DATA ITEM DESCRIPTION

Title: VIBRATION SURVEY REPORT

Number: DI-NDTI-81587 Approval Date: 5 October 2000
AMSC Number: G7402: Limitation: N/A
DTIC Applicable: No GIDEP Applicable: No
Office of Primary Responsibility: G/Y243
Applicable Forms: N/A

Use/relationship:
This report covers the results of specified vibration survey tests performed on equipment to determine if any resonant condition exists within the equipment, and also the magnitude of resulting acceleration forces as they relate to possible over stress of assemblies or components. The report will be used by the procuring activity to determine the readiness of the equipment for Environmental Stress Screening (ESS) and reliability tests.

Requirements:
1. Reference documents. None

2. Format. Contractor format is authorized

3. Content. The report shall contain the test data obtained during specified vibration survey tests and shall include:
a. Description of the vibration survey test, including the following:
(1) Location and axis of accelerometers
(2) Levels and axis of imposed vibration.
(3) Techniques used to perform the survey and record accelerometer out put.
(4) Vibration check of fixtures to assure there are no fixture resonances in the vibration test frequency range.
(5) Vibration sweep rate and dwell time at resonances.
(6) Rationale for selection of items monitored by sensors.

b. Vibration measurements taken, under specified test conditions, of the vibration response of the structural package itself, and of integral parts/subassemblies internally mounted.

c. A comparison of the vibration data taken during vibration tests with the vibration data determined analytically or the vibration limits recommended by the manufacturer of the part or by the contractor.

d. Description and identification of equipment under test, date of test, and location of the test facility.

e. Methods and test equipment/instrumentation used to perform the survey including manufacturer, model number, serial number, and accuracies.

f. Discussion of vibration measurement accuracy.

g. Identification of any resonant condition exhibited during the vibration test.

h. Magnitude of the acceleration forces resulting from the resonant condition as they relate to possible over stress of assemblies or components.

i. Description of corrective actions taken or proposed.

j. A response versus frequency curve.