


National Aeronautics and
Space Administration



EXPLORE SCIENCE

VIRTUAL COMMUNITY TOWN HALL

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February 7, 2019



Town Hall Protocol

- Town hall will be recorded and made available on <https://science.nasa.gov/>
- Participants will be in 'listen only' mode during the town hall
- Questions can be submitted in writing to:
 - www.nasa.gov/townhall
 - Webex host



Day of Remembrance

Today reminds us to reflect on the sacrifices made by our fallen NASA family members, friends, and co-workers in the advancement of knowledge



Happy, Healthy, and Successful 2019 to All!

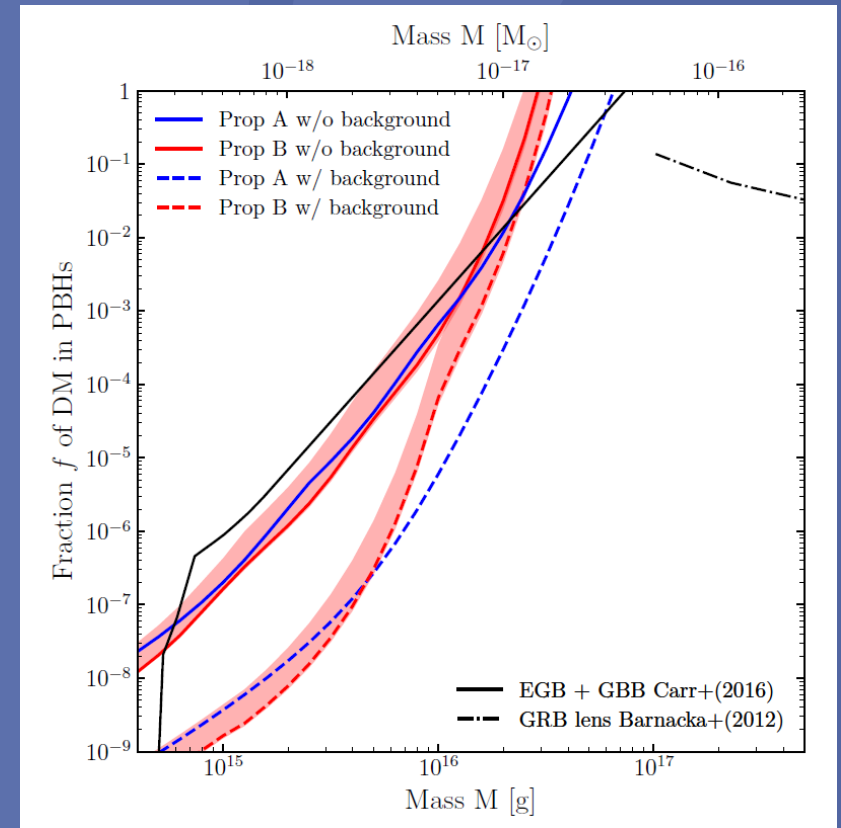


Voyager I

Boudaud and Cirelli, *Voyager 1 e⁺/e⁻ Further Constrain Primordial Black Holes as Dark Matter*, *Physical Review Letters*, in press, 2019., 2019.



SCIENCE
HIGHLIGHT



Jan. 30, 2019 – Previous upper limit (black) and new upper limits in the 10¹⁶g mass range (blue and red) observed by Voyager 1

Jan. 4, 2019 – CAPER-2 sounding rocket flew through cusp region of Earth's magnetic field, reaching an altitude of 774 kilometers



Jan. 13, 2019 – G-CHASER sounding rocket launched with U.S., Japan, and Norway experiments from student experiments on one rocket



SCIENCE HIGHLIGHT



The Grand Challenge Initiative international collaboration targeting advancement in specific, fundamental issues in space and earth science



InSight

TAKING THE 'VITAL SIGNS' OF MARS



SCIENCE
HIGHLIGHT



Dec. 19, 2018 – InSight seismometer on Martian surface – first time a spacecraft robotically placed a seismometer onto the surface of another planet



