NOx observations at different sites

- MAIDO – Aurelie Colomb

  Things to check for the station
  - The converter efficiency of the station and the data should be re-submitted with the converter efficiency.
  - The latitude and longitude of the station should be carefully checked and correctly stated.
  - Flagging of outliers of NO and NO2 data should be re-checked.
  - Check for an unknown high peak in April which was not there in the year before.

  General items
  - As for the year 2023 the ozone data at Maido are not available, it is suggested to use the data of the other ozone measurement site on La Reunion. Although this site is not very near, the ozone data is usually very similar.

- Puy de dome – Aurelie Colomb

  Things to check for the station
  - Not all outliers currently are flagged, please re-check.

  General items
  - Commercially available software is used for their calibrations.
  - The CAPS instrument is only temporarily at the station, therefore CAPS data will not be submitted.
  - The TC stressed that if a new instrument is installed at a station (or any station in ACTRIS), it will be good to measure for some time in parallel with the old instrument to have a comparison of the performance, which is important.
  - To determine if the standard used is comparable to the NPL standard send the standard to FZJN for comparison.
  - The calibration factor should not be changed in the instrument but be given in the data. It should be determined in the calibration process.
  - The assignment of NO concentration in reference gases is a service of the TC but we cannot guarantee the stability at the station as we cannot check the long-term behavior. NPL NO standards take a long time to manufacture as they carefully check the stability of the cylinder over a longer period of time, therefore in general a purchase from NPL for every station is recommended.
  - Raw counts from the Teledyne instrument are not recorded and the station found it difficult to submit the data to EBAS. The TC will check on this item with the data center, however, there is also an entry in the Mantis issues tracker.

- Monte Cimone, Davide Putero

  Things to check for the station
  - In the frequency distribution constant peaks can be seen in the data which may be a rounding issue, this has also been observed in previous years (e.g., 2022) data submissions. This can be looked into.

  General items
  - Capo Granitola: Davide Putero informed that due to instrumental issues, no data was submitted. Hence no data discussion.
  - As for SIRTA raw counts from the Teledyne instrument for PDD are not recorded and it is difficult to submit data to EBAS. For 2023 the station data was submitted directly to the data center.

- For the Teledyne dataset it was wrong the title, but it has been fixed and the same for the file name.
- If stations cannot send counts, then mole fractions are submitted.

- Cape Verde, University of York, Anna Callaghan

Things to check for the station

- Issue with filename when submitted: it was not correct. Please check this.
- All the meta data is needed to calculate the ozone effect.
- Level 0 data contains meta data which is needed from Cape Verde to do the ozone correction. We would also need the raw counts for completeness.
- →Cape Verde will provide this data soon so that the final submission can be achieved in time. TC will add it to the issue tracker.

General items

- A continual NO measurement is planned. No NOy measurements are planned.
- The 5min is the lowest time resolution at Cape Verde to output mixing ratios.
- 2 converters are running, and they are still being compared. There is a 10-20ppt difference due to interferences in the BLC system.

- Hohenpeissenberg, Germany, Robert Holla

Things to check for the station

- Only level 0 data were submitted, it will be good to submit level 1 data also.
- Some data points/outliers may be labeled as invalid.

General items

- CAPS data were never submitted before, only the CLD data.

- Jungfraujoch, Switzerland, Martin Steinbacher

Things to check for the station

- Level 1 only is submitted to far. Level 0 yet to be submitted which the station will try to do.

General items

- It would be worthwhile to check how the trajectory dispersion models Flexpart and Hysplit match in terms of the trajectories for pollution events.
- The NO measurements in Jungfraujoch are done with the CraNOx instrument and corrections are deactivated.

- Kosetice, Czech Republic, Jan Silhavy

Things to check for the station

- Metadata from level 0 and 1 is needed. Please provide this data.

General items

- Jan Silhavy: change in the converter is observed, which may be due to a change in analyzer.

- Melpitz, Germany, Laurent Poulain

Things to check for the station

- Latitude and longitude coordinates are off, needs to be checked.

General items

- The TC will contact Melpitz regarding some NOx data issues via the issue tracker, e.g. the submitted ozone file contains only measurements for 2 months.

- SIRTA, France, Nicolas Bonnaire

Things to check for the station - Converter efficiency: only one converter efficiency is given for the station which normally would show variability. Please check. - Station latitude and longitude should be checked. - For re-submission of data of another station where the converter efficiency is problematic: Nicolas Bonnaire: please write to the data center to open a new issue in the issue tracker and then upload the data. - For the Teledyne instrument, no raw counts for the station can be submitted and the only way at the moment is to send the data directly to the data center. **General items** - It is possible to apply all the corrections and produce the level 3 data for historical data if all the data (met data, ozone etc.) are present. SIRTA has NOx data for the past 10 years. - Zeppelin, NILU, Norway, Chris Lunder **General items** - No data has been submitted for Zeppelin. However, data has been measured in the past years. - Peaks in the NOx data are coming from a power generator at Ny-Ålesund. - The TC has offered to analyze the data (e.g., sensitivities, diurnal cycle) and see whether NO/NO2 measurements at this remote site are worthwhile doing in the future and therefore become part of ACTRIS. - Zeppelin station is requested to send an e-mail to the TC to discuss how to share the data.	
EBAS data submission - **NRT data submission**: The tool is currently being developed at the TC and will ease the process of data submission to EBAS in the future. - **Notification of lev2 and lev3 submission**: Once the level 2 and level 3 data has been submitted, all contact persons at the NF will receive a notification in the Mantis issue tracker similar to the corresponding level 0 and level 1 issues. The data should be on the archive by end of May. - **Comment for level 0 data**: if there are 2 columns in the submission template which are not independent it may be misleading. Either counts or uncalibrated mixing ratios should be submitted. - **General suggestion for data submission to EBAS**: it should be clearly stated in the data files whether it is calibrated and in which units (e.g., ppb) the data is. - Level 1 data will be available only on demand from the data center.	
AOB - All stations are requested to send their station presentations to the TC so that it can be uploaded to the ACTRIS CiGas website. - **A separate NOx workshop** will take place after the ACTRIS Science conference, i.e. in the week 20-24 May 2024. One of the main topics will be how the stations are doing calibrations and automating them. This information exchange will benefit all stations submitting NOx data in ACTRIS.	

- **Suggestion to TC**: to provide a table overview of the stations which submitted raw data in order to facilitate communication among stations to help with submission of data to EBAS if needed.	