Ryan Chouest daily data transmission and report

Period covered: 1323 hrs 06/25/2010-1531 hrs 06/26/2010

187.684 - Nautical miles covered

Vessel science party:

Andrew Ross (Andrew.Ross@csiro.au)
Emma Crooke (Emma.Crooke@csiro.au)
David Fuentes (David.Fuentes@csiro.au)
Xiubin Qi (Xiubin.Qi@csiro.au)
Stephane Armand (Stephane.Armand@csiro.au)
Lawrence Febo (Lawrence.Febo@bp.com)
Guilherme de Almeida (gdealmeida@entrix.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:

We are sailing on the cruise trajectory shown in Figure 1.

Science results and preliminary interpretation:

Fluorometry results

The fluorometry sensor readings show low values along the transect in the SE direction away from Panama City and then increase slightly towards the west (Figures 2-4). The trend is generally consistent with the occurrence and the spreading gradient of the oil slicks. The Chelsea and Trios fluorometers exhibit both similar inferred hydrocarbon concentrations and spatial changes in the data (Figures 2-3). The Contros sensor shows least variability due to its low sensitivity, but the overall pattern is similar to the Chelsea and Trios fluorometers (Figure 4).

Surface Observations

Sea surface oil slick observations include sections of disseminated, small pieces of orange mousse and red-orange emulsions (Figures 2-4). Brown oil and rainbow sheen were also observed at two locations deep within the potential oiling footprint for 06/25. We were unable to photograph these observations.

Planned versus actual route taken for cruise 5:

