

GSWP-2 Modeling Status

MODEL	Institute
Bucket	University of Tokyo
CLM-TOP	University of Texas at Austin
CBM/CHASM	Macquarie University, Australia
CLASS	Meteorological Service of Canada
★ CLM	NASA GSFC/HSB
COLA-SSiB	COLA
ECMWF	ECMWF
★ HY-SSiB	NASA GSFC/CRB
ISBA	MétéoFrance/CNRM
LAPUTA	Meteorological Research Institute, Japan Meteorological Agency
LaD	USGS & NOAA/GFDL
MATSIRO	Frontier RSGC
MECMWF	KNMI (Dutch MetOffice), Netherlands
★ Mosaic	NASA GSFC/HSB
★ MOSES-2	Met Office, UK
NOAH	NOAA NCEP/EMC
NSIPP-Catchment	NASA GSFC/NSIPP (GMAO)
ORCHIDEE	IPSL, France
SiBUC	Kyoto University
Sland	University of Maryland
SPONSOR	Institute of Geography, Russian Academy of Sciences
★ SWAP	Institute of Water Problems, Russian Academy of Sciences
VIC	Princeton & NASA GSFC/HSB
VISA, CLM-Top	University of Texas at Austin

Baseline
Integration

Submitted

Imminent

Probably

Maybe

Bowed out

★ Via LIS

GSWP-2 data

- GSWP-2 documentation
 - <http://www.iges.org/gswp/>
 - IGPO Pub Series #37 (2003)
- Format (NetCDF, ALMA convention)
 - <http://www.lmd.jussieu.fr/ALMA/>
 - <http://my.unidata.ucar.edu/content/software/netcdf/>
- GrADS for data access
 - Documentation: <http://grads.iges.org/grads/>
 - Executable: `/usr/local/grads/latest/gradsnc`

GSWP-2 data on COLA systems

- /data/ludi/gswp/models/
 - ISBA
 - LaD
 - MOSES2
 - NSIPP
 - ORCHIDEE
 - SLand
 - SWAP
- /common/cola34/gswp/models/
 - BUCKETIIS
 - CLM TOP
 - MOSAIC
 - NOAH
 - SiBUC
 - VISA
- /data/glass/gswp2/BO/
 - COLASSiB

GrADS .ctl files for all are at /data/ludi/ctls/

Project ideas

- Plot Budyko curves for the different models
 - Do they conform to Budyko's model?
 - Can you explain the differences?
- Examine the ET-Soil moisture links (a la GLACE)
 - How does the character of models differ?
 - Seasonal or regional differences?
- Look for theoretical relationships between soil wetness, surface fluxes and LCL (proxy humidity) as in Betts (2004).
 - GSWP is not coupled models, so if a relationship exists, question the cause versus effects (i.e., how much does land drive atmosphere vs. vice versa).
- Uniqueness among the models
 - how much "independent" information is provided by the different models at different time scales?