



GeoXO ACX Science Team Meeting Agenda (As of 05/02/2024)
National Center for Weather and Climate Prediction
5830 University Research Court, College Park
Auditorium

In person arrival instructions: Enter through the security gate, bear right and park in the garage. Enter from the main entrance and find the auditorium to the right after you pass through the double doors (before security). If you don't have a CAC or a NOAA/NASA badge, please bring a government issued photo identification card (drivers license or passport).

Remote participation available via Google Meet

Link: meet.google.com/ifx-ifyr-rdo

Or by phone (US) +1 561-614-0014 PIN: 147 374 123#

Day 1: May 7 2024, Tuesday

| 08:00 AM - 09:00 AM: REGISTRATION AND BREAKFAST | | | |
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| | Time Local (EDT) | Duration | Speaker |
| Opening Remarks | 9:00 AM - 9:15 AM | 15 min | Greg Frost and Shobha Kondragunta |
| Session I: Keynote Addresses Chair: Monika Kopacz | | | |
| Remarks by NOAA Chief Scientist | 09:15 AM - 09:25 AM | 10 min | Sarah Kapnick |
| Remarks by NESDIS AA | 09:25 AM - 09:35 AM | 10 min | Stephen Volz |
| Remarks by OAR AA | 09:35 AM - 09:45 AM | 10 min | Steven Thur |
| Remarks by NASA | 09:45 AM - 09:55 AM | 10 min | Karen St. Germain |
| Remarks by EPA | 09:55 AM - 10:05 AM | 10 min | Chris Frey |
| Remarks by WH OSTP ACRS | 10:05 AM - 10:15 AM | 10 min | Sherri Hunt |
| 10:15 AM - 10:30 AM: COFFEE BREAK | | | |
| Session II: GeoXO Updates Chair: Greg Frost | | | |

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| GeoXO Program | 10:30 AM - 10:40 AM | 10 min | Pamela Sullivan |
| GeoXO Science Working Group | 10:40 AM - 10:50 AM | 10 min | Andrew Heidinger |
| GeoXO Instruments | 10:50 AM - 11:00 AM | 10 min | Joanna Joiner |
| GeoXO User Scientist Report | 11:00 AM - 11:10 AM | 10 min | Greg Frost |
| Q & A | 11:10 AM - 11:50 AM | 40 min | All |
| Group photo 1: Science Team Group photo 2: All participants Photographer: Lori Brown (STAR) | 11:50 AM - 12:00 PM | 10 min | All |
| 12:00 - 1:30 PM: LUNCH BREAK | | | |
| 01:00 PM - 1:30 PM: Tour of NOAA Air Resources Lab | | | |
| Session III: TEMPO Chair: Shobha Kondragunta | | | |
| TEMPO status update | 01:30 PM - 01:45 PM | 15 min | Xiong Liu |
| TEMPO L1B status update | 01:45 PM - 02:00 PM | 15 min | Heesung Chong |
| TEMPO NO2 algorithm status | 02:00 PM - 02:15 PM | 15 min | Gonzalo Gonzalez-Abad |
| TEMPO Cal/Val update | 02:15 PM - 02:30 PM | 15 min | Jim Szykman |
| TEMPO Early Adopter update | 02:30 PM - 02:45 PM | 15 min | Emily Berndt |
| TEMPO product training overview | 02:45 PM - 03:00 PM | 15 min | Amy Huff |
| Q & A | 03:00 PM - 03:30 PM | 30 min | All |
| 03:30 PM - 04:00 PM: COFFEE BREAK | | | |
| Session IV: GeoXO Value Assessment Studies Chair: Monika Kopacz | | | |
| ACX and GXI Proxy Data | 04:00 PM - 04:15 PM | 15 min | Shobha Kondragunta |
| Value assessment study 1 | 04:15: PM - 04:30 PM | 15 min | Susan Anenberg |
| Value assessment study 2 | 04:30 PM - 04:45 PM | 15 min | Brian McDonald |
| Q & A | 04:45 PM - 05:15 PM | 30 min | All |
| End of Day 1 | | | |

Day 2: May 8 2024, Wednesday

| 08:00 AM - 09:00 AM: REGISTRATION AND BREAKFAST | | | |
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| | Time Local (EDT) | Duration | Speaker |
| Session I: Science Team Presentations Chair: Joanna Joiner | | | |
| L1B Calibration and Ozone Retrievals | 09:00 AM - 09:12 AM | 12 min | Lawrence Flynn |
| Nitrogen Dioxide Algorithm Development | 09:12 AM - 09:24 AM | 12 min | Kai Yang |
| Aerosol Optical Depth and Layer Height Algorithm Development | 09:24 AM - 09:36 AM | 12 min | Hai Zhang |
| Aerosol Detection Algorithm Development | 09:36 AM - 09:48 AM | 12 min | Pubu Ciren |
| Nitrogen Dioxide diurnal variation | 09:48 AM - 10:00 AM | 12 min | David Edwards |
| Aerosol Vertical Profile Retrievals | 10:00 AM - 10:12 AM | 12 min | Jun Wang |
| UV Aerosol algorithm development work | 10:12 AM - 10:24 AM | 12 min | Omar Torres |
| Q & A | 10:24 AM - 10:45 AM | 20 min | All |
| Session I.a: One-on-one between stakeholders and GeoXO user lead Andy Latto (<i>Parallel session</i>) | | | |
| | 9:00 AM - 10:30 AM | 90 min | Stakeholders |
| 10:45 AM - 11:15 AM: COFFEE BREAK | | | |
| Session II: TEMPO Applications Chair: Brad Pierce | | | |
| TEMPO Nitrogen Dioxide Product use at EPA | 11:15 AM - 11:27 AM | 12 min | Barron Henderson |
| TEMPO Nitrogen Dioxide Product use at NWS | 11:27 AM - 11:39 AM | 12 min | Cory Martin |
| TEMPO Trace Gas Assimilation activities at JCSDA | 11:39 AM - 11:51 AM | 12 min | Jerome Barre |
| TEMPO Trace Gas Assimilation Studies | 11:51 AM - 12:03 PM | 12 min | Daven Henze |
| Q & A | 12:03 AM - 12:30 PM | 30 min | All |
| 12:30 PM - 02:00 PM: LUNCH | | | |
| 01:30 PM - 02:00 PM: Tour of NESDIS Satellite Analysis Branch | | | |
| 02:00 PM - 03:30 PM: POSTER SESSION (<i>Parallel session</i>) | | | |
| 02:00 PM - 03:30 PM: Working with TEMPO NO2 and AOD Granules Files using Python, Amy K. Huff (<i>Parallel session</i>) | | | |
| 03:30 PM - 04:00 PM: COFFEE BREAK | | | |

