



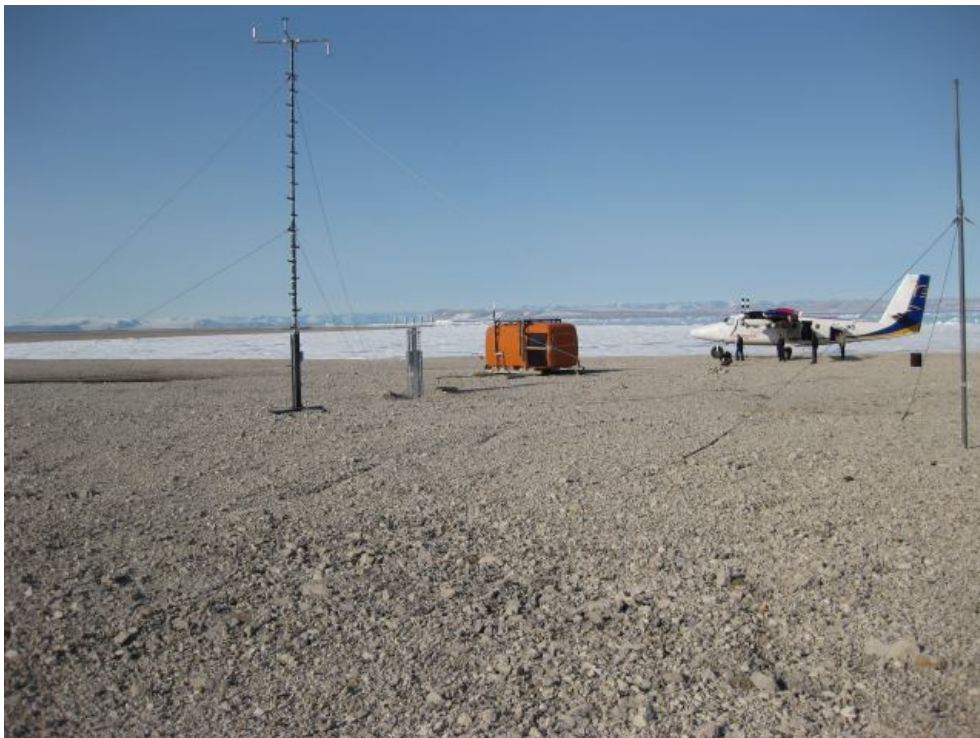
Technical Report 11-10

Weather and Climate Data from Greenland 1958-2010

**Dataset available for research and educational
purposes**

**Descriptions and Documentation of Observations of
Temperature, Precipitation, Wind, Cloud Cover, Air
Pressure, Humidity and Depth of Snow**

Lone Seir Carstensen and Bent Vraae Jørgensen



Copenhagen 2011



Colophon

Serial title:

Technical Report 11-10

Title:

Weather and Climate Data from Greenland 1958-2010

Subtitle:

Dataset available for research and educational purposes. Descriptions and Documentation of Observations of Temperature, Precipitation, Wind, Cloud Cover, Air Pressure, Humidity and Depth of Snow

Author(s):

Lone Seir Carstensen and Bent Vraae Jørgensen

Other contributors:

Majbritt Aminde, John Cappelen, Mikael Scharling and Claus Kern-Hansen

Responsible institution:

Danish Meteorological Institute

Language:

English

Keywords:

Greenland, climate data, wind, temperature, cloud cover, air pressure, humidity, precipitation, depth of snow, 1958-2010, Greenland dataset

Url:

www.dmi.dk/dmi/tr11-10.pdf

ISSN:

1399-1388 (online)

0906-897X (print)

Version:

1. version

Website:

www.dmi.dk

Copyright:

Danish Meteorological Institute

Application and publication of data is allowed with proper reference and acknowledgment

Front page:

DMI Weather station: Henrik Krøyer Holme, summer 2009. Photo: Michael Heeris



Content:

1. Introduction.....	4
2. Description of the dataset.....	4
2.1 Synoptic station.....	4
2.2 Erroneous or missing values	4
2.3 Layout of the Excel files in the dataset	5
3. How to get the dataset.....	5
4. Map of stations.....	6
5. List of stations.....	7
6. List of station parameters.....	11
7. User Statement	19
8. References.....	22
Previous reports.....	22



1. Introduction

The Danish Meteorological Institute has observations of the weather in Greenland from the beginning of the 19th century. Many of the very old observations are stored in The Danish State Archives and from 1874 the observations also can be found in the published yearbooks from DMI. Since 1958 DMI has the weather observations from Greenland in digital form.

Selected and most common used parts of these observations are now available in a digital dataset available for research and educational purpose. The present report describes and documents the content of this dataset.

2. Description of the dataset

The stations in this Technical Report are shown on a map and associated coordinates are listed later in this report. All stations are synoptic stations.

2.1 Synoptic station

Synoptic stations all over the world follow at least the 3-hour interval all round the clock, and they always follow the same guidelines. This type of station observes weather, cloud cover, visibility, snow cover, air temperature, relative humidity, wind, air pressure and precipitation at 00, 03, 06, 09, 12, 15, 18 and 21 hours UTC. Some stations have observed every hour round the clock.

Synoptic stations in Greenland have operated with differing degrees of automation both in time and space, which has of course affected how the parameters are observed. Some stations in remote areas are moreover unmanned. The station number describing synoptic stations in Greenland consists of 5 digits, always starting with the numbers 04.

2.2 Erroneous or missing values

Climate data from stations marked with (*) have for the period 1958-99 been examined carefully and have been corrected or removed for some of the parameters, see which and how in DMI Technical Report 00-18. In some short periods data are not corrected or removed (for example if the wind vanes are frozen data will show the same direction during the period). Climate data from stations without (*) have not been examined at all and in these series of climate data there are risk of errors and missing data.

