***George Washington*-class Submarine**

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| ***George Washington* class** |
| [USS *George Washington* (SSBN-598)](https://en.wikipedia.org/wiki/USS_George_Washington_%28SSBN-598%29) at sea. |
| **Class overview** |
| Operators: | [United States Navy](https://en.wikipedia.org/wiki/United_States_Navy) |
| Succeeded by: | [*Ethan Allen*](https://en.wikipedia.org/wiki/Ethan_Allen-class_submarine) class [submarine](https://en.wikipedia.org/wiki/Submarine) |
| Built: | 1958–1961 |
| In commission: | 1959–1985 |
| Completed: | 5 |
| Retired: | 5 |
| **General characteristics** |
| Type: | [SSBN](https://en.wikipedia.org/wiki/SSBN) |
| Displacement: | Surfaced: 5,959 [long tons](https://en.wikipedia.org/wiki/Long_ton) (6,055 t)Submerged: 6,709 [long tons](https://en.wikipedia.org/wiki/Long_ton) (6,817 t)  |
| Length: | 381.6 ft (116.3 m)  |
| Beam: | 33 ft (10 m)  |
| Draft: | 29 ft (8.8 m)  |
| Propulsion: | * 1 [S5W](https://en.wikipedia.org/wiki/S5W) [PWR](https://en.wikipedia.org/wiki/Pressurized_water_reactor)
* 2 geared [steam turbines](https://en.wikipedia.org/wiki/Steam_turbine) (15,000 shp (11,000 kW)),
* 1 shaft
 |
| Speed: | * 16 knots (30 km/h) surfaced
* 22 knots (41 km/h) submerged
 |
| Range: | unlimited except by food supplies |
| Test depth: | 700 ft (210 m)  |
| Capacity: | 112 (Crew Only) |
| Complement: | Two crews (Blue/Gold) each consisting of 12 officers and 100 men. |
| Armament: | * 16 [Polaris A1/A3 missiles](https://en.wikipedia.org/wiki/Polaris_missile)
* 6 × 21 inch (533 mm) [torpedo tubes](https://en.wikipedia.org/wiki/Torpedo_tube), 12 [torpedoes](https://en.wikipedia.org/wiki/Torpedo)
 |

The ***George Washington* class** was a class of [nuclear-powered](https://en.wikipedia.org/wiki/Nuclear_power) [ballistic missile submarines](https://en.wikipedia.org/wiki/Fleet_ballistic_missile_submarine) deployed by the [United States Navy](https://en.wikipedia.org/wiki/United_States_Navy). The *George Washington*, along with the later [*Ethan Allen*](https://en.wikipedia.org/wiki/Ethan_Allen-class_submarine), [*Lafayette*](https://en.wikipedia.org/wiki/Lafayette-class_submarine), [*James Madison*](https://en.wikipedia.org/wiki/James_Madison-class_submarine), and [*Benjamin Franklin*](https://en.wikipedia.org/wiki/Benjamin_Franklin-class_submarine) classes comprised the "[41 for Freedom](https://en.wikipedia.org/wiki/41_for_Freedom)" group of submarines that represented the Navy's main contribution to the [nuclear deterrent](https://en.wikipedia.org/wiki/Nuclear_deterrent) force through the late 1980s.

**Development**

The commissioning of *George Washington* on 30 December 1959, the first submarine Polaris launch on 20 July 1960, and her first deterrent patrol November 1960-January 1961 were the culmination of four years of intense effort. The Navy initially worked on a sea-based variant of the [US Army](https://en.wikipedia.org/wiki/US_Army) [Jupiter](https://en.wikipedia.org/wiki/PGM-19_Jupiter) [intermediate-range ballistic missile](https://en.wikipedia.org/wiki/Intermediate-range_ballistic_missile), projecting four of the large, liquid-fueled missiles per submarine. Rear Admiral [W. F. "Red" Raborn](https://en.wikipedia.org/wiki/William_Raborn) was appointed by [Chief of Naval Operations](https://en.wikipedia.org/wiki/Chief_of_Naval_Operations) Admiral [Arleigh Burke](https://en.wikipedia.org/wiki/Arleigh_Burke) to head a Special Project Office to develop Jupiter for the Navy, beginning in late 1955. However, at the [Project Nobska](https://en.wikipedia.org/wiki/Project_Nobska) submarine warfare conference in 1956, physicist [Edward Teller](https://en.wikipedia.org/wiki/Edward_Teller) stated that a physically small one-megaton warhead could be produced for the relatively small, solid-fueled [Polaris missile](https://en.wikipedia.org/wiki/Polaris_missile), and this prompted the Navy to leave the Jupiter program in December of that year. Soon Admiral Burke concentrated all Navy strategic research on Polaris, still under Admiral Raborn's Special Project Office. The problems of submerged launch, designing a submarine for 16 missiles, [precise navigation](https://en.wikipedia.org/wiki/Inertial_navigation_system) for accurate missile targeting, and numerous others were all solved quickly. By comparison, the contemporary [Soviet](https://en.wikipedia.org/wiki/Soviet_Navy) [Golf-](https://en.wikipedia.org/wiki/Golf-class_submarine) and [Hotel-class](https://en.wikipedia.org/wiki/Hotel-class_submarine) ballistic missile submarines only carried three missiles each; the Soviets did not commission an SSBN comparable to the *George Washington*’s until 1967 with the [Yankee-class submarines](https://en.wikipedia.org/wiki/Yankee-class_submarine).

