

S U M M A R I E S

The System of Defense Sciences and Their Place in the System of Sciences in the Society

Jan Marček and Mitar Kovač

For the purpose of scientific foundation of the defense/military sciences system, it is necessary to, among other things, examine their place in and relation with other scientific fields in the society. However, over the past forty years, military science(s) have not found their place in the classification series of sciences in the society, which resulted in negative practical implications for linking the military scientific activity with scientific activity in the society, and even for the participation in joint projects with research organizations in the society and the exchange of research personnel.

After the reform steps of the higher education sector of the Republic of Serbia were implemented in line with the Bologna process and after the reform of the research activity, prerequisites were met for accreditation of the higher military education, military educational institutions and military scientific organizations according to common republic laws, which made their full harmonization possible with educational and scientific system of the Republic of Serbia.

The main obstacle in this process was the absence of military sciences from the classification of sciences in the society, according to which the accreditation could only be made. In order for this very significant reform process to be smoothly completed, the development of accreditation documents required a support in the related scientific fields in the society. However, until the next accreditation cycle, the process of including the defense sciences into the science system in the society is expected to be finished, so that the accreditation process in higher military education and military scientific work would be supported by "mother" military fields. Consequently, defense sciences need to be, same as security sciences, included into the interdisciplinary scientific fields in the society, i.e. IMT studies.

When it comes to defense sciences, for the past forty years this syntagm has been referred to as military science or the system of military sciences, and then as the art of war or polemistics. Furthermore, their main disciplines were strategy, operational art, and tactics. On the other hand, in defining the object of research, it was the war at first, then the armed struggle, or both. At the second symposium, military activity was defined as a research area or object of military sciences. More recently, this object has been significantly broadened to the defense activity or the function of state defense. Consequently, scientific knowledge of this field, as norms of defense sciences practical activity, are used for defining the strategic documents in the defense system. With this in mind, for both scientific and pragmatic reasons, a new name should be introduced for this important type of scientific activity – defense sciences.

Defense sciences constitute a system of sciences belonging to a group of interdisciplinary scientific fields or the IMT (interdisciplinary, multidisciplinary and transdisciplinary) studies. These include the following sciences: military strategy, operational art, tactics, defense logistics, and methodology of defense sciences. Added to this set of defense sciences has been also the science "military management", which used to be called the "theory of leadership (commanding)".

Key words: *defense sciences, military strategy, operational art, tactics, military management, defense logistics, methodology of defense sciences.*

Level of Development of Constituent Elements of Defense Sciences

Momčilo Sakan

The paper first presents the views of some methodologists about constituent elements of the science in general. Then it gives a comparative analysis and an assessment of the level of development of basic constituent elements of defense sciences: subject, theory, language, and method.

It is noted that defense sciences have their subject – defense activities, and within these – armed struggle, operation, battle, method of science ... It is also pointed out that object and subject are identical from the epistemological viewpoint, that problems extend beyond the area of interest of defense sciences, and that there are no reasons for the subject to be replaced by the object of the science.

The second section of the paper presents a complex analysis of the theory of defense sciences. All elements of the scientific theory structure are analyzed: subject, basic notions, views, hypotheses, laws, and theorems. It is assessed that the applied theory is relatively developed, but there is still a need for intensive search in the area of defensive activities and for the creation of consistent and argument-based theories, those of metatheoretical character in particular.

The third section presents a complex assessment of the language of defense sciences. It points to its elements, structure, and especially to insufficient descriptiveness and explicativeness. It has been proved, however, that this language of defense sciences does exist, that it is based on our literary language, but also that it has specific symbols, terms and statements, and that its style is quite doctrinaire – without proper explication and argumentation.

Finally, the paper presents science methods with an emphasis on the comparative analysis in relation to other methods, on definition, interpretation of different views of methodologists as regards its structure, and on methodological approaches. It proves that defense sciences have their own method and a complex of specific scientific methods used in the research procedure.

Key words: defense sciences, constituent elements, object, subject, problems, theory, scientific theory, notions, views, hypotheses, laws, theorems, language of methods, level of scientifically-based development.

