

# Developing and maintaining joint Tactical Communications - CONOPS

Tactical Communications Forum (TCF)

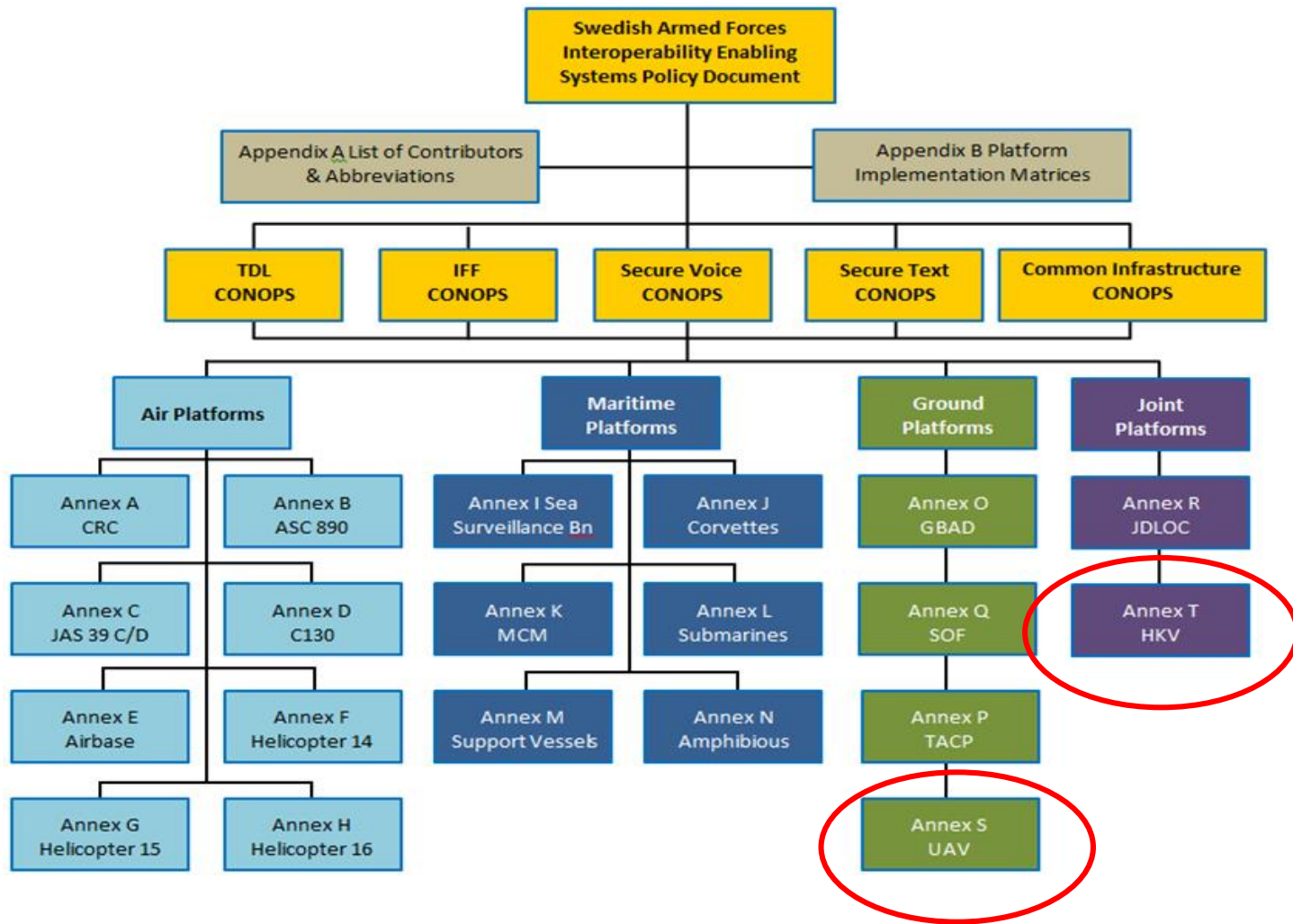
29-30 May 2018

Kaunas

Al Gore AL Air and Space systems

# Background

- Started 2005 version 1
- What?
  - TDLs (Link 16, Link 11, Link 22, VMF, IFF, Secure voice SY100 crypto units etc, Secure text
- Why?
  - Originally part of 3 phase process for US crypto
  - Sweden's requirement for interoperability
  - Description for system of system for IO
  - CONOPS - International "recognised document"
- Document follows the armed forces logistics plan – Is this the reality?



# Current version – what is new?

- SweAF IO enabling systems document
  - HKV strategic document
    - Implementation & operations
  - Part of requirement strategy
- National och international operations
- More information contained in Secure Text CONOPS
- Complete review of all parts of the document
- 2 new annexes
  - UAV 003
  - HKV – Work in progress
- New structure to Appendix B (implementation matrices)
- Updated MODAF model

# MODAF modell

The screenshot shows a web browser window with the address bar displaying a file path: `D:\SAF_IOESM_20160115_WPM_v1.1\SAF_IOESM_20160115_WPM_v1.1\Processes\4\8C2CF24CC04E40E4B102E2B5A51BEF91.htm`. The browser's address bar also shows the text "Navigation View: Swedish A...".

The website content includes:

- Navigation:** A sidebar on the left with links for "Main Menu", "Home Page", "Back", "Contents", "View Models", and "View Files".
- Header:** "Welcome to the... **Swedish Armed Forces Interoperability Enabling Systems Model**".
- Policy Perspective:** "Swedish Armed Forces Interoperability Enabling Systems Policy Perspective". Description: "The Swedish Armed Forces Interoperability Enablers Policy perspective provides a strategic perspective also broad description of the operational usage and continuous introduction of interoperability enabling command and control and information systems for the Swedish Armed Forces." It includes five sub-links: "Swedish Armed Forces Interoperability Enabling Systems Visualisation", "Swedish Armed Forces Interoperability Enabling System Policy", "IO Enablers Systems Policy List of Abbreviations", "Swedish Armed Forces Interoperability Document Structure & Hierarchy", and "Swedish Armed Forces Mission vs Platform Mapping".
- CONOPS Perspective:** "Swedish Armed Forces Interoperability Enablers CONOPS Perspective". Description: "The Interoperability Enablers perspective provide current, interim, planned and conceptual implementation for each of the Interoperability Enablers. Currently, in international operations, TDLs, IFF, secure voice and secure text are employed as the main enablers to allow a near seamless information exchange. Please click on an IO Enabling System icon for further information." It features five icons: "Tactical Data Links (TDL)", "Identification Friend or Foe (IFF)", "Common Infrastructure", "Secure Voice", and "Secure Text".
- Platform Perspective:** "Swedish Armed Forces Platform Perspective". Description: "The platform perspectives provide current, interim, planned and conceptual implementation of the specific interoperability enablers for each identified platform. The views also provide detailed descriptions of missions and tasks and the role of the interoperability enabling systems that is being used in that task. Each of the platform perspectives will contain a high level interoperability matrix which will provide details of IERs with other Armed Forces platforms. This will allow cross referencing with other platform annexes and provide a high level interoperability assurance of platform IERs. Please click on a platform icon for further information." It is divided into four categories:
  - Air Platforms:** CRC, Airbase, ASC 890, JAS 39, C-130, HKP14, HKP15, HKP16.
  - Maritime Platforms:** Sea Surveillance Bn, Corvettes, MCMV, Marines, Support Vessels, Submarines.
  - Ground Platforms:** GBADOC, UndE 23, IC2 & FCU, SOF, TACP, UAV.
  - Joint Platforms:** JDLOC, JHQ.

The Windows taskbar at the bottom shows the system tray with the time 08:33 and date 2016-08-23.

**SWEDISH ARMED FORCES** **Swedish Armed Forces Interoperability Enabling Systems** **FMV**

**Assets and Systems:**

- UAV 03 Eagle
- JAS39 Gripen
- ASC890
- C-130
- HKP14
- TACP
- VMF Link 16
- IFF Interrogator
- IFF Transponder
- GBAD
- Airbase
- Marines
- HKP16
- HF
- V/UHF
- Secure Voice
- Satcom
- MTF/ADatP-8
- OTH Gold
- CBN
- CRC
- JDLOC
- Corvettes
- Sea Surveillance Bn
- Submarines
- HKP15
- MCMV
- Support Vessels

