A Big Earth Data Platform for Three Poles

**Aerosol assimilation data set in Pan third polar region (2015-2017)**

1、Description

1) The optical depth, vertical mass concentration and extinction coefficient of dust, sulfate, organic carbon, black carbon and sea salt aerosols and total aerosols were measured;  
2) Data source: numerical simulation, processing method: Based on CALIPSO satellite vertical observation and global aerosol model, it is generated by four-dimensional local ensemble transformation Kalman filter assimilation method;  
3) The data quality is good;  
4) It can also be used to study the spatiotemporal distribution of aerosols and their spatial and temporal characteristics of precipitation and their assimilation.

2、Keywords

Theme：Aerosol mass concentration,Aerosol extinction,Aerosol,Aerosol optical depth/Thickness  
Discipline：Atmosphere  
Places：pan third pole  
Time：2015-2017

3、Data details

1.Scale：None

2.Projection：

3.Filesize：60000.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：50.0 | - |
| west：0.0 | - | east：130.0 |
| - | south：0.0 | - |

5、Time frame:2014-12-31 16:00:00+00:00--2017-12-30 16:00:00+00:00

6、Reference method

References to data:

CHENG Yueming, DAI Tie. Aerosol assimilation data set in Pan third polar region (2015-2017). A Big Earth Data Platform for Three Poles, doi:10.11888/Meteoro.tpdc.2711132020

References to articles:

Cheng, Y., Dai, T., Goto, D., Schutgens, N. A. J., Shi, G. and Nakajima, T. (2019). Investigating the assimilation of CALIPSO global aerosol vertical observations using a four-dimensional ensemble Kalman filter, Atmos. Chem. Phys., 19(21), 13445–13467, doi:10.5194/acp-19-13445-2019

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program

8、Data resource provider

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