

Space to NAVELEX: Exploration Helps Drive Navy Reorganization

Efforts to conquer space began in earnest in the early 1960s when the first U.S. manned spacecraft *Freedom 7* was successfully launched and recovered May 5, 1961. Both Astronaut Alan Shepard and the *Freedom 7* were flown safely by helicopter to the

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deck of the *USS Lake Champlain* within 11 minutes of landing. With that successful recovery, President John F. Kennedy challenged the nation to land men on the moon and return them safely to earth before 1970.

Space Program drives Navy to reorganization. In answer to the challenge, NASA launched the Apollo Space Program. It soon became apparent that supporting the space program would be a significant priority for the Navy. Indeed, support of the space program and the launching of its own satellite navigation systems drove a number of organizational changes within the Navy. Along with some existing challenges the Navy had been battling for some time.

In concert with the space program, President Kennedy brought a team of specialists to Washington who were determined to root out military inefficiency caused in part, they felt, by insufficient centralization. A 1961 Department of Defense Acquisition Directive limited Navy space activities to research, and on July 1, 1962, new policies and principles governing the organization and administration of the Navy were established and gradually implemented.

Crises in the Caribbean, the Mediterranean and the Pacific reinforced the value of Naval forces, and by the mid-1960s, the Navy found itself playing a sizable role in the Vietnam conflict. In addition, carriers or amphibious assault ships were at sea in both oceans during all orbiting periods to cover an emergency space landing, and were always on station to recover the astronauts and their spacecraft upon their return to earth.

These increased activities did not go unnoticed. Under President Lyndon Johnson, a series of high-level studies directed at clarifying lines of authority and responsibility led to yet another Navy reorganization.

Old-line Bureaus Abolished. On March 9, 1966, just two weeks after a helicopter from the *USS Boxer* plucked the first unmanned Apollo spacecraft out of the southeast Atlantic, the Navy's old-line bureaus were abolished.

In what was called a "sweeping reorganization" of the Navy's management structure, material support was centralized under a newly bolstered Naval Material Command (NAVMAT) that reported

directly to the Chief of Naval Operations. When the Bureau of Ships was abolished, the functions of its Electronics Division, which had been under its helm since 1945, were transferred directly to the CNO.

NAVELEX is born. A few months later, on June 20, 1966, the Naval Electronics Command (NAVELEX) was stood up, and the CNO simultaneously transferred the electronics functions to this fresh new command. NAVELEX was one of six functions (Air, Ships, Electronics, Ordnance, Supply, and Facilities Engineering) placed as a Systems Command under the cognizance of the newly-strengthened NAVMAT.

NAVELEX was established to provide Navy and Marine Corps operating forces with the in best electronic and command, control and communication (C3) systems. NAVELEX exercised overall program responsibility for development, testing, operation and maintenance of shore electronics; shipboard electronic equipment; airborne navigational, meteorological and communications equipment; satellite communications and space surveillance systems; shore-based strategic data systems; and general-purpose electronic test equipment and common components, techniques and services.

NAVELEX engineers, scientists, technicians and support personnel accomplished their mission of providing equipment and material to operating naval forces all over the world for some 19 years. With 900 headquarter and 1,500 personnel in 15 field activities and some 25 detachments identified as Shore Electronic Engineering Offices, NAVELEX made major contributions to naval warfare. A Navy space surveillance system helped forge the necessary links for a continuous watch on space. Satellites developed by Navy scientists expanded the world's knowledge of space, and a Navy satellite navigation system gave all nations an accurate means of traveling the earth's oceans.

Military Spending Takes a Hit. As the 1960s came to a close, President Richard Nixon placed a premium on U.S. naval forces and encouraged the leaders of other nations to find other protectors. While naval roles were in many ways expanded, age was taking a toll on the Navy's force structure, the victim of neglect during the Vietnam War.

Military spending took a considerable hit in subsequent years. Funding for all DOD space programs plummeted by 20 percent in 1970, and was down to about 60 percent of its 1969 level by 1972. The mid-to late-1970s were lean years for the Navy, as it was for all the services.

