

Meteor 015 (2020)

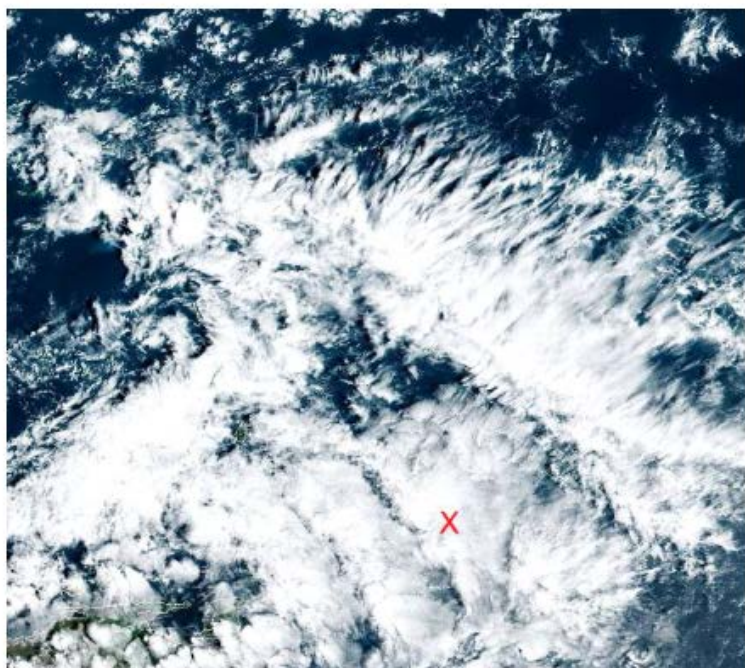
Stefan Kinne (16 feb 2am)

1. Objective

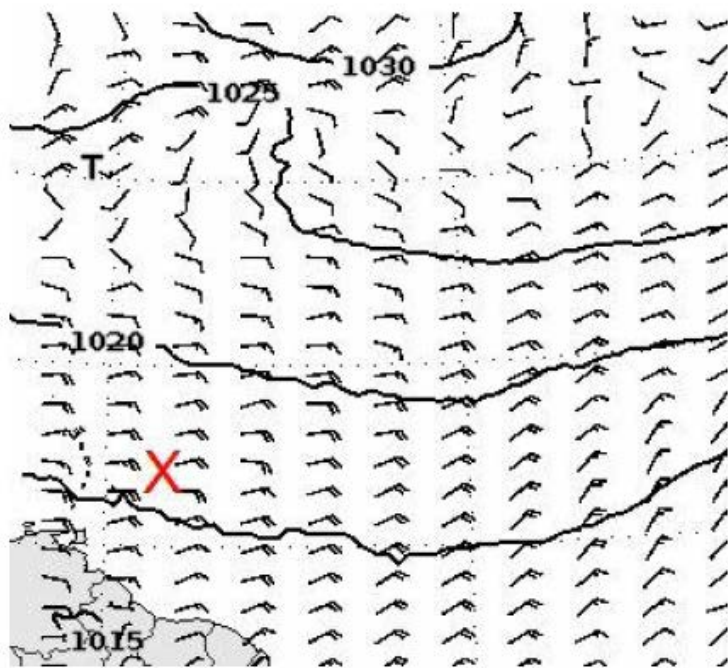
Collecting regional statistics along the southern Meteor track with the regular CTD casts every 3 hours and regular radiosondes launches (at 2.45, 6.45, 11.01, 14.45, 16.33 (DWD), 18.45, 22.45UTC). Launching the mini cloud-kite with its new mini-instrument.

After reaching the METEOR track at 57.2W back from excursion to the eastern boundary the Meteor continued past L2 to the southern turning point and then headed back in the northern direction. At L2 we celebrated our 200th CTD profiling station and at this stop launched the replacement cloud-kite (which we received from the MERIAN a couple of days ago) - now with two ropes for a maximum altitude of 300m. The instrumentation is minimal but we are up in the air again!

