HYPACK® Marine Search Shell

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HYPACK® Marine Search is a tool designed for locating objects of interest in the marine environment. It is a simplified package when compared to the full HYPACK® software. This makes it ideal for use by agencies, like Police and Fire Departments, which often must react quickly to dynamic situations. Having just the tools necessary to complete the mission lessens the learning curve and focuses resources on the task at hand.

**FIGURE 1. The Main HYPACK® Marine Search Screen**

Users familiar with the HYPACK® Shell will recognize many of the same User Interface elements also exist in HYPACK® Marine Search. The left side of the screen contains a tree listing of various data files relevant to the active project. These files are broadly categorized by function by being placed in folders, like *Matrix Files*, which describe their purpose. The center of the screen is a graphical representation of this data. This 'map' view allows easy navigation with a mouse, keyboard and various tools found to the right of the map. The map stays synchronized with the data files as they are added, removed and enabled / disabled in the project. The tool bar at the top provides portal access to the rest of the program modules. It flows from left to right in order of the steps needed to perform a search mission. The flow is Selecting/Creating a project. Setting up Geodesy and Hardware. Collecting data on the Survey boat. Processing that data with Sidescan Mosaic tools. Reviewing the unified results back in the shell.
**GETTING BACKGROUND CHARTS**

Having a background chart is technically not required in order to perform a survey or search mission. It certainly has benefits however. For example, giving geo-relational context to data to improve its usefulness. Perhaps even more important is safety of navigation. What you can't see in real life, due to conditions like lack of light, fog or other visibility-impairing conditions, will still be available to you from your chart. Hazards, low water, restricted areas and other concerns are also right there, day or night.

**FIGURE 2. Finding Charts with the Search For Location Feature**

HYPACK® Marine Search provides a utility which can aid users in the United States to quickly download electronic charts in their area of interest:

Under the Utilities menu, you can find a link called “Search for Location”. This opens a list of over 40,000 location points. Each point is associated with a Name, State and Zip Code. The location edit box is an on-the-fly filter matching any part of the associated data. As you type, the list is filtered to smaller and smaller result sets. Drill down until you find the area you are interest in.

Click [Center Map] to adjust the Map window view center to the highlighted reference point. Finally, click [Get Chats] to have HYPACK® Marine Search automatically download electronic charts from NOAA and the Army Corps of Engineers which fall within the map window. These charts are ENC, Electronic Navigational Chart or IENC, Inland Electronic Navigational Charts, which alone are probably enough to perform your Marine Search task confidently. However, you may manually add other charting data at your convenience. For Instance, your Authority may have some specific engineering charts it wishes to be used. For this and other cases, simply right-click on the Background Files folder in the Project Items list and follow the menus to import this data to your project.