

**NASA Agency Program Management Council
September 2017 Capability Days APMC Decision Memorandum**

Summary: The Agency Program Management Council (APMC) met on September 13-14, 2017, focusing on continued progress implementing the Capability Leadership Model (CLM) across the Agency, and deliberating previous Mission Directorate actions for closure. Additional background related to this APMC, including prior actions, is referenced in the March 2017 APMC Capability Days summary posted to “Inside NASA”. For all topics discussed at this APMC, supporting files can be found on NX in the September 2017 APMC Capability Days meeting folder.

Decisions:

This APMC was established as informational, with the topics intended to feed forward into subsequent senior leadership meetings. However, the following specific decisions were made during the meeting upon review of the recommendations. Additional actions related to these decisions are noted in the actions section of this memo.

Small/Medium Size Mission Competition Diversity and Approach — GSFC/JPL

Decision 1: The APMC accepted the GSFC/JPL proposed process that allows Principal Investigators (PIs) from different Centers to be part of the mission proposal process, prior to considering external partners. Based on this decision, the GSFC and JPL leadership will jointly release a memo to the remaining NASA Center Directors, laying out the process under which civil servant PIs from all Centers can have their proposed mission concepts considered by GSFC and JPL for potential mission collaborating/partnering. In addition to the memo, GSFC/JPL will conduct documented, multi-step, multi-factor decision gate processes to select the portfolio of mission concepts for each Announcements of Opportunity (AO). Two joint notices will be released per relevant AO. (Action closed: 03/15/17 APMC action #3).

Center Roles Update – Mission Directorates

Decision 2: In general, the Center Roles updates by the Mission Directorates were accepted by the APMC. Specifically, SMD added two new roles: 1) research for high-end computing to GSFC; and 2) planetary science research, technology, and data archiving to GRC. In addition, SMD research capability leaders have asked Centers to hire new scientists in understaffed research capability areas, as needed. SMD work packages through the Internal Scientist Funding Model (ISFM) are directed to research capabilities of the Centers.

The SMD study on program office roles and responsibilities was presented and accepted by the APMC (Action closed: 10/31/16 EC action #EC-2016-10-001).

CLM Baseline Reviews and Systems Capability Leadership Team (SCLT) Updates Accepted by the APMC

Decision 3: The baseline assessments for the Sensors & Instruments discipline capability and the Heliophysics Research capability were accepted by the APMC.

In addition, STMD provided an SCLT update on the Entry, Descent & Landing (EDL) capability and the Rendezvous & Docking capability (Action closed: 11/30/16 APMC Follow-up #R8).

HEOMD provided an SCLT update on the In Situ Resource Utilization (ISRU) capability (Action closed: 11/30/16 APMC Follow-up #R8).

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Actions:

