

First images from Earth Cloud Aerosol and Radiation Explorer (EarthCARE) and the Japanese activities for the EarthCARE mission

Takuji Kubota^a, Shunsuke Aoki^{a*}, Masataka Muto^a, and Toshiyuki Tanaka^a

^aJAXA Earth Observation Research Center, 2-1-1 Sengen, Tsukuba, Ibaraki 305-8505 Japan

*Presenting author (aoki.shunsuke@jaxa.jp)

Earth Clouds, Aerosols and Radiation Explorer (EarthCARE) satellite was launched at 7:20 a.m. (JST) on 29 May 2024. EarthCARE is equipped with four sensors with different observation methods: radar, lidar, imager, and radiometer [1, 2]. The Cloud Profiling Radar (CPR), developed by the Japan Aerospace Exploration Agency (JAXA) and the National Institute of Information and Communications Technology (NICT), conducted its first observations on 12 and 13 June 2024. The CPR observed the cloud area in a stationary front, called the Baiu front, over the ocean at east of Japan, measured the internal structure of cloud, and succeeded in the world's first measurement of vertical cloud motion from space.

EarthCARE is equipped with four sensors with different observation methods: radar, lidar, imager, and radiometer. EarthCARE was jointly developed by the European Space Agency (ESA) and Japan, with ESA responsible for the development and operation of three of its sensors. ESA released the first images from the Broadband Radiometer (BBR) on 5 July, the first images from the Multispectral Imager (MSI) on 24 July, and the first images from the Atmospheric Lidar (ATLID) on 21 August.

The EarthCARE products have been developed and will be distributed from both JAXA and ESA [3]. This presentation will introduce first images from the EarthCARE, and the Japanese activities for the EarthCARE mission.

References

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