

UCLA EXPERIMENT 2

Model: UCLA AGCM SSIB

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Data Description:

This data set consists of outputs from the UCLA 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_ucla2_<year>_<case>.gra

Monthly mean 3D variables over global domain

Vertical level [hPa]: 1000 950 925 900 850 800 700 600 500 400 300 200 100

Horizontal resolution: 2.5 degree longitude x 2.0 degree latitude

Variable name	Unit	Description
ta	K	temperature
ua	m/s	zonal wind
va	m/s	meridional wind
hus	g/kg	specific humidity
cl	%	cloud fraction
tdh	K/day	total diabatic heating

2. monthly_2d_ucla2_<year>_<case>.gra

Monthly mean 2D variables over global domain

Horizontal resolution: 2.5 degree longitude x 2.0 degree latitude

Variable name	Unit	Description
slp	hPa	sea level pressure
pr	mm/day	total precipitation
lspre	mm/day	large scale precipitation
conpre	mm/day	convective precipitation
tas	K	surface air temperature (2m)
huss	g/kg	surface specific humidity (2m)
hfls	W/m**2	surface latent heat flux
evap	W/m**2	vegetation interception loss
etv	W/m**2	transpiration
esoil	W/m**2	soil evaporation
hfss	W/m**2	surface sensible heat flux
hfgs	W/m**2	surface ground heat flux
rlds	W/m**2	surface downwelling LW radiation
rlus	W/m**2	surface upwelling LW radiation
rsds	W/m**2	surface downwelling SW radiation
rsus	W/m**2	surface upwelling SW radiation
rsdt	W/m**2	SW downwelling radiative flux at the TOA

rsut	W/m**2	SW upwelling radiative flux at the TOA
rlut	W/m**2	LW upwelling radiative flux at the TOA
tsw	mm	total soil water content
ssw	0-1	soil wetness at the first soil layer
srw	0-1	soil wetness at the rooting zone
roff	mm/day	runoff
ttlccv	%	total cloud cover fraction
geop850	gpm	geopotential height at 850 hPa
geop500	gpm	geopotential height at 500 hPa

3. 6hrly_sahel_ucla2_<year>_<case>.gra

6-hourly mean variables over the Sahel area

Domain: 25W-35E, 14S-34N

Horizontal resolution: 2.5 degree longitude x 2.0 degree latitude

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	g/kg	specific humidity at 925 hPa
s8506hr	g/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

4. daily_nafr_ucla2_<year>_<case>.gra

Daily mean variables over North Africa

Domain: 25W-35E, 6S-40N

Horizontal resolution: 2.5 degree longitude x 2.0 degree latitude

Variable name	Unit	Description
tday	K	Surface air temperature
lhday	W/m**2	surface latent heat flux
shday	W/m**2	surface sensible heat flux
rsdtday	W/m**2	SW downwelling radiative flux at the TOA
rsutday	W/m**2	SW upwelling radiative flux at the TOA
rsdsday	W/m**2	SW downwelling radiative flux at the surface
rsusday	W/m**2	SW upwelling radiative flux at the surface
rldsday	W/m**2	LW downwelling radiative flux at the surface
rlusday	W/m**2	LW upwelling radiative flux at the surface
rlutday	W/m**2	LW upwelling radiative flux at the TOA
ta850day	K	temperature at 850 hPa
ua850day	m/s	zonal wind at 850 hPa
va850day	m/s	meridional wind at 850 hPa
sa850day	g/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

5. hourly_sahel_ucla2_<year>_<case>.gra

Hourly variables over the Sahel area

Domain: 22.5W-35E, 14S-36N

Horizontal resolution: 2.5 degree longitude x 2.0 degree latitude

Variable name	Unit	Description
pdiur	mm/day	precipitation
tdiur	K	surface air temperature at 2m
lhdiur	W/m**2	surface latent heat flux
shdiur	W/m**2	surface sensible heat flux

(*) a set of GrADS control files is also provided (ucla_exp2_ctl.tar)
all files are compressed (with gzip) for easier transfer

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