

From TV-DXer to Sat-DXer

- *Erected large dishes on two towers*
- *All dishes were purchased used*
- *Installation work performed on his own or with friends*
- *Produced all mechanical pieces by himself*

■ Laszlo Toth (DX Bozoth) in front of his 4.65-meter dish antenna. His property is located in the small town of Püspökladány in eastern Hungary. The next largest city is Debrecen.



Laszlo Toth aka DX Bozoth

■ A look at Laszlo Toth's (DX Bozoth) parade of dishes in his own private garden.

The year was 1974; that's when Laszlo Toth turned on his TV and saw an Italian TV channel. This experience infected him: the closest Italian city was more than 900 km away so this was by no means normal TV reception, but rather it was long-distance reception. This occurs under certain weather conditions and Laszlo Toth found this to be so exciting that he turned this into a hobby. He worked for the Hungarian railroad in their metal shop; this gave him two advantages: he had experience working with metal but, far more important, as a railroad employee he was able to ride the trains for free.

He took advantage of all this by acquiring a log periodic antenna that covered the entire frequency range as well as the necessary parts for a lattice mast. In 1976 he managed to erect a 33-meter high mast. Two months later though, a strong thunderstorm rolled through that tipped over his wonderful mast. That temporarily spoiled his interest in his hobby. In 1996 something new appeared: satellite TV. He acquired a used satellite dish that someone else had built themselves: "It was a 130cm dish", remembers Laszlo about his very first dish antenna.

Just like with TV DXing, Laszlo couldn't hold back here either: in



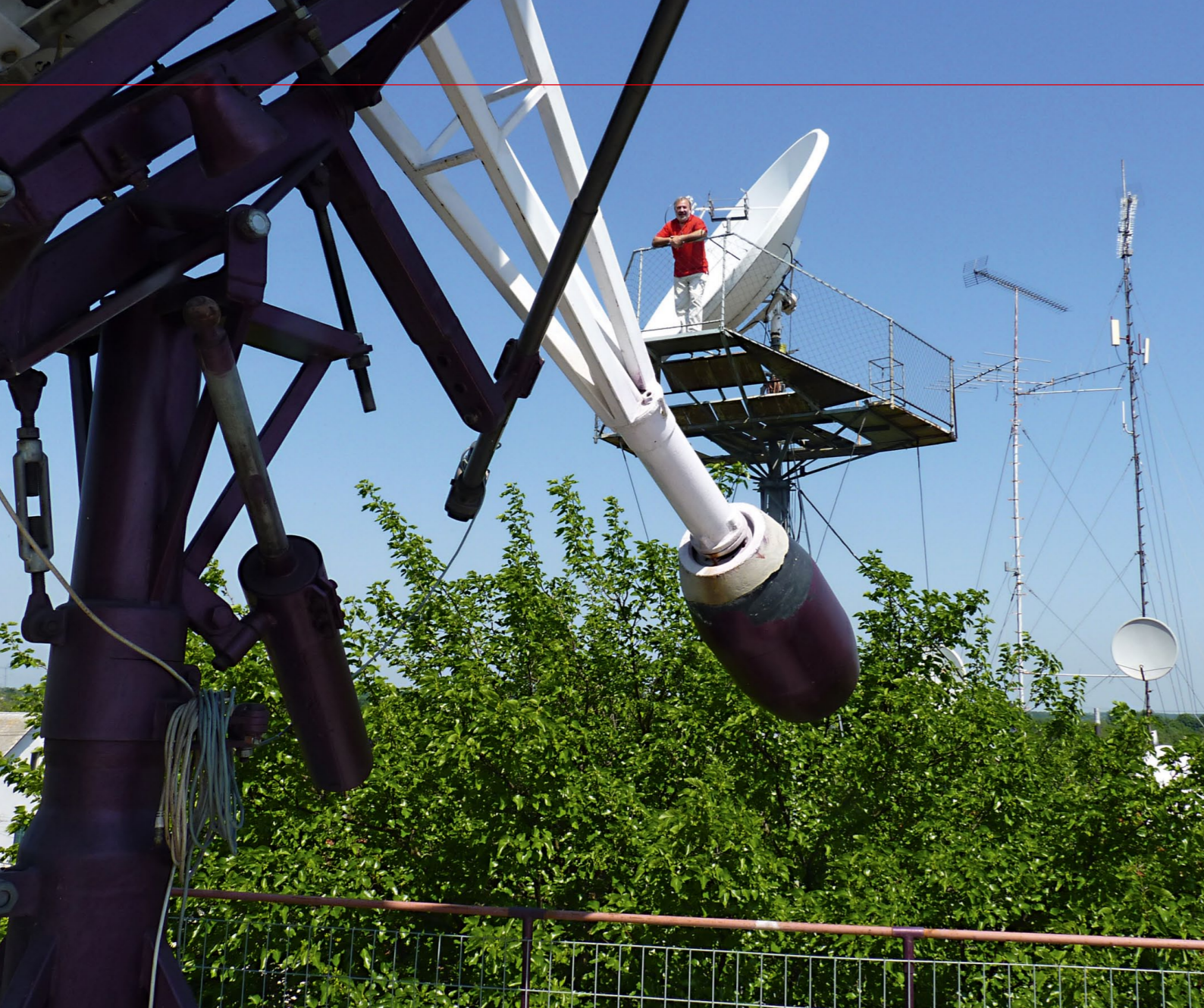
■ The large 4.65-meter antenna is moved manually by Laszlo to other satellites. He marked these other positions here. The antenna is currently pointed to THAICOM at 78.5 east as he is showing us here with his finger.



