

Vibration and Acoustic Test Facility (VATF) Test Request Worksheet

This worksheet will facilitate the development of a cost and schedule estimate for utilizing the VATF. Please complete this form and submit to the VATF Laboratory Manager, peter.m.fantasia@nasa.gov.

Test Article

Schedule

Test Article Title:	Request Date:
Project Supported:	Proposed Test Start Date:
Program Supported:	Test Article Delivery Date:
Initiating Group:	Test Data Need Date:

Test Requester Information

Test Article Expert(s):	
Phone:	Cell:
E-mail:	

Test Objectives

Test Type	Vibration – Sinusoidal <input type="checkbox"/>	Vibration – Random <input type="checkbox"/>	Vibration – Shock <input type="checkbox"/>	Vibration – Human-Rated <input type="checkbox"/>
	Vibro-Acoustic <input type="checkbox"/>	Sound Transmission Loss <input type="checkbox"/>		
	Modal <input type="checkbox"/>	Deflection Shapes <input type="checkbox"/>		
	Development <input type="checkbox"/>	Evaluation <input type="checkbox"/>	Certification - Design <input type="checkbox"/>	Certification - Workmanship <input type="checkbox"/>
Purpose of Test:				

Test Article

Test Article Description:

Physical Dimensions (L/W/H):

Weight:

Test Article Interface

Test Article Interface Design (Facility or Requester designed, drawings attached, instructions):

Test Fixture (facility stock, facility fabricated, or requester provided):

List materials, instruments, and support hardware supplied by Requester for structural dynamic test:

Test Article Handling Requirements

Cleanliness Level:	Controlled Access:
Special Moving/Handling:	

Test Environment (Vibration)

Complete the Test Environment table below or provide a plot of the test environment to be simulated.

Axis	Frequency (Hz):	Spectral Density (g^2/Hz)	Tolerance (dB)	Duration
X				
Y				
Z				

Test Environment (Vibro-Acoustic)

Complete the Test Environment table below or provide a plot of the test environment to be simulated.

Type	Frequency (Hz):	Sound Pressure Level (dB)	Tolerance dB	Duration
Min				
Max				

Frequency of Analysis – Span (Modal)

Mode	Frequency (Hz)	Mode	Frequency (Hz)	Mode	Frequency (Hz)

* Number of Dynamic Modes:	* Frequency Resolution:
Boundary Conditions (e.g., F-F, Fx-Fx, In-Situ):	Input Excitation (Impact/Shaker):

* As an alternative to Frequency of Analysis, the Test Requester can provide the Test Director with the number of dynamic modes desired.

Data Acquisition and Recording

Number of Channels:		Audio/Video Recording: Y <input type="checkbox"/> N <input type="checkbox"/>
Sampling Rates:		Format: Photographic Film: Y <input type="checkbox"/> N <input type="checkbox"/>
Real-Time Data Processing: Y <input type="checkbox"/> N <input type="checkbox"/>		Format: Recording Speed:
Number Instruments:		Photogrammetry: Y <input type="checkbox"/> N <input type="checkbox"/>
Accelerometers:	Uni-axial:	Tri-axial:
Microphones:	Load Cells:	Time Synchronize Media with Data: Y <input type="checkbox"/> N <input type="checkbox"/>
Strain Gages:		

Instrumentation

<p>List the primary measurements to be made (e.g., Frequency, Spectral Density, FRF, modal damping, mode shape):</p>
<p>Additional Instrumentation and Support Hardware Provided by Test Requester for functional tests:</p>

Other Information

<p>List any other information pertinent to the test:</p>
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Vibration and Acoustic Test Facility (VATF) Test Article Hazard Checklist

Item: _____

Part No. _____

Serial No. _____

A hazard analysis statement will be formed for any of the following applicable attributes of any of your provided hardware (e.g., test article, support equipment).

