

July 30th | 2010

Ryan Chouest daily data transmission and report

**Period covered: 1958hrs 07/29/2010 - 1021hrs 07/30/2010**

**112.17 - Nautical miles covered**

**Vessel science party:**

Andrew Ross ([Andrew.Ross@csiro.au](mailto:Andrew.Ross@csiro.au)), David Fuentes([David.Fuentes@csiro.au](mailto:David.Fuentes@csiro.au)), Emma Crooke ([Emma.Crooke@csiro.au](mailto:Emma.Crooke@csiro.au)), Asrar Talukder ([Asrar.Talukder@csiro.au](mailto:Asrar.Talukder@csiro.au)), Tosin Majekodunmi ([Tosin.Majekodunmi@bp.com](mailto:Tosin.Majekodunmi@bp.com)), Curtis Walker ([cwalker@entrix.com](mailto:cwalker@entrix.com)), Quinn Guidrey ([quinn.guidrey@cctechnol.com](mailto:quinn.guidrey@cctechnol.com)), Jen Carlson ([jen.carlson@cctechnol.com](mailto:jen.carlson@cctechnol.com)), Kelly Bates ([kelly.bates@cctechnol.com](mailto:kelly.bates@cctechnol.com)), Jay Ridgeway ([Jay.Ridgeway@cctechnol.com](mailto:Jay.Ridgeway@cctechnol.com)), Mathew Baham ([Mathew.Baham@cctechnol.com](mailto:Mathew.Baham@cctechnol.com)), Joseph Watson ([Joseph.Watson@cctechnol.com](mailto:Joseph.Watson@cctechnol.com))

**Contact details:**

- + 1 337 761 9830 – Sat phone
- + 1 337-761-9830 – Broadband phone ship office 1
- + 1 337-761-9827 – Broadband phone ship office 2
- + 1 337-761-9826 - Broadband phone ship bridge

**Cruise notes:**

The *Ryan Chouest* vessel cruised within 8 x 8 mile survey pattern in the Green Canyon area (Figure 1) with the aim of detecting seep signatures either on the echo sounder or the hydrocarbon sensor array. No echo sounder contacts have been made and no enhanced hydrocarbon sensor responses have been recorded during the reporting period.

**Science results and preliminary interpretation:**

Fluorometry results

The Fluorometry measurements from the Chelsea and Trios sensors are very low/baseline for the track travelled and there have been no enhanced responses (Figures 2-3). Fluorometry records from the Contros sensor show low-mid levels of inferred hydrocarbons (Figures 4). All sensors show a constant level of inferred hydrocarbons along the path travelled.

Surface Observations

Sparse distributions of sargassum were observed along the majority of the track travelled.

EK-60 Echosounder results

There were no echo sounder contacts for the period over the travelled track in Figure 1.

Planned route for cruise 11:

