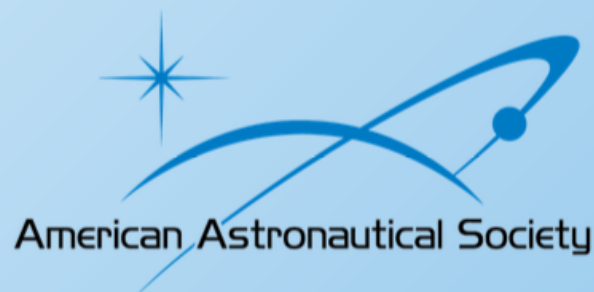


**THE 58TH ANNUAL**

**ROBERT H. GODDARD  
MEMORIAL SYMPOSIUM**

***INNOVATION AND SUSTAINABLE EXPLORATION***



March 17-19, 2020  
Tommy Douglas Conference Center  
Silver Spring, MD

**An American Astronautical Society Symposium**  
*in conjunction with the*  
**NASA Goddard Space Flight Center**

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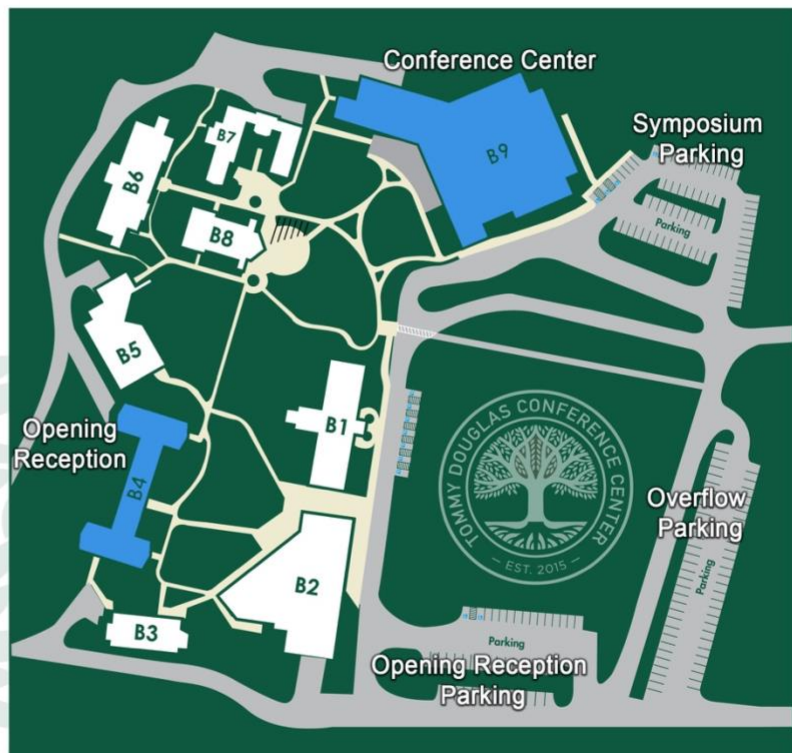
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### TOMMY DOUGLAS CONFERENCE CENTER CAMPUS MAP

#### CAMPUS LOCATION KEY

- |    |   |
|----|---|
| B1 | Offices   |
| B2 | Offices   |
| B3 | Guest Rooms   |
| B4 | Guest Rooms,<br>Fitness Center, Lounge<br>and Recreation Room |
| B5 | Guest Rooms   |
| B6 | Guest Rooms   |
| B7 | Offices   |
| B8 | Auditorium  |
| B9 | Conference Center,<br>Dining Room and<br>Business Center      |



Interstate 495 (Capital Beltway)

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NASA Goddard Space Flight Center

## Tuesday, March 17

6:00 pm **Goddard Symposium Welcome Reception** – *Game Room and Lounge*

## Wednesday, March 18

7:00 am **AAS Corporate Members Breakfast** (*Invitation Only*)