1. 09-13-2017#1, informal APMC Action: (STMD SCLT) confirm the statement "...ESA can provide passive international berthing & docking mechanism..."; email the AA with reply. Assigned to: HEOMD/G. Williams, due September 22, 2017. Action is **CLOSED**.
2. 09-13-2017#2, formal APMC Action: (HEOMD SCLT) review authority, technology approach, and resources for communications and navigation to determine if SCLT is warranted. Assigned to: HEOMD/Deputy AA, due March 2018 APMC.
3. 09-13-2017#3, formal APMC Action: (ECLSS SCLT) develop the executive summary for the ECLSS capability, including challenges and areas under consideration (Note: outside of the nominal cadence for this system). Assigned to: HEOMD/R. Gatens, due March 2018 APMC.
4. 09-13-2017#4, formal APMC Action: perform a scoping assessment of the topic, Digital Transformation, to determine if a new capability should be established. Assigned to: OCT/D. Terrier, due March 2018 APMC.
5. 09-13-2017#5, formal APMC Action: charter a review of how insight/oversight is applied and develop a more consistent and efficient approach. Assigned to: AA/R. Lightfoot, due December 31, 2017.
6. 09-13-2017#6, formal APMC Action: charter a Human Systems Integration tiger team which includes representation from the three technical authorities, Mission Directorates and relevant disciplines to scope and provide options to address the human systems integration technical gap. The scoping effort will identify HSI requirements, policy gaps, technical gaps, and will propose the best long term integrated approach to address HSI within NASA. Assigned to: OCHMO/J.D. Polk, due March 2018 (status); September 2018 (completion).
7. 09-13-2017#7, formal APMC Action: charter an Active Optical (Laser/Lidar) tiger team, which includes representation from SMD, STMD and HEOMD to address an increased emphasis in Active Optical technology which is critical for future NASA Earth, Planetary Science and Mars Exploration. Team to provide agency-level strategy and solutions for advancing high-risk Laser/Lidar technologies that are not currently being sufficiently planned or developed or risk reduced to meet NASA missions requirements. Assigned to: Sensors/Instruments Capability Lead/U. Singh, due March 2018 (status); September 2018 (completion).
8. 09-14-2017#8, formal APMC Action: provide Executive Summaries for Earth Science, Astrophysics, and Planetary research capabilities, utilizing the executive summary template. Assigned to: SMD/D. Andrucyk/M. New, due March 2018 APMC.
9. 09-14-2017#9, formal APMC Action: present to the NASA AA a concept of Program Office capabilities, with the intent of avoiding duplication between program/project and institutional functions (ensures actual core program work). Assigned to: SMD/D. Andrucyk; discussion on concept due October 31, 2017 (include HEOMD/Deputy AA); presentation on concept due March 2018 APMC.
10. 09-14-2017#10, formal APMC Action: establish cube-sat/small satellite coordination working group across the Agency led by SMD. Assigned to: SMD/D. Andrucyk, due March 2018 APMC.
11. 09-14-2017#11, formal APMC Action: update Center Roles for document NPD1000.3 *The NASA Organization* (V2), based on APMC accepted content and additional Mission Directorate refinements. Assigned to: Office of the Administrator/L. Guerra, OACS/D. Boccippio; due December 31, 2017.
12. 09-14-2017#12, informal APMC Action: join the membership of the Enterprise Protection Program panel, with the intent of safeguarding mission systems. Assigned to: Mission Operations Capability Leader/Troy Leblanc; due December 31, 2017.

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Forward Work:

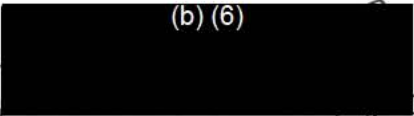
1. Office of the Chief Engineer will pursue the following and report status to the March 2018 APMC:
 - Partner with the Office of Procurement to review the current engineering support contracts to identify opportunities to leverage or consolidate (in conjunction with Procurement Business Services Assessment activities).
 - Working with the Associate Administrator, ensure there is a consistent Agency-wide adoption of the Capability Leadership Model. Reinforce with the Mission Directorates, Programs and Projects the utilization of the CLT structure in place. Tailor communication with specific expectations. This forward work requires the Mission Directorates, as well as Program/Project management, to initiate engagement and enable communication forums with CLTs.
 - Assess Pathways implementation at each Center and leverage best practices in consultation with Engineering Directors' for engineering leadership's needs.
 - Establish a team with the Capability Portfolio Managers to evaluate other CLT facilities and bring forward a prioritized recommendation on facilities significantly benefitting from a rate-based approach.

2. The Aerospace Corporation will conduct an external pilot assessment, starting with a study of the following capability areas: guidance, navigation and control (GN&C); sensors and instruments; electrical power; materials; and mechanical systems. The results of this study will be presented at the March 2018 APMC.

3. SMD will further evaluate the proposed NExSS, a cross-discipline approach to research, to determine if a new research capability should be established. The results will be presented at the March 2018 APMC.

4. Capability Leadership Model Cadence for 2018:
 - Baseline: cryogenics (OCE); autonomous systems (STMD); environmental control & life support systems (HEOMD).
 - Re-baseline: aerosciences, avionics, electric power, materials, non-destructive evaluation, propulsion (OCE); EDL (STMD); ISRU (HEOMD); Earth science research (SMD); life sciences research (HEOMD); aircraft operations (MSD); mission operations.
 - Executive Summaries: rendezvous & docking (STMD); flight mechanics, GN&C, human factors, life support/active thermal, loads & dynamics, mechanical systems, passive thermal, sensors & instruments (OCE); heliophysics research, astrophysics research, planetary research (SMD).

