



The Russian Army's Smoke Screen Production And Training

OE Watch Commentary: The accompanying article from *Izvestia* and the excerpt from *Krasnaya Zvezda* discuss smoke screen production and training. The Soviet and Russian armies were/are great believers in the use of smoke in combat and operations. In Soviet days, approximately 30% of the known artillery ammunition stockpiles were smoke rounds. Most Russian vehicles and vessels are able to produce their own immediate smoke screens. Russians have not invested in top-attack armor to the same degree as the West, trusting in the efficacy of particulate smoke. Now the Russians are testing an automated command and control system to bring critical areas under a smoke screen and electronic curtain and maintain them. Evidently the system surveys the area's meteorological condition and electronic spectrum and develops an aerosol visual and electronic veil. There appears to be an active component to this effort by interfacing with air defense forces to engage aerial targets from UAVs to cruise missiles. The value of smoke in tactical actions has been emphasized by the experience of urban combat in Syria. **End OE Watch Commentary (Grau)**

“The force is rehearsing new tactics to camouflage important facilities and equipment concentrations. The troops will be concealed by an impenetrable veil.”

Source: Aleksei Ramm and Bogdan Steopovoi, “The Russian Army will form within an aerosol cloud away from spies,” *Izvestia*, 10 March 2020. <https://iz.ru/976360/aleksei-ramm-bogdan-stepovoi/dym-v-otechestvo-armiiu-spriachut-ot-shpionov-v-aerolnykh-oblakakh>

The Russian Army will form within an aerosol cloud away from spies

The force is rehearsing new tactics to camouflage important facilities and equipment concentrations. The troops will be concealed by an impenetrable veil. The army tested a new automated command and control system (ASU). According to the Defense Ministry, its mission is to conceal airfields, staffs, and unit concentration areas using smoke screens. Electronic warfare assets, as well as specialized vehicles that produce the veil, are combined in the ASU. The system determines how enemy reconnaissance is tracking the force with the aid of aircraft, drones, or satellites. Afterwards, it issues the command to implement a specific regime. Experts note that conducting combat operations these days without such a veil is unthinkable.

Initial exercises of Nuclear, Biological and Chemical defense (RKhBZ) subunits camouflaging a large troop formation with the aid of the new equipment were conducted in Buryatia. They rehearsed the procedure for the employment of smoke and aerosol screens. They make it possible to provide effective cover for troops from ground, aerial, and space reconnaissance, and also from all types of precision and even laser weapons, the military department earlier reported. Right now this element of combat training in the troops is being treated with utmost attention.

Military expert Oleg Zheltonozhko believes that the civil war in Syria proved that the need for camouflaging troops with smoke screens has increased. “Such cover makes it possible to hide troops or their movement from reconnaissance, and also to counter high-precision weapons... In Syria, Israeli aviation conducted most of their attacks from maximum distances to avoid air defense retaliatory fire. In most cases, a precision-guided weapon was used, which, as a rule, has a laser homing warhead. Smoke defocuses the guidance beam and does not allow the munition to find the target of attack. As a result, high-precision bombs and missiles miss or self-destruct.” He noted that videos from the Syrian Arab Republic show how the tanks are concealed. They move to the attack position, fire and then launch smoke bombs and leave the line of fire. This protects armored vehicles not only from conventional grenade launchers but also from antitank guided missiles with laser homing warheads. “In this aspect, the Russian Armed Forces have an advantage over the majority of the NATO countries’ armies,” Our RKhBZ troops have subunits that can cover entire areas with smoke and aerosol screens. First and foremost, this is how the staffs, army and frontline aviation airfields, troop concentration areas, as well as depots and bases are protected. Special attention is paid to the transport infrastructure: tunnels, crossings, bridges, and important railroad stations, which serve to supply troop groupings.”

