

# Danish Army Digital Cartography Project

Marlene Meyer, Head of Unit  
Danish Mapping & Cadastre (KMS)

Fridrik Adamsson, Surveyor  
Danish Army Materiel Commando (HMAK)

The Danish Army Materiel Commando (HMAK) in cooperation with National Mapping and Cadastre (KMS) are carrying out a development project aimed at developing digital cartography for the army's GIS Systems. Cartography is developed on various ESRI platforms.

Overall objectives of the Project are:

- To develop a goal-directed standardized and uniform cartography to the Army, independent of platform, data and applications.
- To design cartography that ensures that users in the Army can communicate and interoperate through analogue and digital geodata in an unambiguous and secure way.

Project objectives are:

- To demonstrate the application of digital maps as a supplement to traditional printed maps.
- To work out guidelines for cartography, that can support the applications of the various operational GIS platforms through a user-friendly design.
- To support the design of future requirement specifications for operational GIS platform through the development of a generic design manual.

The project consists of three elements:

- A national digital multi-scale map based on various map data sources (VMAP – 1:250.000, and TOP10DK, which is the Danish topographic database in 1:10.000). Map scales range from street level to national level (1:10.000 – 1:3.000.000)
- A manual for visualisation of VMAP data for international missions, supported with 6 examples from various climatic zones.
- Proposal for modernisation of cartography of traditional topographic paper maps in the scale of 1:50.000, in order to match the current production system, which is based on automatic generalisation of TOP10DK.

The multi-scale map and visualisation of VMAP data is being developed in ARC MAP, using Maplex for automatic text placement. Presentation includes examples of cartography developed during the project.

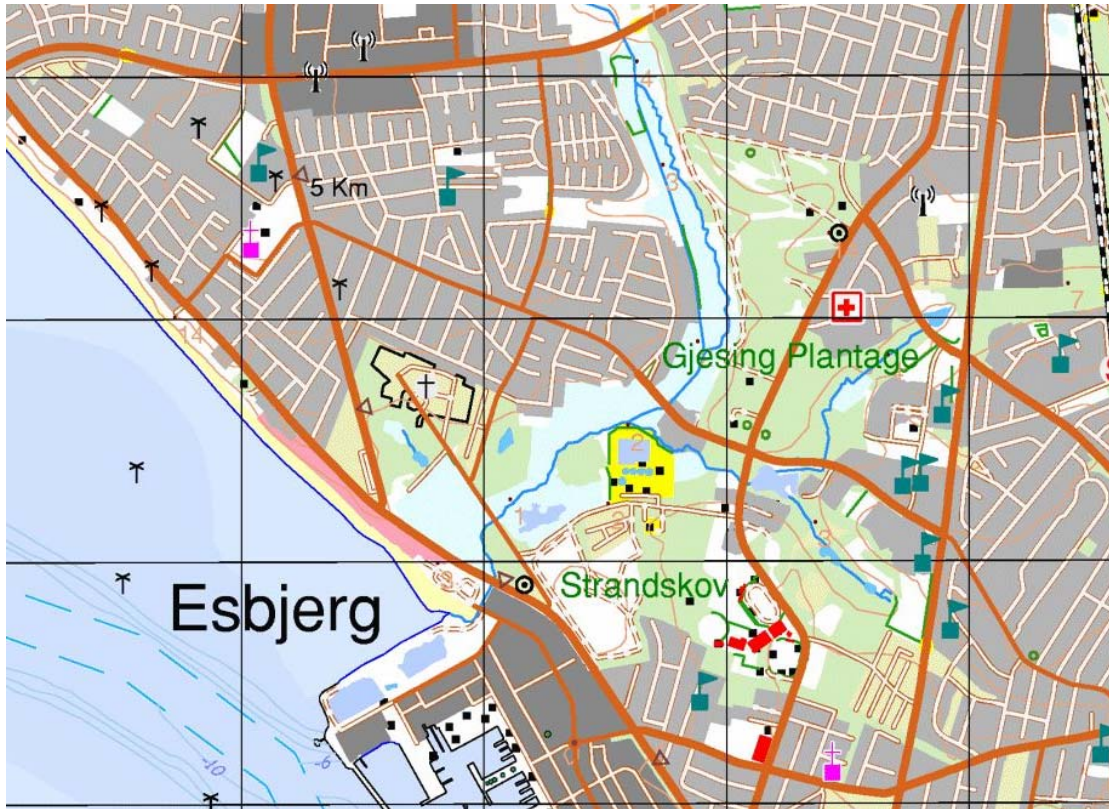


Figure 1. An example of modernized cartography for printed army maps in 1:50.000.

