

ECAC Community Meeting

ACMCC



Outline

- CIL ACTRIS ACSM dates and information (Nov. 2026)
- ACMCC reports
- ACSM data submission tool
- NF feedback on the data submission workshop
- Availability of ACSM data in EBAS
- ACSM data resubmission
- Interest in a pre-concentrator system

CIL ACSM ACTRIS 2026 - Program

Installation :

- ACSM reception before October 27th at ACMCC (<https://acmcc.aeris-data.fr/access/>). For instruments requiring repair: 2 weeks in advance, Oct. 12–24
- ACSM installation: October 29-30


Intercomparison : Nov. 2–27

- November 2-6: Start of the intercomparison and organization of technical workshops (November 4-6: tunings, pump maintenance, RF/RIE calibration, flow calibration, etc.)
- November 9-17: Calibration of all ACSMs
- November 18-22: Ambient air measurements
- November 23-24: ACSM uninstallation
- “Data processing” workshop: November 26-27 (online)

13 invitations sent

ACMCC reports







All ACSM calibration reports from the ACTRIS ACMCC intercomparison are available on the ECAC server

 Synology Drive















CATÉGORIES

- ▼ Dossier de l'équipe
 - ▶ 01_ECAC
 - ▶ 21_CCC
 - ▼ 22_ACMCC
 - ▶ 01_General Information
 - ▼ 02_Reports
 - ▶ 2022
 - ▶ 2023
 - ▶ 2024
 - ▶ 2025

Dossier de l'équipe / 22_ACMCC / 02_Reports ▼

+ Créer      

Titre

☆  2025	→	☆  ACT-SIR-2025-Aerodyne Q-ACSM SN140113.pdf
☆  2024		☆  ACT-POT-2025-Aerodyne ToF-ACSM SN091.pdf
☆  2023		☆  ACT-PAY-2025-Aerodyne ToF-ACSM SN092.pdf
☆  2022		☆  ACT-MEL-2025-Aerodyne Q-ACSM SN140143.pdf
		☆  ACT-LEC-2025-Aerodyne ToF-ACSM SN089.pdf
		☆  ACT-KUO-2025-Aerodyne ToF-ACSM SN060.pdf
		☆  ACT-JFJ-2025-Aerodyne ToF-ACSM SN017.pdf
		☆  ACT-HYL-2025-Aerodyne ToF-ACSM SN019.pdf
		☆  ACT-GRA-2025-Aerodyne ToF-ACSM SN069.pdf
		☆  ACT-DEM-2025-Aerodyne ToF-ACSM SN024.pdf

ACSM data submission tool

Update for ToF-ACSM: use of
Tofware for processed data instead
of native data

- New features for both Quad and ToF
1. Limit of Detection (LoD)
calculations Panel
 2. Composition-Dependent
Collection Efficiency (CE)*
correction Panel
 3. Mass Closure Panel

Manuals in preparation

ACSM Export Tool v.1.1.3

Station Name: SARTA | Spectrometer: UMR ToF | Serial Number: 010

Lens: PM1 Lens | Vaporizer: Standard Vap.

Script Data Folder: C:\Users\lhrivell\actris_acsm_converter. [SET]

I/ ACSM concentrations

Note: Do not 'use the CDCE', data suffix should be _11000
Check calculate plot errors when generating Time series

1. Path to final conc. root:HDF_fileID: [SET]

2. Load Native Files

3. Get ACSM data

4. Check LOD values | 5. Dryer | 6. CDCE panel

II/ Errors

Get Errors | Check Error Sanity

III/ Mass Closure

Mass closure panel

IV/ Flags

Suggest Flags | Open Manual Flag Panel

Export raw txt files

Generate NASA-AMES

ACSM Export Tool v.1.6

Station Name: SARTA | Spectrometer: UMR Quad | Serial Number: 140113

Lens: PM1 Lens | Vaporizer: Standard Vap.

