BY ORDER OF THE COMMANDER
94TH AIRLIFT WING

94TH AIRLIFT WING INSTRUCTION 21-119

16 DECEMBER 2013

Maintenance

ENGINE MANAGEMENT

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements Air Force Policy Directive (AFPD) 21-1, *Air and Space Maintenance.* The purpose of this instruction is to establish procedures for the movement, management, and tracking of assigned aircraft engines in accordance with AFI 21-101, *Aerospace Equipment Maintenance Management*; T.O. 00-25-254-1, *Comprehensive Engine Management System Procedures*; T.O. 2J-1-18, *Preparation for Shipment and Storage of Gas Turbine Engines*; and T.O. 00-85-20, *Engine Shipping Instructions*. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the Air Force Form (AF) AF Form 847, *Recommendation for Change of Publication*; route AF 847 from the field through the appropriate functional' s chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with the Air Force Manual (AFMAN) 33-363, Management of Records, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at **https://www.my.af.mil/afrims/afrims/afrims/rims.cfm**

SUMMARY OF CHANGES

This document was completely revised and must be reviewed in its entirety.

1. Base Engine Manager Responsibilities (Engine Shipments and Receipts):

1.1. Determines engine shipping requirements based on failure mode, operating time, repair restrictions, and asset availability.

1.2. Coordinates with the AFRC Command Engine Manager for all engine movements, including redistribution, transfers, 2LM inputs, stock level adjustments, and warranty work.

1.3. Obtains AFRC engine control number from the Command Engine Manager for tracking, control, and movement purposes; posts on engine shipping document (1348-1A).

1.4. Preserves/packages engine IAW T.O. 2J-1-18 and T.O. 00-85-20 and initiates shipping document, 1348-1A. (72-hour shipment required for 2LM engine inputs.)

1.5. Notifies Traffic Management Office (TMO) supervisor as soon as possible that engine shipment is required (air or surface) and provides shipping documentation (1348-1A) for transportation processing. For air shipment, coordinates with TMO on preparation of the Shipper's Declaration of Dangerous Goods. For ground shipment, notifies TMO of priority of engine shipment to coordinate best value method of shipping.

1.6. Reports to Comprehensive Engine Management System (CEMS), shipment transaction, and the date/time the engine was accepted by the TMO as recorded on the DD Form 1348-1A.

1.7. Provides the Equipment Management Section a copy of the shipping document to process engine stands (adjust equipment levels) for shipment/receipt actions.

1.8. In coordination with the Propulsion Flight Chief, provides personnel for delivery/pickup of engines to/from the TMO load/unload area.

1.9. Upon receipt of engines from TMO section, checks Station Record Account Number (SRAN) for correct "ship to" (FJ6703), ensures proper engine and QEC configuration, completes external damage assessment (including trailer), processes receipt transaction in the CEMS and GO81 databases.

1.10. Signs inbound shipping documents acknowledging receipt of engine.

2. TMO Supervisor Responsibilities (Engine Shipments and Receipts):

2.1. Receives notification and required copy of the shipping document (1348-1A) from the Base Engine Manager or alternate (94 MXS/MXMP). Confirms shipping method (air/surface) and required delivery date.

2.2. Weighs and marks engines as required for air/surface shipment. Inspects engine and trailer for proper preparation and packaging. For air shipment, ensures Shipper's Declaration of Dangerous Goods is prepared and signed by a qualified individual authorized by the Contractor's Project Manager. Ensures that a copy of shipping document (1348-1A) is affixed to the outside of the engine.

2.3. Accepts engine for shipment (air or surface), generates cargo manifest and load plans as applicable IAW aircraft directives, and loads engines for required shipment (air or surface).

2.4. In accordance with T.O. 00-85-20, orders wood-bed, air-ride equipped, either regular flat-bed or step-deck trailer in coordination with the Engine Manager for surface movement of engines (72-hour movement required for 2LM engine inputs). Provides and installs required blocking/bracing for engine shipping security. **NOTE – Disconnect goose-neck trailers are not recommended.**

2.5. Provides one signed copy of the shipping document (1348-1A) to the Base Engine Manager for shipment transaction in the CEMS database.

