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Agility in Command and Control in a Multinational Exercise

Marten Meijer

Command and Control Centre of Excellence

Dr.marten.mijer@gmail.com

www.c2coe.org

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Executive Summary

This paper presents the results of an analysis of agility in command and control, made during a bi-annual multinational exercise to train for a joint combined military operation in a national military conflict. The analysis focuses on transformations in management and sharing of information within the NATO Comprehensive Approach.

The general conclusion is that management and sharing of information need some improvements, although many activities of military command and control are performed very well. The present operational readiness appears to be sufficient for operations in a national organization of national forces. However, if the intent for future exercises is to incorporate more international participants and non-military organizations, then some preparatory measures should be taken well in advance.

The NATO comprehensive approach is partly embedded in the national system, and it works fine in a well controlled training environment. Challenges will arise when civilian organizations enter an area of real life military operations. Overall observations indicate that the operational level of command made many steps forward into the future of complex international operations. Interaction with more international units and more subject matter experts on command and control might improve the effectiveness of the upcoming exercises even further to be prepared for the execution of a joint combined military operation in the NATO comprehensive approach.

Introduction and research question

Agility in command and control is defined in this study as the capability to adjust to the needs of new operational environments, e.g. joint combined operations in the NATO comprehensive approach. This approach integrates military security efforts in diplomacy and development in international armed conflicts. The test bed for this analysis was a major multinational exercise, in which national operational commands had to develop their social and technical networks into the next level of maturity. The overall goal of this major multinational exercise was to improve the capability of forces and military commands in planning, organizing and conducting joint combined operations, with participation of non-military actors and cooperation with allied forces. The Command and Control Centre of Excellence offered to analyze the areas of Information Sharing within the Comprehensive Approach, Information Management and Staff Processes and Procedures. This offer was well accepted and a team of two subject matter experts was sent to the operational and tactical headquarters of this exercise. The team worked in close contact with the Lessons Learned team from the operational command of the exercise. The analysis objectives are:

- Objective 1: How is information being shared within the NATO Comprehensive Approach?
- Objective 2: To what extent is information right on time available for the right people?

Introduction to the scene of the major multinational exercise

Almost 30.000 soldiers took part in earlier editions of this exercise. The most recent edition of the exercise concentrated on conducting a joint combined operation in the NATO comprehensive approach. The participation of soldiers from all armed services, including the Military Police added a lot of value to such type of exercises. The cooperation between the military and other governmental and non- governmental organizations is considered to be an even greater advantage of the exercise scenario.

For the first time in history this exercise has been included into the NATO programme of training and has become a multinational event. In the past the

role of foreign forces was limited to the participation of observers, but in the current edition the soldiers from a multinational corps of North American countries participated in the exercise. Furthermore, many foreign military delegations observed the execution of the exercise. The number of participating soldiers exceeded 11.000 and more than 2.300 pieces of equipment were used. The exercise was carried out through eight provinces and three nations.

The NATO Comprehensive Approach

In 2011 and 2012 the Command and Control Centre of Excellence organized a workshop and a seminar on the consequences of the NATO comprehensive approach for command and control. This centre also contributed to the analysis of the implementation of the comprehensive approach in the International Security Assistance Force in Afghanistan, the NATO operation Unified Protector in Libya and the NATO counter piracy operation Ocean Shield off the Horn of Africa.

Military activities in defense, diplomacy and development are captured as a Whole Nation Approach, which are endorsed by the NATO summit of Lisbon in 2010 as the new NATO policy. Military means, although essential, are not enough on their own to meet the many complex challenges to Euro-Atlantic and international security. Allied leaders agreed to enhance NATO's contribution to a comprehensive approach to crisis management as part of the international community's effort and to improve NATO's ability to contribute to stabilization and reconstruction. *"The comprehensive approach not only makes sense – it is necessary,"* according to NATO Secretary General Rasmussen. *"NATO needs to work more closely with our civilian partners on the ground, and at a political level – especially the European Union and the United Nations."* The effective implementation of a comprehensive approach requires all actors to contribute in a concerted effort, based on a shared sense of responsibility, openness and determination, taking into account their respective strengths, mandates and roles, as well as their decision-making autonomy. In these activities soldiers are chasing insurgents, helping the local population, reconstructing buildings, restoring local government and are more policing than ever before. Admiral United states Navy James Stavridis, the commander of the NATO Supreme Allied Powers Europe in Mons, Belgium, defined the NATO comprehensive approach as the integration of military security efforts in diplomacy and development. It is also known as the approach of Defence, Diplomacy and Development (3D) or the Whole Nation or Whole Government approach.

