

Global Precipitation Measurement

Program Overview

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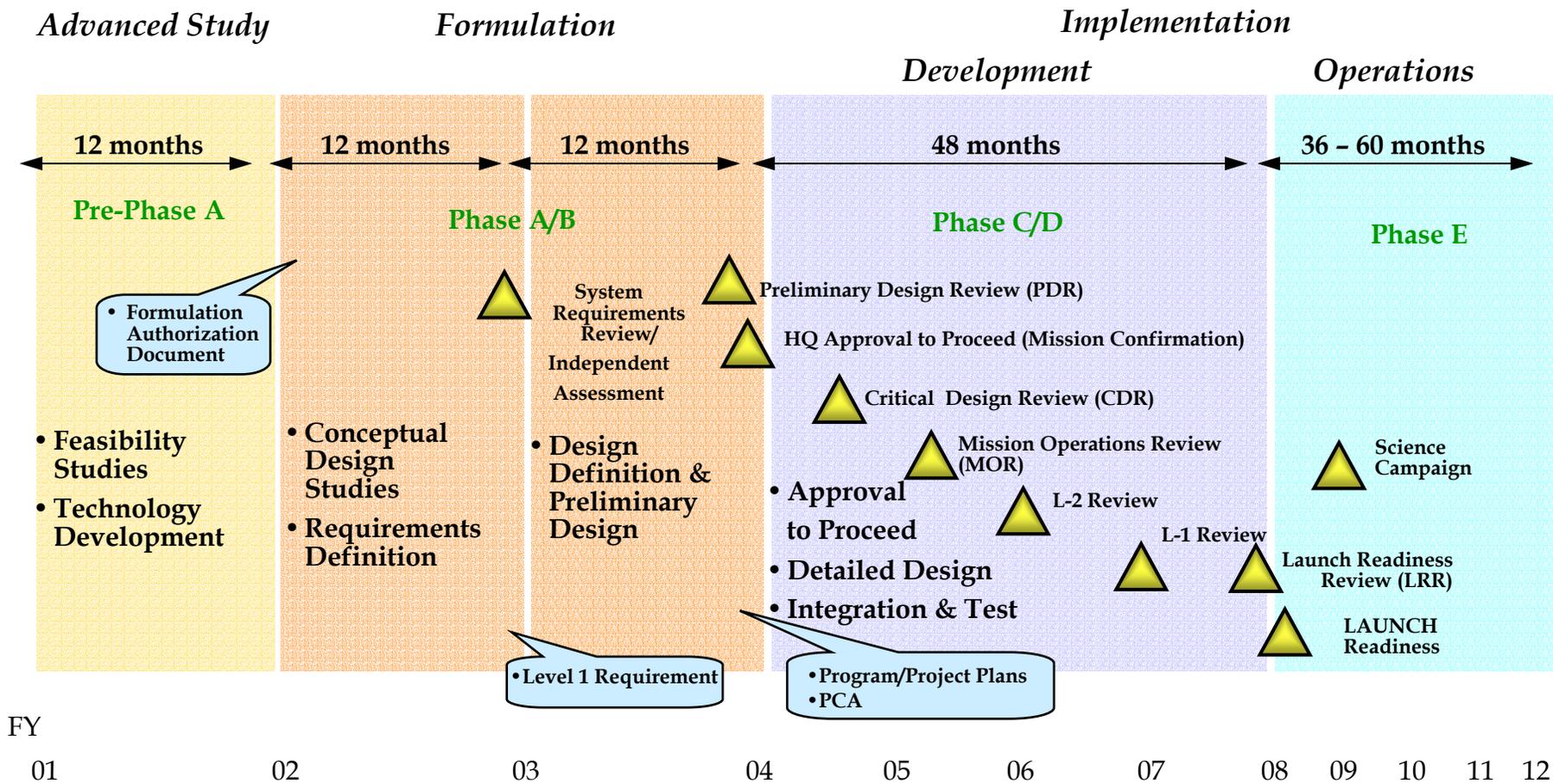
Office of Earth Science

NASA Headquarters



- ***GPM was the outgrowth of the highly successful TRMM launched on November 1997***
- ***Easton Workshop – August 1998***
 - *GPM was a GSFC response to the ESE Post 2002 Mission Concepts RFI of June 1998*
 - *GPM (designated as EOS-9) was recommended as the principal systematic measurement of the Global Water and Energy Cycle Panel*
 - *GPM was strongly endorsed by Applications Panel*
- ***EOS-9 Post-2002 Mission Study – April 1999***
 - *Planned as constellation at 70° inclination*
 - *NASA HQ recommended use of existing operational meteorological systems (e.g. DMSP-SSM/I and NPOESS - CMIS)*
 - *Constellation orbits changed to Sun-synchronous to compliment SSM/I and CMIS Data Streams*
- ***Advanced Study – October 2000 to November 2001***
 - *GSFC designated lead*
 - *Coordination Group established with NASDA*
- ***Formulation – November 2001 to November 2003***
 - *GSFC designated lead*





GPM Timeline →



- **Technical**

- *Advanced Study Phase successfully completed in November 2001*
- *Formulation Phase initiated in FY2002*
- *Level 1 Requirements peer reviewed in August 2001, to be baselined after successful SRR, and to be finalized after successful MCR*
- *Accelerated ground system being developed to serve as a SEEDS prototype NASA-affiliated research community precipitation processing system*

- **Budget**

- *FY2002 budget funds GPM at \$11.3M*
- *President's FY2003 Budget funds GPM at \$8M*
 - *Maintains pace of Formulation activities*
 - *Supports Implementation Phase initiation in FY 2004 and Primary Spacecraft launch in FY2008*

- **USGCRP Review**

- *Review of multi-agency global change research program to determine best way to implement Administration's climate change research priorities*
- *Decisions on future EOS follow-on missions will be made following completion*
- *Review expected to be completed in Summer of 2002*
- *Anticipate a strong endorsement of GPM*

- **International Partnerships**

- *Letter of Agreement (LOA) drafted and sent to Japan for review*
- *2nd International Planning Workshop held May 20-23, 2002*



- ***Measurement Based Initiative***
- ***“Facility” Provided for Including New Partners***
 - *GPM to seek out partnership opportunities for data streams, data processing, and calibration & validation sites*
 - *Partnerships constructed to promote “global” interest in global precipitation measurement*
- ***Japan is a Critical Partner***
 - *Assumes that the NASDA/NASA partnership will be successful*
 - *Includes radar, launch vehicle, and constellation satellite contributions by NASDA*
- ***Initial Capability - Circa 2007***
 - *Primary Spacecraft schedule synchronized with the NASDA development schedule*
- ***Science Data System - SEEDS compliant***
- ***Mission Life - 3 years minimum with 5 year goal***
- ***Technology - minimize new technology development in critical path***
- ***End of Life - NPD 8710.3 and NSS 1740.14 compliant***

