

THE INFLUENCE OF OPERATIONAL ENVIRONMENT ON COMMANDER'S CRITICAL INFORMATION REQUIREMENTS (CCIR)

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Today's operational environments are complex and require continuous learning and adaptation. The operational environment is different from each campaign or major operation. It is imperative that commanders understand the operational environment prior to taking effective action. The intelligence personnel has the related tasks and systems that facilitate understanding of the enemy, terrain and weather, and civil considerations, which includes areas, structures, capabilities, organizations, people, and events. It is crucial that all commanders and staff sections participate in intelligence planning, from the identification of information requirements through the collection and reporting of information to answering the commander's critical information requirements (CCIRs).

Keywords: intelligence; environment; decision-making; factors; civil considerations.

Transformations that occurred in world economy, information globalization and security issues have brought in a new position of the main actors of contemporary geo-political phenomenon, non-state actors; between the transnational or international organizations which have their own special role.

As regards multiplication actors in the picture of current international relations related with the cold war period, a former director of Central Agency of Intelligence (CIA) of the U.S. said: "Yes, we have killed a huge dragon (allusion to former USSR - author's note) but now we live in a jungle in which swarms in the wrong order a variety of poisonous snakes. In many ways it was much easier to keep the dragon shadow"¹.

In future conflicts, "the parties" will no longer be classical armies and will be, perhaps, deeper "theologized". Engagement space of current

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¹ Sergiu Tămaș, *Geopolitica: o abordare prospectivă*, Noua Alternativă Publishing House, Bucharest, 1995, p. 248

operational environment will be more urban and will have a level of complexity and brutality without precedent.

The Theater of Operations is no longer limited geographically to the area of combat operation. It includes and adjacent areas, but also areas of interest that may affect nonmilitary operations, such as terrorism, organized crime and other transnational threats. Information about these areas or domains may not be, as a rule, collected and analyzed using the resources of information that are available to the commanders in the theater of operations, but are provided by the strategic level through intelligence services.

The influence of Operational Environment on military actions

Operational environment is that part of the environment into which countries engage their own forces and capabilities and so, the interaction between various actors creates conditions acceptable or unacceptable in relation to final desired condition.

Operational Environment of employment of forces includes space land, air, naval, and cosmic electromagnetic spectrum, as well as a mixture of conditions, factors, and associated systems of the adversary, friendly forces, Allied /partners, and neutral (political, military, economic, social, informational and infrastructure - PMESII) that may influence military actions. Understanding operational environment requires a comprehensive approach² to all important systems of stakeholders. Understanding these systems support analysis centers of gravity, courses of action and allow identification of a set of options by which to use efficient available capabilities, to create desired effect and to meet the objectives set³. It also includes, facial resemblance land, the state capacity of governing a state, available technologies, resources and culture local population which may affect the conduct of specific operations⁴.

Today's adversaries, including, in this category alike both states, as well as non-state actors, may act in the framework of systems creating

² Dr. Teodor Frunzeti, Revista *Impact Strategic*, nr. 3/2012, "In the specific literature the concept of comprehensive approach does not have a very clear definition and widely accepted by international community. In his most simplistically mean, the comprehensive approach means combining civil and military tools and imposing cooperation between government departments, not only for operations, but also more broadly, to make currently security challenges of XXIst century, in particular terrorism, genocide and proliferation of weapons and dangerous materials, p. 7.

³ SMG 65, *Manualul de planificare al operațiilor*, Bucharest, 2011, p. 181.

⁴ United States Joint Forces Command (USJFCOM), JOINT WARFIGHTING CENTER, 116 Lake View Parkway, Suffolk, *Commander's Handbook for an Effects-Based Approach to Joint Operations*, http://www.au.af.mil/au/awc/awcgate/jfcom/ebo_handbook_2006.pdf, p. I-2., 15 apr. 2011.

federative, interconnected, complex and adaptive, which exceed the limits geographical borders. Therefore, these adversaries may not be analyzed only in terms of military capabilities.

