A Proposal for a Norwegian Defence Conceptual Framework
– concept development and the relation to long-term defence planning.

26th August 2008 at ISMOR25 by Mr. Rune Stensrud
Suggested format of the presentation

• Introduction to military Concepts and Concept Development

• A Proposal for a Norwegian Defence Conceptual Framework (NDCF)
  
  – concept development and the relation to long-term defence planning.
Survey and Background
FFI Project METEK
- Scope of Work

- **Time frame**: 2 years (1.1.06–31.12.07)
- **Project leader**: Rune Stensrud/FFI Analysis
- **Total effort**: 3FiÅ
- **Implementation**: Co-operation with Industry (Teleplan); use of competence in the NoD community
- **Steering Board**: Norwegian MOD IV-1, FSS, FOL, KNM T, TRADOK, LUKS
- **Scope of work**: FFI Project METEK is proposing a Methodology of concept development
FFI Project METEK
- Background and Objectives

- Norwegian Defence (NoD) has introduced Concept Development as a supplement to traditional developmental activities.

- Best practices of operational experimentation are well established in NoD ...

- ... but the place of concepts within the strategic planning process or the role of concepts within the acquisition process is not fully stated.

- Assist Norwegian MOD in the process of linking concept development and experimentation

- Aid Norwegian MOD in the process of mapping concepts onto the Defence Capabilities Framework

- Present a proposal for a Norwegian Defence Conceptual Framework (focusing on organization, process descriptions, enterprise-models and planning)

- Aid the Norwegian Defence Study (Forsvarsstudie 07)
Definitions and distinct views of concepts
Definitions

• A **concept** provides foundation for achievement of an **effect**; i.e. an idea of how to solve a problem or create a certain **effect**.

• A **military concept** is the description of a method or scheme (ways) for employing specific **military capabilities** (means) in the achievement of a stated objective (ends).

• **Concept development** is a process to verify ideas of how to create an **effect**, with a view to **future** realization.

• A **capability** can be defined as the ability to produce an **effect**.

* NATO Code of Best Practice Long Term Defence Planning
**US Joint Capstone Concept, version 3
*** NATO ACT dir 80-7
A Proposal for a Norwegian Conceptual Framework
Results (1 of 3)

FFI/Report-2006/03042
Survey of military concept-and doctrine-development in UK, Canada, Australia, Sweden, Denmark and Norway

FFI/Report-2007/01722
Method for concept development

Seminar 29.11.07 (FFI)

Reports:
- Visiting Development, Concepts and Doctrine Centre (DCDC), MOD Shrivenham, Swindon, UK, 5. juli 2006
- Visiting Högkvarteret, Försvarsmakten, Stockholm, Sweden, 6. september 2006
- Participating on NTNU’s “Concept Symposium 2006”
- Visiting Forsvarets kommandoen, København, Danmark, 9. oktober 2006
- CDE conference, Athen 2006
Results (2 of 3)

- METEK project has assisted main stakeholder Norwegian MOD
- ... and Norwegian Chief of Defence (Defence White Paper 07)
- FFI will continue to be an active part following up this process

"In my opinion this has been an exemplary project representing flexibility (and agility) according to the process i.e. good contact between FFI and main stakeholder, and regarding outcome"

results from the user survey
The main elements of the **Norwegian Defence Conceptual Framework** are:

- Definitions
- Concept Hierarchy
- Capability Framework
- Organization
- Process descriptions
- Management tools
Concepts and Time
Concepts and Time

Motivation for Concept Development
Why military Concept Development?

A need for transformation of military forces to adapt to future Change – reduce uncertainty?

- Rapid changes in military operations may have impact on which methods are relevant and cause current solutions to be ineffective

- **Threats**
  - From static to dynamic threats
  - From episodes to continuous conflicts
  - "The Missing Threat"

- **Missions and Tasks**
  - Counterinsurgency to Home Security
  - Increasing needs within Peace Keeping
  - The Need for flexible and adaptive capabilities

- **Relevant partners for co-operations**
  - Both nations and organizations (authority, IO, NGO, industry, local government)
Why military Concept Development? (contin.)

- **Strategic** view (ends)
  - Globalization -> Global focus, "Out-of-area"
  - Economical, social and political arenas (PMESII) -> coordination and different instruments of power (DIME)

- **Technology** (information and communication technologies)
  - Increased possibilities to share information
  - Increased possibilities to interaction
  - Need of competence, expertise and skills
  - Procurement regime

- **Economics**
  - Balance
  - **Need of increased efficiency**

- Need for new/modified capabilities

- Request for a higher rate of Change – incremental processes to slow, i.e. the result is increased risk or strategic gap
  - A need for Concept Development
The Purpose of Concept development

- Address processes of change
- Reduce risk
- Increase operating efficiency
- **Reduce cost**

- A concept is an *idea*!
  - uncertainty connected to whether the idea is realizable, practicable, feasible ...
The Process description
Current operations
Result:
• Support the fulfillment of Defence essential tasks

