

NASA Langley Research Center

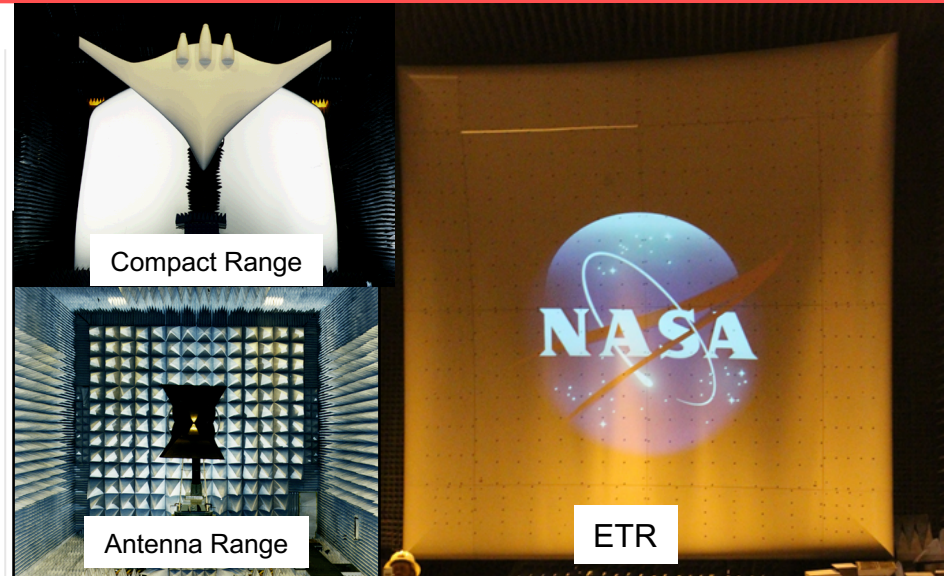
Antenna, Scattering & UAS Ranges [B1299 & B 1299F]

(Electromagnetics & Sensor Branch - D319, Charmaine Franck, Branch Head)



Mission

- Europa
- TA 4: Robotics and Autonomous Systems
 - Terrain Mapping for Above-Surface Vehicles
- TA 9: Entry, Descent, and Landing Systems
 - Guidance, Navigation and Control (GN&C) Sensors
 - Terrain-Relative Sensing and Characterization
 - Autonomous Targeting
- TA 10: Nanotechnology
- CubeSat Launch Initiative (CSLI)



Capability

- **Antenna Range**; Direct Illumination, .2GHz – 18GHz and 26.5GHz – 40GHz frequency coverage, 6' to 12' diameter test zone, 500lb targets
- **Compact Range**; Center fed reflector, .5GHz-40GHz frequency coverage, 8 cube quite zone, 500lb targets
- **ETR Compact Range**; Corner fed reflector, .3GHz-18GHz and 26.5 – 40GHz, 23 cubic feet quite zone, 1500lb targets

Needs

- Radar Measurement System
- Absorber replacement

Customers

- Planetary Science- Europa Mission, Venus Lander
- Advanced Aircraft
- Industry Customers- Raytheon,
- Small Sats

Partners

- John Hopkins University
- Ohio State University
- Virginia Technology Transportation Institute (VTTI)
- National Institute of Standards and Technology