



COMPARATIVE ANALYSIS OF ISR DOCTRINES IN SOME NATO MEMBER STATES

Lt.Col. Valeriu-Adrian JIANU, PHD Candidate*

Through comparative analysis we can identify certain similarities and differences between certain allied states from a doctrinal point of view, based on certain established criteria. The concept of ISR is for the states of modern armies a continuous topic of debate, aiming to develop and implement at all levels, to streamline the planning and execution of operations and to ensure real support as soon as possible to decision makers at all levels. The doctrines of NATO member states represent the common starting point in legislative and procedural harmonization, so that, in the modern operational environment, a common allied language can be used effectively.

Keywords: Intelligence; reconnaissance; surveillance; comparative analysis; NATO.

In order to carry out the study, we started from the premise of identifying similarities and differences from a doctrinal point of view, regarding the concept of ISR in certain allied states (Romania, United States, Great Britain, Canada) on the one hand and the NATO doctrine, on the other hand, based on the analysis of the following benchmarks: definition of the ISR concept, ISR process, ISR principles, intelligence disciplines, ISR systems.

According to the Explanatory Dictionary of the Romanian Language, the analysis represents "the examination of a whole, decomposing it into its component parts", and the comparison establishes "the similarities between things, beings, ideas"¹.

Through the comparative analysis of the stated parameters, we will try to identify and highlight certain common and distinctive doctrinal features of some NATO member states, in order to improve the framework of the Romanian concept from the perspective of ISR.

ISR concept definition

According to Romanian doctrine, ISR is "a set of information and operations capabilities that synchronize and integrate the planning and operations of all collection capabilities, with the processing, exploitation and dissemination of resulting information, in direct support of planning, preparation and execution of operations"².

The US Department of Defence defines the concept of ISR as "an activity that synchronizes and integrates the planning and operations of sensors, assets, processing, exploitation and dissemination in direct support of current and future operations"³.

For the British doctrine, the acronym ISR is "activities that synchronize and integrate the planning and operations of collection capabilities, including processing and dissemination of the resulting product"⁴.

In the Canadian doctrine, ISR is "an activity that synchronizes and integrates the planning and operation of all collection capabilities with exploitation and processing to disseminate the resulting information to the right person, at the right time, in the right format, in direct support of current and future operations"⁵. Allied doctrine uses the ISTAR concept, defined as a process that combines surveillance, research, target acquisition systems and sensors to guide maneuver and means of striking. It includes the collection and management of information in order to know the operational situation by commanders and staffs in conducting operations and to ensure support in the process of acquiring targets⁶.

We can observe a number of similarities between the existing definitions and we can distinguish some common features, namely:

- the concept of ISR is defined as a process, activity or set of capabilities;
- there is a synchronization, integration and coordination of collection capabilities;

* "Carol I" National Defence University
e-mail: adi_jianu_74@yahoo.com



• ISR provides direct support to current and future operations.

In the allied doctrine, the concept also includes the acronym TA (target acquisition) which represents the identification, location and hitting of targets.

We can conclude that, from the perspective of the first established criterion, namely "defining the concept of ISR", a doctrinal harmonization can be found between the analyzed states.

ISR process

The ISR process coordinates all specific activities through which ISR elements respond to a request for information with the support of all collection capabilities to provide information support in operations.

From the table presented (Figure 1) we can see a similarity between the British doctrinal

On the one hand, the ISR process – which includes the stages: task distribution, collection, processing, exploitation and dissemination – represents the framework through which "a single collection requirement is met by an ISR means" (IA-1.5 Joint Doctrine for Intelligence, Surveillance and Reconnaissance)⁷.

On the other hand, both in "IA-1.1 Doctrine of Intelligence for Defence" and in "IA-1.6 Doctrine for Intelligence Procedures", the intelligence cycle comprises four stages (directing, collecting, processing and disseminating) and constitutes "the set of activities through which the information is obtained, processed, transformed into informative products and disseminated to the beneficiaries"⁸.