Grounds for Considering the Defense Sciences as Interdisciplinary Sciences

Biljana Stojković

In modern sciences, for executing the complex scientific tasks a cooperation of scientists from two scientific fields is necessary, and sometimes even of scientists from a number of special social, humanistic, natural, mathematical, engineering and technological sciences, namely, at least an interdisciplinary approach to the problem and the system of scientific and social goals is inevitable. Unfortunately, in our country there are few mixed scientific teams, their orientation to development projects of the economy and society, including the defense industry, is inadequate, and the methodological side of the interdisciplinary approach to the problem of research is still insufficiently developed. In such context, the classification of defense sciences as interdisciplinary sciences would

imply a cooperation of different sciences and their coordination by the management level. Taking into consideration the diversity of scientific disciplines in the system of defense sciences, the ongoing classification of scientific, artistic and professional areas within fields, based on the Law on Higher Education in the Republic of Serbia, places the defense sciences into a very delicate position to be classified in interdisciplinary, multidisciplinary, transdisciplinary (IMT) and two-subject studies, or, otherwise, defense sciences could be, in part, classified within the first field of natural and mathematical sciences; different areas of military engineering into the second field of engineering and technological sciences; in larger part within the third field of social and humanistic sciences, and the military medical sciences into the fifth field of medical sciences. To prevent this to happen, the foundation of defense sciences as interdisciplinary sciences should be considered. Therefore, the example of defense sciences clearly requires a high level of cooperation of different scientific fields and quite different type of work distribution in the research. A clear conclusion arises from the above that a different approach is also needed in forecasting the further social and defense developments, as well as a different approach to the strategy of higher education and the creation of highly specialized defense-profile experts in the society. With a view that defense sciences have not yet found their place in the system of sciences in the Republic of Serbia, they are faced with an unusual opportunity to be among the first in national scientific practice to apply modern standards in the research, incorporating into their own system also the practical experience of the most developed countries of the world.

Key words: science, defense, society, development, strategy, tactics, the military, technology, engineering, personnel, partnership, classification, interdisciplinarity, multidisciplinary, transdisciplinarity.

Place and Role of the Defense Science in the Czech Research and Development System

Rudolf Urban and Martin Macko

This paper describes a system of the defense research and development in the Czech Republic. In the first part are introduced different models used by European countries. Czech defense system uses a so called state firm model, which is also supported by universities and scientific institutes. This model yields results but disadvantages too. Important facts are presented to support positive answer for a question why have a defense research system.

Key words: research, science, defense, system, university, defense research.

Defense Sciences: Do They Exist?

Peter Lodewyckx

There is a lot of discussion on the place of defense or military sciences in the larger framework of "science". In this presentation we will show that defense sciences, as such, do not exist. What we call defense sciences are in fact "normal" sciences used to attain military objectives through military applications. This is the case as well in tec-

hnical and engineering sciences as in human sciences. This will be illustrated by several examples. As a result, military sciences should not look for a separate place or invent their own, for they can find their place, and are even necessary, in "civil" frameworks such as the European Commission Framework 7. This will also be illustrated by the participation of the Belgian Royal Military Academy in such international projects.

Key words: *defense sciences, military applications, international projects.*

Scientific Principles of Armed Struggle as Theoretical Construct of Defense Sciences

Slobodan Mikić

War and armed struggle are very complex social phenomena (as regards their scope, structure, components, changes), accompanying the human society from the time of original community dissolution and affecting the overall relations and situation within it. These phenomena have always, as the practice and the object, been within the domain of the military art and its theory. With the development of science, war and armed struggle have become also an object (subject) of respective sciences (polemology – the science of war, or military sciences, which study the armed struggle), belonging to the corpus of social sciences. They have all necessary constituents characteristic of any science.

These sciences have achieved slightly inferior results and lagged behind in the part of the theory dealing with scientific principles and laws, which clearly exist and act in war and armed struggle. In recent times, satisfactory results have been achieved also in this domain and the scientific theory has been improved and broadened. Through research and verification, a number of scientific principles of armed struggle (their essence, definition, role and action) have been identified and explained. Also, the existence and action of the scientific law of power ratio have been confirmed and clarified, which is of fundamental importance for the scientific theory and practice of armed struggle. Defense sciences, or military sciences, have thereby verified their role, competence and place in the corpus of social and other sciences in the society.

Key words: *armed struggle, war, scientific principles, scientific laws, action of scientific principles in armed struggle.*

Classification of Defense Sciences

Momčilo Sakan

The paper points to the problems of classification of sciences in general and defense sciences in particular. It presents complex semantic and etymological analysis of terms and syntagms that could be used to define the meaning of these sciences. Then, the criteria of the defense sciences classification are identified and complexly analyzed. Based on these criteria, defense sciences are identified and explained. Finally, a complex analysis of sciences in the society is made and the place of defense sciences suggested in the classification series of these sciences.