Information management

Information management aims to ensure that the right information is available to the right people at the right time in the right format. People, processes and information technology are critical factors in the success of information management. Information security is relevant to the question if the information is available to the right people, e.g. not available to the wrong people.

Methods

During this study, data was collected by observations and questionnaires at the levels of the operational and tactical command. Observations were made during the preparatory mini exercise and the major multi-national exercise in Fall 2012.

Limitations and strengths of this study

This study was conducted by a team of one analyst and two observers in the field, with rather limited time for preparation, so they were not able to get all the details of the exercise in time. They had a helicopter view on what was happening at the operational and the tactical level. The exchange of information between the C2COE team with the tactical sub-units was limited, although the first impressions of command and control at the operational and tactical levels were good. Exchange of information by liaison officers was very good and they provided the observer team with a lot of information about the interoperability between the operational headquarters and the tactical sub-units.

Results

Interviews

Interviews were planned at the operational command of the exercise. Due to reasons like language barriers, time pressure and lack of appropriate locations, these interviews did not take place. However, the conversations which originated from being on the training scene were open-minded and interactive. By coincidence 2 interviews took place at the strategic level. A tactical unit requested the interviewers to stay longer to have a full analysis of their unit, but unfortunately this was not possible because of time constraints.

Questionnaires

In total 15 questionnaires were distributed of which 8 were filled out and returned, which results in a 53% response rate. Most likely and again, this limited response is due to the language barrier and time pressure during the exercise.

Results

Following on the measurement of lines of development of the NATO Network Enabled Capabilities, a questionnaire was developed with items on the Comprehensive Approach. The results were compared with two annual major training events of NATO. It appeared that the scale with these items had a good scale reliability¹. These items were also used in the operational and tactical headquarters in this exercise and were sent out in hardcopy. Due to the low response rate we have to interpret the data with some caution. All respondents were male officers of one nation only, half of them with a rank of colonel, the other half with the rank of lieutenant colonel or major. Figure 1 presents the scores of the respondents of the two NATO events, and the headquarters involved in this exercise on items of the Comprehensive Approach.

¹ Meijer, M: (2012): Consequences of the NATO Comprehensive Approach for Command and Control. Paper presented at the 17th International Command and Control Research Symposium. Fairfax, USA: George Mason University.

