

20th Committee of Earth Observation Satellites - Atmospheric Composition Virtual Constellation (CEOS AC-VC)

15-18 October 2024

National Center for Weather and Climate Prediction
5830 University Research Court, College Park MD 20740

Time (EST)	ID	Title	Presenter	Duration (min)
Tuesday October 15			Chairs: Ben Veihelmann (ESA), Barry Lefer (NASA), Hiroshi Tanimoto (NIES)	
Session AQ Trace Gases				
9:00 - 9:05	2.01	Introduction / goals / Welcome	Shobha, Ben, Barry, Hiroshi	10
Brief Status of Missions in Orbit				
09:10 - 09:20	2.02	S5P/TROPOMI status	Claus Zehner (ESA), Pepijn Veefkind (KNMI)	10
09:20 - 09:30	2.03	GEMS status	Jhoon Kim (Yonsei Uni)	10
09:30 - 09:40	2.04	TEMPO	Caroline Nowlan (Harvard)	10
09:40 - 09:50	2.05	IASI&CRIS	Cathy Clerbaux (LATMOS/CNRS), Helen Worden (UCAR)	10
Brief Update on Future Missions				
09:50 - 10:00	2.06	Sentinel-4 & Sentinel-5	Ben Veihelmann (ESA), Rasmus Lindstrot (EUMETSAT)	10
10:00 - 10:10	2.07	IASI-NG	Cathy Clerbaux (LATMOS/CNRS), Cyril Crevoisier (LMD)	10
10:10 - 10:20	2.08	GeoXO	Joanna Joiner (NASA), Shobha Kondragunta (NOAA)	10
10:20 - 10:30	2.09a	Middle East & North Africa GEO Project	Omar Emam (Interspass) Pleternel Levelt (NCAR)	10
10:30 - 10:40	2.09b	Related South Africa GEO Project	Pleternel Levelt (NCAR)	10
Coffee Break - 10:40-11:15				
Comparisons/Consistency				
11:00 - 11:15	2.10	PEGASOS: comparisons between GEMS L2 data and various other satellite and ground-based data	Ronny Lutz (DLR)	15
11:15 - 11:30	2.11	TEMPO-GEMS, GEMS-S5P, GEMS-S4, other?	TBD	15
Validation				
11:30 - 11:45	2.12	STAQS field campaign	Laura Judd (NASA/LARC)	15
11:45 - 12:00	2.13	TEMPO products evaluation	Barron Henderson (EPA)	15
12:00 - 12:15	2.14	Pandora/PNG status	Thomas Hanisco (NASA, GSFC)	15
12:15 - 12:30	2.15	S5P/TROPOMI validation status	Tijl Verhoelst (BIRA)	15
12:30 - 12:45	2.16	GEMS	TBD	15
Lunch - 12:45-13:45				
Data use				
13:45 - 14:00	2.17	MOMO-Chem: trop O3 trends, LEO+GEO, TOAR-2 reanalysis	Miyazaki Kazuyuki (JPL)	15
14:00 - 14:15	2.18	Data assimilation at GEOS-CF	Emma Knowland (Morgan State Uni)	15
14:15 - 14:30	2.19	CAMS	Antje Inness (CAMS)	15
14:30 - 14:45	2.20	Error characterisation and super-observations	Henk Eskes (KNMI)	15
14:45 - 15:00	2.21	Assimilating TEMPO and TropOMI trace gas observations with JEDI	Jerome Barré (UCAR)	15
Discussion				
15:00 - 16:00	2.22	Questions for all presenters, Review progress following the GeoAQ WP, what works well / what not in data assimilation? Status? .. recommendations, capacity building Middle East & Africa, super sites?	All	60
16:00 - 17:30	2.23	Poster Session: 1.5h	All	90