2. Synoptic Situation



Satellitenbild GOES16 15.02.2020 12:50 UTC



Vorhersage für Sonntag 12 UTC

Weather observations (every 3hr)

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20 02 15001 99133 70570 11598 70711 10264 20188 40165 53006 70182 81278 22221 04271
2//// 3//// 4//// 5//// 6//// ICE ////
 20 02 15031 99133 70568 43//// /0711 10260 20201 40167 52002 7//// 8//// 22221 04272
2//// 3//// 4//// 5//// 6//// ICE ////
 20 02 15061 99131 70571 16//// /0709 10284 20208 40159 58008 7//// 8//// 22252 04271
2//// 3//// 4//// 5//// 6//// ICE ////
 20 02 15091 99129 70572 46//// /0612 10246 20209 40148 56011 7//// 8//// 22251 04271
2//// 3//// 4//// 5//// 6//// ICE ////

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20 02 15121 99126 70572 11498 70611 10257 20207 40165 53017 70282 8287/ 22242 04271
20301 307// 40804 5///// 6///// ICE /////
20 02 15151 99124 70572 41598 70811 10265 20202 40166 50001 70282 8387/ 22241 04272
20301 308// 40904 5///// 6///// ICE /////
20 02 15181 99122 70572 11598 80810 10264 20197 40146 56020 70282 8127/ 22241 04272
20301 307// 40904 5///// 6///// ICE /////
20 02 15211 99125 70572 41597 70811 10263 20205 40139 55007 70322 8227/ 22201 04271
20302 308// 40904 5///// 6///// ICE /////

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Overcast conditions all day by mid-level clouds. Few occasions with traces of rain. Wind-speeds near 10m/s.

3. Cruise-day Elements

hourly means of ship data (1st line 0-1 UTC, 2nd line 1-2 UTC ... last line 23-24 UTC)

salinity PSU	Tdew °C	Tair °C	Twater °C	TrueDir deg	RH %	rel.Wind m/s	trueWind m/s	lw Rad W/m ²	sw Rad W/m ²	lat °N	lon °E
35.5198	19.12	26.21	27.05	68.92	64.58	15.43	11.06	391.38	-1	13.3	-56.89
35.6967	20.03	26.11	27.1	67.07	68.9	14.76	12.18	403.67	-1	13.3	-56.75
35.7069	19.94	26.15	27.12	69.13	68.25	10.38	11.15	387.6	-1.13	13.29	-56.73
35.6149	20.69	28.01	27.16	66.08	64.48	5.41	11.24	410.6	-1.47	13.22	-56.85
35.66	19.97	26.07	27.1	67.47	68.73	9.41	10.98	412.8	-1.07	13.15	-56.98
35.6789	20.37	27.41	27.1	67.33	65.4	7.38	10.1	414.38	-1	13.12	-57.01
35.57	20.66	28.22	27.16	64.27	63.67	6.08	10.23	412.92	-1	13.05	-57.14
35.57	20.44	26.02	27.12	61.8	70.9	9.86	11.16	405.82	-1	13	-57.24
35.5837	20.43	25.25	27.09	74.1	74.3	12.13	12.13	410.05	-1	12.97	-57.24
35.6919	20.37	25.42	27.09	56.6	73.15	9.82	11.1	404.1	-1	12.84	-57.25
35.918	20.34	25.41	27.05	53.05	73.13	10.89	11.4	400.78	21.47	12.72	-57.25
35.8957	20.39	25.65	27.05	60.75	72.33	10.1	10.51	409.35	129.25	12.69	-57.24
35.8552	20.66	25.95	27.12	67.75	72.17	9.35	9.78	425.85	179.32	12.56	-57.24
35.8567	20.5	25.81	27.13	83.07	72.13	10.73	10	435.88	217.92	12.44	-57.25
35.8624	19.85	26.41	27.16	74.87	66.85	11.12	10.67	422.78	478.22	12.41	-57.24
35.8669	20.18	26.38	27.17	76.97	68.32	11.12	10.83	412.58	604.4	12.29	-57.24
35.821	20.32	26.32	27.17	72.9	69.23	10.65	10.34	408.23	660.18	12.14	-57.25
35.83	19.99	26.33	27.17	74.82	67.75	11.8	9.87	412.78	359.22	12.16	-57.24
35.8852	20.12	26.32	27.19	77.13	68.3	12.08	9.32	412.9	307.42	12.33	-57.24
35.9042	20.07	26.23	27.2	72.67	68.5	10.47	9.99	415.02	168.98	12.42	-57.25
35.9025	20.44	26.19	27.14	76.63	70.27	11.95	10.81	418.4	87.95	12.44	-57.24
35.8608	20.61	26.22	27.11	80.25	70.9	13.69	11.4	416.6	22.17	12.58	-57.24
35.8769	20.62	26.24	27.1	81.02	70.78	10.45	9.55	420.83	-0.92	12.71	-57.25
35.8948	20.81	26.29	27.1	83.32	71.47	11.88	10.51	426.15	-1	12.77	-57.24

