DRAFT

Imager Test Plan

HSI-MI&T-IMGR-TP

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1 Introduction

1.1 Purpose

The following paper describes the test plan in order to validate the imager with its aspect data processors for flight

2 Test Plan (TBD)

2.1 System Tests (Imager Susceptibility).

Test	PF used
Prove that the RAS measures stars while all other spacecraft systems are operational.	V6s0r0ES_001 using RAS GSE
Prove that the SAS will measure the Sun position while all other spacecraft systems are operational.	Needs simulators with new proms. Test will be done at PSI using SSL IDPU

2.2 System Tests (Imager Radiated).

Test	PF used
Prove that the worst case noise from the SAS and RAS does not upset measurements of any of the other spacecraft systems.	V6s0r0_002 (high rate image mode)

2.3 Orbit Simulations

Test	PF used
Test that the RAS and SAS are compatible with the Launch and Early Orbit command opportunities. Test the RAS and SAS normal orbit cycling data volume and commanding requirements.	TBD

2.4 EMI Susceptibility

Test	PF used
Prove that the RAS and SAS perform the same as before the 20V/m field exposure (LV and Ground Radars).	V6s0r0_001 (low rate if spectrometer on) V6s3r6_001 (offset levels)

2.5 Vibration and Transportation

Test	PF used
Prove that the RAS and SAS perform the same as before the vibration or	V6s0r0_001 (low rate dark level) V6s3r6_001 (offset levels)

transportation.	V6s4r4_001 (internal LED) V6s0r0ES_001 RAS/SAS event generation RAS GSE needed

2.6 Thermal Vacuum Conditions

Test	PF used
Prove that the RAS/SAS measures stars while all other spacecraft systems are operational and while hot and cold.	V6s0r0_001 (low rate dark level) V6s3r6_001 (offset levels) V6s0r0ES_001 RAS/SAS event generation RAS GSE needed
Prove that the SAS will measure the sun position while all other spacecraft systems are operational and while hot and cold.	Needs simulators with new PROMS. Test will be done at PSI using IDPU

2.7 PreLaunch Conditions

Test	PF used
Prove that the RAS and SAS are ready for flight while connected to the LV and under the plane, etc.	V6s0r0_001 (low rate dark level) V6s3r6_001 (offset levels) V6s4r4_001 (internal LED)