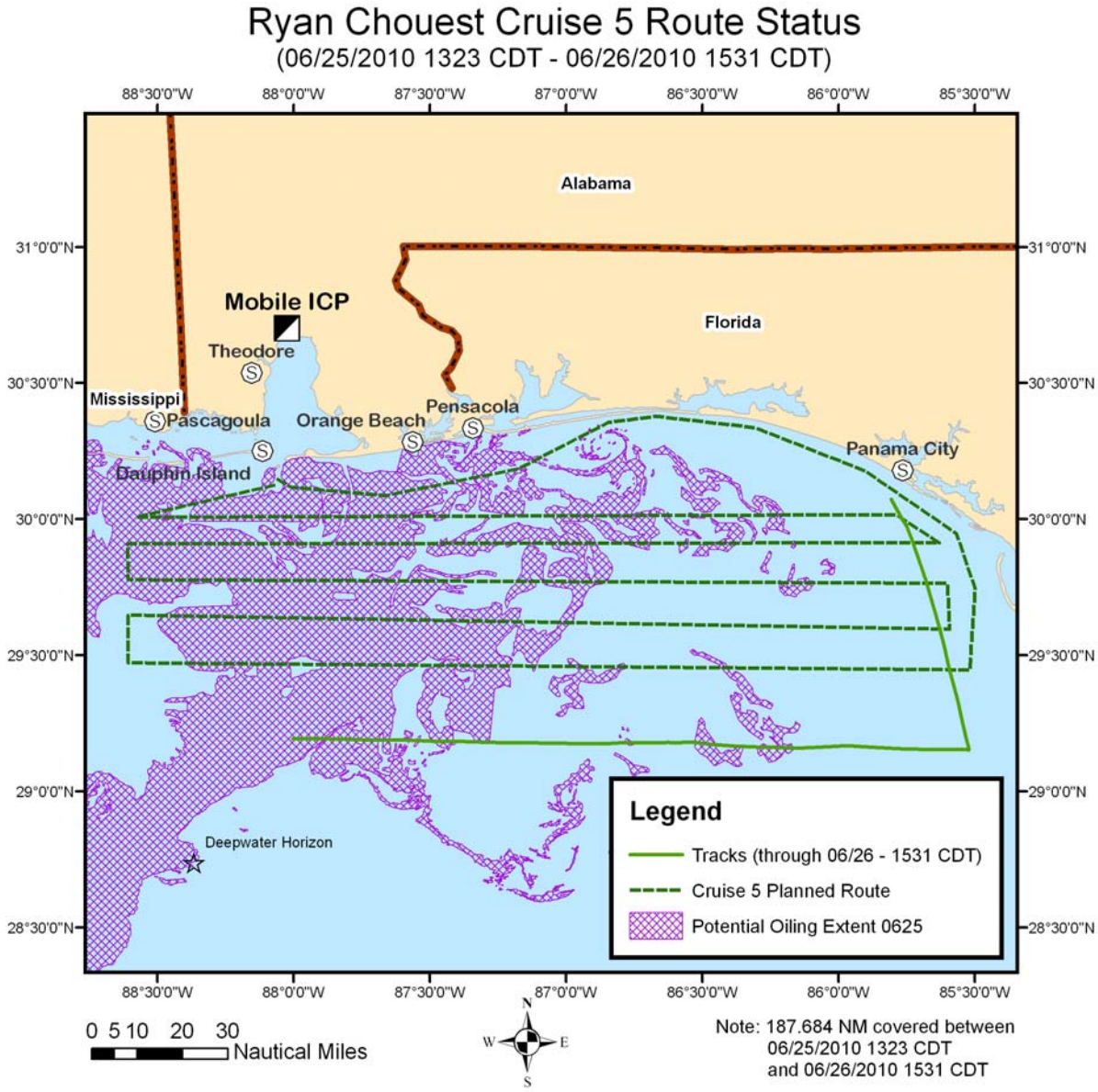

Figure 1: Planned versus actual route course plotted between 06/25/2010 –06/26/2010. Purple shaded area represents outline extent of the slick from 06/24 ERMA composite.

Vessel science operations:

We logged fluorometer measurements and observed sea-surface conditions. We continue to perform liquid-liquid extractions on seawater samples and analyze with the GCMS.

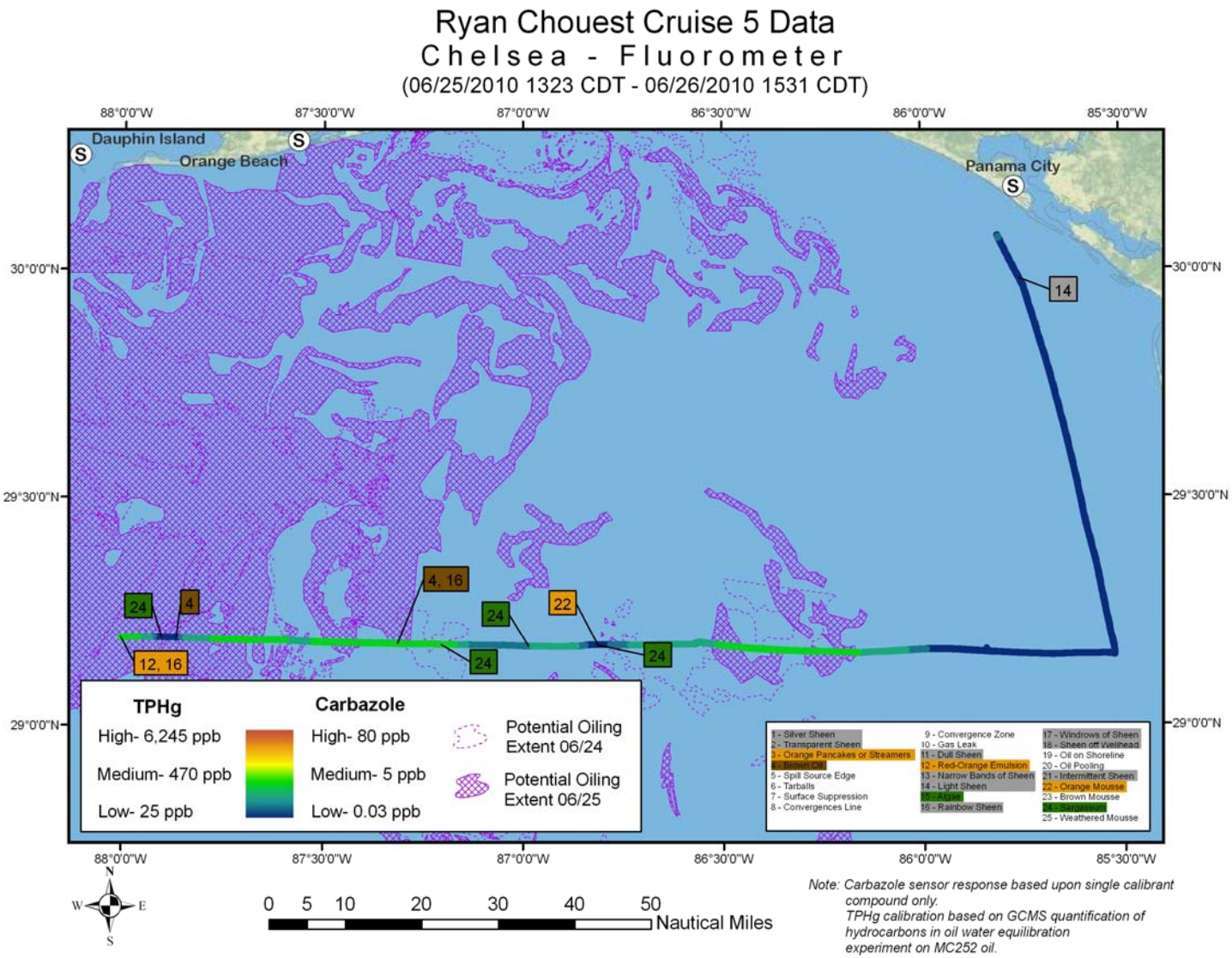

Figure 2. Chelsea fluorometer results plotted with location on cruise 5 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

