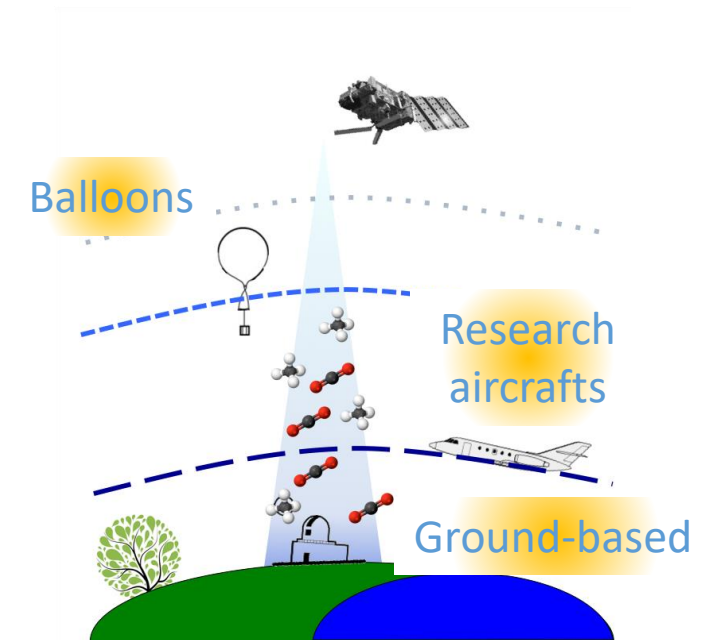


- **Proposal for a 1-month campaign**
 - **Date:** 1-30 June 2026
 - End of cal/val periods for many instruments launched in summer 2025
 - Possible Metop-C/Metop-SG-A1 tandem flight
 - **Location:** France-Germany-The Netherlands
 - **Main objective:** Validation of Metop-SG (focus on IASI-NG, Sentinel5, TBD 3MI), MTG-S (IRS, S4) and MicroCarb
 - **Expected funding:** CNES, CNRS, EUMETSAT, ESA
- **How:** By combining measurements from aircrafts, balloons and ground, both in-situ and remote sensing, to extensively characterize the atmosphere at the overpassing time of the satellites
- **Main targeted products:** Temp, H₂O, O₃, CO₂, CH₄, CO, N₂O, NO₂ + aerosols (TBD)
- Builds on past MAGIC campaigns (2018-2023) and AirCore-Fr network
<https://magic.aeris-data.fr> & <https://aircore.aeris-data.fr>
- **Contact:** cyril.crevoisier@lmd.ipsl.fr



MAGIC-AVALON - Airborne VALIDation Of New-generation satellites

Tentative list of instruments

Aircrafts	ATR42	In-situ: Temp, H ₂ O, O ₃ , CO ₂ , CH ₄ , CO, N ₂ O, NO ₂	0-7 km profiles + along-track +hotspots
		Remote sensing: GHG lidar (CH ₄ /CO ₂ or H ₂ O) and wind lidar	
	Gerfaut	In-situ: Temp, H ₂ O, O ₃ , CO ₂ , CH ₄	Boundary layer
	Other research aircrafts under consideration		
Balloon	AirCore	Temp, H ₂ O, O ₃ , CO ₂ , CH ₄ , CO	0-25 km profiles Extensive coverage (daily/monthly) from 3 sites (Aire-sur-l'Adour, Reims, Sodankyla)
Ground	Mobile FTS (EM27/SUN, CHRIS)	H ₂ O, O ₃ , CO ₂ , CH ₄ , CO	Total columns, spectra
	Lidars	Temp, H ₂ O, CO ₂ , wind, aerosols	BL, columns

