

Supplementary_material_S2

No.	code	aircraft obs.	latitude	longitude	altitude	Institute(s)	ObsPack/source/type
GLOBALVIEWplus_v6.0_2023-12-01, obspack_ch4_1_NRT_v6.0_2023-11-30							
1	SAN	Santarem	-2.85	-54.95	78	INPE	san_aircraft-pfp_433_representative
2	TEF	Tefe	-3.6	-66.5	-1E+34	INPE	tef_aircraft-pfp_433_representative
3	ALF	Alta Floresta	-8.92	-56.79	-1E+34	INPE	alf_aircraft-pfp_433_representative
4	RBA-B	Rio Branco	-9.36	-67.6	-1E+34	INPE	rba-b_aircraft-pfp_433_representative
5	SAH	Salinopolis High	-0.8546	-48.1834	20	INPE	sah_aircraft-pfp_433_representative
6	IAGOS	In-service Aircraft for a Global Observing System	-1E+34	-1E+34	-1E+34	KIT/IMK-ASF,IAU	iagos-caribic_aircraft-flask_457_allvalid
7	IAGOS	In-service Aircraft for a Global Observing System	-1E+34	-1E+34	-1E+34	KIT/IMK-ASF,MPI-BGC,IAU	iagos-caribic_aircraft-insitu_457_allvalid
8	IAGOS	In-service Aircraft for a Global Observing System	-1E+34	-1E+34	-1E+34	MPI-BGC	iagos-core_aircraft-insitu_45_allvalid
9	AJAX	Alpha Jet Atmospheric eXperiment (AJAX)	-1E+34	-1E+34	-1E+34	NASA-Ames	ajax_aircraft-insitu_429_allvalid
10	LARC	LARC - NASA Langley Research Center Aircraft Campaign	-1E+34	-1E+34	-1E+34	NASA-LaRC	korus-aq_aircraft-insitu_428_allvalid-dc8
11	ACT	Atmospheric Carbon and Transport - America	-1E+34	-1E+34	-1E+34	NASA-LaRC	act_aircraft-insitu_428_allvalid-b200
12	ACT	Atmospheric Carbon and Transport - America	-1E+34	-1E+34	-1E+34	NASA-LaRC	act_aircraft-insitu_428_allvalid-c130
13	ORC	ORCAS (O2/N2 Ratio and CO2 Airborne Southern Ocean Study)	-1E+34	-1E+34	-1E+34	NCAR,NOAA	orc_aircraft-insitu_3_allvalid-merge10
14	CON	CONTRAIL (Comprehensive Observation Network for TRace gases by AirLiner)	-1E+34	-1E+34	-1E+34	NIES,MRI	con_aircraft-flask_42_allvalid
15	PFA	Poker Flat, Alaska	64.9	-148.76	210	NOAA	pfa_aircraft-pfp_1_allvalid
16	HIL	Homer, Illinois	40.07	-87.91	201.5	NOAA	hil_aircraft-pfp_1_allvalid
17	ESP	Estevan Point, British Columbia	49.383	-126.5441	7	NOAA	esp_aircraft-pfp_1_allvalid
18	LEF	Park Falls, Wisconsin	45.9451	-90.2732	472	NOAA	lef_aircraft-pfp_1_allvalid
19	SCA	Offshore Charleston, South Carolina	32.77	-79.55	0	NOAA	sca_aircraft-pfp_1_allvalid
20	NHA	Offshore Portsmouth, New Hampshire (Isles of Shoals)	42.95	-70.63	0	NOAA	nha_aircraft-pfp_1_allvalid
21	CMA	Offshore Cape May, New Jersey	38.83	-74.32	0	NOAA	cma_aircraft-pfp_1_allvalid
22	WBI	West Branch, Iowa	41.7248	-91.3529	241.7	NOAA	wbi_aircraft-pfp_1_allvalid
23	CAR	Briggsdale, Colorado	40.6347	-104.3269	1488	NOAA	car_aircraft-pfp_1_allvalid
24	ETL	East Trout Lake, Saskatchewan	54.3541	-104.9868	493	NOAA	etl_aircraft-pfp_1_allvalid
25	TGC	Offshore Corpus Christi, Texas	27.73	-96.86	0	NOAA	tgc_aircraft-pfp_1_allvalid
26	THD	Trinidad Head, California	41.0541	-124.151	107	NOAA	thd_aircraft-pfp_1_allvalid
27	RTA	Rarotonga	-21.25	-159.83	3	NOAA	rta_aircraft-pfp_1_allvalid
28	SGP	Southern Great Plains, Oklahoma	36.607	-97.489	314	NOAA	sgp_aircraft-pfp_1_allvalid
29	CRV	Carbon in Arctic Reservoirs Vulnerability Experiment (CARVE)	64.9863	-147.598	611.43	NOAA	crv_aircraft-pfp_1_allvalid
30	DND	Dahlen, North Dakota	47.5	-99.24	472.44	NOAA	dnd_aircraft-pfp_1_allvalid
31	MRC	Marcellus Pennsylvania	41.4662	-76.4188	592	NOAA	mrc_aircraft-pfp_1_allvalid
32	INX	INFLUX (Indianapolis Flux Experiment)	39.5805	-86.4207	-1E+34	NOAA	inx_aircraft-pfp_1_allvalid
33	ACG	Alaska Coast Guard	57.7366	-152.5042	6	NOAA	acg_aircraft-pfp_1_allvalid
34	ACT	Atmospheric Carbon and Transport - America	-1E+34	-1E+34	-1E+34	NOAA	act_aircraft-pfp_1_allvalid-b200
35	ACT	Atmospheric Carbon and Transport - America	-1E+34	-1E+34	-1E+34	NOAA	act_aircraft-pfp_1_allvalid-c130
36	TOM	Atmospheric Tomography Mission (ATom)	-1E+34	-1E+34	-1E+34	NOAA	tom_aircraft-pfp_1_allvalid
37	TOM	Atmospheric Tomography Mission (ATom)	-1E+34	-1E+34	-1E+34	NOAA	tom_aircraft-insitu_1_allvalid
38	CRV	Carbon in Arctic Reservoirs Vulnerability Experiment (CARVE)	-1E+34	-1E+34	-1E+34	NOAA	above_aircraft-insitu_1_allvalid
39	MAN	Manaus	-2.5950000286	-60.2089996338	45	NOAA	man_aircraft-insitu_1_allvalid
40	ECO	East Coast Outflow	-1E+34	-1E+34	-1E+34	NOAA	eco_aircraft-insitu_1_allvalid
41	UGD	Kajjansi Airfield, Kampala, Uganda	0.2	32.55	1141	NOAA	ugd_aircraft-insitu_1_allvalid
JMA							
42	AOA	Aircraft Observation of Atmospheric trace gases by JMA	-1E+34	-1E+34	-1E+34	JMA	flask
Tohoku University							
43	PIP	Aircraft (off the Pacific coast of Sendai)	-1E+34	-1E+34	-1E+34	TU	flask
44	TDA	Aircraft (over Japan and mainland)	-1E+34	-1E+34	-1E+34	TU	flask
NIES Aircraft							
45	NOV	Novosibirsk	-1E+34	-1E+34	-1E+34	NIES	flask
46	SUR	Surgut	-1E+34	-1E+34	-1E+34	NIES	flask
47	YAK	Yakutsk	-1E+34	-1E+34	-1E+34	NIES	flask