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Time (EST)	ID	Title	Presenter	Duration (min)
Wednesday, October 16, 2024				
Session Aerosols and Air Quality			Chairs: Shobha Kondragunta (NOAA) and Ben Veihelmann (ESA)	
9:00 - 9:05	3.01	Introduction / goals	Co-chairs	5
Updates on Current/Future Missions				
09:05 - 09:15	3.02	JPSS Aerosol Update	Istvan Laszlo (NOAA)	15
09:15 - 09:30	3.03	TEMPO Aerosol Update	Shobha Kondragunta (NOAA)	15
09:30 - 09:45	3.04	GEMS Aerosol Update	Yeseul Cho (NOAA/UMD)	15
09:45 - 10:00	3.05	PACE Aerosol Update	Meng Gao (NASA)	15
10:00 - 10:15	3.06	MAIA Aerosol Update	Dave Diner (NASA)	15
10:15 - 10:30	3.07	NASA Aerosol Update	Rob Levy (NASA)	15
10:30 - 10:45	3.08	CALIGOLA Aerosol Update	Chip Trepte (NASA)	15
10:45 - 11:00	3.09	CO2M Aerosols	Yasjka Meijer (ESA)	15
Coffee Break - 11:00-11:15				
Applications - Part 1				
11:15 - 11:30	3.09	Aerosol DA for PM2.5 (ECMWF)	Johannes Flemming (ECMWF)	15
11:30 - 11:45	3.10	Aerosol DA for PM2.5 (JCSDA)	Jerome Barre (JCSDA)	15
11:45 - 12:00	3.11	Aeosol DA for PM2.5 (NASA)	Virginie Buchard (NASA)	15
12:00 - 12:15	3.12	Aerosol DA for PM2.5 (NOAA NWS)	Cory Martin (NOAA)	15
Lunch - 12:15-13:15				
White Paper Roadmap				
13:15 - 13:30	3.13	Discussion	Kondragunta (NOAA) and Veihelmann (ESA)	15
Aerosol Layer Height				
13:30 - 14:30	3.14	ALH paper discussion	Vijay Natraj (NASA JPL) - Lead Panel: Jun Wang (Ulowa), Martin de Graaf (KNMI), Jhoon Kim (Yonsei University), Shobha Kondragunta (NOAA), Hiren JeTHva (NASA)	60
14:30 - 14:45	3.15	ALH Validation (1)	Jim Szykman (EPA)	15
14:45 - 15:00	3.16	ALH Validation (2)	Siyuan Wang (NOAA)	15
Coffee Break - 15:00-15:15				
Applications - Part 2				
15:15 - 15:30	3.17	AirFuse	Barron Henderson	15
15:30 - 15:45	3.18	Satellite perspectives to changing federal standards for PM2.5	Michael Cheeseman (NOAA)	15
15:45 - 16:00	3.19	TEMPO PM2.5	Hai Zhang (NOAA)	15
16:00 - 17:00	3.20	Discussion	All	60
Thursday, October 17, 2024				
Session Greenhouse Gas			Chairs: John Worden and Barry Lefer (NASA)	
08:35 - 08:45	4.01	Introduction	John Worden (NASA / JPL)	10
08:45 - 09:00	4.02	CEOS GHG Roadmap	Yasjka Meijer	15
09:00 - 09:30	4.03	Satellite Observations for Balancing the Global Carbon Budget	Junjie Liu (JPL)	

