A Big Earth Data Platform for Three Poles

**Background field error covariance data for data assimilation in the Great Lakes region of Central Asia (1979-2017)**

1、Description

When using the 3DVAR for data assimilation, it is necessary to use error covariance to determine the contribution of background field and observation. Among them, the background field error covariance depends not only on the atmospheric prediction model (such as resolution, parameterization scheme, etc.), but also on the simulation area. Based on the Weather Forecast and Research (WRF) model, this data is estimated by NMC method through the simulation of the Central Asian Great Lakes region (27 km horizontal resolution) in 2017. The variables include stream function, velocity potential function, temperature, relative humidity and surface pressure. This data can be applied to the study and application of data assimilation in the Central Asia Great Lakes region based on WRF model.

2、Keywords

Theme：Potential temperature,Temperature,Winds,Surface pressure,Pressure,Streamfunctions  
Discipline：Atmosphere  
Places：Central Asia  
Time：1979-2017, static data

3、Data details

1.Scale：None

2.Projection：Lambert\_Conformal\_Conic

3.Filesize：3.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：58.0 | - |
| west：37.0 | - | east：102.0 |
| - | south：22.0 | - |

5、Time frame:1978-12-31 16:00:00+00:00--2017-12-30 16:00:00+00:00

6、Reference method

References to data:

YAO Yao. Background field error covariance data for data assimilation in the Great Lakes region of Central Asia (1979-2017). A Big Earth Data Platform for Three Poles, doi:10.11888/Meteoro.tpdc.2710102020

References to articles:

7、Supporting project information

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

8、Data resource provider

name: YAO Yao  
unit:   
email: yyao@nuist.edu.cn