

**NURMIJÄRVI GEOPHYSICAL  
OBSERVATORY**

**MAGNETIC RESULTS 2010**

**Editors K. Pajunpää and H. Nevanlinna**


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<p>Abstract</p> <p>The magnetic yearbook of the magnetic recordings at the Nurmijärvi observatory contains tables, figures of hourly, monthly, and yearly means of the magnetic field components X, Y and Z as well as magnetic activity indices (K, Ak) in 2010. Magnetic isolines describing the distribution of geomagnetic field components in Finland 2011.0 are shown by a series of maps.</p>		
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## 1 Introduction

This report presents magnetic measurements carried out at the Nurmijärvi (NUR) Geophysical Observatory between January 1 and December 31, 2010. The observatory is operated by the Finnish Meteorological Institute (FMI) and is part of the Observation Services Division of the institute. Information about the IMAGE magnetometer network is included in this report, as it is partly operated by the observatory. The Nurmijärvi Geophysical Observatory started recording the Earth's magnetic field in April 1952. The first yearbook was for 1953.

## 2 Description of the observatory

The observatory is located some 40 km NNW from Helsinki in the northern part of the Nurmijärvi municipality having about 40,000 inhabitants. The observatory lies on a moraine ridge by the lake Sääksjärvi. The 7 ha forest area of the observatory is limited to the lake in the North and North-East, to a nature reserve forest in the South and to a private forest in the West. There are no artificial disturbance sources nearby.

The coordinates of the observatory are:

	Lat.	Lon.
Geographical	60°30.5'N	24°39.3'E
Geomagnetic	57°43.8'	113°28.8'
Corr.geomagnetic	56°49.2'	102°31.2'

The magnetic coordinates are referred to the IGRF-95 model:

L-value	3.3
Height	105m

The Nurmijärvi observatory is running two magnetometers, which are controlled usually once per week with absolute measurements. Another magnetic recording system at the observatory is the three-component pulsation magnetometer of the Sodankylä Geophysical Observatory. The Air Quality Department of FMI makes continuous airborne radioactivity recording. An automatic weather station observes the following: temperature, humidity, snow depth, current weather, rain and clouds. University of Leicester operates the radio transmitter for ionospheric research. The receiver is in United Kingdom. Nurmijärvi municipality needs the water level observations in the lake Sääksjärvi. The seismic station of the Helsinki University has ceased its operation at the observatory and only some temporary measurements are performed.

The Nurmijärvi observatory has a magnetic calibration and test laboratory for magnetometer and sight compass calibrations and for compass swing base measurements at airfields. FINAS (Finnish Accreditation Services) accredited the laboratory as the number K050 on 17th of August 2007.

## 3 Recording instruments

In the variation house the Danish suspended flux gate magnetometer (FGE-89) is the primary instrument. The Ukrainian LEMI-004 flux gate magnetometer is the second variometer. The sensors are directed in geographic North and East directions

measuring the X, Y and Z components. The temperature in the variometer room is kept at  $18^{\circ}\text{C}$ . Analog voltages from the magnetometers are AD-converted in the variation room and the digital data are transferred through optical wires to the computers in the main observatory building. The Linux based software stores the data in three files as one-second, ten-seconds and one-minute averages. Timing is based on GPS time sheared through the local network. The standard one-minute values are averages over one minute periods starting and ending at a half minute (e.g. 59:30 - 00:30, 00:30 - 01:30, 01:30 - 02:30). The given time is the starting minute at the centre of the period (00, 01, 02 etc.).

In the Autumn 2010 a Russian POS-1 proton magnetometer was installed in an old empty coil hut. The data is transferred through optical wires to the same data acquisition computer that stores the FGE-89 data. Absolute value is taken once in every 10 seconds.

## 4 Absolute measurements

The total field (F) was measured by a Polish PMP-7 proton precession magnetometer and declination and inclination with a DI-flux-magnetometer, which consists of a non-magnetic Zeiss-Jena theodolite (010B) and of a flux-gate element mounted on its telescope. The absolute measurements were done on average once a week. The base line values as determined for the FGE are shown in Fig. 3.

## 5 Data processing and dissemination

In the processing the final base line values and sensitivities were used and hourly mean values were calculated. The measured base line values were followed closer than half a nanoTesla. All the digital data were visually inspected on the computer screen.

Tables showing the three-hour K-indices were computed from 10 s data using the 'FMI' algorithm. The upper limit for K=9 is  $750nT$ .

Daily magnetograms and K-indices were published in the monthly bulletin together with the Sodankylä Geophysical Observatory of the University of Oulu. The bulletin contains daily magnetograms of Nurmijärvi, Hankasalmi, Oulujärvi and Sodankylä, daily ionosond and riometer recordings and cosmic ray data.

Daily files of minute data were sent by e-mail for the INTERMAGNET system. INTERMAGNET DVD 2008 will be published in 2011 containing minute data, annual means and base line values from Nurmijärvi together with over a hundred of other magnetic observatories.

## 6 IMAGE and repeat stations

The IMAGE magnetometer network (Fig. 2) consisted at the end of 2010 of 32 stations from Tartu in Estonia to Ny Ålesund on Svalbard. The new principal investigator of this international project was Eija Tanskanen at FMI. The observatory operated nine IMAGE stations in Finland (including Nurmijärvi), one in Estonia and one in northern Norway. At seven of the stations the service and absolute measurements were done in co-operation with the Sodankylä Geophysical Observatory of the Oulu University.

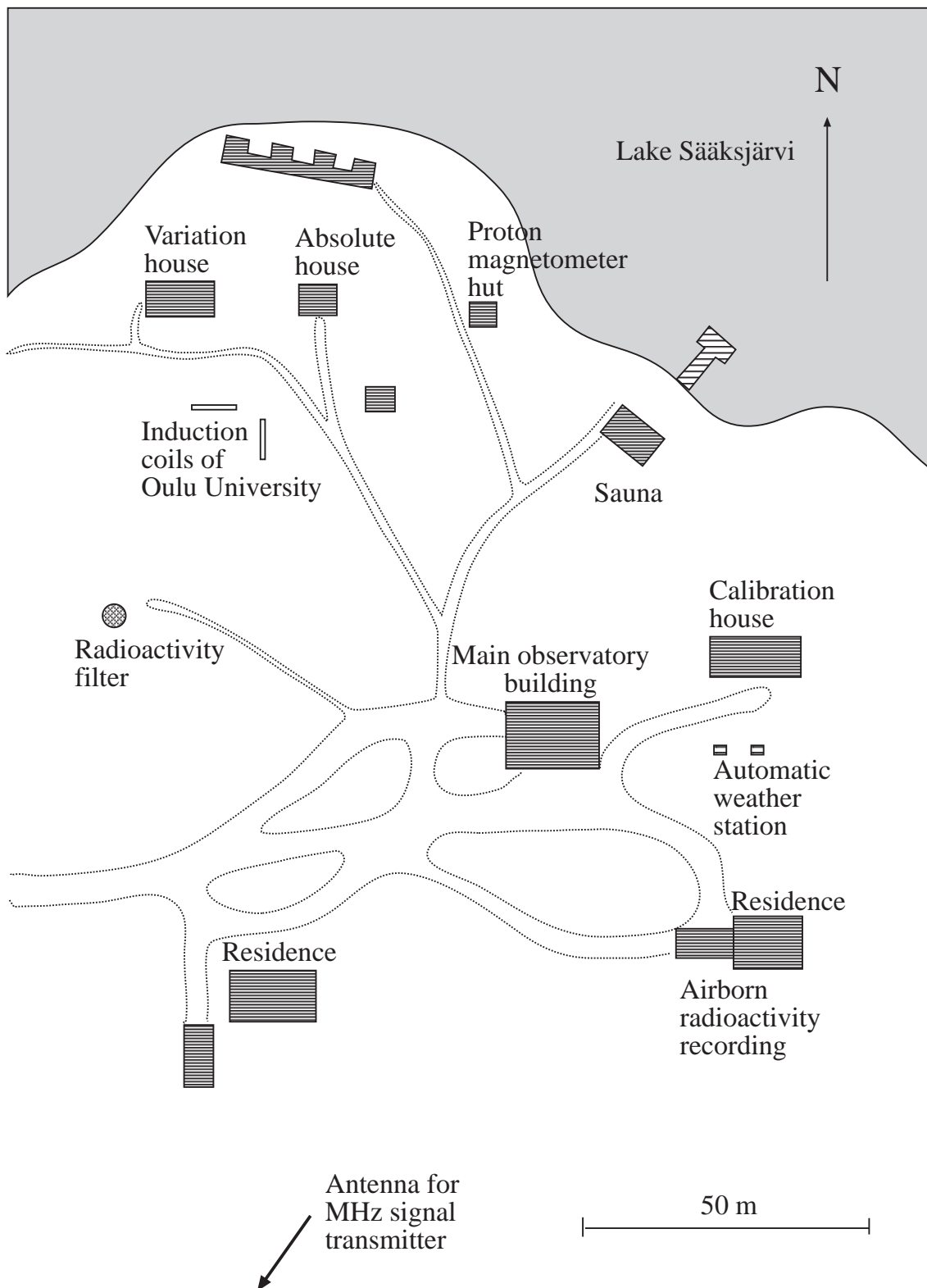


Figure 1: Map of the observatory area. Note the new recording proton magnetometer.



Year	X[nT]	Y[nT]	Z[nT]
2002,5	11255	1600	51313
2004,5	11237	1663	51392
2005,5	11228	1690	51429
2006,5	11229	1716	51459
2007,5	11225	1747	51496
2008,5	11217	1783	51529
2009,5	11210	1820	51560
2010,5	11297	1860	51596

Table 1: Annual mean values (all days) at the Pello IMAGE station.

Year	X[nT]	Y[nT]	Z[nT]	
2001.5	12889	2136	50867	
2002.5	12886	2168	50914	
2003.5	12870	2200	50961	
2004.5	12878	2228	50998	
2005.5	12867	2256	51035	
2006.5	12866	2283	51063	
New-old	-21	+19	+9	New absolute house
2007.5	12837	2333	51106	
2008.5	12831	2366	51139	
2009.5	12824	2400	51173	
2010.5	12810	2431	51229	

Table 2: Annual mean values (all days) at the Oulujärvi IMAGE station.

The data sampling intervals at the IMAGE stations were 1, 10 and 60 seconds. The IMAGE standard used the 10s values and they were averages over the seconds 00-10, 10-20, 20-30 etc. The time stamp given for the 10-second period was the first second of that period.

Most of the stations had ADSL or direct network connections and only OUI was still operated through a GPRS modem. Data transmission from the stations was moved from the observatory to the Helsinki office of FMI. The data of the eleven stations were processed and inspected and were sent for IMAGE filing.

## 6.1 Pello IMAGE station

Pello (66°54.2'N, 24°04.7'E) close to the border with Sweden in Lapland has a tilt suspended FGE magnetometer and absolute measurements are made once or twice a year. The annual mean values for all days were calculated and are listed in table 1.

## 6.2 Oulujärvi

At Oulujärvi (64°31'N, 27°14'E) absolute measurements were made in the new absolute house. Annual mean values are available since 1993. In the table 2 are the annual mean values for the last 10 years, calculated for the old absolute house until 2006 and for the new absolute house since 2007.

Year	X[nT]	Y[nT]	Z[nT]
2006,5	13839	1988	50116
2007,5	13843	2020	50149
2008,5	13839	2056	50182
2009,5	13831	2093	50213
2010,5	13815	2140	50250

Table 3: Annual mean values (all days) at the Hankasalmi IMAGE station.

Year	D[°]	H[nT]	Z[nT]
2000,5	7,531	14578	49574
2002,5	7,763	14583	49655
2004,5	8,001	14580	49740
2005,5	8,118	14580	49778
2006,5	8,224	14583	49805
2007,5	8,357	14587	49839
2008,5	8,491	14596	49871
2009,5	8,624	14593	49900
2010,5	8,787	14571	49944

Table 4: Reduced results from the Virolahti repeat station.

### 6.3 Hankasalmi

Hankasalmi in central Finland is one of the IMAGE stations. The station was first established in 1992 at the Sauvamäki village ( $62^{\circ}18.3'N$ ,  $26^{\circ}39.0'E$ ) but was relocated in 2005 at a new site ( $62^{\circ}15.2'N$ ,  $26^{\circ}35.8'E$ ) at the Murtoinen village. A concrete basement for absolute measurements was made nearby the recording magnetometer and absolute measurement have been performed every Summer since 2005. The table 3 shows the annual mean values for all days at Hankasalmi.

### 6.4 Virolahti repeat station

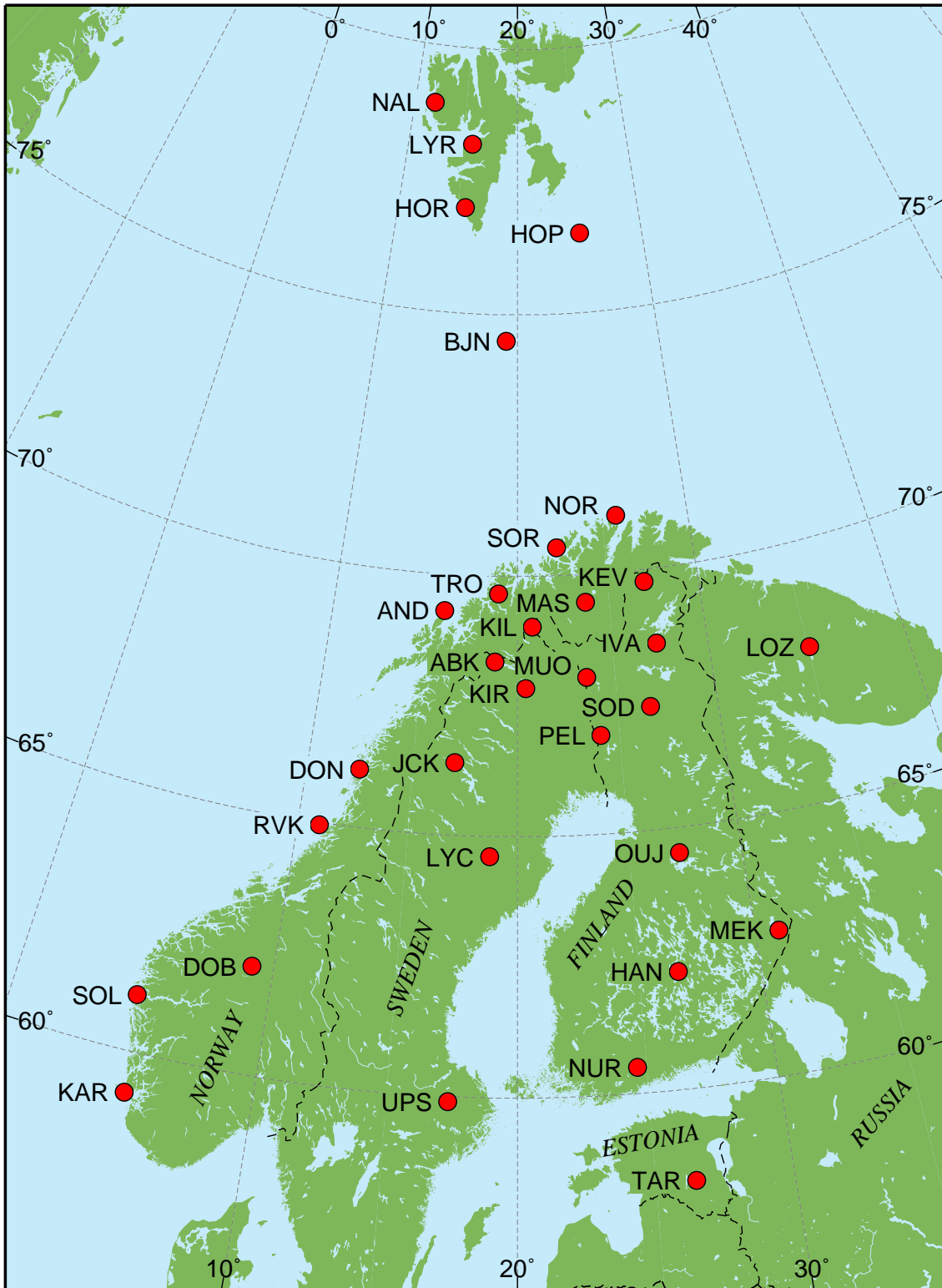
Virolahti ( $60^{\circ}33.7'N$ ,  $27^{\circ}33.4'E$ ) in the South-East Finland is one of the old repeat stations in Finland started in 1947. The station was visited in 2010 and four measurements during one day were made. The table 4 shows results of the last 10 years. The annual mean value of quiet days at the Numijärvi observatory was used to reduce the measurements at Virolahti.

### 6.5 SAMNET stations

The observatory provided 1-second data from the stations KIL, OIJ, HAN and NUR for the SAMNET magnetometer network operated by the Lancaster University in United Kingdom.

## 7 IMAGE Magnetometer Network

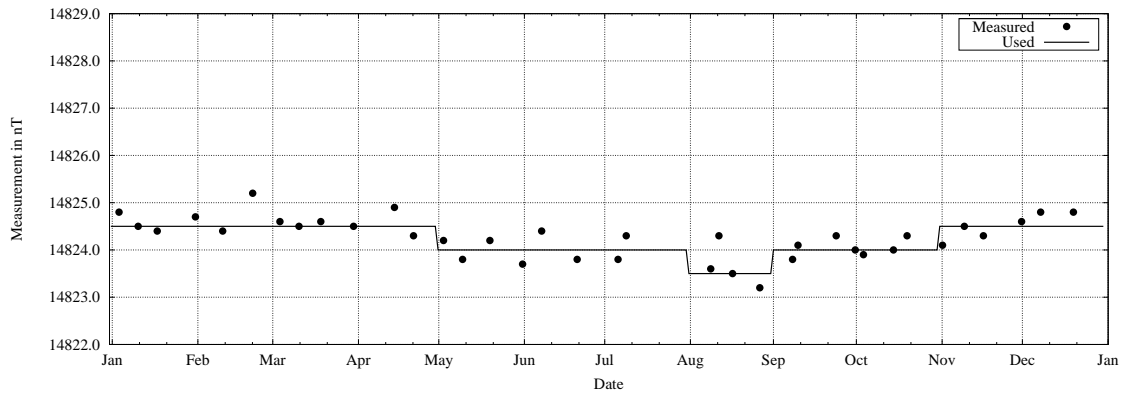
### IMAGE Magnetometer Network



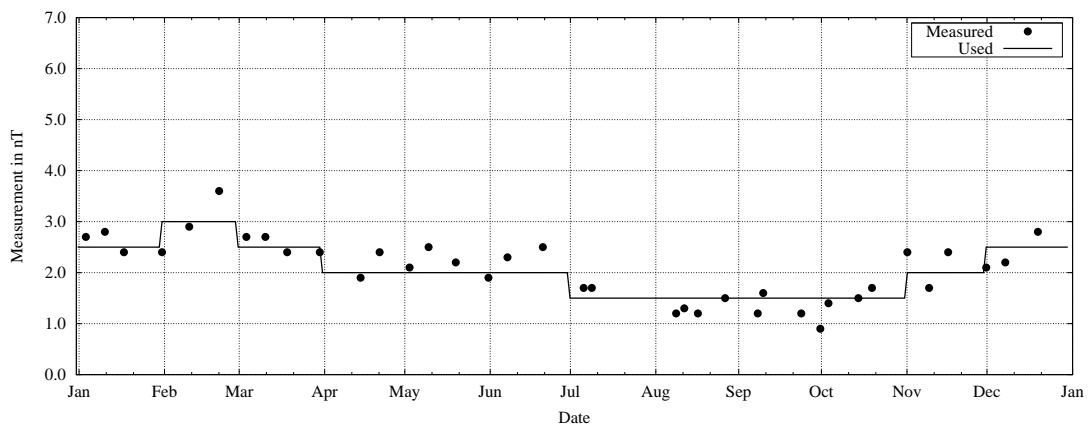
January 2011

Figure 2: Map of IMAGE magnetometer network

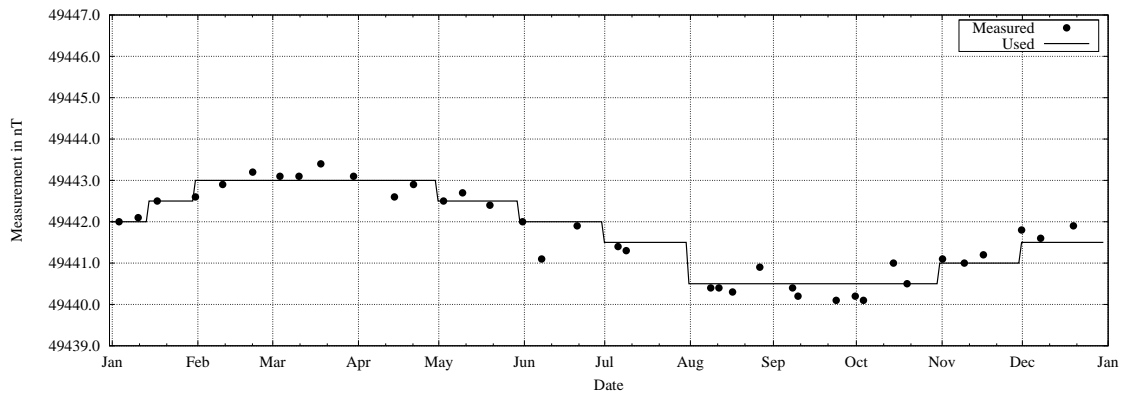
## 8 Baseline Measurements for FGE



(a) Baseline measurements for X component



(b) Baseline measurements for Y component



(c) Baseline measurements for Z component

Figure 3: Baseline measurements

## 9 Tables of Hourly Means of **X**, **Y**, and **Z**

Explanations of the tables:

