

GSFC GPM CMO

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RELEASED

# Global Precipitation Measurement (GPM) Project

## Medium Sun Sensor Deliverable Items List and Schedule (DILS)



Goddard Space Flight Center  
Greenbelt, Maryland

National Aeronautics and  
Space Administration

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**CHANGE HISTORY LOG**

Rev Level	Description of Change	Approved By	Date Approved
Rev -	Initial Release per GPM-CCR-0100	C. Carlisle	1/30/2009
Rev A	Add Item 46 Section 3 per GPM-CCR-0250	C. Carlisle	4/9/2009
Rev B	Change all delivery dates in Table 2-1 to 12 months after award of contract per GPM-CCR-0310	C. Carlisle	7/24/2009

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## 1.0 Introduction

This document contains tables of the hardware and data deliverables for the Medium Sun Sensors (MSS) for the Global Precipitation Measurement (GPM) Mission. The information in the tables is as follows:

**Description:** This provides the Title of the deliverable item.

**Reference:** This provides the reference back to the pertinent document calling out the deliverable

**Category:**

**A = Approval** – Documents in this category require approval from the NASA GSFC CO. In general, documents shall be provided in contractor format as long as required content, as specified in the SOW, is addressed.

**R= Review** – Documents in this category do not require formal NASA GSFC CO approval. They must be received within a specified time period and are subject to evaluation. The NASA GSFC CO reserves the time-limited right of disapproval for each submission. The time-limited period is two weeks from receipt of documents.

**I = Information** – Documents in this category are informal and are for information only.

**Quantity:** This provides the required number of copies for the deliverable. All data is required to be submitted electronically. The number in the quantity column refers to the number of hard copies required.

**Delivery Date:** This provides the fixed or relative date or time that the deliverable is required.

## 2.0 Hardware Deliverable Schedule

The hardware deliverables for the GPM Medium Sun Sensors are as follows:

**Table 2-1. Hardware Deliverables**

Item #	Description	Reference	Quantity	Delivery Date
1	Flight Unit Medium Sun Sensor	SOW Section 4.1	2	Twelve (12) months after Award of Contract
2	Set <sup>1</sup> of Flight Mating Connectors (if applicable)	SOW Section 4.1	1	Twelve (12) months after Award of Contract
3	Set of Connector Savers (if applicable)	SOW Section 4.1	1	Twelve (12) months after Award of Contract
4	Set of ESD-safe Connector Caps (if applicable)	SOW Section 4.1	1	Twelve (12) months after Award of Contract
5	Medium Sun Sensor Stimulator	SOW Section 4.2	2	Twelve (12) months after Award of Contract
6	Medium Sun Sensor Stimulator Control Panel	SOW Section 4.2	1	Twelve (12) months after Award of Contract

<sup>1</sup> A set consists of one unit for each connector on each MSS. For example, if each of the two MSS were to have three connectors, a set of mating connectors would consist of six connectors.

### 3.0 Data Deliverable Schedule

The data deliverables for the GPM Medium Sun Sensors are as follows:

**Table 3-1. Data Deliverables**

Item #	Description	Reference	Category	Quantity	Delivery Date
1	Monthly Status Report	SOW Section 2.1	I	1	Fourteen (14) calendar days following the month being reported.
2	Design Conformance Review	SOW Section 2.3.1	R	1	Three (3) months after Award of Contract
3	Design Conformance Review Report	SOW Section 2.3.1	R	1	Fourteen (14) calendar days after completion of Design Conformance Review (DCR)
4	Pre-Environmental Review	SOW Section 2.3.2	R	1	Seven (7) days before start of environmental testing on first Flight Unit
5	Flight Unit Pre-Ship Review	SOW Section 2.3.3	R	1	Seven (7) calendar days prior to delivery of each Flight Unit
6	ICD	SOW Section 3.2.1	R	3	Twenty-one (21) calendar days before DCR
7	Drawing Package	SOW Section 3.2.2	R	3	Twenty-one (21) calendar days before DCR
8	Design Conformance Review Presentation Package	SOW Section 3.2.3	I	5	Twenty-one (21) calendar before Design Conformance Review
9	Flight Unit Data Delivery Package	SOW Section 3.2.4	A	1	With each delivered Flight Unit
10	Verification Test Plan	SOW Section 3.2.5	A	3	Twenty-one (21) calendar days before Design Conformance Review
11	Verification Test Procedures	SOW Section 3.2.6	R	3	Twenty-eight (28) calendar days before start of testing and as changes occur.
12	Thermal Analysis	SOW Section 3.3	R	2	Twenty-one (21) calendar days before Design Conformance Review
13	Thermal Model	SOW Section 3.3	I	1	Fifteen (15) calendar days before Design Conformance Review
14	Structural Analysis	SOW	R	2	Twenty-one (21) calendar days before Design Conformance

