Sponsor: Mrs. Robert L. F. Sikes

- Keel Laid: June 1, 1962
- Commissioned: May 29, 1964
- First CO’s: CDR. Arnett B. Taylor (B)
              CDR. Charles S. Carlisle (G)

Launched:
June 22, 1963
From the “Dictionary of American Naval Fighting Ships,”

TECUMSEH

While still a youth, Tecumseh—a Shawnee Indian chief born near the present site of Springfield, Ohio, sometime in or around 1768—won renown as a brave and skillful warrior. He devoted his life to opposing the advance of white settlers. Reasoning that land in North America—especially in the Ohio valley—belonged to all of the tribes in common, Tecumseh maintained that sales of territory by any single tribe to the United States were null and void. After the Federal Government refused to recognize this principle, Tecumseh attempted to organize a great Indian Confederacy to stem the white tide.

However, while he was in the South working to unite the tribes, Federal troops under Governor William Henry Harrison defeated and scattered Indian forces on 7 November 1811 in the battle of Tippecanoe. This defeat doomed the Indian Confederacy.

After Congress declared war on Great Britain the following year, Tecumseh accepted a commission as a brigadier general in the British army. He cooperated with British troops to win a number of victories in the Great Lakes region, including the capture of Detroit. However, Comdr. Oliver Hazard Perry’s victory on Lake Erie, late in the summer of 1813, cut British supply lines and prompted them to withdraw along the Thames Valley. Tecumseh and his braves covered the British retirement until American troops led by Harrison—now a major general—caught up with them at Moraviantown. Tecumseh was killed in the ensuing Battle of the Thames on 5 October 1813.

In June 1930, a bronze replica of the figurehead of ship-of-the-line DELAWARE was presented by the Class of 1891 to the United States Naval Academy. This bust—perhaps the most famous relic on the campus—has been widely identified as Tecumseh. However, when it adorned the American man-of-war, it commemorated not Tecumseh but Tamanend, the revered Delaware chief who welcomed William Penn to America when he arrived in Delaware country on 2 October 1682.

SSBN-628

Displacement:
   Suraced:  7,300 t.
   Submerged:  8,250 t.
Length:  425’
Beam: 33’
Draft: 31’4”

Speed:
- Surfaced: 16 k.
- Submerged: 21 k.

Complement: 140

Armament: 16 Polaris missiles; 4 21” torpedo tubes

Class: JAMES MADISON

The fourth TECUMSEH (SSBN-628) was laid down on 1 June 1962 at Groton, Conn., by the Electric Boat Division of the General Dynamics Corp.; launched on 22 June 1963; sponsored by Mrs. Robert L. F. Sikes; and was commissioned on 29 May 1964, Comdr. Arnett B. Taylor (blue crew) and Comdr. Charles S. Carlisle (gold crew) in command.

TECUMSEH soon departed the east coast, bound for Hawaii. Based at Pearl Harbor, the nuclear-powered submarine deployed to the Marianas on 17 December 1964, arriving at Guam 12 days later to commence deterrent patrols. Alternately manned by "blue" and "gold" crews, she conducted 21 of these missions into 1969.

The submarine was then transferred to the Atlantic Fleet where she proceeded via Pearl Harbor and the Panama Canal to the east coast and arrived at Newport News, Va., on 8 November 1969. Soon thereafter, she entered the Newport News Shipbuilding and Drydock Company yards for a conversion which replaced her Polaris missiles system with its Poseidon counterpart. Emerging from drydock on 9 May 1970, TECUMSEH underwent a thorough overhaul through that fall and winter before being assigned a new home port of Charleston, S.C., on 18 February 1971.

She conducted sea trials and shakedown out of Charleston before conducting two deterrent patrols in late 1971. Subsequently deployed to Holy Loch, Scotland, TECUMSEH arrived in Scottish waters on 9 February 1972. She conducted 18 more deterrent patrols out of Holy Loch through 1976 and operates with the Atlantic Fleet into 1980.

[Originally to be named WILLIAM PENN, the ship was renamed TECUMSEH on 11 April 1962.

Placed “in commission, in reserve,” on 15 February 1993, TECUMSEH began the Navy’s Nuclear Powered Ship and Submarine Recycling Program at Bremerton, Washington the same day. Decommissioned and stricken from the Naval Vessel Register on the following 23 July, she emerged from the recycling program on 1 April 1994 as scrapped. She no longer existed as a complete ship.