inter-calibration: none
CTD stations: 8
radiosondes: 7
overflights: none

station no.	UTC	device	action	latitude	longitude	depth	contact person
M161 202	15 feb 2020 / 01:43-02:19	CTD	CTD	13°18.005 N	56°43.811' W	800	Baranowski
M161 203	15 feb 2020 / 04:31-05:08	CTD	CTD	13°08.989 N	56°59.396' W	800	Baranowski
M161 204	15 feb 2020 / 07:27-08:03	CTD	CTD	13°00.040 N	57°14.736' W	800	Baranowski
M161 205	15 feb 2020 / 10:33-11:08	CTD	CTD	12°42.711 N	57°14.713' W	800	Baranowski
M161 206	15 feb 2020 / 13:43-14:21	CTD	CTD	12°25.131 N	57°14.717' W	800	Baranowski
M161 207	15 feb 2020 / 16:26-17:14	CTD	CTD	12°07.509 N	57°14.734' W	800	Baranowski
M161 208	15 feb 2020 / 19:08-23:40	CTD	CTD	12°25.122 N	57°14.737' W	800	Baranowski
M161 209	15 feb 2020 / 22:19-23:53	CTD	CTD	12°42.751 N	57°14.745' W	800	Baranowski

4. Instrument Status

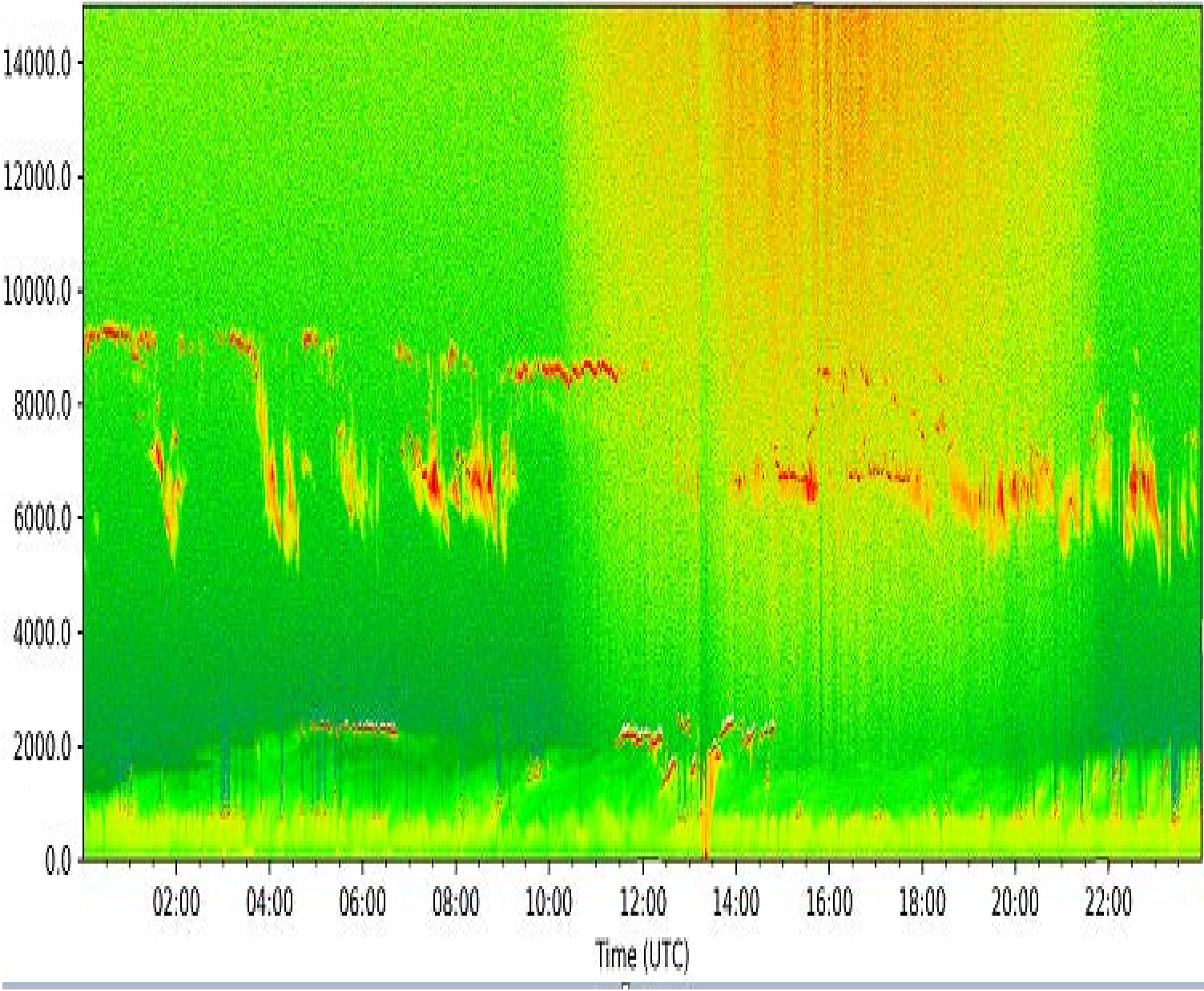
Instrument-Status (**W**-working, **P**-partially-working, **F**-failure, **U**-untested, **R**-ready, **L**-lost)

