

# **Ryan Chouest daily data transmission and report**

***Period covered: 13.15hrs 06/15/2010-1400hrs 06/17/2010***

***140.73 - Nautical miles covered***

## **Vessel science party:**

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\*joined crew at 11:35AM 6/16/10

## **Contact details:**

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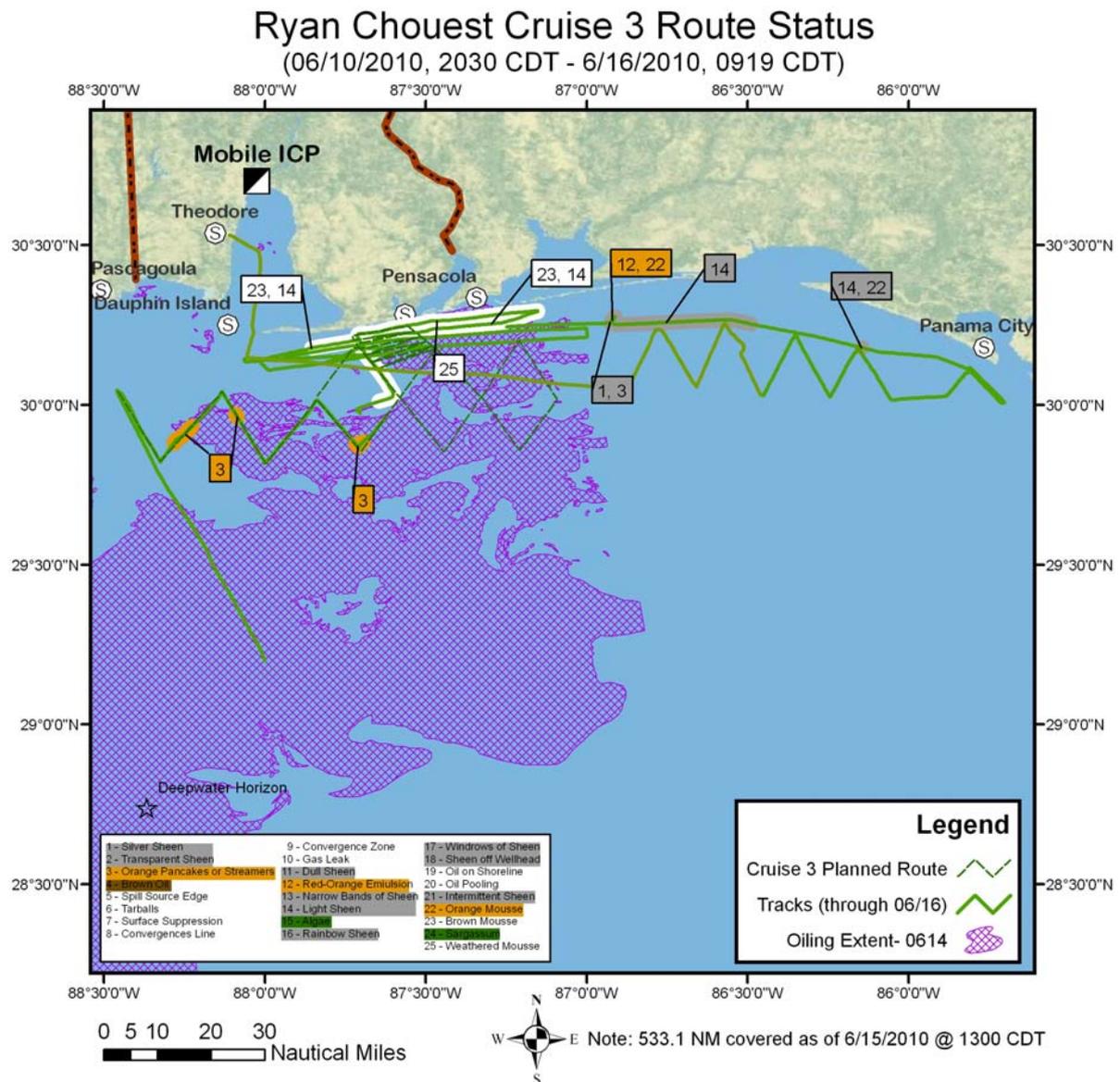
## **Cruise notes:**

Since 13.15 hrs 06/15/2010 we have continued our staggered route east along the coastline, ultimately returning to port in Theodore. Whilst in port we have had a staff change-over (NOAA, BP and Edison Chouest), and taken on additional supplies and equipment to enable deepwater sampling. No photos were taken and no observations were made during this period.

