



HYPACK
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Sounding Better!

HYPACK® MAX and HYPACK® MARINE SEARCH Software Supports US Army Diving Team Operations

By Lourdes Evans

HYPACK, a Xylem brand, recently supplied the US Army Diving Team with HYPACK® MAX and HYPACK® MARINE SEARCH software solutions. The Diving Team uses vessels outfitted with GPS, single beam echosounder and side scan sonar for various missions to support diving operations.

FIGURE 1. *Dive Teams Collecting Survey Data.*



The HYPACK® software suite will provide the team with the tools required to support the dive team and quickly process their sounding data. They can display their project area, in local geodesy, with target locations and charts based on a Google Earth image.

FIGURE 2. Using the XYZ Collector Program to Create XYZ Data Points Along the Perimeter of the Wharf



FIGURE 3. Showing Sounding Data and Targets Overlay on the GeoTif Chart Created Using the Image Geo Reference Program

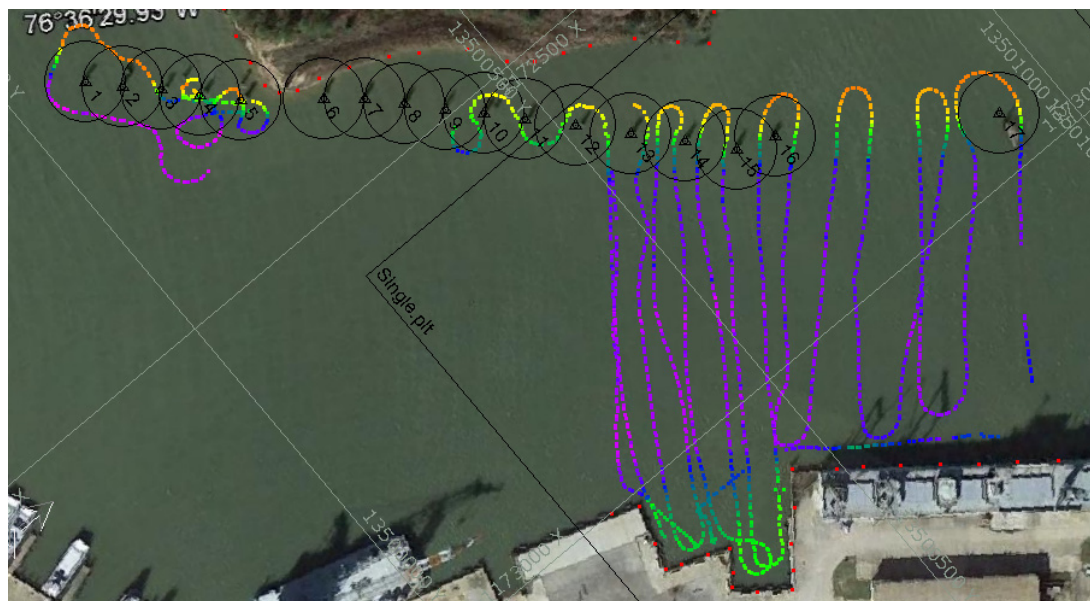
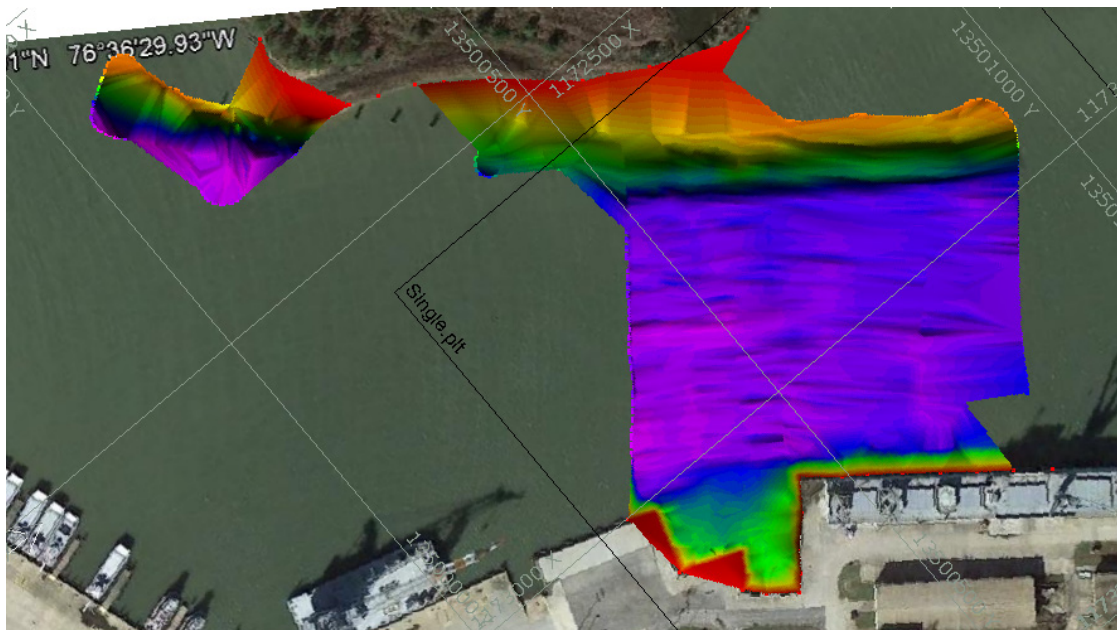