It is noted that the main difficulties in the classification of defense sciences are of ethical and methodological-epistemological nature. The main difficulties of ethical nature include conflicts regarding the harmonization of the relation between individual and group behavior and decision-making, on one side, and the requirements of defense sciences, on the other. In this process of harmonization of relations, general interest of defense sciences most often appears as an alienated force, created in the conflict of individual and group interests. The difficulties of epistemological-methodological nature include problems of insufficient appreciation of dialectic unity of methodological essentialism and nominalism.

The second section presents a complex comparative analysis of syntagms of the military science and defense science, aimed to select the one which is more appropriate for determining the meaning of sciences in the military organization. It is noted that either syntagm may be used as synonyms, but the syntagm 'defense sciences' is at the moment, conventionally, more acceptable.

The third section identifies and analyzes ten criteria by which defense sciences may be classified. These are: generality, the nature of the object of sciences, connection of sciences and scientific disciplines, rationality, significance of the science, state of actual practice, pragmatism, similarities and dissimilarities, affiliation with mother sciences, and the level of development of constituent elements of the science. Based on their complex analysis, the fourth section identifies and classifies defense sciences. The fifth section points to the significance of these sciences and the necessity of their inclusion in the classification series of the sciences in the society in general.

Key words: military sciences, strategy, operational art, tactics, leadership and command (military management), logistics, military-oriented scientific disciplines, sciences in the society.

Military Strategy in the System of Defense Sciences

Stanko Nišić

In the system of sciences in the Republic of Serbia, defense sciences are authentic sciences, for which there are no other mother universities and faculties but the Military Academy of the Army of Serbia. This has been the main reason for establishing the Defense University of the Republic of Serbia.

Defense of the existence is a natural need and function of any living organism, and therefore the organism of the state as well. Any society (nation) is forced to create a mechanism of defense against violent threat to its existence. This role has been, over a longer historical period of social development, assigned to the military. That is how the art/science of military leadership, or the strategy, was created. This discipline developed progressively, in order to successfully study defense problems that were growing bigger by the measure of the growth and transformation of threats posed to the existence of the society and the state.

Today the problems of defense activity are mostly addressed by the corpus of defense sciences where the military strategy, as an interdisciplinary science, apart from researching the strategic reality, also plays an integrating role for other scientific disciplines involved in studying the defense system.

Analyzing the scientific foundation of the military strategy entails critical reconsideration of its constituents. Any science covers a narrower or a broader area of research and also develops its own methodology, in addition to using the methodological apparatus of related scientific disciplines, as it is the case with the military strategy.

The military strategy research area concerns the strategic reality, which is subject to rapid changes in contemporary environment by the measure of the combat technology development. This dictates a need of more thorough consideration of strategic reality, which must also include the virtual reality so as to be able to foresee the courses of action in the defense area. Without this, there can be no realistic preparation of the military for a future war (security) reality. It is exactly in this expanded area where ever more new strategic problems emerge, requiring the military strategy research subject to be expanded as well.

Hence, the development of the strategic theory should focus on the ontological aspect – cognition of objective strategic reality. Of course, to perceive the structure of future reality requires also the development of adequate scientific apparatus. In this domain the military strategy as an interdisciplinary science has a privilege to use also methodological achievements of other natural and social sciences. In this sense, in particular for the research of virtual strategic reality on the whole, the military strategy may also use the system modeling methods.

Key words: strategy, defense sciences, methodology of defense sciences, constituent elements of defense sciences, strategic reality, prospects of defense sciences, modeling in strategy, postmodern strategic reality.

Level of Scientifically Based Development of Operational Art as Defense Science

Rade Slavković and Miroslav Talijan

The level of scientifically based development of the operational art is an important matter for the assessment of its current state and basic orientation for its future scientific treatment and development within the defense sciences. The level of scientifically based development is the level of its scientifically based development in general, its subject (object), theory, language and method. The weakness in its scientific foundation is for the most part a consequence of insufficient scientifically based development of its constituents. The development of the constituents in science, and therefore in operational art, is based on strong logical and methodological general determinations.

The historic role and the significance of operational art in considerations define the characterization of an operation as an object of operational art. Within an operation, as a phenomenon, various problems of practical human activity can be perceived, either in the preparation and execution of an operation or in an attempt to comprehend its essence. That is why the object of operational art is (1) a complex mix of current and mutually related problems, which one encounters while preparing and executing combat activities within an operation, and of attempts to understand the essence of the operation as a concept, and (2) a complex mix of linguistic, methodological, historical, normative and other problems of the operational art being actually constituted as a science.

