

The primary outcome of the 10th meeting of the Venus Exploration Analysis Group (VEXAG) is a set of Findings and Resolutions. At the highest level, the VEXAG continues to support the plan outlined in the recent Planetary Decadal Survey (Vision and Voyages for Planetary Science in the Decade 2013 – 2022). The following Findings and Resolutions all fit within the context of the Planetary Decadal Survey.

Findings Adopted at the 10th VEXAG Meeting
Washington, DC, 13-15 November 2012

1. Continued development of entry technologies is critical to ensuring availability for New Frontiers-4 and Discovery 13 Venus mission proposals. VEXAG encourages NASA's Planetary Science Division to monitor progress on entry technologies sponsored by the Office of the Chief Technologist and entry technologies available from industry and then to coordinate the release of the most current technical information prior to issuance of the Announcements of Opportunity. VEXAG also encourages NASA to incentivize the adoption of entry technologies needed for these missions including instrumentation to monitor the performance of the thermal protection systems.
2. ESA's Venus Express and JAXA's Akatsuki missions have been valuable for the Venus community in the US. Continued support by the Planetary Science Division of the second call for Venus Express (VEx) Participating Scientists and re-instatement of the Venus Climate Orbiter (a.k.a., Akatsuki) Participating Scientist Program is appreciated and encouraged. To facilitate increased US interaction with the VEx Science Team, the US scientific community would benefit from NASA support for a Venus Express Science conference to be held within the US at a mutually convenient time and location during 2014 – 2015.
3. Continued access to NASA's current and future assets (e.g. balloon borne, Hubble Space Telescope, Goldstone, etc.) capable of unique observations of Venus is crucial for advances in Venus science and to provide opportunities for early career scientists. The Balloon Borne Planetary Observations Workshop held at NASA/GRC in January 2012 was very useful and a Venus Technology development workshop in association with the 11th VEXAG Meeting in 2013 would be timely and useful.
4. The support by all four SMD divisions for the Comparative Climatology of Terrestrial Planets Conference was unprecedented and valuable. A Follow up conference with similar NASA SMD support, to be held at NASA/Ames in 2014 or 2015, will be important for achieving the recommendations of the 2012 conference.
5. NASA support of the International Venus Exploration Working Group (COSPAR) will facilitate the needed dialog towards the exploration programs. For example, NASA's participation/collaboration in the emerging plans by the international agencies (e.g. Venera-D) to explore Venus would be beneficial for all.

Resolutions of the 10th VEXAG

1. VEXAG resolves to update the Goals, Objectives and Investigations for Venus exploration. A task force within the Venus Goals and Objectives Focus will be established to prepare a draft of the new document to be presented to the community at the 2013 Lunar and Planetary Science Conference.
2. VEXAG resolves to coordinate preparation by the community of an integrated Venus exploration roadmap. Such a roadmap will convey how Decadal Survey investigation priorities could be addressed within an international context; which specific technology investments would be enabling, for what and when; and how key mission infrastructure (e.g., telecommunications assets) could accelerate overall achievement for Venus science.
3. VEXAG continues to endorse a range of Discovery-class missions that address high priority investigations identified by the VEXAG for Venus exploration.
4. VEXAG encourages the PSD to undertake a study as soon as possible to refine the elements of the Venus Climate Mission recommended by the Decadal Survey.
5. VEXAG encourages ASRG validation with the planned M1 Mission and urges NASA to resume development of a variant for long-lived high temperature operation, e.g., on the surface of Venus.
6. VEXAG endorses continuing the study and implementation of planetary observations from stratospheric balloons.
7. VEXAG endorses the Venus Upper Atmosphere Science and Technology Interchange Meeting (STIM) planned for Jan 24th, 2013 (<http://spaceflightsystems.grc.nasa.gov/SSPO/SP/VenusUpper/workshop.html>).