SUPPORTED PLATFORMS

Viasat’s Next-Generation Tactical Data Link (NGTDL) terminals were developed to specifically meet the needs of users who have Size, Weight, Power, and Cost (SWaP-C) constrained requirements. Part of Viasat’s Non-Developmental Item (NDI) portfolio, the NGTDL terminals leverage Link 16 for the U.S. and international defense markets and are continually updated to support customers’ evolving mission needs. With NGTDL terminals, SWaP-C constrained platforms that have traditionally lacked access to the Link 16 network can now be active participants and exchange near real-time situational awareness data and secure voice with other Link 16 enabled air, land, and sea platforms.

With Viasat’s NDI offering, NGTDL terminals deliver capabilities faster and at lower total lifecycle costs to U.S. and foreign governments, yet are still fully interoperable with traditional Link 16 terminals, including the MIDS-LVT (Multifunctional Information Distribution System Low Volume Terminal) and MIDS JTRS (Multifunctional Information Distribution System Joint Tactical Radio System).

The Small Tactical Terminal (STT) KOR-24A, co-developed by Viasat and Harris, is a two-channel radio designed to meet the needs of users who have SWaP-C constraints but need the information available on Link 16 networks and tactical VHF/UHF. Tactical warfighters and SWaP-C constrained platforms, including ground vehicles, helicopters, UAVs, small boats, and light ISR aircraft can now have simultaneous access to Link 16 and either wideband UHF or legacy VHF/UHF. This terminal is packaged in an affordable, industry-standard compact form factor and is ruggedized to meet demanding environmental requirements.

The Battlefield Awareness and Targeting System - Dismounted (BATS-D) AN/PRC-161 radio fuses air and ground situational awareness in the palm of your hand. This ruggedized, handheld radio delivers real-time Link 16 communications to dismounted warfighters at the tactical edge. The radio can be used vest-worn, handheld, or mounted, and is ideal for bringing full Link 16 network access to ground forces including Joint Terminal Attack Controllers (JTACs), Forward Air Controllers (FACs), and Tactical Air Control Party (TACP) specialists.
No matter where your mission takes you, the Viasat Move Out/Jump Off (MOJO) kit arms you with real-time air/ground situational awareness and gateway functions on the go. Portable and sized for ground vehicles and small maritime vessels, the Viasat MOJO kit is a complete line-of-sight and beyond-line-of-sight communications system for on-the-move and on-the-pause land, air and maritime applications.

Equipped with the Viasat/Harris Small Tactical Terminal (STT) and a Situational Awareness Data Link (SADL) for simultaneous three-channel communications, the Viasat MOJO gateway packs rapidly-deployable Link 16, TADIL-J, VHF/UHF (SINCGARS, SRW*, ANW2C*, satcom, IW and DAMA) and EPLRS/SADL networking in a compact and ruggedized package.

MOVE OUT/JUMP OFF (MOJO) KIT SPECIFICATIONS

Dimensions (W x H x L)
- Transit Configuration 22.5 x 16.4 x 34.5 in. (with front and rear lids installed)
- Operational Configuration 22.5 x 16.4 x 28.5 in. (with front and rear lids removed)

Weight
- Transit 180 lb
- Operational 150 lb

Electrical Input Power
- AC Input 80 to 265 VAC, 47 to 800 Hz
- DC Input +9 to +30 VDC

An integrated system for creating a mobile air/ground communication gateway. This system includes a ruggedized rack-mount transit case, integrated power DC/DC 600 W power supply with main power on/off, 20 W VHF/UHF amplifier, chassis cooling fan, LED Indicators for power, mounting and power provisions for a ruggedized DTech Labs TXC-4 server/router, and power/host interface and mounting provisions for a RT-1720/RT-1915 EPLRS/SADL radio.