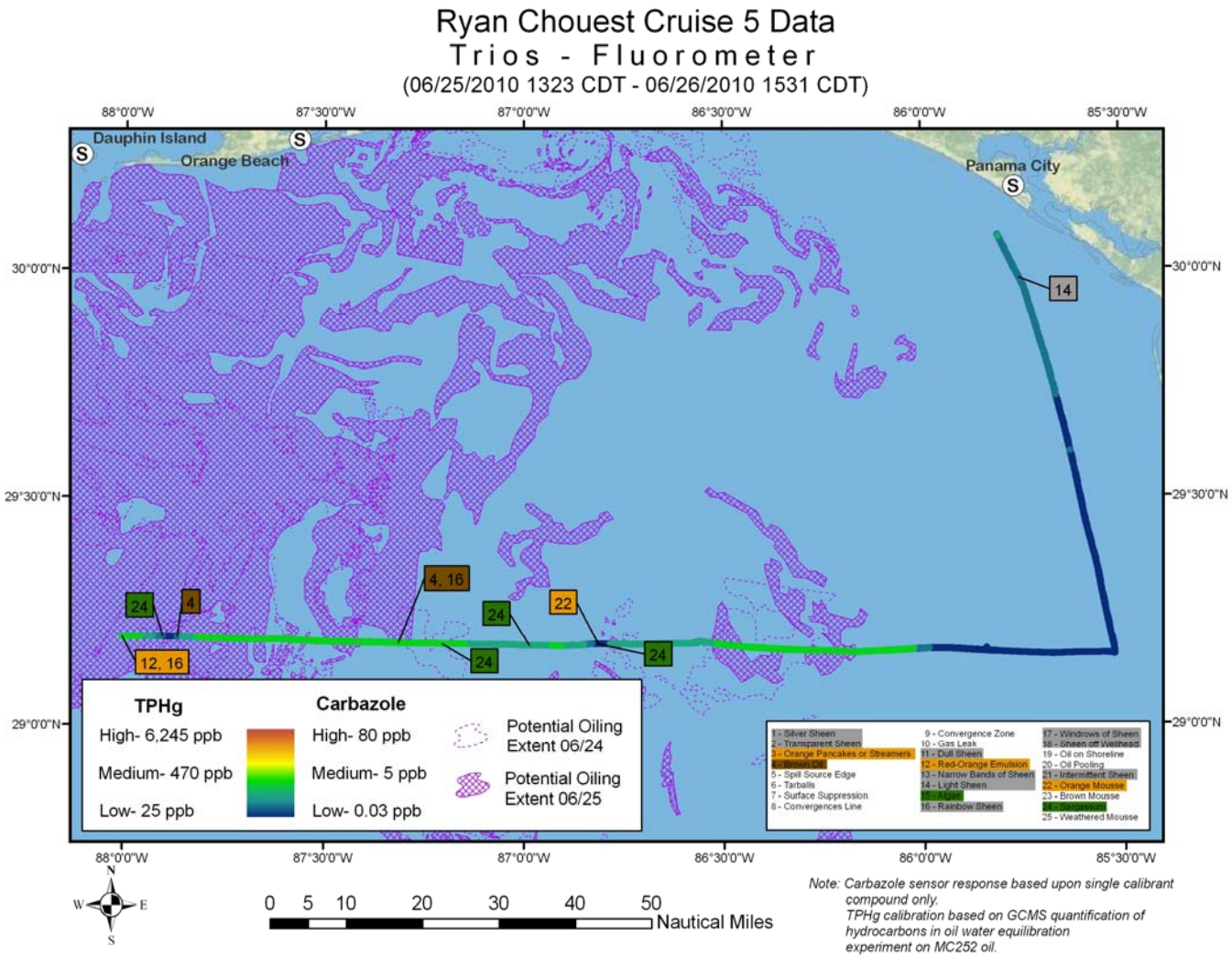

Figure 3. Trios fluorometer results plotted with location on cruise 5 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

