

SIMRAD®

Go With Confidence

HALO™ RADAR

See near and far, in an instant, with Halo Pulse Compression Radar.



SIMRAD®

REVOLUTIONARY



HALO™ PULSE COMPRESSION RADAR

Combining the best characteristics of our traditional pulse and Broadband 4G™ Radar systems, Simrad Halo™ Radar uses pulse compression technology to deliver an unprecedented mix of close and long-range detection, precise target definition, and low clutter.

Solid-state technology means minimal warm-up time and maximum ocean-going reliability, while compliance with upcoming Low Emission standards makes Halo Radar safe to run in anchorages and marinas.

UP TO
72_{NM}
RANGE

HIGH SPEED
48_{RPM}

LOW
EMISSIONS

INSTANT
ON™

HALO™ RADAR / FEATURES

- Beam Sharpening with Target Separation Control
- Dual Range operation
- Advanced signal processing with Harbor, Offshore, Weather, Bird, and Custom modes
- High-speed 48 rpm operation
- InstantOn™ from standby, and just 16-25 seconds from Power On
- MARPA tracking with 10 targets (20 in Dual Range)
- Low power consumption with 12/24V DC operation
- Ethernet connectivity to Simrad NSS evo2 and NSO evo2 displays
- Unique blue LED accent lighting in pedestal

HALO™ RADAR



HALO™ RADAR / MODELS



3-FOOT
OPEN ARRAY **48NM**
TRUE RANGE



4-FOOT
OPEN ARRAY **64NM**
TRUE RANGE



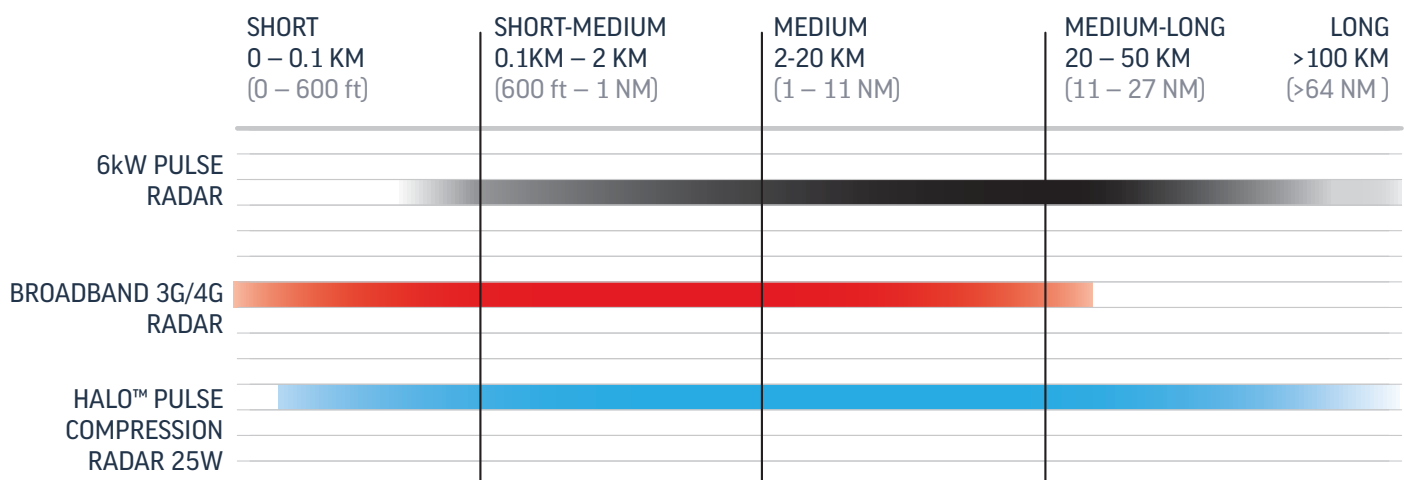
6-FOOT
OPEN ARRAY **72NM**
TRUE RANGE

Find your perfect balance between array size and range

Halo Radar delivers long-range performance comparable to traditional pulse radar, plus unprecedented close-range performance down to 6m (20ft) where once only our Broadband 3G/4G Radar could operate effectively.

RANGE / HOW DOES HALO™ MEASURE UP?

Watch both nearby collision hazards and faraway weather cells, with Halo™ Radar's unique combination of short- and long-range performance.



Based on Halo-4

Halo™ Pulse Compression Radar works with Simrad NSS evo2 and NSO evo2 touchscreen multifunction displays.