FIGURE 4. Surface Model Overlay on the GeoTif of the Survey Area



In the addition, using the HYPACK® CLOUD program will allow the team to process the data, editing out bad soundings, in a matter of seconds. Previously, they would load their data into a spreadsheet and manually search the file to find bad soundings. Now they can visually inspect the data and quickly remove spikes in 3D.

FIGURE 5. Editing Their Sounding Data in CLOUD in a Matter of Seconds

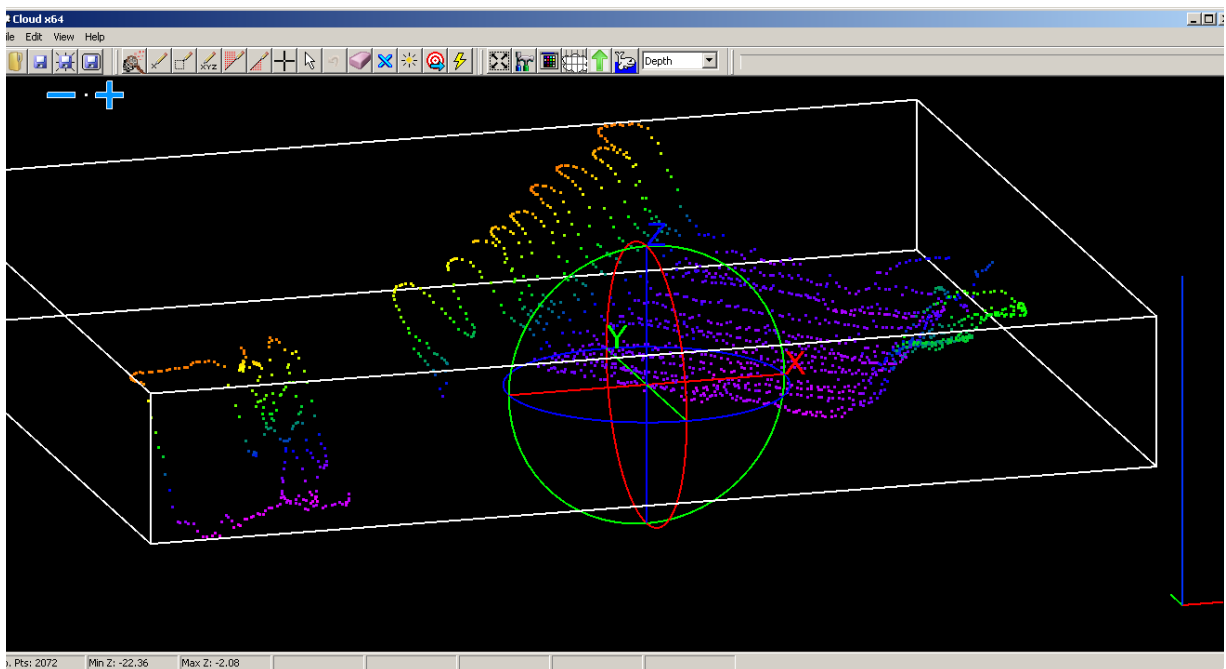


FIGURE 6. 3D XYZ Data Visualization in the CLOUD Program

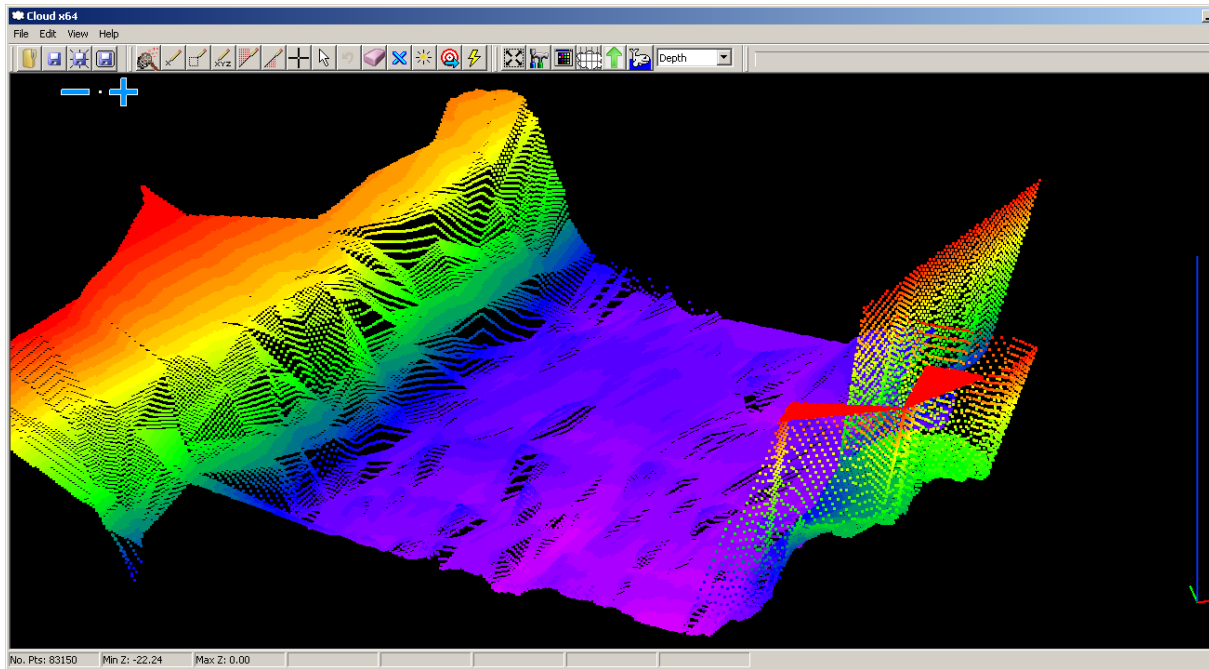
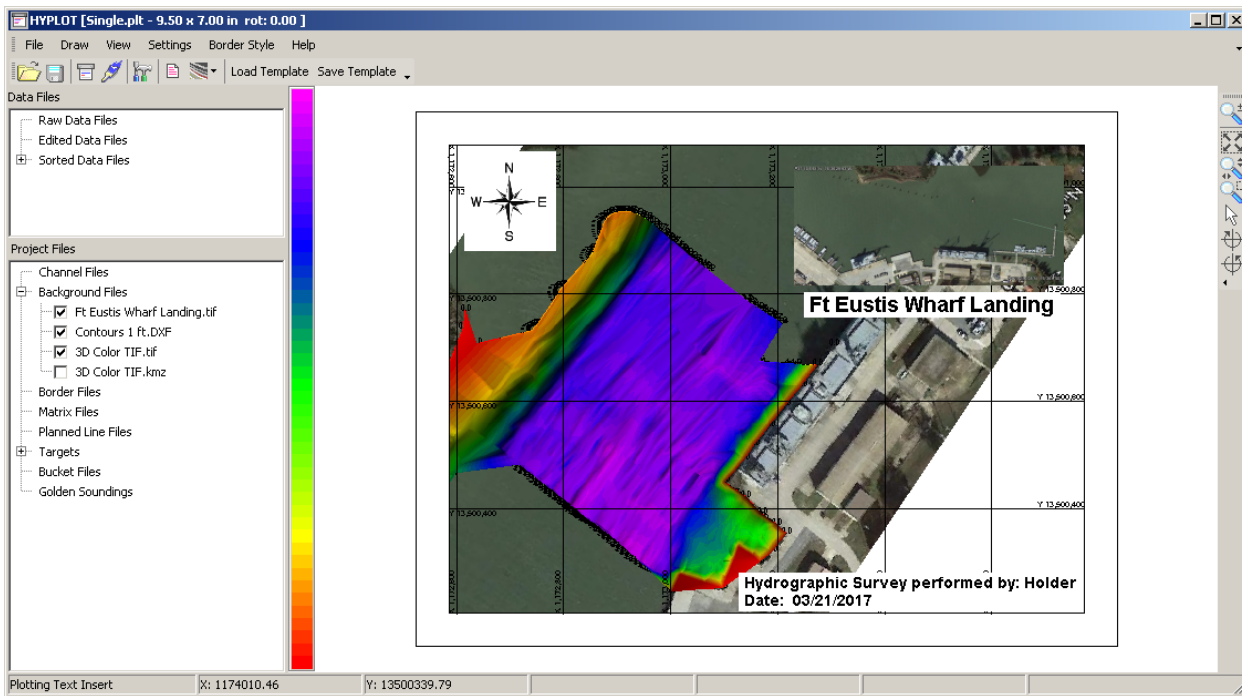
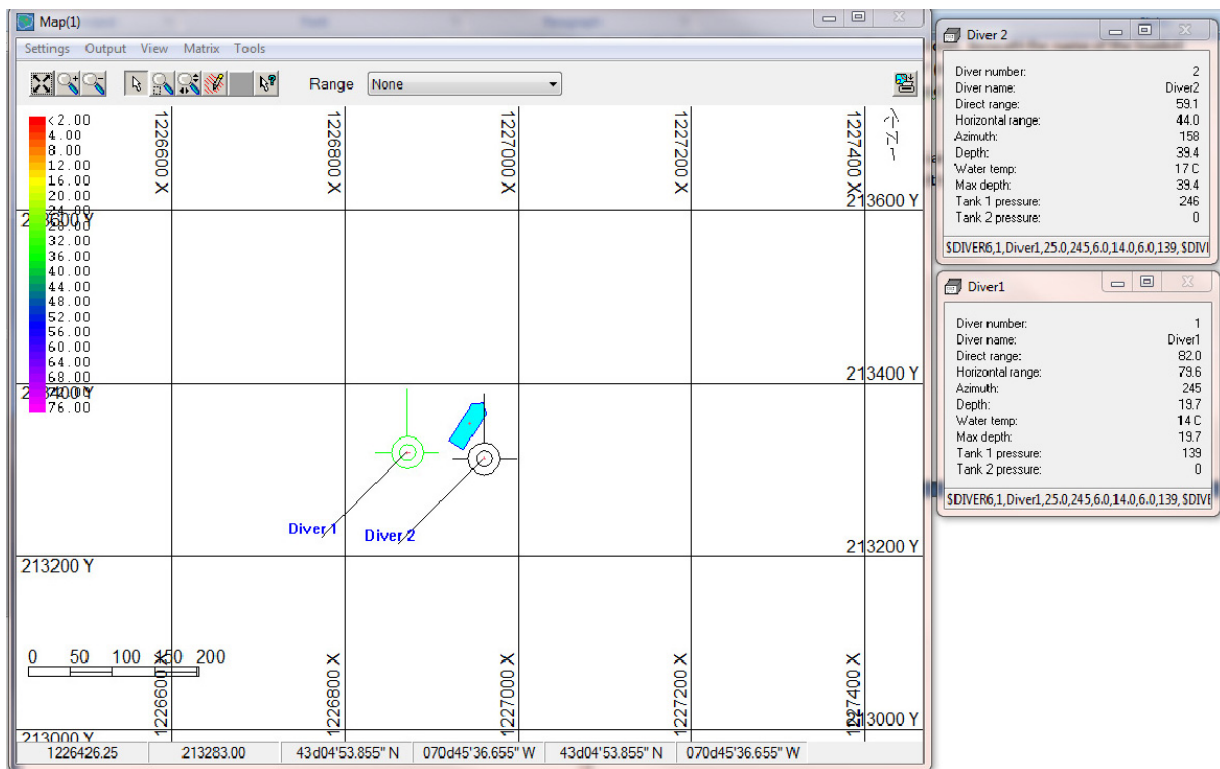


FIGURE 7. Using HYPLOT to Import All of the Above Files and Images to Create a Detailed Plot



HYPACK® also includes an interface for the Diver6 system which allows dive masters to monitor and track divers beneath the surface using HYPACK®.

FIGURE 8. Tracking Divers in HYPACK® (Not used by the team at this point.)



Using HYPACK® will considerably improve the data processing and analysis, and reduce the time required, which is critical in challenging missions.

The selection of the HYPACK® and HYPACK® MARINE SEARCH solution for the Diving Team compliments the existing HYPACK® systems used by the USACE fleet. The standardization minimizes the training needed across the fleet personnel, to operate the system.