



China Launches Arctic Satellite

OE Watch Commentary: According to the accompanying passage from *Xinhuanet*, China has her first polar satellite. The article reports that the BNU-1 has successfully obtained data on polar regions and is conducting full-coverage observation of the Antarctic and the Arctic every day. Developed by the Beijing Normal University and Shenzhen Aerospace Dongfanghong Development Ltd., the satellite will promote research of polar regions and support China's upcoming 36th Antarctic expedition by enhancing its navigation capability in the polar ice zone.

The Soviet Union/Russia launched a series of *Molniya* military communications satellites over the polar regions from 1965 to 2004. They used a high elliptical orbit to attain a long dwell time over the high latitude areas. These orbits are suited for Arctic and Antarctic communications similar to the geostationary satellites used over the equator. Russia now uses the updated *Meridian* satellite series over the polar regions. (Also see: "China Developing More High Latitude Equipment," in this issue of *OE Watch*) **End OE Watch Commentary (Grau)**

“China’s first polar observation satellite, the BNU-1, has successfully obtained data on polar regions, according to the satellite’s chief scientist.”

Source: “China’s first polar observation satellite supports polar research,” *Xinhua*, 9 October 2019. http://www.xinhuanet.com/english/2019-10/09/c_138458767.htm

China’s first polar observation satellite supports polar research

China’s first polar observation satellite, the BNU-1, has successfully obtained data on polar regions, according to the satellite’s chief scientist Wednesday.

After nearly one month of in-orbit testing, the satellite is working normally and conducting full-coverage observation of the Antarctic and the Arctic every day, Cheng Xiao, the chief scientist, said at the China Symposium on Polar Science 2019. Cheng said the satellite data connection system allows scientists around the world to obtain polar observation data acquire by the satellite. Registered users can also propose new observation requirements.

The satellite continuously monitored a gigantic iceberg breaking away from the Amery Ice Shelf in east Antarctica in September, helping limit its impact on submerged buoys and investigation ships in the surrounding area. Cheng said the satellite will help reduce China’s reliance on foreign satellites for polar observation data. “The satellite’s spatial resolution reaches 75 meters, which offers more detailed information on the ice cover and the sea ice...”

The satellite will also support China’s upcoming 36th Antarctic expedition by enhancing its navigation capability in the polar ice zone. Developed by the Beijing Normal University and Shenzhen Aerospace Dongfanghong Development Ltd., the satellite weighs 16 kg and is equipped with two cameras and one receiver. It has great significance in promoting the research of Polar Regions and global climate change.

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