

# 全球气象数据集

liupeng23 气象水文科研猫 4月8日

## 中国气象数据共享网：

```
1 http://data.cma.cn
```

## 美国国家海洋和大气管理局：

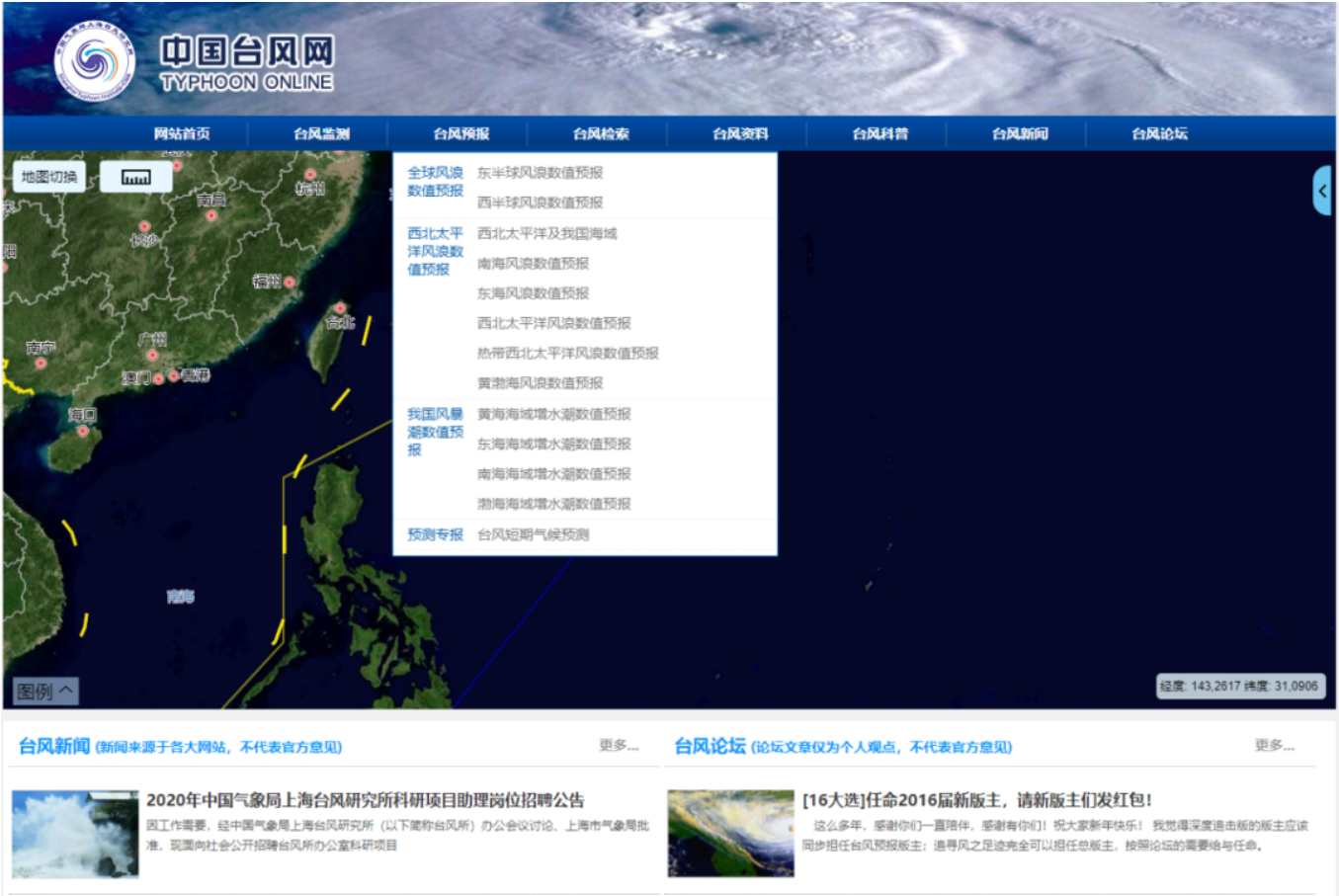
```
1 https://www.noaa.gov
```

## 美国国家航空航天局：

```
1 https://www.nasa.gov
```

## 中国台风网：

```
1 https://www.typhoon.org.cn
```



## MODIS：

1 [http://files.ntsg.umd.edu/data/NTSG\\_Products/M0D16/](http://files.ntsg.umd.edu/data/NTSG_Products/M0D16/)