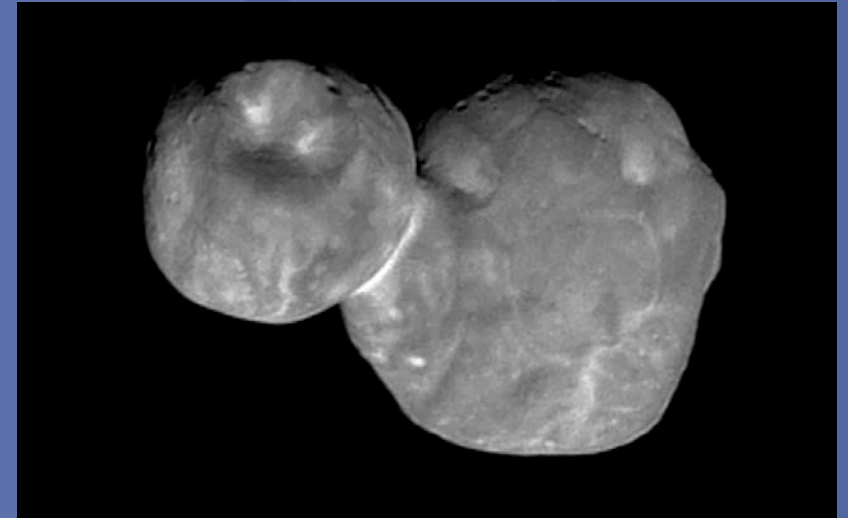
New Horizons

Arrival at Ultima Thule

January 1, 2019

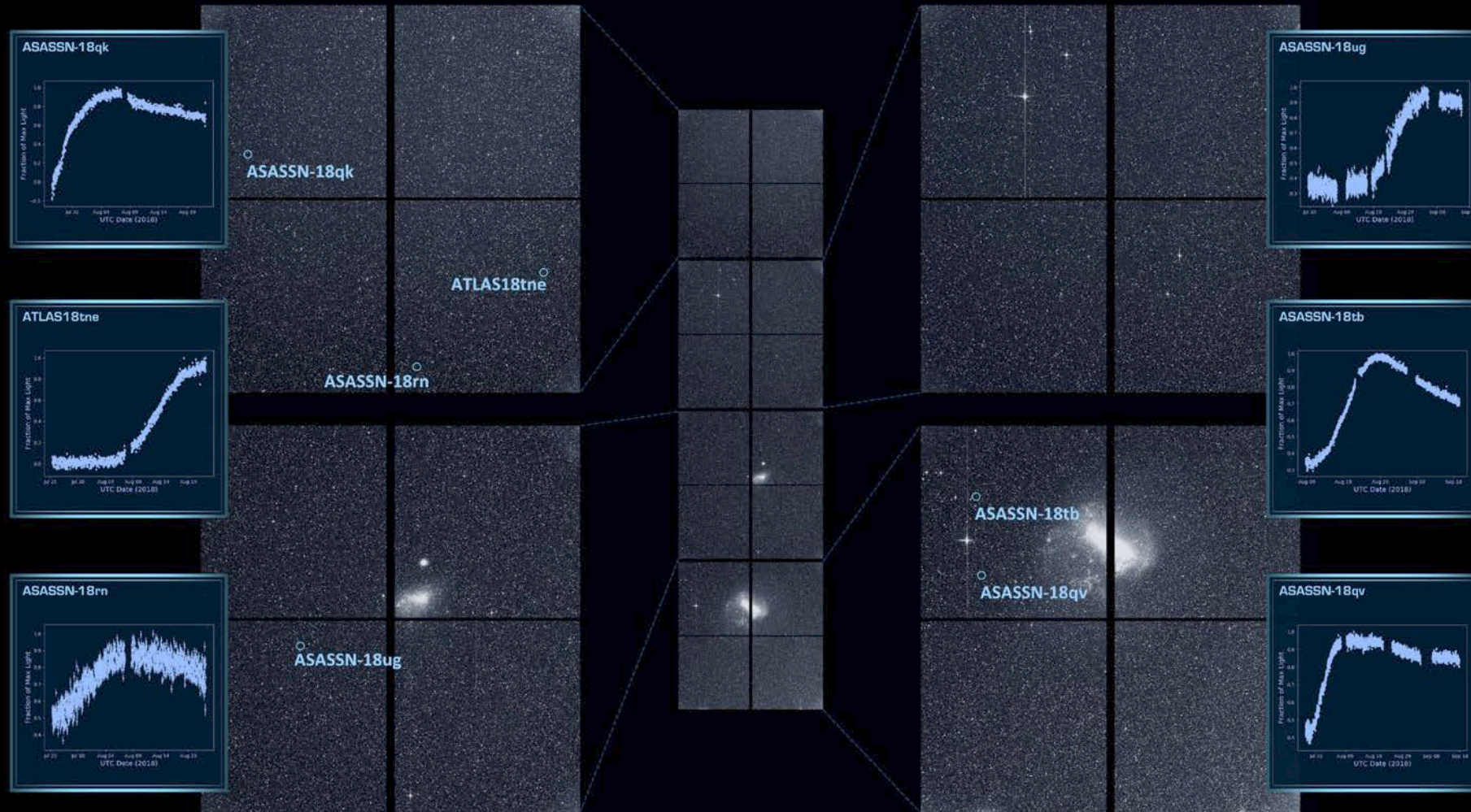


SCIENCE
HIGHLIGHT



