

Student Name: _____ Class Period: _____

Student Worksheet for Step 4:
Describing Satellite Images of Possible Impact Craters

Part I. Consider what effects an impact event might have, and **describe those effects below.** Though you are working in groups for this step of the activity, each student must complete this worksheet.

A. The object itself: Would you expect to see any evidence of the object itself in a satellite image? What evidence might you find?

B. Shape of the land: What kinds of changes would that impact make to the shape of the land where it hit, and all around?

C. Effects of Time: What kinds of changes will occur to the impact site over time? Remember that some changes are fast, and some are slow.

D. What else might you see in these satellite images that could help you learn about an impact crater?

Part II. As a group, study all of the satellite images. Below are their fake names (to use until you've identified them yourselves as impact craters or something else):

AOR

Latitude: N 19° 6'
Longitude: E 19° 15'
Size: 12.6 km in diameter

ELG

Latitude: N 67° 30'
Longitude: E 172° 5'
Size: 18 km in diameter

HGH

Latitude: N 75° 22'
Longitude: W 89° 41'
Size: 20 km in diameter

MAN

Latitude: N 51° 23'
Longitude: W 68° 42'
Size: 72 km in diameter

MSH

Latitude: N 46° 16'
Longitude: W 122° 12'
Size: several km in diameter

RCH

Latitude: 21°04'N
Longitude: 11°22'W
Size: 38 km in diameter

SCH

Latitude: N 37deg 20' 36.1"
Longitude: W 116deg 33' 59.9"
Size: About 300 m in diameter

You need to know that...

- ❖ All of these satellite images show the Earth's land surface, not another planet's surface, and not the Earth's atmosphere. No hurricanes or tornadoes appear in these images.
- ❖ The colors in these images are false colors. White isn't always snow; lakes often appear black; vegetation is sometimes red.
- ❖ All of these landforms are large. One is 300 m in diameter, and the others are 1 km in diameter or larger. Most of them 10-90 km in diameter.
- ❖ Aliens from other parts of the universe had nothing to do with creating the landforms in these images.
- ❖ If you see a letter or a face, it's just an accident of nature.
- ❖ People sometimes make large craters with explosives or large mining equipment.
- ❖ Multiple Impacts: Sometimes impacts come in twos or threes. It's rare, but it can happen when a comet or asteroid breaks into a couple of large pieces just before it strikes the Earth.

Part III. As a group, now choose two of the images you find most interesting, and prepare to describe them to the class as directed by your teacher.

- A. Circle the name or names of the one or two landform(s) your group has chosen to describe for the class. Write next to it if you think it is an impact crater or some other kind of landform.

AOR ELG HGH MAN MSH RCH SCH

B. What evidence do you see in the satellite image that your landform is or is not an impact crater?
Describe it here:

Come to agreement as a group about whether or not the image you've chosen is or is not an impact crater, and why.