

# ARSA Regulatory Compliance Training—Questions

**Part 21:** Certification Procedures for Products and Articles    **Level 1:** For anyone working in aviation

**§ 21.4(a)(1)-(3)**

(a) Early ETOPS: reporting, tracking, and resolving problems. The holder of a type certificate for an airplane-engine combination approved using the Early ETOPS method specified in part 25, Appendix K, of this chapter must use a system for reporting, tracking, and resolving each problem resulting in one of the occurrences specified in paragraph (a)(6) of this section.

\* \* \*

(4) For an airplane-engine combination that is a derivative of an airplane-engine combination previously approved for ETOPS, the system need only address those problems specified in the following table, provided the type certificate holder obtains prior authorization from the FAA:

If the change does not require a new airplane type certificate and . . .	Then the Problem Tracking and Resolution System must address . . .
(i) Requires a new engine type certificate	All problems applicable to the new engine installation, and for the remainder of the airplane, problems in changed systems only.
(ii) Does not require a new engine type certificate	Problems in changed systems only.

(5) The type certificate holder must identify the sources and content of data that it will use for its system. The data must be adequate to evaluate the specific cause of any in-service problem reportable under this section or § 21.3(c) that could affect the safety of ETOPS.

(6) In implementing this system, the type certificate holder must report the following occurrences:

- (i) IFSDs, except planned IFSDs performed for flight training.
- (ii) For two-engine airplanes, IFSD rates.
- (iii) Inability to control an engine or obtain desired thrust or power.
- (iv) Precautionary thrust or power reductions.
- (v) Degraded ability to start an engine in flight.
- (vi) Inadvertent fuel loss or unavailability, or uncorrectable fuel imbalance in flight.
- (vii) Turn backs or diversions for failures, malfunctions, or defects associated with an ETOPS group 1 significant system.
- (viii) Loss of any power source for an ETOPS group 1 significant system, including any power source designed to provide backup power for that system.
- (ix) Any event that would jeopardize the safe flight and landing of the airplane on an ETOPS flight.
- (x) Any unscheduled engine removal for a condition that could result in one of the reportable occurrences listed in this paragraph.

*Note: The remainder of § 21.4 is covered on separate training sheets.*

**Question 1:** Type certificate holders for derivative engine-airplane combinations must only address the problems identified in the table in § 21.4(a)(4).

- A: True.
- B: False.

**Question 2:** Certificate holders using approved Early ETOPS must implement a system to report occurrences including all in-flight shutdowns.

- A: True.
- B: False.

**Question 3:** Data sources for Early ETOPS reporting must be adequate to evaluate any in-service problem reportable under § 21.3.

- A: True.
- B: False.

**Question 4:** Certificate holders using approved Early ETOPS must implement a system to report occurrences of inability to obtain desired thrust.

- A: True.
- B: False.

Name and/or Identification \_\_\_\_\_

Clearly Print the Name and/or Identification of the Person Taking the Test

Date \_\_\_\_\_

Date Test was Completed

Score \_\_\_\_\_

Enter as x (number correct) of y (number of questions)

Hours \_\_\_\_\_

Time Credited for Test

Approved by \_\_\_\_\_

Signature of Supervisor or Person Administering Test

# ARSA Regulatory Compliance Training—Answers

**Part 21:** Certification Procedures for Products and Articles

**Level 1:** For anyone working in aviation

**§ 21.4(a)(1)-(3)**

(a) Early ETOPS: reporting, tracking, and resolving problems. The holder of a type certificate for an airplane-engine combination approved using the Early ETOPS method specified in part 25, Appendix K, of this chapter must use a system for reporting, tracking, and resolving each problem resulting in one of the occurrences specified in paragraph (a)(6) of this section.

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(4) For an airplane-engine combination that is a derivative of an airplane-engine combination previously approved for ETOPS, the system need only address those problems specified in the following table, provided the type certificate holder obtains prior authorization from the FAA:

If the change does not require a new airplane type certificate and . . .	Then the Problem Tracking and Resolution System must address . . .
(i) Requires a new engine type certificate	All problems applicable to the new engine installation, and for the remainder of the airplane, problems in changed systems only.
(ii) Does not require a new engine type certificate	Problems in changed systems only.

(5) The type certificate holder must identify the sources and content of data that it will use for its system. The data must be adequate to evaluate the specific cause of any in-service problem reportable under this section or § 21.3(c) that could affect the safety of ETOPS.

(6) In implementing this system, the type certificate holder must report the following occurrences:

- (i) IFSDs, except planned IFSDs performed for flight training.
- (ii) For two-engine airplanes, IFSD rates.
- (iii) Inability to control an engine or obtain desired thrust or power.
- (iv) Precautionary thrust or power reductions.
- (v) Degraded ability to start an engine in flight.
- (vi) Inadvertent fuel loss or unavailability, or uncorrectable fuel imbalance in flight.
- (vii) Turn backs or diversions for failures, malfunctions, or defects associated with an ETOPS group 1 significant system.
- (viii) Loss of any power source for an ETOPS group 1 significant system, including any power source designed to provide backup power for that system.
- (ix) Any event that would jeopardize the safe flight and landing of the airplane on an ETOPS flight.
- (x) Any unscheduled engine removal for a condition that could result in one of the reportable occurrences listed in this paragraph.

*Note: The remainder of § 21.4 is covered on separate training sheets.*

**Question 1:** Type certificate holders for derivative engine-airplane combinations must only address the problems identified in the table in § 21.4(a)(4).

- A: True.
- B: **False. § 21.4(a)(4) requires FAA authorization for the type certificate holders to only use the table in addressing a problem.**

**Question 2:** Certificate holders using approved Early ETOPS must implement a system to report occurrences including all in-flight shutdowns.

- A: True.
- B: **False. Under § 21.4(a)(6)(i) the reporting requirements specifically excepts “planned IFSDs performed for flight training.”**

**Question 3:** Data sources for Early ETOPS reporting must be adequate to evaluate any in-service problem reportable under § 21.3.

- A: **True. See § 21(a)(5).**
- B: False.

**Question 4:** Certificate holders using approved Early ETOPS must implement a system to report occurrences of inability to obtain desired thrust.

- A: **True. See § 21.4(a)(6)(iii).**
- B: False.