



PURSUANT to Section 30 of the Civil Aviation Act 1990

I, STEVEN JOYCE, Minister of Transport,

HEREBY MAKE the following ordinary rules.

SIGNED AT Wellington

This *20th* day of *September* 2010

by **STEVEN JOYCE**

Minister of Transport

Civil Aviation Rules

Part 1, Amendment 43

Definitions and Abbreviations

EDTO - Docket 0/CAR/1354

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Rule objective

The objective of amendment 43 to Part 1 is to delete the existing definition relating to extended-range twin-engine operations (ETOPS) and to insert new definitions and abbreviations relating to extended diversion time operations (EDTO) and to amend existing definition for adequate aerodrome.

Amendment 43 to Part 1 is associated with amendment 21 to Part 121.

Extent of consultation

In 2002 the CAA commenced a project to review the ETOPS requirements for aeroplanes operating under Parts 121 (large aeroplanes), 125 (medium aeroplanes), and 135 (small aeroplanes) and to incorporate the standards contained in AC121-1 into the rules. Shortly thereafter the Federal Aviation Administration (FAA) of the United States signalled its intention to review the FAR requirements for ETOPS and so the CAA project was held over until the FAA intentions became clearer.

In 2005 the Civil Aviation Safety Authority of Australia (CASA) decided to review the Australian requirements for ETOPS and so a joint working group was established between the New Zealand CAA and CASA to develop common standards where possible for EDTO. Representatives from the major airlines in both Australia and New Zealand were also included in the working group.

A Notice of Proposed Rulemaking, NPRM 08/01, containing the proposed changes to Part 121 and the other associated rule parts was issued for public consultation under Docket 0/CAR/1354 on 17 January 2008.

The publication of this NPRM was notified in the Gazette on 17 January 2008 and advertised in the daily newspapers in the five main provincial centres on 19 January 2008. The NPRM was published on the CAA web site and mailed to identified stakeholders including representative organisations who were considered likely to have an interest in the proposal.

A period of 43 days was allowed for comment on the proposed rule.

Summary of submissions

Six written submissions were received on the NPRM which included 3 comments on the proposed changes to Part 1. These submissions and comments have been considered and as a result some amendments have been made to some of the definitions. Following further CAA review the definition for *adequate aerodrome* has been significantly changed to more closely align the rules for EDTO with similar rules in Australia and the USA. What was previously defined as an *adequate aerodrome* is now defined as an *EDTO alternate aerodrome*. This change has not changed the overall intent of the proposed rules for EDTO. In addition, for consistency with the rule system concept that all definitions should be in Part 1 unless there is a specific meaning for a particular Part, all the definitions that were proposed for insertion into Part 121 have been moved into Part 1.

Additional consultation

During the original development of the EDTO rules it was proposed to extend the threshold time for operating a twin turbine powered aeroplane away from an adequate aerodrome from 60 minutes flying time with one engine inoperative to 90 minutes. This 90 minute threshold time was developed in conjunction with the Australian Civil Aviation Safety Authority (CASA) to enable the older non-ETOPS approved aeroplanes to be operated on routes across the Great Australian Bight.

However in August 2009 it became apparent that under the proposed 90 minute threshold time an air operator could theoretically plan an oceanic route or a long trans-continental route as a non-EDTO and would not need to meet the additional dispatch requirements for EDTO regarding en-route alternate aerodrome meteorological conditions and services and facilities, and the additional fuel requirements for EDTO.

Following further consultation with CASA, non-supportive comments from the aircraft manufacturers, and in accordance with ICAO recommendations, the CAA decided that the EDTO threshold time should be retained at 60 minutes flying time, with one engine inoperative, from an adequate aerodrome.

A Notice of Proposed Rule Making Supplement, NPRM 08-01 Supplement, containing the proposed changes to Parts 1 and 121 to

change the requirements back to a 60 minute EDTO threshold time plus some changes to the maintenance requirements in Part 121 for some older aeroplanes, and a change to Part 145 to clarify maintenance procedures for EDTO aeroplanes was issued for public consultation under Docket 0/CAR/1354 on 4 February 2010.

