Welcome Aboard

HISTORY OF USS ALBUQUERQUE (SSN 706)

USS ALBUQUERQUE (SSN 706) is the second United States Warship to be named after Albuquerque, New Mexico. The first was USCGS ALBUQUERQUE (PF-7), a patrol frigate commissioned in December 1943.

During World War II, USCGS ALBUQUERQUE served on convoy escort duty in the Aleutian Islands and patrolled the Northern Pacific Ocean and Bering Sea. In October of 1950 she again served on patrol and escort duty for the Coast Guard and received three Battle Stars for her service during the Korean War. She was decommissioned in February 1953.

The current USS ALBUQUERQUE (SSN 706), a nuclear powered fast attack submarine of the LOS ANGELES class, was constructed at Electric Boat Shipyard in Groton, Connecticut. She was launched on March 13, 1982, and commissioned on May 21, 1983. ALBUQUERQUE is the nineteenth ship in the class and carries a complement of 134 (14 officers, 120 enlisted), all highly trained professionals in their respective fields.

Since commissioning, USS ALBUQUERQUE has completed several deployments in both the Atlantic Ocean and Mediterranean Sea including combat operations in Operations Allied Force/Noble Anvil in 1999 against the former Republic of Yugoslavia. She has been awarded three Meritorious Unit Commendations.

Submarines of the LOS ANGELES Class are the most advanced undersea vessels of their type in the world. While anti-submarine warfare is still their primary mission, the inherent characteristics of the submarine — stealth, mobility and endurance — are used to meet the challenges of today's changing global geopolitical climate. USS ALBUQUERQUE is able to get on station quickly, stay for an extended period of time and carry out a variety of missions including the deployment of special forces, minelaying, precision strike land attack, or simply deterrence by her perceived presence while remaining undetected.

This 360 foot, 6,900-ton ship is well equipped to accomplish these tasks. Faster than her predecessors and possessing highly accurate sensors and weapons control systems, ALBUQUERQUE is armed with sophisticated MK-48 Advanced Capability anti-submarine/ship torpedoes, Tomahawk land attack cruise missiles, and mines.

Few modern institutions can rival the nuclear submarine for complexity and absolute self-sufficiency. The often inhospitable environment of the vast sea only intensifies the need for coordination of each crewman's activities. The keystone of the submarine organization is the Commanding Officer, the Captain of the ship. The responsibility for each operation of the submarine, in fact, the responsibility of each individual aboard, converge at the command level and create the Commanding Officer's ultimate charge: to successfully carry out all assigned missions. The Commanding Officer is empowered to employ whatever measures are required in his judgement.

Second in command is the Executive Officer, always next senior in rank to the Captain and not far from attaining his own command. The XO, as he is informally called, offers his wide ranging experience to the submarine organization through direct coordination of the administrative and training activities of the ship. His knowledge and position extend his responsibilities and interests to every aspect of submarine operations.

The remainder of the ship's force is comprised of four departments: Navigation/Operations, Weapons, Engineering, and Supply. The first three are ordinarily led by the more senior officers of the ship who rank just below the Executive Officer. The more junior officers are assigned within these departments to act as division officers. Divisions are the smallest organizational units aboard, and consist of groups of enlisted specialists organized according to skills. Each division is led by a leading petty officer, normally a chief petty officer, who provides "deck plate" level leadership and possesses in-depth technical expertise gained through years of experience.

Every piece of material on the ship from the propeller to the paint job is assigned to a division and finally to an individual technician for its care. Each of these men is an expert not only in the technical functions to which his special training has been directed, but also in the demands of administration, leadership, and instruction of his shipmates.

Each crew member is a part of a second organization aboard the ship, the watch organization, which is designed to conduct and coordinate the actual operations of the ship around the clock. This organization is ordinarily divided into three similar groups called sections. At any given time on the submarine one of these sections "has the watch." Each watch section is headed by the Officer of the Deck who carries out the Commanding Officer's orders during the hours of his watch. It is the Officer of the Deck who orders the ship's course, speed, and depth, and coordinates all shipboard evolutions. He is assisted by the Engineering Officer of the Watch, who controls the reactor plant and all engineering evolutions in the propulsion plant.

