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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

17 November 1976

MEMORANDUM FOR: The Director of Central Intelligence

FROM : William W. Wells
Deputy Director for Operations

SUBJECT : MILITARY THOUGHT (USSR): Principles of Antibacterial Protection of Troops

1. The enclosed Intelligence Information Special Report is part of a series now in preparation based on the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". This article is a review of biological warfare protective measures based on perceptions of foreign intentions and capabilities in regard to the employment of various disease pathogens and toxins. The author briefly describes immunization and other preventive measures, bacteriological reconnaissance, observation and quarantining of personnel, and decontamination procedures. This article appeared in Issue No. 3 (79) for 1966. [redacted]

2. Because the source of this report is extremely sensitive, this document should be handled on a strict need-to-know basis within recipient agencies. For ease of reference, reports from this publication have been assigned [redacted]

William W. Wells

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Distribution:

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Intelligence Information Special Report

COUNTRY USSR

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DATE OF INFO. Late 1966

DATE 17 November 1976

SUBJECT

MILITARY THOUGHT (USSR): Principles of Antibacterial Protection of Troops

SOURCE Documentary

Summary:

The following report is a translation from Russian of an article which appeared in Issue No. 3 (79) for 1966 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The author of this article is General-Mayor of Medical Service I. Rogozin. This article is a review of biological warfare protective measures based on perceptions of foreign intentions and capabilities in regard to the employment of various disease pathogens and toxins. The author briefly describes immunization and other preventive measures, bacteriological reconnaissance, observation and quarantining of personnel, and decontamination procedures.

End of Summary

[redacted] Comment:

General-Mayor of Medical Service (Retired) I. Rogozin died in January 1973. The SECRET version of Military Thought was published three times annually and was distributed down to the level of division commander. It reportedly ceased publication at the end of 1970. [redacted]

[redacted]

[redacted]

Principles of Antibacterial Protection of Troops
(Based on materials from the foreign press)
by
General-Mayor of Medical Service I. Rogozin

On an ever greater scale, the imperialist states are preparing means of mass destruction for a future war, including bacteriological (biological) weapons. The United States, Great Britain, West Germany, and other member countries of the aggressive NATO bloc are expending great resources on the production of bacteriological weapons.

We cannot count on the imperialists' being restrained from barbarous methods of warfare by moral considerations. The US employment of chemical means in South Vietnam confirms this convincingly. Moreover, there are military men abroad who argue the advantages of employing bacteriological weapons which cause the destruction only of personnel, animals, and vegetation and do not harm industrial plants, factories, mines, and dwellings.

The imperialist states are planning to use many methods for disseminating bacterial means: aircraft, all types of missiles and balloons, artillery shells, and mines. We should also keep in mind the possibility of the employment of bacterial means of different kinds by saboteurs and sabotage groups.

It is planned to use, as bacterial means, various different pathogens of epidemic diseases (microbes, viruses, funguses), their toxins, and also live carriers (fleas, mosquitoes, ticks, etc.) or infected rodents (wild rodents, white mice).

Over recent years it has become possible to obtain epidemic disease pathogens in significantly greater quantities. During the trial of Japanese war criminals in Khabarovsk in 1947, data were cited that the productive capacity of Japanese military laboratories was one to two kilograms of plague pathogens per month. Today in the main capitalist countries, bacterial means can be produced on an industrial scale. At special factories and at antibiotic factories which supply them, tons of microbes may be obtained every day. To this must be added the capability to build up reserves of bacteriological weapons by freeze-drying microbes

and viruses and then preserving them live over a long period of time.

Enemy employment of bacterial weapons may cause large masses of people to fall ill simultaneously. The danger of such occurrences is sufficiently well illustrated by a pandemic of influenza in 1957. At this time about 1.5 billion cases were registered officially throughout the world, not counting those who did not seek medical aid.

It should also be emphasized that many forms of disease (plague, smallpox, and others) are extremely dangerous for the surrounding healthy people.