Script Data Folder: C:\Users\lhrivell\actris_acsm_converter. [SET]

I/ ACSM concentrations

Get ACSM Data & Diagnostics

Dryer | Pumps

Check LOD values

CE Corrections

II/ Errors

Edit Param. | Calculate Errors | Check Error Sanity

Mass Closure

III/ Flags

Suggest Flags | Open Manual Flag Panel

Export raw txt files

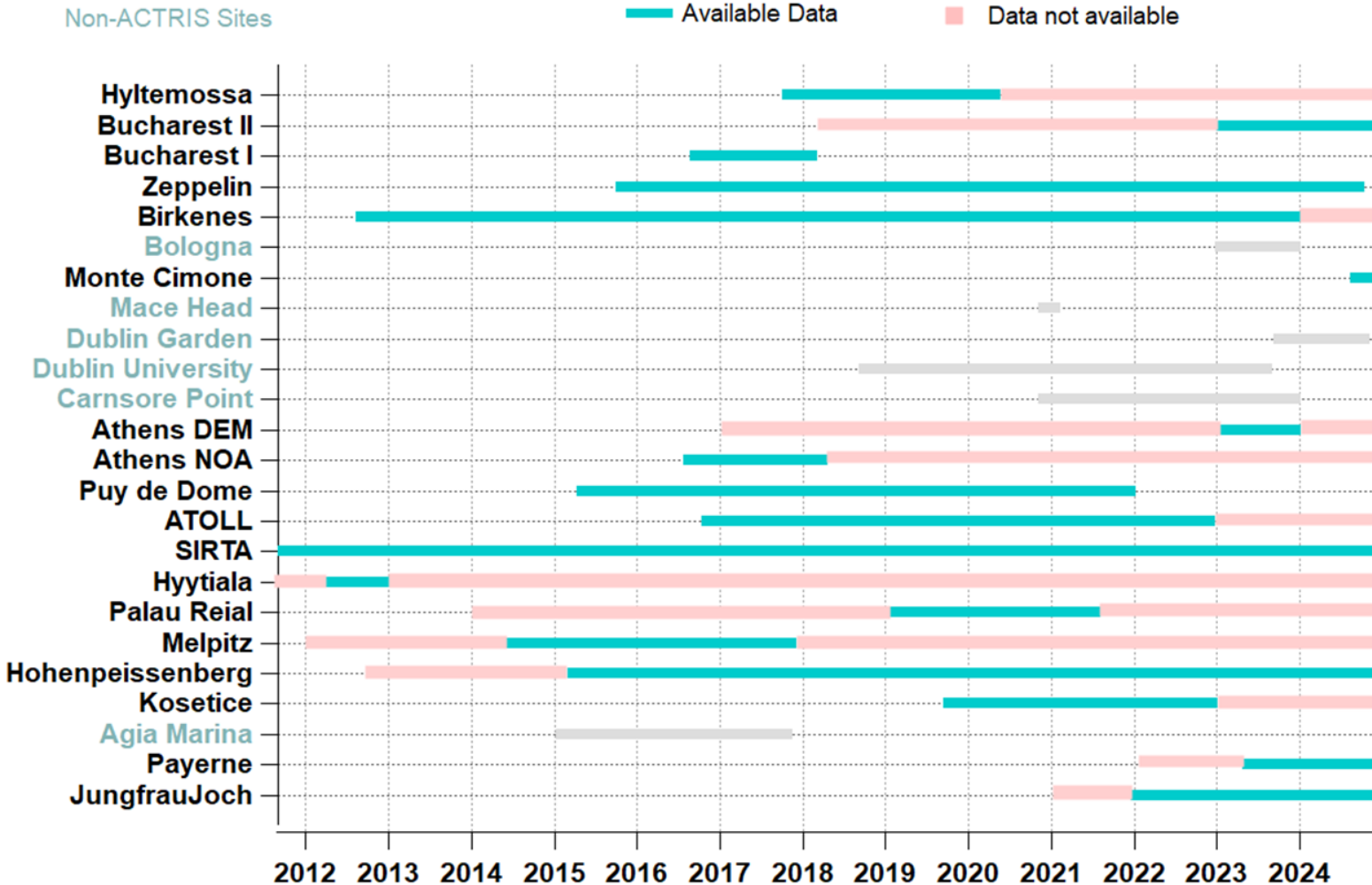
Generate NASA-AMES

ACMCC Workshops – Feedback from NF

Feedback from Leïla Simon (PSI)

