Defense Systems & Programs

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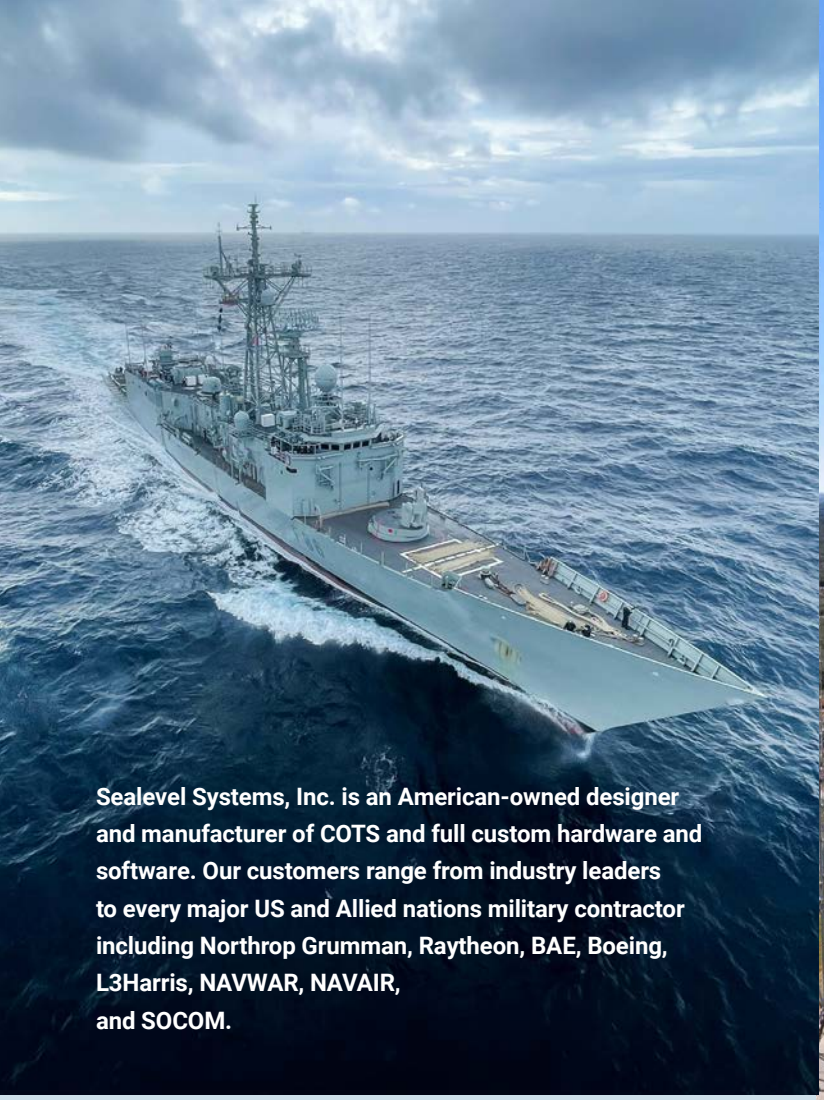

Sealevel Systems, Inc. is an American-owned designer and manufacturer of COTS and full custom hardware and software. Our customers range from industry leaders to every major US and Allied nations military contractor including Northrop Grumman, Raytheon, BAE, Boeing, L3Harris, NAVWAR, NAVAIR, and SOCOM.

U.S. AIR FORCE

BACN

The Battlefield Airborne Communications Node (BACN) is a United States Air Force (USAF) airborne communications relay and gateway system carried by the unmanned EQ-4B and the manned Bombardier E-11A aircraft. BACN enables real-time information flow across the battlespace between similar and dissimilar tactical data link and voice systems through relay, bridging, and data translation in Line-of-Sight (LOS) and Beyond-Line-of-Sight (BLOS) situations. Its ability to translate between dissimilar communications systems allows interoperability without modification.

GSAC

Global Secure Airborne Communication (GSAC) is the next evolution in Mobility Tactical Datalink Capability. GSAC can provide J/K series datalink message protocols across multiple Line-of-Sight (LOS) and Beyond-Line-of-Sight (BLOS) datalink radios. The GSAC software allows for a situational display of the information resident in these J/K series messages as well as other custom data, video, and imagery. This information is displayed on a tablet that is certified for classified data as well as supporting off-network mission planning. In order to maintain interoperability, GSAC incorporates ACC-188 synchronous serial radio adapters from Sealevel.

OBSS

The Off-Boarding Sensing Station Program (OBSS) is an Air Force program aimed at developing an unmanned aircraft with high levels of autonomy and a powerful sensor suite. It is intended to fly beyond the line of sight of fourth and fifth-generation fighter jets and send them targeting data and other information about potential threats. The OBSS integrates Ethernet-based data acquisition devices engineered and manufactured by Sealevel.