Approval

 (b) (6)

Associate Administrator Date
APMC Chair

9/22/17

Agenda (V6)
Agency Program Management Council Meeting
September 13-14, 2017
NASA Headquarters, Room 8Q40 & ViTS

September 13 — Capability Day 1

10:00	Roll Call and General Admin	PMC Exec/Stephanie Sowards
10:05	Opening Remarks	NASA AA/Robert Lightfoot
10:15	EMB Integrated Perspective	OCE/Ralph Roe
11:15	Capability Assessments (Cadence Updates)	
	➤ Baseline - Sensors/Instruments	U. Singh/T.Doiron
12:00	Lunch (pre-ordered)	
12:15	Capability Assessments (Cadence Updates - 20 min. each)	OCE Capability Leaders
	➤ Re-baseline – Mechanical Systems	Michael Dube
	➤ Re-baseline – Guidance, Navigation & Control	C. Dennehy
	➤ Re-baseline – Flight Mechanics	Daniel Murri
	➤ Re-baseline – Loads and Dynamics	Joel Sills
	➤ Re-baseline – Human Factors	Cynthia Null
	➤ Re-baseline – Passive Thermal	Steven Rickman
2:15	Break	
2:30	Status - System Capabilities Leadership (STMD)	STMD/Prasun Desai
	➤ Executive Summary – Entry, Descent, and Landing	
	➤ Executive Summary - Rendezvous & Docking	
3:00	Status - System Capabilities Leadership (HEO)	HEOMD/Greg Williams
	➤ Forward Work: Com & Nav (SCL Determination)	
	➤ Executive Summary - In Situ Resource Utilization	
3:30	EMB Recommendations/Wrap-up	OCE/Terry Spagnuolo
4:30	Overall Discussion	
4:55	Review Day 1 Actions, Status Updates	PMC Exec/Stephanie Sowards
5:00	Adjourn	

Agenda (V6)
Agency Program Management Council Meeting
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NASA Headquarters, Room 8Q40 & ViTS

September 14 — Capability Day 2

8:00	Roll Call and General Admin	PMC Exec/Stephanie Sowards
8:05	Opening Remarks	NASA AA/Robert Lightfoot
8:15	Status SMD Research Capability	SMD/Dennis Andrucyk/ Michael New
	➤ Executive Summaries: Earth Science, Astrophysics, Planetary	
8:30	Research Capability (SMD)	SMD/Peg Luce/Elsayed Talaat
	➤ Baseline – Heliophysics	
9:15	Capability Update – Aircraft Operations	Richard Schlatter
9:45	Capability Update – Mission Operations	Troy Leblanc
10:15	Break	
10:30	SMD Study on Program Office Roles and Responsibilities (Follow-up March 2017 APMC)	SMD/Dennis Andrucyk
11:30	CubeSat/Small Satellite Review (status)	SMD/Dennis Andrucyk
11:45	Center Roles Update by Mission Directorates	SMD/Dennis Andrucyk/ Roy Maizel
12:00	Lunch (pre-ordered)	
12:15	Center Roles Update by Mission Directorates	HEOMD/Greg Williams STMD/Prasun Desai ARMD/Jon Montgomery
1:00	Small/Med Size Mission Competition Diversity & Approach	GSFC/Chris Scolese
1:45	Overall Discussion	
2:45	Review Day 2 Actions, Status Updates	PMC Exec/Stephanie Sowards
3:00	Adjourn	

AGENCY PROGRAM MANAGEMENT COUNCIL
NASA Headquarters - 8Q40/VITS
Capability Days - Day 1
13-Sep-2017
MEMBERS