Data in the dataset is a complete set of all digital data of wind, temperatures, cloud cover, air pressure, humidity, precipitation and depth of snow from the synoptic stations in Greenland stored in the data base at DMI until the end of 2010. The start date for each station indicates the time where data is becoming almost continuously the stop date indicates the time where the continuously data ends.



2.3 Layout of the Excel files in the dataset

The different stations are located in separate directories <station number station name> (i.e. 04250 Nuuk) in Excel files. Additionally the data are separated in 10 or 5 years periods in every directory i.e. <1961-1970.xls> or <2001-2005.xls> depending on numbers of data.

The head lines in the files are:

stat_no	station number without the first digit, i.e. 0
year	
month	
day	
hour	UTC
dd	10 minutes mean wind direction in degrees. 999 is variable wind
ff	10 minutes mean wind speed in 0,1 m/s
n	cloud cover in octas (0/8 clear sky, 8/8 overcast)
pppp	air pressure in 0,1 hPa
ttt	drybulb temperature in 0,1 degrees centigrade
txtxtx	absolute maximum temperature in 0,1 degrees centigrade
tntntn	absolute minimum temperature in 0,1 degrees centigrade
rh	relative humidity in percent
rrr6	6, 12 or 24 hrs acc. precepitation in 0,1 mm. -1 is more than 0, but less than 0,1 mm.
sss	snow depth in cm

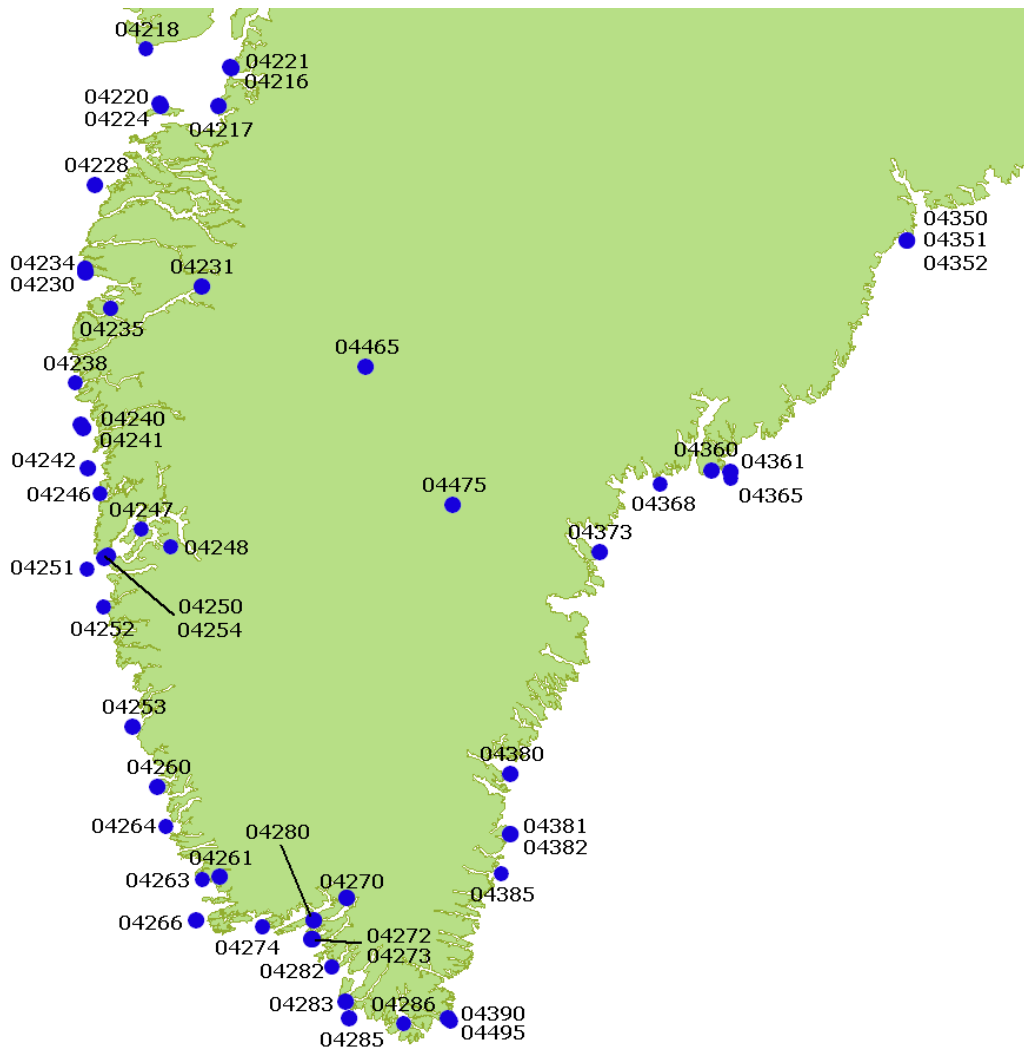
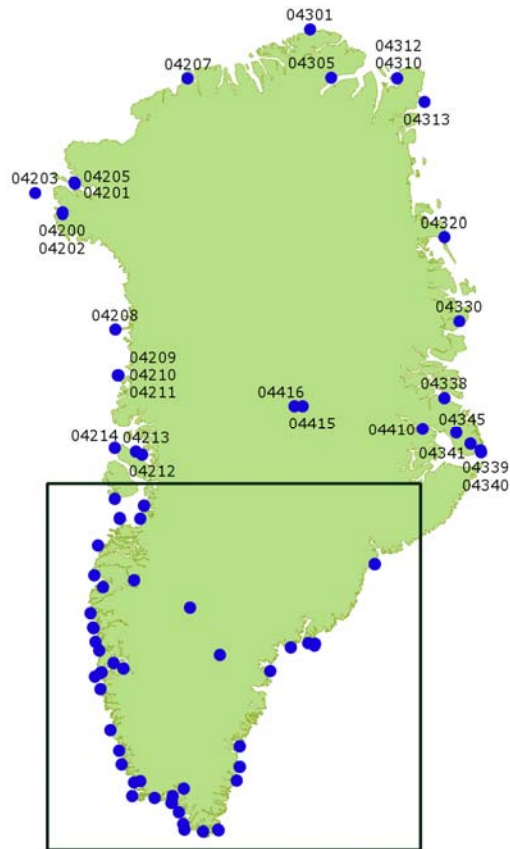
Please notice that in the table in Chapter 6: List of parameters the data for a given parameter can be marked as missing, although scattered data for the parameter can be found in the data files i.e. txtxtx, Absolute Maximum Temperature for 04235 DYE 1.

