



Joint Program Executive Office Joint Tactical Radio System

MIDS ⚡ **JTRS**



MIDS Program Update

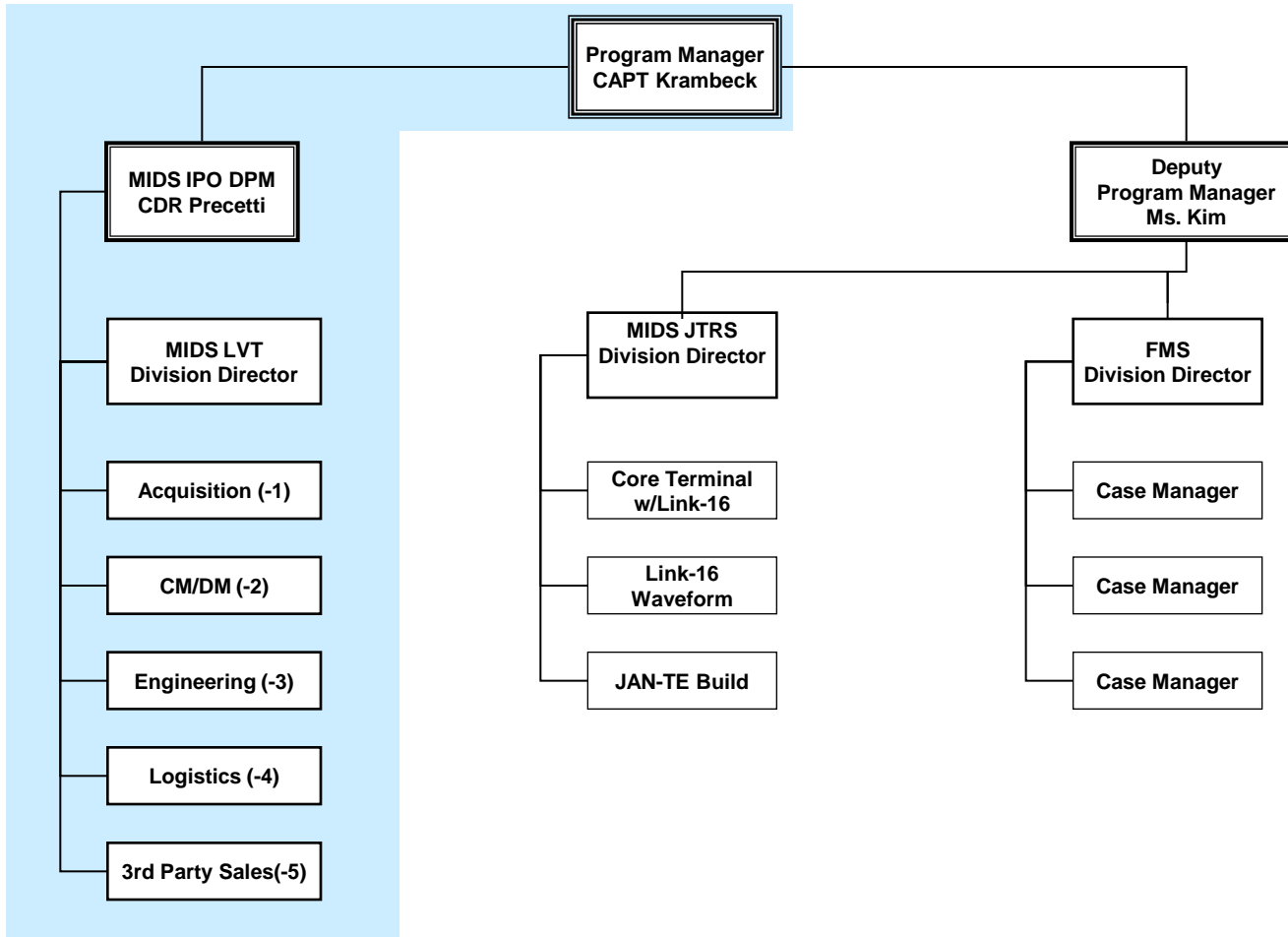


6 May 09
CAPT Scott Krambeck
MIDS Program Manager

JPEO JTRS



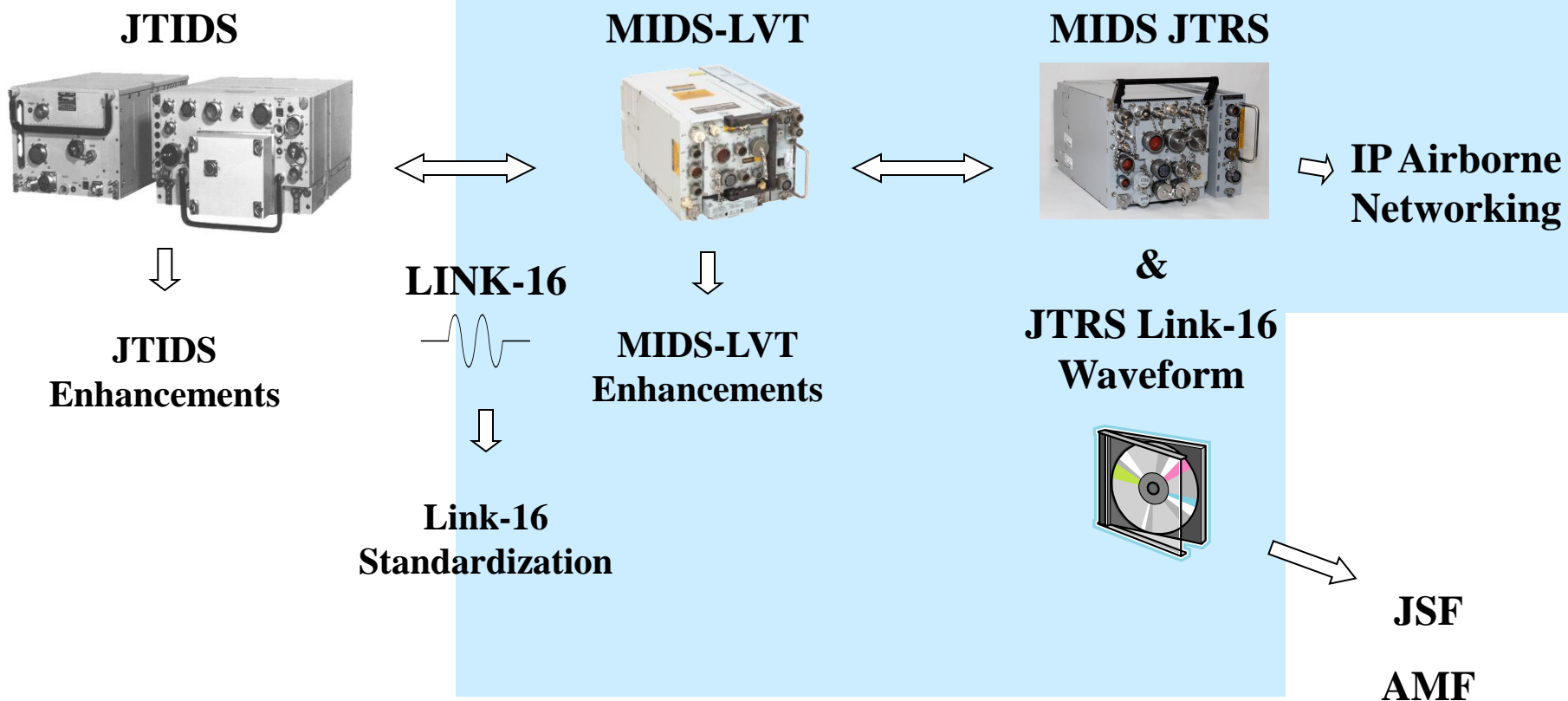
MIDS Program Office



MIDS International Program Office



Link-16 Enterprise










MIDS-LVT



MIDS-LVT

MIDS Participants Platforms

FRANCE		RAFALE, MIRAGE 2000, A400M, GROUND C² (SCCOA, ACCS, MCT, MIDS-TERRE, MARTHA), FREGATE HORIZON, TCD NG, COUGAR RESCO
GERMANY		EF2000, A400M ACCS PLATFORMS FREGATTE F-123
