

## NMME Phase-II Data

### Models

The NMME Phase II models include the following:

- NOAA NCEP CFSv2
- NASA Goddard Space Flight Center (GSFC) GEOS5
- NCAR/University of Miami CCSM4.0
- NCAR CESM
- GFDL CM2.1, CM2.5 [FLORa06 and FLORb01]
- Environment Canada CanCM3 and CanCM4

The daily and monthly fields noted in the tables below cover the retrospective forecast period 1982-2010. Retrospective forecasts were initialized each month of each year. The lead-time and number of ensemble members varies with forecast provider.

### Model Data Availability

The NMME Phase II hindcasts data will be provided at the server:

<https://www.earthsystemgrid.org/search.html?Project=NMME>

NMME Phase-I data retrospective and NMME real-time forecast data continue to expand and are readily available at the IRI data server:

<http://iridl.ldeo.columbia.edu/SOURCES/.Models/.NMME/>

NMME Phase-II data will be available by 31 July 2014 as described below with the following exceptions:

1. GEOS5 data will include July and November start months on 31 July 2014. The remaining start months will come on line soon after 31 July 2014.
2. 6-hourly data from CFSv2 for additional fields with high frequency initialization during 1999-2012 will also be served.
3. The three GFDL models (CM2.1, FLORa06, FLORb01) will provide all the fields listed in the tables, but only monthly means – no daily data.

Note, some modeling centers will provide total precipitation and some will separately provide convective large-scale precipitation.

## Model Data Specifications

### Daily atmospheric and land surface fields (22)

Variable	Var. Name	CF Standard Name
Surface temperature (SST+land)	Ts	surface_temperature
2m T daily max	Tasmax	air_temperature
2m T daily min	Tasmin	air_temperature
Mean sea level pressure	Psl	air_pressure_at_sea_level
Water equivalent snow depth	snowhnd	Water equivalent snow depth
Total soil moisture	Mrsov	volume_fraction_of_water_in_soil
Total precipitation *	prlr	precipitation_rate
Downward surface solar	Rsds	surface_downwelling_shortwave_flux_in_air
Downward surface longwave	Rlds	surface_downwelling_longwave_flux_in_air
Net surface solar	Rss	surface_net_downward_shortwave_flux
Net surface longwave	Rls	surface_net_downward_longwave_flux
Top net solar	Rst	toa_net_downward_shortwave_flux
Top net longwave	Rlt	toa_net_downward_longwave_flux
Surface latent flux	Hflsd	surface_downward_latent_heat_flux
Surface sensible flux	Hfssd	surface_downward_sensible_heat_flux
Surface stress (x)	Stx	surface zonal stress positive to the west
Surface stress (y)	Sty	surface meridional stress positive to the south
2m temperature	Tas	air_temperature
Total cloud cover	Clt	cloud_area_fraction
10m wind (u)	Uas	eastward_wind
10m wind (v)	Vas	northward_wind
10m specific humidity	Qas	Specific humidity

### Daily atmospheric pressure level fields (5)

Provided at 850, 500, 200, 100, 50 hPa

Variable	Var. Name	CF Standard Name
Geopotential	G	geopotential
Temperature	Ta	air_temperature
Zonal velocity	ua	eastward_wind
Meridional velocity	va	northward_wind
Specific humidity	hus	specific_humidity

Monthly sea ice fields (2)

<b>Variable</b>	<b>Var. Name</b>	<b>CF Standard Name</b>
Sea ice concentration	sic	sea_ice_area_fraction
Sea ice thickness	sit	sea_ice_thickness

Monthly ocean fields (7)

3D ocean fields thetao/so/uo/vo/wo are provided at depths of 0.0, 10.0, 20.0, 30.0, 50.0, 75.0, 100.0, 125.0, 150.0, 200.0, 250.0, 300.0, and 400.0 m

<b>Variable</b>	<b>Var. Name</b>	<b>CF Standard Name</b>
Potential temperature	thetao	sea_water_potential_temperature
Salinity	so	sea_water_salinity
Zonal velocity	uo	sea_water_x_velocity
Meridional velocity	vo	sea_water_y_velocity
Vertical velocity	wo	upward_sea_water_velocity
Sea level	zoh	sea_surface_height_above_geoid
Mixed layer depth	zmlo	ocean_mixed_layer_thickness