

Mars for Earthlings

LESSON 4: Remote Sensing Mars**Homework 1**

Remote Sensing_MFE

Google Mars-Following Opportunity

Objective: The purpose of this homework set is to get you familiar with different types of Mars remote sensing imagery and programs.

*Google Mars-Following Opportunity***Directions/Questions:**

Download Google Earth if you haven't already:

<http://www.google.com/earth/download/ge/agree.html>

In the icon list across the top of the window click on the planet with a single ring and a small dropdown arrow. You should see options for Sky, Mars, and Moon. Click on Mars.

1. Name the 5 types of spacecraft imagery available through Google Mars.

What do the 5 acronyms stand for?

- a.
- b.
- c.
- d.
- e.

Find Olympus Mons (see if you can find it without typing the name in the "fly to" box).

2. What is the highest elevation according to Google (find the appropriate *Global Map Layer* in order to determine this information)?
3. In the *Global Maps Layer*, besides the *Visible Imagery*, which imagery gives you the highest resolution of the volcano? Why is this the case?

Go to the *Rovers* and *Landers layer*

4. What are the current coordinates of these 3 lander sites?
Phoenix Lander
Viking 2 Lander
Mars 3 Lander



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5. Where did MER Opportunity Rover land? (i.e. what crater?)

What crater did it visit next?

Look at the Burns Cliff panorama photo (camera icon, you may have to click on a couple to figure out the right one).

6. List 2 observations you can make about the photo (colors, shapes, lineations, etc.)?

Name 2 other craters the Opportunity rover explored.

7. Write down two observations about what you see in the bottom/ centers of Victoria Crater. Can you name the features?
8. Using the Traverse Path layer of the MER Opportunity Rover, locate its position on Sol 1685 (sol= Mars day). What annotated feature (labeled named) is it nearest?

