



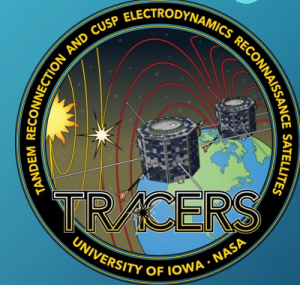
PROVIDING  
AFFORDABLE  
SPACE SOLUTIONS

# SPACE TECHNOLOGY HUB

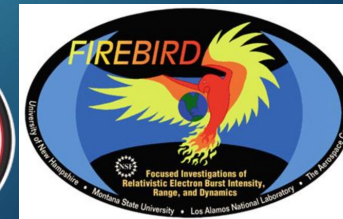
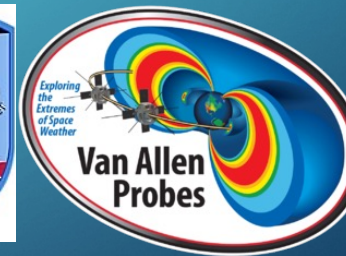
University of New Hampshire –  
Space Science Center  
[eos.unh.edu/STH](https://eos.unh.edu/STH)

# BUILDING ON SPECIALIZED SPACE EXPERIENCE

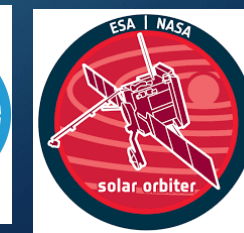
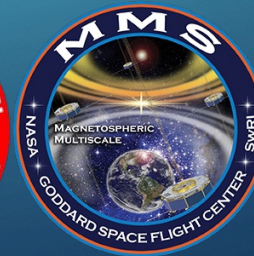
## In Development



## Past Success



- Decades of NASA/NOAA mission involvement by the UNH Space Science Center
  - 60+ years of space research
  - 100+ partnerships on NASA mission
- Highly specialized expertise in space instrumentation design, build, and test for LEO, GEO, cis-lunar, and interplanetary space
- Strength in smallsats, radiation, and space weather instrumentation



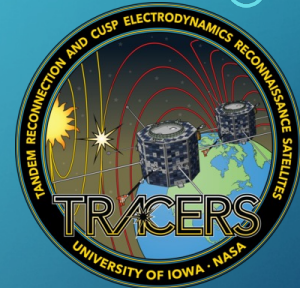


# SENSOR DESIGN, BUILD, TEST, & CALIBRATION

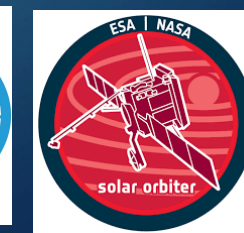
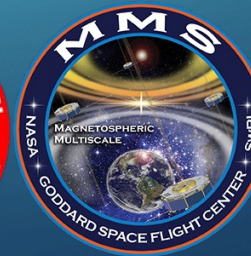
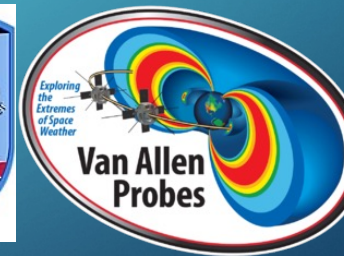
## ➤ World-class expertise in:

- Star sensors
- Magnetometers
- Dosimeters for radiation monitoring
- UV detectors
- Electron and ion electrostatic analyzers
- Time-of-flight mass spectrometers