The symptoms of disease appear in a person after an incubation period, during which preventive means can be employed (emergency prophylaxis). In many instances, the person does not fall ill at all after prophylactic measures are taken, and in other instances the latent period is drawn out for a longer period, and this allows a certain period of time for carrying out the assigned combat tasks. The duration of the latent period following infection fluctuates from several hours to several days. It is on this basis (as applied to the specific operational situation) that the possibility of employing bacteriological weapons is determined.

Researchers resolve in different ways the question of what forms of pathogens (toxins) to use as bacterial means. In his time, the American scholar Roseberry expressed the opinion that several tens of pathogens and their toxins may be employed. Today American manuals state that it is possible to use about 12 to 15 forms of microbes, viruses, and their toxins.

The biologic agents most likely to be used are: bacteria of plague, tularemia, Siberian ulcer, glanders, cholera, and others; rickettsia of typhus, Q-fever, Rocky Mountain fever, and others; viruses of smallpox, yellow fever, and others; internal mycoses (funguses and their spores); and bacterial toxins. All of these disease pathogens and their toxins can be employed either individually or in combination with one another, which makes it substantially more difficult to identify the pathogens and requires additional research.

For all army and navy personnel it is very important to determine the moment of enemy employment of bacterial means and to take all necessary measures to keep personnel from falling ill or to reduce the number of individuals subjected to the danger of infection.

For this purpose it is necessary to provide for the taking of measures which cover different periods: in anticipation of possible enemy employment of bacterial means, during their employment, and then when eliminating the aftereffects.

The system of measures provides first and foremost for training all personnel in antibacteriological protection. First of all, medical personnel must undergo such training. For appropriate training of officer personnel it is necessary to make wide use of all types of exercises, during which to give instruction in the use of individual and collective means of protection, the use of partial and complete decontamination treatment, the utilization of emergency prophylactic means, and others.

Among the means of protection against bacteriological weapons, an important place is occupied by inoculations against epidemic diseases. At the present time, inoculations are known against 15 infections, and 18 additional preparations are being studied and tested. In order to provide for such a quantity of inoculations, it is necessary that they be carried out not individually but in combination. It is to be expected in the near future that with the aid of comprehensive inoculations it will be possible to immunize people successfully against 15 to 18 pathogens. But this is also far from the limit. It is necessary to develop vaccines against all pathogens which may be used as bacterial means. This will make it possible to prepare personnel in advance to be resistant to microbes, viruses, and their toxins. And from troop personnel this requires a conscientious attitude toward comprehensive immunization. Individuals being inoculated must assist the workers of the medical service in every way in organizing this important work.

An important place in the antibacterial protection of troops is occupied by the timely supplying of personnel with individual means of protection, the safeguarding of these means, and their efficient use.

There must also be high-priority requirements for maintaining collective means of protection at full combat readiness.

Worthy of great emphasis is the observance by soldiers and officers of the rules of personal hygiene and general sanitary measures. This prevents the spread of disease pathogens through objects in the external environment. General sanitary measures also have great importance for protecting water and food products from contamination. The latter must, as a rule, be in packaging through which bacterial means cannot penetrate. If water is contaminated by bacterial means only, it is decontaminated by

using chemical tablets. But the most effective way of purifying water and food products is by boiling them for 15 to 20 minutes. Unfortunately this simple method is not always available under field conditions, but it should be resorted to if there is even the slightest opportunity.

The system of measures directed toward reducing losses upon enemy employment of bacterial means of attack calls for the working out of an antibacterial protection plan by the staff of each unit, large unit, and formation. One of its important categories is the organization of bacteriological reconnaissance. It must be carried out at all levels, beginning with the company (ship) and up to the high-level formations. It becomes highly important here to employ effective technical means for transmitting the signal that there has been a bacterial attack. It is also necessary to provide for the collection and safekeeping of bacteriological material discovered and for its emergency delivery to a laboratory to establish the nature of the pathogen. It is very important that the degree of contamination also be established on the spot.

