Periastra : Participant Information

Herouni Antenna #05

The Herouni Antenna ROT54-2.6. Radio Optical Telescope, Armenia

The Herouni Antenna

The main advantages of the Armenian radio-telescope are 1) High accuracy, 2) High sensitivity, 3) Very low self-noise. And the only disadvantage is that the antenna pattern scanning angle is limited to 120 degrees (instead of theoretical 180 degrees).

Planned observations under the management of Professor Herouni were done in 1987 – 1990. The Explosion of Red Giant Star was recorded (Etta star in Gemini constellation), multiple scientific articles were published in USSR periodical and abroad, Herouni has participated and presented results about ROT construction and parameters in a big number of International Conferences.

During the energy crisis of 1990-1995, numerous measurements of antenna parameters using the radio astronomical method were performed, new radio sources were registered by Professor Arevik Sargsyan and a group of young scientists and students led by her.

In 1995-2001, the old computer control system of the radio telescope was dismantled and replaced by PC and special software programs were developed. In collaboration with the Astronomical Union of Russia and the National Technical University of Athens Technology, research works were carried out on the development of radio telescope. Antenna feeding system has been updated and improved, various other antenna-related topics have been developed.

The ROT-54/2.6 antenna is in working condition today. The engines that provide motion of the antenna, the mechanical structural systems of both reflectors, several automatic control systems, including correcting systems, are also in working condition.

The antenna is equipped with feeds. Even today's uncomplicated state of the reflective surface allows us to measurements, making sure that the antenna maintains the values of its main characteristics in the decimeter and centimeter range of radio waves.

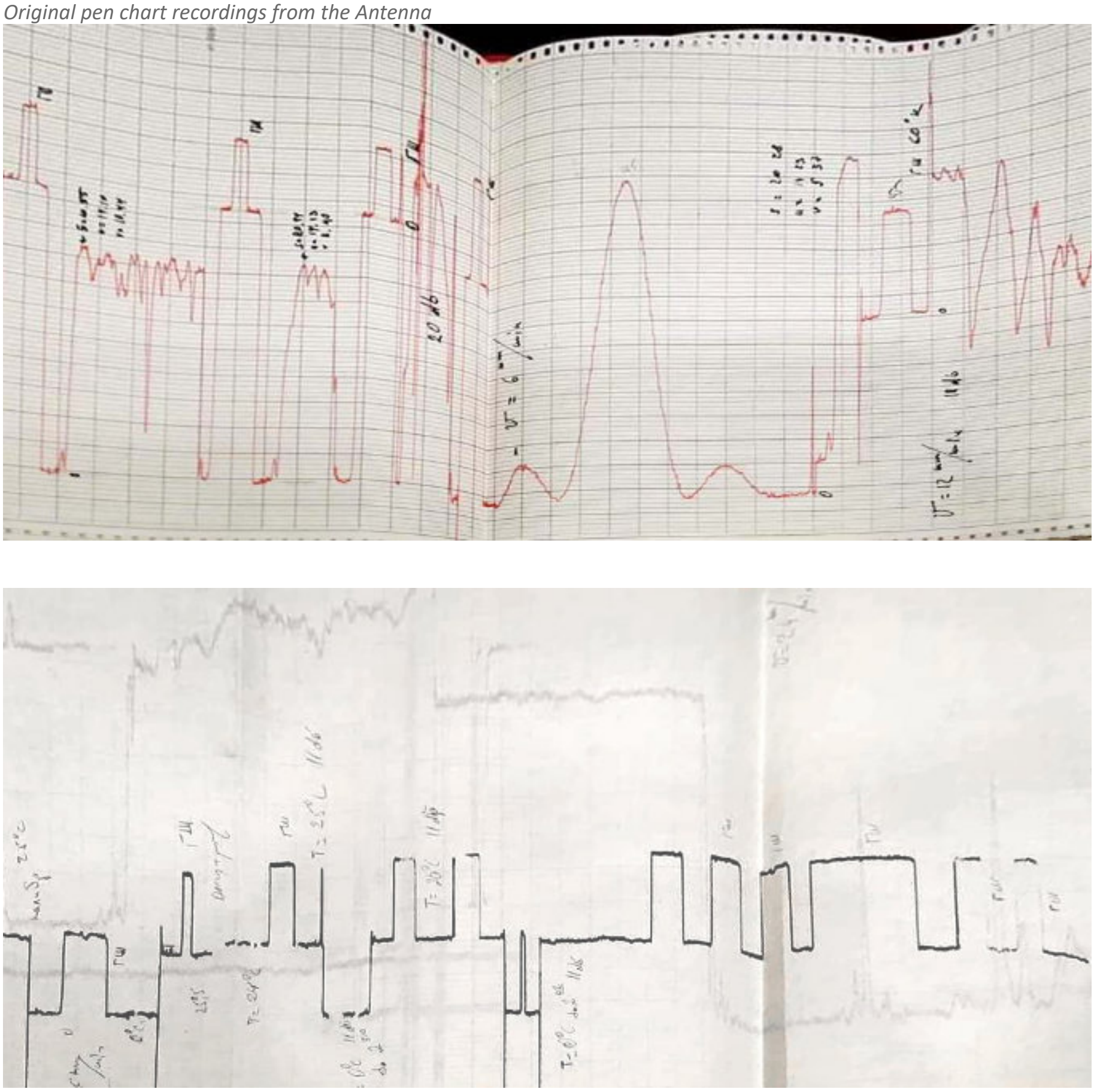
In the Exhibition

Supplied from the archive are original pen recordings with annotations by the operators. These have been stitched into a scrolling ensemble that can be viewed as a movie presented in the horizontal plane.

They originate from pictures of the records of various sources of space radio emission, and antenna pattern measurement using the radio-astronomical method.

Presented also are QR links to various important videos including biographical material about Paris Herouni

Original pen chart recordings from the Antenna



Herouni United Space Centre links

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