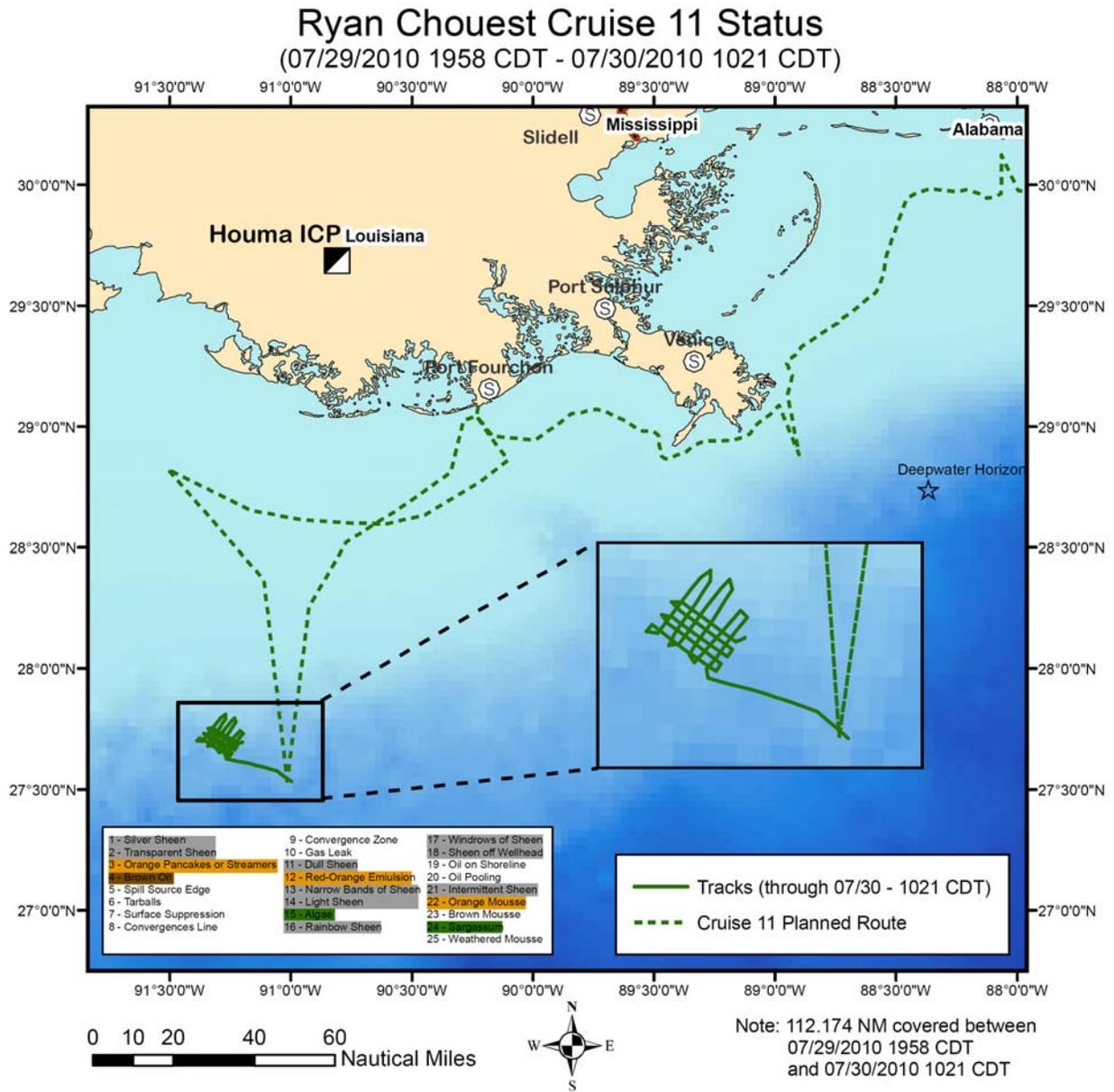
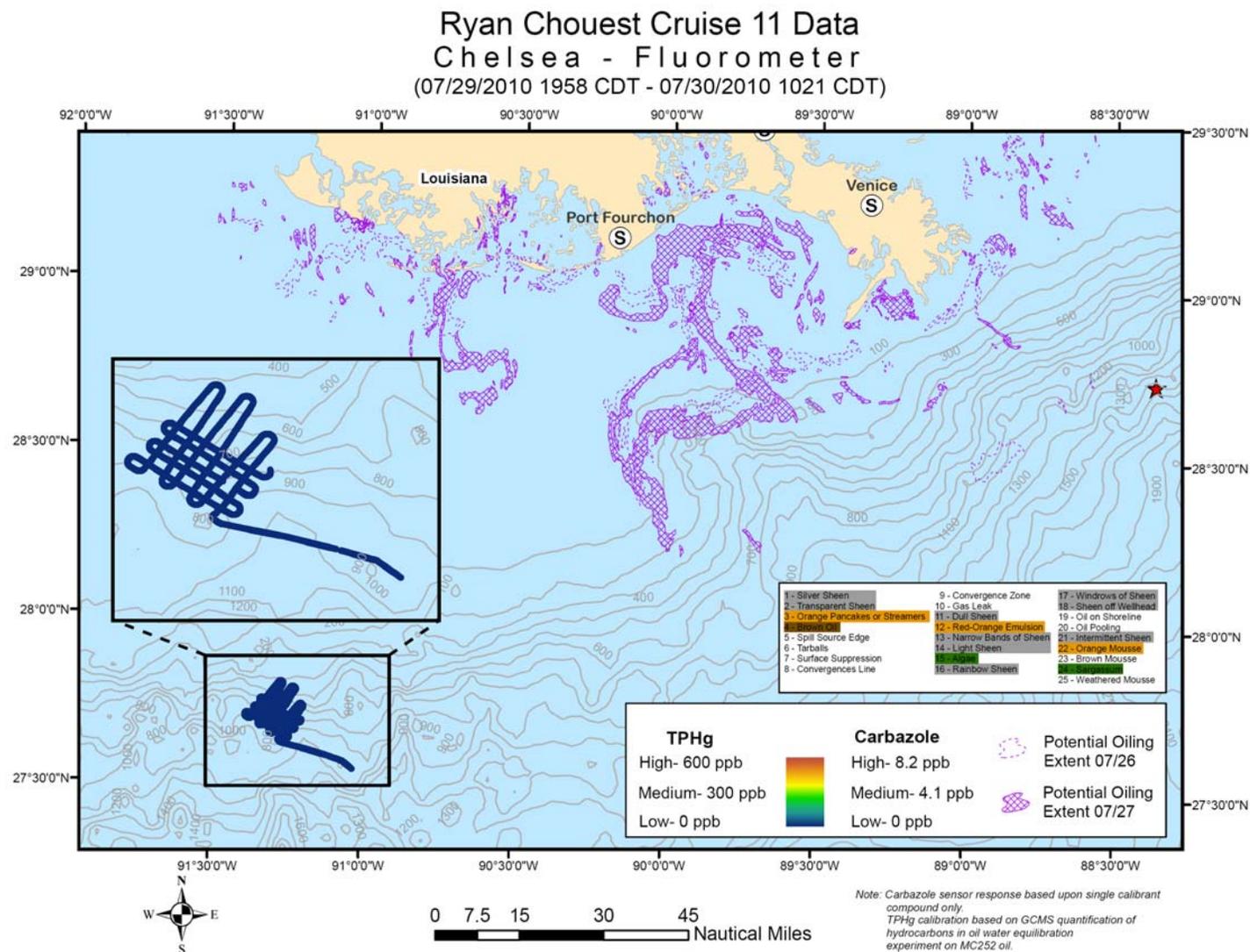
