



This compendium of live and pre-recorded events is limited to those sponsored by and/or have NASA participation. Visit the [SmallSat 2020 website](https://smallsat.org) for the complete list of conference events and to confirm scheduled times.

LIVE EVENTS

Side Meetings

<https://smallsat.org/virtual/side-meetings/>

NOTE: Some side meetings may require pre-registration and will be noted in their meeting description on August 1.

MONDAY, AUGUST 3

- **8:00AM MDT** Introduction to Radiation Effects — *Radiation Test Solutions and NASA Electronic Parts and Packaging (NEPP)*
- **10:00AM MDT** NASA Town Hall — *Small Spacecraft Systems Virtual Institute*
- **10:00AM MDT** Radiation Guidelines for Notional Threat Identification and Classification (R-GENTIC): Webtool Walk-Through — *NASA Electronic Parts and Packaging (NEPP)*

Workshop Sessions

PRE-RECORDED On Demand Talks

<https://smallsat.org/virtual/keynote-and-talks>

CORRESPONDING
LIVE
Session Q&A
Webinars

SESSION 1
Advanced Concepts I

Radiation Tolerance of Low-Cost Magnetometer for Space Applications — *Jet Propulsion Laboratory; NASA Goddard Space Flight Center*

NASA Centers and Universities Collaborate in Annual Smallsat Technology Partnerships — *NASA Small Spacecraft Technology Program*

TUES., AUG. 4
12:00-1:00PM MDT

SESSION 2
A Look Back: Lessons Learned

Advanced eLectrical Bus (ALBus) CubeSat: From Build to Flight — *NASA Glenn Research Center*

TUES., AUG. 4
11:00AM-12:00PM MDT

SESSION 3
Instruments/ Science I

Hyti: High Spectral and Spatial Resolution Thermal Infrared Imaging from a 6U Cubesat — *Jet Propulsion Laboratory*

VTXO: The Virtual Telescope for X-ray Observations — *NASA Goddard Space Flight Center*

WED., AUG. 5
11:00AM-12:00PM MDT

SESSION 4
Advanced Concepts II

Active Thermal Architecture: Design and Status — *Jet Propulsion Laboratory*

WED., AUG. 5
12:00-1:00PM MDT

SESSION 5-6

These sessions do not offer NASA talks.

SESSION 7
Instruments/ Science II

The NASA Cubesat Missions Flying on Artemis-1 — *Jet Propulsion Laboratory; NASA Marshall Space Flight Center; NASA Ames Research Center*

THUR., AUG. 6
12:00-1:00PM MDT

SESSION 8
Communications

A Novel RF Architecture for Simultaneous Communication, Navigation, and Remote Sensing with Software-Defined Radio — *NASA Goddard Space Flight Center*

THUR., AUG. 6
1:00-2:00PM MDT

Technical Sessions

PRE-RECORDED On Demand Talks

<https://smallsat.org/virtual/keynote-and-talks>

Sessions: 1, 2, 4, 7, 9 do not offer NASA talks.

CORRESPONDING
LIVE
Session Q&A
Webinars

SESSION 3
Science/Mission Payloads

Sustainable Ozone and Aerosol Measurements from a 6U CubeSat: The Stratospheric Aerosol and Gas Experiment (SAGE) IV Pathfinder — *NASA Langley Research Center*

