A Big Earth Data Platform for Three Poles

**Aerosol type postprocessing remote sensing product (2006-2020)**

1、Description

Aerosol Optical Depth (AOD) reflects the attenuation of solar radiation to the surface by aerosols. The aerosol type is calculated according to the aerosol optical thickness (AOD). This data set is derived from the latest MODIS aerosol secondary product MOD04\_ L2 and MYD04\_ L2, where MOD and MYD represent Terra and Aqua satellites respectively. At present, MODIS aerosol retrieval algorithms are Dark Target (DT) and Deep Blue (DB). According to the inversion accuracy of the metadata field table Quality Assurance Confidence (QAC), DT and DB algorithm products are integrated to deal with land, ocean and coast respectively. The index quality is optimal (QAF=3) or suboptimal (QAF=2) or meets the basic needs (QAF=1) to obtain high-resolution AOD products (0.1 degree, daily scale) with full coverage and long time series. According to AOD experience threshold (AOD: 0~0.2, clean type; 0.2~0.6, urban or industrial type; greater than 0.6, sand dust type) The aerosol types are classified into three types: clean type (1), urban or industrial type (2) and sand dust type (3). This dataset provides MOD, MYD and fusion products based on transit time.

2、Keywords

Theme：Aerosol,Atmosphere Remote Sensing
Discipline：Atmosphere
Places：Global
Time：2006-2020

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：533.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：90.0 | - |
| west：-180.0 | - | east：180.0 |
| - | south：90.0 | - |

5、Time frame:2006-06-30 16:00:00+00:00--2020-08-30 16:00:00+00:00

6、Reference method

References to data:

YE Aizhong. Aerosol type postprocessing remote sensing product (2006-2020). A Big Earth Data Platform for Three Poles, doi:10.11888/Atmos.tpdc.2727552022

References to articles:

7、Supporting project information

CASEarth:Big Earth Data for Three Poles（grant No. XDA19070000）

8、Data resource provider

name: YE Aizhong
unit: Beijing Normal University
email: azye@bnu.edu.cn