FRONT PANEL CONTROLS AND INTERFACES

The kit’s front panel contains separate LED status indicators for main power, STT channel 1 and 2, power and UHF amp power. In addition, the front panel houses all the necessary interfaces to support STT operation. These interfaces are provided by the following connectors/switches:

- STT CH1 and CH2 power on switches
- STT Link 16 Long Term Transmit Inhibit (LTTI) switch
- STT zeroize switch
- STT VHF/UHF amp power on switch
- DC main power connector (D38999)
- STT CH1 and CH2 KDU connectors (Fischer-type that accommodates standard external KDU cable)
- STT CH1 and CH2 audio/fill connectors (standard GC-type that accommodates standard crypto fill devices and H-250 handsets)
- STT CH1 and CH2 Ethernet and console connectors (RJ-45)
- STT L16 RF connector (TNC)
- STT VHF/UHF connector (TNC)
- STT DTE waveform connector (DB-25F)
- EPLRS/SADL Ethernet connector (RJ-45)

ORDERING INFORMATION

PN: 1218486 MOJO CR V2 with Tactical Router
PN: 1276487 MOJO DACAS-G-S Kit
PN: 1218486 MOJO CR V2 with Tactical Router
PN: 1236239 MOJO Accessory Kit
PN: 1245456 MOJO Amplified Speaker
PN: 1044620 L Band Ground Antenna
PN: 1230323 L Band Mobile Antenna
PN: 1133815 UHF/VHF Ground Antenna
PN: 1287022 UHF/VHF Mobile Antenna
PN: 1255574 Ground Antenna Mast Kit
PN: 1256346 Amplifier Kit for Ground Antenna Mast Kit
PN: 1003220 COAX Cable (50’)
PN: 1236239 MOJO Accessory Kit

STT not included
Designed for size, weight, and power (SWaP) constrained applications including small vehicles and boats, the Viasat MOJO Mini is a complete line-of-sight and beyond-line-of-sight communications system for on-the-move and at-the-pause air, land, and sea applications.

Equipped with the Viasat/Harris Small Tactical Terminal (STT), the Viasat MOJO Mini packs rapidly-deployable Link 16, TADIL-J, and VHF/UHF (SINCGARS, SRW*, ANW2C*, satcom, IW, and DAMA) networking in a very compact and ruggedized package that is carry-on sized.

### MOJO MINI

#### SPECIFICATIONS

**Transit Case**
- Small internal pouch to store accessories
- Handle on side
- Retractable handle to roll case like standard airline carry-on luggage

**Dimensions (W x H x L)**
- Configuration: 14 x 9 x 22 in.

**Weight (approximate)**
- Fully configured with STT: 56 lb

**Electrical Input Power**
- AC Input: 80 to 265 VAC, 47 to 800 Hz
- DC Input: +9 to +30 VDC
- Conservative nominal operational rating; assumes all LRUs operating at maximum respective duty cycles: 375 W

### FRONT PANEL CONTROLS AND INTERFACES

The kit’s front panel contains separate LED status indicators for main power, STT channel 1 and 2 power, LTTI, and UHF amp power. In addition, the front panel houses all the necessary interfaces to support STT operation.

These interfaces are provided by the following connectors/switches:
- Main power button and indicator LED
- STT CH1 and CH2 power on buttons and indicator LEDs
- STT Link 16 Long Term Transmit Inhibit (LTTI) button and indicator LED
- Independent STT CH1 and CH2 zeroize buttons
- STT VHF/UHF amp power on button and indicator LED
- Black-out on/off button
- DC main power connector (D38999)
- AC main power connector (D38999)
- STT CH1 and CH2 KDU connectors (Fischer-type that accommodates standard external KDU cable)
- STT CH1 and CH2 audio/fill connectors (standard GC-type that accommodates standard crypto fill devices and H-250 handsets)
- STT CH1 and CH2 Ethernet and console connector (RJ-45)
- STT CH1 and CH2 USB connector (USB Type B)
- STT L16 RF connector (TNC)
- STT VHF/UHF connector (TNC)
- STT 1PPS input connector (BNC)
- STT DTE waveform connector (DB-25F)

### ORDERING INFORMATION

| PN: 1232068 | MOJO MINI |
| PN: 1286455 | MOJO Mini Accessory Kit |

*SRW and ANW2C waveforms available by US government approval only, limited to nations approved for each waveform. STT not included*
The Viasat Small Tactical Terminal (STT) Ruggedized Mobile System is a small, 4U transportable case unit offering a convenient way to operate your Link 16 system. Outfitted with all of the equipment you need for dual-channel operation, this mobile system can be used in any number of venues including operational, training, demonstrations, and testing.

