# US Air Force and Lockheed Martin Successfully Test Mk21A Reentry Vehicle for Future ICBM System



On June 17, 2024, the U.S. Air Force and Lockheed Martin conducted a planned flight test of the unarmed, developmental Mk21A reentry vehicle in the Pacific Ocean. The test, launched from Vandenberg Space Force Base in California, evaluated Lockheed Martin’s Mk21A design components and technologies.

The Mk21A reentry vehicle is part of the U.S. Air Force’s future intercontinental ballistic missile (ICBM) weapon system. “This progress is built on a strong foundation—Lockheed Martin’s 65-plus years of demonstrated exceptional performance in reentry technologies and a pioneering digital engineering approach on this program from its beginning,” said Jay Watson, Vice President of Strategic Reentry at Lockheed Martin.

The United States Space Force Space Launch Delta 30 stated that the Minotaur launch vehicles used in this test integrate Peacekeeper and Minuteman rocket motors provided by the US government, with advanced avionics and subsystems from Northrop Grumman. Colonel Mark Shoemaker, commander of Space Launch Delta 30, emphasized the importance of such test launches for national defense in response to evolving global threats.

Since 2019, Northrop Grumman, Lockheed Martin, and the USAF have been working on a replacement for the LGM-30 Minuteman, part of the US nuclear deterrence triad. The forthcoming LGM-35A Sentinel ICBM, featuring the Mk21A reentry vehicle and W87-1 nuclear warhead, is projected to be operational by 2030, with the USAF planning to acquire over 600 missiles to replace the Minuteman III ICBM.