The signal as to the enemy employment of bacterial means must be transmitted to the personnel without delay so that they have a chance to employ individual and collective means of protection in time.

Based on the fact that an important personnel protection measure is the use of emergency prophylactic means, the Americans recommend including antibiotics in each soldier's first aid kit. The complete validity of such a recommendation must be noted. The present-day antibiotics industry can provide fully for the carrying out of this task. And in fact the preparations employed are more effective the sooner they are used.

Containment measures occupy a major place in the system for eliminating the aftereffects of the employment of bacteriological weapons. After it has been established that such weapons have been employed, observation is set up over each unit for the average time of the incubation period.

During this period it is necessary to keep a precise record of the movement of personnel (performing duty responsibilites, being on temporary duty assignments, etc.). No materiel must be taken away from a unit without first being disinfected. Detailed observation of the health condition of personnel is established. Those who have fallen ill must be isolated immediately. Special care must be used to determine the nature of the pathogen employed by the enemy. If pathogens of plague, cholera, or smallpox are detected, the commander of the army or front (fleet), weighing

the operational situation, establishes a quarantine and at the first opportunity withdraws from combat the units which have been exposed to infection.

In these cases, the antiepidemic system is strengthened even more in comparison with observation. All quarantined personnel continue to employ specific emergency prophylaxis. In order to preserve its combat effectiveness, an infected unit should be accommodated in small groups (platoon, gun crew, tank crew, aircraft crew, etc.). An armed guard (drawn from quarantined subunits) must be established around the unit.

In the system of containment measures, an important place belongs to decontamination treatment of the personnel: individual -- during observation, and full -- when a unit is put into quarantine. Personnel and weapons are subject to decontamination. Corresponding attention is given to the decontamination of sewage following the decontamination treatment of personnel. This is a very important measure for the protection of personnel from secondary aerosols.

Depending on the situation, biological decontamination of the center of contamination is set up. It goes without saying that the source of the center's formation must be precisely established, since, because of the latent development period, combat units may go a long distance away from the actual center of contamination. This is connected with the fact that a large amount of disinfectant means is required in order to decontaminate areas and surfaces.

Mechanical decontamination measures must be used as widely as possible. It has been demonstrated that ordinary washing of objects reduces the number of pathogens on surfaces. The same effect can be obtained by mechanical removal of the ground surface. This is why it is recommended that the soil surface be removed in open combat installations (trenches) and that purified (boiled) water be used for washing the surfaces. We can also recommend combined use of mechanical and disinfectant means of decontamination. In these cases, the need for disinfectant means is substantially reduced.

The gas method assumes particular importance for biological decontamination. For this purpose we recommend using a compound of ten percent ethylene oxide and 90 precent methyl bromide. Such preparations can be used for decontaminating combat equipment and depots of uniforms and footwear.

Finally, it is necessary to have reserves of means and facilities to carry out bacteriological reconnaissance, determine the nature of the pathogens employed, and organize containment measures, emergency prophylaxis, biological decontamination, and the hospitalization of those who have fallen ill.

The question of hospitalizing the sick must be decided depending on the operational situation. As a rule, the sick are subject to hospitalization in mobile field hospitals for communicable diseases or in hospitals for highly contagious diseases. If there are insufficient beds, hospitals of other types can be used after putting them on an antiepidemic working schedule. But whatever the situation, the sick must be withdrawn from their units and concentrated in special hospitals. In evacuating the sick to hospitals, the possibility of contaminating the roads while moving them must be prevented. The sick must therefore be accompanied by medical personnel equipped with the necessary first-aid means and disinfectant preparations.

Thus, it is fully obvious that antibacterial protection is an important area for special training of troops, commanders, and staffs of all levels. Thorough research of this problem and indoctrination of troop personnel in protective measures appear to us to be a necessary condition for further increasing the combat readiness of the Soviet Armed Forces.