Item #	Description	Reference	Category	Quantity	Delivery Date
		Section 3.4			Review
16	Quality Assurance Plan	SOW Section 6.1	A	3	Twenty-one (21) calendar days before Design Conformance Review
17	Class I CM Changes	SOW Section 6.1.3	A	2	Seven (7) calendar days after Contractor CM review
18	Class II CM Changes	SOW Section 6.1.3	R	2	Seven (7) calendar days after Contractor CM review
19	Anomaly Reports	SOW Section 6.1.4	A	2	Seven (7) calendar days after Contractor Failure Review Process determines disposition
20	Failure Mode and Effects Analysis (FMEA)	SOW Section 6.3.1	R	2	Fourteen (14) calendar days before Design Conformance Review
21	Parts Stress Analysis Criteria if different from EEE-INST-002	SOW Section 6.3.2	A	2	Twenty-one (21) calendar days before Design Conformance Review
22	Parts Stress Analysis	SOW Section 6.3.2	R	2	Fourteen (14) calendar days before Design Conformance Review
23	Worst Case Circuit Analysis	SOW Section 6.3.3	R	2	Twenty-one (21) calendar days before Design Conformance Review
24	Numerical Reliability Assessment	SOW Section 6.3.4	R	2	Fourteen (14) calendar days before Design Conformance Review
25	Trend Parameter List	SOW Section 6.5.2	R	3	Seven (7) calendar days prior to Pre-Environmental Review
26	Test and Trend Analysis Reports	SOW Section 6.5.2	I	1	Delivered at Pre-Ship Review
27	Printed Wiring Board Coupons	SOW Section 6.6.5.1	A	1 Coupon per board	Deliver Twenty-one (21) calendar days before start of PWB assembly
28	Advanced Packaging Technology Requirements Documentation	SOW Section 6.6.5.3	A	2	Twenty-eight (28) calendar days after contract award
29	Parts Identification List	SOW Section 6.7.1	A	5	Twenty-one (21) calendar days before DCR
30	Documentation on	SOW	A	2	Twenty-eight (28) calendar days

Item #	Description	Reference	Category	Quantity	Delivery Date
	Custom Devices	Section 6.7.2			after contract award
31	Plastic Encapsulated Microcircuit (PEM) Specification Documents	SOW Section 6.7.3	A	2	Twenty-eight (28) calendar days after contract award
32	Radiation Test Plans (If Applicable)	SOW Section 6.7.4	R	2	Plans submitted Twenty-eight (28) calendar days prior to test. Returned with comments within Twenty-one (21) days.
33	Radiation Test Reports	SOW Section 6.7.4	I	2	Fourteen (14) calendar days after test
34	Recertification Plans for Parts >5Yrs (If Applicable)	SOW Section 6.7.5	A	2	Twenty-one (21) calendar days before DCR
35	As-Built Parts List	SOW Section 6.7.1	R	1	Due at pre-ship review
36	Alert/Advisory Disposition and Preparation	SOW Section 6.7.6	R	2	Updates due Monthly
37	Materials and Processes Identification List	SOW Section 6.8.1	A	5	Twenty-one (21) calendar days before DCR
38	As-Built Materials List	SOW Section 6.8.1	R	1	Due at seven (7) calendar days prior to pre-ship review
39	Materials Usage Agreement	SOW Sections 6.8.2 through 6.8.5	A	2	Twenty-one (21) calendar days before DCR
40	Polymeric Materials expired shelf-life waiver	SOW Section 6.8.3	A	2	Twenty-one (21) calendar days before DCR
41	Limited-Life Items List	SOW Section 6.8.4	A	2	Twenty-one (21) calendar days before DCR
42	Contamination Control Plan	SOW Section 7.1	R, A	2	Twenty-one (21) calendar days after completion of Design Conformance Review (DCR)
43	Chamber Configuration	SOW Section 7.3	R, A	2	Twenty-eight (28) Calendar days prior to Thermal Vacuum Bakeout Tests begin
44	Thermal Vacuum Bakeout Test Results	SOW Section 7.3	A	2	Fourteen (14) Calendar Days after completion of Thermal Vacuum Bakeout Tests

<b>Item #</b>	<b>Description</b>	<b>Reference</b>	<b>Category</b>	<b>Quantity</b>	<b>Delivery Date</b>
45	Interface Card Schematic Review Report	SOW Section 3.6	A	2	Fourteen (14) Calendar Days after completion of Schematic Review
46	Calibration Curves	SOW Section 3.2.4	I	2	Seven (7) calendar days prior to Pre-Environmental Review

