# 2021 NASA Small Spacecraft Forum

## AGENDA
March - May 2021
Hosted Virtually over a Series of Dates

### Introductory Session
March 25, 2021
9:30AM – 2:30PM PDT (5.0 hours)
*All Times are Pacific Daylight Time*

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<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
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| 9:30AM – 9:45AM | Welcome and Overview           | Florence W. Tan, *Forum Chair*  
**Chair, Small Spacecraft Coordination Group (SSCG)**  
NASA Headquarters  
*Peter B. Kahn, Forum Co-Chair*  
**Manager, Project Systems Engineering and Formulation Section; SSCG Representative**  
NASA Jet Propulsion Laboratory  
*Bruce D. Yost, Forum Co-Chair*  
**Director, Small Spacecraft Systems Virtual Institute**  
SSCG Representative  
NASA Ames Research Center |
| 9:45AM – 11:00AM | Organizational Lightning Talks | Wanda C. Peters, Ph.D  
**Deputy Associate Administrator for Programs**  
NASA Headquarters  
*James O. Norman*  
**Director, Launch Services Office**  
NASA Headquarters  
*Aly Mendoza-Hill*  
**Rideshare Lead**  
NASA Headquarters  
*Florence W. Tan, Forum Chair*  
**Chair, Small Spacecraft Coordination Group**  
NASA Headquarters  
*Liam J. Cheney*  
**Flight Projects Office, Launch Services Program** |
Small Spacecraft Systems Virtual Institute

Bruce D. Yost, *Forum Co-Chair*
*Director, Small Spacecraft Systems Virtual Institute*
*SSCG Representative*
*NASA Ames Research Center*

Small Satellite and Special Projects Office

David A. Wilcox
*Chief, Small Satellite and Special Projects Office*
*SSCG Representative*
*NASA Goddard Space Flight Center/
Wallops Flight Facility*

Thomas Johnson
*Lead Portfolio Manager for Heliophysics Division/
Astrophysics Division Small Satellites, NASA-Goddard Space Flight Center/
Wallops Flight Facility*

Space Communications and Navigation (SCaN) Program

Gregory W. Heckler
*Acting Director, Commercial Services Office*
*NASA's Space Communication and Navigation Program*
*NASA Headquarters*

Space Technology Mission Directorate

Christopher E. Baker
*Program Executive, Small Spacecraft Technology Program and Flight Opportunities Program*
*SSCG Representative*
*NASA Headquarters*

11:00AM – 12:00PM   NASA Center Introductions

NASA Ames Research Center

Chad R. Frost
*Chief Technologist, Engineering Directorate*
*SSCG Representative*

NASA Glenn Research Center

Carl E. Sandifer II
*Deputy Chief, Space Science Project Office*
*SSCG Representative*

NASA Goddard Space Flight Center/
Wallops Flight Facility

David A. Wilcox
*Chief, Small Satellite and Special Projects Office*
*SSCG Representative*
NASA Jet Propulsion Laboratory
Peter B. Kahn, *Forum Co-Chair*
*Manager, Project Systems Engineering and Formulation Section*
*SSCG Representative*

NASA Johnson Space Center
Samuel M. Pedrotty
*Deputy Project Manager*
*Safe and Precise Landing Integrated Capability Evolution Project*
*SSCG Representative*

NASA Kennedy Space Center
Liam J. Cheney
*Flight Projects Office, Launch Services Program*

NASA Langley Research Center
William “Chris” Edwards
*Associate Director for Science, Engineering Directorate*
*SSCG Representative*

NASA Marshall Space Flight Center
Joseph C. Casas
*Science, Technology and Exploration Small Missions and DoD Formulation Manager, Partnerships and Formulation Office; Manager, Office of the Secretary of Defense, Joint Capability Technology Demonstration, Arctic Collaborative Environment*
*SSCG Representative*

12:00PM – 12:15PM  **Break**

12:15PM – 1:15PM  **NASA Directorates and Programs - Opportunities**

Advanced Exploration Systems
Andres Martinez
*Program Executive, Advanced Exploration Systems*
*SSCG Representative*
*NASA Headquarters*

Human Exploration and Operations Mission Directorate

Planetary Science Division, Science Mission Directorate
Carolyn R. Mercer, Ph.D
*Program Executive, Small Innovative Missions for Planetary Exploration (SIMPLEX)*
*NASA Glenn Research Center*

Astrophysics Division, Science Mission Directorate
Michael R. Garcia
*SmallSats Program Scientist, Astrophysics Division*
*NASA Headquarters*
1:15PM - 1:30PM  **Special Sessions - Introductory Information and Expectations**

Introduction to the Special Sessions Framework

- Organizational overview of the next several weeks of Special Sessions
- Topics and facilitators
- Discussion template

1:30PM – 1:45PM Break

1:45PM - 2:30PM  **New Principal Investigator-Focused Panel Session**

What’s Next Now that I’ve Had a Proposal Accepted?

