

SpecTIR Hyperspectral Data Collection Gulf of Mexico 2010

SpecTIR has been collecting airborne hyperspectral data with the ProSpecTIR VNIR/SWIR system since late May. The focus has been on tidal wetlands contained within several of the National Wildlife Refuges (NWR) in LA and FL and is indicated by the red areas in Figure 1 below. Additional coastal emergent wetland areas outside of the refuge network were also imaged. The data was acquired between May 28th and June 12th 2010, with the majority of the areas having no reported oil ashore, which provides a baseline for future damage assessment and guidance for remediation based on subsequent data collections.

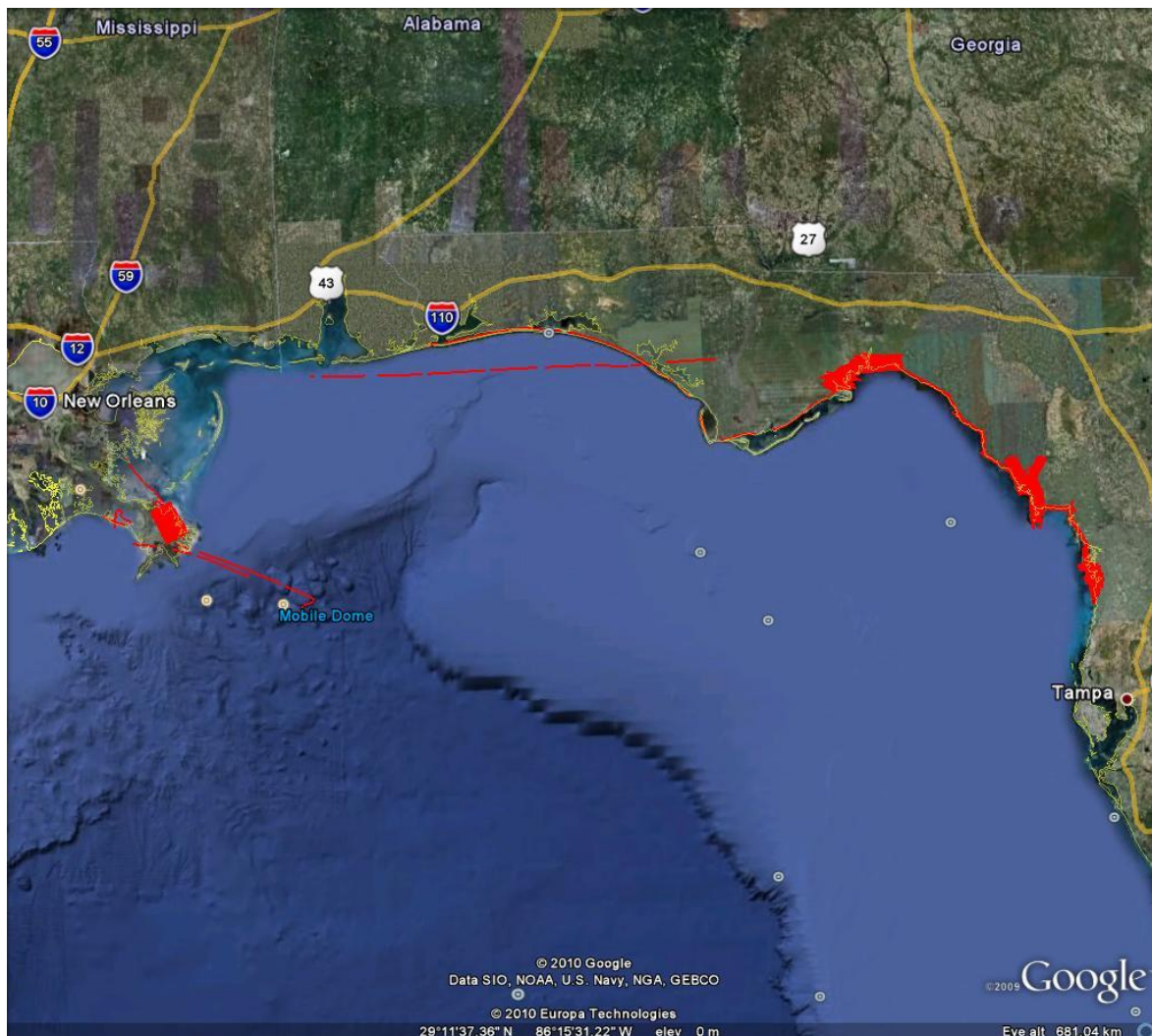


Figure 1. Hyperspectral Coverage of NWR of the Gulf Highlighted in Red.



The hyperspectral data was collected with the ProSpecTIR-VS2 VNIR/SWIR sensor configured to collect 360 spectral channels covering the spectral range of 396 nm to 2467 nm. Flight services (instrument integration, aircraft, flight crew, and logistics) in support of the data collection were provided by Renaissance Remote Sensing and GIS Services, LLC. The majority of data were collected during a weeklong deployment to the Gulf Coast region, enabling continuity of data from place to place along the coast. The NWR datasets were acquired at a nominal ground resolution of 2 meters while other areas were collected at 3 meters GSD to maximize coverage. Imagery of the oil slick itself was also obtained. The standard SpecTIR L1 delivered data sets consists of calibrated radiance and reflectance files with associated IGM/GLT files for navigation. Analysis of the data is available for customer requested products, and it is anticipated that future data collections could provide information on vegetative stress, hydrocarbon locations, and changes to the tidal wetland's overall status and composition.

The National Wildlife Refuges covered include:

Chassahowitzka NWR, FL

Crystal River NWR, FL

Cedar Keys NWR, FL

Lower Suwannee NWR, FL

St. Marks NWR, FL

Delta NWR, LA

About SpecTIR LLC

SpecTIR LLC is a Small Business with offices in Virginia, Maryland, California, and Nevada. SpecTIR has its foundation in the specialized design and construction of advanced hyperspectral and polarimetric imaging systems. Over the past decade, SpecTIR has focused on the collection of hyperspectral data, the generation of imagery products from multiple data sources, and industrial solutions for manufacturing processes.

SpecTIR offers a full array of remote sensing services along with expertise that ranges from system design, fabrication, calibration, as well as data collection and processing/exploitation of imagery and advanced GIS and spatial data base analysis.

About Renaissance Remote Sensing and GIS Services, LLC

Renaissance Remote Sensing and GIS Services, LLC is a Small, Woman-Owned Business specializing in serving the commercial and government sector with remote sensing and GIS



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expertise. With its roots in electro-optical, multispectral, and hyperspectral image exploitation and analyst training, Renaissance now also specializes in airborne mission systems integration. They provide installation, flight profile, and in-flight mission support of both experimental and commercially available remote sensing systems in a wide variety of aircraft from small piston powered aircraft to large, multi-sensor twin-engine platforms, high altitude turbine aircraft, and turbine helicopters.

After imagery is obtained, georeferenced map-based products can be created and analyzed according to user specifications to obtain advanced geospatial intelligence (AGI) products compatible with GIS-based software. Exploitation techniques and strategies to enhance commercial, national, and tactical imagery can be custom-tailored and developed to fit the needs of each customer, as well.

All data and imagery is subject to SpecTIR license restrictions and is wholly owned by SpecTIR LLC. Imagery and products may be licensed through SpecTIR, LLC. Contact Bill Bernard 410 820 5591 Wbernard@SpecTIR.com www.SpecTIR.com