

USS VIRGINIA STATISTICS

LENGTH
377 FEET

BREADTH
34 FEET

DISPLACEMENT
APPROXIMATELY 7800 TONS

COMPLEMENT
17 OFFICERS, 117 ENLISTED

ARMAMENT
12 VLS & 4 TORPEDO TUBES

RANGE
UNLIMITED

SPEED
GREATER THAN 25 KNOTS

DEPTH
GREATER THAN 800 FEET



17 Dec 04

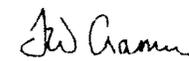
Dear Guest,

On behalf of the officers and crew of the VIRGINIA (SSN 774), I take great pleasure in welcoming you to the VIRGINIA! VIRGINIA is the most technologically advanced submarine in the world and will be the cornerstone of the U.S. submarine fleet well into the 21st century.

USS VIRGINIA (SSN 774) is the namesake of the Commonwealth of Virginia. VIRGINIA was commissioned on 23 October 2004, and is currently assigned to Submarine Development Squadron TWELVE.

I hope you find your stay enjoyable and informative. If there is anything you need or would like to see, please ask any crew member. I assure you they will do their very best to answer any questions you may have.

Sincerely,


T.W. CRAMER



CDR TODD W. CRAMER

UNITED STATES NAVY

COMMANDING OFFICERS

CDR Todd W. Cramer: 17 December 2004 - Present

CAPT David J. Kern: 30 July 2002 - 17 December 2004

CDR Thomas J. Kearney: 15 May 2000 - 30 July 2002

Commander Todd Cramer began his Navy career in 1981 enlisting as an Electronics Technician in the Naval Nuclear Propulsion Program. He completed ET-A School, Nuclear Power School and Nuclear Prototype Training before receiving an appointment to the U.S. Naval Academy, Class of 1987.

Upon graduation from USNA, he completed the nuclear training pipeline once more and reported to his first submarine, USS GEORGIA (SSBN 729 GOLD) in April 1989. While serving onboard GEORGIA, CDR Cramer completed six strategic deterrent patrols and served in various junior officer assignments including Tactical System Officer. Following this assignment, CDR Cramer reported to Joint Staff (J-4) to serve one-year internship on the Joint Staff. He then served the Secretary of Navy's immediate staff. During this shore duty to CDR Cramer completed a master's degree in Engineering Management at Catholic University.

CDR Cramer completed the Submarine Officer Advanced Course in May 1995 and reported as Engineer onboard USS CHARLOTTE (SSN 766). He completed the Post-Shakedown Availability and homeport change to Pearl Harbor, Hawaii, as well as CHARLOTTE's maiden deployment to the Western Pacific. Following his deployment head tour, he reported to Naval Reactors in Washington DC for duty on the Line Locker as a technical assistant on propulsion plant matters. During his off-duty hours, he completed Joint Professional Military Education (JPME) Phase I. He concluded his post-deployment shore duty at the Armed Forces Staff College completing JPME Phase II.

CDR Cramer reported as Executive Officer on USS CHICAGO (SSN 721) in July 2000 and completed one WESTPAC deployment while onboard. He transferred back to Washington DC for duty on the staff of the Chief of Naval Personnel serving as the Submarine Officer Community Manager and Nuclear Officer Program Manager.

CDR Cramer is entitled to wear the Meritorious Service Medal with two gold stars, the Joint Commendation Medal, the Navy Commendation Medal with four gold stars, the Navy Achievement Medal with two gold stars, and various other unit awards.

THE VIRGINIA CLASS

AMERICA'S NEXT SUBMARINE

BY Barbara Graves & Edward Whitman

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 turbine generators for electric power.

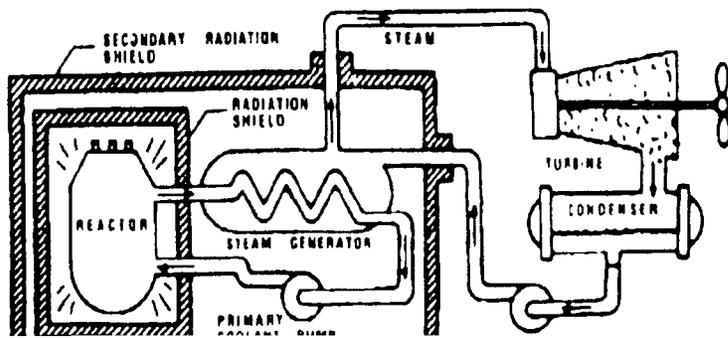
The primary system is a circulating water cycle and consists of the reactor, loops of piping, primary coolant pumps and steam generators. Heat produced in the reactor by nuclear fission is transferred to the circulating primary coolant water which is pressurized to prevent boiling. This water is then 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 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 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.