Factors catalysts, which have contributed to the setting of complex operational environment and changing, fundamentally, the way in which the war acts today, are: globalization, informatics revolution, redefining adversaries, climate changes and natural disasters, the proliferation ANM and reducing military forces (facilitated by the adoption of means of fighting based on high technologies). Current terrorist organizations have been found to be extremely creative and adaptable to operational environment and counterterrorist measures adopted by states. The state can counteract actions of these groups through anti and counterterrorist effective measures. Effectiveness of such measures not only gathering of data and information about the activity terrorist organizations, about plans and their intentions, but also a good cooperation between the various institutions with tasks in the field: administration, law enforcement, information services, but also mass-media, through the organization and implementation of activities and educational propaganda.

Operational factors

Analysis of the broad aspects of an operational environment in terms of operational factors (political, military, economic, social, information, infrastructure, physical environment, and time) provides relevant information that senior commanders use to understand, visualize, and describe the operational environment⁵.

If the operational factors are directly relevant to planning a campaign, for planning at tactical level they are less relevant, whereas exceed the area of action of tactical missions. That does not mean that they do not have any value at this level. On the contrary, where the situation requires, it must be treated as such, at all levels. They are fundamental in understanding operational environment and useful for the planning operations on any level, in any situation. When threats are identified on the basis of systems associated of adversaries, friendly forces, Allied /partners, and neutral (political, military, economic, social, information, infrastructure - PMESII), there are three main components of operational environment for which the intelligence branch is responsible: threat, terrain (to include weather) and civil considerations.

The degree to which each operational factor provides useful information depends on the situation and echelon. Once intelligence personnel have completed their overall analysis, they issue in small unit

⁵ FM 2-0, *Intelligence*, USA, mar. 2010, p. 1-1

leaders' intelligence requirements. For example, social and economic factors often receive close analysis as part of enemy and civil considerations at brigade and higher levels. These factors may affect the training and preparation of small units. However, they may not be relevant to a small unit leader's mission analysis.

Tactical factors

Upon receipt of a warning order (WARNO) or a mission, unit's commanders focus directly on six factors which affect their mission. These factors are those aspects of operational environment, which directly affect the mission. They outline the situation as it applies to a specific unit.

The tactical factors are mission, enemy, terrain and weather, troops and support available, time available and civil considerations. These are the categories of relevant information⁶ used for mission analysis. Commanders use the tactical factors to synthesize the operational factors and tactical-level information with local knowledge about conditions relevant to their mission. Intelligence personnel are responsible for describing the enemy, terrain and weather, and civil considerations:

a. Description of enemy. That includes relevant information such as: characteristics threat and enemy courses of action (COAs).

b. Terrain and weather. Terrain and weather are natural conditions that profoundly influence operations. Terrain and weather are neutral. They favor neither side unless one is more familiar with (or better prepared to operate in) the environment of the area of operations.

c. Civil considerations. Civil considerations are the influence of manmade infrastructure, civilian institutions, and attitudes and activities of the civilian leaders, populations, and organizations within an area of operations on the conduct of military operations⁷. Understanding operational environment requires knowledge of civil aspects in the area of influence. Civil considerations contain six characteristics, known as ASCOPE⁸:

- *Areas:* *Where* people meet, live, work and spend their time (religious and political borders, social and criminal enclaves, industrial and agricultural regions, commercial routes, government, political and military centers)?

⁶ Relevant information is all information of importance to commanders and staffs in the exercise of command and control. Source: FM 3-0, *Operation*, USA, 2008.

⁷ Mission Command: Command and Control of Army Forces, USA, 2003, p. B-9.

⁸ "ASCOPE" is a method to know and understand operational environment. This is done by the response to the five questions: who, what, when, where, why, and how about operational environment. ASCOPE helps us to let us take up the problem from the point of view of nature of population and nature of insurgence. Understanding ASCOPE is essential to identify the causes of insurgence.

- Structures: *Why* are constructions in the area important? Bridges, mosque, markets, the houses for tea parties, the hospitals, Internet cafe, objects of art and culture, etc.

