

S'pore satellite takes 8,000 photos on mission

By FENG ZENGKUN

SINGAPORE'S first locally built satellite completed its three-year mission yesterday with a photo album of some 8,000 pictures.

Since its launch on April 20, 2011, the X-SAT has travelled 700 million km while orbiting Earth more than 15,000 times.

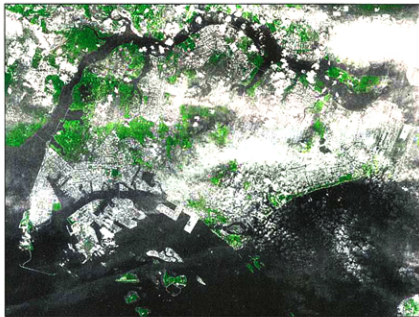
It has survived hazardous radiation, solar storms and more than 30 near-collisions with debris.

But its grand tour is far from over.

The satellite, developed by Nanyang Technological University (NTU) and DSO National Laboratories, will continue to photograph the globe for its environmental monitoring mission for as long as it can.

NTU researchers will also attempt riskier experiments such as updating the satellite's software remotely, which could cause them to lose control of it temporarily.

If this occurs, safety pro-



A photo of haze over Singapore taken by X-SAT. The satellite will continue to photograph the globe. PHOTO: NANYANG TECHNOLOGICAL UNIVERSITY

grammes are installed to reboot the 105kg micro-satellite, the size a mini-fridge.

Its panoramic photos include snapshots of the haze over Singapore earlier this year and the volcanic eruption of In-

donesia's Mount Sinabung in February.

Researchers have used them to construct 3D images to track urban changes and landslides.

The German Aerospace Centre also used the satellite in a

joint project with NTU to test a global positioning system for more precise navigation.

NTU Satellite Research Centre director Low Kay Soon said X-SAT shows that Singaporeans are on a par with the rest of the world when it comes to building satellites.

The school's provost, Professor Freddy Boey, said NTU will launch four more in the next two years. It launched its second satellite, a small one about the size of an iPad, last November.

Said Prof Boey: "We will also continue to groom young talent under our undergraduate satellite research programme.

"This will help to produce a sizeable pool of trained and experienced engineers ready to contribute to Singapore's growing aerospace and space industries."

Last year, Singapore set up the Office for Space Technology and Industry to develop the space-satellite industry here.

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