The level of scientifically based development of operational art is preconditioned by constitutedness of defense science. This fact results from the presence of certain constituents of defense science, as an immediately superior entity, in the area of operational art (language, method, philosophic assumptions). If considered strictly scientifically, an analysis of the constitutedness of a science shows that operational art is a scientific discipline of defense science undergoing a phase of turning into a science and cognitive constituting in a scientific sense, as it has not completely met all necessary and relatively

strict requirements for its establishment as a scientific field. However, if considered prospectively, it can rightly be defined as an independent science of defense. In that way, better prospects for its independent and faster development in the system of defense science open up.

Key words: operational art, level of scientifically based development, constituents of science (subject, theory, method, language).

Level of Scientifically Based Development of Tactics as Defense Science

Zoran M. Krsmanović and Stevan Liptai

To be accepted as a science, an area of human knowledge needs to have its own essential constituents: authentic research object, a coherent theory of scientific facts, a method of understanding its own object, and language, i.e. a categorial apparatus to communicate within the process of learning and presenting the research results. These are necessary constituents of any science. Tactics is one of the fundamental defense sciences and that is why this paper reviews in detail its scientifically based development level through its subject, theory, method and language. Tactics is the oldest science in the field of defense sciences. Its scientific establishment is being presently confirmed.

Key words: level of scientifically based development, tactics, defense sciences, subject, theory, method and language.

Level of Development of Defense Logistics as Defense Science

Marko Andrejić and Marjan Milenkov

Major organizational changes introduced in the state during the last decade and the current social moment call for adequate social attitude towards the defense as an important state function, the qualitative level of its study, scientific research, and logistic sustainability. The role and importance of the logistic support of defense, the range and quality of resources engaged, practical needs, time requirements, and current trends require the defense to be treated at a higher level of thinking in education, research and operational practice.

General knowledge of the emergence, development and interdependence of sciences, internal and external indicators of the reached level of the development of defense logistics show that it should be developed in a networked environment, as a multidisciplinary science, in close cooperation with other special disciplines of logistics, but within the defense sciences, so that it could contribute more to the improvement of the defense as an important state function and to the closer approximation of the teachings of scientific disciplines studying technical systems and technologies, with so-called orthodox military scientific disciplines.

Key words: social determination, the current social moment, development of science, logistic support, defense logistics, external indicators, internal indicators, integration processes.

Scientific Understanding of Social Conflicts – the Basis of Defense Sciences

Jože Sivaček and Jovana Sivaček

Any science or scientific field is constituted on the basis of methodologically established principles and requirements. Although all the elements for the establishment of a science are important, some of them play a more formal role, while the others play an essential one. The area of reality to which the science's statements refer is particularly important. The same applies to the defense sciences, which make a special area of scientific knowledge for developing a specific social function – defense, within which a dominant role is played by a special social activity – the military activity. The question is what content, relevant for human and social existence, represents an area of reality specific for the scientific defense knowledge where the functions of defense and the military activity are developed.

The defense, in its essence, is a response of a certain social system to potential or existential risks and threats posed to it. This means that, in addition to the knowledge of its own social system, the scientific understanding of the origins of social risks and threats is very important for the scientific knowledge of the contents of defense. If it is assumed that such a source is just another or a group of other social systems, with opposing interests, it can be concluded that, basically, social conflict exists. It is this conflict that makes the area of reality and the essence of the content where mutual relations of social systems develop, and strategic concepts of one system's defense against another are built. The social form of defense function and the development level of military activity for defense purposes will depend on which and what kinds of scientific knowledge are available to the opposing social systems.

This paper presents the knowledge that suggests specific directions of the defense science and indicates that its base is actually a scientific understanding of social conflicts. In other words, social conflicts are the basic area of reality the defense science statements refer to. The authors conclude that without the existence of social conflicts, the knowledge of defense has no purpose, and the defense sciences lose their ontological, epistemological and axiological field.

Key words: *social conflict, crisis, risk, threat, defense functions, military activity, defense sciences.*

Relation Between Sociology and Defense Sciences

Ilija Kajtez

It has taken the humankind a lot of effort, time, curiosity, creative restlessness and fruitful suffering to reach the fields and starry firmament of the world of science. Science is a powerful, creative and developmental tool of people in their endeavor to disclose the secrets of man, society, nature, and history and to understand multiplicity of the world in a rational, logical and relatively objective way, where human fruitful, creative and never confined knowledge and wisdom penetrate the conflicting, multilayered and secretive nature of all created things, social and cosmic phenomena, as the wise Greek philosopher said "nature likes to hide the things away". According to the subject nature criteria, sciences are divided into two main groups: social and natural sciences. The acade-

mician Mihajlo Marković, in his renowned work *Philosophical Basis of Science*, emphasizes that “the subject of scientific research is not things or processes as such, but problems related to these things and processes, posed before the man in the light of his practical needs, previous knowledge and methodical instruments available to him”.