Uncompromising Aesthetics with LED Accent Lighting

Display your Halo™ Radar with soft-glow blue LED accent lighting, customizable with 4-level brightness control.

Halo™ Pulse Compression Radar's blue 4 level static accent pedestal lighting may not be approved for use in your boating location. Please check your local boating regulations before turning the blue accent lights ON.

5 Modes with Auto Harbor/Offshore Selection

Harbor, Offshore, Weather, Bird, and custom modes tune Halo™ Radar's advanced signal processing to help ensure that targets can be seen vividly – even in the toughest environmental conditions.

Beam Sharpening with Target Separation Control

Go compact without compromising on resolution. Beam Sharpening grants HALO-3 Radar similar resolution to a 4-foot array, and HALO-4 Radar similar to a 6-foot array. HALO-6 Radar provides an unprecedented resolution of 0.8 degrees, similar to an 8-foot array.

Advanced Signal Processing for Clearer Images

Halo™ Radar uses Digital Sidelobe Reduction and Directional Sea Clutter Rejection to enhance the detection and discrimination of smaller targets, while Sector Blanking eliminates unwanted reflections for less clutter on screen and to deliver an uncluttered and easily understandable view on screen.

High Speed Mode for Rapid Position Updates

Halo™ Radar provides high speed operation up to 48 rpm (mode and range dependent). Simrad quality construction and Halo™ Radar's brushless motor with advanced helical gear-train design ensure exceptionally quiet operation, especially at high speeds.

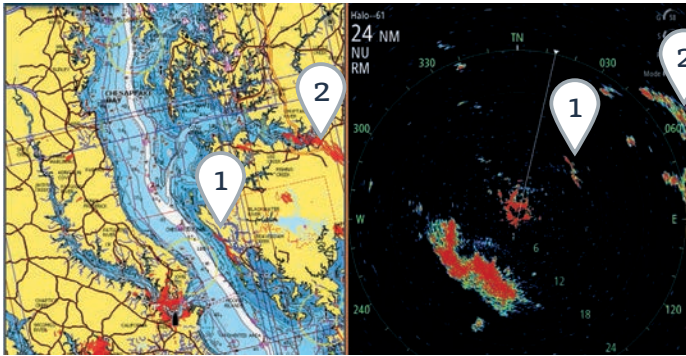
Dual Range with NSS & NSO Multifunction Displays

Monitor two distance ranges simultaneously with independent displays, controls, and MARPA tracking. Watch both nearby collision hazards and faraway weather cells, with Halo™ Radar's unique combination of short- and long-range performance.

MARPA Target Tracking with 10 Targets per Range

Automatically track CPA/TCPA for up to 10 user-selected radar targets per range (up to 20 total in dual-range mode), when using Halo™ Radar with a compatible multifunction display, high-speed heading sensor, and GPS receiver.

HALO™ RADAR



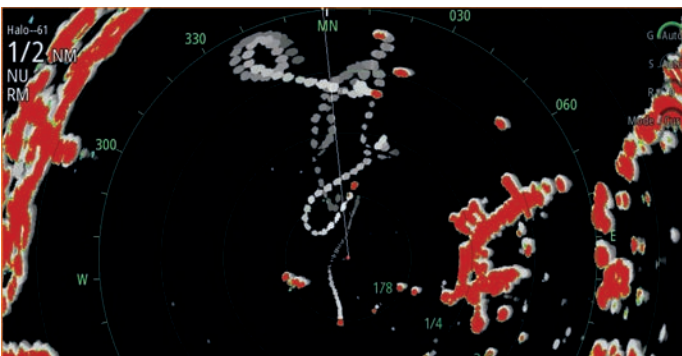
▲ HALO™ RADAR SEES ALL THE WAY ACROSS THE BAY

From Pax River, Halo™ Radar sees all the way across Chesapeake Bay(1) and detects storms over Cambridge, Maryland(2).



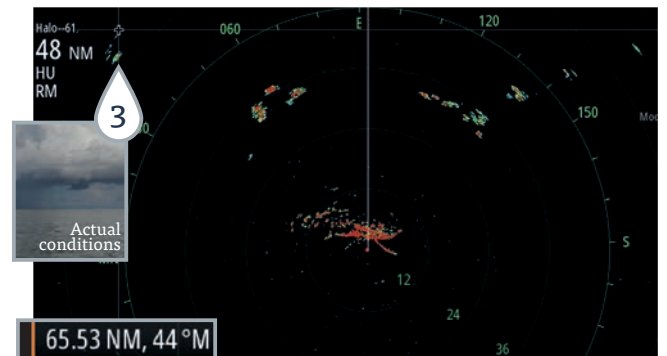
▲ 300FT AND UP TO 72NM - SAME TIME & SCREEN

Halo™ Radar lets you see near and far in Dual Range mode, with completely independent split-screen displays. Note a remarkably small 20-foot main bang area(1).