ROBE

The Roll-On Beyond Line of Sight Enhancement (ROBE) is a tactical communication system added to a KC-135 Stratotanker it turns the aircraft into a communications center enabling the aircraft to relay information anywhere in the world. The ROBE system provides situational awareness, re-tasking, and retargeting information to aircraft equipped with tactical data link allowing them to share information between aircraft.

U.S. ARMY

C5ISR/EW Modular Open Suite of Standards

The C5ISR/Electronic Warfare Modular Open Suite of Standards (CMOSS) is a modular open systems architecture (MOSA) intended to converge select Army warfighting capabilities – such as mission command, movement and maneuver, and fires – into one system versus integrating a multitude of separate capability "boxes" into vehicles. C5ISR technology references command, control, communications, computers, cybersecurity, intelligence, surveillance, and reconnaissance.

IHADSS

The Integrated Helmet and Display Sight System (IHADSS) is uniquely designed for the Apache helicopter. It displays flight and targeting information directly in front of the pilot's eyes. This is a significant tactical advantage that provides reliable situational awareness, eases the pilot's workload, helps to enhance their safety, and achieve success when flying their most demanding missions. The IHADSS utilizes MIL-STD-1553 IP Cores from Sealevel as a part of the mission processor that controls the helicopter.

MSD-V3

The At Platform Automatic Test Systems (APATS) Maintenance Support Device-Version 3 (MSD-V3) is a militarized rugged laptop specifically designed and tested to withstand the harshest of tactical environments and is the Army's newest standard for at-platform maintenance test systems. Sealevel designed and managed all compliance testing to meet an extensive list of MIL-STDs and other key requirements for a custom, ruggedized docking station for the laptop system.

OSRVT

The One System Remote Video Terminal (OSRVT) system is a self-contained tablet, transceiver, and antenna that provides the soldier in the field with full motion video and situational awareness gained through the use of telemetry data received from multiple manned and unmanned platforms. OSRVT provides troops-on-the-ground with moving maps with military symbology, real-time full-motion video with 10+ hours of video recording capability, and revolutionary expeditionary improvements, including the ability to directly control the payload of Gray Eagle and Shadow unmanned aircraft systems (UAS). The OSRVT system uses Sealevel USB to RS-232 DB9 serial interface adapters to enable communications between the tablet and the transceiver for soldiers in the field.

PATRIOT Missile Defense System

The PATRIOT, which stands for Phased Array Tracking Radar for Intercept on Target, is a theater-wide surface-to-air missile defense system built by Raytheon and considered one of the most advanced air defense systems in the U.S. arsenal. The PATRIOT Missile Defense System utilizes the Relio R1 industrial computer and synchronous serial interfaces from Sealevel.

VICTORY

VICTORY – Vehicular Integration for C4ISR Interoperability – is a common standard designed to guide network-related development and integration efforts for the Army's Tactical Wheeled Vehicle and Ground Combat Systems. Adopting VICTORY, which is a part of the Army's Common Operating Environment, means that soldiers will find more common sets of devices, displays, and information in a wider range of vehicles, ultimately making soldiers and formations more connected, aware, and capable.

U.S. NAVY

BAMS

The Broad Area Maritime Surveillance (BAMS) UAV – the MQ-4C Triton – is intended to provide persistent, maritime surveillance and reconnaissance capability with worldwide access. The BAMS UAV is a multi-mission intelligence, surveillance, and reconnaissance system to support strike, signals intelligence, and communications relay, while operating independently or in direct collaboration with other assets in the maritime environment. Sealevel designs and manufactures a custom PMC 4-channel synchronous board to provide the required Link-16 airborne communications node.

BFTN

The U.S. Navy's Battle Force Tactical Network (BFTN) program integrates hardware and software to establish Line-Of-Sight (LOS) and Beyond-Line-Of-Sight (BLOS) network connectivity for naval assets using High Frequency (HF) and Ultra-High Frequency (UHF) radio spectrum. BFTN also supports a SATCOM-denied RF Data Networking Environment, providing continuous medium data-rate information transport and alternate routing to platforms with SATCOM capabilities. Each BFTN system relies on a 6U CompactPCI (cPCI) Rear Transition Module (RTM) circuit card assembly from Sealevel to provide the physical connectors to the computer systems.

BFTT

The Battle Force Tactical Trainer (BFTT) is a flexible and interactive combat system trainer used by the U.S. military to enhance naval combat readiness. It simulates combat scenarios for training operators of various shipboard combat systems, including Aegis and SSDS.

CDLMS

The Common Data Link Management System (CDLMS) is a pre-planned product improvement of the Command and Control Processor. The CDLMS will provide translation between Tactical Data Links (TDLs or TADILS) and isolate all tactical data link equipment, message standards, and protocols from tactical information processors. This will provide a flexible capability for rapidly exchanging tactical information using a single database for translating various link formats while remaining systems agnostic. Sealevel synchronous serial adapters connect combat systems and data link terminals for the CDLMS system, shipboard control, and management of tactical communication links.