	status	operators
radiosondes	W	Katharina, Imke, Yanmichel, Almuth, Kevin, Sebastian, Geiske
cloud-radar	W	Heike, Johannes
micro-radiometer	W	Heike, Johannes
spect-radiometer	W	Heike, Johannes
Raman-lidar	W	Ludwig
spare cloud-kite	W	Oliver, Marcel, Marcel, Antonio, Robert, Sanola
Picarro	W	Sebastian
micro-biology	W	Wiebke, Jan, Abiel
ADPC ocean curr.	W	Callum, Beth
thermosalinograph	W	Callum, Beth
glider	W	Callum, Beth
UAV	W	Darek, Jakub, Michal, Wojciech
eddy-flux-data	W	Katharina, Imke, Heike
wind-lidar (DTU)	W	Geiske, Kevin
wind-lidar (Bre)	W	Geiske, Kevin
MAX-DOAS	W	Alma
ceilometer	W	Stefan
cloud camera	W	Stefan
sunphotometer	W	Stefan, Przemek, Andreas, John, Sanola
aero scat/abs	W	Przemek (Mr P)
WRAS (aero size)	W	Alma

CTD			W	Darek, Przemek, Beth, Callum, Alma, Sanola, Kevin, Robert, Wojtek, Almuth
Rodney			W	Darek, Jakub, Przemek

