RO-CLIM (SCM-08)
RADIO OCCULTATION BASED
GRIDDED CLIMATE DATA SETS

status May 2017

Hans Gleisner & the RO-CLIM project team

SCM-08 status, May 2017

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RO-CLIM (SCM-08) is a collaboration amongst 6 institutes that processes GNSS-RO data into Climate Data Records (CDRs). The main aims are to support the generation of CDRs, to quantify the structural uncertainty of the CDRs, to evolve algorithms and processing methods, and to increase the maturity of the data records.

▶ An *ensemble* data record based on data from the CHAMP mission is now available at the SCM-08 project web page (http://www.scope-cm.org/projects/scm-08) together with some documentation (and soon also links to document repositories at the processing centres). This data set only covers about 8 years.

▶ Data from all major RO missions (CHAMP, GRACE, SAC-C, COSMIC, Metop, etc.) has been reprocessed at the 6 centres, and data has been collected at an FTP server at the Univ. of Graz in Austria. Analysis is ongoing, performed by the Wegener Center.
This data set will be used to generate a 15-year GNSS-RO CDR in the form of a 6-member ensemble, similar to the one previously generated from CHAMP data.

▶ One of the RO-CLIM collaborating institutes (NASA/JPL) recently got funding from NASA to generate an ensemble Obs4MIPs GNSS-RO data record. The CDR described above will be used in this work, which involves several of the RO-CLIM partners.
The SCOPE-CM RO-CLIM project was mentioned as a point of strength in the proposal to NASA.

Self assessed maturity matrix

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No updates has been made to the maturity matrix since the last SEP meeting.

Software readiness	Metadata	User documentation	Uncertainties Characterisation	Public access, feedback and update	Usage
Coding Standards	Coding Standards	Formal description of scientific methodology	Standards	Public access/Archive	Research
Software Documentation	Collection level	Formal validation report	Validation	Version	Decision support system
Numerical reproductibility and portability	File level	Formal product user guide	Uncertainity quantification	User feedback mechanism	
Security		Formal description of operations concept	Automated quality monitoring	Update to record	

Legend

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