

It is expected that the satellite will be carried to the orbit from the Baikonur spaceport by means of the Dnepr launcher (converted version of the famous Satan missile) together with 5–6 other satellites, which will allow for significantly reducing the cost of the entire project. Experts believe that the BelKA satellite will be possibly furnished with Belarusian-made polyzonal MK-4 equipment, designed to take photos of the Earth's surface, as well as with a topographic camera TK-350, intended for receiving measuring photos from satellites used for drawing precise topographic maps and exploring the Earth's natural resources. During the satellite flight time, the camera provides photos of 25–30% of the total Earth's surface with the positioning error of 10 m.

According to the official version, the BelKA will be used mainly for receiving cartographical, geological, and environmental information. For instance, up to 30% of all the information received from the satellite will be used for map-making, 20–25% — in agriculture and forest management, 10–15% — in geology, 15% — for environmental research, and 10% — for monitoring urbanization processes. At first sight, such a ratio seems somewhat strange. Belarus is a small country and people have long traveled though its length and breadth. Why the so formidable need for cartographic information then? As a number of experts believe, the answer is quite simple: digital ground maps are used for directing precision weapons systems, for instance, cruise or aeroballistic missiles, to the target. As for receiving digital maps for missile guidance systems, they can be produced on the basis of aerial and space photos by the Automated Cartographic System for Creating, Upgrading, Storing, and Displaying Maps and Horizontal Plans in Digital and Graphic Form, created in Belarus. However, the list of high-end technologies, available in Belarus since the Soviet times, is by no means limited to the fore-quoted ones. It is another thing that official sources are in no hurry to publicize them.

Alexander Alesin. 13.02.06.

RUSSIA'S OUTPOST IN BELARUS

The space monitoring station, located in the territory of Belarus, may soon remain the only similar site situated outside of Russia

According to the statement by Sergey Ivanov, Russia's Deputy Prime Minister and Minister of Defense, Russia will gradually abandon the missile warning system radars, owned by the RF, which are currently stationed in the territory of the countries of the former USSR. Nevertheless, the command of the Gantsevichi-based radar station (Brest oblast) believe that operation of the site named «Baranovichi Node» will be continued for sufficiently long time.

AREA OF RESPONSIBILITY

The Belarus-RF government-to-government agreement on the operation in Belarus of the missile warning system radar was signed in 1995 for the period of 25 years. In return for the operation of the radar, the armed forces of Belarus are entitled to conduct air defense exercises with operational missile launches at Russian training ranges. Pursuant to the same agree-

ment, «the Gantsevichi-based military site of «Baranovichi Node» does not have a military base status and the number of military personnel at this site may not exceed 1,200 persons». The area of responsibility of the radar encompasses Germany, France, and Great Britain. The site of «Baranovichi» is served exclusively by the RF Military personnel, 250 of them being regular soldiers.

Specialists note that the Gantsevichi-based radar, commissioned after the collapse of the Soviet Union, is the only Russian facility of the type, using fully digital signal processing. After the decommissioning of the Skrunde-based tracking facility (Latvia), the Baranovichi Node covered practically all of its area of responsibility. The military also declared that they were prepared to partially offset a possible loss of the radar in Mukachevo (Ukraine) by means of their capacities. At that, they regard the Mukachevo-based radar as a practically lost one, as this facility is manned exclusively by Ukrainian crews and all that Russia receives from this site is information on the outer space environment. According to the information received from an unaccredited source, the Mukachevo-based facility is frequented by NATO specialists, in particular, by the US military personnel.

When recently inspecting one of such facilities in Lekhtusi (Leningrad oblast), Sergey Ivanov, Russia's Deputy Prime Minister and Minister of Defense, announced that sooner or later, as new highly compatible radar systems are created in the RF territory, Moscow will abandon the facilities that had been established under the Soviets and are currently situated in the territory of the New Independent States. At that, he noted that the priority strategic orientation is southbound. To quote the Deputy Prime Minister, creation of the prototype model of the highly compatible radar system in Lekhtusi cost RUR 2 billion, and their cost upon the full production start-up will not exceed 1.5 mln. roubles. It used to take 5-9 years to construct similar facilities of the previous generation, while now it takes 1.5 years. Commissioning of new VHF and UHF radars in the north and south of Russia allows more time for warning of all missile launches, including short-range, combat, and cruise missiles along with intercontinental ballistic ones.

IMPORTANT NATIONAL SECURITY ISSUE

While in the north the hazard of short-range and cruise missile attacks is highly unlikely, it is quite probable in the south. Commissioning of a new radar in the south of Russia will allow for eliminating dependency on the information arriving from the missile warning system facilities stationed in Azerbaijan and Ukraine. Three RF radars are currently located in the territory of Kazakhstan, Azerbaijan, and Belarus, along with two facilities in Ukraine.

RUSSIA WILL NOT ABANDON THE BELARUSIAN «VILEIKA»

In addition to the site of «Baranovichi», Belarus accommodates the radar facility of «Vileika» of the RR Navy. It is used for transmitting information for the Central Command of the Armed Forces of the RF and the Central Command of the Navy. In particular, the facility carries out reception of messages from submarines. The capabilities of the facility allow for receiving radio signals from a submarine, which is in the Atlantic Ocean at a depth of 200 meters and from a submarine in the Pacific Ocean 20 meters under the sea. Rear-Admiral Nikolai

Fetisov, head of the Central Radio Communications Center of the RF Navy, announced that in the near future Russia would not abandon the Belarus-based broadcasting facility of «Vileika.» He explained that more advanced radio communication techniques do not allow for fulfilling the missions that the Vileika-based facility is tasked with and noted that the broadcasting facility operates in a frequency band, which satellites fail to handle. This is a very low-frequency band (VLF) with the wave length of several kilometer.

The capacity of the broadcasting facility is 1 kWt and its communication range is up to 10 thousand km. The maintenance area of the military unit, accommodating the facility, is over 600 hectares. About 900 tons of antenna curtains is fastened to posts up to 320 meters high. The site commander reported that the facility would be upgraded within 3–4 years. It will be converted to a new element base, which is to enhance its capacity and reliability and reduce power consumption.

Leonid Semionov. 16.02.06.