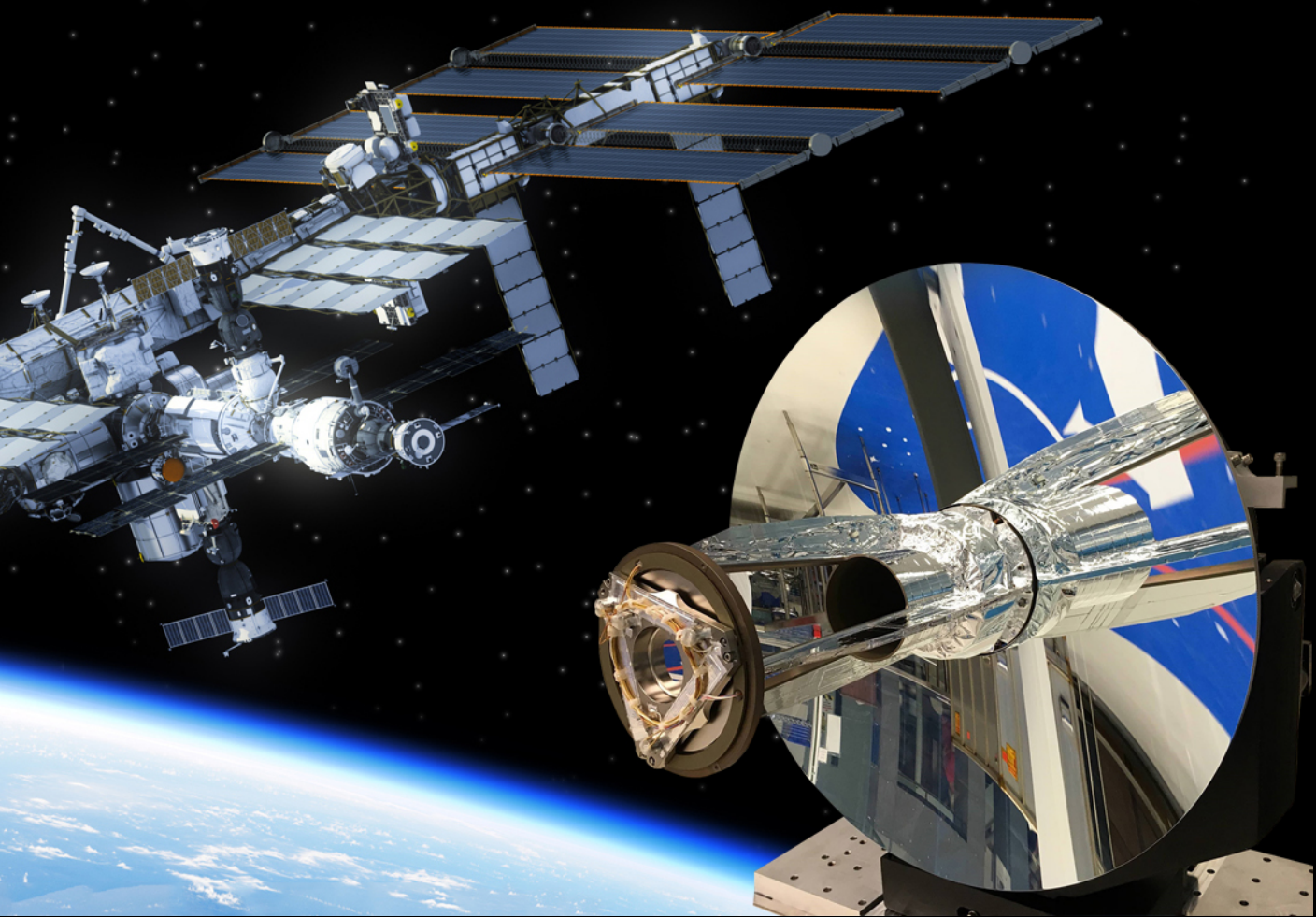
*Jan. 1, 2019 – New Horizons captures image
Kuiper Belt object 2014 MU₆₉ nicknamed
Ultima Thule seven minutes before closest
approach*