Internet web site:
United States Naval & Shipbuilding Museum
www.uss-salem.org/worldnav/usa/decom.htm

Transcribed by Michael Hansen
mhansen2@home.com
VITAL STATISTICS

Keel Laid .......................................................1 Jun 1962
Launched .........................................................22 Jun 1963
Commissioned .................................................29 May 1964
Length ..........................................................425 feet
Beam ............................................................33 feet
Displacement Surfaced .......................................about 7000 tons
Displacement Submerged .....................................about 8000 tons
Speed Submerged ...............................................Over 20 knots
Diving Depth ...................................................over 400 feet
Built by .....................................................Electric Boat Division of General Dynamics

COMMANDING OFFICERS OF USS TECUMSEH (SSBN 628)

BLUE CREW

CDR Arnett B. TAYLOR ..................................29 May 1964 - 13 Aug 1966
CDR Ross N. WILLIAMS .................................22 Jun 1968 - 09 Oct 1969
CDR Donald B. LINEHAN .................................09 Oct 1969 - 08 Apr 1971
CDR William E. ROBERTS .................................08 Apr 1971 - 12 Dec 1972
CDR Richard J. SCHLEICHER ............................12 Dec 1972-31 Jul 1975
CAPT William E. RATLIFF ...............................31 Jul 1975 - 10 Oct 1975
CDR Mark M. GOLDEN ................................10 Oct 1975-19 Oct 1979
CDR James TISARANNI ................................19 Oct 1979 - 29 Jul 1983
CDR Robert G. GAY .....................................29 Jul 1983 - 04 Dec 1986
CAPT Gerald L. HOFWOLT ..............................04 Dec 1986-13 Jan 1990
CDR Michael T. RADER .................................13 Jan 1990 - 19 Dec 1991

GOLD CREW

CDR Charles S. CARLISLE ..............................29 May 1964 - 10 Jun 1967
CDR Harold S. CLAY ...................................10 Jun 1967 - 26 Apr 1969
CDR Donald B. LINEHAN ................................26 Apr 1969-08 Apr 1971
CDR William E. ROBERTS ...............................08 Apr 1971 - 29 May 1971
CDR David M. CARRE, JR ...............................29 May 1971 - 10 Jan 1975
CDR Larry G. VOGT ......................................10 Jan 1975 - 12 May 1977
CDR Mark M. GOLDEN ...................................12 May 1977-27 Jun 1979

COMBINED CREW

CDR David E. BILLINGSLY ..............................13 Aug 1992 -
The officers and crew of the USS TECUMSEH take great pleasure in extending their most hearty welcome!
While aboard, we hope that your stay is interesting and enjoyable.
USS TECUMSEH (SSBN 628)

USS TECUMSEH is the eleventh of the Lafayette Class Fleet Ballistic Missile Submarines and the second United States warship of the same name. The first TECUMSEH, a single turret monitor, was launched 12 September 1863, and was lost to a Confederate torpedo in the Battle of Mobile Bay on 5 August 1864. The present TECUMSEH is approximately 425 feet long, 33 feet wide, and has a surface displacement of about 7,000 tons. She has four torpedo tubes forward and carries a main battery of 16 Poseidon missiles stored in eight pairs of vertical launch tubes.

After commissioning in May 1964, TECUMSEH made twenty-one patrols in the Pacific. She sailed from Apra Harbor, Guam, under Commander Submarine Squadron FIFTEEN.

In the fall of 1969, TECUMSEH transited to Panama Canal and entered the shipyard at Newport News, Virginia, for Poseidon conversion overhaul. The conversion was completed in February of 1971. TECUMSEH then deployed from Holy Loch, Scotland, under Commander Submarine Squadron FOURTEEN.

After its forty-fourth patrol, TECUMSEH conducted an extensive overhaul at Portsmouth Naval Shipyard, Portsmouth, New Hampshire from 1977 to 1979. Upon completion of overhaul, TECUMSEH was assigned to Commander Submarine Squadron EIGHTEEN in Charleston South Carolina.

In 1982, TECUMSEH was selected as the Atlantic Fleet Ballistic Missile Submarine Outstanding Performance Award winner. The Secretary of the Navy additionally recognized TECUMSEH by the award of the Meritorious Unit Commendation for sustained superior performance.