Each watch section consists of watchstanders throughout the ship who stand alertly by their equipment and stations for the duration of each watch. For example, helmsmen, who steer the ship; throttlemen, to control the steam turbines; sonar operators, who silently probe the environment; reactor operators, who control the ship's remarkable energy source; torpedomen, to service and launch ALBUQUERQUE's weapons; radio operators, who continually maintain an invisible link with command centers ashore; and electricians, who supply power from the reactor for virtually every service on the ship.

The tempo of the watch is the heartbeat of the ship and, since one third of a submariner's time is spent standing his watch, it is also the principal determinant of his day to day routine.

THE CITY OF ALBUQUERQUE

Albuquerque, the ship's namesake city, was founded in 1706 by Spanish explorers and named for the Duke of Albuquerque. Located in rich farmland in the Rio Grande Valley, Albuquerque lies at an elevation of nearly 5,000 feet and is surrounded by the Sandia mountains.

Today, Albuquerque is a commercial, military research, and finance center which boasts a population of nearly 400,000. In addition to high-technology industries such as Sandia National Laboratories and Kirkland Air Force Base weapons research center, Albuquerque hosts over 700 firms which produce a wide variety of goods from processed foods to electrical machinery. The city also offers outstanding recreational areas for skiing, hiking and camping.

USS ALBUQUERQUE enjoys a unique, mutually supportive relationship with the city of Albuquerque. At the ship's commissioning on May 21, 1983, the Mayor of the city presented a set of keys for a new Rolls Royce to the Commanding Officer. The first skipper to pilot the submarine up the Rio Grande to Albuquerque for a port visit will win this prize. At each Change of Command these keys are turned over to the new Commanding Officer by the Mayor or his representative.

COMMANDING OFFICER

Commander Burroughs is a native of Thomasville, North Carolina and a 1981 graduate of North Carolina State University with a degree in mechanical engineering. He received his commission from Officer Candidate School in 1982.

Following nuclear power and submarine pipeline training, he reported to USS NATHAN HALE (SSBN 623) (Blue). He served in various division officer assignments while completing five strategic deterrent patrols.

In 1989, following a two year assignment as an instructor at Nuclear Power Training Unit in Ballston Spa, New York and completion of Submarine Officer Advanced Course, he reported to USS HONOLULU (SSN 718) as Engineer Officer. During this tour, HONOLULU completed one Western Pacific and two Northern Pacific deployments while earning three Battle Efficiency Awards. He then reported to the CINCLANTFLT Nuclear Propulsion Examining Board in Norfolk, Virginia where he served until January 1995.

Commander Burroughs completed prospective executive officer training and reported to USS FINBACK (SSN 670) in Norfolk as Executive Officer in May 1995. During his tour, FINBACK completed a Mediterranean Sea deployment and conducted an interfleet transfer to Puget Sound Naval Shipyard in Bremerton, Washington for inactivation.

Commander Burroughs next served as an operations budget analyst on the staff of the Assistant Secretary of the Navy (Financial Management and Comptroller) in Washington DC from May 1997 to March 1999.

Commander Burroughs' personal decorations include the Meritorious Service Medal (two awards), the Navy Commendation Medal (four awards), and the Navy Achievement Medal (five awards).

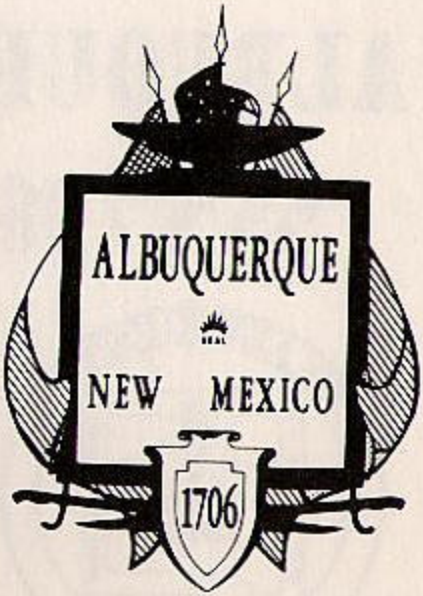
Commander Burroughs is married to the former Beth Reaves of Reidsville, North Carolina. They reside in Gales Ferry, Connecticut with their two sons, Edward and Will.