**STT RUGGEDIZED MOBILE SYSTEM SPECIFICATIONS**

**Performance**
- **Input Power**: 120 VAC 60 Hz, 20 amp (IEC C20) 230/240 VAC 50 Hz, 10 amp (IEC C14)
- **Dimensions**: 11.1 x 22.5 x 34.5 in.
- **Weight (Approximate)**: 130 lb

**STANDARD CABLES**
- W1, W2, & W3 Voice/Data/Control
- W4 & W10 Crypto/Voice
- W5 DC Power Cable
- W6 & W7 UHF/VHF
- W8 & W9 Link 16 RF Cables

**STANDARD ACCESSORIES**
- Input Power Cables 120 VAC NEMA 5-20P to IEC C19
- 230/240 VAC AS/NZ4417 to IEC C13
- 230/240 VAC CEE 7/7 EURO SCHUKO to IEC C13
  (please specify if other international cables are required)
- BNC to BNC 1PPS Jumper Cable
- H-250 Handset
- 2x KDU
- 4x Ethernet Cables
- 4x 50W RF Attenuators
- 2x DB15 to DB15 Cables
- USB-A to USB-B Cable
- User Guide

*STT not included*
The Viasat Multi-Platform Integrated Controller (MIC) provides you with all of the control and monitoring functions for the STT terminal. The easy-to-operate web interface allows for more extensive options, including remote operation of the terminal over an IP network.

**STT Channel 1**
- Channel Power (On/Off)
- LTTI (Link 16)
- IFF Emergency (Link 16)
- STT-V & Channel Fail Monitoring
- Channel Crypto Zeroize

**STT Channel 2**
- Channel Power (On/Off)
- Channel Fail Monitoring
- Channel Crypto Zeroize

The MIC is intended to operate with the integrated AC ruggedized power supply, but also has the flexibility to work with a 9 to 36 VDC source.

The controller includes a standard crypto fill connector interface on the front panel, allowing you to seamlessly connect to the STT.

The Viasat Multi-Platform Audio Component (MAC) is also available for voice and speaker interface.

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**MULTI-PLATFORM INTEGRATED CONTROLLER (MIC)**

**FEATURES**
- Designed for TEMPEST Red/Black Separation
- Standard RJ45 Host Interface Connection
- Standard Crypto Fill Connector Interface

**SPECIFICATIONS**

Dimensions (W x H x D) 8.5 x 1.72 x 11 in.
(½ width of 1U-high 19 in. rack)

Power 9 to 36 VDC (115 to 240 VAC adapter included)

Weight (Approximate) 5 lb

**ORDERING INFORMATION**

PN: 1263302 STT Channel 1 Multi-Platform Integrated Controller
PN: 1265287 STT Channel 2 Multi-Platform Integrated Controller
PN: 1255400 STT Channel 1 & 2

Multi-Platform Integrated Controller (MIC)
The Viasat Multi-Platform Audio Component (MAC) is a rugged interface unit that provides independent or simultaneous dual-channel Link 16 voice (receive and transmit). It features a custom built 30 W quad-speaker system that has been specifically tuned to enhance audio quality.

The internal adjustable amplifiers can be configured through a web interface to operate any MIDS platform and is compatible with most headsets and handsets. For the voice interface, the H-250 handset is recommended, which comes standard with the MAC system.

The MAC is intended to operate with the integrated AC ruggedized power supply, but also has the flexibility to work with a 9 to 36 VDC source.

The device offers a Push-to-Talk (PTT) deactivate function that mutes the speakers when the handset PTT is pressed.

All web interface functionality for the MAC requires Viasat’s Multi-Platform Integrated Controller (MIC), which is sold separately.

The MAC can either be used as a standalone unit or with Viasat’s MIDS-LVT and MIDS JTRS terminals (multiple configurations available).

