



# ADVANCED COUNTERMEASURES DISPENSER SYSTEM

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## **Advanced Countermeasures Dispenser System for all types of military aircraft**

The Terma Advanced Countermeasures Dispenser System (ACMDS) has been designed to coordinate, integrate and operate expendable countermeasures payloads on fixed-wing fighter, light attack, transport, and large-body aircraft as well as helicopters.

The ACMDS dispenser suite is typically controlled via the AN/ALQ-213 EW Management Unit (EWMU) or Defensive Aids Controller (DAC), which provides automatic decision support for the pilot in a threat environment, built-in training capability, and full EW suite control, if desired.

The ACMDS components consist of a series of autonomous line-replaceable units that include:

- Digital Sequencer Switch
- Safety Switch
- Dispenser Assemblies
- Dispenser Magazines
- Retainer Plates



In addition to the standard Air Force dispenser assemblies, as illustrated below, the ACMDS components have been integrated in applied aerostructures as both scab-on, pylon-mounted, and podded solutions. Examples include:

- F-16 Pylon Integrated Dispenser System (PIDS)
- Modular Aircraft Survivability Equipment (MASE)
- Modular Countermeasures Pod (MCP)

All integrates both ACMDS and a missile warning system.

### **ACMDS system – combat proven**

The non-ITAR ACMDS system has been combat proven through operational service for more than 25 years with a demonstrated mean time between failure value of >18,000 hours.

The ACMDS includes mixed payload capability within a magazine as well as a Flare-Up modification of the F-16 PIDS pylon allowing dispensing of pyrophoric flares from pylons on stations 3 and/or 7.

### **ACMDS - key capabilities**

The following highlights the key capabilities of the ACMDS:

- Compliant with STANAG 4781 smart stores communication interface (SSCI) for optimal operational use of multi-shot cartridges, expendable active decoys, and future smart expendables
- Full In-Country Reprogramming via associated Mission Support Tool
- Additional platform adaptable hardware-controlled safety features
- Configurable back-up mode, allowing smart dispensing without ACMDS controller
- Improved mixed payload capability
- Synchronous and asynchronous dispense patterns, including simultaneous dispensing of payloads
- Manage payload dispensing based on payload age, flight hours, etc.
- Support for either 2 or 3 magazines per sequencer switch (space, cost & weight reduction)
- Ensures backward compatibility with legacy dispenser systems

### **Support equipment**

The ACMDS suite includes a full suite of both ground support equipment by means of Dispenser Test Adapters, Payload Simulator & Stray Voltage Tester, and Dispense Program Analyzer as well as a Windows PC based EW Mission Support Tool (EWMST) application for field/in-country organic mission data generation and post-flight analysis.





### **Block diagram**

A block diagram for a typical ACMDS installation is illustrated to the right.



### ACMDS reference list

The ACMDS system has been installed on 2,500+ aircraft worldwide, counting more than 25 different platforms.

| Aircraft Type                 | Platform  | Examples   |
|-------------------------------|---|--|
| Fighters                      | F-16 A/B Block 15 MLU<br>F-16 C/D Pre-Block 40*<br>F-16 E/F Block 60<br>Tornado GR4<br>Harrier GR9<br>AO/A-10*<br>Archangel |    |
| Transport/Large Body Aircraft | C-130H Hercules<br>C-130J Hercules<br>C-160 Transall<br>Fokker 60<br>Nimrod MR2<br>P-8A<br>Falcon 2000S                     |    |
| Helicopters                   | CH-47D/F Chinook<br>AH-64D Apache<br>AS532U Cougar<br>AS550 Fennec<br>Mi17/24<br>EH101<br>NH90                              |    |

*Note: Platforms marked with an asterisk (\*) includes the ACMDS controller only, i.e. different dispenser system installed*