

to document power and thrust characteristics.

(e) At the conclusion of the testing required by paragraph (c) of this section, the engine must:

(1) Be subjected to a calibration test at sea-level conditions. Any change in power or thrust characteristics must be within approved limits.

(2) Be visually inspected in accordance with the on-wing inspection recommendations and limits contained in the Instructions for Continued Airworthiness submitted in compliance with §33.4.

(3) Be completely disassembled and inspected—

(i) In accordance with the applicable inspection recommendations and limits contained in the Instructions for Continued Airworthiness submitted in compliance with §33.4;

(ii) With consideration of the causes of IFSD, loss of thrust control, or other power loss identified by paragraph (b) of this section; and

(iii) In a manner to identify wear or distress conditions that could result in an IFSD, loss of thrust control, or other power loss not specifically identified by paragraph (b) of this section or addressed within the Instructions for Continued Airworthiness.

(4) Not show wear or distress to the extent that could result in an IFSD, loss of thrust control, or other power loss within a period of operation before the component, assembly, or system would likely have been inspected or functionally tested for integrity while in service. Such wear or distress must have corrective action implemented through a design change, a change to maintenance instructions, or operational procedures before ETOPS eligibility is granted. The type and frequency of wear and distress that occurs during the engine test must be consistent with the type and frequency of wear and distress that would be expected to occur on ETOPS eligible engines.

(f) An alternative mission cycle endurance test that provides an equivalent demonstration of the unbalance and vibration specified in paragraph (c) of this section may be used when approved by the FAA.

(g) For an applicant using the simulated ETOPS mission cyclic endurance test to comply with §33.90, the test may be interrupted so that the engine may be inspected by an on-wing or other method, using criteria acceptable to the FAA, after completion of the test cycles required to comply with §33.90(a). Following the inspection, the ETOPS test must be resumed to complete the requirements of this section.

#### APPENDIX A TO PART 33—INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

##### A33.1 GENERAL

(a) This appendix specifies requirements for the preparation of Instructions for Continued Airworthiness as required by §33.4.

(b) The Instructions for Continued Airworthiness for each engine must include the Instructions for Continued Airworthiness for all engine parts. If Instructions for Continued Airworthiness are not supplied by the engine part manufacturer for an engine part, the Instructions for Continued Airworthiness for the engine must include the information essential to the continued airworthiness of the engine.

(c) The applicant must submit to the FAA a program to show how changes to the Instructions for Continued Airworthiness made by the applicant or by the manufacturers of engine parts will be distributed.

##### A33.2 FORMAT

(a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.

(b) The format of the manual or manuals must provide for a practical arrangement.

##### A33.3 CONTENT

The contents of the manual or manuals must be prepared in the English language. The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:

(a) *Engine Maintenance Manual or Section*.  
(1) Introduction information that includes an explanation of the engine's features and data to the extent necessary for maintenance or preventive maintenance.

(2) A detailed description of the engine and its components, systems, and installations.

(3) Installation instructions, including proper procedures for uncrating, deinhibiting, acceptance checking, lifting, and attaching accessories, with any necessary checks.