



SSM
Savunma Sanayii
Müsteşarlığı

INTERNATIONAL DATA LINK SYMPOSIUM 2007 TURKISH NATIONAL UPDATE

Umur ÇAĞLAYAN



AGENDA

- AVAILABLE TURKISH ARMED FORCES (TAF) TACTICAL DATA LINK CAPABILITIES
- LINK-16 MODERNIZATION PROGRAM
- FUTURE TDL CAPABILITIES PLANNED
- TURKISH APPROACH TO INTEROPERABILITY ISSUES



TURKISH ARMED FORCES TACTICAL DATA LINK CAPABILITIES: AVAILABLE CAPABILITIES

Link 1 Capabilities



TURKISH ARMED FORCES TACTICAL DATA LINK CAPABILITIES: AVAILABLE CAPABILITIES

■ LINK-1 CAPABILITIES

- ✓ Ship Shore Ship Buffer
- ✓ NATO Control Reporting Center / Control Reporting Point
- ✓ National Control Reporting Center / Control Reporting Point
- ✓ **SKYWATCHER Air Defence Early Warning and Command Control**
- ✓ **Turkish Mobile Radar Complex (TMRC)**
- ✓ Combined Air Operations Center (CAOC)



TURKISH ARMED FORCES TACTICAL DATA LINK CAPABILITIES: AVAILABLE CAPABILITIES

Link 11/11B Capabilities



TURKISH ARMED FORCES TACTICAL DATA LINK CAPABILITIES: AVAILABLE CAPABILITIES

■ LINK-11 CAPABILITIES

- ✓ National Control Reporting Center / Control Reporting Point
- ✓ **Frigates**
- ✓ Corvettes
- ✓ Assault Boats
- ✓ **Sea Hawk Helicopter**
- ✓ **Maritime Patrol Aircraft**
- ✓ Ship Shore Ship Buffer
- ✓ **Turkish Mobile Radar Complex (TMRC)**



TURKISH ARMED FORCES TACTICAL DATA LINK CAPABILITIES: AVAILABLE CAPABILITIES

IJMS Capabilities



TURKISH ARMED FORCES TACTICAL DATA LINK CAPABILITIES: AVAILABLE CAPABILITIES

- **Turkish Armed Forces is using IJMS**

- ✓ to exchange tactical data between NAEGIS (NATO Air Borne Early Warning Ground Integration System) and AWACS - Peace Eagle

- **IJMS CAPABILITIES**

- ✓ NAEGIS (NATO Air Borne Early Warning Ground Integration System)
- ✓ AWACS - Peace Eagle