NTCDL

The Network Tactical Common Data Link (NTCDL) provides U.S. Navy operators with the ability to simultaneously transmit and receive real-time intelligence, surveillance, and reconnaissance (ISR) data from multiple sources and exchange command and control information across separate or independent networks. Sealevel's PCIe serial interfaces are an integral part of the system that allows for transmission and reception of the data across these various networks.

Tactical Tomahawk Modernization Program

The Navy is leveraging the overall Tomahawk Weapon System (TWS) modernization program to support the development of the Maritime Strike Tomahawk (MST), an anti-ship capability, and to introduce an advanced warhead design to improve TWS lethality.

Tomahawk Missile Weapons Control System

The Tomahawk Land Attack Missile is a long-range land attack cruise missile designed for launch from submarines and surface ships. In 2017, the Navy began planning the development of the anti-ship capability as part of the Block IV modernization program. To provide the anti-ship capability of the MST, a new seeker will be developed; however, the warhead for the MST mission will be the same as on the Block IV system. The Tomahawk Missile Weapons Control System specifies a series of synchronous serial adapters from Sealevel in the guidance control system.

INTEROPERABILITY FOR U.S. MILITARY BRANCHES

JREAP

The Joint Range Extension Applications Protocol (JREAP) enables tactical data messages to be transmitted over long-distance networks, e.g., satellite links, thereby extending the range of Tactical Data Links (TDLs). The JREAP platform utilizes ACC-188 synchronous serial radio adapters from Sealevel.

PDA-184

PDA-184 software provides a Graphical User Interface (GUI) that allows radio users to transmit and receive a variety of data types at much higher speeds than is possible with comparable, proprietary solutions. The software works in conjunction with Sealevel's ACC-188 synchronous serial radio adapter to upgrade tactical radios with the capability to send and receive IP data such as GPS maps, images, coordinates, and IM-type communications.

SPIDR

The Scalable Portable Integrated Data Router (SPIDR) is an organically developed and maintained datalink software solution currently hosted on two major communication gateway systems. SPIDR is strategically planned to be hosted on three additional gateways within four years. The SPIDR utilizes ACC-188 synchronous serial radio adapters from Sealevel.

NASA

Canadarm

The Canadarm 2 is a seven-meter jointed robotic arm attached to the International Space Station (ISS). Canadarm 2 plays a key role in station assembly and maintenance; it moves equipment and supplies around the station, supports astronauts working in space, and services instruments and other payloads attached to the ISS. Sealevel developed and designed a multi-port PC card that interfaces between the Payload and General Support Computer (PGSC) and the Manipulator Controller Interface Unit (MCIU), and other serial asynchronous RS-422 communication devices.

MNGV

The NASA Mission Next Generation Voice (MNGV) is a sub-program under the NASA Integrated Communications Services (NICS) program. The purpose of the MNGV is to replace existing voice systems at multiple NASA centers with standardized customizable voice solutions. Sealevel is contracted to provide HazPAC 10 rugged touch panel PCs for integration into each terminal.

INTERNATIONAL DEFENSE SYSTEMS & PROGRAMS

Canadian Surface Combatant

The Canadian Surface Combatant, formerly the Single Class Surface Combatant Project, is the procurement project that will replace the Iroquois and Halifax-class warships of the Royal Canadian Navy with up to 15 new ships beginning in the mid to late 2020s as part of the National Shipbuilding Procurement Strategy. Sealevel digitial interface adapters monitor inputs from a fire command and relay outputs control light commands.

Joint Support Ships Canada

A joint support ship (JSS) is a multi-role naval vessel capable of launching and supporting joint amphibious and airlift operations. It can also provide command and control, sealift and sea-basing, underway replenishment, disaster relief, and logistics capabilities for combined land and sea operations. The JSS Canada project delivers new ships to best support naval task groups and ashore operations, as well as ability to respond to chemical, biological, radiological, and nuclear (CBRN) threats.

TAADS

The Taiwan Automated Air Defense System inter space (TAADS), based on the U.S. PATRIOT missile system, is a theater-wide surface-to-air missile defense system built by Raytheon and considered one of the most advanced air defense systems in the U.S. arsenal. The PATRIOT Missile Defense System utilizes the Relio R1 industrial computer and synchronous serial interfaces from Sealevel.

Sealevel delivers proven, COTS, mission-ready products and customized solutions for advanced systems, achieved by leveraging over 35 years of engineering and manufacturing experience serving military, government, and commercial customers. From complex laptop docking stations to high-speed communication adapters, Sealevel's electrical and mechanical design expertise delivers unparalleled performance while meeting stringent MIL-STDs.

Sealevel is a member of these associations to support, educate, and interact with our armed forces:

Armed Forces Communications and Electronics Association (AFCEA)
Association of Old Crows (AOC)
Association of the United States Army (AUSA)
National Defense Industrial Association (NDIA)

Our Mission

Sealevel Systems, Inc. is committed to **engineering** leading-edge communications solutions, **manufacturing** our products to the highest quality standards, **growing** a creative team of trailblazers, and **sustaining** a legacy of community investment.

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