

# Update on the Consortium for Execution of Rendezvous and Servicing Operations (CONFERS)

February 2022

Brian Weeden, Secure World Foundation
CONFERS Executive Director



### Founding and Background

- CONFERS was initiated in October 2017 by the Defense Advanced Research Projects Agency (DARPA) under the US Department of Defense.
  - Leverage best practices from government and industry to develop technical and safety standards that servicing providers and clients for on-orbit servicing operations would adopt
  - Provide technical basis for definitions of responsible behavior in outer space
- CONFERS is scheduled to transition to full private-sector funding by November 2022 and is expected to be an independent, self-sustaining industry forum
- Open to participation by private sector stakeholders in the international satellite servicing community and government agencies
- Primary objectives:
  - Advocate and promote on-orbit 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

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





# Leadership



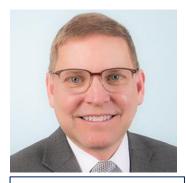
Chris Blackerby, Chair Astroscale Holdings



Joerg Kreisel, Vice Chair iBoss GmbH



Jeremy Schiel, Treasurer OrbitFab



Joe Anderson
Space Logistics LLC



Jamie Landers Lockheed Martin



Jon Goff Voyager



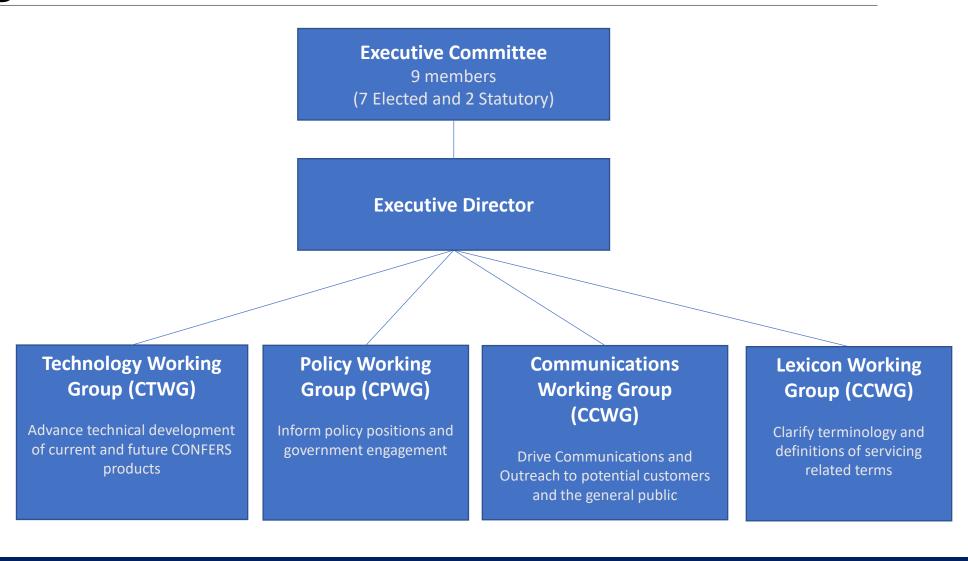
Chris Kunstadter, AXA XL



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# Organization





#### Active Internal and External Interactions

- Multiple workshops held annually for members and international government subject matter experts
  - Held 13 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 in 2018, 2019, 2020 (virtual), and 2021 (virtual)
  - Industry and government experts speak at 2-day conference dedicated to RPO and OOS
- Presentation at UNCOPUOS in 2019 and 2020
- Panel, presentations, and booths at several major international conferences



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

#### CONFERS has published the following documents

- Guiding Principles Top-level principles that guide commercial RPO/OOS
- Recommended Design and Operational Practices 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

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

- <u>ISO 24330</u> Rendezvous and Proximity Operations (RPO) and On Orbit Servicing (OOS) Programmatic principles and practices
- AIAA Rendezvous & Proximity Operations (RPO) & On-Orbit Servicing (OOS)—Spacecraft Fiducial Markers
- CONFERS Prepared In-Space (Re)Fueling Systems



#### Future Evolution of CONFERS

- DARPA will be exiting its sponsorship of CONFERS in November 2022
- CONFERS plans to continue as an independent, private entity
- As part of this change, CONFERS has added a new membership category of government observer that is open to all countries (no dues)
- CONFERS also still welcomes membership by private sector entities (Industry, academic research institutions, nonprofit and not-for-profit organizations) that have a direct and material interest in satellite servicing and standards development



#### **Contact Information**

• Information on our publications and the membership application process is available on the CONFERS website at: <a href="mailto:satelliteconfers.org">satelliteconfers.org</a>

- Contact Information:
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  - Membership/Administrative: Ms. Haley Back (confers@ati.org)