

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

***Period covered: 13.00 06/13/2010-13.30 06/14/2010***

***171.4 - Nautical miles covered***

## **Vessel science party:**

Andrew Ross ([Andrew.Ross@csiro.au](mailto:Andrew.Ross@csiro.au))  
Emma Crooke ([Emma.Crooke@csiro.au](mailto:Emma.Crooke@csiro.au))  
David Fuentes ([David.Fuentes@csiro.au](mailto:David.Fuentes@csiro.au))  
William Winner ([William.Winner@noaa.gov](mailto:William.Winner@noaa.gov))  
Sara Gersbach ([Sara.Gersbach@BP.com](mailto:Sara.Gersbach@BP.com))

## **Contact details:**

+ 1 337 761 9830 – Sat phone  
+ 1 337-761-9830 – Broadband phone ship office  
+ 1 337-761-9826 - Broadband phone ship bridge

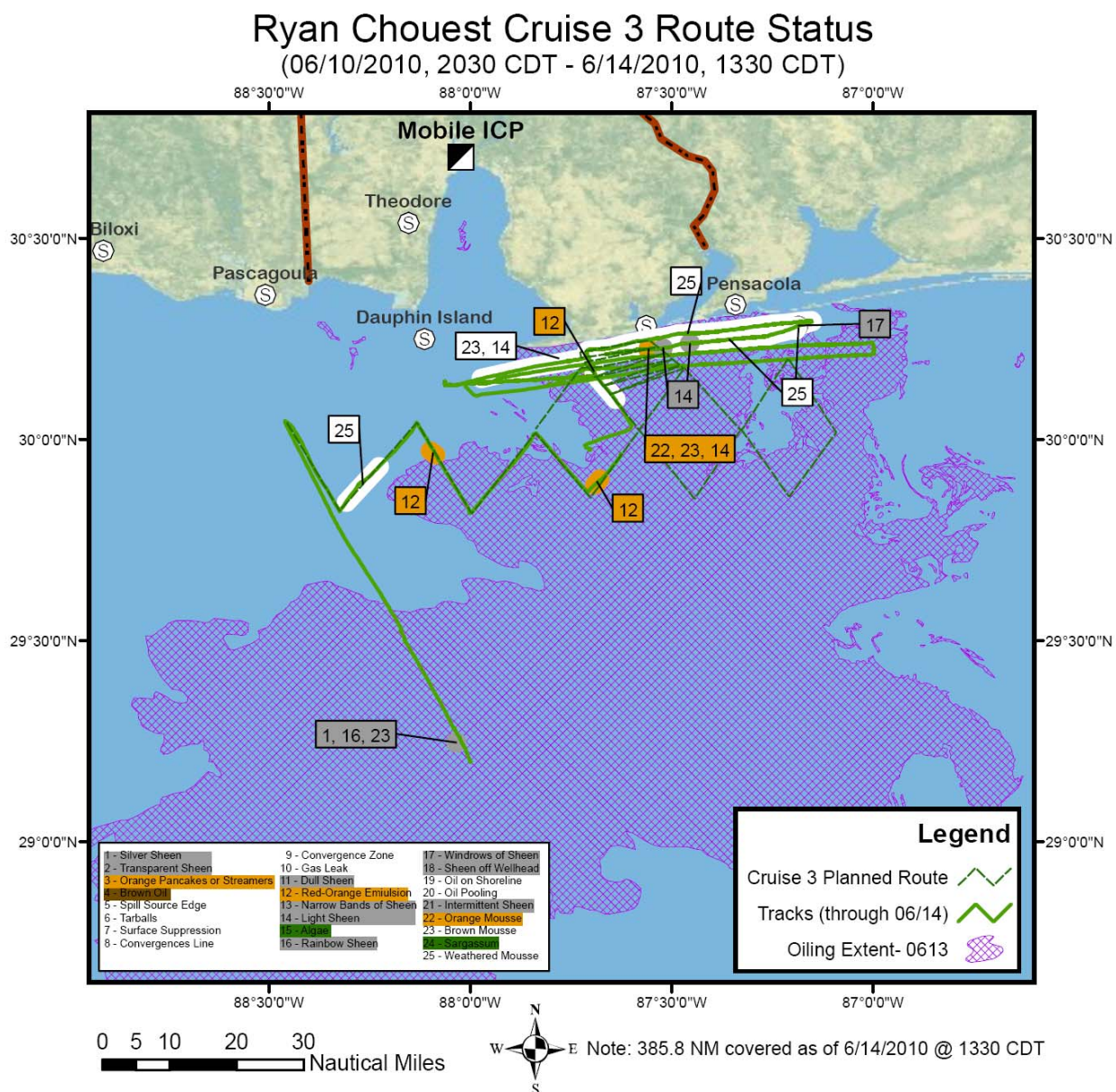
## **Cruise notes:**

Since 13.00 hrs 06/13/2010 we have continued our parallel route along the Alabama-Florida coastline gradually moving our survey area to the south on each track taken by 2 miles. The route continues to be characterized by heavy sheens and in places large accumulations of brown mounds. A deviation from our course was made during the evening of the 13<sup>th</sup> June to investigate possible upwelling of oil from the subsurface (30 08.157 N -87 48.22W). When we arrived at the reported sighting location it was unfortunately dark, however after some time on station and investigating the nearby area there was no obvious sign of any increased hydrocarbon concentration both on visual assessment and also with sensor response. In fact the sensor response was lower than the slick areas further inboard.

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

As with yesterday the fluorometer results recorded over the period show medium values of inferred concentration of hydrocarbons in the water column. The system is now being towed at 1-2 m yet the values of concentration are only a little higher than those from yesterday's results. The data show how the dissolved hydrocarbons have moved between observations. For example the data collected between Dauphin Island and 10 miles west of Orange beach over tracklines 2 miles and 3 hours apart show a distinct difference in results with increasing fluorescence response. Towards the eastern end of the tracks the sensor response is much lower when compared to the previous days ERMA oiling extent map. This could indicate either that the oiling in this area is less intense or that the time difference between the ERMA observations and the observations made by the Ryan Chouest is sufficiently long that the oiling extent and dissolved hydrocarbons in the water have moved between observations.