ITALY		EF2000 GROUND C² (AIR FORCE & ARMY, ACCS) TORNADO FBX/SEAD, AMX FREGATE HORIZON
SPAIN		EF2000, A400M FRAGATA F-100 EF-18 ACCS PLATFORMS (AIR FORCE)
U.S.		F/A-18, EA-6B, MIDS ON SHIP, PATRIOT, SHORAD, THAAD, JLENS, MEADS ABL, F-16, F-15, B-2

FMS and Third Parties

- UK**
- Switzerland**
- Belgium**
- Netherlands**
- Norway**
- Denmark**
- Australia**
- Japan**
- Taiwan**
- Finland**
- NATO AGS**
- NACMA ACCS**
- Australia RAN**
- Singapore**
- Greece**
- Canada**
- Saudi Arabia**
- Turkey**
- Thailand**
- S. Korea**



MIDS-LVT Variants

MIDS-LVT(1)

Also variants (4,5,6,7,8,9,10)
without Voice/TACAN or for
MIDS on Ship



- Open and Modular Design
- SEM-E Cards/VME Bus
- TADIL J/IJMS
- 3810/1553/Ethernet/X.25 Interfaces
- Voice and TACAN
- 200 Watt Transmitter

MIDS-LVT(2)

Also variant (11) with
Voice



- Full MIDS-LVT Commonality
- ADDSI X.25 Interface
- Voice/TACAN/1 R-S/Mux Cards
Removed
- Unique Blower and PS Added
- 200 Watt Transmitter

MIDS-LVT(3)



- FDL MIL-STD 1553 Interface
- MIDS-LVT Commonality
- No Voice or TACAN Cards
- 50 Watt Transmitter