## GPM 卫星降雨：

1 [https://gpm1.gesdisc.eosdis.nasa.gov/data/GPM\\_L3/](https://gpm1.gesdisc.eosdis.nasa.gov/data/GPM_L3/)

## 地理空间数据云：

1 <http://www.gscloud.cn>

## Map 地图：

- 1 <https://gadm.org/data.html>
- 2 <http://datav.aliyun.com/tools/atlas/#&lat=33.54139466898275&lng=104.282>
- 3 <https://data.jianshukeji.com>
- 4 <http://www.resdc.cn/data.aspx?DATAID=226>

## CMADS数据集：

1 <http://www.cmads.org>

## 国家气候中心：

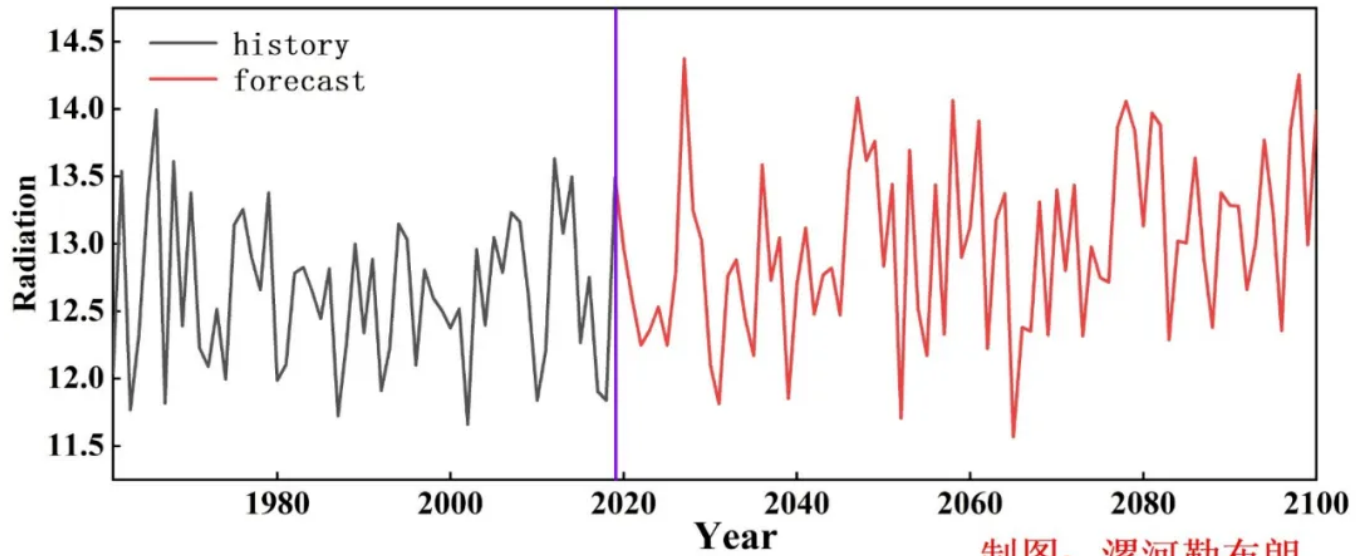
1 <https://cmdp.ncc-cma.net/cn/index.htm>