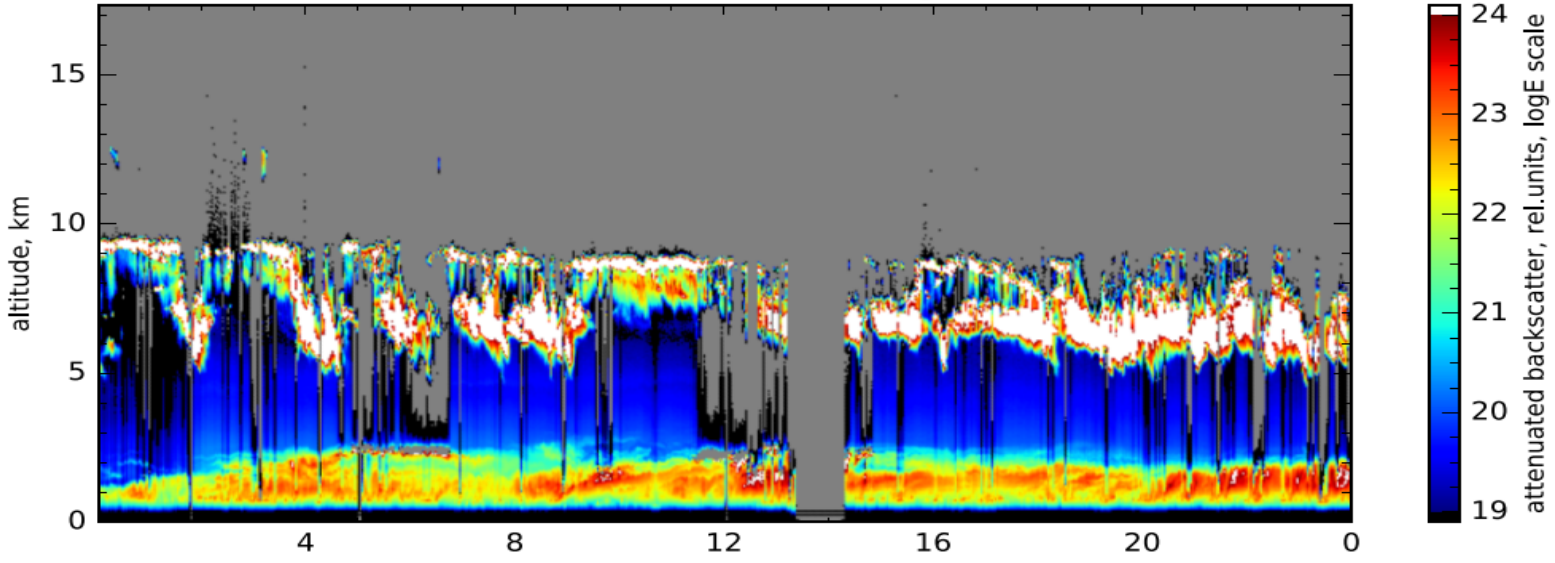
5. Outlook

We will reach L1 tomorrow and plan to retrieve the remaining two U E.Anglia gliders in the afternoon (then wind speed are lowest during the day).

