



# Spectral Task

Military message converter

# Meta

MISSION DATA



- OPTASK LINK SIGNAL
  - SIGNAL HEADER
  - MULTI-LINK COORDINATION DETAILS
  - LINK 16 DETAILS
    - LNKXVI : LINK 16 SEGMENT HEADING
    - JNETWORK : JOINT NETWORK INITIALISATION DATA
    - NATJNL : NATIONAL JTIDS NETWORK LIBRARY IDENTIFICATION
    - CPD : CRYPTO PERIOD DESIGNATOR
    - JCRYPDAT : LINK 16 CRYPTOGRAPHIC DATA
    - JCRYPDAT : LINK 16 CRYPTOGRAPHIC DATA
    - JCRYPDAT : LINK 16 CRYPTOGRAPHIC DATA
    - JTRNMODE : TRANSMISSION MODE
    - JSTNETS : STACKED NETS
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    - FORCFLTR : FORCE FILTER ASSIGNMENTS
    - GENTEXT : JTIDS NETWORK MANAGEMENT
    - LINK 16 UNIT DETAILS
      - JUDATA : JOINT TACTICAL INFORMATION DISTRIBUTION
      - LKSDUTY : LINK 16/UIMS DUTY
    - LINK 16 UNIT DETAILS
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Signal Editor | Signal Text | Signal Info | Settings

JUDATA/SHIP:NIMITZ/CS:STONEWALL/JU:00001/16/00277-00300 /BLOCK:00201-00500/-/SHIP-3/12/NORM/1000/PRI/Y/-/ /FBLOCK:00300-00500//

**SET NAME** JUDATA (JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM (JTIDS) UNIT DATA)

**SET DESCRIPTION** PROVIDES DATA ABOUT THE LINK 16 DATA LINK SYSTEM UNITS. THIS IS THE LEAD SET OF A SEGMENT WITH AN ALTERNATIVE INITIAL SET.

**SET STATUS** SET INVALID

**SIGNAL TEXT** JUDATA/UNIT:CAOC/CS:MONITOR/JU:00060/16/-/-/-/-/

Field Name	Field Value	Example
<b>Group:1-1</b>		
UNIT DESIGNATOR *	UNIT CAOC	SHIP:NIMITZ OR BASE:BOI
CALL SIGN OR LINE NUMBER	CALL SIGN MONITOR	CS:STONEWALL OR CSLN:
PRIMARY JU OR UNIT LINE NUMBER *	PRIMARY JTIDS UNIT (JU) ADDRESS 00060	JU:00001 OR LULN:1143
LINK DATA TYPE *	LINK 16 DATA	16
LINK 16 TRACK NUMBER BLOCK	-	00277-00300
LINK 16 TRACK NUMBER BLOCK ASSIGNMENT	-	BLOCK:00201-00500
UIMS TRACK NUMBER BLOCK	-	10000-20000

Message Text Format (MTF) signals are an essential part of the coordination, planning and management of operational activities. Ensuring that these MTF signals are correctly generated and validated is key to ensuring mission success through the correct exchange of information between organisations.

With continually changing MTF structures, complex field formats and encoding, manually generated signals are prone to inaccuracies making them unusable by automated systems.

Spectral Task delivers a complete solution for creating, reviewing and validating any MTF signal. Providing an intuitive, operator friendly HMI, Spectral Task highlights and removes the errors from MTF signals generated locally or imported from external organisations.

By providing full validation of signal structure, segment/set/field rules and field formatting/values in addition to providing comprehensive field decoding and formatting support, Spectral Task ensures any MTF signal can be quickly and accurately created and reviewed.

### OPERATOR FOCUSED MTF SIGNAL VISUALISATION:

- Easy to read MTF signal structure display and summary
- Field values displayed in man-readable format to remove the need to memorise the signal standard
- Signal formatted text automatically generated and displayed for instant review
- Signal summary views displaying key fields in man-readable format