- Capabilities: *Who* in the Community can provide the capabilities (those necessary lives, self inhabitants, social support, education etc.) to people?

- Organizations: *What* are populated Groups in the area (tribes, companies, mass media, governmental and non-governmental organizations, the International Red Cross, criminal organizations, etc)?

- Population: *How* people interact (local and tribal leaders, clerics, employees, population of row)?

- Events: *When* it happen special events (elections, national and religious days, obsequies, street parties, etc)?

In other words the operational environment is any, anyone and any events around us.

In conclusion, analysis of tactical factors allows commanders to compile operational intelligence with the local relevant intelligence, for missions and activities in an area of specific operations. The tactical and operational commanders can predict such consequences of their actions and subsequent during their execution.

As a result of the above, the armed forces interact with the population at all operation levels. In general, anyone in operational environment can be described as enemy, adversary, supporter or neutral. In today's connected environment, the four categories are mixed together, being difficult enough to differentiate them. The American army manual of operations, defines these categories as follows:

- An *enemy* is that part identified as hostile, against which it is permitted to use force. Also, an enemy is named combatant and is dealt with in accordance with the laws of war;

- An *adversary* is the part known as potential hostile to Allied Force and against which can be taken into consideration, the use of force. As adversaries are included the members of local population which support (sympathize with) enemy;

- A *supporter* is the part that sympathize with Allied Force and which may or may not, to provide material support or any kind of support;

- A *neutral* party is identified as neither supporter, nor opposing to Allied Force or enemy.

Knowledge of social and cultural factors

Civil considerations comprise six characteristics expressed in the memory aid ASCOPE. Depending on the echelon conducting operations, these factors may be expressed using the joint systems perspective, the

operational factors, or the tactical factors. The Armed Force uses the ASCOPE characteristics to describe civil considerations as part of the tactical factors during IPB and mission analysis. Relevant information can be drawn from an ongoing analysis of the operational environment using the operational factors (PMESII). Additionally, the human terrain analysis team can provide detailed information and analysis pertaining to the socio-cultural factors involved in the operation⁹.

Culture is a key factor to understand local population. It is part of residents' life and represents the values, traditions, habits and remainders members of a society. Cultural awareness has become an increasingly important competency for intelligence personnel.

Understanding other cultures is applicable to all operations, not only those of stability. For example, a kind of procedures can be used against an enemy who considers that surrender is more dishonored and worse than death, compared with those for which surrender remains a respectable option, and is not morally or legally punished. Commanders at all levels must understand the situation from a cultural point of view, while avoiding their own cultural prejudices.

Knowledge of cultural factor is also crucial to the success of multinational operations. Commanders and their subordinates it takes time to learn customs and traditions, operating procedures and doctrine of multinational partners and the host nation. To operate successfully in a multinational environment, commanders must recognize any cultural differences, as well as the differences of interpretation of orders and instructions. They must learn how and why others think and act as they do.

Therefore, before participation in a multinational operation, of any kind, the forces participating must execute in time, a common preparation with aspects of AO/TO where they are to attend. This preparation is followed by a specialty training, specific of each structures or individual, so that at the end of this period of training each has to understand what has to be done and what should you act (involving knowledge of strategies, techniques and specific procedures) in a multinational operational environment. It also involves knowledge of partners/ Allied action but also of enemy skills.

The considerations of environment on commander's critical information requirements at the operational level

Executive summary

CCIRs directly support mission command and commander-centric operations. CCIRs are that necessary information of commander, for a correct assessment of operational environment and the taking of the best decisions in critical points. CCIRs as a related derivative of guidance and intent, based on

⁹ *Ibidem* 5.

its experience, the mission to be fulfilled, the data entered by its own staff, the intention of higher commander, the estimates of the intelligence branch on current situation, any changes of the events produced by the effects of the activities of an enemy and requirements cycle decision-making.

