

Proposed Change Level (Circle): 3

Proposed Change: Rationale for deleted requirements in MRD

Lead Engineer: Taylor

Subsystem: N/A

Reason for Change:

A number of requirements have been deleted or changed in the MRD for various reasons. All changes were captured in the MRD change log at the time of each new release. However, review of the change log showed some of the reasons listed for the change were confusing, incomplete or inadequate. As such, IV&V has identified inadequate documentation for some requirement changes as a risk. In response (and in agreement with IV&V), this SCN represents a full audit of the MRD changes. Rationale for changes that were not directly associated with a direct request from IV&V, an RFA (Request for Action), a SCN (System Change Notice), or an ECN (Engineering Change Notice) have been revisited and fully explained in the "Notes" column of the MRD Change Log as part of the audit.

Reference Documentation Summary

MRD rev G.5 change log. Attached.

Subsystem Impacted: (Bold indicates an impact)

ACS	C&DH	Mechanical	Propulsion	Booms	IDPU S/W
Battery	EGSE	MGSE	RF Comm	EFI	SST
Bus	Harness	Mission Ops	Solar Array	ESA	SCM
Avionics Unit	I&T	Power	Thermal	FGM	
BUS S/W	Launch Vehicle			IDPU	

Minutes Summary (Systems Engineering Meeting):

The attached MRD Change Log provides or points to additional documentation for all changes that have been made to the MRD.

Note that many requirements were changed simply to clarify the original statement w/ no substantial change to the meaning. As appropriate in these cases, the notes column simply identifies that a minor change was made to the wording. No additional documentation is required or expected. As part of the audit, a couple of requirements were found to have insufficient documentation as listed below.

1. TBConfirmed requirements PB.FSW-11 and PB.FSW-14. The test providing confirmation of watchdog and restart timing needs to be documented and provided.
2. Changed requirement PB.FSW-9. The Probe FSW reset strategy given as rationale for changing the number of warm/cold resets needs to be provided.

The above requirements that require further action are easily identified in the MRD as grey boxes. At this time the project is working on obtaining this documentation. The SCN will be signed-off when all documentation is provided.

Approval

PROPRIETARY

YES ☐ NO ☐

Project Manager

Date

Systems

Date

Impacted Subsystem Lead

Distribution

- Subsystem trades (level 4) can be made within the resources of the subsystem. Systems Engineer insight and involvement.
- Trades that impact subsystem/system interfaces or resource allocations (level 3/level 2) require concurrence by the Configuration Control Board (CCB): Principal Investigator, Project Manager, Mission Systems Engineer (MSE), Probe Systems Engineer, Mission Operations Manager and affected Team Leads. GSFC Mission Manager insight.
- Trades that impact Level 1 *baseline* science/programmatic requirements must include approval by Principal Investigator and GSFC Mission Manager.
- Trades that impact Level 1 *minimum* science/programmatic requirements must include approval by NASA HQ.