Moderator: Therese Moretto Jorgensen, Ph.D
Chief Scientist
NASA Small Spacecraft Systems Virtual Institute

A panel of managers will present their expectations and advice for newly selected mission teams to help enable the best possible start.

Panelists:
Gregory Stover
Program Manager, Earth System Science Pathﬁnder
Special Sessions
Thursdays April 1 – April 22, 2021
8:30AM – 10:30AM PDT
By Invitation

Each special session lasts 2.0 hours and is structured as below

- 10 Minutes  
  “All-hands” Session: Introduction to the session and logistics
- 45 Minutes  
  Breakout session A: 3-4 concurrent breakout rooms with a specific topic
- 10 Minutes  
  Break
- 45 minutes  
  Breakout Session B: 3-4 concurrent breakout rooms with a specific topic
- 10 Minutes  
  “All-hands” Session: Wrap up to share session highlights

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<th>Breakout Topics for Session A</th>
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| April 1  
Pre-Phase A Concept Studies and Proposals | 1. Project Management (reviews, staffing, schedule and budget)  
2. HQ Process for AOs (opportunities, timeline)  
3. Systems Engineering (technical budgets, subsystems) | 1. Characteristics of a Winning Proposal (margins, completeness, compelling science, innovative technology or approach)  
2. Safety and Mission Assurance (Class D vs. Do No Harm, ODAR, Planetary Protection, LEO lifetime)  
3. Mission Design Tools and Resources (S3VI, NEN, mission design labs, make vs. buy) |
| April 8  
Phase A, B and C Concept/Technology Development, | 1. Project Management (CM, reviews, staffing, schedule and budget)  
2. HQ Process (status report, ARC and GSFC/WFF SmallSat Offices roles) | 1. Mission Documentation (PIP, SEMP, ConOps, Requirements, etc.)  
2. Risk Program (typical practices, risk matrix, reporting) |
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<td>Preliminary/Final Design and Fabrication</td>
<td>3. Systems Engineering (technical budgets, subsystems, requirements definitions) 4. Launch Opportunities (identifying launch opportunities, CSLI vs. commercial)</td>
<td>3. Analysis/Simulation vs. Testing (early interface testing, no analysis vs. basic checks vs. detailed analysis) 4. Licensing Process and Encryption (NTIA, FAA, NOAA, when encryption applies, what type of encryption)</td>
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<td><strong>April 15</strong>  Phase D System Assembly, Integration and Test, Launch</td>
<td>1. Project Management (CM, reviews, staffing, schedule and budget) 2. Systems Engineering (technical budgets, subsystems, compliance matrix) 3. I&amp;T Plan (level of detail, relevant testing)</td>
<td>1. Day-in-the-life Testing (hardware on the loop, simulation environments, TVAC) 2. Ground system (government vs. commercial ground stations, ground system software, I&amp;T GSE vs. Flight MOC/GS) 3. Data Processing System (housekeeping vs. experimental data, post-processing, science products, technology demonstration data products)</td>
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<td><strong>April 22</strong>  Phase E and F Operations, Sustainment and Closeout</td>
<td>1. Operations Management (budget, schedule, staffing) 2. Engineering (data trending, commissioning) 3. Data Processing (collection, validation, storage, and dissemination)</td>
<td>1. Extended Operations (funding process, licensing) 2. On-orbit Anomalies (diagnostics, patching software, troubleshooting) 3. Closure, Optimizing Impact, Assessing Outcomes (scientific and technical publications, technology and knowledge transfer, next steps, lessons learned reporting)</td>
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**NASA-Only* Session**  
May 6, 2021  
8:30AM – 10:30AM PDT (2 hours)  
*This session includes JPL  

*Schedule is pending*