



# Raymarine®

## ELEMENT

Sonar/GPS

NEW PRODUCT PREVIEW: DEC 2018



# ELEMENT

*SONAR, SPEED & SIMPLICITY*



Element offers small & medium sized fishing boats superior sonar technology, unrivaled quad-core processing speed, and the simplicity, of the new LightHouse Sport OS.

# Target Customer

- **Target customer:**
  - Small and medium-sized, single-station fishing boat owners who desire performance, but do not require a full-fledged networked multifunction navigation system.
- **Best-matched boat types:**
  - Small center consoles
  - Flats boats
  - Fishing skiffs
  - Bay boats
  - Multispecies boats



# Element Key Features

- Rugged, high-visibility sunlight viewable 7", 9", and 12" displays with built-in GPS/GNSS receiver
- HyperVision CHIRP technology delivers super-high resolution sonar imagery
- 1.2 megahertz HyperVision sonar provides super high-resolution imaging up to 125' while 350kHz DownVision delivers photo-like imaging up to 600' and SideVision out to 300'
- Built-in RealVision 3D sonar gives you the power to accurately identify the location of ledges, channel beds, and other contour changes
- Take 3D sonar to the next level with HyperVision mode for unprecedented 3D resolution and positional awareness
- New compact HV-100, all-in-one transom transducer, combines Hyper, Down, Side, RealVision 3D and conventional CHIRP sonar channels into one simple installation



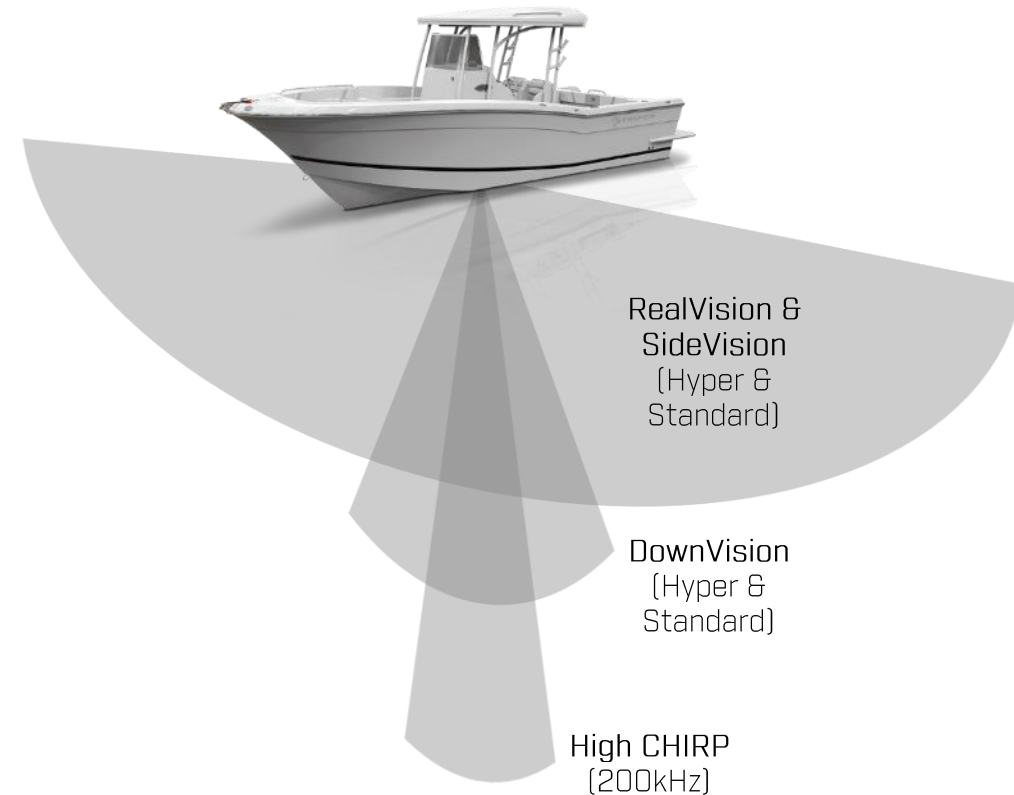
# Element Key Features



- LightHouse Sport OS with dedicated keypad controls for simple operation, plus an oversized waypoint key for marking favorite spots
- User-programmable keys allow quick access to most-used configurations
- Fast quad-core processor allows instantaneous chart re-draw and continuous 3D rendering while running a simple, easy-to-learn user interface.
- Raymarine RealBathy™ personal sonar mapping and Navionics SonarCharts Live support
- Support for Raymarine LightHouse NC2 Charts with Fishing Hot Spots, Navionics, C-MAP and other regional charting options
- NMEA2000 networking for VHF, engine, tanks, and heading sensor integration
- Each Element display includes a trunnion mounting bracket, console mounting kit, power/NMEA200 cable, handbook, and mounting hardware

# Element Sonar Technology

- Outstanding resolution paired with spot-on positional information provides a level of sonar functionality that has never before been seen
  - 1.2MHz HyperVision™ provides super high-resolution imaging
    - Range: Up to 125ft in DownVision and SideVision modes
  - 350kHz Standard imaging for great resolution and exceptional range
    - Range: Up to 600ft down and 300ft side
  - 200kHz Traditional sonar to mark fish and track bottom at speed
    - Range: Up to 900ft down
- HyperVision™ overlay on RealVision 3D providing an unprecedented level of resolution and positional awareness
- Unlike Axiom, Element is not equipped with an AHRS stabilized transducer so RealVision 3D only operates in scrolling mode