## CMIP5/6:

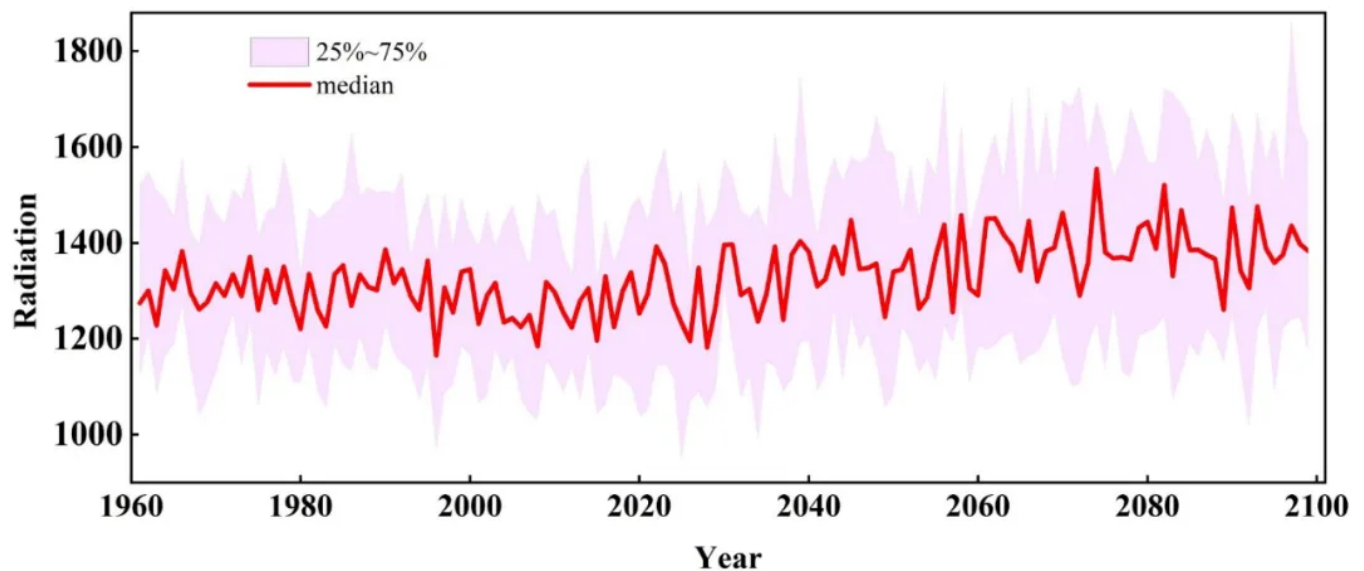
1 <https://esgf-node.llnl.gov/search/cmip5/>

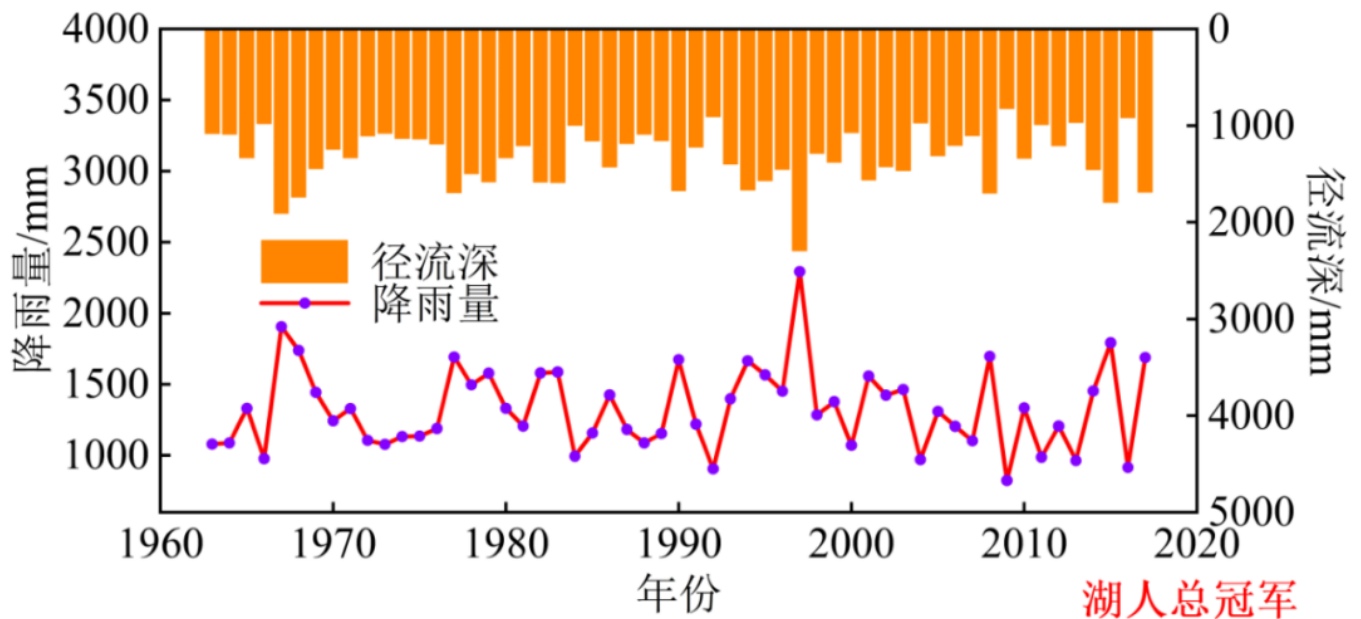
2 <https://esgf-node.llnl.gov/search/cmip6/>

