

***Balytskyi I. I. Organizing of border control management system at a border guard division***

The improvement of administrative activity while organizing and performing border control at border check points which are within border division area of responsibility is considered in the article.

**Keywords:** administrative activity, border control, administration principles and personnel.

***Basarab O. K. The probabilistic approach to determination of indices of border control effectiveness***

In this article the author has obtained the formula for calculating of important component of border control effectiveness - the probability of unavailability of information about the violator caused by network disability in the checkpoint database. Also the dependence of this probability on network access has been determined.

**Keywords:** border control, effectiveness, probability, availability, information and telecommunication system.

***Berezenskyi O. I. The analysis of the system of collection and processing of data about the border guard division and some aspects of the border detail shift chief's work as for realization of the main results of system functioning***

The system of collection and processing of data is rather complicated object that can be divided into subsystems related to carrying out of common function. The complex of components, their properties and connections creates the system structure. The sequence of the realization of the results of system functioning by border detail shift chief has been offered.

**Key words:** system, sources, algorithm, border guard division, violations.

***Borovyk O. V., Traskovetska L. M. Determination of approaches to efficient organization of operation and service activity in the area designated to border guard division***

In the article the possibility of application of SWOT-analysis as system methodology for solving the problem of organization of operation and service activity by organs and units of the State Border Guard Service of Ukraine has been analyzed. The technology of application of SWOT-analysis has been demonstrated on the particular example. The strategies used for further analysis and modeling have been determined.

**Keywords:** SWOT-analysis, national security, state border, border guard division, operation and service activity.

*Bratko A.V., Mikhailiuk O. O.* **Analysis of native and foreign experience of application of reserves in operation and service activity**

In this article experience of application of reserves within the in Ukraine and different foreign countries has been analyzed. The approaches and principles of the application of these units exposed in world practice have been described; and also positive sides of their application in the system of border security has been examined.

**Keywords:** reserves, special units, state border.

*Harkusha S. A.* **The recommendation for the headquarters of the border detachment on usage of thermal imager and other technical means during border security actions, and taking of the special measures of searching of violators in the area designated to border guard division**

The article concerns the analysis of usage of thermal imager and other technical means border security actions and taking of the special measures of searching of violators in the area designated to border guard division.

In the article the recommendation for the headquarters of the border detachment on usage of thermal imager and other technical means during of border security actions and taking of the special measures of searching of violators in the area designated to border guard division have been offered; and expedient directions of further researches have been given.

**Keywords:** recommendations, thermal imager.

*Hashchuk M. P., Kyrylenko V. A.* **The analysis of results of researches of formation of composition of vehicles stock of departments of border guard service divisions and mobile units of organs of border security»**

In the article the results of analysis of known researches of the specified area have been given; the determination of principle possibilities and limitations of existing scientific and methodical apparatus of support of decision-making with regards to formation of composition of vehicles stock of departments of border guard service divisions have been done; and prospects for further researches have been outlined.

**Keywords:** vehicles, formation of composition of vehicles stock, state border security; efficiency of transport process.

*Hetmanyuk S.P* **«Substantiation of rationalization direction for search work during border control by using innovative samples of special equipment»**

The article deals with the problem of search work rationalization within the system of border control by using new samples of equipment for border control designed for the inspection of vehicles and cargos. The schematic analysis of the "search work" concept, the legal framework for its conduct in the context of border control is presented.

**Keywords:** border control, search work, inspection of vehicles and cargos, technical means for border control, analysis and risk assessment, technical parameters.

*Dmytrenko O. M., Borovyk O. V.* **Cause-and-effect relations between types of queues of vehicles before the highway crossing points and their quantitative characteristics**

The article analyzes the risks associated with providing of rhythmic admission of people and vehicles across the state border for the highway checkpoints; identifies the cause of queues of vehicles; carries out their structuring in accordance with their types; studies their quantitative characteristics and as a result examines the groups of factors influencing the unexpected traffic increase of vehicles.

**Key words:** vehicles, queue, traffic intensity, crossing point, state border.

*Kashtelian S. O.* **Theoretical aspects of detection of security destructive factors in the border area**

The main theoretical approaches to detection of security destructive factors have been generalized; their content has been explained and specified. The signs for classification of threats, risks, challenges and dangers of national security of Ukraine in the border area have been described.