In the allied doctrine⁹, the intelligence cycle includes: directing and planning, collection, processing/exploitation, dissemination and evaluation, differing not much from the ISR

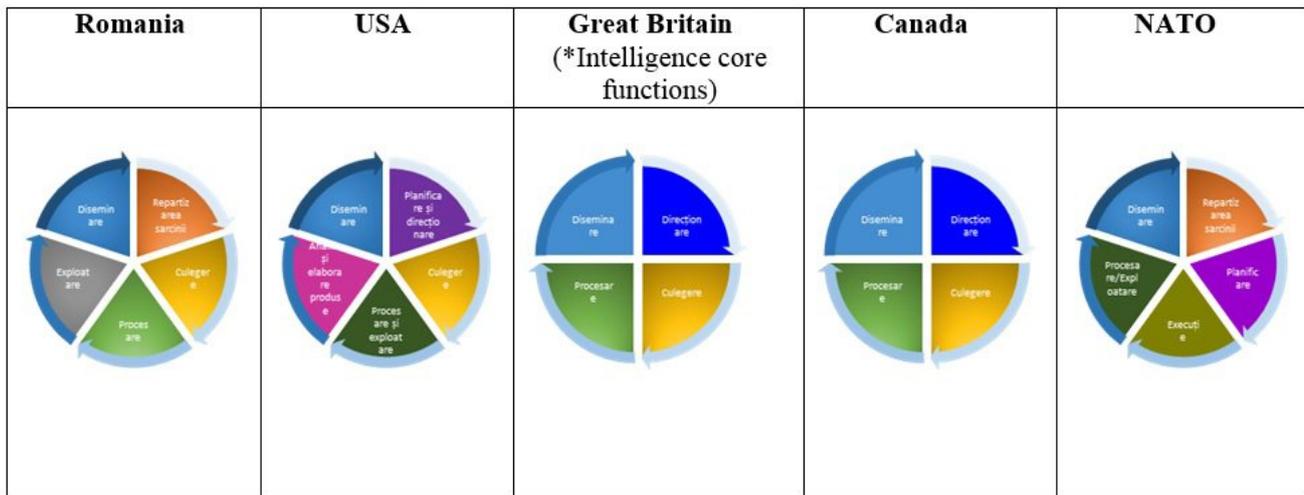


Figure 1 Doctrinal harmonization between the analyzed states (Author's conception)

process (called "Intelligence core functions") and the Canadian one (called the ISR process). The Romanian doctrinal ISR process is very similar to that of the Allied doctrine. The only difference is given by the collection stage, a stage which in NATO doctrine is divided into two sub-stages: planning and execution. We can also identify the stage "analysis and production" specific only to the American doctrine.

If in certain allied doctrines (see Canadian and British doctrine) there is a possible similarity between the ISR process and the Intelligence cycle, in the Romanian doctrine we can identify a differentiation between the two processes.

cycle which includes: task distribution, planning, execution, processing/exploitation, dissemination.

ISR principles

There are, in the analyzed doctrines, a series of principles (Figure 2) specific to the field of ISR, which have the role of harmonizing all functions of operations and information and to increase the efficiency of using ISR capabilities. Except for some common principles (security, opportunity, accuracy), specific to the USA, Great Britain and Canada, we can identify a great diversity in terms of ISR principles specific to the analyzed countries. Moreover, the need for doctrinal harmonization

is obvious regarding the ISR principles of the Romanian Army with the ISR principles from the doctrines of certain NATO states. If in the allied doctrine the principles of ISR are not approached, and we meet the phrase "required capabilities", in the British doctrine, we meet the name "principles of intelligence".

Intelligence disciplines

From the presented graph (Figure 3), we can observe four existing collection disciplines in all the doctrines of the analyzed states: HUMINT, SIGINT, MASINT, GEOINT.

and biometric intelligence), Chemex (chemical exploitation), Finint (financial intelligence), Sma (seized media intelligence), Medint (medical intelligence), Weapons intelligence.