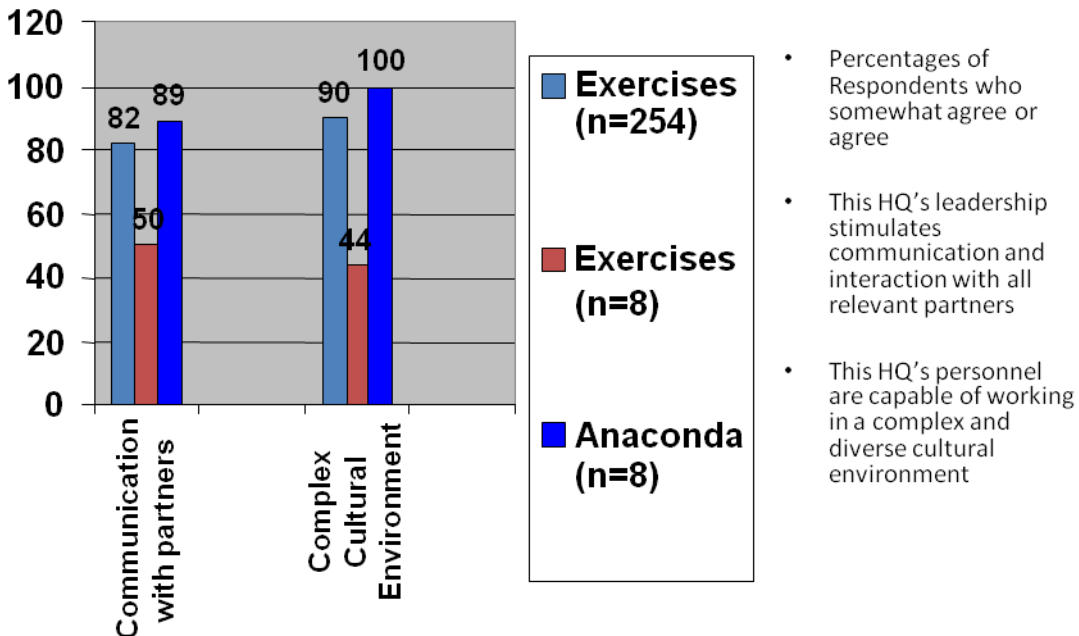


Figure 1. Scores of respondents on stimulation of the interaction with all relevant partners and on capability of working in a complex and diverse cultural environment.

From figure 1 it appears that 89 percent of the respondents of the operational headquarters (somewhat) agreed on the statement that the headquarters' leadership stimulates communication and interaction with all relevant partners. All these respondents (somewhat) agreed on the statement that the headquarters' personnel are capable of working in a complex and diverse cultural environment. They scored higher on the items of the Comprehensive Approach than respondents of other training events.

In another C2COE study a new set of items was used for measurement of information sharing in the comprehensive approach. As these new items did not yet have a good scale reliability, only scores on a few separate items are presented in figure 2. For comparison of the scores of the operational and tactical headquarters in this exercise also data of two other operational headquarters of NATO exercises were used.

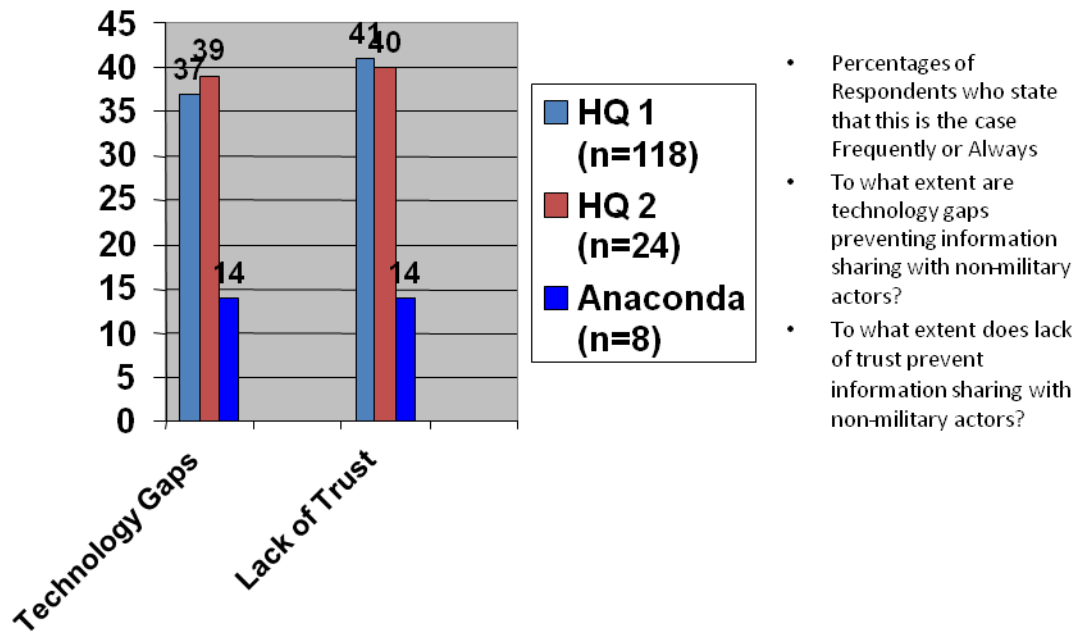


Figure 2. Scores of respondents on adverse conditions for information sharing like technology gaps and lack of trust.

