

УДК 621.618

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ESSENCE AND TYPES OF INFORMATIVE WEAPON IN MODERN INFORMATIVE CONFLICTS

The features of development of informative weapon that is used in modern conflicts are analysed in the article. On the basis of the conducted analysis the basic types of informative weapon are distinguished and analysed, and essence of this weapon is certain in general conception of conduct of power informative conflicts.

Keywords: *informative weapon, radio electronic fight, unmanned aerial vehicles, automated control the system, high-fidelity weapon.*

Introduction

The real moment of time is characterized active researches in the developed countries of the world of theoretical aspects of making of system conceptions and creation of scientifically-methodical bases of conduct of the power informative opposing.

Beginning of origin of forms and methods of conduct of the informative opposing was appearance of informative weapon and informative shock systems and facilities, providing their application. Now in world practice the tendency of sharp increase of role of informative weapon (IW) was expressly set at planning and conduct of operations and battle actions. It was in next times confirmed during the lead through of operations of OVS NATO in Iraq "Boring in the desert" (1991 year), "Shock and trembling" (2003 year), to Yugoslavia "Interallied force". To the question of creation of theoretical base for the decision of problems of informative fight in Ukraine, planning of offensive and defensive informative operations, for the increase of efficiency of achievement of aims of power informative conflicts in the known literature it is spared it is not enough attention. Therefore in the article to the question of determination of essence, kinds, objects of application and features of development of IW attention is spared in general conception of conduct of power informative conflicts.

Basic part

Under an informative weapon (IW) during the lead through of offensive informative operations within the framework of providing of conduct of battle actions and operations by troops (by forces), peacemaking and counterterrorist operations will understand the aggregate of the special informatively-programmatic shock systems and facilities, complexes and facilities of radio electronic fight (REF), electromagnetic defeat, technologies, information and misinformation, applied for the destructive affecting personnel and organization of automatic control the system (ACS) by state structures, troops (by forces) and weapon of eventual opponent.

Informative weapon of affecting programmatic-mathematical providing ACS. It is the special soft-

ware, computer viruses, book-marks, logical bombs, "trojan programs", "worms". A virus on the structure consists of two parts – reproduction (distribution of aims and deliveries) and actions (to battle, shock part). Thus the first part of virus is a "aiming head" and serves for the choice of purpose (aims) and delivers him to the object of defeat. Information about a purpose is given the "systems of computer secret service". Thus the systems and affecting facilities software can be examined as an analogue of high-fidelity weapon (HFW) is in informative space. Destructive action (set of actions) of virus as the informative HFW directionally on causing of harm an object, in particular, or to the system on the whole. This part of virus can be the "mine of retarded-action" and to work at implementation of necessary terms. Very often "battle" part of virus is presented a cassette charge, able to strike a few objects for one start.

Automated control the system opponent can be not destroyed during an informative attack. Then the purpose of informative attack is a capture of management ACS of opponent. Such facilities the "trojan programs" can exemplify (Backdoor.BO, aka Back Orifice Trojan) and NetBus. These programs are the powerful utilities of remote administration of computers in a network and give an user more possibilities, what the authorized user of this computer has. Structurally they consist of two parts: remote "client-secret service agent (diversionary group)" and "server" side (command, staff). A remote "client" operates under commands from a center and serves as a mean (by the place of arms) for the conduct of informative influences.

One of facilities of creation and distribution of viruses and "trojan" are the automated "designers of viruses" (for example, VLC, NRLG, PS-MPC, G2), by which it is possible to choose the type of virus, struck objects, presence or absence of independent enciphering, counteraction a debugger, internal text strings, choose effects, accompanying work of virus, etc. On their base more than thousand viruses can be created in minimum terms (1-6 clock). On the known information [1], the army of the USA is declare a competition for development of computer "virus", intended for the lay-up of the electronic systems of opponent, soldiery flow

lines, control the system and passing to false information by military powers.

Informative weapon of affecting networks and telecommunication facilities of exchange by information to ACS. It is facilities of intercept, destruction or distortion of informative arrays (arrays of the programs and information), in-use in the automated informatively-shock systems of opponent). By the most popular attacks on networks and telecommunication facilities of exchange considered information [1 – 3]: setting of virus on the computer of victim by the transmission of file to on ICO; application of the programs of remote administration; repletion of working telecommunication channel of user (attacks “refuse in service”) by a dispatch to him enormous amount of TCP-packages with a mark “quickly” (for example, by WINNUKE).