Our study is based on the analysis and comparison of some doctrinal reference documents from the armies of established states, the development and implementation of these disciplines as well as their classification, being processes that take place continuously, and are based on lessons learned and operational needs. We can conclude that, following the analysis of this criterion, the Romanian doctrine covers very

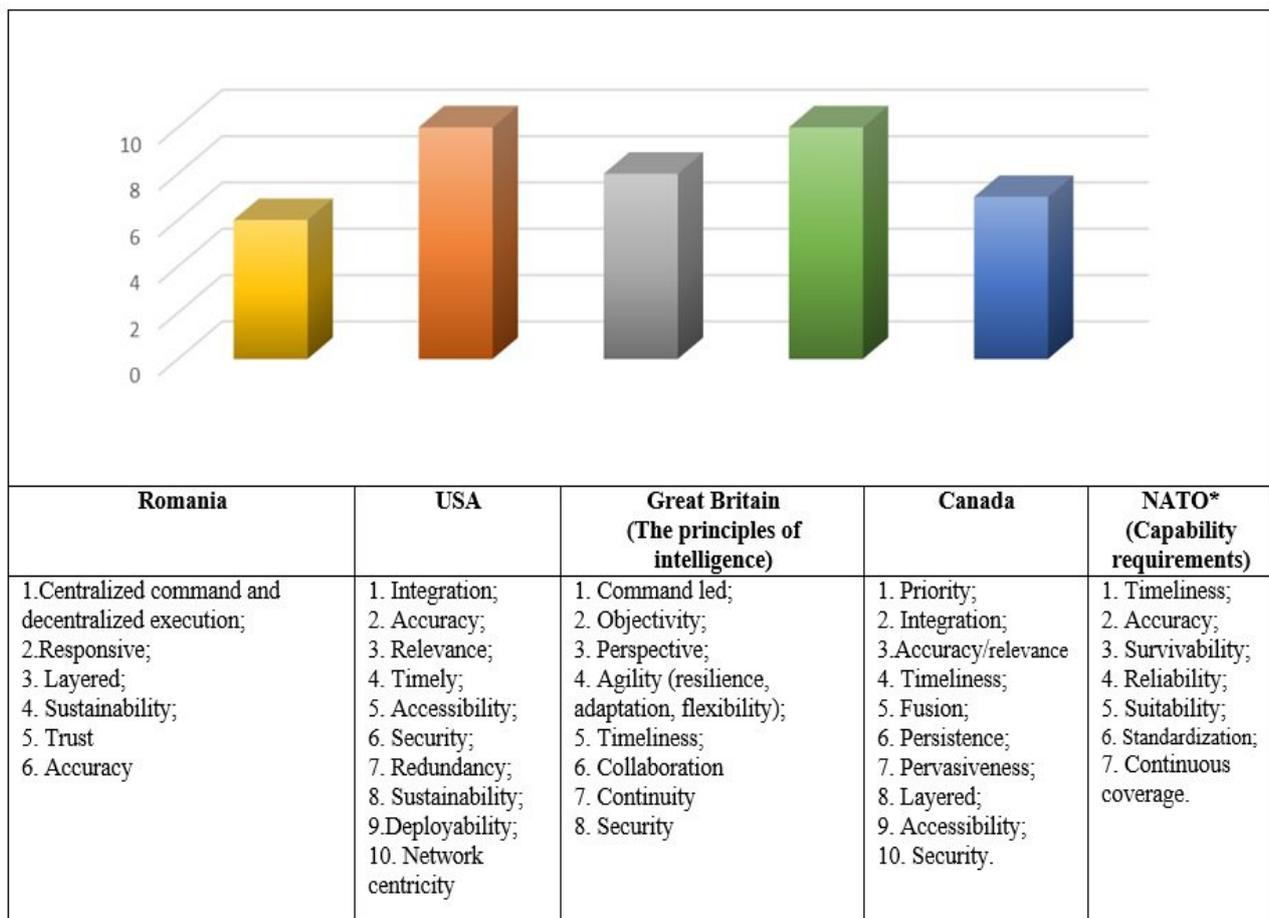


Figure 2 ISR Principles (Author's conception)

