

Big Dish in India

Siddharth Gautam operates a major satellite reception station in New Delhi. When the time had come for a refurbishment he invited us to get a first-hand impression of his job. Siddharth Gautam tells us why these changes have become necessary: "The main reason is the relocation of the eight dishes, so that they do not interfere with each other any longer. After all, every dB counts!"



■ Metal struts for the dish construction arrive like that.



■ Assembly of the 32 struts.



What sounds easy enough on paper is actually a huge job, considering there are two dishes with a diameter of 2.4 metres, four with 1.8 m and two with 1.6 m. And that's without giving the small 60 cm dish a mention.

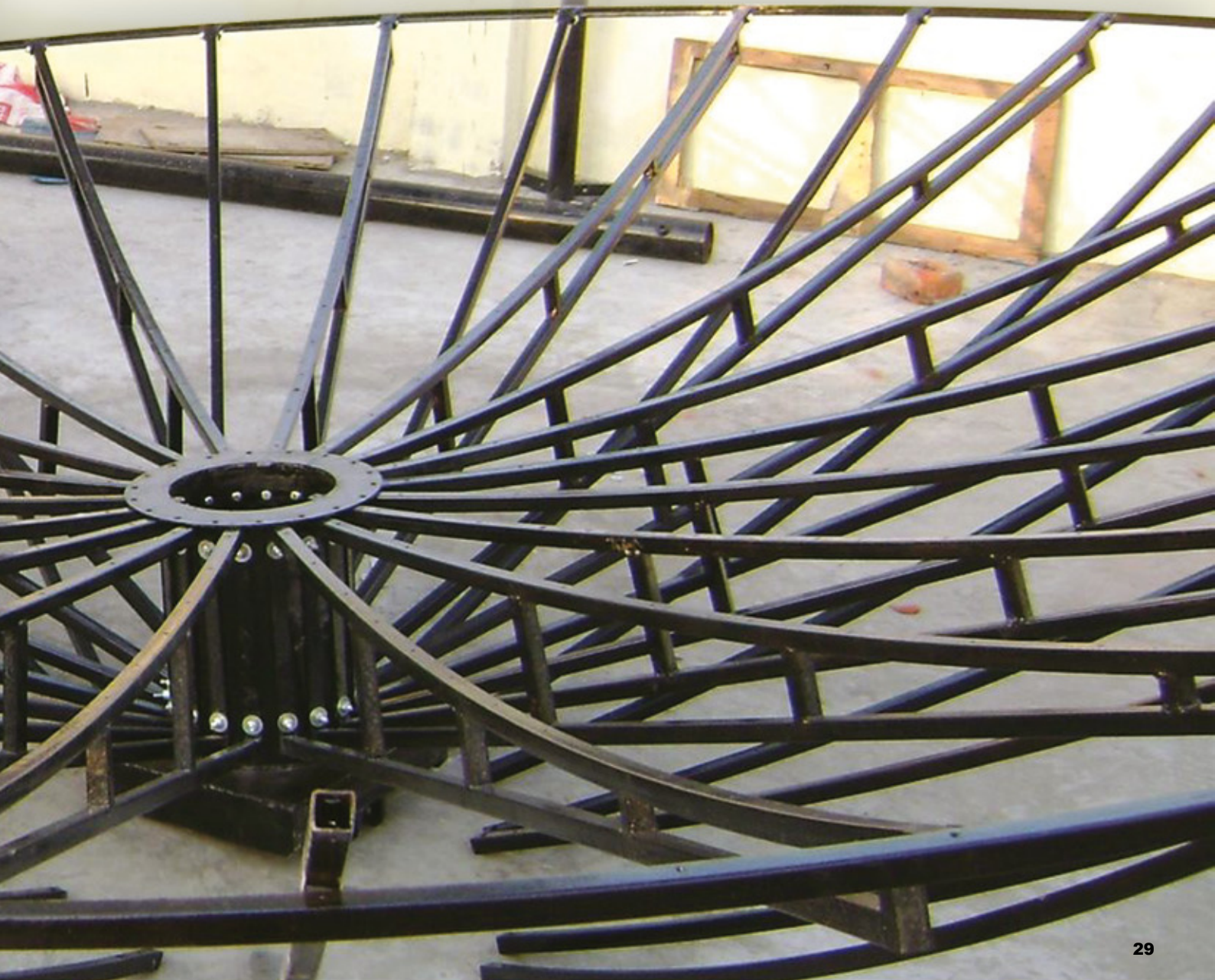
Yet Siddharth hastens to add that "it is precisely the 60 cm antenna that's playing a major role. It receives TELSTAR 18 at 138° East, even though this should not be possible at my location – in theory."