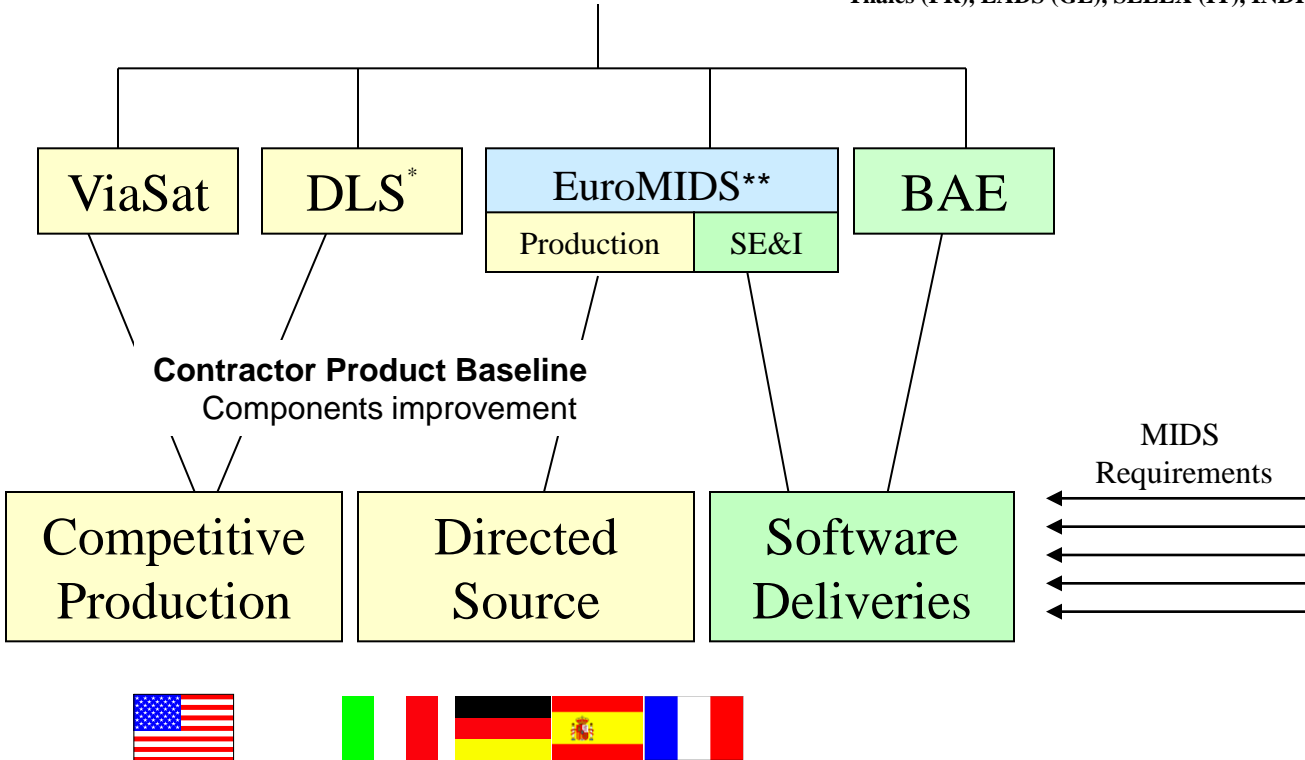








MIDS-LVT Contracting

MIDS International Program Office

*DLS = LLC of BAE Systems & Rockwell Collins

**EuroMIDS: MIDS European Nations' Industry
Thales (FR), EADS (GE), SELEX (IT), INDRA (SP)

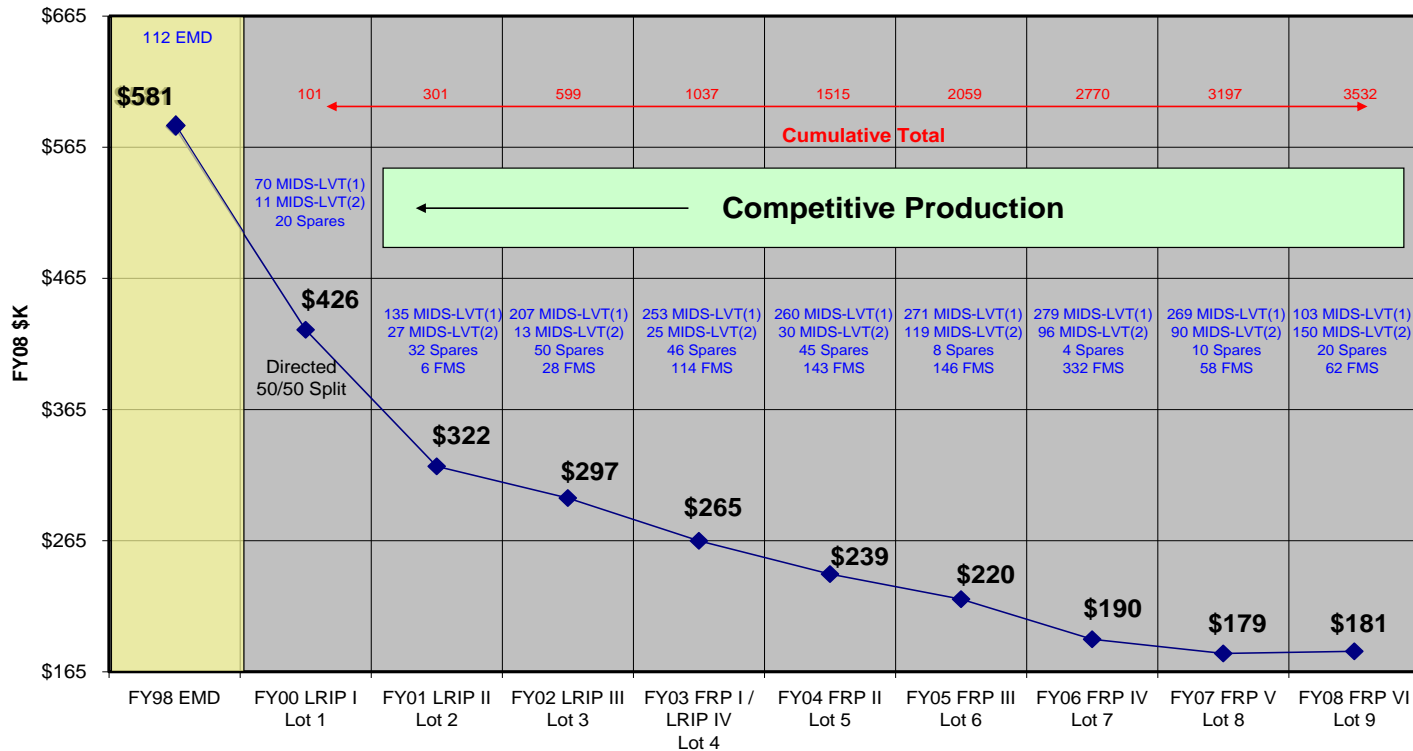


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-    
- MIDS IPO**
- Functional Baseline (FBL)
- Functions the system must perform**
- Allocated Baseline (ABL)
- Functions allocated to components**
- Configuration Control Board (CCB)
- 5 Nation Approval**
- Manages FBL & ABL**
- Authorizes Software Block Cycle & Hardware Block Upgrades**
- User Requirements
- Interface Control Working Groups
- Problem Report Review Boards
- Technical Working Groups
- MIDS International Review Board
- Internet Accessible Tools:
- Problem Tracking Database**
- Configuration Management System**



Affordability of MIDS LVT

- **Continuous Competition**
 - IDIQ contracts (FY00-FY09) with Data Link Solutions (DLS) & ViaSat
 - Terminal requirements are consolidated and competed annually
- **Three qualified MIDS LVT vendors**
 - DLS, ViaSat, EuroMIDS





MIDS-LVT Enhancements

- **Mandates**
 - Frequency Remapping (FR)
 - Information Assurance Modernization (IAM)
- **U.S. and European Interest**
 - Enhanced Throughput (ET)
 - Concurrent Multi-Netting (CMN) - Prototyping
 - Extended 1553 (E1553) - Prototyping