Position	Name	Signature
Associate Administrator	Robert Lightfoot, Jr	(b) (6)
Deputy Associate Administrator	Lesa Roe	
Chief Financial Officer	Andrew Hunter, Acting	
Chief Information Officer	Renee Wynn	
Chief Engineer	Ralph Roe	
Deputy Chief Engineer	Dawn Schaible	
Chief Health & Medical Officer	Vince Michaud (for)	
Chief Safety & Mission Assurance	Terry Wilcutt	
Deputy Chief Safety & Mission Assurance	Hal Bell	
Chief Scientist	Gale Allen, Acting	
Chief Technologist	Douglas Terrier, Acting	
General Counsel	Sumara Thompson-King	
Associate Administrator, ARMD	Jaiwon Shin	
Associate Administrator, HEOMD	Greg Williams (for)	
Associate Administrator, SMD	Thomas Zurbuchen / Andracyk	
Associate Administrator, STMD	Steve Jurczyk	
Associate Administrator, Mission Support	Krista Paquin	
ARC Center Director	Eugene Tu	
ARC Deputy Center Director	Carol Carroll	
AFRC Center Director	David McBride	
GRC Center Director	Janet Kavandi	
GRC Deputy Center Director	Marla Pérez-Davis	
GSFC Center Director	Chris Scolese	
JPL Center Director	Richard Cook (for)	
JSC Center Director	Melanie Saunders (for)	
KSC Center Director	Robert Cabana	
LaRC Center Director	David Bowles	
MSFC Center Director	Todd May	
SSC Center Director	Randy Galloway (for)	
APMC Executive	Stephanie Sowards	

**AGENCY PROGRAM MANAGEMENT COUNCIL
NASA Headquarters - 8Q40/VITS
Capability Days - Day 1
13-Sep-2017**

Invitees and Other Attendees

Position	Name	Signature
Administrator	Robert Lightfoot, Acting	<div data-bbox="1071 378 1510 1071" style="background-color: black; color: white; padding: 5px; text-align: center;">(b) (6)</div>
Deputy Administrator	Lesa Roe, Acting	
Associate Administrator, Strategy and Plans	Tom Cremins	
Director, OCFO/SID	Garth Henning (for)	
Associate Administrator, Communications	Jen Rae Wang	
Associate Administrator, OLIA	Rebecca Lee, Acting	
Associate Administrator, Small Business	Glenn Delgado	
Assistant Administrator, Human Capital	Jane Datta (for)	
Assistant Administrator, Procurement	Bill McNally	
Assistant Administrator, Strategic Infrastructure	Calvin Williams	
Director, NASA Management Office	Marcus Watkins	
Labor Management Liaison	Sharon Burks (Manually Invited)	

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NASA Headquarters - 8Q40/VITS
Capability Days - Day 1
13-Sep-2017
Other Attendees**

Position	Name	Signature
OACS Analyst	Amir Deylami	(b) (6)
Aerospace Corp	Chuck Gustafson	
Capability Leader	Cornelius (Neil) Dennehy	
CL for Life Sciences	Craig Kundrot	
Discipline Capabilites/Elec Power	Chris Iannello	
Capability Leader	Cynthia Null	
Deputy CL for Passive Thermal	Dan Nguyen	
Capability Leader	Daniel Murri	
Discipline Capabilities/Aerosciences	David Schuster	
OSMA	Deirdre Healey	
SMD	Dennis Andrucyk	
Director, OACS	Dennis Boccippio	
	Ellen Gertsen	
SMD	Elsayed Talaat	
OCFO	Frank Petersen	
OSMA	Gerry Schumann	
Discipline Capabilities/Life Support/Active Thermal	Henry Rotter	
KSC	Jeff Beyer	
Presidential Appointments Team	Jeff Waksman	
Deputy CL for Mechanical Systems	Jim Zakrajsek	
Discipline Capabilities/Space Environments	Joe Minnow	
Capability Leader	Joel Sills	
Deputy DL for Flight Mechanics	John Davidson	
Discipline Capabilities/Systems Engineering	John Holliday	
Discipline Capabilities/Structures	Kenneth Hamm	
Office of the Deputy Associate Administrator	Lisa Guerra	
Capability Leader	Mark Hammerschmidt	
Aerospace Corp	Matthew Smith	
Discipline Capabilities/Software	Michael Aguilar	

