L3HARRIS®
FAST. FORWARD.

THAAD INTERCEPTOR PROPULSION

Boost Motor and Liquid Divert and Attitude Control System (LDACS)

Powering missile defense for America and its allies.

THAAD

A land-based, combat-proven element of the Missile Defense Agency's Ballistic Missile Defense System, built by prime contractor Lockheed Martin, Terminal High Altitude Area Defense (THAAD) shields deployed U.S. and allied forces and critical infrastructure from missile attacks.

OUR ROLE

L3Harris supplies both the solid rocket boost motor technology that powers the interceptor, as well as the LDACS, a high-precision, quick-reaction propulsion system that positions the interceptor to successfully defeat an incoming ballistic missile.

The unique LDACS provides two kinds of propulsion: one for attitude control and the other for kill-vehicle maneuvering.

The LDACS uses six thrusters to provide roll, pitch and yaw control for the interceptor.

These thrusters act in different combinations to precisely stabilize the interceptor-seeker field of view for proper viewing of the target. The seeker's target data are then converted into maneuvering or divert commands that actuate the other four LDACS thrusters as required. The four divert thrusters provide short, forceful pulses to quickly and accurately position the THAAD kill vehicle for a collision with the target, like hitting a bullet with a bullet.

The boost motor and LDACS perform over a demanding range of temperature, shock and vibration flight environments.

The appearance of U.S. Department of Defense visual information does not imply or constitute DOD endorsement.

PROVEN PROPULSION.
FUELED BY INNOVATION.

1,000+

MOTORS AND LDACS DELIVERED

L3Harris has delivered more than 1,000 Boost Motors and LDACS for the THAAD system, one of the nation's primary defenses against short-, medium- and intermediate-range missiles.

Image courtesy of Lockheed Martin.

L3Harris.com

KEY FEATURES

THAAD is the only terminal system designed to intercept ballistic missiles both inside and outside the Earth's atmosphere and has rapid mobility to defend anywhere in the world within hours. A robust ground-testing program was initiated in 2004. Flight testing began in 2005 and, as of August 2019, THAAD has maintained a 100 percent success rate with 16 successful intercepts. THAAD continues to evolve in capability, demonstrating integration with other weapon systems like PAC-3 and bolstering the strength of the United States' layered defense system.

DESIGN BENEFITS

- Hit-to-kill precision
- Compact
- Thrust-vectoring booster nozzle
- Attitude and divert control LDACS
- Hypergolic, bi-propellant LDACS
- Provides lightning strike mitigation

Image courtesy of Lockheed Martin.

- Liquid Divert and Attitude Control System
- Solid Rocket Boost Motor

THAAD Interceptor Propulsion

© 2024 L3Harris Technologies, Inc. | 07/2024 | L26264

NON-EXPORT CONTROLLED: THIS DOCUMENT CONSISTS OF INFORMATION THAT IS NOT DEFINED AS CONTROLLED TECHNICAL DATA UNDER ITAR PART 120.33 OR TECHNOLOGY UNDER EAR PART 772.

L3Harris Technologies is the Trusted Disruptor in the defense industry. With customers' mission-critical needs always in mind, our employees deliver end-to-end technology solutions connecting the space, air, land, sea and cyber domains in the interest of national security. Visit L3Harris.com for more information.

L3HARRIS®

1025 W. NASA Boulevard
Melbourne, FL 32919

L3Harris.com