

# ANTENTOP

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ANTENTOP is **FREE** e-magazine devoted to **ANTENnas**  
**Theory,**  
**Operation, and**  
**Practice**

*Edited by hams for hams*

## ***In the Issue:***

***Practical design of HF- VHF –  
Antennas!***

***Antennas Theory!***

***Propagation Mysteries!***

***History Early Radio!***

***And More....***



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## **EDITORIAL:**

Well, ANTENTOP # 001 come in!  
ANTENTOP is just authors' opinions  
in the world of amateur radio. I do  
not correct and re-edit your articles,  
the articles are printed "as is". A little  
note, I am not a native English, so, of  
course, there are some sentence  
and grammatical mistakes there...  
Please, be indulgent! (continued on  
next page)

**73! Igor Grigorov, RK3ZK**

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Every issue of ANTENTOP is going to have 100 pages and this one will be paste in whole on the site. Preview's files will be removed in this case. I do not know what a term for one issue will need, may be 2-3 month or so. As I have counted, a whole issue of ANTENTOP will hold nearly 10 - 20 MB .

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1	<p><b><i>Introduction into Antenna Studies:</i></b> by Prof. Natalia K.Nikolova</p> <p>Dear friends, I would like to give to you an interesting and reliable antenna theory. Hours searching in the web gave me lots theoretical information about antennas. Really, at first I did not know what information to chose for ANTENTOP. Finally, I stopped on lectures "Modern Antennas in Wireless Telecommunications" written by Prof. Natalia K. Nikolova from McMaster University, Hamilton, Canada.</p>	5
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2	<p><b><i>EH ANTENNAS:</i></b> by Ted Hart W5QJR</p> <p>Ham Radio has been a birthplace for and nurtured many important inventions and discoveries. I have participated in some of those and benefited from others over the last 55 years that I have held the call W5QJR. Although I have previously presented new concepts to Hams (including the Antenna Noise Bridge in 1967 and the Small High Efficiency Loop Antenna in 1984), I now have the privilege and opportunity to present one more, one that will benefit every Ham.</p>	14
3	<p><b><i>I trust in EH antennas!</i></b> by Igor Grigorov, RK3ZK</p> <p>I carried out many experiments with CFA- EH antennas, well, not all my experiments were successful, but some of these experiments have forced me to trust in opportunities of CFA- EH antennas. I hope, that I be able to finish my experimenters with the antennas up to level when I could publish my work not being afraid that I will undergo to severe criticism. But now I want give you some examples of CFA- EH antennas in ex- USSR Military Forces.</p>	21
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4	<p><b><i>Nonlinear effects on antennas:</i></b> by Igor Grigorov, RK3ZK</p> <p>TVI and RFI appeared suddenly when my transceiver worked on amateur ranges of 10-20 meters. Earlier the transceiver worked everywhere without TV and FM radio interferences. I did not do anything either to the transceiver or the antennas. For search of the cause of interferences the transceiver was switched off from the outside antenna and loaded to a dummy load. No interferences! The transceiver was switched on to the indoor magnetic loop. Again, no interferences! Interferences appeared when the transceiver was switched on to the outside antenna. An additional low-pass filter at transceiver output did not influence the level of arising interferences. <b><i>So, located on a roof antenna was the source of interferences.</i></b></p>	23
5	<p><b><i>Multi- Range Vertical Antenna UA1DZ:</i></b> by Igor Grigorov, RK3ZK</p> <p>Antenna UA1DZ is a very interesting multi- range vertical antenna designed by known Russian radio amateur UA1DZ. The antenna was very popular in use in the former USSR. Russian radio amateurs widely use the antenna at present days also. The antenna works with a low SWR on 40-m, 20-m and 15m. Firstly UA1DZ told about his antenna in the ether, and after that, lots Russian radio amateurs have did the antenna and Antenna UA1DZ became very popularity.</p>	29
6	<p><b><i>Hula- Hoop magnetic Loop:</i></b> by Yuri Kazakevich, EW6BN,</p> <p>After long QRT (birth of my daughter, changing my QTH) I was going again RV!!! So, I needed an antenna! But where can I install it? It was not possible to install any antenna on the roof of my house. I had only place for installation of an antenna, the place was my balcony of my house. Well, it was very place. What an antenna can install at the place? I though, it was only a Magnetic Loop Antenna.</p>	30

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	<b>Superloop receiving antenna for 136kHz:</b> <i>by Peter Dodd, G3LDO,</i>	
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24	Many scientists and engineers have contributed to the early development of electromagnetic theory, the invention of wireless signaling by radio, and the development of antennas needed to transmit and receive the signals. These include, Henry, Edison, Thomson, Tesla, Dolbear, Stone-Stone, Fessenden, Alexanderson, de Forest and Armstrong in the United States; Hertz, Braun and Slaby in Germany; Faraday, Maxwell, Heaviside, Crookes, Fitzgerald, Lodge, Jackson, Marconi and Fleming in the UK; Branly in France; Popov in the USSR; Lorenz and Poulsen in Denmark; Lorentz in Holland; and Righi in Italy. The inventor of wireless telegraphy, that is messages as distinct from signals, is Italian-born Guglielmo Marconi, working in England; and the inventor of wireless telephony is Canadian-born Reginald Aubrey Fessenden, working in the United States.	86
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