TECUMSEH conducted a nuclear refueling overhaul at the Newport News Shipbuilding and Drydock Company, Newport News, Virginia from April 1984 to November 1986. Following demonstration and shakedown operations, TECUMSEH returned to Submarine Squadron EIGHTEEN where she received two Battle Efficiency "E"s for the fiscal years 1988 and 1989.

On December 19, 1991, USS TECUMSEH combined crews after completing 73 strategic deterrent patrols. During the remainder of her lifetime as a warship, TECUMSEH will carry out many of the same missions assigned to fast attack submarines.
COMMANDER DAVID E. BILLINGSLEY  
UNITED STATES NAVY

A native of Dallas, Texas, Commander Billingsly entered the U.S. Navy in 1970. Following completion of Nuclear Power Training, he was selected for the Navy Enlisted Scientific Education Program and graduated from the University of New Mexico in 1975 with a Bachelor of Science Degree in Electrical Engineering. After attending Nuclear Power School in Bainbridge, Maryland, Prototype Training in West Milton, New York and Submarine School in New London, Connecticut, Commander Billingsly reported to the USS SIMON BOLIVAR (SSBN 641) (BLUE) in August 1976. During his four years onboard, he served in all Engineering Divisions and as Assistant Engineer. SIMON BOLIVAR was awarded the Battle Efficiency "E" in 1977.

In 1980, Commander Billingsly reported to the Nuclear Power School in Orlando, Florida where he taught Officer Reactor Dynamics. In 1982 he was assigned as Engineer Officer of USS NATHAN HALE (SSBN 623) (GOLD), where he served until 1985. The ship was awarded the Battle Efficiency "E" in 1984.

Following a tour at the Submarine Training Facility, Charleston, South Carolina, Commander Billingsly reported for duty as Executive Officer of USS HENRY L. STIMSON (SSBN 655) (GOLD) in 1987. During his tour, the ship was awarded the Meritorious Unit Commendation. From May 1990 through December 1991, Commander Billingsly was assigned as Executive Officer of USS SIMON LAKE (AS33) in Holy Loch, Scotland. SIMON LAKE was awarded the Battle Efficiency "E" in 1991.

Commander Billingsly is authorized to wear the Meritorious Service Medal, the Navy Commendation Medal with two gold stars and the Navy Achievement Medal.

Commander Billingsly is married to the former Lillian Guill of Dallas, Texas. They presently reside in Summerville, South Carolina with their children, Jennifer and Brent.
VITAL STATISTICS

Keel Laid ........................................ 1 Jun 1962
Launched ........................................ 22 Jun 1963
Commissioned ................................... 29 May 1964
Length ............................................. 425 feet
Beam .............................................. 33 feet
Displacement Surfaced ......................... about 7000 tons
Displacement Submerged ....................... about 8000 tons
Speed Submerged .............................. Over 20 knots
Diving Depth ...................................... over 400 feet
Built by ............................................ Electric Boat Division of General Dynamics

COMMANDING OFFICERS OF USS TECUMSEH (SSBN 628)

BLUE CREW

CDR Arnett B. TAYLOR ..................... 29 May 1964 - 13 Aug 1966
CDR Donald B. LINEHAN ................... 09 Oct 1969 - 08 Apr 1971
CDR William E. ROBERTS .................. 08 Apr 1971 - 12 Dec 1972
CDR Richard J. SCHLEICHER ............... 12 Dec 1972-31 Jul 1975
CAPT William E. RATLIFF ................... 31 Jul 1975 - 10 Oct 1975
CDR Mark M. GOLDEN ....................... 10 Oct 1975-19 Oct 1979
CDR James TISARANNI ....................... 19 Oct 1979 - 29 Jul 1983
CDR Robert G. GAY ......................... 29 Jul 1983 - 04 Dec 1986
CAPT Gerald L. HOFWOLT ................. 04 Dec 1986-13 Jan 1990
CDR Michael T. RADER ..................... 13 Jan 1990 - 19 Dec 1991

