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Abstract

Scout provides a service and a sensor to aid with marine navigation while also building greater awareness in coastal waterways. Under a Phase I/II SBIR from NOAA TPO, CMC is developing *Scout*, which provides the technology and infrastructure to improve the quantity and quality of reporting mariners do and how it reaches its audiences. *Scout* enables mariners to participate easily in generating hazards data and updating the common representation of hazards data. *Scout* simplifies detection, reporting and consumption of information on hazardous conditions. Besides the local BNM, boats equipped with CMC's *Lookout* electronic device are the main contributors of fresh data. *Lookout*'s environmental monitoring sensors and AI monitor the vessel's vicinity for any signs of hazardous conditions, functioning like a crew member on lookout. *Scout* simplifies reporting of dangerous boating conditions by relaying observations to a common source point for further analysis in combination with other reports and other data. This enriched data is published in near-real-time and provided back to mariners as chart layers in chart plotters and navigational software or as location-based alerts in an app. Users subscribed to updates from *Scout* receive location-based navigational assistance within their navigation tools that alert them to potential dangers.