After a great deal of precise alignment Siddharth achieves 80% signal quality for horizontal TELSTAR 18 transponders. On vertical transponders, however, the level hardly exceeds 20%. "Obviously this is only a temporary solution, and I hope to be able to use a 1.2 m antenna for that purpose soon," Siddharth explains and looks forward to a more a stable reception environment.

What required the biggest effort during

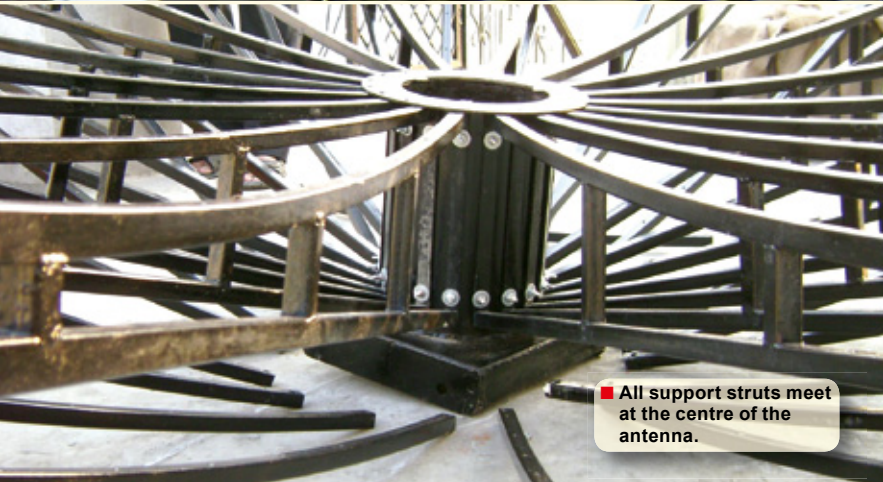


■ All individual segments are screwed onto the dish construction.





■ Completed antennas provide some welcome shade.



■ All support struts meet at the centre of the antenna.



■ Screwing together the feed arms.



■ Almost done: Attaching the final segments to the construction.



■ It took the helping hands of eight people to hoist the 2.4 m dish with its more than 200 kg onto the mast (visible in the front).



■ Done: The antenna securely sits on the mast. Alignment is next.



■ The fastening screws are welded onto the mast right on-site.

the refurbishment was raising the mast bases so that individual dishes do not restrict the view of others.

"Naturally, the two 2.4 m antennas involved some serious physical work," Siddharth explains. "After all, they weigh more than 200 kg each."

As expected, a major job like this cannot be completed without its setbacks. "One day after we had mounted

one of the 1.8 m dishes on the brick-and-mortar base a strong wind kicked in and caused cracks in the base." It turned out that the bricklayers had used cement too liberally, so that the base had to be rebuilt, this time with a metal band around it.

All this caused a delay of one week and Siddharth emphasises that local engineer Jagdish Singh played a huge role in correctly setting up and aligning the

antennas. "Incidentally, to that end we used the DVB-S SatCatcher meter presented in TELE-satellite a few issues back," Siddharth adds.

Siddharth and his engineer partner Jagdish are busy all the time keeping the satellite station up and running, so that a reliable flow of data can be guaranteed.