From figure 2 it appears that fourteen percent of the operational headquarters' respondents reported that technology gaps are frequently or always preventing information sharing with non-military actors. The same percentage of respondents reported that lack of trust frequently or always prevents information sharing with non-military actors. Scores of respondents of the other two headquarters indicated much more frequently that technology gaps and lack of trust are preventing the sharing of information with non-military actors. The two other headquarters were assessed in a real life operational area, which could explain the lack of trust and the existence of technology gaps, which prevent information sharing.

Observations

Several meetings and places were visited in order to collect observations. Each observation is followed by a short discussion and a recommendation. o

Interactions within and between the military units and non-military units

Observation 1:

During the Video Tele Conference (VTC) only the liaison officer of the tactical unit and the Special Operations Coordination Cell (SOCC) were present. The other liaison officers were missing for unclear reasons.

Discussion 1:

The liaison officer is the contact or intercommunication between the higher and lower command. During the VTC important information was shared with the commander. It is essential for a LNO that he is aware of the message from his commander. Commanders must make sure that they send the right person; this person should be experienced and have the right knowledge of the unit.

Liaison Officers are:

- Official representatives of the sending organization's commander.
- Authorized direct access to the receiving commander.
- Part of the sending organizations chain of command.
- The responsibility of the receiving organizations Chiefs Of Staff.

Liaison Officers are NOT:

- Augmenters
- Full-time staff members or planners.
- Watch officers or battle captains.
- Substitutes for normal C2 channels.
- Replacements for good staff workers.

During the exercise we saw some improvement of the use of the tactical liaison officers.

Recommendation 1: Use liaison officer in the right way, make them a part of your staff. They are worth their weight in gold, they know people at the other side so they can get the things done much easier. They are aware of the plans of your subunit commander. Send your own liaison officers to tactical sub-units. Establish clear guidance regarding selection of liaison officers.

Observation 2: Local government officials are already embedded in national military structures.

Discussion 2: Local governmental officers were stationed at the operational command level. Their task was to gain situational awareness. All the way down to the level of municipality. This way of information sharing is embedded in the Polish structure. A major

advantage of this system is that they are able to share information without restrictions.

Recommendation 2: Sustain, keep this way of information sharing, it will give you great advantages without any restrictions.

Observation 3: First contact with non-military organizations will be initialized by the civil military cooperation group.

Discussion 3: If the Red Cross or any other organization would be involved in an operation they would be added to the contact persons of the CIMIC group.

Recommendation 3: Sustain, the process is clear for the staff members.

Observation 4 : Lack of interaction with NGO's/GO's in the planning processes.

Discussion 4: No observations could be made about the participation of NGO's/GO's during the planning process.

Recommendation 4: Try harder to involve NGO's/GO's to the planning process to get common understanding of the operation.

Observation 5: Interactions between military units improved during the exercise.

Discussion 5: At the start of the exercise there was little or less interaction of the staff members with the counterpart of the sub-units. Frequently the LNO was used to exchange information. Only branch heads were in contact with their counterparts. During the exercise we saw improvement and information was shared with counterparts. Essential is that the outcome of the interaction is shared within the branch and with the information manager.

Recommendation 5: Sustain, information sharing with counterparts is necessary. If you do not know your counterpart due to different HQ structure the LNO can be used to "find" the right counterpart.

Use of different languages

Observation 1: The national language was used too often.

Discussion 1: At the beginning of the exercise, it was stated that not all the meetings would be in the English language. Actually the outcome was that there was only one meeting in English and that was the VTC with the sub unit commanders. Although the VTC was in English, the comments afterwards were in the national language. Many documents were written in the English language, but still a lot of them were in the national language.

The Share Point page was setup both in English and the national language.

Briefing updates for the night shift were given in the national language, despite the fact that international personnel was present but unable to understand what was said or shown.

Naming conventions for file names of documents in computer storages were partly used. For most of the operational command documents, a national naming convention was used with Polish identification. Also the classification of documents was partly done in the national language. There was a classification policy, but it was written in the national language and was not clear for the foreign participants.

The operation cells were described in the national language. This was translated for most of the cells after some remarks of the players.

