



# Janina Szpilman

Branchchief, Material Branch

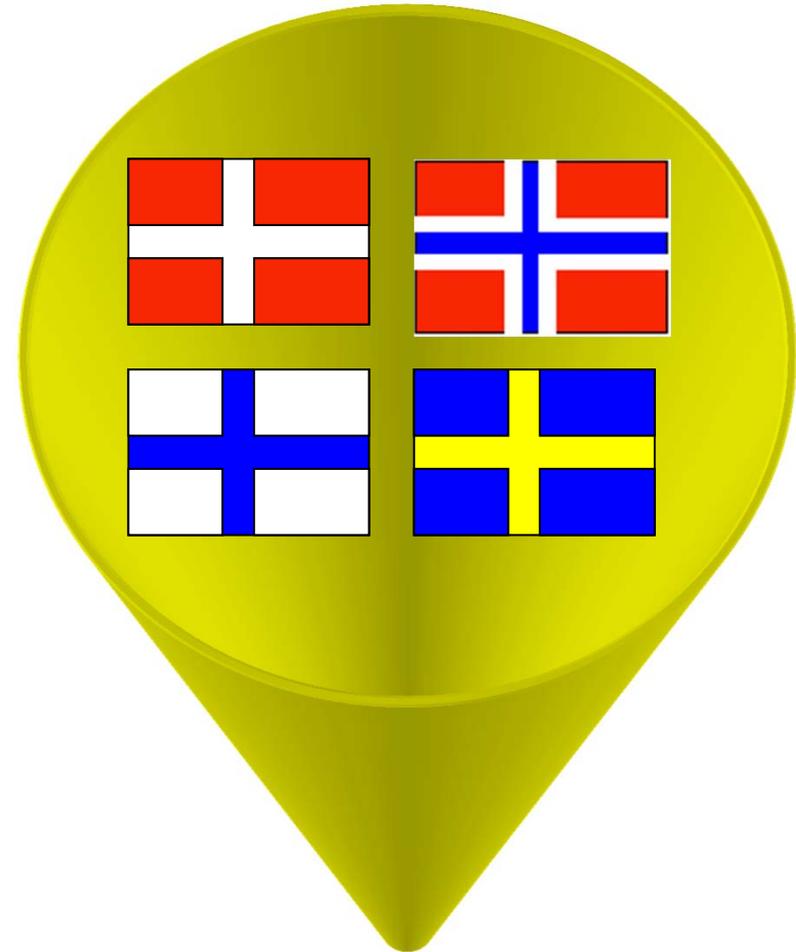
Air Materiel Command

Chairman for Joint Nordic  
Collaboration Group on Environment  
and Hazardous Materials



# Purpose

- ⇒ Financial advantages
- ⇒ Technology advantages
- ⇒ Industrial advantages
- ⇒ Networking
  - Information sharing
  - Lessons Learned



NORDAC synergy

# NORDAC architecture

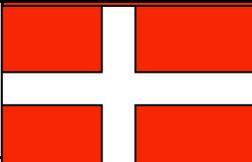
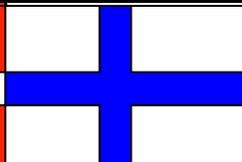
## Levels

## NORDAC organisations

MOD	=>	Leading Group
CHOD	=>	Coordination Group
Executing	=>	Cooperation Groups Investigation Groups Project Groups



# Status

	Total				
Cooperation Groups	15	10	13	13	15
Investigation Groups	6	3	6	2	6
Project Groups	11	4	8	10	11
Other groups	3	1	3	3	3
<b>Total</b>	<b>34</b>	<b>18</b>	<b>30</b>	<b>28</b>	<b>34</b>



# The NORDAC Groups

## **Project Groups**

Advanced Mortar System, AMOS  
Nordic Standard Helicopter Project,  
(NSHP)  
VIKING Submarine  
System Hearing Protector with  
Communication Equipment,  
(HCOM)  
Forward Observer System  
40 mm Automatic Grenade  
Launcher System (AGL)  
Exchanger of Loads for All-Terrain  
Carrier 206  
Naval – Vessel – Engines (MTU)  
Torpedo/Mine/Sensor (TMS)  
Sea Surveillance System

## **Investigation Groups**

Armoured NBC  
reconnaissance vehicle  
Small Arms Ammunition  
Air Base Equipment  
Fire Support  
Naval AA-guns  
Explosive Ordnance -  
Disposal - Information -  
System (EOD IS)  
Naval Mine Clearance II  
120 mm ammunition for  
LEOPARD 2

## **Cooperation Groups**

Artillery Hunting Locating  
Radar (ARTHUR)  
Protected Earth Moving  
Machines  
Silent Water Jet Propulsion  
RBS 15  
RBS 17 Hellfire  
Environment and Hazardous  
Materials  
Soldier 2010  
All-terrain carrier 206  
Nordic SHARE III/Common  
Items  
Combat Helicopters  
NATO Armaments Ballistic  
Kernel (NABK)  
Underwater Combat System  
Surface Combat System  
Amphibious Combat System  
Naval Air Defence System



# Span in the cooperation

- **VIKING**

- Complex material development- and purchasing project.