Navigation

Main Menu

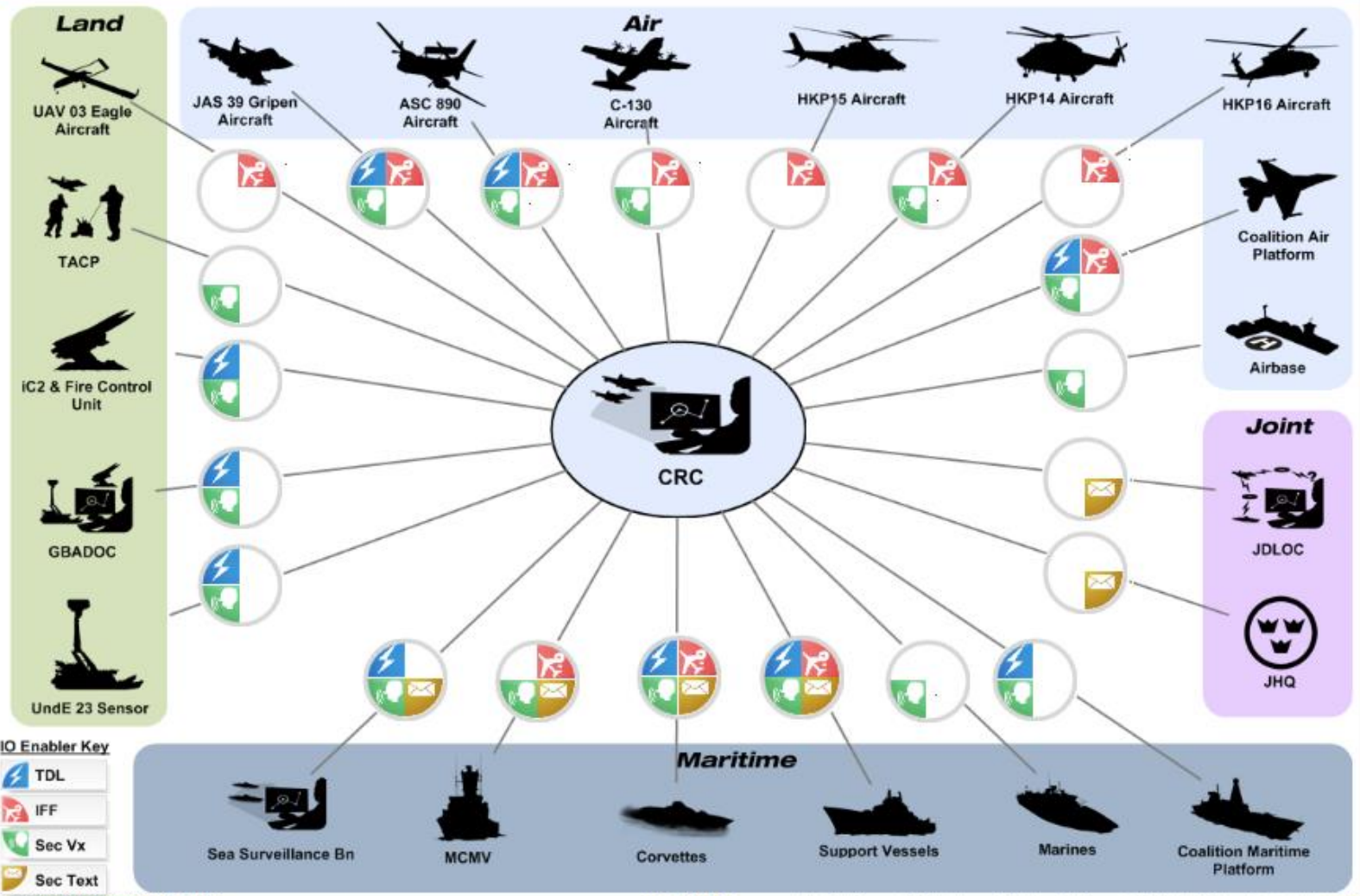
- Home Page
- Back
- Contents

View Models

View Fields

Search

### CRC Resource Interactions



**IO Enabler Key**

- TDL
- IFF
- Sec Vx
- Sec Text

# Challenges for the future

- Landscape for C3I systems rapidly developing – how do we keep up?
  - HKV annex, new platforms
  - New systems
- Document management – over 400 sides!!
- Changing operational environment
- Better coupling to MODAF modell (next issue)
- Current documentation system focused
  - Better description of capability and operational use -How do we do this?
  - Better connection to system of system requirements
  - Traceability?
  - Reality not wish list
- Capability CONOPS connected to system of system CONOPS?
- CONEMP/CONOPS/CONUSE?



# Questions