

Altitude levels (km)		Sea ice						Open ocean					
		Fall (ASO)		Winter (NDJ)		Spring (FMA)		Fall (ASO)		Winter (NDJ)		Spring (FMA)	
		all	difference	all	difference	all	difference	all	difference	all	difference	all	difference
Temperature (°C)	6–8.5	-48.7	0.0	-53.0	0.0	-51.9	0.1	-45.0	0.1	-49.6	0.0	-49.2	0.1
	4–6	-32.3	0.5	-38.1	0.2	-40.0	0.4	-27.7	0.3	-33.2	0.1	-35.5	0.1
	2.5–4	-21.6	0.5	-27.5	0.1	-29.5	0.1	-15.8	0.4	-21.1	0.2	-23.6	0.0
	1.5–2.5	-15.5	0.5	-21.6	-0.4	-23.4	-0.7	-9.2	0.4	-14.6	0.4	-16.6	-0.2
	0.6–1.5	-11.3	0.4	-17.7	-0.6	-19.6	-1.3	-4.5	0.3	-9.9	0.4	-11.6	-0.3
Relative humidity (%)	6–8.5	74.6	0.0	65.6	0.4	50.4	1.0	69.0	0.1	63.8	0.2	50.9	0.4
	4–6	61.5	-0.3	62.7	0.4	59.8	-0.6	57.1	-0.1	57.6	0.6	58.5	0.9
	2.5–4	66.7	-0.6	69.3	0.2	66.2	-1.8	61.4	0.2	58.6	1.6	57.1	0.6
	1.5–2.5	76.9	-0.9	74.0	-0.4	68.2	-0.3	74.5	0.2	72.5	1.9	69.1	0.5
	0.6–1.5	85.1	-0.3	78.1	-2.2	70.6	0.2	87.2	-0.3	88.6	1.7	84.4	-0.2
BC (ng m ⁻³)	6–8.5	14	1	13	2	19	5	14	2	11	1	17	3
	4–6	17	3	22	6	30	11	17	3	18	3	28	9
	2.5–4	20	4	31	13	41	19	19	5	28	10	38	16
	1.5–2.5	20	4	39	21	53	27	22	7	43	23	47	22
	0.6–1.5	17	3	51	31	66	32	22	9	58	34	56	27
Mean CF (%)	6–8.5	15.4	0.2	15.0	0.4	9.1	0.9	19.3	1.0	22.3	0.4	15.3	0.5
	4–6	22.7	0.6	21.8	1.3	16.8	0.1	24.3	0.8	26.0	0.8	22.7	0.7
	2.5–4	29.1	1.0	25.9	1.0	20.8	-2.1	27.9	1.0	28.8	2.2	27.4	0.5
	1.5–2.5	35.0	-0.3	30.3	-0.4	24.0	-3.5	34.3	1.4	39.4	2.1	39.5	0.3
	0.6–1.5	33.3	-0.2	26.9	-2.0	22.0	-3.0	35.0	-0.3	43.0	-0.4	43.6	-0.3