|  |
| --- |
| **Page 1** |

UDC 519.71

**AUTOMATION OF PROCESSES OF PREPARATION AND PLANNER-**

**INFORMATION AND PSYCHOLOGICAL OPERATION INSTITUTE**

Ph.D. V.L. Petrov, Ph.D. K.I. Khudarkovsky, S.V. Zalkin

(presented by Doctor of Technical Sciences, Prof. AV Korolev)

*The article deals with the model of functioning of the automated*

*operator's workplace, the decisive task of preparing information*

*psychological and psychological operation.*

**Formulation of the problem.** The problems of the development, use and

protection against information weapons have already become priority

in the national security policy of most of the leading countries of the world.

oriented to the twenty-first century. Information weapons are

differs from other means of warfare in that, with his help,

can be conducted and already unannounced and most often invisible

the world of war and the objects of the impact of these weapons are,

de facto, the civil institutions of society and the state - economic,

political, social and other. To a large extent this method

a high level of information technology [1, 2].

To date, only the US and its allies

NATO has a well-developed package of

modern requirements of information warfare. In Ukraine

insufficient attention is paid to these issues and therefore a special

the problem of the development and implementation of modern

intellectual technologies of information and analytical

training of information and psychological operations [3 - 5].

Modern computer systems allow the creation of si-

distributed processing of information. Such systems

optimal distribution of information processing functions,

flexible combination of information and functional structures,

the parallel mode of operation, the variability of the algorithmic and pro-

changes in the course of the functioning of the

stems. With such a system construction,

data processing processes, adequate machine

model of the external environment, the creation of large databases,

© Ph.D. V.L. Petrov, Ph.D. K.I. Khudarkovsky, S.V. Zalkin, 2004

ISSN 1681-7710. System of information boxes, viz. 4, 2004

165

|  |
| --- |
| **Page 2** |

166

methods of knowledge representation. Resolving these problems

in the framework of the cybernetic approach as an integrated

scientific direction, which studies complex dynamical systems in

terms of management processes and information processes and

optimization of these systems.

**Analysis of the latest publications.** Modeling information

struggle in the conditions of a posteriori and a priori uncertainty of the

and subjective origin, the formalization of causal,

time and spatial relationships between the elements of the pre-

and their states, as well as taking into account the possibilities of anti-

parties and other processes, it is advisable to implement

means that reflect the semantics of the problems being solved [6].

The methods of the formalization apparatus must ensure the resolution

planning tasks taking into account the dynamism of the modalities of

objects and decision-making processes;

structured in relation to the synthesis of the action plan for complex systems and

synthesis algorithms for solving complex problems [6, 7]. Effective re-

These methods are possible only within the framework of a set of tools

automation of the processes of preparation and planning of information-

psychological operations.

**Formulation of the purpose of the article.** The purpose of the article is to present

The results of the development of a fragment of a complex of automation

cos of training and planning of information-psychological operation.

**Statement of the main material.** Planning information-

psychological effects during the preparation of information-

psychological operation is a complex complex

A problem with a large number of variable factors and variables and

appropriate information, software and mathematics

technical, linguistic and other types of support.

Preparation of the information-psychological operation assumes

solution of the following tasks: reception and primary processing of information (co-

conversations); information modeling, during which

Information flows, their characteristics, directions, forms and content

information on the information and

the psychological space of all its elements; information model

In the course of which the information activity of the

the crooked object; identification of suggestive information impacts;

an assessment of the level of information threats and a forecast of the development of the situation; segment-

information and psychological space; object selection

information-psychological impact; preparation of possible scenarios

|  |
| --- |
| **Page 3** |

167

the conduct of an information and psychological operation; determination of

communicative channel for effecting; choice of methods and

ways of information impact; analysis and synthesis of the document system.

planning of an information-psychological operation (impact on

sions); monitoring of the state of the impact object; assessment of the

counteraction to information and psychological impact;

evaluation of the effectiveness of information and psychological impact.

The most effective processing of distributed information on the network is

and preparation of planning documents can be carried out on the basis of

ve use of specialized software and hardware,

combined in an automated workstation (AWP) of the operator for

planning of information and psychological effects.

