

VEXAG Technology Development and Laboratory Measurements Focus Group

Tibor Kremic (GRC) and Pat Beauchamp (JPL) - Co-Leads

Proposed Members

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Charter

The Technology and Laboratory Measurements (VTLAM) Focus Group is chartered by the VEXAG to provide the Venus scientific community with an assessment for technology developments and laboratory measurements that support the scientific exploration of Venus over the next several decades. The group will also provide an assessment for the development of the Venus-analog lab infrastructure (test-beds) for validation of science measurements and technologies. This assessment will be consistent with mission needs as outlined in the Venus Exploration Goals and Objectives document(s) and the Planetary Decadal survey. The Focus Group will be proactive and help devise technology analysis in response to ongoing progress in the technical disciplines and evolving scientific and mission objectives, and in alignment with NASA Technology Plan.

The Focus Group reports to the VEXAG Chairs. It also reports status to the Venus community during the annual VEXAG meetings, and the larger scientific community at planetary conferences and meetings as requested of, or deemed appropriate by, the VEXAG executive committee. All interested parties are welcome to participate in the Focus Group meetings and provide ideas and opinions. Members of the Focus Group are recommended by the VTLAM Focus Group co-leads or a VEXAG executive committee member and then endorsed by the VEXAG executive committee.

The Focus Group will remain active until it is terminated by a future VEXAG decision.

Deliverables

The Technology and Laboratory Measurement Focus Group is responsible for:

1. Providing an inventory of and assessing existing technologies.
2. Summarizing and updating a broad plan for technology development for future Venus missions in accordance with the scientific needs of the Venus community.
3. Defining new laboratory measurements that are needed to meet the key science objectives as identified by VEXAG white paper for future Venus missions.
4. Developing a database of current test-bed capabilities at different institutions and provide an assessment for new capabilities development that may be needed.
5. Providing a survey of test capabilities (i.e. chambers, etc) available and map to Venus science needs.
6. Communicating activities and plans in report, presentation, and/or paper format as appropriate.