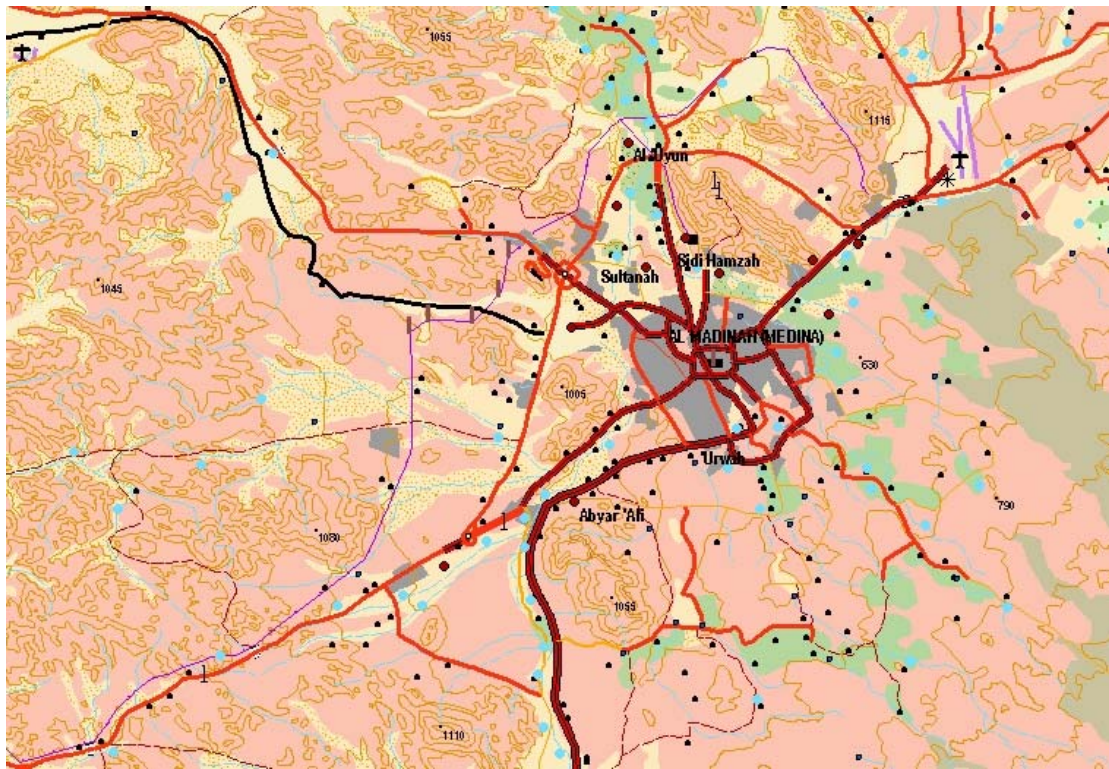


Figure 2. Visualisation of Vmap data in 1:250.000.

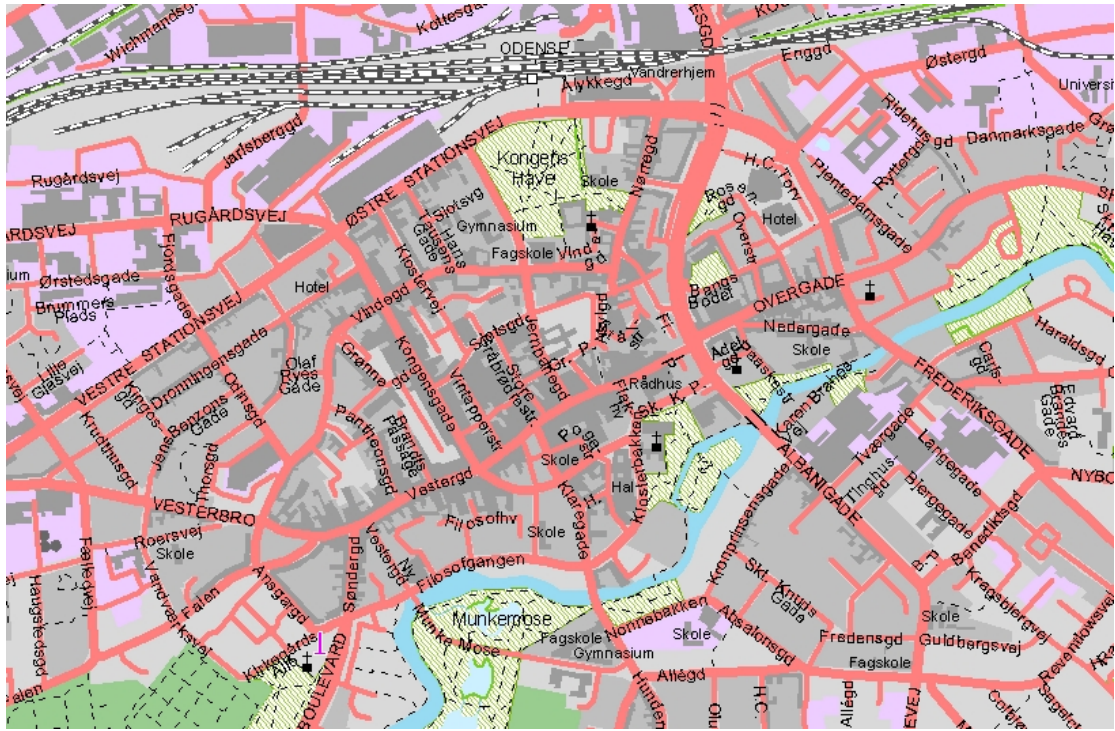


Figure 3. From digital multi-scale map – range 1:5000-1:10.000. The shown scale is based on TOP10DK.