We observe that CCIRs at most operational level headquarters are developed to support two major activities:

a. Understanding the increasingly complex environment (e.g., supporting assessments that increase this understanding of the environment, defining and redefining of the problem, and informing planning guidance)

b. Commander decision-making, by linking CCIRs to the execution of branch and sequel plans¹⁰ during line of operation.

This is a necessary and broader view than the more widely recognized role of CCIRs only supporting well-defined decision points¹¹. Commanders' direct involvement in guiding CCIR development provides the necessary focus for a broad range of collection, analysis, and information flow management to better support decision-making.

CCIRs at the higher echelons must support understanding of the increasingly complex environment characterized by global interrelationships, massive information flow, nontraditional and less predictable adversaries, humanitarian considerations (e.g., disaster relief), and interdependence with our joint, interagency, and multinational partners. These CCIRs must support decisions on both lethal and nonlethal actions as we operate as part of a unified action and comprehensive, whole of government(s) approach.

The characteristics of CCIRs are the following¹²:

- helps the commander in correct assessment of the battlefield;
- are characteristic only for area of responsibility managed by the commander who ordered;
- refers strictly to a current or future operation;
- depend on the concrete situation, events or activities that may be prefiguring to the form of battle or the procedure adopted in every operation;
- are the information that must be immediately reported to commander, to the staff and to subordinate commanders;
- always will be included in the order of operations (OPORD) or the plan of operations (OPLAN).

¹⁰ *Manualul de planificare a operațiilor*, SMG, Bucharest, 2011, p. 203.

¹¹ A point defined in space and time, identified during the planning process, in which it is anticipated the need to take a decision by the commander, with respect to a particular course of action. Source: *ibidem* 7

¹² Sorin Topor, Ion Călin, Costinel Nițu și Draga-Nicola Crăciun, *Despre informații și sisteme informaționale militare*, Editura BREN, Bucharest, 2008, p. 229.

Today’s Operational Environment Impact on CCIRs

On the occasion of the Summit in Bucharest, in 2008, the head of states and governments have approved a Plan of Action on NATO's involvement in the efforts international community of comprehensive approach in all aspects, military and civil, into the problem of stabilization and reconstruction in theaters of operation. This concept reflects an integrated approach of NATO, for the participation in operations and perform, in general, of its tasks, which imply a relationship with the other partners and international actors, instruments civil - military for crisis-management, support for the stabilization and reconstruction operations (e.g. Afghanistan is relevant in this respect, where NATO's role is no longer strictly military)¹³.

Today’s complex operational environment has changed the way we view CCIRs. As noted, operational commanders spend much of their time working to better understand the environment and their progress in accomplishing their mission. It is said that this understanding, deepened by assessment, drives design and planning. We believe that the following factors such as globalization, information revolution, and the lack of predictability of the adversary and the multinational environment have influenced CCIRs and commander’s decision-making.

a. *Globalization* directly affects the type and scope of our decisions and also dictates what kind of information is required to make those decisions¹⁴. Today’s more open economic system of interdependent global markets, willingly-accessible communications, and omnipresent media presence has broadened security responsibilities further than an exclusively military concern. The environment is more than a military battlefield. It’s a network of interconnected political, military, economic, social, informational, and infrastructure systems that impact on decisions and are impacted by them. In military community hear from the combat commanders about the requirement to maintain a broader perspective of this environment.

b. The *information revolution* has clearly changed the way we operate and make decisions. We and our adversaries have unprecedented ability to transmit and receive data and it is growing exponentially, both in speed and volume. This has affected our information requirements in many ways. The entire volume of information can camouflage the critical information we need. We’re still working on our ability to sift through this information and find the relevant pieces that will aid decision-making. At the same time, we’re recognizing the need for higher level headquarters to assist in answering subordinates’ CCIRs, either directly or through tailored decentralization, federation and common database design of our collection and analysis assets.

¹³ *Manualul de planificare a operațiilor*, Bucharest, 2011, p. 15.

¹⁴ FM 3-0, *Operations*, SUA, 2008, p.1-1

c. The lack of predictability of our adversaries not only complicates the decision requirements and support information requirements. Our adversaries are more and more non-state entities, networks often diverted, and without any perceptible hierarchical structure. Current adversaries are no longer as predictable, as they were many of our former NATO’s conventional adversaries.

