Committee on Earth Observation Satellites

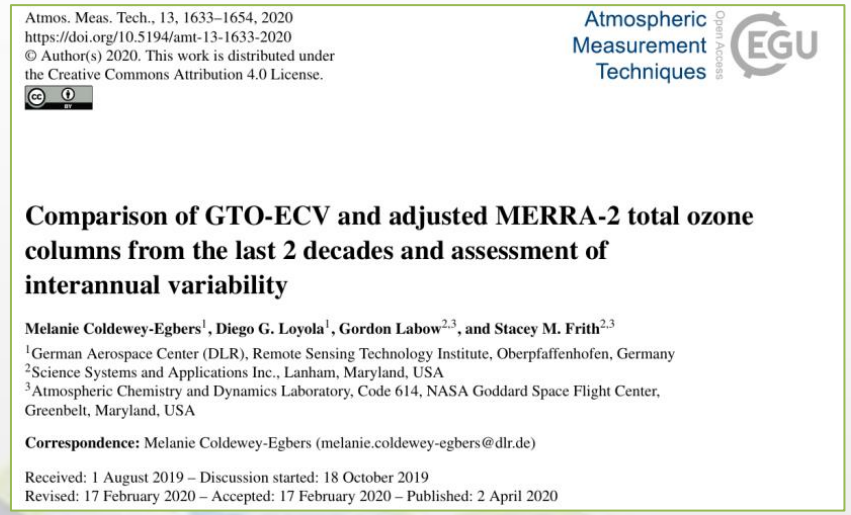
Objectives of the Ozone Session

D. Loyola (DLR) and G. Labow (NASA/SSAI)

CEOS AC-VC 16, Virtual Meeting, June 10th, 2020

CEOS AC-VC Ozone Related Deliverables

- **CEOS VC-02: Total ozone dataset validation and harmonization**



Atmos. Meas. Tech., 13, 1633–1654, 2020
https://doi.org/10.5194/amt-13-1633-2020

Atmospheric Measurement Techniques
Open Access
EGU

Comparison of GTO-ECV and adjusted MERRA-2 total ozone columns from the last 2 decades and assessment of interannual variability

Melanie Coldewey-Egbers[1], **Diego G. Loyola**[1], **Gordon Labow**[2,3], **and Stacey M. Frith**[2,3]

[1]German Aerospace Center (DLR), Remote Sensing Technology Institute, Oberpfaffenhofen, Germany
[2]Science Systems and Applications Inc., Lanham, Maryland, USA
[3]Atmospheric Chemistry and Dynamics Laboratory, Code 614, NASA Goddard Space Flight Center, Greenbelt, Maryland, USA

Correspondence: Melanie Coldewey-Egbers (melanie.coldewey-egbers@dlr.de)

Received: 1 August 2019 – Discussion started: 18 October 2019
Revised: 17 February 2020 – Accepted: 17 February 2020 – Published: 2 April 2020

Task Completed √

- **CEOS VC-20-01: Tropospheric ozone dataset validation and harmonization**
  - Production of peer-reviewed papers on intercomparisons and harmonization of tropospheric column ozone datasets
  - Activity started in CEOS AC-VC 15, expected duration until end of 2022

Satellite tropospheric ozone datasets: AC-VC 15

Sensor(s)	Time Coverage	Team
GOME-2 on Metop-A & -B (& -C) and **Sentinel-4**	2007 to now (GOME-2)	RAL
IASI on Metop-A & -B (& -C)	2007 to now	LATMOS
GOME + SCIAMACHY + GOME-2A + GOME-2B (+ GOME-2C + TROPOMI)	Homogenized dataset from 1995 to now	DLR
IASI ¥ GOME-2	2007 to now	LISA
AIRS ¥ OMI	2005 to now	NASA JPL
OMI ¥ MLS	2005 to now	NASA GSFC

¥ joint retrieval

Geostationary Sensor

Satellite tropospheric ozone datasets: AC-VC 16

Sensor(s)	Time Coverage	Team
CrIS ¥ TROPOMI	2018 to now	NASA JPL
TROPOMI ¥ BASCOE	2018 to now	DLR + BIRA
OMPS ¥ MERRA2	2018 to now	NASA GSFC
EPIC ¥ MERRA2	2015 to now	NASA GSFC
GEMS	2020 to now	Busan National Univ.
OMI and **TEMPO**	2005 to now (OMI)	SAO

¥ joint retrieval

Geostationary Sensor

Assimilation/Reanalysis

• AC-VC-16 topics

- Geophysical Validation
  - Operational validation of TROPOMI CCD product
  - AC-VC tropospheric ozone validation plans
- AC-VC contribution to TOAR-II
- Atypical ozone hole in Antarctic 2019 and Artic 2020