Welcome Aboard

USS ALBUQUERQUE
SSN 706

WELCOME ABOARD

ALBUQUERQUE is a nuclear powered fast attack submarine of the LOS ANGELES (SSN 688) class. Her principal mission as an attack submarine is to operate against enemy submarines and surface ships. Surpassing the underwater capabilities of any class of ship before her, ALBUQUERQUE carries detection, communications, navigation, propulsion and computerized weapons systems of the most advanced design. For months, she can cruise quietly submerged with a maximum of comfort for her crew, and with an ever ready potential for delivery of any submarine tactical weapon the Navy possesses against submerged or surface targets. When coupled with the talents of a well trained submarine crew, USS ALBUQUERQUE provides a tactical capability of major importance to our nation's defense.



ALBUQUERQUE, THE CITY

Albuquerque, a commercial, research and financial center nestled at an altitude of 5,314 feet, is the highest southernmost city in the United States.

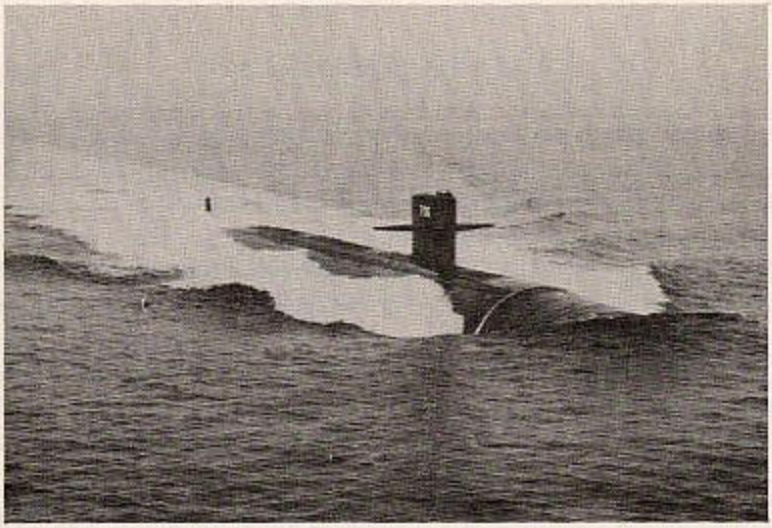
Founded in 1706 by Spanish explorers and named for the Duke of Alburquerque (the r was later dropped), then Viceroy of New Spain, it remained a small and rather placid settlement in the nation's outback until World War II.

Albuquerque's dry moderate climate was ideal for military training and when the war ended, many service people longed to return to a region graced with clear, dry weather 77 percent of the year.

Now boasting a population of 330,000 — 10 times what it was then — Albuquerque is a hub of nuclear aerospace work and research, especially at Sandia National Laboratories and Kirtland Air Force Base, which houses the Air Force's Special Weapons Center. In addition, the city's bustling industrial activity produces gypsum products, lumber, clothing and aerospace and electronic components.

Located in a valley at the foot of 10,600 foot-high Sandia Peak, Albuquerque ranks high as a recreational area as well. The nation's longest aerial tram (2.7 miles) carries residents and visitors alike to the top of the mountain for dining at one of the few restaurants in the country with a 200-mile view. In winter, skiers schuss down slopes on the east side of the mountain while warmer weather brings hikers and campers to the region.

Among Albuquerque's cultural attractions is the Pueblo Cultural Center, a museum-restaurant complex that houses artifacts from early and current Indian life in the area. World War II buffs can pore over memorabilia at the home of the famed war correspondent Ernie Pyle, which is now a branch of the public library. The city also maintains several community theaters, an opera company and a symphony orchestra.



ALBUQUERQUE, THE SHIP

The Albuquerque (SSN 706), a 688 class fast attack submarine under construction at Electric Boat, is the second US vessel to bear that name. Thirty-nine years ago, the Kaiser Cargo Co. of Richmond, Calif. constructed the first Albuquerque, a Tacoma Class patrol frigate, for the Coast Guard.

