



Introduction to Joint Tactical Information Distribution System / Multifunctional Information Distribution System (JTIDS/MIDS) Link 16 – Course Content

Duration - 2½ days

Lesson 1 – Introduction to JTIDS / MIDS Link 16

- Data Link Transmission Types
- Comparison of other Data Links
- The Requirement

Lesson 2 – JTIDS / MIDS Architecture

- Time Division Multiple Access
- Time Slots
- Recurrence Rate
- Time Slot Allocation

Lesson 3 – Time Slot Structure

- Time Slot Structure
- JTIDS / MIDS Frequencies
- Message Packing
- Message Structure
- Access Modes

Lesson 4 – JTIDS / MIDS Networks

- Nets and Networks
- Network Participation Groups (NPGs)
- Network Structures
- Demonstration of Link 16 Net

Lesson 5 – Signal Processing

- Encryption
- Secure Data Unit
- Error Correction
- Cyclic Code Shift Keying
- Continuous Phase Shift Modulation



Lesson 6 – Relay

- Types of Relay
- Relay Status

Lesson 7 – Relative Navigation (RelNav)

- Geodetic and Relative Grid
- Positional Quality
- The RelNav Process

Lesson 8 – JTIDS / MIDS Hardware

- Class 1 Terminal
- Class 2 Terminals
- MIDS Low Volume Terminal (LVT)
- Fighter Data Link (FDL)
- AN / URC-138
- Joint Tactical Radio System (JTRS)

Lesson 9 – JTIDS / MIDS Synchronisation

- External Time Reference Network (ETRN) and System Time Reference Network (STRN)
- Time Quality
- Joining a Network
- Active and Passive Synchronisation

Lesson 10 – JTIDS / MIDS Surveillance Data Exchange and Track Management

- Data Environments and Elements
- Data Exchange Functions
- Data Management Protocols

Lesson 11 – JTIDS / MIDS Interoperability

- Levels of Interoperability
- Advancing Interoperability
- Multi-Link Operations





Lesson 12 – Weapons Management

- Weapons Coordination and Management
- Control
- NPG Usage
- C² / Non-C² exchange
- Uplink and Backlink
- Receipt Compliance
- Non-C² use of the Surveillance picture

Lesson 13 – Frequency Clearance Agreements

- Time Slot Duty Factor
- Electro Magnetic Compatibility
- Contents of Agreements

Lesson 14 – Network Design

- Covers the 11 stages of producing a network
- Time Slot Map Creation
- Demonstration of Link 16 Network

Lesson 15 – Network Management

- Network Planning
- Network Design
- Pre-Mission Planning
- Initialisation and Operations
- Operational Network Management
- Data Recording and Analysis