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## OPTASK LINK SIGNAL

- ▶ SIGNAL HEADER
- ▶ MULTI-LINK COORDINATION DETAILS
- ▶ LINK 16 DETAILS

**LNKXVI** : LINK 16 SEGMENT HEADING

**JNETWORK** : JOINT NETWORK INITIALISATION DATA

**NATJNL** : NATIONAL JTIDS NETWORK LIBRARY IDENTIFICATION

**CPD** : CRYPTO PERIOD DESIGNATOR

**JCRYPDAT** : LINK 16 CRYPTOGRAPHIC DATA

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NETWORK	UNIT	CALLSIGN	STN	TN Block	SURF ORN	SURF SEC	SURF EVENT	DUTY
USPO015A-8 CH03	4586	HACUSM	0004	0130-01407	9	4	-	MAIN RELAY UNIT (MRFU) INITIAL ENTRY MIDS UNIT (EAI)
USPO015A-8 CH03	4186C3	INODE	0004	0140-01407	9	7	-	MAIN RELAY UNIT (MRFU) INITIAL ENTRY MIDS UNIT (EAI)
USPO015A-8 CH03	006A63	EPFL	0000	0200-02277	9	1	-	TRACK DATA COORDINATOR (STANDBY) (TDCSBY) REGIONAL TRACK DATA COORDINATOR (RTDCO) JOINT INTERFAC CONTROL OFFICER (JICCOB) REGIONAL INTERFAC CONTROL OFFICER (RICOB) CHANGE DATA AUTHORITY (CDAA) INITIAL ENTRY MIDS UNIT (EAI) LINK 16 SECONDARY NAVIGATION CONTROLLER (S2NCO) LINK 16 POSITION REFERENCE (S1PRP)
USPO015A-8 CH03	1MAC34	VICE SQUAD	0000	0130-03417	9	2	-	REGIONAL TRACK DATA COORDINATOR (STANDBY) (TDCSBY) REGIONAL INTERFAC CONTROL OFFICER (STANDBY) (RICOB) CHANGE DATA AUTHORITY (CDAA)

Signal Editor | Signal Text | Signal Info | Settings

JUDATA/SHIP/NIMITZ/CS-STONEWALL/JU00001/16/00277-00300 /BLOCK:00201-00500/-SHIP-3/12/NORM/1000/PRI/Y/-/-

**SET NAME** JUDATA (JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM (JTIDS) UNIT DATA)

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**SIGNAL TEXT** JUDATA/UNIT:CAOC/CS-MONITOR/JU00060/16/-/-/-/-

Field Name | Field Value

**Group 1-1**

UNIT DESIGNATOR \* UNIT CAOC

CALL SIGN OR LINE NUMBER CALL SIGN MONITOR

PRIMARY JU OR UNIT LINE NUMBER \* PRIMARY JTIDS UNIT (JU) ADDRESS 00060

LINK DATA TYPE \* LINK 16 DATA

Set Remarks

CAOC SAA server: Non-RF Link 16 unit .JREAP only.

NETWORK PARTICIPANT - MANDATORY FIELD HAS NOT BEEN INCLUDED

FIELD 6 IN SET ^ (JUDATA) IS REQUIRED IF FIELD 4 IN SET ^ (JUDATA) EQUALS "16" OR "16 UMS", OTHERWISE IT IS PROH

UNIT DESIGNATOR \* UNIT CAOC

CALL SIGN OR LINE NUMBER SHIP NAME

PRIMARY JU OR UNIT LINE NUMBER \* BASE NAME

LINK DATA TYPE \* PLACE NAME

LINK 16 TRACK NUMBER BLOCK UNIT

AIRCRAFT BY TYPE, MODEL OR CODE

Signal Editor | Signal Text | Signal Info | Settings

OPER/VINEGAR BBQ//

REF/A/-/-/DMY:22112005/-//

REF/B/-/-/DMY:03122008/-//

GENTEXT/CONDUCT OF TDL OPERATIONS/Theater Multi-TDL Network (

POCLINK/JICO/HENRY/LCDR/UNIT:CAOC/TEL213-467-2222//

PERIOD/010000Z0CT2011/UFN//

GEODATUM/WGE//

DLRPGRID/DLRP/A1/3200.000N-10500.000W//

DLRPGRID/DLRP/B1/2800.000N-10100.000W//

DLRPGRID/GRIDORG/-/3200.000N-10500.000W//

IVCCN/ADCCN/P/SATVOICE/FREQDES:1A001/BUICK//

CATVOICE/06/04/AN/23/230.050/215.050//

## COMPLETE MTF SIGNAL VALIDATION:

- Automatic signal validation during editing
- Colour coded validation results and validation error details allow easy identification and resolution of validation errors
- Full signal/segment/set/field validation checks provided ensures that any generated signal is 100% valid

## EXTENSIVE OPERATOR HELP FACILITIES:

- Extensive help is available to support the operator to simplify the editing process
- Display of set and field examples and purpose
- Display of field formats and valid ranges
- Indication of mandatory and optional fields

## SIGNAL CREATION/EDITING:

- Fully man-readable signal editing window removing the need to remember field decodes and signal structure
- Full support for option field types allows all signal field variants to be defined
- Automatic creation of mandatory MTF signal sets to reduce time to create the signal
- Ability to set default field values for rapid signal creation without the need to set fields that rarely change
- Search function to quickly find operator selected fields buried in the MTF signal

## SIGNAL IMPORT:

- Signal imported with validity checks to highlight any signal errors
- Best-case interpretation for invalid fields
- Importing from one MTF signal baseline into another baseline

## SIGNAL EXPORT:

- Fully validated export of MTF signal text

## SUPPORT FOR ANY REQUIRED MTF SIGNAL AND FORMAT:

- XML-based format and rules ensure any new signal can be easily added as new formats are made available

FOR MORE INFORMATION ON SPECTRAL TASK, PLEASE CONTACT:

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