- **X** is the North component of the magnetic vector
- **Y** is the East component of the magnetic vector
- **Z** is the vertical component of the magnetic vector
- The unit is nanotesla (nT) =  $10^{-9}$  T
- The time is universal time (UTC). The local time is UTC + 2 h (during the daylight saving time UTC + 3 h)

Nurmijarvi Finland

January 2010 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		-23	-22	-22	-21	-21	-22	-25	-28	-30	-30	-27	-22	-19	-19	-20	-20	-20	-20	-19	-18	-19	-18	-20	-22	-22	
2	Q	-21	-20	-20	-19	-19	-19	-21	-21	-23	-23	-22	-19	-15	-15	-16	-16	-16	-17	-18	-18	-19	-19	-19	-22	-19	
3		-23	-22	-20	-20	-18	-14	-15	-18	-22	-27	-28	-33	-27	-23	-21	-22	-26	-23	-21	-22	-22	-22	-24	-25	-22	
4		-29	-28	-25	-21	-19	-19	-22	-25	-28	-30	-34	-30	-26	-25	-26	-23	-23	-23	-24	-24	-22	-23	-24	-23	-25	
5		-23	-25	-23	-22	-21	-20	-20	-23	-28	-33	-34	-31	-27	-25	-30	-32	-30	-26	-23	-24	-24	-24	-25	-25	-26	
6		-24	-25	-27	-25	-22	-23	-25	-27	-30	-33	-33	-27	-23	-19	-18	-18	-18	-19	-20	-20	-21	-22	-22	-24	-24	
7	Q	-24	-24	-24	-24	-24	-23	-24	-28	-29	-30	-28	-22	-16	-14	-14	-15	-16	-17	-20	-24	-26	-26	-26	-26	-23	
8	Q	-26	-25	-25	-25	-21	-20	-20	-25	-31	-32	-33	-29	-24	-20	-19	-19	-20	-21	-23	-23	-23	-22	-22	-22	-24	
9	Q	-21	-21	-21	-21	-20	-18	-19	-22	-27	-33	-37	-32	-24	-20	-17	-19	-19	-20	-20	-19	-20	-20	-20	-20	-22	
10		-23	-22	-21	-20	-18	-16	-13	-14	-19	-27	-35	-35	-28	-23	-19	-21	-18	-18	-19	-20	-22	-22	-22	-23	-22	
11	D	-20	-22	-21	-17	-12	-13	-14	-25	-29	-27	-23	-25	-28	-26	-20	-26	-25	-29	-27	-33	-30	-30	-29	-24	-24	
12		-29	-28	-26	-27	-24	-23	-22	-26	-30	-30	-30	-28	-26	-23	-23	-23	-24	-23	-25	-27	-29	-27	-33	-30	-27	
13	D	-30	-24	-27	-26	-29	-20	-19	-25	-27	-32	-31	-30	-28	-24	-25	-30	-32	-34	-33	-24	-30	-28	-30	-28	-28	
14		-23	-28	-29	-29	-28	-26	-27	-29	-33	-36	-38	-39	-29	-30	-32	-24	-25	-25	-25	-26	-24	-28	-27	-28	-29	
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17		-22	-23	-24	-25	-24	-24	-23	-22	-23	-25	-24	-22	-22	-23	-21	-21	-22	-22	-22	-24	-24	-24	-23	-22	-23	-23
18	Q	-23	-22	-21	-21	-17	-17	-17	-16	-19	-23	-19	-18	-22	-25	-31	-27	-33	-27	-23	-20	-20	-20	-21	-22	-22	
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20	D	-20	-18	-17	-19	-20	-20	-24	-27	-27	-25	-26	-29	-18	-18	-28	-30	-20	-45	-58	-35	-43	-49	-50	-39	-29	
21	D	-40	-40	-40	-38	-37	-32	-32	-39	-38	-43	-42	-41	-41	-43	-40	-33	-30	-30	-30	-30	-31	-32	-30	-33	-36	
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26		-29	-29	-28	-25	-26	-23	-24	-24	-26	-29	-35	-36	-33	-28	-23	-23	-23	-24	-25	-25	-28	-27	-27	-26	-27	
27		-25	-24	-23	-23	-23	-21	-20	-19	-19	-22	-27	-28	-27	-26	-24	-24	-23	-23	-24	-26	-27	-31	-30	-29	-24	
28		-27	-26	-27	-24	-22	-22	-21	-18	-16	-18	-21	-22	-21	-23	-24	-27	-34	-37	-39	-30	-27	-27	-28	-26	-25	
29		-29	-28	-28	-26	-25	-23	-23	-21	-17	-17	-22	-23	-25	-26	-25	-24	-23	-22	-22	-24	-26	-26	-24	-22	-24	
30	D	-23	-23	-15	-18	-10	-18	-22	-20	-19	-18	-19	-21	-21	-22	-26	-29	-33	-32	-33	-27	-24	-28	-30	-29	-23	
31		-27	-31	-23	-21	-21	-20	-25	-24	-21	-21	-26	-30	-29	-31	-35	-34	-31	-29	-29	-29	-29	-29	-29	-32	-27	
All		-26	-25	-24	-22	-21	-22	-24	-26	-28	-31	-29	-26	-25	-25	-25	-26	-26	-26	-26	-27	-26	-27	-26	-26	-25	
Quiet		-23	-22	-23	-23	-21	-21	-21	-24	-26	-28	-29	-25	-20	-18	-18	-18	-18	-19	-21	-21	-22	-22	-22	-23	-22	
Dist.		-27	-25	-24	-24	-22	-20	-22	-25	-27	-30	-29	-29	-26	-27	-29	-28	-28	-33	-37	-29	-32	-33	-34	-32	-28	

January 2010 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		440	440	440	440	442	444	446	447	445	442	439	437	437	439	440	440	441	441	441	441	441	442	441	442	440	441
2	Q	440	440	440	440	441	442	443	443	441	440	438	436	438	440	439	439	439	440	440	440	440	440	442	446	444	441
3		442	442	439	439	439	440	442	439	434	431	428	425	420	423	433	436	438	440	443	443	443	443	443	443	450	437
4		446	441	439	439	438	440	443	441	442	438	436	431	436	440	442	442	443	443	442	443	443	443	442	441	441	441
5		440	441	440	439	440	442	444	444	444	441	436	433	435	438	437	439	441	442	443	444	446	445	446	446	441	441
6		444	446	446	445	445	445	447	447	443	439	436	429	434	439	441	442	442	443	444	445	445	445	446	444	443	
7	Q	442	441	440	441	441	443	445	448	444	439	435	432	435	438	440	442	442	443	443	446	446	448	446	444	442	
8	Q	444	446	445	443	442	444	444	445	444	440	435	432	435	439	440	441	442	442	442	444	443	442	442	441	442	
9	Q	441	441	441	441	441	443	445	447	446	443	438	432	433	437	439	440	439	440	441	442	442	443	443	443	441	442
10		441	440	440	439	440	442	443	446	447	447	441	434	431	431	438	437	435	435	438	442	444	444	442	442	440	441
11	D	439	438	440	442	441	440	441	439	443	437	428	416	426	428	428	434	438	442	442	446	443	449	448	447	438	
12		445	444	437	444	442	442	447	448	450	441	440	437	438	440	441	443	444	444	446	450	453	455	450	447	444	
13	D	428	427	447	453	452	447	449	448	445	441	440	437	433	437	438	440	444	442	453	452	454	453	472	458	445	
14		445	447	445	446	445	448	450	450	448	444	441	438	438	437	442	442	443	442	453	456	457	448	446	443	446	
15		443	442	439	441	443	445	447	448	446	444	447	437	435	435	440	441	441	443	442	442	444	455	461	448	446	444
16		442	442	440	442	442	444	445	445	443	442	440	437	436	439	440	440	440	442	443	444	444	444	445	444	442	
17	Q	440	441	442	442	442	444	446	446	445	443	439	435	437	440	440	441	441	440	442	442	444	445	445	445	442	442
18		442	442	442	442	442	440	443	444	445	444	443	436	434	437	439	440	445	447	446	442	443	443	444	443	442	
19		445	443	441	441	442	443	445	446	448	447	442	437	438	439	440	440	441	442	442	443	444	444	444	444	444	442
20	D	441	442	442	443	443	445	447	445	444	442	436	428	425	423	424	428	441	498	452	460	456	475	450	437	444	
21	D	454	451	447	435	439	440	442	447	449	450	451	442	440	443	441	443	445	446	447	448	449	450	450	448	446	
22		446	446	443	438	446	447	449	452	452	450	448	443	438	443	444	445	447	448	453	454	455	449	454	450	445	
23		449	432	448	444	444	443	443	446	450	448	440	432	431	432	437	442	444	443	445	446	447	466	470	457	445	
24		446	449	449	449	449	445	438	441	449	444																

Nurmijarvi Finland

February 2010 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1	D	-31	-26	-26	-25	-25	-23	-23	-19	-21	-28	-27	-28	-37	-34	-38	-40	-29	-39	-36	-29	-27	-26	-24	-32	-29
2	D	-37	-28	-38	-27	-30	-27	-29	-29	-26	-31	-23	-23	-23	-25	-35	-36	-29	-28	-28	-26	-25	-29	-27	-62	-30
3	D	-45	-31	-28	-25	-23	-22	-29	-35	-43	-41	-36	-34	-29	-41	-51	-43	-41	-36	-23	-29	-32	-28	-32	-31	-34
4		-30	-31	-35	-34	-29	-31	-34	-39	-38	-35	-31	-29	-27	-24	-24	-25	-25	-26	-28	-27	-28	-27	-31	-30	-30
5	Q	-29	-27	-26	-26	-27	-29	-30	-31	-32	-31	-28	-25	-25	-26	-26	-24	-28	-26	-23	-23	-24	-25	-25	-25	-27
6		-26	-28	-26	-26	-26	-27	-30	-33	-32	-27	-22	-18	-17	-22	-29	-37	-38	-44	-42	-38	-42	-34	-25	-26	-30
7		-29	-30	-29	-29	-31	-33	-37	-40	-38	-37	-33	-28	-24	-26	-24	-24	-23	-22	-18	-23	-22	-18	-32	-32	-30
8		-37	-30	-33	-28	-26	-22	-26	-30	-35	-35	-30	-23	-23	-21	-20	-19	-19	-20	-20	-21	-20	-19	-20	-23	-25
9		-28	-28	-28	-27	-27	-29	-27	-26	-28	-26	-24	-22	-23	-23	-22	-23	-25	-23	-24	-27	-27	-27	-28	-27	-26
10		-29	-26	-27	-24	-25	-26	-24	-18	-20	-27	-29	-31	-32	-29	-26	-24	-23	-23	-27	-25	-22	-34	-31	-31	-26
11		-28	-24	-20	-23	-21	-23	-20	-18	-28	-29	-29	-27	-25	-23	-16	-20	-21	-23	-21	-22	-23	-25	-26	-26	-23
12		-31	-30	-27	-28	-25	-30	-28	-32	-37	-37	-39	-41	-36	-32	-30	-31	-35	-32	-26	-24	-26	-29	-31	-31	-31
13		-32	-32	-31	-31	-29	-27	-28	-30	-37	-40	-42	-40	-33	-28	-27	-25	-27	-34	-43	-35	-34	-36	-32	-32	-33
14		-32	-30	-32	-32	-31	-31	-30	-33	-34	-34	-34	-32	-27	-27	-23	-22	-21	-20	-25	-25	-23	-22	-30	-41	-29
15	D	-59	-47	-41	-39	-30	-22	-27	-34	-37	-42	-37	-38	-32	-32	-35	-33	-46	-48	-40	-53	-70	-75	-87	-95	-46
16	D	-57	-51	-51	-45	-41	-38	-36	-43	-52	-52	-55	-47	-41	-36	-35	-35	-39	-35	-32	-36	-46	-47	-59	-50	-44
17		-58	-48	-34	-37	-28	-28	-28	-34	-38	-40	-40	-39	-37	-35	-35	-34	-33	-31	-32	-34	-34	-27	-31	-31	-35
18		-29	-28	-25	-25	-24	-24	-25	-24	-23	-22	-22	-23	-24	-29	-41	-38	-34	-29	-46	-46	-36	-31	-29	-29	-29
19		-32	-33	-33	-31	-32	-29	-29	-31	-33	-33	-32	-33	-35	-36	-34	-29	-25	-24	-25	-23	-28	-28	-26	-29	-30
20	Q	-25	-24	-25	-25	-25	-24	-25	-29	-34	-37	-33	-31	-28	-25	-25	-26	-25	-24	-23	-22	-22	-22	-23	-25	-26
21	Q	-26	-26	-26	-26	-25	-25	-25	-27	-29	-30	-30	-27	-26	-25	-27	-25	-23	-24	-26	-26	-21	-22	-22	-22	-25
22		-23	-24	-24	-22	-21	-23	-25	-25	-24	-27	-30	-36	-35	-32	-30	-29	-35	-33	-32	-38	-40	-44	-50	-46	-31
23		-58	-32	-31	-29	-28	-26	-29	-32	-36	-37	-37	-35	-35	-34	-32	-29	-27	-27	-26	-24	-24	-25	-26	-24	-30
24		-25	-28	-30	-26	-24	-21	-19	-19	-24	-29	-34	-34	-32	-29	-27	-27	-31	-33	-31	-29	-31	-30	-30	-26	-28
25		-32	-29	-31	-30	-27	-25	-26	-30	-33	-36	-38	-34	-30	-27	-26	-25	-26	-21	-19	-23	-21	-34	-35	-32	-29
26		-34	-28	-32	-26	-23	-22	-23	-30	-37	-38	-35	-34	-32	-30	-30	-29	-27	-25	-24	-25	-24	-26	-25	-25	-28
27	Q	-24	-23	-23	-23	-25	-28	-33	-38	-43	-42	-36	-29	-22	-18	-18	-21	-25	-28	-26	-28	-22	-21	-21	-21	-27
28	Q	-21	-21	-19	-18	-17	-18	-21	-33	-39	-41	-38	-34	-29	-23	-25	-23	-24	-22	-19	-18	-19	-19	-20	-22	-24
All		-33	-30	-30	-28	-26	-26	-27	-30	-33	-35	-33	-32	-29	-28	-29	-28	-28	-29	-28	-28	-29	-30	-31	-33	-30
Quiet		-25	-24	-24	-24	-24	-25	-27	-31	-35	-36	-34	-30	-26	-23	-24	-24	-24	-25	-24	-24	-21	-22	-22	-23	-26
Dist.		-46	-36	-37	-32	-30	-26	-29	-32	-36	-39	-36	-34	-32	-33	-39	-37	-37	-37	-32	-34	-40	-41	-46	-54	-36

February 2010 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1	D	457	458	458	454	452	450	447	444	444	448	439	437	432	431	431	434	440	456	445	442	444	463	479	446	447
2	D	458	470	467	457	455	448	447	445	439	442	440	440	443	444	443	439	437	440	444	445	445	453	485	467	450
3	D	460	466	454	448	444	441	444	439	437	423	433	444	444	442	447	462	448	443	455	449	452	454	454	449	447
4		447	458	465	457	453	450	448	446	443	442	441	441	442	444	444	444	443	444	442	444	447	455	452	448	448
5	Q	446	449	448	448	449	449	450	449	443	440	437	438	438	441	442	443	448	445	446	446	446	446	446	446	445
6		450	448	446	448	448	449	450	449	443	437	434	431	433	427	415	414	446	448	452	459	460	453	460	460	444
7		447	448	447	449	450	453	453	453	450	444	442	441	442	444	446	446	445	444	445	444	454	464	469	475	450
8		459	466	469	463	459	460	457	454	450	447	440	435	437	440	441	440	440	441	443	444	444	445	446	446	449
9		448	446	451	452	453	452	453	453	449	444	440	438	439	440	443	444	444	443	446	447	449	451	450	454	447
10		456	455	460	459	454	451	451	451	444	441	438	438	436	434	439	443	445	447	444	447	451	455	454	451	448
11		447	450	451	450	455	454	454	454	450	444	434	440	445	444	445	445	446	445	447	448	449	449	451	447	447
12		456	454	455	456	442	448	454	458	454	446	439	437	437	441	439	434	435	441	446	448	450	459	456	455	447
13		455	457	455	459	458	457	457	458	455	447	440	436	435	436	440	441	440	434	442	449	457	460	451	452	449
14		452	453	457	454	454	454	453	455	451	441	435	432	431	437	441	442	445	445	445	445	447	449	454	493	449
15	D	498	507	490	480	476	467	455	452	449	444	441	437	432	429	430	415	423	434	447	441	478	477	499	508	459
16	D	469	454	454	456	456	457	456	457	454	454	453	449	444	442	444	444	447	446	448	454	461	479	472	483	455
17		509	474	477	469	465	458	455	454	452	448	442	439	441	443	445	447	448	448	447	449	450	454	491	455	457
18		452	451	450	450	450	450	451	450	447	441	436	439	438	439	436	438	448	479	470	461	454	450	449	448	449
19		449	449	446	451	451	452	451	450	446	441	439	437	438	438	439	444	445	444	445	445	450	459	448	447	446
20	Q	448	448	449	449	451	450	452	453	451	447	443	441	440	442	443	445	445	446	446	446	447	448	449	449	447
21	Q	448	449	449	450	450	451	450	449	446	441	438	438	441	443	444	443	444	445	449	449	446	449	449	447	446
22		448	448	444	439	453	451	451	449	445	442	437	436	438	440	442	447	449	445	452	456	460	478	483	479	451
23		464	465	462	457	455	451	452	453	451	445	443	441	441	443	445	447	447	446	448	449	447	449	448	450	450
24		448	452	451	449	453	448	449	449	448	444	442	437	437	437	440	446	446	446	449	451	461	461	457	455	445
25		457	446	458	455	453	453	455	456	451	443	439	438	440	443	446	447	444	444	443	446	444	443	446	446	448
26		459	469	458	453	452	451	454	456	452	446	438	437	437	441	447	448	448	448	449	449	450	449	448	448	449
27	Q	448	447	447	447	450	453	459	461	455	446	437	434	43												