We are interested in the relation of the sociology with specific sociologies, and especially with the military sociology. There are many doubts and antinomies, and our analysis, and hopefully fruitful synthesis, should offer adequate answers to these not at all simple dilemmas and problems with respect to the defense sciences and their relations to sociology and its separate disciplines which focus on research into phenomena of armed forces, war, armed struggle, military organization and other very important social phenomena which concern armed forces. In our opinion, the key topics and areas of interest which our military sociology as a discipline of general sociology should deal with are: sociological studies of armed forces as an important social institution in the light of globalization; the issues of contemporary war, defense and security challenges, risks and threats which our country is facing; the relationship between politics and armed forces with an emphasis on civil-military relations; and the role and position of our armed forces in the light of the powerful military-political integrations in the world.

Only a thoroughly and comprehensively changed world, and humans who live in it, can hope for peace. As long as the world is divided, there is little prospect for it. However, it does not mean that we should give up, for, as Confucius claimed, one should continue trying even when he fails in what he wants. If the man stopped rolling the Sisyphian stone uphill, would he still be called a man? Social sciences, sociology and its disciplines dealing with armed forces, war, military organization, can contribute to a considerable degree to the realization of this ideal of mankind. Sociology interprets, understands, and predicts future events, and consequently it is of priceless importance for defense sciences and armed forces, together with other social sciences and humanities which provide a close and thorough insight into the sphere of defense.

Key words: natural and social sciences, sociology, defense sciences, military sociology, war.

Military History as Origin of Theoretical Basis of Defense Sciences

Mirjana Zorić

This paper first discusses the place of the military history in the system of military sciences, namely some experiences which have, in this sense, marked the scientific work in the military circles of Serbia over the last few decades. The second chapter is dedicated to the interpretation of boundary nature of the military history, as a science closely connected to its mother-science (history), on one hand, and the military sciences, on the other. The function of the third chapter is to elaborate the basic hypothesis – the role that the military history plays in the development of the theoretical basis of the defense sciences, i.e. the military sciences, as they are referred to by their traditional name in this paper. While this subject demands much more space than the framework of this paper allows, we have tried, by relying on the existing experiences and through a shortened analysis of military-historiographical literature, to point to the decisive role of the military history in the theoretical establishment of military sciences.

Key words: military history, history, defense sciences, military sciences, system of military sciences, military-oriented sciences, military historiography, theory, art.

Achievements and Development Phases of Military Andragogy in Serbia

Jan Maček, Zoran Kilibarda and Budislav Suša

Andragogy has been long treated as uniqueness within the pedagogical science, and therefore the very process of its becoming independent has been very slow. The development of the military andragogy in Serbia was significantly influenced by a number of diverse factors, among which the most important are: the development of the andragogy, namely the process of its becoming independent from the general science of upbringing and consolidating into a scientific system, as well as the development of the military upbringing and education as a separate area of andragogical practice.

By the measure of the independence of the andragogy and by the measure of actualization of the problems of military upbringing and education, the military andragogy has found its place in the part of the andragogy scientific system which is named "special andragogies", because of its clearly manifest uniqueness of the research subject and clearly recognizable social relevance of practice that it is to research. This uniqueness and social relevance of military upbringing and education have never been disputed and, as such, they imposed themselves as a subject of scientific observation with appropriate methodological approach. Furthermore, it was associated with the system of military sciences solely through its research subject, and all other constituents of the science were linked to the mother scientific field – andragogy.

Key words: andragogy, military andragogy, military upbringing and education.

Military Ethics in the System of Sciences and its Relation to Defense Sciences

Borislav Grozdić, Srećko Kuzmanović and Branko Nikolić

Among numerous disciplines of the applied ethics, the military ethics seeks its place too. Unlike the business ethics, the ecological ethics, the medical ethics, which are developed theoretical fields, the military ethics in Serbia is yet to be developed. New, current missions of the military pose new and more complex concerns to the military ethics. Initial steps in this sense are clearly the identification of basic theoretical assumptions, namely the determination of the place of military ethics in the system of sciences, the definition of its subject, delimitation of the meanings of the most relevant terms and expressions used (the notions of morality and ethics, in particular), and understanding of relations with other philosophical and scientific disciplines. The paper discusses the relation between the military ethics and the ontology, the anthropology, the ethics of war and peace, and then the relation with related scientific disciplines – the sociology of morality, the psychology of morality, the military history, the military psychology. Finally, the matter of the military ethics' relation to defense sciences is separately discussed.