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Time (EST)	ID	Title	Presenter	Duration (min)
The Mission Session:				
<i>Please discuss any mission updates, validation or algorithm needs, and / or stakeholder requirements</i>				
09:30 - 09:42	4.04	GOSAT	Hiroshi Suto (JAXA)	12
09:42 - 09:54	4.05	OCO-2/-3	Vivienne Payne	12
09:54 - 10:06	4.06	TROPOMI	Bram Maasackers	12
10:06 - 10:18	4.07	CO2M	Yasjka Meijer	12
10:18 - 10:30	4.08	GOSAT-GW	Hiroshi Tanimoto	12
10:30 - 10:42	4.09	MERLIN and MicroCarb	Carole Daniel	12
10:42 - 10:54	4.10	GEOCarb	Sean Crowell	
Coffee Break - 10:54-11:10				
11:10 - 11:22	4.11	EMIT	Andrew Thorpe (NASA / JPL)	12
11:22 - 11:34	4.12	GHGSat	Eric Choi (GHGSat)	12
11:34 - 11:46	4.13	CarbonMapper	Dan Cusworth (Carbon Mapper)	12
11:46 - 11:58	4.14	MEDUSA	Bram Maasackers (SRON Netherlands)	12
11:58 - 12:15	4.15	Discussion (Mission Needs)	All	17
Lunch - 12:15-1:30				
Session on VVUQ of Facility Scale Observations				
01:30 - 01:45	4.16	Validation of Facility Scale Measurements	Evan Sherwin (LBNL)	15
01:45 - 02:00	4.17	GHG Center Facility Scale Validation Efforts	Annamarie Eldering (NIST) and Argie Kavvada (NASA)	15
02:00 - 02:15	4.18	Facility scale emissions intercomparison	Annamarie Eldering (NIST)	15
02:15 - 02:30	4.19	Discussion on Characterizing POD for Facility Scale Emissions Estimates	Itziar Loitxate (IMEO)	15
02:30 - 02:45	4.20	Best practices for facility scale methane measurements	John Worden (NASA)	
02:45 - 03:00		Discussion		15
Coffee Break - 3:00-3:15				
03:15 - 03:45	4.21	Validation Supersite Discussion	Abhishek Chatterjee (NASA)	30
03:45 - 04:15	4.22	Level 2 Intercomparisons	David Crisp (Crisp Spectra) and Chris O'Dell (CSU)	30
04:15 - 04:30	4.23	Stakeholder engagement activities	Leslie Ott (NASA)	15
04:30 - 05:00		Overflow, summary and wrap-up	John Worden (NASA)	30
Friday AM, October 18, 2024			Chairs: Diego Loyola (DLR) and Gordan Labow (NASA)	
Session Ozone				
09:00 - 09:05	5.01	Introduction	Diego Loyola (DLR)	5
Tropospheric Ozone				
09:05 - 09:20	5.02	Tropospheric ozone: Satellite data harmonization and TOAR assessment	Arno Keppens (BIRA)	15
09:20 - 09:35	5.03	An update on long-term global tropospheric ozone trends, in support of the second phase of the Tropospheric Ozone Assessment Report	Owen R. Cooper (NOAA CSL)	15
09:35 - 09:50	5.04	Trends (2000-2022) from TOAR-II/HEGIFTOM Global Ground-based Tropospheric Ozone Measurements: A Reference Dataset for Satellite Products & Models	Anne Thompson (NASA)	15
09:50 - 10:05	5.05	GOP_ECV: a new profile/tropospheric ozone data record	Melanie Coldewey-Egbers (DLR)	15

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10:05 - 10:20	5.06	SHADOZ Ozonesonde Network – Overview and Updates	Debra Kollonige (NASA)	15
Geostationary Missions				
10:20 - 10:35	5.07	Introduction to the upcoming version 3 of the GEMS Ozone Profile Product: calibration strategy and preliminary validation	Juseon (Sunny) Bak (PNU)	15
10:35 - 10:50	5.08	TEMPO total ozone and ozone profile products	Junsung Park (SAO)	15
10:50 - 11:05	5.09	Diurnal Cycle of Total Ozone Column Observed from the Geostationary Interferometric Infrared Sounder (GIIRS) over East Asia	Zhao-Cheng Zeng (Peking University)	15
Coffee Break - 11:05-11:35				
Discussion				
11:35 - 11:50	5.10	Upcoming reduction in space-based observations of ozone at high vertical resolution: implications for data products and long-term studies	Daan Hubert (BIRA)	15
11:50 - 12:00	5.11	Discussion	All	10
Lunch - 12:00-13:00				
Friday PM, October 18, 2024			Chairs: Barry Lefer (NASA) and Shobha Kondragunta (NOAA)	
Session Special Topics				
13:00 - 13:15	5.12	NOAA GOES-19 methane blowdown experiment	Shobha Kondragunta (NOAA) and Daniel Varon (MIT)	15
13:15 - 13:30	5.13	Land products from TEMPO	Joanna Joiner (NASA)	15
13:30 - 13:45	5.14	Global Stocktake Lessons Learned	Wenyeng Su (NASA)	15
13:45 - 14:00	5.15	Air quality products from PACE	Arlindo da Silva (NASA)	15
14:00 - 14:15	5.16	AiRMAPS 2025 Baltimore	Steve Brown (NOAA)	15
Coffee Break - 14:15-14:45				
14:45 - 15:15	5.17	GHG Modeling and Path Forward with AFOLU and Blue Carbon - Panel Discussion	Ben Poulter (OSTP), Lola F.atoyimbo (NOAA), and Laura Lorenzoni (NASA)	30
15:15 - 15:45	5.18	Observational Needs for Greenhouse Gases - Panel Discussion	Colm Sweeney (NOAA), Lesley Ott (NASA), Richard Englen (ECMWF), Junjie Liu (NASA / JPL)	30
15:45 - 16:15	5.19	Multi-agency coordinated efforts of controlled release experiments - Panel Discussion	US GHG Center	30
16:15 - 16:30	5.20	FINAL Remarks	Shobha, Hiroshi, and Barry	15