## Planned versus actual route taken cruise 2:

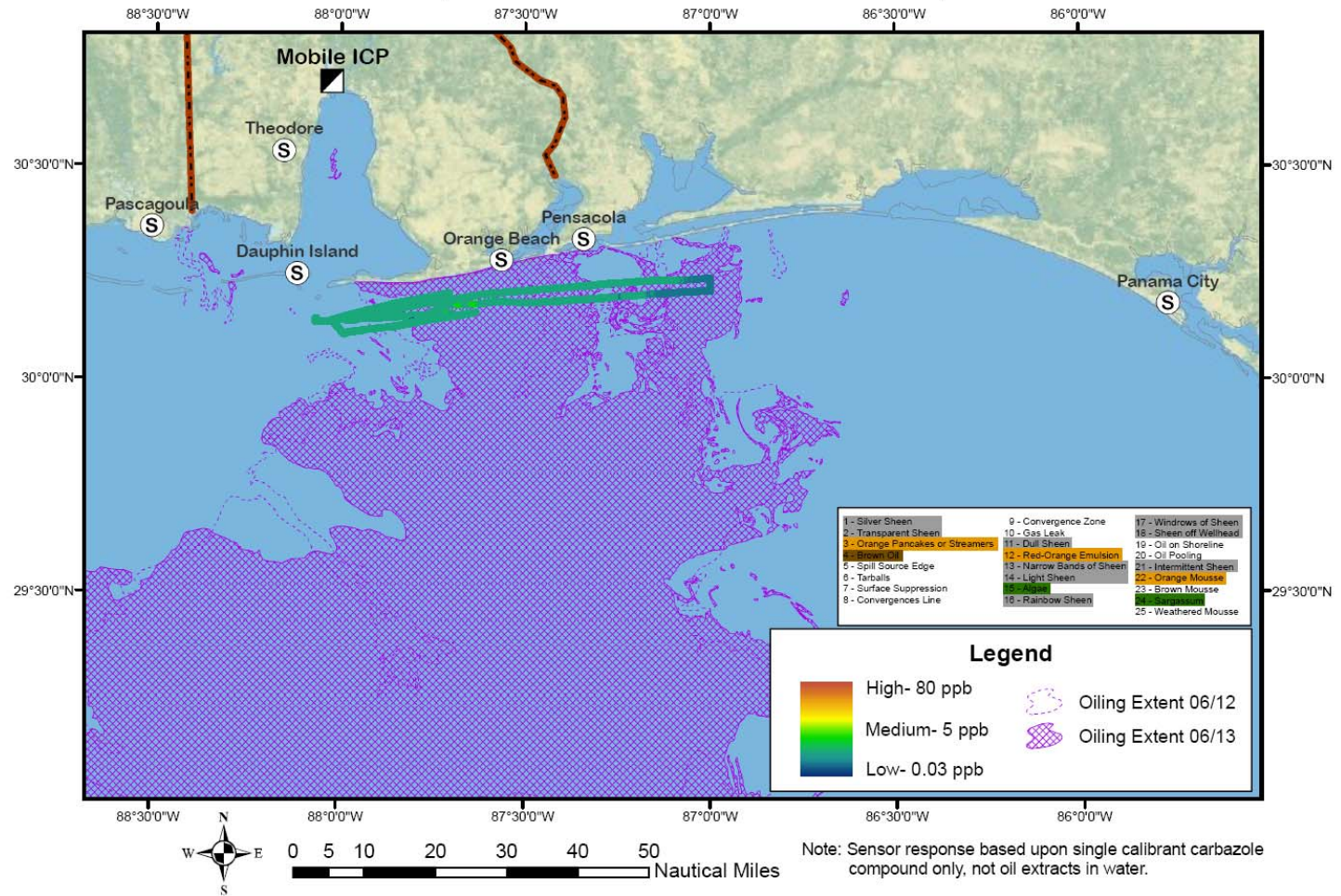


**Figure 1:** Planned versus actual route course plotted between 2000 06/10 – 1300 06/13. Purple shaded area represents outline extent of the slick from 06/12 ERMA composite.

### Vessel science operations:

Underway sensor system deployment and testing of water samples using the SPE and liquid-liquid extraction. Routine maintenance on sensor tank and assembly parts, where possible minimizing down time of the underway equipment.