Optimized for the Littorals

VIRGINIA has been designed specifically to fight in the world's littorals. While maintaining a robust capability for open-ocean ASW, VIRGINIA nonetheless incorporates weapons, sensors, and some special new equipment and features that suit her particularly well for joint operations in shallower coastal regions, including land attack, intelligence gathering, mine reconnaissance and supporting special forces. Additionally, VIRGINIA will be the acoustic equal of Seawolf while adding new non-acoustic stealth features for the survivability needs to operate in future tactical environments, which will likely include greater threats from mines and non-traditional ASW methods.

The ship will deploy covert, non-provocative electronic and acoustic sensors for continuous monitoring of the regional battlespace, including enemy electronic signals, communication links, and the local tactical situation. Its acoustic sensor suite will include a much-improved high frequency sonar specifically optimized for hunting diesel-electric and advanced air-independent propulsion (AIP) submarines, mines, and shallow-water hazards to navigation. VIRGINIA will support a full range of covert special warfare missions – search and rescue, reconnaissance, sabotage and diversionary attacks, forward observation for fire direction and direct strikes against enemy objectives. The torpedo room is reconfigurable – allowing both the center weapons and their stowage structures to be removed – to accommodate greater numbers of Special Forces “troops.” Equipped with a unique nine-man lock-in/lock-out chamber, VIRGINIA can conduct covert launch and recovery of an entire Special Forces team in a single evolution. There are also matins surfaces compatible with either the Advanced Seal Delivery System (ASDS) – essentially a 55-ton mini-submarine – or the more conventional Dry Deck Shelter.

The weapon load-out is impressive. VIRGINIA will carry 38 full size weapons, allocated among heavyweight torpedoes, Tomahawk Land-Attack Missiles (TLAMs), and mines. Equipped with twelve Vertical Launching System (VLS) tubes and four 21-inch torpedo tubes, VIRGINIA can launch land-attack salvos of up to 16 missiles. This flexible firepower gives VIRGINIA a powerful capability to engage not only hostile ships and submarines, but also to attack high-value land targets, with both precision and surprise, from well within an adversary's

HISTORY OF THE VIRGINIA



Emblazoned on a blue background that symbolizes the mighty deep, USS VIRGINIA (SSN 774) is prominently positioned. The forward view of VIRGINIA denotes her leading the Submarine Force into a new century and onto a new and exciting course for the United States Navy. The gold lettering and border around the seal combined with the blue background represent the Navy's colors of blue and gold. The silhouette of the Commonwealth of Virginia represents the state for which the ship is named. Each of the nine stars represents an American warship named VIRGINIA. The single point of light at the stern of the ship symbolizes both the nuclear propulsion plant that powers the submarine as well as the ship's data processing system fiber optic backbone. In keeping with the Commonwealth of Virginia's motto, the words "Sic Semper Tyrannis" (Latin for "Thus Always To Tyrants") appear at the bottom, which combined with the symbolism of the Commonwealth's Seal, represents the triumph of Virtue over Tyranny.

The image of George Washington also looks forward with VIRGINIA. George Washington, a Virginia native, has been characterized as the "indispensable man" vital to the formation of our republic. In all of history, few men who possessed unassailable power have used that power so selflessly and wisely for the welfare of their countrymen and all mankind. VIRGINIA also stands ready in all her indisputable power to serve the people of this great Nation and her allies.

As the first English colony in America and the 10th state to ratify the Constitution, the name Virginia is rich in history. Named after the "Virgin Queen" Elizabeth I, the name has taken a place in Naval history as well, as eight US Naval vessels and two Confederate ships have had the name VIRGINIA.

The first was commissioned in 1777, one of 13 frigates authorized by the Continental Congress for service in the Revolutionary War. The second was a schooner transferred to the Navy from the Revenue Cutter Service and commissioned in 1798 for service in the undeclared war against France.

During the Civil War, a third VIRGINIA was commissioned. Originally built as a British merchant ship, she was modified for war and served valiantly for the Union as a blockade ship in New Orleans and elsewhere.

