

Suitable Enroute Alternate Aerodromes

B.1 General

One of the distinguishing features of ETOPS is the concept of a suitable alternate airport being available to which an aircraft can divert after a single or combination of failures which require a diversion. Whereas most two-engine aeroplanes operate in an environment where there is usually a choice of diversion airports available, the extended range aeroplane may have only one alternate within a range dictated by the endurance of a particular airframe system (e.g. cargo fire suppressant), or by the approved maximum diversion time for that route.

It is, therefore, important that any airports designated as an en route alternate have the capabilities, services and facilities to safely support that particular aeroplane and that the weather conditions at the time of arrival provide a high assurance that adequate visual references are available upon arrival at decision height (DH) or minimum descent altitude (MDA) and that the surface conditions are within acceptable limits to permit the approach and landing to be safely completed with an engine and/or systems inoperative.

B.2 Adequate Airport

As with all other operations, an operator desiring any route approval is required to show that it is able to satisfactorily conduct scheduled operations between each required airport over that route or route segment. Operators are required to show that the facilities and services specified for air carriers are available for their use and adequate for the proposed operation. For the purpose of this document, in addition to meeting these criteria, those airports which meet Transport Canada standards and ICAO Annex 14 and are determined to be useable by that particular aeroplane, will be accepted as adequate airports.

B.3 Suitable Airport

For an airport to be suitable for the purposes of this document, it shall have the capabilities, services and facilities necessary to be designated as an adequate airport **and** have weather conditions and field conditions at the time of the particular operation which provide a high assurance that an approach and landing can be safely completed with an engine and/or systems inoperative, in the event that a diversion to an enroute alternate becomes necessary. For planning purposes, the en route alternate weather minima are higher than the weather minima required to initiate an instrument approach.

B.4 Standard En Route Alternate Weather Minima

The following are established for flight planning and dispatch purposes in ETOPS operations:

A particular airport may be considered a suitable airport for flight planning and dispatch purposes for ETOPS operations if it meets the criteria of paragraph B.3 of this Appendix and has one of the following combinations of instrument approach capabilities and en route alternate airport weather minima at the time of the particular operation.

Note: Weather forecasts that contain the term BECMG, TEMPO or PROB may be used to determine the weather suitability of an aerodrome as an alternate provided that:

- a) where the conditions are forecast to improve, the forecast BECMG condition shall be considered to be applicable as of the end of the BECMG time period, and these conditions shall not be below the published alternate minima requirements for that aerodrome; and,
- b) where the conditions are forecast to deteriorate, the forecast BECMG condition shall be considered to be applicable as of the start of the BECMG time period, and these conditions shall not be below the published alternate minima requirements for that aerodrome; and,
- c) the forecast TEMPO condition shall not be below the published alternate minima requirements for that aerodrome; and,

the forecast PROB condition shall not be below the appropriate landing minima for that aerodrome. Where a condition is forecast as "Prob", provided the probability per cent factor is less than 40 per cent, it is not limiting. However the Pilot-In-Command will exercise good aviation judgment in assessing the overall "Prob" conditions.

FACILITIES AVAILABLE AT SUITABLE ALTERNATE	CEILING	VISIBILITY
2 or more <u>useable</u> precision approaches each providing straight-in minima to separate suitable runways.(Two separate landing surfaces)	400 feet, or 200 feet above the lowest useable HAT, whichever is higher.	1 s.m., or 1/2 s.m. more than the lowest useable visibility limit, whichever is greater.
1 <u>useable</u> precision approach.	600 feet, or 300 feet above the lowest authorized HAT/HAA, whichever is higher.	2 s.m., or 1 s.m more than the lowest published landing visibility, whichever is greater.
1 <u>useable</u> non-precision approach.	800 feet, or 300 feet above the lowest authorized HAT/HAA, whichever is higher.	2 s.m., or 1 s.m more than the lowest published landing visibility, whichever is greater.