Nurmijarvi Finland

March 2010 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		-24	-23	-23	-21	-18	-17	-19	-24	-33	-36	-33	-30	-27	-27	-22	-25	-21	-16	-15	-16	-18	-19	-22	-21	-23
2		-25	-26	-25	-23	-21	-20	-23	-30	-38	-42	-37	-32	-37	-36	-41	-47	-33	-25	-23	-22	-23	-22	-15	-32	-29
3	D	-28	-29	-29	-32	-25	-21	-21	-27	-31	-39	-42	-41	-28	-24	-34	-26	-24	-36	-36	-37	-30	-32	-23	-21	-30
4		-32	-30	-28	-29	-31	-22	-29	-35	-41	-42	-39	-32	-29	-36	-43	-45	-36	-31	-27	-27	-23	-23	-25	-27	-32
5		-27	-27	-27	-25	-22	-22	-24	-31	-44	-49	-49	-43	-39	-34	-30	-29	-26	-25	-26	-24	-24	-25	-26	-27	-30
6		-20	-30	-29	-27	-27	-28	-28	-31	-37	-43	-43	-40	-36	-32	-27	-25	-24	-23	-25	-20	-20	-18	-19	-26	-28
7		-26	-24	-23	-18	-19	-34	-29	-39	-38	-44	-48	-46	-41	-31	-25	-22	-22	-24	-25	-27	-26	-26	-25	-26	-30
8	Q	-26	-26	-23	-25	-22	-21	-26	-35	-41	-46	-45	-38	-33	-28	-26	-28	-25	-24	-27	-24	-27	-28	-26	-26	-29
9	Q	-26	-28	-28	-28	-27	-27	-28	-34	-38	-39	-32	-28	-25	-22	-23	-23	-20	-21	-22	-19	-19	-19	-19	-21	-26
10	D	-22	-20	-23	-22	-22	-25	-27	-28	-35	-36	-31	-24	-20	-21	-38	-28	-33	-52	-44	-44	-37	-15	-41	-34	-30
11	D	-42	-23	-33	-29	-25	-34	-43	-36	-44	-54	-38	-42	-29	-30	-27	-26	-26	-24	-27	-31	-26	-26	-25	-25	-32
12	D	-26	-28	-30	-30	-28	-35	-24	-35	-45	-49	-47	-41	-37	-38	-31	-36	-32	-29	-29	-30	-25	-26	-29	-38	-33
13		-35	-32	-31	-30	-29	-28	-30	-33	-36	-40	-41	-37	-34	-29	-27	-28	-26	-25	-29	-30	-22	-29	-30	-23	-31
14		-33	-26	-29	-29	-28	-28	-30	-40	-52	-49	-42	-32	-31	-30	-34	-33	-33	-31	-30	-30	-20	-23	-26	-32	-28
15		-25	-23	-24	-23	-22	-22	-25	-31	-38	-45	-46	-42	-36	-29	-26	-23	-24	-30	-28	-21	-26	-24	-23	-23	-28
16		-22	-21	-21	-19	-18	-17	-19	-33	-41	-46	-44	-41	-37	-34	-32	-30	-26	-24	-23	-19	-24	-17	-14	-17	-27
17	D	-18	-20	-19	-17	-17	-25	-20	-27	-43	-45	-44	-43	-36	-30	-25	-23	-22	-22	-21	-21	-21	-23	-20	-29	-26
18		-23	-32	-34	-33	-25	-19	-19	-24	-32	-40	-41	-39	-35	-29	-26	-24	-25	-23	-19	-26	-25	-20	-16	-20	-27
19		-23	-23	-23	-21	-17	-15	-17	-29	-47	-55	-51	-45	-38	-31	-26	-32	-27	-23	-20	-21	-18	-16	-19	-22	-27
20		-24	-22	-21	-21	-23	-15	-12	-32	-47	-48	-47	-38	-31	-23	-30	-27	-26	-24	-27	-31	-29	-24	-24	-24	-28
21	Q	-24	-25	-24	-23	-21	-19	-20	-26	-37	-43	-43	-38	-31	-28	-27	-26	-24	-23	-22	-23	-24	-22	-24	-23	-27
22	Q	-23	-24	-23	-23	-22	-20	-22	-29	-37	-42	-44	-42	-36	-30	-26	-22	-22	-21	-21	-20	-20	-21	-21	-21	-26
23	Q	-22	-22	-23	-23	-21	-22	-24	-30	-36	-44	-42	-38	-35	-30	-23	-23	-22	-21	-20	-19	-19	-20	-19	-20	-26
24		-21	-21	-21	-21	-19	-16	-19	-26	-34	-42	-49	-50	-41	-31	-30	-31	-30	-23	-22	-22	-21	-21	-10	-21	-27
25		-20	-20	-21	-21	-20	-17	-22	-26	-35	-36	-35	-26	-19	-12	-12	-13	-8	-2	-22	-28	-28	-25	-25	-24	-21
26		-24	-23	-22	-21	-20	-20	-21	-29	-36	-41	-39	-34	-36	-25	-18	-24	-23	-20	-20	-20	-19	-20	-22	-15	-25
27		-20	-24	-22	-16	-17	-16	-19	-31	-43	-48	-44	-38	-30	-22	-17	-20	-18	-18	-17	-16	-15	-17	-18	-23	-20
28		-18	-19	-19	-25	-27	-28	-35	-43	-44	-48	-49	-45	-35	-36	-33	-25	-30	-27	-25	-25	-24	-23	-24	-22	-30
29		-24	-27	-23	-22	-19	-19	-25	-32	-42	-45	-43	-40	-34	-26	-19	-20	-25	-23	-23	-23	-23	-21	-20	-23	-27
30		-22	-23	-25	-25	-20	-22	-26	-39	-50	-58	-54	-47	-35	-25	-24	-21	-26	-23	-13	-14	-22	-29	-19	-22	-29
31		-22	-23	-25	-21	-21	-23	-27	-36	-46	-57	-62	-49	-39	-30	-26	-24	-23	-27	-23	-19	-15	-12	-9	-13	-28
All		-25	-25	-25	-24	-22	-22	-24	-32	-40	-45	-43	-39	-33	-29	-27	-25	-24	-24	-24	-24	-22	-22	-22	-22	-27
Quiet		-24	-25	-24	-24	-22	-22	-24	-31	-38	-43	-41	-37	-32	-28	-25	-24	-23	-22	-22	-21	-22	-22	-22	-22	-27
Dist.		-27	-24	-27	-26	-23	-28	-27	-31	-40	-45	-41	-38	-30	-29	-31	-28	-27	-33	-31	-32	-28	-24	-27	-29	-30

March 2010 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		450	454	454	454	452	452	452	451	446	438	428	426	424	430	436	437	441	442	443	445	448	450	452	459	444	
2		457	454	453	453	454	455	459	463	461	452	434	426	420	426	426	438	444	446	449	450	452	459	471	467	449	
3	D	455	457	455	452	449	451	457	459	453	445	437	432	430	430	443	450	444	473	471	470	472	465	457	469	453	
4		458	452	456	459	455	449	457	456	453	445	437	431	428	430	429	438	445	449	451	454	459	459	455	455	448	
5		453	453	452	452	453	456	461	465	461	448	439	430	431	437	445	450	451	453	457	454	453	455	455	458	451	
6		456	469	462	458	458	458	462	465	462	456	447	440	436	437	441	447	449	452	452	450	449	451	457	459	453	
7		474	468	466	457	457	455	459	462	461	452	445	445	435	433	432	439	445	449	451	451	453	454	456	457	453	
8	Q	456	455	456	453	454	454	460	465	461	456	450	443	437	439	446	447	446	443	443	453	454	455	457	456	452	
9	Q	456	457	456	456	457	457	461	463	460	450	437	433	432	435	439	443	447	446	448	448	450	451	452	455	450	
10	D	453	459	456	455	456	454	458	456	450	441	432	430	428	429	444	442	486	467	457	462	456	459	455	463	452	
11	D	456	455	464	465	460	456	454	453	449	445	434	432	435	432	439	444	445	447	464	454	457	459	451	452	450	
12	D	449	444	465	460	462	446	447	458	455	452	444	432	432	433	441	452	452	449	456	457	455	463	460	466	451	
13		461	464	462	460	457	459	462	461	456	450	443	435	433	434	439	445	448	447	446	450	462	458	455	454	452	
14		464	445	462	460	460	455	457	459	455	446	437	427	428	426	437	445	444	447	448	452	447	455	459	455	449	
15		452	451	452	452	453	453	456	458	456	452	444	436	433	436	442	447	448	451	448	480	460	449	449	450	450	
16		450	450	452	455	455	456	460	463	460	454	443	434	429	430	438	445	445	447	449	448	451	454	457	454	447	
17	D	452	452	454	453	452	437	447	452	456	452	439	436	432	432	439	445	446	446	446	447	454	454	456	461	449	
18		448	463	466	468	459	458	460	462	461	454	445	445	435	428	429	438	445	445	445	447	458	458	450	448	446	451
19		451	453	454	454	454	459	465	466	462	455	441	430	424	427	439	448	449	447	446	449	466	459	463	453	451	
20		452	454	459	460	460	456	462	467	459	452	438	426	425	428	438	452	456	455	458	463	454	450	450	451	451	
21	Q	452	452	455	456	458	461	464	464	459	449	438	432	431	435	444	449	450	451	453	451	451	454	451	451	451	
22	Q	452	453	453	454	455	459	464	466	461	450	438	431	429	435	444	449	450	449	449	450	450	450	451	452	450	
23	Q	453	453	453	454	455	460	464	466	462	451	437	424	421	427	437	446	451	451	454	452	451	451	450	450	449	
24		453	454	455	455	456	459	466	469	464	453	440	430	422	419	427	437	440	448	450	453	452					



Nurmijarvi Finland

April 2010 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		-27	-31	-28	-24	-18	-20	-31	-35	-48	-51	-49	-48	-11	-30	-21	-37	-36	-29	-27	-30	-26	-27	-20	-32	-32
2	D	-40	-37	-30	-24	-25	-28	-35	-35	-56	-59	-59	-50	-50	-35	-27	-25	-25	-19	-21	-23	-22	-37	-35	-38	-35
3		-21	-25	-25	-26	-27	-24	-28	-35	-45	-48	-51	-49	-43	-37	-30	-23	-18	-4	-35	-36	-28	-21	-18	-23	-30
4		-34	-32	-33	-29	-25	-31	-36	-45	-40	-45	-48	-47	-39	-32	-25	-30	-31	-23	-25	-40	-29	-25	-30	-27	-33
5	D	-50	-36	-31	-28	-25	-40	-53	-40	-47	-127	-91	-53	-22	-19	-24	-2	-28	-34	-40	-47	-49	-10	-81	-96	-45
6	D	-120	-127	-91	-83	-81	-111	-117	-122	-111	-89	-58	-60	-25	11	5	-9	-15	-34	-74	-88	-131	-91	-95	-110	-76
7	D	-65	-44	-42	-40	-43	-44	-69	-97	-76	-76	-63	-52	-53	-36	-36	-29	-23	-35	-26	-46	-43	-38	-42	-38	-48
8		-39	-45	-49	-35	-34	-38	-45	-52	-60	-74	-74	-62	-54	-44	-34	-33	-32	-28	-28	-31	-28	-19	-53	-46	-43
9		-49	-43	-54	-36	-34	-35	-46	-52	-62	-63	-62	-55	-44	-33	-30	-35	-29	-33	-29	-21	-34	-32	-35	-36	-41
10	Q	-37	-35	-32	-32	-32	-34	-38	-44	-52	-58	-59	-51	-44	-37	-35	-31	-28	-25	-26	-24	-26	-27	-25	-26	-36
11		-30	-33	-32	-29	-30	-36	-42	-49	-57	-59	-51	-44	-39	-10	-11	-23	-6	-7	-38	-44	-58	-68	-57	-59	-38
12	D	-26	-100	-95	-42	-36	-54	-55	-69	-69	-67	-58	-56	-43	-41	-36	-26	-12	-10	-28	-29	-28	-32	-30	-28	-45
13		-33	-32	-32	-34	-34	-34	-40	-52	-63	-66	-60	-50	-37	-33	-31	-33	-28	-31	-27	-27	-28	-27	-26	-29	-37
14		-28	-32	-34	-31	-27	-28	-34	-43	-52	-55	-51	-39	-37	-27	-18	-17	-19	-10	-9	-13	-12	-5	-50	-65	-31
15		-38	-26	-29	-48	-39	-36	-46	-56	-65	-69	-62	-55	-40	-30	-34	-31	-30	-25	-25	-24	-22	-23	-24	-25	-38
16		-26	-30	-28	-31	-35	-31	-35	-43	-51	-57	-56	-49	-38	-33	-32	-28	-27	-22	-20	-20	-20	-22	-21	-23	-32
17		-25	-31	-29	-28	-31	-33	-38	-47	-54	-56	-53	-46	-38	-33	-28	-25	-24	-24	-21	-22	-26	-29	-26	-23	-33
18		-27	-28	-27	-25	-27	-29	-34	-42	-54	-58	-56	-45	-36	-28	-24	-24	-22	-21	-20	-19	-20	-20	-22	-30	-40
19	Q	-19	-24	-25	-23	-20	-26	-34	-43	-49	-50	-45	-31	-26	-28	-22	-17	-21	-23	-23	-25	-27	-23	-27	-28	-28
20		-27	-26	-26	-24	-25	-26	-34	-43	-50	-53	-52	-46	-37	-25	-19	-29	-28	-23	-19	-24	-30	-28	-27	-30	-31
21		-27	-27	-27	-26	-28	-33	-37	-40	-48	-50	-52	-41	-42	-24	-32	-32	-24	-20	-19	-20	-19	-20	-21	-21	-30
22		-22	-23	-23	-22	-23	-25	-31	-41	-49	-56	-53	-45	-37	-31	-31	-29	-21	-14	-18	-13	-9	-16	-15	-21	-28
23		-36	-45	-19	-21	-22	-26	-39	-51	-58	-58	-54	-45	-34	-32	-25	-23	-19	-21	-19	-18	-22	-20	-36	-41	-31
24		-55	-34	-36	-40	-29	-32	-41	-49	-53	-56	-43	-38	-31	-28	-32	-27	-28	-24	-25	-24	-26	-27	-26	-27	-35
25	Q	-28	-30	-30	-31	-28	-32	-40	-51	-58	-56	-52	-45	-37	-28	-22	-20	-17	-21	-20	-20	-21	-19	-21	-21	-31
26	Q	-22	-22	-21	-22	-25	-30	-37	-46	-55	-53	-57	-44	-27	-19	-19	-18	-16	-18	-19	-16	-17	-16	-14	-15	-27
27		-19	-26	-20	-20	-24	-29	-35	-43	-51	-50	-47	-42	-29	-21	-15	-19	-15	-24	-18	-17	-21	-17	-15	-18	-26
28		-19	-19	-17	-17	-21	-25	-31	-41	-43	-46	-42	-50	-25	-20	-21	-28	-24	-21	-18	-16	-17	-20	-24	-27	-25
29		-29	-33	-37	-30	-19	-29	-37	-44	-48	-48	-43	-29	-20	-14	-13	-17	-18	-19	-21	-21	-23	-25	-25	-28	-28
30	Q	-24	-24	-26	-27	-30	-36	-40	-43	-46	-50	-47	-38	-25	-16	-20	-22	-26	-24	-19	-20	-22	-24	-21	-21	-29
All Quiet		-35	-35	-34	-31	-30	-34	-42	-49	-55	-60	-55	-47	-36	-27	-25	-25	-23	-22	-25	-27	-29	-27	-32	-35	-35
Dist.		-60	-69	-58	-43	-42	-55	-66	-73	-72	-83	-66	-54	-45	-34	-26	-24	-23	-22	-22	-21	-20	-21	-20	-21	-31

April 2010 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		474	462	461	451	459	468	469	465	454	440	423	413	413	412	440	435	446	448	455	453	450	458	473	462	449	
2	D	455	450	434	452	449	446	463	472	463	453	443	426	419	425	429	434	438	448	448	450	474	481	481	471	450	
3		443	454	453	452	454	460	469	472	469	463	449	435	423	422	432	436	462	475	473	475	465	468	460	461	455	
4		463	469	449	461	462	465	460	471	467	463	446	430	422	433	437	438	443	455	482	492	479	460	446	480	457	
5	D	481	474	465	468	469	467	456	464	463	477	422	422	406	373	389	434	453	445	455	461	445	468	478	489	451	
6	D	493	487	436	421	431	399	422	442	445	453	456	454	445	442	445	464	481	499	494	496	502	492	507	499	463	
7	D	501	482	466	463	464	465	460	442	445	447	433	448	438	427	442	451	469	472	465	475	469	466	443	454	458	
8		468	458	441	464	463	469	474	474	469	461	449	439	438	439	446	450	452	453	454	458	469	472	489	468	459	
9		484	473	463	462	463	463	472	474	472	461	448	435	431	436	441	446	455	452	454	465	464	460	462	461	458	
10	Q	463	460	461	463	465	468	475	478	473	465	455	441	435	436	442	447	450	451	454	458	457	454	449	459	457	
11		461	463	460	467	468	471	475	473	465	455	443	435	433	420	417	424	447	485	473	495	483	483	489	511	462	
12	D	545	552	501	457	480	483	481	475	461	450	441	433	428	432	437	439	436	441	443	456	469	459	454	453	463	
13		455	459	462	466	468	474	475	472	465	458	446	435	433	441	449	454	458	455	454	454	454	456	448	456	456	
14		451	459	457	465	464	466	467	466	461	454	445	436	431	436	439	440	444	444	444	444	444	452	486	498	452	457
15		474	463	467	459	468	472	478	474	466	455	445	438	436	442	448	454	455	454	453	453	455	453	454	454	457	
16		455	460	462	467	469	467	469	466	462	454	446	438	434	439	445	449	450	452	452	452	452	452	452	453	454	
17		456	460	462	468	470	471	473	472	467	457	444	430	427	431	438	443	448	448	450	452	461	469	456	457	455	
18	Q	456	458	463	464	468	472	477	477	467	455	442	428	425	432	438	443	448	452	453	454	457	458	455	454	454	
19		455	456	461	466	466	473	478	476	467	458	441	425	418	423	433	441	448	459	463	462	464	462	462	460	455	
20		462	462	462	467	471	470	474	469	461	452	439	423	418	421	428	434	443	450	451	456	462	458	465	467	453	
21		465	463	461	467	470	475	463	460	454	445	440	426	425	423	429	441	444	451	454	456	460	453	454	456	451	
22		457	458	460	466	466	470	472	470	460	449	439	430	429	435	442	448	449	452	456	456	483	460	458	454	455	
23		448	467	478	481	473	482	479	474	464	451	436	422	419	430	439	447	453	455	455	467	484	475	485	459	459	
24		489	459	445	459	472	475	471	464	454	443	431	425	429	439	448	454	457	457	463	458	455	454	455	455	455	
25	Q	455	458	461	465	467	469	471	470	464	450	437	429	426	432	441	448	454	454	451	453	454	453	453	453	453	
26	Q	457	458	464	471	475	475	473	471	464	448	434	425	424	433												

