

Underground Antennas in Russia

Some information about Underground Antennas from a Russian Forum at www.cqham.ru
(There are some cuttings made. The whole version of the forum you can read (in Russian) at:

<http://www.cqham.ru/forum/showthread.php?t=13489&page=0&perpage=30>)

Igor VE3KAO

When I served in the Soviet Army I had contact with a military radio station that was used such Underground Antennas. The station was from Sverdlovsk (now Ekaterinburg). My station was near Moscow. (**I.G.: Distance Moscow- Sverdlovsk is 1800 km.**) We used band 3.0- 6.0 –MHz at the winter and 4.0- 8.0- MHz at the summer. The station with Underground Antennas was heard by S5- S6. When the station was used the usual stationary antennas it came to us by S9+.

I asked the chief of the radio- center about the Underground antennas. He told me that he saw how the antennas were installed. It was thick coaxial cable that was buried in trenches in 2.5- 3.0- meter depth...

yl2gl

The Underground Antennas were at the receiving radio- center where I was served (in the Soviet Army). There were symmetrical antennas. The antennas were reserved ones that supposed to be used at emergency situation (at nuclear war)...

UA9FBQ

I took part at installation of the Underground Antenna... It was coaxial cable (looks like) near 10-cm in diameter. The coaxial cable was buried on 50-cm into the ground. I used the antenna with a transmitter "OKUN". The antenna matched well but the efficiency was low. The antenna was tested up to 6- MHz.



Okun:

<http://www.radioscanner.ru/>

Frequency Range: 1.5- 24.0 – MHz

Mode: CW (A1, 1-kWatt), SSB (J3E, 500- Watt)



www.cqham.ru

RN6LIQ

I used the Underground Antenna at the radio- center where I served. However, I do not know nothing about design of the antenna. The antenna works worse compare to usual (placed) on ground antenna. It is a reserved antenna that would be used when the usual stationary antennas were destroyed. However, for survival purposes the radio center and its electro station also should be placed underground....

Viktor355

I constructed one of the Underground Antennas at 1984- 1986 years. It was not so far from Kaluga (Russia). The antennas were placed on a field with several km in (L/W) dimensions. There were installed (in some depth) coaxial cables and copper arrays. Then all were buried and the place was finished to flat surface by bulldozers **DT-500** and **DT-1000**. I do not know for what the frequency band the antenna were designed.

R3VA

I saw such antenna near **Tarusa**, Kaluga- region when I served in the Soviet Army. It was Summer – 1987. Soldiers (from unit where I served) for two days did masking of the antenna. It was practically flat filling (near 2 meters height) with size of a football pitch. There were crushed rocks in bitumen and some strange (looks like selicagel) “balls” in the filling Upper the filling there was a grid from thick (near 40- mm in diameter) coaxial cable. We took topsoil from a nearest water meadow and put those one a top of the filling.

RX9CC

When I served in the Soviet Army (it were 1976- 1978 years) I constructed the Underground Antenna near **Kozelsk**, Kaluga region. It was a grid from a coaxial cable RK-75-24x17. It was very heavy coaxial cable in 60-mm diameter. The antenna was tested from several tens kHz up to 20-MHz.

(**Note from I.G.:** Russian coaxial cable RK- 75- 24x17 is special steel-clad, water and moldy protected cable that can be installed under the ground.)

UR5HUG

At the 80s I was served at a communication unit near Leningrad (today Sankt- Peterburg). There was an Underground Antenna. I remembered that we used to the antenna with radio **R-140** for communication with Monchegorsk. (**I.G.:** **Distance between Leningrad- Monchegorsk is 1200 km.**)

Note I.G.: Underground Antennas with fully automatically underground radio- centers were (or are) widely used in the Soviet/Russian military system Dead Hand (also known as Perimeter, Hand from Coffin).

More about the system:
[http://en.wikipedia.org/wiki/Dead_Hand_\(nuclear_war\)](http://en.wikipedia.org/wiki/Dead_Hand_(nuclear_war))

73!



R140

Photo from the GOOGLE

Frequency Range: 1.5- 30.0 – MHz

Mode: All mode, 1- kWatt