



Forcing Generation Plan for NCEP Land Data Assimilation Version 3 (NLDAS3)

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NCEP Land Data Assimilation System (NLDAS-3)

Domain: North American Model (NAM) – land part only

Spatial resolution: lat/lon – 0.03125 degree

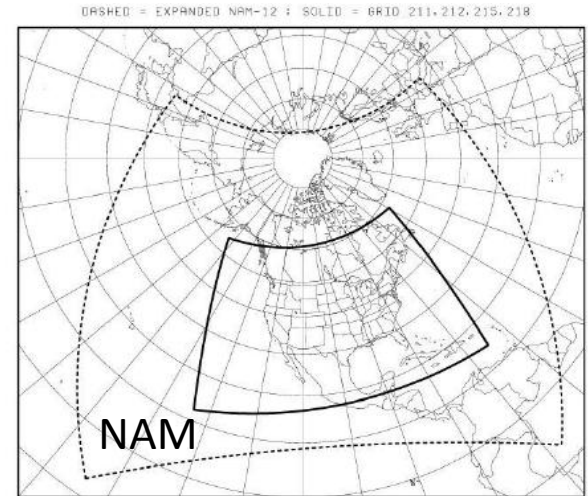
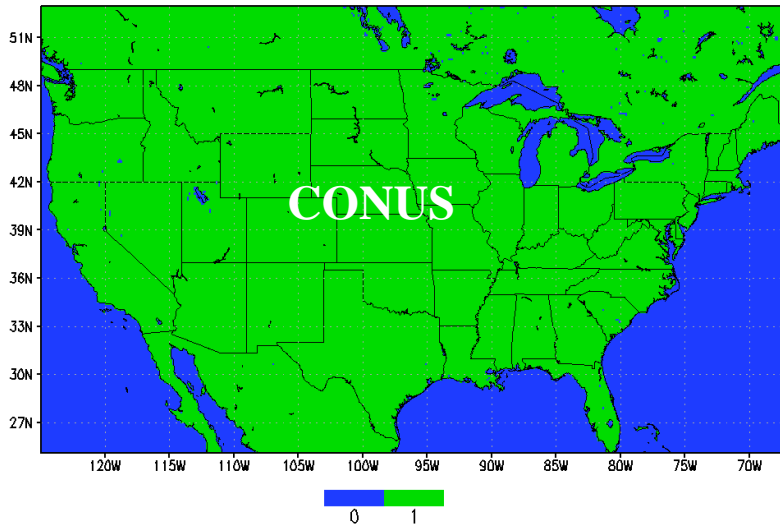
Temporal resolution: hourly

Time period: 1 January 1979 –current

Time lag: actual realtime

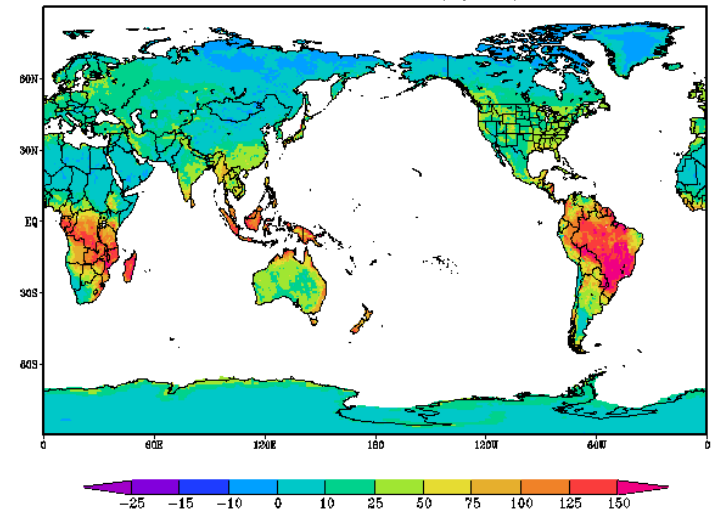
NLDAS-2 Domain

NLDAS unified UMD land/water mask

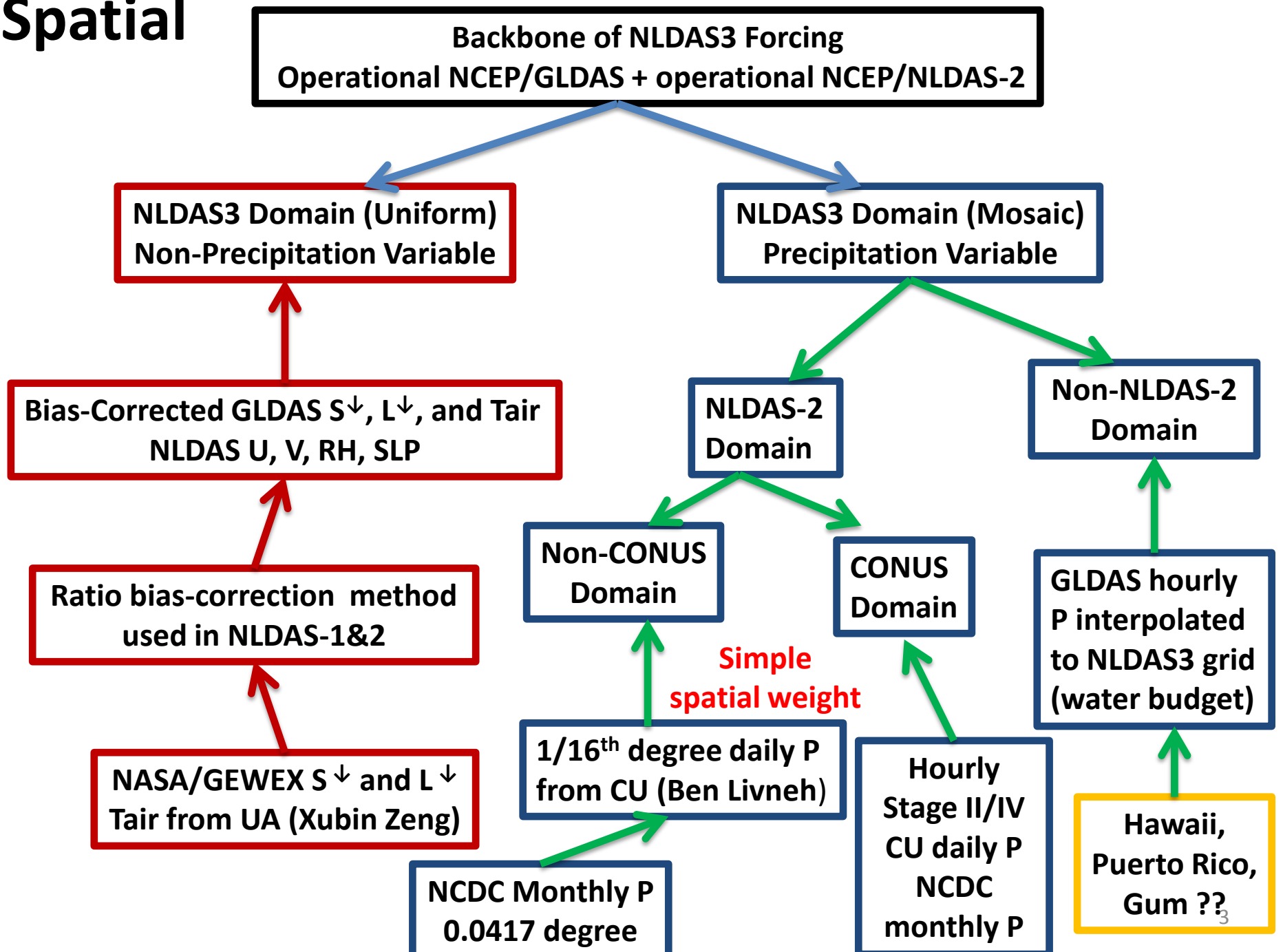


NCEP GLDAS domain - Global

Latent Heat Flux (W/m^2)



Spatial



Temporal

Retrospective (1979-1996)

Near-realtime (1996-2015)

Actual realtime (2015-)



Non-precipitation: Bias-correction or directly interpolation of GLDAS

CONUS

Precipitation

NLDAS domain

Spatially downscaled NLDAS

NCDC/daily 1/16th P

Satgell/IV hourly P

Stage II/IV hourly P

Non-CONUS

Precipitation

Spatially downscaled GLDAS

Daily 1/16th P

Daily 1/16th P

Climatological averaged 1/16th P

Non-NLDAS

domain

interpolation of GLDAS with water budget method

Spatial downscaling technique:

Simple spatial weight method

Bias-Correction Method:

**Ratio method for mean monthly diurnal cycle
used in NLDAS-2**

Technical Issues

- 1. Bias-correction: Interpolated 1.0 /0.5 degree data to GLDAS grid to make bias correction and then interpolate bias-corrected data to 1/32nd degree or all data are interpolated to 1/32nd degree and then make bias-correction ??**

Comments/suggestions?

Data Sources:

Hourly NLDAS-2 (0.125 degree), GLDAS (CFS Gaussian grid), Stage II/IV (HRAP grid) from NCEP

NCDC monthly P (0.0417 degree) (1979-2014)

NASA/GEWEX radiation data (3-hourly, 1.0 degree) (2004-2007)

Tair (UA) with 0.5 degree and hourly time step (1979-2009)

NLDAS-domain daily P with 1/16th degree (Ben Livneh, 1979-2013)