

U003-31

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VEXAG and the Exploration of Venus in the next decade - the Decadal Survey Recommendations

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Venus remains an important exploration target as it provides insight into not only the future climate of Earth, but also for the conditions on terrestrial planets around other stars. At present ESA's Venus Express mission is providing valuable monitoring of the planet and yielding important discoveries about Venus and its atmosphere. JAXA's Akatsuki mission may go into orbit into Venus in 2015 and provide valuable data on the super rotating circulation of the Venus atmosphere. However, there are many other questions about Venus that will remain unanswered after these missions.

"Vision and Voyages for Planetary Science in the Decade 2013-2022" presents the results and recommendations of the Planetary Science Decadal Survey conducted by the US National Academies during the past two years upon a request from NASA. The recommendations of this survey serve as a guideline for NASA's planetary exploration and supporting activities. Among the tasks performed by the Steering Committee were - (1) A broad survey of the current state of knowledge of the solar system, (3) An inventory of the top-level science questions that should guide flight programs and supporting research programs, (4) Recommendations on the optimum balance among small, medium, and large missions and supporting activities (5) A discussion of strategic technology development needs and opportunities, and (6) A prioritized list of major flight investigations in the New Frontiers and larger classes recommended for initiation over the decade 2013-2022.

The Decadal Survey recommendations include a Venus Climate Mission as well as New Frontiers missions and Discovery Missions to Venus. The survey recognizes the value of international partnerships such as those between ESA and NASA. These guidelines are thus significant for prospects of future US missions to Venus, and also important for international collaborative efforts to explore Venus in the current. budgetary climates.

The current New Frontiers Opportunity (NASA) is undergoing evaluation of three concept studies, one of which includes a mission to Venus, and the Discovery Missions Opportunity is evaluating many proposals for missions to Venus. The outcome of these competitions should become known in the next few months and selection of Venus missions will accomplish some of the goals identified by the Decadal Survey and guide future exploration activities.

NASA's Venus Exploration Analysis Group (VEXAG) serves as a forum to identify scientific priorities and exploration strategies for Venus. It will hold a workshop during August 30 – 1 September in the Washington, D.C. metropolitan area to which all scientists interested in Venus exploration are welcome.

Keywords: Venus, exploration