Nurmijarvi Finland

May 2010 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		-25	-26	-26	-28	-31	-37	-36	-39	-46	-52	-48	-40	-29	-19	-15	-14	-13	-20	-18	-19	-23	-19	-17	-19	-27
2	D	-20	-18	-19	-18	-19	-24	-25	-28	-34	-41	-26	-26	1	28	136	40	3	26	-7	-82	-93	-82	-74	-76	-20
3	D	-65	-79	-86	-61	-42	-50	-60	-51	-56	-67	-50	-51	-36	-20	-36	-19	-2	-12	-29	-28	-33	-49	-62	-45	-45
4		-74	-44	-29	-28	-36	-44	-62	-66	-77	-67	-51	-48	-47	-34	-27	-23	-20	-28	-30	-28	-30	-20	-40	-45	-42
5		-42	-35	-35	-36	-40	-45	-50	-53	-59	-56	-52	-50	-44	-37	-32	-27	-18	-11	-20	-14	-24	-38	-38	-35	-37
6		-31	-30	-34	-34	-36	-51	-53	-54	-56	-59	-57	-57	-40	-38	-21	-17	-14	-12	-21	-15	-22	-33	-33	-32	-35
7		-53	-34	-32	-38	-47	-44	-46	-47	-51	-52	-51	-40	-30	-24	-31	-24	-14	-12	-15	-22	-25	-28	-28	-21	-34
8		-30	-30	-29	-25	-35	-40	-53	-59	-65	-62	-56	-44	-38	-30	-25	-25	-24	-24	-21	-24	-22	-27	-29	-29	-35
9	Q	-32	-35	-33	-29	-32	-40	-49	-57	-62	-60	-52	-39	-30	-25	-21	-22	-22	-18	-20	-26	-29	-28	-28	-26	-34
10		-26	-28	-29	-27	-31	-40	-47	-52	-54	-55	-49	-35	-33	-28	-24	-18	-13	-12	-18	-21	-20	-20	-21	-20	-30
11		-23	-19	-22	-25	-27	-34	-42	-50	-50	-49	-44	-44	-37	-31	-32	-25	-16	-17	-10	-5	-18	-22	-21	-22	-29
12		-20	-20	-19	-16	-22	-29	-37	-39	-43	-42	-47	-54	-25	-33	-22	-25	-25	-24	-24	-16	-26	-27	-24	-25	-29
13	Q	-30	-33	-30	-31	-36	-47	-57	-63	-61	-58	-48	-41	-34	-28	-23	-17	-22	-22	-17	-19	-20	-22	-22	-20	-33
14		-21	-20	-21	-24	-27	-36	-43	-44	-48	-48	-44	-41	-35	-31	-24	-19	-15	-16	-20	-16	-19	-21	-22	-23	-28
15		-23	-29	-29	-29	-30	-32	-34	-40	-44	-50	-47	-40	-31	-25	-24	-20	-20	-19	-19	-22	-24	-24	-25	-24	-29
16		-23	-19	-21	-22	-27	-34	-36	-42	-46	-46	-43	-36	-31	-25	-18	-18	-7	-5	-7	-17	-12	-17	-17	-16	-24
17		-19	-26	-27	-24	-22	-28	-31	-38	-48	-49	-45	-37	-35	-32	-19	-10	-7	-5	-11	-15	-23	-25	-19	-19	-26
18		-24	-29	-22	-24	-32	-41	-46	-61	-71	-70	-60	-43	-34	-24	-33	-38	-27	-22	-16	-22	-22	-19	-19	-19	-34
19		-20	-19	-20	-22	-27	-33	-37	-43	-43	-45	-34	-35	-21	-31	4	-8	-12	-14	-14	-14	-16	-16	-14	-17	-23
20		-23	-16	-21	-18	-27	-35	-51	-56	-56	-55	-50	-25	-46	-27	-18	-19	-23	-14	-18	-18	-19	-15	-24	-31	-29
21		-32	-26	-22	-25	-29	-38	-43	-49	-52	-47	-43	-38	-33	-21	-26	-25	-21	-24	-20	-19	-21	-20	-22	-23	-30
22		-22	-24	-23	-25	-30	-38	-42	-43	-45	-44	-45	-36	-34	-32	-31	-29	-21	-17	-14	-15	-17	-18	-18	-20	-28
23	Q	-19	-19	-20	-22	-29	-34	-40	-45	-49	-47	-42	-36	-31	-25	-24	-24	-24	-21	-16	-16	-18	-19	-17	-18	-27
24	Q	-18	-19	-19	-22	-28	-38	-48	-56	-55	-47	-39	-30	-23	-14	-14	-17	-19	-19	-15	-15	-16	-18	-17	-16	-26
25		-16	-18	-21	-20	-28	-33	-36	-40	-49	-48	-39	-32	-24	-20	-19	-14	-13	-13	-9	-7	-7	-6	-16	-18	-22
26		-17	-13	-13	-12	-18	-28	-37	-41	-38	-39	-31	-28	-16	-11	-20	-21	-15	-20	-14	-11	-13	-18	-22	-24	-22
27	Q	-18	-21	-24	-20	-23	-32	-43	-54	-59	-56	-51	-39	-24	-16	-15	-19	-21	-20	-19	-19	-20	-20	-21	-20	-28
28		-19	-18	-18	-13	-21	-30	-30	-28	-30	-34	-40	-23	-4	-29	-22	-10	-7	-4	-1	-2	-14	-23	-19	-18	-18
29		-21	-18	-12	-11	-36	-61	-82	-99	-78	-93	-64	-38	-15	-31	-47	-39	-28	-46	-43	-42	-47	-32	-28	-40	-34
30	D	-35	-42	-36	-36	-39	-50	-78	-79	-64	-49	-44	-46	-30	-33	-18	-20	-20	10	-20	-42	-71	-82	-72	-67	-44
31	D	-36	-34	-33	-35	-37	-37	-65	-67	-80	-84	-59	-47	-35	-29	0	-6	4	-21	-17	-21	-36	-42	-53	-53	-39
All		-28	-27	-27	-26	-30	-38	-46	-51	-54	-54	-47	-39	-30	-23	-14	-16	-16	-15	-17	-21	-25	-27	-29	-29	-30
Quiet		-23	-26	-25	-25	-29	-38	-47	-55	-57	-54	-46	-37	-28	-22	-19	-20	-21	-20	-17	-19	-21	-21	-21	-20	-30
Dist.		-35	-38	-37	-32	-35	-44	-62	-65	-62	-67	-48	-42	-23	-5	26	7	-8	-8	-23	-43	-56	-58	-58	-56	-36

May 2010 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		458	460	465	469	473	472	473	470	461	448	433	423	423	430	436	444	451	462	456	455	455	453	453	454	453
2	D	453	457	463	467	470	475	477	474	462	448	425	408	383	366	374	404	427	400	540	523	512	495	499	490	456
3	D	477	475	505	477	482	480	479	478	458	447	433	429	434	432	400	449	466	457	462	447	466	483	461	457	462
4		431	453	469	477	482	487	485	474	460	444	436	435	434	446	455	462	455	459	455	458	467	468	476	466	460
5		446	462	469	473	475	478	477	474	465	454	442	434	433	437	443	447	455	483	463	461	481	479	476	467	461
6		464	463	464	468	473	471	458	460	459	452	440	432	432	442	446	450	453	463	461	471	465	466	466	463	458
7		438	455	465	468	470	473	472	469	459	449	440	434	434	444	441	443	452	460	458	450	458	456	452	467	454
8		463	485	484	485	487	477	470	468	462	449	431	426	427	436	456	458	463	459	456	458	462	456	454	455	460
9	Q	458	460	460	475	479	480	481	475	460	442	431	427	432	440	449	456	460	461	466	460	455	454	456	457	457
10		457	456	462	473	480	486	487	476	461	449	439	433	437	442	448	449	450	447	450	453	454	455	457	460	457
11		458	466	473	478	477	478	471	466	458	447	440	439	442	445	449	449	448	451	469	460	459	459	459	460	458
12		460	461	471	473	477	475	474	466	456	446	436	431	426	435	449	454	456	455	455	455	455	455	457	458	456
13	Q	458	466	469	477	482	483	479	470	455	442	436	435	435	440	447	450	451	455	456	456	455	457	459	461	457
14		462	464	472	476	479	479	475	468	454	445	442	442	444	447	448	449	452	454	457	455	455	456	456	458	458
15		462	460	457	465	468	469	467	461	457	446	438	435	440	447	453	455	457	457	458	458	458	459	460	460	456
16		459	461	467	472	477	481	477	472	467	457	447	436	433	432	434	441	450	465	458	458	454	457	459	462	457
17		462	469	470	467	474	482	486	480	467	456	443	433	431	437	439	445	450	463	468	456	461	462	460	458	459
18		462	454	467	481	482	477	473	461	444	430	426	417	414	415	425	443	449	453	454	462	456	456	458	463	451
19		463	466	470	475	479	479	475	471	459	446	435	427	423	435	441	441	443	444	451	458	457	454	453	454	454
20		453	458	468	478	482	484	482	472	459	440	428	421	429	439	446	454	458	457	456	458	457	459	459	461	457
21		458	466	474	482	485	482	479	474	465	452	444	437	437	443	455	463	463	460	457	457	457	457	457	459	461
22		460	464	469	475	479	477	470	462	456	448	437	432	437	446	456	459	458	457	457	457	457	457	457	459	460
23	Q	458	466	471	479	483	483	482	476	465	453	444	439	440	447	452	455	457	457	457	456	456	457	457	459	458
24	Q	460	463	470	478	484	484	482	472	456	441	432	427	427	435	444	451	455	457	456	456	456	457	458	459	457

Nurnijarvi Finland

June 2010 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		-55	-42	-35	-40	-48	-50	-55	-64	-68	-69	-63	-52	-46	-34	-32	-14	-10	-9	-4	-9	-43	-38	-36	-43	-40
2		-43	-37	-40	-41	-39	-35	-45	-56	-64	-67	-62	-53	-38	-42	-27	-26	-11	-5	-16	-22	-26	-27	-31	-30	-37
3		-33	-33	-32	-32	-27	-35	-50	-56	-67	-83	-67	-50	-35	-41	-26	-20	-20	-21	-17	-15	-14	-20	-26	-40	-36
4	D	-37	-102	-52	-67	-61	-29	-37	-46	-58	-71	-67	-56	-39	-21	-18	-17	-25	-23	-22	-24	-23	-22	-29	-32	-41
5		-34	-36	-39	-38	-35	-34	-39	-46	-52	-54	-51	-39	-31	-26	-18	-13	-16	-7	-9	-14	-13	-18	-32	-40	-31
6		-35	-31	-33	-36	-39	-48	-53	-56	-61	-63	-58	-45	-27	-16	-9	-13	-11	-8	-2	-18	-14	-19	-26	-22	-31
7		-21	-24	-24	-29	-34	-37	-44	-55	-59	-52	-50	-42	-33	-18	-21	-27	-29	-24	-22	-20	-17	-20	-21	-24	-31
8	Q	-20	-21	-27	-28	-31	-40	-46	-48	-50	-53	-50	-44	-31	-22	-22	-20	-19	-10	-14	-14	-16	-19	-21	-21	-29
9	Q	-20	-23	-23	-23	-28	-36	-42	-48	-51	-53	-45	-32	-18	-15	-14	-21	-17	-12	-13	-14	-12	-9	-12	-13	-25
10		-9	-10	-8	-7	-14	-24	-34	-42	-48	-54	-54	-41	-33	-17	-15	-15	-19	-13	-12	-17	-18	-21	-23	-26	-24
11		-26	-26	-24	-23	-28	-38	-46	-49	-45	-40	-37	-29	-25	-15	-7	-19	-22	-18	-20	-19	-23	-23	-21	-24	-27
12	Q	-26	-24	-22	-23	-21	-21	-33	-43	-55	-63	-56	-45	-34	-24	-17	-12	-11	-16	-15	-12	-15	-14	-13	-14	-26
13		-12	-11	-11	-11	-14	-23	-29	-43	-56	-71	-52	-32	-23	-15	1	-4	-1	-1	-5	-14	-17	-24	-23	-27	-22
14		-24	-23	-23	-23	-24	-25	-35	-55	-64	-65	-62	-50	-38	-25	-10	-7	-7	-5	-11	-21	-17	-18	-19	-19	-28
15		-15	-10	-11	-16	-17	-20	-20	-22	-34	-51	-45	-41	-38	-32	-19	1	0	-1	1	-2	-3	-12	-10	-13	-18
16	D	-14	-26	-37	-9	-31	-30	-33	-44	-49	-48	-62	-52	-45	-31	2	-15	-25	-5	-3	-6	-23	-23	-23	-28	-28
17		-22	-23	-28	-29	-32	-38	-55	-62	-68	-63	-58	-47	-45	-40	-34	-29	-19	-16	0	-5	-19	-30	-26	-34	-34
18		-25	-24	-20	-15	-13	-20	-29	-41	-48	-53	-54	-50	-45	-34	-23	-17	-17	-8	-8	-14	-19	-22	-24	-25	-27
19	Q	-23	-22	-22	-19	-21	-25	-36	-48	-56	-61	-50	-36	-31	-24	-23	-22	-24	-18	-10	-16	-18	-21	-22	-24	-28
20	Q	-23	-22	-20	-21	-23	-27	-34	-40	-38	-35	-36	-45	-41	-32	-26	-21	-20	-18	-14	-16	-18	-18	-18	-18	-26
21		-21	-19	-15	-14	-16	-24	-34	-42	-52	-54	-56	-53	-49	-38	-28	-22	-18	-10	-7	-12	-15	-16	-17	-19	-27
22		-18	-14	-14	-13	-14	-22	-35	-49	-57	-56	-48	-40	-28	-16	-11	-12	-6	-11	-6	-11	-18	-25	-26	-25	-24
23		-24	-25	-23	-24	-31	-43	-52	-55	-58	-60	-43	-39	-34	-31	-18	-18	-17	-12	-4	-11	-19	-23	-24	-30	-30
24		-21	-18	-16	-21	-29	-37	-45	-47	-46	-42	-36	-24	-20	-11	3	4	-14	-10	-10	-1	-15	-22	-21	-18	-21
25		-21	-26	-20	-20	-22	-30	-34	-34	-37	-48	-45	-55	-34	-15	-8	-9	-12	-8	-15	-5	-5	-4	-4	-10	-21
26	D	-13	-12	-10	-19	-40	-32	-42	-37	-53	-65	-39	-38	-40	-32	-26	-19	-22	-2	-10	-17	-19	-19	-23	-12	-27
27	D	-18	-18	-32	-40	-22	-31	-31	-41	-61	-60	-39	-50	-41	-28	-30	-25	-16	-14	-18	-14	-20	-23	-28	-34	-31
28		-24	-20	-29	-53	-28	-31	-41	-51	-63	-53	-51	-40	-36	-29	-20	-16	-9	-12	-21	-14	-18	-25	-25	-28	-30
29		-29	-23	-22	-32	-38	-32	-42	-50	-63	-59	-48	-39	-24	-28	-32	-25	-4	-8	-18	-14	-12	-14	-48	-32	-31
30	D	-28	-44	-69	-29	-29	-46	-57	-71	-65	-72	-69	-54	-28	-21	-4	-11	-18	-3	-8	-19	-27	-18	-27	-31	-35
All		-24	-26	-26	-26	-28	-32	-40	-48	-55	-58	-52	-44	-34	-26	-18	-16	-15	-11	-11	-14	-18	-20	-23	-25	-29
Quiet		-22	-22	-23	-23	-25	-30	-38	-45	-50	-53	-47	-40	-31	-23	-20	-19	-18	-15	-13	-14	-16	-16	-17	-18	-27
Dist.		-22	-40	-40	-33	-37	-34	-40	-48	-57	-63	-55	-50	-39	-26	-15	-17	-21	-9	-12	-16	-22	-21	-26	-27	-32

June 2010 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		474	471	478	487	491	485	488	478	465	451	435	428	432	435	440	450	459	457	463	489	475	470	466	462	464
2		468	469	467	463	458	474	480	476	474	460	445	432	428	431	439	444	460	470	462	462	458	468	463	461	459
3		465	468	475	485	490	491	488	487	476	464	445	435	436	433	453	441	446	452	453	456	474	463	450	486	463
4	D	496	517	477	475	439	482	493	488	474	459	448	441	433	432	449	448	455	457	459	458	460	461	468	463	464
5		464	466	468	474	477	477	475	476	465	459	454	443	439	441	446	449	452	455	460	456	458	465	465	468	460
6		472	476	473	475	481	484	487	485	474	459	441	431	430	435	442	451	453	453	451	456	454	459	464	457	460
7		462	468	476	476	477	473	472	470	464	454	443	436	438	445	445	453	455	453	451	454	458	458	457	458	458
8	Q	462	469	471	476	482	485	485	479	468	457	449	443	437	441	446	449	454	456	460	457	455	457	459	460	461
9	Q	461	467	476	485	487	480	477	471	461	450	443	433	426	434	441	446	450	454	458	458	456	458	461	463	458
10		465	462	465	479	493	490	479	474	464	451	440	434	436	435	440	449	456	459	460	459	459	460	461	462	460
11		463	475	487	487	484	479	476	475	465	452	439	429	433	434	439	449	456	461	461	463	463	460	459	458	460
12	Q	461	468	476	482	487	488	487	486	476	464	454	448	439	438	444	451	457	461	459	456	455	455	456	457	463
13		462	467	471	479	489	489	482	476	459	438	425	414	415	420	428	442	451	456	457	460	457	461	461	456	455
14		466	474	476	483	485	487	487	486	473	459	442	429	419	425	434	448	458	458	459	458	457	458	460	463	460
15		464	470	475	483	488	486	485	482	466	446	424	411	409	414	428	440	458	459	458	453	453	466	469	454	456
16	D	453	455	459	488	493	490	491	480	476	467	452	441	435	433	433	445	450	452	459	489	484	466	461	464	463
17		470	467	477	485	490	492	488	485	483	468	449	435	429	437	448	457	460	463	463	464	480	469	467	468	466
18		467	474	475	479	479	484	488	485	474	455	443	435	432	440	445	451	456	467	461	458	458	459	461	464	462
19	Q	467	469	472	476	478	480	484	485	478	462	444	432	429	437	449	455	457	455	456	457	457	456	457	463	461
20	Q	465	467	469	473	476	475	479	481	475	464	447	441	438	438	439	447	451	457	458	459	460	458	458	465	460
21		467	468	472	478	484	486	485	482	477	462	442	431	430	437	447	455	459	461	457	456	457	458	460	462	461
22		461	465	473	480	486	487	486	482	467	453	439	432	434	437	444	450	453	455	454	455	457	459	460	468	460
23		468	475	483	486	485	481	475	468	455	444	440	438	443	446	452	456	458	459	458	465	459	459	462	465	462
24		469	472	477	482	484	481	478	476	470	458	445	434	430	438	444	455	462	448	449	449	463	465	460	462	461
25		464	456	474	485	486	491	495	492	483	471	454	442	432	432	436	443	451	452	451	448	450	451	467	465	461
26																										

