



Seapower

Raytheon
Integrated Defense Systems



CJR IN-SERVICE RADARS



AEGIS DBR AMDR

MISSION SUPPORT



GPNTS



NATO SEASPARROW LAUNCHERS
SSDS PSEA
INTEGRATED BRIDGE & NAVIGATION

AQS-20A MK 54



NAVIGATION SOLUTIONS



MK 48



AMNS ALFS

Seapower Capability Systems is Raytheon Integrated Defense Systems' business area dedicated to the development and delivery of critical seapower capabilities to naval forces worldwide. Offering highly capable and reliable solutions, Seapower is a leading provider and integrator of combat management, anti-submarine, mine warfare, and integrated ship systems, as well as a portfolio of naval radars, sensors, sonar systems and torpedoes for U.S. and allied fleets.

By leveraging our extensive experience and proven technologies we are able to deliver affordable and effective solutions that advance the performance and capabilities of surface and undersea warfare missions for the joint warfighter.

ABOVE WATER

Air & Missile Defense Radar (AMDR)

Consisting of an S-band radar, an X-band radar, and a radar suite controller, AMDR significantly increases detection range and adds powerful discrimination accuracy to the U.S. Navy's Arleigh Burke-class destroyers.

Dual Band Radar (DBR)

Raytheon's DBR combines the AN/SPY-3 Multi-function Radar (X-band) and the Volume Search Radar (S-band), coordinated by a single resource manager. The system provides the U.S. Navy's Ford-class aircraft carriers (CVN 78) with an unprecedented level of performance and capability to detect and track hostile targets.

Aegis

For more than 30 years, Raytheon has been the design agent and manufacturer for major elements of the Aegis combat system, which provides integrated air and missile defense capabilities. Raytheon produces Aegis' MK99 Fire Control System and SPY-1(D) illuminator.

Cobra Judy Replacement (CJR)

CJR's dual-band radar suite consists of X- and S-band phased-array sensors, a common radar suite controller, and other related mission equipment. The system provides the government with long-loiter ballistic missile data collection capability.

In-Service Radars

Hundreds of Raytheon radars are currently in service with U.S. and allied navies. Proven and reliable systems like the AN/SPS-49 air search radar and the AN/SPS-73 surveillance navigation radar have established Raytheon as a leader in all areas of naval radar systems technology.

COMMAND AND CONTROL

DDG 1000/Total Ship Mission Systems

Raytheon serves as the prime mission systems equipment integrator for all electronic and combat systems for the U.S. Navy's next generation destroyer (DDG 1000) program. Working with the Navy and a team of industry leaders, Raytheon is leading the effort to transform the Navy's ship requirements to reality.

LPD 17 San Antonio-class Expeditionary Warfare Ships

Raytheon is the total ship electronics systems integrator for the LPD 17 program and the prime contractor for life-cycle engineering and support. The company provides the Shipboard Wide Area Network, integrated product data environment, total ship information management, and integrated ship electronics architecture for the LPD 17 class.

Ship Self Defense System (SSDS)

SSDS is an open, distributed combat management system for aircraft carriers and expeditionary warfare ships. It is designed to expedite the detect-to-engage sequence to defend against anti-ship cruise missiles. Six different U.S. Navy ship classes use SSDS MK 2, including San Antonio (LPD 17), Nimitz (CVN 68), and Wasp (LHD 1), with Tarawa (LHA 6) in test and Whidby Island/Harpers Ferry (LSD 41/49) and Ford (CVN 78) in development.

SSDS Platform Systems Engineering Agent (PSEA)

Raytheon is also the SSDS Platform Systems Engineering Agent, managing the integration of

capability upgrades into various aircraft carrier and amphibious ship combat systems, while providing continued support for fielded systems. Under the PSEA contract, Raytheon will integrate the Dual Band Radar onboard CVN 78.

NATO SEASPARROW Launchers

Raytheon's MK 56 Guided Missile Vertical Launching System delivers — from limited shipboard space — an effective local area, hemispherical defense umbrella for ownship and ships being escorted against aggressive airborne and surface threats. The launching system fires the RIM-162 Evolved SEASPARROW Missile (ESSM), which has proven itself against a broad spectrum of threats in all weather and electronic warfare conditions.

As the solutions provider and Mission Systems Integrator for MK 29 and MK 73 NATO SEASPARROW Missile Systems, Raytheon provides the hardware and processing required for launch and control of the U.S. Navy's SEASPARROW and ESSM self-defense missiles.

Maritime Navigation

Raytheon Anschutz has an excellent reputation worldwide as a reliable provider of Integrated Bridge Systems (IBS) and nautical equipment for the shipping and shipbuilding market. As a trusted partner, Raytheon Anschutz is focused on customer needs and requirements, guiding customers through the full life cycle, from project outline and specification of systems through project realization over setting to work to extended after sales service.

GPS-based Positioning, Navigation and Timing System (GPNTS)

GPNTS, designed to replace the current Navigation Sensor System Interface on U.S. Navy surface and subsurface platforms, supports mission-critical real-time positioning, navigation, and timing (PNT) data services, including weapons, combat systems, and other command, control, communications and intelligence systems that require PNT information.