## **Science results and preliminary interpretation:**

Fluorometer readings during the last leg of the staggered course show generally low values for all three instruments, with a gradual increase to medium inferred concentration values while travelling westward into areas with oiling. Both Chelsea and Contros fluorometers show changes of response at similar points on the second last turn of the staggered course, (approximately 86° 45'W) the Chelsea recording a temporary increase in the region, while the Contros records a continual increase. However, all three fluorometers record increases to medium inferred concentration values westward of the area as the course nears port in Theodore. On arrival in port the underway equipment was hoisted out of the water and onto the deck and the sensors were removed from the system and cleaned. A hydrophobic sheen on the optical windows of the sensors was observed. A dark, thick, mousse-like material, was observed on the sampling hose and electrical leads. A sample was collected for extraction and subsequent GC-MS analysis.

## Planned versus actual route taken cruise 3:

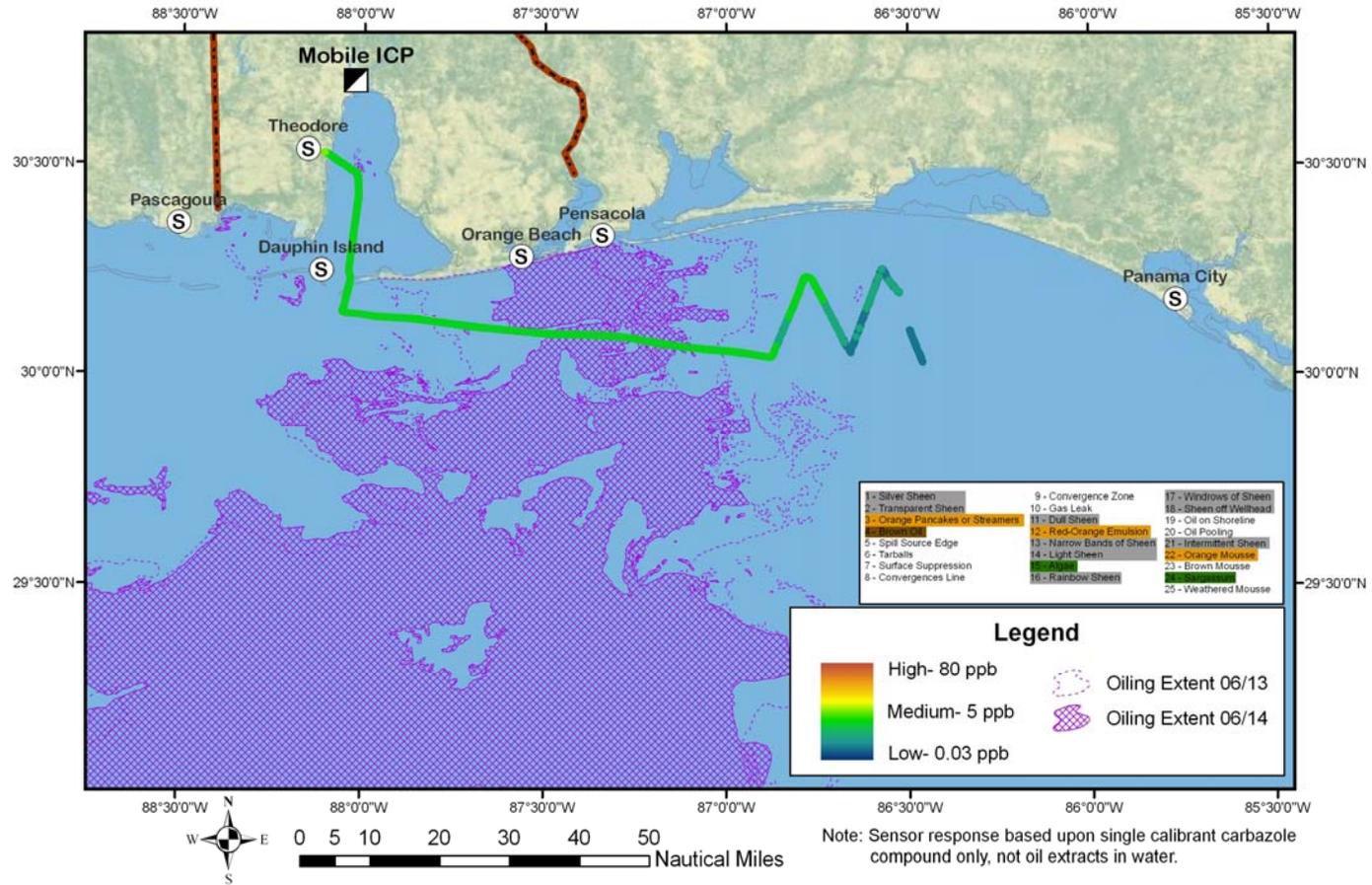


**Figure 1:** Planned versus actual route course plotted between 06/10/2010 –06/16. Purple shaded area represents outline extent of the slick from 06/14 ERMA composite.

### Vessel science operations:

Underway sensor system deployment and testing of water samples using the SPE and liquid-liquid extraction. Sampling and extraction of possible weathered oil from sampling hose. Preparation of second oil-water extract for GC-MS TPHG calibration purposes. Operations documentation and templates being refined in anticipation of team change over. Crew change took place as planned on 6/16 with the arrival of Lawrence Febo (bp) and Guilherme de Almeida (Entrix) and the departure of Sara Gersbach (bp) and Lt. William Winner (NOAA). On 6/16 we spent approximately two to three hours reviewing data treatment and ArcGIS map creation, which was previously handled by William Winner and Andrew Ross.

Ryan Chouest Cruise 3 Data  
 Chelsea- Fluorometer  
 (06/15/2010 01315 CDT - 06/16/2010 0919 CDT)



**Figure 2.** Chelsea fluorometer results plotted with location on cruise 4 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

Ryan Chouest Cruise 3 Data  
 Chelsea- Fluorometer  
 (06/15/2010 01315 CDT - 06/16/2010 0919 CDT)

