



The Changing Character of War and the Growing Role of Electronic Warfare

OE Watch Commentary: The accompanying excerpted interview of Lieutenant General Yuriy Lastochkin, Chief of the Russian Federation's Electronic Warfare Troops, discusses his views on the role and future of electronic warfare. In particular, General Lastochkin discusses the changing character of war, and how Russian electronic warfare capabilities are expanding into "the information and telecommunications environment." The excerpted article from *Izvestia* discusses how the Murmansk-BN electronic warfare system can be used to disrupt telecommunications as well as more conventional military purposes. **End OE Watch Commentary (Bartles)**



1RL257E Krasukha-4 EW System.

Source: Vitaly Kuzmin via [Vitalykuzmin.net](https://www.vitalykuzmin.net), <https://www.vitalykuzmin.net/Military/ARMY-2019-Static-part-3/f-BXBvGVL/A>, CC BY-NC-ND 4.0

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Continued: The Changing Character of War and the Growing Role of Electronic Warfare

Source: Victor Hudoleyev, “Стражники эфира на правильном пути (Guards of Airwaves on Right Path), *Krasnaya Zvezda Online*, 15 April 2020. <http://redstar.ru/strazhniki-efira-na-pravilnom-puti/?attempt=1>

Yuriy Illarionovich, what is the role of electronic warfare in modern military conflicts?

The modern military operations are defined by a widespread use of an entire spectrum of combat information and control systems, functioning in a single information and telecommunications environment; countering those determines the leading role of electronic warfare in modern armed conflicts. I will stress that the emergence of a new field of confrontation -- the information and telecommunications environment -- significantly expands the spectrum of the REB forces and assets' tasks, and places their employment methods within the ranks of important measures for the comprehensive support of the troops (force) groupings' operations in modern conditions. At the same time, the role of electronic warfare at the modern stage is determined by its potential capabilities in electronic suppression of information transmitting channels, in the insertion of "intelligent" jamming into enemy troops and weapons command and control automated systems; electronic protection of own technical equipment information, data transmission and processing from destruction, distortion, reconnaissance, and information leaks through technical channels; comprehensive technical monitoring of the countermeasures effectiveness against enemy technical assets, and the electronic protection of own troops (forces).

In addition, conducting electronic warfare makes it possible to exclude (disrupt) the high-precision navigation of precision-guided weapons' carriers, and thereby to reduce the likelihood of suffering damages to critically important industrial and defense infrastructure facilities of the Russian Federation. The experience of combating enemy troops and weapons control systems in regional conflicts of the last decade attests to the fact that the modern information technologies, used in the leading countries' armed forces control systems, make it possible to significantly reduce spatial, time, and information gaps between troop formations and command and control entities. The traditional frontal collisions of large troop groupings at the strategic and operational level are gradually becoming a thing of the past; remote contactless effect through the entire depth of the enemy battle order becomes the main method of achieving the operational (battle) objective...

From your standpoint, which directions of the Electronic Warfare Troops development are especially relevant right now?

The analysis of the conflicts of recent years has shown that the main features influencing the development of the electronic warfare troops include: the use of various electronic systems of not only military, but also of civilian (dual) designation, including mass media, satellite, cellular, trunk networks, various social networks, official and amateur radio stations; indoctrination of the population in the conflict zone; the widespread use of unmanned aerial vehicles for reconnaissance, delivering strikes, and conducting electronic warfare; the large-scale use of global navigation satellite systems; the maximal use of technical equipment of all frequency ranges for conducting electronic reconnaissance. These circumstances predetermine the main directions of the REB troops development. These include: the creation of robotized electronic jamming systems; the increase of the capacity of electronic warfare assets and systems; the disruption of communications and data transmission systems of various designations; combating robotic armament systems, military equipment and precision-guided weapons, including those used by enemy unmanned aerial vehicles; the obstruction (stalling) of nautical-time support; active counteraction against radio and radio-technical reconnaissance assets...

What are the innovative approaches in developing the REB troops weapons systems?

The balanced development of the electronic warfare weapon system envisages the improvement of REB equipment both with the use of traditional approaches and with the introduction of innovative solutions. The traditional approach to the development of the REB equipment envisages its improvement in the areas of expansion of target range, reducing the number of REB assets types, their unification, the increase of protection against precision weapons, their mobility and upgrade potential...

Source: Aleksey Ramm and Bogdan Stepovoy, “Без шума в эфире: войска готовы глушить вражеские радио- и телетрансляции (Without Noise on the Air Waves: The Troops Are Prepared to Jam Enemy Radio and Television Transmissions), *Izvestia Online*, 28 April 2020. <https://iz.ru/985812/aleksei-ramm-bogdan-stepovoi/bez-shuma-v-efire-voiska-gotovy-glushit-vrazheskie-radio-i-teletransliacii>

The troops have learned to combat the terrorists' television and radio stations. As the experience of the wars in Chechnya and Syria have shown, the guerrillas used them to agitate the population and to recruit new followers. State-of-the-art technologies permit the extremists to rapidly establish that broadcast. Russian army units are prepared to utilize the latest "Murmansk-BN" electronic warfare complexes to counter the propaganda threat. The experts point out that this equipment will permit them to effectively defend the information space...the "Murmansk" vehicles didn't have to conduct a lengthy and exhausting forced march to the enemy's deployment location - the EW systems operated at a range of over 2,000 kilometers from the targets...

As a rule, the EW complexes plan of action is rather simple: They use a more power signal to "choke" the transmission channels, TelecomDaily Information-Analytical Agency General Director Denis Kuskov explained. "At the contemporary level of development of the equipment, television and radio broadcast channels - are one of the simplest and most effective methods to impact the population" - the Analyst reported to Izvestiya. "The television and internet infrastructure in a combat operations area will be damaged or disconnected as the first priority. The production and delivery of print products will require time and major labor costs. It is easiest of all to organize information and propaganda using small mobile television and radio stations".

Moreover, one can supply the population only that information flow, which the distributors need, via small mobile television and radio stations, the expert pointed out. They will be able to appreciably influence the population and the people's mood in this manner. In the expert's opinion, you don't need a lot of resources and time to prepare this content - one man in front of a camera or microphone is sufficient.

...The "Murmansk-BN" was declassified quite recently. Right now, we already know that this - is an automated radio jamming complex for communications lines in the short-wave band. Based upon its output parameters, it surpasses all existing equivalent systems in the world by several times. It is sufficient to point out that the complex's radio communications jamming range totals approximately 5,000 kilometers and in ideal conditions the signal's transmission can be increased up to 8,000 kilometers. In the travel configuration, the "Murmansk" equipment is accommodated in several "KamAZ" large-capacity, multi-axle motor vehicles. Powerful telescoping antenna masts and also low-frequency antenna wires are included in the set. If necessary, the masts are extended to a height of up to 32 meters using hydraulic equipment.

Those vehicles were transferred to the Baltic Fleet last year. The complex, which has been placed on alert in Kaliningrad, is also capable of depriving enemy combat ships, aircraft, drones, and troop headquarters of communications.

With the acceptance of the "Murmansk-BN" into the inventory, the army has received at its disposal EW equipment, which operates not only in the operational-tactical but also in the operational-strategic depth. Furthermore, this complex is capable of conducting communications intelligence. As a rule, the NATO countries use the short-wave radio band, in which it operates, for communications at great distances between aircraft and surface ships.