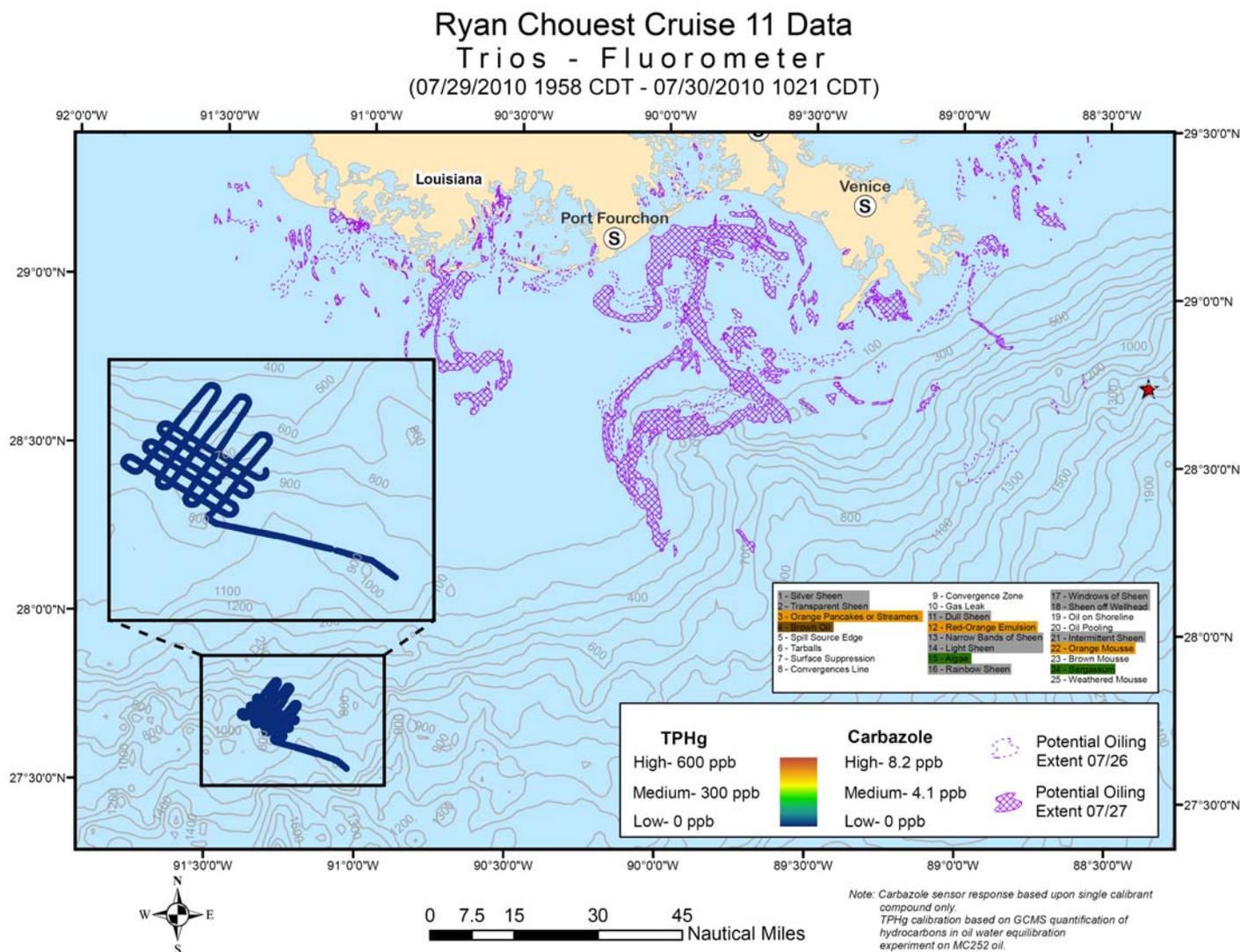


