From: "Roger N. Clark" <rclark@usgs.gov>
Sent: Thu, 02 Sep 2010 14:52:55
To: FOIA0105@usgs.gov
Subject: [Fwd: Mapping Oil sheen with AVIRIS]

-------- OriginalMessage--------

Subject: Mapping Oil sheen with AVIRIS

Date: Fri, 18 Jun 2010 13:56:28 -0600

From: Roger N. Clark <rclark@usgs.gov>

Organization: US Geological Survey

To: Victor F Labson <vlabson@usgs.gov>

CC: Eric Livo <elivo@usgs.gov>, Gregg Swayze <gswayze@usgs.gov>, Ray Kokaly <raymond@usgs.gov>, Todd Hoefen <thoefen@usgs.gov>, rclark@usgs.gov

Vic,

I thought you might like this plot. Our work on quantifying oil
sheen continues. We still have a few things to consider, but
I think we have a handle on them. I have a working prototype
program and attached is a plot of the histogram of sheen thickness
in the AVIRIS run 11 image.The peak is at around 0.4 microns
and the sheen covers most of the aviris line. We appear to have sensitivity
to about 10 or so microns in thickness. The oil volume in the
sheen for run 11 (which goes over the incident site) is
2600 barrels, compared to about 7000 barrels of thick oil (conservative),
to 80,000 barrels (possible).

Of course, we are still refining the method, so the sheen values could change.

Also note, that there is not a second peak or extension to a thicker component in the > 2 micron range.

Pretty cool that we can sense the thickness to a fraction of a micron from an aircraft! And we could do it from space.

Roger