# HyperVision Down



High Resolution HyperVision Down

# HyperVision Side



HyperVision Side

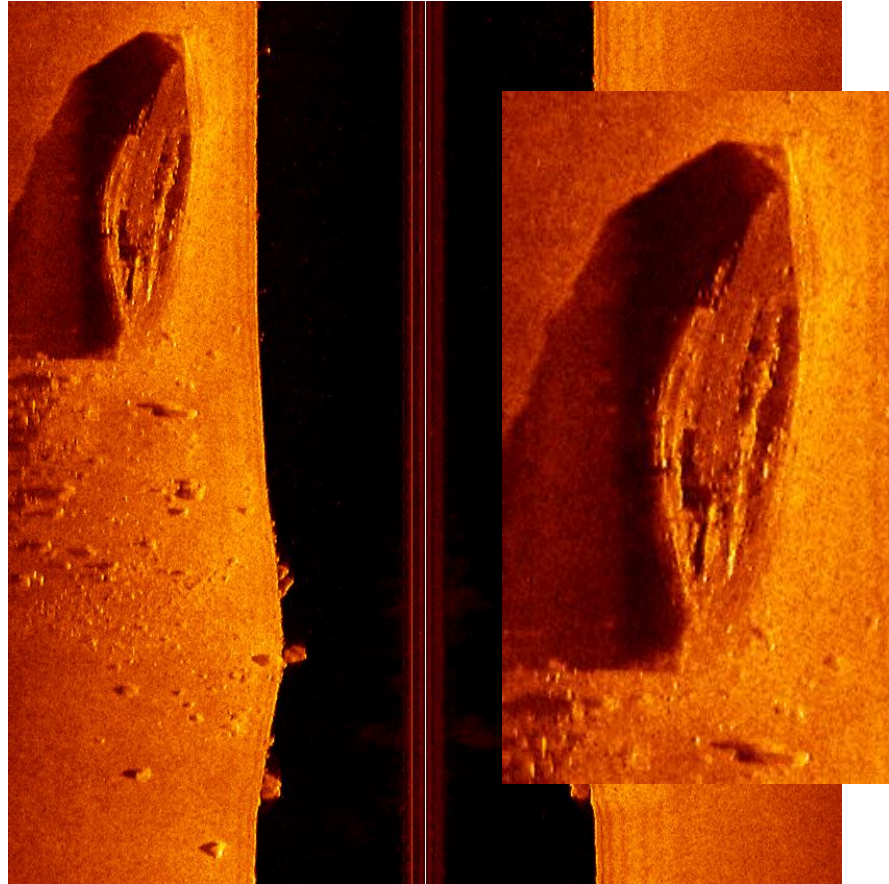


# HyperVision Structure

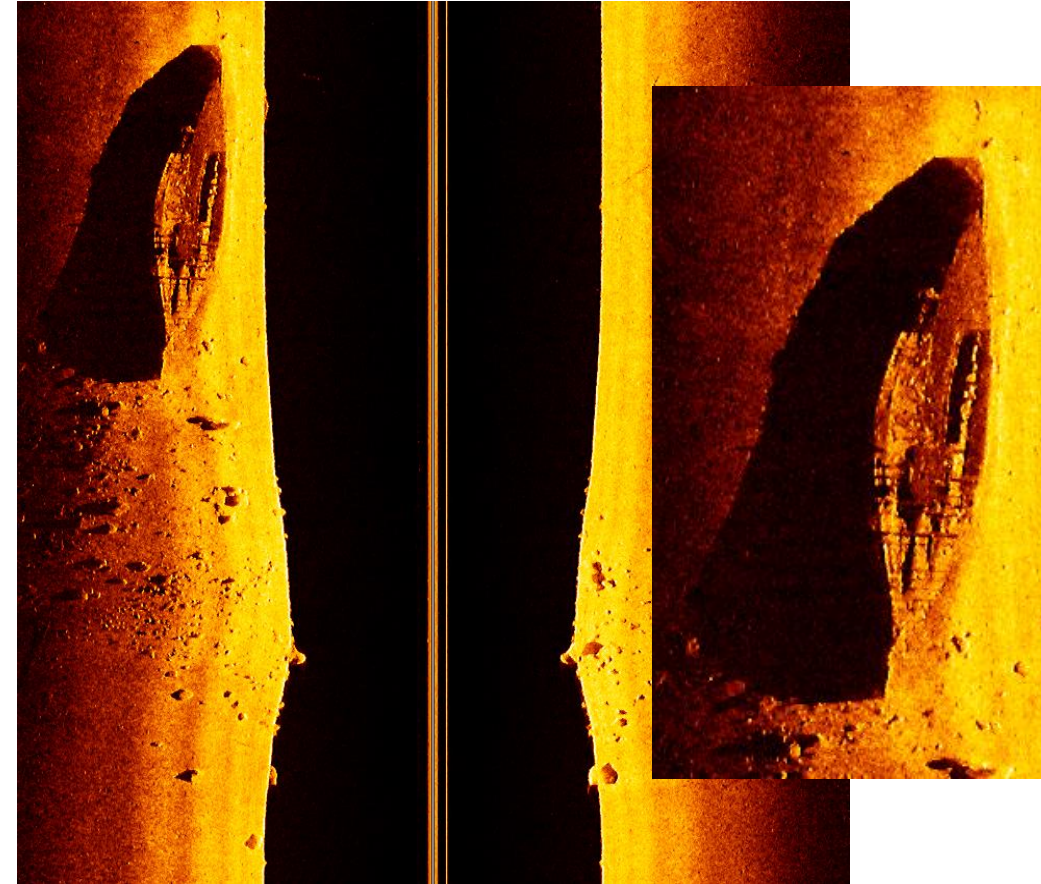


HyperVision Structure

# HyperVision Comparison

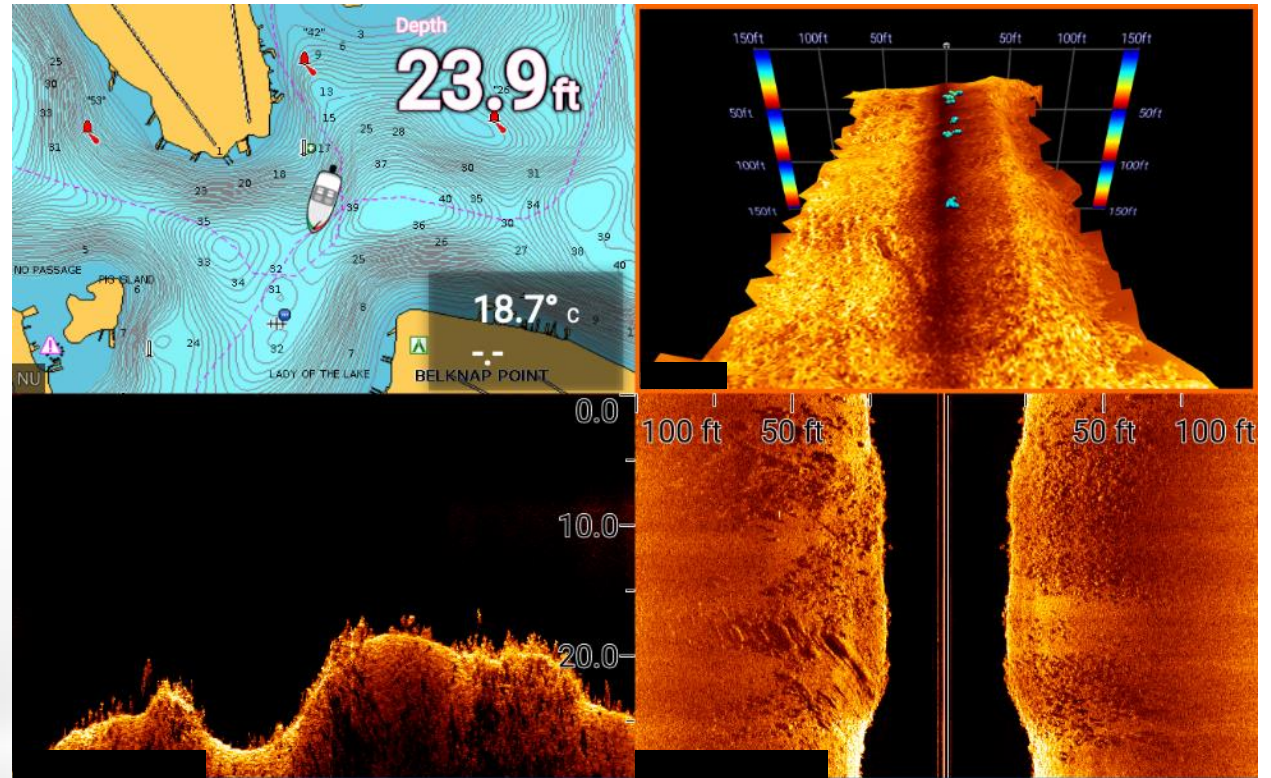


350kHz



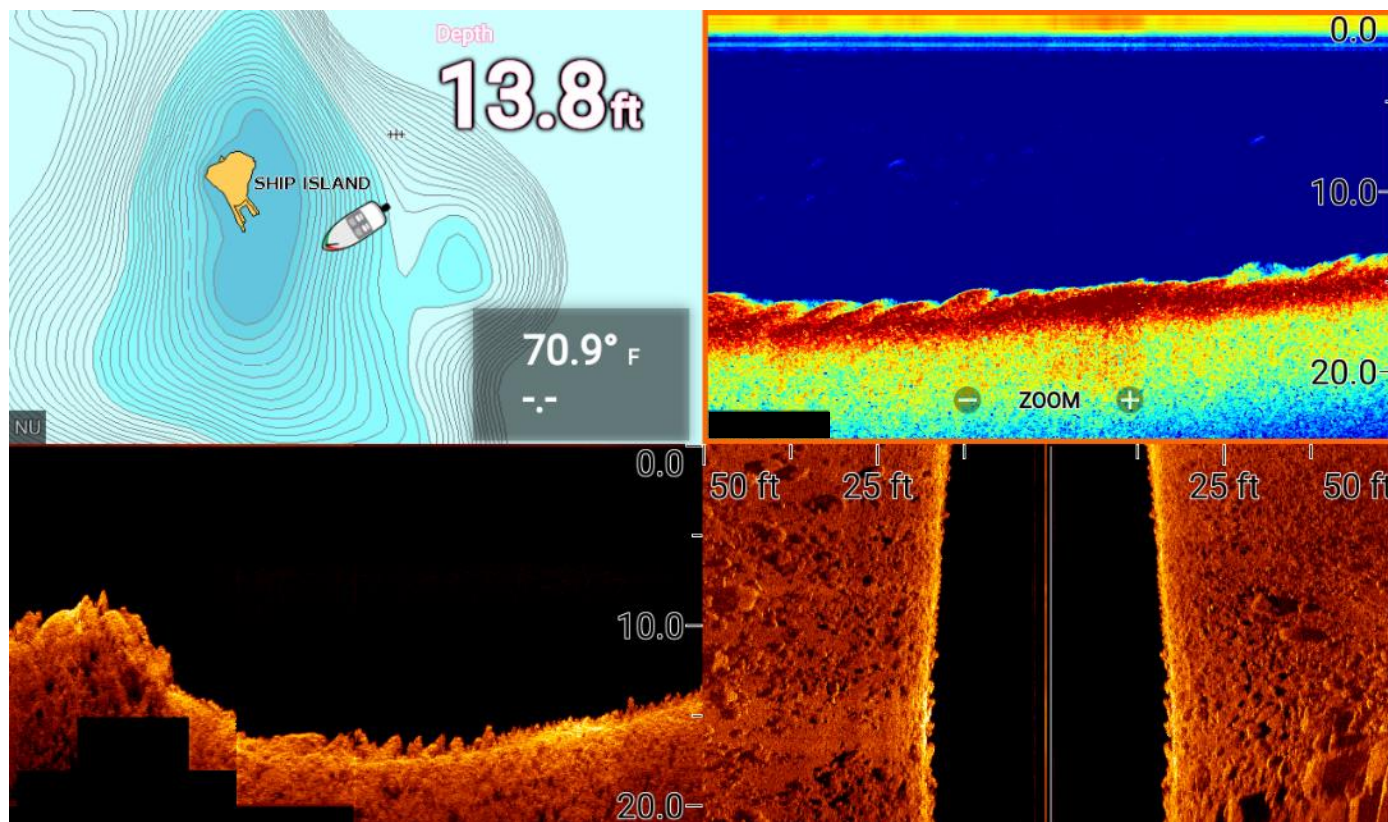
HyperVision 1.2MHz

# HyperVision Down, Side and 3D



HyperVision Down and Side w/ RealVision 3D

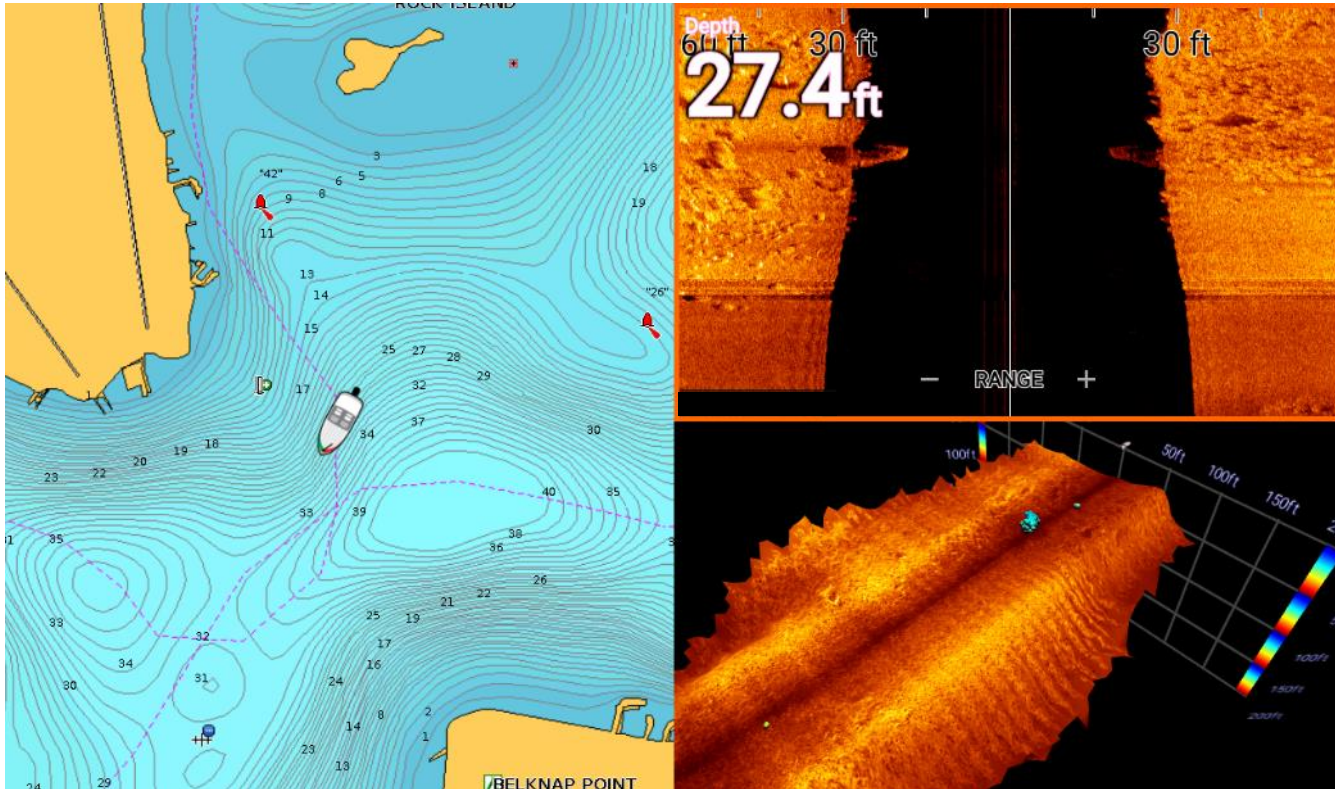
# Multi-Channel Sonar



HyperVision Down and Side w/ High CHIRP