**Key words:** national security, border area, threat, risks.

*Kulich R. S.* **The activities of the border representative personnel of the border detachment in order to ensure state border regime**

The article summarizes the activities of the border representative personnel of the border detachment in order to ensure state border regime.

The article describes the main activities taken in the border detachment in order to ensure state border regime; the activities of the border representative personnel of the border detachment with regards to monitoring and following the procedure of state border crossing; procedures of maintenance of the state border of Ukraine and carrying out economical activity at the state border of Ukraine.

**Key words:** state border regime, border representative personnel of the border detachment.

*Mazur V. Y., Hidzula V. O.* **The problem of coverage of surface situation and ways of its solution**

The article reveals the problems of the security of marine sector of the state border and its control; and ways of improvement of the system of coverage of surface situation, as well as new approaches to service of border details combined with the complex application of heterogeneous forces and means in the area designated to border detachment.

**Keywords:** service organization, coverage of surface situation.

*Mysyk A. B.* **Scientific and methodical maintenance of the work of organ of management of preparation of border guard operations**

The article concerns the problem of organization of border guard operations; formulation of principles of scientific and methodical maintenance of the system of decision-making support and technique of work of organs of management.

**Keywords:** border guard operation, organization of operation and service actions, work of organ of management.

*Nazarenko V. A., Stavvytskyi O. M., Baratiuk V. I., Hrodovskyi O. V.* **Constant development of border control system on ways of international communication of Ukraine as a scientific and applied problem**

In the article the threats and risks that belong to the sphere of ensuring national interests of Ukraine in border crossing points, identifying the main controversies in the system of border control of the State Border Guard Service of Ukraine have been substantiated; also the scientific and applied problem has been outlined and methods of its solving have been determined.

**Keywords:** security, state border security, border control.

*Oliinyk L. V.* **«Theoretical aspects of combat training system of the Armed Forces of Ukraine».**

Theoretical aspects of combat training system of military units have been determined in the article. Main components of combat training system of military units have been characterized.

**Keywords:** system, combat training, military unit, Armed Forces of Ukraine.

*Ponomarenko O. A., Cherniavskyi V. A.* **Determination of economical activities of properties preparation to winter**

In the article the factors influencing upon the state of properties preparation to winter have been determined; the technique of evaluation of economical activities of properties preparation under winter conditions has been specified.

**Keywords:** preparation to winter, properties, economical activities.

*Farion O. B.* **«The algorithm of processing of operation and search information for providing of needs of criminal analysis of criminal activity»**

On the basis of the analysis of operation and search information and criteria for its evaluation the author has developed the algorithm contributing to activities of criminal analysts of operation and search units in order to obtain the necessary information for carrying out of analytical investigations.

**Keywords:** operational search information, criminal analysis.

*Shalimov Y. Y., Cherniavskyi V. A.* **Methodical approaches to evaluation of functioning of material maintenance system of the organ of the State Border Guard Service of Ukraine**

In the article the methodical approaches to determination of criteria of evaluation of material maintenance of the organ of the State Border Guard Service of Ukraine have been substantiated. Also the views of scientists concerning approaches to evaluation of efficiency of functioning of material maintenance system have been given.

**Keywords:** material maintenance, efficiency of functioning of material maintenance system.

*Shalimov Y. Y., Cherniavskiy V. A.* **Methodical approaches to evaluation of functioning of material maintenance system of the organ of the State Border Guard Service of Ukraine**

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**Keywords:** material maintenance, efficiency of functioning of material maintenance system.

*Borovyk O. V., Podhornyi M. V.* **Substantiation of structure and functional peculiarities of program supplement of information and analytical system of support of decision-making for determination of technological procedures of border control simplification**

The article substantiates the structure and analyzes the program supplement contributing to processing of optimization task for determination of selective actions of people and vehicles admission through the state border at the highway check points. The latter may compose the basis for information and analytical system of support of decision-making included in the analytical system of support of decision-making of the State Border Guard Service of Ukraine and applied for development and giving of appropriate recommendations.