MON., AUG. 3
4:00-5:00PM MDT

SESSION 5
Next on the Pad

NASA Moderated Session — *Small Spacecraft Technology Program*

MON., AUG. 4
2:00-3:00PM MDT

LIST CONTINUED ON PG 2

SESSION 6 Advanced Technologies I	NASA SpaceCube Intelligent Multi-Purpose System for Enabling Remote Sensing, Communication, and Navigation in Mission Architectures — <i>NASA Goddard Space Flight Center</i> Cathode & Electromagnet Qualification Status and Power Processing Unit Development Update for the Ascendant Sub-kW Transcelestial Electric Propulsion System — <i>Jet Propulsion Laboratory</i>	TUES., AUG. 4 3:00-4:00PM MDT
SESSION 8 Space Access	The 2019 U.S. Government Orbital Debris Mitigation Standard Practices — <i>NASA Orbital Debris Program Office</i>	WED., AUG. 5 1:00-2:00PM MDT
SESSION 10 Ground Systems	NASA Near Earth Network (NEN) DVB-S2 Demonstration Testing for Enhancing Higher Data Rates for CubeSat/Small Satellite Missions at X-band and Ka-band — <i>NASA Goddard Space Flight Center</i>	WED., AUG. 5 3:00-4:00PM MDT
SESSION 11 Advanced Technologies II	A GaN-Based Four-Switch Buck-Boost Converter Using Ripple Correlation Control for Maximum Power Point Tracking in Dynamic Deep Space Environments — <i>Jet Propulsion Laboratory</i> Soft-Switching GaN-Based Isolated Power Conversion System for Small Satellites with Wide Input Voltage Range — <i>Jet Propulsion Laboratory</i>	THUR., AUG. 6 2:00-3:00PM MDT
SESSION 12 Communications	LunaNet: A Flexible and Extensible Lunar Exploration Communications and Navigation Infrastructure and the Inclusion of SmallSat Platforms — <i>NASA Goddard Space Flight Center</i> S-Band Transponder Multi-Network Compatibility, Space Environment and Radiation Testing — <i>NASA Goddard Space Flight Center</i>	THUR., AUG. 6 3:00-4:00PM MDT

Swiftly Sessions

PRE-RECORDED On Demand Talks

<https://smallsat.org/virtual/keynote-and-talks>

 NO LIVE Sessions

Space Launch System Artemis I CubeSats: SmallSat Vanguard of Exploration, Science and Technology
— *NASA Space Launch System*

Mission Design for a Small Mars Lander — *Jet Propulsion Laboratory*

Evolving NOAA's Geostationary Orbit Architecture — *NASA*

GaN-Based, Ultra-Compact Power Conversion System for the PUFFER Autonomous Mobility Platform
— *Jet Propulsion Laboratory*

Lunar Node -1 Navigation Beacon Demonstrator — *NASA Marshall Space Flight Center*

NASA Short Talks

PRE-RECORDED On Demand Talks

<https://smallsat.org/virtual/keynote-and-talks>

 NO LIVE Sessions

Hitchin' a Ride: SmallSats and Constellations at Goddard — *NASA Goddard Space Flight Center*

Starling CubeSat Swarm Technology Demonstration Mission — *NASA Ames Research Center*

Mission Design of a SmallSat Swarm in HEO — *NASA Ames Research Center*

Launch Your Innovation with NASA's SBIR/STTR Programs — *NASA Armstrong Flight Research Center*

LIST CONTINUED ON PG 3

NASA Flight Opportunities - a Stepping Stone to Orbit — *NASA Ames Research Center*

Wikipedia for SmallSats: The SSRI Knowledge Base — *Sedaro Technologies*

Thin-film Solar Arrays for Very High Powered Small Spacecraft — *NASA Marshall Space Flight Center*

Participation Opportunities for Teams Using Third Party Launchers — *NASA Ames Research Center*

How to Make your ODAR Easy — *NASA Kennedy Space Center*

Leaving No CAPSTONE Unturned: How a CubeSat Pathfinder Will Enable the Lunar Gateway Ecosystem
— *Advanced Space, LLC*

Mission to the Moon: Supporting NASA's CAPSTONE Mission to Lunar Orbit with Rocket Lab's Electron Vehicle and Photon Satellite Platform — *Rocket Lab*

Solar Sail Propulsion and Near-Earth Asteroid (NEA) Scout CubeSat — *NASA Marshall Space Flight Center*

Four-ish Minutes in the Life of a SPIM: How Space Launch System Secondary Payload Integration Managers Pave Payloads' Way to Launch — *NASA Space Launch System*

Splashdown Is Just the Beginning: The end of Artemis I is the Beginning for SLS CubeSats Here's a look ahead at the years to come — *NASA Space Launch System*

Mars Small Spacecraft: The Opportunity of the Roaring 20's — *NASA Jet Propulsion Laboratory*

Multi-Mission NOS3 — *NASA Goddard Space Flight Center*

How to Partner with NASA and use Patented Technologies — *NASA Ames Research Center*

NASA Posters

<https://smallsat.org/virtual/posters/>

Architectures

Modular Architecture for a Resilient Extensible SmallSat (MARES)
— *NASA Goddard Space Flight Center*