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| Session III: ACX/GXS Synergy Chair: Mitch Goldberg | | | |
| GeoXO Sounder (GXS) | 04:00 PM - 04:12 PM | 12 min | Tim Schmit |
| VOC retrievals from sounders | 04:12 PM - 04:24 PM | 12 min | Dylan Millet |
| VOC retrievals from sounders | 04:24 PM - 04:36 PM | 12 min | Brian McDonald |
| Discussion | 04:36 PM - 05:00 PM | 25 min | Mitch Goldberg |
| End of Day 2 | | | |

Day 3: May 9 2024, Thursday

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| 08:00 AM - 09:00 AM: REGISTRATION AND BREAKFAST | | | |
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| | Time Local (EDT) | Duration | Speaker |
| Session I: Stakeholder Needs Chair: Jim Szykman | | | |
| Maryland Department of Environment | 09:00 AM - 09:10 AM | 10 min | Joel Dreessen (MD) |
| Lake Michigan Air Monitoring Directors Consortium | 09:10 AM - 09:20 AM | 10 min | Zac Adelman (LADCO) |
| Connecticut Department of Energy and Environmental Protection | 09:20 AM - 09:30 AM | 10 min | Michael Geigert (CT) |
| Pennsylvania Department of Environment | 09:30 AM - 09:40 AM | 10 min | Sean Nolan (PA) |
| Texas Commission of Environmental Quality | 09:40 AM - 09:50 AM | 10 min | David Westenbarger (TX) |
| Georgia Environmental Protection Division | 09:50 AM - 10:00 AM | 10 min | Byeong-Uk Kim (GA) |
| Q & A | 10:00 AM - 10:15 AM | 15 min | All |
| 10:15 AM - 10:45 AM: COFFEE BREAK | | | |
| Session II: ACX/GXI Synergy/Special Topics Chair: Dan Lindsey | | | |
| Long-term mortality burden trends attributed to black carbon and PM2.5 from wildfire emissions across the US from 2000 to 2020: A deep learning modeling study | 10:45 AM - 10:57 AM | 12 min | Jing Wei |
| Multi instrument synergy for aerosol height | 10:57 AM - 11:09 PM | 12 min | Vijay Natraj |
| ABI Methane | 11:09 AM - 11:21 AM | 12 min | Daniel Varon |

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| EPA Methane Rule | 11:21 AM - 11:33 AM | 12 min | Ned Shappley |
| AirMAPS | 11:33 AM - 11:45 AM | 12 min | Steven Brown |
| Q & A | 11:45 AM - 12:00 PM | 15 min | All |
| 12:00 PM - 01:30 PM: LUNCH | | | |
| 01:00 PM - 02:00 PM: TEMPO via the Python Interface to Remote Sensing Information Gateway, Barron H. Henderson (<i>Parallel session</i>) | | | |
| Session III: Special Topics Chair: Barry Lefer | | | |
| Connecting Atmospheric Composition to Earth's Radiation Budget for Climate Monitoring | 01:30 PM - 01:42 PM | 12 min | Ryan Kramer |
| Preparing for ACX Radiation products | 01:42 PM - 01:54 PM | 12 min | Istvan Laszlo |
| Proxy Data | 01:54 PM - 02:06 PM | 12 min | Patricia Castellanos |
| Sulfur Dioxide Retrievals from TEMPO and GEMS | 02:06 PM - 02:18 PM | 12 min | Can Li |
| Geostationary air quality mission in the SH | 02:18 PM - 02:30 PM | 12 min | Pieter Levelt |
| AEROMMA | 02:30 PM - 02:42 PM | 12 min | Rebecca Schwantes |
| 02:42 PM - 03:15 PM: COFFEE BREAK | | | |
| TEMPO vs. GCAS | 03:15 PM - 03:27 PM | 12 min | Laura Judd |
| TEMPO vs. Pandora | 03:27 PM - 03:39 PM | 12 min | Luke Valin |
| TEMPO vs TOLNET | 03:39 PM - 03:51 PM | 12 min | Michael Newchurch |
| Indirect validation during the AEROMMA/STAQS field campaign | 03:51 PM - 04:03 PM | 12 min | Brad Pierce |
| Can satellite data drive public policy? | 04:03 PM - 04:15 PM | 12 min | Michael Cheeseman |
| Q & A | 04:15 PM - 04:30 PM | 15 min | All |
| Closing Remarks | 04:30 PM - 05:00 PM | 30 min | ACX co-leads |
| END OF ACX MEETING | | | |