

Spacecraft Anomalies and Failures (SCAF) Workshop

March 27-28, 2024

*Presentations run from 900-1600 EDT
Check-in begins at 800*

Agenda Topics:

- Spacecraft Anomalies, Failures, and Operations
- Space Environmental Effects and Debris
- Anomaly Recovery Operations and Anomaly Investigations

Objectives:

- Review and share lessons learned from spacecraft anomalies and failures
- Improve tradecraft for anomaly attribution and root cause determination
- Reinforce relationships in the space community that do not regularly interact

Day One:

Open to Public

**NASA Goddard Space Flight Center
Greenbelt, MD**

POC: Joseph Minow
joseph.minow@nasa.gov • 256-544-2850

Day Two:

Requires Clearance TS SCI

**NRO Headquarters Westfields
Chantilly, VA**

POC: Mike Manning
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nasa.gov/nase/conferences/scaf2024

Spacecraft Anomalies and Failures 2024 Workshop Agenda

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Logistics

Workshop website:

<https://www.nasa.gov/nase/conferences/SCAF2024/>

Workshop Contacts

Day 1: joseph.minow@nasa.gov

Day 2: manninmi@nro.mil

Day 1

In-person: NASA, Goddard Space Flight Center, Greenbelt, MD
Building 3, Goett Auditorium

Virtual: Teleconference link will be e-mailed to all registered participants before the workshop

NASA civil service and contractor personnel please request NASA Conference Tracking System (NCTS) approval using **NCTS # 49684-24**.

Day 2

In-person: NRO Headquarters Westfields, Chantilly, VA

Remote: Teleconference link to be provided to registered participants



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[Note: Times are US Eastern Daylight Time, UTC – 4 hours]

Day 1, Wednesday, 27 March 2024 Unclassified Day, NASA GSFC and Virtual

| | | |
|---------------|---|---|
| 08:00 – 09:00 | Check-in (Building 3 auditorium lobby) | |
| 09:00 – 09:10 | GSFC and NESC Welcome | Carmel Conaty NASA NESC |
| 09:10 – 09:40 | SCAF 2024 Welcome and NASA Introductory Comments | Joseph Minow NASA NESC |
| 09:40 – 10:10 | STEREO-WAVES (S/WAVES) Dust Detections and Their Apparent Association with Known Spacecraft Anomalies | Mark L. Adrian Auburn University |
| 10:10 – 10:40 | ICON Satellite Failure Investigation | Abhishek Tripathi UC Berkeley, Space Sciences Lab |
| 10:40 – 11:00 | Break | |
| 11:00 – 11:30 | Historical Software Anomalies | Lorraine Prokop NASA NESC |
| 11:30 – 12:00 | NOAA-17 Breakup Investigation | Scott Hull NASA GSFC |
| 12:00 – 12:30 | Relationship between GOES-R Series Operational Anomalies, In-situ Electron Measurements, and Solar Wind Drivers | Juan Rodriguez University of Colorado Boulder CIRES |
| 12:30 – 13:30 | Lunch Break | |
| 13:30 – 14:00 | Space Environments Anomaly Resolution Support to International Space Station Operations | Erica Worthy NASA JSC |
| 14:00 – 14:30 | 25 Years of Radiation Protection of the Chandra X-ray Observatory | Scott Wolk Smithsonian Astrophysical Observatory |
| 14:30 – 15:00 | Image Science and Analysis Support to the ISS Program | Dwight Osborne NASA JSC |
| 15:00 – 15:20 | Break | |
| 15:20 – 15:50 | Extraction and Analysis of Four Decades of Radiation Events from GSFC's SOARS Database | Jesse Leitner NASA GSFC |
| 15:50 – 16:20 | The Spacecraft Anomaly Resolution Knowledgebase (SPARK) Applied to NASA SOARS Radiation Anomalies | Alec Engell NextGen Federal Systems |
| 16:20 – 16:30 | Closing Remarks | Joseph Minow NASA NESC |