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TRANSLATION

WAR AND WEATHER

By

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FOREIGN TECHNOLOGY DIVISION

AIR FORCE SYSTEMS COMMAND

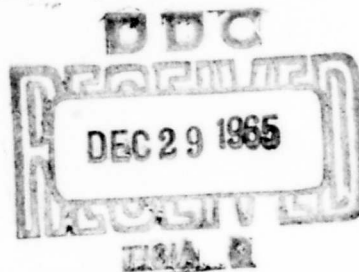
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WAR AND WEATHER

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The weather always proved to be an element in the circumstances which, to some extent, was taken into consideration in planning and conducting military operations. The temperature of the air, the wind, the precipitation and the visibility, as is known, have a direct effect on the carrying out of military missions.

With the development of armed combat the significance of weather as a factor influencing combat action of troops increased. This required more precise organization of the meteorological service and the providing of troops with information about the weather, including forecasting and warning about dangerous phenomena.

Outwards and Upwards

The use of rockets, space flying apparatuses, nuclear weapons and other new means of combat does not exclude, but assumes the most precise forecasting of the weather. Military meteorology has grown both in breadth and height.

The increase in the power of the engines of the airplanes and the rockets has led to a sharp increase in the range of their action and has demanded from the weather service the taking into consideration the state and possible changes in the weather on a global scale.

The same thing has happened with regard to altitude. Up until not long ago aviation was interested in phenomena occurring in the troposphere, i. e., in the lower layers of the atmosphere spread out over the surface of the earth some ten or twelve kilometers. Now the modern military aircraft have ceilings up to 20 or 30 kilometers, i. e., they penetrate the depths of the stratosphere. Rockets go still higher. It is precisely they and in addition the satellites of the earth

and the spaceships that created the necessity for studying all the strata of the atmosphere from every aspect.

The rocket, unconditionally, is an all-weather military medium. However, for the precise directing of it onto a target one cannot at all be indifferent as to the state of the weather over the whole trajectory. It is very essential to know the state of the atmosphere at the places of launching the rockets and the places of the landing of their head parts. The weather can also have considerable effect on the nature of the action of the nuclear charges.

It is known that in the case of nuclear explosions there is a powerful radioactive contamination of the atmosphere. In connection with the use of nuclear weapons, questions come up as to the direction that will be taken by air masses with high levels of radiation, where a radioactive cloud is going, and where there may be a radioactive rain, snow or fog. It will be important to know whether one's troops or population or the population of allied countries will become victims of mass contamination. To get answers to these questions, demands will be made on the meteorological service by the armed forces. Such a service exists in the U. S. A., and other NATO countries.

Meteorological Espionage

The meteorological service of the army of the U. S. A. covers many parts of the terrestrial globe. Thousands of meteorological stations and posts spread over the American continent and beyond its borders, which are provided with radar installations and communication media and these stations and posts are carrying on observations of the weather. On the oceans for these purposes there are used many merchant ships of the U. S. A., England and the West-German Federation.

In some of the seaplane areas of the Pacific and Atlantic oceans, specially equipped "weather ships" are on duty the whole year round. For meteorological reconnaissance every day hundreds of airplanes take to the air. In order to compare the data coming in from all sides and to figure out and determine the real

movement and interaction of the air masses and prepare a forecast, wide use is made of electronic computing machines.

All this by no means is directed toward peaceful goals. The aggressive circles of the U. S. A. are striving to militarize meteorology, to put it in the service of their military preparations. Into the Pentagon in a continuous chain there are going summaries and there the weather is analyzed in detail according to regions with the characteristics of its most important elements.

The aggressive circles of the U. S. A. are doing everything in order to obtain systematically, data on the weather over foreign territory.

They do not stop at any adventure. Thus the Pentagon undertook to use balloons provided with photographic and other equipment for extensive reconnaissance of important objects of government significance and also phenomena of meteorological conditions over territories of the Soviet Union and other socialist countries. Sorry publicity was given in the whole world to the espionage flights of the American reconnaissance airplanes. In recent years the U. S. A. has been launching the so-called meteorological artificial satellites of the earth intended for the collection of data of the weather on a global scale.

