Opportunity Extraterrestrial Virtual Field Experience

1. (500-750 words) Based on your notes and the Mission Manager log from the Extraterrestrial Virtual Field Experience (EVFE), write a narrative that describes your conclusions about the nature and source of the hematite at the Meridiani landing site. Include analysis about the order and types of observations made, and how those might have been impacted by the constraints of operating a robot on another planet. Specifically, do not use additional outside resources or narratives about the MER mission. This essay should read as if it were an expose in a scientific journal such as Scientific American. While it should still be written for a general audience, you can assume that the reader is more scientifically literate than in past assignments. Please turn in your group’s Mission Manager log along with the essay. While there will only be one Mission Manager log per group, please write the 500 word essays individually.

2. (~500 words) The EVFE is, itself, designed to be a mechanism for communicating science to the lay public. Please compose a critical analysis of the effectiveness of the EVFE for this purpose. You may consider (but are not limited to) critiquing the following aspects of the activity.

- Does the activity present a coherent narrative of scientific exploration?
- Does the activity convey a sense of the methods used by scientists operating robotic spacecraft? A sense of what constraints under which such spacecraft are operated?
- Are the uses of the various MER instruments made clear by the end of the activity?
- Are the technical descriptions of scientific results (e.g. in the Mission Manager reports) clear to non-scientists?
- Is the interface straightforward to use or at least comprehensible?

After you have completed the assignment, if you are interested in learning more about the operations of Spirit and Opportunity, you can go to the MER Analysts Notebook (http://an.rsl.wustl.edu/mer/) which contains a nearly complete sol-by-sol record of the activities of the actual mission teams including links to data, maps, and formal planning documents.