TESS TRANSITING EXOPLANET SURVEY SATELLITE

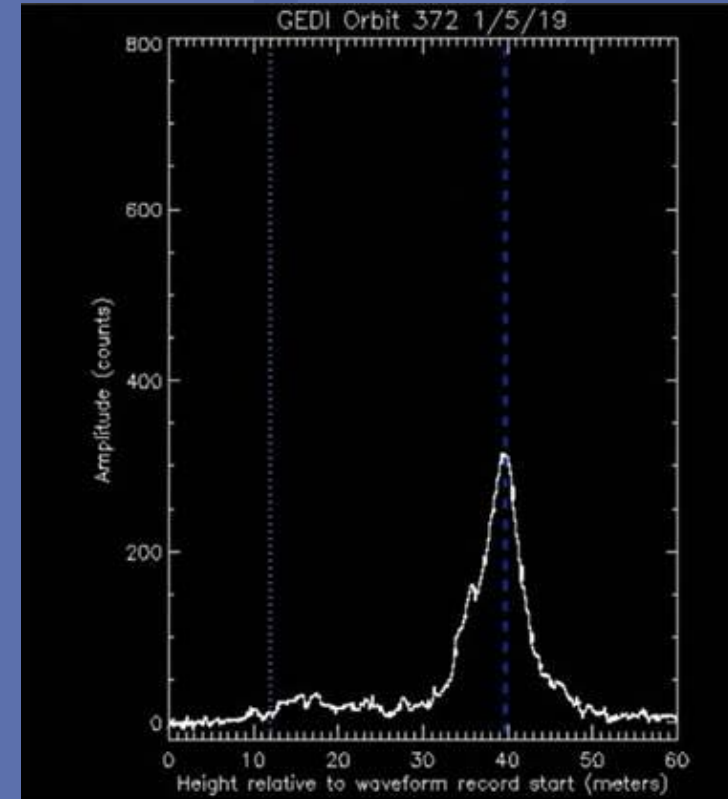


Early light curves of six supernovae (exploding stars) announced at AAS; data from Sectors 1-5 show numerous asteroids, variable stars of great variety, and even a few comets