Key words: morality (ethos), ethics, military ethos, applied ethics, military ethics, military sciences.

Military Management – Scientific Discipline of Management and Business Sciences or Defense Sciences

Samed Karović, Goran Župac and Vladimir Ristić

The paper discusses the scientific reasons which this discipline owes its name to, and what are the implications for the entire area of management and business. It states that the military management belongs to the area of management and business in general, which studies the processes and trends in military organization systems, which do not differ much as regards the organization systems in general. It is much easier, more reliable and more complete, in the context of understanding the military management, to determine its actual subject, if studying the military management cognitive activities monitored in particular social trends.

Identification and explanation of particular elements, constructive from the aspect of association with the classification of the military management for the development and practical application of rational thought, represent an old philosophical problem, but also a problem of the military management, implemented into the management and business from its beginning.

The actual name "military management" was conditioned by a viewpoint from the aspect of subject area and social conditions and factors of the implementation in the military practice – to become an integral part of the entire area of the management and business and that this discipline, where it is concretized, has been given this special name of the "military management".

From the aspect of terminology, the military management matches the scientific content, but it should not be aggrandized. In the paper, this term has been used primarily to indicate the activities in military organization systems, and directly linked to other elements relevant for functioning of the system as a whole, regardless of the level.

Further on, the paper discusses the defense sciences and their mutual conditionality, and the general relation of connection through the military management as an array of all links and relations. Some of the former views have had an effect on the mentioned approach to the military management and to the shaping of scientific-cognitive content in the management, while the importance of some other elements was eventually noticed. It has become clear that broader relation and ideas of the management and business on the whole should be also taken into account, primarily having in mind the theoretical problems dealt with by the military management, above all in the real setting and content treatment, in order to contribute to its many-sided and more profound study. Thus imagined approach ensures the creation of systemic relation and basically possesses a certain set of its sources, their mutual links and interpretations.

In addition, the paper discusses basic problems of the military management. Its subject is defined as the study of processes in the military organization systems, namely as overall systematized knowledge and practice in this area. In this sense, the views essentially related to the entire subject area of management and business on the whole are harmonized as well.

Key words: *management, military management, management and business, defense sciences.*

Connection Between Strategic Management and Defense Sciences

Dejan Stojković, Nenad Đurić and Srđan Blagojević

The practice and the years of research confirmed the necessity of establishing the defense science system. The system of defense sciences should include mutually connected sciences and scientific disciplines studying specific problems of defense as a state function.

The sciences and scientific disciplines belonging to the system of defense sciences may be divided into groups of orthodox, inherent and coherent sciences and scientific disciplines.

The paper discusses the connection between the strategic management and defense sciences. The paper is based on a supposition that the strategic management, as a scientific discipline, is coherent with defense sciences.

The strategic management is a scientific discipline dealing with problems of formulating and implementing the strategy to achieve long-term goals of an organization. The strategic management primarily develops within the management as a science and studies the problems related to the organizations in general. However, it deals also with problems related to military and other organizations of the defense system.

Due to its importance for the defense system, as well as because of the nature of its connections and relations with other sciences and scientific disciplines within the defense sciences system, it may be concluded that the strategic management belongs to the defense sciences system. With regard that it enjoys a high degree of independence in relation to the entire system of defense sciences, and that it studies the problems of defense in line with the needs of the mother science, i.e. the management, the strategic management belongs to the group of coherent sciences and scientific disciplines.

The strategic management is extremely important for the defense system functioning and development. Research into this area should contribute to the development of the capabilities and capacities for executing the assigned missions and tasks, as well as to a response to security challenges and threats.

Key words: strategic management, management, defense sciences.

Human Resources Management in Defense System as a Subject Area of Human Resources Management

Ranko Lojić, Dejan Igov and Milan Kankaraš

One of the management areas that has developed most over past years is the area of human resources management. Through the transformation of staff or personnel function into one of the key management functions, the affairs and activities concerning the people in an organization have finally become a part of the management activities, acquiring a strategic importance for the organization.

Human resources management in the defense system is a complex process of planning, organizing and monitoring the development of personnel, getting the human resources together and putting them into the function of achieving the organizational objectives. The efficiency of human resources management function has a direct impact on the long-term stability and functioning of the defense system.

The paper explains the basic activities of human resources management and their implementation in the defense system, with reference to practical solutions applied in military organizations.

Key words: human resources, activities, implementation.