In American doctrine, the HUMINT discipline comprises several components, namely: specially designed operators, forces for special operations, air and ground structures, exploitation of documents and media. At the same time, in the British doctrine, the informative exploitation of materials and people (MEPs) includes existing elements in other doctrines such as Techint, but also novelty elements such as: Fabint (forensic

well the spectrum of ISR collection disciplines, there being, as it can be seen, a harmonization with the other NATO armies analyzed.

ISR collection systems depending on the carrier platforms

All the analyzed states have collection systems on air, space, land and sea platforms, at least from a doctrinal point of view (Figure 4). Our approach



did not aim to analyze the degree of endowment of these platforms nor the level of ambition desired by the analyzed states in terms of developing their technological capabilities.

From the study of already established works such as "Bridging the Gap. European C4ISR Capabilities and Transatlantic Interoperability"¹⁰, "The next 100 years. Forecasts for the 21st century"¹¹ and the report "European Defence Agency – Defence Data 2010"¹² can draw some conclusions that highlight major discrepancies

the NATO doctrine, on the one hand, and with the doctrines of certain allied states, on the other.

I believe that this direction of research must be continued in particular with regard to the analysis of technological ISR capabilities within the alliance. The doctrinal correspondence must be made in accordance with the endowment of the ISR structures in the Romanian Army, so that the efficiency of the informative support in operations is maximum.