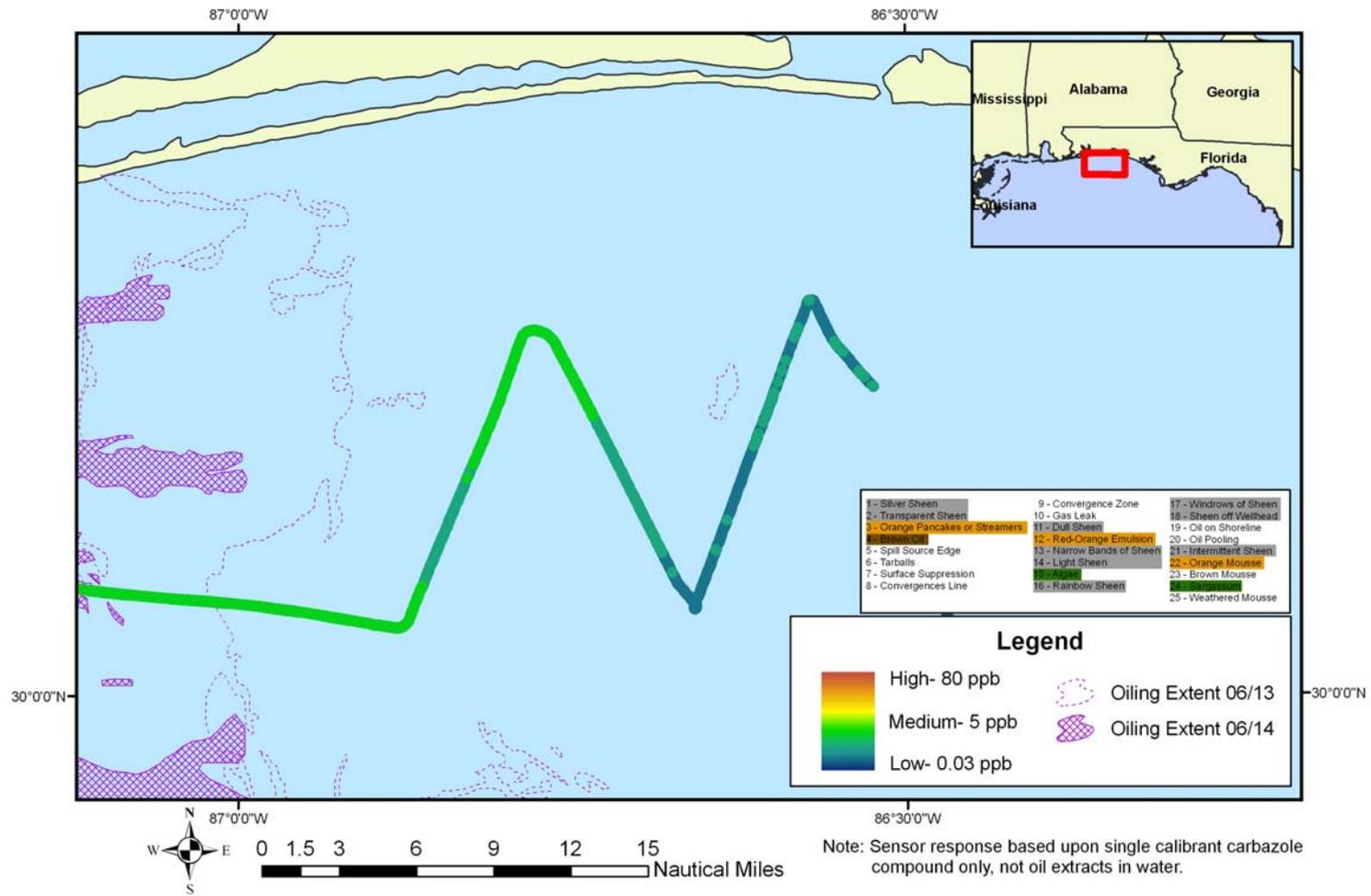
