RO-CLIM Project Plan and Progress Report
Note: Format, main outline is based on the Letter of Intent

1. Project title:
"Radio occultation based gridded climate data sets - RO-CLIM"

2. Main applicant¹:
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3. Composition of the project team for this project:

<table>
<thead>
<tr>
<th>Name and title</th>
<th>Institute</th>
<th>Address</th>
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</thead>
<tbody>
<tr>
<td>K. Lauritsen, S. Syndergaard</td>
<td>ROM SAF / DMI</td>
<td>Danish Meteorological Institute, Copenhagen, Denmark</td>
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<td>S. Healy</td>
<td>ECMWF</td>
<td>European Centre for Medium Range Weather Forecasts, Reading, UK</td>
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<td>GFZ</td>
<td>GeoForschungsZentrum, Helmholtz Centre Potsdam, Germany</td>
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<td>C. Ao, T. Mannucci</td>
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<td>M. Ringer</td>
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<td>UCAR</td>
<td>COSMIC Program Office, University Corporation for Atmospheric Research, Boulder, Colorado, USA</td>
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<tr>
<td>A. Steiner, U. Foelsche, G. Kirchengast</td>
<td>WEGC</td>
<td>Wegener Center for Climate and Global Change, University of Graz, Graz, Austria</td>
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4. Purpose of the Document
This document collects the within the team agreed annual project plan steps and (once applicable), the progress reports of the RO-CLIM project. The overall aim of the 5 year RO-CLIM project is presented in the RO-CLIM Project Description [RO-CLIM PD]. Within this document the annual steps on the intended areas of activity for a particular year are summarized, and, after each year a short progress report is added. This progress report is then also used for reporting to the SCOPE-CM Executive Panel (SEP).

¹ The project lead of RO-CLIM was shifted from Axel von Engeln, EUMETSAT to Hans Gleisner, EUMETSAT ROM SAF / DMI on 24. March 2014.
5. Annual Project Plans

a. 2014

The following development steps are foreseen for the 1st year, the lead institute/scientist is given in brackets:

- Increase maturity level of CHAMP ROTrends data set by:
  - re-assess implemented processing software at center, in particular with respect to the initialization of bending angles at higher altitudes, re-process data set if required, investigate outlier statistics (all centres);
  - cross-check data set against radio occultation data from more recent missions that overlap with CHAMP, such as COSMIC, GRACE, GRAS (WEGC);
  - provide information on the structural uncertainty of the CHAMP data set in form of tables (Andrea Steiner);
  - generate an ensemble of products, i.e. RO data are provided by each centre, including uncertainty information (representative of each centre);
  - generate a re-analysis based data set that uses the same processing and gridding setup as the instrument one, using e.g. ERA-Interim data or ERA-CLIM if available (Sean Healy, Axel von Engeln, Hans Gleisner);
  - improve documentation of data set (representative of each centre);
  - make information publicly available through http://www.scope-cm.org, pointing to a dedicated project page at http://www.irowg.org which includes links to the individual centres. The download data will be hosted at http://www.romsaf.org. (Andrea Steiner, Ben Ho, Hans Gleisner, Axel von Engeln).

- Start the generation of the extended ROTrends data set that includes more recent missions and will be updated throughout the project:
  - develop a common Level 1A format that can be used across the different centers (Christian Marquardt, Doug Hunt, DMI, representative of each centre);
  - develop capability at the different centers to ingest this format into their processing (representative of each centre).

6. Annual Progress Reports

a. 2014

Will be provided early 2015.

7. References: