Weather Satellite

Goal of the exercise is to obtain a basic understanding of satellite imagery and loops.

Examine the visible and infrared images from June 7.

1. Locate Missouri. What does the visible satellite image look like in this area? What kind of clouds do you think these are?

2. Locate Arkansas. What does the visible satellite image look like in this area? What kind of clouds do you think these are?

3. Now look at the infrared satellite image and find Missouri and Arkansas. What does the image look like in these two states?

4. Can you get the same kind of information from the infrared image as you could from the visible image? Why or why not?

5. Where are the coldest cloud tops located? Which satellite image did you examine to determine this?

6. Using both the infrared and visible images, what region of the country would you estimate to be cloud free?

7. Why is the infrared image so dark in California, Nevada and Arizona?

8. Look at the area of the Pacific Ocean near the coastline of Southern California. There are clouds present in this location. The visible and infrared images look very different for this same location. What can you say about the temperature and thickness of the clouds here?

9. Look at the <u>infrared loop</u>. The loop covered the period 8:45 AM to 12:45 PM.

10. Look at the states of California, Nevada and Arizona. What happens to the shading(color) of the image during the loop?

11. Find Baja California, Mexico, the Gulf of California and the Pacific Ocean. How does the shading of the land vs. water change throughout the loop? Can you take a guess as to why this happens?

<u>Look at the visible loop</u>. The loop covered the period from 8:45 AM to 12:45 PM.

12. Look at the states of California, Nevada and Arizona. Do you see the same change in shading(color) as you did with the infrared loop? Why or why not?

13. Several frames have a portion of the bottom left of the image blacked out. What is your best guess as to why this is?