7:00 am **Registration Opens / Networking / Continental Breakfast**  
*Sponsored by United Launch Alliance*

8:30 am **Welcome Remarks**

- Carol Lane, President, American Astronautical Society
- Stephanie Uz, Chair, Symposium Planning Committee; Applied Sciences Manager, NASA GSFC
- Dennis Andrucyk, Center Director, NASA GSFC

8:50 am **Keynote Speaker**

- [Steve Jurczyk](#), Associate Administrator, NASA HQ

9:20 am **Scoping it Out: Mapping Future Exploration Missions**

*The future of America's dynamic civil space portfolio offers multiple challenges and opportunities. This session will discuss future planned missions and proposals.*

- Janet Karika, Principal Advisor for Space Transportation, NASA HQ (Moderator)
- [Sandra Connelly](#), Deputy Associate Administrator, SMD, NASA HQ
- [Douglas Loverro](#), Associate Administrator, HEO, NASA HQ
- [James Reuter](#), Associate Administrator, STMD, NASA HQ

10:20 am **Networking Break** – *Sponsored by United Launch Alliance*

10:40 am **Big Ideas: Management Strategies to Enable Innovation**

*NASA and its partners have successfully built, launched, and operated hundreds of missions since its founding. While smaller and medium-sized missions continue to flourish and be delivered on schedule and budget, this discussion will explore the unique challenges that NASA's large strategic ("flagship") missions face and potential innovative strategies to enable their delivery on schedule and within budget to achieve science and longevity.*

- [Julie Crooke](#), Deputy Chief Technologist, NASA GSFC (Moderator)
- [Nick Cummings](#), Director, Civil Space Advanced Development, SpaceX
- Bill Hite, Deputy Director, Signals Intelligence Systems Acquisition Directorate, NRO
- [Ronald O'Rourke](#), Specialist in Naval Affairs, Congressional Research Service, Library of Congress
- [Steve Shinn](#), Deputy Chief Financial Officer, NASA HQ

11:40 am **Goddard+**

- [Makenzie Lystrup](#), Vice President and General Manager, Civil Space, Ball Aerospace

- 12:00 pm **Luncheon and Awards Presentation with Guest Speaker**  
*Sponsored by SAIC*
- AAS Fellowship: J.R. Edwards
  - Carl Sagan Memorial Award: Michael Werner
  - Sally Ride Excellence in Education Award: David Seidel
  - Eugene M. Emme Award: John Logsdon
  - Guest Speaker: [Charlie Bolden](#), Former NASA Administrator, Former Astronaut - *Workforce Development and Diversity*
- 2:00 pm **By Air, By Sea, By Foot: New Platforms for Planetary Exploration**  
*This panel will discuss technology development and the science they enable via “new” platforms for planetary exploration, including autonomous submersibles for ocean worlds, autonomous aerial vehicles for rocky worlds, and astronaut-held instruments for the moon and Mars.*
- [Melissa Trainer](#), Deputy Principal Investigator, Dragonfly Mission, NASA GSFC (Moderator)
  - [Dina Bower](#), Research Scientist, University of Maryland
  - [Ken Hibbard](#), Mission Systems Engineer, Dragonfly Mission, JHU APL
  - [Britney Schmidt](#), Associate Professor, Georgia Tech
- 3:00 pm **Looking for Answers: Innovation in Astrophysics**  
*Astrophysics finds itself at a unique time as we have a roadmap scientifically and technologically to answer two of the most fundamental questions we can ask: “How alone are we?” and “How did the universe get that way?” This panel will discuss how significant innovation, coordination, and collaboration might help answer these Great Questions.*
- [John O’Meara](#), Chief Scientist, W.M. Keck Observatory (Moderator)
  - [Sarah Lipsky](#), Mission Area Lead for Astrophysics, Ball Aerospace
  - Alison Nordt, Senior Manager, Astrophysics, Lockheed Martin Corporation
  - [Jeremy Weirich](#), Vice President for Corporate Strategy, AURA
- 4:00 pm **Networking Break – *Sponsored by United Launch Alliance***
- 4:25 pm **A Recipe for Success: Mission Diversity for a Complementary Mission Portfolio**  
*Balancing missions in terms of size and resource consumption with science and exploration objectives requires coordination across NASA, other agencies, industry, and international partners to enable the highest science and exploration value for the entire agency. This group will discuss diverse mission management between inter-governmental and international partners to best leverage the assets and expertise needed.*
- [Ann Zulkosky](#), Director of NASA Programs, Lockheed Martin Corporation (Moderator)
  - [Vanessa Griffin](#), Director, Office of Satellite and Product Operations, NOAA
  - [Paul Hertz](#), Director, Astrophysics Division, NASA HQ
  - [David Young](#), Deputy Director, NASA Langley Research Center
- 5:25 pm **Goddard+: Maintaining and Developing an Innovative Workforce**
- [Liane George](#), VP Human Resources, United Launch Alliance