The model of the functioning of the operator's workstation is shown in Fig. 1 and

It affects the interaction of its main subsystems with the external environment and environment,

surrounding the operator. Directions of information transmission through channels

the links are indicated by the arrows of the corresponding directions.

The basis for the construction of the functioning model of AWS is laid down

the following principles:

- openness of the model, which allows, if necessary

build a model, use a single database and provide non-

necessary information protection;

- generation of scenarios, which makes it possible to model alter-

Native scenarios of information-psychological impact;

- filtration of proposed activities, which gives an opportunity

justify options for proposed solutions;

- adaptation to the real situation, which is formed or

develops during the preparation of the operation;

- modularity, which allows replacing individual parts of the model

(modules) more accurate and improved.

The ARM model includes three main components:

processor, tasks, problems and models, and the knowledge subsystem.

*A language processor* is a collection of all linguistic-

the system provides the operator. Main

The function of *the task processor* , problems and models is the receipt of

language message processor describing the problem situation

extraction of knowledge of the problem area from the knowledge subsystem;

and drawing conclusions in the statistical, graphical and

forms. *The knowledge subsystem* is an organized

system of knowledge about the problem area, implemented

as with the help of the own means of workstations, and connected external

|  |
| --- |
| **Page 4** |

168

their databases, knowledge and models.

|  |
| --- |
| **Page 5** |

169

All three components are implemented using software-

hardware.

The most fundamental in the development of a model of a functioning

The possibility of taking into account the features of the object of in-

formational and psychological impact.

**Conclusions.** Computerization and informatization of society in the near future

future can lead to the widespread use of modern forms and

ways of information struggle. Software and hardware development

complex of preparation and planning of information-psychological

operations allows ensuring the implementation of measures adequate to

threats directed against our state.

**LITERATURE**

*1.*

*Pocheptsov G.G.* *Information-psychological war.* *- Moscow: SYNTHEG,*

*2000. - 180 with.*

*2.*

*Prokofiev V.F.* *The secret weapon of the information war.* *- Moscow: SYNTHEG,*

*1998. - 152 p.*

*3.*

*Ros A.A.* *Information systems of the new generation as a factor of*

*interests of national interests // Informatization and new technologies.* *-*

*1996. - № 2. - P. 2 - 6.*

*4.*

*Ros' AA, Zamarueva I.V.* *Automation of information-analytical*

*activity on the basis of knowledge processing on multilingual texts //*

*Informatization and new technologies.* *- 1994. - № 4. - P. 16 - 20.*

*5.*

*Grekov V. The automated system of processing and analysis of reconnaissance-*

*ASAS Foreign Military Survey.* *- 1990. - No. 12. -*

*Pp. 27-35.*

*6.*

*Roz AO, Zamarueva IV, Petrov VL* *Conceptualist ambushes modelyuvan-*

*ня інформаційної боротьби // Science and Defense.* *- 2000. - № 2. - P. 46 - 53.*

*7.*

*Petrov VL, Khudarkovsky KI, Zalkin S.V.* *Formalized description*

*processes of analysis and synthesis of documents in the field of information*

*of the collection of information // Sistemi obrobki інформації.* *- Х .: HWS.* *- 2004. - Vip.* *1. -*

*Pp. 178 - 181.*

*Received 01/03/2004*

***PETROV Vadim Lukyanovich*** , *Cand.* *tech.* *Sci., Associate Professor, Professor of the Department of HVU.* *AT*

*1978 he graduated from VIRTA PVO.* *Area of ​​scientific interests - information struggle.*

***KHUDARKOVSKY Konstantin Igorevich*** , *Cand.* *tech.* *in Science, Associate Professor, Senior*

*scientific employee of NRR.* *In 1989 he graduated from the Kharkov VVKIU RV.* *Region*

*scientific interests - electromagnetic compatibility of radio electronic equipment*

*and technical protection of information.*

***Zalkin Sergey Vladimirovich****, head of the Research and****Development****Institute.* *In 1984 he graduated from the UPA*