

ISSI Venus Atmosphere Working Group

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ISSI, Bern, 29 September 2008

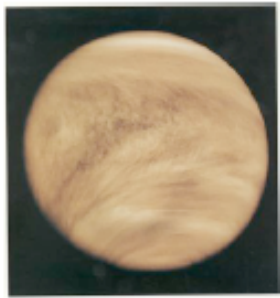
VEXAG

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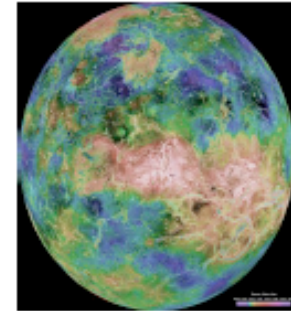


VEXAG 5
May 7-8, 2008

Ellen Stofan



VEXAG Results: *A World in Contrast*

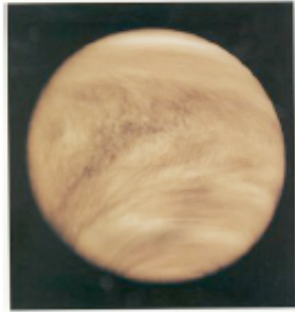


- Well attended meeting (~60 attendees)
- Science talks illustrated necessity to study Venus to understand terrestrial planet evolution

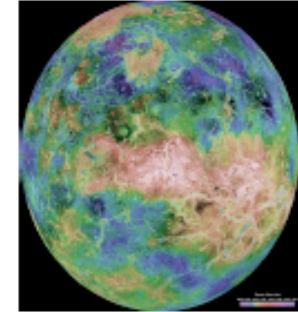
- **Climate is key**
- **System Science:**
- Interior-Surface-Atmosphere system



- Studying Mars alone will not allow us to understand evolution and fate of habitable worlds
- **Enthusiasm for new avenues of Venus research and exploration**



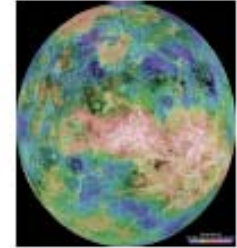
VEXAG Assessments



- STDT: Science goals and process strongly endorsed
 - Received valuable input and support from community
 - Want additional input opportunities- will be done via web
 - Technology Focus Group Assessment: Endorsed needs identified by STDT, advocated need for prioritization and near-term technology investment
 - System-level technology: High temperature sample acquisition and handling; P, T mitigation; Environmental testing
 - Instruments (highest priority InSAR)
 - Long lived seismic package
 - Long traverse floater
 - Aerocapture
 - Venus environmental testing facility
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VEXAG Assessments



- Comparative Climatology research program strongly endorsed by science focus groups
 - ROSES 2009 amendment endorsed
 - Fall AGU session in process
 - Timing of Chapman conference under discussion
 - Continued outreach to community
- **Venus Laboratory Research Initiative endorsed by both atmospheres and surface / interior communities**
 - Significant list of needed measurements
 - Geochemistry Workshop February 2009 in works
 - International coordination needed
- Venus research community would benefit from renewed emphasis in R&A programs (PGG, Atmospheres, etc.)
- Next meeting February 2009

Venus Science and Technology Definition Team

- Appointed by NASA in January 2008
- Tasked to arrive at a Flagship mission concept study by end of 2008
 - Study currently underway
 - Will be presented to the community in October 2008 (DPS Annual Meeting) to seek comments

Venus Vortex Model

- Paper being submitted to GRL
- http://venus.wisc.edu/Vortex_Model.html