LINK 16 MODERNIZATION PROGRAM

Link-16 Modernization Program



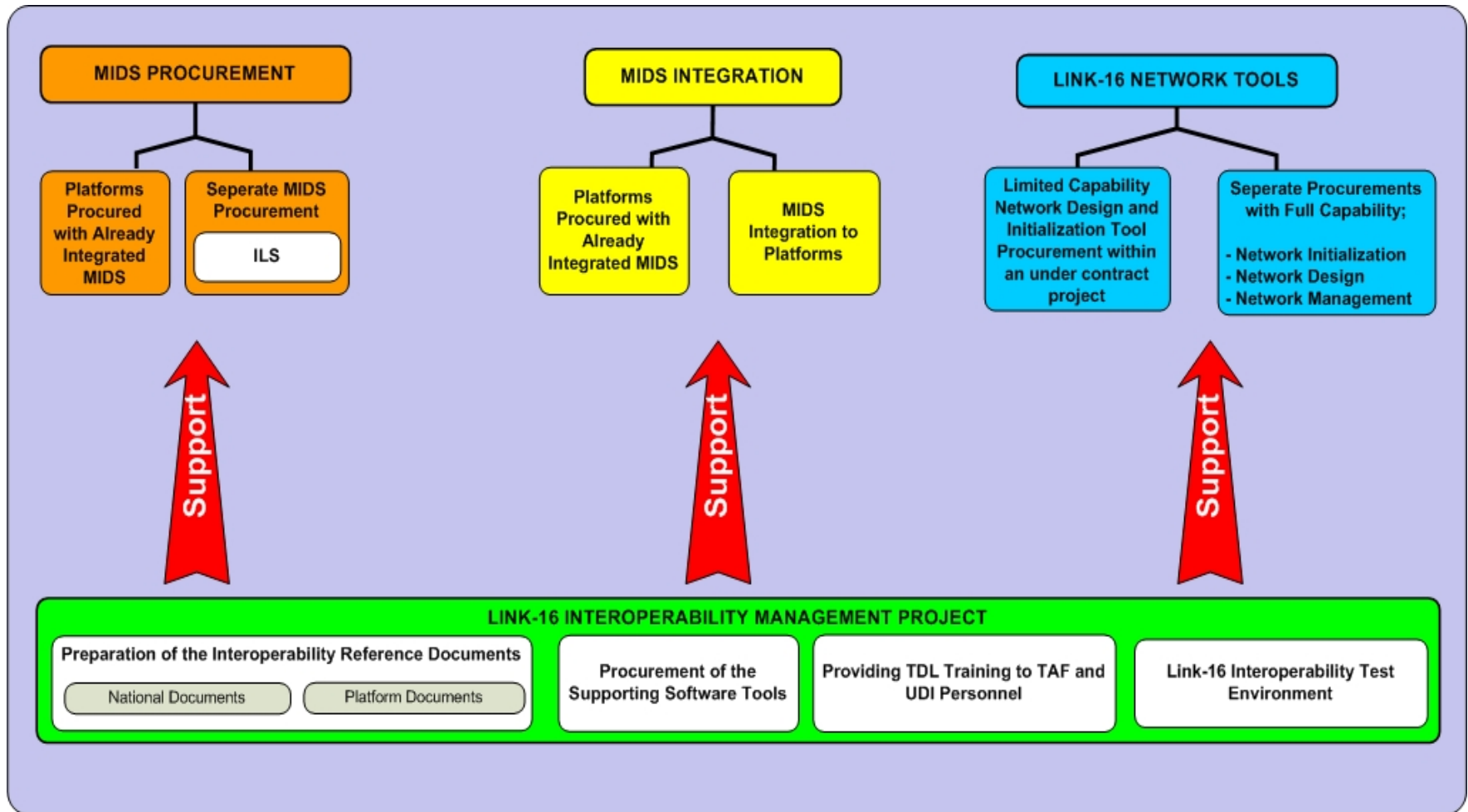
LINK 16 MODERNIZATION PROGRAM

■ Link-16 Modernization Program Scope:

- ✓ Modernization of the current platforms with Link-16 Terminals and necessary enhancements
- ✓ Integrating the built-in Link 16 capable platforms
- ✓ The Establishment of Network Planning, Design, Initialization and Network Management Facility
- ✓ Link-16 Interoperability Management



LINK 16 MODERNIZATION PROGRAM





LINK 16 MODERNIZATION PROGRAM

■ PLANNED LINK-16 CAPABILITIES

- ✓ **SKYWATCHER Air Defence Early Warning and Command Control**
- ✓ **Perry-Class Frigate**
- ✓ **TF-2000 Frigates**
- ✓ Landing Platform Dock
- ✓ Maritime Patrol Aircrafts
- ✓ Combined Air Operations Center (CAOC)
- ✓ NATO Control Reporting Center / Control Reporting Point
- ✓ National Control Reporting Center / Control Reporting Point



LINK 16 MODERNIZATION PROGRAM

- ✓ **KC-135**
- ✓ **C-130**
- ✓ F-16
- ✓ AWACS (Peace Eagle)
- ✓ A-400M
- ✓ **COUGAR**
- ✓ **F-4 E2020**
- ✓ JSF



A MODERNIZATION APPROACH: PERRY CLASS FRIGATE MODERNIZATION

- IN THE SCOPE OF PERRY CLASS FRIGATE LINK-16 MODERNIZATION PROGRAM:
 - A LINK 16/11 MULTILINK TACTICAL DATA LINK PROCESSING (MTDLP) SYSTEM
 - TACTICAL DATA LINK CONSOLE



IS DESIGNED AND DEVELOPED BY **MILSOFT**

- THE INTEGRATION OF DATA LINK PROCESSOR IS VIA SOFTWARE INTERFACE UNIT WHICH IS DESIGNED AND DEVELOPED BY **HAVELSAN A.Ş.**



A MODERNIZATION APPROACH: PERRY CLASS FRIGATE MODERNIZATION

- MINIMIZE RISK THROUGH
 - INCREMENTAL DEVELOPMENT IN TWO BUILTS
 - STANAG 5516/MILSTD 6016-C TRANSACTION DIFFERENCE ANALYSIS
 - NEW SHIPBORNE MIDS TERMINALS INTEGRATED BY 2010



LINK 16 MODERNIZATION PROGRAM

- TURKISH LINK 16 PROGRAM GOALS:
 - TO GAIN THE LINK 16 CAPABILITY LOCALLY AS MUCH AS POSSIBLE
 - TO PROVIDE THE MOST AVAILABLE INTEROPERABILITY LEVEL OF LINK-16 CAPABLE PLATFORMS,
 - TO SUPPORT AND MAINTAIN MIDS TERMINALS



FUTURE CAPABILITIES PLANNED

Future Capabilities Planned



FUTURE CAPABILITIES PLANNED: LINK 22

- **LINK-22 CAPABILITY (planned)**
 - ✓ National Control Reporting Center / Control Reporting Point
 - ✓ **Frigates**
 - ✓ **MİLGEM**
 - ✓ **Assault Boats**
 - ✓ **Sea Hawk Helicopter**
 - ✓ **Landing Platform Dock**
 - ✓ **Tank Landing Ship**
 - ✓ Maritime Patrol Aircraft
 - ✓ Ship Shore Ship Buffer
 - ✓ **Turkish Mobile Radar Complex (TMRC)**



FUTURE CAPABILITIES PLANNED: VMF - JRE

- **VMF Capability (planned)**

- ✓ Tank Command&Control Information System
- ✓ General Utility Helicopters
- ✓ ATAK Helicopters
- ✓ Army multi-band tactical radios with integrated VMF capability



FUTURE CAPABILITIES PLANNED: VMF - JRE

- **JRE Capability (planned)**

- ✓ **SKYWATCHER Air Defence Early Warning and Command Control Command Sites,**
- ✓ NATO Control Reporting Center / Control Reporting Point
- ✓ National Control Reporting Center / Control Reporting Point
- ✓ Combined Air Operations Center (CAOC)
- ✓ AWACS-Peace Eagle
- ✓ **Frigates**
- ✓ **Landing Platform Dock**



TURKISH APPROACH TO INTEROPERABILITY ISSUES



TURKISH APPROACH TO INTEROPERABILITY ISSUES

- **SSM Approach Includes;**

- ✓ Utilizing the lessons learned and worst experiences emerged from different nations TDL programs in the past.
- ✓ Considering and handling Link-16 and other TDL's from a Network Centric Warfare aspect.
- ✓ Applying a proven and reliable systems engineering methodology for TDL interoperability and formation of the nationalized outcomes supporting the national diversities.
- ✓ Establishing Interoperability Cells with the required capabilities.
- ✓ Establishing a supporting training infrastructure.



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--- THANK YOU ---