3. How to get the dataset

The dataset is available on a CD-rom which can be obtained from DMI for research and educational purpose without any cost. To order the dataset please fill in, print and sign the user statement (in Chapter 7). Scan the signed user statement and email it to DMI as an attached file using the following contact formula: http://www.dmi.dk/dmi/index/danmark/kontakt_dmi_webmail.htm.



4. Map of stations





5. List of stations

WMO-ID and station name	start	stop	Latitude N		Longitude W		Elevation m.a.s.
			degrees	minute	degrees	minute	
04200 Dundas	01-01-1961	31-08-1983	76	34	68	48	21
04201 Qaanaaq	10-08-1995	13-10-2004	77	28	69	13	16
04202 Pituffik	01-01-1974	27-11-2006	76	32	68	45	77
04203 Kitsissut	17-05-1981		76	38	73	00	11
04205 Qaanaaq	02-01-1964	30-06-1980	77	29	69	12	14
04205 Mitt. Qaanaaq	30-08-2001		77	29	69	23	16
04207 Hall Land	30-08-1982	06-09-2007	81	41	59	57	105
04208 Kitsissorsuit	10-09-1981		74	02	57	49	40
04209 Upernavik AWS	30-08-1984	26-09-1995	72	47	56	10	63
04210 Upernavik	01-01-1958	28-01-1987	72	47	56	10	63
04210 Upernavik	08-09-1995	16-08-2004	72	47	56	10	120
04211 Mitt. Upernavik	25-10-2000		72	47	56	08	126
04212 Uummannaq	01-01-1961	21-08-1989	70	40	52	07	39
04212 Uummannaq Heli.	23-01-2004	30-06-2006	70	41	52	07	2
04213 Mitt. Qaarsut	23-11-2000	23-10-2005	70	44	52	42	88
	01-02-2006		70	44	52	42	88
04214 Qullitsat	01-01-1961	31-08-1972	70	03	52	51	2
04214 Nuussuaq	18-09-1982		70	41	54	37	27
04216 Ilulissat	01-01-1961	31-08-1992	69	13	51	03	39
04217 Qasigiannguit	01-01-1962	30-06-1980	68	49	51	05	77
04217 Qasigiannguit Heli.	04-04-2004		68	49	51	10	24
04218 Qeqertarsuaq	01-01-1962	30-06-1980	69	14	53	31	24
04220 Aasiaat	01-01-1958		68	42	52	45	43
04221 Mitt. Ilulissat	15-08-1991		69	14	51	04	29
04224 Mitt. Aasiaat	02-11-2000		68	43	52	47	23
04228 Kitsissut/Attu	18-08-1983		67	47	53	58	12
04230 Sisimiut	01-01-1961	22-06-2001	66	55	53	40	12
04231 Kangerlussuaq	01-05-1973	31-12-1989	67	00	50	48	50
	01-01-1990		67	01	50	42	50
04234 Mitt. Sisimiut	28-11-2000		66	57	53	43	10
04235 Dye 1	13-03-1974	18-09-1989	66	38	52	52	1439
04238 Kangaamiut	14-09-1966	30-12-1969	65	49	53	19	—



WMO-ID and station name	start	stop	Latitude N		Longitude W		Elevation m.a.s.
			degrees	minute	degrees	minute	
04240 Maniitsoq	01-01-1961	30-01-1987	65	24	52	52	25
04241 Mitt. Maniitsoq	06-12-2000		65	25	52	56	28
04242 Sioralik	16-06-1983		65	01	52	33	14
04246 Atammik	14-02-1966	30-12-1969	64	48	52	09	—
04247 Qoornoq	03-01-1966	31-12-1969	64	32	51	03	—
04248 Kapisillit	26-01-1966	30-12-1969	64	25	50	18	—
04250 Nuuk	01-01-1958	31-08-1991	64	10	51	45	54
	01-09-1991		64	10	51	45	80
04251 Kitsissut	01-01-1961	31-12-1973	64	02	52	05	19
04252 Kangerluarsoruseq	02-01-1961	31-08-1973	63	42	51	33	10
04253 Ukiivik	20-06-1982		62	34	50	25	22
04254 Qeqertarsuatsiaat	17-01-1967	30-12-1969	63	05	50	41	—
04254 Mitt. Nuuk	01-11-2000		64	12	51	41	86
04260 Paamiut	01-01-1958	21-09-1992	62	00	49	43	15
04260 Paamiut Heliport	22-09-1992	06-12-2007	62	00	49	40	13
04260 Mitt. Paamiut	07-12-2007		62	00	49	40	36
04261 Kangilinnuit	01-01-1961	01-09-1974	61	13	48	07	27
	01-01-1981	19-09-1997	61	14	48	06	35
04263 Arsuk	01-08-1964	30-12-1969	61	11	48	27	—
04264 Narsalik	23-11-1966	30-12-1969	61	39	49	22	—
04266 Nunarsuit	22-07-1981		60	46	48	27	33
04270 Mitt. Narsarsuaq	01-01-1961		61	10	45	25	27
04272 Qaqortoq	01-01-1961		60	43	46	03	32
04273 Qaqortoq Heliport	17-03-2004		60	43	46	02	18
04274 Qassimiut	08-04-1964	30-12-1969	60	48	47	06	—
04280 Narsaq	01-01-1958	31-12-1969	60	54	45	58	30
04280 Narsaq Heliport	10-03-2005		60	55	46	03	25
04282 Alluitsup PAA Helip.	07-08-2006		60	28	45	35	23
04283 Nanortalik	02-01-1961	31-10-1985	60	08	45	13	21
04283 Nanortalik Heliport	10-03-2005		60	08	45	14	5
04285 Angisoq	01-01-1964	28-12-1973	59	59	45	08	20
	22-07-1981		59	59	45	08	20
04286 Narsaq Kujalleq	01-01-1971	31-12-1973	59	58	44	03	—
	01-03-1982	31-12-1983	59	58	44	03	—
04301 Kap Morris Jesup	16-07-1980	30-09-2007	83	39	33	22	4