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**MULTI-PLATFORM AUDIO COMPONENT (MAC)**

**SPECIFICATIONS**

- **Dimensions (W x H x D)**: 8.5 x 1.72 x 11 in. (1/2 width of 1U-high 19 in. rack)
- **Power**: 9 to 36 VDC (115 to 240 VAC adapter included)
- **Weight (Approximate)**: 5 lb

**FEATURES**

- 30 W Speaker System
- Remote Monitoring & Control (MIC Required)
- 9 to 36 VDC Input

**ACCESSORIES AND INTERFACE CABLES**

- MIC/MAC Interface Cable
- H-250 Handset
- Rugged AC Power Supply (AC to 12 VDC)

**ORDERING INFORMATION**

- PN: 1255401 Multi-Platform Audio Component (MAC)
- PN: 1276365 MAC Standalone for MIDS-LVT(2)/(11) with Cable
- PN: 1276386 MAC Standalone for MIDS-LVT(1)/JTRS

*Note: STT must be used with MIC*
Support Equipment for Next-Generation TDL Terminals

STT CONTROL AND INTERFACE UNIT (CIU)

**SPECIFICATIONS**

**Dimensions**
10.5 x 19 x 17 in. (H x W x D) (size excludes connectors and fasteners)

**Weight (Approximate)**
18 lb

**Electrical Input Power**
100 to 264 VAC, 47 to 63 Hz, 315 W (max)

**Front Panel Controls and Interfaces**
A Harris KDU mounts on the front panel of the CIU. Separate power on indicators are provided for Channel 1 (UHF/VHF or Link 16) and Channel 2 (UHF/VHF). Link 16 communications health is identified by a dedicated indicator. Front panel connectors and switches include:

- Ethernet Host (RJ45)
- Zeroize
- USB (B)
- LTTI
- DTE Waveform (DB 25)
- IFF Emergency
- Red Console (DB 9)

**Rear Panel Connections**
The rear panel provides an EMI-filtered AC Power Input for the embedded 28 V power supplies, an input connector for the 1 pulse per second external time reference, and a 28 VDC auxiliary input for external power. Available maintenance ports and BNC connectors for the Link 16 differential discretes:

- Message Transmit (output pulse)
- Pulse Transmit (output pulse)
- Receiver Suppression (input pulse)
- IPF Monitor Suppression (input pulse)
- Transmit Suppression (input pulse)

**ORDERING INFORMATION**
PN: 1115296       STT Control and Interface Unit

STT not included

STT CONTROL AND INTERFACE PANEL (CIP)

**HIGHLIGHTS**
The Viasat STT CIP is a rack mountable enclosure for use in a standard 19 in. rackmount environment. The STT CIP provides mounting provisions, cabling, and control functions and status indicators needed to operate the STT. Setup is simple; connect the CIP to 28v DC power, connect the external cable set (provided) to both the CIP and STT, then turn the master power on/off switch on and you’re ready to begin operations.

**Front and Rear Panel Controls and Interfaces**
A customer provided Harris KDU can be connected to the front panel of the CIP. Separate POWER ON indicators are provided for Channel 1 (UHF/VHF or Link 16) and Channel 2 (UHF/VHF). Front and rear panel connectors and switches include:

- Ethernet Host (RJ45)
- Zeroize
- USB (A)
- LTTI
- DTE Waveform (DB 25)
- IFF Emergency
- Red Console (RJ45)
- Channel 1 & 2 power on/off

**External Cables Provided**
- CBL ASSY, W1 EXTERNAL
- CBL ASSY, W2 EXTERNAL
- CBL ASSY, W3 EXTERNAL
- CBL ASSY, W4 EXTERNAL
- CBL ASSY, W5 EXTERNAL
- CBL ASSY, W10 EXTERNAL
- CBL ASSY, W20 FAN POWER
- CBL ASSY, W60 CIP POWER

**ORDERING INFORMATION**
PN: 1186823

STT not included

See datasheet STT Support Equipment for more information

STT not included
Do you need to control a terminal in the field without a lot of bulky equipment? The Viasat ruggedized STT Control Plug Set contains 3 control plugs to interface with the STT J1/J2/J3 connectors. The J1 and J2 control plugs allow host interface via Ethernet, Serial or USB using standard RJ-45 and USB Mini-B cables/connectors. The J3 control plug allows Channel 1 and Channel 2 On/Off and LTTI.