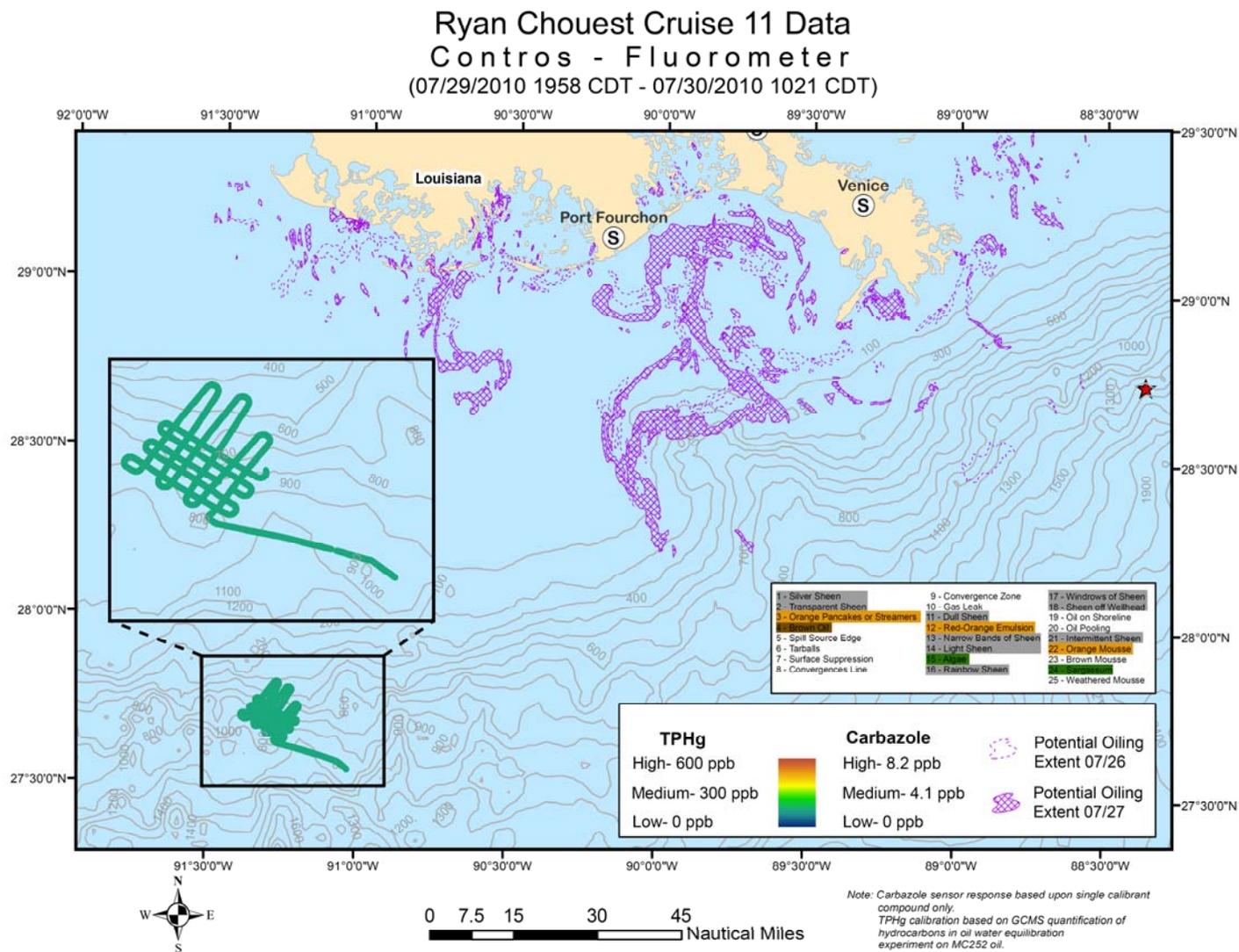
Figure 1: Planned route for cruise 11 versus the actual route plotted between 07/29 – 07/30.