The Buryat maneuvers

Defense of an entire area was rehearsed at the Eastern Military District maneuvers in Buryatia. In the course of the exercises, NBC systems identified enemy reconnaissance assets observing the force. As the NBC subunits entered the area, they determined the type of smoke clouds, as well as aerosols, which effectively covered the territory of the troops’ concentration from the enemy.

In modern conflicts, combined screens are the most effective, since any high-tech army uses a range of reconnaissance assets, including spy satellites. Only competently selected camouflage can block this unwanted attention. NBC subunit officers, who receive all the necessary information from the ASU, are tasked with selecting the methods of installing smoke screens and special charges, as well as for their detonation. They take into account the wind speed and direction, air humidity, and other important weather parameters, when choosing the right type of aerosol and smoke screen.

Special vehicles and the RPZ-8KhM external detonation electronic control system are employed to set up the screen. This equipment makes it possible to activate the aerosol countermeasure devices at a distance of up to 10 kilometers in any weather conditions.

Depending on the situation, the veil set up systems make it possible to cover a specific area with the desired type of smoke. An ordinary smoke screen can disrupt the visual reconnaissance of unmanned aerial vehicles (UAVs). In the event that enemy radar are also observing the territory, metal particulates are added to it, so as to reflect radar signals. As a result, the enemy sees “snow” on the radar station displays, instead of helicopter and tank silhouettes.

NBC troops can use special chemical fillers, which hide soldiers and equipment from enemy thermal imaging devices. Aerosols used together with the smoke, impedes the effective use of most modern weapons, including cruise missiles with laser guided warheads.

The war in Syria has had a serious impact on army tactics. Air defense assets need to be able to destroy attacking aircraft, helicopters, and UAVs while on the move. Such skills will prove useful if the force is suddenly attacked by kamikaze drones or if the drones precede a cruise missile strike. Equipment on the march is particularly vulnerable. As a result, the Pantsir and Tor anti-aircraft systems crews are developing changes to their combat training program, providing drills to destroy cruise missiles, aircraft, and UAVs while on the move. Among the air defense troops, this method is called “firing from horseback.”



Continued: The Russian Army's Smoke Screen Production And Training

Source: "Russia: Under Cover of Flamethrowers, Smoke Screen," *Krasnaya Zvezda*, 11 March 2020. <http://redstar.ru/pod-prikrytiem-ognemyotov-i-dymovoj-zavesy>

Russia: Under Cover of Flamethrowers, Smoke Screen

The following excerpt is from an article on the successful training of the 1st Mobile Chemical Defense Brigade at the 4,000 hectare Shinkany range:

Facility camouflaging is carried out using modern TDA-3 smoke generating vehicles. "Their main component is an aviation engine, which transforms the smoke mixture into a dense aerosol cloud. In comparison with other models, the capability of using a powder composition to camouflage objects not only in the visible spectrum, but also in the infrared one, is the distinctive feature of this vehicle," Major Andrey Ukhlichev, commander of the aerosol countermeasures battalion stated.

Indeed, not even a couple of minutes went by, as all the facilities that were in front of us, disappeared in a dense impenetrable smoke. The total area of the veil was about 2.5 square kilometers.

Over the years, FMSO has studied and written about foreign perspectives on pandemics. One example is below. For more information on previous FMSO work on pandemics including Ebola, search OE Watch issues:

<https://community.apan.org/wg/tradoc-g2/fmso/>

Death Unguarded: Unsecured Virulent Pathogens in African Medical Facilities

By Robert Feldman

While affluent countries can afford secure, state-of-the-art bio labs to house deadly pathogens for research, many countries do not have the financial and/or technical resources to provide such facilities. Antiquated equipment, minimal security, and other problems have plagued these labs in less developed countries, increasing the risk for theft of lethal microbes by terrorists as well as dangerous accidents. This article discusses these issues and the concerns regarding the ability of some countries to provide ongoing and adequate security of these facilities.

<https://community.apan.org/wg/tradoc-g2/fmso/m/fmso-monographs/195089>