# Side and RealVision 3D



HyperVision Side w/ RealVision 3D



# HyperVision CHIRP Transducers

- New transducers
  - HV-100 Transom (200kHz/350kHz/1.2MHz)
  - HV-300TH Plastic Thru-Hull Single (200kHz/350kHz/1.2MHz)
  - HV-300THP Plastic Thru-Hull Pair (200kHz/350kHz/1.2MHz)
- Accessories
  - HV-100 Trolling Motor Mount
- Alternative transducer support
  - Dragonfly transducer support (via adapter cable)
  - CPT-S/CPT-DVS transducer support (via adapter cable)
  - MinnKota transducer support (via adapter cable)
  - MotorGuide transducer support (via adapter cable)



The HV-100 more compact and easier to install than competitive imaging transducers



The HV-300 is available in a single or split configuration to account for varying deadrises

# LightHouse Sport Operating System

powered by

LIGHTHOUSE **SPORT** 

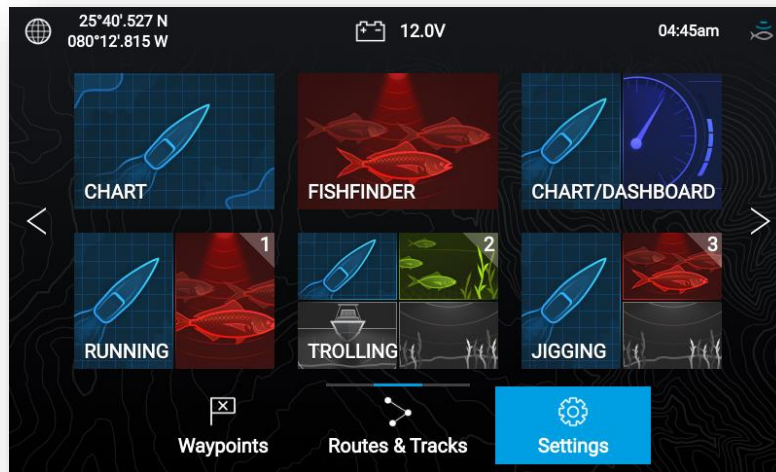


- Activity-centric operating system
- Optimized for keypad controls
- Intuitive and quick-to-learn

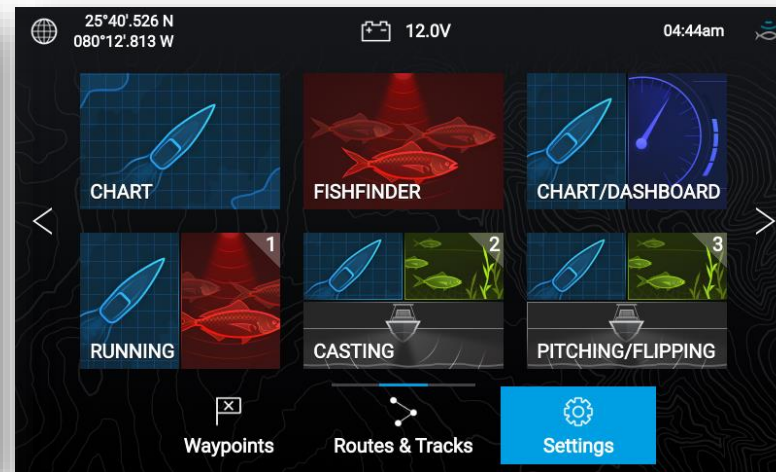
# LightHouse Sport Operating System

- Preconfigured application pages for common fishing and cruising activities
  - Casting, Jigging, Trolling, Pitching, Flipping, etc.

