Nuclear-powered submarines

War, Cold War

The war which the world feared upon never happened, theCold War. United States of America and the Soviets are preparing for this battle as who among these super powers will really dominate the world. As a means of preparation they are to dominate the seas, especially the under sea navigational fleet, the Submarines.

American leaders as a means of preparing for battle put their trust and confidence in their submarine force. Empowered by their own power plants these nuclear submarines are to dominate the seas with unbelievable sophistication and with weapons of incredible destructive power.

The idea of submarine came from the Germans who were the ones who pioneered in the creation of the vessel during World War II (Weir, 1998). The US Navy has envisioned that submarines of the future would go deeper and move much faster. Thus as the years passed, the nuclear submarine was created.

Under the US military force, the main mission of the first known SSBNs or " Ship Submersible Ballistic Nuclear" was for the prevention of war to happen. They are to be deployed to strategic sites for them to guard and thus to prevent war (Weir, 1998). Because of their relentless power, as the nuclear is used to propel them, they have the capability to submerge and circumnavigate the world with fewer expenses. They can submerge for number of days to avoid detection and can easily guard strategic sites as their main mission. They are considered as the guardians of a possible nuclear war.

According to David Munns in his book, the greatest advantage so that submarines, armed with ballistic missiles, can release its relentless power is that they have to be close to the shore. This idea was the main basis for the development of the undersea military force of both United States and the Soviet Union. Throughout the 45-year Cold War both countries developed submarines, especially nuclear powered, to gain intelligence or for espionage, due to its stealth power, and to attack and destroy any possible enemy surface ships. Its powerful ballistic missiles have the ability to attack ground or land based targets. Both countries develop such powerful undersea fleet and were considered as the most potent nuclear threat for both of them. (Munns, 2004)

The main idea was that to counter this powerful surface warships and nuclear propelled missile cruisers and aircraft carries they have to develop more powerful underground fleet (Munns, 2004). With the development of the nuclear power, the first ship that was ever built by the Americans that went to sea is the USS Nautilus. It went to sea on January of 1955. It is propelled by pressurized-water nuclear reactor plant. This firs submarine built by the Americans sets the new standard for submarines (Huchtausen, 2002).

The Russians on the other hand, built their first submarine which went to sea on a much later date. The K-3 or also known as Leninsky Komosol, it is a part of the November class of attack submarines only went to sea only on 1958. This submarine was the first Soviet sub who have reached the North pole, only in 1962, which the United States first sub USS Nautilus have already done four years earlier. The November class submrines however had serious

problems one example was the accident happened in 1968 of its K-27 due to a radioactive gas lead which killed 9 people (Huchthausen, 2002).

The next Class of submarines that was built by the Americans was the Skipjack Class Submarines. Built in 1959, this attack submarine was the first to combine nuclear power which has extraordinary speed. This is more hydronamic which has a new teardrop hull design. All other US submarines that was created was based on this design. The known accident that happened for this class of submarine was on May 21, 1968 when the USS Skipjack Scorpion was lost in the sea and was nowhere to be found even due to extensive military search. All the 99 people aboard the submarine also lost their lives (Compton-Hall, 1999).

The Soviet built the Hotel-class submarines on 1960. This is the first Soviet Nuclear subs which carries with it ballistic missiles. The design of the November Class is much similar to that of the November class, but with much larger compartment to accommodate the ballistic missiles (Compton-Hall, 1999). On the same year the Skipjack Class was created, the US Military built the USSGeorge WashingtonClass. Built and deployed on 1959, this submarine was the first Nuclear Ballistic missile submarine which was created. The main idea for this ballistic missile submarines was that it would attack land-based targets with its nuclear weapons. They are to be deployed near shore targets so that their long range missiles can easily hit their targets.

The Soviets then build the Victor Class submarines in 1967. Their design was to attack enemy submarines and to protect surface ships of the Soviets. The new teardrop hull enabled the Victor Class to attain higher speed. The

Soviets however abandoned the construction of the second Victor submarine design after learning through spy information that the NATO forces could easily track them (Compton-Hall, 1999). Due to this, the Soviets created the Victor III submarine.

The Americans on 1961 built the Thresher Class attack submarines. This submarine is much stronger, much faster, and can dive much deeper. It is also designed to be quieter than the Skipjack Class, the materials used in this class have more streaming improvements. The name was however changed from Thresher Class to Permit Class when the submarine Thresher sank in New England in 1963 killing all 129 crew (Huchtausen, 2002).

In 1967, the Soviets created the Yankee Class submarines. This is the first Submarine that has the same firepower as that of the US submarines. This is much quieter than the Hotel Class due to a new hull shape, a new propeller design, and exterior sound-deadening coatings which is much harder to track. Several modifications were also made on this class, with its big design it was enabled to carry miniature submarines.

On 1976, the Americans built and deployed the Los Angeles class. This class had 62 vessels built and is considered as the world’s largest nuclear-propelled submarine. This class was designed to primarily protect carriers and other enemy submarine. The purpose of this submarine was the same as that of the Soviet’s Victor Class. This submarine however was much more powerful than the Victor class because of its capability to do other special missions such as deployment of Special Forces on the ground and attacking larger targets. The Los Angeles class was also improved for better ice operations on the North and South Pole (Compton-Hall, 1999).

The next class built by the Soviet and one of the last Class is the Typhoon class submarine. During its time, in 1981, it was considered as the world's largest attack submarine. This improved design which is much quieter compared to its size. This submarine is also more maneuverable even if it is huge. The design of this submarine is much more complicated due to the existence of two pressure hulls which is parallel with each other and a third hull which is on top of them. This design increases its width and had simplified internal arrangements. Being part of a cooperative arms reduction program of the former Soviet states, six of the Typhoon class was dismantled in 2003 (Compton-Hall, 1999).

The Ohio-class submarine is the last among the long line of designs of the ballistic-missile submarine fleet of US. It replaced the old 1960s version and was larger and more capable than its precedents. These subs can carry more and longer-range weapons, operate more quietly, and dive deeper (Compton-Hall, 1999). Russia, on the other hand, designed the contemporary of Ohio, the Oscar submarines. These are Russia's largest and most advanced and are still active submarines. Designed to attack U. S. aircraft carrier battle groups, it carries three times as many antiship cruise missiles than its predecessors (Compton-Hall, 1999).

Norman Polmar and K. J. Moore, were two naval officials under the US Armed Forces who were interviewed by Munns in his book. They said that " the United States and the Soviet Union put to sea a combined total of 936 submarines, of which 401 were nuclear propelled," during the whole Cold war from 1945-1991 (Munns, 2004). The Soviet Union was the one who is aggressive in the development of submarines. This development still

continues until after the 1970’s where research and effort to make the vessels more powerful were developed.

From the mid-1940s until early 1990s, Cold War was a period of conflict and competition between two superpowers, the United States and the Soviet Union. It was also a period of great technological advancements in the military with no less than the development of nuclear submarines. Faster, quieter and deadlier weapons were developed. It was also this same period which placed the entire world on edge. And knowing the potentials of these weapons, the war that never happened also brought unparalleled relief to mankind.

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