Defense Activity Area as Crisis Management Research Subject

Samed Karović, Nenad Komazec and Nenad Đurić

The paper deals with the importance of the notion "crisis", external manifestations of a crisis and disturbances manifested through behaviors and physiognomy, while morphological attributes remain relatively inconspicuous. It is also stated that crises have

their origins and developmental character, and that the notion of crisis causes many ambiguities too. The paper also mentions some special properties of crisis, which significantly affect the crisis management activity area, from the aspect of defense activity in particular.

The relevance and importance of studying the crises, as the subject area of the crisis management, should be understood in the context of a feeling that today we live in a crisis process that encloses the mankind and whose feature (the crisis) still faces us in a very complex form. The crisis to be overcome points to the areas of objective competence, which should be taken into account as the crisis management activity. Most organizations and institutions are not created so as to be able to foresee crises or to efficiently manage them once they occur. They have neither mechanisms nor basic skills required for effective crisis management. The most important, managers and leaders of most organizations and institutions have not yet understood the need for "new managerial and intellectual skills" required to manage the crises.

Finally, whether the crisis management in the context of action can actually accept all challenges that a crisis involves, and whether a "crisis" is always something else, not a set of difficulties to overcome, is covered by a segment of the paper which reflects the crisis management activity area.

In the context of defense activities, from the aspect of the crisis management, the paper emphasizes that crises caused by human actions are not inevitable, i.e. they need not necessarily occur, and in that sense the public strongly criticizes the organizations responsible for their occurrence.

In the conclusion, the paper emphasizes that the understanding of initial causes of the crisis occurrence, and of what can be done to manage the crises before, during, and after they occur, is the framework of the crisis management within the defense activity.

Regardless of all above, even with the best frameworks, plans, and preparations, it is unfortunately the fact that all crises cannot be prevented. This has proved true, even for those crises which we know, with almost full likelihood, will happen. Nevertheless, the effect of any crisis may be reduced if those who deal with them possess at least basic knowledge in the area of the crisis management. While all crises cannot be predicted, nor each of them preempted, they all may be more efficiently managed, if we understand them and do our best in this concern, within the limits of human capabilities.

Key words: crisis, phases of crisis, crisis management, defense activity.

Defense Activity Areas as Security Management Research Subject

Miroslav Talić and Rade Slavković

The paper deals with defense activity areas which, in addition to already existing ones (police activity, private security sector activity, etc.) may be a research subject of the security management as a new scientific discipline. This findings have been achieved through a study of our defense system structure (the contents and the manner of incorporating such contents into a whole) and the factors that make it a need and a reality.

This paper makes also the first steps in recognizing the research problems in the identified areas, as well as the most optimal methods in their research. Finally, the possibility and the manner of studying these problems are illustrated by stating the basic knowledge in one of the key areas of the security management – countering and combating the terrorism, i.e. the knowledge of the implementation of concrete activities of the security management process in an antiterrorist operation, which has been arrived at by the authors of this paper.

All this has been done with an attempt to contribute to absolutely necessary, planned, directed and complex research of the security management in the defense activity, the result of which would be the conception and development of the theoretical thought of a new type of security management – the security management in defense. This type of the security management would study the work of leaders in the defense system, which directs defense entities in the execution of their duties and tasks within the security areas of relevance for the defense.

Key words: *security management, defense areas, security affairs relevant for defense and the security management in defense.*

Role of Modal Experiment in Forecasting the Defense Requirements

Miodrag Gordić

Keeping in mind the high frequency of the applicability of models, experiments, and modal experiments in the implementation of fundamental, applicable and developmental research, the role of these methods in cognitive scientific processes is extremely important. Their application is also important in verification and heuristic research in the scientific classification, description, explanation, forecasting and detection of phenomena.

The security system of any state must be prepared to adequately respond to all potential security challenges, risks and threats, whose probability of occurrence may be higher or lower. That is why the application of modal experiment in studying the security system and its response to potential sources of threats may have decisive effect on its optimum organizational and functional structuring in the future. Particularly important is adequate, economical, rational, efficient, and effective structuring of defense system in proportion to the contemporary threats. Based on the indicators of probable emergence of threat and its characteristics, some forecasts may be made, which are based on manifested tendencies or on their growth or fading out. That is why the modeling method, i.e. the modal experiment method, is the most suitable if reliable information on respective phenomenon is available, corresponding to the place and the time of its occurrence. The modal experiment method is important also because the laws of social developments are such that they confirm one basic regularity – that no changes occur at the same time. This means that this method explores tendencies in a particular area, including defense activities or defense function of a state.

