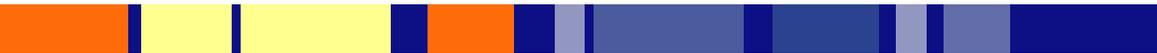


A Reachback Concept for the Future Command Post

Jouke Rypkema
TNO Defence, Security and Safety

TNO | Knowledge for business



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 Bemmelen
- Kees van Dongen
- Aletta Eikelboom
- Rick van der Kleij
- Marcel van der Lee
- Ingrid Weima

Royal Netherlands Army:

- Major Arie van Ringelesteijn

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

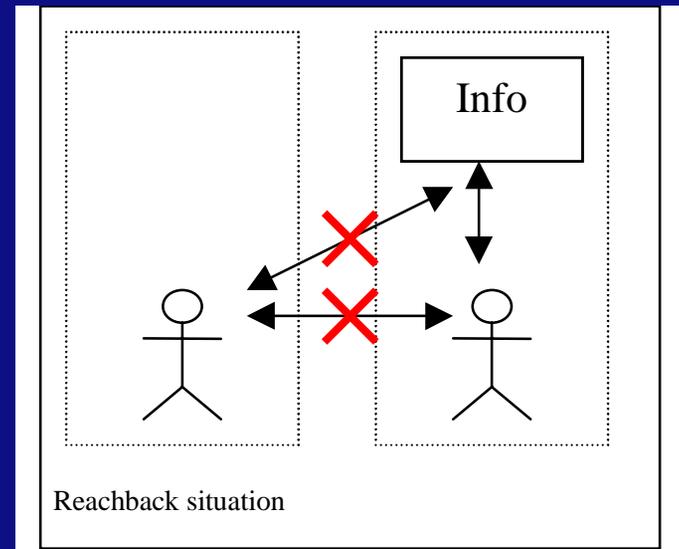
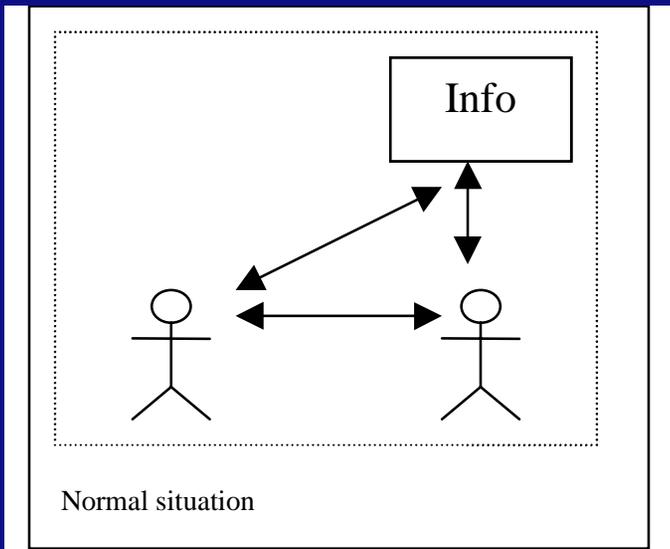
- Safety
- Mobility
- Flexibility
- Specialist support
- Logistics
- Detection



Challenges Reachback

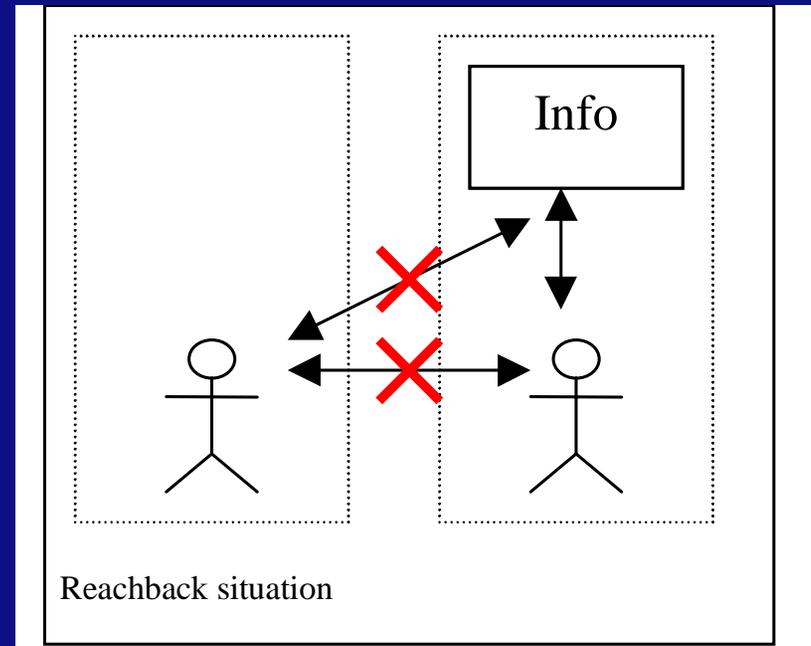
Within reachback studies emphasis is put on technology. We think other challenges should be addressed as well:

- Teamwork
- Leadership
- Information support
- Organisation



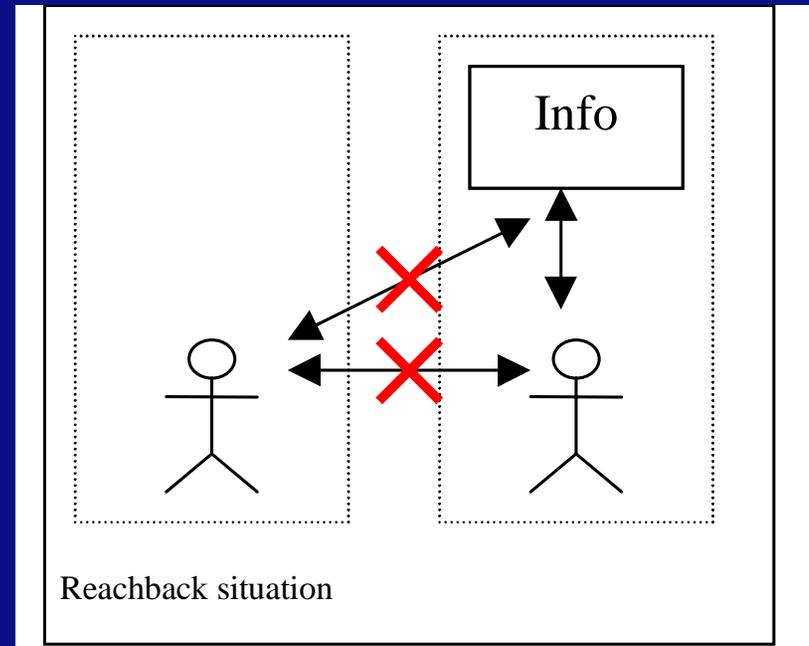
Teamwork

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



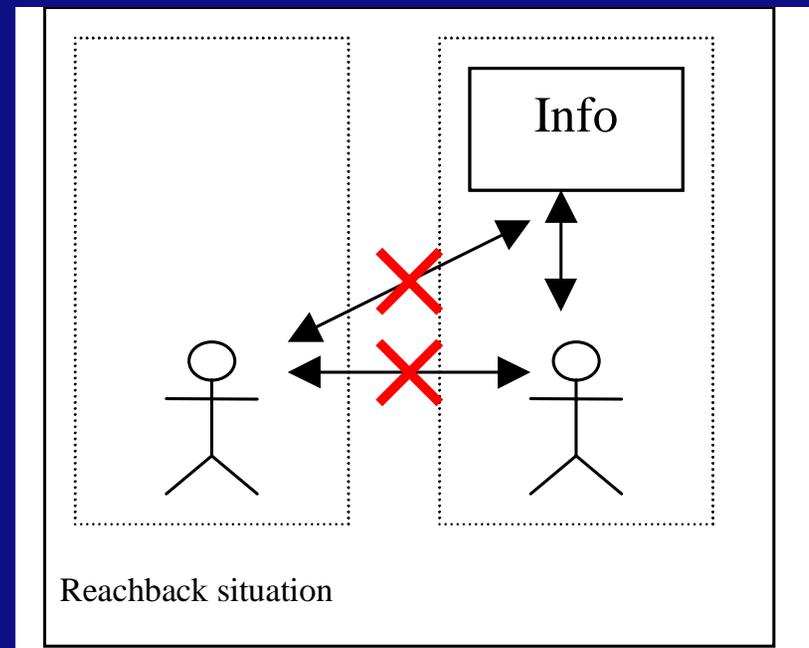