Microsoft Office was only setup in the national language.

Recommendation 1: When you have multinational participation make sure that you use the English (NATO) language. Use NATO expressions so that people know what you expect from them.

Ensure that personnel working in or with a HQ have the ability to express themselves in military jargon. Make use of the WISE/ Share Point page in English (NATO language) only.

Setup of stages in the exercise

Observation 1: Before the main exercise there was a mini exercise.

Discussion 1: This exercise was setup to make the audience familiar with the exercise structure and procedures, as well as to establish contacts within the different branches. The mini exercise was well received by the audience and already some shortcomings were taken out.

Recommendation 1: Sustain, it is good to have common understanding of the exercise, how to exchange information and where to find your information.

Observation 2: The branch structures used during the exercise were not clear.

Discussion 2: During the exercise operational functionalities were mixed and not represented properly in branches. From the NATO's organizational structure point of view it was not clear enough to distinguish where to look for the right functionality.

Recommendation 2 : The new Comprehensive Crisis and Operations Management Centre (CCOMC) concept of SHAPE could be a good example. The CCOMC is not a replacement for the J1-J9 structure but a new concept on how branches could be structured.

Information Management

Observation 1: No proper information management plan was in place. There was an Information Management Group in place which was used for distribution of mails.

Discussion 1: Information Management is a responsibility of all personnel and plays a decisive role in a networked organization.

Recommendation 1: Make use of NATO guidance for Conducting Information Management in Joint Operation. Link the IM plan to the Battle Rhythm. The Battle Rhythm is the key tool for the Chief of Staff to ensure that the staff reaches their common goals.

Observation 2: Information overload was due to the fact that most information was set directly to the staff members without any filtering.

Discussion 2: The volume of information is overwhelming for most staff members, and must be filtered correctly to ensure that the commander is not fed with irrelevant information. IM is about making

available the right information to the right person or system at the right time, but not too much. IM is the key to information sharing and to obtain "Shared Situational Understanding", it's an enabler which enhances mission effectiveness.

Recommendation 2: Provide and adhere to NATO policy about distribution of information and include this in your IM plan

Observation 3: No system or network was in place to share information with the outside world.

Discussion 3: In the comprehensive approach we need to communicate with the outside world. It can be usable to setup a web page that can be accessed by everyone.

Recommendation 3 : Take this point in consideration in your IM plan. Change the "Need to Know" policy to the "Responsibility to Share", balanced by the "Need to Know". Involve Information Assurance Officer and avoid over-classification, especially if we look at information sharing with non military players.

Observation 4: Information Management could be explained better to the training audience.

Discussion 4: During this exercise we saw a mixture of staff personnel coming from Army, Navy, Air Force and civilian organizations. They have all their different back grounds from their own working environment how to deal with information and how to store the information.

Recommendation 4: It's advisable to write an Information Management document with the headlines of the Standard Operation Procedures (SOP).

Provide information on how the IM organization is set up, available tools, naming convention, Share Point page, flow of plans and orders, where you can find templates and folder structure. The information manager can give a brief explanation before the start of the exercise, so that everyone has the same mindset.

Observation 5: The Share Point page was partly used.

Discussion 5: More information can be displayed on the Share Point page. RFI (Request For Information), minutes, decisions, documents, weather reports, state of alert, Commanders update brief etc. were not published on the Share Point. This is important information which could be useful for all players. The Share Point page needs to be up to date at all times!

During the exercise some advice was given through the Polish Lessons Learned Cell and improvements were made during the exercise.

Recommendation 6: Improve the use of the Share Point pages.

Observation 7: There was no coordination between the information managers of the operational command and the tactical sub-units before the exercise.

Discussion 7: Before an exercise it's advisable to setup your IM plan for the exercise in close combination with the sub-units, so that you know in advance what you expect from each other.

Recommendation 7: Write a proper operating procedure about the task of all personnel involved, like the information managers, information officers and the information assurance officers. At the NATO school in OBERAMMERGAU (DEU) an IM course is available.