GOLD CREW

CDR Charles S. CARLISLE ................ 29 May 1964 - 10 Jun 1967
CDR Harold S. CLAY ......................... 10 Jun 1967 - 26 Apr 1969
CDR Donald B. LINEHAN .................. 26 Apr 1969-08 Apr 1971
CDR William E. ROBERTS .................. 08 Apr 1971 - 29 May 1971
CDR David M. CARRE, JR .................. 29 May 1971 - 10 Jan 1975
CDR Larry G. VOGT ......................... 10 Jan 1975 - 12 May 1977
CDR Mark M. GOLDEN ...................... 12 May 1977-27 Jun 1979

COMBINED CREW

CDR David E. BILLINGSLY ................ 13 Aug 1992 -
GENERAL INFORMATION

EMERGENCIES

In the event of an emergency, stand fast but clear of all passageways and watertight doors so that ship’s crew may be free to proceed to the scene. The crewman in charge of the compartment will direct your movements and keep you informed as soon as possible.

CAUTION

Do not attempt to operate any equipment, twist knobs, flip switches, or turn any valves without the assistance of a crew member. Please observe all warning signs.

SECURITY

Most features of the ship are of a classified nature. In addition, the Sonar Control Room, Radio Room, Nucleonics Laboratory, and all spaces aft of Auxiliary Machinery Room One are security areas and only authorized personnel are permitted. Information concerning speed, depth, weapons, fire control, sonar, ECM and the propulsion plant are classified.

ORDERS

If you are under military orders, please turn your orders in to the Yeoman in the ship's office in the upper level forward end of the Operations Compartment. Your orders will endorsed and ready for you to pick up at the end of your visit.
LIVING ACCOMMODATIONS

Berthing is assigned visitors embarking upon their arrival. Please use only the berth assigned to you so that you can be located if necessary.

Heads and washrooms are located in the operations and missile compartments. Before using a head for the first time please consult a member of the crew for flushing procedures. Do not discard any solid object, no matter how small into the water closet as it may foul the seat of the overboard discharge valve.

Showers may be taken at any time, but because the number of shower facilities is very limited, showers should be taken as expeditiously as possible. There is no restriction on water. However, the ship’s water making capacity, however large, precludes the "wasting" of water.

Messing arrangements have been made for you, and you have been assigned a specific area and time to eat. All meals must be served in shifts so you are requested to be punctual in your arrival for meals and not to linger over coffee after finishing. Meals will not be announced but will be served on time.

CALLS

Calls are made by the messenger of the watch. If you desire a wake up call, leave the time and your bunk number with the Chief of the Watch in Control.

DAILY INFORMATION

Meal times and other important daily information is published in a Plan of the Day and posted throughout the ship.
THE FBM SUBMARINE

The submarine launched ballistic missile system was conceived as an additional option in America's strategic deterrent forces. The first Fleet Ballistic Missile Submarine was the USS GEORGE WASHINGTON (SSBN 598), commissioned December 1959. The second generation of FBM submarines began with USS ETHAN ALLEN (SSBN 608) and included many new designs and improvements over the 598 class. The third generation, commencing with USS LAFAYETTE (SSBN 616) incorporated further operational and habitability improvements. USS TECUMSEH (SSBN 628) is a member of the SSBN 616 class of submarines and can carry 16 Poseidon Missiles.

Today FBM's constitute a dominant part of the nation's strategic deterrent. They continue to carry the retaliatory capability of America at sea, undetectable, separated, and surviving far from our homeland and its people.

Nuclear reactor power provides the steam to propel the TECUMSEH and to supply the ship's huge electrical load, permitting long periods of complete submergence.

THE PROPULSION PLANT

The propulsion plant of a nuclear powered ship is based upon use of a nuclear reactor to provide heat.
The heat comes from the fissioning of nuclear fuel contained within the reactor. Since the fissioning process also produces radiation, shields are placed around the reactor so that the crew is protected.

The nuclear propulsion plant in this ship uses a pressurized water reactor design which has two basic systems: the primary system and the secondary system. The primary system circulates ordinary water and consists of the reactor, piping loops, pumps, and steam generators. The heat produced in the reactor is transferred to the water under high pressure so it does not boil. This water is pumped through the steam generators and back into the reactor for reheating.

In the steam generators, the heat from the water in the primary system is transferred to the secondary system to create steam. The secondary system is isolated from the primary system so that the water in the two systems does not intermix.

In the secondary system, the steam flows from the steam generators to drive the turbine generators, which supply the ship with electricity, and to the main propulsion turbines, which drive the propeller. After passing through the turbines, the steam is condensed into water which is fed back to the steam generators by the feed pumps. Thus, both the primary and secondary systems are closed systems where water is recirculated and reused.

