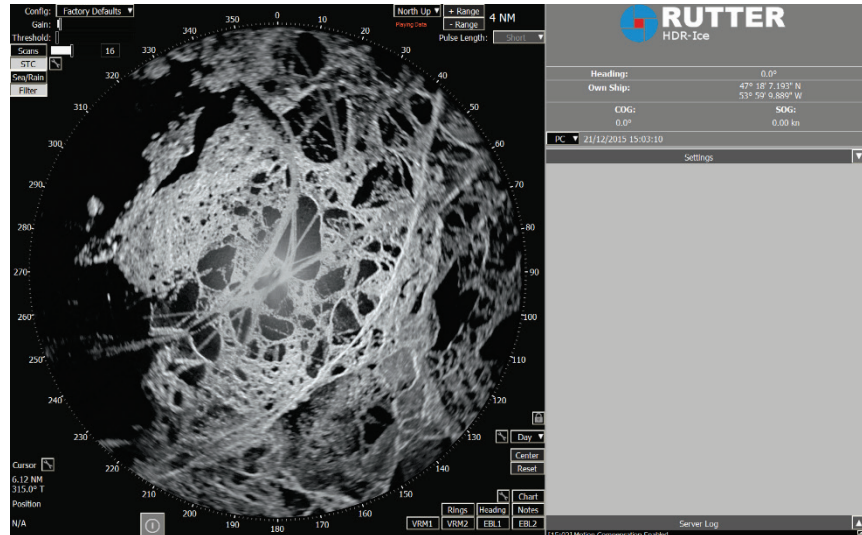


Rutter’s HDR-Ice system enables vessels operating in ice to differentiate between open water, ice pans, open water leads in ice fields and the ice ridges that impact operations in ice zones. Its high-resolution image processing is industry-proven, providing enhanced ice imaging to reliably convey small bergy bits and growlers that can significantly damage a vessel or platform. Across a wide range of sea states, weather, and daylight or nighttime conditions the HDR-Ice improves situational awareness and provides tactical information essential for real time route planning and decision making in ice operations. The HDR-Ice system comes without detection, tracking and automatic outlining which are available with Rutter’s *sigma* S6 Ice Navigator™ system, but does support the manual outlining of ice features.



HDR-Ice – Ice Pack Imaging

HDR-Ice can be installed with a dedicated ice radar, but it also passively interfaces with, and significantly enhances, commercially available marine radars. The HDR-Ice system is fully motion compensated and operates equally well from both fixed platforms and vessels underway.

HDR-Ice features AIS integration. Through a connection to an AIS receiver, this overlay displays all AIS Class-A and Class-B targets providing an overview of the surrounding marine traffic enhancing situational awareness.

The HDR-Ice offers a variety of outputs to both record and stream ice imaging to external systems. A built-in Screen Recorder allows recording of the radar display which is useful for documenting an incident, scientific research or ice breaking operations. Recordings are supported as a series of JPEG or PNG images, or as an AVI video. HDR-Ice comes standard with *sigma* S6 Connect, a web enabled interface allowing external systems to interface with HDR-Ice to view radar imaging (GeoTIFF, PNG, JPEG) and outlines (GML, KML, ESRI). This allows easy integration into external systems such as Google Earth Pro, GIS, and ice management systems using industry standard formats.

HDR-Ice features full integration with select FLIR® camera systems. Features include the ability to support multiple cameras, and intelligent selection of a best camera for specific targets. These features support quick decision making in addressing potential threats and possible interruptions to operations.

HDR-Ice

- Marine certified (IEC 60945) Rack Mountable/Desktop Radar Data Processor **excluding** monitor and keyboard
- Manual ice outlining
- Fully motion compensated scan-to-scan integration of up to 32 radar sweeps
- Advanced sea, rain, interference & clutter suppression
- AIS Class-A and Class-B target overlay
- Built-in interfaces for FLIR® camera systems for enhanced target verification and identification
- Automatic Screen Recording in selectable time intervals for evidence documentation
- Remote client capability
- Computer-Based Training package
- *sigma* S6 Connect