Conclusions

From the interviews, questionnaires and observations it can be concluded that the operational command was really challenged to transform a national exercise into a joint combined exercise with international and non-military actors. During the exercise the enthusiastic training audience demonstrated an attitude of agility and was willing to perform in their best way. The exercise was well prepared, but still needs to be improved to the next stages of international cooperation. During the exercise already a lot of progress into these stages could be observed. Much effort was put in the translation of exercise documents and standard operating procedures into the English language. If one wants to create an international environment, then make sure that everyone is able to write, read and understand all products for command and control are available in English. This includes the language spoken. If an international actor or organization is attending a meeting or conversation then use a language that everyone understands. Live, work and think in that language, make use of your international experience that you all ready have.

To a large extent information is available right on time and for the right persons, although during the exercise a specific information management system was set up. This system could be good enough in the national environment. However, effective interactions in an international environment need to follow the guidance on Information Management given in the NATO Information Management Policy. Information sharing is one of the main items in operations. Commanders have to take decisions on the information that is brought up. Without decent information management they will miss essential inputs. This is why information management policy has to be

developed in close coordination with all headquarters that work together and you have to take in to account that there are also non-military players. Which means avoid over-classification, change your policy in "responsible to share" instead off "need to know", "balanced by the need to know" principles. Make sure that the IM manager has enough seniority, and link the IM manager directly to the chief of staff. Keep shared information up-to-date. The Share Point can be a powerful tool to share information.

Due to the low response on the questionnaires we have to be careful with drawing conclusions. However, if this low response still reflects the opinion of the training audience we conclude that the personnel of the headquarters is capable of working in a complex and diverse cultural environment. The score is higher on the items of the Comprehensive Approach than respondents of other exercises (figure 1). From figure 2 we get the information that technology gaps are influencing information sharing with non-military actors (HQ 1, 37% and HQ 2, 39%). If we look at the results of the OPS command than we see a better score, only 14% believes that technology gaps are influencing information sharing with non-military actors. One of the explanations could be that the operational command was more focusing on the interaction between the military and civilian participants. This could be the same for lack of trust where the score was higher (86%) than with the other HQ's. For this exercise we can conclude that neither technology gaps, nor lack of trust has influenced information sharing with non-military actors for the operational command.

In conclusion it appeared that the exercise increased the agility of the training audience and their commands to adapt to needs of joint combined operations in the NATO comprehensive approach.

Recommendations

Use one language only, preferably English as the main NATO language. Too many opportunities for sharing of information were missed because of the language barrier. A good command of the English language improves the command and control of NATO exercises and operations.

Invest in your Information Managers, give them the right courses and training.

Increase the use of Share Point pages to exchange information. This will save a lot of time searching for the right information.

Good information management starts with the preparation. Setup a meeting with the counterparts/sub-units before the exercise. Develop a common plan for information management.

Exchange information with your training audience. Information management policy could be included in the mini-exercise.

Keep the mini-exercise in your exercise plan to prepare your training audience and to test the systems.

Promote the comprehensive approach, and keep up with the technology improvements. During the exercise information could be shared with non-military actors, as there appeared to be hardly any lack of trust to do so. Technology gaps did not prevent this sharing of information either. The leadership of the headquarters encouraged this information exchange. The headquarters staff members could easily work in a cultural complex environment. This indicates a good implementation of the comprehensive approach although removal of the language barriers could perpetuate this implementation even further. Already a lot of officers and non-commissioned officers have gathered operational experience in NATO operations and exercises, so use their expertise to plan, execute and evaluate the exercise.

Exploit the knowledge that is inside teams and networks already. Many officers and non-commissioned officers were deployed on international military missions. They brought back a lot of knowledge and experience. Use this knowledge, let them speak up on what they felt and let them exchange their thoughts. Make also use of the special operations command group which was deployed during this exercise they have great knowledge on how NATO works and how to share critical information.

Trust, train and allow military actors to interact with their civilian counterparts, which is essential for the success of international operations in the NATO comprehensive approach. Do not stick to hierarchical structures only and make sure that all the information is shared by well functioning social and technical networks. Training and education is essential for the personnel. Make sure that personnel have right skills and attitudes for the job he or she has to do.