The USCGS Albuquerque, (PF-7), was commissioned in December of 1943, and reported to Escort Division 27, Pacific Fleet for service. The Commanding Officer was LCDR W.L. Goff, USCG. Betweeen April of 1944 and June of 1945, the Albuquerque escorted convoys in the Aleutian Islands and patrolled the Northern Pacific and Bearing Sea.

Following World War II, the USCGS Albuquerque was loaned to the Soviet Union under lendlease, however, by October of 1950, she again served on patrol and escort duty for the Coast Guard. She received three Battle Stars while engaged in patrol duties during the Korean War. In February, 1953, the USCGS Albuquerque (PF-7) was decommissioned and loaned to Japan.

The current Albuquerque, (SSN 706), is a 360 foot, 6,900 ton ship. She is equipped with highly accurate sensors, weapon control systems, and central computer complexes. Her mission will be to hunt down and destroy enemy surface ships and submarines. Her keel was laid December 27, 1979, and she was launched on March 13, 1982. The commissioning is scheduled in the middle of 1983.

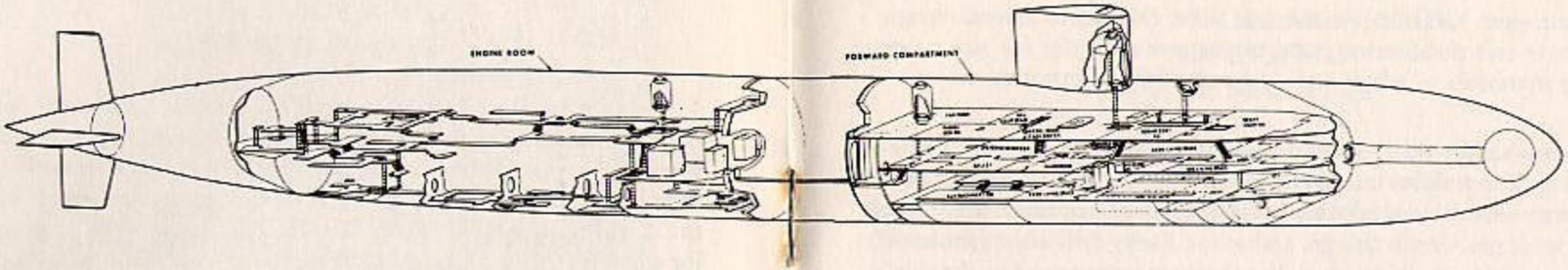
HOW A SUBMARINE IS ORGANIZED

Few modern institutions can rival the nuclear submarine for complexity and absolute self-sufficiency. The often inhospitable environment of the vast sea only intensifies the need for coordination of each crewman's activities. The keystone of the submarine organization is the Commanding Officer the Captain of the ship. The responsibility for each operation of the submarine, in fact, the responsibility of each individual aboard, converge at the command level and create the Commanding Officer's ultimate charge: to successfully carry out the missions assigned. Whatever measures are required, in his judgment, to accomplish this task, the Commanding Officer is empowered to employ. It is this necessary conferral of discretion in an isolated circumstance that lends to the submarine command a sense of creativity and individuality.

Second in command is the Executive Officer, always next senior in rank to the Captain and not far from attaining his own command. The Exec, or XO, as he is informally called, offers his wide ranging experience to the submarine organization through direct coordination of the administrative and training activities of the ship. His knowledge and position extend his responsibilities and interests to every aspect of submarining.

The remainder of the ship's force is composed of six departments: Navigation, Operations, Weapons, Engineering, Supply and Medical. The first four are ordinarily led by the more senior officers of the ship who rank just below the Executive Officer. The more junior officers are assigned within these departments to act as division officers. Divisions are the smallest organization units aboard, and consist of groups of enlisted specialists organized according to skills.

Every piece of material on the ship from the propeller to the paint job is assigned to a division and finally to an individual technician for its care. Each of these men soon becomes an expert not only in the technical functions to which his special training has been directed, but also in the demands of administration, leadership and instruction of his shipmates.