注：【CMIP6 SSP人口密度数据】降尺度



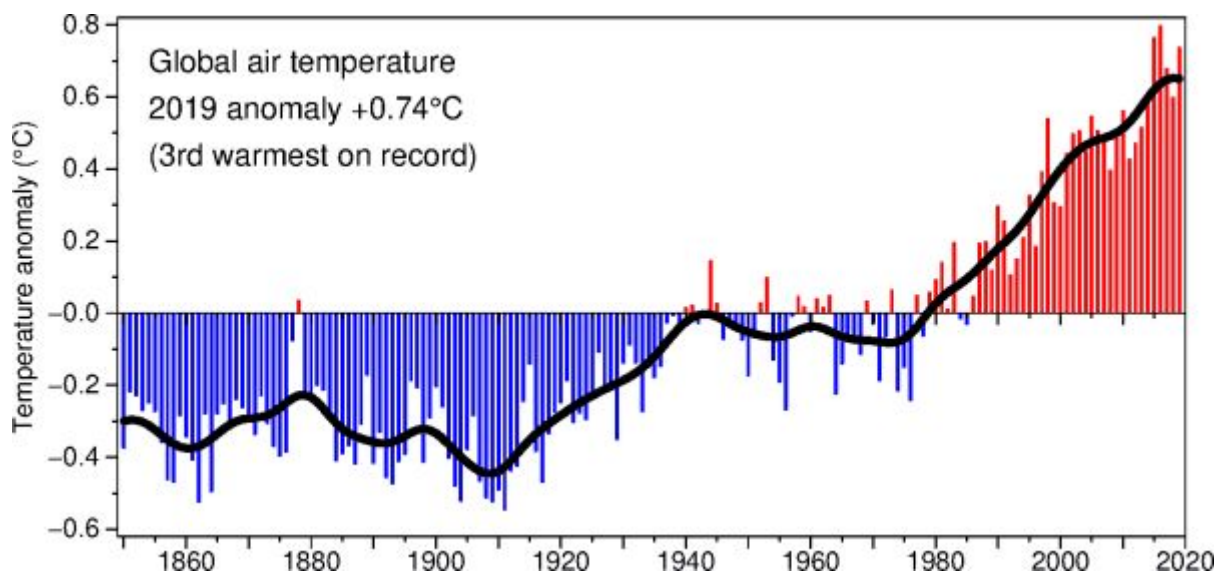
制图：漯河勒布朗  
湖人总冠军





## CRU:

1 <http://www.cru.uea.ac.uk>



## 卫星、遥感以及再分析数据:

注: 太乱了

1. GPCC全球降水气候中心
2. <https://www.esrl.noaa.gov/psd/data/gridded/data.gpcc.html>
3. 全球逐月气温、降水量和潜在蒸散量的格点数据集 (CRU)
4. [https://crudata.uea.ac.uk/cru/data/hrg/cru\\_ts\\_4.02/cruts.1811131722.v4](https://crudata.uea.ac.uk/cru/data/hrg/cru_ts_4.02/cruts.1811131722.v4)
5. 西班牙比利牛斯生态研究所SPEI
6. <http://spei.csic.es/database.html>
7. <http://spei.csic.es>
8. 美国环境预报中心和国家大气研究中心 (NCEP) 的逐月再分析数据集, 包括位势高度、纬向风
9. <https://www.ncep.noaa.gov>

