

climate change initiative

→ CLIMATE MODELLING USER GROUP

Obs4MIPs

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# What is Obs4MIPs



## => Observations for Model InterComparisons Project

- International activity under the WCRP to make observational products more accessible for climate model intercomparisons.
- Designed to be closely aligned with CMIP.
  - ⇒ CMIP or closely related variables
- Data are made available through the Earth System Grid Federation (ESGF)



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Once all the obs4MIPs data is updated to the new data standards, the search facet pairs for selecting Institution and Frequency will each be merged.

obs4MIPs project data downloads are unrestricted. Downloads should be performed with the -s option to a wget script without the need to login. When using this method for download, ensure you are not using additional options eg. -s and -H should never be combined.

Enter Text:    Display 10 results per page [\[ More Search Options \]](#)

Search Constraints:  cci  Show All Replicas  Show All Versions  Search Local Node Only (including All Replicas)

Total Number of Results: 16  
-1- 2 Next >>  
Please login to add search results to your Data Cart  
Expert Users: you may display the search URL and return results as XML or return results as JSON

- obs4MIPs.URReading.ESA-CCI-SST-v2-1.mon.tos.gn  
Data Node: esgf-data1.ceda.ac.uk  
Version: 20201130  
Total Number of Files (for all variables): 1  
Full Dataset Services: [\[ Show Metadata \]](#) [\[ List Files \]](#) [\[ WGET Script \]](#) [\[ Tech Note \]](#) [\[ Globus Download \]](#) [\[ Further Info \]](#)
- obs4MIPs.DWD.ESACCI-CLOUD-ATSR2-AATSR-3-0.mon.c1CCLgr  
Data Node: esgf-data1.ceda.ac.uk  
Version: 20200106  
Total Number of Files (for all variables): 18  
Full Dataset Services: [\[ Show Metadata \]](#) [\[ List Files \]](#) [\[ WGET Script \]](#) [\[ Tech Note \]](#) [\[ Globus Download \]](#) [\[ Further Info \]](#)
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Obs4mips is in the process of being revitalised

<https://pcmdi.github.io/obs4MIPs>





# Current requirements on data



- peer reviewed dataset, with measurement source, construction methodology, calibration/validation and uncertainty described in one or more peer reviewed publications.
- Variable is a match to a CMIP variable (or can be derived from)
- Gridded data
- Data are in specific Obs4MIPS format (CMOR)
- Has an accompanying technical note (in a specific format)
- DOI's are assigned to the data / tech note

Approval for dataset was needed from Obs4MIPs Task Team (=>CMUG)



- Provide coordination and help and advice to CCI teams throughout the Obs4mips process
  - Liaise with Obs4MIPs as needed (e.g. submit terms for MIP tables)
  - Reformat suitably gridded data into Obs4MIPs compliant format
- + KE: Assign DOI's and publish to ESGF

Feb 2022 – CEDA took over responsibility for Obs4MIPs work in CMUG





# CCI data in Obs4MIPs already



Current CCI ECV's with data published to Obs4MIPS:

Published earlier in this phase:

- cloud
- SST

Published in previous phase:

- greenhouse gases
- Aerosol

+ other datasets in preparation....



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Source ID

Product

Realm

Variable

Variable Long Name

CF Standard Name

Data Node

CMIP5-era

Institute

Time Frequency

CMIP6-era

Institution ID

Frequency

Grid Label

Nominal Resolution

Region

Source Type

Variant Label

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# Rollout plan/priority datasets



Deliverable: Rollout plan for getting CCI datasets + status spreadsheet

|   |  |
|---|--|
| <b>Land Surface Temperature – MW</b>        | Suitably gridded version of the data provided by CCI team<br>In process of conversion to obs4mips format |
| <b>Land Surface Temperature - IR</b>        |  |
| <b>Land Surface Temperature – IR merged</b> |  |
| <b>Ocean Colour</b>                         |  |
| <b>Ozone - GTO (total ozone)</b>            |  |
| <b>Sea Surface Salinity</b>                 | Next priority  |
| <b>Soil Moisture</b>                        |  |





# Open questions



❖ CCI datasets often observe a slightly different variable to the closest CMIP variable

e.g. LST at a specific local solar time

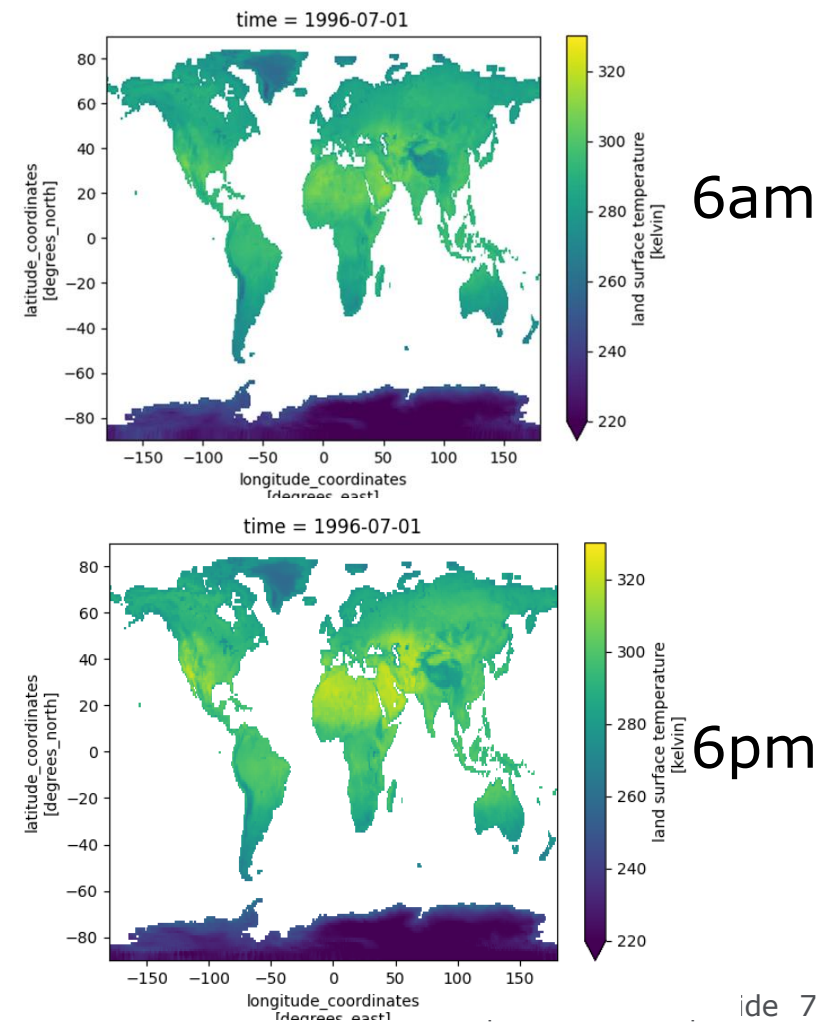
Currently obs4mips use CMOR tables that map to the CMIP tables

=> Discussions ongoing with Obs4mips task team

=> Likely to need to expand/add new tables

❖ Inclusion of uncertainties and other auxiliary information is currently via a zip file as supplementary information - not ideal=> again discussions within the Obs4mips task team.

### MW dataset, 1degree





# Summary



- CMUG activity to get suitable CCI datasets into obs4mips
  - CCI teams => provide suitably averaged datasets and technical notes
  - CMUG => help throughout the process and conversion of the dataset to Obs4MIPs format

For any questions about producing Obs4mips data, please contact me:  
[alison.waterfall@stfc.ac.uk](mailto:alison.waterfall@stfc.ac.uk)