2.6. Coordinates with the Accountable Officer (AO) for funding shipments.

2.7. Off-loads engine(s) arriving on base (air or surface), completes appropriate transportation documentation, and notifies Base Engine Manager of receipt.

3. Unit Engine Manager/SRAN Engine Monitor Responsibilities:

3.1. Maintains the Maintenance Information System/Comprehensive Engine Management System database for SRAN FJ6703. Ensures compliance with all prescribed Comprehensive Engine Management and AFRC Command Engine Manager directives, policies, and procedures.

3.2. Inputs all reportable transactions on unit assigned aircraft and spare assets within one duty day, monitors/schedules required inspection and time change actions, ensures all engine maintenance requirements are coordinated with appropriate agencies and functions. Coordinates with Plans & Scheduling/Documentation section on engine related TCTOs. During extended deployments of assigned aircraft, designates engine monitors to assimilate and input/forward required engine maintenance transactions. Dependent on deployment location, determines and implements the timeliest and most effective means of updating the maintenance information system.

3.3. Reconciles CEMS database (direct line reporting) to reflect the most current and correct engine information available. Takes immediate action to correct all reporting errors and variances.

3.4. In the event of interruption of service or connectivity problems of direct line reporting to the CEMS Central Data Base (CDB), AF Form 1534 documentation will be required to reflect engine status changes and be held for input when CDB is again accessible. In the event of extended CDB inaccessibility the AF 1534(s) will be forwarded to the CDB for updating.

3.5. Cannibalization of engines/engine parts will be directed by the Cannibalization Authority (Production Superintendent / Propulsion Flight Chief or Section Supervisor) and will be coordinated between the Maintenance Operations Center (MOC), Maintenance Supply Liaison (MSL), Propulsion Flight Chief or Shop Supervisor, and Engine Manager. The MOC will issue a JCN and the job will be entered in GO81 by Propulsion Flight. Once the JCN is entered in GO81, MSL will transfer the original supply document number to the cannibalization JCN. If the cannibalization of a complete engine is necessary the SRAN Engine Manager will coordinate with the AFRC Command Engine Manager for approval and to obtain a replacement engine. Cannibalization actions will not be accomplished against serviceable engines without obtaining approval from AFRC Command Engine Manager.

4. Deployed Engine Management Procedures:

4.1. During deployments a separate slot for an Engine Manager should be considered as part of the deployment package. In the event an Engine Manager is not part of the deployment package the following procedures will be followed.

4.1.1. Deployed Propulsion Flight personnel will serve as the Deployed Engine Monitor(s) and will be thoroughly briefed on their duties by the Engine Manager, or

Assistant, prior to departure from home station. Deployed Engine Monitor(s) will be supplied with a copy (paper or electronic) of CEMS product E407 option 1 and 4 in the deployment package for spare engines or propellers. Deployed Engine Monitors will coordinate all engine, propeller, and serially controlled part transactions through the deployed MOC and will notify the Base Engine Manager/ Alternate by telephone, fax or e-mail. Information provided will include aircraft tail number, aircraft hours at engine/propeller removal, engine/propeller position, removed engine/propeller serial number, installed engine/propeller serial number, date job complied with, "corrected by" employee name and man number, "inspected by" employee name and man number.

TIMOTHY E. TARCHICK, Colonel, USAFR
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 21-101, *Aerospace Equipment Maintenance Management*, 26 July 2010

AFMAN 33-363, *Management of Records*, 01 March 2008

AFPD 21-1, *Air and Space Maintenance*, 25 February 2003

T.O. 00-25-254-1, *Comprehensive Engine Management System Procedures*, 15 June 2012

T.O. 2J-1-18, *Preparation for Shipment and Storage of Gas Turbine Engines*, 1 September 2010

T.O. 00-85-20, *Engine Shipping Instructions*, 15 March 2012

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*, 22 September 2009

Abbreviations and Acronyms

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFRC—Air Force Reserve Command

AFRIMS—Air Force Records Information Management System

CDB—Central Data Base

CEMS—Comprehensive Engine Management System

MOC—Maintenance Operations Center

MSL—Maintenance Supply Liaison

OPR—Office of Primary Responsibility

RDS—Records Disposition Schedule

SRAN—Station Record Account Number

TMO—Traffic Management Office