

Draft Agenda

CEOS Atmospheric Composition Virtual Constellation AC-VC-17

June 07 - 11 (Monday-Friday), 2021

The sessions are planned to start at 13:00 UTC daily (06:00 US PDT, 09:00 US EDT, 15:00 CET, 22:00 KST/JST). The sessions will take 2 hours 30 minutes or less.

time (UTC)	ID	Title	Chair/speaker	Duration (min)
Monday, June 07				
13:00		Welcome, opening, meeting goals, meeting setup	Barry Lefer (NASA), Ben Veihelmann (ESA), Hiroshi Tanimoto (NIES)	15
Greenhouse Gas Session			Dave Crisp (JPL), John Worden (JPL)	
13:15		Greenhouse Gas Emission Inventories for the Global Stocktake		
13:15	1.01	Overview of CEOS CO ₂ and CH ₄ Inventory Objectives and Plans	Dave Crisp (JPL)	10
13:25	1.02	Status of CO ₂ Inventory Development Activities	Brendan Byrne (JPL) and David Baker (CSU)	20
13:45	1.03	Status of CH ₄ Inventory Development Activities	John Worden (JPL) and Jerome Barre (ECMWF)	20
14:05	1.04	Inventory Development Discussion	All	10
14:15		Greenhouse Gas Mission Status and Plans (Speed Talks)		
14:15	1.05	TROPOMI CH ₄ in Combination with High Spatial Resolution Instruments	Ilse Aben (SRON)	3
14:18	1.06	OCO-2/3	Annamarie Eldering (JPL)	3
14:21	1.07	MethaneSat	Jonathan Franklin (Harvard)	3
14:24	1.08	AIM project	Ray Nassar (ECCC)	3
14:27	1.09	Joint NO ₂ / CO ₂ Observations from GOSAT-GW	Hiroshi Tanimoto (NIES)	3
14:30	1.10	Carbon Mapper Constellation	Riley Duren (University of Arizona)	3
14:33	1.11	CH ₄ Emissions Estimation using Multiple Satellites	Sudhanshu Pandey (SRON)	3
14:36	1.12	Comparison of Information Content of GOSAT and TROPOMI Global inversions, Role of Accuracy	Zhen Qu (Harvard)	3
14:39	1.13	Improving Retrieval Accuracy of CH ₄ and CO ₂	Jochen Landgraf (SRON)	3
14:42	1.14	Challenges in Integrating Multiple Data Sets for Quantifying Fluxes / Emissions	Lesley Ott (NASA)	3
14:45	1.15	Efforts to Quantify the Atmospheric Sink of Methane (OH)	Kazu Miyazaki (JPL)	3
14:48	1.16	CO ₂ M	Yasjka Meijer (ESA), Rüdiger Lang (EUMETSAT)	3
14:51	1.17	Microcarb	Carole Deniel (CNES)	3
14:54	1.18	Urban CO ₂ Flux from GOSAT Partial Column	Kei Shiomi (JAXA)	3
14:57	1.19	Discussion	All	12
15:09		End of Session		

