

MBARI Chooses Ranger 2 USBL for New Research Ship



U.S. oceanographic research centre Monterey Bay Aquarium Research Institute (MBARI) has chosen deepwater positioning technology from Sonardyne for its new, state-of-the-art scientific flagship the RV *David Packard*.

The 50 m-long research vessel, named in honour of David Packard, founder of [MBARI](#), is being built to undertake a diverse range of missions in Monterey

Bay and beyond, supporting the institute's mission to advance marine science and technology to understand a changing ocean.

Once operational, the ship will accommodate up to 18 researchers and will enable MBARI's continued exploration of the deep sea, from the midnight zone to the abyssal seafloor. The RV *David Packard* will be the command centre for the ROV Doc Ricketts, MBARI's deep-diving remotely operated vehicle. The new research vessel will also be capable of deploying a variety of autonomous underwater vehicles (AUVs).

Underpinning this deepwater capability will be Sonardyne's [Ranger 2](#) Ultra-Short BaseLine (USBL) system, with an HPT 7000 transceiver, which will be integrated into the vessel via a Sonardyne deployment machine.

Seafloor Geodesy and AUV Survey Missions

The choice means the RV *Packard* is the latest in a line of MBARI vessels to utilize a Sonardyne USBL system for its science missions. In fact, MBARI was an early adopter of Sonardyne's first USBL system, installing it on the institute's very first research vessel, *Point Lobos* (retired in 2012), in the early 1990s. The RV *Western Flyer*, MBARI's current flagship vessel that will be retired this autumn ahead of the arrival of the RV *David Packard* in late 2023, was also fitted with Sonardyne's first USBL system and has upgraded over the years to the latest, industry-standard Ranger 2.

Ranger 2 is also one of the preferred USBL solutions for many of the world's leading ocean research institutes, where efficient use of vessel time and accuracy are paramount. It provides researchers with the desired flexibility, with its capability to track and communicate simultaneously with multiple scientific instruments, vehicles or towed platforms, at ranges up to 10,000m. With Ranger 2, operations from seafloor geodesy through to AUV survey missions are supported, anywhere in the ocean.

Geraint West, head of science at Sonardyne, commented: "We've had a long-running and close relationship with MBARI, so we're really proud to be part of the next chapter in their story. At Sonardyne, we strongly believe in the critical work that MBARI is engaged in, as a better understanding of our changing oceans is critical to the future well-being of our planet."

The ship is being built at the [Freire Shipyard](#) in Vigo, Spain and the order for the Ranger 2 system for the RV *David Packard* was placed via Spanish integration company/agent EMA, Sistemas de Monitorizacion.



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