Nurmijarvi Finland

July 2010 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1	D	-29	-30	-36	-43	-30	-36	-42	-48	-43	-38	-44	-48	-34	-32	-22	-13	13	-4	-11	-11	-5	-24	-37	-38	-29	
2		-36	-34	-33	-28	-29	-39	-53	-72	-72	-75	-59	-50	-36	-29	-22	-25	-24	-10	-14	-12	-13	-27	-23	-33	-35	
3		-38	-29	-32	-30	-23	-22	-32	-44	-50	-55	-53	-52	-49	-27	-14	-19	-4	-1	-15	-16	-17	-19	-29	-34	-29	
4		-34	-28	-25	-24	-24	-30	-35	-41	-46	-55	-56	-43	-35	-30	-21	-20	-12	-15	-13	-12	-20	-25	-27	-26	-29	
5		-27	-22	-21	-24	-29	-36	-46	-50	-53	-56	-47	-44	-34	-22	-20	-19	-18	-14	-14	-14	-20	-24	-27	-28	-29	
6		-33	-35	-28	-26	-24	-33	-43	-57	-62	-60	-57	-47	-37	-25	-22	-23	-25	-21	-20	-20	-21	-26	-27	-29	-33	
7	Q	-28	-25	-22	-23	-28	-37	-49	-60	-62	-58	-55	-48	-36	-22	-20	-20	-20	-22	-20	-22	-23	-25	-27	-27	-33	
8		-28	-27	-24	-24	-29	-36	-41	-47	-52	-54	-51	-45	-40	-28	-18	-14	-12	-11	-9	-11	-11	-12	-18	-23	-28	
9		-20	-18	-24	-27	-27	-32	-42	-49	-56	-52	-39	-26	-10	-28	-22	-28	-24	-22	-18	-18	-18	-25	-27	-29	-28	
10	Q	-27	-24	-21	-21	-28	-36	-39	-40	-39	-46	-54	-51	-42	-33	-33	-28	-22	-20	-15	-15	-18	-20	-21	-22	-30	
11		-21	-21	-20	-22	-24	-25	-30	-34	-36	-38	-46	-44	-33	-23	-17	-15	-28	-11	-9	-11	-16	-15	-14	-20	-24	
12		-25	-21	-18	-19	-26	-32	-37	-41	-47	-49	-45	-46	-38	-23	-18	-16	-16	-10	-16	-20	-21	-20	-27	-27	-27	
13	Q	-31	-25	-23	-24	-30	-40	-48	-48	-47	-51	-49	-47	-39	-30	-23	-20	-22	-20	-18	-15	-16	-17	-19	-22	-30	
14	D	-25	-21	-20	-19	-24	-35	-34	-34	-43	-52	-42	-30	-28	-32	-31	-9	-18	-11	-1	11	14	1	-8	-12	-21	
15	D	-73	-30	-25	-30	-21	-22	-33	-50	-66	-69	-58	-39	-34	-29	-30	-28	-23	-23	-13	-16	-20	-23	-22	-23	-33	
16		-23	-19	-18	-23	-33	-43	-51	-52	-55	-62	-66	-56	-47	-40	-29	-22	-20	-20	-20	-19	-22	-23	-24	-25	-34	
17	Q	-23	-23	-23	-26	-29	-31	-37	-42	-44	-54	-64	-57	-50	-35	-33	-30	-25	-21	-20	-19	-18	-21	-23	-26	-32	
18	Q	-29	-26	-24	-25	-29	-34	-37	-38	-41	-46	-50	-50	-41	-32	-29	-24	-26	-22	-22	-22	-22	-23	-22	-23	-31	
19		-23	-20	-17	-19	-24	-27	-34	-37	-45	-57	-57	-51	-40	-31	-28	-18	-20	-20	-18	-18	-14	-15	-18	-19	-28	
20		-20	-20	-20	-18	-21	-24	-33	-42	-47	-53	-50	-41	-29	-21	-16	-20	-16	-17	-13	-10	-17	-20	-27	-25	-26	
21		-26	-24	-24	-24	-25	-33	-38	-43	-48	-47	-42	-46	-47	-40	-41	-35	-29	-15	-14	-18	-19	-19	-20	-23	-31	
22		-24	-21	-23	-22	-23	-27	-32	-42	-58	-61	-55	-46	-38	-25	-24	-29	-14	-24	-27	-22	-23	-23	-26	-25	-31	
23		-25	-21	-26	-28	-29	-30	-31	-34	-38	-54	-58	-49	-32	-22	-20	-9	-19	-14	-11	-3	-1	-3	-10	-13	-24	
24		-11	-14	-17	-18	-21	-25	-29	-36	-46	-50	-56	-54	-42	-27	-22	-17	-8	-12	-15	-15	-15	-18	-21	-25	-26	
25		-24	-25	-26	-21	-20	-27	-30	-33	-43	-42	-42	-33	-23	-17	-16	-12	-12	-19	-16	-17	-16	-18	-24	-32	-24	
26		-29	-35	-31	-28	-31	-39	-42	-44	-49	-56	-53	-42	-31	-24	-24	-22	-17	-21	-20	-18	-19	-16	-14	-21	-30	
27	D	-17	-26	-22	-34	-26	-20	-27	-62	-86	-94	-72	-49	-46	-24	-19	-15	-19	-25	-21	-15	-13	-23	-21	-33	-34	
28	D	-55	-60	-37	-29	-30	-37	-51	-62	-63	-58	-57	-62	-36	-45	-28	-20	-17	-21	-21	-16	-20	-20	-29	-35	-38	
29		-28	-29	-33	-38	-33	-25	-35	-53	-59	-55	-57	-47	-38	-30	-6	-16	-14	-16	-19	-19	-23	-20	-27	-31	-31	
30		-30	-31	-30	-27	-29	-38	-49	-51	-46	-46	-46	-37	-35	-38	-33	-21	-17	-20	-16	-16	-17	-24	-23	-35	-22	-31
31		-30	-27	-27	-26	-28	-32	-38	-44	-47	-51	-55	-59	-48	-40	-10	-18	-29	-20	-25	-25	-27	-29	-32	-34	-33	
All		-29	-26	-25	-25	-27	-32	-39	-46	-51	-55	-62	-46	-37	-29	-23	-20	-18	-17	-16	-15	-17	-20	-23	-26	-30	
Quiet		-27	-25	-23	-24	-29	-35	-42	-46	-47	-51	-55	-60	-42	-31	-28	-25	-23	-21	-19	-19	-20	-21	-23	-24	-31	
Dist.		-40	-34	-28	-31	-26	-30	-37	-51	-60	-62	-65	-46	-35	-32	-26	-17	-13	-17	-13	-9	-9	-18	-23	-28	-31	

July 2010 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1	D	471	475	473	479	482	484	482	480	477	462	447	440	442	442	448	452	474	462	453	459	474	466	472	469	465
2		465	480	487	485	490	491	479	471	463	460	447	438	439	447	451	452	451	456	457	463	469	470	465	467	464
3		459	466	475	481	486	487	487	482	475	467	456	449	448	448	447	452	456	463	462	460	462	468	462	466	465
4		469	475	480	480	479	478	481	479	474	466	457	450	444	444	447	452	461	463	462	464	460	460	462	465	465
5		467	469	472	475	478	482	485	483	475	459	451	444	441	443	448	452	454	457	458	458	459	460	462	464	462
6		466	464	475	483	478	478	484	484	474	463	452	438	436	443	454	459	463	465	464	465	461	461	463	465	464
7	Q	468	472	476	481	484	490	492	486	478	465	446	438	437	443	452	460	461	461	461	461	461	461	463	461	465
8		468	472	475	481	483	481	481	479	475	461	446	433	430	438	446	451	457	459	456	456	463	461	461	464	462
9	Q	468	474	474	488	490	486	484	479	465	444	433	433	437	447	456	462	463	461	458	460	458	458	459	463	463
10	Q	469	473	478	483	485	483	477	470	465	456	446	437	437	448	463	466	461	457	456	458	460	461	461	463	463
11		466	470	474	478	483	480	479	478	470	460	447	436	427	432	449	460	463	459	457	457	459	457	463	473	461
12		477	474	478	487	492	495	493	488	477	461	445	437	434	440	451	458	460	464	462	468	463	462	464	477	467
13	Q	480	479	483	491	493	490	488	485	477	465	450	439	433	437	445	455	462	462	460	460	461	461	463	467	466
14	D	467	473	477	482	488	487	487	482	471	457	438	424	424	432	440	445	453	455	451	439	445	458	462	468	459
15	D	463	487	477	465	475	483	489	486	475	466	455	441	439	444	459	464	466	461	458	461	460	462	466	468	465
16		470	472	475	481	484	485	485	483	476	464	457	449	441	446	451	455	459	461	461	463	464	463	468	467	466
17	Q	468	469	473	477	479	484	494	496	489	477	461	450	447	449	451	456	460	459	458	460	461	461	463	467	467
18	Q	468	470	474	478	479	481	485	486	473	466	456	448	447	444	445	453	462	464	462	462	463	464	465	465	465
19		467	468	473	480	486	489	487	485	472	461	452	444	443	448	450	449	456	458	459	463	464	464	465	467	465
20		469	473	472	476	480	486	490	485	467	460	451	439	431	432	441	453	457	461	459	460	466	471	467	468	463
21		471	474	482	489	485	487	490	483	470	457	444	435	435	435	445	454	459	460	461	462	461	463	461	462	463
22		459	459	469	474	476	478	475	474	466	454	437	426	425	434	447	463	467	469	464	461	459	459	463	466	459
23		467	470	472	477	488	491	486	483	472	461	443	430	429	434	442	448	454	456	455	453	455	458	465	468	461
24		470	472	476	481	485	485	483	479	472	462	446	439	441	446	452	455	461	462	461	454	455	455	469		

Nurmijärvi Finland

August 2010 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		-34	-31	-29	-26	-28	-29	-31	-32	-32	-44	-51	-47	-39	-29	-20	-22	-30	-28	-22	-22	-24	-26	-24	-26	-30
2		-29	-29	-24	-30	-27	-24	-36	-50	-59	-59	-53	-52	-42	-23	-17	-16	-21	-29	-28	-23	-22	-23	-24	-33	-32
3	D	-34	-29	-27	-34	-39	-40	-38	-43	-56	-61	-66	-53	-43	-26	-21	-26	-26	-9	-19	13	-18	-61	-180	-256	-50
4	D	-343	-81	-72	-69	-71	-53	-47	-46	-59	-74	-55	-41	-56	16	38	39	23	17	-39	-103	-119	-79	-95	-127	-62
5		-108	-109	-60	-52	-58	-52	-58	-65	-68	-61	-56	-46	-63	-52	-41	-49	-44	-35	-32	-32	-32	-37	-47	-46	-54
6		-47	-38	-42	-49	-48	-52	-41	-47	-57	-58	-53	-45	-45	-33	-30	-28	-25	-24	-26	-36	-38	-37	-34	-35	-40
7		-35	-36	-40	-45	-44	-44	-51	-63	-73	-69	-60	-56	-48	-46	-40	-39	-35	-32	-28	-28	-29	-30	-32	-32	-43
8		-34	-32	-34	-33	-36	-40	-48	-52	-61	-65	-65	-51	-39	-32	-29	-30	-32	-28	-35	-32	-34	-34	-34	-30	-39
9		-30	-33	-45	-37	-40	-55	-50	-52	-52	-53	-49	-51	-45	-47	-42	-28	-29	-35	-28	-23	-26	-32	-29	-30	-39
10		-29	-34	-38	-36	-38	-41	-40	-49	-55	-49	-50	-42	-35	-37	-30	-29	-34	-28	-25	-24	-20	-20	-26	-42	-36
11		-50	-40	-33	-28	-21	-30	-40	-52	-59	-56	-55	-44	-43	-33	-29	-27	-24	-25	-22	-28	-26	-30	-30	-34	-36
12		-34	-34	-28	-27	-26	-30	-37	-45	-57	-60	-59	-51	-43	-36	-32	-24	-27	-24	-19	-19	-20	-24	-19	-24	-33
13		-23	-25	-30	-39	-37	-35	-35	-47	-62	-69	-64	-58	-45	-37	-29	-27	-27	-27	-28	-27	-26	-30	-31	-32	-37
14	Q	-32	-31	-30	-31	-32	-36	-43	-50	-58	-57	-53	-56	-45	-38	-35	-28	-21	-25	-26	-22	-23	-25	-28	-29	-36
15		-32	-38	-37	-33	-30	-34	-46	-58	-65	-64	-54	-43	-39	-38	-28	-32	-25	-23	-19	-17	-17	-20	-19	-28	-35
16		-31	-33	-37	-34	-38	-40	-42	-50	-52	-55	-51	-47	-47	-41	-39	-30	-27	-30	-29	-25	-30	-29	-31	-33	-37
17		-34	-35	-32	-29	-36	-42	-48	-52	-54	-57	-55	-49	-44	-36	-23	-20	-26	-27	-23	-25	-28	-28	-34	-30	-36
18		-26	-26	-29	-37	-34	-34	-40	-45	-58	-63	-54	-45	-48	-43	-37	-31	-29	-25	-23	-24	-26	-26	-27	-29	-36
19		-30	-31	-32	-35	-36	-44	-51	-48	-53	-59	-54	-44	-36	-35	-32	-31	-27	-28	-27	-28	-30	-32	-33	-37	-37
20		-33	-32	-31	-30	-32	-38	-43	-47	-53	-58	-52	-44	-35	-34	-38	-32	-26	-22	-21	-20	-23	-24	-28	-29	-34
21	Q	-30	-30	-30	-32	-32	-36	-44	-52	-60	-62	-58	-48	-35	-27	-23	-22	-26	-22	-20	-18	-19	-22	-24	-25	-33
22	Q	-24	-25	-27	-29	-36	-44	-52	-57	-57	-51	-40	-31	-27	-25	-31	-27	-26	-24	-23	-24	-23	-26	-25	-25	-33
23		-25	-26	-23	-21	-25	-31	-38	-45	-53	-57	-47	-38	-29	-18	-18	-16	-15	-12	-3	-6	1	20	10	-22	
24	D	-39	-41	-42	-21	-36	-50	-39	-53	-64	-62	-57	-51	-62	-34	-27	-23	-23	-33	-25	-23	-25	-31	-24	-29	-38
25	D	-31	-31	-56	-64	-73	-54	-56	-68	-71	-65	-64	-63	-47	-31	-22	-11	-19	-26	-25	-33	-29	-30	-35	-42	-44
26		-39	-37	-42	-53	-46	-49	-50	-63	-76	-73	-62	-46	-32	-18	-17	-18	-27	-29	-28	-27	-20	-24	-28	-29	-39
27	D	-32	-28	-30	-36	-38	-53	-68	-71	-63	-62	-60	-49	-39	-29	-29	-28	-22	-14	-33	-32	-29	-24	-19	-30	-38
28		-39	-41	-34	-37	-39	-41	-54	-72	-68	-67	-53	-38	-42	-33	-26	-26	-31	-26	-25	-29	-30	-27	-33	-33	-39
29	Q	-34	-38	-34	-35	-38	-45	-56	-73	-77	-73	-63	-50	-36	-28	-25	-28	-29	-29	-29	-29	-31	-30	-30	-31	-40
30	Q	-31	-32	-33	-34	-39	-47	-55	-61	-63	-62	-54	-44	-35	-31	-28	-27	-31	-29	-30	-28	-27	-28	-29	-29	-38
31		-29	-29	-29	-32	-38	-45	-54	-63	-65	-59	-48	-35	-27	-18	-20	-24	-30	-29	-23	-22	-26	-22	-27	-25	-34
All		-45	-37	-36	-36	-38	-41	-46	-54	-60	-61	-55	-47	-42	-31	-26	-25	-26	-24	-25	-26	-28	-29	-34	-40	-38
Quiet		-30	-31	-31	-32	-35	-41	-50	-58	-63	-61	-53	-46	-36	-30	-28	-27	-27	-26	-26	-24	-25	-26	-27	-28	-36
Dist.		-96	-42	-45	-45	-51	-50	-50	-56	-62	-65	-61	-51	-49	-21	-12	-10	-14	-13	-28	-36	-44	-45	-71	-97	-46

August 2010 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		471	474	480	484	488	493	494	491	482	470	455	444	443	446	454	466	470	471	469	467	467	465	464	468	470
2		471	477	483	492	494	491	491	483	477	468	454	439	435	437	453	462	464	463	458	456	458	463	461	472	467
3	D	466	470	484	486	481	480	482	469	464	458	449	440	439	449	452	455	458	452	440	437	459	494	540	556	469
4	D	527	552	529	505	514	494	494	489	463	454	449	429	435	415	438	447	443	438	454	471	432	486	557	536	477
5		573	537	518	499	498	494	490	480	473	471	465	455	457	459	468	470	468	468	468	466	473	467	465	472	481
6		466	476	483	482	479	485	488	483	476	463	459	455	454	458	465	462	463	463	467	467	465	466	468	471	469
7		474	475	477	486	482	480	480	477	469	457	447	442	444	447	456	462	463	462	462	463	466	468	468	473	466
8		476	477	481	485	491	491	489	488	480	465	454	446	443	448	457	466	468	467	470	468	469	467	467	468	470
9		472	473	465	476	481	476	472	468	470	472	467	457	451	453	455	455	460	467	467	474	485	478	474	471	468
10		473	471	461	470	474	470	486	482	473	460	446	439	438	448	456	463	467	471	470	466	465	464	492	494	467
11		455	454	480	492	490	491	483	478	472	461	453	448	446	452	455	469	467	467	466	471	478	473	468	472	468
12		474	471	463	483	483	491	492	485	478	467	456	446	444	448	455	460	466	466	463	463	466	469	470	474	468
13		472	474	478	477	479	487	491	486	476	461	444	439	440	446	454	462	469	474	468	465	466	470	470	469	467
14	Q	472	471	472	478	482	488	492	490	482	472	449	440	434	439	447	454	467	470	466	468	470	472	469	470	467
15		469	473	470	474	482	486	491	490	481	465	446	435	432	438	447	453	456	460	462	463	472	470	473	471	465
16		476	472	479	482	477	478	478	468	458	454	448	441	437	446	452	463	482	475	478	473	466	464	464	469	466
17		473	475	478	486	491	489	488	483	471	460	450	444	448	452	458	474	470	464	465	474	479	473	468	468	470
18		468	473	480	478	483	479	483	480	472	456	444	438	444	453	466	472	470	467	465	465	464	464	466	466	467
19		470	470	472	482	483	485	482	476	465	453	441	435	442	452	462	467	470	472	470	469	468	472	470	471	466
20		472	473	476	481	488	495	496	492	481	467	447	437	437	446	453	462	463	463	464	466	468	479	479	477	469
21	Q	475	476	480	488	495	494	494	487	471	456	440	435	440	451	462	467	469	463	461	463	467	469	472	474	469
22	Q	474	475	478	483	489	491	488	482	468	454	441	436	442	452	462	466	464	462	463	465	466	466	469	472	467
23		473	476	478	483	488	488	483	474	462	451	437	429	434	444	449	453	454	454	454	455	459	460	463	472	461
24	D	497	503	525	509	520	517	497	477	474	459	448	443	449	457	457	486	489	463	476	476	479	470	466	499	481
25</																										

Nurmijarvi Finland

September 2010 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		-28	-29	-32	-35	-38	-44	-53	-57	-58	-55	-43	-28	-21	-23	-26	-23	-18	-22	-17	-30	-30	-23	-28	-27	-33
2		-32	-30	-30	-32	-40	-49	-60	-63	-66	-69	-53	-43	-35	-24	-21	-35	-26	-34	-26	-27	-29	-30	-29	-32	-38
3		-29	-37	-37	-39	-41	-47	-53	-60	-64	-60	-45	-38	-35	-37	-33	-34	-32	-30	-28	-29	-30	-30	-31	-40	-40
4	Q	-31	-32	-35	-38	-41	-43	-44	-44	-49	-54	-53	-47	-39	-35	-34	-32	-29	-28	-25	-24	-25	-30	-25	-28	-36
5		-32	-32	-33	-34	-36	-41	-48	-54	-62	-66	-60	-49	-37	-31	-29	-27	-25	-21	-19	-15	-16	-11	-11	-23	-35
6		-32	-31	-37	-35	-40	-50	-46	-53	-56	-60	-48	-40	-34	-36	-38	-26	-34	-27	-27	-23	-16	-27	-29	-29	-36
7	D	-30	-41	-36	-30	-32	-37	-44	-48	-53	-57	-58	-51	-31	-27	-38	-41	-29	-37	-30	-24	-24	-21	-15	-21	-36
8	D	-34	-45	-42	-34	-35	-41	-44	-53	-64	-61	-55	-47	-27	-27	-20	-4	-37	-40	-54	-53	-53	-34	-40	-40	-41
9		-39	-39	-43	-42	-41	-46	-57	-67	-72	-70	-57	-44	-35	-36	-24	-21	-41	-33	-29	-26	-26	-26	-25	-28	-40
10		-32	-35	-35	-37	-37	-38	-43	-49	-56	-59	-55	-45	-37	-31	-29	-32	-33	-30	-28	-27	-27	-29	-31	-31	-37
11	Q	-31	-32	-33	-35	-39	-43	-52	-60	-68	-68	-59	-45	-35	-29	-30	-31	-30	-29	-28	-27	-27	-28	-30	-30	-38
12	Q	-30	-31	-32	-32	-34	-40	-52	-61	-66	-62	-53	-43	-37	-31	-28	-30	-30	-27	-25	-27	-28	-29	-30	-29	-37
13		-28	-28	-29	-30	-31	-33	-35	-39	-49	-56	-49	-37	-26	-21	-25	-26	-25	-23	-24	-25	-27	-25	-26	-24	-31
14	D	-25	-26	-29	-26	-25	-34	-48	-61	-67	-65	-59	-45	-45	-36	-29	-32	-35	-44	-30	-33	-41	-50	-45	-69	-42
15		-47	-31	-29	-28	-31	-32	-36	-44	-48	-50	-53	-43	-44	-41	-38	-35	-31	-28	-27	-27	-27	-25	-36	-31	-36
16		-38	-35	-36	-34	-30	-29	-30	-38	-45	-50	-51	-43	-30	-27	-26	-22	-18	-22	-13	-50	-39	-29	-30	-32	-33
17		-28	-34	-35	-27	-30	-30	-35	-45	-67	-73	-56	-49	-45	-41	-38	-35	-33	-34	-36	-31	-31	-32	-32	-39	-39
18		-32	-40	-34	-31	-30	-37	-44	-53	-62	-69	-60	-51	-41	-34	-33	-29	-27	-30	-30	-30	-31	-30	-32	-31	-38
19		-31	-29	-27	-27	-30	-36	-46	-54	-58	-58	-50	-45	-41	-40	-36	-32	-27	-24	-23	-24	-26	-24	-29	-36	-36
20		-27	-31	-32	-32	-32	-32	-36	-46	-56	-60	-52	-45	-39	-33	-31	-31	-27	-27	-24	-17	-20	-21	-21	-22	-33
21		-22	-23	-29	-27	-33	-29	-31	-44	-61	-64	-58	-52	-44	-40	-37	-33	-29	-29	-28	-28	-28	-28	-28	-28	-35
22	Q	-32	-31	-31	-28	-29	-34	-43	-55	-64	-66	-61	-51	-38	-33	-34	-35	-30	-28	-25	-27	-26	-26	-26	-37	-37
23		-37	-38	-38	-35	-21	-24	-32	-47	-56	-52	-51	-40	-29	-27	-21	-23	-22	-21	-23	-26	-28	-26	-25	-31	-31
24	D	-30	-31	-27	-27	-24	-24	-51	-54	-70	-72	-61	-52	-59	-56	-44	-39	-20	-44	-40	-39	-34	-25	-29	-42	-41
25		-37	-39	-38	-39	-36	-42	-44	-49	-58	-64	-61	-50	-45	-39	-40	-36	-35	-39	-36	-31	-28	-31	-34	-35	-41
26		-38	-37	-38	-38	-38	-39	-43	-52	-58	-58	-56	-50	-42	-36	-34	-43	-38	-25	-37	-41	-26	-35	-38	-33	-40
27		-37	-37	-37	-36	-35	-34	-37	-43	-48	-53	-54	-51	-47	-43	-33	-37	-49	-35	-27	-24	-38	-41	-31	-38	-39
28	D	-39	-36	-37	-34	-37	-36	-38	-41	-81	-71	-57	-52	-48	-42	-39	-43	-37	-33	-32	-30	-27	-35	-34	-34	-41
29		-35	-35	-36	-35	-40	-36	-41	-45	-52	-57	-58	-53	-48	-45	-44	-39	-37	-31	-31	-29	-30	-32	-33	-40	-40
30	Q	-33	-34	-34	-35	-32	-31	-34	-43	-52	-60	-60	-58	-49	-41	-35	-32	-32	-31	-30	-31	-30	-31	-30	-31	-38
All		-32	-33	-34	-33	-34	-37	-43	-51	-59	-61	-56	-46	-39	-35	-32	-31	-31	-30	-28	-29	-29	-29	-30	-32	-37
Quiet		-32	-32	-33	-33	-35	-38	-45	-52	-60	-62	-57	-49	-40	-34	-32	-32	-31	-29	-27	-27	-27	-28	-28	-29	-37
Dist.		-32	-36	-34	-30	-30	-34	-45	-51	-67	-65	-58	-49	-42	-38	-34	-32	-32	-40	-37	-36	-36	-33	-33	-41	-40

