

UNABARA

Product Application Note: 12.11.10A

HydroBook Extremely Shallow Chart Range (2 meters)

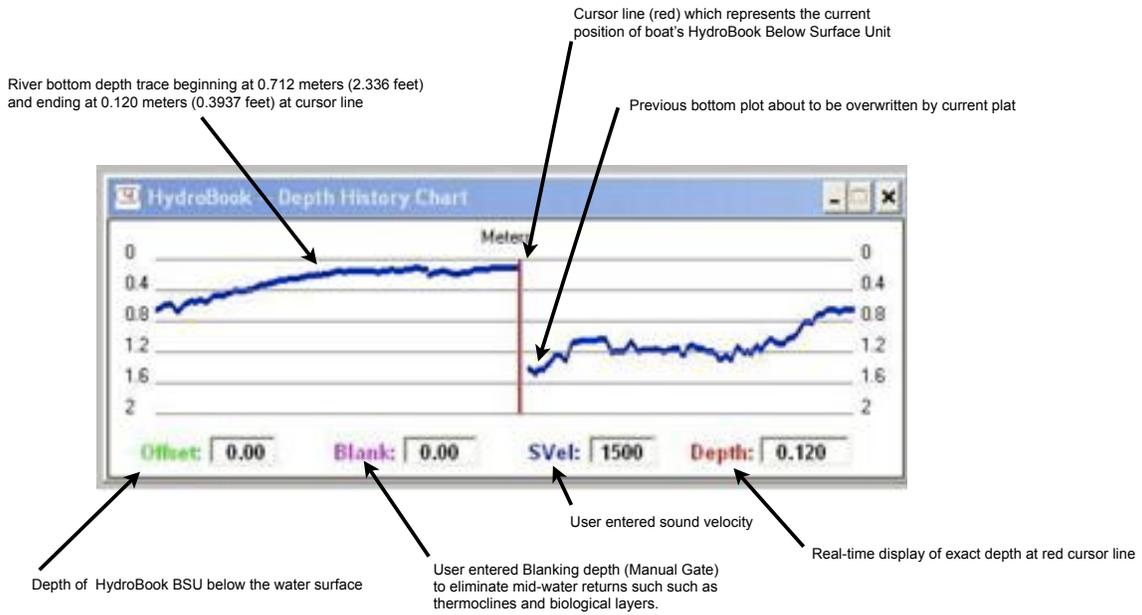
Unabara has added a 0 to 2 meter chart display range to the HydroBook. While the digital depth output available on COM 2 is unchanged, the user can view extremely small bottom details in very shallow water via this range feature. In an estuarine area adjacent to the Rio Cruces River in Valdivia, Chile, a recent demonstration was given.

The HydroBook BSU draft was not inputted into the HydroBook PC APP so depths shown on the chart are from the bottom of the HydroBook's Below Surface Unit (BSU) to the river bottom. For mapping, depth was outputted as NMEA-DBT with actual BSU draft inputted into the mapping software via the PC's keypad. Likewise, sound velocity correction (difference from 1500 m/s) was inputted via the keypad to the mapping software.

The frequency of 280 Khz. was used to obtain a narrow acoustic beamwidth (5.0 degrees) thus resulting in minimum area bottom ensonification providing excellent spatial resolution. A ping rate of 30 hertz was selected to provide very rapid chart update and depth output on COM 2 to the mapping software on the user's PC.

This demonstration shows the utility of both the HydroBook's 0.10 meter minimum depth of operation and its millimeter resolution at depths below 25 meters.

When choosing the HydroBook, the customer can survey equally well in two meters as he does in 200 meters.



Valdivia, Chile as viewed from the Rio Cruces River (39.8115 S, 73.249 W)
 (Note marsh/estuarine area on city side of the river)