The World of Satellite DXers

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1998 came a 3.6-meter antenna that he mounted to a stable mast on his house. But for him it still wasn't enough: "A friend gave me his used 3.7-meter Andrew dish." But where to put it? For Laszlo there was only one answer: he had to erect a tower. Once again he put his metal fabrication skills to work and took advantage of his free train pass. "I built this 16-meter tower", explains Laszlo proudly as he points out the lattice tower that has since been surrounded by trees and can only be seen fully from a distance.

Did that satisfy his enthusiasm? Not a chance. In 2007 he became active once again. This time he constructed a much wider tower on which he mounted a 5-meter antenna. The tower is 9 meters high and was not as stable as he had hoped it would be. A friend suggested that he use support rods that increased its stability but then was only good enough when the wind wasn't blowing.

There are two points that are very important when it comes to installing large dishes like this: the wind load produced by such a large dish and the extremely heavy weight of such a professional antenna. "We couldn't put all the segments of this 4.6-meter antenna together on the ground; it could only be done directly on the mast", admits Laszlo. The reason: "The fully assembled antenna would have been far too heavy to lift up into place." He would have had to rent a crane. But since the antenna was mounted directly on the mast, the exact parabolic shape of the antenna could not be maintained. In the end, the 5-meter dish did not fulfill his expectations as much as he had hoped.

He was much happier with another dish that he this time mounted directly on the ground: "This is a 4.65-meter antenna that I have a lot of fun DXing with." But the disadvantage of a ground installation is, of course, the surrounding trees and houses that

■ From his 9-meter high tower that carries his 5-meter dish, we can see his very first 16-meter high tower on which there's a 3.7-meter antenna with a rotor. In the background to the right are the masts on his house with his terrestrial antennas.

limit the antenna's visual range. All those trees on his property are causing him all kinds of problems. "But I can't bring myself to shorten the trees", explains Laszlo. He prefers instead to build higher towers and masts.

Laszlo, who is known in satellite Internet forums by the name DX Bozoth, especially enjoys extreme reception. "I can receive the Spot 1 and S2 beams here on EXPRESS 3-3 at 96.5 east in the Ku-band", lists Laszlo, "For this location, it's only a few degrees above the horizon." Another true long-distance reception feat is MEASAT 3-3A at 91.5 east in the Ku-band and NSS6 at 95.0 east with its Ku India beam. "I can also receive PAKSAT at 38.0 east in the C-band

■ How do you switch back and forth between a C-band LNB and Ku-band LNB without any signal loss? For Laszlo the answer is quite simple: He uses a motor to move the correct LNB into the antenna's focal point. Here he is showing us his ingenious design: the LNB frame is moved on a rail to the antenna's center by a motor. Laszlo can control everything from a shack in his house. But it wasn't always like this: the rack on the right carried a receiver and a TV monitor only a few years ago. Laszlo used this to take care of settings directly at the antennas.

and the Israel beam from AMOS at 4 west in the Ku-band", says Laszlo proudly about the capabilities of his system.

There's quite a few more dishes on his property, including a 4.6-meter antenna and a 5.0-meter dish. There's even a number of smaller antennas that Laszlo uses for testing purposes. He experiments quit a bit with feeds and LNBs and always wants to find out if there's more that he can receive. His garage was long ago converted to a workshop in which he has his own lathe that he uses to make many of the mechanical dish mounting components. Since all of the dishes he has were acquired in used condition, they often came without any mount or LNB rods. But these are only minor issues for Laszlo; he just builds everything he needs himself. He really can't do much with polar mounts anyway: "Its turning range is not large enough. I can receive here from 96.5 east to 55.0 west; most mounts can't do that."

Laszlo Toth found a hobby that fits in perfectly with his capabilities and experience. He's convinced that his neighbors think he's crazy, but that doesn't bother him at all. His hobby is more important to him than what other people think. He's living out his DXer dream!



■ DX Bozoth (which means Bozoth "thicket" and refers to his beard that was much thicker in his younger days) controls all of his dishes and motors from his shack. Here he is moving a dish to AMOS for the reception of the METV music channel on the Israel beam. This cannot be received in Hungary with smaller antennas.



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1. One of Laszlo's self-made polar mounts. The segments of a 4.6-meter dish and a 5.0-meter antenna can be seen in the background leaning on a wall that marks the boundary to his neighbors property; he plans to put them together soon.

2. Laszlo uses this lathe in his workshop to fabricate all the necessary mechanical parts that he needs.

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■ Is that him? Yes, despite being 65 years old, Laszlo has no problems climbing on the mast on the roof of his house to fine-tune a UHF antenna on the top of the mast. Obviously, Laszlo has no fear of heights!