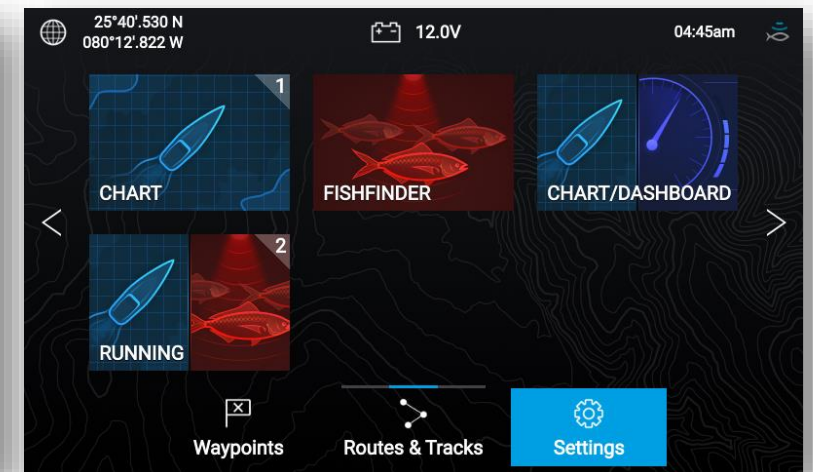
powered by  
**LIGHTHOUSE SPORT**



Coastal Fishing Home Page



Inland Fishing Home Page



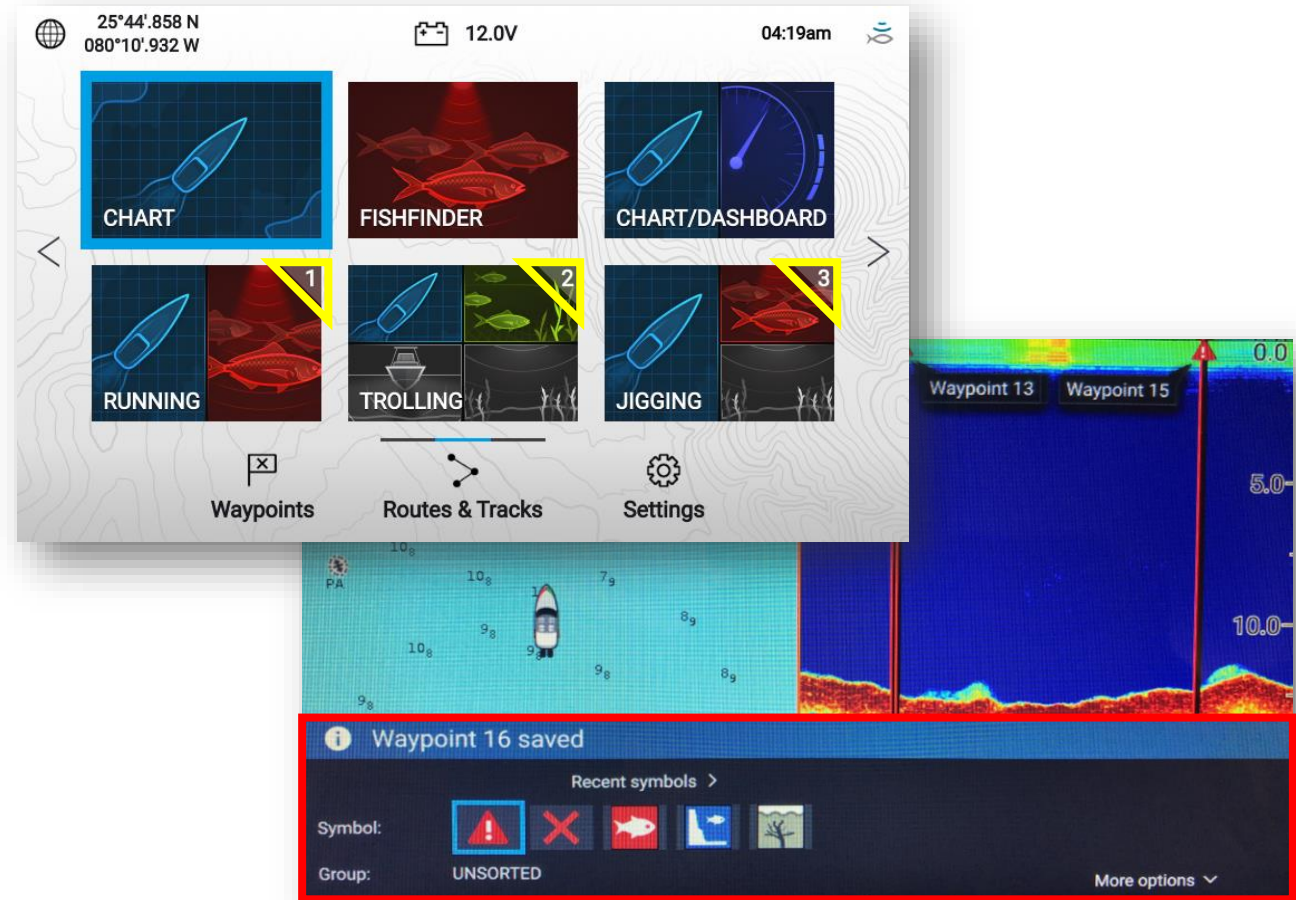
Cruising Home Page



# LightHouse Sport OS

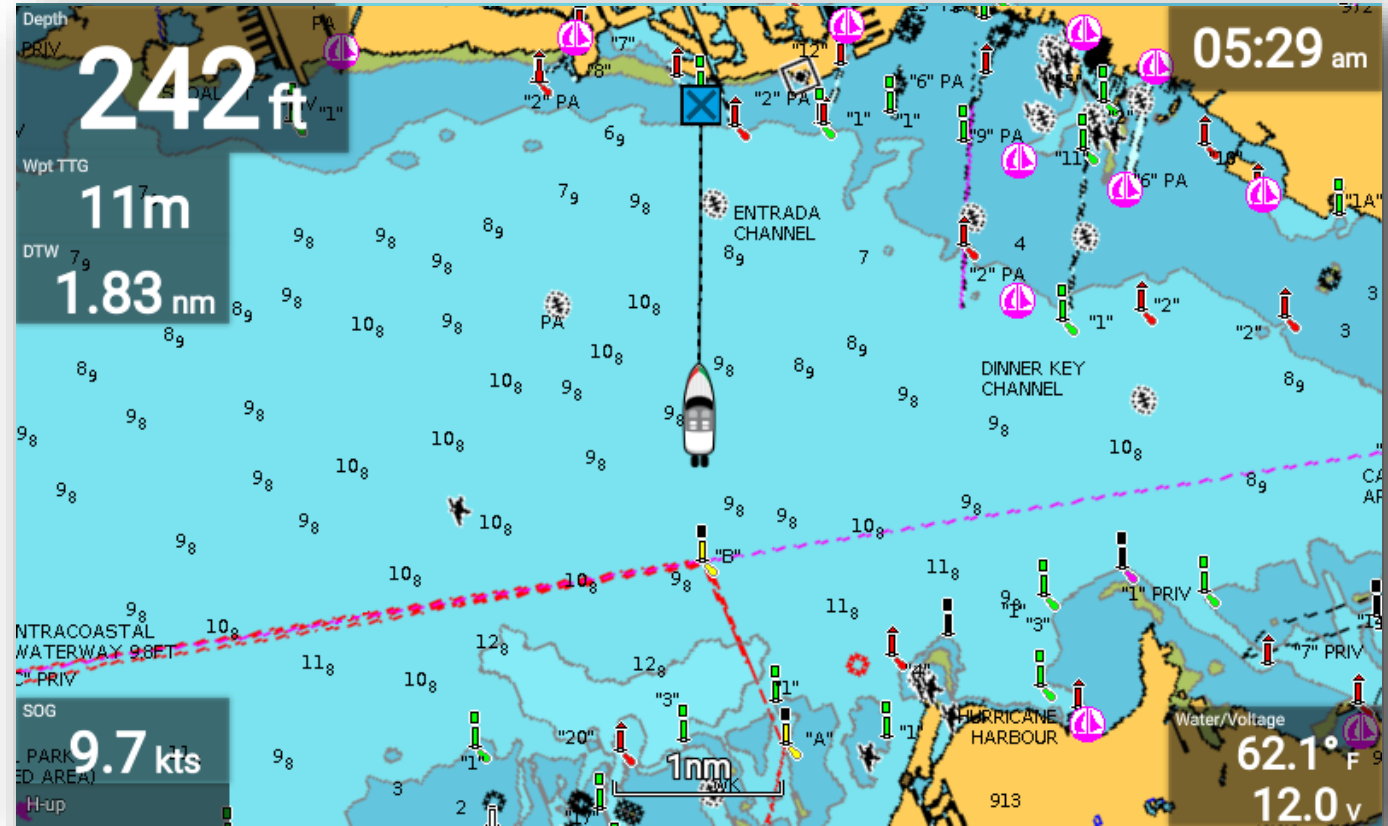


- Dedicated keys for the most common actions
  - Dropping waypoints
  - Zoom / Range Changes
  - User-programmable app keys to enable quick page changes
- New “most recent” waypoint menu
  - Allows quick access to the most commonly used waypoint symbols
- Internal Storage
  - 10,000 Waypoints (Up to 200 groups)
  - 150 Routes (Up to 250 waypoints each)
  - 15 Tracks (Up to 10,000 points each)