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

TECUMSEH, the great Shawnee Indian Chief, was born in 1768 in the area of Piqua, Ohio. In his youth, Daniel Boone became his foster brother, living for a time with TECUMSEH's family as a captive of the Shawnee. TECUMSEH early distinguished himself as a warrior in the border wars, yet even among his enemies he had a reputation for mercy and fair dealing, particularly in his opposition to the torturing of prisoners. He was described as a man of great courage and conduct, perfectly fearless of danger who inspired his companions with confidence. Watching the Indians losing their lands in the face of increasing white settlement that displaced or destroyed tribe after tribe, TECUMSEH conceived the idea of a confederation of all the western and southern Indian tribes. The Ohio River was to form a permanent border between the two peoples. He refuted the right of the United States Government to make land purchases from any single tribe on grounds that the territory belonged to all tribes in common. In pursuit of this goal TECUMSEH visited and spoke to all the tribes from the upper Missouri River to Florida. His oratory was said to be as powerful as Henry Clay's, and he was able to sway his listeners even though they understood his Shawnee dialect but little. While he gained much support, old tribal rivalries remained, and the Indians never made a united stand. While TECUMSEH was in the south trying to organize the tribes there, his brother, the Prophet, was defeated by William Henry Harrison at the battle of Tippecanoe 7 November 1811. TECUMSEH aided the British in the War of 1812, leading some 2000 Indians of the confederated tribes into battle. He was killed in action at the Battle of Thames River near Chatham, Ontario, on 5 October 1813, while covering the British retreat after Commodore Perry's victory on Lake Erie. Long after his death he was respected by both Indians and whites as a great man, in the words of Trumbull, a historian of the Indian wars, "the most extraordinary Indian in American history."
NAVIGATION

The navigation system is able to pinpoint the ship's exact position at all times. To permit extended periods of submergence, the ship is equipped with the Ship's Inertial Navigation System (SINS), an improved version of the equipment used for under ice polar explorations by earlier nuclear submarines.

COMMUNICATIONS

Radio communications with submerged submarines have been possible for a number of years. The systems used have been devised with special care to protect the locations of the submarines and leave the advantage of concealment unimpaired. Recent tests have again demonstrated that the Navy's worldwide communication system has the power and coverage necessary to exercise command of the always-submerged Fleet Ballistic Missile submarine.

WEAPONS

The sonar and weapon launch systems combine some of the TECUMSEH'S original equipment with updated and improved systems. This allows longer range sonar detection and closer tracking capabilities for launching torpedoes.

SUPPLY

To support the intricate systems in TECUMSEH the Supply Department maintains a variety of spare parts which number about 95% of the range of different spares stocked aboard an aircraft carrier. The Supply Department also stores and prepares the variety and quality of food and baked goods normally found in a good hotel. All of these jobs are done with a handful of men and in very limited space.
THE INSIGNIA
OF USS TECUMSEH

The intent of the insignia is to tie together the endeavors of Tecumseh, the Shawnee chief, with the mission of USS TECUMSEH. The plaque, in the shape of an arrowhead, is surmounted with a scroll of wampum bearing the motto “United For Freedom.” This commemorates Tecumseh’s attempt to unite all Indian tribes in resisting the onslaught of the settlers; we are united in NATO today for much the same reason. The background shield is for the United States, with the British cross of St. George formed in symbols of war and peace, recognizing the role of the British in Tecumseh’s life and their part today as a NATO ally. The fleur-de-lis represents the French influence on the Northern Indians and France’s role in the defense of the free world.

The panther symbolizes one translation of the name Tecumseh which means “Crouching Panther” or “One who lies in wait,” a fitting description of a Poseidon submarine.
SUMMATION

With almost unlimited cruising range and with endurance limited only by the crew, the FBM nuclear submarine is capable of extended submerged operations in the international waters of the world which comprise about 70 percent of the earth’s surface. Free of the need to surface or extend a snorkel above the surface for continuous operation, FBM nuclear submarines remain hidden by oceanic curtain, their locations unknown to any potential enemy.

