

44 PMGS Transponders for Earthquake and Tsunami Research



The Japanese Coast Guard is investing in 44 PMGS (Precision Marine Geodetic System) transponders and a PMGS surface station from Link-Quest, USA. This purchase of PMGS systems is based on the measurement results obtained by Japanese scientists after the magnitude 9 earthquake that occurred on 11th March 2011. Up to 24 metres of horizontal seafloor movement was detected.

These new transponders will form several new arrays at Japan's ocean floors, further expanding the coverage of the areas of interest. They will be periodically monitored by research vessels in years to come. The complete Precision Marine Geodetic Systems

(PMGS) are capable of detecting the movement of the ocean floor with 0.5 centimetre of accuracy for ranges up to 7,000 metres. These newly ordered PMGS transponders, combined with more than 100 systems already deployed in the field, will continue to play a key role in monitoring undersea earthquakes and tsunamis caused by movement of sea plates on Japan's ocean floors.