**Keywords:** program supplement, technological procedures, border control simplification, optimization task, information and analytical system of support of decision-making.

*Herasymiuk O. V., Burlaka O. V.* **Aspects of ensuring of traffic safety**

In the article the system approach to analysis of complex system «driver - car - road - environment» has been considered. The reasons of errors made by drivers in difficult traffic conditions have been analyzed.

**Key words:** human factor, traffic safety, complex system «driver - car - road - environment».

*Markarian H. O.* **The logical and formal model of the system of registration of «guest workers» and illegal migrants in information maintenance of organs of internal affairs**

In the article the system analysis of the problem of registration of data about location of «guest workers» and illegal migrants has been carried out; the information flows have been formalized; the set of logical rules for classification of persons of dangerous categories and for evaluation of apartments according to the risk level has been determined; the structure of information and search system, database and software has been developed.

**Keywords:** logical and formal model, information and search system, illegal migration, information maintenance of organs of internal affairs.

*Ostashevskiy S. A.* **Exoskeleton conception of content of information inputs into the system “driver-car-road”**

In article concerns the system conception of exoskeleton model of car driving as a basis of maintenance of error-free movement on the given (safe) route realizing that the main principle of this phenomenon is driving by a driver's body corresponding to the size of a car. The content of information inputs into the system “driver-car-road” has been examined.

**Keywords:** car controllability, car driving, system "driver-car-road".

*Ostashevskiy S. A., Staryi A. M.* **Reliability of driver and major factors for its determination**

In article the results of examination of major factors defining reliability of a driver have been given. The attempt of determination of complex concept „reliability of driver” has been made. Such concepts as «suitability of driver», «readiness of driver» and «work capacity of driver» have been explained. The positive and negative reasons of ensuring of presence of these properties of a driver have been offered. The analysis of application of automobile training apparatus in system of preparation of a driver has been carried out; and the offers on ensuring of its constant psychophysiological state have been given.

**Key words:** traffic safety, automobile training apparatus, reliability of driver, work capacity of driver, readiness of driver, physiological indices of work of driver.

*Podolian O. Y.* **Prospects for application of vehicles with hybrid power installations while carrying out of operation and service activities by the border guard units**

The article reveals reserves for increasing of efficiency of functioning of vehicles of border units. The topicality of research about the application of hybrid vehicle in the State Border Guard Service of Ukraine has been substantiated. The synergistic nature of operation of vehicles with hybrid power installations has been defined. Based on the results of research the structure of approach to evaluation of efficiency of application of hybrid vehicles in the operation and service activities of the border guard units has been developed. The partial objectives of the research has been formed.

**Key words:** hybrid power installation, operation conditions, border guard unit, efficiency, evaluation.

*Strelbitskiy M. A.* **Decomposition of information security technologies in corporate systems**

The article defines the components of complex information security technologies for corporate systems at the stage of their modernization. Their three organizational parts have been given. They are the following: mechanisms of protection of information, mechanisms of management of tools of protection of information and mechanisms of general organization of system work. The result of research has become the scheme of management of information security.

**Keywords:** information security, corporate systems.

*Shynkaruk O. M., Chesanovskyi I. I., Ivanov A. V.* **Determination of influence of random modulation components of impulse radar signals on the degree of their recognition**

The article touches upon one of the ways to increase the degree of recognition of the probing radar signals which is an alternative one to existing ways and it is based on the application of non-determined amplitude and angular modulation components of the signal as a coherent feature within the period of probation. Besides it is shown that the potential properties of impulse radar signals of recognition are much higher than those that are laid during the modulation. The phenomenon is explained with the presence of fluctuation components in the carrier wave that can be perceived as useful modulation.

**Keywords:** modulation, impulse radar signals, probing signal.

*Shport M. M.* **Consideration of supply of radio communication while constructing rational routes in the process of solving of tasks of operation and service activity of the State Border Guard Service of Ukraine**

In the article the research resulted in determination of the fact that for consideration of existence of radio communication while constructing rational routes it is possible to use probability index. The factors composing offered probability index have been considered. In the article the mathematical apparatus for calculation of probability of figure indicating that distance does not exceed alarm level has been determined.

**Keywords:** radio communication, rational route, Fresnel zone