STT Control Plug Case

STT CABLES AND ACCESSORIES (AVAILABLE SEPERATELY)

ORDERING INFORMATION

Cables
- PN: 1132441 STT Link 16 RF Cable Set
  1 meter cables for antenna A and antenna B terminating in SMA(m) connector, suitable for interfacing to other connectors
- PN: 1142080 STT Fan Tray Power Cable
  (6 foot with banana plugs)
- PN: 1134661 STT Audio/Fill Cable, W4
- PN: 1134664 STT Audio/Fill Cable, W10
- PN: 1134622 STT +28 VDC Prime Power Cable

Kits
- PN: 1124366 STT Mating Connector Kit
  Set of Mating Connectors for the STT: J1, J2, J3, J4, J5, J6, J7, J10

Other Accessories
- PN: 1117574 STT Fan Tray (includes power cable)
- PN: 1099419 STT Fan Tray Filter
- PN: 1142080 STT Fan Tray Power Cable
- PN: 1118069 Falcon III Keypad Display Unit (KDU) for controlling the STT UHF/VHF Channels
- PN: 1044621 GPS with Network Time Server that provides 1 PPS signal suitable for use as ETR to STT Terminals. GPS Antenna and 100 ft cable included.
- PN: 1150806 STT Power Conditioning Unit (PCU)
- PN: 1053505 STT Battery
- PN: 1228939 STT Bracket, Filter Assembly
- PN: 1059865 Terminator, Coaxial N(M), 50W, DC-8.5GHZ, 50-Ohm

Transport Cases
- PN: 1202383 STT
- PN: 1204022 STT with Fan Tray Assembly
- PN: 1202384 STT Transit Case
- PN: 1204022 STT Transit Case with Fan Tray Assembly
Support Equipment for Next-Generation TDL Terminals

**RF NETWORKS**

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions</th>
<th>Weight (Approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rackmountable</td>
<td>9 x 3.5 x 8 in.</td>
<td>5.5 lb</td>
</tr>
<tr>
<td>Portable</td>
<td>7 x 2 x 7 in.</td>
<td>3.5 lb</td>
</tr>
</tbody>
</table>

**ORDERING INFORMATION**

- PN: 1036073 Rack-Mountable Model
- PN: 1028051 Portable Model

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The RF Network Unit permits multiple RF devices to be hubbed together in a network. It is intended for lab usage and operates over a frequency range of 0 to 2 GHz. There are 6 Type N female RF low level (1 W) connectors on the chassis and a variable step attenuator that ranges between 0 and 110 dB in 1 dB steps.

The RF Network has an approximate 14 dB insertion loss between ports, and is perfect for bench-top or field use. Included with the unit are four 50-Ohm terminations for use on unused RF ports. The RF Network is available in a 19-inch rackmount model and a portable model measuring just 7 x 7 x 2 in.; small enough to fit in a field service kit.

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**GPS NETWORK TIME SERVER**

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>1U x 19 in. x 12 in.</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>0 to 95% (non-condensed)</td>
</tr>
<tr>
<td>Power Requirements</td>
<td>100 to 260 VAC &lt;10 W</td>
</tr>
</tbody>
</table>

**HIGHLIGHTS**

- GPS Tracking: 12 parallel channels
- Acquisition Time: <1.5 min (warm start)
- Accuracy (1 PPS): <20 ns
- Holdover: <0.2 micro seconds/day (Rb opt)
- 100/10Base-T Ethernet
- NTP Telnet, TCP/IP, FTP
- Monitor/Control I/F
- Alarm indicator and output
- GPS Antenna and 100 ft cable included
- 1 PPS: 10 V, 5 V and 5 V differential

**ORDERING INFORMATION**

- PN: 1044621 pft GPS with Network Time Server

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**RF ANTENNA CABLES**

**ORDERING INFORMATION**

- PN: 1003220 RF Antenna Cable, 50 ft Heliax
- PN: 1100541 RF Antenna Cable, 50 ft RG-214 double-shielded

RF Antenna Cable, Outdoor NM-NM 50 ft Heliax with 2.34 dB of loss per 100 ft DC-18 GHz, 1900 W max.