Leadership

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



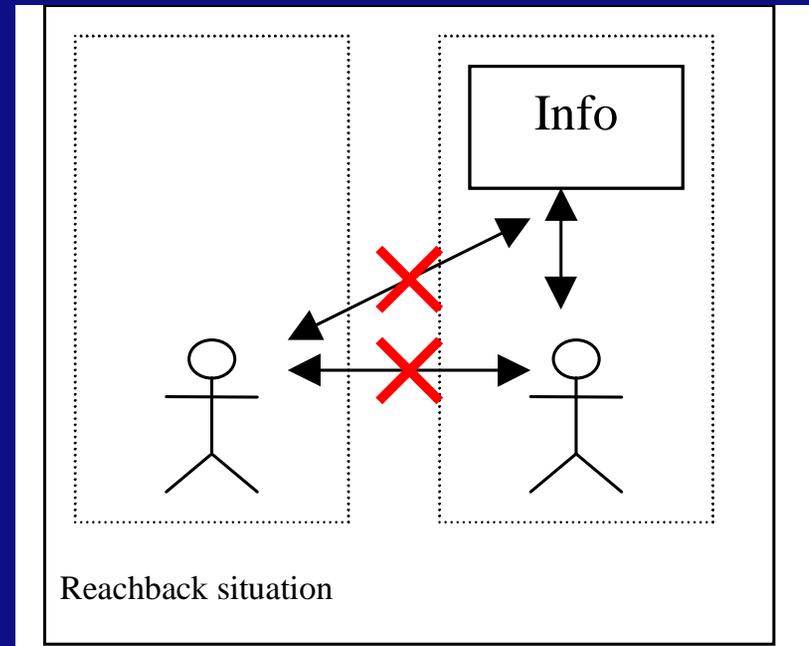
Information support

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

