Safe piloting is never easy. Vessels operate in an active mixed-use domain where over 99% of the water area is without lanes. Obstacles can emerge from any direction meaning that the safe pilot must always be alert and continuously scanning the waters. It’s tiring. Fatigue and tedium cause perception-complacency which can lead to an accident.

**USCG Boating Accident Data, Year 2020**

The marine industry has an accident rate per operational hour that exceeds all other major machine-transiting modalities. In recreational boating, 36% of these are caused by vessels striking other vessels or objects while under power.

**Primary accident types**

- **36.5%** Collisions & Allisions
- **11.1%** Flooding and swamping
- **9.2%** Grounding
- **6.4%** Falls overboard

**Top contributing factors**

- Operator inattention: 12.6%
- Improper lookout: 11.6%
- Improper speed: 7.8%
- Operator inexperience: 11%

**AI-ris KNOWS WHAT IT SEES**

Powered by artificial intelligence, AI-ris holds the power of deep learning to detect 10 objects commonly found at the water’s surface. The neural-networked mind of the AI-ris will also detect and report many uncommonly seen objects which you may need to know about.
**Fills an Instrumentation Gap**

While marine radars can be good for identifying dense objects at a distance or under low visibility, the AI-ris vision sensor is better at automatically detecting and reporting all objects that are close in.

**Close-in is what counts**

Distant objects are good to know but most vessel collisions and allisions happen when close-in objects are missed or not understood. AI-ris is always on watch and makes safe piloting easier.

**Reduces Fatigue and Improves Operations**

Shifting the workload from the human eyes to AI-ris reduces mental effort of the pilot, which decreases human fatigue enabling safer and increased hours of confident operations.

**One AI-ris versus multiple Humans**

The AI-ris sees and reports all nearby objects by continuously analyzing an area that comparatively would require multiple sets of focused, undistracted, and alert human eyes. One human can focus on a 30 degree slice of horizontal area at any instance, compared to AI-ris’ coverage of 90 degrees in the first release and 360 in an upcoming iteration.

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**THE POWER OF AI-ris**

- Visually detects and tracks all on water objects (“targets”) both fixed and floating
- Calculates range and bearing of each target
- Outputs targets as NMEA TTM string for input into other systems
- Classifies targets into 1 of 10 object types or as unknown
- Enables guard zone radius and alert if target enters guard zone
- Provides video record for training and forensics
- Assigns an ID to each target
- Streams UI wirelessly to any HTML capable device
- Over the air connectivity for software updates

Put AI-ris to work for you. Available in Q3 2022.

Sea Machines: See all, Sea Better