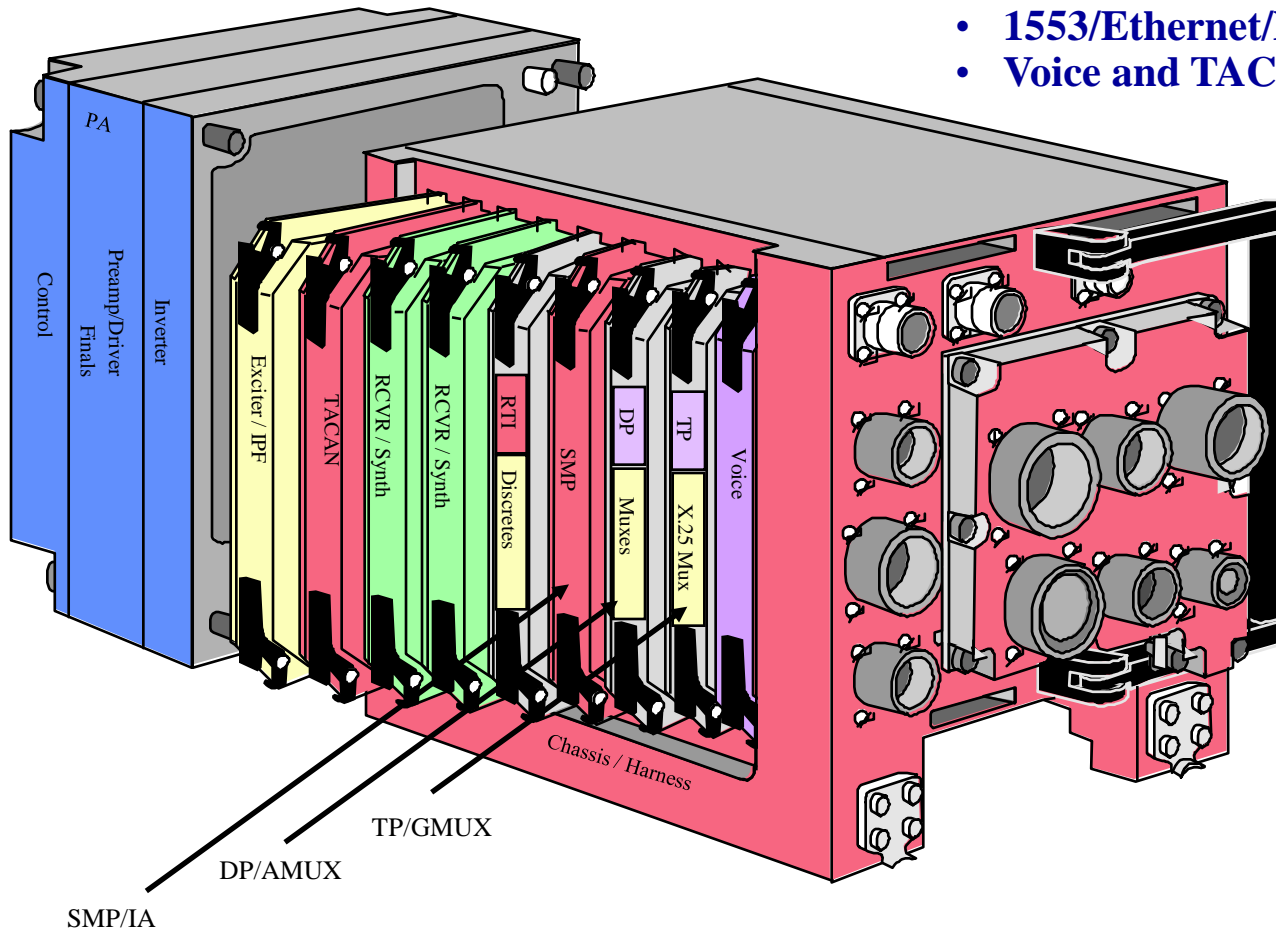
MIDS-LVT Enhancements Considerations



- **Terminal Modification effort — Not a change to Link-16**
 - Proposed enhancements do not affect Link-16
- **This effort is like upgrading a 5-10 year-old computer**
 - There should be a logical break point – Block Upgrade 2?
 - MIDS new terminal cost is <\$200k — Buy new ... or Retrofit?
 - ROI? How many platforms will buy upgraded SRUs?
 - ~5500 MIDS-LVT orders
- **MIDS IPO position is to minimize # of modified SRUs**
 - SMP & GMUX SRU Upgrade - FR and IAM
 - ET, CMN, E1553 – Require additional SRU Upgrades

MIDS-LVT (1)

- **Open and Modular Design**
- **VME Bus**
- **TADIL J/IJMS**
- **1553/Ethernet/X.25 Interfaces**
- **Voice and TACAN**





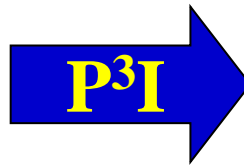
MIDS JTRS



MIDS JTRS Migration Objectives



MIDS-LVT



MIDS JTRS

- | | |
|----|---|
| 1. | Single Channel non-JTRS compliant radio <ul style="list-style-type: none">➤ 1 Channel for Link-16, J-Voice, and TACAN➤ No programmable channels |
| 2. | Successful cross warfighting domain product <ul style="list-style-type: none">➤ Aircraft, ships, and ground |
| 3. | Proven affordability via continuous competition <ul style="list-style-type: none">➤ ViaSat, DLS, & EUROMIDS |
| 4. | Cornerstone of tactical interoperability <ul style="list-style-type: none">➤ Joint & Coalition |
| 5. | Crypto Modification needed |
| 6. | Frequency Remap under development |
| 7. | Does not Include Link-16 Enhanced Throughput |