Status of ACSM data availability on EBAS

<https://thredds.nilu.no/thredds/catalog/ebas/catalog.xml>

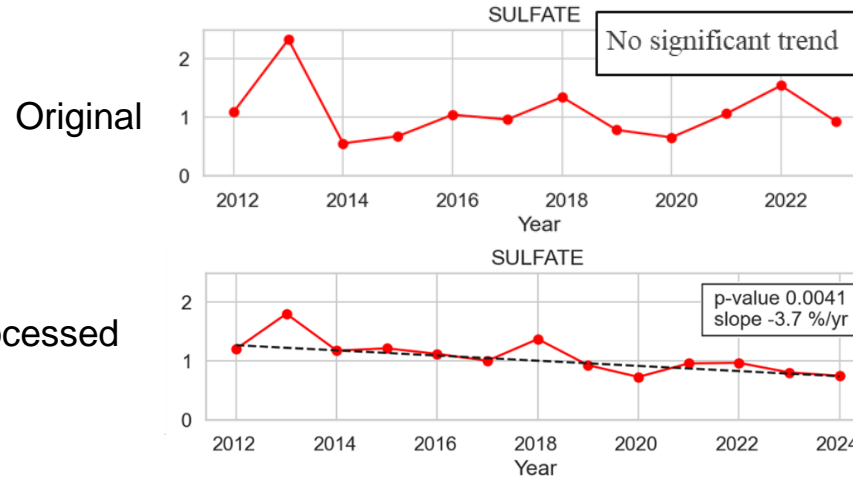
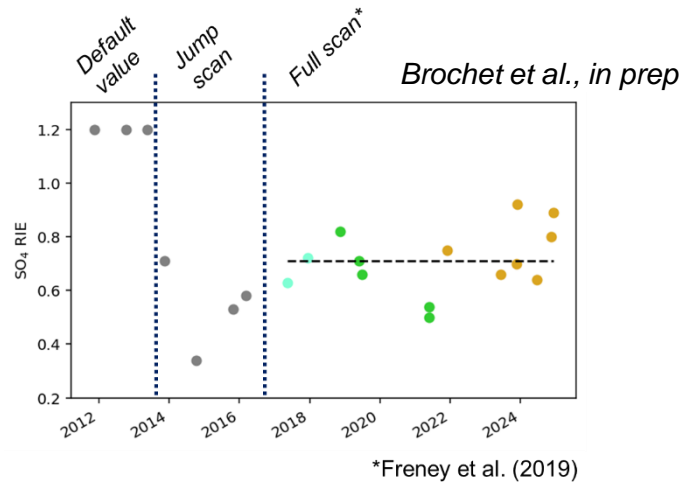


Feedback from community

- need for data processing workshop (similar to Gazis) prior to submission
 - Plan the workshop in Jan-Feb
 - for some stations, ACSM data analysis is not a priority
- ==> underline the need for tools to reduce the time spent on data analysis and submission
- some sites without external data to perform mass closure

