A Reachback Concept for the Future Command Post

Jouke Rypkema
TNO Defence, Security and Safety
Who is TNO Defence, Security and Safety?

**TNO**
- Dutch Organisation for Applied Scientific Research
- Applying scientific knowledge with the aim of strengthening the innovative power of industry and government

**Defence, Security and Safety**
- Focuses on defence, safety and security in the broadest sense (military and civil)
- Home lab and strategic partner of the Dutch Ministry of Defence
Project: Future Command Post

Part of:
- Defence programme: The Future Command Post in a Network-centric Environment

Aim:
- Exploring new command post concepts on the brigade and/or battalion level
  - Focus on the application of reachback
Project team

**TNO Defence, Security and Safety:**
- Ingrid van Bemmel
- Kees van Dongen
- Aletta Eikelboom
- Rick van der Kleij
- Marcel van der Lee
- Ingrid Weima

**Royal Netherlands Army:**
- Major Arie van Ringlesteijn
Overview presentation

• What is reachback?
• Advantages reachback
• Challenges
• Reachback concept
• Experiment 2005
• Conclusion
• Results experiment 2006?
• Future research
What is reachback?

• Many definitions are found in literature
• In general, reachback refers to a situation where resources, capabilities and expertise are at a physical distance from the area of interest, supporting the people in the area to perform their tasks
Advantages of reachback

- Safety
- Mobility
- Flexibility
- Specialist support
- Logistics
- Detection
Challenges Reachback

Within reachback studies emphasis is put on technology. We think other challenges should be addressed as well:

- Teamwork
- Leadership
- Information support
- Organisation
Teamwork

- Effects on collaboration
- Failure to develop effective interpersonal relationships
- Communication mishaps
- Lack of awareness of team members endeavours
Leadership

- Commander at a distance from staff
- Applying other forms of leadership
- No face-to-face expression
Information support

- Effects on sense making
- Effects on critical thinking
- Support tools
Organisation

• Location of staff members (who is where)
• Task allocation (who does what)
• Interdependency (who works with whom)
The reachback concept

- **Within operation area**
  - Command element
  - Staff capacity

- **Outside operation area**
  - Staff capacity

Reachback
Experiment 2005: command element

- Within operation area
  - Command element
  - Staff capacity
- Outside operation area
  - Staff capacity

A reachback concept for the future command post
Command element

- Shared workspace
  - Assessment
  - Situation overview
  - Planning
  - Cameras reachback

- Personal workspace
  - Assessor
  - Commander
  - Planner

A reachback concept for the future command post
Counterparts in reachback

A reachback concept for the future command post
Experiment

• Participants
  • RNLA 43 brigade

• Scenario
  • Peace keeping operation
  • Current ops

• Measures
  • Observations
  • Questionnaire
  • Group discussion
  • Interview commander
Results

• The reachback concept was judged as a promising concept for future operations
• Suggestions for improvements
**Improvements team work**

**Team building**
- Staff members must know and trust each other
- This must be established before mission

**Team awareness**
- Teams at different places can have different ideas about the situation and how to act
- Face-to-face contact is needed to prevent this. The current tools do not compensate for this
Improvements leadership

Trust
• Commanders trust must be established and maintained
• Therefore, preparation and regular face-to-face contact necessary

Commanders intent
• Physical presence best way to communicate intent
• Available technology insufficient to compensate for this
Improvements information support

**Information supply**
- Delay of information because of indirect communication
  - Briefings
  - Specialist support
- Support tools needed for direct access to briefings and specialist information

**Shared workspace**
- Overview (COP) was not exactly the same in command element and reachback
- Overview must be consistent in both locations
Improvements organisation

**Concept counterparts**
- Information funnel
- Communication and information exchange directly between members of command element and reachback

**Size and composition command element**
- Three persons not enough. Not always the right capabilities
- Make command element flexible in size and composition, depending on the operation
Conclusion

- Reachback is a potential concept for contemporary warfare

- Applying reachback has serious consequences for team work, leadership, information support and organisation.
  - Effective teamwork and leadership require good preparation
  - A network approach is needed for effective organisation and information support
Second experiment: inside – outside area

Command element

Within operation area

Staff capacity

Reachback

Outside operation area

Staff capacity
Joint Caribbean Lion

- Joint (KL, KM, KLu, KMar)
- Combined (The Netherlands, US, England, Canada, France, Belgium)
- Peace keeping / peace enforcement operation
- Caribbean area (Curaçao)
Experiment

- Staff
  - Split staff RNLA 43 brigade
  - Part of staff in Curaçao, reachback in The Netherlands (Havelte)

- Scenario
  - Peace keeping operation
  - future ops

Available means
- TITAAN work station (ISIS, chat, TMS, e-mail, Word, Powerpoint, shared N-drive), VOIP
- Curaçao: all staff members 1 workstation + VOIP
- Havelte (NL): 2 workstations + 1 VOIP for whole staff

- Measures
  - Observations
  - Questionnaire
  - Group discussion
Results

The operational planning process (OPP) could not optimally performed because of the following reasons:

• Organisation
  • no clear task allocation plan
• Leadership
  • Responsibilities leaders not always clear
• Team work
  • Decreased information exchange within staff because of lack of informal communication
• Information support
  • Staff members Curacao hardly reachable, no awareness about plans
  • Limited availability of information and communication means
Conclusion

Reachback in this form has a restraining effect on the OPP

• The right preparations could mitigate this effect:
  • A clear distribution of tasks, responsibilities and working processes
  • Sufficient work stations for staff members
  • Knowledge on how to use these systems
• New means should be used
  • Shared tool (e.g. shared presentations with voice connection)
  • Means that show non-verbal signals during the communication of the commanders intent (e.g. VTC)
Future research

Developments:
• Effect based operations
• From hierarchical to network organisations (NEC)
• From fixed staffs to ad hoc teams

Challenges:
• How to put together distributed ad hoc teams?
• How to find the right people with the right expertise?
• How to bring experts into the process (situational awareness, operational context, commanders intent)?
• How should ad hoc teams work (unfamiliar, task allocation, responsibility, progress, leadership)?
Questions?