## In Development



## Past Success





# STAFFING AND ENGAGEMENT

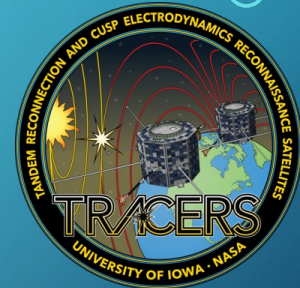
In Development

## Who does the work:

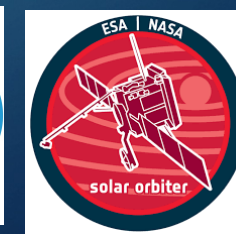
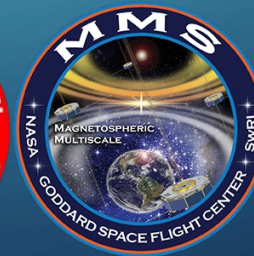
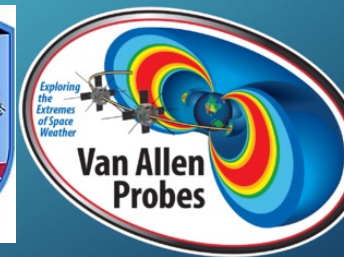
- 30 Technical Staff: Full-time Engineers, Instrument Scientists, and Technicians
- 25 Faculty Members in Space Science/Heliophysics
- Depending on project: student assistants

## How we can engage:

- Full life-cycle projects/government grants
- Space environment expertise consulting/advising
- Testing facilities/services
- Student intern/workforce pipeline
- Partnerships/other opportunities



Past Success





## **SPECIALIZED SKILLSETS AT THE SPACE TECH HUB**

- **Highly Experienced Mechanical, Electrical, and Systems Engineering**
  - HV Analog/Digital Engineering
  - FPGA, Flight Software, Onboard Data Processing
  - Thermal + Structural Analysis
  - Test Engineers and Data Analysis
- **Mission Lifecycle Project Management, Requirements Management, Science Operations Center**
- **Space Weather Instrumentation, Data Analysis, and Interpretation**
- **Technician Expertise:**
  - Board assembly
  - Machine shop for specialized parts
  - Floating ultra thin carbon foils
  - IPC J-STD-001 Certification for Soldered Electrical and Electronic Assemblies (NASA Required Certification)



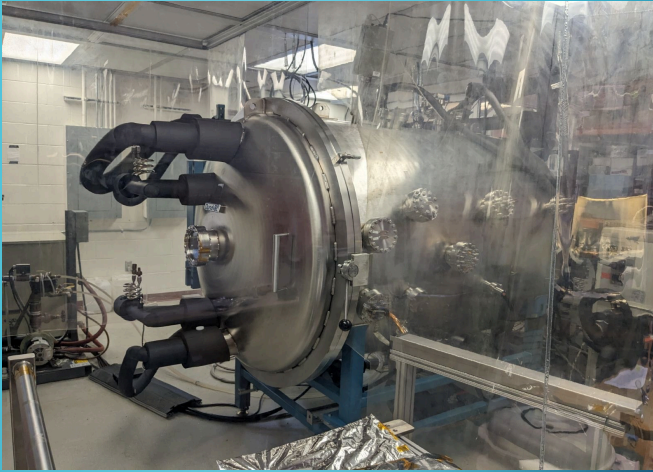
## TESTING SERVICES

# Comprehensive AI&T (Assembly, Integration, and Test) Services

- **Proven processes and procedures for testing & calibrating space technologies**
    - Electronics, subsystems, full instrumentation, smallsats
  - **Space Qualification Testing**
    - Testing at our facilities followed by data analysis
    - On-site:
      - Anomaly Diagnostics/Troubleshooting
        - Cross-disciplinary Anomaly Resolution (Mechanical/Thermal/Electrical/Software)
          - Technical staff can implement corrections prior to retest
- **Facilitate TRL raises (TRL 4 → TRL 9)**



# Comprehensive AI&T (Assembly, Integration, and Test) Services



## FACILITIES



- **Flight Certified Thermal Vacuum Chamber**
  - 4'x5' cylinder
  - Liquid Nitrogen shroud
  - $10^{-7}$  Torr
  - RGA scanner
  - TQCM
- **Flight Assembly and Integration Facilities**
  - ISO 7 clean rooms
  - ISO 5 laminar flow assembly benches
  - Clean room storage
- **Anechoic Chamber: Partial EMI/EMC Testing**
- **Ultra-low Temp Dilution Refrigerator (10 mKelvin)**
- **Thermal Cycling Chamber**
- **Rough Vacuum Bakeout Chamber**
- **On-site Electronic Assembly Lab**
- **On-site Machine Shop**
- **Vibration testing available nearby at BAE, NH**