Hazard	Y	N	Comments
Mechanical			
Handling (> 40 lb or > 4 ft., any dimension)	<input type="checkbox"/>	<input type="checkbox"/>	Weight: Approx. Size: x x
Instability (e.g., large CG offset, loose hardware)	<input type="checkbox"/>	<input type="checkbox"/>	
Non-loading Bearing Path (e.g., unintentional lift points or step points)	<input type="checkbox"/>	<input type="checkbox"/>	
Sharp Edges	<input type="checkbox"/>	<input type="checkbox"/>	
Pinch Points	<input type="checkbox"/>	<input type="checkbox"/>	
Exposed Mechanisms (e.g., rotating, reciprocating)	<input type="checkbox"/>	<input type="checkbox"/>	
Pressure Systems	<input type="checkbox"/>	<input type="checkbox"/>	Pressure: psia Volume:
Stored Energy (e.g., springs, weights, flywheels, projectiles)	<input type="checkbox"/>	<input type="checkbox"/>	
Electrical			
Energized Power (> 50 volts)	<input type="checkbox"/>	<input type="checkbox"/>	volts amps
Exposed Circuit	<input type="checkbox"/>	<input type="checkbox"/>	volts amps
Batteries	<input type="checkbox"/>	<input type="checkbox"/>	Chemistry: Size: Qty:
Generation/storage (e.g., coils, magnets, capacitors)	<input type="checkbox"/>	<input type="checkbox"/>	amps
Electro-static Sensitive Devices	<input type="checkbox"/>	<input type="checkbox"/>	
Thermal			
Hot Surfaces (> 113 °F, 45 °C)	<input type="checkbox"/>	<input type="checkbox"/>	°F
Heaters	<input type="checkbox"/>	<input type="checkbox"/>	
Cold Surfaces (< 39 °F, 4 °C)	<input type="checkbox"/>	<input type="checkbox"/>	°F
Cooling Devices	<input type="checkbox"/>	<input type="checkbox"/>	

Hazard	Y	N	Comments
Radiation			
Ionizing	<input type="checkbox"/>	<input type="checkbox"/>	
Non-Ionizing	<input type="checkbox"/>	<input type="checkbox"/>	
Laser (>3 R)	<input type="checkbox"/>	<input type="checkbox"/>	
Radio Frequency (RF)	<input type="checkbox"/>	<input type="checkbox"/>	
Microwave	<input type="checkbox"/>	<input type="checkbox"/>	
Infrared (IR)	<input type="checkbox"/>	<input type="checkbox"/>	
Ultraviolet (UV)	<input type="checkbox"/>	<input type="checkbox"/>	
Visible light, high intensity	<input type="checkbox"/>	<input type="checkbox"/>	
Material			
Brittle Materials	<input type="checkbox"/>	<input type="checkbox"/>	Chemistry: Qty: Contained Y <input type="checkbox"/> N <input type="checkbox"/>
Fluids – Contained	<input type="checkbox"/>	<input type="checkbox"/>	Chemistry: Qty:
Corrosive Materials	<input type="checkbox"/>	<input type="checkbox"/>	Chemistry: Qty:
Flammable/Combustible Materials	<input type="checkbox"/>	<input type="checkbox"/>	Chemistry: Qty:
Toxic Materials	<input type="checkbox"/>	<input type="checkbox"/>	Chemistry: Qty:
Biohazards	<input type="checkbox"/>	<input type="checkbox"/>	Chemistry: Qty:
Miscellaneous			
Test Environment Incompatibility	<input type="checkbox"/>	<input type="checkbox"/>	
Noise level produced by item (> 85 dBA)	<input type="checkbox"/>	<input type="checkbox"/>	
Pyrotechnics/Explosives	<input type="checkbox"/>	<input type="checkbox"/>	Inert Y <input type="checkbox"/> N <input type="checkbox"/>
Cleanliness Sensitive	<input type="checkbox"/>	<input type="checkbox"/>	
Delicate	<input type="checkbox"/>	<input type="checkbox"/>	