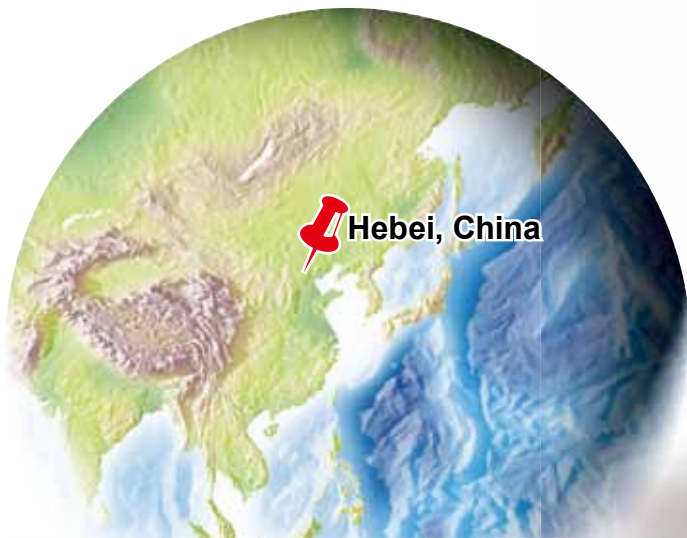


The Umbrella Antenna

A Retired Chinese Professor's Homemade Antenna

An umbrella can be used for other things and not just to protect you from rain: have you ever thought of converting it into a collapsible satellite antenna? Wenbi Wong did. He's a retired professor who taught at a Beijing university. He has been working on this unique antenna idea for the past 20 years before his retirement. We met up with him in Beijing so that he could tell us more.



Hebei, China



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Available online starting from 28 May 2010

■ This is Wenbi Wong. He's carrying a plain bag on his shoulder. What could be in the bag?



1. He's pulling out something unique from that bag. What could it be?

2. Slowly the veil on this secret is being lifted. It looks like an umbrella.

3. That's almost right. Opening up the "umbrella" reveals a satellite dish!

4. Close-up view of the Cassegrain umbrella. Thanks to the reflectors, the LNB is mounted behind the dish.

5. A tripod was also in the bag on which the umbrella antenna can be mounted. And just like that the portable satellite antenna is ready to go. Wenbi Wong needed about six months to develop this prototype. "I bought the umbrella in a shop for 20 RMB (about 2 Euros)", he explains, "but it had to be a really old umbrella that was made with quality materials." Extremely thin metal foil like that found in industrial protective clothing was used for the reflector material.

Wenbi Wong originally studied radar technology and came in contact with it in 1986 at a time when that technology had mostly military applications. He says proudly, "I actually received two patents for the construction of a microwave filter!"

He is 72 years old today and has since moved to the city of Langfang in the Hebei province roughly an hour by car southeasterly from Beijing. "I have more than ten satellite dishes in my garden", explains Wenbi Wong, "but I'm not a real TVRO fan."

He's much more interested in the technology behind satellite reception and that's where his drive to create new satellite antennas comes from.

The prototype umbrella antennas that he currently made in 30cm, 70cm and 80cm sizes are not the only things he's building. He mounted a 60cm motor driven offset antenna, which of course he built himself, on the roof of his all-wheel-drive vehicle.

He is especially proud of a motorized antenna he installed in an aluminum suitcase. Wenbi Wong isn't making all these things just for the fun of it: "I'm looking for manufacturers who will take my ideas and professionally produce and market them", says Wenbi Wong.



