

# Update on CONFERS And Commercial Satellite Servicing Standards

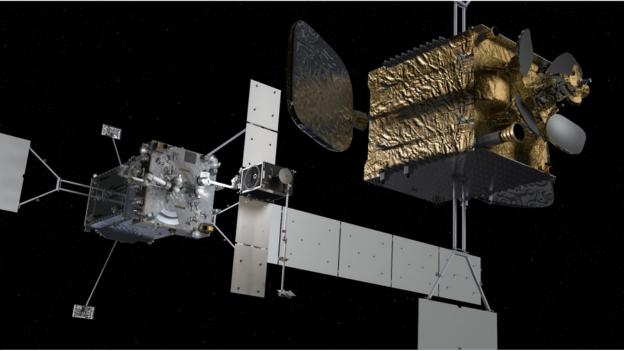
February 2023

Brian Weeden, Secure World Foundation
CONFERS Executive Director



# **Commercial Satellite Servicing Successes**





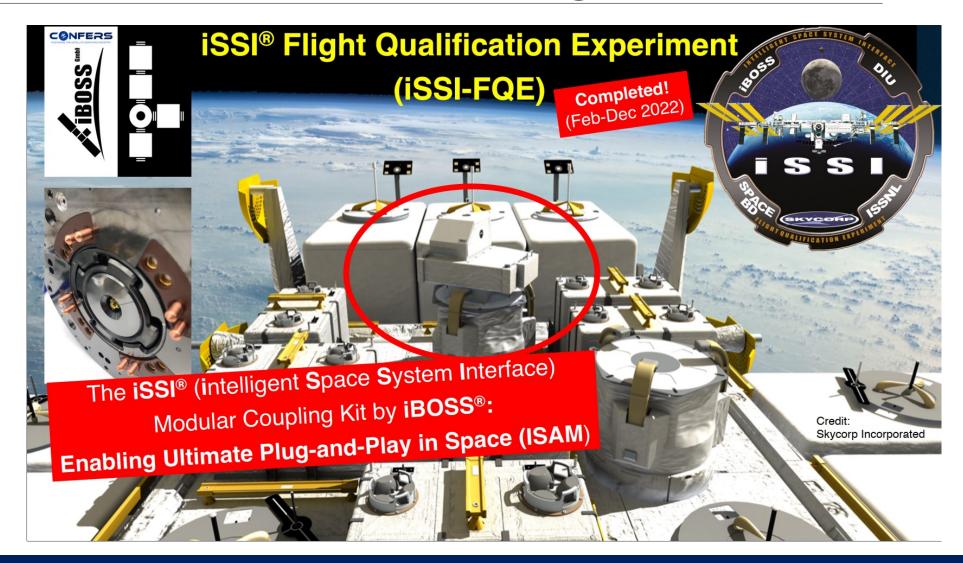


# **Commercial Satellite Servicing Successes**





## Commercial Satellite Servicing Successes





#### Founding and Background

- CONFERS was initiated in October 2017 by the Defense Advanced Research Projects Agency (DARPA) under the US Department of Defense.
- CONFERS transitioned to an independent, self-sustaining entity in December 2022
  - Registered as a not-for-profit corporation
- Open to participation by stakeholders from the international satellite servicing community, including companies, universities, and government agencies
- Primary objectives:
  - Advocate and promote satellite servicing, including but not limited to maintenance, repair, assembly, manufacturing, and inspection
  - Develop industry-led standards that contribute to a sustainable, safe, and diverse space economy
  - Engage with governments on policy and oversight of satellite servicing activities



## Membership

- 61 member organizations from US, Australia, Canada, Europe, Japan, Mexico, and New Zealand
- Most of our members are early-stage start-ups or small and medium sized companies