World Events Bring Renewed Interest. The turn of the decade brought with it a renewed interest in vital naval forces. In his 1980 State of the Union address, President Jimmy Carter outlined what became known as the Carter Doctrine, warning that the United States would not allow the Soviet Union to threaten the flow of oil from the Persian Gulf. To add muscle to this pronouncement, the Carter administration began to build up the Rapid Deployment Force, what would eventually become U.S.

Central Command. By the early 1980s, the Navy developed what it termed the Maritime Strategy, a highly controversial concept, even though it embraced the established post-World War II practices of forward, offensive operations by carrier, amphibious and attack submarine forces.

Soon after his 1981 election, President Ronald Reagan, a proponent of a strong military, committed the Navy to maintain a presence in three oceans. A controversial but dynamic new Secretary of the Navy, John Lehman, began to inject a new sense of purpose and vitality into the fleet, advocating for a 600-ship Navy. With its new strategy, a larger force structure, high retention rates and capable platforms and weapons, the Navy entered a period of rapid expansion unmatched in the postwar era.

NAVMAT abolished. In the middle of this expansion and midway through Reagan's Presidency, Lehman abolished the Naval Material Command, and with it, the Naval Electronics Command. In a move to establish clear, decentralized line responsibility and eliminate horizontal layers of "matrix management," he eliminated both the four-star billet and the NAVMAT Headquarters. The six Systems Commands became Echelon 2 commands reporting directly to the CNO for mission execution and to the Secretary of the Navy for policy matters. This boost gave the Commands more power and more responsibility.

SPAWAR: In the same Navy reorganization order, effective May 6, 1985, Lehman created a new command, the Space and Naval Warfare Systems Command (COMSWSC). The obligatory Navy acronym was quickly shortened to SPAWAR even before its new mission was clearly defined.

The functions of NAVLEX were transferred to this new command, along with expanded responsibilities that covered the entire battle group. SPAWAR's mission was expanded from command, control, communications and intelligence (C³I) architecture and engineering to warfare system architecture and engineering. With a new emphasis on undersea surveillance and space systems, SPAWAR became the Navy's "Battle Force Architect" — a new concept aimed at designing systems for the total battle force instead of individual platforms and weapons.

At its inception, SPAWAR managed eight Navy laboratories, four university laboratories and seven engineering centers that were geographically dispersed throughout the country. This was a considerable downsizing from the numerous activities under NAVLEX. Planned organizational changes established a warfare systems architecture and engineering organization and realigned program offices into four new product lines: space and sensor systems; information transfer systems; information management systems; and weapons and warfare support systems.

BRAC. Five years later, the Defense Base Closure and Realignment Act of 1990 created a commission that would meet in calendar years 1991, 1993 and 1995 to efficiently realign military installations inside the United States. About the time the commission met for the first time, some 13 commands at 18 geographical locations around the world reported to SPAWAR.

One of Four Warfare Centers: On April 12, 1991, following Deputy Secretary of Defense guidelines, the Secretary of the Navy approved a plan to “preserve resources, purify mission responsibilities, and establish specific research and development leadership areas.” The plan was to consolidate the Navy’s research and development centers, engineering centers, and testing and evaluation activities into four warfare centers. SPAWAR, with six years as a Systems Command, was soon joined by three equally impressive commands. The plan was implemented virtually at the stroke of the new year.

These centers were the Naval Air Warfare Center (established Jan. 1, 1992), Naval Surface Warfare Center (established Jan. 2, 1992), Naval Undersea Warfare Center (established Jan. 2, 1992), and the relatively seasoned Space and Naval Warfare Systems Command. When the four warfare centers were consolidated, they consisted of 38 commands, including seven major research and development centers, 29 engineering centers, scores of bases and detachments, and about 65,000 people located all over the world.

Together they created a system unique in the armed forces to carry out research, development, testing, evaluation and in-service engineering. The effort was one of many over the years that focused on a recurrent issue in the Navy: providing the best organizational structure for technical activities. Several initiatives were identified to achieve \$1.1 billion in savings through more interservice reliance and specific technology areas.

The warfare centers each were to continue the research, development and engineering processes to bring new technology to the fleet and, through various consolidations, reduce the numbers of geographical locations and the numbers of personnel. SPAWAR began immediately to reorganize and downsize, a process expected to take place through fiscal year 1999.