

CONDITIONS AND OPERATIONAL AND TECHNICAL EVOLUTIONS OF THE COMMUNICATIONS AND INFORMATION SYSTEMS IN THE NATO ADHESION PROCESS

*Major General (ret) Professor Constantin MINCU, PhD**

***Abstract:** In the article are briefly presented the main political, diplomatic and military events taking place in the pre-adhesion period. Furthermore, the author presents the operational and technical evolutions to develop some Communications and Information Systems (CIS) compatible and interoperable with ones of NATO and Member States. There are underlined efforts often done in a climate of hostility and careless of some political and military leaders.*

***Keywords:** Romania; NATO; Adhesion; SIC Systems; C4I.*

Introduction

More than ten years after our integration with full rights and obligations in NATO (ceremony of state flags ascension at the NATO Headquarters, Brussels, held on 2 April 2004, followed by an informal meeting of Foreign Ministers of the Member States) we think it is normal and beneficial to recall the actions and steps taken by the management of Romanian state in political, diplomatic and military in order to get closer to Western countries in general and NATO in particular.

The debut was made in July 1990 when the Romanian Prime Minister Petre Roman addressed in writing to the NATO Secretary General Manfred Wörner the invitation to visit Romania. There followed fourteen

* Constantin Mincu – Full member of the Academy of Romanian Scientists, scientific secretary of the Section of Military Sciences, member of the Honoric Council of the Academy of Romanian Scientists; email: mincu_constantin@yahoo.com, phone: 0722303015; fax: 031402180.

years of complex actions taken by both sides in an international dynamic, complex and often unpredictable geopolitical environment which finally resulted in success for Romania and other Central and Eastern European countries.

It is justified the assertion that NATO membership has had direct beneficial impact on Romania's security and we can say, on the whole of Europe. We appreciate this also in light of recent events in Ukraine, the authoritarian tendencies and aggressiveness of important international actors in the Euro-Asian area and beyond.

Retrospectively, the efforts to reform society in general and the Armed Forces in particular we can argue with solid proofs that the objectives of NATO Membership Action Plan has been a huge mobilization on political, diplomatic, military levels and in the entire Romanian society which contributed to Romania's integration into NATO. The accession negotiations in 2001-2002 were complex and difficult and marked a firm commitment (!) of our country, including the allocation in the coming years of 2.38% of GDP on defense (unfortunately now the Romanian authorities allocate 1.38% on paper and only 0.9% in reality). In this context we must show that the Alliance has called for a serious approach concerning the targets and resources in order to catch up with the technology and equipping of the armed forces. Unfortunately, after accession, the Romanian politicians have abandoned the important objectives in the restructuring and modernization of the armed forces, placing in ridiculous some crucial issues to national security and fair and honest fulfillment of obligations under the Treaty of Accession.

Introducing briefly the political-military developments, we will refer to actions and processes in the field of communication and information that have played a key role in our qualification from a military perspective. Those interested can check out the source, that about 60% of the objectives of MAP, phases I-V, were related to the interoperability and compatibility of Command, Control, Communications, Computers and Information (C4I). NATO officials and those of the Allied armed forces stressed, in unison, that before they could fight they need to communicate, to understand each other.

1. Chronology of major political, diplomatic and military events (July 1990 - April 2004)

Since the space offered by the magazine is limited we will try to synthesize and categorize these events and activities, all with the aim of running a complex process of retaining all respects conducted in the context of political forces synergy and almost unanimous approval of the public opinion:

- **July 1990:** Prime Minister of Romania sent an invitation to visit Romania to NATO Secretary General – Manfred Wörner;

- **October 1990 - February 1993:** visits and discussions taking place at the highest political level – President, Prime Minister, Foreign Minister, Minister of Defence, NATO officials;

- **April 1, 1990:** U.S. strategic program initiation - Romania „MIL - TO – MIL” (Important for openness to knowledge of Romanian troops);

- **January 26, 1994:** Romania **became the first country** in Central and Eastern Europe that joined the Partnership for Peace (following a complex set of actions that led to mutual knowledge);

