

## Report Working Group 3

# Measurement of the Comprehensive Approach Processes in the Field NATO Operations

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### **ABSTRACT**

*Working Group 3 discussed how to measure Comprehensive Approach (CA) processes in the field. Members of this Working Group recommended that this be done by recording the baseline for the current situation so that the impact of future changes can be more easily determined. This baseline measure should then be followed by three stages of assessment, and finally should ensure that the work is standardized within NATO and its participating nations. The three stages of assessment include the pre-mission work, followed by an internal assessment in which each mission's processes are analysed, and would conclude with an external assessment in which the effectiveness of the CA is measured. In addition to these stages it is important to ensure that the lessons learned from the assessments are available when planning future missions.*

## **1.0 INTRODUCTION**

As part of the North Atlantic Treaty Organisation (NATO) Research and Technology Organisation (RTO) Human Factors and Medicine (HFM) Workshop (RWS) on Collaboration in a Comprehensive Approach (CA) to Operations, several working groups were tasked with defining, modelling, and suggesting strategies for implementing the comprehensive approach (CA). Working Group 3 was given the topic of how to measure CA processes in the field, specifically which processes to measure, what to look at, how to do it, and how to standardize measurement. This paper outlines the results of the 5-6 Oct 2010 Working Group 3 discussion.

## **1.1 DEFINITIONS**

There is no specific definition of CA for NATO and the member nations so the aspects of CA that were commonly accepted within Working Group 3 are outlined in this section. CA is a philosophy that aims at providing positive organisational outcomes associated with (in the NATO context) the NATO contribution of a mission. This operating philosophy, which emphasizes collaboration, should cascade down from the strategic to the operational and tactical levels, as well as impact all the stages leading up to and across the timeline of a NATO mission. The measurement aspects of CA should be multi-layered and mission-specific.

## **1.2 ASSUMPTIONS**

In addition to definitional issues there are some assumptions that were made.

CA is a systems approach and involves all elements within a mission area. NATO is one element within a larger system, and NATO should not assume that its CA is the only CA approach within the larger system. The CA approach looks at a NATO mission while recognizing that other non-NATO players will be present. The willingness (or unwillingness) of non-NATO players to participate in CA, and their level of cooperation or compliance with NATO, will vary across missions, players, and levels.

Nevertheless, it was thought by members of the Working Group that NATO should have a consistent CA, although how that CA interfaces with other stakeholders in a larger system will vary. As an operating philosophy CA does not require a common set of tools and methods for every mission, although some overlap between missions is expected.

The strategic, operational, and tactical layers in a NATO mission will experience CA in different ways and have differing measures. Since CA is an approach that will require development in the months and years leading up to a mission, so too will measures span a similar length of time. CA measures cannot be entirely developed by NATO; outside guidance will be required to ensure that CA measures allow for the assessment of NATO's ability to work within the CA.

## **1.3 CAVEAT**

The development of a CA while NATO is undergoing a massive review of its place in the world is challenging. It should be noted that while the efforts of the Workshop participants provide some guidance, this paper captures what should only be a preliminary discussion of the topic; a longer-term and more robust process should incorporate even more diverse views and expertise.

## **2.0 THE CURRENT STATE**

In order to be able to more effectively determine a future path it is important to know the current state. Answers to the following questions should be sought:

- How do we understand where we are with respect to NATO CA?
- How do we build a “baseline” of where NATO CA stands now, so that we can understand how much work has been done?
- How do we understand all the participants’ roles within CA?
- How do we understand the cultural factors across NATO that are limited facets of CA?
- Ultimately what is the current CA model and where is it working and where is it not?

