

Oceanscience's UnderwaySV Achieves Profiling Depth Record In Black Sea



Surveyors from the Russian survey company PeterGaz, using the Oceanscience UnderwaySV profiler operated by a RapidSV freefall sound velocity probe, have achieved a profile depth of 1,730m, and the cast was completed in about 35 minutes from start to finish! This result has broken the previous Oceanscience profiling depth record that stood at 1,563m and was held by NOAA's National Data Buoy Center.

Normally, a Hugin AUV deployed from the offshore support vessel GSP Prince surveyed the 500 nautical mile route, with about 50% of the pipeline to be laid in water as deep as 2,000m.

By deploying the RapidSV profiler from a stationary vessel, deep sound speed profiles can be collected faster than using conventional methods based around a hydrographic winch CTD or sound velocity instrument. The Valeport RapidSV probe free falls at over 5m/s reaching 1,000m depth in 3 to 4 minutes.

The key to this down-cast profiling speed is the innovative XBT-style [tail spool](#) attached to the probe, loaded with up to 1,000m of high-strength tether line before each deployment, allowing the probe to drop with little or no drag from the tether line. The high speed winch allows fast recovery of the profiler, greatly reducing the overall profiling time for a high quality sound speed cast. This time saved equates to a more efficient survey job.