So far, important steps have been taken in

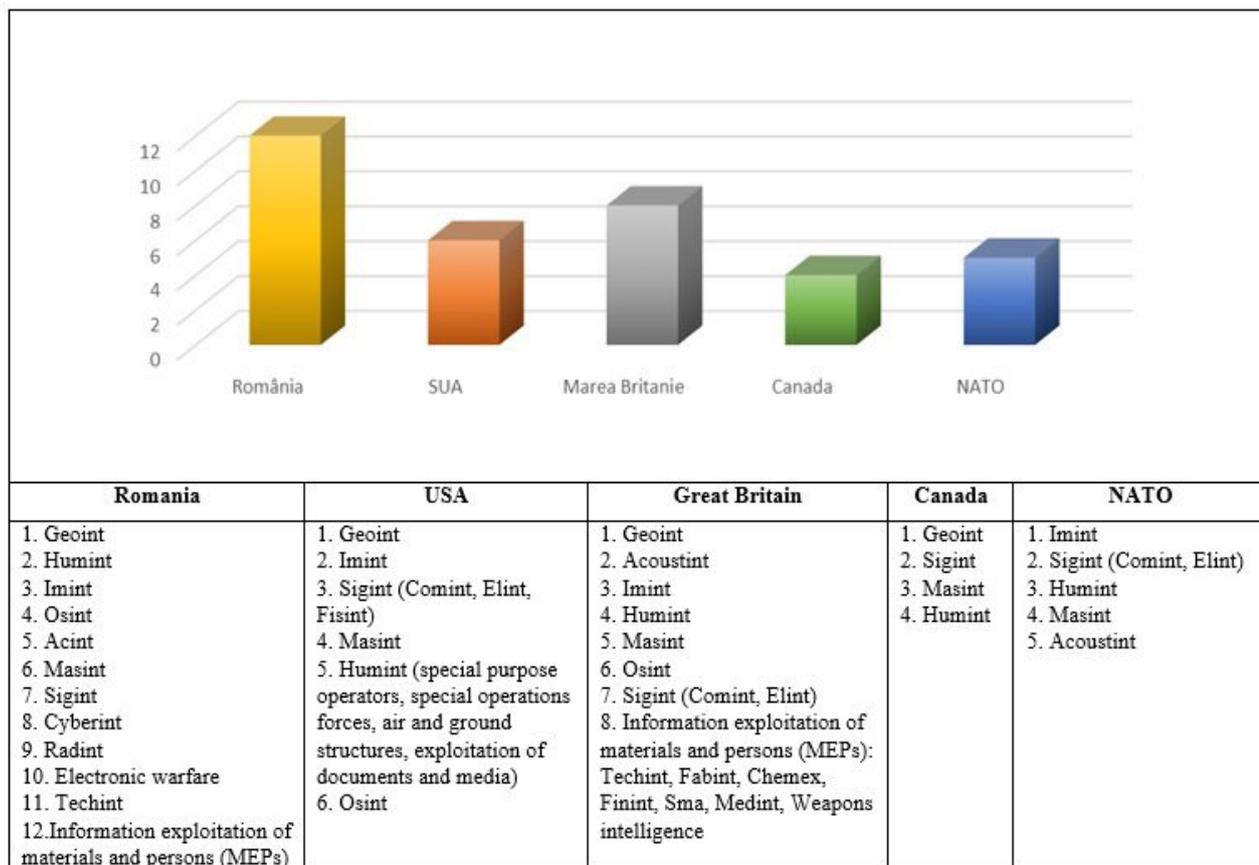


Figure 3 The spectre of the collecting ISR disciplines (Author's conception)

between the US and European countries regarding the defence expenses, the employment capacities, the level of ambition, the possibilities of endowment in general as well as regarding the development and implementation of the ISR field.

Conclusions

Following the analysis of the established criteria, we can conclude that – beyond certain nuanced language barriers – in the Romanian Army the ISR doctrine is largely harmonized with

the Romanian Army in the development and doctrinal harmonization with the allied doctrine and with other NATO member states. The issue of endowment and correlation of the doctrine with the development of ISR systems in terms of performance means, remains open and may be the subject of another comparative study.

Doctrinal harmonization is not enough without a correlation with the acquisition of state-of-the-art equipment that generates a higher degree of interoperability between all NATO member states.

NOTES:

1 <http://dexoline.ro>, accessed on 27.07.2021.