The publication of this NPRM Supplement was notified in the Gazette on 4 February 2010 and advertised in the daily newspapers in the five main provincial centres on 5 February 2010. The NPRM Supplement was published on the CAA web site and mailed to the airline operators who were likely to have an interest in the proposal.

A period of 25 days was allowed for comment on the proposed changes contained in NPRM 08-01 Supplement.

Summary of additional submissions

Six written submissions were received on the NPRM Supplement but none related to the proposed changes to Part 1.

However during the development of the final rule small changes were made to the definitions for *EDTO entry point*, *In-flight shutdown*, and *Maximum diversion time* to clarify the definitions.

The rule as amended was then referred to the Minister of Transport for signing.

Examination of submissions

Submissions may be examined by application to the Docket Clerk at the Civil Aviation Authority between 8:30 am and 4:30 pm on weekdays, except statutory holidays.

Insertion of Amendments

The amendments to the definitions and abbreviations in this Part are reflected by the revocation of an existing definition and abbreviation, the insertion of new definitions and abbreviations, and the revocation and replacement of an existing definition.

Effective date of rule

Amendment 43 to Part 1 comes into force on 1 November 2010.

Availability of rules

Civil Aviation Rules are available from–

CAA web site: <http://www.caa.govt.nz/>

Freephone: 0800 GET RULES (0800 438 785)

Part 1 Amendments

1.1 General definitions

The definition of Extended-range twin-engine operations is revoked:

The definition of Adequate aerodrome is revoked and replaced by the following new definition:

Adequate aerodrome means an aerodrome where the applicable requirements for the aerodrome and runway prescribed in rule 121.71 are met for the particular aeroplane being operated except that, if the aerodrome is designated as an en-route alternate aerodrome the rescue and fire fighting equipment must be at least category 4 and must be available, with at least 30 minutes prior notification, at the expected time of arrival of the aeroplane:

The following new definition of Configuration, maintenance and procedures standards document (CMP) is inserted after the definition of Configuration:

Configuration, maintenance and procedures standards document means a document approved by the certification authority for the aeroplane specifying the minimum requirements for the aeroplane configuration, including any special inspections, hardware life limits, flight crew procedures, master minimum equipment list constraints, and maintenance practices necessary to establish the suitability of the aeroplane's airframe/engine combination for EDTO:

The following new definitions of EDTO alternate aerodrome, EDTO entry point, EDTO significant system, and EDTO verification flight are inserted after the definition of Dual flight time:

EDTO alternate aerodrome means an adequate aerodrome that—

- (1) is certificated under Part 139 or meets safety requirements equivalent to such an aerodrome; and
- (2) provides services and facilities for the aeroplane type being used including—
 - (i) meteorological forecasts for the aerodrome; and

- (ii) at least 1 suitable instrument approach procedure that is published in the AIP of the State concerned; and
- (iii) an aerodrome control service or aerodrome flight information service that can be provided from at least 30 minutes before the estimated time of arrival of the aeroplane; and
- (iv) rescue and fire fighting equipment to at least category 4 that can be provided, with at least 30 minutes prior notification, at the estimated time of arrival of the aeroplane:

EDTO entry point means the first point on a route flown by an aeroplane on an EDTO where the flight time from that point to an adequate aerodrome, calculated at a one engine inoperative cruise speed in still air and ISA conditions, exceeds the threshold time for the aeroplane:

EDTO significant system means the aeroplane propulsion system and any other aeroplane system whose failure could adversely affect the safety of an EDTO, or whose functioning is important to the continuing safety of an EDTO and to a safe landing during a diversion:

EDTO verification flight means a flight conducted to establish that the aeroplane is serviceable for an EDTO:

The following new definition of Extended diversion time operation is inserted after the definition of Escorted passenger:

Extended diversion time operation means a flight by a multi-engine turbine powered aeroplane where the flight time (calculated at a one engine inoperative cruise speed in still air and ISA conditions) from a point on the route to an adequate aerodrome is greater than the threshold time for the aeroplane:

The following new definitions of In-flight shutdown and International standard atmosphere are inserted after the definition of Incident:

In-flight shutdown means—

- (1) when an engine ceases to function in flight and is shutdown, whether self induced, crew initiated or caused by some other external influence including but not limited to flameout, internal failure, foreign object ingestion, icing; or
- (2) the inability to obtain or control thrust necessary for normal operations, but excludes the airborne cessation of the functioning of an engine when immediately followed by an automatic engine relight:

International standard atmosphere means the atmospheric standard as described in ICAO Document 7488 – Manual of the ICAO Standard Atmosphere:

The following new definition of Maximum diversion time is inserted after the definition of Maximum certificated take-off weight:

Maximum diversion time means the maximum flight time, calculated at a one-engine inoperative cruise speed in still air and ISA conditions, that a multi-engine turbine powered aeroplane operating on an EDTO may be from an en-route EDTO alternate aerodrome:

The following new definitions of Multiple identical system and Multiple identical system maintenance are inserted after the definition of Multi-pilot aircraft:

Multiple identical system means the same element of an identical but separate EDTO significant system:

Multiple identical system maintenance means for an aeroplane with 2 turbine powered engines, a maintenance action performed on multiple identical systems during the same period of scheduled or non-scheduled maintenance:

The following new definition of One engine inoperative cruise speed is inserted after the definition of NOTAM service:

One engine inoperative cruise speed means a speed within the certified limits of the aeroplane, selected by the certificate holder and approved by the Director, that is used for calculating fuel reserve requirements and the still air distance associated with a one engine inoperative maximum diversion time for the flight:

The following new definition of Performance deterioration allowance is inserted after the definition of Performance-class 1 helicopter:

Performance deterioration allowance means the difference between the aeroplane manufacturer's published fuel consumption figures and the actual fuel consumption applicable to a specific aeroplane:

The following new definition of Polar area is inserted after the definition of Pilot-in-command:

Polar area means an area north of 78 degrees north latitude or an area south of 60 degrees south latitude:

The following new definition of Propulsion system is inserted after the definition of Propeller:

Propulsion system means an engine and includes any associated item of equipment utilised for sustaining, monitoring and controlling the power or thrust output of an engine installed on the airframe:

The following new definition of TEMPO is inserted after the definition of Technical log:

TEMPO means a description of temporary fluctuations in the meteorological conditions which reach or pass specified threshold values and last for a period of less than one hour in each instance and, in the aggregate, cover less than one-half of the forecast period during which the fluctuations are expected to occur:

The following new definition of Threshold time is inserted after the definition of Three-view:

Threshold time means—

- (1) 60 minutes for an aeroplane with 2 turbine powered engines;
and
- (2) 180 minutes for an aeroplane with more than 2 turbine powered engines:

The following new definition of Time limited system is inserted after the definition of Time in service:

Time limited system means any system on an aeroplane that has a defined time limited capability and on which the duration of the available flight time of the aeroplane is dependent on:

1.3 Abbreviations

The following new abbreviation of CMP is inserted after the abbreviation of CBIP:

CMP means configuration, maintenance and procedures standards document:

The following new abbreviation of EDTO is inserted after the abbreviation of DME:

EDTO means extended diversion time operation:

The following new abbreviation of ISA is inserted after the abbreviation of IMC:

ISA means international standard atmosphere:

Consultation Details

(This statement does not form part of the rules contained in Part 1. It provides details of the consultation undertaken in making the rules.)

A Notice of Proposed Rulemaking, NPRM 08/01 Extended Diversion Time Operations for large aeroplanes, containing the proposed rules was issued for public consultation under Docket 0/CAR/1354 on 17 January 2008.

Six responses to the NPRM were received.

A Supplementary Notice of Proposed Rule Making, NPRM 08-01 Supplement, was issued for public consultation under Docket 0/CAR/1354 on 8 February 2010.

Six responses to the NPRM Supplement were received but none related to Part 1.

The summary of the submissions for the NPRM and NPRM Supplement is attached to Amendment 21 to Part 121.