D5 ICBM at Utube video -- https://www.youtube.com/watch?y=yxOtMrGUgfM,

https://www.bing.com/videos/search?q=Trident+D-5&&view=detail&mid=FD6DD615BF0590873546FD6DD615BF0590873546&&FORM=VRDGAR

Features of Trident II D5 missile -- 44 ft long
The Trident II is 13.41m long and weighs 130,000lbs (58,500kg). It has a considerably larger payload capability than Trident I (C4). All the three stages of the Trident II have lighter, stronger and stiffer graphite epoxy structure, resulting in major weight saving. The aerospike, a telescoping outward extension that reduces frontal drag by about 50%, increases the missile's range.

The pressure of expanding gas within the launch tube fires the Trident II. The first stage motor ignites when the missile travels sufficient distance from the submarine, the aerospike extends, and the boost stage commences. The missile starts travelling at a speed of over 20,000 ft per second after about two minutes (1min.50sec) of the third stage motor setting in. Trident II D5 missile guidance and navigation technology "The navigation subsystem of the Trident II D5 has been redesigned to achieve accuracy and maintain an extended fix interval."

The navigation subsystem of the Trident II D5 has been redesigned to achieve accuracy and maintain an extended fix interval. Electrostatically-supported gyro navigator (ESGN) was adopted as the inertial navigator and navigation sonar system (NSS) with high capacity to measure velocity was added as part of the modifications. The global positioning system (GPS) replaced the old navy navigation satellite system (NAVSAT), and a digital interface with the FBM weapon system and vessel was installed.

The Trident II D5 guidance system is a stellar-aided inertial system composed of precision gyroscopes, accelerometers, a stellar tracker, and computer. The guidance system directs the missile on a rectified trajectory counterbalancing for submarine's awkward position, in-flight effects and internal guidance calibratable parameters, upon launch of the missile. The guidance system works as the reference for maintaining missile stability and activating the reentry body separation for a ballistic trajectory.

Launch platforms for the Trident II D5 missile The Trident II D5 Missile can be launched from only a submarine. It was deployed for the first time in 1990 and is currently carried by the US Navy's Ohio-class and the UK Royal Navy's Vanguard-class submarines.

Each Vanguard class submarine has 16 missile tubes and ejects missiles by using high-pressure gas. The Ohio-class submarines can carry up to 24 submarine-launched ballistic missiles (SLBMs) with multiple independently-targeted warheads. (MIRVs).

The Trident II D5 missile is considered as the strategic weapon of such submarines, providing increased range and accuracy over its predecessor, the Trident I C4. Conversion of four of the C4 submarines to carry the Trident II D5 missile began in 2000 and completed in 2008 in the US.

Trident II D5 missile warheads The Trident II missiles are capable of carrying W76 or W88 multiple independently targeted reentry vehicles (MIRVs). The MIRV is composed of an arming, fusing & firing (AF&F) assembly, a nuclear assembly, and electronics. The AF&F protects the warhead from detonating during storage and restrains reentry vehicle detonation until all qualifying arming inputs are received.

Propulsion for the Trident II D5 missile The Trident II D5 missile is powered by a three-stage solid-propellant rocket. The boost motor systems for all the stages are supplied by Alliant Techsystems (ATK).