The World of Satellite DXers

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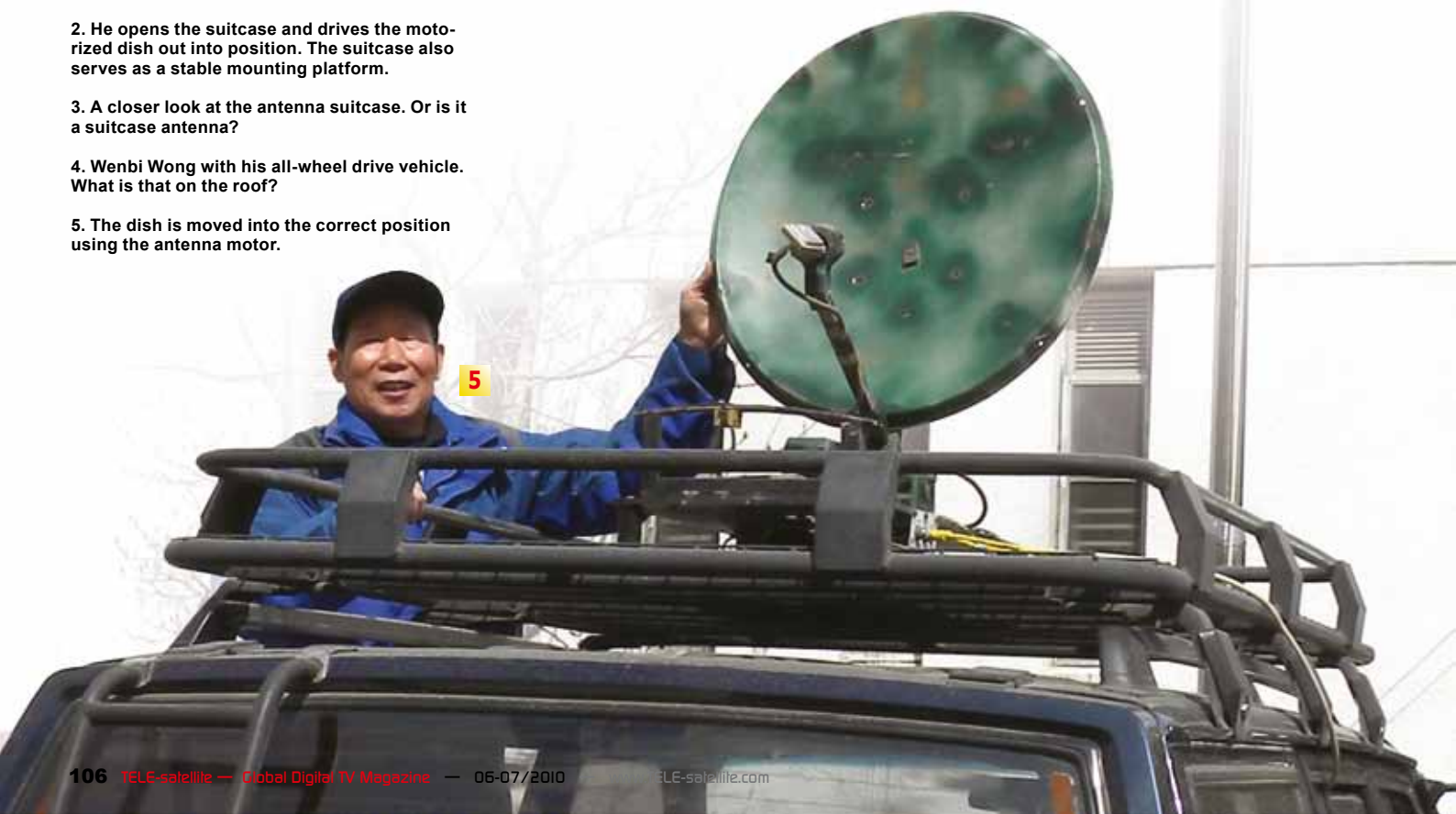
1. Wenbi Wong is going on a trip. What could be in that aluminum suitcase?

2. He opens the suitcase and drives the motorized dish out into position. The suitcase also serves as a stable mounting platform.

3. A closer look at the antenna suitcase. Or is it a suitcase antenna?

4. Wenbi Wong with his all-wheel drive vehicle. What is that on the roof?

5. The dish is moved into the correct position using the antenna motor.





1. Another Wenbi Wong creation: a satellite dish made from an out-of-service electric heater. The Cassegrain principle is also very helpful here in finding an elegant solution for the LNB.

- 2. What is Wenbi Wong holding in his hand?
- 3. It looks like...
- 4. ...a 30cm satellite dish?

5. Wenbi Wong (left), inventor of a variety of satellite antenna forms, and Luo Shigang (right), Aluosat CEO. Aluosat distributes TELE-satellite in China and put us in touch with Wenbi Wong.



"Professionals might find the suitcase antenna interesting in that it could easily be checked in as luggage on a plane or a train."

As he takes a look over to his umbrella antenna he continues, "This could be interesting for DXers who might be out in the wild or up on a mountain or even for the military who'd need an easy to transport satellite antenna."

We have no doubt that commercial potential exists for the umbrella antenna. This would make it possible to convert a large diameter antenna into a smaller size that is handy and much easier to transport. It could be the perfect solution for some specific applications.

Manufacturers can contact Wenbi Wong via e-mail at thwwwb@126.com.

He admits: "I don't speak any Eng-



lish but if I should receive an e-mail in English, my friend will help me with the translation."

We are anxious to see if a professional version of his umbrella antenna will become available!