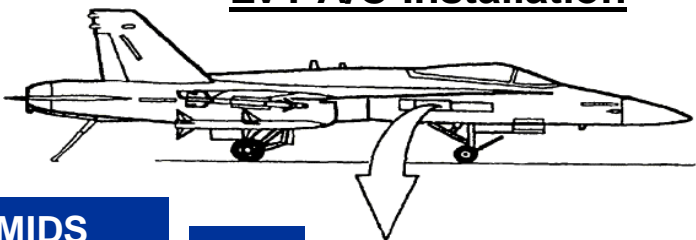
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|----|--|
| 1. | 4 Channel JTRS compliant radio <ul style="list-style-type: none">➤ 1 Channel for Link-16, J-Voice, and TACAN➤ 3 programmable channels (JTRS waveforms) |
| 2. | Cross warfighting domain <ul style="list-style-type: none">➤ Aircraft, ships, and ground |
| 3. | Planned affordability via continuous competition <ul style="list-style-type: none">➤ ViaSat & DLS |
| 4. | Capability to host additional airborne networking <ul style="list-style-type: none">➤ Joint & Coalition |
| 5. | Crypto Modification ready |
| 6. | Frequency Remapping included |
| 7. | Link-16 Enhanced Throughput included |



MIDS-LVT to MIDS JTRS

MIDS Form Fit Replacement to Minimize Platform Integration Impact

LVT A/C Installation



MIDS Terminal

RPS

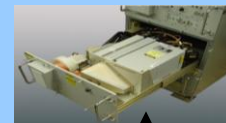


ARC-210

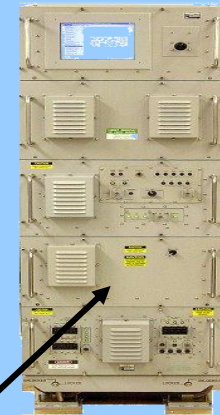
ARC-210

MIDS On Ship AN/URC-141(C) Radio Set

- New Construction Ships



MIDS



- Army Air Defense

MIDS



MIDS LVT2 with self-contained power & cooling

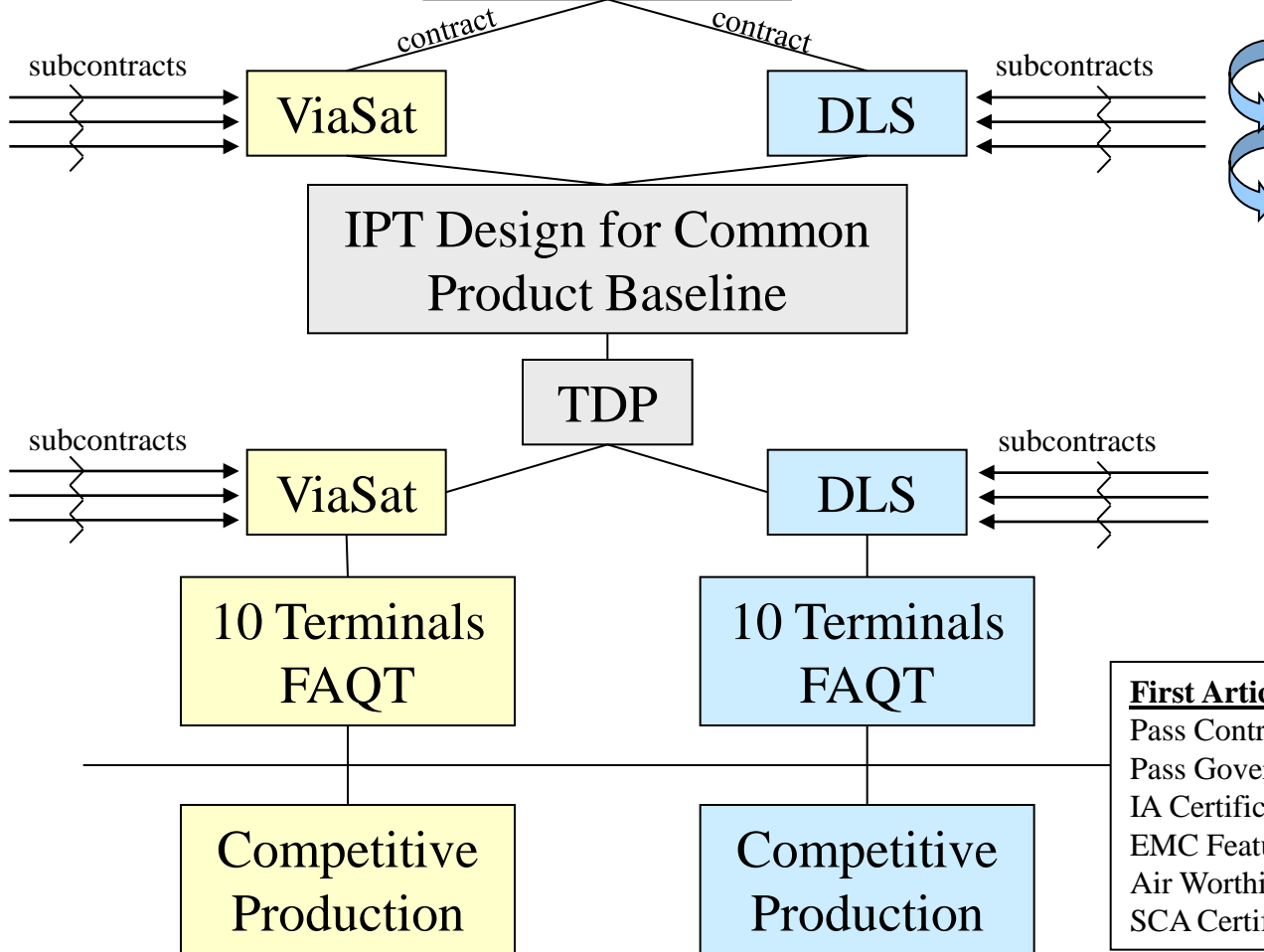




Acquisition Strategy

MIDS IPO

*DLS = LLC of BAE Systems & Rockwell Collins



Jointly developed:
 Functional Baseline
 Allocated Baseline
 Product Baseline



- First Article Approval**
- Pass Contractor FAQT
 - Pass Government FAQT
 - IA Certification
 - EMC Features Certification
 - Air Worthiness Certification
 - SCA Certification

COOPETITION



Core Terminal Accomplishments

- **Core Terminal Development**
