A Big Earth Data Platform for Three Poles

**Monthly mean evaporate of the Heihe River Basin (2000-2009)**

1、Description

The routine meteorological observation data set of four times a day provided by the data management center of Heihe plan is adopted, including 13 stations. The daily evaporation was statistically sorted out, and the monthly evaporation data of 2000-2009 years was calculated. The spatial stability analysis is carried out to calculate the coefficient of variation. If the coefficient of variation is greater than 100%, the geographical weighted regression is used to calculate the relationship between the station and the geographical terrain factors, and the monthly evaporation distribution trend is obtained; if the coefficient of variation is less than or equal to 100%, the common least square regression is used to calculate the relationship between the station evaporation value and the geographical terrain factors (latitude, longitude, elevation, slope, aspect, etc.) After the trend is removed, the residuals are fitted and corrected by HASM (high accuracy surface modeling method). Finally, the monthly average evaporation distribution of the Heihe River Basin in 1961-2010 is obtained by adding the trend surface results and the residual correction results. Time resolution: monthly average evaporation in 2000-2009. Spatial resolution: 500M.

2、Keywords

Theme：Evaporation,Atmospheric Water Vapor
Discipline：Atmosphere
Places：Heihe River Basin
Time：2000-2009

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：12.0MB

4.Data format：img

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：42.0 | - |
| west：98.0 | - | east：101.5 |
| - | south：38.0 | - |

5、Time frame:2000-01-08 11:00:00+00:00--2010-01-07 11:00:00+00:00

6、Reference method

References to data:

ZHAO Na, YUE Tianxiang. Monthly mean evaporate of the Heihe River Basin (2000-2009). A Big Earth Data Platform for Three Poles, doi:10.11888/Meteoro.tpdc.2705632016

References to articles:

TianXiang Yue. 2011. Surface Modelling: High Accuracy and High Speed Methods. New York: CRC Press (Taylor & Francis group)

7、Supporting project information

8、Data resource provider

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