Glenn Extreme Environments Rig (GEER)

PI: Jeff Balcerski/Ohio Aerospace Institute (OAI) https://www1.grc.nasa.gov/space/geer/

Description of Facility

- GEER is an 811-liter chamber capable of simulating extreme environments such as the surface of Venus for science and engineering testing
- Pressure 0-94 Bar
- Temperature ambient to 538 C
- Gasses: 8 specially gases and one liquid can be blended to experimenter's requirements
- GEER provides continual monitoring of atmospheric conditions including pressure, temperature, and gas constituents as well as custom feed throughs
- Experiments can be run by GEER engineers, setup by researchers on site or operated remotely by researchers via VPN

GEER team in front of the GEER test chamber

How to use the facility

- Requests for GEER are made by contacting Nathan Funk for schedule and top-level requirements
- A test requirements form will be sent to the requestor to communicate test conditions and durations
- The experiments are evaluated by the GEER science team for alignment with NASA's strategic objectives and compatibility with GEER and other experiments
- Typically, a primary payload is selected and "ride along" payloads are added that share similar environmental requirements
- Facility costs vary depending on the test configuration specified in the test requirements form

Contact information:

- GEER is located at the NASA Glenn Research Center in Cleveland Ohio
- Inquires can be directed to the Extreme Environments Project Manager, Nathan Funk e-mail: Nathan.w.funk@nasa.gov
- Alternative contacts: GEER facility Manager, Kyle Phillips at kyle.g.phillips@nasa.gov