The branched-out network of the hydrometeorological service and the providing of it with new media make it possible for the Americans to develop a procedure of complex synoptico-climatological computations and create special hydrometeorological archives adapted to machine statistical evaluation of the data. The archives have, according to reports of the press, "complete series of daily ground synoptic maps of the Northern Hemisphere beginning with the year 1899. There have been prepared also and systematized briefer series of maps of the Southern Hemisphere." The card index includes all meteorological observations from the whole terrestrial globe published at any time. The whole aggregate comprises more than 50 million pieces of card cataloging on meteorology and weighs about 150 tons.

In the opinion of American military specialists these archives enable one in the briefest time to determine the proper time for aggressive actions in the

different regions of the terrestrial globe.

Element and Weapon

Not limiting themselves to the use of meteorological data for military purposes and attempts from every aspect to study the weather on foreign territory, the American specialists with the administration of the Pentagon have put forward the idea of direct use of meteorological phenomena themselves for active operations against an antagonist. The extravagant idea of preparing meteorological warfare is to be accredited precisely to the American military clique.

In the plans of the military-science investigations in the U. S. A. there is used the term "meteorological warfare". Vice Admiral W. Rayburn in one of his utterances remarked, "We have already taken the first steps in the development of the possibility of carrying on meteorological warfare... This enabled us to develop a broad ten-year program which will be accomplished in an aggregate with the work of the field of oceanography".

Storms and hurricanes first attracted the attention of the American military clique. The specialists of the U. S. A. estimated that a hurricane when it reached the state of "maturity" developed fantastic power - about 500 trillion horsepower. It has several times as much energy as the total of the electric power in the U. S. A. One hurricane can produce energy equal to 30,000 atomic bombs. The question of the use of hurricanes is being vigorously studied. The Air Force of the U. S. A. devotes special airplanes to this which, in the words of a professor of a technological institute of the U. S. A., Orr, represents a flying laboratory packed full of instruments. At altitudes of from 300 to 7,500 meters one uses bombers B-50, but at a height of 9,000 to 14,000 meters, the jet bombers B-47.

The study of hurricanes is carried on also on the sea. Representatives of the Navy of the U. S. A. are already bragging, "In the future at the disposal of the commander of operative groups of the Navy there may be such media as will enable one to change the movement of storm zones and direct them to the ships of

the antagonist".

A professor of Cornell University, Weider, in his time brought out the idea of droughts in the socialist countries. He proposed to use special mechanisms mounted on ships on the Atlantic Ocean for causing rain on the coastal regions, i. e., in Western Europe and for "drying" the air masses going to the countries of Eastern Europe and to the Soviet Union. Other representatives of American science proposed using for this purpose, not ships, but aircraft which would see clouds moving in a eastward direction using silver iodide which would bring about anticipated precipitation..

Representatives of the Pentagon propose going still further and bringing about on the territories of the socialist countries, floods and even a new ice period. Meanwhile they set their hopes on the creation of technology which would enable one to control the meteorological processes over great areas.

For the accomplishing of these cannibalistic plans the press of the U. S. A. proposes the use of space apparatuses and things worked out in meteorology itself. "For current tactical needs, and also for more precise long-period meteorological forecasting," the American press reports, "we already are using data obtained from the satellite Tyro-2. The experiments carried on in the dissipating of fog led to convincing results. Some success was obtained also in the solution of the problem of changing the direction of the movement of storm areas."

In seconding the action of the American military clique, some generals of Western Europe also consider the weather a military medium. The French general, Rougeron, allows for example, that "if a third world war will continue as long as the two preceding ones, then it will be impossible to renounce climatic war."

It is necessary however, to note that the promulgated ideas themselves about the use of weather as a weapon are far from assured as to whether they will be able to accomplish their plans.

With regard to the new threats to the socialist countries one should not

forget the changes in the ratio of forces in the world arena. A new war, if it is unleashed by the imperialists will end with their inevitable destruction without regard to meteorological or other factors.