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SuperDARN: A new network of HF radars for oceanographic research

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Large military OTH radars can measure ocean wave heights, surface currents, and surface wind directions over vast, remote regions. It has long been a dream to deploy a network of relatively compact, portable sky-wave radars dedicated to the provision of real-time oceanographic and meteorological data. We demonstrate the potential for the SuperDARN radars to achieve this. This has become possible with the implementation of a new radar operating system which permits the acquisition of complex time series data. The detection of illegal fishing vessels in the remote Southern Ocean may become possible with planned advances in hardware and software.