- 10 <https://www.esrl.noaa.gov/psd/data/gridded/data.ncep.reanalysis.html>
- 11 5.NOAA气候指数月平均资料, 包括北大西洋涛动指数 (NAO)、北极涛动指数 (AO)、太平洋北
- 12 <https://www.ncep.noaa.gov>
- 13 <http://ljp.gcess.cn/dct/page/1>
- 14 6.数字高程模型 (DEM) 数据从中国科学院地理空间数据云下载
- 15 <http://www.gscloud.cn>
- 16 7.欧洲气象中心资料(ERA-interim)
- 17 <https://apps.ecmwf.int/datasets/>
- 18 <https://www.ecmwf.int>
- 19 8.中国气象数据共享网
- 20 <http://data.cma.cn>
- 21 9.日本气象厅
- 22 <http://www.jma.go.jp/jma/index.html>
- 23 10.卫星、遥感数据 (GPM TRMM)
- 24 <https://trmm.gsfc.nasa.gov>
- 25 <https://pmm.nasa.gov/data-access/downloads/gpm>
- 26 11.NASA
- 27 <https://ladsweb.modaps.eosdis.nasa.gov/>
- 28 12.MODIS 陆地表面数据
- 29 <https://modis.gsfc.nasa.gov>
- 30 13. 全球气候系统模式 (GCM)
- 31 气候模式 (GCMs--*general circulation models*)
- 32 温室气体的排放场景
- 33 [http://www.ipcc-data.org/sim/gcm\\_monthly/](http://www.ipcc-data.org/sim/gcm_monthly/)
- 34 14.GLDAS
- 35 <https://ldas.gsfc.nasa.gov/gldas/>
- 36 15. CMIP5 CMIP6
- 37 <https://esgf-node.llnl.gov/search/cmip6/>
- 38 <https://pcmdi.llnl.gov/?cmip5/>
- 39 [https://cmip.llnl.gov/cmip5/data\\_portal.html](https://cmip.llnl.gov/cmip5/data_portal.html)
- 40 英国哈德利气候研究中心 <https://www.metoffice.gov.uk/climate-guide/science/>
- 41 加拿大 <http://www.canadiansocialresearch.net/women.htm>
- 42 16.黑河数据下载中心
- 43 <http://www.heihedata.org>
- 44 17.上海台风气象中心 (中国气象局上海台风研究所)
- 45 [http://tcdata.typhoon.org.cn/zjljsjj\\_zlhq.html](http://tcdata.typhoon.org.cn/zjljsjj_zlhq.html)
- 46 18.WRF
- 47 <http://www2.mmm.ucar.edu/wrf/users/>
- 48 19. IPCC
- 49 <https://www.ipcc.ch>

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51 [转载]网址:

52 Online Global Satellite Image and Atlas

53 <http://library.gmu.edu/resources/sci/Geog579.htm>

54 可以下载Aster,QuickBird,IKonos,OrbView,LandSat, SRTM,MODIS数据的网站:

55 <http://glcf.umiacs.umd.edu/data/>56 <http://ladsweb.nascom.nasa.gov/data/> NASA数据站...推荐

57 National Geophysical Data Center GSHHS – A Global Self-consistent, Hi

58 National Geophysical Data Center Coastline Extractor

59 U.S. Geological Survey GTOPO30 is a global digital elevation model (DI

60 HYDR01k Elevation Derivative Database | Australasia

61 National Geophysical Data Center GLOBE Project

62 Scripps Institution of Oceanography Global Topography | FTP site

63 <http://www.modis.net.cn/> \*国家MODIS数据共享平台,64 <http://www.noaa.gov/> \* 美国国家海洋和大气局,65 <http://www.gispart.com/> \*GIS公园-很多GIS知识和信息,66 <http://glcfapp.umiacs.umd.edu> \*可以下很多的免费数据,67 <http://www.vgt.vito.be/> \*用法国SPOT卫星生产的植被数据分辨率1Km,68 <http://nfgis.nsd.gov.cn/> \*国家基础地理信息系统网站,69 <http://satelliteNaNa.gov.cn/> \*中国卫星遥感数据服务网-可订购多种遥感数据,70 <http://www.naturalresources.csdb.cn/> \*中国自然资源数据库,71 <http://www.gisforum.net/> \*地理信息系统论坛-学习交流好去处,72 <http://www.spatial ecology.com/> \*提供很多有用的GIS扩展模块和工具,73 <http://cdcNaNa.gov.cn/> \*中国气象科学数据共享服务网,

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75 卫星资料:

76 <http://www.nsoas.gov.cn/>国家卫星海洋应用中心

77 Aviation model 的avn data:

78 <http://weather.unisys.com/aviation/index.html>

79 Topex/Poseidon卫星资料:

80 <http://sealevel.jpl.nasa.gov/mission/topex.html>81 <http://www-ccar.colorado.edu/research/topex/html/topex.html>免费的遥感卫82 <http://poet.jpl.nasa.gov/>

83

84 ENSO指数/El Nino3/SOI

85 <http://www.lasg.ac.cn/cgi-bin/forum/topic.cgi?forum=2&topic=3718>86 <http://www.cdc.noaa.gov/ClimateIndices/List/>87 [http://tao.atmos.washington.edu/pacs/additional\\_analyses/soi.html](http://tao.atmos.washington.edu/pacs/additional_analyses/soi.html)

88

89 NDVI资料

90 <http://cybele.bu.edu/modismisr/products/avhrr/avhrrlaifpar.html>地面探空

91 <http://www.lasg.ac.cn/cgi-bin/forum/topic.cgi?forum=13&topic=357>

92 [http://www.cdc.noaa.gov/cdc/data.ncep.reanalysis.derived.html#surface\\_](http://www.cdc.noaa.gov/cdc/data.ncep.reanalysis.derived.html#surface_)

