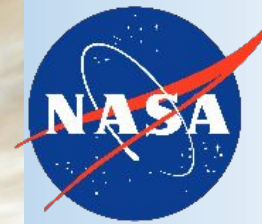


Building the Pathway from TEMPO to GeoXO



Joint Science Meeting for TEMPO,
GeoXO ACX, & TOLNet



Study of Winter Air Pollution In Toronto, Needs – Panel Discussion

Chris McLinden and SWAPIT
collaborators



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada



Tropospheric Emissions:
Monitoring of Pollution
Hourly Measurement of Pollution



Smithsonian Astrophysical
Observatory





SWAPIT: Study of Winter Air Pollution In Toronto



Area of interest: Greater Toronto Area and surroundings: $79.5^{\circ}\text{W} \pm 1.5^{\circ}$

Time: Late January to early-March 2024 (precise dates tbd)

Data products: tropospheric NO₂, HCHO, SO₂, AOD and other aerosol information, O₃, cloud information, Level 1 spectra for alternative NO₂ retrieval



SWAPIT: Study of Winter Air Pollution In Toronto



What are your (organizational) needs for special operations and the data products stemming from the operations?

- ☐ To help meet departmental mandate to monitor and predict criteria air contaminants and AQHI (air quality health indicator)

Data latency requirements? Product level needs?

- ☐ NRT not necessary but could be useful to mobile station route planning

What resources do you have to implement your Green Paper experiment?

- ☐ ECCC internal funds and personnel will be used, collaborations with provincial and university partners

How do you anticipate downloading, processing, and analyzing TEMPO data?

- ☐ Fetching L1 and L2 data products directly from TEMPO data servers

What data interfaces and tools do you plan to use?

- ☐ In house processing and analysis software

What other resources (e.g., personnel, data interfaces, tools) will be needed to fully achieve your experiment goals?

- ☐ Occasional support from TEMPO algorithm and IT teams



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How can NASA help optimize the use of special experiment data?

- ☐ Providing days/times when they will be made in advance to optimize co-ordination with ground/mobile stations
- ☐ Look for common goals and data needs amongst the various projects

How can we optimize coordination and synergy between different experiments?

- ☐ Make ancillary data products available that might be useful – cloud information, snow, albedo

Which experiments will reap the greatest benefits from coordination and synergy?

- ☐ Common science goals, validation