

Russian Satellite  
Communications Company

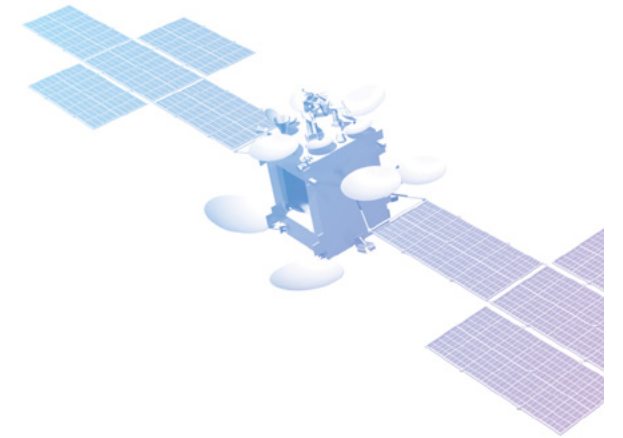
# Broadband & Satellite Russia Newsletter

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Russian Satellite  
Communications Company



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## ❖ A long way to the orbit

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RSCC is planning to launch the next two Express-AM5 and “Express-AM6 spacecrafts on a fundamentally new to scheme in Russia of non-direct delivery of spacecrafts to the orbit. Launching this way will take about 100 days, and its necessity is coming from the heavy weight of the spacecraft (3200 kg each), which prevents to use a scheme of direct delivery as RSCC’s press office reports . “The satellites have a mass that could not be directly delivered to the geostationary orbit by the carrier rocket Proton-M with the upper stage Breeze-M to the regular route launch from the Baikonur Cosmodrome, – the press service explained. –

In connection with this ISS-Reshetnev – proposed a long-time (about 100 days) delivery of the spacecrafts to the geostationary orbit. This scheme involves use of motive power of electrojet engines of the satellites”.

RSCC representative also said that Roscosmos profile organizations and the Ministry of Defense have reviewed the decision and approved it. “RSCC agreed with the ISS’s proposal as a forced measure to launch these satellites into the geostationary orbit, – he said. – As a part of the further development of the orbital group RSCC do not plans to use a this scheme”.

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## ❖ Virgin Mobile looks for the way to Russia

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The mobile business of billionaire Richard Branson in Russia may begin with the provision of services as an MVNO-operator. Trivon Networks, operating under the brand name Virgin Connect. providing Internet access services using pre-WiMAX technology in a number of the Russian regions, looks for a platform to run MVNO in Russia under the brand name Virgin Mobile. Richard Branson recently announced that it planed to shake up the mobile market in Russia. At the “Open Innovations” forum Mr. Branson said that the Russian mobile market lacked competition and he would change that.

In 2008, the businessman already attempted to change the Russian telecommunications market, by creating a WiMAX Trivon Networks operator on the basis of the international company Trivon Group, operating under the brand Virgin Connect. The bodacious businessman promised to win up to 10% of the Russian market of broadband access. However, the breakthrough did not happen. Virgin Connect now works mainly in the sector of corporate users in 20 cities across the country, serving approximately 20 thousand subscribers.

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## ❖ To save Yamal-402

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Thales Alenia Space, the manufacturer of the Russian satellite Yamal-402 unsuccessfully launched on December 7, suggested to deliver the spacecraft to the point of 55 degrees east longitude bypassing

the geostationary transfer orbit, where it was brought by the booster Breeze – M. The satellite operator Gazprom Space Systems (GSS) hopes that the new scheme will help to reduce the damage from the accident.

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## ❖ Banks to promote GLONASS

In Q1 2013 VTB and VEB Capital may join the non-commercial partnership “Promotion of development and use of navigation technologies” (NP GLONASS). The banks are planning to participate in the creation of a special financial institution to promote GLONASS abroad and to support domestic navigation equipment. The head of NP GLONASS Alexander Gurko does not comment the possible entry of banks into the organization. “The non-commercial partnership is open to the players who wish to invest in development and promotion of

GLONASS system, – he said. – According to our rules, the new member should get references from at least six members of the Partnership.” According to him, by 2013 the Russian market of navigation and information services will amount to 18-19 billion rubles. (\$ 590-623 million). “This figure accounts for the navigation market as a whole, including services, mobile applications, equipment, systems, – said Gurko. – By the end of this year about 12 billion rubles (\$ 393 million) will fall at the navigation systems and services on transport”.

