

WP1: Evaluation techniques & Climate model experiments

Objective: Provide new evaluation tools and climate simulation data for the cloud feedback analyses

Deliverables:

D1.1: Final version of COSP software – July 2011 (Latest version: November 2013)

D1.2: Final versions of CALIPSO-PARASOL observational analysis product and of MODIS simulator - January 2011

D1.3: ESM versions with COSP software – April 2011

D1.4: Final output of ESM simulations – September 2011

D1.5: Final versions of model evaluation packages – September 2011

D1.6: Reprocessed version of EUCLIPSE model data products for long-term archiving within WDCC beyond the runtime of the project – June 2014

D1.4: Final output of ESM simulations

Update of CMIP model CFMIP output

	Monthly Amon	Monthly cfMon	Monthly ISCCP/ CALIPSO	Daily CFMIP	Daily ISCCP/ CALIPSO	Timestep cfSites Outputs	COSP Orbital CloudSat/ CALIPSO	Gridded Orbital CloudSat/ CALIPSO	3 Hourly COSP Inputs
amip	30	12	11	11	11	7	5	4	4
amip4K	12	11	11	10	10	6	5	4	
amip4xCO2	15	12	12	11	11	5	5	4	
amipFuture	12	10	10	9	10	5	3	4	
aquaControl	9	7	8	6	8	4	1		
aqua4xCO2	8	7	7	8	7	4	1		
aqua4K	9	4	7	8	7	4	1		
piControl	45	6	9	10	9				
1pctCO2	34	4	8	9	8				
abrupt4xCO2	30	4	8	9	8				

D1.5: Evaluation Toolkit

Simulator package

- The CFMIP Observation Simulator Package - <http://cfmip.metoffice.com/COSP.html>

Correlation between cloud properties

- 2D histogram of instantaneous cloud reflectance (PARASOL) and cloud fraction (CALIPSO):
ftp://ftp.climserv.ipsl.polytechnique.fr/cfmip/goccp/MULTI-SENSORS/CRef/ref_cf.m
- Relationship between instantaneous cloud reflectance (PARASOL) and vertical profile of cloud fraction (CALIPSO):
ftp://ftp.climserv.ipsl.polytechnique.fr/cfmip/goccp/MULTI-SENSORS/CRef/cf3d_ref.m
- Joint height-SR histogram of Scattering Ratio (CALIPSO):
ftp://ftp.climserv.ipsl.polytechnique.fr/cfmip/goccp/SR_histo/SR_histo.m

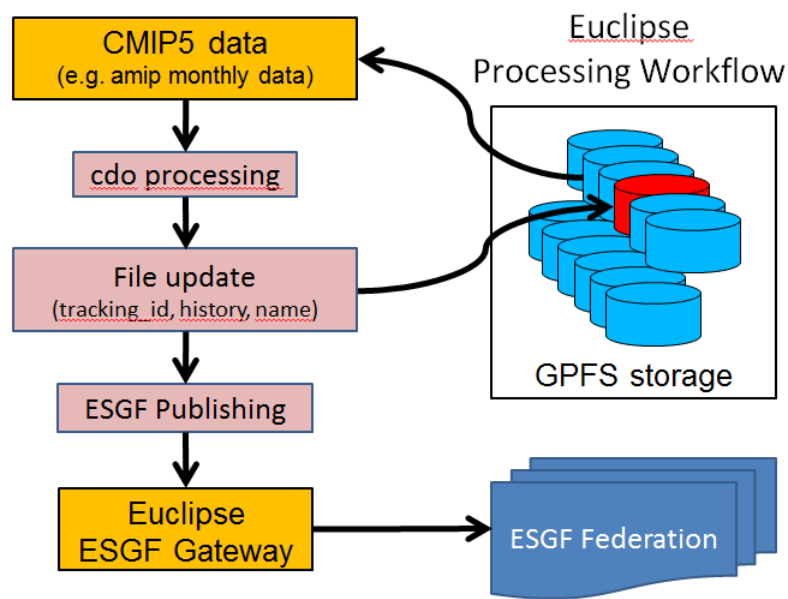
Clustering methods

- Mean Cloud Top Pressure (CTP) - Cloud Optical Depth (τ) Weather States (ISCCP):
<http://isccp.giss.nasa.gov/climanal5.html>
- Cloud Regime Error Metric: <http://cfmip.metoffice.com/codes.html>

Compositing methods

- Climatology of Midlatitude Storminess: <http://gcss-dime.giss.nasa.gov/mcms/mcms.html>
- Tropical ElNino Southern Oscillation Anomaly Database
<http://gcss-dime.giss.nasa.gov/ARRA/arra.html>

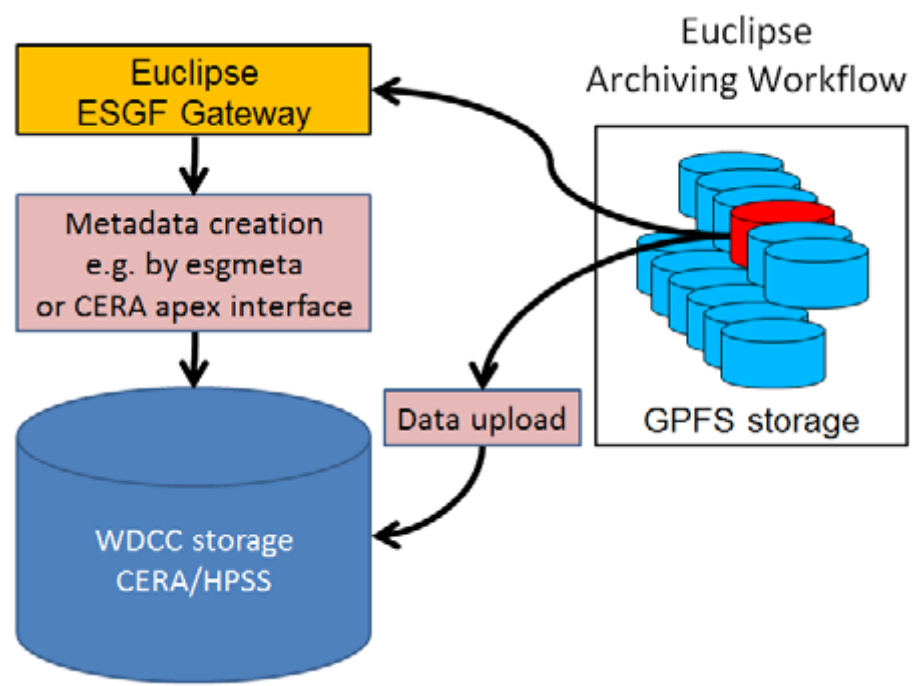
D1.6: Reprocessed EUCLIPSE model data products for long-term archiving



Processed Euclipse data have been archived in WDCC. The following steps have been performed:

- Processing with new tracking_id
- Publishing the datasets into the Euclipse1 ESGF index node
- Writing CERA XML metadata derived from the ESGF metadata
- Uploading these XML metadata into the CERA
- Uploading the data itself to the tape archive

Processed EUCLIPSE data include cdo processing, COOKIE and SPOOKIE output



Main issues in implementing WP1 tasks:

Most tasks are ongoing while proposal rules require the fulfillment of specific deadlines

D1.1,D1.3: COSP completion and application