



# Ground System Architectures Workshop 2025

## Working Group E Outbrief

### Leaping into the Future: Innovations and Technological Advances for Sustainable Next Generation Ground System Architectures

National Environmental Satellite,  
Data, and Information Service,  
NOAA

**Co-Chairs**

**Raad Saleh, Heather Kilcoyne, and Hamid Akbarian**

**Wednesday – February 26, 2025**

© 2025 by NOAA, Published by The Aerospace Corporation with permission.

## Working Group E Lead Speakers

***Dr. Gabriele De Canio, Transformation Officer, ESA  
ESA, European Space Operations Centre, Darmstadt, Germany***

***Mr. Matthew Sirocky, Space Mission Capabilities Lead  
Strategic Innovation Group, Peraton, Reston, VA 20190, USA***

***Dr. Walter Makovoz, Senior Engineering Specialist  
The Aerospace Corporation, El Segundo, California 90245, USA***

# Working Group Goals

**This WG has continued the collaborative discussions on the evolution of future ground systems, building on the successful WG Session at the GSAW 2024.**

**We have covered new technologies, services, and acquisition strategies required to enable a government ground enterprises.**

**We discussed various models that combine both government and commercial services that aimed at agile, efficient, and resilient ground operations.**

**This WG has actively engaged a diverse group of government agencies, industry leaders, and international partners and addressed the common barriers such as the silo effect and the need for cultural changes.**

**We discussed innovations that promise to transform ground and flight systems into a more efficient, cost effective, and sustainable architecture.**

# The Outcome

## The WG has:

- Raised and answered relevant and focused questions
- Presented lessons learned from the US and Europe
- Analyzed the economical viability of innovations in support of ground operations

## Five sub-teams formed and were challenged by Red Teams in:

- How technological changes will impact future ground and flight architectures
- The needed changes in culture and willingness to embrace changes
- The role of AI/ML in the new landscape, the parameters for proper implementation, and the areas most ripe of AI/ML to make a tangible, quantifiable difference.