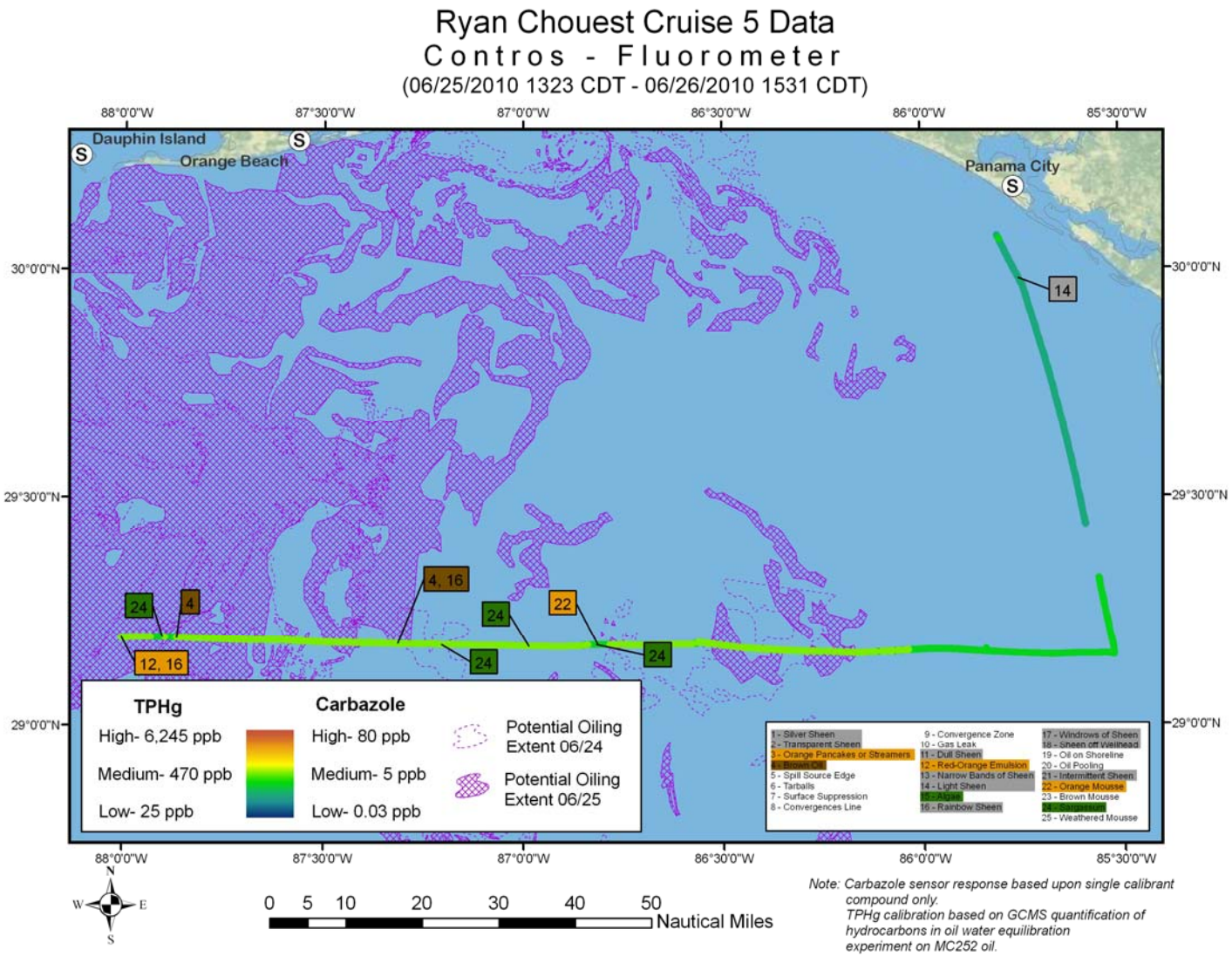

Figure 4. Contros fluorometer results plotted with location on cruise 5 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

Problems/operational issues:

(Includes items up to report submission time)

There are no problems at this time.

Planned activities for next 24 hours:

We are sailing the planned cruise track.

Full Crew List:

William A. Smith	MASTER
Demarco Jones	A/B
Elijah Benjamin	O/S RIG
Jon Cheney	Capt.
Brian Corley	Mate
Eduardo Zepeda	A/B
Mark Harmon	A/B
Samuel Nwosu	QMED
Craig Lyons	CHIEF ENG.
Emma Crooke	CSIRO
Xiubin Qi	CSIRO
Stephane Armand	CSIRO
David Fuentes	CSIRO
Andrew Ross	CSIRO
Lawrence Febo	BP
Guilherme De Almeida	Entrix
Brian Harmon	C&C
Greg Richard	C&C
Roderick Baker	OS/COOK
Brandon Wilson	C-PORT
Ben Autin	C-PORT