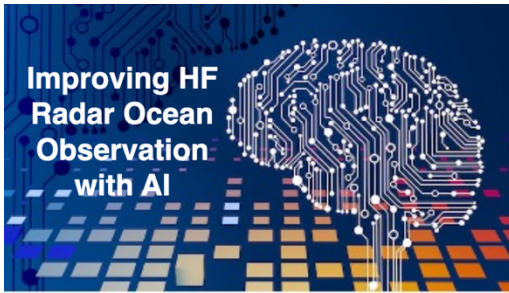# U.S. IOOS OTT Program Contract Awarded to CODAR Ocean Sensors for "Improving HF Radar Ocean Observation with AI"

CODAR Ocean Sensors, Ltd. has been awarded an Ocean Technology Transition (OTT) contract by the U.S. Integrated Ocean Observing System (IOOS) for "Improving HF Radar Ocean Observation with AI". Funding for this 3-year project is up to $701,163.

The goal of this project is to integrate cutting-edge Artificial Intelligence (AI) - machine learning methodologies into the fully operational processing scheme within the CODAR SeaSonde® high frequency (HF) radar system. Towards this end, CODAR has developed and rigorously tested the application of open-source AI methods in HF radar signal processing, including their integration with CODAR's proprietary direction-finding algorithms. Furthermore, the initiative seeks to implement CODAR's new novel method of uncertainty calculations and incorporate those measurement uncertainties into SeaSonde data outputs and processing toolkit, ensuring a more nuanced representation of observed data and facilitating intelligent assimilation of CODAR data products. CODAR will partner with scientists at the University of California, Santa Barbara (UCSB) who will apply advanced evaluation and validation techniques developed over 25+ years of analyzing oceanographic HF data products.

Upon successful completion, these advances will be transitioned into operational field software that can be applied to both new and existing SeaSondes. Results of this project will further elevate the already high quality of HF radar data available through the U.S. Integrated Ocean Observing System and SeaSonde networks worldwide.

This technology transition work fits squarely within CODAR's broader product evolution strategy alongside a suite of other advancements underway that push the envelope in HF radar ease of deployment and autonomous operation, while packaging data products more ready-made for downstream users. Stay posted for other announcements soon to come regarding these other exciting hardware and software innovations.