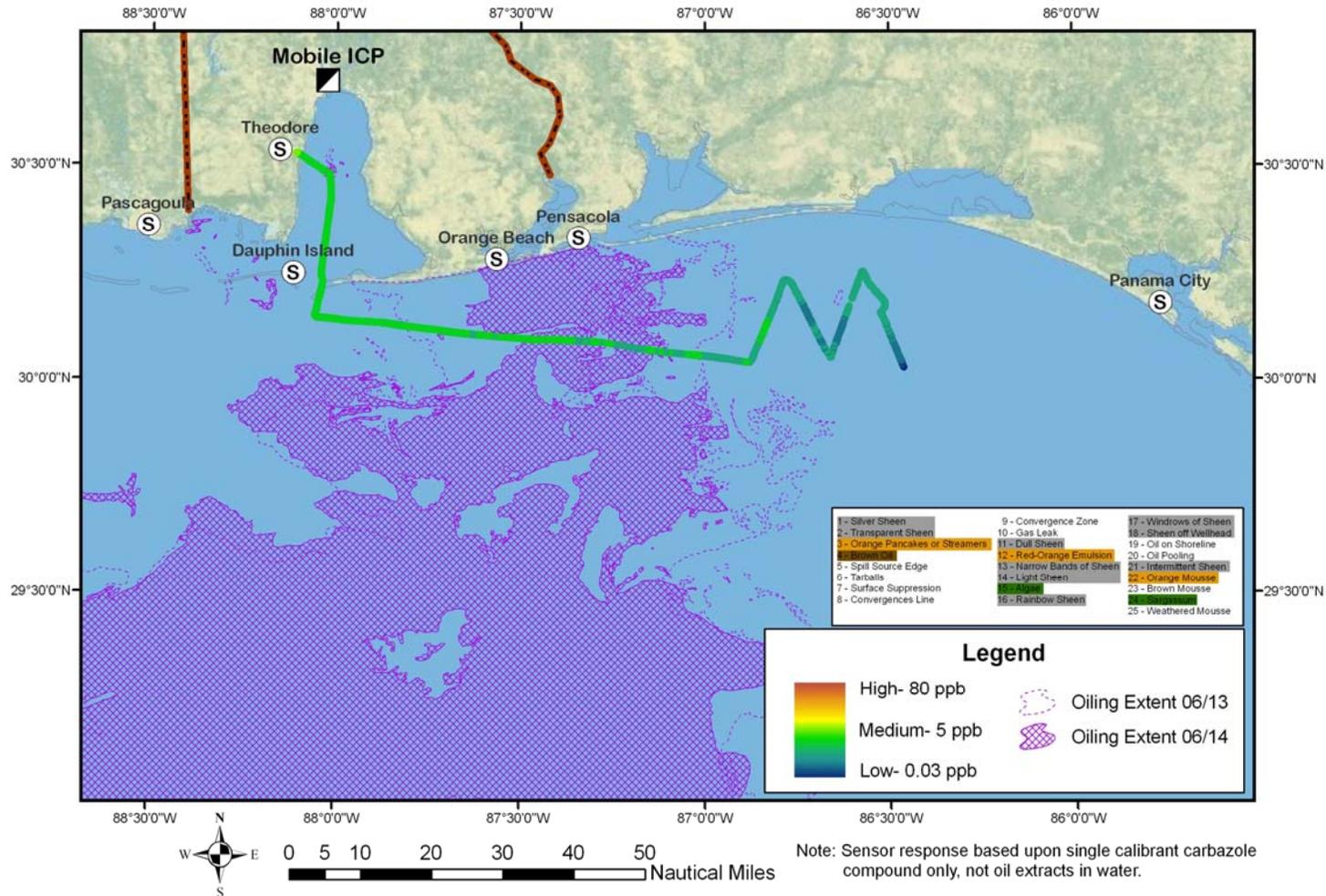