GEDI



SCIENCE HIGHLIGHT



Jan. 5, 2019 – Initial GEDI Data Set over African Open Canopy; acquiring science data 24/7 under autonomous control since Jan. 24, 2019

Webb

The James Webb Space Telescope



SCIENCE
HIGHLIGHT



Jan. 29, 2019 – Engineers and technicians in Redondo Beach, Calif., continue critical environmental testing to prepare it for the rigors of launch into space

Summary

- The partial government shutdown impacted all of NASA Science
- We have come back from the 35-day partial government shutdown with a focus on:
 - Supporting Post Docs, Graduate Students, and Contractors
 - Eliminating ambiguity by establishing deadlines and clear paths forward
 - Dealing with impacts to missions in ways that do not affect the rest of research programs
 - Temporarily expediting timelines and modifying processes to complete all planned evaluations and selections within the original timeframe
- We need your help
 - We need the community to actively participate in reviews and be responsive to requests for assistance
 - We are going faster than usual, so please let us know if we make mistakes and be patient as we correct them



Excepted Projects: Examples

- NASA Science had a number of excepted projects or portions of projects, including:
 - All operating missions
 - Flight hardware in environmental testing (e.g., Webb)
 - Critical elements of Lucy, Landsat 9, DART, that otherwise would adversely affect the ability to meet launch windows
 - Antarctic balloon campaign

Overall Impacts

Missions

- Non-excepted and some excepted missions' near-term milestones may be somewhat delayed; however, there are no significant changes to any launch readiness dates
- Increased costs due to ramp-down and ramp-up of operations, contract modifications, etc.
- Extended formulation and delayed life cycle reviews and key decision points

Research programs

- Due dates of proposals were shifted, with the vast majority shifted to no earlier than March 29, 2019
- Reviews of proposals and grants were suspended and must be rescheduled
- Processing and payment of funded grants were suspended temporarily

Managing Mission Impacts

Each mission has a cost and schedule commitment. Cost-constrained missions include those that have been competitively selected, or are directed missions operating under a design-to-cost approach. NASA Science seeks to ensure any required post-shutdown adjustments and new plans/agreements are defined and enacted *transparently*, *efficiently*, and *equitably*

Transparency

- Adjustment/adjudication processes (e.g., reviews and their success criteria) and decision schedules will be known to the projects
- Decisions and their justifications will be documented in writing and guidance will be communicated to the PI/mission team

Efficiency

- Proposed adjustments to programmatic constraints/commitments and/or technical capabilities will be rapidly identified by the PI/mission team for cost-commitment change requests
- Reviews and associated information gathering for HQ decisions will be carried out by mid-to-late February to maximize mission progress and minimize PI/mission team ambiguity and uncertainty

Equitability

- When adjusting cost and schedule commitments after the shutdown, significant effort will be made to minimize negative impacts on existing team members
- Programmatic perturbations from a shutdown will be minimized and confined as much as possible



Managing Mission Impacts: Next Steps

- Preliminary assessment suggests that we can implement changes without substantial perturbations and without affecting the rest of our research program
- Over the next several weeks, we will:
 - Work with projects and implementing partners during next few weeks to address missions that have well-defined, well-understood impact by mid-to-late February
 - Establish impacts to some missions at the next major milestone review

Impacts to Research Program

- Our intent is to fund the entire research program and return to previous schedules as quickly as possible
- Consistent with our communication during the shutdown, proposals will be due no earlier than March 29, 2019 except in the following cases:
 - TESS Guest Observer
 - Fermi Guest Observer
 - Lunar Surface Instrument & Technology Payloads
- Comment period for the Draft Planetary Science Early Career Program has been extended
- Publication of ROSES 2019 delayed to ~March 2019
- Some solicitations originally planned for ROSES 2019 will be issued as amendments to ROSES 2018
- FINESST proposal due date has been moved to March 11, 2019 in order to make it more likely that funding for new awards will reach universities before the start of the academic year
- NESSF renewal proposals will remain due March 15, 2019

