Micro satellite sends images to Singapore

SINGAPORE — The country’s first locally-built micro satellite has started transmitting images back home.

The Nanyang Technological University (NTU) embarked on the project with DSO National Laboratories in 2002, hoping to generate interest among the young in engineering R&D.

The X-SAT, as it is known, sent the first image of Singapore on May 7, more than two weeks after its launch at India’s Satish Dhawan Space Centre.

It is not Google Earth, but Singapore’s X-SAT’s imagery is no less impressive.

Director of NTU’s Satellite Research Centre, Associate Professor Low Kay Soon, said while Google Earth’s satellite imagery has a better resolution, it also tends to be older.

On May 7, the micro-satellite orbited within a 3,000-km radius of Singapore — an ideal range to send back its first image of Tuas.

This happens at an average of four times a day — twice in the morning and twice at night.

Depending on the path taken by the satellite, the team has from a few minutes to 12 minutes to maintain contact, send commands and check on X-SAT’s operations before it goes out of communication range.

That morning, the satellite passed by the western part of Singapore.

“We all came back to the ground station in NTU and successfully captured the images,” said Assoc Prof Low.

Four days later, the ground centre received the first complete image of Singapore.

Scientists can use the satellite’s photographs to track environmental changes, such as soil erosion and oil pollution.

Assoc Prof Low said the successful transmission of images was a great achievement for Singapore.

“Space science is the pinnacle of Science and Technology. We hope to train more undergraduates to work in the field of satellites.”

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