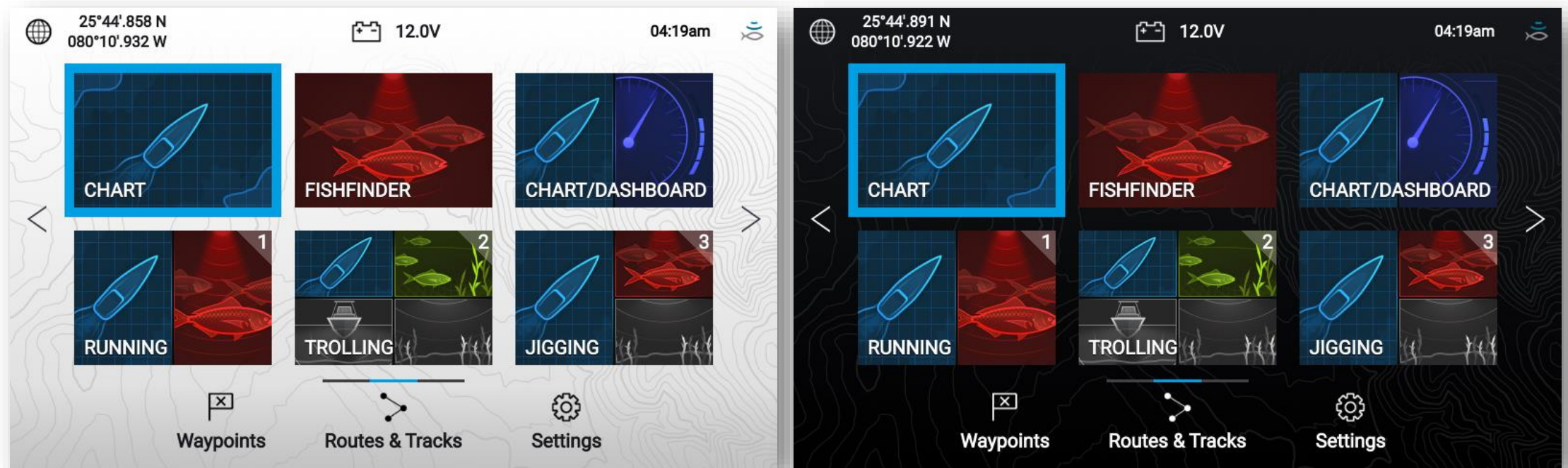
# LightHouse Sport OS

- Running Mode emphasizes all of your critical information when at speed
- User-enabled or automatically activated when boat speed exceeds 10MPH



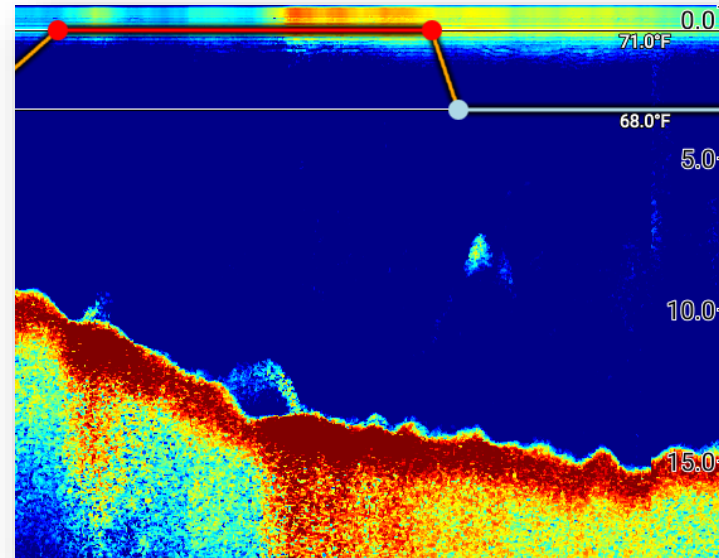
# LightHouse Sport OS

- Light and Dark color palette

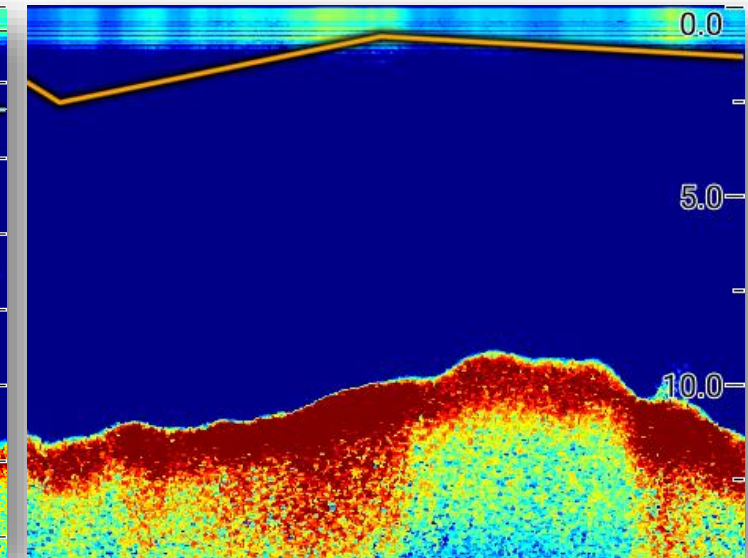


# LightHouse Sport OS

- On-screen water temperature graph (High CHIRP Sonar and DownVision)
- User adjustable by 0.1° to a minimum spread of 1.0°
- Audible notification when entering or exiting a user defined temperature range



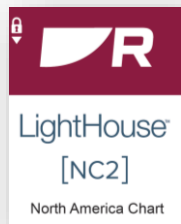
Manual Mode allows for exact temperature window monitoring and audible alarms