Figure 2b. Large-scale map of selected area of interest from Figure 2.

Ryan Chouest Cruise 3 Data  
 Trios- Fluorometer  
 (06/15/2010 01315 CDT - 06/16/2010 0919 CDT)



**Figure 3a.** Trios fluorometer results plotted with location on cruise 3 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

Ryan Chouest Cruise 3 Data  
 Trios- Flourometer  
 (06/15/2010 01315 CDT - 06/16/2010 0919 CDT)

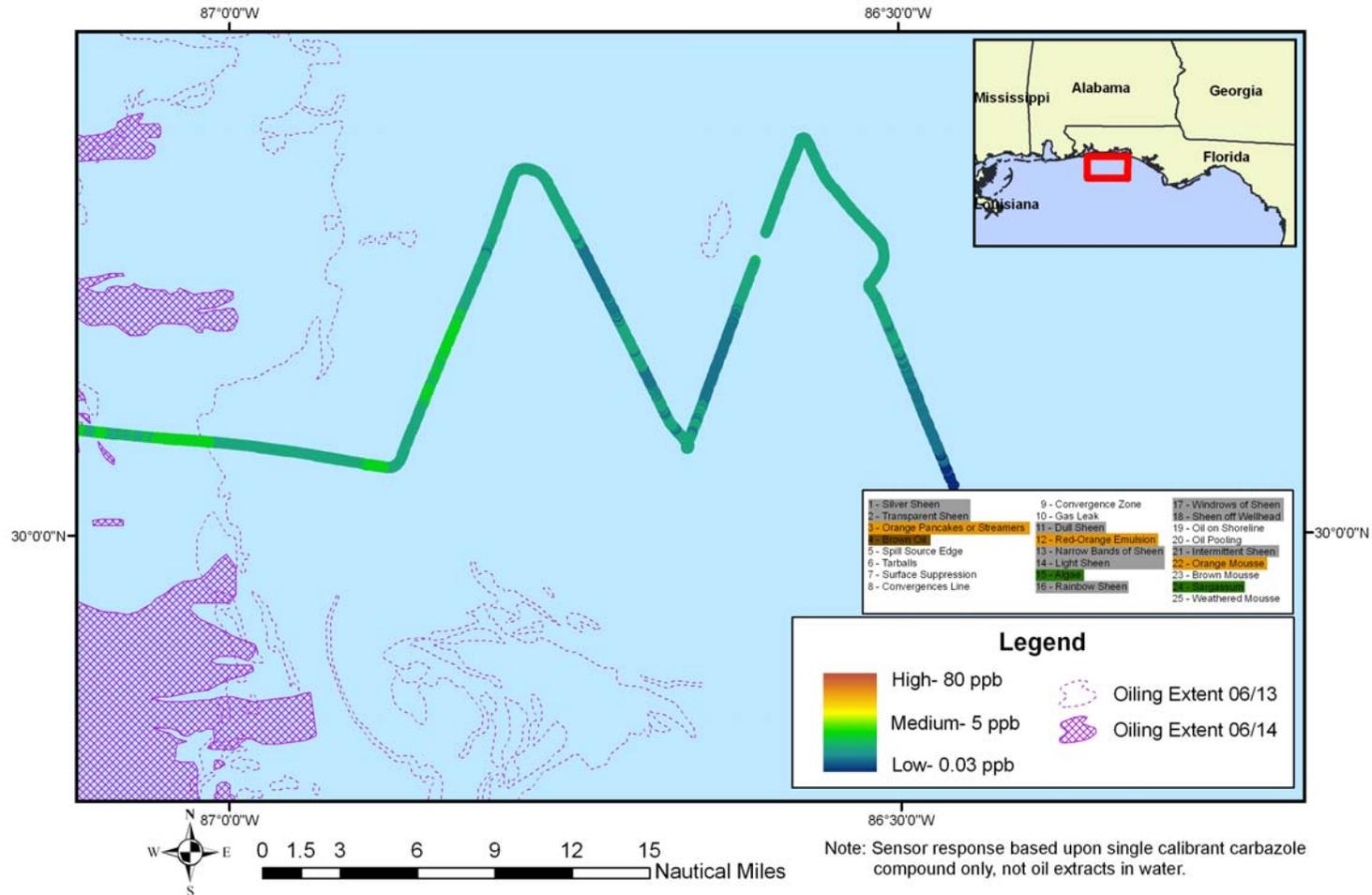
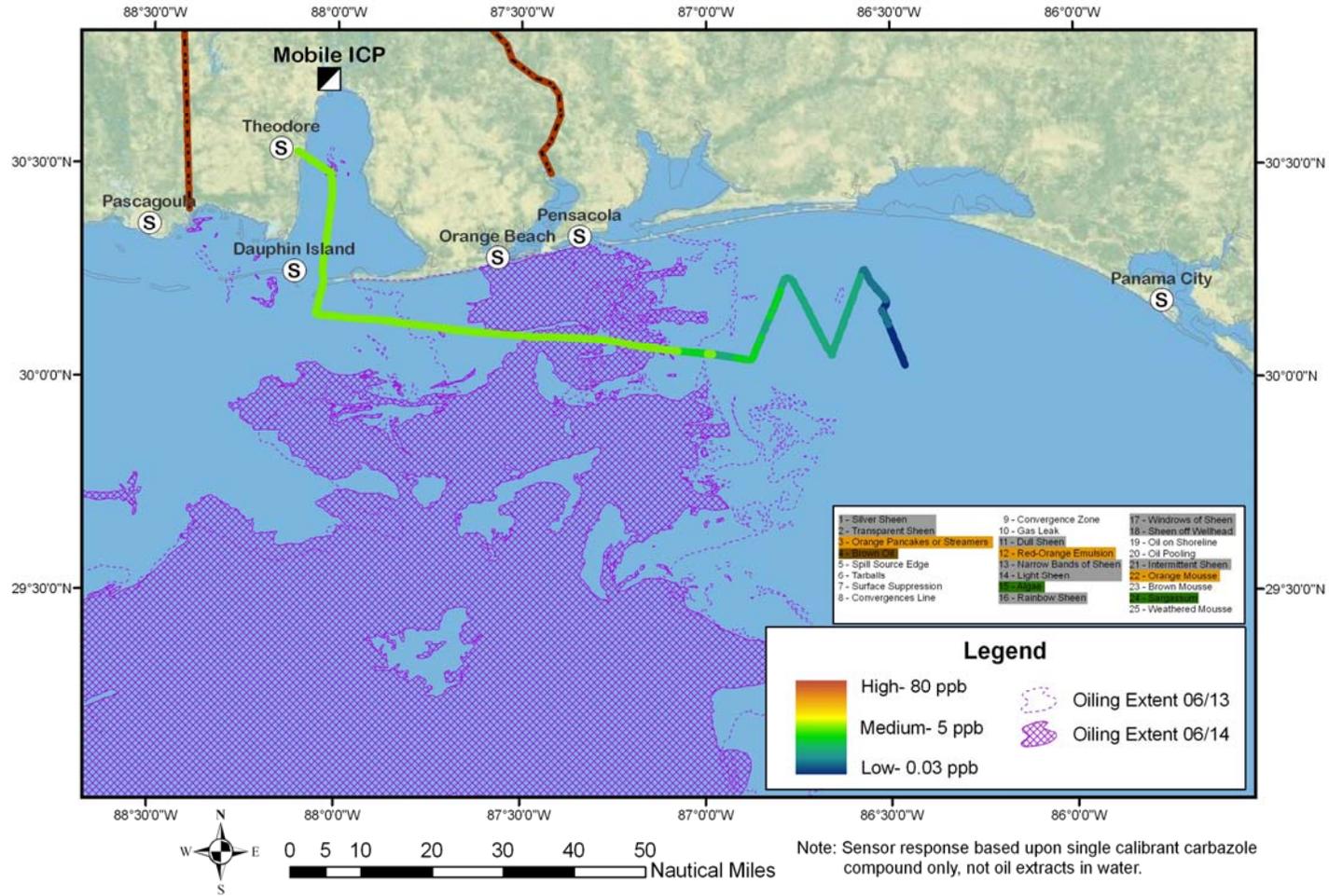


