ACTIVITY REPORT:

Water Vapour Assessment II (WAVAS II)

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Progress and achievements

Long-term records for climate understanding

- Three papers published in the ACP/AMT on WAVAS-II, one other is under review. Papers deal with isotopologues (HDO) and with comparison to ground-based FTIR measurements in the Arctic.
- Screened WAVAS-II satellite data sets in homogenized format (quantity, vertical gridding) has been made publicly available on data server, and a DOI has been received.

Future plans

- Three further papers are in preparation, plus the overview/recommendation paper.
- The three papers are related to comparisons with FPHs, the description of the satellite instruments and data sets, and the comparison in the tropopause range (UTH), the UTH paper is about to be submitted
- The special issue will remain open until mid 2020.

Future plans

- Telecons will be held as needed, and we will write the summary paper after the profile comparison paper is submitted.
- Recently, the official water vapor data set from TIMED/SABER has been released. It would be desirable to include this data set into the WAVAS-II activity, as well as more recent versions of other satellite instruments (ACE-FTS version 4, MIPAS version 8). Perhaps this could be blended into another activity..

Vision

- Which direction would you like to see SPARC move forward to?

We consider it mandatory to keep a focus on the "atmosphere" aspect in climate research, and SPARC needs to fill this role

- What are important research questions?

Dynamics and chemistry of the middle atmosphere (possibly more open questions for dynamics than for chemistry, in particular concerning modelling approaches)

- What collaborations should be maintained or started?

Enhance collaborations between observation and modelling communities

Links to the WCRP SP and IP

- your view on the WCRP (no comment so far)
- how should SPARC's new strategy fit in with those plans?

Make sure observational data with global coverage and good vertical resolution will be available in future!

- What are important issues that need to be addressed in the WCRP IP? (no comment so far)

Emerging issues

- Any issues requiring the immediate attention of the SPARC SSG

  none

Additional slide

- We anticipate that WAVAS-II will be completed by this time next year. Work with stratospheric water should be incorporated into other SPARC activities.