UCLA EXPERIMENT 1

Model: NCEP AGCM SSIB

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Data Description:

This data set consists of outputs from the spectral triangular T62 version of the NCEP AGCM coupled with the land surface processes model SSIB-1 for the period between 1 April to 31 October for the years 2000, 2003, 2004 and 2005. Only data from 1 May to 31 October are available here.
All files were written in the direct access "stream" binary format. (*)

File description:

1. monthly_3d_ucla1_<year>_<case>.gra
   Monthly mean 3D variables over the global domain
   Vertical level [hPa]: 1000 950 925 900 850 800 700 600 500 400 300 200 100
   Horizontal resolution: 2.5 degree x 2.5 degree

Variable name	Unit	Description
hus	kg/kg	specific humidity
ta	K	temperature
ua	m/s	zonal wind
va	m/s	meridional wind

2. monthly_2d_pgb_ucla1_<year>_<case>.gra
   Monthly mean 2D variables over the global domain
   Horizontal resolution: 2.5 degree x 2.5 degree

Variable name	Unit	Description
slp	K	sea level pressure
geop850	gpm	geopotential height at 850 hPa
geop500	gpm	geopotential height at 500 hPa

3. monthly_2d_flx_ucla1_<year>_<case>.gra
   Monthly mean 2D variables over the global domain
   Horizontal resolution: T62 (1.875 deg in zonal x about 1.8 deg in meridional)

Variable name	Unit	Description
conpre	mm/day	convective precipitation
pr	mm/day	total precipitation
rlds	W/m**2	surface downwelling LW radiation
rsdt	W/m**2	SW downwelling radiative flux at the TOA
evap	W/m**2	vegetation interception loss
etv	W/m**2	transpiration
hfgs	W/m**2	surface ground heat flux
hfls	W/m**2	surface latent heat flux

rlus	W/m**2	surface upwelling LW radiation
ipw	mm	total precipitable water
roff	mm/day	runoff
hfss	W/m**2	surface sensible heat flux
ssw	0-1	soil wetness at the first soil layer
srw	0-1	soil wetness at the rooting zone
tsw	mm	total soil water content
huss	kg/kg	surface specific humidity (2m)
rsds	W/m**2	surface downwelling SW radiation
rsus	W/m**2	surface upwelling SW radiation
tas	K	surface air temperature (2m)
ttlccv	%	total cloud cover fraction
uas	m/s	surface zonal wind speed (10m)
rlut	W/m**2	LW upwelling radiative flux at the TOA
rsut	W/m**2	SW upwelling radiative flux at the TOA
vas	m/s	surface meridional wind speed (10m)
esoil	W/m**2	soil evaporation

4. 6hrly_sahel_ucla1_<year>_<case>.gra
   6-hourly mean variables over the Sahel area
   Domain: 25W-35E, 15S-35N
   Horizontal resolution: 2.5 degree x 2.5 degree

Variable name	Unit	Description
u9256hr	m/s	zonal wind at 925 hPa
v9256hr	m/s	meridional wind at 925 hPa
t9256hr	K	temperature at 925 hPa
s9256hr	kg/kg	specific humidity at 925 hPa
s8506hr	kg/kg	specific humidity at 850 hPa
w8506hr	Pa/s	pressure vertical velocity at 850 hPa
v7006hr	m/s	meridional wind at 700 hPa
u6006hr	m/s	zonal wind at 600 hPa
w4006hr	Pa/s	pressure vertical velocity at 400 hPa

5. daily_pgb_nafr_ucla1_<year>_<case>.gra
   Daily mean variables over North Africa
   Domain: 25W-35E, 5S-40N
   Horizontal resolution: 2.5 degree x 2.5 degree

Variable name	Unit	Description
ta850day	K	temperature at 850 hPa
ua850day	m/s	zonal wind at 850 hPa
va850day	m/s	meridional wind at 850 hPa
sa850day	kg/kg	specific humidity at 850 hPa
ta500day	K	temperature at 500 hPa
za500day	gpm	geopotential height at 500 hPa
ua200day	m/s	zonal wind at 200 hPa

6. daily_flx_nafr_ucla1_<year>_<case>.gra
   Daily mean variables over North Africa
   Domain: 24.375W-35.625E, 4.762S-39.047N
   Horizontal resolution: T62 (1.875 deg in zonal x about 1.8 deg in meridional)

Variable name	Unit	Description
rldsday	W/m**2	LW downwelling radiative flux at the surface
rsdtday	W/m**2	SW downwelling radiative flux at the TOA
blhday	m	boundary layer height
lhday	W/m**2	surface latent heat flux
rlusday	W/m**2	LW upwelling radiative flux at the surface
shday	W/m**2	surface sensible heat flux
rsdsday	W/m**2	SW downwelling radiative flux at the surface
rsusday	W/m**2	SW upwelling radiative flux at the surface
tday	K	Surface air temperature
rlutday	W/m**2	LW upwelling radiative flux at the TOA
rsutday	W/m**2	SW upwelling radiative flux at the TOA

7. prc_hly_sahel_ucla1_<year>_<case>.gra
   Hourly mean precipitation over Sahel
   Domain: 24.375W-35.625E, 12.381S-33.333N
   Horizontal resolution: T62 (1.875 deg in zonal x about 1.8 deg in meridional)

Variable name	Unit	Description
pdiur	mm/day	precipitation

8. t2m_hly_sahel_ucla1_<year>_<case>.gra
   Hourly mean 2m-temperature over Sahel
   Domain: 24.375W-35.625E, 12.381S-33.333N
   Horizontal resolution: T62 (1.875 deg in zonal x about 1.8 deg in meridional)

Variable name	Unit	Description
tdiur	K	surface air temperature at 2m

9. shf_hly_sahel_ucla1_<year>_<case>.gra
   Hourly mean surface sensible heat flux over Sahel
   Domain: 24.375W-35.625E, 12.381S-33.333N
   Horizontal resolution: T62 (1.875 deg in zonal x about 1.8 deg in meridional)

Variable name	Unit	Description
shdiur	W/m**2	surface sensible heat flux

10. lhf_hly_sahel_ucla1_<year>_<case>.gra
    Hourly mean surface sensible heat flux over Sahel
    Domain: 24.375W-35.625E, 12.381S-33.333N
    Horizontal resolution: T62 (1.875 deg in zonal x about 1.8 deg in meridional)

Variable name	Unit	Description
lhdiur	mm/day	surface latent heat flux

11. hpbl_hly_sahel_ucla1_<year>_<case>.gra
   Hourly mean PBL height over Sahel
   Domain: 24.375W-35.625E, 12.381S-33.333N
   Horizontal resolution: T62 (1.875 deg in zonal x about 1.8 deg in meridional)

Variable name	Unit	Description
blhdiur	m	PBL height

(*) a set of GrADS control files is also provided (ucla_exp1_ctl.tar)
    all files are compressed (gzip) for easier transfer
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