Decision support models that may have worked against a predictable, more doctrinally-based adversary may not work as well against these adversaries. As a result, techniques and procedures for decision-making process must be changed to support current requirements. Finally, our adversaries no longer can be defined only in terms of their military capabilities. Also, neither can our CCIRs be simply focused on the military aspects of the mission and environment.

d. The multinational environment. Many of our decisions and information requirements are connected to our partners. We fight as one interdependent team with our joint, interagency, and multinational partners. We depend on each other to succeed in today’s complex security environment. Our decisions and information requirements are interdependent as well.

The role of CCIR and broader view of operational environment

Skill sets and lessons learning of conflicts in which the Alliance was involved, determined that the majority of combat commanders are involved in common action by addressing all governmental and nongovernmental organizations and its extended requirements of the information, in support to the decision requirements of their operational level HQ role, both usual - time sensitive execution requirements as well as - the longer term assessment, situational understanding, and design and planning requirements. This broadening of their CCIRs has provided a deeper focus for the collection and analysis efforts supporting all three events (current operations, future operations, and future plans).

CCIRs, from this point of view, are made up of two components: priority intelligence requirements (PIR), which focus on the adversary and the operational environment and the friendly forces intelligence requirements (FFIR), which are focused on friendly forces and supporting capabilities.

In the Afghanistan operational environment has felt the need for adding new components, the host nation requirements of information (HNIRs¹⁵), to concentrate better of the information about the influence of host nation population.

¹⁵ HNIR – *Host Nation Intelligence Requirements* - ISAF Joint Command (IJC) from TO Afghanistan defines HNIR.

HNIR represents commander's requirements of information about host nation institutions or the effective and trusted partner organizations, which shall draw up plans, decide and integrate with civil activities of the host nation.

Depending on the circumstances, information may include the status of provincial, district or local governance, economic development, infrastructure, or security forces.

Operational level commanders focus on attempting to understand the broader environment and on developing and implementing, in conjunction with their partners, the full balance of military and non-military actions to achieve operational and strategic objectives. They recognize that their decisions within this environment are interdependent with the decisions of other parties. These commanders have found it necessary to account for the many potential "lethal" and "nonlethal" activities of all the parties as they pursue mission accomplishment and influence behavior in the operational environment.

The CCIRs associated with this broader comprehensive approach are different than those that support only traditional time sensitive, current operations-focused decisions. Commanders have expanded these types of CCIRs to include information required in assessments that better drive the far reaching planning decisions at the operational level.

Also, the commanders and their staff must taking into consideration the important role of CCIRs in prioritizing resources. This prioritization of both collection and analysis resources improves the quality of understanding and assessments, and ultimately results in the commander gaining better situational understanding, leading to better guidance and intent, and resulting in a greater likelihood of mission success.

Lesson learning showed that the results were not so good when operational level commanders and staff have singularly followed a more traditional "decision point-centric" approach in the use of CCIRs. Their CCIRs are focused on supporting decisions for predictable events or activities, and may often be time-sensitive.

Current operations concentrated in these CCIRs, have as a result, sometimes ambiguous prioritization of the effort for the collection and analysis supporting assessment and planning for future operations and future plans. In such situations, collection and analysis efforts supporting assessment and planning become unprepared and under resourced.

Today, assessment is focus on the understanding of the operational environment. It was concluded that many commanders identify their critical measures of effectiveness as CCIRs to ensure appropriate prioritization of resources. This prioritization of both collection and analysis resources increases the quality of assessments, better situational understanding, and better guidance and intent.

CCIRs process

During mission analysis: Commander has an important role in making decisions during planning process, execution and during operation. Once identified a mission and/or task in the plan or in the order of operation of upper echelons, commanders formed their own image on the basis of experience and the analysis and remarks coming from its own staff. At the end of meetings with the group of command consisting of its own staff, clear picture of the end state and steps to be followed in fulfillments of its mission/task/objective must emerge. These steps lay out specific guidance and direction in support of commander’s intention and decision-making.