At the level of network software possible: listening of channel; intercept of packages on a router; creation of false router; imposing false information (packages).

The feature of this type of informative weapon is high secrecy and scale of organization of influence. One of examples of affecting scale telecommunication networks an attack, conducted on September, 11, 2000 on the server of Western Union, serves. As a result were stolen credit and debit cards 15700 on-line clients.

Actively subject to programmatic-computer suppression of control the system by energy, by jars and similar to them. Already a long ago to understand that it is impossible to talk about computer safety of the unclosed computer systems in Ukraine until the operating system will not be developed. Application of the operating systems, bought in abroad, unavoidable puts the important systems of life-support of the state in the suspended of command state on a shutdown from outside. Application of this type of informative weapon can take a place during organization of informative attacks on the systems of space secret service and navigation. For example, in 2000 by a command “hackers” the parameters of orbit of surveillance satellite of military powers of England were changed. Informative attacks on the space systems of secret service and connection are conducted during organization of assassinations of September, 11, 2001 in the USA.

Informative weapon of the radio electronic affecting systems of radio contact, communication of data, radionavigations and satellite communication, elements of the systems of radio electronic secret service. Existent, modernized and perspective complexes and facilities of radio electronic suppression (RES) can behave to this kind. For example, in Armed forces of Ukraine of task on radio electronic suppression of facilities of radio contact can decide the stations:

– in a short-wave range – R-378, R-325 and their modifications (type of interfering signal – aiming on frequency and protecting countercurrent to direction, distance of influence is a to 60 km);

– in the VNF range – P-934 Б, У (distance of action is a to 400 km), P-330 П, У, Б (distance of action is a to 30 km), type of hindrance – aiming on frequency and protecting countercurrent to direction;

– for the informative affecting navigational (navigational of “Takan”) during the lead through of offensive informative operation the stations of P-388 and their modifications can be used (distance of action is a to 400 km).

For affecting elements of perspective satellite communication networks perspective facilities can be used RES, located on UAV.

Radio electronic suppression of the multifunction vehicular radio-location stations (MVRLS) can be carried out with the use of the stations of СПН-30, СПН-40, СПО-8 (distance of action 15... 150 km).

For affecting process of management the armament of terrorists (for example, radio-controlled landmines, mines) the thrown transmitter of hindrances can be used. Application of such facilities of informative fight is especially topically at the decision of tasks of guard of VIP, to counteraction of actions of different types of secret services.

Informative weapon of physical elimination of elements to ACS. To this class of IW will take the systems and facilities, resulting in physical destruction of elements to ACS of eventual opponent. For example, systems and facilities of fire defeat, explosive facilities, delivered reconnaissance-diversionary groups, biological microbes-destroyers of element base [1].

Informative konstsiyentalny weapon. Konstsiyentalny a weapon (KW) is an informative weapon, destroying consciousness of personnel. In composition to KW can be used:

- affecting facilities consciousness and subconsciousness of staff (psychotropic informative weapon). To this group mass (radio, press, television) medias and agitation-propagandist facilities (video cassettes, electronic textbooks and encyclopaedias and other) can behave This variety of IW can be examined as an analogue of weapon of mass defeat and intended for a purposeful informative causing of spiritually-moral life of personnel of resisting groupmate damage, to his historical memory, world view, to the morally-moral ideals with the purpose of possible management his conduct, and also for creation of obstacle analogical influences of opponent;

- facilities of affecting neurobrain part of staff (psychotropic drugs) are the special medicinal preparations, psychopharmacological and psikhodisleptichesky drugs, tranquilizers, antidepressants, hallucinogens, drugs, alcohol, intended for affecting psyche of personnel on gene or chromosomal levels. Tranquilizers tear connection between informatively-psychical and physical processes in the organism of man. Hallucinogens are caused by psychical disorders;

