PAC-3® Missile
Patriot Advanced Capability-3 (PAC-3®)

Lockheed Martin is producing the combat-proven PAC-3 Missile for the U.S. Army Missiles and Space Program Executive Office.

The ‘Hit-To-Kill’ PAC-3 Missile is the world’s most advanced, capable and powerful terminal air defense missile. It defeats the entire threat: tactical ballistic missiles (TBMs), cruise missiles and aircraft. The PAC-3 Missile is a quantum leap ahead of any other air defense missile when it comes to the ability to protect the Warfighter in their defining moments.

The PAC-3 Missile is a high velocity interceptor that defeats incoming targets by direct, body-to-body impact. PAC-3 Missiles, when deployed in a Patriot battery, significantly increase the Patriot system’s firepower, since 16 PAC-3s load-out on a Patriot launcher, compared with four Patriot PAC-2 missiles. One hundred percent effective in Operation Iraqi Freedom, PAC-3 Missiles are now deployed with U.S. forces.

Lockheed Martin Missiles and Fire Control, Dallas, Texas, is the prime contractor on the PAC-3 Missile Segment upgrade to the Patriot air defense system. The PAC-3 Missile Segment upgrade consists of the PAC-3 Missile, a highly agile hit-to-kill interceptor, the PAC-3 Missile canisters (in four packs), a fire solution computer and an Enhanced Launcher Electronics System (ELES). These elements are integrated into the Patriot system, a high to medium altitude, long-range air defense missile system providing air defense of ground combat forces and high-value assets.

The PAC-3 Missile uses a solid propellant rocket motor, aerodynamic controls, attitude control motors (ACMs) and inertial guidance to navigate. The missile flies to an intercept point specified prior to launch by its ground-based fire solution computer, which is embedded in the engagement control station. Target trajectory data can be updated during missile flyout by means of a radio frequency uplink/downlink.

Shortly before arrival at the intercept point, the PAC-3 Missile’s on board Ka band seeker acquires the target, selects the optimal aim point and terminal guidance is initiated. The ACMs, which are small, short duration solid propellant rocket motors located in the missile forebody, fire explosively to refine the missile’s course to assure body-to-body impact.

The PAC-3 MSE Missile was selected by the U.S. as the primary interceptor for the multi-national MEADS. Managed by the NATO MEADS Management Agency (NAMEADSMA), MEADS is a model transatlantic development program focused on the next generation of air and missile defense.

Hit-to-Kill Works: “Defeating incoming enemy targets by direct body-to-body contact.”

A Significant Upgrade To Patriot

• Greatly expands the defended area
• Increases loadouts by a factor of four
• Hit-to-Kill lethality against warheads of mass destruction
• Operates in combined environments
• Highly effective against the entire Patriot threat from TBMs to cruise missiles.

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