# LGM-30 Minuteman III History

The Minuteman weapon system was conceived in the late 1950s and deployed in the early 1960s. Minuteman was a revolutionary concept and an extraordinary technical achievement. Both the missile and basing components incorporated significant advances beyond the relatively slow-reacting, liquid-fueled, remotely-controlled intercontinental ballistic missiles of the previous generation. From the beginning, Minuteman missiles have provided a quick-reacting, inertially guided, highly survivable component to America's nuclear Triad. Minuteman's maintenance concept capitalizes on high reliability and a "remove and replace" approach to achieve a near 100 percent alert rate.

Development of the last of the series, the Minuteman III, began in December 1964. By the time the last Minuteman IIs of the 564th SMS were placed on strategic alert in the spring of 1967, significant progress had been made on the development of the more advanced Minuteman III ICBM. The Minuteman III, using modernized Minuteman I and Minuteman II ground facilities, provided reentry vehicle and penetration aids deployment flexibility, increased payload, and improved survivability in a nuclear environment. The missile was the first ICBM to be outfitted with MIRVs that enabled a single missile to carry multiple warheads, each programmed to attack a different target.

The Minuteman III reentry system could deploy penetration aids and up to three Mark 12 or Mark 12A multiple independently-targetable reentry vehicles. A liquid-fueled post-boost propulsion system maneuvered the missile prior to deployment of the reentry vehicles, while upgraded guidance system electronics enhanced computer memory and accuracy. The new missile contained an improved third-stage motor with a liquid injection altitude control system and a fixed nozzle that increased the range to over 8,000 miles and significantly increased the payload. A liquid-fuel post-boost propulsion system maneuvered the missile before deployment of the reentry vehicles. An improved guidance system with an expanded memory also improved the system accuracy; the Minuteman III warheads are said to be accurate to within 800 feet.

In February 1968, the fourth Minuteman III test vehicle fired from Vandenberg AFB completed a successful 5,500-mile flight. In January 1971 the first squadron of Minuteman Ills was turned over to the 91st Strategic Missile Wing at Minot AFB, North Dakota. The force modernization effort continued throughout the early 1970s and by July 1975 there were 450 Minuteman IN and 550 Minuteman Ills under SACs control.

Beginning in 1966 the Air Force instituted a comprehensive long-term maintenance program to ensure that the Minuteman force remained a strong and viable deterrent for years to come. In 1966 the Air Force initiated a Minuteman ageing surveillance program and in 1976 began a long-range service life extension analysis for the propulsion system. The latter effort resulted in the remanufacturing of the Minuteman II second-stage motor and an investigation of the condition of the liner in the Minuteman III third stage. Also during the 1970s many of the Minuteman launch facilities were further hardened and the missiles were fitted with new command data buffers that facilitated faster retargeting. In 1985 the Air Force began the comprehensive Rivet MILE (Minuteman Integrated Life Extension) program destined to take the Minuteman force into the twenty-first century.

On 17 April 1970, an important Minuteman III milestone was reached when the first missile was placed in a silo assigned to the 741st Strategic Missile Squadron, Minot AFB, North Dakota. At the end of December, the 741st SMS became the first SAC Minuteman III squadron to achieve operational status.