"THAT PEOPLE WILL CONTINUE LONGEST IN THE ENJOYMENT OF PEACE WHO TIMELY PREPARED TO VINDICATE THEMSELVES AND MANIFEST A DETERMINATION TO PROTECT THEMSELVES WHenever THEY ARE WRONGED."

- Tecumseh (1768-1813)
USS TECUMSEH SSBN-628

USS TECUMSEH is the eleventh of the Lafayette Class of Fleet Ballistic Missile submarines and the second United States warship of the same name. The first TECUMSEH, a single turret monitor, was launched 12 September 1863, and was lost to a Confederate torpedo in the Battle of Mobile Bay on 5 August 1864. The present TECUMSEH is approximately 425 feet long, 33 feet wide, and has a surface displacement of about 7000 tons. She has four torpedo tubes forward and carries a main battery of 16 Poseidon C-3 missiles stored in eight pairs of vertical launching tubes.

TECUMSEH normally has two crews, designated Blue and Gold, of about 124 enlisted men and 12 officers each. The two crews alternate as the on board crew for the ship's deterrent patrols, in order to maximize at-sea target coverage time.

After commissioning in May 1964 TECUMSEH made twenty-one patrols in the Pacific. She sailed from Apra Harbor, Guam, under the command of Commander Submarine Squadron Fifteen.

In the fall of 1969 TECUMSEH transited the Panama Canal and entered the shipyard at Newport News, Virginia for Poseidon conversion and overhaul. The conversion was completed in February of 1971. TECUMSEH then deployed from Holy Loch, Scotland, under the Command of Commander Submarine Squadron Fourteen.

In February of 1977, TECUMSEH was transferred to Submarine Squadron Eighteen at Charleston, South Carolina.
VITAL STATISTICS

Keel Laid. ........................................... 18 August 1962
Launched. ............................................ 2 November 1963
Commissioned ..................................... 25 May 1964
Poseidon Conversion ............................. 17 February 1971

Length ............................................... 425 feet
Beam .................................................. 33 feet
Displacement, surface ........................... about 7000 tons
Displacement, submerged ......................... about 8200 tons
Speed, submerged ................................... over 20 knots
Diving depth ........................................ over 400 feet
TECUMSEH, the great Shawnee Indian Chief, was born in 1768 in the area of Piqua, Ohio. In his youth, Daniel Boone became his foster brother, living for a time with TECUMSEH’s family as a captive of the Shawnee. TECUMSEH early distinguished himself as a warrior in the border wars, yet even among his enemies he had a reputation for mercy and fair dealing, particularly in his opposition to the torturing of prisoners. He was described as a man of great courage and conduct, perfectly fearless of danger who inspired his companions with confidence. Watching the Indians losing their lands in the face of increasing white settlement that displaced or destroyed tribe after tribe, TECUMSEH conceived the idea of a confederation of all the western and southern Indian tribes. The Ohio River was to form a permanent border between the two peoples. He refuted the right of the United States Government to make land purchases from any single tribe on grounds that the territory belonged to all tribes in common. In pursuit of this goal TECUMSEH visited and spoke to all the tribes from the upper Missouri River to Florida. His oratory was said to be as powerful as Henry Clay’s and he was able to sway his listeners even though they understood his Shawnee dialect but little. While he gained much support, old tribal rivalries remained, and the Indians never made a united stand. While TECUMSEH was in the south trying to organize the tribes there, his brother, the Prophet, was defeated by William Henry Harrison at the battle of Tippecanoe 7 November 1811. TECUMSEH aided the British in the War of 1812, leading some 2000 Indians of the confederated tribes into battle. He was killed in action at the Battle of the Thames River near Chatham, Ontario, on 5 October 1813, while covering the British retreat after Commodore Perry’s victory on Lake Erie. Long after his death he was respected by both Indians and whites as a great man, in the words of Trumbull, an historian of the Indian wars “the most extraordinary Indian in American history.”
COMMANDER MARK M. GOLDEN, USN

Commander GOLDEN graduated from the U.S. Naval Academy in June of 1960. He completed nuclear power training at Mare Island, California and Idaho Falls, Idaho, followed by Submarine School. CDR GOLDEN served aboard USS SCORPION (SSN-589), USS JAMES MONROE (SSBN - 622) (GOLD), and as Engineer Officer, USS NATHAN HALE (SSBN - 623) (GOLD).