September 2010 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		475	478	482	486	488	490	485	478	466	454	447	446	450	456	459	458	456	456	456	466	461	470	490	484	468	
2		495	492	487	492	492	485	483	473	451	441	431	433	441	446	452	460	463	467	468	466	470	469	471	476	467	
3		479	480	482	483	484	486	485	479	467	454	448	442	442	442	452	462	465	468	467	468	469	471	472	473	474	469
4	Q	476	475	477	478	479	481	483	482	474	468	459	453	452	456	461	464	466	467	466	467	467	473	471	469	472	470
5		476	477	479	481	483	485	489	483	473	459	444	437	441	450	457	462	463	462	462	462	463	475	489	482	468	
6		484	486	479	468	477	470	475	476	464	455	444	442	442	450	455	463	462	465	469	471	485	478	478	471	467	
7	D	472	486	476	476	488	483	480	476	468	456	440	441	445	455	469	471	472	501	474	466	469	469	477	476	470	
8	D	479	477	472	485	482	484	484	482	474	461	445	442	440	445	460	491	472	485	491	497	477	464	472	471	472	
9		474	478	481	483	487	493	495	489	475	459	450	443	443	457	466	477	469	466	465	467	469	470	473	476	471	
10		478	480	484	485	486	486	485	479	470	460	449	448	451	460	468	473	470	467	468	468	469	471	473	474	471	
11	Q	476	478	480	484	488	491	492	487	475	462	450	444	447	458	466	468	467	466	468	469	470	472	473	475	471	
12	Q	476	478	479	481	486	492	494	486	478	463	449	439	443	454	463	466	466	465	467	469	470	470	474	475	470	
13		476	477	477	479	482	484	486	483	475	462	452	447	447	450	459	461	461	464	464	469	471	472	473	473	469	
14	D	473	473	478	477	480	485	488	481	465	471	459	440	445	450	456	464	460	468	479	486	501	491	503	503	474	
15		489	479	486	486	484	481	477	471	472	473	469	461	460	460	461	462	464	467	468	470	477	477	485	482	473	
16		485	480	479	478	479	481	486	487	482	472	455	446	443	443	448	452	458	463	518	507	486	475	477	478	473	
17		475	481	479	478	482	485	492	490	482	471	460	446	450	458	464	469	475	477	473	472	473	475	477	475	473	
18		475	457	473	472	478	484	488	488	481	470	459	452	450	454	462	467	470	477	477	473	473	474	474	472	471	
19		474	475	475	476	480	484	490	490	482	467	458	450	449	449	455	460	462	466	468	469	470	472	478	479	470	
20		478	477	478	478	480	482	487	487	480	469	456	451	451	454	461	466	463	465	468	465	470	469	471	469	470	
21		469	474	476	482	488	488	491	491	489	477	465	456	455	462	467	469	469	470	470	470	471	473	472	472	474	
22	Q	475	477	478	481	483	488	491	491	484	473	463	456	455	460	468	470	469	469	469	469	472	473	471	473	473	
23		475	478	476	474	477	480	484	483	478	461	451	444	446	453	452	452	456	458	465	470	467	476	473	476	467	
24	D	477	480	482	483	475	481	481	464	465	466	464	455	455	460	449	469	505	474	486	475	474	514	505	491	476	
25		506	486	485	476	478	479	482	481	476	467	456	454	456	459	468	469	476									

Nurmijarvi Finland

October 2010 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1	Q	-32	-30	-31	-33	-31	-29	-31	-36	-46	-54	-58	-57	-52	-42	-37	-33	-32	-33	-31	-30	-30	-30	-30	-30	-36
2	Q	-33	-33	-33	-31	-28	-25	-25	-29	-40	-49	-51	-48	-43	-37	-34	-33	-32	-31	-31	-30	-29	-29	-29	-29	-34
3	Q	-30	-31	-34	-31	-30	-27	-28	-33	-42	-53	-58	-52	-44	-37	-33	-32	-33	-31	-30	-29	-28	-28	-28	-28	-35
4	Q	-29	-30	-30	-28	-26	-26	-27	-30	-36	-41	-43	-41	-37	-33	-33	-33	-29	-30	-30	-26	-20	-21	-20	-24	-30
5		-22	-25	-27	-24	-21	-25	-28	-40	-58	-58	-52	-52	-48	-44	-46	-51	-39	-39	-35	-30	-29	-28	-31	-38	
6		-31	-31	-31	-30	-29	-28	-28	-37	-50	-56	-55	-50	-43	-53	-53	-48	-49	-55	-51	-43	-44	-35	-35	-37	-42
7		-38	-38	-35	-33	-33	-31	-33	-38	-47	-53	-58	-56	-54	-50	-49	-43	-40	-35	-31	-29	-28	-27	-25	-24	-39
8		-30	-36	-34	-30	-24	-28	-34	-42	-54	-60	-57	-51	-43	-38	-35	-36	-35	-32	-33	-28	-28	-28	-29	-32	-37
9		-28	-36	-35	-35	-32	-27	-37	-40	-48	-58	-62	-51	-40	-35	-35	-38	-46	-40	-35	-34	-31	-31	-32	-32	-38
10		-32	-33	-33	-32	-31	-31	-37	-47	-54	-56	-55	-45	-43	-43	-40	-34	-33	-34	-32	-29	-30	-22	-33	-35	-37
11	D	-33	-29	-27	-23	-19	-13	-12	-29	-46	-49	-48	-57	-48	-24	-48	-44	-29	-38	-74	-72	-66	-67	-69	-45	-42
12	D	-51	-66	-57	-45	-42	-51	-46	-54	-63	-68	-66	-64	-51	-53	-52	-52	-49	-52	-52	-50	-44	-42	-49	-34	-52
13	-47	-41	-42	-39	-36	-34	-39	-43	-50	-59	-67	-62	-49	-45	-44	-38	-36	-32	-32	-29	-30	-31	-31	-33	-41	
14	Q	-34	-34	-35	-32	-30	-30	-33	-42	-51	-56	-55	-49	-41	-35	-32	-31	-29	-28	-27	-28	-27	-28	-28	-29	-35
15		-28	-31	-31	-28	-23	-19	-22	-32	-40	-45	-46	-39	-39	-37	-37	-32	-29	-23	-28	-38	-60	-44	-40	-39	-35
16		-39	-32	-33	-29	-28	-24	-25	-34	-43	-51	-53	-50	-45	-42	-42	-46	-35	-40	-43	-32	-39	-64	-50	-38	-40
17	D	-43	-38	-33	-28	-34	-34	-46	-59	-58	-67	-66	-62	-51	-45	-49	-47	-46	-44	-42	-41	-40	-45	-39	-38	-46
18		-36	-33	-34	-35	-33	-34	-36	-37	-47	-56	-57	-52	-46	-42	-38	-37	-34	-30	-36	-40	-47	-46	-38	-35	-40
19		-37	-39	-29	-34	-34	-31	-21	-36	-50	-59	-58	-48	-40	-36	-37	-34	-32	-32	-33	-33	-34	-29	-33	-39	-37
20		-28	-36	-39	-39	-36	-36	-40	-48	-55	-56	-54	-50	-48	-51	-43	-39	-36	-34	-33	-33	-29	-35	-36	-36	-40
21		-33	-33	-34	-33	-33	-35	-39	-47	-53	-55	-53	-46	-42	-42	-46	-48	-41	-40	-36	-33	-31	-33	-31	-32	-39
22		-34	-33	-32	-34	-33	-31	-36	-44	-53	-49	-46	-38	-36	-34	-36	-31	-33	-30	-31	-28	-29	-28	-29	-39	-35
23	D	-45	-48	-54	-32	-28	-32	-43	-45	-45	-68	-59	-54	-43	-72	-50	-52	-59	-45	-41	-37	-41	-21	-61	-50	-47
24	D	-47	-52	-48	-47	-35	-60	-43	-48	-57	-66	-75	-67	-58	-45	-39	-44	-39	-46	-27	-48	-39	-32	-37	-46	-48
25		-48	-48	-45	-41	-38	-39	-37	-46	-56	-61	-59	-57	-44	-50	-41	-40	-40	-39	-40	-31	-43	-42	-40	-39	-44
26		-42	-47	-49	-39	-36	-37	-42	-50	-62	-67	-58	-48	-41	-37	-38	-39	-41	-43	-48	-45	-44	-39	-41	-39	-45
27		-41	-41	-41	-38	-37	-39	-42	-48	-54	-59	-54	-47	-44	-41	-41	-38	-36	-36	-36	-35	-34	-41	-39	-38	-42
28		-38	-39	-39	-38	-40	-42	-48	-57	-59	-56	-45	-42	-43	-41	-39	-36	-36	-32	-33	-34	-33	-34	-34	-34	-41
29		-35	-40	-38	-36	-34	-40	-44	-51	-56	-58	-55	-47	-40	-38	-42	-43	-36	-35	-34	-34	-36	-35	-36	-37	-41
30		-37	-37	-37	-36	-35	-36	-38	-43	-51	-54	-45	-38	-34	-34	-34	-32	-36	-34	-30	-28	-28	-28	-29	-29	-36
31		-30	-31	-30	-28	-26	-30	-34	-44	-49	-50	-46	-38	-34	-30	-32	-30	-29	-28	-28	-27	-28	-29	-29	-29	-33
All		-36	-37	-36	-33	-31	-32	-34	-42	-51	-56	-56	-50	-44	-42	-40	-39	-37	-36	-36	-35	-35	-35	-36	-35	-39
Quiet		-32	-31	-32	-31	-29	-27	-29	-34	-43	-51	-53	-49	-43	-37	-34	-32	-31	-30	-30	-28	-27	-27	-27	-28	-34
Dist.		-44	-46	-44	-35	-32	-38	-48	-47	-54	-63	-63	-61	-50	-48	-48	-44	-45	-47	-49	-46	-42	-51	-43	-47	

October 2010 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1	Q	477	475	480	481	479	480	483	484	483	478	470	461	454	452	458	464	468	470	470	472	473	473	474	475	472	
2	Q	475	474	475	475	476	479	483	487	486	481	473	464	460	458	462	466	468	470	471	472	473	473	474	473	473	
3	Q	474	474	475	474	476	478	484	487	484	478	471	465	457	455	460	467	468	469	470	471	472	472	472	472	472	
4	Q	473	474	474	474	475	476	478	480	480	474	467	460	451	451	458	463	466	468	470	472	471	474	476	480	470	
5		474	480	480	476	478	478	477	481	474	462	463	456	450	455	458	463	465	473	476	478	475	475	474	474	471	
6		474	471	476	474	476	481	485	485	472	465	455	452	446	442	453	464	469	482	488	489	494	480	477	476	472	
7		472	473	471	474	474	477	481	482	479	471	462	457	460	453	462	468	471	474	475	475	475	475	475	475	475	471
8		473	497	494	488	488	486	487	488	484	472	462	458	459	463	468	470	473	475	471	473	474	475	476	476	476	
9		480	480	481	476	477	482	482	484	481	473	467	455	456	459	466	468	469	472	477	478	478	475	474	474	474	
10		478	475	476	476	477	479	482	484	479	468	457	445	445	445	451	459	467	473	476	479	476	477	490	501	483	473
11	D	474	476	477	475	475	471	479	476	472	465	444	432	423	439	437	423	427	480	509	507	505	479	470	476	466	
12	D	478	475	465	490	481	460	474	485	486	476	467	459	467	461	470	476	479	472	485	489	488	483	485	470	476	
13		474	480	482	481	481	483	486	489	485	477	471	461	453	455	462	466	466	484	471	474	475	477	476	476	474	
14	Q	476	476	475	476	477	480	484	487	484	475	466	457	455	459	465	467	468	470	470	473	473	474	474	474	472	
15		478	476	475	475	476	476	479	482	483	477	469	456	452	449	455	465	468	468	470	489	499	494	480	474	474	
16		456	480	480	480	478	470	472	480	483	479	471	465	460	462	466	473	477	474	476	493	509	529	493	500	479	
17	D	488	482	477	477	477	463	436	454	472	463	460	458	464	465	469	472	473	477	491	490	499	498	485	469	473	
18		480	468	474	476	476	478	482	488	486	480	472	464	458	462	467	469	472	471	476	506	505	506	489	479	478	
19		484	485	479	489	487	478	477	475	477	469	462	459	457	459	461	463	465	468	469	474	476	482	497	508	475	
20		499	497	485	480	478	480	481	480	476	471	461	453	453	459	460	466	473	473	473	474	484	481	481	480	475	
21		482	484	486	482	482	482	483	485	482	474	465	460	462	465	470	469	471	483	477	476	475	477	476	476	476	
22		477	476	477	475	476	480	483	484	480	465	457	450	457	461	463	464	464	471	474	475	476	483	490	506	474	
23	D	501	491	464	480	483	486	490	486	470	478	454	458	428	482	461	445	486	470	478	487	506	523	524	487	480	
24	D	482	487	473	477	476	477	479	486	482	468	465	455	453	468	466	483	481	480	534	488	486	486				

Nurmijarvi Finland

November 2010 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		-28	-29	-28	-28	-31	-29	-29	-29	-36	-39	-36	-30	-28	-27	-30	-31	-31	-31	-31	-32	-33	-31	-32	-33	-31
2	Q	-33	-32	-31	-28	-28	-29	-32	-39	-49	-52	-46	-38	-34	-37	-38	-36	-38	-34	-35	-35	-32	-30	-32	-34	-35
3		-34	-35	-33	-30	-31	-29	-33	-44	-54	-54	-43	-44	-44	-48	-49	-42	-36	-37	-41	-34	-39	-39	-39	-40	-40
4		-41	-39	-41	-36	-31	-34	-37	-45	-49	-50	-46	-42	-37	-36	-36	-33	-32	-30	-30	-31	-32	-34	-32	-38	-34
5		-32	-32	-30	-31	-32	-31	-35	-38	-41	-38	-36	-37	-36	-32	-32	-34	-39	-37	-31	-31	-31	-34	-34	-34	-34
6	Q	-36	-36	-36	-33	-32	-32	-34	-38	-41	-40	-37	-34	-28	-27	-29	-31	-31	-29	-28	-29	-29	-29	-33	-34	-33
7	Q	-34	-35	-33	-30	-30	-29	-33	-39	-45	-48	-42	-31	-26	-25	-26	-28	-30	-34	-30	-29	-29	-29	-29	-30	-32
8		-30	-29	-28	-27	-27	-27	-31	-35	-34	-36	-30	-22	-24	-35	-40	-43	-49	-52	-41	-42	-41	-38	-37	-36	-35
9		-36	-36	-37	-33	-32	-33	-34	-40	-48	-52	-53	-47	-43	-39	-40	-39	-37	-38	-38	-37	-34	-34	-35	-35	-39
10		-37	-33	-32	-31	-29	-32	-36	-42	-49	-51	-47	-40	-35	-34	-36	-35	-35	-32	-30	-36	-37	-40	-37	-42	-37
11	D	-34	-40	-42	-31	-28	-27	-29	-36	-40	-46	-46	-56	-52	-56	-50	-47	-69	-58	-61	-46	-45	-57	-81	-83	-50
12	D	-49	-58	-65	-47	-42	-44	-59	-58	-54	-68	-57	-48	-52	-43	-43	-49	-44	-46	-41	-44	-45	-45	-41	-36	-49
13		-48	-52	-46	-46	-45	-44	-46	-53	-53	-53	-50	-45	-42	-46	-40	-41	-40	-38	-41	-42	-32	-48	-42	-41	-45
14		-41	-40	-41	-44	-44	-40	-41	-42	-45	-46	-45	-42	-39	-38	-38	-47	-54	-40	-50	-47	-43	-37	-55	-46	-44
15	D	-45	-44	-45	-48	-47	-41	-40	-43	-49	-65	-55	-51	-43	-42	-41	-42	-41	-39	-38	-39	-39	-37	-31	-47	-44
16		-54	-57	-55	-42	-41	-41	-44	-43	-47	-51	-51	-54	-45	-41	-48	-51	-39	-35	-36	-36	-34	-35	-34	-36	-44
17		-38	-40	-39	-37	-33	-41	-41	-44	-45	-46	-43	-40	-36	-34	-35	-36	-35	-35	-37	-39	-39	-37	-40	-34	-39
18		-37	-42	-40	-38	-37	-29	-31	-35	-41	-48	-44	-41	-34	-32	-32	-33	-35	-36	-43	-40	-36	-35	-39	-39	-37
19	Q	-42	-42	-41	-39	-36	-36	-40	-45	-49	-51	-50	-47	-41	-36	-34	-33	-32	-31	-31	-31	-32	-32	-33	-34	-38
20		-33	-34	-35	-33	-33	-37	-37	-36	-39	-42	-42	-40	-37	-34	-33	-32	-31	-33	-32	-32	-33	-34	-36	-37	-35
21		-34	-35	-39	-37	-34	-32	-34	-40	-45	-51	-46	-47	-45	-38	-40	-37	-36	-39	-42	-40	-37	-38	-35	-34	-39
22		-40	-39	-42	-40	-39	-34	-33	-34	-35	-40	-41	-49	-38	-35	-38	-35	-38	-48	-47	-39	-34	-34	-34	-33	-38
23	D	-37	-39	-41	-39	-36	-31	-40	-36	-36	-41	-40	-36	-34	-37	-40	-51	-55	-45	-39	-38	-63	-46	-42	-42	-41
24		-42	-44	-40	-39	-37	-38	-39	-38	-41	-43	-45	-43	-41	-40	-40	-37	-43	-47	-43	-45	-41	-47	-42	-42	-42
25		-42	-41	-41	-35	-39	-36	-37	-38	-43	-46	-46	-43	-43	-43	-38	-38	-38	-36	-36	-38	-38	-38	-39	-38	-40
26	Q	-39	-38	-38	-38	-37	-35	-34	-35	-37	-43	-45	-43	-40	-39	-42	-43	-38	-38	-37	-31	-35	-35	-36	-35	-38
27		-36	-36	-37	-36	-34	-32	-30	-32	-37	-37	-33	-33	-30	-31	-30	-30	-27	-25	-32	-47	-36	-52	-43	-39	-35
28	D	-38	-41	-45	-43	-33	-25	-22	-30	-34	-36	-35	-34	-33	-35	-40	-48	-48	-45	-42	-34	-39	-44	-51	-43	-38
29		-43	-42	-40	-37	-35	-36	-41	-43	-49	-46	-45	-45	-44	-45	-48	-48	-45	-45	-33	-37	-39	-36	-36	-41	-41
30		-36	-38	-39	-36	-35	-36	-40	-42	-41	-41	-42	-38	-34	-31	-33	-44	-46	-40	-38	-39	-38	-39	-38	-36	-38
All		-38	-39	-39	-36	-35	-34	-36	-40	-43	-47	-45	-41	-38	-37	-38	-40	-40	-39	-38	-37	-37	-38	-39	-39	-39
Quiet		-37	-36	-36	-34	-32	-32	-35	-39	-44	-47	-44	-39	-34	-33	-34	-34	-34	-33	-32	-31	-31	-33	-33	-35	-35
Dist.		-41	-45	-48	-42	-37	-34	-38	-41	-43	-51	-45	-43	-42	-45	-41	-47	-44	-40	-46	-46	-49	-50	-44	-44	-44