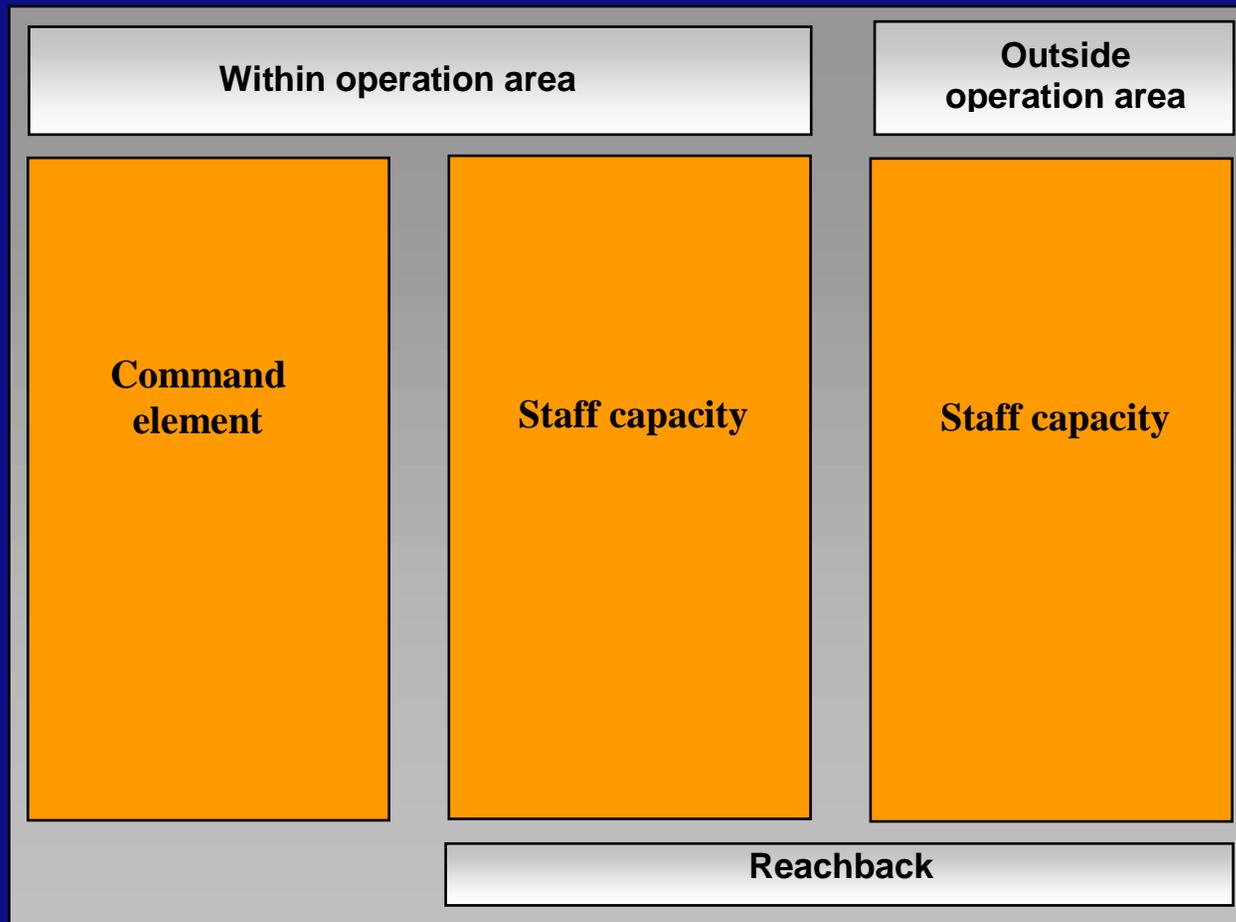


Organisation

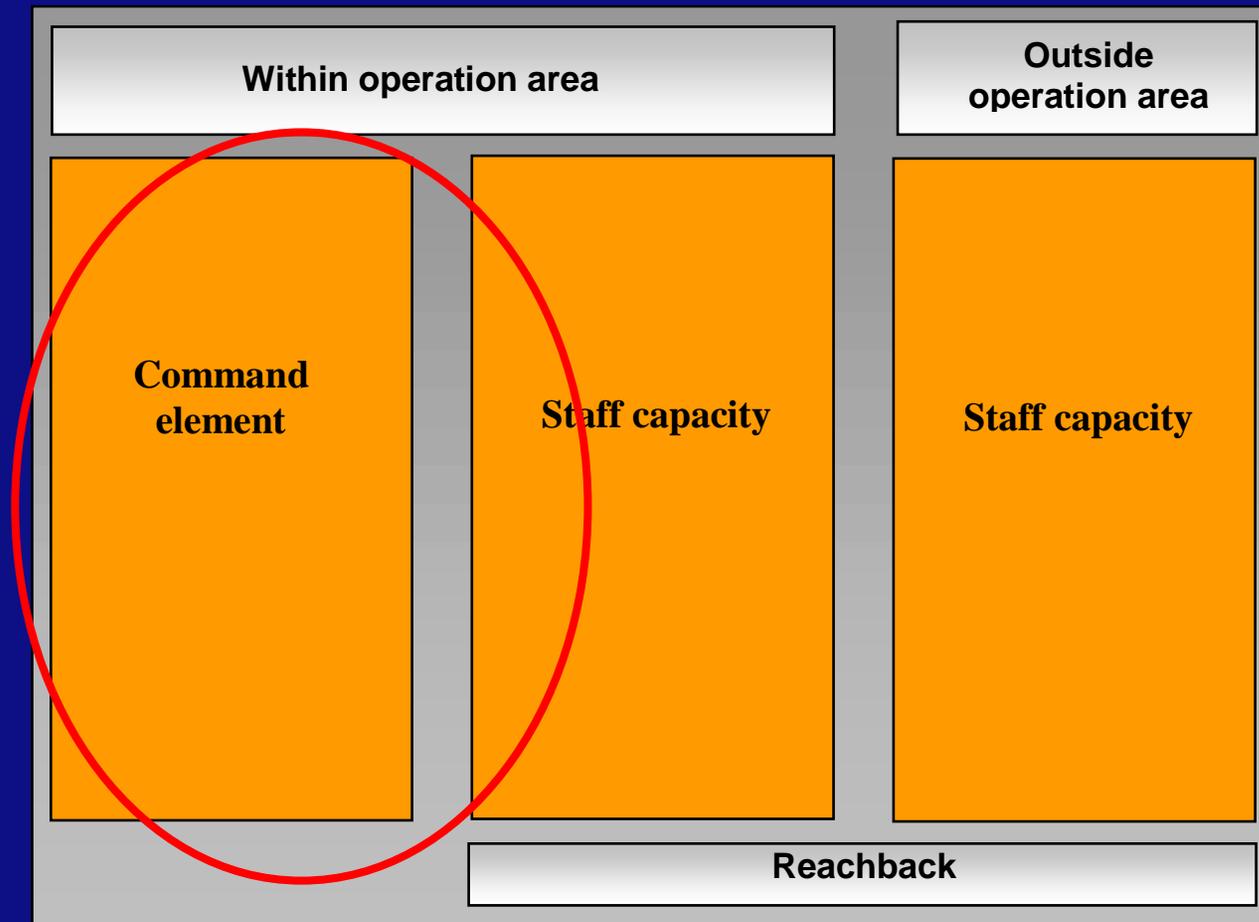
- Location of staff members (who is where)
- Task allocation (who does what)
- Interdependency (who works with whom)