- **September 14, 1994:** Romania transmits to NATO bodies the first NATO-Romania Individual Partnership Program;

- **There are taking place exercises and complex actions of partnerships with NATO and its member countries, essential for converging the visions in the military field:**

- COOPERATIVE BRIDGE – 94 – Poland

- COOPERATIVE DETERMINATION – 95, September, Sibiu, Romania;

- There debuted C4I applications series – „COMBINED ENDEAVOR – 95”, May, in Germany. In this first application involving eight partner countries, including Romania and two NATO countries - the U.S. and Germany. This is the first application wherein participate eight partner states among whom is also Romania and two NATO member states – USA and Germany. It is the first application for interoperability testing of communication systems, a true laboratory of CIS systems development for future military action. The

*CONDITIONS AND OPERATIONAL AND TECHNICAL EVOLUTIONS
OF THE COMMUNICATIONS AND INFORMATION SYSTEMS
IN THE NATO ADHESION PROCESS*

Romanian military professionalism is certified with arguments. Since then until now (2014) COMBINED ENDEAVOR applications have taken place yearly, going from 10 countries in 1995 to 40 in 2014 (NATO members and partners).

– **October 1993 - June 1997** bilateral and multilateral contacts were held at NATO and in Romania, involving the Parliament, Presidency, Government, Ministry of Foreign Affairs and Ministry of Defence for the harmonization of political and military views;

– **July 8, 1997 - Summit takes place in Madrid - Romania does not catch the first wave of enlargement** mainly because of reasons of domestic political and functioning rule of law. From a military standpoint, Romania at that time was not among the three countries admitted also in terms of military quality it was equal with them.

– **July 11, 1997 - U.S. President - Bill Clinton** - is visiting Bucharest for consolation, due to our non-invitation to NATO, but owed to the fact we were already considered partners, appreciated in operations' theaters;

– **1997-2002** - Political activity and the diplomatic initiatives with consistent and reliable military actions of Romania, confirm that the country acts as a reliable ally of NATO and the U.S.;

– **October 1999** - Romania submits to NATO the first „Annual National Training Program” cycle „MAP-I” for a systematic and constructive approach towards accession;

– **September 2000** - the „National Plan for Accession” cycle „MAP-II” is sent to NATO.

– **September 11, 2001** - terrorist actions take place in the U.S. with particularly serious important political and military consequences among which is included the more concrete openness for new allies and their integration into the Alliance as soon as possible;

– **September 28, 2001** – we continue with the determination to join efforts, resulting in the „MAP-III”;

– **September 2002** - Romania proves with arguments that it made substantial progress (noted by NATO) to qualify in military terms (including the C4I) and submits „MAP-IV”;

- **November 21, 2002** - Summit in Prague, Romania is invited to join NATO, along with other six European countries;
- **November 23, 2002** - U.S. President George W. Bush's visit to Bucharest, to congratulate Romania and to reiterate the U.S. commitment to political, diplomatic and military support;
- **December 2002 - April 2004** - Romania steps up political, diplomatic and military efforts to achieve the targets committed by MAP NATO;
- **October 2003** - first Romanian troops are placed in military operations of NATO and contiguous coalition to U.S. states in Iraq and Afghanistan.
- **April 2, 2004** – the ceremony of state flag takes place on the occasion of the ASCENSION OF ROMANIA held in NATO Headquarters in Brussels.

2. Action in the field of military communications in NATO vision (1990-2004)

I present, from the perspective of an officer directly involved in the actions of radical modernization of communications and information systems of the Romanian Armed Forces (Chief of Staff of Transmission Command in-between 1991-1997 and Head of the Communications and Informatics between 1997-2002) some essential aspects to achieve the objectives of compatibility and interoperability with NATO systems.

I appreciate and prove with facts and documents in the archives of MoD, the actions in the branch went off in 1990, with important conceptual achievements until 1993. If actions had begun in 2001, as some authors stated that would have happened, we probably would have joined NATO (in military terms) somewhere in 2015.