November 2010 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		479	477	477	478	479	480	479	479	474	467	463	463	467	471	474	476	475	475	475	474	476	476	476	482	480	475
2	Q	479	479	479	477	478	480	482	484	479	469	458	461	467	472	473	473	474	474	476	479	479	478	479	481	475	475
3		478	480	476	487	484	485	486	485	484	477	467	459	460	463	465	466	472	477	481	505	497	495	493	490	480	480
4		481	470	482	479	483	483	484	484	479	470	464	456	463	468	471	475	475	475	478	478	479	479	479	476	475	475
5		476	477	477	479	479	481	482	481	477	471	462	459	461	465	470	470	472	482	477	477	478	480	480	480	480	475
6	Q	480	481	479	478	479	480	482	483	481	471	464	463	466	469	471	473	475	475	476	479	482	484	485	479	477	477
7	Q	478	476	476	478	479	481	483	483	481	472	465	463	467	472	475	475	476	476	491	484	478	477	477	477	477	477
8		476	475	475	476	476	477	478	478	475	467	459	457	459	466	470	474	481	478	484	492	487	488	483	479	475	475
9		479	478	477	476	481	481	481	484	481	473	467	465	467	471	472	474	476	475	478	480	480	480	479	476	476	476
10		479	479	479	479	480	482	484	486	483	475	466	463	466	469	471	473	473	477	495	486	489	509	489	484	480	475
11	D	477	469	465	475	478	481	483	479	472	472	460	455	451	467	464	453	473	494	533	506	489	510	562	525	483	
12	D	487	499	466	468	474	484	476	465	471	471	477	459	449	483	471	486	478	480	506	500	497	486	485	491	480	
13		500	483	483	482	482	484	483	482	481	476	473	468	467	467	472	471	474	476	479	492	518	503	482	479	481	480
14		477	478	483	483	479	481	481	481	477	475	471	472	470	469	469	465	468	478	494	487	492	519	506	504	482	482
15	D	485	483	484	486	473	484	482	481	475	471	472	473	474	474	475	474	477	478	480	480	481	484	509	503	481	481
16		492	472	460	483	486	485	485	481	480	476	472	467	472	471	476	491	475	478	479	481	481	480	479	479	478	478
17		480	482	479	477	481	484	482	483	482	477	471	470	470	472	475	476	476	477	478	487	483	482	484	480	479	479
18		484	480	479	482	482	481	482	484	479	481	475	470	468	465	469	473	473	476	484	490	500	492	490	486	480	480
19	Q	478	478	477	477	480	482	485	488	486	480	473	469	468	472	474	475	476	477	478	479	479	480	481	480	481	478
20		479	479	478	478	480	483	483	482	477	473	467	468	469	472	474	476	476	477	478	480	484	484	484	484	478	478
21		479	481	480	480	481	482	483	484	481	478	471	468	466	467	470	472	475	477	494	499	488	483	482	485	479	475
22		483	479	479	483	483	484	483	481	481	475	468	470	471	470	470	474	474	475	478	487	486	484	485	484	479	475
23	D	485	485	478	481	481	483	480	482	475	478	475	472	469	471	473	467	504	476	479	520	511	512	488	480	484	484
24		482	484	480	481	481	483	485	484	481	474	470	469	468	472	475	479	477	479	514	495	503	496	491	488	483	



Nurmijarvi Finland

December 2010 North component X in nT (X = 14900 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		-33	-37	-36	-36	-35	-33	-35	-39	-44	-45	-42	-35	-30	-30	-32	-32	-35	-38	-40	-29	-40	-37	-37	-37	-36
2		-40	-35	-36	-34	-37	-36	-36	-39	-46	-48	-48	-40	-35	-34	-34	-35	-35	-34	-34	-34	-34	-33	-33	-33	-37
3	Q	-35	-33	-32	-32	-33	-32	-35	-37	-37	-37	-33	-28	-27	-29	-32	-34	-33	-33	-32	-30	-32	-31	-32	-33	-33
4		-33	-33	-32	-31	-29	-28	-30	-30	-31	-33	-33	-32	-34	-36	-34	-35	-37	-38	-39	-35	-34	-34	-35	-33	-33
5		-35	-35	-32	-32	-31	-31	-33	-35	-38	-40	-40	-35	-31	-31	-31	-30	-28	-28	-27	-30	-31	-35	-28	-39	-33
6		-37	-34	-31	-30	-27	-27	-28	-31	-33	-36	-37	-33	-28	-28	-28	-30	-39	-42	-39	-31	-30	-33	-35	-30	-32
7		-34	-35	-36	-36	-33	-30	-28	-30	-29	-30	-27	-25	-30	-41	-43	-35	-37	-36	-37	-33	-32	-32	-42	-45	-35
8		-44	-43	-42	-37	-36	-36	-36	-35	-41	-41	-39	-38	-36	-38	-49	-53	-52	-41	-48	-40	-44	-43	-41	-37	-41
9		-42	-41	-41	-39	-36	-35	-36	-40	-42	-43	-42	-38	-34	-34	-36	-35	-36	-37	-34	-33	-34	-36	-35	-35	-37
10	Q	-35	-35	-34	-32	-31	-29	-33	-38	-38	-40	-40	-35	-32	-32	-33	-34	-34	-35	-36	-36	-36	-36	-36	-37	-35
11	Q	-39	-36	-36	-36	-35	-33	-33	-36	-36	-35	-33	-30	-28	-31	-32	-31	-31	-32	-33	-33	-34	-34	-34	-34	-34
12		-33	-33	-32	-31	-31	-30	-33	-35	-38	-37	-33	-29	-26	-26	-24	-24	-35	-50	-38	-30	-35	-28	-34	-39	-33
13	D	-45	-32	-38	-32	-33	-29	-34	-40	-39	-43	-43	-39	-35	-37	-38	-42	-41	-36	-42	-23	-34	-42	-41	-37	-37
14	D	-38	-42	-45	-45	-36	-35	-34	-33	-40	-49	-56	-38	-38	-53	-61	-54	-56	-50	-30	-48	-55	-52	-60	-48	-46
15	D	-38	-48	-52	-55	-44	-40	-43	-46	-47	-47	-47	-44	-43	-42	-50	-41	-41	-42	-42	-42	-41	-42	-41	-41	-44
16		-40	-43	-39	-41	-41	-40	-42	-49	-53	-46	-44	-40	-34	-35	-38	-44	-46	-41	-40	-40	-35	-34	-39	-39	-41
17		-42	-43	-45	-36	-34	-36	-39	-39	-40	-39	-38	-34	-31	-34	-39	-41	-44	-42	-35	-41	-38	-36	-34	-38	-38
18		-37	-38	-41	-43	-41	-36	-39	-39	-39	-41	-43	-41	-42	-42	-40	-38	-36	-37	-36	-33	-37	-37	-38	-36	-39
19		-39	-40	-38	-36	-38	-38	-40	-42	-45	-44	-42	-37	-36	-37	-37	-37	-37	-37	-36	-36	-36	-33	-29	-32	-38
20	D	-40	-38	-36	-34	-31	-27	-18	-31	-37	-45	-52	-54	-63	-64	-70	-64	-54	-45	-41	-39	-41	-38	-74	-55	-45
21		-47	-47	-48	-44	-44	-43	-40	-40	-41	-43	-43	-44	-42	-40	-39	-39	-40	-41	-39	-39	-39	-39	-40	-40	-42
22	Q	-40	-40	-39	-39	-39	-39	-39	-41	-42	-43	-42	-38	-34	-34	-35	-36	-36	-36	-36	-37	-37	-37	-37	-37	-38
23	Q	-38	-39	-37	-36	-34	-35	-35	-36	-35	-36	-38	-38	-34	-31	-32	-32	-32	-31	-32	-32	-33	-36	-36	-34	-34
24		-34	-35	-34	-34	-33	-33	-34	-37	-37	-38	-39	-38	-37	-37	-40	-47	-53	-49	-42	-38	-36	-36	-38	-38	-38
25		-39	-38	-37	-34	-34	-31	-30	-33	-39	-40	-38	-33	-30	-32	-38	-37	-40	-46	-41	-42	-40	-38	-33	-39	-37
26		-40	-41	-37	-35	-34	-32	-36	-38	-37	-36	-38	-36	-32	-31	-33	-34	-35	-37	-37	-35	-31	-35	-38	-40	-36
27		-45	-42	-38	-36	-35	-37	-39	-43	-42	-40	-38	-34	-31	-32	-34	-35	-37	-38	-41	-41	-39	-39	-29	-40	-38
28	D	-41	-37	-35	-31	-28	-25	-27	-28	-30	-27	-24	-28	-41	-65	-77	-73	-83	-80	-58	-65	-59	-55	-54	-52	-47
29		-52	-49	-50	-48	-47	-46	-46	-49	-52	-51	-49	-52	-54	-48	-47	-53	-49	-42	-38	-43	-43	-43	-43	-48	-48
30		-42	-41	-40	-39	-38	-36	-35	-37	-40	-41	-43	-41	-42	-39	-44	-60	-55	-59	-53	-50	-48	-31	-34	-39	-42
31		-41	-42	-35	-35	-37	-34	-37	-42	-42	-42	-43	-51	-49	-47	-50	-57	-57	-56	-54	-50	-46	-41	-42	-42	-45
All		-39	-39	-38	-37	-35	-34	-35	-38	-40	-41	-40	-37	-36	-38	-40	-41	-42	-42	-39	-39	-37	-37	-39	-39	-38
Quiet		-37	-37	-36	-35	-34	-34	-34	-37	-38	-38	-38	-35	-31	-31	-32	-33	-33	-34	-34	-34	-34	-34	-35	-35	-35
Dist.		-40	-39	-41	-40	-34	-31	-31	-36	-38	-42	-44	-41	-45	-51	-59	-54	-55	-52	-41	-47	-43	-44	-54	-47	-44

December 2010 East component Y in nT (Y = 1400 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		472	478	480	480	481	482	483	483	481	476	473	471	473	475	477	477	476	477	478	494	500	484	480	480	480	
2		475	474	475	477	478	481	484	485	484	480	474	469	472	476	478	478	478	479	480	481	481	484	483	482	479	
3	Q	479	478	478	479	479	478	481	480	479	477	472	468	470	473	475	476	477	477	480	482	481	480	478	479	477	
4		479	478	476	477	478	479	479	478	476	476	474	472	472	473	473	476	478	478	483	486	479	481	480	480	478	
5		479	478	477	479	480	482	484	484	482	480	477	474	473	475	477	476	475	476	476	476	476	480	489	494	495	480
6		483	480	478	476	476	478	480	482	479	477	472	468	470	474	476	476	476	477	477	479	482	483	485	488	478	
7		486	483	485	485	480	480	481	480	477	476	466	466	466	462	469	472	487	494	498	506	501	498	491	481	471	
8		488	483	488	484	485	483	481	479	481	481	478	474	473	474	474	476	476	498	494	486	533	507	483	483	480	
9		482	480	481	480	480	481	481	483	483	480	474	473	475	478	479	480	480	480	480	481	481	482	483	481	485	
10	Q	480	480	480	480	480	482	482	481	479	476	474	473	475	476	477	478	479	480	482	482	483	483	484	484	480	
11	Q	483	483	483	482	482	483	483	482	479	475	472	476	478	478	479	479	479	481	482	482	485	485	483	481	480	
12		479	478	478	478	478	481	482	480	476	470	470	475	477	477	477	474	467	485	478	482	486	502	491	492	480	
13	D	488	479	491	496	489	483	487	486	477	476	470	468	472	478	477	477	478	486	479	487	509	495	488	480	483	
14	D	477	480	484	481	481	480	482	486	476	474	475	468	469	465	493	480	488	494	536	505	521	500	483	486	486	
15	D	491	494	480	473	479	488	487	488	488	486	478	471	473	476	475	482	486	487	481	486	495	491	485	485	484	
16		482	484	480	487	487	485	484	484	481	479	473	469	473	478	478	482	486	480	483	493	488	487	485	483	482	
17		486	483	482	487	487	486	486	485	481	476	471	469	473	476	478	478	476	482	496	482	485	488	483	484	482	
18		482	486	487	484	479	489	489	486	483	478	473	469	473	478	478	480	480	482	486	489	484	483	484	484	482	
19		481	482	488	487	487	488	486	485	483	478	475	471	476	480	482	482	482	483	483	484	483	485	481	481	482	
20	D	483	481	480	485	475	475	476	472	473	477	474	472	478	478	490	495	488	486	487	491	492	530	548	497	487	
21		488	485	484	484	483	485	488	488	484	482	480	479	482	481	480	483	488	483	485	489	482	487	486	484	484	
22	Q	483	483	482	483	483	484	484	484	482	481	478	475	478	482	481	482	482	483	484	485	485	484	484	483	482	
23		482	482	484	483	482	482	484	484	483	483	480	477	477	478	480	481	482	481	481	482	483	483	483	484	483	482
24		481	481	480	480	480	480	484	483	481	477	474	471	475	477	479	482	480	484	484	486						

# 10 Hourly Means minus Monthly Means

## 10.1 All Days

North Component X in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	0	0	1	2	3	4	3	2	0	-3	-5	-4	-1	0	0	0	1	0	-1	0	0	-1	-1	-1	14875
February	-3	0	0	2	3	4	3	0	-3	-5	-4	-2	0	2	1	1	1	1	2	2	1	-1	-1	-3	14870
March	3	3	3	4	6	5	4	-4	-12	-17	-15	-11	-5	-1	1	1	3	3	4	4	5	6	6	4	14872
April	0	0	1	4	5	1	-7	-14	-20	-25	-20	-12	-1	8	10	10	12	13	10	8	6	8	3	0	14865
May	2	3	4	5	0	-8	-16	-21	-23	-23	-16	-9	1	7	16	14	14	15	13	9	5	3	2	2	14870
June	4	2	3	3	0	-3	-11	-19	-26	-29	-23	-15	-6	3	11	13	13	18	18	15	11	9	5	4	14871
July	1	4	5	4	3	-2	-9	-16	-21	-25	-23	-17	-7	1	7	10	12	13	14	14	13	10	6	4	14870
August	-7	1	2	2	0	-3	-8	-16	-22	-23	-17	-9	-4	7	12	13	12	14	13	12	10	9	4	-2	14862
September	5	4	4	5	3	0	-6	-13	-22	-24	-18	-9	-2	3	5	6	6	7	9	8	9	9	8	5	14863
October	4	2	3	6	8	7	5	-3	-11	-17	-16	-11	-5	-2	-1	0	2	3	3	4	4	5	4	5	14861
November	1	0	0	3	4	5	3	-1	-5	-8	-6	-3	1	2	1	-1	-1	0	1	1	2	1	0	0	14861
December	-1	0	0	2	3	4	4	1	-1	-2	-2	1	2	1	-2	-2	-4	-4	0	0	1	1	0	-1	14862
Winter	-1	0	0	2	3	4	3	0	-2	-4	-4	-2	1	1	0	0	-1	-1	0	1	1	0	-1	-1	14867
Equinox	3	2	3	5	6	3	-1	-8	-16	-21	-18	-11	-3	2	4	4	6	7	6	6	6	7	5	4	14865
Summer	0	3	3	3	1	-4	-11	-18	-23	-25	-20	-12	-4	5	11	12	13	15	14	13	10	8	4	2	14868
Year	1	2	2	3	3	1	-3	-9	-14	-17	-14	-8	-2	3	5	6	6	7	7	7	6	5	3	2	14867

East Component Y in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	1	-1	0	0	0	1	2	3	2	0	-3	-8	-8	-6	-4	-3	-1	1	2	3	4	6	6	4	1843
February	8	8	7	5	4	3	4	3	0	-6	-10	-11	-11	-10	-8	-7	-5	-3	-1	-1	3	8	11	9	1849
March	4	4	7	6	5	5	10	12	9	0	-11	-19	-22	-20	-12	-5	0	0	2	5	5	4	5	5	1850
April	11	10	4	7	11	12	14	13	6	-2	-15	-25	-29	-26	-18	-11	-4	1	2	5	7	7	8	10	1855
May	2	7	13	18	21	21	20	14	3	-10	-22	-29	-29	-24	-16	-11	-4	0	4	4	5	4	5	4	1858
June	7	10	13	18	21	22	23	20	11	-3	-16	-26	-29	-26	-19	-13	-6	-4	-4	-2	-1	0	2	3	1861
July	5	8	12	17	21	22	22	18	9	-3	-16	-26	-28	-23	-15	-8	-3	-3	-4	-4	-2	-2	0	3	1864
August	9	9	12	15	18	19	20	13	3	-9	-21	-29	-27	-21	-12	-4	-1	-2	-3	-3	-1	1	5	9	1869
September	7	7	8	9	10	12	14	12	4	-6	-16	-22	-22	-17	-11	-5	-4	-2	1	1	3	4	7	6	1871
October	4	4	2	4	4	3	6	9	6	-1	-11	-17	-20	-15	-11	-8	-4	0	5	8	9	9	7	5	1874
November	2	0	-1	1	1	3	3	3	0	-5	-10	-13	-12	-8	-7	-5	-3	-1	6	10	12	11	9	6	1879
December	1	-1	0	1	0	1	2	1	-1	-3	-7	-10	-7	-5	-4	-3	-1	2	5	7	7	7	6	3	1882
Winter	3	1	1	2	1	2	3	2	0	-3	-7	-10	-10	-7	-6	-5	-3	0	3	5	7	8	8	5	1863
Equinox	6	6	5	6	7	8	11	11	6	-2	-13	-21	-23	-19	-13	-7	-3	0	3	5	6	6	6	6	1863
Summer	5	9	12	17	20	21	21	16	6	-6	-19	-27	-28	-23	-15	-9	-4	-2	-2	-1	0	1	3	5	1863
Year	5	6	6	8	10	10	12	10	4	-4	-13	-20	-20	-17	-11	-7	-3	-1	1	3	4	5	6	5	1863

