

Instrument name	PI	Institution	Measurement type	Altitudes	Raw measurement quantities	Geophysical quantities
GPS (Euros)	Venel stephanie.venel@cnes.fr	CNES	in-situ	flight level	every 30 s	3D positions horizontal winds time
GPS (Zéphyr)	Hertzog albert.hertzog@lmd.polytechnique.fr	LMD	in-situ	flight level	every 30 s	3D positions horizontal winds time
Tsen	Hertzog albert.hertzog@lmd.polytechnique.fr	LMD	in-situ	flight level	every 30 s every 1 s	temperature pressure
Driftsondes	Cohn cohn@UCAR.EDU	NCAR	in-situ	flight level to surface below ~10 km	54 dropsondes/gondola	temperature pressure horizontal winds humidity
Fiber Optic	Kalnajs kalnajs@colorado.edu	LASP	in-situ	flight level down to 2-4 km below	1 profile every 5-10 min	temperature total upwelling flux total long wave flux
Serb	Hauchemorne alain.hauchemorne@atmos.ipsl.fr	LATMOS	in-situ	flight level	every 1 min every 10-15 min (only night)	H2O mixing ratio H2O mixing ratio CO2 mixing ratio CH4 mixing ratio
SAWPHY	Hertzog albert.hertzog@lmd.polytechnique.fr	LMD	in-situ	flight level	every 10-15 min (only night)	H2O mixing ratio H2O mixing ratio CO2 mixing ratio CH4 mixing ratio
pico-SDLA	Durry georges.durry@univ-reims.fr	GSMA	in-situ	flight level	every 10-15 min	O3 mixing ratio
B-Bop	Hertzog albert.hertzog@lmd.polytechnique.fr	LMD	in-situ	flight level	every 10-15 min	O3 mixing ratio
UCOz	Kalnajs kalnajs@colorado.edu	LASP	in-situ	flight level	every 10-15 min	O3 mixing ratio
WOPC	Deshler deshler@uwyo.edu	U. Wyoming	in-situ	flight level	every 8 min	size resolved (8 bins) aerosol number concentration
LOAC	Renard jbrenard@cnsr-orleans.fr	LPC2E	in-situ	flight level		size resolved particle #
pico-LIDAR	Fierli f.fierli@isac.cnr.it	CNR	remote (nadir)	flight level down to ~5 km below flight level	1 profile every 5-10 min	attenuated backscatter high-precision 3D positions
ROC	Haase jhaase@ucsd.edu	Scripps	remote (limb)	flight level down to z~4 km	tens of profiles per day	temperature

time resolution	spatial resolution	vertical resolution	sensitivity	accuracy	precision	Status of instrument	Primary issues for Strateole 2 readiness
30 s				2 m (horizontal) 3 m (vertical)	0.1 m/s	on the shelf	
30 s				2 m (horizontal) 3 m (vertical)	0.1 m/s	on the shelf	
30 s 30 s 1 s				0.2 K (day and night) 8 Pa	0.2 K (day and night) 0.1 Pa	already flown many times on long-duration flights	
						already flown during Concordiasi but need updates	funding? 6-week lifetime
5-10 min		2 m			1 K		
1 min						new tested on short-duration flights	
10-15 min				5%	2%	tested many times on short-duration flights already flown during Concordiasi	
10-15 min				2%	10 ppbv	already flown during Concordiasi	
10-15 min				2%	10 ppbv	already flown during Concordiasi	
8 min			0.075-15 μ m	10%	10%	already flown during Concordiasi	only 2-3 instruments remaining
						tested on short-duration flights mockup already tested but need updates	
5-10 min		30 m					funding?
		1 km		10 cm (horizontal) 20 cm (vertical)			