WMO-ID and station name	start	stop	Latitude N		Longitude W		Elevation
			degrees	minute	degrees	minute	m.a.s.
04305 Kap Harald Moltke	24-08-1983	17-07-1991	82	09	29	55	4
04310 Station Nord	01-01-1961	09-07-2007	81	36	16	39	36
04312 Statin Nord AWS	26-07-1985		81	36	16	39	34
04313 Henrik Krøyer Holme	01-07-1985		80	39	13	43	10
04320 Danmarkshavn	01-01-1958		76	46	18	40	11
04330 Daneborg	01-01-1958	31-07-1975	74	18	20	13	12
	04-01-1979		74	18	20	13	44
04338 Mestersvig	01-01-1961	25-10-1985	72	15	23	54	16
04339 Ittoqqortoormiit	01-11-1980	16-08-2005	70	29	21	57	65
		17-08-2005	70	29	21	57	70
04340 Uunarteq	01-01-1958	31-10-1980	70	25	21	58	42
	05-09-1985	10-06-1990	70	25	21	58	41
04341 Mitt. Nerlerit Inaat	26-05-2002		70	45	22	39	13
04345 Jameson Land	11-02-1985	18-09-1989	71	11	23	37	261
04350 Aputiteeq	01-01-1958	09-02-1987	67	47	32	18	20
04351 Aputiteeq	31-01-1987		67	47	32	18	13
04352 Aputiteeq	18-06-1980	08-04-1982	67	47	32	18	13
04360 Tasiilaq	01-01-1958	31-03-1982	65	36	37	38	36
	01-04-1982	14-08-2005	65	36	37	37	50
		15-08-2005	65	36	37	37	53
04361 Mitt. Kulusuk	28-11-2000		65	35	37	09	35
04365 DYE 4	24-01-1974	20-05-1991	65	31	37	10	329
04368 Orsuiagssuaq	13-09-1971	31-12-1973	65	29	38	53	71
04373 Ikermit	01-11-1986		64	47	40	18	85
04380 Timmiarmiut	01-01-1958	30-06-1979	62	32	42	08	10
04381 Ikermiarsuk	06-12-1979	29-11-1989	61	56	42	04	39
04382 Ikermiarsuk	18-06-1980		61	56	42	04	39
04385 Qulleq	01-05-1962	31-12-1973	61	32	42	14	157
04390 Ikerasassuaq	01-01-1958	09-10-1980	60	02	43	07	75
	14-05-1981	30-06-1992	60	03	43	10	26
	01-07-1992		60	03	43	10	88
04410 Renland	23-09-1987	15-07-1988	71	30	26	32	2320
04415 Summit	02-01-1991	15-06-1994	72	35	37	38	3250
04416 Summit	04-11-1997		72	35	38	27	3202



WMO-ID and station name	start	stop	Latitude N		Longitude W		Elevation
			degrees	minute	degrees	minute	m.a.s.
04465 DYE 2	25-01-1974	18-08-1988	66	29	46	17	2332
04475 DYE 3	24-01-1974	18-09-1989	65	11	43	50	2652
04495 Ikerassuaq	01-10-1980	22-05-1981	60	02	43	07	26



6. List of station parameters

WMO-ID and station name	start	stop	dcd	ff	n	pppp	ttt	txtxtx	tnntn	rh	rrr6	sss
04200 Dundas*	01-01-1961	31-08-1983										
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1983			x	x	x	x	x	x	x	x	x	X
04201 Qaanaaq	10-08-1995	13-10-2004										
1995-2000			x	x		x	x	x	x	x		
2001-2004			x	x		x	x	x	x	x		
04202 Pituffik*	01-01-1974	27-11-2006										
1974-1980			x	x	x	x	x			x		
1981-1990			x	x	x	x	x			x	x	
1991-2000			x	x	x	x	x			x	x	
2001-2005			x	x	x	x	x			x	x	
2006			x	x	x	x	x			x	x	
04203 Kitsissut	17-05-1981											
1981-1990			x	x		x	x			x		
1991-2000			x	x		x	x			x		
2001-2005			x	x		x	x			x		
2006-2010			x	x		x	x			x		
04205 Qaanaaq	02-01-1964	30-06-1980										
04205 Mitt. Qaanaaq	30-08-2001											
1964-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
2001-2005			x	x		x	x	x	x	x		
2006-2010			x	x		x	x	x	x	x		
04207 Hall Land*	30-08-1982	06-09-2007										
1982-1990			x	x		x	x			x		
1991-2000			x	x		x	x			x		
2001-2005			x	x		x				x		
2006-2007			x	x		x				x		
04208 Kitsissorsuit	10-09-1981											
1981-1990			x	x		x	x			x		
1991-2000			x	x		x	x			x		
2001-2005			x	x		x	x			x		
2006-2010			x	x		x	x			x		
04209 Upernavik AWS	30-08-1984	26-09-1995										
1984-1990			x	x		x	x			x		
1991-1995			x	x		x	x			x		
04210 Upernavik*	01-01-1958	28-01-1987										
04210 Upernavik	08-09-1995	16-08-2004										
1958-1960			x	x	x	x	x	x	x	x	x	X
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x	x	x	x	x	X
1991-2000			x	x		x	x	x	x	x		
2001-2004			x	x		x	x	x	x	x		