5:45 pm      **Reception - *Sponsored by SpaceX***

**Thursday, March 19**

7:00 am      **Registration / Networking / Continental Breakfast – *Sponsored by Aerojet Rocketdyne, Aerospace Corporation, and Ball Aerospace***

8:30 am      **Introductory Remarks**

8:45 am      **Avoiding the Tragedy of the Commons: Commercialization for Sustainability**

*Developing responsible practices for sustainable commercial activity requires acknowledgment of space as a shared resource within a rapidly evolving space economy. How can we achieve growth AND profitability?*

- [Brian Weeden](#), Director of Program Planning, Secure World Foundation (Moderator)
- [Walt Everetts](#), Vice President, Satellite Operations and Ground Development, Iridium Communications Inc.
- Mike Gold, Acting Associate Administrator, Office of International and Interagency Relations, NASA HQ
- [Jennifer Warren](#), Vice President, Technology Policy & Regulation, Lockheed Martin Corporation

9:45 am      **Networking Break – *Sponsored by Aerojet Rocketdyne, Aerospace Corporation, and Ball Aerospace***

10:10 am     **Data Deluge: Innovative Approaches to Exploit the Flood of Big Data**

*This panel examines big data challenges for science, engineering, operations, and strategic planning and explores potential solutions, including the role of Artificial Intelligence and Machine Learning and their emerging applications in unexpected ways.*

- [Mark Clampin](#), Director, Sciences and Exploration Directorate, NASA GSFC (Moderator)
- [Megan Ansdell](#), Program Scientist, NASA HQ
- [Newton Campbell](#), Senior Principal Solutions Architect, SAIC
- [Hannah Kerner](#), Assistant Research Professor, University of Maryland/NASA Harvest
- [Barbara Thompson](#), Research Astrophysicist, NASA GSFC

11:10 am     **Goddard+**

- [Charlie Precourt](#), Vice President and General Manager, Propulsion Systems, Northrop Grumman Space, Former NASA Astronaut

11:30 am     **Luncheon with Guest Speaker**

***Sponsored by Northrop Grumman Space***

- Guest Speaker: [Neil Jacobs](#), Assistant Secretary of Commerce for Environmental Observation and Prediction, performing the duties of Under Secretary of Commerce for Oceans and Atmosphere, NOAA