93 <http://www.lasg.ac.cn/cgi-bin/forum/topic.cgi?forum=2&topic=3689>

94

95 全国台站号的资料

96 <http://www.lasg.ac.cn/cgi-bin/forum/topic.cgi?forum=13&topic=1085>

97

98 一些预报网址：

99 <http://www.opc.ncep.noaa.gov/shtml/pacsch.shtml>

100 <http://www.soa.gov.cn/yubao/>

101 <http://www.wunderground.com/MAR/wpacm.html>

102 <http://polar.ncep.noaa.gov/cofs/>

103

104 国内外地形/地图资料：全球地形资料：<http://www.ngdc.noaa.gov/ngdcinfo/newdown>

105 <http://www.cdc.noaa.gov/Datasets/ferret/data/etopo60.cdf>

106 <http://www.lasg.ac.cn/cgi-bin/forum/topic.cgi?forum=13&topic=615>中国近海

107 <http://www.whigg.ac.cn/bbs/dispbbs.asp?boardID=2&ID=51&page=1>

108 ETOP05：全球5分×5分的地形资料。就怕是对中国近海水深等值线而言分辨率不高

109 <http://www.lasg.ac.cn/cgi-bin/forum/topic.cgi?forum=2&topic=2550>

110 [www.odci.gov/cia/publications/factbook/](http://www.odci.gov/cia/publications/factbook/)

111 [edina.ed.ac.uk/digimap/](http://edina.ed.ac.uk/digimap/)

112 [edina.ed.ac.uk/ukborders](http://edina.ed.ac.uk/ukborders)

113 [data.geocomm.com/catalog/index.html](http://data.geocomm.com/catalog/index.html)

114 [www.maproom.psu.edu/dcw/](http://www.maproom.psu.edu/dcw/)

115 [www.english-nature.org.uk/pubs/gis/GIS\\_register.asp](http://www.english-nature.org.uk/pubs/gis/GIS_register.asp)

116 [glcf.umiacs.umd.edu/index.shtml](http://glcf.umiacs.umd.edu/index.shtml)

117 [www.landmap.ac.uk](http://www.landmap.ac.uk)

118 <http://www.whigg.ac.cn/bbs/dispbbs.asp?boardID=2&ID=51&page=1>

119

120 地面气象电码手册

121 <http://218.22.141.109/ywk/dzgf/Dmsc001.htm>

122 <http://www.wmo.int/web/www/DPS/NewCodesTables/WM0306vol-I-1PartA.pdf>

123 遥感数据存<http://www.geog.nott.ac.uk/hypertext/home.htm>

124 英国丹迪大学TBUS/SST <http://sbgil.nesdis.noaa.gov:8080/EBb/ml/> NOAA

125 GMS <http://www.underground.org.hk> 香港

126 Meteosat <http://www.crs4.it/~luigi/METE0/meteo.html> 意大利CSP

127 ERS-1/SAR <http://tracy.esrin.esa.it:8001/www/> 欧空局

128 Radarsat <http://www.on.doe.ca/ice/picmonth/radarsat.html> 加拿大空间

129 JERS/ERS等 <http://www.restec.or.jp/restec-e.html> 日本遥感技术中心 浮式资料



- 130 Geosat <http://www.grdl.noaa.gov/SAT/gdrs/geosat.html> NODC
- 131 AVISO-T/P <http://www-aviso.cls.cnes.fr> 法国空间局 高度计资料 <http://www.g>
- 132
- 133 遥感应用及相关内容网址
- 134 合成孔径雷达图像模拟与应用 <http://sparclk.images.alaska.edu/SSUG.html>
- 135 加拿大海洋服务中心 <http://www.on.doc.ca/ica/home.ice.html>
- 136 卫星海洋监测 <http://www.nrsc.no:801/bilder/JRC/project.html>
- 137 国家环境预报中心 <http://polar.wwb.noaa.gov/seaice>
- 138 全球变暖模拟 <http://mri-jma.go.up/Proj/goin/G0IN.html> 全球变化文献<http://g>
- 139 NOAA卫星应用 <http://www.itc.nl/-bakker/noaa.html>
- 140 CEOS定标 <http://southport.jpl.nasa.gov/calceos/calceos.html> 最新的AVHRR
- 141 NASA常见问题 <http://www.nasa.hqpao/top10.html>空间飞行 <http://www.jpl.nas>
- 142 NSAS教学资源 <http://sapacelink.msfc.nass.gov/Spacelink.FAQ/FAQ-Spacelin>
- 143 GIS <http://www.census.gov/geo/gis/faq-index.html>
- 144 scigeo.eos <ftp://eos.nasa.gov/EosDis/sci.geo.eos> 地球科学资源网络 Gopher
- 145 Topex/Poseidon Gopher:<http://quest.arc.nasa.gov/11/interactive-project/topex>
- 146 SAR [http://www.asf.alsaska.edu/user\\_serv/sar\\_faq.html](http://www.asf.alsaska.edu/user_serv/sar_faq.html) 植被指数遥感 <ftp://>
- 147 NASA航天器系统部 [http://ranier.oact.hq.nasa.gov/CRS\\_page/SCHP.html](http://ranier.oact.hq.nasa.gov/CRS_page/SCHP.html) 俄罗斯
- 148 IEEE地球与遥感学报 <http://www.ieee.org/pub-preview/grs-toc.html> 欧洲遥感实

