition that at least 30 minutes' notice will be given to the aerodrome operator prior to the arrival of the aeroplane.

Notes. –

(1) If an individual aerodrome serves more than one purpose, the highest required category corresponding to that purpose at the time of expected use applies.

(2) ICAO Annex 14, Volume I, determines the aerodrome category for rescue and fire fighting according to 9.2.5 and 9.2.6 except that, where the number of movements of the aeroplanes in the highest category normally using the aerodrome is less than 700 in the busiest consecutive three months, the category provided may be one lower than the determined category.

4.1.3 For all-cargo operations, further reductions might be acceptable provided that the RFFS capability is adequate to arrest fire around the flight deck area long enough for the persons on board to safely evacuate the aeroplane.

#### 4.2 In flight

4.2.1 In flight, the pilot-in-command may decide to land at an aerodrome regardless of the RFFS category if, in the pilot's judgement after due consideration of all prevailing circumstances, to do so would be safer than to divert.

### 5. ***Recommended Actions***

5.1 Air operators are encouraged to note the information contained in this Safety Notice and to review their policies, procedures and training on the way to determine their acceptable level of RFFS protection for a particular operation or circumstance.

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