During planning and analysis CoAs: the staff analyzes each possible COAs, separately, depending on the commander intentions. During CoAs analysis it is identifies the advantages and disadvantages of each own COA. The result of CoAs selected should be relate a series of factors, including: potential points of decision (PD); missions planning and organization; information to use them for the synchronization matrix or for the other tools of decisions-making; identifying branch¹⁶ and sequel¹⁷; identifying high-value targets; risk assessment; the advantages and disadvantages CoAs, and CCIRs recommended.

Doctrinal CCIRs process lays out specific responsibilities for development, validation, dissemination, monitoring, reporting, and maintenance intelligence requirements. Planners (operations and intelligence) help develop CCIRs during the planning process across all three events (current operations, future operations, and future plans). Typically, the J2 is responsible for developing proposed PIRs while the J5 and J35 are responsible for developing FFIRs. Both (PIR and FFIR) are submitted to the commander for approval. PIRs and FFIRs after approval by the commander, they become CCIRs. CCIRs list is not closed. The commander can add, delete, modify and update this list at any time during operation, based on required information for decision-making¹⁸.

These CCIRs support commanders’ decisions across all three event (current operations - CUOPS¹⁹, future operations - FUOPS²⁰, and future plans -

¹⁶ Branches are options built into the base plan.

¹⁷ Sequels are subsequent operations based on the possible outcomes of the current operations – victory, defeat or stalemate.

¹⁸ JP 3-0, *Joint Operation*, USA, sept. 2006.

¹⁹ *CUOPS - Operational focus is on execution of current operations*, “what is”. It evaluates task accomplishment. Directs execution of branches and sequels – *Fragmentary Operation Orders* (FRAGORDs).

²⁰ *FUOPS - Operational focus is on “what if”*. Typically are responsible for branch planning. Validates, refines, and redirects future operations based on operational environment assessment & task execution. Prepares future operations - *Warning Orders* (WARNORDs).

FUPLANS²¹) both time sensitive information requirements supporting anticipated decisions in the current operations, and the broader set of assessment / analyzed information enabling more comprehensive decisions in future operations and future plans.

The majority of operational level commands develop many of their CCIRs during design and the planning process of operation. Some decisions during current operations time may have very specific and time sensitive information requirements, while others are broader, assessment focused, and may be much more subjective. They may also include information requirements on DMEC (Diplomatic, Military, Economic and Civil)²² partner actions and capabilities and environmental conditions.

In conclusions changes to the current operational environment have influenced policies related to the military intelligence activity. The operational commanders spend much of their time working to better understand the environment and their progress in accomplishing their mission. Operational Environment will become extremely mobile and in continuous change. Joint operations will need to be adjusted to the whole range of players in this environment. Cultural, demographic and physical factors will be more and more present and will interconnect with the war. Also, other factors as well as humanitarian crises, different religions and ethnical groups, and the complexity of urban space can become a major center-of-gravity and a heaven for potential threats. This operational environment will remain interconnected, dynamic and extremely changeable.

CCIRs change as the mission, priorities, and operating environment change. It is important to have a process to periodically review and update CCIRs. Commander's critical information requirements should be extended and adapted to the new current environment so as to support directly the execution of missions and essential current and future operations of the commander.

Broaden CCIRs at the operational level should support traditional, time sensitive execution requirements and longer term assessment, situational understanding, and design and planning requirements. CCIRs change as the mission, priorities, and operating environment change so there should be a process to periodically review and update CCIRs to ensure relevance.

²¹ *FUPLANS* – Operational focus is on "what's next". Typically are responsible for planning the next phase of operations (sequels), assessing campaign/plan progress, validating plan assumptions.

²² *Tools of the power* that belong to partners or other actors which operate in operational environment and which through hiring their PMESII systems can influence individual or combined these instruments in order to obtain desired outcome. Source: *Manualul de planificare a operatiilor*, Bucharest, 2011, p. 196.

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