Raytheon is providing an open architecture solution that allows hosting of data in a common computing environment and true "system of systems" architecture, enhancing the ship's operability with onboard systems

MK 57 Vertical Launching System (VLS)

The MK 57 Vertical Launching System (VLS) is designed as a versatile, open architecture solution that is mounted on the ship periphery and is adaptable to a centerline usage as well, making this launcher a candidate for future use in a wide variety of maritime and shore-based installations. The MK 57 design allows integration of new and existing missiles into a launcher structure built to handle not only all existing MK 41 VLS encanistered missiles, but future "growth" missiles as well, without requiring complex and costly modifications to the launcher hardware or software. The first shipboard deployment of the MK 57 VLS is planned for Zumwalt, the U.S. Navy's next generation multimission destroyer.

BELOW WATER

AN/AQS-22 Airborne Low Frequency Sonar (ALFS)

Raytheon provides the U.S. Navy with “game changing” anti-submarine warfare (ASW) capability with ALFS. ALFS is the only in-service dipping sonar with multi-frequency operation to adapt to varying environmental conditions, and a rapid search rate for identifying threats sooner over a large search area. It has been rigorously tested and deployed, proving its value as the centerpiece of the Navy’s ASW mission.

AN/AQS-20A Minehunting Sonar

Raytheon’s AQS-20A minehunting sonar supports mine-clearing operations in both deep-ocean and littoral waters, minimizing human involvement in hazardous minefields. AQS-20A delivers more than four times the area search rate of predecessor systems and is the only system in service with proven single pass detection of volume and bottom mines. Currently in production with assets in-service, AQS-20A delivers U.S. and allied navies a safe, effective and efficient organic mine countermeasure capability.

AN/ASQ-235 Airborne Mine Neutralization-System (AMNS)

Raytheon’s AMNS is an essential component of the Navy’s organic mine countermeasures family of systems. Armed with four neutralizers that can be launched from the towed body, AMNS locates underwater targets previously detected by AQS-20A and destroys the mines. The U.S. Navy has successfully conducted extensive training and simulation exercises to validate the system’s capability and reliability. Both AMNS and AN/AQS-20A provide critical capabilities that make seaborne mine clearance missions significantly more effective, efficient and safe.

MK 48 Heavyweight Torpedo

MK 48 is a cost-effective heavyweight torpedo designed for optimum effectiveness against all targets, in both littoral and deep-water environments. Built on proven and reliable MK 48 components, the MK 48 ADCAP Mod 6 Advanced Technology (AT) offers an effective torpedo at low total ownership cost, providing the optimal balance for today’s submarine force.

MK 54 Lightweight Torpedo

Co-developed and manufactured by Raytheon and the U.S. Navy, the MK 54 is the next gen-

eration anti-submarine warfare weapon deployed from a surface ship, helicopter or fixed wing aircraft to track, classify and attack underwater targets. The MK 54 is designed for both deep water and littoral environments, making it the only lightweight torpedo capable of striking any target in the world’s oceans, regardless of water depth.

Submarine Navigation Solutions

Our submarine solutions cover three-dimensional control and monitoring systems, oceanographic sensors, navigation and data management equipment, which are either adapted to the mechanical elements for platform control or are interfaced with respective electronic units in order to optimize operational tasks. The open architecture approach promotes the highest level of system integration and interoperability while being able to simplify logistics and realize saving during operation. A wide variety of services, such as integrated logistics support or in-service support, are offered to support all systems throughout their life cycle.

MISSION SUPPORT

With a focus on quality, reliability and performance, Raytheon is a trusted source for service and support for its systems and solutions. From upgrades and maintenance to spares and repairs, Raytheon provides full life-cycle support for fleet deployed systems, ensuring mission success for our customers worldwide.

FOR NAVAL & MARITIME FORCES WORLDWIDE

Seapower has established solid, collaborative partnerships with a broad base of domestic and international customers, industry partners and an extensive network of large and small businesses to maximize efficiencies, affordability and innovation in our processes, technologies and solutions. With a focus on delivering the most reliable and affordable solutions for our customers, Seapower is organized into key capability areas, leveraging the extensive base of experts in our business and across the 71,000 experts of Raytheon as a whole. Seapower's capability areas include:

Naval Radars

Since the 1940s, Raytheon has been the world's leading provider of naval and maritime radar solutions. Our naval radars expertise spans across multiple frequency bands, L- through X-band, and encompasses a range of different sized arrays. Navies around the globe depend on Raytheon's radar systems to provide accurate, actionable data to identify and engage threats quickly and effectively. Leveraging decades of expertise and continually enhanced technology, Raytheon delivers proven naval radar capabilities that warfighters can depend on to effectively defend and protect their fleets and their nations.

Integrated Ship Systems

Raytheon is a premier ship systems integrator, delivering proven, affordable and highly-automated solutions for navies worldwide. With extensive experience producing and integrating a full range of naval systems — including radar, networks, combat management, fire control and weapons — we deliver comprehensive systems integration that joint forces require to defend against threats today and tomorrow. By leveraging the technology advancements achieved as the Mission Systems Integrator on DDG 1000, LPD 17, CVN and Australia's Air Warfare Destroyer programs, Raytheon supports the application of common technologies and processes across multiple platforms for navies around the globe.

Undersea Sensors

Raytheon is a trusted source for undersea warfare solutions, helping U.S. and allied naval fleets to detect, deter and defend against a broad spectrum of threats. Raytheon offers the most advanced, integrated undersea warfare capabilities to support submarine combat, airborne anti-submarine warfare, and organic mine countermeasure missions.

Torpedoes

Raytheon's torpedo history spans more than 40 years of design, development, production, test and in-water proving experience. Raytheon is the only company in the world to deliver more than 30,000 torpedoes worldwide to more than 25 countries.



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Raytheon

Customer Success Is Our Mission