## ❖ Home 4G

Roskomnadzor requires national operator Rostelecom to deploy its 4G network on the equipment of domestic manufacture, but there are no such manufacturers in Russia. Rostelecom won the license for wireless data networks construction in the range of 2.3-2.4 GHz license in 39 Russian regions in February – March 2010, but it has not started construction yet. According to the rules the company has no right to use the equipment of foreign manufacture. But Russian manufacturers are

not able to offer Rostelecom the appropriate certified equipment. The 5th Central Institute of the Ministry of Defense developed such equipment but now it is disbanded. In this situation Rostelecom seeks clarification from Roskomnadzor. The operator does not intend to withdraw from the frequencies. At first Roskomnadzor gave Rostelecom a year and a half to build the network at these frequencies. Now the term is extended, and Rostelecom is to build its network by summer 2013.

## ❖ GSM for LTE

The networks built by Synterra for Rostelecom are required to keep ownership of the frequencies in the range of 1,8 GHz and for further deployment of LTE networks. Nominal GSM networks that will meet the licensing conditions are built by the national operator to wait for refarming of the issued frequencies for LTE in 2007. The network

deployed by Synterra to save the frequencies, will be developed only in those regions where Rostelecom has a through licensing of 2G-3G-4G and can provide service under all of these technologies, otherwise the operator will try to develop a full-fledged multi-band LTE networks.



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## ❖ Operators gang up on GLONASS

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The participants of the non-profit partnership “Promotion of development and use of navigation technologies” (NP GLONASS) – MegaFon, VimpelCom, Summa Telecom and the company “Navigation Information Systems” (NIS) – plan to start implementation of navigation systems on major highways in 33 regions of Russia next year. The project requires 3 billion rubles (about \$ 98 million) investments from the federal and regional budgets, as well as investments from the participating companies. The funds from the federal budget for 2013-2014. make up about one-third of all

investments. Another third should be delivered by the federal units and another third are invested by the operators. In June the NP became a federal operator of domestic navigation system GLONASS. On June 2, the heads of 33 subjects of the Russian Federation signed a quadripartite agreement on cooperation in the field of navigation activity with the members of the partnership, the Ministry of Transport and the Ministry of Regional Development, agreeing on the implementation of the unified approach to create road monitoring and control systems based GLONASS. ❖

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## ❖ Rostelecom & 3G

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In early December Rostelecom started testing 3G in St. Petersburg and mounted the first 3G base station in the Moscow region. 3G network in these regions will be put into commercial operation in 2013, the main vendors are Ericsson and Huawei. Now the national operator is building 3G networks in 27 regions of Russia and plans to install more

than 8 thousand base stations. The first 3G network Rostelecom launched in late November 2012 in Siberia. The network was deployed by the subsidiary company BaikalWestCom. There are more than 300 base stations providing coverage of the territory with a population of more than 70% of the population of the region. ❖

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## ❖ State Duma to consider the frequencies exchange

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In spring 2013 the deputies of the Russian State Duma will consider the establishment of the frequencies market, promised the chairman of the Duma Committee on Information Policy, Information Technologies and Communications Alexei Mitrofanov at the recent meeting of the committee of the RSPP

telecommunications and information technologies. The frequencies market must become more transparent, Mitrofanov explained. He did not specified if it will be a separate bill or a part of the new law “On communications”, which is being prepared by the Ministry of Telecommunications. ❖

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## ❖ Dvorkovich to learn about cell business

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The Rostelecom Board of Directors discussed business development and reorganization of the company with the Deputy Prime Minister Arkady Dvorkovich. Directors convinced him that the operator needs to develop mobile business. The key reason of the meeting was the term of reorganization, but Dvorkovich was also concerned about the broadband development throughout the country. Earlier, he said that the operator had to provide high-speed Internet access for 95% of the population. Alexander Provotorov, president of Rostelecom, told vice-premier that one third of investments program funds is directed to this project. The operator is actively building fiber-optic networks and outruns other service providers under this technology in the terms of subscribers data base growth – this year it will increase by 100%.

Rostelecom representative noted that in other countries, operators providing Internet access in remote areas get tax benefits or compensation from public funds.

