

investigate common cause effects or systemic errors.

(i) Two engine airplanes:

(A) 0.05/1,000 engine hours for ETOPS up to and including 120 minutes;

(B) 0.03/1,000 engine hours for ETOPS beyond 120 minutes up to and including 180 minutes, and 207 minutes in North Pacific; and

(C) 0.02/1,000 engine hours for ETOPS beyond 180 minutes, except for 207 minutes in North Pacific.

(ii) For airplanes with more than two engines:

(A) 0.2/1,000 engine hours for 3-engine ETOPS; and

(B) 0.1/1,000 engine hours for 4-engine ETOPS.

(2) The report of investigation and, if necessary, corrective action taken, must be submitted within 30 days through the CHDO to the Director of the Flight Standards Service for approval.

(d) *Engine condition monitoring.* The certificate holder must establish and conduct an Engine Condition Monitoring program to detect deterioration, at an early stage, and to allow for corrective action before safe operation is affected.

(1) This program must describe the parameters to be monitored, method of data collection, analysis, and corrective action process.

(2) The program must ensure that engine limit margins are maintained so that a prolonged engine inoperative diversion may be conducted without exceeding approved engine limits (for example, rotor speeds, exhaust gas temperatures) at all approved power levels and expected environmental conditions.

(e) *Oil consumption monitoring.* The certificate holder must establish and conduct an engine oil consumption monitoring program to ensure that there is enough oil to complete any ETOPS flight. The operator's consumption limit must not exceed the manufacturer's recommendations. The program must consider the amount of oil added at the departing ETOPS stations with reference to the running average consumption. The monitoring must be continuous up to and including oil added at the ETOPS departure station. The APU must be included if an APU is required for ETOPS.

(f) *APU in-flight start program.* If APU in-flight start capability is required for ETOPS, the certificate holder must have a cold soak in-flight APU start and run reliability program acceptable to the Administrator.

(g) *Maintenance training.* The certificate holder must review the airplane and engine combination

maintenance training program with the CHDO to ensure that it adequately supports ETOPS training requirements. The certificate holder must develop additional ETOPS specific training that focuses on the special nature of ETOPS and is required for all personnel involved in ETOPS. This training is in addition to the operator's accepted maintenance training program to qualify individuals for specific airplanes and engines.

(h) *Procedural changes.* Any substantial changes to the maintenance or training procedures established to qualify for ETOPS must be submitted to the CHDO and approved before they may be adopted.

23. Amend § 121.415 by adding paragraph (a)(4) to read as follows:

§ 121.415 Crewmember and dispatcher training requirements.

(a) * * *

(4) Training for crewmembers and dispatchers in their roles and responsibilities in the certificate holder's passenger recovery plan.

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24. Amend § 121.565 by revising paragraph (a) to read as follows:

§ 121.565 Engine inoperative: Landing; reporting.

(a) Except as provided in paragraph (b) of this section, whenever an engine of an airplane fails or whenever an engine is shutdown to prevent possible damage, the pilot in command shall land the airplane at the nearest suitable airport in point of time at which a safe landing can be made.

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25. Add § 121.624 to read as follows:

§ 121.624 ETOPS alternates.

(a) No person may dispatch an airplane for ETOPS unless the ETOPS Alternates listed in the dispatch or flight release are located such that the airplane remains within the authorized ETOPS maximum diversion time under which the flight is to be dispatched. The certificate holder must consider all adequate airports within the diversion limits of the operation that meet the standards of this part. Each required ETOPS Alternate must be listed in the dispatch or flight release.

(b) No person may list an airport as an ETOPS Alternate in the dispatch or flight release unless the appropriate weather reports or forecasts or any combination thereof indicating that weather conditions are at or above ETOPS Alternate minima specified in the certificate holder's operations specifications and with field condition reports indicating that a safe landing

can be accomplished at the time of the intended operation (from the earliest to the latest time of landing at that airport). Once a flight is enroute, the ETOPS Alternates must meet the requirements of § 121.631(c).

(c) No person may list an airport as an ETOPS Alternate in the dispatch or flight release unless that airport meets the requirements of this part.

(d) No person may list an airport as an ETOPS Alternate in the dispatch or flight release unless that airport meets the public protection requirements of § 121.97(b)(1)(ii).

26. Revise § 121.625 to read as follows:

§ 121.625 Alternate airport weather minimums.

Except as required by § 121.624, no person may list an airport as an alternate in the dispatch or flight release unless the appropriate weather reports or forecasts or any combination thereof indicate that the weather conditions will be at or above the alternate weather minimums specified in the certificate holder's operations specifications for that airport when the flight arrives.

27. Amend § 121.631 by redesignating paragraphs (c) and (d) as paragraphs (e) and (f), respectively, and adding new paragraphs (c) and (d) to read as follows:

§ 121.631 Original dispatch or flight release, redispach or amendment of dispatch or flight release.

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(c) For ETOPS, in addition to paragraph (b) of this section, no person may allow a flight to continue beyond the ETOPS Entry Point unless the weather conditions at required ETOPS Alternates specified in the dispatch or flight release are reviewed and forecast to be at or above the operating minimums specified in the operations specifications for that airport during the period in which that airport may be expected to be used (from the earliest to the latest time of landing at that airport). Such a review must include all ETOPS Alternates within the dispatch diversion time of the planned routing and advice to the flight crew of any changes that have occurred since dispatch. However, the dispatch or flight release may be amended en route to add any ETOPS Alternate with weather above operating minima and that is within the maximum ETOPS diversion time that could be authorized for that flight.

(d) The pilot in command for supplemental operators, or a dispatcher for flag operators must, prior to the ETOPS Entry Point, use company communications to update any revised flight plan if required as a result of