Key words: *security system, defense system, modeling method, modal experiment.*

Research Results of the Institute for Strategic Research in Support of Defense Sciences Development

Jovanka Šaranović and Dejan Vuletić

The paper provides a brief review of one of the most important research institutions of the Ministry of Defense and the Army of Serbia and of its contribution to the development of defense sciences. While the Institute for Strategic Research has been changing its name and place within the organizational structure of the Ministry of Defense and the

Army of Serbia, it has continued to exist since 1984 until the present day. During the entire period of its existence the Institute has initiated and carried out a large number of research projects. Apart from the results of the research projects implemented, the contribution of the Institute to the development of defense sciences has also been the organization of scientific meetings, symposiums, conferences, and round tables.

Key words: *Institute, projects, scientific meetings, symposiums, conferences, round tables.*

Application of Theoretical and Methodological Knowledge in the Area of Defense Sciences to the Development of Military Doctrine

Velimir M. Kevac

The paper discusses the application of theoretical and methodological knowledge in the area of defense sciences to the development of military doctrine. As the basis of the military doctrine development, the starting point in defining was the level of scientific knowledge and the ratio of challenges, risks, and threats for the security of the state to the projection of creating the required force – the Army – for deterrence and execution of the tasks concerned with the state protection and defense against external and internal threats.

The viewpoints in the Doctrine of the Army of Serbia have been formulated on the basis of the assessment of the development of geopolitical, social, military-security, scientific-technological, military-technical, and other processes affecting the military activity, such as: challenges, risks, and threats to the security and defense; modern features of military power; physiognomy of armed conflicts; scientific and technological achievements and their application in the Army of Serbia; character and contents of contemporary military doctrines; ratified international treaties and agreements, and the reached level of development of the Army of Serbia.

The Doctrine of the Army of Serbia is a basic document defining the general determinations of the military activity, organization, preparations, use and sustainment of the Army of Serbia in wartime, peace and state of emergency. This document elaborates the established basis for building the professional and efficient Army of Serbia, materially and financially sustainable, interoperable with the armies of partner states, provided with modern equipment, and qualified for execution of its missions and tasks.

Strategy, operational art and tactics, as orthodox sciences of defense, are engaged in studying the defense activity through the research of phenomena, processes, factors, principles, relations and connections between the elements of the defense system and the use of forces in particular missions and tasks through all levels of a crisis, armed conflicts, operations, and campaign.

Through an analytical procedure, the contents of doctrinal documents are determined, whereby the organization, purpose and the tasks of the Army of Serbia and the manner of its use as a key segment of doctrinal solutions are determined.

Key words: *defense sciences, strategy, operational art, tactics, National Security Strategy of the Republic of Serbia, Defense Strategy of the Republic of Serbia, Doctrine of the Army of Serbia.*

Role of Defense Sciences in the Development of Police Science in Serbia

Dalibor Kekić and Željko Nikač

With the very first forms of defense sciences (as established in Serbia back in the second half of the 19th century), the first simplified forms and contents of the police science development emerge too. By the end of the 19th century and the beginning of the 20th century the defense sciences had a decisive and strong influence on the development of the corpus of police disciplines and subsequently the police science. The first schools concerned with police activities were founded in the period between the two world wars, as police schools. The founder of these schools was Archibald Reiss, who passed his European knowledge into the Serbian police jaws. Even though, apart from police experts in the Gendarmerie School and in the Police School, a great number of instructors were of military profession.

After World War Two, in Serbia and in the then SFR Yugoslavia huge needs emerged for police personnel, but at the time this personnel also came mostly from the ranks of military schools and academies. In a while, the establishment of the Secondary School of Internal Affairs and the High School of Internal Affairs opened a path for the development of police sciences. By the end of 1970s and until the beginning of 1990s, due to the lack of personnel with higher education, the major part of the police leading personnel, after the completion of the Secondary School of Internal Affairs, was referred to the Military Academy where they acquired higher level knowledge and skills in police units leadership.

With the establishment of the Police Academy early in the last decade of the 20th century, a path was opened for the police science to leave the defense science corpus, as a separate science, under an influence of legal, economic and other sciences. In spite of its initial success and final division from other sciences, the police science is still under strong influence of defense sciences, particularly as regards the doctrinal, and consequently the personnel aspect. At the beginning of the third millennium, in the Serbian new education system, defense sciences deserve to be one of the founding pillars in creating highly educated and Europe-preferred profile of a future professional. In this regard, defense sciences are expected to be leading and founding the acceptance of police science as a modern science established on the foundation of defense sciences. Thus, a new education profile, such as a police diplomat, has been created as, in a way, a legal successor in the military diplomat affairs. Therefore, defense sciences are a mirror, and the police science is a reflection, of the future educated professional for security matters.

Key words: defense sciences, police science, Serbian education system, school, teacher, police force, defense, the military.