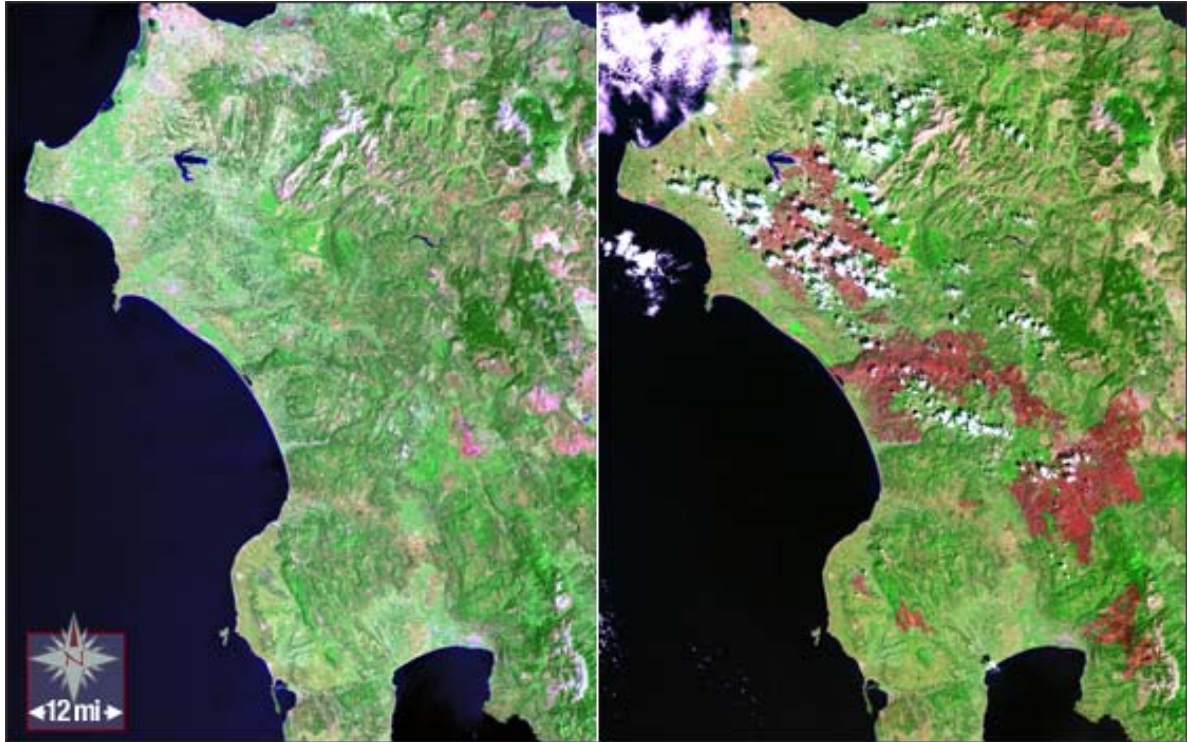# Estimating Biomass Loss from a Large Fire

The fires in Greece during the summer of 2007 devastated large tracks of forest and ground cover in this Mediterranean region. These before (left) and after (right) images were taken on July 18 and September 4 by Landsat-7. The red areas show the extent of the biomass loss from the fires.

Problem 1 - Using a metric ruler, and the conversion 1 mile = 1.61 kilometers, what is the scale of the image in meters per millimeter?

Problem 2 - About what is the total area, in square-kilometers, of this photo of Greece and its surroundings?

Problem 3 - About what was the land area, in square-kilometers, that was burned?

Problem 4 - What percentage of the total area was lost to the fires?

Problem 5 - Suppose that a typical forest in this region contains about 5.0 kilograms of biomass per square meter. How many metric tons of biomass were lost during the fires?