

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

Date/Time/Location: 11 June 2015 6:00 PM Exploration Studio 106

**ATTENDING**

<b>Art</b>	Ashley	<b>Chris</b>	Cristy	Dave	Drew	Dylan
<b>Emilie</b>	John	<b>Kevin</b>	Nick H.	Nick Z.	Mark	<b>Marta</b>
Mica	Michael D.	<b>Michael L.</b>	Rachel	Ricardo	<b>Terran</b>	<b>Yvonne</b>

Guests: None

The meeting opened at 6:00 PM at Exploration Studio 106 in the Morgridge Wing. Those **attending** are listed above. We welcomed new analyst **Chris Knoeckel!**

**OLD BUSINESS**

**Your experience with DS9 and Gimp** All

There was discussion of the use of **SAOImage DS9**, an analysis tool that is widely used by the astronomical community. The **DS9** website is located at <http://ds9.si.edu/>. It is free and available for PCs, Macs, and Linux machines. Analysts are encouraged to download both **DS9** and its accompanying documentation to try it out.

There was no discussion of the relative merits of **Gimp**, another open source suite of programs, for similar analysis of images. We will have a discussion of the comparative merits of **Gimp** and **DS9** at a later date.

**Wind Velocities to Date** Mark

Mark summarized the results from all analysts who have completed velocity spreadsheets for July 12, 2004. One weakness of the methods used so far is the inability to yield more consistent results. At a later meeting, Christy will do a statistical analysis of the results to date.

**Persistence of cloud features** Mark

At the last meeting, Mark and Kevin discussed the possibility that some cloud features might be identified on images from the next day or previous day. Art has sampled some images from 13 July 2004 and compared them with images from the 12 July 2004 series. He reports that a small number of possible correlations were found. He used **DS9** to make the identifications; location was precise, frequently to the nearest pixel.

**Transportation options** Art

Art summarized two possible solutions for some of our analysts who may depend upon transportation by family or friends to attend the Venus Winds Project meetings. These solutions are carpooling and RTD passes that are provided by the Museum. However, other suggestions will be considered from our membership.

## NEW AGENDA ITEMS

### **Summary of results of July 12, 2004 wind velocities** Mark

Mark went over some of the results to date for wind velocity determinations from the July 12, 2004 dataset. This includes spreadsheets for which the initial tracking points were determined by the investigator, and later, newer results using the consensus-derived tracking points. There was agreement that point #6 was difficult to track accurately.

### **July 13, 2004 wind velocities** Mark

We will take a look at Venus images from July 13, 2004 to see if we can spot features that were seen in images the day before. We will also be working with a new spreadsheet to calculate wind velocities for this date. Mark will send rectangular images for July 13 and a spreadsheet. Please use **DS9** for tracking points between July 12 and July 13.

The next meeting on June 25 will be in Exploration Studio 106.

Submitted by Arthur C. Tarr, Venus Winds Project Coordinator