

Findings of the 11th VEXAG Meeting
19 - 21 November 2013
Webb Auditorium, NASA Headquarters, Washington, DC

1. While VEXAG understands the need to trim programs during times of financial stress, it is very difficult to plan for upcoming missions when the fate of developing technology is continuously uncertain. It is important that the Planetary Science Division (PSD) continue to work pro-actively with STMD to advocate development of new technologies and ensure that they are seen through to completion. To accomplish this, VEXAG encourages PSD to develop acceptance criteria for mission infusion and inform the community on the status of the developments on a routine basis. It is critical that the progress made on new entry technologies (e.g., HEEET, ADEPT, capabilities that can replace heritage Carbon-Phenolic) be maintained until they are ready for infusion. Support for such entry technologies were strongly supported in the findings of the 10th VEXAG meeting. VEXAG greatly appreciates the PSD advocacy and funding support from the Space Technology Mission Directorate (STMD) and Space Communication & Navigation Program (SCAN), resulting in significant progress over the last year. We strongly encourage continued advocacy and funding of these technologies.
2. Capabilities for long term survival at or near the Venus surface will change the way we explore Venus, enabling long-lived geophysical and meteorology studies, as well as mobile exploration of the surface and near surface environment. The single most enabling technology required for these studies is high efficiency power/cooling capability (e.g., Radioisotope Power Systems). In addition, technology developments relevant to high temperature/high pressure instrument operation are also needed. Continued investment in these technologies is critical for Venus exploration, and the eventual applications for surface science.
3. VEXAG supports US-Russian bilateral participation in the Venera-D study team. We continue to encourage NASA participation in future international partnerships including mission collaboration and participating scientist programs (e.g., Akatsuki and Venus Express).
4. VEXAG supports the Decadal Survey recommended cadence for Discovery and New Frontiers. Recognizing current budget realities, VEXAG encourages PSD to continue efforts to release Announcements of Opportunity as soon as practical.
5. The published Goals, Objectives and Investigations formulated by the NASA community Analysis/Assessment Groups (AGs) have undergone extensive review and vetting within the individual AGs and have also been promulgated and reviewed within the broader science community. These objectives are consistent with the Decadal Survey, but provide greater detail. Including these AG documents, such as the VEXAG's Venus Exploration Goals, Objectives and Investigations, in the AO and Program Libraries would ensure they are available to reviewers during the Discovery and New Frontiers evaluation process.
6. VEXAG supports several upcoming opportunities and initiatives:
 - a. Venus Exploration Targets Workshop, 19-21 May 2014, Lunar and Planetary Institute, Houston, TX
 - b. Comparative Climatology of the Terrestrial Planets -2 (CCTP2), 7-10 July 2015, Ames Research Center, Moffett Field, CA [VEXAG encourages broad support for this meeting from all four NASA HQ science divisions]
 - c. Venus Instrumentation Workshop, FY14 (dates TBD); Focus on instruments/approaches that may be unique for Venus
 - d. Venus Express Science Meeting to be held in the United States in 2014 or 2015
 - e. Continued efforts to initiate the Extreme Environments Centennial Challenge