**Construction**

The Navy ordered a class of [nuclear-powered submarines](https://en.wikipedia.org/wiki/Nuclear-powered_submarine) armed with long-range strategic missiles on 31 December 1957, and tasked [Electric Boat](https://en.wikipedia.org/wiki/Electric_Boat) with converting two existing [attack submarine](https://en.wikipedia.org/wiki/Attack_submarine) [hulls](https://en.wikipedia.org/wiki/Hull_%28watercraft%29) to [ballistic missile](https://en.wikipedia.org/wiki/Ballistic_missile)-carrying boats to quickly create the deterrent force. To accomplish this conversion, Electric Boat persuaded the Navy in January 1958 to slip the launch dates for two [*Skipjack* class](https://en.wikipedia.org/wiki/Skipjack-class_submarine) fast attack submarines, the just-begun [*Scorpion* (SSN-589)](https://en.wikipedia.org/wiki/USS_Scorpion_%28SSN-589%29) and the not-yet-started [*Sculpin* (SSN-590)](https://en.wikipedia.org/wiki/USS_Sculpin_%28SSN-590%29). On 12 February 1958, [President](https://en.wikipedia.org/wiki/President_of_the_United_States) [Dwight D. Eisenhower](https://en.wikipedia.org/wiki/Dwight_D._Eisenhower) authorized funding for three ballistic missile submarines.

The *George Washington*’s were essentially *Skipjack*s with a 130 foot (40 m) missile compartment, inserted between the ship's control/navigation areas and the nuclear reactor compartment. In the case of the lead ship, [USS *George Washington* (SSBN-598)](https://en.wikipedia.org/wiki/USS_George_Washington_%28SSBN-598%29), that was literally the case: the keel already laid by Electric Boat at [Groton, Connecticut](https://en.wikipedia.org/wiki/Groton%2C_Connecticut) for *Scorpion* was cut apart and extended to become the keel for *George Washington*. Then Electric Boat and [Mare Island Naval Shipyard](https://en.wikipedia.org/wiki/Mare_Island_Naval_Shipyard) began construction of one other boat each from extended plans. President Eisenhower authorized construction of two more submarines on 29 July 1958. [Newport News Shipbuilding](https://en.wikipedia.org/wiki/Newport_News_Shipbuilding) and [Portsmouth Naval Shipyard](https://en.wikipedia.org/wiki/Portsmouth_Naval_Shipyard) began work immediately.

The *George Washington*’s carried the [Polaris A1 missile](https://en.wikipedia.org/wiki/Polaris_missile) on their patrols until 2 June 1964, when the *George Washington* changed out her missiles for Polaris A3s. The last member of this class, [USS *Abraham Lincoln* (SSBN-602)](https://en.wikipedia.org/wiki/USS_Abraham_Lincoln_%28SSBN-602%29) swapped out her A1s for A3s on 14 October 1965.

**Withdrawal from strategic role**

By the end of 1979, to make room within the limitations imposed by [SALT II](https://en.wikipedia.org/wiki/SALT_II) for the [*Ohio*-class](https://en.wikipedia.org/wiki/Ohio-class_submarine) ballistic missile submarines, *Theodore Roosevelt* and *Abraham Lincoln* offloaded their missiles; eventually their missile compartments were completely removed and they were decommissioned by the end of 1982. For the same reason, by 1983 *George Washington*, [USS *Patrick Henry* (SSBN-599)](https://en.wikipedia.org/wiki/USS_Patrick_Henry_%28SSBN-599%29), and [USS *Robert E. Lee* (SSBN-601)](https://en.wikipedia.org/wiki/USS_Robert_E._Lee_%28SSBN-601%29) had their missiles removed and were reclassified as attack submarines nicknamed "slow attacks", a role in which they served briefly prior to being decommissioned by early 1985.

*George Washington'*s sail is preserved at the [Submarine Force Library and Museum](https://en.wikipedia.org/wiki/Submarine_Force_Library_and_Museum) at [Groton, Connecticut](https://en.wikipedia.org/wiki/Groton%2C_Connecticut).

