



Seabed Mapping with Precision and Efficiency

The Power of PredictivePitch™

The EM 2042, the next generation of EM shallow water multibeam echo sounder, is revolutionizing seabed mapping by delivering unparalleled accuracy and resolution to your surveys. The newly developed feature PredictivePitch™ from KONGSBERG, an advanced feature of the EM 2042, is specifically designed for hydrographic surveying where high precision heading, position, roll, pitch, heave, and timing are critical measurements.

PredictivePitch™ combines KONGSBERG Seapath state-of-the-art dual frequency GNSS receivers, inertial technology, and processing algorithms to produce a prediction of the vessel's pitch into the future. This allows the EM 2042 to improve upon its already industry-leading pitch steering by steering the transmit beam of the multibeam based on what the pitch will be at the time of transmit rather than what it was at the time it is logged by the system. In challenging conditions, milliseconds can make all the difference.

Harnessing the Power of Seapath®

PredictivePitch™ uses the advanced KONGSBERG Seapath algorithm to accurately steer the beams along track to their future pitch angle. This provides more accurate and reliable detections even on fast-moving platforms like small USVs exposed to challenging sea conditions.

The advanced Seapath navigation algorithms integrate RTK GNSS data with the inertial sensor data from the MRU. This gives the Seapath 130 unique advantages compared to stand-alone RTK products. The Seapath product's accurate roll, pitch, and heading measurements allow the RTK antenna position to be referenced to any point on the vessel where accurate position and velocity are required.

With PredictivePitch™, professionals in the field of hydrography, offshore industry, dredging, and marine science who demand the best data quality, reliability, and flexibility now have another powerful tool for their underwater mapping needs.

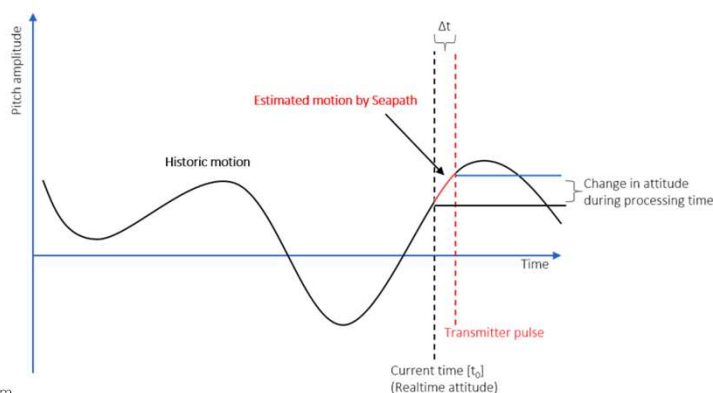


Image courtesy of INFOMAR

Advantages of PredictivePitch™

Improved pitch steering: Enhances the accuracy of seabed mapping.

Evenly distributed data in challenging conditions: Ensures consistent data quality even in high sea states.

Increased survey efficiency for small vessels and USVs with fast movements: Allows for faster data collection without compromising on accuracy.