## 长历时格点降雨：

Data set	Resolution	Frequency	Coverage	Period	Source	Reference
CRU	0.5° × 0.5°	Monthly	Global land	1901–2015	The CRU of the University of East Anglia	(Harris et al., 2014; New et al., 2000)
GHCN-M	5° × 5°	Monthly	Global land	1900–present	National Climatic Data Center	(Peterson & Vose, 1997)
GPCC	0.5° × 0.5°, 1.0° × 1.0°, 2.5° × 2.5°	Monthly	Global land	1901–2013	GPCC	(Rudolf et al., 2009)
GPCC-daily	1.0° × 1.0°	Daily	Global land	1988–2013	GPCC	(Schamm et al., 2014)
PRECL	0.5° × 0.5°, 1.0° × 1.0°, 2.5° × 2.5°	Monthly	Global land	1948–2012.1(0.5°) 1948–present	NCEP/NOAA	(Chen et al., 2002)
UDEL	0.5° × 0.5°	Monthly	Global land	1900–2014	University of Delaware	(Willmott & Matsuura, 1995)
CPC-Global	0.5° × 0.5°	Daily	Global land	1979–2005	CPC	(Xie et al., 2010)



Data set	Resolution	Freq.	Coverage	Period	Source	Assimilation schemes	Reference
NCEP1	2.5° × 2.5°	Monthly/Daily/6 hourly	Global	1948–present	NCEP/NCAR	3D-Var (Spectral statistical interpolation)	(Kalnay et al., 1996)
NCEP2	1.875° × 1.875°	Monthly/6 hourly	Global	1979–present	NCEP/DOE	3D-Var	(Kanamitsu et al., 2002)
ERA 40	2.5° × 2.5°/ 1.125° × 1.125°	Monthly/6 hourly	Global	1957–2002	ECMWF	3D-Var	(Uppala et al., 2005)
ERA Interim	1.5° × 1.5°/ 0.75° × 0.75°	Monthly/6 hourly	Global	1979–present	ECMWF	4D-Var	(Dee et al., 2011)
20CRv2	2.0° × 2.0°	Monthly/daily/6 hourly	Global	1871–2012	NOAA	Ensemble Kalman Filter	(Compo et al., 2011)
JRA-55	60 km	Monthly/3 hourly /6 hourly	Global	1958–present	Japanese Meteorological Agency	4D-Var	(Ebita et al., 2011)
MERRA	0.5° × 0.67°	Daily	Global	1979–present	NASA	3D-Var	(Rienecker et al., 2011)
MERRA Land	0.5° × 0.67°	Monthly/Daily/1hourly	Global land	1980–present	NASA	3D-Var	(Reichle et al., 2011)
CFSR	38 km	6 hourly	Global	1979–2010	NOAA	3D-Var	(Saha et al., 2010)