- facilities of affecting organization of informatively-communicative environment of existence of consciousness of personnel. It is the special generators, special video graphic and tele visual information, video means, intended for distance zombing of personnel of resisting groupmate, and also for excitation of psychical and psychophysiological disorders of operators-users of subsystems on the basis of special contaminations (“mix-

ing”) of color gamut, discreteness and intensity of radiation on the screens of cathode-ray tubes of monitors, effect “25 shot” (perceived only at subconscious level) and other. For example, it is known that on December, 12, 1997 in Japan on national television animated film, containing contaminations of color gamut was demonstrated, sound, blinking of visual information and animation persons, from viewing of which ten of children was got by psychophysiological disorders of different weight;

- levers on forms and ways of identification of the personality;

- means of “social engineering” – one of parts of the social psychology directed to a manipulation by people or generation in their mind of new behavior model. These means are already approved when carrying out attacks to “breaking” of financial computer networks (for example, attack to the server of Western Union).

Informative weapon of electromagnetic defeat of elements to automatic control system. The systems and facilities of electromagnetic defeat (nuclear and non-nuclear nature) of objects of informative fight on the indexes of battle efficiency can be the analogues of tactical nuclear weapon. It is electromagnetic live ammunitions of non-nuclear nature with a cruising radius from 0,2 to 10 km. On the way of revolutionary changes in area of REF such developed countries of the world as USA, China, France and England became already. In particular, one of basic progress of arming with the USA trends are full-scale scientific experiments on creation and introduction in practice of troops of electromagnetic defeat. In operations „Boring in the desert”, „Steadfast freedom” first for the decision of tasks of disorganization of management the troops (by forces) of opponent was an electromagnetic weapon is applied.

Application of this type of informative weapon results in burning down of elements ACS, for example, of modems, flow lines, highly sensitive element base of the personal electronic calculable machines. Facilities of delivery of electromagnetic live ammunitions can be airplanes, unmanned aerial vehicles, artillery shells, winged and operatively tactical rockets.

Presently the process of active introduction of EMW goes for the decision of affecting tasks personnel and population of opponent.

Informative weapon of semantic influence. Variety of informative weapon, influencing on quality and authenticity of interpretation of semantic information an operator (by the group of operators). To the semantic weapon behave:

- systems and semantic query (discoveries), modification (falsifications) and elimination facilities;
- systems and facilities of semantic and cryptographic interpretation;
- systems and facilities of semantic and cryptographic influence.

For example, to facilities of semantic weapon it is possible to take Macro- viruses, infecting documents (information, information) with automatic implementation of macros. Originally this class of viruses infects the system preparation of such documents (for example, in Microsoft Word originally infects the basic template of the system – normal.dot) is made in which, and then executes destructive actions above by information (destroying or modifying). A case is known when application of semantic weapon resulted in death of man (influence was carried out on the informative system of medical establishment).

Conclusion

As a result of the conducted analysis, the basic types of informative weapon are certain in general conception of modern power informative conflict.

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Надійшла до редколегії 22.02.2016

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СУТЬ ТА ВИДИ ІНФОРМАЦІЙНОЇ ЗБРОЇ В СУЧАСНИХ ІНФОРМАЦІЙНИХ КОНФЛІКТАХ

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У статті проаналізовано особливості розвитку інформаційної зброї, яка застосовується в сучасних конфліктах. На підставі проведеного аналізу виділено та проаналізовано основні види інформаційної зброї, а також визначена суть цієї зброї в загальній концепції ведення силових інформаційних конфліктів.

Ключові слова: інформаційна зброя, радіоелектронна боротьба, безпілотні літальні апарати, автоматизовані системи управління, високоточна зброя.

СУЩНОСТЬ И ВИДЫ ИНФОРМАЦИОННОГО ОРУЖИЯ В СОВРЕМЕННЫХ ИНФОРМАЦИОННЫХ КОНФЛИКТАХ

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Проанализированы особенности развития информационного оружия, которое применяется в современных конфликтах. На основании проведенного анализа выделены и проанализированы основные виды информационного оружия, а также определена сущность этого оружия в общей концепции ведения силовых информационных конфликтов.

Ключевые слова: информационное оружие, радиоэлектронная борьба, беспилотные летательные аппараты, автоматизированные системы управления, высокоточное оружие.