VIII CONFERENCE OF DEFENCE MINISTERS OF THE AMERICAS
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Sub-theme 3
Participation of the armed forces and security forces in the area of
PEACEKEEPING (e.g. Haiti).

COMMAND AND CONTROL IN PEACE OPERATIONS

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1.   INTRODUCTION

For a long time, Brazil has been contributing to the efforts of international organizations in their search for peace, sending military observers, or troops, to areas of conflicts. Monitoring cease-fire among involved parties and developing the best conditions for full re-establishment of regional peace have been the main tasks attributed to Brazilian soldiers.

Nowadays, along with other peace operations, Brazil is present in Haiti under the supervision of United Nations (UN). The Contingent is composed by a Peace Force Infantry Battalion of 1048 soldiers from the Armed Forces, and by a Peace Force Engineering Company of 150 soldiers from the Army. Other 32 militaries from Paraguay, Bolivia and Peru also take part in the Brazilian Contingent.

It is important to emphasize that the dispatch of more 100 troops to the Haiti Engineering Company has already been approved, and that should be accomplished during this year.

The Haiti Battalion Command is advised by a Joint Staff, with Sections leaded by Armed Forces Officers, as follows:

Section	Denomination	In Charge of
G1	Personnel	Army
G2	Intelligence	Navy
G3	Operations	Army
G4	Logistics	Army
G6	Command and Control	Navy
G9	Public Affairs	Army

The Contingent is at the moment deployed in two bases, both located in Porto Prince, the country's capital. From these bases, contingent elements execute the following actions:
- security of installations and sensitive areas;
- security and escort of high authorities;
- other actions as demanded by the intelligence information.

2.   DEVELOPMENT

2.1   Command and Control

Carrying out its mission, the Brazilian Contingent is under operational control of the Military Component Commander of the United Nations Stabilization Mission in Haiti (MINUSTAH Force Commander), which is a Brazilian Army general, in this case.

Despite the operational control exercised by the UN, the Contingent is under the authority of the Brazilian Ministry of Defense, including discipline and personnel matters. Within the Ministry of Defense's scope, the Contingent is linked to the Defense Staff, each Armed Force Command and the Logistics Coordination Center.

The Peace Force to be composed of Brazilian militaries requires a correspondent connection in Brazil, to be maintained throughout the entire mission. In addition, local connections with the deployed troops, as well as with the Command and Control structure of MINUSTAH, are also needed.

In order to support such demands, command and control resources are employed at two levels: tactical and strategic. While the tactical level assets enable the local connections, the strategic ones allow linking with Brazil.

2.2 "Command and Control" - C² Concepts

In this matter, it is necessary to point out some concepts related to C² - definitions, principles and characteristics - according to doctrinaire evolution, the experience acquired in peace operations and in joint operations within the Brazilian territory.

a. C² can be understood as science and art that manages the operations chain of command and, in that sense, it basically involves three components:

1) the legitimated authority allowed, supported by an organization from which emanates the decisions that materializes the command exercise and to where the necessary information to the exercise of control flows;

2) the systematic of a decision-making process that allows orders formulation, establishes the information flow and assures resources destined to guarantee the orders full accomplishment; and

3) the structure, including personnel, equipment, doctrine and technology, necessary to allow the authority to monitor the operations development.

b. The C² system is the set of essential facilities, equipments, communications, doctrines, procedures and personnel that allows the Commander planning, conducting and controlling the actions of his organization to achieve a given purpose. That concept embraces the three previously mentioned components.

c. While planning and implementing a C² system, some principles should be considered. The emphasis given to each one of them depends on the operational situation, and could influence other activities and areas of knowledge.

1) Unit of Command
It arises from the need of joint employment of Forces. The C² system should set up the achievement of common goals and the full exercise of the unit of command in its several levels, regarding the diversity of human and material resources employed.

2) Simplicity
Despite the complexity of a C² activity, simple systems should be implemented. Excessively complex systems are more expensive, susceptible to failures in operation and management and more vulnerable to the enemy's actions.

3) Security
When conceiving a C² system, the safety of human resources, materials, and logical systems should be foreseen, according to the safety regulations, to assure its survival.

d. In addition to the principles above described some specific characteristics of the C² systems should be considered, such as:

1) Interoperability

It means the capacity of the systems, units or forces to exchange services and information or accept them coming from other systems, units or forces and also employ these services or information without compromising their own functioning. The C² systems should be able to operate in joint and multination environments, and be integrated to the systems of other governmental institutions and civil organizations that are present in the operational area.

2) Reliability

It is the ability of a system to provide credibility to its users. A C² system will be reliable if it provides the following attributes:

- Security - ability of self preservation or the preservation of its parts against violations or unauthorized access;
- Robustness - ability to survive and maintain the System effectiveness when exposed to harmful events that come from operational environment, internal damages or fortuitous cases; and
- Continuity - ability of fast self recovery, or its setting, when submitted to the harmful events mentioned above. The planning of the C² system should always aim the operation continuity, employing double means, routes definition and alternative ways.

2.3 Command and Control Military System

In order to meet the requirements above described, the command and control resources should be redundant, so that it keeps a full time Peace Force Contingent's connection with Brazil. The civil satellites' links will ensure stability and reliability to this connection.

For that, the C² Military System (SISMC²) is employed, which includes the essential set of facilities, equipment, communications, doctrines, procedures and personnel to exercise the command during crises. Through SISMC², the Peace Forces C² Centers, when deployed, can interact with the Supreme Command C² Center (CC²CS), the C² Centers of each Armed Force, the Operational Commands C² Centers, when activated, and the C² Centers of civilian entities.

It is the Defense Ministry's responsibility, through the Defense Staff, to establish the necessary C² structure and procedures at the strategic level, to support the Peace Force, as well as to promote interoperability among every subsystem.

To establish strategic links, the Defense Ministry's own infrastructure resources are employed and/or they are contracted with the telecommunications services carriers, highlighting the use of fixed or tactician-transportable satellites terminals. This infrastructure allows the use of many operational services (telephony, data encrypted transmissions, video conferences, e-mail, Internet, etc) and public services (public telephony, Internet, cyber cafe, television networks, etc.)

At a tactical level, the Peace Force will employ its own resources of C² in the links with the subordinated elements, enhanced by other C² systems, if necessary. At this level, the following resources are available, among others: vehicular and portable VHF and HF radios, microwaves links; fixed and mobile commercial telephony.

Permeating the C² infrastructure and aiming the increase of situational awareness, C² information technology systems are employed: the Military Operational Planning System (SIPLOM) and the C² in combat at the strategic level; and a tactical data link system based on MESH technology.

The experience resulting from the participation of Brazilian troops in peace missions is consolidated at the Defense Staff. Regarding to the C², these learned lessons are systematized at the C² Defense Staff Section, aiming at the update and dissemination of doctrinaire manuals that are related to this subject.

3.   CONCLUSION

The peace missions are instruments capable of solving conflicts and promoting the development and the welfare in several countries.

The increasing complexity of such kind of operation, characterized, among other factors, by the possibility of employing troops from several nationalities and by the organizational structure that demands links with international organisms, participant countries and tactical elements, requires C² systems capable to promote the exercise of command effectively and opportunely.

Despite the modern and expensive technological resources, we should always bear in mind the human being's importance in leading the command and controlling the activities, based in doctrine and common procedures, allowing the synergic effect of the actions undertaken by all members that struggle for peace.

Thus, the binomial Command and Control exercises a key role to restore peace, harmony and hope to nations affected by any kind of conflicts.