Identify directives
Result:
• Strategic guidance

Develop concepts
Result:
• Directing basis (foundation) for implementation of relevant capabilities

Implementing capability
Result:
• Implement military capabilities

Lessons Learned
A High-level Concept may be the directing basis (Strategic Guidance) for the NoD Defence Study

Long Term Defence Planning (Defence Study)

Concept Development

Master Questions identified

New Concept identified needing development

Concept Development

Capability
End of Presentation

FFI turns knowledge and ideas into an efficient defence
Extra slides
Identification of directives

Results:
- Strategic Guidance

Typical parameters:
- High Level Concepts
- Economics
- Future Trends
- Threats
- Security policy assessments
- Political Guidance
- Defence Tasks and Missions
- Ways, Ends and Means
- Policy

Methods / techniques:
- Long Term Defence Study
- Research
- Studies and Analysis
- Scenario Generation

Current operations

Results:
- Support the fulfillment of Defence essential tasks

Typical areas of action:
- Military types of operations (national / international)

Basis functions:
- Command and control
- Intelligence
- Mobility
- Force protection
- Logistics
- Effects
- Force generation

Develop concepts

Results:
- Directing basis for realization of capabilities

Typical tasks:
- Identify and prioritize ideas and proposals
- Recommend actions according to DOTMPLFI
- Develop concepts
- ...

Methods / techniques:
- Research
- Lessons Learned
- Studies and analysis
- Table Top gaming
- Experimenting
- Modeling and simulation
- Workshops

Realize capabilities

Results:
- Implement capabilities in Defence Structure

Typical areas of action:
- Update and implement doctrine/tactics/procedures
- Adapt organization
- Update program of training/practice/exercise
- Procure/modify material systems
- Change personnel/workforce
- Adapt and implement new methods of leadership
- Implement and use new facilities
- Implement new techniques/procedures for co-operation / interoperability

Lessons Learned
Develop Concept starting point may be an idea which possibly can contribute to increase the ability of Defence adapting to changed circumstances, whether based on a new threat or opportunity.

Functional components of a capability:
- D – adapt doctrine/tactics/procedures
- O – adapt organization / force structure elements
- T – update program of training/practices/exercises
- M – procure new/modify material systems
- P – change/adapt competence/skills/program of education/force gen.
- L – implement / adapt concepts of leadership/ education of leadership
- F – implement and use new/mod. of buildings/ training facilities
- I – implement new techniques/procedures for co-operation/ interoperability

Methods
- Research
- Studies and (OR) analysis
- Workshops
- Table Top gaming
- Modelling and simulation
- Experimentation
- Lessons Learned etc

Implementation/realization
<table>
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<th>High Level Experimentation Questions</th>
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What future concepts of command and control will achieve decision superiority and rapid effect in the Joint and Multinational battlespace?

How can we better deliver optimal effect through evolving organisation and structures of HQs within the battlespace?

How can decision superiority and tempo be enhanced through the application of Network Enabled Capability?

How do we apply concepts for command and control to a multinational/coalition environment to ensure interoperability?

How best do we develop operational information capabilities, in order to provide decision makers with timely and appropriate information?

How do we co-ordinate and command ISR assets to best effect?

How do we co-ordinate and command joint fires at our disposal in order to synchronise and concentrate the desired effects?

How do we improve the co-ordination of joint airspace management and planning?

How are we to best organise forces and component HQ responsibilities to exploit emerging technologies and concepts for the conduct of future ops?

What are the essential elements of SA, TTPs and target identification required to optimise CID and how are they to be incorporated into mil capability?

What are the joint concepts, doctrine and capabilities for comprehensive AD for deployed/expeditionary forces?

What are the essential capabilities required for joint logistics, and how do we best deliver them??

How do we best portray the Joint Logistics Picture and what decision support tools are required?

What are the essential capabilities required to provide operational medical care, and how do we deliver them?

How do we improve the ability to locate and mange people and their skills in the battlespace?
Develop concepts

The provenance, authority and coherence of concepts

Support to the generation and exploration of concepts

Identify and determine relevance of concept proposals

Identify concept proposals

Determine relevance and give priority to concept proposals
Identify and determine relevance of concept proposals

- Identify concept proposals
- Determine relevance and give priority to concept proposals
- Produce outline concept development plan

Describe concept proposal (top-down)

Describe concept proposal (bottom-up)

Increase operational utility

Measure of Effectiveness (MOE) 1
  - MOE 2
  - MOE 3
  - MOE n

Concept proposal

Feasibility / realization value

Execution of concept development
- Cost
- Risk

Realization of the capability
- Cost
- Moral/ethics/legality

Lessons learned

Approval of outline plan for next steps

Approval of outline concept development plan

Further planning

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<th>Intel</th>
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The diagram illustrates the relationship between high-level concepts and operational concepts. Strategic Guidance flows downwards to the Operational feedback, influencing the Operational concepts through various functional concepts and their associated effects.
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