Ryan Chouest daily data transmission and report

Period covered: 17.32 06/05/2010 - 19.15 06/06/2010

162 Nautical miles covered

Vessel science party:

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Cruise notes:

Continued our track from previous period (28 53.5071 N-89 14.5562 W). At 17.32-19.10 sensors stopped as pump assembly brought out of the water and checked. Logging of GPS signal also stopped at this point (hence break in the track). Different cruise speeds trialed during the day and towing of pump assembly up to 10 knots achieved. Generally average speeds were increased to 6.77 knots allowing the boat to cover 162 nautical miles over the period. Generally the trials were successful except for a two occasions where the pump was brought too far out of the water leading no flow into tank and spurious results. At 12.40 man overboard drill. At ~13.40 pm a ship ahead reported slick/distributed tar balls which from visual observation the reduced surface roughness showed that the area of interest was between 75m wide and 150-200m long. At 13.47 the vessel passed through a very low density orange/brown pancake field (30 07.4825 N 088 04.7298 W) with pancakes of up to 20 cm wide. Video and photographs were taken (Figure 2).

Science results and preliminary interpretation:

We are currently working on the appropriate data formats to present the data acquired and are also QC'ing the day's data. This will be presented in due course in an appropriate format once more routine operations are established.

Vessel science operations:

Transit from Port Fuchon to Theadore running underway hydrocarbon sensors system and also calibrating GCMS during transit.

Planned versus actual route taken since departure:

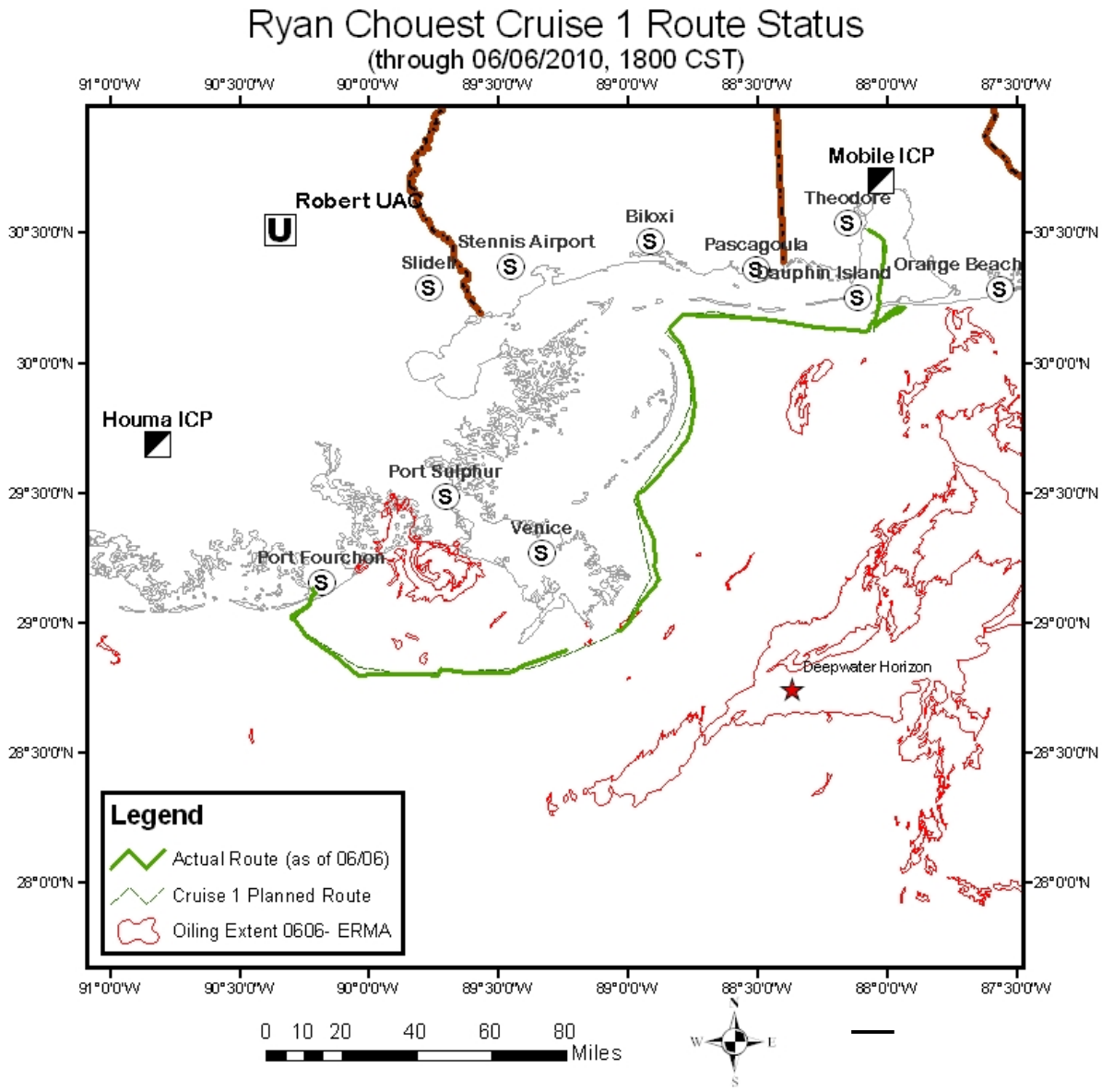

Figure 1: Actual route course plotted between 02:10 06/05 – 19:10 06/06. Red line represents outline extent of the slick from 06/06 composite

Problems/operational issues:

Some problems encountered with sensors at periods during the day. Troubleshooting has identified possible causes of problems which will be addressed tomorrow before sailing. Some additional work still required to calibrate the GCMS instrument. Supplies delivered at Theadore were not correct and

therefore we are still not in a position to fully calibrate instrumentation, run the GCMS with water samples, or perform vertical profiles.

Planned activities for next 24 hours:

Overnight in Theadore before starting cruise 2 along the Alabama -Florida coastline. We will continue to test the operational performance of the sensor array system, calibrations of our GCMS instrumentation and also work on the data presentation formats.

Figure 2: Example of a typical small oil pancake encountered