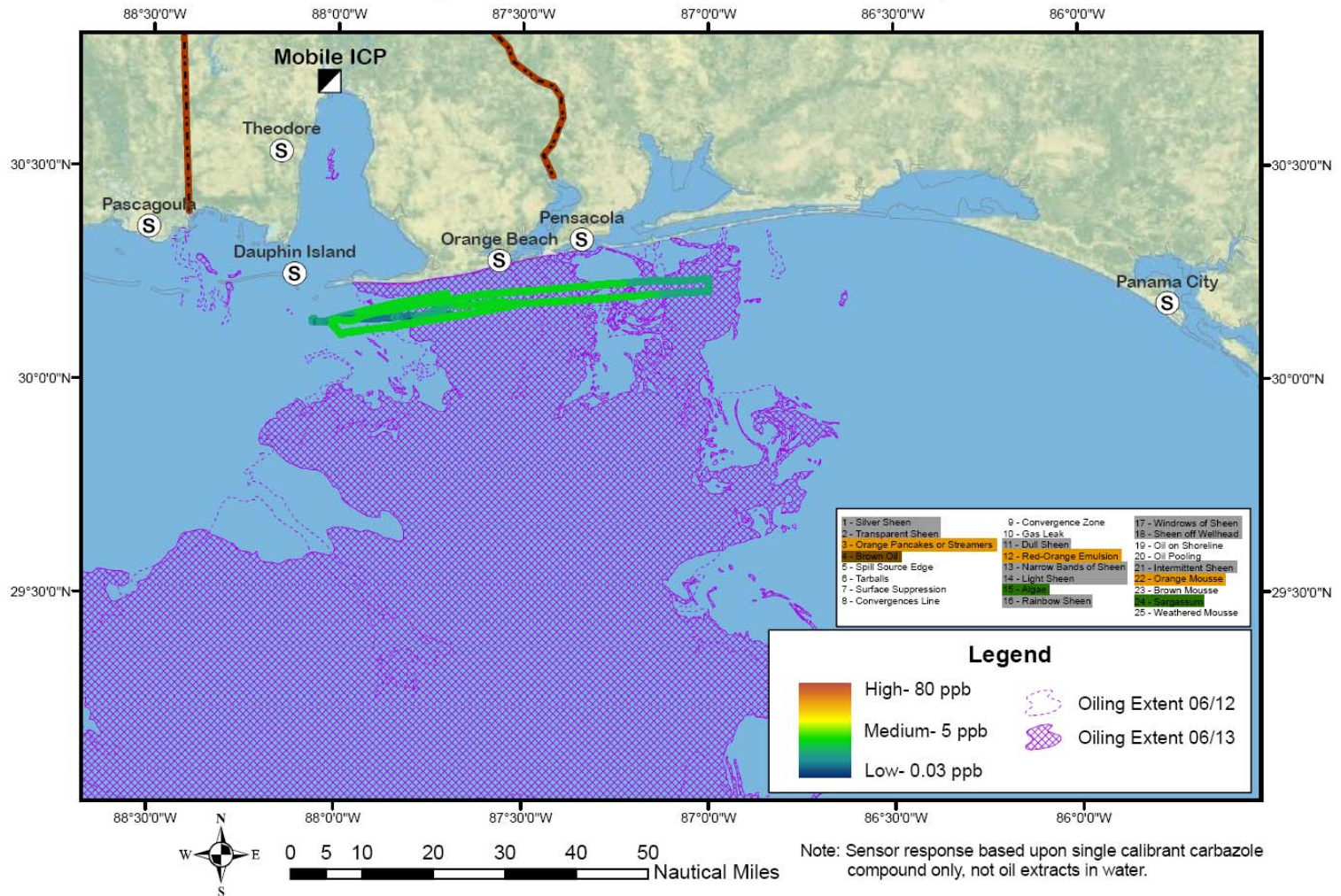
Ryan Chouest Cruise 3 Data  
 Chelsea- Fluorometer  
 (06/13/2010 1330 CDT - 06/14/2010 1330 CDT)