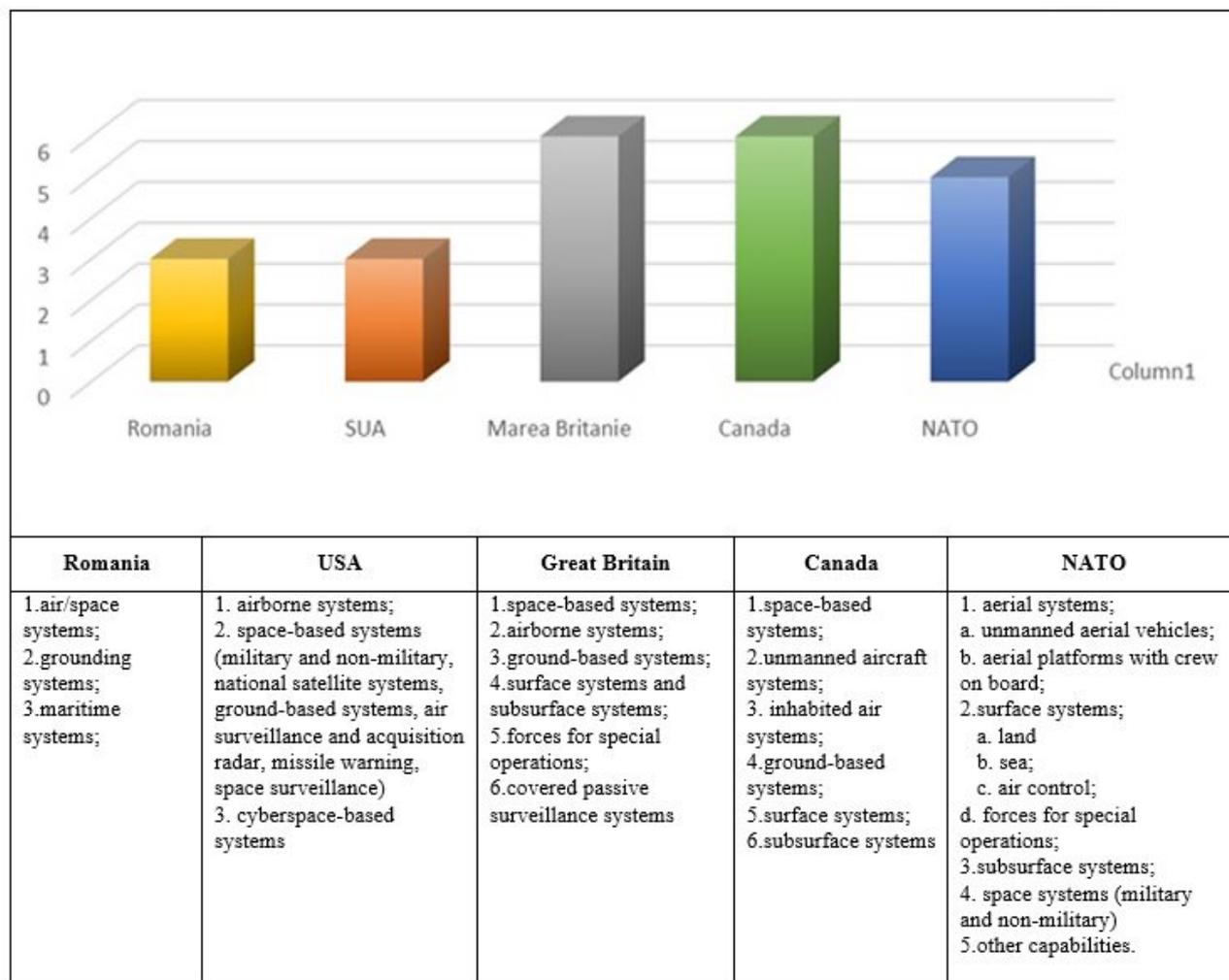


Figure 4 Systems of collecting of the analyzed states (Author's conception)

2 *** I.A.-1.5, *The assembled doctrine for information, supervision and research*, Bucharest, 2017, p. 8.

3 *** *Global Integrated Intelligence, Surveillance & Reconnaissance Operations, Air Force Doctrine Document 2-0*, United States Air Force, January 2012, p. 1.

4 *** *Joint Doctrine Publication 2-00, Understanding and Intelligence Support to Joint Operations*, third edition, Development, Concepts and Doctrine Center, Ministry of Defence, UK, August 2011, p. 2-17.

5 *** *B-GA-401-002/FP-001, Royal Canadian Air Force Doctrine, Intelligence Surveillance and Reconnaissance*, Canadian Forces Aerospace Warfare Center, 2nd edition, November 2017, p. 5.

6 *** *AJP-2.7 Allied Joint Doctrine for Reconnaissance and Surveillance*, 2009, p. 2-1.

7 *** I.A.-1.5, *The assembled doctrine for information, supervision and research*, Bucharest, 2017, p. 23.

8 *** I.A.-1.1, *Doctrine of information for defence*, Bucharest, 2017, p. 24; I.A.-1.6 *Doctrine for information procedures*, Bucharest, 2018, p. 23.

9 *** *AJP-2.7 Allied Joint Doctrine for Reconnaissance and Surveillance*, 2009, p. 4-2.

10 Gordon Adams, Guy Ben-Ari, Josh Logsdon, Ray Willison, *Bridging the Gap. European C4ISR Capabilities*

and *Transatlantic Interoperability*, The Washington University, October 2004, p. 11.

11 George Friedman, *Următorii 100 de ani. Previziuni pentru secolul XXI*, Litera Publishing House, Bucharest, 2012.

12 Constantin Mincu, „Capabilități C4ISR ale armatelor statelor europene membre NATO. Interoperabilitatea intraeuropeană și transatlantică a sistemelor”, *Revista de Științe Militare*, no. 1/2013.

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*** I.A.-1.6, *Doctrine for Intelligence Procedures*, Bucharest, 2018.

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