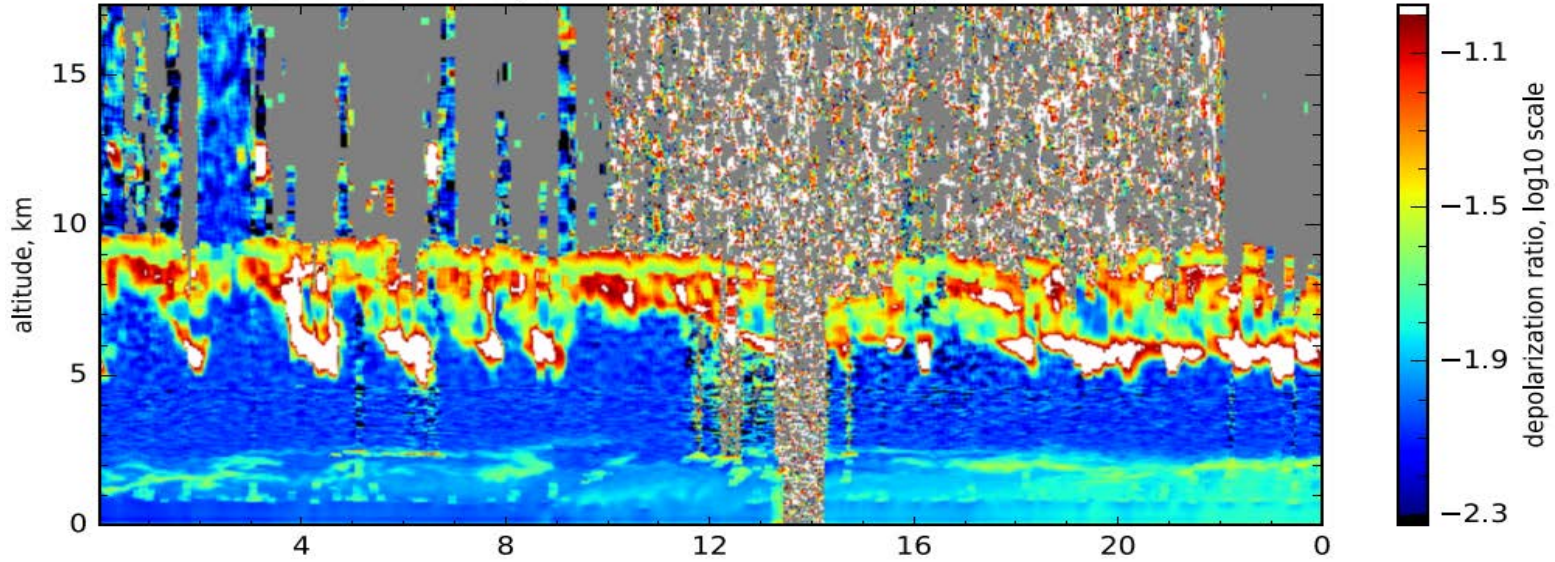


METEOR ceilometer data for Feb15

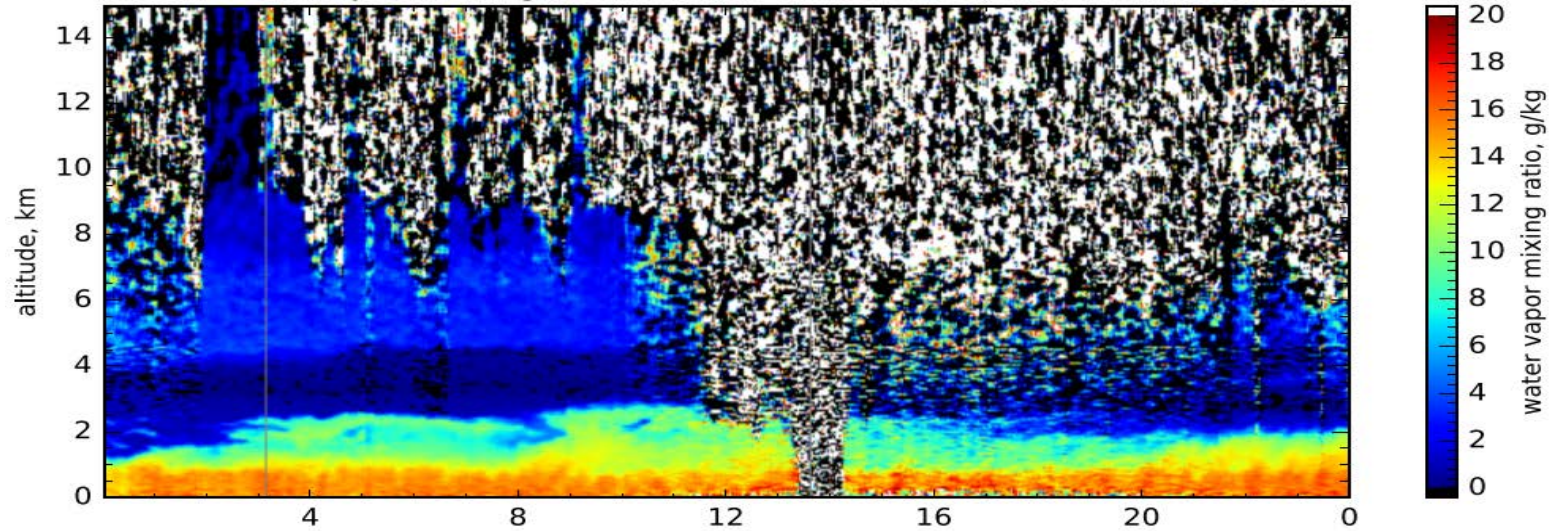
attenuated backscatter, 1064nm, far range, res.: 120s, 60m



