

Mackay Marine New-Build & Retrofit Project Integration & Management Services

Mackay Marine Projects Management Team is a proven leader in both "turn-key" and fully customized portfolios of marine electronics systems. Ranging from a simple GMDSS station to complete integration of all onboard electronics including bridge navigation, communications systems, security functions, efficiency analytics, and below-deck operations; often with purpose-built custom consoles.

Mackay's Project Group services new-build and retrofit programs for commercial, military/government, and shipyard clients. Often collaborating with naval architects and shipowners, Mackay devises cost effective systems, processes, and execution plans to meet customer's unique requirements and schedules.

PROGRAM OFFERINGS

From concept, to commissioning, and through sea-trials, Mackay offers:

- Full Range of Projects
 - From Custom Consoles to Total Electronic System Integration
- Short-term Projects to Multi-ship Construction Programs
- Partners with Marine Electronics Integrators with Proven Track-Records
- Assured IMO, Systems, and Ports-Served Regulatory Compliance
- Adherence to Schedules and Budget Targets

CUSTOMER-CENTRIC FEATURES & DELIVERABLES

- Turn-Key Bridge Electronics Assurance of timely product availability and preferred pricing, due to Mackay's global supplier relations.
- Preliminary Project and As-Built Drawings
- Program Management & Dedicated Project Managers Streamline Comprehensive Production and Installation Processes
- Custom Designed, Pre-Assembled, and Pre-Wired Consoles
- Post-Launch Annual & On-Demand Service from Mackay's 38+ Global Locations
- Integral service offerings include Estimating, Procurement, Logistics, Installation Management, Commissioning, and Warranty Oversight.

THE MACKAY PROJECTS TEAM

Mackay's Projects Team, based in Houston, TX, is comprised of seven highly-trained maritime professionals with 50 years of shipbuilding experience. The team journeys to wherever companion architects, fleet managers and the shipyard is based.

Mackay has full access to AutoCAD capabilities; providing 2D and 3D renditions of custom built consoles, point-to-point wiring diagrams, and cabling line drawings.

New-build projects for customers and shipyards aren't limited to the US; our capabilities can easily be applied to global projects, in collaboration with Mackay offices in China, Singapore, Canada, and Northern Europe. Mackay has decades of experience in global retrofit project integration.

Our extensive global resource network enables us to bring together quality products and service, while delivering a project management experience that is customer-centric and rich with attention to detail.



Complete Electronics Suite & Integrated Systems

Navigation

- Autopilots
- ECDIS
- GYROS
- Integrated Bridge
- Radar
- Steering Systems

Exterior Communication

- GMDSS
- Satellite Data & Voice Systems
- Video & Data Compression

Interior Communication

- Entertainment Systems
- LANs & WiFi
- Public & General Address
- Radio Systems & Phones
- UHF/VHF Repeater Systems

Safety & Security

- AIS & LRIT
- Alarm and Monitoring
- Anti-Piracy
- CCTV, Night Vision Cameras
- EPIRBs, SARTs, VDRs

Below Decks

- Fuel & Flow Monitoring
- Pollution Control (ODME, BWTS, Oily Water Monitors)
- Thrust & Torque Measurement
- Data Analytic Systems

Integrated Custom Console Design



RECENTLY COMPLETED MACKAY PROJECTS

AGOR (x2) – **Naval Research Vessels** *Neil Armstrong* and *Sally Ride*: Fitting JRC, Sailor, and Sperry fully Integrated Bridge, Internal & External Comms, and LAN Systems.

Alaska Marine Highway Systems (x2) – Car & Passenger Ferries supplied with Sperry, Zenitel, and SAAB systems aboard.

Lindblad National Geographic Expeditions (x2) **Quest & Venture** – Fully Integrated Navigation Bridge with Furuno electronics suite in Customized Consoles, LAN, VDR's and Zenitel Internal Comms Systems.

Hornbeck Offshore (x12) – Integrated Navigation Bridges, Internal & External Comms aboard Multi-Purpose/Offshore Supply Vessels.

Crowley Maritime Corp. & VT Halter Marine (shipbuilder) design, supply, and installed advanced integrated bridge systems (IBS), with 13 complete consoles, and ancillary electronic systems onboard *El Coquí* and sister-ship *El Taíno*, one of the world's first LNG-fueled (liquified natural gas) ConRo vessels.

BAE Systems – Tugboat with JRC, Sailor, & Zenitel NAV/COM systems.

Diamond S Shipping – Retrofit 30 medium-range product tankers with Danelec's new-generation DM100 VDRs featuring *SoftWare Advanced Protection (SWAP)* technology & *DanelecConnect* gateways.







Boldini PSVs

- Complete Navigation Systems
- Exterior & Interior Communications



SEACOR Sea Power

- Complete Navigation Systems
- Exterior & Interior Communications



Shell Mars B

- Vessel Traffic Management
- Radar System