There is a second organization aboard the ship: the watch organization. Whereas the first organization is designed to maintain equipment, train and administer to the various groups of men, the watch organization is designed to conduct and coordinate the actual operations of the ship around the clock. This organization is ordinarily divided into three similar groups called sections. At any given time on the submarine one of these sections "has the watch." Each watch section is headed by the Officer of the Deck who carries out the Commanding Officer's orders during the hours of his watch. It is the Officer of the Deck who orders the ship's course, speed and depth, and conducts all combined shipboard evolutions. He is assisted by a second officer, the Engineering Officer of the Watch, who controls the reactor plant and all engineering evolutions in the propulsion plant.

Each watch section consists, for example, of helmsmen, who steer the ship; throttlemen, to control the steam turbine engines; sonar operators, who silently probe the ship's environs; reactor operators, who control the ship's remarkable energy source; torpedomen, to service and launch ALBUQUERQUES' weapons; radio operators, who continually maintain an invisible link with command centers ashore; and electricians, who supply power from the reactor for virtually every service on the ship. These watchstanders, among others, stand alertly by their equipment and stations throughout the duration of each watch.

The tempo of the watch is the heartbeat of the ship and, since one third of a submariner's time is spent standing his watch, it is also the principal determinant of his day to day routine.

A DAY IN THE LIFE OF A SUBMARINER

George Lee is a fictitious name for a typical ALBUQUERQUE submariner. He is, we will imagine, a second class Quartermaster. As such, he works in the Quartermaster Division in the Navigation Department. (In the Navy, quartermasters are specialists in navigation).

On a day that he has the 0600 to 1200 watch (6 a.m. to 12 p.m.), George is awakened at 0500 by a messenger; this gives him 45 minutes to dress, shave and enjoy a large breakfast. In keeping with a tradition, he reports to his watch station in the control room, where the Officer of the Deck also stands his watch, 15 minutes before his watch begins, in order to be briefed on the activities of the previous watchstander on his watch: a custom most appreciated by the departing quartermaster. During this six-hour watch. Quartermaster Lee plots the ship's position on the chart and assists the Officer of the Deck by recording and maintaining the ship's log.

After his relief has taken the watch, George cleans up for the noon meal. Today's meal is followed in the Crew's Mess by a "School of the Boat" lecture given by the Auxiliary Division Chief Petty Officer on the ship's hydraulic system. Since he is already qualified on the ALBUQUERQUE, George passes the lecture up in order to spend some time preparing for his first class Quartermaster examination. At 1500 (3 p.m.), he has an appointment to examine a newly reported seaman on his knowledge of the ship's periscopes and antennas, for the seaman's submarine qualification. George Lee's immediate supervisor, a Chief

Quartermaster, had told him to make some changes to several navigation charts and publications and to prepare an order for some new training materials — which took the rest of the afternoon.

The ship's daily drill, which today was unannounced, interrupted the task for about thirty minutes. Drills are conducted to test the crew's reaction to casualty and combat situations of various sorts: fire, loss of power, toxic gas, depth charge, and so on. Every drill is an "all hands" effort, even those catching up on lost sleep are summoned by the ship's alarms. Fire hoses are unrolled, medical bags opened, gas masks worn, equipment operated, nothing that can possible be done to enhance the realism is neglected.

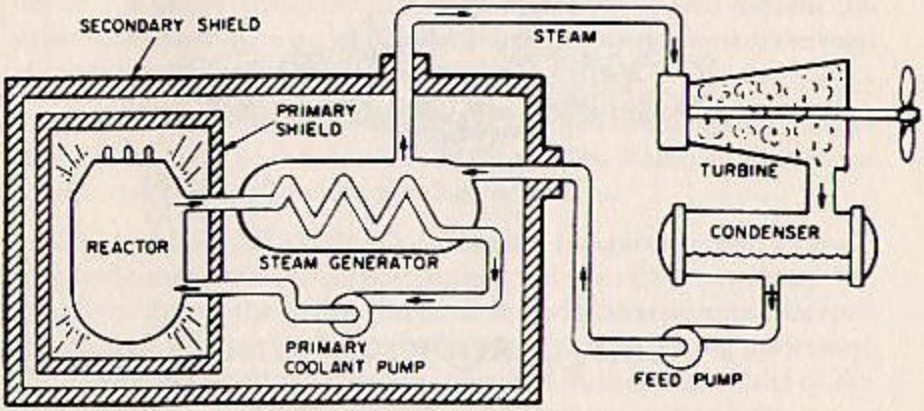
The movie after the evening meal was one he had seen before so George read some more of a Western he'd gotten in the ship's library. Then he can doze for a couple of hours before standing his next watch — the mid watch, from midnight until six in the morning.

