

NNG09207304L Revised Appendix C

Appendix C: Safety and Mission Assurance (S&MA) Program – The offeror shall use the following format for the Rapid III Catalog MAIP and shall include all information identified below:

SAFETY AND MISSION ASSURANCE (S&MA)

The offeror’s S&MA program shall be documented in their Mission Assurance Implementation Plan (MAIP) which must respond to all of the “shall” statements in the Rapid Spacecraft Development Office Rapid III Mission Assurance Requirements (MAR) document. The evaluators will look for the MAIP to include the following information.

Section	Title	Description
0	Scope	Describe the scope of your Mission Assurance Implementation Plan (MAIP)
1	S&MA Program Management	Describe your S&MA Program management and organization including its independence from program/project management and how it fits into the corporate and facility organization Describe how the MAIP will be applied to subcontractors Describe under what circumstances work activities will be suspended due to hazards, imminent danger, or future danger, etc. Describe your relationship with your customer with respect to their access to your facilities and those of your suppliers Describe your policy for establishing that previously developed products meet the requirements of your MAIP Describe the preparation and contents of all related deliverables
2	Quality Management System	Describe how your Quality Management System is compliant with the requirements of SAE AS9100 and/or ISO/ASQ 9100 Describe handling of nonconforming products Describe your Material Review Board operation and membership Describe your anomaly reporting system and Anomaly/Failure Review Board including its operation and membership Describe the preparation and contents of all related deliverables
3	System Safety	Describe your system safety program, including what NASA/Government Standards will be used, and how it conforms with launch range safety requirements including the submittal of the appropriate documentation and the tracking and mitigation of hardware and software risks, hazards, etc. Describe how you prepare an Orbital Debris Assessment and the related deliverable(s) Describe how you report and investigate mishaps, incidents, and close-calls and how you document them Describe the preparation and contents of all related deliverables

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4 (Edited)	Probabilistic Risk Analysis and Reliability	Describe your reliability program, including your PRA program and all other reliability analyses and reports.
		Describe the preparation and contents of all related deliverables
5	<u>Software Assurance (Flight and Ground Segments)</u>	Include purchased (e.g., commercial off-the-shelf, and modified off-the-shelf), existing, and Government-Furnished software (e.g., government off-the-shelf) as well as new software; describing how you will ensure that it will meet the functional, performance, and interface requirements.
		Describe your internal V&V program and your Independent Verification and Validation program including deliverables to your customer
		Describe the related review program
		Describe your software configuration management system
		Describe your compliance to Version Description Document requirements
		Describe how you comply with government software development surveillance requirements
		Describe the preparation and contents of all related deliverables
6	Ground Systems and Equipment Assurance	Describe your Ground System S&MA program for designing, building, and testing Ground Systems and equipment that is used to support launch and flight operations.
		Describe the preparation and contents of all related deliverables
7	Risk Management	Describe your risk management program including how you maintain your risk list.
		List any known risks associated with your heritage bus as well as all risk related deliverables.
		Describe the preparation and contents of all related deliverables
8 (Deleted)	Reserved	
9	System Performance Verification	Describe your System Performance Verification Program
		Describe the preparation and contents of all related deliverables
10	Workmanship Program	Describe your Workmanship Program, specifically identifying what standards (including that for Electrostatic Discharge Control and Printed Wiring Board specifications) are used for workmanship processes and how they are qualified for use
		Describe your training program/(re)certification process for technicians and inspectors
		Describe the preparation and contents of all related deliverables
11	Electrical, Electronic, and Electromechanical (EEE) Parts	Describe your EEE Parts program including your parts control board
		Describe your parts control activities and processes including testing performed on complex devices, and mitigation of the use of counterfeit parts
		Describe the preparation and contents of all related

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		deliverables. For parts lists, note what information will be included on them to ensure parts are reliable for the stated mission level.
12	Materials and Process	Describe your Materials and Process (M&P) program including any M&P control board
		Describe your M&P control activities and processes
		Discuss printed wiring board coupon evaluations and approval
		Describe the preparation and contents of all related deliverables. For M&P lists (including lubrication), note what information will be included on them to ensure that the information provided is adequate for the stated mission level.
13	Contamination Control	Describe your Contamination Control Program
		Describe the preparation and contents of all related deliverables
14	Metrology and Calibration Program	Describe your Metrology and Calibration Program
		Describe your use of any non-calibrated instruments
15	GIDEP Alerts and Problem Advisories	Describe your program for the handling of, reviewing of, and reporting on GIDEP Alerts; GIDEP Safe-Alerts; GIDEP Problem Advisories; GIDEP Agency Action Notices; Customer Advisories and Component Issues (if applicable; e.g., NASA Advisories and Component Issues).
		Describe the preparation and contents of all related deliverables.
16	End Item Acceptance Package	Describe the how you maintain and submit the end item acceptance package that you deliver to your customer.
		Describe the preparation and contents of all related deliverables
MAIP Appendix A	Acronyms and Glossary	Include an Acronym and Glossary List for your program. The list shall include all contractor-specific or unusual technical terms used in your MAIP.
MAIP Appendix B	Applicable and Reference Documents	The list of applicable documents and the list of reference documents for the documents for your MAIP shall be attached to the MAIP as an Appendix. For each document, include the issuing authority, the document title and number, the revision number or level, and the issue date.
MAIP Appendix C (Added)	Traceability Matrix	Provide a matrix that provides traceability from the requirements of the MAR to the MAIP.
MAIP Appendix D (Added)	GSFC-STD-1000D Compliance Matrix	Provide matrix that shows compliance with GSFC-STD-1000D. This matrix is expected to show how the vendor complies with each GOLD Rule.
Additional MAIP Appendices	TBD	Any reference documentation that will help clarify the MAIP will be attached to the MAIP as an Appendix.