 - 20 MIDS JTRS EDMs built undergoing First Article Qualification test (FAQT)
 - Delivered four (4) Airworthiness Terminals to F/A-18 lead platform
 - Conducted 15 flight tests on F/A-18 platform
- **MIDS JTRS Certification**
 - Security Verification 97 % completed
- **Acquisition Documentation**
 - CPD, TEMP, SEP, PPP, PESHE, MER, ISP - Approved
 - IAS, DDL, PPP, SCG, NTSP, RMP, CDMP - Approved
 - ILA completed with Green Rating
 - Final TRA Report submitted to DDR&E for approval
 - MS C planned for Summer 2009
- **Production Transition Terminal contract awarded in April 2007**
 - First terminals off production line were available in September 2008
- **MIDS JTRS Demonstration conducted at December 2007 BoD**
 - Demonstrated multi-channel (Link-16, TACAN and SINCGARS) operation



Summary & Way Ahead

- **Final Development & Qualification**
 - Completed final Integrated Builds and resolving remaining Problem Reports
 - Security Verification test 97% complete
 - JTel SCA Certification is on-going
 - Completion of FAQT planned by Summer 2009
- **Continue Platform Testing**
 - 15 F/A-18 DT Flights conducted to date
 - Conduct OTRR in Late Summer/Early Fall 2009
 - Achieve IOC by February 2010
- **Deliver fully qualified core terminals to F/A-18, Rivet Joint & JSTARS**
 - AWT terminals are being used to perform DT on F/A-18
 - T&E terminals already delivered to Rivet Joint & JSTARS
 - Supporting flight tests & integration activities
- **JAN-TE effort on hold pending AT&L approval of second waveform**



Questions?