**Boats in class**

Submarines of the *George Washington* class:

| **Name and hull number** | **Builder** | **Laid Down** | **Launched** | **Commissioned** | **Fate** |
| --- | --- | --- | --- | --- | --- |
| [*George Washington* (SSBN-598)](https://en.wikipedia.org/wiki/USS_George_Washington_%28SSBN-598%29)(ex-*Scorpion*) | [General Dynamics Electric Boat](https://en.wikipedia.org/wiki/General_Dynamics_Electric_Boat), [Groton, Connecticut](https://en.wikipedia.org/wiki/Groton%2C_Connecticut) | 1 November 1957 | 9 June 1959 | 30 December 1959 | Decommissioned 24 January 1985. Disposed of through [Ship-Submarine Recycling Program](https://en.wikipedia.org/wiki/Ship-Submarine_Recycling_Program) at [Bremerton](https://en.wikipedia.org/wiki/Bremerton%2C_Washington), 1998 |
| [*Patrick Henry* (SSBN-599)](https://en.wikipedia.org/wiki/USS_Patrick_Henry_%28SSBN-599%29) | [General Dynamics Electric Boat](https://en.wikipedia.org/wiki/General_Dynamics_Electric_Boat), [Groton, Connecticut](https://en.wikipedia.org/wiki/Groton%2C_Connecticut) | 27 May 1958 | 22 September 1959 | 11 April 1960 | Decommissioned 25 May 1984. Disposed of through [Ship-Submarine Recycling Program](https://en.wikipedia.org/wiki/Ship-Submarine_Recycling_Program) at [Bremerton](https://en.wikipedia.org/wiki/Bremerton%2C_Washington), 1997 |
| [*Theodore Roosevelt* (SSBN-600)](https://en.wikipedia.org/wiki/USS_Theodore_Roosevelt_%28SSBN-600%29) | [Mare Island Naval Shipyard](https://en.wikipedia.org/wiki/Mare_Island_Naval_Shipyard), [Vallejo, California](https://en.wikipedia.org/wiki/Vallejo%2C_California) | 20 May 1958 | 3 October 1959 | 13 February 1961 | Decommissioned 1 December 1982. Disposed of through [Ship-Submarine Recycling Program](https://en.wikipedia.org/wiki/Ship-Submarine_Recycling_Program) at [Bremerton](https://en.wikipedia.org/wiki/Bremerton%2C_Washington), 1995 |
| [*Robert E. Lee* (SSBN-601)](https://en.wikipedia.org/wiki/USS_Robert_E._Lee_%28SSBN-601%29) | [Newport News Shipbuilding and Drydock Co.](https://en.wikipedia.org/wiki/Newport_News_Shipbuilding), [Newport News, Virginia](https://en.wikipedia.org/wiki/Newport_News%2C_Virginia) | 25 August 1958 | 18 December 1959 | 15 September 1960 | Decommissioned 1 December 1983. Disposed of through [Ship-Submarine Recycling Program](https://en.wikipedia.org/wiki/Ship-Submarine_Recycling_Program) at [Bremerton](https://en.wikipedia.org/wiki/Bremerton%2C_Washington), 1991 |
| [*Abraham Lincoln* (SSBN-602)](https://en.wikipedia.org/wiki/USS_Abraham_Lincoln_%28SSBN-602%29) | [Portsmouth Naval Shipyard](https://en.wikipedia.org/wiki/Portsmouth_Naval_Shipyard), [Kittery, Maine](https://en.wikipedia.org/wiki/Kittery%2C_Maine) | 25 August 1958 | 18 December 1959 | 15 September 1960 | Decommissioned 28 February 1981. Disposed of through [Ship-Submarine Recycling Program](https://en.wikipedia.org/wiki/Ship-Submarine_Recycling_Program) at [Bremerton](https://en.wikipedia.org/wiki/Bremerton%2C_Washington), 1994 |

**See also**

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|  | [***United States Navy portal***](https://en.wikipedia.org/wiki/Portal%3AUnited_States_Navy) |
|  | [***Submarine portal***](https://en.wikipedia.org/wiki/Portal%3ASubmarine) |

* [*41 for Freedom*](https://en.wikipedia.org/wiki/41_for_Freedom) Fleet Ballistic Missile submarines
* [Fleet Ballistic Missile](https://en.wikipedia.org/wiki/Fleet_Ballistic_Missile)
* [List of submarines of the United States Navy](https://en.wikipedia.org/wiki/List_of_submarines_of_the_United_States_Navy)
* [List of submarine classes of the United States Navy](https://en.wikipedia.org/wiki/List_of_submarine_classes_of_the_United_States_Navy)
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