RF Antenna Cable, Outdoor NM-NM 50 ft RG-214 double-shielded with 8 dB of loss per 100 ft.
Be prepared! Armed with the 5 lb Viasat Portable Antenna, a field service engineer, training instructor, or test engineer can conduct limited ground-to-air tests in the field. This L-band blade antenna is delivered with a 52 in. tripod and features a quick-connect mounting shoe that holds the antenna plate. It can be used in testing related to all L-band applications and is packaged in an expandable, zippered nylon bag.

**PORTABLE ANTENNAS**

**SPECIFICATIONS**

**Portable Antenna**
- **Dimensions**: 11 x 1.3 in.
- **Weight**: 2 lb

**Portable Antenna (Tripod-Mounted)**
- **Dimensions**: 24 x 8 in. (in bag)
- **Weight**: 5 lb

**HIGHLIGHTS**

- **Portable Antenna**
  - L-band: 960 to 1215 MHz
  - 200 W
  - +2 dBi nom
  - Type N Female RF Connector

- **Portable Antenna (Tripod-Mounted)**
  - L-band: 960 to 1200 MHz
  - 250 W at 50,000 ft
  - Lightweight metal tripod

**ORDERING INFORMATION**

- PN: 1230323       Portable Antenna
- PN: 1058390       Portable Antenna (Tripod-Mounted)
- PN: 1245355       Manpack Antenna, SADL
- PN: 1245356       Mobile Antenna, SADL

An L-Band antenna is required to transmit Link 16 over the air. Viasat recommends the high gain XVO 7-960-1215/1120 omni antenna made by European Antennas. This antenna covers the Link 16 band, 960 to 1215 MHz, and has a 7 dBi gain, nearly doubling the range of a system. Receive sensitivity—usually the limiting factor for communications with distant airborne platforms—is increased significantly. The antenna is lightweight (1.7 kg) and has an alloy base plate with 4 stainless steel bolts, a 1 in. offset spigot, and M16 Stainless Steel bolt and washers. Mounting pole and guy wires are not included.

**L-BAND GROUND ANTENNA**

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>40 x 3 in.; 1029 x 76.2 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>3.75 lb</td>
</tr>
</tbody>
</table>

**HIGHLIGHTS**

- **L-band**: 960 to 1215 MHz
- **Gain**: 7 dBi
- **Operating Temperature**: -40° to +50° C

**ORDERING INFORMATION**

- PN: 1044620       L-band Ground Antenna
Viasat’s Link 16 Flight-line Tool (LIFT) software is designed to support “go/no-go” testing and troubleshooting of Multifunctional Information Distribution System Low Volume Terminals (MIDS-LVT) in a field environment. The LIFT application is available installed on a tablet PC or as a software package for customers who want to install the LIFT application on their own equipment.

This software is intended for use by technicians and allows the user to read, reconfigure, update, and monitor terminal parameters. Data is provided in dynamic graphical displays.
ARMS integrates multiple views of a network that is maintained over a large geographical area and locked onto GPS time. A delayed synchronization capability on a single terminal is not required to detect unauthorized time slot reuse; the network nodes themselves perform this function for any units within site of more than one ground station. ARMS operates over a widely distributed geographical installation and accepts received data from each terminal node, integrating this data and analyzing it to detect and identify anomalies.