Along with the development of broadband access Rostelecom has to develop high-margin mobile business, urged Mr. Provotorov. Mobile business and cloud services will offset the natural decline of income from fixed-line, he said. Moreover, the operator deploys GSM networks only in promising regions – in the areas of Rostelecom mobile network presence, as well as in five new most profitable regions, the company president said. The participants of the meeting eventually came to understanding that the state operator has to invest in mobile business. ❖

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## ❖ Femtocells for GSM and LTE

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The Russian mobile operators will be able to expand the use of femtocells and repeaters. At the next meeting the State Commission for Radio Frequencies (SCRF) plans to permit to use femtocells in GSM and LTE networks in addition to the permit for femtocells in 3G networks. It is also planned to expand the geography of femtocells: the SCRF draft decision provides their use

in the underground facilities, stations and spans, not only buildings. Construction of femtocells in Russia is allowed without issuing individual permits for the use of frequencies. In this case, the SCRF retains condition that femtocells can work only on frequency channels assigned to a particular base station, the signal of which it reinforces. ❖

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## ❖ VimpelCom is about to come to terms with Yota

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The negotiations of VimpelCom and Yota Networks (an infrastructure division of Scartel responsible for development of networks and partnerships projects) moved to an advanced stage. The operators are discussing a partnership that enables VimpelCom to provide 4G services of LTE standard on the base of Yota network as MVNO – as it is already done by MegaFon since April 2012 (Scartel and MegaFon are controlled by Alisher Usmanov’s Garsdale Services holding).

However, MVNO could be the beginning of a larger collaboration: at the same time the companies are discussing sharing infrastructure,

and subsequently, the frequencies (if it will be permitted by law). “Scartel” made concessions in two key parameters of the deal, firstly, it agreed to reduce the guaranteed payment for connection to its network, and, secondly, got close to the acceptable for VimpelCom proportion of revenue sharing of customer service, said the second source, without specifying the numbers. VimpelCom is negotiating on the establishment of MVNO on Scartel’s network from the beginning of 2012. If an agreement on the use of infrastructure and frequencies will be signed, VimpelCom will become the second federal partner of Skartel after MegaFon. ❖

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## ❖ Microprocessor of all LTE

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The U.S. chip maker Qualcomm plans to release the microprocessors that will enable the Russian operators to build LTE networks with the use of all frequency resource regardless of the version of technology. In 2013 Qualcomm plans to introduce processors operating in different versions of LTE technology (FDD or TDD) without

communication interruption. At the moment the Russian operators are choosing between FDD and TDD variant of LTE networks. The appearance of Qualcomm processors supporting continuous communication with different types of LTE technology will enable domestic operators to solve the difficult problem of choice. ❖



## ❖ Mobile BBA in the mass

By the end of this year the mobile broadband users number in Russia will reach 76 million, as calculated in Ericsson. 22 million subscribers are connected to fixed broadband networks. The level of smartphones penetration, according to Ericsson, in Russia is 26% (the global smartphones market makes up about 40% of all cell phones sold in Q3 2012). According to representatives of VimpelCom, the data given by Ericsson “looks somewhat exaggerated”. MegaFon also considers the data by the Swedish vendor to be overestimated. “The number

mobile and fixed subscribers – in this case we are talking about the number of households – in our opinion, is a little too high, – said the press service of MegaFon. It is not correct to compare the number of households connected to the fixed broadband access networks with the number of end users of mobile broadband, as according to the State Statistics Committee there are 2,7 people in an average household. “The penetration of smartphones in MTS network is about 20%,” – MTS representative told ComNews. ❖

## ❖ To modernize Rostelecom for \$10 bln

The board of directors of the national operator Rostelecom will be presented the draft program of modernization of the infrastructure at the cost of about \$10 bln. The project will be considered in Q1 2013, told the Vice President of Strategic Development of Rostelecom. The program, designed for 10 years, provides for the replacement of copper to fiber

network infrastructure, transition to NGN-based architecture on the base of Softswitch. According to the company estimates the program will halve the cost of network operation. Rostelecom experts have suggested that the project could halve the employees number. Now the total number of employees of Rostelecom is about 98 thousand people. ❖

## ❖ To study 4G in GSM range quickly

The proposal of LTE Union (unites the Russian Big Four) to extend the range study by the end of 2013 did not pass. The possibility to build 4G LTE network in the traditional GSM range – 1800 MHz – has to be analyzed by June 2013. The deputy minister Dennis Sverdlov insisted at recent conciliation meeting, which approved the draft decision of

the State Commission for Radio Frequencies (SCRF). Under this project, on December 19 the Commission will order the Institute of Radio (NIIR) to explore the possibility of joint work of GSM and 3G in the frequencies of 900 MHz, and LTE – 1800 MHz by June 1, 2013. SCRF will evaluate the results in Q3 2013. ❖

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## About Us

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