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Vadim Belov, Director General at Intersputnik ●●●

The Intersputnik International Organization of Space Communications (Intersputnik) was established in 1971 with nine member states. Headquartered in Moscow, today Intersputnik has 26 member states present in geographic locations from Central America to Southeast Asia, and from Europe to Africa. Its core business is satellite capacity leasing to telecommunications companies, broadcasters and corporate customers under contracts with satellite operators. Through its subsidiary Isatel, Intersputnik offers full-scale services including the installation and operation of satellite telecommunications networks.

45-years of record achievements

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Question: Intersputnik is celebrating its 45th anniversary in 2016: What milestones have been achieved along the way?

Vadim Belov: Intersputnik has achieved several milestones in its history. Our organization was founded in 1971 by nine countries of the socialist bloc on the initiative of the Soviet Union. Its tasks were first and foremost political, while technical goals remained in the background. In the conditions of the cold war and tough confrontation between the two blocs, it was important to show, if not your own supremacy, at

least parity, not only in the military field, but also from the viewpoint of scientific and technological progress.

At that time, the international satellite community was taking its first steps. The foundations of that community were laid by Intelsat, an international satellite organization that came into being under the aegis of the United States. Therefore, it was quite predictable that Intersputnik would be established as a sort of counterweight. However, one must admit that essentially this task was not accomplished. Although Intelsat and Intersputnik used to have the same organizational and legal structure as international intergovernmental organizations, their operations were based on different principles: Intelsat was growing on a purely commercial basis and had four satellites in orbit already in 1967; Intersputnik was subsidized and allotted capacity on Soviet satellites free of charge, and later at a considerable discount. Still, even at that time, Intersputnik's statutory documents allowed future commercialization of the organization's own or leased satellites.

Intersputnik's commercialization accelerated as a result of the events that occurred in the late 1980s and early 1990s, when the socialist bloc and then the Soviet Union fell apart. Few



Bangladesh Telecommunications Regulatory Commission – on the joint use of Intersputnik's frequency assignments ●●●

remember that in the early 90s the member countries of Intersputnik accumulated the required funds and ordered two satellites in Russia. However, the lamentable situation in the Soviet space industry, which was struggling for survival, did not make it possible for Intersputnik to procure its own satellite fleet. Intersputnik shifted its focus to leasing capacity, not only on Russian, but also on international satellites. The funds that had been raised were returned in full to the members of the organization.

In the last several years we have set our sights on procuring our own space segment, a modest one to begin with, just several transponders on our partners' satellites, but expandable to a fleet. Thus, our organization is now on the threshold of a qualitatively new stage of its development.

Question: What do you think has been the biggest market innovation in Intersputnik's 45 years?

Vadim Belov: Probably, in the first place, it is the decision to file frequency assignments to our own geostationary (GEO) satellite networks. According to the rules of international law, the geostationary orbit is a common asset of mankind, and only sovereign states have access to its use. International intergovernmental organizations uniting several states can also file orbital positions in their interests. In 1992, the Board of Intersputnik gave a green light to start working in this field, and we are still doing so.

There is another market innovation I would like to mention. Some time ago, we agreed with our partner Asia Broadcast Satellite that ABS-2, a new satellite, would be operated in our orbital position at 75°E. When the satellite was being configured, we suggested that our partner add a high-power Ku-band beam to cover Russia. At that time, it was a risky step because the Russian direct-to-home (DTH) broadcasting market had already taken shape, the main players had been defined, and there were no indications that the market would expand or be redistributed. Still, our analysis and intuition did not fail us. Since last year, a project has been implemented under the aegis of MTS, one of Russia's largest cellular operators, to install its own satellite digital video broadcasting

platform. It is the transponders in the Russia beam on ABS-2 that are used for this purpose.

Question: Intersputnik has acquired a significant quantity of orbital slots and spectrum resources in recent years. How will the organisation make use of these going forwards?

Vadim Belov: As I mentioned, since the early 1990s, Intersputnik has been actively filing and internationally coordinating frequency assignment to GEO networks. Today our organization has coordinated frequency assignments over virtually all geographic continents from 118°W to 164°E. The availability of this spectrum resource helped implement several strategically important satellite projects. Our spectrum resource is the foundation of our long-term cooperation with Space-Communication and ABS. The frequencies coordinated at 75°E made it possible to deploy much capacity on the ABS-2 satellite for use under the MTS video broadcasting project I mentioned. Today, we are working on several promising projects to use Intersputnik's coordinated spectrum resource. We expect that these efforts will consolidate our position in the Latin American market.

