DATA ITEM DESCRIPTION

Title: INDIVIDUAL AIRCRAFT TRACKING (IAT) DATA REPORT

Number: DI-SESS-81917

Approval Date: 20130524

AMSC Number: F9378

Limitation: N/A

DTIC Applicable: N/A

GIDEP Applicable: No

Office of Primary Responsibility: 11 (AFLCMC)

Applicable Forms: N/A

Use/Relationship: The Individual Aircraft Tracking (IAT) Data Report is used to present data collected from on-board flight data recorders or from flight crew information which provides a periodic assessment of the usage of each aircraft. Individual aircraft operational usage data is reduced and used with the IAT analysis methods to track crack growth at control points on each individual aircraft. It will also provide the means for establishing maintenance schedules based on actual usage which will allow for optimum utilization of the aircraft.

a. The IAT Data Report DID is applicable to all programs as described in MIL-STD-1530. MIL-STD-1530 is applicable to all aircraft the USAF acquires, uses, or leases and IAT requirements can be tailored when appropriate.

b. This Data Item Description (DID) contains the content, format and intended use information for the data product generated by the specific and discrete work described in the contract per MIL-STD-1530.

(Copies of the DID and MIL-STD-1530 are available online at https://assist.dla.mil/quicksearch/ or from the Standardization Document Order Desk, 700 Robbins Ave., Bldg 4D, Philadelphia PA 19111-5094.)

Requirements:

1. Reference documents. The applicable issue of the documents cited herein, including their approval dates and dates of any applicable amendments, notices and revisions, shall be as specified in the solicitation or contract.

2. Format. Contractor format is acceptable.

3. Content. This report will provide a periodic assessment of the usage of each aircraft. It will also provide the means for establishing maintenance schedules based on actual usage which will allow for optimum utilization of the aircraft. The IAT Program shall determine the Equivalent Flight Hours (EFH) for the operational usage when compared against the design usage spectrum and certification usage spectrum (typically from the full scale durability test if different from design), and the most current representative usage. IAT shall have the ability to adjust the required maintenance schedule for all critical locations on each individual aircraft. The crack growth data used to assess individual aircraft crack sizes shall be based on the most up-to-date analysis available with sufficient lead time for incorporation into the report. Control points shall be added or revised as required. Projections used in all periodic reports shall be based on the annual usage during the previous calendar year or on annual force utilization forecasts which will be furnished by the Air Force to the contractor three (3) months prior to incorporation into the report. IAT data reports are required to be published annually unless the Aircraft Structural

Integrity Program (ASIP) Manager along with the Procuring Agency approves a different delivery schedule. This report shall include tracking results for each aircraft, by tail number, and shall contain the following data:

a. A presentation of the individual aircraft usage data consisting of:

(1) Tabular usage statistics by individual aircraft for both the reporting period usage and accumulated usage, flight hours, number of missions and operational hours by representative missions, if applicable, and other data required for the specific aircraft (i.e. landings, pressurization cycles, etc.).

(2) Aircraft summaries for the reporting period.

(3) A listing and explanation of the causes of lost, unusable, or invalid data for each aircraft.

(4) The valid data capture rate of all flight data for the reporting period and justification of any deviation from the requirements.

(5) Detail methods, procedures, and assumptions used in producing the periodic tracking reports through the use of discussions, flow diagrams and examples.

b. Equivalent Flight Hours (EFH) vs. Actual Flight Hours (AFH) plots to compare the design usage spectrum and the certification usage spectrum. An evaluation for each individual airplane shall include the following for the selected control points:

(1) A list of inspections, repairs, and/or modifications performed on the selected areas.

(2) Accumulated crack size for each of the control points and EFH (and other appropriate measures of damage such as landings, pressure cycles, etc.).

(3) Projected flight hours and estimated remaining years to reach the economic repair limit and damage tolerance safety limits.

(4) Inspections, repairs, and/or modifications, if any, that need to be performed within the next two years based on the above information.

(5) Descriptions of the control points which shall include the point location, type of structure, and stress concentration level.

(6) Representative graphs of calculated crack length versus flight time for each control point.

4. End of DI-SESS-81917.