CDR GOLDEN received the degree of Master of Arts in International Relations from the American University, Washington, D.C.. He completed further postgraduate studies in international relations as an Oimsted Scholar at the University of Madrid, Spain, and has been designated a Country and Regional Specialist for Western Europe.

Returning to submarine duty, CDR GOLDEN served on USS ROBERT E. LEE (SSBN - 601) (GOLD), USS THEODORE ROOSEVELT (SSBN - 600) (BLUE), as Executive Officer, USS HAMMER HEAD(SSN - 663), and on the staff of Commander Submarine Force, U.S. Atlantic Fleet.

Commander GOLDEN assumed command of USS TECUMSEH (BLUE) in October of 1975 and has completed four deterrent patrols. He will command the combined Blue and Gold crews during a forthcoming shipyard overhaul.

Commander GOLDEN and his wife Joyce have two sons, Steven and Michael.
NAVIGATION SYSTEM

Two positions must be known for success in missile launching-target and launcher. This places great emphasis on navigation, since the launch point is the position of the ship and is constantly changing. Several navigation methods are employed in the TECUMSEH to provide the best possible data for missile launch. At the heart of the system is the ship's Inertial Navigation Systems (SINS) which integrates ship's course and speed to give a continuous "fix" of the ship's position. The ship has two SINS, each checking the other for any error. Similar systems guided Nautilus and Skate on their historic voyages beneath the polar ice cap in 1958, Triton on her submerged circumnavigation of the globe, SEADRAGON's submerged transit through the Northwest Passage, and SEADRAGON and SKATE in their rendezvous at the North Pole in the summer of 1962.

COMMUNICATIONS

Radio communications with submerged submarines have been possible for a number of years. The systems used have been devised with special care to protect the location of the submarine, maintaining the advantage of concealment. Tests have demonstrated that the Navy's worldwide net of radio stations has the power and the coverage necessary to exercise positive control over the always submerged Polaris - Poseidon submarine.

POWER PLANT

The TECUMSEH is powered by a nuclear power plant consisting of a nuclear reactor plant which provides the heat to run a regular steam plant. The use of nuclear energy instead of Diesel engines or a storage battery allows the TECUMSEH to be a true submarine as opposed to the submersible craft used in World War I and II.
THE MISSILE

The Poseidon Missile is named after the Greek god of earthquakes and the sea a fitting name for an awesome weapon. Tecumseh carries sixteen of these missiles in twin rows of eight launching tubes aft of her sail. The missile is 34 feet tall, about six feet in diameter and weights about 60,000 pounds. Powered by solid propellant, the missile is ready to be launched within minutes of receiving the command to fire without need for a long countdown or fueling process. The submarine, with an unlimited cruising range, is capable of extended submerged operations in the international waters of the world which cover 70 percent of the earth's surface. Because they do not have to snorkel or surface, thus giving away their position, FBM submarines remain hidden beneath the waters from any potential enemy. [Mobile and ready for instant action, they can also afford to wait to fire their missiles, allowing a resoned response to aggression]. The Polaris Poseidon force provides the United States with a powerful deterrent to those who might start a global war.

TRAINING

The average time spent in training by Tecumseh personnel before even reporting on board is about twelve months. From several weeks to a year is devoted to formal training in radio, sonar, navigation, fire control, weapons or engineering. After a thorough grounding in electronics, computer operation, mechanics, and nuclear physics Tecumseh personnel then learn application of these and other disciplines to the integrated systems which make up a modern submarine. The training program continues at sea and ashore to insure the people in the submarine force are fully qualified to cope with any situation that may arise.
THE INsignia
OF USS TECUMSEH

The intent of the insignia is to tie together the endeavors of Tecumseh, the Shawnee chief, with the mission of USS TECUMSEH. The plaque, in the shape of an arrowhead, is surmounted with a scroll of wampum bearing the motto "United For Freedom." This commemorates Tecumseh's attempt to unite all Indian tribes in resisting the onslaught of the settlers; we are united in NATO today for much the same reason. The background shield is for the United States, with the British cross of St. George formed in symbols of war and peace, recognizing the role of the British in Tecumseh's life and their part today as a NATO ally. The fleur-de-lis represents the French influence on the Northern Indians and France's role in the defense of the free world. The panther symbolizes one translation of the name Tecumseh, which means "Crouching Panther" or "One who lies in wait," a fitting description of a Poseidon submarine.