Updated ROSES 2018 Elements

Appendix	Program Element	New NOI or Step-1 Due Date	New Step-2 or Full Proposal Due Date	Comments
A.2	Land Cover/Land Use Change		4/2/2019	
A.7	ECOSTRESS Science Team	2/27/2019	3/29/2019	
A.35	SERVIR Applied Sciences Team		7/19/2019	
A.41	Advanced Information Systems Technology		4/16/2019	
A.47	Remote Sensing Theory for Earth Sciences	2/28/2019	4/2/2019	
B.6	Living with a Star (LWS) Science	3/12/2019	5/9/2019	
B.13	Heliophysics Phase I DRIVE Science Centers	3/1/2019	5/2/2019	
B.14	Second Space Weather Operations to Research	3/12/2019	5/16/2019	
C.3	Solar System Workings (SSW)		4/2/2019	
C.8	Lunar Data Analysis Program (LDAP)		3/29/2019	
C.28	Lunar Surface Instrument and Technology Payloads		2/27/2019	To support early CLPS opportunities, this proposal due date is less than 60 days from the end of the partial government shutdown.
C..29	Astrodynamics in Support of Icy Worlds Missions	3/11/2019	4/19/2019	
D.3	Astrophysics Research and Analysis (APRA)	2/27/2019	3/29/2019	NOI is mandatory
D.6	Fermi Guest Investigator (GI) Program, Cycle 12	3/20/2019		"NOI" is a science-only Phase 1 proposal. Due to it's short length, this Phase-1 proposal due date is less than 60 days from the end of the partial government shutdown.
D.8	Strategic Astrophysics Technology (SAT)	2/27/2019	3/29/2019	NOI is mandatory
D.10	NuSTAR Guest Observer (GO) Program, Cycle 5	3/29/2019		"NOI" is a science-only Phase 1 proposal. Due to it's short length, this Phase-1 proposal due date is less than 60 days from the end of the partial government shutdown.
D.11	TESS Guest Investigator (GI) Program, Cycle 2	3/14/2019		"NOI" is a science-only Phase 1 proposal. Due to it's short length, this Phase-1 proposal due date is less than 60 days from the end of the partial government shutdown.
E.4	Habitable Worlds		3/29/2019	

<https://bit.ly/2MTh8Fy>



Research Program: Next Steps

- Reviews of proposals are now being rescheduled
- We need help in three areas, otherwise we cannot be successful
 - **Reschedule reviews** – volunteer and make yourself available
 - **Accelerate reviews to catch up** – support NASA Science Program Officials by accommodating compressed review schedules
 - **Add surge capabilities in our teams** – support NASA Program Officials when they request help

Thanks for your consideration and help!

Without you, we may have a gap in some programs

Impact to Announcements of Opportunity

- Principles are to go as fast as feasible, while maintaining fairness between all communities, and manageable work-flow for all stakeholders

Astrophysics Medium Explorers (MidEx) 2017 and Missions of Opportunity Down-Selection (APD)

- All evaluations and reviews and site visits have been completed
- A Step-2 down-selection announcement is targeted for February/March 2019

Astrophysics Small Explorers (SMEx) 2019 and Missions of Opportunity (APD)

- Draft AO's were released before shutdown
- Final AO releases are scheduled for April 2019
- Rescheduled Step-1 proposal due date of August 1, 2019

Earth Venture Instruments #5 (ESD)

- TMC web-conferences are on-going
- TMC Plenary meeting rescheduled for the week of April 1, 2019
- Science Plenary meeting rescheduled for the week of March 11, 2019
- Categorization to be rescheduled to NET April 22, 2019
- Steering to be rescheduled to NET May 14, 2019
- Selection to be rescheduled to NET July 15, 2019