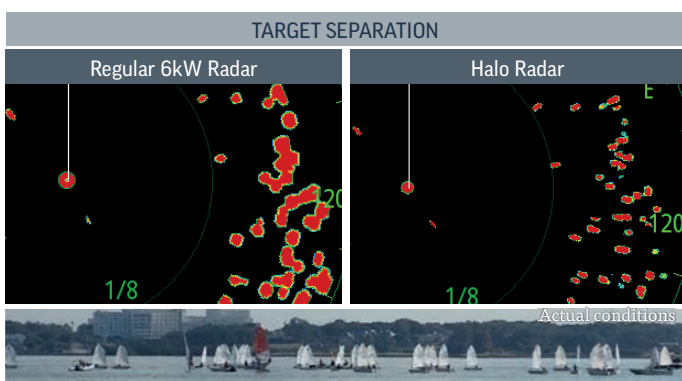
▲ TRACK MULTIPLE HIGH-SPEED TARGETS

With high-speed operation, Halo™ Radar shows target trails of four fast-moving jet skis in Clearwater, Florida harbor.



▲ MONITOR FAR-AWAY WEATHER CELLS

Halo™ Radar sees weather cells 65NM away (3), giving you a real-time view of rough weather long before you encounter it.



▲ SUPERIOR TARGET SEPARATION

Halo™ Radar shows clear separation of even the smallest targets, as seen in this sailing dinghy race.



▲ BIRDFINDER RADAR

Birds mean fish, and Halo™ Radar's dedicated birdfinder mode means it's easy to find flocks of birds from a distance.

TARGET DETECTION

All Simrad Halo™ Radars provide competitive target detection, with our larger HALO-4 and HALO-6 models meeting many core components of the tough IEC 62388 Annex D specifications required of commercial radar systems.

Targets to Detect	Radar Cross Section (m ²)	Target Height (m)	Minimum Range of Detection (nm)					
			Antenna 3m High			Antenna 15m High		
			Simrad HALO-3	Simrad HALO-4	Simrad HALO-6	IEC 62388	Simrad HALO-4	Simrad HALO-6
Shorelines to 60m	50,000	50	13.0	15.3	18.4	20.0	21.3	25.6
Shorelines to 6m	5,000	5	4.8	5.6	6.7	8.0	10.1	12.1
Shorelines to 3m	2,500	2.5	3.6	4.2	5.0	6.0	7.6	9.1
SOLAS ships >5000gt	50,000	10	7.1	8.3	10.0	11.0	13.5	16.2
SOLAS ships >500gt	1,800	5	4.3	5.1	6.1	8.0	9.6	11.5
Small vessel with radar reflector meeting IMO Performance Standards	7.5	4	2.4	2.8	3.4	5.0	5.4	6.5
Navigation buoy with corner reflector	10	3.5	2.3	2.7	3.2	4.9	5.3	6.4
Typical navigation buoy	5	3.5	2.0	2.3	2.8	4.6	5.0	6.0
Small vessel <10m length with no radar reflector	2.5	2.5	1.6	1.9	2.3	3.4	4.2	5.0
Typical channel marker	1	1	0.9	1.0	1.2	2.0	2.4	2.9
Large flocks of diving birds	Highly Variable	1-15	2-3	3-4	4-5	N/A	N/A	N/A

Note: Simrad Halo™ Radar is not an IMO-approved radar solution for SOLAS vessels

Solid-State with Pulse Compression Technology

Halo™ Radar uses solid-state electronics to produce low-power pulsed frequency-swept transmissions, like the radar equivalent of our CHIRP sonar, delivering excellent range and target resolution with minimal warm-up time, long life, and low emissions.

Engineered for High Reliability & Low Maintenance

Halo™ Radar's solid-state transceiver means no magnetron to replace, and no manual tuning required as that magnetron heats up or ages. Similarly, a solid-state brushless motor driver means no motor brushes to wear out and replace.

Low Electromagnetic Emissions for Use Anywhere

Unlike traditional pulse radar, Halo™ Radar's low-power pulsed transmissions meet upcoming Low Emission standards for radar. Safe to run in anchorages and marinas, Halo™ Radar provides radar coverage from the start to end of every journey.

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