DENVER MUSEUM OF NATURE AND SCIENCE
VENUS WINDS PROJECT
MINUTES OF MEETING

Date/Time/Location: 20 November 2014 6:00 PM Health Studio 201

ATTENDING

Boudreau	**Bullock**	Crowl	Diba	Doubek	**Farrell**	Gehring
Harter	**Heil**	Knutson	Krider	Lindsay	**Logan**	
McGouldrick	**Parziale**	Romero	**Royer**	**Stewart**	**Tarr**	Viera
Zimmerle						

The meeting opened at 6:00 PM at Health Studio 201. Those **attending** are listed above.

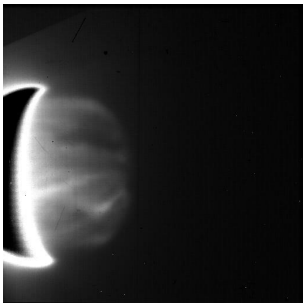
While waiting for researchers to arrive, Mark discussed recent images from ESA's Rosetta mission lander *Philae* onto comet 67P/Churyumov-Gerasimenko.

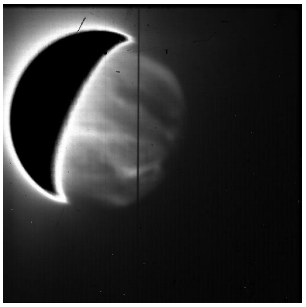
OLD BUSINESS

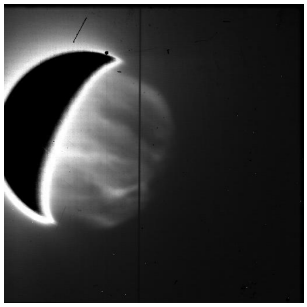
Your results and experience All researchers
Earlier Mark released nine images from the 20040712 dataset. Researchers were to choose the same nine tracking points on each image and record their coordinates on a spreadsheet. Revised results from by Christy were displayed. Her velocity vs. latitude with linear best-fit graphs were displayed to determine if removing the condition for the initial data point to be fixed at (0,0) would improve the fit; the conclusion was "No".

New image evaluation assignment: 14 Dec 2010 Mark, Art
New data from the **14 Dec 2010** image dataset were not available because the Venus Winds wiki has been blocked by IT personnel at SwRI due to alleged hacking by outsiders. As a result, Mark has prepared two DropBox folders that contain 1,589 images in FITS format and JPEG format, respectively. Art presented nine images that he had chosen, satisfying the conditions that (a) the interval between images was approximately 198 images and (b) the quality of the image had to be higher than its nearby neighbors.

Examples of selected images:


im0005.jpg


im0795.jpg


im1566.jpg

Individual sub-group tasks
Tasks of three sub-groups. Results from the first two were postponed.

Sub-group *Slit Removal* (Proposer: Dylan)
Dylan described his tentative plan to remove the slit artifact from the images. Mark discussed his own experiments in doing the same task. If automated, the slit removal feature would measurably improve the quality of the images for analysis.

Sub-group *Improved Online Tools* (Proposer: Ricardo)
Ricardo and an associate have been improving the coordinate recording tool that Ricardo demonstrated at the last meeting (October 23). The tool is available for testing at **http://venuswindsproject.org/**. Report your experience and any problems to Ricardo. Ricardo also suggested an improved method of rapidly examining a series of images for a specific dataset. Discussion followed regarding temporary data storage while the wiki is being restored. This has been accomplished with the release of the two DropBox folders.

Sub-group *Plotting Rotation Curves* (Proposer: Christy)
Christy has agreed to calculate velocity vs. latitude speeds for a solid sphere rotator. She will plot the velocities of points at several latitudes on the surface of a sphere. There will be one curve for an equatorial velocity of 50 m/s, one for an equatorial velocity of 75 m/s, and one for an equatorial velocity of 100 m/s.

NEW BUSINESS

Follow up test on 20040712 All researchers
Mark will hand out the first image of 20040712 with nine points marked and annotated with *x,y* values. These points will be tracked on the eight subsequent images. This exercise is to eliminate variability due to initial selection of tracking points.

Submitted by Arthur C. Tarr, Venus Winds Project Coordinator