Teams

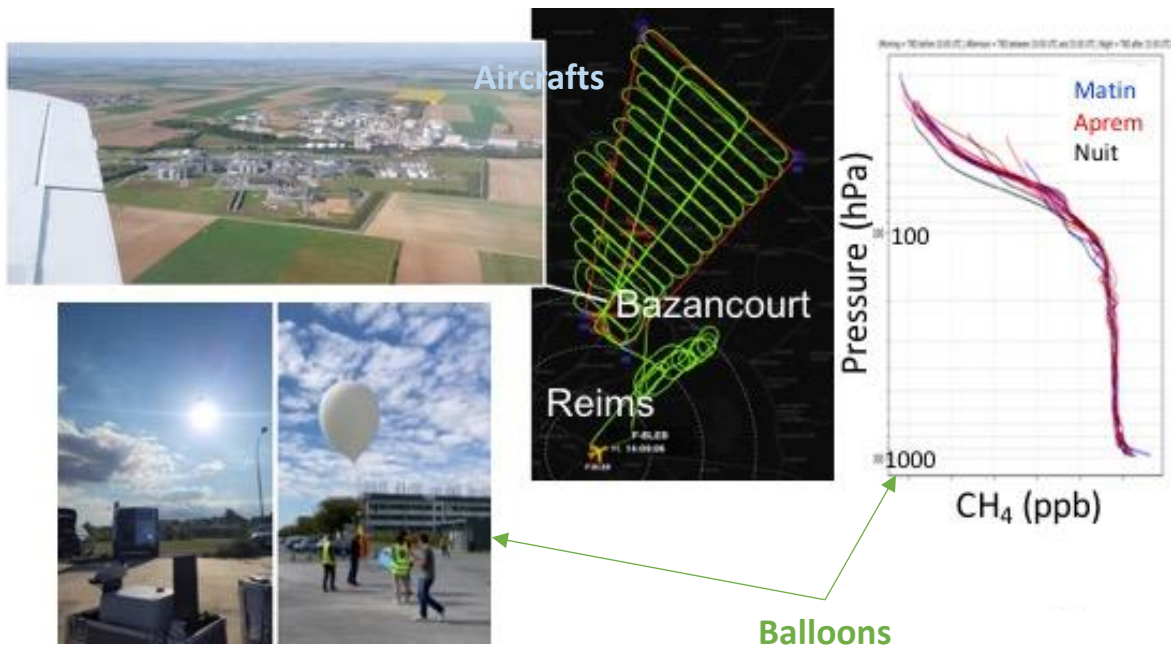


MAGIC-AVALON - Airborne VALIDation Of New-generation satellites

Examples of deployment scenarios

Hotspot targeting

(ex: Bazancourt sugar factory MAGIC2023)

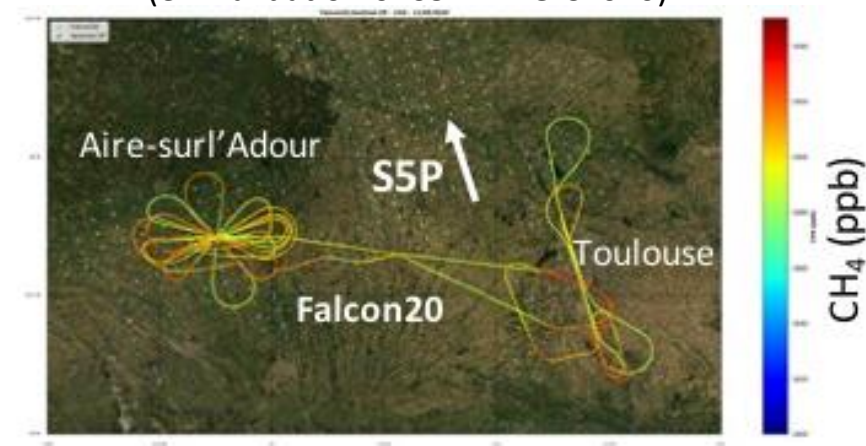


Ground-based FTS

Balloons

Along track measurement

(ex: Validation of S5P MAGIC2020)



Validation of IASI FOV (MAGIC2019)

