and storage space for Navy Radio San Diego. In 1947 the Secretary of the Navy established Naval Communications Station, Eleventh Naval District, as a separate activity under a commanding officer. In 1953 it completed the transformation that exists today by establishing Naval Communication Station, San Diego, as a completely separate command.

Major technological improvements continued in the sixties and seventies. In 1965 a Wallenweber—"dinosaur cage"—antenna and associated equipment and buildings were installed at the receiver site at Imperial Beach. In 1966 the station became part of a world-wide Automatic Digital Network (AUTODIN) of computers capable of secure, virtually error-free (i.e., sailor proof) message transmission at extremely high speeds. In the mid-seventies, NAVCOMSTA, San Diego, installed its first Local Digital Message Exchange (LDMX), updated its computers, and replaced obsolete copiers. Toward the end of the decade it installed the Message Reproduction and Distribution System (MRDS), which completed the automated loop and produced a communications system that is capable of providing almost "hands-off" message service to subscribers in the area. In 1980 the Remote Information Exchange Terminal (RIXT), which provided the latest state of the art in optical scanning, video display control, automatic logging, and high speed transmission and reception became operational.

Today NAVCOMSTA, San Diego, is providing rapid, secure, and reliable communication service to the fleet, and the Navy intends to keep it that way by remaining abreast of developments in technology and making additional changes to meet the overall naval communications goal of reducing manpower-intensive operations and further improving service.

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ROLAND A. BOWLING

San Diego, Calif., Submarine Base, 23 October 1963–

Located on most of what was historical Fort Rosecrans at Ballast Point on Point Loma, the NAVSUBASE, SAN DIEGO, has become a major submarine support facility in the Pacific Fleet. It occupies some of the most historic grounds in California, if not the United States. It was in 1542 that Juan Rodriguez Cabrillo landed on Point Loma and discovered what is now San Diego Bay, which he first named San Miguel Bay. In 1799 the Spaniards completed Fort Guijarros on what is now Ballast Point. Both the Spanish and American names stemmed from the cobblestones that covered the point. Yankee trading vessels from Boston used these cobblestones for ballast in their return voyages around Cape Horn to the East Coast—thus the name "Ballast Point." Many of these stones were used along Boston's waterfront to pave streets, some of which are still in use.

As part of the Treaty of Guadalupe Hidalgo in 1848, Upper California, which included Point Loma, became a part of the United States. On 26 February 1852

President Millard Fillmore signed an Executive Order that set aside the southern three miles of Point Loma as a military reservation. In 1897 the California legislature ceded to the federal government all lands that were being used for military purposes. The Ballast Point area fell within this category and has been under continuous military control ever since.

The Army established Fort Rosecrans in 1899 in the area presently occupied by the NAVSUBASE. However, by 1957 the need for coast defense artillery had become obsolete; therefore, the Department of the Army declared Fort Rosecrans excess property. On 2 July 1959 it was transferred to the Department of the Navy after nearly a century of Army control. The Navy in turn authorized the construction of two submarine berthing piers at the site. On 23 October 1963 the Secretary of the Navy directed establishment of the U.S. Navy Submarine Support Facility at Ballast Point under the military command of the Commander, Submarine Force, U.S. Pacific Fleet, and the management control of the Chief of Naval Operations. Finally, on 1 October 1981 the designation was changed to Naval Submarine Base, San Diego.

The NAVSUBASE, San Diego, provides base support for all submarines on the West Coast except strategic ballistic missile types, which are based in the Seattle area. Over 6,000 officers and men are actually stationed or homeported at the base, which provides direct support to over twenty submarines, more than half nuclear-powered; two submarine tenders; submarine rescue vessels, including deep submergence rescue vehicles (DSRV); the deep submergence bathyscaph *Trieste II* and other deep submergence vehicles; a small floating dry dock (ARD); and an array of sophisticated training simulators. A larger floating dry dock (ARDM-4) capable of accommodating vessels up to the size of the *Los Angeles*-class attack submarines (6900 tons) became operational in 1984.

It also supports several major staffs including that of the Commander Submarine Force, U.S. Pacific Fleet, Representative, West Coast; Commander Submarine Squadron Three; Commander Submarine Squadron Five; and Commander Submarine Development Group One. The deep submergence rescue vehicles physically located as NAS North Island for rapid deployment by air are the specific responsibility of the latter command.

Today NAVSUBASE, San Diego, represents a major shift in submarine support in the area. In the not too distant past, submarines had no base facilities and nested alongside their tenders out in the stream; now a full-fledged base supports the latest in logistics, training, and personnel to meet the special requirements of the "Silent Service."

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San Diego, Calif., Miramar Naval Air Station, 1 July 1946–

Located between coastal mountains and desert to the east, the Pacific Ocean to the west, and thirteen miles north of San Diego, NAS Miramar is home for