NASA Applied Remote Sensing Training (ARSET) Program

Using NASA Remote Sensing for Disaster Management
2016

Homework #2

Weeks 3 &4
Oil Spills, Storms, Floods, and Landslide Disasters

Oil Spills

1) An experienced human eye can detect an oil spill in water by seeing differences in patterns and colors.

   a) True
   b) False

2) Remote sensing can be used to improve oil spill trajectory models.

   a) True
   b) False

3) Oil has a spectral signature that will be found in wave lengths ranging from:

   a) 400-600 nm
   b) 600-800 nm
   c) 1400 nm or higher

4) In general, most oils spills are very similar.

   a) True
   b) False

5) MODIS thermal imagery is not useful to detect oils spills.

   a) True
   b) False

6) If an oil spill occurred in the Arctic, what would be some of the obstacles one would encounter if they wanted to use remote sensing to monitor the disaster?

Storms, Floods, and Landslides

7) Geomorphologically, what is a landslide?

8) There is no danger of landslides in the US.

a) True
b) False

9) List the data quantities useful for monitoring and predicting landslides

10) Landslide Hazard Assessment for Situation Awareness (LHASA) will use precipitation from:

a) TMPA
b) IMERG
c) MODIS

11) Landslide reports indicate that the countries with higher GDP have higher landslide fatalities.

a) True
b) False

12) Go to http://ojo-streamer.herokuapp.com/ and scroll down to the recent landslide list. Based on this list how many landslide events occurred on June 26, 2016?

13) MODIS provides rainfall observations.

a) True
b) False

14) TMPA and IMERG do not provide rainfall at the same spatial resolution.

a) True
b) False

15) Can the MODIS Near-real Time Flood mapping tool be used to monitor streamflow?

a) Yes
b) No

16) The Global Flood Monitoring System provides flood intensity in terms of:

a) Streamflow
b) Threshold Depth
c) Accumulated Rain

17) This Tool provides flood alerts based on global forecast models.

a) GFMS
b) ERDS
c) MODIS NRT

18) MOIDS NRT Tool sometimes may not be used for inundation mapping in stormy weather, even if there is inundation occurring at the surface – Why?