**AEROSPACE** 





Observer Members

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# Leadership



Chris Blackerby, President Astroscale Holdings



Joerg Kreisel, Secretary iBoss GmbH



Jeremy Schiel, Treasurer OrbitFab



Jamie Landers Lockheed Martin



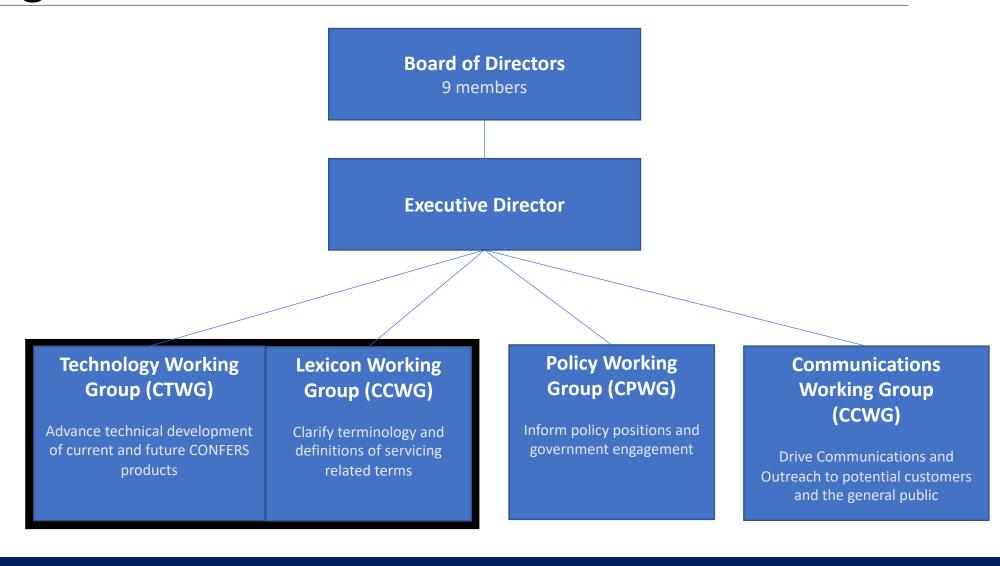
Chris Kunstadter, AXA XL



Joe Anderson
Space Logistics LLC



#### Organization





#### Active Internal and External Interactions

- Multiple workshops held annually for members and international government subject matter experts
  - Held 15 workshops since May 2018 in the United States, Germany, and the UK as well as virtual
- Direct interactions with policymakers in US, Europe, and Japan
- Appearances at conferences booths and panel presentations
- Annual Global Satellite Servicing Forum
  - Held since 2018
  - Industry and government experts speak at 2-day conference dedicated to satellite servicing
- Presentation at UNCOPUOS in 2019, 2020, and 2022
- Panel, presentations, and booths at several major international conferences



#### **CONFERS Publications & Standards**

#### CONFERS has published the following documents

- <u>Guiding Principles</u> Top-level principles that guide commercial RPO/OOS
- <u>Recommended Design and Operational Practices</u> Recommended steps to take to improve safety & transparency
- On-Orbit Servicing Mission Phases Breakdown of RPO/OOS mission phases and baseline for mitigation of risks
- Lexicon of Terms and Definitions

# CONFERS has contributed to or has in work multiple standards related to satellite servicing:

- <u>ISO 24330</u> Rendezvous and Proximity Operations (RPO) and On Orbit Servicing (OOS) Programmatic principles and practices
- AIAA S-155 (202X) Rendezvous & Proximity Operations (RPO) & On-Orbit Servicing (OOS)—Spacecraft Fiducial Markers
- AIAA S-157 (202X) Prepared In-Space (Re)Fueling Systems
- Up Next: Free-Flyer Capture, Power and Data Interfaces, Wireless Proximity Network, Navigation Data Messages

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#### What's Next

- We are the in the process of transitioning our members to a new structure as a not-for-profit trade association
- We are hiring a new full-time Executive Director who is expected to take over from me in the next few weeks.
- We welcome new international members who are interested in advancing satellite servicing, including government agencies
- Information on our publications and the membership application process is available on the CONFERS website at: <u>satelliteconfers.org</u>
- Any questions can be directed at Dr. Brian Weeden (bweeden@swfound.org)