DATA ITEM DESCRIPTION

Title: LOADS ENVIRONMENTAL SPECTRA SURVEY (LESS) DATA REPORT

Number: DI-MGMT-81450A
Approved Date: 20070927
AMSC Number: F9012
Limitation: N/A
DTIC Applicable: No
GIDEP Applicable: No
Office of Primary Responsibility: 11 (ASC-ENFS)
Applicable Forms: N/A

Use/Relationship: The Loads Environmental Spectra Survey (LESS) Data Report is used to provide a description of the actual operational loads environment of the aircraft as it is definitized from collected recorder data. After statistical stability of the data has been achieved and when sufficient usage differences become apparent, update of the baseline values with current operational spectra may be necessary.

a. The LESS Data Report DID is applicable to any contract for which an Aircraft Structural Integrity Program (ASIP) fleet tracking program is required.

b. This DID contains the format, content, and intended use information for the data product resulting from the work task described in the contract and is applicable to any contract for which an Aircraft Structural Integrity Program (ASIP) fleet tracking program is required.

c. DI-MGMT-81450A supersedes DI-MGMT-81450.

Requirements:

Reference Documents. The applicable issue of the document cited herein, including their approval dates and dates of any applicable amendments, notices, and revisions, shall be as cited in the contract.

1. Format. The LESS Data Report shall be in the contractor's format.

2. Content. This periodic report shall contain the following information: all flight time during the reporting period for LESS equipped aircraft only and a total of all flight time since aircraft delivery. (NOTE: For items c, d, and e below, the data shall be compiled as cumulative occurrences or exceedances based upon 1000 flight hours.)

a. The number of flight hours logged by each LESS instrumented aircraft, the number of hours of recorded data received for each aircraft, and a listing and explanation of the causes of lost, unusable, or invalid data.

b. The criteria used to determine statistical stability and the analysis used to determine statistical stability. An updated baseline spectrum, when flight recorder data has changed enough to warrant update and when the statistical stability criteria has bee satisfied.

c. Comparisons of the recorded data with the baseline spectra by mission type and mission segment broken out by base and all bases combined.

d. To ensure the LESS aircraft sampling represents the fleet, comparison of the LESS flight recorded data for each LESS instrumented aircraft (vertical load factor at the center of gravity (Nz), number of flights, flight hours, and mission descriptions broken out by mission type and mission segment and total flight hours) with the Individual Aircraft Tracking (IAT) data. A similar comparison (of LESS flight recorder data) for the entire fleet compiled both by base and all bases combined.

e. Presentation of significant parameters (for example, pressure cycles, ground-air-ground cycles, strains, Nz and lateral load factor at the center of gravity (Ny) (with maneuver separated from gust), rates, accelerations, surface deflections, and wing sweep for various gross weight, airspeed, and altitude combinations) as follows:

(1) Exceedances of significant parameters (in tabular and graphical form) versus by mission type and mission segment with flight time and number of flights and composites for individual aircraft (by tail number), base, fleet, and other significant groupings.

(2) Tabulations of time in airspeed and altitude blocks by weight blocks, by mission type, and by mission segment.

f. Multiparameter (for example, Nz versus corresponding roll rate, roll acceleration and other significant parameters) data (in tabular and graphical form), shall be presented as distributions of parameter peaks by mission type and mission segment with time and number of flights in each mission type and mission segment.

4. End of DI-MGMT-81450A.