ACSM data resubmission

- All : Temporal homogeneity is required



Impactful changes in the method of SO_4 RIE calibration
RIE average = 0.7

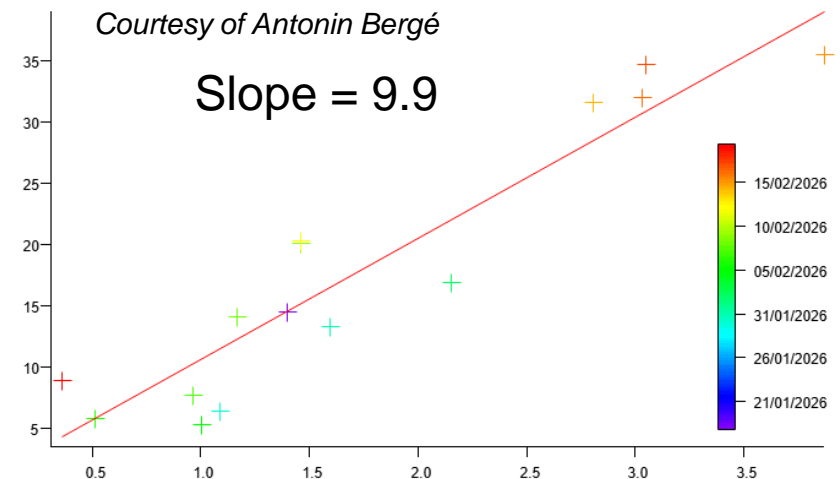
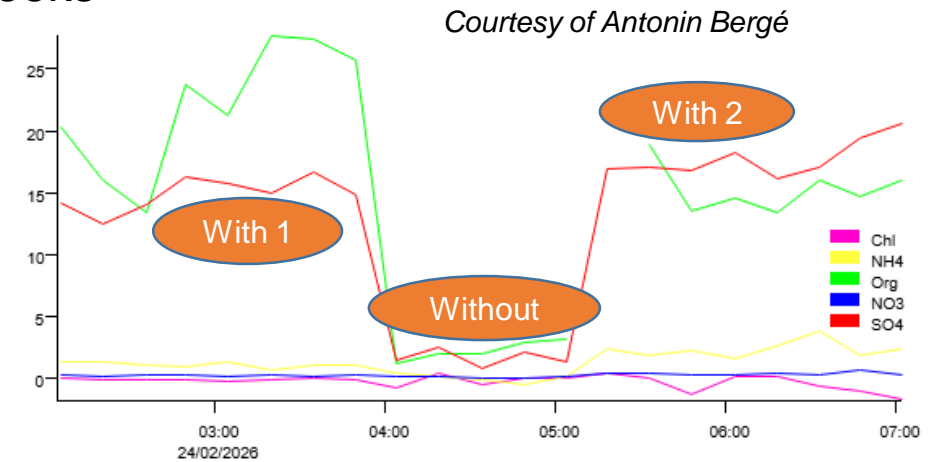
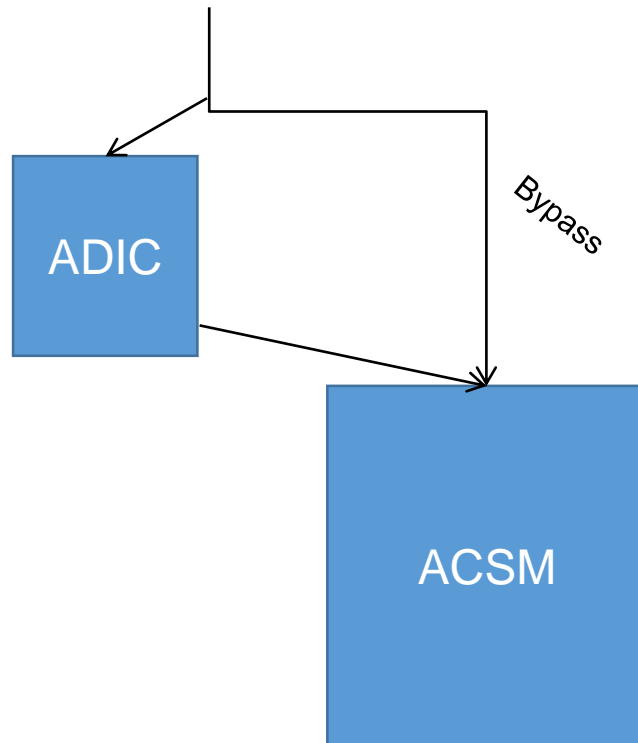
- ToF-ACSM data : new submission tool
- All : Issue with stp correction (fixed in soft version 0.2.9)

All data need to be resubmitted

ACMCC will schedule individual meetings with NFs to support

Interest in a pre-concentrator system

- Would you be interested in a pre-concentrator system for your ACSM ?
- Evaluation of the Aerosol Dynamics Inc. concentrator (ADIC) *Saarikoski et al. (2019)*
 - Onboard Marion Dufresne (Southern Indian Ocean) for 6 weeks
 - Thanks to H. Timonen (FMI)



Official evaluation report available within the next months