WMO-ID and station name	start	stop	dd	ff	n	pppp	tft	txtxtx	tnntn	rh	rrr6	sss
04211 Mitt. Upernavik	25-10-2000											
2000			x	x		x	x	x	x	x		
2001-2005			x	x		x	x	x	x	x		
2006-2010			x	x		x	x	x	x	x		
04212 Uummannaq	01-01-1961	21-08-1989										
04212 Uummannaq Heli.	23-01-2004	30-06-2006										
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x	x	x	x	x	
2001-2005			x	x		x	x	x	x			
2006-2006			x	x		x	x	x	x			
04213 Mitt. Qaarsut	23-11-2000	23-10-2005										
	01-02-2006											
2000			x	x		x	x	x	x	x		
2001-2005			x	x		x	x	x	x	x		
2006-2010			x	x		x	x	x	x	x		
04214 Qullissat	01-01-1961	31-08-1972										
04214 Nuussuaq	18-09-1982											
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x		x	x			x		
1991-2000			x	x		x	x			x		
2001-2005			x	x		x	x			x		
2006-2010			x	x		x	x			x		
04216 Ilulissat'	01-01-1961	31-08-1992										
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x	x	x	x	x	X
1991-1992			x	x	x	x	x	x	x	x	x	X
04217 Qasigiannguit	01-01-1962	30-06-1980										
04217 Qasigiannguit Heli.	04-04-2004											
1962-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
2001-2005			x	x		x	x	x	x	x		
2006-2010			x	x		x	x	x	x	x		
04218 Qeqertarsuaq	01-01-1962	30-06-1980										
1962-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
04220 Aasiaat*	01-01-1958											
1958-1960			x	x	x	x	x	x	x	x	x	X
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x	x	x	x	x	X
1991-2000			x	x	x	x	x	x	x	x	x	X
2001-2005			x	x	x	x	x	x	x	x	x	X
2006-2010			x	x	x	x	x	x	x	x	x	X
04221 Mitt. Ilulissat*	15-08-1991											
1991-2000			x	x	x	x	x	x	x	x		
2001-2005			x	x	x	x	x	x	x	x		
2006-2010			x	x	x	x	x	x	x	x		



WMO-ID and station name	start	stop	dd	ff	n	pppp	tft	txtxtx	tnntn	rh	rrr6	sss
04224 Mitt. Aasiaat	02-11-2000											
2000			x	x		x	x	x	x	x		
2001-2005			x	x		x	x	x	x	x		
2006-2010			x	x		x	x	x	x	x		
04228 Kitsissut/Attu	18-08-1983											
1983-1990			x	x		x	x			x		
1991-2000			x	x		x	x			x		
2001-2005			x	x		x	x			x		
2006-2010			x	x		x	x			x		
04230 Sisimiut*	01-01-1961	22-06-2001										
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x	x	x	x	x	X
1991-2000			x	x	x	x	x	x	x	x	x	X
2001			x	x		x	x	x	x	x		
04231 Kangerlussuaq*	01-05-1973											
1973-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x	x	x	x	x	X
1991-2000			x	x	x	x	x	x	x	x	x	X
2001-2005			x	x	x	x	x	x	x	x	x	
2006-2010			x	x	x	x	x	x	x	x	x	
04234 Mitt. Sisimiut	28-11-2000											
2000			x	x		x	x	x	x	x		
2001-2005			x	x	x	x	x	x	x	x	x	X
2006-2010			x	x	x	x	x	x	x	x		
04235 DYE 1	13-03-1974	18-09-1989										
1974-1980			x	x	x	x	x			x		
1981-1989			x	x	x	x	x			x		
04238 Kangaamiut	14-09-1966	30-12-1969										
1966-1969			x	x	x							
04240 Maniitsoq*	01-01-1961	30-01-1987										
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1987			x	x	x	x	x	x	x	x	x	X
04241 Mitt. Maniitsoq	06-12-2000											
2000			x	x		x	x	x	x	x		
2001-2005			x	x	x	x	x	x	x	x		X
2006-2010			x	x	x	x	x	x	x	x		
04242 Sioralik*	16-06-1983											
1983-1990			x	x		x	x			x		
1991-2000			x	x		x	x			x		
2001-2005			x	x		x	x			x		
2006-2010			x	x		x	x			x		
04246 Atammik	14-02-1966	30-12-1969										
1966-1969			x	x	x							
04247 Qoornoq	03-01-1966	31-12-1969										
1966-1969			x	x	x		x	x	x	x		
04248 Kapisillit	26-01-1966	30-12-1969										
1966-1969			x	x	x		x	x	x	x		