- **Environment and Hazardous Materials**

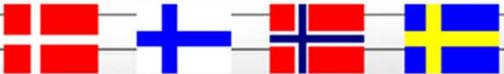
- Co-operation between specialists with the purpose of finding substitutions for unwanted chemicals and materials.

http://nordac.obelixnet.dk/ - Microsoft Internet Explorer

Filer Rediger Vis Foretrukne Funktioner Hjælp

Tilbage Søg Foretrukne Medier

Adresse **www.nordac.org** Gå Hyperlinks

*Nordic Armaments Co-operation* 

1 active visitor

**FRONT PAGE**  
:: INTRODUCTION TO NORDAC

**INTRODUCTION TO NORDAC**  
The Nordic countries, Denmark, Finland, Norway and Sweden, have been

**How to contact us**  
:: DENMARK  
:: FINLAND

**PROJECT GROUPS**  
:: Advanced System (AS)  
:: Nordic Standard Helicopter  
:: Viking submarine  
:: Hearing with Command System  
:: 40 mm Grenade Launcher  
:: Magnetic Duplicator  
:: All-terrain 206 - Hook  
:: Naval Vehicle  
:: Torpedo Sensor  
:: Sea Surveillance System

**INVESTIGATION GROUPS**  
:: Armoured NBC Reconnaissance Vehicle  
:: Small Arms Ammo  
:: Air Base Equipment  
:: Fire Support  
:: Naval AA Guns  
:: Explosive Ordnance Disposal-Information system  
:: Naval Mine Clearance II  
:: 120MM ammunition for LEOPARD II

**www.nordac.org**

**The VIKING submarine - One of the most promising NORDAC projects. Read more about the VIKING Project under "Project Groups"**



**NH90 - The Nordic Standard Helicopter Project for Nordic countries Read more under "Results from NORDAC" or "Project Groups".**



welcome to NORDAC  
>> [Read more](#)

**NORDAC NEWS**  
Press release about VIKING, May 2003  
>> [Read more](#)

(Der mangler 1 element) Henter billedet http://nordac.obelixnet.dk/media/AMOS-1.GIF... Internet

# Nordic Materiel Co-operation Skeleton Nordic Directive

for

## “Joint Collaboration Group on Environment and Hazardous Materials”

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Produced by:

- The Nordic Co-ordination Group **Date:**2004-06-10

*Nordic Armaments Co-operation*





# Aim and Purpose of the Collaboration Group

- To better utilise the resources of the individual country for the mutual benefit of the participating countries through a closer co-operation and exchange of information.
- To influence the procedures of acquisition in order to create a better basis for purchases with consideration to the environment.
- To expand environmental consciousness and position within the individual organisations.
- To support the individual countries in their relations to the suppliers.
- To contribute to establishing better education by passing on information.
- Investigate legislature and other requirements and alternative documentation if any in the area e.g. STANAGS.
- information and education in area.



# Aim and Purpose Continued

- Elaborate a joint Nordic policy on the areas “Hazardous Materials” and Purchases with Consideration to Environment” based on the requirements of most restrictive country with the aim to enhance the level of the individual countries the most.
- Establishment of a compatible data base and a joint Nordic procedure for registration of chemical products.
- Substitution of undesirable chemical products and materials.
- Establishment of a network and co-ordination and passing on of information and co-operation, among other things, exchange of professional contacts.
- Environmental requirements to the suppliers by acquisition of materiel systems.
- Motivation of the eastern countries to enhance the environmental consciousness by passing on information and education in the area.



# Main Projects

1. Management of Hazardous Materials Data Base and MSDS.
2. Replacement of Halon 1211 and 1301 (ODS) in Ships and Air craft.
3. Substitution of Runway De-icer (UREA-Nitrification) with Environmentally Friendly Product.
4. Chromate Free Primers



# Replacement of Halons

- Possible Alternative: Novec 1230
- Laboratory test
- Large Scale



# Replacement of Runway De-icer

## Alternatives:

- Formates
- Acetates
- Betafrost
  
- Laboratory Tests
- Large Scale Tests
- Toxicological Evaluation



# QUESTIONS?