Let us recall some events:

- **March to July 1990** – in the Transmissions Command the first concept is developed in a specific vision of the new NATO member states „Transmission of the Romanian Armed Forces (STAR)”, with the two main components „Permanent Transmission Network (RTP)” and „Mobile Network for Troops” at all hierarchical levels.

*CONDITIONS AND OPERATIONAL AND TECHNICAL EVOLUTIONS
OF THE COMMUNICATIONS AND INFORMATION SYSTEMS
IN THE NATO ADHESION PROCESS*

- **July 1990 - March 1992** - STAR Design and Project are presented and analyzed by factors responsible in MoD - resulting in the pro and cons of these vision documents (some said „we'll see”, „let's wait”, „we cannot afford it”, „we are not Americans”, etc).

- **July 1993** - STAR concept is presented by Commander of Transmission Command – Maj. Gl. Anton Chițacu to the Supreme Council of National Defence, the body that approves the document;

- **July 1993 - December 1994** - approaches and actions are taken to start the implementation, first, of the Permanent Transmissions Network (RTP), the main component of STAR;

- **December 31, 1994** - after much debating, analysis and controversy, the Minister of National Defence approved the document with the result of the international tender for RTP / STAR;

- **January 1995 - April 1997** - orchestrating often with diabolical means of the attacks in different commercial and noncommercial areas against RTP / STAR program progress (you can write a book on this subject and maybe it will be written some day);

- **January 1995** - delegation of Transmissions Command is visiting the U.S. under the MIL-TO-MIL occasion when are visited transmissions, command and control objectives, including NORAD. They once again confirmed our solutions adopted in Romania;

- **April 1997** - SCCD (Supreme Council for Country's Defence) approves the continuation of the development and implementation project of RTP / STAR, after two years of stagnation and sterile internal „wars”;

- **1997-2002** – It is accelerated the installation process of RTP / STAR communications centers, reaching 60% of them (2002);

- **May 1995** - participation of the Romanian Armed Forces to the first application for testing interoperability of communication, with the initiative and sponsorship of the U.S., „Combined Endeavour – 95”, Germany, alongside two NATO members and seven partner.

- **1995-2004** - the series „Combined Endeavour” applications continues with increasingly wider human and technical participation (actually applications continued yearly including in 2014 reaching over 40 participating countries);

- **1997-2004** - technical communications exercises occur in order to test and identify solutions to develop STAR, mainly RTP, radio and satellite

communications equipment and the ratio of interoperability with the systems of other institutions of the national defense;

- **1998-2002** – numerous visits are conducted to knowledge and assess the progress of the Romanian Armed Forces, conducted by American and NATO officials:

- General NAUMAN – Chief of International Military Staff;
- General Jim JAMERSON - USEUCOM Commandant (January 1998);
- Gen. Wesley Clark - Supreme Allied Commander in Europe (July 1998);
- General R. RAUNTRY - sent by the Pentagon for the final evaluation of the capabilities of communications and information systems of the Romanian Armed Forces (March 2002). Positive assessments were followed by encouragement and advice for the future;

– **1999 and 2000** - Head of Communications and Information Directorate in the General Staff presents the actual situation of the Communications and Information Systems (CIS) at NATO headquarters in Brussels on 1 +1 format (NATO + Romania) and 19 +1 (representatives of all NATO members + Romania). The Romanian representative at NATO sent, after the meeting, a positive feedback of the Alliance's officials.

– Positive developments occur in the operational standards, procedures, working documents etc.

3. Operational and technical developments in-between 1990-2014

- **RTP / STAR program develops** reaching 60% in 2002 and 90% of the project in 2012;

- Digital radio communications with encrypted frequency hopping are acceleratedly introduced in the procurement (several hundred to 2014):

- PANTHER family stations and radio auto-stations;
- HARRIS family stations and radio auto-stations;

- NATO manuals, standards and procedures **were adopted** and implemented;

*CONDITIONS AND OPERATIONAL AND TECHNICAL EVOLUTIONS
OF THE COMMUNICATIONS AND INFORMATION SYSTEMS
IN THE NATO ADHESION PROCESS*