WMO-ID and station name	start	stop	dd	ff	n	pppp	tft	txtxtx	tnntn	rh	rrr6	sss
04250 Nuuk*	01-01-1958											
1958-1960			x	x	x	x	x	x	x	x	x	X
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x	x	x	x	x	X
1991-2000			x	x	x	x	x	x	x	x	x	X
2001-2005			x	x	x	x	x	x	x	x	x	
2006-2010			x	x	x	x	x	x	x	x	x	
04251 Kitsissut	01-01-1961	31-12-1973										
1961-1970			x	x	x	x	x	x	x	x	x	
1971-1973			x	x	x	x	x	x	x	x	x	
04252 Kangerluarsoruseq	02-01-1961	31-08-1973										
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1973			x	x	x	x	x	x	x	x	x	X
04253 Ukiivik	20-06-1982											
1982-1990			x	x		x	x			x		
1991-2000			x	x		x	x			x		
2001-2005			x	x		x	x			x		
2006-2010			x	x		x	x			x		
04254 Qeqertarsuatsiaat	17-01-1967	30-12-1969										
04254 Mitt. Nuuk	01-11-2000											
1967-1970			x	x	x							
1991-2000			x	x	x	x	x	x	x	x		
2001-2005			x	x	x	x	x	x	x	x		
2006-2010			x	x	x	x	x	x	x	x		
04260 Paamiut*	01-01-1958	21-09-1992										
04260 Paamiut Heliport*	22-09-1992	06-12-2007										
04260 Mitt. Paamiut	07-12-2007											
1958-1960			x	x	x	x	x	x	x	x	x	X
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x	x	x	x	x	X
1991-2000			x	x	x	x	x	x	x	x	x	X
2001-2005			x	x	x	x	x	x	x	x	x	X
2006-2010			x	x	x	x	x	x	x	x		
04261 Kangilinnuit*	01-01-1961	01-09-1974										
	01-01-1981	19-09-1997										
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x	x	x	x	x	
1991-1997			x	x	x	x	x					
04263 Arsuk	01-08-1964	30-12-1969										
1964-1969			x	x	x		x	x	x	x	x	
04264 Narsalik	23-11-1966	30-12-1969										
1966-1969			x	x	x		x			x		
04266 Nunarsuit	22-07-1981											
1981-1990			x	x		x	x			x		
1991-2000			x	x		x	x			x		
2001-2005			x	x		x	x			x		
2006-2010			x	x		x	x			x		



WMO-ID and station name	start	stop	dd	ff	n	pppp	tft	txtxtx	tnntn	rh	rrr6	sss
04270 Mitt. Narsarsuaq*	01-01-1961											
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x	x	x	x	x	X
1991-2000			x	x	x	x	x	x	x	x	x	X
2001-2005			x	x	x	x	x	x	x	x	x	X
2006-2010			x	x	x	x	x	x	x	x	x	X
04272 Qaqortoq*	01-01-1961											
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x	x	x	x	x	X
1991-2000			x	x	x	x	x	x	x	x	x	X
2001-2005			x	x	x	x	x	x	x	x	x	X
2006-2010			x	x	x	x	x	x	x	x	x	
04273 Qaqortoq Heliport	17-03-2004											
2004-2005			x	x		x	x	x	x	x		
2006-2010			x	x		x	x	x	x	x		
04274 Qassimiut	08-04-1964	30-12-1969										
1964-1969			x	x	x		x			x		
04280 Narsaq	01-01-1958	31-12-1969										
04280 Narsaq Heliport	10-03-2005											
1958-1960			x	x	x	x	x	x	x	x	x	X
1961-1970			x	x	x	x	x	x	x	x	x	X
2001-2005			x	x		x	x	x	x	x		
2006-2010			x	x		x	x	x	x	x		
04282 Alluitsup PAA Helip.	07-08-2006											
2006-2010			x	x		x	x	x	x	x		
04283 Nanortalik	02-01-1961	31-10-1985										
04283 Nanortalik Heliport	10-03-2005											
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x	x	x	x	x	
2001-2005			x	x		x	x	x	x	x		
2006-2010			x	x		x	x	x	x	x		
04285 Angisoq	01-01-1964	28-12-1973										
	22-07-1981											
1964-1970			x	x	x		x	x	x	x	x	X
1971-1980			x	x	x		x	x	x	x	x	
1981-1990			x	x		x	x			x		
1991-2000			x	x		x	x			x		
2001-2005			x	x		x	x			x		
2006-2010			x	x		x	x			x		
04286 Narsaq Kujalleq	01-01-1971	31-12-1973										
	01-03-1982	31-12-1983										
1971-1980			x	x	x		x			x		
1981-1983			x	x	x		x			x		
04301 Kap Morris Jesup*	16-07-1980	30-09-2007										
1980			x	x		x	x			x		
1981-1990			x	x		x	x			x		
1991-2000			x	x		x	x			x		
2001-2005			x	x		x	x			x		
2006-2007			x	x		x	x			x		