In order to answer these questions, a methodology must be pursued. This should include extensive and comprehensive survey- and interview-based research to look at:

- Understanding the cultural facets of CA and the effects of both military and non-military culture on different elements of each NATO mission.
- Understanding which facets of organisational interaction and information flow impact on CA.
- Understanding level-specific facets of CA in terms of processes and key competencies (e.g., at the tactical level, analyzing issues of awareness of other groups and communication flow).
- Longitudinal work, to understand the impact of CA-related factors on people at different stages of their mission experience and at different stages of the overall mission.
- Organisational analysis to understand the linkage between outcomes (or operational-level measures of effectiveness) and facets of CA.
- Measurement aspects of the willingness to interact and collaborate between different groups and NATO.
- Measurement linkages between behaviours and perceptions of groups and elements within and outside of NATO.
- The study of non-NATO groups.
- Specific methodologies, which would vary by organisational level (e.g., social networking at the tactical level).
- Identification of key nodes and the development of unique methodologies to research these different nodes in order to improve access to key facets (e.g., trust for some nodes, communication for others).
- The impact of all of the above on the target audience.
- The impact of all of the above on civil society, and not only the representative government.

In addition to this research it is recommended that NATO pursue the building of models of key psychological, cultural, and organisational facets that moderate or impact on CA. NATO should facilitate the development of a research program to examine the impact of CA processes. Although many of the topics listed above are not focused on measurement per se, their examination will allow for a richer understanding of the CA context as well as the issues that need to be addressed by measures of effectiveness.

### 3.0 MEASUREMENT OF THE COMPREHENSIVE APPROACH IN THE FIELD

When measuring the performance and effectiveness of CA in the field there are three stages that should be addressed separately. As seen in Figure 1, the preparation that is conducted prior to executing the mission should be addressed first, and during the mission both internal and external assessments should be done individually.

#### 3.1 PRIOR TO MISSION

Prior to implementing CA on specific missions, CA processes and individual competencies need to be identified and developed within NATO and the participating nations. This section outlines the goals of this work.

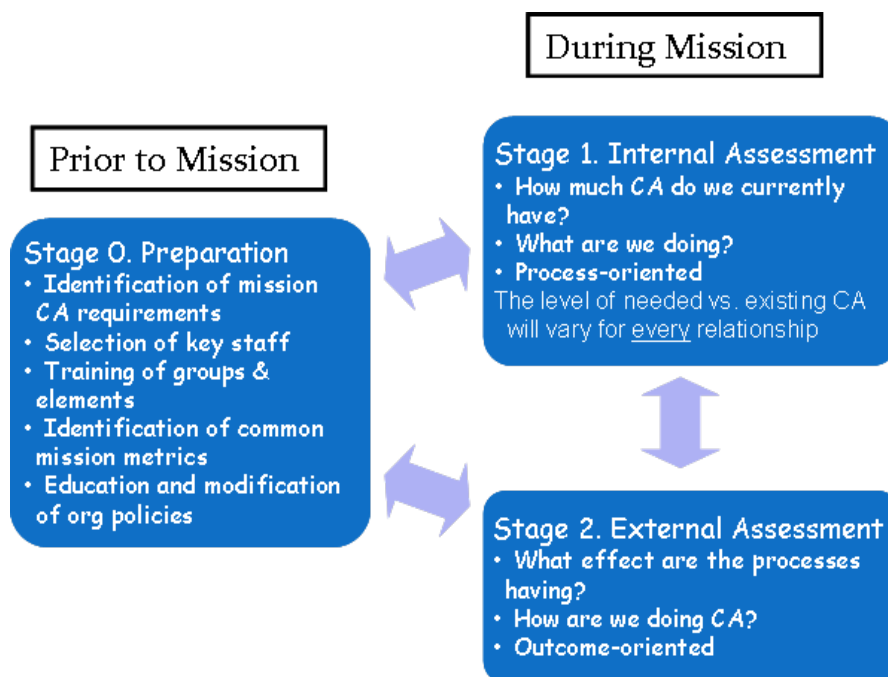


Figure 16 - 1: Measurement levels when using CA in the field

The core CA processes should be designated at the individual, group, department, and national levels, and of these the critical competencies must be maintained at each level in order to support future CA missions. A policy dialogue should occur prior to each mission with the recognition that such a discussion is never complete; yet, this would be a good opportunity to do preliminary work (e.g., with policing).