全球降雨、气温、干旱指数等数据集

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1 http://climexp.knmi.nl/selectfield_obs2.cgi?id=someone@somewhere
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	1800-now: 2° ICOADS v2.5 SST, number of obs	<a href="#">i</a>
	1982-now: 1° NOAA ("Reynolds") OI v2 SST	<a href="#">i</a>
	1982-now: 1/4° NOAA OI v2 SST, anomalies	<a href="#">i</a>
	1980-now: TAO buoys SST, Air Temperature	<a href="#">i</a>
Air Temperature	1880-2010: HadNMAT2, anomalies, large-scale uncertainties, (1856-2002 HadMAT1)	<a href="#">i</a>
	1800-now: 2° ICOADS v2.5 Tair, number of obs	<a href="#">i</a>
Lower Troposphere	1979-now: Spencer & Christy MSU anomalies v6.0 (v5.6)	<a href="#">i</a>
	1978-now: RSS MSU 4.0 TLT, anomalies (3.3, anomalies)	<a href="#">i</a>
Precipitation	1901-2017: CRU TS 4.03 (land) 0.5°, 1.0°, 2.5°, #/value	<a href="#">i</a>
	0.25° 1950-now: E-OBS v20.0e precip (Europe)	<a href="#">i</a>
	1900-now anomalies: NCDC analysis (land)	<a href="#">i</a>
	1891-2016: GPCC V2018 analysis (land) 2.5°, 1.0°, 0.5°, 0.25°, only observations: 2.5°, 1.0°, 0.5°, 0.25°, number of gauges 2.5°, 1.0°, 0.5°, 0.25°	<a href="#">i</a>
	1986-now: 1° GPCC monitoring product + first guess (land); only observations, number of gauges	<a href="#">i</a>
	1900-now: home-merged 1° GPCC V2018 + monitoring product V6 + first guess (land); 1°, 2.5°, only observations: 1°, 2.5°	<a href="#">i</a>
	1979-now: GPCP v2.3 analysis, v2.2	<a href="#">i</a>
	1979-now: CPC Merged Analysis of Precipitation, with model	<a href="#">i</a>
	1998-now: CMORPH 0.25° precipitation	<a href="#">i</a>
	1983-now: CAMSOP1, percentage	<a href="#">i</a>
	1895-now: PRISM 4km, PRISM 0.25°, (Contiguous US only)	<a href="#">i</a>
	0.1° 1900-2014: CenTrends v1 (Greater Horn of Africa), 0.25° 1900-now: extended with CHIRPS	<a href="#">i</a>
	HadEX2 1901-2010 2.5° monthly: Rx1day, Rx5day, annual: Rx1day, Rx5day, R95p, R99p	<a href="#">i</a>
OLR	1979-now: UMD/NCEI OLR	<a href="#">i</a>
Sea-level Pressure	use reanalysis data	
	1899-now: Trenberth's NH	<a href="#">i</a>
	0.25° 1950-now: E-OBS v20.0e slp analysis (Europe)	<a href="#">i</a>
	1800-now: 2° ICOADS v2.5 SLP (sea), number of obs	<a href="#">i</a>
	5° 1850-2004: HadSLP 2.0, 1850-now: HadSLP 2r (interpolated)	<a href="#">i</a>
Surface Solar Radiation	2002-2012 FRESCO v6 0.5° surface solar insolation, 1°	<a href="#">i</a>
Cloud cover	1901-2017: CRU TS 4.03 (land) 0.5°, 1°, 2.5°, #/value	<a href="#">i</a>
	1800-now: 2° ICOADS v2.5 cloud cover (sea), number of obs	<a href="#">i</a>
	2002-2012 FRESCO v6 0.5° cloud fraction, 1°(1996-now: FRESCO+ 0.5° analysis SC-v5.2, 1°)	<a href="#">i</a>
Cloud pressure	2002-now: FRESCO v6 0.5°, 1°(1996-now: FRESCO+ 0.5° analysis SC-v5.2, 1°)	<a href="#">i</a>
Snow cover	1966-now Rutgers University Global Snow Lab	<a href="#">i</a>
Permafrost	1901-2001: annual northern hemisphere 1° NSIDC freeze and thaw depths (pseudo-monthly:freeze thaw)	<a href="#">i</a>
Sea ice concentration	1978-now: NSIDC Arctic, Antarctic (home-interpolated from v01, pre, nrt)	<a href="#">i</a>
	1981-2013: GSFC Arctic, Antarctic bootstrap analysis v3	<a href="#">i</a>
Sea ice cover	1870-now: HadISST1 1°	<a href="#">i</a>
	1981-now: Reynolds OI v2	<a href="#">i</a>
Ocean salinity:	1900-now UKMO EN4 analysis surface, 0-400m, 0-700m, 0-1000m, 0-2000m	<a href="#">i</a>
Sea surface height	Copernicus 1/4° 1993-2018 sea-level anomalies, dynamic topography, u geostrophic current, v geostrophic current	<a href="#">i</a>
	ESA CCI 1/4° 1993-2015	<a href="#">i</a>

<https://blog.csdn.net/kingjames19>