Earth Venture Continuity #1 (ESD)

- Final SALMON-3 PEA released before shutdown
- The preproposal conference has been rescheduled for February 28, 2019
- Step-1 proposal due date has been rescheduled to July 26, 2019

Impact to Announcements of Opportunity

Solar-Terrestrial Probes Technology Demonstration Missions of Opportunity (HPD)

- The TMC Evaluation Schedule replanning is finalized
- The first TMC web-conference is February 5, 2019
- TMC Plenary Meeting is scheduled for May 6, 2019
- Science Plenary meeting is being rescheduled

Heliophysics Science Missions of Opportunity (HPD)

- The TMC Kickoff was held on December 18, 2018
- The TMC Evaluation Schedule replanning is finalized
- TMC Plenary Meeting rescheduled to May 13, 2019
- Selection Meeting targeted for the end of July 2019

Heliophysics Medium Explorers (MidEx) 2019 (HPD)

- Community announcement released December 10, 2019
- Draft AO to be released in March 2019
- Final AO to be released in June 2019
- Step-1 proposals due September 2019

Small Innovative Missions for Planetary Exploration (SIMPLEx) (PSD)

- Step-1 reviews were completed before shutdown.
- Categorization rescheduled to February 14-15, 2019
- Steering rescheduled to March 26-27, 2019
- Step-1 selection to be scheduled NET April 12, 2019

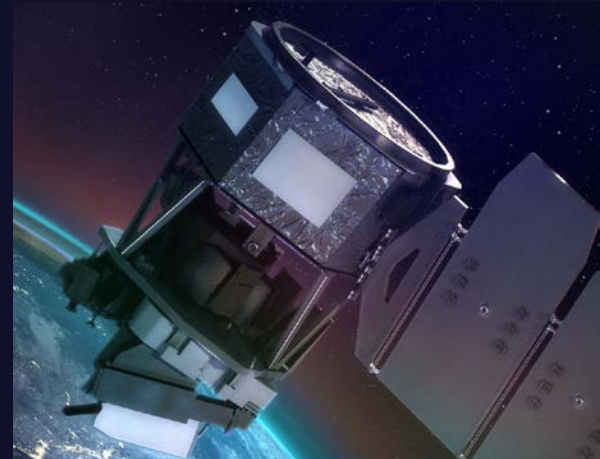
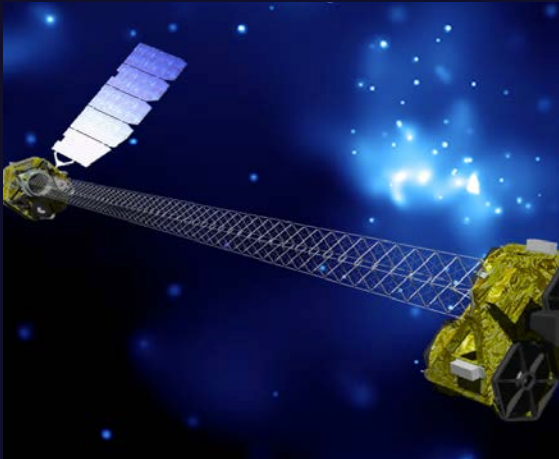
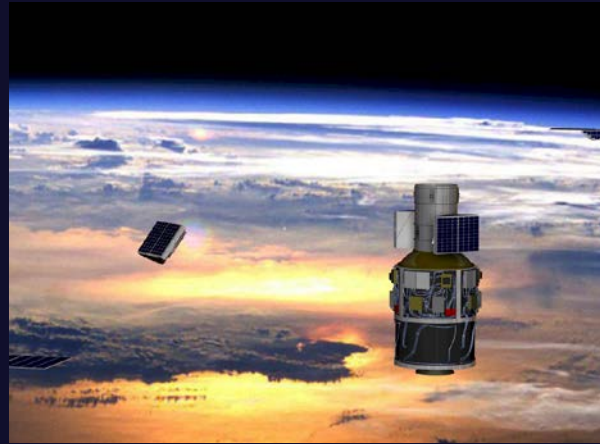
New Frontiers #4 Down-selection (PSD)

