

The FORMOSAT-2 in Supporting Polar Research

Chen, Bo1 & Chang, Li Hsueh 2

¹ Engineer, National Space Organization, National Applied Research Laboratories, 8F, 9 Prosperity 1st Rd. Hsinchu Science Park, Hsinchu, bochen@nspo.narl.org.tw

² Associate Researcher, National Space Organization, National Applied Research Laboratories, 8F, 9 Prosperity 1st Rd. Hsinchu Science Park, Hsinchu, LHChang@nspo.narl.org.tw

Abstract

FORMOSAT-2 is a high-resolution remote sensing satellite owned and operated by National Space Organization, National Applied Research Laboratories of Taiwan. The large viewing angle and relatively high altitude make FORMOSAT-2 able to take polar region image. In the past, to support the International Polar Year, NSPO established a polar archive consists of 4547 FORMOSAT-2 image segments taken from 2006 to 2008. The Wilkins Ice Shelf broken-off in March 2008, later developed into good scientific result, is probably the most noticeable event monitored by FORMOSAT-2.

Latest study shows that FORMOSAT-2 data can be used to calibrate MODIS data in Sea Ice research. This result makes the FORMOSAT-2 Polar data set even more valuable than ever. To further promote the usage of FORMOSAT-2 Polar data set, NSPO decided to make the following two technical approaches:

- 1) Develop a dedicated OGC (Open Geospatial Consortium) standard compliant system to allow researcher to access the Polar data set more easily and to interoperate with other related data systems more conveniently.
- 2) Develop a web scheduler based on OGC Sensor Planning Service earth observation extension (SPS EO-extension) standard to schedule the FORMOSAT-2 to closely monitor the hot spot in a more direct way.

With the above two add-ons features, hopefully FORMOSAT-2 can become a handy tool and make more contribution to future polar research.