A Big Earth Data Platform for Three Poles

**East Asia-Pacific cloud macro- and microphysical properties data set (2016)**

1、Description

Clouds cover 70% of the earth's surface and are one of the important factors affecting the balance of atmospheric radiation and climate change. They are also an important part of the global water cycle. Considering the lack of reliable cloud parameter data with high temporal and spatial resolutions in the East Asia-Pacific (EAP) region, the 2016 data were developed using the next-generation geostationary satellite Himawari-8 with a temporal resolution of 1h and spatial resolutions of 0.1° and 0.25°. , 1° cloud parameters datasets. The cloud products include macro- and micro parameters. The macro parameters include: cloud cover (CF), cloud detection (CM), cloud phase detection (CP), cloud top pressure (CTP), cloud top height (CTH) ), cloud top temperature (CTT), cloud type (CT), supercooled water detection (SWC); micro parameters include cloud optical depth (COT), cloud particle effective radius (CER). These cloud parameters produced have reached the international advanced level in terms of precision.

2、Keywords

Theme：Clouds,Radiation,Atmosphere Remote Sensing
Discipline：Atmosphere
Places：East Asia
Time：2016

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：35300.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：60.0 | - |
| west：80.0 | - | east：180.0 |
| - | south：-60.0 | - |

5、Time frame:2015-12-31 16:00:00+00:00--2016-12-31 03:59:59+00:00

6、Reference method

References to data:

HUSI Letu. East Asia-Pacific cloud macro- and microphysical properties data set (2016). A Big Earth Data Platform for Three Poles, doi:10.11888/Atmos.tpdc.2728222022

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program
National Key R&D Program of China

8、Data resource provider

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