



National Radio Association
Moscow Region, Kaluga Region,
Russia



Requirements

- Highly reliable communication channels
- Integration with noise monitoring

Solution

- InfiNet SkyMAN R5000 – high-speed Point-to-Multipoint connections, providing 240 Mbps bandwidth

Construction of a transport radio network using InfiNet's SkyMAN R5000 to create a stationary automatic radio electronic control system

The National Radio Association is the official body for the national radio frequency resource. It has been created with the support of the State communications Committee and GSN, Russia.

The Association aims to unite the efforts of both operators of telecommunications systems and manufacturers of telecommunications and radio engineering equipment that work in the Russian market and abroad. It aims to solve any issues with the use of the radio frequency spectrum and the introduction of new radio technologies.

In 2009, Geysler-Telecom launched a network to provide wireless broadband access for the National Radio Association in the Moscow and Kaluga regions, using InfiNet SkyMAN R5000.

Requirements

This network provides data transfer between stationary automatic radio control systems (ARMS) on mobile radio communication networks on the IMT-2000/UMTS frequency.

The main element of the ARMS is stationary DF (direction-finding) complex 'BARS', which produces constant monitoring of the noise in Moscow and Kaluga. Information from ARMS is sent to the analysis centre in Krasnoznamensk.



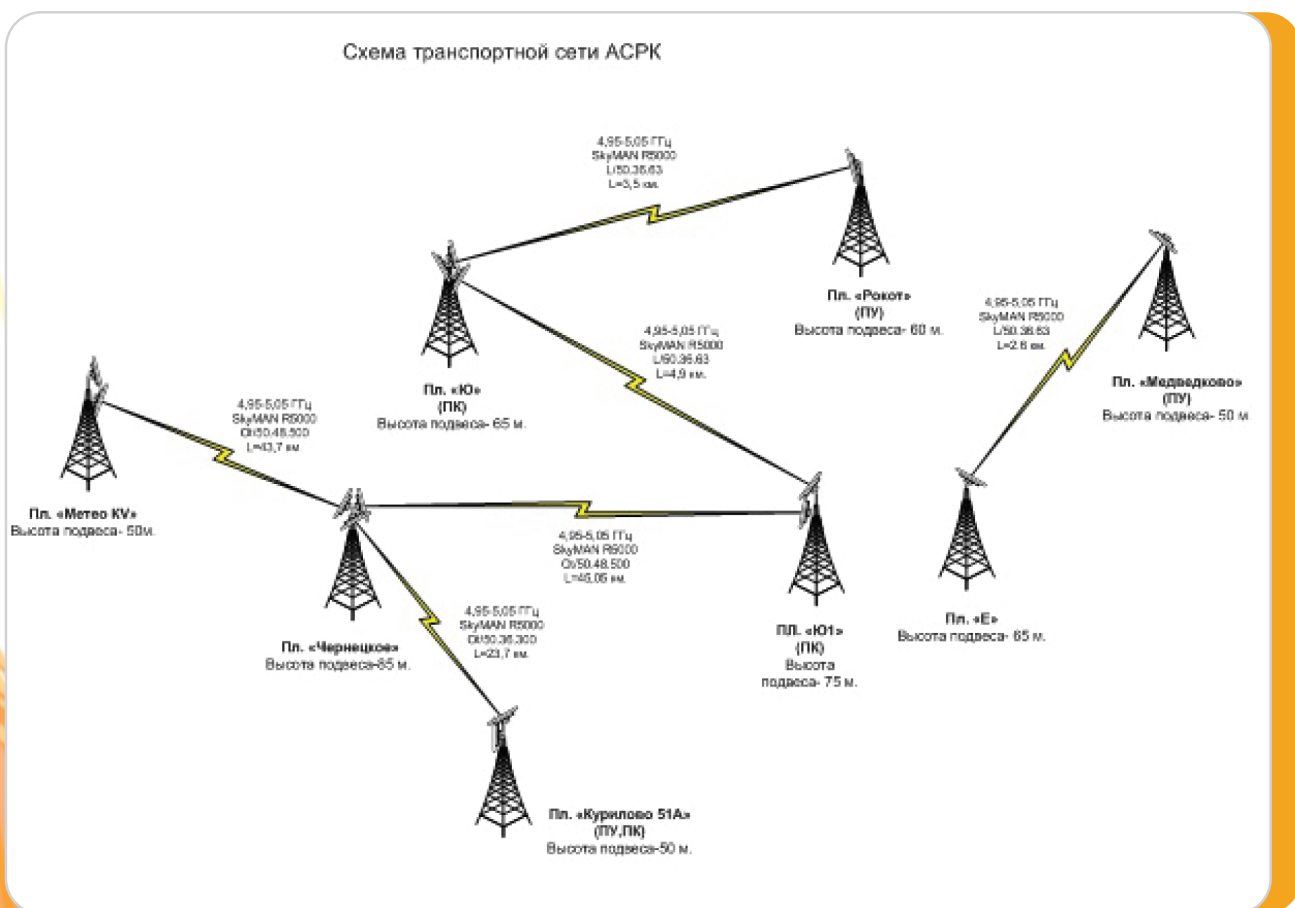
SkyMAN R5000 base stations on the roof of one of the ARMS



Solution

The network consists of six Point-to-Point solutions. Three have a length of 23, 43 and 45 kilometers. For customers the main requirement is the high reliability of the communication channels. Therefore, equipment with a high power transmission must be used (Ot/50.36.300 and Ot/50.48.500). On the equipment with shorter distances standard equipment can be used (L/50.36.63) with a frequency range of 4.95 – 5.05 GHz.

In 2013, Geysler-Telecom checked the network, the connectors and antenna's mounts and updated the firmware.



Scheme of transport network ARMS