- The infrastructure output (since 1999) and operation of the MoD data communication network “INTRAMAN”;
- Operational requirements and technical architecture were developed and implemented by National Military Command Center (CNMC / NMCC);
- Progress has been made in coordinating actions and programs for achieving fixed and mobile C4ISR FORCE GOALS;
- Communication and information systems for voice and data encrypted with NATO structures were made;
- **After the Madrid Summit**, the structures from the General Staff and Communications Command reorganized the new NATO “Smart Defence” concept;
- Deployable communications module (DCM-E), a unit of NATO deployed in Romania, was built, operationalized and deployed in the theater (Afghanistan - 2010), with 100% Romanian personnel;
- The participation in NATO important applications, with a strong involvement of C4I systems **continued**:
 - COMBINED ENDEAVOUR
 - HERALD HERMES
 - DNNUBE GUARD
 - JACKAL STONE
 - CMX
 - ABLE STAFF
- **There were developed** strong capabilities of satellite communications by:
 - Commercial networks;
 - NATO and allied military satellites;
 - Satellite stations property of MoD;
- The complex communications staff training according to NATO standards and requirements is in an ongoing process.

Conclusions, lessons learned and assessments

a) Conclusions:

- ❖ **Communications of the Romanian Armed Forces** have overcome fast often in a climate of hostility from

Romanian (military and civilian) officials a technological gap of 30-40 years;

- ❖ Hundreds of military in the communications branch **were trained** in a modern vision;
- ❖ NATO operational requirements, procedures and standards were properly **integrated**;
- ❖ **It was given** a true measure to CIS capabilities in theaters, in national, NATO multinational exercises;
- ❖ **There remain outstanding** development and implementation plans of C4ISR systems for fighter units (lack of resources and interest from those responsible).

b) Some lessons:

- ❖ corrections **were made** during the development of projects in the field (based on “lessons learned”);
- ❖ The actions carried out in the operations theaters contributed to beneficial changes in the planning, organization and implementation of appropriate CIS support systems for command and control;
- ❖ New manuals instructions, procedures and standards were edited;
- ❖ Human interoperability with soldiers from other NATO countries **was developed**.

c) Some relevant considerations on Communications and Informatics field of the Romanian Armed Forces

- ❖ **General NAUMAN – Chief of the International Military Staff:**
 - “**Romanian Armed Forces** should focus on staff training, including knowledge of English and the Communication”;
- ❖ **General Jim JAMERSON - USEUCOM Commandant (January 1997):**
 - „**Romanian Armed Forces** has made progress in the field of C4I. I appreciate that and wish you to meet the ongoing programs as soon as possible as a condition for integration into NATO”;

- ❖ **General James L. JONES – Supreme Allied Commander Europe (SACEUR), August 2003, in Bucharest:**
 - „The reform and transformations in the Romanian Armed Forces allowed the development of capacities in NBC, logistics and **communications** that will be useful to the North Atlantic Alliance and will allow Romania to have flexible forces that can be deployed in operations theaters”;
- ❖ **General Wesley CLARK – former Commandant of SACEUR:**
 - „Secret secure communications offer the opportunity to provide the necessary command and control links during a crisis. Understanding this, the Romanian Armed Forces build the backbone of strategic communications system that will allow command and control of troops and weapons systems in real time”.

Finally, I can say with full coverage of facts and documents that during 24 years, in the Romanian Armed Forces there were radical changes in communication and information systems, especially in the strategic segment and tactical radio communications. There remain serious questions in tactical C4ISR systems for combat forces of the three categories of military forces.



BIBLIOGRAPHY

Colecția Revistei Gândirea Militară Românească (Romanian Military Thinking Collection), 1990-2013.

Colecția Revistei de Științe Militare a AOȘR (Military Science magazine collection of Romanian Scientists Academy), 1999-2014.

Public documents of MoD presented in media and press conferences.

George Cristian Maior, „NOUL Aliat – Regândirea Politicii de Apărare a României la începutul secolului XXI”, Editura RAO, București, 2009.