**Figure 2.** Chelsea 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.

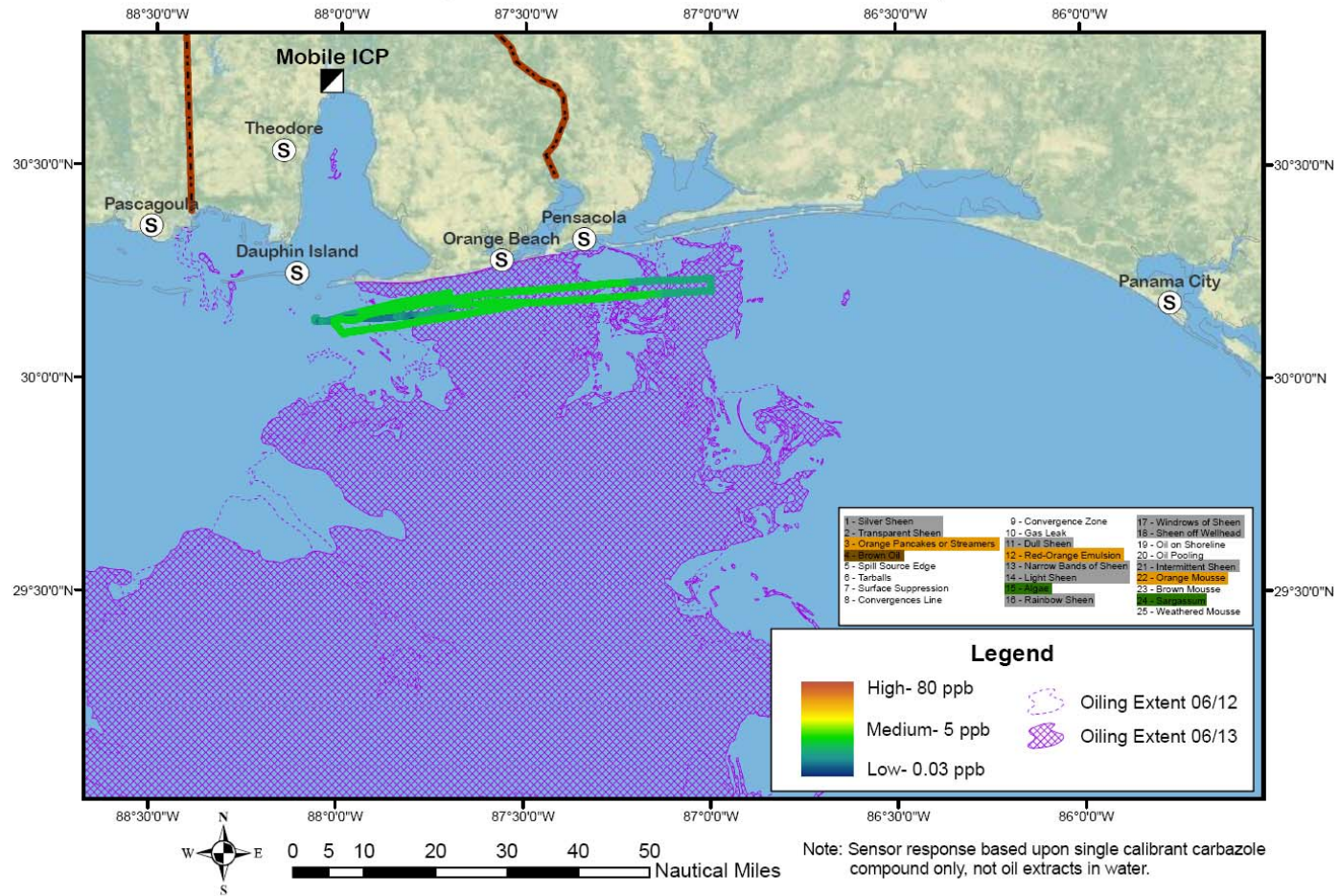


Ryan Chouest Cruise 3 Data  
 Trios- Fluorometer  
 (06/13/2010, 1330 CDT - 06/14/2010 1330 CDT)



**Figure 3.** 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  
 Contros - Fluorometer  
 (06/13/2010 1330 CDT - 06/14/2010 1330 CDT)



**Figure 4.** 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.

**Problems/operational issues:**

No operation issues encountered

**Planned activities for next 24 hours:**

Continue on our current route parallel to the Alabama-Florida coastline. The intention is to continue boxes moving offshore by 2-5 miles each time. Once we are in clear water this evening near Panama City we will test the 150m hose one last time to check for contamination. However enquiries with the supplier have shown that it is likely that wrong hose has been purchased leading to the high readings obtained by the sensors. No further personnel are due to join us until we reach Theodore on Wednesday for a scheduled crew change.