WMO-ID and station name	start	stop	dd	ff	n	pppp	tft	txtxtx	tnntn	rh	rrr6	sss
04305 Kap Harald Moltke	24-08-1983	17-07-1991										
1983-1990			x	x		x	x			x		
1991			x	x		x	x			x		
04310 Station Nord*	01-01-1961	09-07-2007										
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x	x	x	x	x	
1991-2000			x	x	x	x	x			x	x	
2001-2005			x	x	x	x	x			x	x	
2006-2007			x	x	x	x	x			x	x	
04312 Statin Nord AWS*	26-07-1985											
1985-1990			x	x		x	x			x		
1991-2000			x	x		x	x			x		
2001-2005			x	x		x	x			x		
2006-2010			x	x		x	x			x		
04313 Henrik Krøyer Holme	01-07-1985											
1985-1990			x	x		x	x			x		
1991-2000			x	x		x	x			x		
2001-2005			x	x		x	x			x		
2006-2010			x	x		x	x			x		
04320 Danmarkshavn*	01-01-1958											
1958-1960			x	x	x	x	x	x	x	x	x	X
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x	x	x	x	x	X
1991-2000			x	x	x	x	x	x	x	x	x	X
2001-2005			x	x	x	x	x	x	x	x	x	X
2006-2010			x	x	x	x	x	x	x	x	x	
04330 Daneborg*	01-01-1958 04-01-1979	31-07-1975										
1958-1960			x	x	x	x	x	x	x	x	x	X
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x		x	x	x	x	x	x	
1991-2000			x	x		x	x			x		
2001-2005			x	x		x	x			x		
2006-2010			x	x		x	x			x		
04338 Mestersvig	01-01-1961	25-10-1985										
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1985			x	x	x	x	x	x	x	x	x	X
04339 Ittoqqortoormiit*	01-11-1980											
1980			x	x	x	x	x	x	x	x	x	
1981-1990			x	x	x	x	x	x	x	x	x	
1991-2000			x	x	x	x	x	x	x	x	x	X
2001-2005			x	x	x	x	x	x	x	x	x	X
2006-2010			x	x	x	x	x	x	x	x	x	
04340 Uunarteq*	01-01-1958 05-09-1985	31-10-1980 10-06-1990										
1958-1960			x	x	x	x	x	x	x	x	x	X
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x			x		



WMO-ID and station name	start	stop	dd	ff	n	pppp	tft	txtxtx	tnntfn	rh	rrr6	sss
04341 Mitt. Nerlerit Inaat	26-05-2002											
2002-2005			x	x	x	x	x	x	x	x		
2006-2010			x	x	x	x	x	x	x	x		
04345 Jameson Land	11-02-1985	18-09-1989										
1985-1990			x	x		x	x			x		
04350 Aputiteeq*	01-01-1958	09-02-1987										
1958-1960			x	x	x	x	x	x	x	x	x	X
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1987			x	x	x	x	x			x		
04351 Aputiteeq*	31-01-1987											
1987-1990			x	x		x	x			x		
1991-2000			x	x		x	x			x		
2001-2005			x	x		x	x			x		
2006-2010			x	x		x	x			x		
04352 Aputiteeq	18-06-1980	08-04-1982										
1980			x	x		x	x			x		
1981-1982			x	x		x	x			x		
04360 Tasiilaq*	01-01-1958											
1958-1960			x	x	x	x	x	x	x	x	x	X
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x	x	x	x	x	X
1991-2000			x	x	x	x	x	x	x	x	x	X
2001-2005			x	x	x	x	x	x	x	x	x	X
2006-2010			x	x	x	x	x	x	x	x	x	
04361 Mitt. Kulusuk	28-11-2000											
2000			x	x	x	x	x	x	x	x		
2001-2005			x	x	x	x	x	x	x	x		
2006-2010			x	x	x	x	x	x	x	x		
04365 DYE 4	24-01-1974	20-05-1991										
1974-1980			x	x	x	x	x			x		
1981-1990			x	x	x	x	x	x	x	x	x	X
1991			x	x	x	x	x	x	x	x	x	X
04368 Orsuiakssuaq	13-09-1971	31-12-1973										
1971-1973			x	x	x	x	x			x		
04373 Ikermit	01-11-1986											
1986-1990			x	x		x	x			x		
1991-2000			x	x		x	x			x		
2001-2005			x	x		x	x			x		
2006-2010			x	x		x	x			x		
04380 Timmiarmiut*	01-01-1958	30-06-1979										
1958-1960			x	x	x	x	x	x	x	x	x	X
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1979			x	x	x	x	x	x	x	x	x	X
04381 Ikermiuarsuk*	06-12-1979	29-11-1989										
1979-1980			x	x		x	x			x		
1981-1989			x	x		x	x			x		



WMO-ID and station name	start	stop	dd	ff	n	pppp	ttt	txtxtx	tnntn	rh	rrr6	sss
04382 Ikermiarsuk*												
	18-06-1980											
1980			x	x		x	x			x		
1981-1990			x	x		x	x			x		
1991-2000			x	x		x	x			x		
2001-2005			x	x		x	x			x		
2006-2010			x	x		x	x			x		
04385 Qulleq												
	01-05-1962	31-12-1973										
1962-1970			x	x	x	x	x	x	x	x	x	
1971-1973			x	x	x	x	x	x	x	x	x	
04390 Ikerasassuaq*												
	01-01-1958	09-10-1980										
	14-05-1981											
1958-1960			x	x	x	x	x	x	x	x	x	X
1961-1970			x	x	x	x	x	x	x	x	x	X
1971-1980			x	x	x	x	x	x	x	x	x	X
1981-1990			x	x	x	x	x	x	x	x	x	
1991-2000			x	x	x	x	x	x	x	x	x	
2001-2005			x	x	x	x	x	x	x	x	x	
2006-2010			x	x	x	x	x	x	x	x	x	
04410 Renland												
	23-09-1987	15-07-1988										
1987-1988			x	x			x			x		
04415 Summit*												
	02-01-1991	15-06-1994										
1991-1994			x	x			x			x		
04416 Summit*												
	04-11-1997											
1997-2000			x	x			x			x		
2001-2005			x	x			x			x		
2006-2010			x	x			x			x		
04465 DYE 2*												
	25-01-1974	18-08-1988										
1974-1980			x	x	x	x	x			x		
1981-1988			x	x	x	x	x	x	x	x	x	
04475 DYE 3*												
	24-01-1974	18-09-1989										
1974-1980			x	x	x	x	x			x		
1981-1989			x	x	x	x	x	x	x	x	x	
04495 Ikerasassuaq												
	01-10-1980	22-05-1981										
1980			x	x		x	x	x	x	x	x	
1981			x	x		x	x	x	x	x	x	



7. User Statement

User statement page 1/3

USER STATEMENT

concerning delivery of Meteorological and Climatological Information from the Danish Meteorological Institute for the use in Research and Educational projects, without payment of the Information value.



