

Successful Hover-Test For KE-ASAT Kill Vehicle

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The Kinetic Energy Anti-Satellite (KE-ASAT) Technology Development and Demonstration Experiment team - for the U.S. Army and Rocketdyne, a part of The Boeing Company - successfully hover-tested a prototype kinetic kill vehicle at Phillips Laboratory at Edwards Air Force Base, Calif. All test objectives were fully achieved.

During the hover test, the KE-ASAT kill vehicle performed a fully autonomous powered flight. Its sensor locked onto a moving light-source target half-a-mile away, maintained precise tracking and accomplished simulated homing intercept maneuvers in the flight space. As a result, the kill vehicle demonstrated that it can accurately perform guidance and control functions while acquiring and tracking a satellite representative target under actual flight dynamic propulsion conditions.

A KE-ASAT weapon system could be used against hostile satellites. The system would provide a deterrent to discourage possible future adversaries from conducting space-based reconnaissance and targeting of U.S. and allied forces, and to help win control of space in any future conflict.

A need for a U.S. KE-ASAT capability became clear during Operation Desert Storm. Experts believe that Iraq could have put US forces at risk and jeopardized the offensive that brought the fighting to a swift conclusion if they had access to satellite-based surveillance and targeting. Now that many countries operate or have access to reconnaissance satellites, it is increasingly likely that space-based surveillance will be used against U.S. forces or allies during future conflicts.

"The KE-ASAT's hover test represented the highest fidelity pre-flight test method available to verify kill vehicle performance," stated Bill Burns, program manager for KE-ASAT at Rocketdyne. "The entirely closed-loop 47-second flight was the longest, most complex hover accomplished in the 10-year history of this type of testing."

The data obtained during this hover test will be used to validate computer-based simulations and to manage and mitigate risks for the execution of subsequent KE-ASAT program activities.

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