Automatic Mode allows for general temperature break monitoring

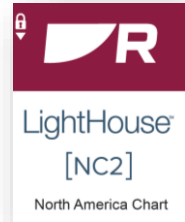
# Cartography

- Support for Raymarine LightHouse NC2 Charts with Fishing Hot Spots, Navionics, C-MAP and other regional charting options
- Region-specific retail packaging options with Navionics and LightHouse NC2 Charts



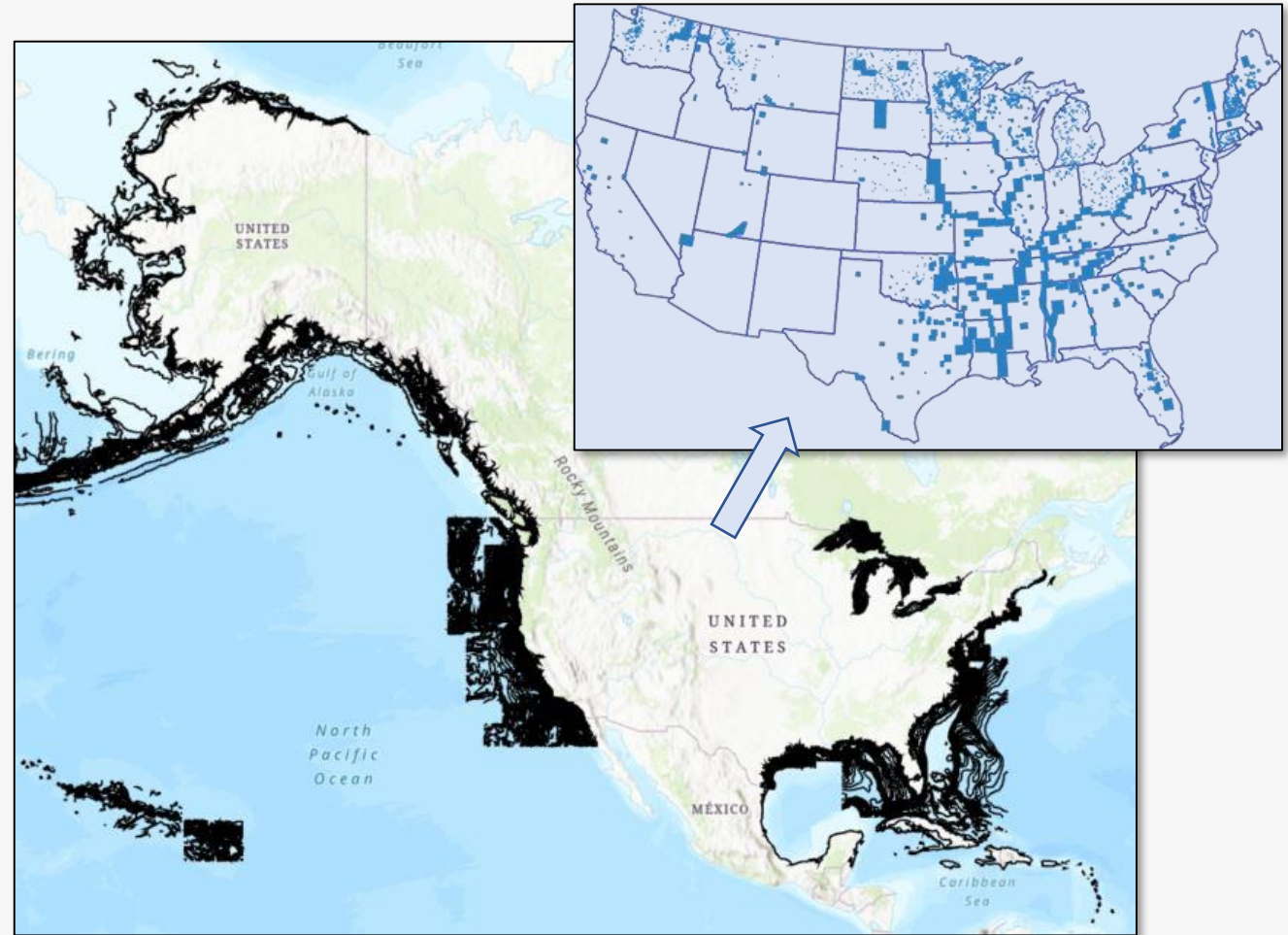
# New LightHouse NC2 Chart

- New, Enhanced World Basemap
- Expanded Contour Mapping Coverage
- Fishing Hot Spots®, Tips & Waterway Intel
- Structure, Vegetation & Bottom Composition
- Points of Interest
- Navigational Aids
- Tide Stations & Predictions



# LightHouse NC2 Coverage

- Contiguous U.S., Alaska, Hawaii, and The Bahamas
- Canadian contour coverage only on west coast and B.C. area.
- 80,000+ miles of charted saltwater coastline
- 6,000+ inland freshwater lakes and rivers
- All Great Lakes and related waterways

