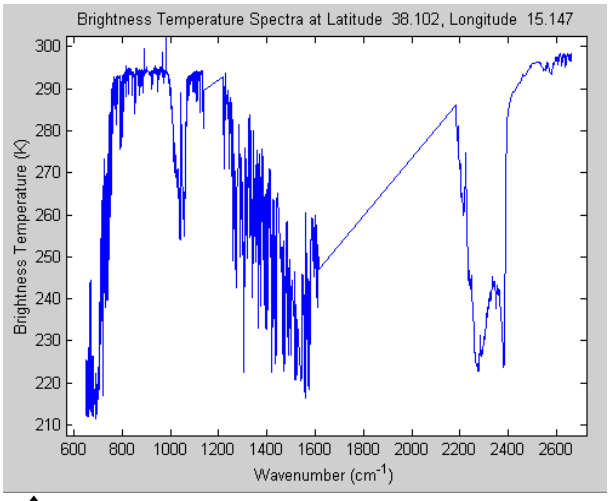
Maratea Remote Sensing Seminar
Menzel / Revercomb / Antonelli
22 – 31 May 2003
Quiz 2 (15 minutes)

Name:_____

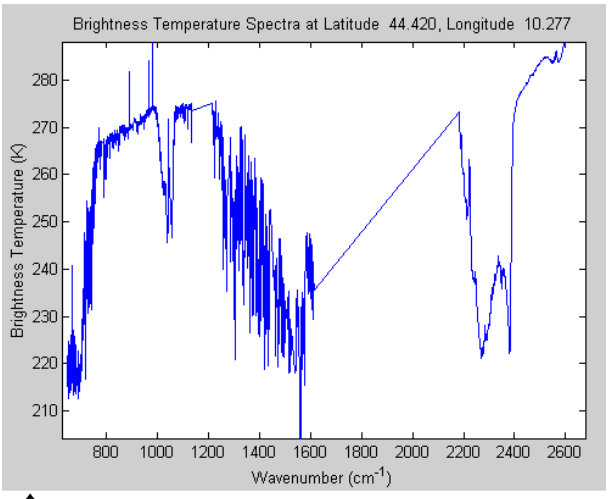
1. Let $\tau(z1, z2)$ be the transmittance of radiation from atmospheric height z1 to z2. Express $\tau(z, 0)$, the transmittance of downwelling radiation from height z down to the earth surface, in terms of $\tau(z, \infty)$, the transmittance of upwelling radiation from height z to the satellite sensor at ∞, and $\tau(0, \infty)$, the total atmospheric transmittance.

2. Associate the cloud test on the left with the appropriate descripter on the right.

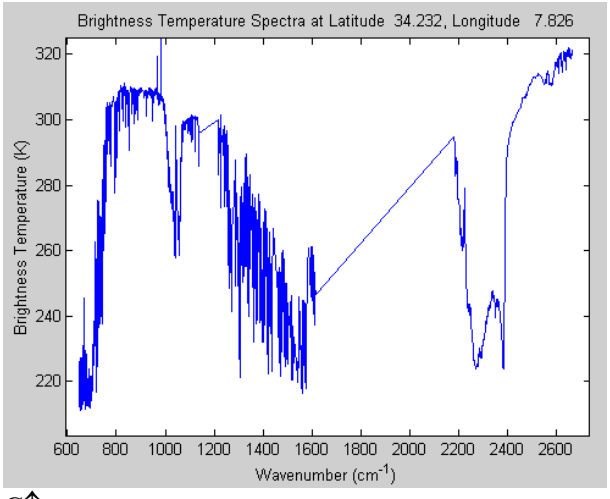
[ ]	r1.38 > threshold	(a) indicates high clouds in the tropics
[ ]	r.87/r.66 between .9 and 1.1	(b) assures clear skies for temperature inversions
[ ]	BT3.9-BT11 > 3 C	(c) find high thin cirrus
[ ]	BT11 < BT6.7	(d) indicates clouds in vegetated areas
[ ]	BT11 – BT12 < 2	(e) tests for broken clouds



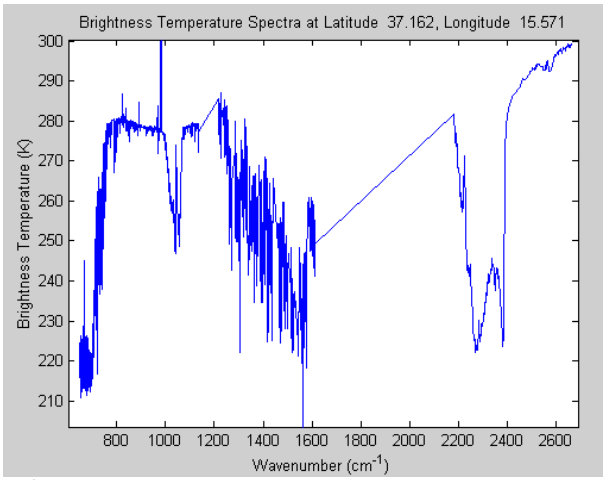
A↑



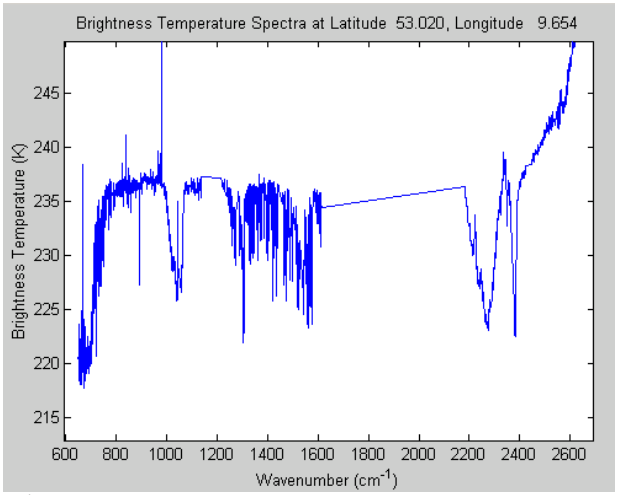
B↑



C↑



D↑



E↑

3. Identify the spectra with the scene

[ ] ash plume

[ ] ice cloud

[ ] barren land

[ ] thick cloud

[ ] ocean