**AMALGAMATED REMOTE MANAGEMENT SYSTEM (ARMS)**

**HIGHLIGHTS**
- Enable distributed data collection by implementing a multi-homed monitoring system
- Allows coordinated network analysis from multiple viewpoints
- Provides a synthesized analysis of the network architecture
- Plug-n-Play capability—no changes to the existing system of terminals should be necessary
- Works with all MIDS and JTRS terminals
- Scalable with no preset limits for terminal connections
- Provides up-to-date system-wide status with drill-down capability of terminal BIT
- Provides detailed IPF causal analysis and fault isolation
- Functions as an anomaly-event-driven, operator-alert-based interface to facilitate expeditious detection and correction of network problems

**ARMS IS BUILT WITH THREE FUNCTIONAL ARCHITECTURAL PIECES**
- Link 16 Interface Processes (LIP)
- Centralized Analysis Process (CAP)
- ARMS User Interface (AUI)

**ORDERING INFORMATION**
- PN: 1086429       ARMS master control and two terminals at remote site
- PN: 1086432       ARMS annual software update subscription
- PN: 1129283       ARMS FLEXOR feature

**TERMINAL OPERATIONAL ENVIRONMENT SIMULATOR (TOES)**

**HIGHLIGHTS**
- Simulates multiple Link 16 terminals
- Employs actual network designs and platform loads
- Regulates bandwidth and provides accurate time slot usage
- Supports stacked nets and contention access
- Implements paired slot relay
- Simulates simple RF Line-of-Sight between terminals
- Provides Platform-J Host Interface for each simulated terminal
- Simulates terminal latency
- Simulates TOA (Range) Delay between pairs of hosts

**USE TOES TO**
- Test and validate network designs
- Send tactical data through multiple units from a single Platform-D or Platform-J interface for use with 3rd party battle-space simulator tools
- Evaluate new data exchanges including those using stacked nets
- Create a test environment for network monitoring and management systems
- Create an operational environment for training Link 16 network managers

**SOFTWARE ARCHITECTURE**
- TOES User Interface
- TOES Engine Control
- Unit Position Truth Data
- Terminal Host Interfaces

**ORDERING INFORMATION**
- PN: 1098182       TOES

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**ELIMINATE THE NEED FOR MULTIPLE LINK 16 TERMINALS**

TOES is a multi-terminal network simulator providing a scalable software emulation of a Link 16 network.

TOES leverages current Viasat Link 16 development efforts including software for the Small Tactical Terminal (STT), the Amalgamated Remote Management System (ARMS), and the Navigation Testing Set.

**ORDERING INFORMATION**
- PN: 1098182       TOES
TDL TECHNICAL SUPPORT AND TRAINING

» Each course employs a combination of dialectic lecture and hands-on laboratory.

» The typical percentage breakdown of lecture/lab hours is 40/60.

» Practical lab sessions reinforce all course instruction, providing the student with hands-on experience with MIDS-LVT and LEGS products.

» The lab sessions develop the skill and knowledge of each student for safe and efficient operation of MIDS-LVT and efficient use of LEGS software.

BENEFITS OF ATTENDANCE

The Viasat MIDS-LVT and/or LEGS training course will provide the following:

» Overview of Link 16

» Overview of MIDS-LVT

» Basic understanding of the LEGS software architecture

» Thorough understanding of LEGS functions and applications

» Knowledge in the safe and efficient operation of MIDS-LVT

» Ability to employ LEGS software to control the MIDS-LVT

» Ability to use LEGS software to easily isolate faults on the MIDS-LVT

ADDITIONAL COURSE INFORMATION

Schedule

Training courses are available for as short as 1 day and as long as 2 weeks (depending on the material to be covered). Class size is normally limited to 12 students. Contact us for individual pricing information.

Location

The preferred training location is Viasat’s Carlsbad facility located at 6155 El Camino Real, Carlsbad, CA 92009

Note

Training at the customer’s facility requires the provision of terminals and support equipment as Customer Furnished Equipment. Classroom instruction, materials and lab procedures are created from testing data and customer feedback.
COURSE OFFERINGS