The schedule of our mythical George Lee is not at all imaginary or exceptional. It is typical of what a submariner does during a usual workday at sea. It is perhaps a fair answer to the oft posed questions: What on earth do you do out there for sixty days?

HOW NUCLEAR POWER OPERATES A SUBMARINE

The power plant of a nuclear submarine is based upon a nuclear reactor which provides heat for the generation of steam. This, in turn, drives the main propulsion turbines and the ship's turbo-generators for electric power.

The primary system is a circulating water cycle and consists of the reactor, loops of piping, primary coolant pumps and steam generators. Heat produced in the reactor by nuclear fission is transferred to the circulating primary coolant water which is presurrized to prevent boiling. This water is then pumped through the steam generator and back into the reactor by the primary coolant pumps for reheating in the next cycle.



In the steam generator, the heat of the pressurized water is transferred to a secondary system to boil water into steam. This secondary system is isolated from the primary system.

From the steam generators, steam flows to the engine room where it drives the turbo-generators, which supply the ship with electricity, and the main propulsion turbines, which drive the propeller.

After passing through the turbines, the steam is condensed and the water is fed back to the steam generators by the feed pumps.

There is no step in the generation of this power which requires the presence of air or oxygen. This fact alone allows the ship to operate completely independent from the earth's atmosphere for extended periods of time.

During the operation of the nuclear power plant, high levels of radiation exist around the reactor and personnel are not permitted to enter the reactor compartment. Heavy shielding protects the crew so that the crew member receives less radiation on submerged patrol than he would receive from natural sources ashore.

ALBUQUERQUE STATISTICS

LENGTH:	360 FEET	BREADTH:	33 FEET
DISPLACEMENT:	6900 TONS	KEEL LAID:	27 DEC. 1979
LAUNCHED:	13 MARCH 1982	COMMISSIONED:	21 MAY 1983
COMPLEMENT:	12 OFFICERS	115 ENLISTED	
SPEED: GREATER THAN 20 KNOTS			
DEPTH: GREATER THAN 400 FEET			

GENERAL INFORMATION

Please observe the following procedures while you are aboard.

WARNING SIGNS. Please observe all warning signs. Consult members of the ship's force for assistance in any matter.

OPERATION OF SHIP'S EQUIPMENT. Do not operate any equipment or switches, turn any valves or enter any posted areas without prior approval from ship's force to do so. Observe posted precautions and procedures in all operations.

EMERGENCIES. Should any emergency situation arise alarms will be sounded and the word will be passed. You are requested to **STAND FAST BUT CLEAR** of all passageways and operating areas. Do not obstruct ladders, hatches, or the watertight door. Allow ship's personnel to perform required action without interference. The member of the ship's company in charge at the scene will explain the situation as soon as he is able. Please follow the instructions of the man in charge at the scene without hesitation.

SECURITY. Certain aspects of the ship's operational characteristics and certain areas of the ship are classified. The Radio Room, Sonar Room, and the Engineroom are classified areas.

MEDICAL FACILITIES. The ship has a Hospital Corpsman available at all times and he should be consulted for any illness or injury that may occur during the cruise. It is recommended that persons susceptible to motion sickness obtain medication prior to getting underway. The Hospital Corpsman may be contacted through the Chief of the Watch in Control. Additionally, T.L.D.'s will be issued to those persons whose work on board may involve exposure to radiation. Please return these to the Hospital Corpsman prior to your departure.

ORDERS. If you are under military orders, please turn your orders in to the Yeoman in the Ship's Office in forward Operations Compartment. Your orders will be endorsed and ready for you to pick up at the end of your visit.