- 1:15 pm **No Place Like Home: Emerging Architectures for Earth Observations**  
*Earth Observing satellites provide a broad view of our home planet. Significant progress has been made over the last few decades in understanding the Earth as a system and the impact of human actions. In this panel we will compare and contrast the different approaches US agencies have taken or planned to take to provide and/or utilize Earth observations for improving life on Earth.*
- [Sandra Cauffman](#), Acting Division Director, Earth Science Division, NASA HQ (Moderator)
  - [Scott Braun](#), Research Meteorologist, NASA GSFC (A-CCP)
  - [Pete Epanchin](#), Science Advisor, Global Climate Change Office, USAID
  - [Tim Newman](#), Program Coordinator, National Land Imaging Program, USGS
  - [Karen St. Germain](#), Deputy Assistant Administrator, Systems, NOAA
- 2:15 pm **Fun in the Sun: Advancing the Exploration of Space Weather**  
*Heliophysics research and exploration focuses on studying the Sun, the heliosphere, and planetary environments as elements of a single, interconnected system, one that contains dynamic space weather and evolves in response to solar, planetary, and interstellar conditions. Such an understanding represents not just a grand intellectual accomplishment for our time, it also provides knowledge and predictive capabilities essential to future utilization and exploration of space.*
- [Nicole Duncan](#), Advanced Systems Manager, Heliophysics, Ball Aerospace (Moderator)
  - [Antti Pulkkinen](#), Scientist, NASA GSFC
  - [Nour Raouafi](#), Senior Scientist, JHU APL
  - [Louis Uccellini](#), Assistant Administrator for Weather Services, NOAA, Director, National Weather Service
- 3:15 pm **Networking Break – *Sponsored by Aerojet Rocketdyne, Aerospace Corporation, and Ball Aerospace***
- 3:35 pm **We're All in This Together: Sustaining Human Exploration for the Future**  
*NASA and its commercial and international partnerships are creating innovative processes, capabilities, and technologies to ensure a sustainable pathway to the Moon and Mars. This group will discuss these new approaches to exploration.*
- [Joe Cassidy](#), Executive Director, Space, Washington Operations, Aerojet Rocketdyne (Moderator)
  - [Tom Cremins](#), Associate Administrator, Strategy and Plans, NASA HQ
  - [Sylvie Espinasse](#), Head of the ESA Washington Office, ESA
  - [Masami Onoda](#), Director, Washington D.C. Office, JAXA
- 4:35 pm **Goddard+: Together We Achieve**
- [Thomas Zurbuchen](#), Associate Administrator, SMD, NASA HQ
- 5:05 pm **Closing Remarks**
- [Dennis Andrucyk](#), Center Director, NASA GSFC
- 5:15 pm **Reception**

## Thank you to the 2020 Planning Committee

### Stephanie Uz, Chair – NASA Goddard Space Flight Center

Dan Adams – United Launch Alliance  
Steve Arnold – JHU APL  
Joe Cassady – Aerojet Rocketdyne  
Julie Crooke – NASA GSFC  
Darrell Dela Rosa – NASA GSFC  
Justin Lazear, Northrop Grumman Space  
Kathy Nado – NASA Headquarters  
Evan Petrone – Ball Aerospace

Steven Ramm – Lockheed Martin Corporation  
Sarah Robertson – American Astronautical Society  
Patrick Rouin – American Astronautical Society  
Mina Samii – Columbus USA  
Harley Thronson – NASA GSFC Retired  
Chris Wallisch – The Aerospace Corporation  
Jim Way – American Astronautical Society  
Matt Wilkins – L3Harris

## Thank you for attending the Goddard Symposium

Please join us at these upcoming events:

### 2<sup>nd</sup> Annual John H. Glenn Memorial Symposium

July 14-16, 2020 | Cleveland, Ohio  
[astronautical.org/glenn](http://astronautical.org/glenn)

### 13<sup>th</sup> Annual Wernher von Braun Memorial Symposium

October 26-28, 2020 | Huntsville, Alabama  
[astronautical.org/vonbraun](http://astronautical.org/vonbraun)



Founded in 1954, The American Astronautical Society is the premier network of current and future space professionals dedicated to advancing all space activities.

AAS has long been recognized for the excellence of its national meetings, technical meetings, symposia and publications and for their impact on shaping the U.S. space program. Members have opportunities to meet with leaders in their field and in related disciplines, exchange information and ideas, discuss career aspirations and expand their knowledge and expertise.

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