



## **Support, Maintenance and Modernization Royal Danish Navy (RDN) Naval Warfare Center (TAC)**

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**VP Henrik Voss, IFAD TS  
DDAC, February 11, 2016**

# Agenda

- IFAD TS in Brief
- Background and Main Achievements
- Royal Danish Navy (RDN) Naval Warfare Center (TAC)
- Future Opportunities





## Simulation-based training for Defense

### ➤ **Locations**

- Odense, Denmark
- Naval Base Frederikshavn, Denmark
- Helicopter Wing Karup, Denmark

### ➤ **Profile**

- Simulation Products and Solutions
- Simulator Interoperability
- Operation, Support and Maintenance

### ➤ **Solutions**

- Naval Simulation Solutions
- Simulator Interoperability Gateways
- Observer Training Solutions (FAC and AO)
- Simulated Radio Communications
- Tactical Datalink Simulation

# IFAD TS Qualifications and Experience



## ➤ **Highly Qualified Staff**

- PhD, Computer scientists, M Sc
- NATO Secret classification
- Long-term employment with IFAD

## ➤ **Experience**

- 25+ years of experience in providing solutions and support
- 20+ years in defense related project
- 150+ man years of experience in modeling and simulation
- Presented numerous technical papers at conferences and NATO groups
- Extensive application knowhow

## ➤ **Core Expertise**

- Team training, Distributed simulation
- Simulator interoperability
- HLA, DIS
- Live, Virtual & Constructive simulation (LVC)

# Background and Main Achievements



## ➤ **2003 – 2006**

- Knowledge Transfer from RJM Systems and Computer Techniques
- Establishment of Sustainable Support Organization
- Definition of modernization strategy and roadmap

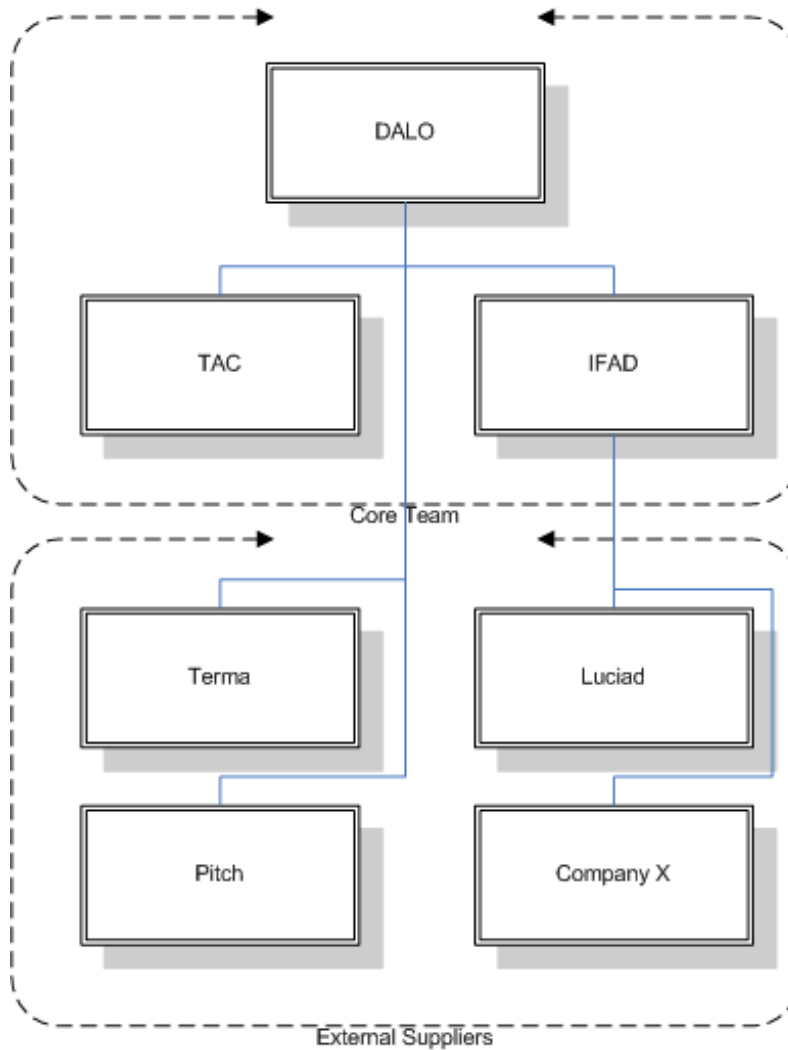
## ➤ **2007 – 2011**

- Modernization of old Tactical Trainer to modern COTS solution
- Replacement of old emulated C3 with live C-Flex
- Establishment of Radio Trainer

## ➤ **2011 – 2016**

- Modernization of old SAR/NAV Trainer to modern COTS solution
- Establishment of Helicopter Control Officer (HCO) Trainer
- Further expansion of C-Flex Training Facilities
- Distributed simulation – US FST Participation
- Proof of Concept for Simulation Onboard RDN FS/FG

# Core Team



## ➤ Cooperation based on

- Partnership
- Trust
- Openness
- Respect
- Mutual support

# RDN Naval Warfare Centre



- **Action Speed Tactical Trainer (ASTT)**
- **Helo Control Officer (HCO) Trainer**
- **2x SAR/NAV Trainer**
- **Radio Communications Trainer**





# RDN Tactical Trainer Complex



## ➤ Action Speed Tactical Trainer (ASTT)

- Instructor room
- Briefing/debriefing w. tactical floor
- Computer room
- 12 CIC own ship cubicles



## ➤ 2x SAR/NAV Trainer

- Instructor area
- 8 Bridge own ship cubicles

## ➤ HCO Trainer

- 4 Instructor stations
- 4 Student helo pilot stations
- 4 C-Flex compact own ships w/radar video





# RDN ASTT Own Ship Cubicle



# RDN SAR/NAV Cubicle



# Future Opportunities



- **Establishment of Onboard Simulation Facilities**
  - Frigates
  - Support and Command Ships
  
- **Distributed Simulation with Partner Nations**
  - US Fleet Synthetic Training (FST)
  - German Navy NetOpFue
  - NATO CWIX
  
- **Establishment of DNK National Training Network**
  - Naval Warfare Center, Frederikshavn
  - Naval Ships
  - Helicopter Wing Karup
  - Air Control Wing Karup
  - Fighter Wing Skrydstrup
  - Naval Weapons Center, Sjællands Odde
  - Army Combat and Fire Support Center, Oksbøl



Questions?

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