

apply to: (1) Flights that operate on routes containing a point greater than 180 minutes from an adequate airport based on a single-engine inoperative speed in still air and standard conditions; (2) and flights that operate in designated geographical areas. In contrast to part 121, there would be no distinction between airplanes with two engines and those with more than two engines.

#### Recent Changes to Part 135

In 1998, the FAA added part 119 to 14 CFR. This amendment modified the types of operations permitted in accordance with part 135. Among the changes was an allowance for infrequent scheduled operations with airplanes with 9 or fewer seats and a maximum payload capacity of 7,500 pounds. These airplanes often do not have the range capability to operate on routes to which ETOPS requirements would apply to this proposal. This proposal would not allow the use of many of these aircraft in ETOPS even if they are modified with additional fuel tanks that would give them additional range. The reason is that range capability is necessary but not sufficient for ETOPS. There are other airplane system capabilities and redundancies that are required for safe ETOPS flights. These issues are discussed in further detail in the following section.

#### ICAO Standards

This proposal would make part 135 regulations more consistent with paragraph 4.7.1 of Annex 6 of ICAO Standards and Recommended Practices (SARPs). That paragraph states: "Unless the operation has been specifically approved by the State of the Operators, an aeroplane with two turbine power-units shall not, except as provided in 4.7.4, be operated on a route where the flight time at single engine cruise speed to an adequate en-route alternate aerodrome exceeds a threshold time established for such operations by that State." This SARP does not specify a time threshold for two-engine ETOPS but clearly assumes the existence of one. The SARP was written to give signatory States the flexibility to determine appropriate time thresholds.

#### Safety Study

In 2000, Robert Breiling of the National Business Aviation Association (NBAA) conducted a study of airplane accidents between 1964 and 1999. This study may be purchased directly from NBAA, 1200 18th Street, NW.; Washington, DC 20036-2506. This study revealed that there was not a single accident with a two-engine

airplane in long-range operations. Historically the vast majority of airplanes operated in accordance with part 135 have not had the range capability for routes that would require ETOPS beyond 180 minutes, thus the FAA never found sufficient safety justification for proposing rules.

In 1996, manufacturers began delivering airplanes to part 135 operators that had vastly improved range capability. These new-generation two-engine airplanes have ranges up to 6,500 nautical miles and are capable of operating on routes that would require diversion times in excess of 180 minutes. Thus the FAA believes that regulations are necessary to assure the safe operation of such flights if an operator elects to conduct them.

#### Existing FAA Policy

In 1996, the European Joint Aviation Authorities (JAA) proposed a regulation that would have limited commercial operations of small airplanes to less than 120 minutes from an aerodrome, unless specifically approved by the State authority. In our response, we expressed our view that 180-minutes would be the U.S. threshold for these type of operations. The FAA disagreed with the JAA 120-minute threshold because it would have shut down a number of part 135 operators that have been conducting these operations safely for many years. By policy the FAA has not authorized operations beyond 180 minutes for part 135 operators.

#### (2) Specific Differences Between Part 121 ETOPS

As noted earlier the ETOPS requirements for part 135 would differ from those of part 121 due to the differing nature of those operations. For instance, the presence of adequate crash, fire and rescue equipment is an important consideration for part 121 operations, which may operate many times per year to a single location with a relatively large number of passengers. Although adequate RFF service is desirable for any long-range operations, it is not feasible to require the presence of crash, fire and rescue equipment at an airport before authorizing an on-demand operation that may operate only once a year with very few passengers. Therefore, no such requirement exists in part 135.

Another difference is that part 135 would not identify specific IFSD rates for authorization. IFSD rates have less predictive value in small fleets of airplanes with lower annual cycles that are prevalent among part 135 operators.

#### (3) Nomenclature

The issue of nomenclature was controversial among ARAC participants from the part 135 community. The consensus decision was the use of the term ETOPS in lieu of alternatives including Commercial On-Demand Operations (CODEOPS). The FAA accepts the ARAC recommendation and proposes to use the acronym ETOPS defined as Extended Operations for part 135 operations.

#### (4) Airplane and Engine ETOPS Type Design and Transition Period

##### Type-Design

No specific type design approval has ever been required by part 25 or part 33 before an airplane can be flown over long-ranges in accordance with part 135. The proposed ETOPS rule was drafted to allow currently-certified airplanes to operate in accordance with ETOPS procedures without requiring a new type design approval. However, when an operator first applies to the FAA for approval to use a certain airplane in ETOPS (beyond 180 minutes from an airport), the operator must demonstrate that the airplane meets certain system and equipment requirements specified in the proposed Appendix H and the guidance contained in the ETOPS Advisory Circular.

The proposed changes to airplane and engine certification rules in this NPRM will apply to any new airplane certified under part 25, regardless of whether the airplane is to be operated in accordance with part 135 or part 121. As newly designed airplanes are granted type-design approvals incorporating the requirements for ETOPS contained in part 25 or part 33, the flight manual will specify each time-limited system, and the maximum time that system can safely operate.

##### Transition

The proposed rule allows a transition period of eight years from the date the revised part 25 and part 33 are published during which certificate holders may continue to add airplanes of current designs to their part 135 fleets. After that date, the proposed rule requires that airplanes added to a certificate holder's fleet be type-certificated in accordance with the new ETOPS design requirements. This method of transition recognizes the excellent safety record of current airplane designs, and avoids penalizing certificate holders who may have made significant capital investments in airplanes. The length of this transition period was set at eight years because it is typical of the time required for a new,