Geography 407. Remote Sensing.
Spring 2006
Photogrammetry. Exercise 1: scale, length and area

Photo: Honolulu Harbor, photo 4381-7

1. How many square miles are covered by a 9 x 9 inch photograph at a scale of:

  a) 1 : 5000

  b) 1 : 10000

  c) 1 : 20000

2. A field measures 1 ½ x 3 inches on a photograph with a scale of 1 : 11,000. How many acres are in the field? (1 acre = 43,560 sq ft)

3. Calculate the scale of the harbor photograph at sea level using the information given along the edge of the photo.

4. Calculate the scale of the harbor photograph at ground level assuming that the ground is 20' above sea level.

5. How long is the ship shown in the photograph?

6. How long is a single railroad car? (Use the magnifier lens to ensure that you are able to distinguish a single car. Each car carries two containers.)

7. What is the area of the top of the large white tank at the top center of the photo?

8. What is the area of the top of one of the four large tanks near the center of the photo?