DMI J.nr:

Date/init:

User name:
Adress:
Phone:
E-mail:
Invoice adress:
V.A.T. no:

<i>Data material:</i> Dataset described in DMI Technical Report 11-10. Weather and Climate Data from Greenland 1958-2010. Dataset available for research and educational purpose. Descriptions and documentation of Observations of Temperatures, Precipitation, Wind, Cloud Cover, Air Pressure, Humidity and Depth of Snow.

Data delivery form: Excel file on CD-rom

Information value - not to be invoiced /DMI contribution to the project: Nominel information value price level 01.01. 2011	3.521.480 (DKK excl. VAT)
Delivery cost - usually to be paid by the customer, in this case not to be invoiced (74 hours of work and expedition)	44.252 (DKK excl. VAT)

Research/education project title/purpose:

Short abstract/project description and information on the expected form and time of publication (max. one A4 page) must be returned to DMI attached this statement before data can be delivered.



POLICY

DMI will provide free and unrestricted access to meteorological data and products for educational and research purposes, provided the attached conditions are met.

This free access only applies to data and products. It does not apply to value added services. It does not apply to marginal costs: research and educational projects must pay for the direct costs generated by their requirements.

These supplies only concern data and products that belong to DMI, or those in stock and for which the owner has explicitly given permission for the application of these same conditions. This is the case in particular for data and products exchanged under the auspices of the WMO, and classified as « essential » or « additional ». These conditions do not apply when the common rule is more favourable (case of « essential » data and products for example), or when specific rules are adopted (case of special observing periods of international research experiments for example).

Where DMI accepts that the research will be directly beneficial to its own requirements, it may decide to waive some or all of the direct provision costs.

DEFINITIONS

Free and unrestricted: means “non-discriminatory and without charge, ..., at no more than the cost of reproduction and delivery” (from Resolution 40 of the 12th Congress of the WMO, June 1995). Reproduction and delivery includes all direct costs generated by their requirements; including the cost of distribution media, transmission, documentation and direct labour costs of servicing the request.

Research: any project organised by a university, a scientific institute or similar (private or institutional), for non commercial research purposes only. A necessary condition for the recognition of non-commercial purposes is that all the results obtained are openly available at delivery costs only, without any delay linked to commercial objectives, and that the research itself is submitted for open publication. Research activities as part of an institutions Official Duty is not covered by these conditions.

Education : any use of data and products, by a school, university, scientific institute or similar (private or institutional), solely for educational purposes, without transmission or redistribution of these data and products to any further third party, nor use of them to generate a meteorological value-added service.

CONDITIONS

1. The definitions of research and educational use must be met.
2. Note that open publication of a study is in itself not a sufficient condition, thus for example the following are not regarded as qualifying research or educational projects :
 - studies carried out and published to meet a legal requirement (e.g. site study) ;
 - studies carried out which give an economic advantage for a particular user or group of users. In these cases a specific agreement must be negotiated between DMI and the beneficiary.
3. Note that an activity is considered as being commercial and therefore cannot benefit from these conditions : if it involves any development which will subsequently be the object of, or will contribute to a sale, a licence or a right of use (software, publication, ...), the deposit of a patent, the realisation of tools or teaching material being for sale or contributing to a sale. In these cases a specific agreement must be negotiated between DMI and the beneficiary. If, in an unforeseen manner, research or education projects having benefited from free access, then lead to the development of software, the deposit of patents, the realisation of tools or teaching materials which may then be used for commercial purposes, the beneficiary agrees :
 - to grant to DMI all free licences for the use of these software or patents in the framework of its Official Duty. Thus the beneficiary accepts the reciprocity of its own policy in favour of the non commercial activity of DMI.
 - not to authorise such commercial use before having passed a specific agreement with DMI. Should such an agreement prove impossible, the beneficiary must refund to DMI the actual estimated value of the original data and/or products (cf. paragraph 6).
4. The intellectual property rights on data and products are retained by DMI. The supply for research or education purposes will not grant or will not have as a consequence the transfer or surrender of such ownership or intellectual property rights.
5. The use to be made of the data and/or products provided must be stated precisely. All persons associated with the project must be made aware of the conditions attached. No person associated with the project shall, save with the written permission of DMI, transfer to a third party any data of the supply, or use for any other purpose.



6. Data and products supplied under the present conditions may be accompanied by an estimation of their value, based upon what would have been invoiced for the same request to an end user. This estimate is recognised by the beneficiary as a contribution by DMI to the project. It gives DMI the same rights as those granted to other contributors for an equivalent amount.
7. The beneficiary accepts responsibility for all conditions attached and shall indemnify DMI for any loss it suffers due to non-compliance of these conditions. DMI reserves the right to ask for the destruction or the restitution of data or products supplied at the end of the research programme or educational activity.
8. The beneficiary agrees to make acknowledgement of the origin of the data used in any publication arising out of the use of the data. He will provide a copy of these publications, where requested, to DMI.
9. The non-compliance of these conditions is prejudicial not only to DMI but also to the research and education communities. In consequence, DMI reserves the right to withhold either temporarily or permanently access to these conditions, from any establishment which, voluntarily or otherwise, does not respect them.

User signature / date



8. References

John Cappelen, Bent Vraae Jørgensen, Ellen Vaarby Laursen, Lotte Sligting Stannius, Rikke Sjølin Thomsen: The Observed Climate of Greenland, 1958-99 – with Climatological Standard Normals, 1961-90. **DMI Technical Report No. 00-18**. Copenhagen 2001.

Previous reports

Previous reports from the Danish Meteorological Institute can be found on:

<http://www.dmi.dk/dmi/dmi-publikationer.htm>