

GSS satellite capacity for the international market

Talked Vsevolod KOLYUBAKIN

Gazprom Space Systems (GSS) is an international satellite operator that owns Yamal satellites and provides satellite capacity in Russia and on the international market. The service area of Yamal satellites covers almost the entire territory of the Eastern hemisphere of Earth and reaches the western coast of North America. 36% of the company's revenue comes from the provision of satellite capacity on the international market. Service providers and teleports from 30 countries use Yamal satellites capacity to provide a variety of services in more than 100 countries. Dmitry Sevastiyanov, general director of the company, in the interview to Telesputnik talks about the competitive advantages of Yamal satellites on the international market.



Dmitry Sevastiyanov

GSS participates in IBC exhibition. What does the company expect from this event?

Every year GSS traditionally participates in IBC exhibition to promote Yamal satellites capabilities on the international market.

Today GSS orbital constellation consists of four communication satellites: Yamal-202, Yamal-401, Yamal-402 and Yamal-300K. Total amount of the satellite capacity is 248 equivalent transponders. A third part of GSS satellite capacity is concentrated in the beams that cover territories outside Russia.

What are the main GSS principles of running international operator business?

GSS does not develop its own ground infrastructure and sales offices abroad, working at the international market exclusively as a satellite operator providing satellite capacity.

Therefore, in international business GSS relies on service providers who specialize in different industrial and geographical markets, have relevant experience, personnel and infrastructure and provide communication, TV, Internet access services based on the contracted capacity of Yamal satellites. Such approach allows GSS to reduce commercial and operating costs and not to compete with its satellite capacity customers at the end users market.

When and under what circumstances did the company enter the international market?

Our international business starts in 2004, when Yamal-202 satellite (orbital position 49E) began its operation. It has a semi-global C-band coverage (Europe, the Middle East, Northern Africa, South and South-East Asia). The satellite supports a range of point-to-point connections and VSAT networks for corporate customers having business in the developing countries. It is optimal for arrangement of communication links and data transmission in interests of government structures, for TV distribution, as well as for arrangement of trunks between the centers of information resources concentration (mainly in Europe) and the centers of these resources consumption (the Middle East and Asia countries).

The biggest European and Asian teleports work with this satellite. The end customers are industrial corporations, international organizations, banking and financial institutions, embassies, etc.

Communication between major European oil and gas companies and their branches and partners from Siberia

and South Asia is arranged on the basis of Yamal-202 capacity. It is also used for rendering services on oil fields in Iraq. A huge network is deployed in interests of mobile operators and logistic companies in Pakistan. UN humanitarian missions in the Middle East are supported as well by Yamal-202 satellite capacity.

The Yamal-202 satellite is already a 'veteran'. Are you preparing a 'successor'?

In the beginning of 2019 Yamal-202 will be replaced with a new satellite – Yamal-601, which now is under construction in Thales Alenia Space. Yamal-601 will repeat his predecessor's zone in C-band, having a bit higher radio lines power characteristics, so Yamal-202 clients will remove to the new satellite without any problems but with some benefit for themselves. The Ka-band payload with the throughput of 30 Gbps placed on Yamal-601 will allow GSS to develop broadband Internet access services in the territory of Russia.

The newest GSS satellite operates in the key for Russian market orbital position of 90 degrees east longitude. Is there an interest from foreign customers?

Mainly Russian customers operate on Yamal-401 satellite, which covers practically the entire territory of Russia and neighboring countries in the C- and Ku-bands. However, such service zone also attracts well-known global service providers of aircrafts communications and they willingly use Yamal-401 capacity.

Years after entering the international market, GSS expanded the geography of its business.

Yes, manufactured by Thales Alenia Space Yamal-402 (55E), which has Ku-band payload aboard, was launched into orbit in 2012. It covers Russia, CIS countries, Europe, part of the Middle East and Sub-Saharan Africa. Customers can operate both within the African footprint (the Southern beam) and use the interbeam communication between Europe and Africa.

There is a large number of TV channels (Angola television, some Cameroonian TV channels, etc.) in the Southern beam. A big service provider in South Africa placed two African TV

Yamal-300K satellite, initially launched into orbital position over Russia, was transferred to the east in May 2015. How is the business in the new position?

We are making progress in Yamal-300K satellite's new orbital position of 183 E (or 177 W). The satellite wide contour fixed Ku-band beam covering the Far East, Pacific Ocean waterways and western coast of North America is more and more actively used for arranging communication and broadband access on air and sea vessels. Two well-known American tele-



Gazprom Space Systems Telecommunication center

channels platforms on the Yamal-402 satellite. Capacity of this beam is used more and more actively for occasional use. Most often, this is video transmission of political events and sports competitions. For example, fairly recently Yamal-402 capacity was used for transmission of 2017 Africa Cup of Nations football championship, which took place in Gabon. Besides, there are also many services provided in this beam in interests of global oil and gas companies working in the African region.

To meet new customers' needs in Africa GSS pointed Yamal-402 Steerable beam over the Central Africa countries in addition to the Southern beam. Its high power enables using smaller terminals, interbeam communication with the Northern beam and uplink from European teleports. The European beam of Yamal-402 is also in great demand. Providers who render their services to big oil and gas companies in the Middle East and organize connections for vessels in the Mediterranean Sea actively use the European beam capacity.

ports in Brewster and Napa pointed their large antennas to Yamal-300K and provide uplink services on this satellite.

The Yamal-300K Steerable beam is equipped with three transponders of 72 MHz and now pointed at Papua New Guinea. Well-known company Kacific uses it in the countries of Oceania providing economical Internet access (particularly for schools and public health organizations).

Will GSS keep pay increased attention to the development of its international business in the future?

Yes, the international market will continue to be one of the company's priorities. We plan to continue increase sales abroad.

GSS is open for cooperation, customer-oriented and offers its spacecraft fleet capacity to service providers to run effective business.

Along with the plans to create new own satellites, GSS is looking for new business models for itself. For example, the company is considering cooperation with other satellite operators in the joint creation and use of orbital assets. ■



Yamal-402 before starting