

# ACC-VC Status and Issues

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- 3-Year Outcomes

- Total ozone ECV validation & harmonization
- Geostationary Air Quality constellation coordination
- Multi-sensor volcanic eruption alert system
- Greenhouse gas (GHG) constellation



## Main Accomplishments

**ACC-10 workshop was held at NOAA NCWCP in College Park, Md. on 4-5 June 2014: ~30 participants from Europe, Asia, and North America**

- **Total ozone ECV validation & harmonization:**
  - **Results of recent total ozone intercomparison and validation activities were discussed. Intensive activities have enabled advances in error quantification and comparisons between multiple data sets and ground based data.**
  - **The integration of infrared sensor data, e.g., IASI and AIRS, was discussed. Key benefits include the ability to expand measurement coverage to polar regions and fill in other missing data obtained from the UV sensors.**
  - **Proposal to produce a combined monthly zonal mean total ozone set and a combined gridded product were discussed, recognizing the science needs for these products was accepted**



## Main Accomplishments (cont'd.)

- **Geostationary Air Quality constellation coordination**
  - Progress continues with implementing the recommendations enumerated in the ACC-produced position paper endorsed by SIT-26.
  - Summaries of the key missions - Europe Sentinel 4, Korea GEMS, NASA TEMPO, and Europe Sentinel 5P (LEO orbit) - were presented.
  - The next near-term Constellation activity planned is harmonization to improve data product quality and usage. This included an Open Data Policy and common cal/val standards. The sharing of instrument requirements is taking place, which is influencing instrument specifications and which should ultimately improve harmonization of data products. Discussions on sharing L1B and L2 format specifications to easily exchange data are underway.



## Main Accomplishments (cont'd.)

- Multi-sensor volcanic eruption alert system
  - Detailed discussions of monitoring volcanic ash from space-based observations were presented. Activities in both the US and in Europe were discussed. Emerging services, such as the ESA-sponsored Support to Aviation Control Service (SACS) project continue to produce accurate notifications of detection to end-users and other stakeholders, particularly in the aviation sector.
  - The inclusion of measurements from new sensors (e.g., OMPS and CrIS on Suomi-NPP) was welcomed.



## Main Accomplishments (cont'd.)

- Greenhouse gas (GHG) constellation
  - Presentations were made that described GHG missions in formulation, development, and operation (e.g., OCO-2, GOSAT and GOSAT-2, Merlin, TanSat, IRS, and IASI-NG) were made.
  - The recently released CEOS Carbon Task Force, CEOS Strategy for Carbon Observations from Space, was summarized and there was discussion on the recommended actions relevant to ACC. It was agreed that a single “constellation” activity for forthcoming LEO and GEO constellations of GHG-measuring missions would be created and coordinated by ACC, mirroring the successful Air Quality constellation activities.



## Participation/leadership update

- **Co-Chairs working succession planning with ongoing outreach to ACC membership occurring**

## Next Meeting

- **ACC-11 planned for May 2015, to be hosted by ESA in Frascati, Italy**



## Atmospheric limb sounding gap (for information)

- Participants in the CEOS ACC-10 meeting recognize the significance of the looming gap in limb sounding data. Following the demise of the currently operating but aging instruments, only 3 limb sounding instruments are planned for launch prior to 2021.
- Participants support efforts to raise awareness of this issue in the hope of influencing space agencies to prioritize planning for future limb sounding missions.
- Endorse and wish to contribute to the initiative taken by members of the SPARC community to draft a paper for publication, highlighting the need for continued measurements from limb sounding satellites.





## Atmospheric limb sounding gap

- Encourage, and possibly co-organize with SPARC, a community workshop on limb sounding continuity, possibly in conjunction with CEOS member agencies, the CEOS/CGMS Working Group on Climate, and WMO-Global Atmosphere Watch
- Encourage the WMO-GAW task team, which will update the Integrated Global Atmospheric Chemistry Observations (IGACO) report of 2004, to interact with the SPARC paper authors in regards to limb sounding observations.