FDC

Fire Distribution Center

Ensuring Mission Success

The FDC ensures Battle Management, Command, Control, Communications, Computers and Intelligence (BMC4I) functionality for any true mixed and layered Air Defence system configuration in national and multi-national scenarios. More than 200 FDCs are delivered as the BMC4I module for NASAMS, Coastal Defence, HAWK and BOC programs.

The FDC is the C2 node of the NASAMS air defence system. The various AMRAAM models, AIM-9X and AMRAAM ER have all been fired from NASAMS. More than 10 different sensors have been integrated with the FDC. Standard tactical data links as well as several national proprietary data links are fully integrated, consequently the FDC enables full interoperability with national, EU and NATO forces.

The FDC has embedded training, simulation and recording functionality. A high degree of commonality, use of Commercial-Of-The-Shelf (COTS) and Non-Developmental Items represent a low risk-low Life Cycle Cost (LCC) to satisfy current and evolving Air Defence requirements. The FDC has reduced manpower requirements compared to competitive systems.

FDC features

Proven Air Defence C2

- World's leading command and control solution for Air Defence
- Operationally proven with 17 active customers worldwide

Flexible Architecture

- Provides flexible BMC4I at all organizational levels
- Weapon and sensor independent, supporting multi-vendor integration

NATO-Compliant Network Integration

- Interfaces with a wide range of Tactical Data Links
- Fully compliant with NATO standards and interoperability requirements

Open and Distributed AMD Operations

- Open tactical software framework enabling future growth
- Fully netted and distributed Air & Missile Defence (AMD) operations

Flexible Configuration

The same baseline FDC is used in multiple programs in various roles, delivering a true multi-domain capability. Functionality, interfaces and number of work stations can be selected and tailored to customer requirements. For mobility the FDC is shelter and vehicle independent and can also be delivered as a non-shelter version. Static versions can be mounted tailored to customer requirements based on the FDC interior.

Interoperability and Integration

The FDC truly integrates systems, sensors and effectors into ONE system. Higher Echelon Units, adjacent units, sensors, effectors and other battle forces are integrated through the mature and fielded Network Access Nodes utilizing fielded legacy protocols.

The FDC has a wide range of fielded logical decision support tools ensuring ONE Integrated Air Picture, Common Operational Picture, Threat Evaluation and Weapon Allocation, providing a consistent Battle Command for all forces.

The integration of tactical data links in the FDC handles relevant messages according to the standard message catalogue, and the implementation of functionality in the C4I software, to support the needed level of system interoperability. Such functionality undertakes the sequence of events, leading to maximized coordination between the FDC and other actors in the Multi-Domain Battle Space.

Key Elements

- Flexible Configuration: Baseline FDC configurable across roles, platforms, and domains, with selectable functionality, interfaces, and number of operator workstations.
- Multi-Domain Integration: Integrates sensors, effectors, higher echelon units, and adjacent forces into one coherent system across the multi-domain battlespace.
- Interoperability at Scale: Supports standard tactical data links as well as national and proprietary links, ensuring interoperability with national, EU, and NATO forces.
- Integrated Decision Support: Provides mature and fielded tools for threat evaluation, weapon allocation, and generation of a single integrated air picture.
- Distributed Operations: Enables fully netted and distributed Air & Missile Defence operations through network access nodes and coordinated battle management.
- Training and Simulation: Embedded training, simulation, and recording functionality supporting readiness, analysis, and continuous improvement.
- Low Life Cycle Cost: High degree of commonality, use of COTS and non-developmental items, and reduced manpower requirements ensure low LCC.

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