**Figure 2.** Chelsea fluorometer results plotted with location on cruise track 11. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems. Purple lines represent depth contours of 100 m intervals.



**Figure 3.** Trios fluorometer results plotted with location on cruise track 11. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems. Purple lines represent depth contours of 100 m intervals.



**Figure 4.** Contros fluorometer results plotted with location on cruise track 11. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems. Purple lines represent depth contours of 100 m intervals.

**Science Operations:**

Fluorometer measurements were logged for the majority of the period and observations of sea-surface conditions were made throughout. The EK-60 echo sounder is continuously collecting data to evaluate the seabed and water column for possible seeps.

**Problems/operational issues:**

No problems within this period.

**Planned activities for next 24 hours:**

The *Ryan Chouest* will return to echo sounder contacts identified on the 07/29/2010 to perform a survey over the area. Low sensor recordings together with no significant echo sounder result have prompted this change. Once the area has been surveyed over the next 24 hours we will perform vertical casts over the possible seep sites and then head towards to planned route, eventually cruising along the gulf coastlines of Alabama and west Florida (Figure 1).

**Selected Photos:**

No photographs were taken over the cruise period.

**Full Crew List:**

William A. Smith	MASTER	Brian Corley	Mate
Craig Lyons	ENG	Patrick Cousin	A/B
Mark Harmon	A/B	Arthur Triggs	O/S
Elijah Benjamin	O/S	Patric Anderson	QMED
Kile Blunt	OS/Cook	Roderick Baker	OS/Cook
Tosin Majekodunmi	BP	Curtis Walker	Entrix
Andrew Ross	CSIRO	David Fuentes	CSIRO
Emma Crooke	CSIRO	Asrar Talukder	CSIRO
Quinn Guidrey	C&C	Kelly Bates	C&C
Jen Carlson	C&C	Mathew Baham	C&C
Joseph Watson	C&C	Jay Ridgeway	C&C
Josh Chauffe	C-Port	Larry Luke	C-Port