



SSM  
Savunma Sanayii  
Müsteşarlığı

**INTERNATIONAL DATA LINK SYMPOSIUM 2007  
TURKISH NATIONAL UPDATE**

**Umur ÇAĞLAYAN**



# AGENDA

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- 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

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### ■ 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

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### ■ 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

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- **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



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## LINK 16 MODERNIZATION PROGRAM

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# Link-16 Modernization Program



## LINK 16 MODERNIZATION PROGRAM

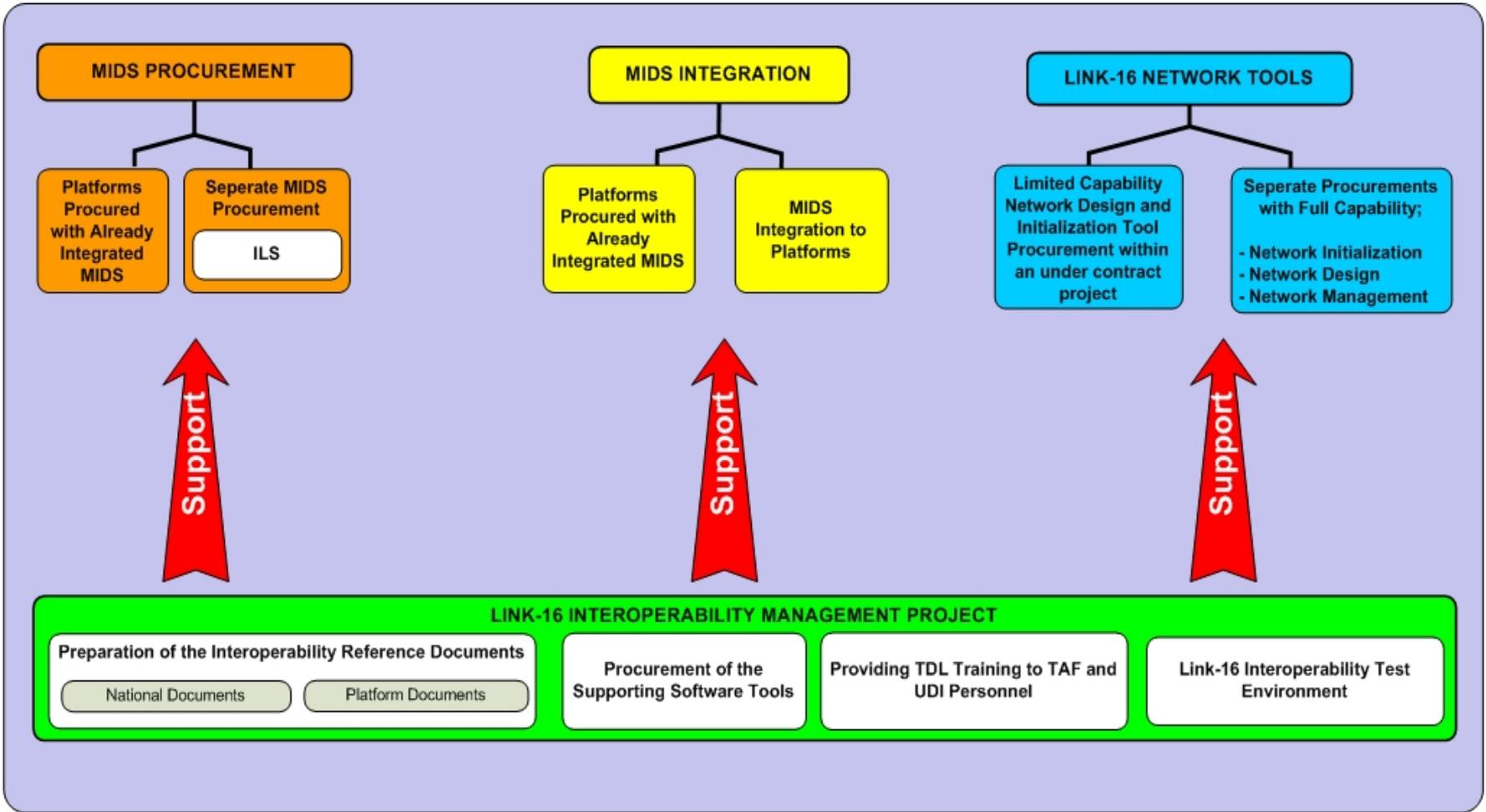
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- **Link-16 Modernization Program Scope:**

- ✓ 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

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### ■ 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

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- ✓ **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

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- 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

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- 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

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# Future Capabilities Planned



## FUTURE CAPABILITIES PLANNED: LINK 22

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- **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

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- **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

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- **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

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- **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 ---**