Figure 3b. Large-scale map of selected area of interest from Figure 3a.

Ryan Chouest Cruise 3 Data  
 Contros- Fluorometer  
 (06/15/2010 1315 CDT - 06/16/2010 1919 CDT)



**Figure 4a.** Contros fluorometer results plotted with location on cruise 3 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

Ryan Chouest Cruise 3 Data  
 Contros- Fluorometer  
 (06/15/2010 1315 CDT - 06/16/2010 1919 CDT)

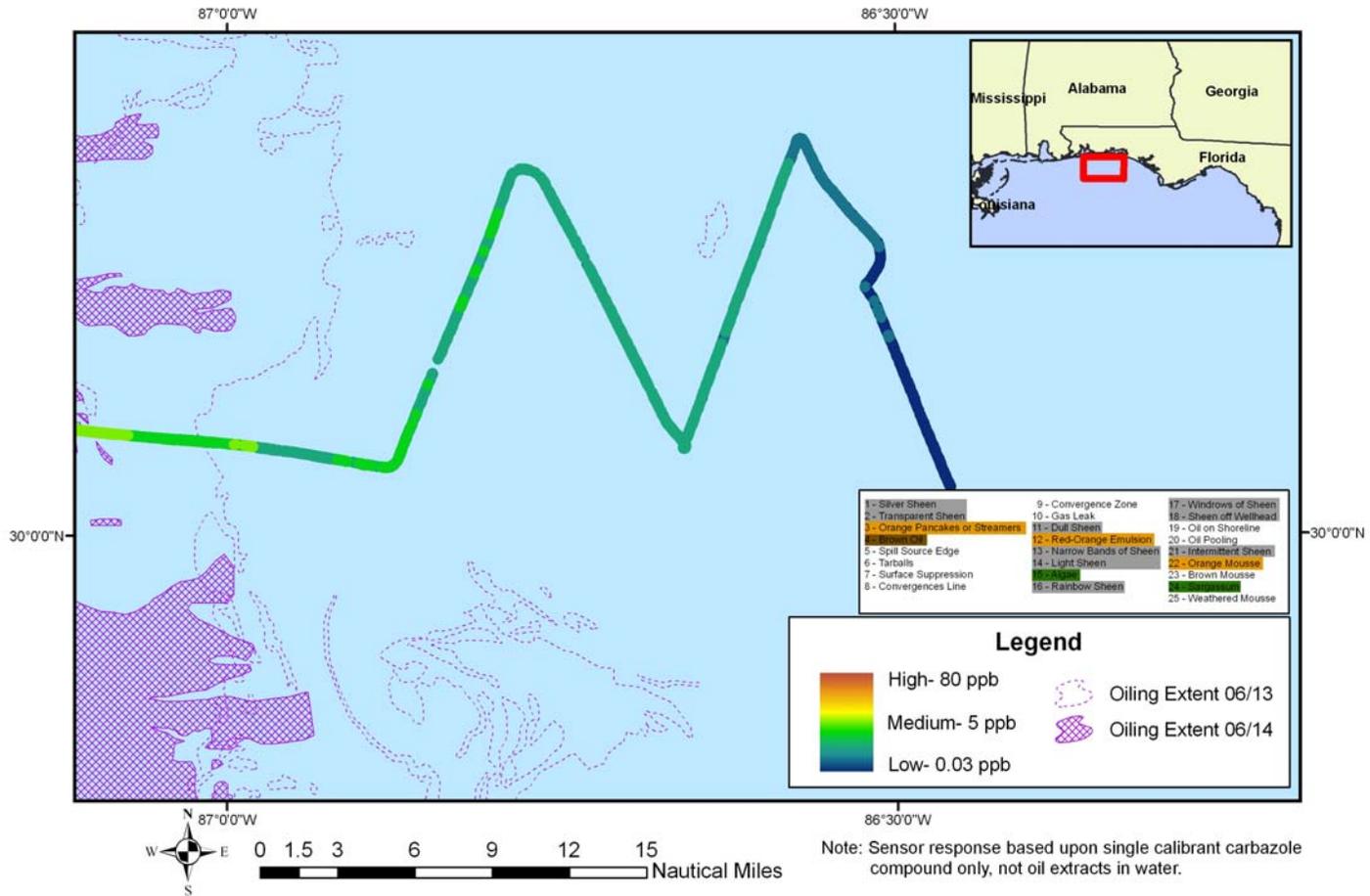


Figure 4b. Large-scale map of selected area of interest from Figure 4a.

**Problems/operational issues:**

Internet does not work when we are in port because the ship is in the wrong orientation to receive signal. As of 6/17/10 we did not receive the Jib crane (aka davit) and are waiting on wire and the correct hose for the reel. The hose is expected to arrive between 3 and 5 pm whereas the jib crane will be mobilized from a freight truck in Montgomery between 5 and 6pm and then sent by hot shot to the ship. We predict space to become a problem when we add more crew in one week including three new CSIRO scientists, a sonar specialist, and possibly an EPA representative. We will submit a proposal to add an additional lab container to be ready for the fifth leg beginning June 23<sup>rd</sup>.

**Planned activities for next 24 hours:**

It is anticipated that we will receive the modified reel, jib crane, 150m of hose, and winch cable at 2200hrs hrs on 06/17/10. These will be attached to the ship and then we will sail on the new course.