In order to more effectively ensure that competencies are well maintained, selection and training programs should be developed for each level (see Figure 2). The training should include acclimatization and should be supported by education programs. Similarly, CA principles should be integrated into national-level training and courses.

In addition to improving CA competencies within NATO, it is also important to regularly review the organisational structures that have an impact on CA.



**Figure 16 - 2: Developing NATO CA capacity through training**

In order to ensure that CA is well fostered within NATO it is necessary to measure the capacity to implement CA. For each of the goals mentioned in the previous section the associated measure is given in Table 1.

**Table 1: Measuring nascent CA capacity**

<b>Goals</b>	<b>Measures</b>
Design of core CA processes, capabilities and competencies at the individual, group, department, and national levels	Validation of design process and measuring key organisational outcomes
Develop training, education and selection programs for each level and a range of CA positions	Validation of national and multi-national training and selection programs for a range of CA positions
Develop critical competencies that must be maintained in each department to support future CA missions	Readiness-based measures; in essence are the competencies readily available for deployment and if so, what level of readiness must be maintained, or are they notional
Development of NATO informational technology (IT) systems that will meet key information management (IM) requirements	Testing of IM systems through national and NATO exercises and training framework
Review of organisational structures that would impact CA	Completion of review of organisational structures regarding their impact on CA
Integration of CA principles in national-level training and courses	Program reviews of educational programs
Develop acclimatization / education programs	Program reviews of acclimatization and educational programs

### **3.2 DURING MISSION: STAGE 1 INTERNAL ASSESSMENT FOCUS**

The stage 1 assessment is process oriented, and in essence would assess “how much” CA each NATO mission has, with the recognition that there is no perfect amount of CA as each mission and context is unique. As a result, the measures used will be dependent upon the mission. A comprehensive list could be developed and added to after every mission, where not all measures are applicable to each mission, and each mission would require a review to determine if gaps exist. This can be explained using a dual axis with one axis representing the desired or required amount of CA while the other axis represents the actual amount of CA. The desired amount would fluctuate between individual departments, nations or even within sub-groups.

Ideally the points along the two axes would be as close as possible. In the months leading up to mission launch, the baseline – those pre-determined needed CA competencies – would be developed during the pre-mission work in order to ensure the ideal level of CA that each NATO mission should have, although this ideal quantity would fluctuate over the mission length.

The assessment of “how much” CA that different elements of a comprehensive mission should include would require a multi-methodology, multi-disciplinary approach. Some specific metrics that can be evaluated include:

- Cognitive ability of key leaders and staff to understand and use a range of relationship models with NATO and non-NATO leaders in the mission area.
- Organisational capacity to incorporate a range of organisational relationship models with other organisations, both NATO and non-NATO.
- Effectiveness of inter- and intra-group information flow.
- Effectiveness of information routing.
- Technological measures assessing the command, control, and communications (C3) systems and information flow between NATO elements.
- Assessment of information flow between NATO mission and non-NATO players such as non-governmental organisations (NGOs).
- Policy coherence.
- Group core function efficiency.
- Work flow analysis (e.g., are groups using other assets).
- Attitudes and perceptions toward other groups.
- Common planning processes that factor CA needs into structured processes.

### **3.3 DURING MISSION: STAGE 2 EXTERNAL ASSESSMENT FOCUS**

The stage 2 assessment focuses on the effects of individual organisational changes. In essence it assesses the impact of the CA processes on national mission outcomes and goals. These goals and their measures will vary by group, team, unit, department, and nation. They should focus on specific competencies, skills, and/or abilities at the individual, group, and/or unit level.