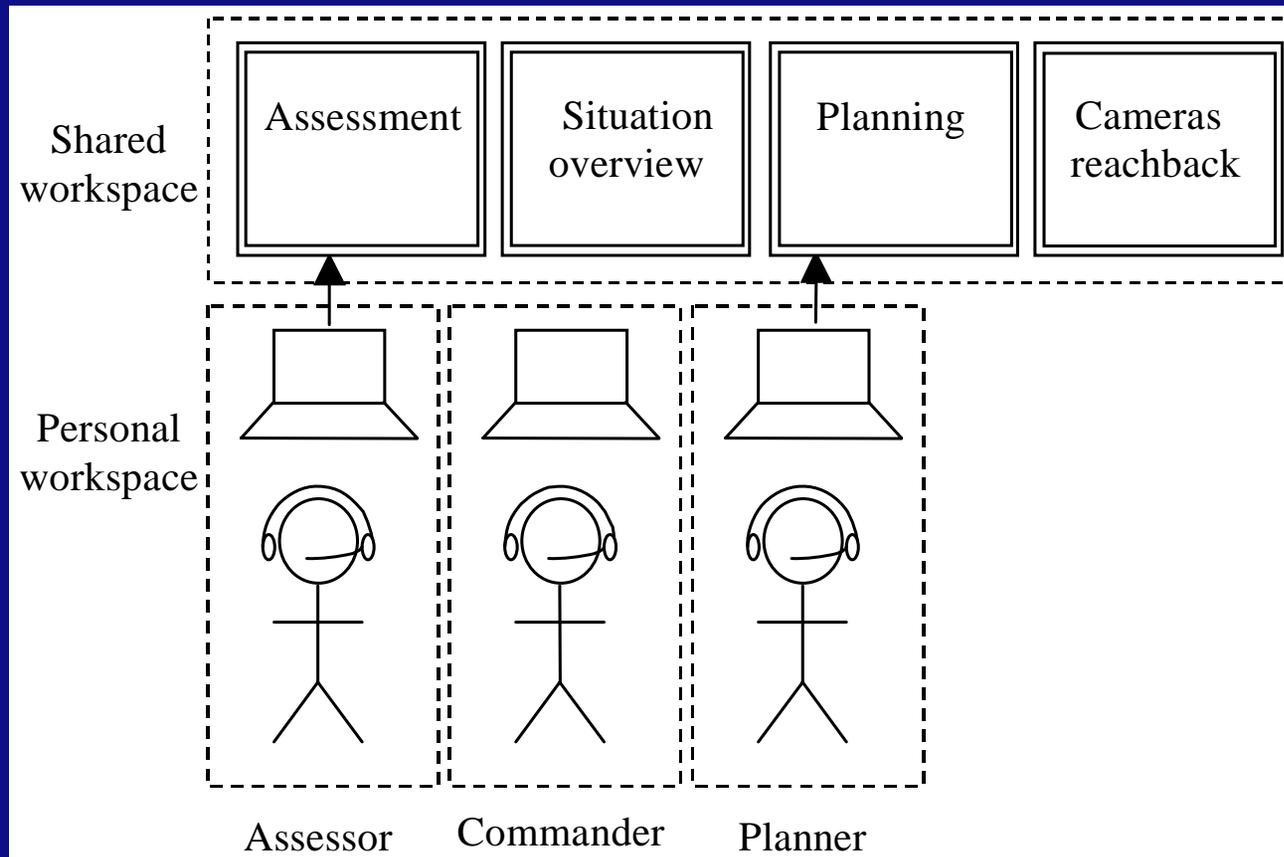
The reachback concept



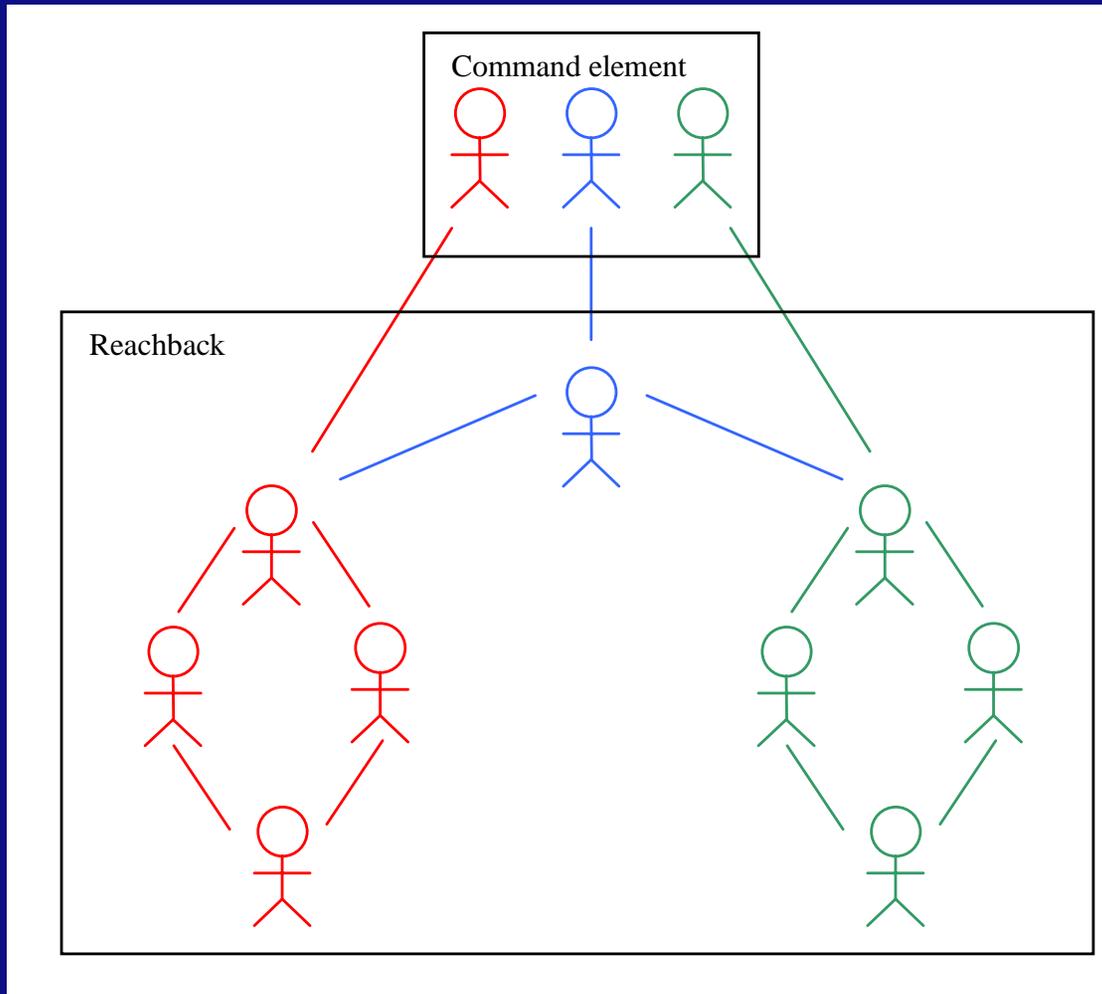
Experiment 2005: command element



