Remote Sensing Homework **Spring 2007**

Please answer in complete, coherent, grammatically correct sentences and show all work!

Satellite Image Interpretation *Due Wednesday 21 February 2007*

1. Explain two advantages and two disadvantages of using polar-orbiting satellite information versus that from geostationary satellites for analysis of cloud and weather features.

2. Why is it difficult to distinguish low clouds from the surface in visible and IR images when the clouds occur over snow?

3. You are looking at a set of visible, infrared, water vapor (WV), and near-IR (also called short-wave IR) images for the northeast section of the U.S. on a day in January. Given the following observations, describe conditions that could cause the observations, and explain your reasoning:

   a. A cloud mass looks bright white in all 4 images.

   b. A region looks bright white in the visible and dark in the other three images.

   c. A region looks dark gray in the visible, white in the IR and near-IR, and gray in the WV.

   d. A region in the coastal waters has bright linear features in the visible, gray in the IR and WV, and bright in the near-IR.

4. Define the following terms:
   a.terminator

   b.sunglint

   c.enhancement curve

   d.atmospheric window

   e.comma cloud

   f.albedo

   g.jet stream