- The measures for this stage must cover the range of leaders or influencers, and how the key participants interact together. While the Working Group members developed an extensive list of measures during the Workshop, the list is only preliminary as the variety between missions will necessitate different and tailored measures. The list of impacts that should be measured is as follows:
  - Effectiveness of the transition of new staff in terms of knowledge transfer and maintenance of relationships (i.e., 360 degree feedback and teaching knowledge test (TKT));
  - Core competencies at the individual and group level present (checklist);
  - Teams, groups, and units have required level of knowledge about other groups, teams, and units needed for effective task assignment and information flow;
  - Resource efficiency or level of resources spent on non-core functions is minimal;
  - Individual and team capacity to be aware of other groups’ needs and roles (TKT);

- Effectiveness of relationship development in key positions;
- Operational assessment and lessons learned process looking at facets of CA;
- Assessment of how effective information flow is to outside agencies;
- Peer review of competencies such as awareness and understanding of other groups/agencies;
- Team assessment processes of awareness; and,
- Leadership support for aspects of CA measure.

#### **4.0 STANDARDIZATION**

It is important to standardize the measurement and assessment process in order to ensure that progress within the NATO context can be studied over time. This needs to be done both within NATO and at the national level for participating nations. Though organisational metrics will vary somewhat within separate national forces, it is recommended that, where possible, common methodologies and a standardized assessment framework be established. Such attempts at common methodology should not, however, be seen as the “gold standard” that limits forward progress on an assessment framework.

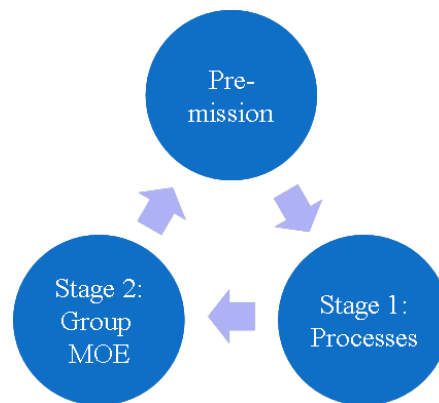
At the national level these data should be captured within the unit and team lessons learned process. There should be a process to capture data on measures from one rotation to the next, in a consistent way (this might require the use of quantitative and ordinal data). There should also be a process to assess group progress on key measures over the length of a rotation (e.g., information flow and coordination functions within whole-of-government elements as well as between them and their non-NATO elements).

Within NATO there should be a historical approach to understanding the different national approaches across a NATO mission. This would require a review of how individual nations have handled these types of missions in the past, and an analysis of their successes and failures (see, e.g., Hrychuk & Gizewski, this volume). There should also be a process to ensure a cross-national assessment of efficiencies (i.e., some common measures or metrics).

Finally, there should be an ability to take the data, analysis, and lessons observed from each mission and use these to provide insight and recommendations to future missions.

#### **5.0 CONCLUSION**

When developing the ability to measure CA processes in the field, it is important to address each of the stages of the assessment process in order to ensure that the analysis is as comprehensive as possible. In order to ensure that the analysis is valuable it is important to maintain the stages as a standardization and feedback loop, which involves pre-mission baseline measurement, the measure of internal processes during a mission (Stage 1), and group measures of effectiveness (MOE) (Stage 2), as shown in Figure 3.



**Figure 16 - 3: Standardization and feedback loop**

In addition to these stages it is important to establish which CA competencies are needed, in order to be responsive to improvements or deteriorations during the mission, and to ensure continuous lessons learned processes during and after each mission. A historical and/or case study approach should be used to assess commonalities between missions. A statistical analysis of workflow and efficiencies of the units, groups, and teams should be conducted during and after missions. Finally, currently there is limited or no formal, standardized assessment of CA within NATO training; therefore, the effectiveness of training should be analysed in order to ensure that everyone has the needed competencies for optimal CA processes.

As a final caveat, it is worth repeating that the development of a CA while NATO is undergoing a massive review of its place in the world is challenging. The present summary captures the highlights of a preliminary discussion among members of Working Group 3 regarding measures of effectiveness for CA processes in the field. Incorporating a broader range of views and expertise, and thus a more elaborated discussion of relevant measures of effectiveness for the CA context, particularly from the NATO perspective, would require a more robust process.