Tuesday, June 08				
Air Quality Trace Gas Session			Ben Veihelmann (ESA), Barry Lefer (NASA), Hiroshi Tanimoto (NIES)	
13:00	2.01	Introduction to the Air Quality Trace Gas Session	Ben Veihelmann (ESA)	2
13:02		Highlights of Missions in Operation		
13:02	2.02	Air Quality Observations from GEMS	Jongmin Yoon (NIER), Jeong Ah Yu (NIER)	10
13:12	2.03	Air Quality Observations from Sentinel-5 Precursor/TROPOMI	Claus Zehner (ESA), Pepijn Veefkind (KNMI)	10
13:22	2.04	Air Quality Observations using the Thermal Infrared	Cathy Clerbaux (LATMOS/CNRS), Dave Edwards (UCAR), Dylan Millet (UMN)	10
13:32	2.05	Isoprene Observations using the Thermal Infrared	Dylan Millet (UMN)	10
13:42	2.06	Air Quality Observations from EMI	Cheng Liu, Yapeng Wang (CAS)	10
13:52		Missions in Preparation (Speed Talks)		
13:52	2.07	TEMPO Status Update	Kelly Chance (SAO)	5
13:57	2.08	Sentinel-4/-5 Status Update	Ben Veihelmann (ESA), Rose Munro (EUMETSAT)	5
14:02	2.09	Plans for Geostationary and Extended Orbits (GEO-XO) Satellite System	Shobha Kondragunta (NOAA)	5
14:07		Validation		
14:07	2.10	Pandonia Global Network	Alexander Cede (Luftblick), Luke Valin (US EPA), Jim Szykman (US EPA), Angelika Dehn (ESA)	10
14:17	2.11	GEMS Validation Plan, Validation Campaign, PAN	CK Song (UNIST), Sangwoo Kim (SNU), Limseok Chang (NIER)	10
14:27	2.12	European Participation in GEMS Cal/Val	Diego Loyola (DLR)	10
14:37	2.12b	S5P/TROPOMI SO2 Validation by Airborne Measurements	Heidi Huntrieser (DLR)	5
14:42	2.13	S5P/TROPOMI HCHO and NO2 Validation using Ground-based and Airborne Instruments	Michel Van Roozendaal (BIRA), Jean-Christopher Lambert (BIRA), Laura Judd (NASA)	20
15:02	2.14	MAX-DOAS Network in Asia and the Pacific for Validation of S5P, GEMS and GOSAT-GW	Yugo Kanaya (JAMSTEC)	5
15:07		Discussion		
15:07	2.15	<ul style="list-style-type: none"> • Covid impact, what can be learnt from the emission changes? • status CEOS workplan actions on Cal/Val coordination • toward a consistent AQ constellation • need to push for specific developments? (e.g. synergy, better cloud and aerosol corrections, ...) 	all	20
15:27		End of Session		

Wednesday, June 09				
Tropospheric Ozone Session			Diego Loyola (DLR), Gordon Labow (NASA), Hiroshi Tanimoto (NIES)	
13:00	3.01	Introduction to the Tropospheric Ozone Session	Diego Loyola (DLR)	2
13:02		Tropospheric Ozone Validation		
13:02	3.02	Tropospheric O3 Validation Process and Gap Analysis	Arno Keppens (BIRA-IASB)	15
13:17	3.03	Ground-based Validation of Tropospheric O3 Datasets	Daan Hubert (BIRA-IASB)	10
13:27	3.04	Evaluation and Validation of Tropospheric Ozone Hourly and Daily Maps Measured from EPIC, OMPS, OMI, and MLS Satellite Instruments	Jerry Ziemke (NASA GSFC)	10
13:37	3.05	Validation of the Upcoming v2 SAO OMI Ozone Profile Product Against Ozonesondes	Juseon Bak (Pusan National University)	10
13:47	3.06	Validation of TROPOMI/BASCOE Tropospheric Ozone	Klaus-Peter Heue (DLR)	10
13:57	3.07	Discussion		3
14:00		Modeling		
14:00	3.08	TOAR-II Chemical Reanalysis Focus Working Group	Kazuyuki Miyazaki (NASA JPL)	10
14:10	3.09	Use of Ozone Retrievals in the CAMS System and Steps to Include New Datasets	Antje Inness (ECMWF)	10
14:20	3.10	Impacts of Horizontal Resolution on Global Data Assimilation of Satellite Measurements	Takashi Sekiya (JAMSTEC)	10
14:30	3.11	Toward a Reanalysis Suitable for Stratospheric Ozone Trend Studies	Krzysztof Wargan (NASA/GSFC)	10
14:40	3.12	High-resolution Ozone Forecasts for Germany and Border Countries	Ehsan Khorsandi and Frank Baier (DLR)	10
14:50	3.13	Discussion		10
15:00		End of Session		

