



AN/ALE-50 Towed Decoy System



The AN/ALE-50 Towed Decoy System is a critical end-game countermeasure proven to defeat enemy missile attacks.

Benefits

- Combat-proven aircraft protection against RF missile threats
- Operationally effective performance in Kosovo, Afghanistan, and Iraq
- Effective against air-to-air and surface-to-air active and semi-active missiles
- System adaptability enables installation and operation on virtually any airborne platform; currently operational on F-16, F/A-18E/F, and B-1B
- Stand-alone, non-threat-specific software with user-defined files
- Low acquisition and life-cycle cost with more than 20,000 decoys delivered

The ALE-50 towed decoy acts as a preferential target that lures enemy missiles away by providing a much larger radar cross section than the aircraft. The protection it provides to aircraft and aircrews makes the ALE-50 one of the most important end-game electronic countermeasures (ECM) available.

The ALE-50 system consists of a towed decoy, launcher and launch controller. The decoy, together with its towline and payout reel, are packaged in a sealed canister, which maintains a 10-year shelf life. The launcher, which holds the decoy magazine, can be customized to fit any aircraft. The launch controller provides control, monitoring, and electrical power to the decoy. Depending on the aircraft platform, it is either integrated with the launcher as a single launcher/controller unit for mounting on a wing pylon, or is provided as a separate LRU for internal installation. This stand-alone system requires no threat-specific software and

communicates status and BIT to its host aircraft over the standard aircraft data bus.

Program Success

The ALE-50 program, a joint development venture by a U.S. Air Force, Navy and Raytheon integrated product team, demonstrates a highly successful multiservice approach to ECM system commonality. More than 20,000 decoys have been delivered.

System Adaptability

The ALE-50 was first deployed on U.S. Air Force F-16 aircraft. The F-16 uses the standard ALE-50 decoy and a platform-specific integrated launch controller mounted in a wing pylon. This system can be easily adapted to other pylon installations.

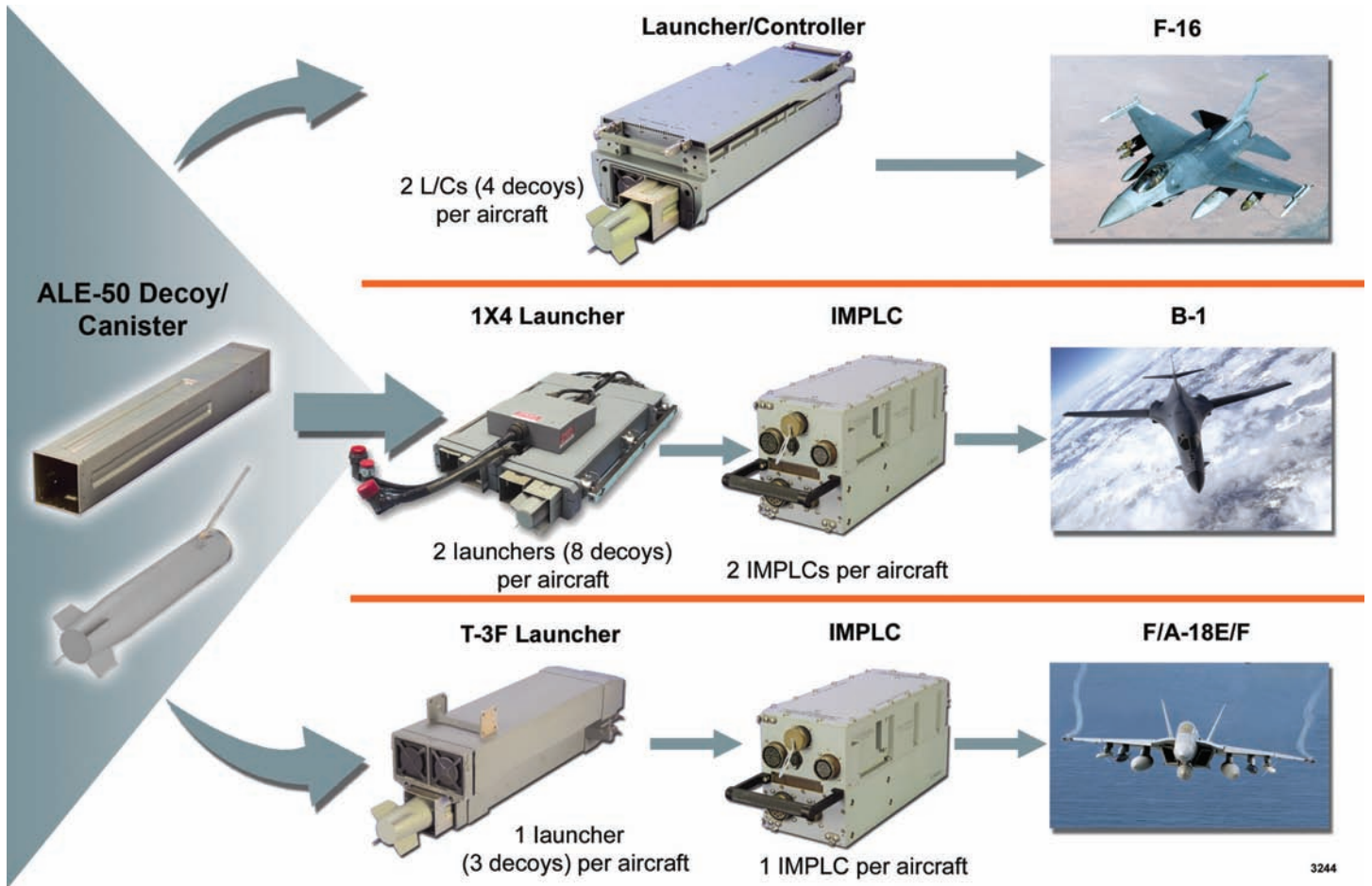
The Integrated Multi-Platform Launch Controller (IMPLC) is the standard launch controller for internal installations. The U.S. Navy F/A-18E/F and U.S. Air Force B-1B use the IMPLC with a platform-specific

launcher. This flexibility makes the ALE-50 adaptable to any strategic, tactical or combat support aircraft.

Technology Enhancement

Raytheon can provide fiber-optic towed decoys, including high-power variants, to protect both tactical and large aircraft. These decoys rely on a separate techniques generator, mounted internally to the aircraft, to allow a wide range of jamming waveforms. They have the same form-factor as the ALE-50 and are compatible with existing IMPLC, B-1B, and F/A-18 launchers. Raytheon also has in development a reel-out reel-in (RORI) magazine that operates within the same installation, offering a recoverable alternative to the standard launchers.

ALE-50 Towed Decoy System Configurations



Raytheon's AN/ALE-50 Towed Decoy Systems are configured for use on virtually any strategic, tactical, or support aircraft.

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