Instrumentation

Miniaturization of Remote Sensing Scientific Instrument — *Jet Propulsion Laboratory*

Direction-of-Arrival Estimation for Signal-of-Opportunity Receiver
— *NASA Goddard Space Flight Center*

Trajectory Optimization for the Virtual Telescope for X-Ray Observations
— *NASA Goddard Space Flight Center*

Propulsion

A High-Fidelity Ground-Based Space Environment Testbed Utilizing Magnetic Levitation for Fully Integrated Small Spacecraft — *NASA Johnson Space Center*

Year in Review

A Small Satellite Industrial Base Study: Foundational Findings
— *NASA Goddard Space Flight Center*

NASA Exhibits

<https://smallsat.org/virtual/exhibit-hall>

- NASA Ames Research Center - Engineering
- NASA Ames Strategic Partnerships Office
- NASA AMMOS
- NASA Goddard Space Flight Center / Wallops Flight Facility
- NASA Headquarters Space Technology Mission Directorate
- NASA Space Launch System Secondary Payloads
- NASA Marshall Space Flight Center
- NASA Space Launch System

Date	Start Time	End Time	Presentation	Speaker(s)
Mon., Aug. 3	3:30pm MT/ 5:30pm EDT	4:15pm MT/ 6:15pm EDT	NASA's core Flight System and Multi-Mission NOS3	Alan Cudmore
Tues., Aug. 4	1:00pm MT/ 3:00pm EDT	1:45pm MT/ 3:45pm EDT	CubeSat Mission Definition and Design Live Discussion	Luis Santos (<i>Moderator</i>) <i>Panelists:</i> John Hudeck, Sean Semper, Ben Cervantes, Will Mast, Juan Raymond
Tues., Aug. 4	2:00pm MT/ 4:00pm EDT	2:45pm MT/ 4:45pm EDT	OpenSatKit – Making Space for cFS Apps	Dave McComas
Tues., Aug. 4	3:00pm MT/ 5:00pm EDT	3:45pm MT/ 5:45pm EDT	NASA Operational Simulator for Small Satellites - Overview and new functionality in Release 1.05.00	Matt Grubb
Tues., Aug. 4	4:00pm MT/ 6:00pm EDT	4:45pm MT/ 6:45pm EDT	NASA Internships and Student Flight Opportunities	Joyce Winterton & Raquel Marshall
Wed., Aug. 5	10:00am MT/ 12:00pm EDT	10:45am MT/ 12:45pm EDT	Non-Procurement Business Opportunities with NASA	Joe Kroener & Eric McGill
Wed., Aug. 5	11:00am MT/ 1pm EDT	11:45am MT/ 1:45pm EDT	Modular Architecture for a Resilient Extensible SmallSat	Robin Ripley
Wed., Aug. 5	1:00pm MT/ 3:00pm EDT	1:45pm MT/ 3:45pm EDT	CubeSat Integration, Testing and Operations Live Discussion	Luis Santos (<i>Moderator</i>) <i>Panelists:</i> Tom Johnson, Chuck Clagett John Lucas, Brian Abresch
Wed., Aug. 5	2:00pm MT/ 4:00pm EDT	2:45pm MT/ 4:45pm EDT	<i>Goddard SmallSat - OFFICE HOURS</i>	<i>OPEN for questions</i>
Wed., Aug. 5	3:00pm MT/ 5:00pm EDT	3:45pm MT/ 5:45pm EDT	<i>Goddard SmallSat - OFFICE HOURS</i>	<i>OPEN for questions</i>
Wed., Aug. 5	4:00pm MT/ 6:00pm EDT	4:45pm MT/ 6:45pm EDT	<i>Goddard SmallSat - OFFICE HOURS</i>	<i>OPEN for questions</i>
Thur., Aug. 6	10:00am MT/ 12:00pm EDT	10:45am MT/ 12:45pm EDT	NASA Internships and Student Flight Opportunities	Joyce Winterton & Raquel Marshall
Thur., Aug. 6	11:00am MT/ 1pm EDT	11:45am MT/ 1:45pm EDT	<i>Goddard SmallSat - Office Hours</i>	<i>OPEN for questions</i>