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 NASA Headquarters - 8Q40/VITS
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Position	Name	Signature (b) (6)
Capability Leader	Michael Dube	
Discipline Capabilities/Cryogenics	Mike Meyer	
SMD	Michael New	
MSD Office of Strategic Infrastructure	Mike Mastaler	
SMD Chief Technologist	Mike Seablom	
GSFC Associate Director	Nancy Abell	
Exec Assistant/Office of the Administrator	Natalie Simms	
Shadow to Lesa Roe, Deputy Assoc Admin	Natasha Neogi	
GSFC/NESC Tech Fellow for GN&C	Neil Dennehy	
Discipline Capabilities/Avionics	Oscar Gonzalez	
SMD (Heliophysics)	Peg Luce	
STMD	Prasun Desai	
Discipline Capabilities/Materials	Richard Russell	
OHCM	Richard Shaffer	
Aircraft Ops	Richard Schlatter	
OCFO/SID	Robert L. Giannini	
ECLSS Systems Capability Lead, ISS Division	Robyn Gatens	
Presidential Appointments Team	Rodney Liesveld	
SMD	Roy Maizel	
Acting Deputy CL for Loads and Dynamics	Stan Tieman	
Capability Leader - NESC	Steven Rickman	
EPP Technical Management	Susan Minor	
KSC	Tammy Harrington	
Capability Leader	Terrence Doiron	
OCE/Technical Capability Leadership Integration	Terry Spagnuolo	
Discipline Capabilities/Propulsion	Thomas Brown	
GSFC	Thomas Pittman	

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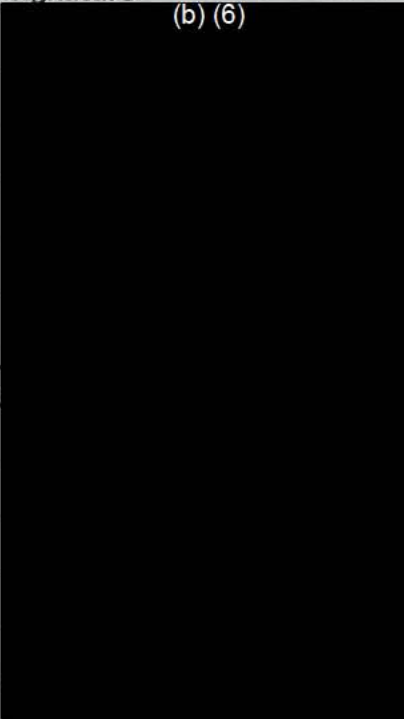
Position	Name	Signature (b) (6)
OACS Analyst	Tim Warner	
Mission Ops	Troy Leblanc	
Discipline Capabilities/Non-Destructive Evaluation	William Prosser	
Capability Leader	Upendra Singh	
ADVISOR to AA.	James Ortiz	
OCE SMD CE	Joe Pellicciotti	
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Jon Montgomery	Jon Montgomery ^{ARM}	
SPECIAL ADVISOR FR TRANSFORMATION	MIKE HECKER	
OACS Valador Support	Thanh Dinh	(b) (6)
OACS Valador Support	Lisa Connell	
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AGENCY PROGRAM MANAGEMENT COUNCIL
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Capability Days - Day 2
14-Sep-2017
MEMBERS

Position	Name	Signature
Associate Administrator	Robert Lightfoot, Jr	(b) (6)
Deputy Associate Administrator	Lesa Roe	
Chief Financial Officer	Cris Guidi (for)	
Chief Information Officer	Renee Wynn	
Chief Engineer	Ralph Roe	
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APMC Executive	Stephanie Sowards	

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Deputy Administrator	Lesia Roe, Acting	
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Assistant Administrator, Human Capital	Bob Gibbs Jane Datta (for)	
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Capability Leader	Cornelius Dennehy	
CL for Life Sciences	Craig Kundrot	
Capability Leader	Cynthia Null	
Aerospace Corp	Darlene Turner	
OSMA	Deirdre Healey	
SMD	Dennis Andrucyk	
Director, OACS	Dennis Boccippio	
SMD Executive Officer	Ellen Gertsen	
SMD	Elsayed Talaat	
Office of the Administrator	Emma Lenhardt	
OCFO	Frank Petersen	
OSMA	Gerry Schumann	
Senior Advisor to the Associate Administrator	James Ortiz	
KSC	Jeff Beyer	
Presidential Appointments Team	Jeff Waksman	
ARMD	Jon Montgomery	
Office of the Administrator	Lisa Guerra	
Capability Leader	Mark Hammerschmidt	
Aerospace Corp	Matthew Smith	
SMD	Michael New	
MSD Office of Strategic Infrastructure	Mike Mastaler	
SMD Chief Technologist	Mike Seablom	
GSFC Associate Director	Nancy Abell	
Exec Assistant/Office of the Administrator	Natalie Simms	
SMD (Heliophysics)	Peg Luce	
STMD	Prasun Desai	
Aircraft Ops	Richard Schlatter	

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