Command element



Counterparts in reachback



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

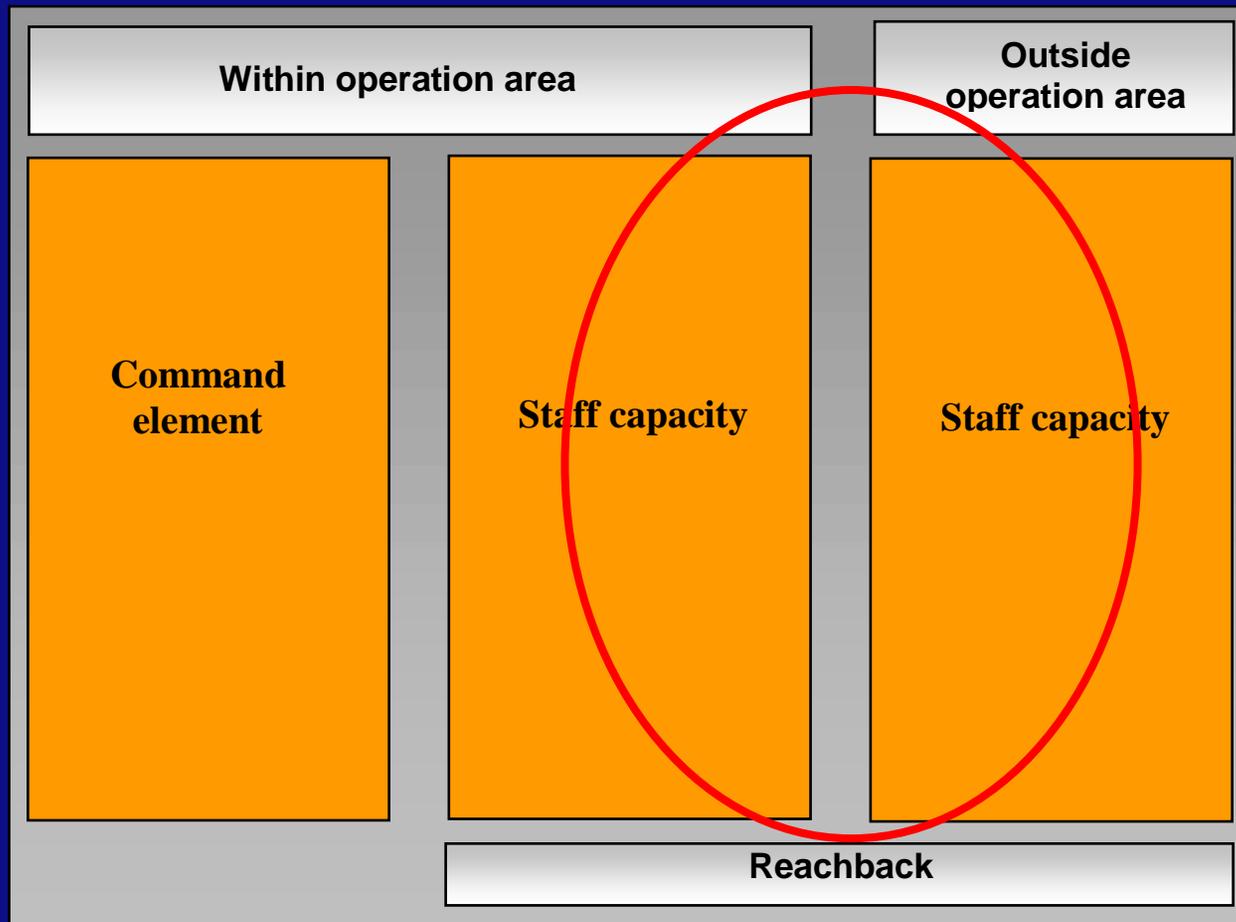
Size and composition command element

- 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



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?