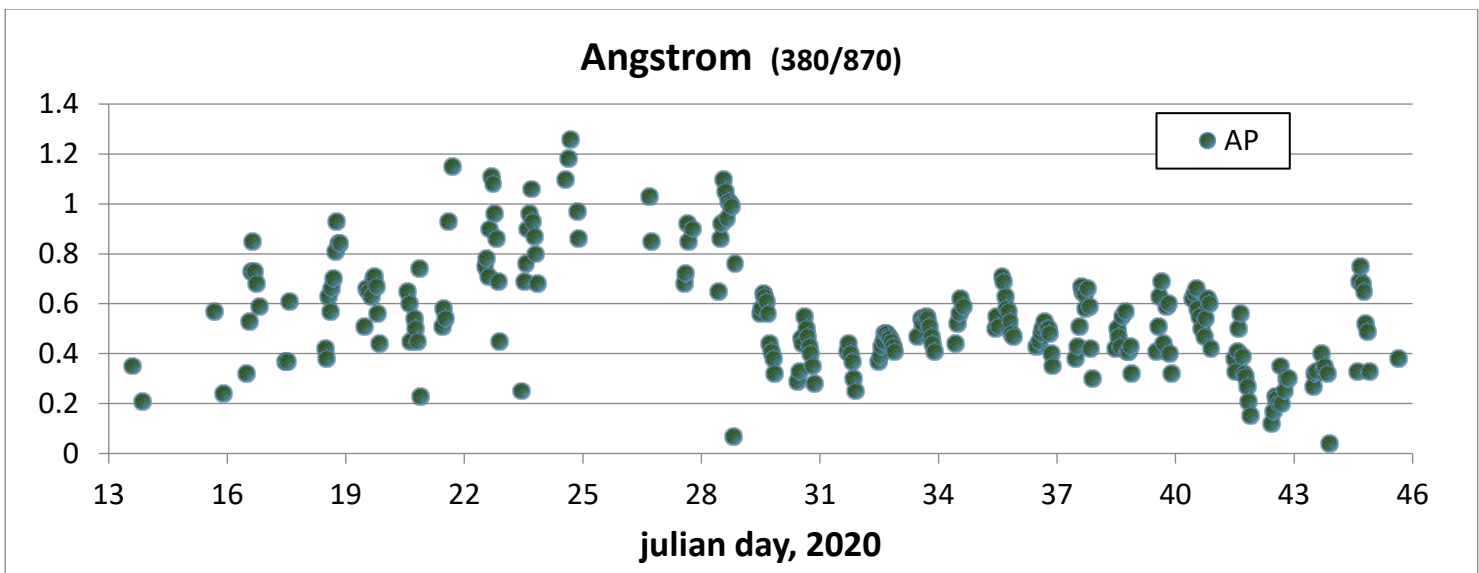
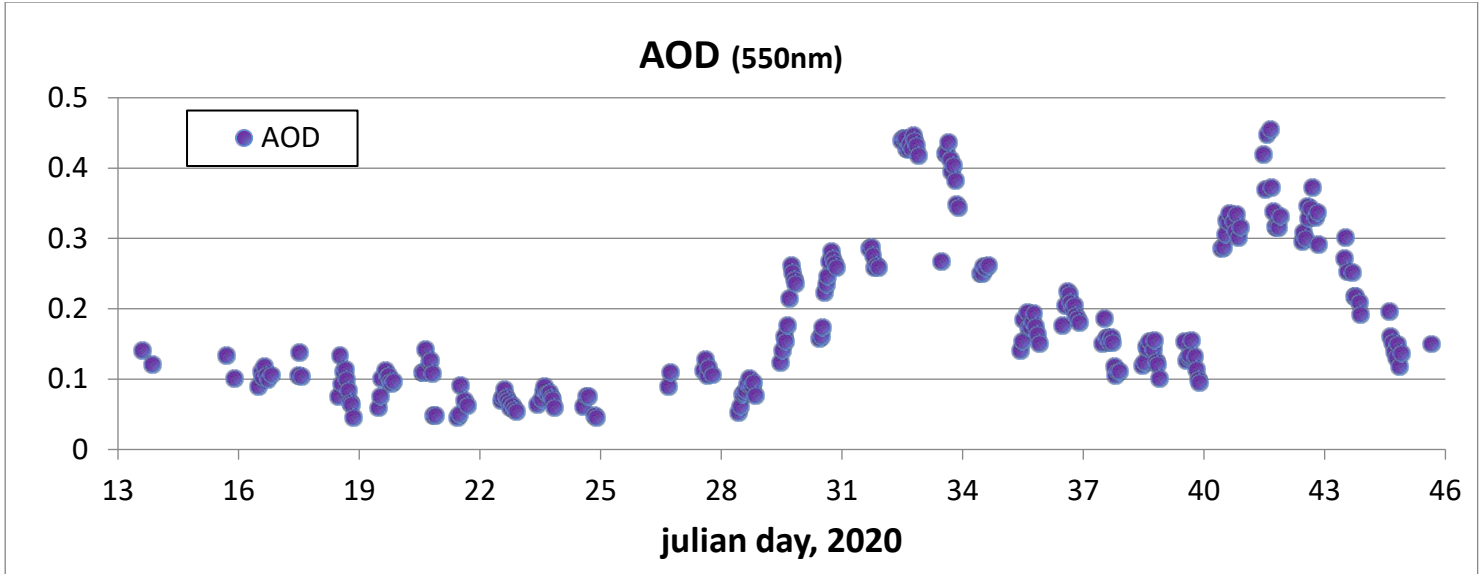
Volume linear depol. ratio, 532nm, complete range, res.: 600s, 60m-660m



Water vapor mixing ratio, FAR+NEAR, res.: 600s, 60m-540m



Raman-lidar data on Feb 15 (backscatter, depolarization, water vapor)



Aerosol amount (AOD, 550nm) and size (Angstrom) data from Jan 13 to Feb 15 showing hourly filtered data