Question: Intersputnik cooperates with many companies on ground-

breaking projects around the world. Can you provide us with an example of one of the recent innovative projects Intersputnik has participated in with another satellite company?

Vadim Belov: Some time ago political leaders in the People's Republic of Bangladesh decided to deploy a national satellite telecommunications system using the country's own satellite. If funds are available, it is no problem to order a satellite and pay for its launch to GEO. A much more serious problem is the orbital location. It is this problem that Intersputnik helped solve by signing in early 2015 an agreement with the national regulator – the Bangladesh Telecommunications Regulatory Commission – on the joint use of Intersputnik's frequency assignments at 119.1°E for the implementation of the project.

Question: What can you tell us about Intersputnik's subsidiary company, Isatel? What are its capabilities, and how will its new teleport, opened in April 2016, complement its activities?

Vadim Belov: Intersputnik's core business is to make available satellite telecommunications channels on various satellites, and carry out joint satellite projects using Intersputnik's orbit and spectrum resource. Still, in the



Isatel teleport ●●●

mid-2000s we arrived at an obvious conclusion that in order to further grow and diversify our services, we needed to supplement our traditional business of providing interested users with the resources of various satellite systems with value-added satellite services directly on the ground. Considering that our statutory documents did not provide for such business, it was decided to establish a separate company for this purpose. This is how our subsidiary Isatel came into being.

To improve the quality of service offered by Isatel and minimize the impact of terrestrial radio facilities on satellite channels, it has been recently decided to build a teleport on the premises of the Vladimir Earth stations owned by Russia's government entity, Russian Satellite Communications Company (RSCC). In June 2015 a contract was signed with RSCC and six new antenna systems were installed at the Earth station, ranging from 3.8m to 12m for various purposes and frequency bands, as well as the company's own UPS units, two optical fibre lines, and other supporting systems.

Based on the experience already accumulated by Isatel in complicated conditions – such as the project on Spitzbergen carried out several years ago in cooperation with RSCC – about a month ago they completed a large investment project to build an optical fibre line more than 50km long in Russia's Far East to connect a major regional telecommunications center to RSCC's earth station in Khabarovsk.

Speaking about new regions, Isatel has successfully entered the African market. This year, a satellite telecommunications network has been completed in the Republic of Madagascar. A similar project is being discussed with partners from Mozambique.

Question: As an organisation active across the world, where does Intersputnik see the greatest opportunity for satellite sector growth, and which markets are driving the expansion?

Vadim Belov: We find it very interesting to work in Southeast Asia. In our opinion, the geographic extension and the complicated relief, as well as the high population density and rapid

economic growth, make this region exceptionally attractive from the point of view of satellite service, data transmission, satellite television, and elimination of digital inequality.

The Middle East, Transcaucasia, and Central Asia are also of great interest to us. There, the penetration of satellite telecommunications remains relatively low, but in the course of economic progress and considering the large population, one can expect that demand for satellite services will grow. We have made some progress in those regions. Intersputnik's customers are government and private companies in Afghanistan, Kyrgyzstan, and Tajikistan and, until recently, in Uzbekistan. We are in the process of discussions with potential users in Iran.

It is important in this context that we have positive experience of cooperation with 'young' satellite operators in our member-countries in Central Asia and Transcaucasia. We have formalized partner relations with the operators of recently established satellite systems in Kazakhstan, Azerbaijan, and Turkmenistan and help them market their satellites capacity.

Question: What are the biggest challenges faced by satellite

operators today, and how might they be tackled?

Vadim Belov: These challenges have already emerged. They are related to the introduction of new technologies, like the new generation of high throughput satellites (HTS). Another challenge may be non-GEO satellite systems.

Much is being said concerning this subject, and ambitious projects are being announced one after another. Still, I think that for the time being, this business has a dim outlook. But HTS is quite real, and we are seriously looking for our own niche in this new environment.

Question: What's on the horizon for Intersputnik for 2017 and, indeed, for the next 45 years?

Vadim Belov: We plan to draw more partners to supply satellite resources, expand geographically, in the first place, in the Asia-Pacific region and Southeast Asia; continue filing additional orbital slots and use them to implement satellite projects with interested partners; procure and develop our own space segment; diversify services provided by Isatel. We think that our plans are quite realistic and serve as a basis for Intersputnik's further growth.



Somali - 26th Member ●●●