A Big Earth Data Platform for Three Poles

**Meteorological data on East Rongbuk glacier (May-July)**

1、Description

The data in the form of .xlsx store the meteorological varialbes observed on the East Rongbuk glacier from May to July. Two sheets, named "Surface\_energy\_budget" and "Cycle", respectivley, are included. In the sheet of "surface\_energy\_budget", the meteorological variables are as follows: Four-component radiations (incident solar radiation, reflected shortwave radiation, incoming longwave radiation, outgoing longwave radiation)、wind speed and direction, air temperature and relative humidity, cloud index, south Asian summer monsoon and albedo. In addition, net shortwave radiation, net longwave radiation, net radiation, sensible heat, latent heat and subsurface heat are also included. Energy fluxes are in unit of W m-2. The sheet of "Cycle" stores the diurnal cycle of the meteorological variables mentioned above. In the first line, the prefixes of "1"、"2" and “3” indicate three observational periods, i.e., "1" represents days from 1 - 28 May, "2" represents the period between 29 May 16 June and "3" indicates time episode from 17 June to 22 July.

2、Keywords

Theme：Surface energy balance,Glacier(Ice Sheet)  
Discipline：Cryosphere  
Places：East Rongbuk glacier  
Time：2005

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.046MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：28.02 | - |
| west：86.95 | - | east：86.95 |
| - | south：28.02 | - |

5、Time frame:2005-04-30 16:00:00+00:00--2005-07-21 16:00:00+00:00

6、Reference method

References to data:

LIU Weigang. Meteorological data on East Rongbuk glacier (May-July). A Big Earth Data Platform for Three Poles, doi:10.11888/Glacio.tpdc.2712152021

References to articles:

Liu, W., Zhang, D., Qin, X., van den Broeke, M. R., Jiang, Y., Yang, D., & Ding, M. (2021). Monsoon clouds control the summer surface energy balance on East Rongbuk glacier (6,523 m above sea level), the northern of Mt. Qomolangma (Everest). Journal of Geophysical Research: Atmospheres, 126, e2020JD033998. https://doi.org/10.1029/2020JD033998

7、Supporting project information

8、Data resource provider

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