At the dawn of the twentieth century, the fourth VIRGINIA (BB-3) was commissioned. She served as part of the Great White Fleet in 1907, saw service as an escort ship, and brought American troops home from Europe following the Armistice. Before the end of World War II, three civilian craft were commissioned with the name VIRGINIA and served as patrol boats. All three were in commission at the same time as the battleship VIRGINIA and had their names changed to avoid confusion.

In 1976, the most recent USS VIRGINIA (CGN 38), a nuclear powered cruiser, was commissioned. She was the first of her class, and after assisting in Beirut following the Marine Barracks bombing there in 1983, was converted to the Navy's first cruiser with a Tomahawk weapons system. She supported Desert Storm and years of counter drug operations before being decommissioned in 1994.

USS VIRGINIA (SSN 774)

Built by General Dynamics Electric Boat Division, Groton, Ct
and Northrup Grumman Newport News Shipbuilding, Newport News, VA

Sponsor: Mrs. Lynda Johnson Robb

Keel Laid: 2 September, 1999

Christened: 16 August, 2003

Commissioned: 23 October, 2004

***"Without a decisive naval force we can do nothing definitive,
and with it, everything honorable and glorious."***

President George Washington, 15 November 1781,

ORIGIN OF SUBMARINE DOLPHINS

The insignia of the U.S. Submarine service is a submarine flanked by two dolphins. Dolphins, traditional attendants to Poseidon, patron deity to sailors, are symbolic of calm seas and are sometimes called the "sailor's friend."

The origin of the U.S. Submarine service insignia dates back to 1912. On June 13 of that year, Captain Ernest J. King, Commander Submarine Division Three, later a Fleet Admiral and Chief of Naval Operations during World War II, suggested that a distinguishing device for qualified submariners be adopted. (The original design was based on Captain King's own pen and ink sketches.)

Submarine qualification pins were first authorized for use in 1941, the officers wearing gold dolphins on the left breast while enlisted members wore silver dolphins embroidered on the right sleeve. Today both officers and enlisted insignia are worn on the left breast.

To 'Qualify Submarines,' a submariner must possess an in-depth knowledge of ship's construction, operation, damage control, and demonstrate reliability under battle conditions.



Only a submariner realizes to what great extent an entire ship depends on him as an individual. To a landsman this is not understandable, and sometimes even difficult for us to comprehend, but it is so!

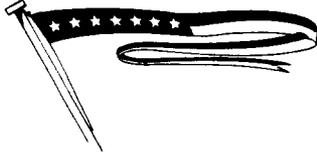
A submarine at sea is a different world in herself, and in consideration of the protracted and distant operations of submarines, the Navy must place responsibility and trust in the hands of those who take such ships to sea.

In each submarine there are men who, in the hour of emergency or peril at sea, can turn to each other. These men are ultimately responsible to themselves and to each other for all aspects of operation on their submarine. They are the crew. They are the ship.

This is perhaps the most difficult and demanding assignment in the Navy. There is not an instant during his tour as a submariner that he can escape the grasp of responsibility. His privileges in view of obligations are almost ludicrously small, nevertheless, it is the spur which has given the Navy its greatest mariners; the men of the Submarine Service.

It is a duty, which most richly deserves the proud and time honored title of...

"SUBMARINER"



27 Jul 05

Dear Commissioner Turner,

On behalf of the officers and crew of the USS VIRGINIA (SSN 774), I want to say what an honor it was to have you as a guest aboard the VIRGINIA. The crew of VIRGINIA enjoyed the opportunity to demonstrate some of her capabilities for you today. Your visit to the ship and continued support of the submarine 'silent' service are greatly appreciated.

The VIRGINIA Class Submarine is the first major combatant to be designed completely with the post-Cold War threat in mind. The VIRGINIA is the most technologically advanced submarine in the world and her Class will be the cornerstone of the future U.S. submarine fleet - leading the way into the 21st century.

I hope you found your visit to be enjoyable and informative. Due to the brevity of your stay, I wanted to provide you with a few final facts about VIRGINIA. Enclosed please find a pamphlet with additional information about VIRGINIA, some mementos from your visit, and a photograph of the ship. If there is anything else I can do for you in the future, please don't hesitate to contact me.

Sincerely,

Handwritten signature of T. W. Cramer

T. W. CRAMER