- New Step-2 evaluation schedule incorporates a four-week slip in site visits
- Plenary Meetings have not been rescheduled.
- Down-selection announcement still expected in July 2019

Discovery 2019 (PSD)

- Draft AO released before shutdown.
- Comment period extended to February 11, 2019
- Final AO release expected NLT April 1, 2019
- Step-1 proposal due date rescheduled to July 1, 2019

Impact to Future Announcements of Opportunity



Discovery 2019 AO

AO Release NLT April 1, 2019
Due Date July 1, 2019

Earth Venture Continuity #1 AO

Pre-proposal Conf. February 28, 2019
Due Date July 26, 2019

Earth Venture Missions #3 AO

Still on track for a FY19 Q4 release

Astrophysics Small Explorers and Mission of Opportunity 2019 AOs

AO Release ~March 2019
Due Date ~August 1, 2019

Heliophysics Medium Explorers 2019 AO

AO Release June 2019
Due Date September 30, 2019

Lunar Plans



- Commercial Lunar Payload Services (CLPS) awarded to nine companies in November 2018
 - First mission task orders in development
 - First mission as soon as feasible
- Next lunar surface instrument and technology payload call later this year will continue to build a robust pipeline of payloads for CLPS missions
- NASA-internal instrument and technology payloads under review and selections targeted for early Spring 2019
- Next DALI call will be released Spring 2019
- Midsize lander and mobility capability strategy under review

Hiring Updates



- Effective January 30, Sandra Cauffman is the primary point of contact and decision authority for the Earth Science Division
- The selection of a new Earth Science Division Director is anticipated later this year
- For his remaining time with NASA, Mike Freilich's formal title will not change and he will continue to support the division in every possible way, including mentoring the division's leadership team
- All other SMD hiring actions are being worked and will be published on USAJobs
- NASA will cover back pay for IPAs for the shutdown period

Final Thoughts

Thank you to the NASA Science community for their patience and commitment to success during the shutdown and since then

Remember, if any questions arise during a future shutdown, email the SMD AA directly: thomas.h.zurbuchen@nasa.gov





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Questions?



Acronym List

AAS – American Astronomical Society

AO – Announcement of Opportunity

APD – Astrophysics Division

APRA – Astrophysics Research and Analysis

CAPER – Continuous Activity Scheduling Planning Execution and Replanning

CLPS – Commercial Lunar Payload Services

DALI – Development and Advancement of Lunar Instrumentation

DART – Double Asteroid Redirection Test

ECHOSTRESS - ECOsystem Spaceborne Thermal Radiometer Experiment on Space Station

ESD – Earth Science Division

FINESST - Future Investigators in NASA Earth and Space Science and Technology

FY – Fiscal Year

GED - Global Ecosystem Dynamics Investigation

GI – Guest Investigator

GO – Guest Observer

HPD – Heliophysics Division

HQ – Headquarters

InSight - Interior Exploration using Seismic Investigations, Geodesy and Heat Transport

IPA – Intergovernmental Personnel Act

LDAP – Lunar Data Analysis Program

LWS – Living With a Star

MidEX – Medium-Class Explorers

NESSF – NASA Earth and Space Science Fellowship

NLT – No Later Than

NOI – Notice of Intent

NuSTAR - Nuclear Spectroscopic Telescope Array

PI – Principal Investigator

PSD – Planetary Science Division

ROSES - Research Opportunities in Earth and Space

SAT – Strategic Astrophysics Technologies

SIMPLEx – Small Innovative Missions for Planetary Exploration

SMEx – Small Explorers

SSW – Solar System Workings

TESS – Transiting Exoplanet Survey Satellite


WEBB – James Webb Space Telescope

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