Thursday, June 10				
Air Quality Aerosol Session			Shobha Kondragunta (NOAA), Ben Veihelmann (ESA)	
13:00	4.01	Introduction to the Air Quality Aerosol Session	Shobha Kondragunta (NOAA)	3
13:03		Mission Updates (Speed Talks)		
13:03	4.02	Leo Imagers: MODIS, VIIRS, METImage	Rob Levy (NASA)	2
13:05	4.03	Multi-angle Imagers: MAIA, MISR	Yang Liu (EMORY)	2
13:07	4.04	Leo Spectrometers: OMI, OMPS, TROPOMI	Omar Torres (NASA)	2
13:09	4.05	Geo Spectrometers: GEMS, TEMPO, Sentinel-4 UVN	Yeseul Cho (Yonsei Uni)	2
13:11	4.06	Lidars: CALIOP, EARTHCARE, ATMOS	Arlindo da Silva (NASA)	2
13:13	4.07	Polarimeters: 3MI, HARP2	Bertrand Fougnie (EUMETSAT)	2
13:15	4.08	Aerosol Speciation using UV-Vis Observations by DSCORV/EPIC	Alexei Lyapustin (NASA)	2
13:17		Towards Quantitative Use of Aerosol Size and Type		
13:17	4.09	Using Satellite-derived Aerosol Size and Type for Air Quality Application	Ralph Kahn (NASA)	10
13:27	4.10	3MI Aerosol Properties and Air Quality Applications	Bertrand Fougnie (EUMETSAT)	10
13:37		Satellite Aerosol Layer Height Retrievals		
13:37	4.11	Development of Aerosol Layer Height Algorithms and Products	Jun Wang (Uni. Iowa)	10
13:47	4.12	The SSP/TROPOMI Aerosol Layer Height Product: Current Status and New Developments	Martin de Graaf (KNMI)	10
13:57		Ground Monitoring		
13:57	4.13	Low-cost PM2.5 Sensors	Andrea Clements (EPA)	10
14:07	4.14	Global Network of Lidars	Ellsworth Welton (NASA)	10
14:17	4.15	Regional Ceilometer Network	Ruben Delgado (UMBC)	10
14:27		Modeling		
14:27	4.16	Assimilation of Multiple Satellite AOD Products within the CAMS and Impacts on Simulated AOD and PM2.5	Sébastien Garrigues (ECMWF)	10
14:37	4.17	Role of Aerosol Models in Deriving Surface PM2.5	Mian Chin (NASA)	10
14:47		Applications		
14:47	4.18	Space-based Perspective on the Effects of COVID-19 Lockdowns on Fine Particulate Matter Concentrations	Randall Martin (WUSTL)	10
14:57	4.19	Towards Near-Real-Time Surface PM2.5 Monitoring from Space: A Two-decade-long Journey	Pawan Gupta (NASA)	10
15:07		Discussion	All	
15:07	4.20	Questions for presenters on mission updates GEMS aerosol product distribution and validation status		20
15:27		End of Session		

Friday, June 11				
Interdisciplinary and New Topics Session			Ben Veihelmann (ESA), Barry Lefer (NASA), Hiroshi Tanimoto (NIES)	
13:00		Summary of Sessions		
13:00	5.01	GHG	Dave Crisp (JPL)	
13:05	5.02	AQ Trace Gases	Ben Veihelmann (ESA)	
13:10	5.03	Tropospheric O3	Diego Loyola (DLR)	
13:15	5.04	AQ Aerosol	Shobha Kondragunta (NOAA)	
13:20	5.05	Q&A on Speed Talks	all	
13:30		Discussion: What can we do to make Atmospheric Composition Satellite data more useful?		
13:30	5.06	ESA-NASA-JAXA Dashboard	Barry Lefer (NASA)	
13:35	5.07	DLR INPULS Project	Diego Loyola (DLR)	
13:40	5.08	Seed questions: • Covid-related emission anomaly as Earth system experiment • Facilitate combined use of observations of multiple species from multiple satellites • Are there gaps or missing analysis tools for non-experts?	all	
14:00		General Discussion		
14:00	5.09	AC-VC strategy: • What works well / what does not? • New foci: where can we make a difference?	all	
14:10	5.10	AC-VC#18 planning	all	
14:15		End of Session		