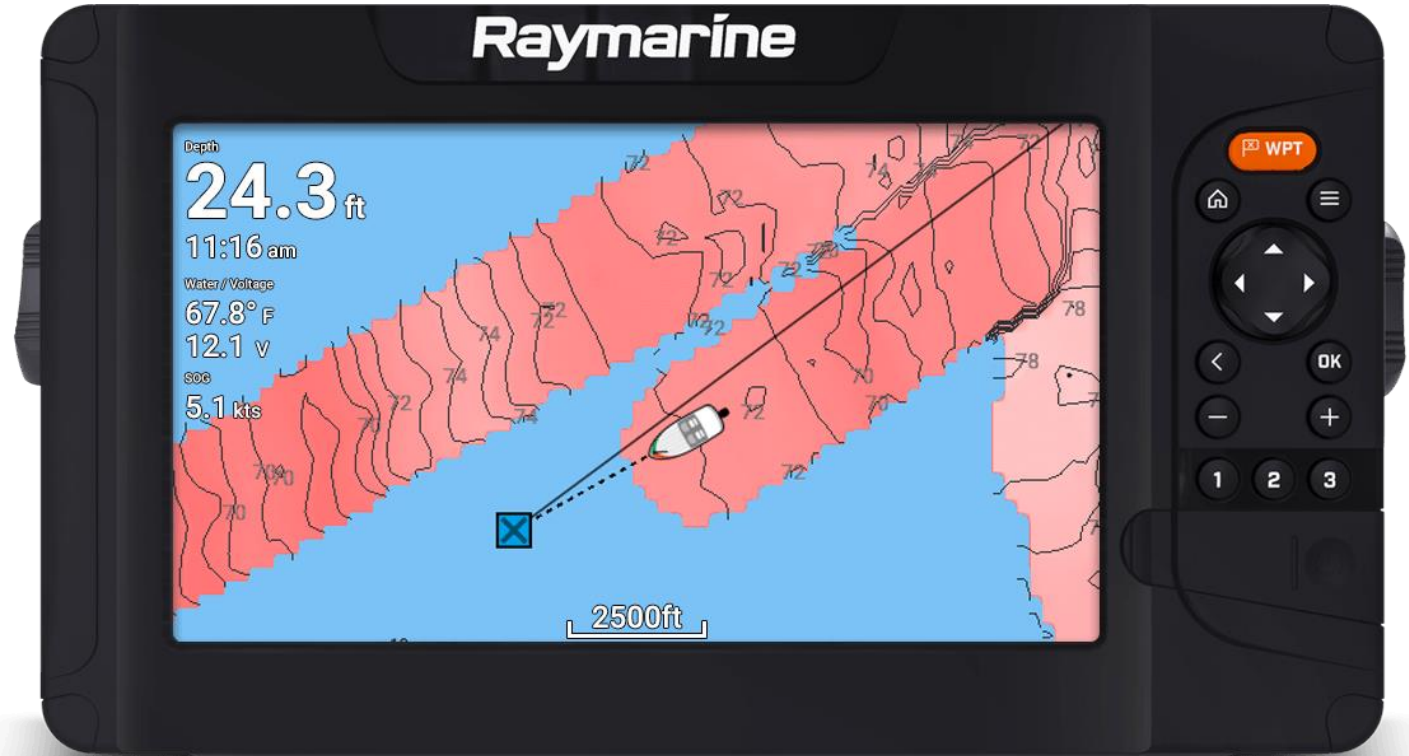


# RealBathy

## RealBathy™ Personal Sonar Map Generator

- Real-time 1 foot contours
- Variable overlay transparency
- Safe depth colorization

*RealBathy is available on all Element products and does not require LNC2 cartography, but it does require a microSD card with available space inserted into the card reader.*





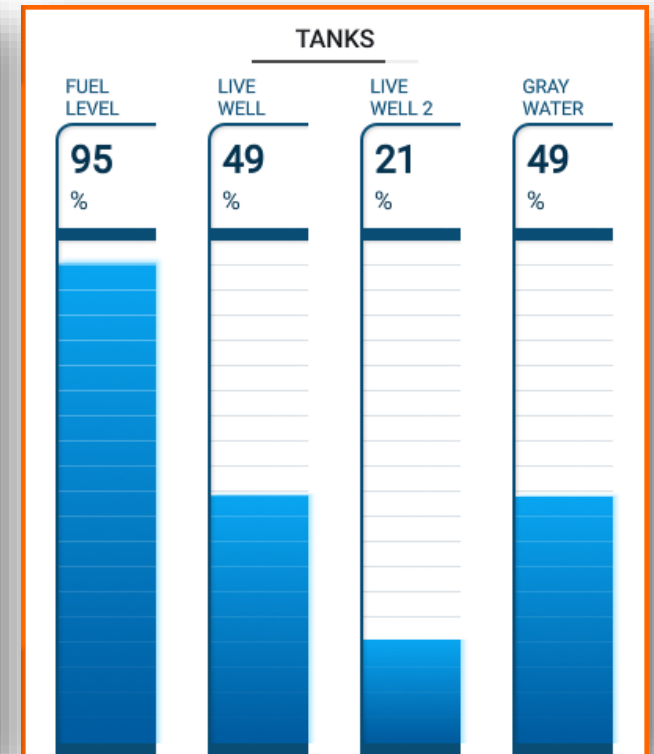
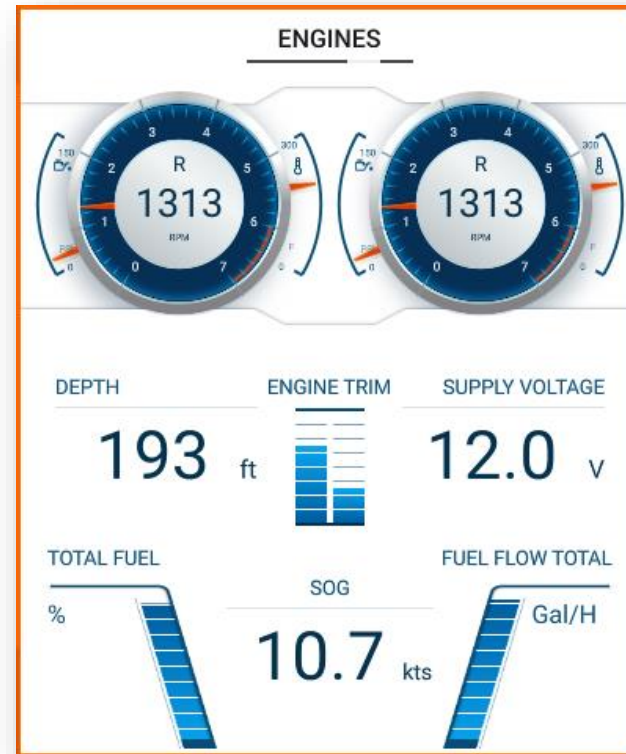
# Element Connectivity



- Connector #1: Shared NMEA2000/Power Cable from Axiom
  - Simplified support for small boat peripherals
    - Inputs
      - Engine information
      - Tank levels
      - Heading for chart stabilization
    - Outputs
      - GPS for VHF DSC
- Connector #2: New 15-Pin Transducer Port

# NMEA Support

- Simplified support for small boat peripherals
  - Inputs
    - Engine information (Max 2)
    - Tank levels (Max 4)
    - Heading for chart stabilization
  - Outputs
    - GPS for VHF DSC



# What's in the box?

## COMBO ONLY SKU

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- Element HV combo unit
  - Trunnion bracket w/ mounting hardware
  - Flush mount kit w/ mounting hardware
  - Sun cover
  - Power/NMEA2000 cable (1.5m)
  - Documentation pack
- Cartography (optional)

## COMBO + TRANSDUCER SKU

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- Element HV combo unit
  - Trunnion bracket w/ mounting hardware
  - Flush mount kit w/ mounting hardware
  - Sun cover
  - Power/NMEA2000 cable (1.5m)
  - Documentation pack
- Cartography (optional)
- HV-100 Transducer (6m)
  - Transom bracket w/ mounting hardware
  - P-clips w/ mounting hardware (5x)
  - Escutcheon plate w/ mounting hardware

# Typical Element System

- Element HV Combo Unit
- HV-100 Transom Transducer



# Max System Diagram

- Element HV Combo Unit
- HV-100 Transom Transducer
- EV-1 Heading Sensor
- VHF Radio
- Dual Engine Interfaces
- Quad Tank Sensors
- i70/i70s Instrument(s)





The World's **Sixth Sense**<sup>®</sup>