Viasat offers a variety of training courses related to Link 16 and the operation of the MIDS, MIDS JTRS, and the STT terminals. We also offer training on our software products including LEGS, ARMS, and TOES. Course outlines are available upon request. Tailoring of the standard syllabus to meet specific customer needs is possible—let us know your requirements. The training courses listed below are offered at group rates. We also offer courses at individual rates. Contact Viasat for further information.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Duration</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSAT 101</td>
<td>MIDS Familiarization (Short Course)</td>
<td>1-day</td>
<td>Training course on MIDS-LVT</td>
</tr>
<tr>
<td>VSAT 102</td>
<td>LEGS Familiarization (Short Course)</td>
<td>1-day</td>
<td>Training course on Viasat’s LEGS host</td>
</tr>
<tr>
<td>VSAT 103</td>
<td>Link 16 Familiarization (Short Course)</td>
<td>2-day</td>
<td>Training course on the introduction to Link 16</td>
</tr>
<tr>
<td>VSAT 104</td>
<td>MIDS and LEGS Familiarization</td>
<td>3-day</td>
<td>Training course covering the use of LEGS and MIDS operation</td>
</tr>
<tr>
<td>VSAT 105</td>
<td>MIDS Specifications and Documentation (Short Course)</td>
<td>1-day</td>
<td>Training course on MIDS ICDs and SSS</td>
</tr>
<tr>
<td>VSAT 106</td>
<td>Link 16 Flight-line Tool (LiFT)</td>
<td>2-day</td>
<td>Training course on Viasat’s LiFT</td>
</tr>
<tr>
<td>VSAT 106A</td>
<td>LiFT Training</td>
<td>2-day</td>
<td>Training course on Viasat’s LiFT</td>
</tr>
<tr>
<td>VSAT 201</td>
<td>Introduction to MIDS/Link 16 for Beginners</td>
<td>5-day</td>
<td>Training course introducing Link 16 and MIDS (priced individually for entire week)</td>
</tr>
<tr>
<td>VSAT 202</td>
<td>MIDS/LEGs: Introduction to Operations and Maintenance</td>
<td>5-day</td>
<td>Training course on MIDS-LVT, LEGS and the maintenance of the MIDS-LVT</td>
</tr>
<tr>
<td>VSAT 204</td>
<td>MIDS/LEGs: Operations and Maintenance for the Field Service Engineer</td>
<td>7-day</td>
<td>Training course focusing on the field level maintenance of the MIDS-LVT to include SRU removal</td>
</tr>
<tr>
<td>VSAT 205</td>
<td>MIDS JTRS: Operations and Maintenance</td>
<td>5-day</td>
<td>Training course focusing on MIDS JTRS operations and maintenance</td>
</tr>
<tr>
<td>VSAT 206</td>
<td>ARMS: Link 16 Network Management</td>
<td>3-day</td>
<td>Training course focusing on ARMS Link 16 Network management software</td>
</tr>
<tr>
<td>VSAT 207</td>
<td>TOES: Terminal Operational Environment System</td>
<td>2-day</td>
<td>Training course that focuses on the fundamentals, set-up, and operation of TOES in a simulated environment. Course can be tailored to customer requirements</td>
</tr>
<tr>
<td>VSAT 208</td>
<td>MIDS Navigation Training</td>
<td>3-day</td>
<td>Training intended for programmers and test analysts responsible for navigation implementation and test verification</td>
</tr>
<tr>
<td>VSAT 209</td>
<td>STT Operations</td>
<td>3-day</td>
<td>Training focusing on user’s Link 16 knowledge and to prepare them to use the STT for dual channel operations</td>
</tr>
<tr>
<td>VSAT 210</td>
<td>VLATS Training</td>
<td>5-day</td>
<td>Training focusing on the fundamentals and principles of the VLATS (Available to VLATS Users)</td>
</tr>
<tr>
<td>VSAT 211</td>
<td>MOJO Operations &amp; Maintenance Training</td>
<td>5-day</td>
<td>Training course introducing the fundamental principles and operations of the MOJO system.</td>
</tr>
<tr>
<td>VSAT 212</td>
<td>BATS-D Handheld Link 16 Radio</td>
<td>2-day</td>
<td>Training course introducing the fundamental principles, procedures, and operations of the BATS-D, including autonomous and tethered mode.</td>
</tr>
</tbody>
</table>

1STT = Small Tactical Terminal
2TOES = Terminal Operational Environment Simulator