Vertical Component Z in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	-3	-3	-3	-2	-2	-1	-1	-2	-2	-2	-2	-1	2	2	3	3	4	4	4	3	2	1	-1	-3	49857
February	-5	-5	-4	-3	-2	-1	-1	-2	-3	-3	-2	-1	0	2	3	4	5	6	5	5	5	2	-2	-5	49863
March	-4	-4	-2	-1	-1	0	0	-1	-4	-8	-9	-6	-1	5	9	8	7	6	6	5	3	0	-3	-5	49863
April	-21	-16	-11	-6	-1	1	2	1	0	1	0	1	5	10	15	16	17	13	11	6	-1	-6	-15	-23	49867
May	-11	-8	-4	-2	-2	-3	-3	-4	-7	-9	-8	-3	5	11	19	18	18	18	10	0	-3	-10	-11	-12	49873
June	-10	-7	-6	-5	-4	-2	-1	-2	-3	-6	-8	-5	0	4	10	13	13	12	9	7	3	-1	-4	-8	49875
July	-7	-5	-2	-1	-1	-1	-2	-3	-5	-8	-9	-4	1	5	9	11	10	8	6	5	2	0	-3	-5	49878
August	-16	-10	-6	-2	0	1	1	-1	-2	-4	-4	0	6	11	14	14	12	10	8	3	-1	-4	-13	-16	49882
September	-4	-4	-2	-1	0	1	1	-1	-3	-5	-6	-5	0	4	7	8	6	6	5	3	2	-1	-4	-5	49885
October	-7	-8	-7	-5	-4	-3	-1	-1	-2	-3	-3	-2	3	9	8	9	11	10	6	4	-1	-5	-5	-6	49889
November	-4	-3	-3	-2	-2	-1	-1	-1	-2	-2	-1	0	2	3	4	5	7	6	5	3	0	-2	-4	-7	49891
December	-4	-4	-3	-3	-2	-2	-2	-1	-1	-1	-1	0	2	2	4	6	9	7	4	2	0	-3	-5	-5	49894
Winter	-4	-4	-3	-2	-2	-1	-1	-1	-2	-2	-2	0	2	3	3	4	6	6	5	3	2	-1	-3	-5	49877
Equinox	-9	-8	-6	-3	-1	0	0	0	-2	-4	-4	-3	1	7	10	10	10	9	7	5	1	-3	-7	-10	49876
Summer	-11	-8	-4	-3	-2	-1	-1	-2	-4	-6	-7	-3	3	8	13	14	13	12	9	3	0	-4	-8	-10	49877
Year	-8	-6	-4	-3	-2	-1	-1	-1	-3	-4	-4	-2	2	6	9	10	10	9	7	4	1	-2	-6	-8	49876

## 10.2 Quiet Days

North Component X in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	-1	0	-1	-1	1	1	1	-2	-4	-6	-7	-3	2	4	4	4	4	3	1	1	0	0	0	-1	14878
February	1	2	2	2	2	1	-1	-5	-9	-10	-8	-4	0	3	2	2	2	1	2	2	5	4	3	3	14874
March	2	2	3	2	4	5	3	-4	-11	-16	-14	-10	-5	-1	1	2	4	5	4	6	5	5	5	4	14873
April	3	3	4	3	2	-2	-7	-15	-22	-25	-23	-14	-3	5	7	8	9	9	10	11	10	9	10	10	14869
May	6	4	4	5	0	-9	-18	-25	-28	-24	-17	-7	1	8	10	10	8	10	12	11	9	8	9	9	14870
June	4	4	4	4	2	-3	-12	-19	-23	-26	-21	-13	-5	3	6	7	8	12	13	12	11	11	9	9	14873
July	4	7	8	7	2	-4	-11	-15	-15	-20	-23	-19	-10	1	3	6	8	10	12	12	12	10	9	7	14869
August	6	5	5	4	0	-5	-14	-23	-27	-25	-17	-10	0	6	8	9	9	10	10	12	11	10	9	8	14864
September	6	5	4	4	2	-1	-8	-15	-23	-25	-20	-12	-3	3	5	5	6	8	10	11	10	9	9	8	14863
October	2	3	2	3	5	7	5	0	-9	-17	-19	-15	-9	-3	0	2	3	4	4	6	7	7	7	6	14866
November	-2	-1	0	2	3	3	1	-4	-9	-12	-9	-3	2	3	1	1	1	2	3	4	4	4	3	2	14865
December	-3	-2	-1	0	1	1	0	-2	-3	-4	-4	0	4	4	3	2	1	1	1	1	1	1	0	-1	14865
Winter	-1	0	0	1	2	2	0	-3	-6	-8	-7	-3	2	3	3	2	2	2	2	2	2	2	2	1	14871
Equinox	3	3	3	3	3	2	-2	-9	-16	-21	-19	-13	-5	1	3	4	5	6	7	8	8	8	8	7	14868
Summer	5	5	5	5	1	-5	-14	-20	-23	-24	-20	-12	-3	5	7	8	9	10	12	12	11	10	9	8	14869
Year	2	3	3	3	2	-1	-5	-11	-15	-17	-15	-9	-2	3	4	5	5	6	7	7	7	7	6	5	14869

East Component Y in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	0	0	0	0	0	2	3	4	3	0	-4	-8	-6	-3	-1	-1	-1	0	0	1	2	3	3	2	1841
February	1	2	2	2	3	5	7	8	4	-2	-8	-10	-9	-7	-3	-2	-1	-1	1	2	1	2	3	2	1847
March	4	4	5	5	6	8	12	15	11	1	-10	-17	-20	-16	-8	-3	-1	-2	-1	1	1	2	2	3	1850
April	4	5	9	12	15	17	20	19	11	-1	-14	-25	-28	-22	-13	-8	-3	-2	-1	0	1	2	0	1	1854
May	2	7	9	19	24	24	23	16	2	-13	-23	-27	-26	-19	-12	-6	-2	0	1	0	-2	-1	0	2	1858
June	3	8	12	18	22	21	22	20	11	-1	-13	-21	-27	-23	-17	-11	-7	-4	-2	-3	-4	-4	-2	1	1860
July	5	7	12	17	19	20	22	20	11	1	-13	-23	-25	-21	-14	-7	-4	-5	-6	-5	-4	-3	-2	-1	1865
August	5	5	9	15	21	24	25	18	5	-10	-26	-32	-30	-20	-10	-3	1	-1	-3	-1	0	2	3	4	1868
September	4	6	7	9	11	15	17	15	7	-2	-13	-21	-21	-15	-7	-4	-4	-3	-3	-2	0	1	1	3	1871
October	3	3	4	4	5	6	10	13	11	5	-3	-10	-16	-17	-11	-6	-4	-2	-1	0	0	1	2	3	1872
November	2	2	1	1	2	4	6	7	5	-3	-10	-12	-10	-6	-3	-3	-2	-1	0	7	5	3	3	2	1877
December	1	1	1	1	1	1	3	2	0	-2	-5	-7	-5	-3	-2	-1	0	0	1	2	3	3	2	2	1880
Winter	1	1	1	1	2	3	5	5	3	-2	-7	-9	-7	-4	-3	-2	-1	-1	1	3	3	3	3	2	1861
Equinox	4	4	6	8	9	12	15	15	10	1	-10	-19	-21	-17	-10	-5	-3	-2	-2	0	1	1	1	3	1862
Summer	4	7	11	17	21	22	23	19	8	-6	-19	-26	-27	-21	-13	-7	-3	-2	-2	-2	-2	-2	0	2	1863
Year	3	4	6	9	11	12	14	13	7	-2	-12	-18	-19	-14	-9	-5	-2	-2	-1	0	0	1	1	2	1862

Vertical Component Z in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
January	-1	-1	-1	-1	-1	0	0	-1	-1	-1	0	2	3	2	1	0	0	0	0	1	0	0	-1	-1	49855	
February	0	0	0	0	0	0	0	-1	-1	-2	-2	-1	0	1	0	0	1	1	2	1	0	-1	-1	-1	49862	
March	2	2	1	1	0	1	1	0	-4	-9	-11	-8	-3	2	5	4	3	3	3	3	2	2	1	1	49863	
April	1	2	3	3	3	2	2	0	-3	-6	-9	-10	-6	-2	0	2	5	4	3	3	2	1	0	-2	49870	
May	-1	1	2	2	2	3	1	-3	-9	-11	-10	-7	-2	1	2	4	5	5	4	2	2	2	2	2	49873	
June	4	5	5	4	2	2	0	-5	-7	-9	-12	-10	-5	-1	1	4	5	6	5	4	2	1	0	0	49876	
July	2	3	4	3	2	0	-1	-3	-8	-12	-11	-6	1	3	5	6	4	3	3	2	1	0	0	-1	49879	
August	0	1	3	4	4	3	1	-3	-8	-10	-9	-6	0	4	5	5	3	1	0	1	1	0	0	0	49884	
September	1	1	1	2	2	3	3	0	-2	-5	-7	-6	-2	2	3	1	0	1	1	1	1	0	0	-1	49885	
October	1	0	-1	0	0	0	1	1	0	-2	-4	-5	-4	0	3	3	2	1	1	1	1	0	-1	49886		
November	-1	0	0	0	1	0	0	0	-2	-4	-2	-1	0	1	1	2	2	2	2	1	0	-1	-1	-1	49890	
December	0	-1	-1	-1	-1	0	0	0	0	0	0	1	1	1	0	0	1	1	1	1	0	-1	-1	-1	49893	
Winter	-1	0	0	0	0	0	0	0	-1	-1	-1	0	1	1	1	1	1	1	1	1	0	0	-1	-1	49875	
Equinox	1	1	1	1	1	2	2	0	-2	-5	-8	-7	-4	0	3	2	2	2	2	2	1	1	0	0	49876	
Summer	1	3	3	3	2	2	0	-3	-8	-11	-10	-7	-2	1	3	5	4	4	3	2	1	1	0	0	49878	
Year	1	1	1	1	1	1	1	-1	-4	-6	-6	-5	-1	1	2	3	2	2	2	2	2	1	1	0	-1	49876

## 10.3 Disturbed Days

North Component X in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	1	3	4	4	6	8	6	3	1	-1	-1	-1	2	1	-1	0	0	-5	-8	-1	-4	-5	-6	-3	14872
February	-9	0	0	4	7	10	8	5	0	-2	1	3	4	3	-2	-1	0	-1	5	2	-3	-4	-9	-18	14864
March	3	6	3	4	7	2	3	0	-9	-14	-10	-8	0	2	-1	2	3	-2	-1	-2	3	6	3	1	14870
April	-10	-19	-8	6	8	-6	-16	-23	-22	-34	-16	-5	11	26	26	32	29	23	12	3	-5	8	-7	-12	14850
May	1	-2	-1	4	2	-8	-25	-28	-26	-30	-12	-5	13	32	62	43	28	28	13	-6	-19	-21	-21	-20	14864
June	10	-8	-8	-1	-4	-2	-8	-16	-25	-31	-23	-18	-6	6	17	15	11	23	20	16	10	11	6	5	14868
July	-9	-3	3	0	4	1	-6	-20	-29	-31	-24	-15	-5	-2	5	14	18	14	18	22	22	13	8	3	14869
August	-49	4	1	2	-5	-3	-3	-10	-16	-18	-14	-5	-3	26	35	36	33	33	18	11	3	2	-24	-50	14854
September	9	4	6	10	10	6	-5	-11	-27	-25	-18	-9	-2	2	6	8	9	0	3	4	4	7	7	-1	14860
October	3	0	3	12	15	9	9	0	-7	-17	-16	-14	-3	-1	-1	-1	3	2	0	-3	1	5	-4	4	14853
November	3	0	-3	3	7	11	7	4	2	-7	-6	-1	2	2	0	-7	-7	-2	0	4	-1	-1	-5	-5	14856
December	3	4	3	4	10	12	13	8	6	2	0	3	-1	-8	-15	-10	-11	-8	3	-3	0	0	-10	-3	14856
Winter	0	2	1	4	7	10	8	5	2	-2	-2	1	2	0	-5	-4	-5	-4	0	1	-2	-3	-8	-8	14862
Equinox	1	-2	1	8	10	3	-2	-9	-16	-22	-15	-9	2	7	8	10	11	6	3	1	1	7	0	-2	14858
Summer	-12	-2	-1	1	-1	-3	-11	-19	-24	-28	-18	-11	0	15	30	27	23	25	17	10	4	1	-8	-16	14864
Year	-4	-1	0	4	5	3	-2	-7	-13	-17	-12	-6	1	7	11	11	10	9	7	4	1	2	-5	-8	14861

East Component Y in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	-2	-4	1	2	1	-1	1	1	1	-1	-4	-11	-11	-9	-9	-6	-1	11	5	7	5	11	10	4	1844
February	17	19	13	7	5	1	-2	-4	-7	-9	-11	-10	-13	-14	-13	-13	-13	-8	-4	-6	4	14	26	19	1852
March	2	3	8	6	5	-2	2	5	2	-4	-14	-18	-19	-19	-10	-4	4	6	8	7	8	8	3	11	1851
April	38	32	4	-5	2	-5	0	2	-2	-1	-18	-20	-30	-37	-28	-13	-1	4	4	10	15	16	16	16	1857
May	7	13	23	20	17	15	21	14	3	-8	-25	-37	-42	-46	-34	-31	-8	-2	27	20	25	17	12	1	1862
June	16	18	7	12	14	17	23	23	14	-1	-13	-23	-29	-26	-20	-18	-13	-7	-4	2	0	-2	4	2	1863
July	7	9	10	16	20	23	24	20	9	-2	-18	-30	-30	-27	-15	-10	-1	-1	-4	-7	0	-1	0	5	1864
August	18	24	22	17	18	18	19	4	-7	-20	-27	-35	-32	-29	-16	-2	1	-8	-9	-8	-10	7	23	33	1872
September	2	6	4	7	8	10	11	5	-4	-11	-19	-26	-26	-21	-13	1	2	7	7	6	8	11	14	11	1873
October	10	7	-4	5	0	-9	0	6	0	-4	-17	-23	-28	-12	-14	-15	-6	1	25	17	22	19	16	2	1875
November	-2	0	-6	-3	-3	1	-2	-5	-8	-9	-11	-16	-19	-8	-10	-11	1	0	14	21	16	18	27	16	1882
December	0	-1	-1	-1	-4	-3	-2	-2	-6	-6	-10	-13	-11	-10	-6	-6	1	8	10	9	18	18	14	2	1884
Winter	3	3	2	1	0	-1	-1	-3	-5	-6	-9	-13	-13	-10	-9	-9	-3	3	6	8	11	15	19	10	1865
Equinox	13	12	3	3	4	-1	3	5	-1	-5	-17	-22	-26	-22	-16	-8	0	4	11	10	13	13	12	10	1864
Summer	12	16	16	16	17	18	22	15	5	-8	-21	-31	-33	-32	-21	-15	-5	-4	2	2	4	5	10	10	1865
Year	10	11	7	7	7	5	8	6	0	-6	-15	-22	-24	-21	-16	-11	-3	1	7	7	9	11	14	10	1865

Vertical Component Z in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	-7	-7	-6	-7	-5	-4	-4	-3	-2	-3	-4	-3	0	1	2	4	9	15	15	9	6	3	-1	-9	49859
February	-9	-9	-10	-8	-7	-5	-4	-5	-4	-2	-2	-1	0	4	8	11	12	15	11	12	15	5	-5	-21	49865
March	-5	-9	-5	-2	-2	-3	-2	-4	-6	-8	-7	-5	1	7	12	12	11	11	11	9	5	-3	-7	-10	49863
April	-78	-73	-52	-27	-9	-7	0	6	10	27	30	34	31	39	51	54	47	32	23	11	-24	-35	-40	-50	49864
May	-33	-30	-22	-16	-13	-15	-11	-8	-1	2	2	10	26	45	80	65	59	58	30	-17	-25	-60	-59	-66	49878
June	-38	-36	-37	-31	-25	-13	-3	1	2	4	6	7	10	17	23	26	24	23	19	16	7	1	1	-5	49871
July	-33	-26	-19	-11	-4	-2	-2	-3	-2	-1	-3	1	10	15	21	21	21	18	16	11	3	-1	-11	-20	49874
August	-52	-26	-21	-10	-4	2	6	5	6	7	12	19	26	33	40	43	41	35	26	3	-13	-26	-70	-82	49873
September	-8	-7	-7	-8	-6	-4	-3	-4	-5	-7	-7	-4	2	10	20	22	16	18	13	8	3	-6	-18	-21	49886
October	-15	-19	-22	-19	-16	-15	-10	-7	-8	-7	-1	1	13	37	23	30	41	35	18	11	-4	-22	-23	-21	49895
November	-8	-5	-6	-7	-5	-3	-3	-3	-2	0	2	4	7	12	11	18	23	13	9	3	-3	-5	-18	-34	49892
December	-13	-11	-8	-6	-5	-6	-6	-5	-4	-3	-2	0	3	7	17	24	33	17	6	1	1	-10	-17	-15	49897
Winter	-9	-8	-7	-7	-5	-5	-4	-4	-3	-2	-1	0	3	6	10	14	19	15	10	6	5	-2	-10	-20	49878
Equinox	-27	-27	-21	-14	-8	-7	-4	-2	-2	1	4	7	12	23	26	30	29	24	16	10	-5	-16	-22	-26	49877
Summer	-39	-29	-25	-17	-11	-7	-2	-1	1	3	4	9	18	28	41	39	36	33	23	3	-7	-22	-35	-43	49874
Year	-25	-22	-18	-13	-8	-6	-3	-2	-1	1	2	5	11	19	26	28	28	24	16	6	-2	-13	-22	-29	49876

# 11 Monthly and Annual Means

All days

	Z	H	D	F	X	Y	I
January	49857	14988	7° 03.8'	52061	14875	1843	73° 16.1'
February	49863	14985	7° 05.2'	52066	14870	1849	73° 16.4'
March	49863	14987	7° 05.4'	52067	14872	1850	73° 16.3'
April	49867	14980	7° 06.9'	52068	14865	1855	73° 16.8'
May	49873	14985	7° 07.3'	52075	14870	1858	73° 16.6'
June	49875	14987	7° 08.0'	52078	14871	1861	73° 16.5'
July	49878	14987	7° 08.7'	52081	14870	1864	73° 16.6'
August	49882	14979	7° 10.0'	52082	14862	1869	73° 17.1'
September	49885	14980	7° 10.5'	52086	14863	1871	73° 17.1'
October	49889	14978	7° 11.3'	52089	14861	1874	73° 17.3'
November	49891	14979	7° 12.3'	52092	14861	1879	73° 17.3'
December	49894	14980	7° 12.9'	52095	14862	1882	73° 17.3'
Winter	49877	14983	7° 08.6'	52078	14867	1863	73° 16.8'
Equinox	49876	14981	7° 08.5'	52077	14865	1863	73° 16.9'
Summer	49877	14985	7° 08.5'	52079	14868	1863	73° 16.7'
Year	49876	14983	7° 08.6'	52078	14867	1863	73° 16.8'

5 Quiet days

	Z	H	D	F	X	Y	I
January	49855	14991	7° 03.3'	52061	14878	1841	73° 15.8'
February	49862	14988	7° 04.6'	52066	14874	1847	73° 16.2'
March	49863	14988	7° 05.4'	52067	14873	1850	73° 16.2'
April	49870	14985	7° 06.4'	52073	14869	1854	73° 16.6'
May	49873	14986	7° 07.3'	52075	14870	1858	73° 16.5'
June	49876	14989	7° 07.8'	52079	14873	1860	73° 16.4'
July	49879	14985	7° 09.0'	52082	14869	1865	73° 16.7'
August	49884	14981	7° 09.8'	52085	14864	1868	73° 17.0'
September	49885	14980	7° 10.5'	52086	14863	1871	73° 17.1'
October	49886	14983	7° 10.6'	52087	14866	1872	73° 16.9'
November	49890	14983	7° 11.8'	52091	14865	1877	73° 17.0'
December	49893	14984	7° 12.5'	52094	14865	1880	73° 17.0'
Winter	49875	14987	7° 08.1'	52078	14871	1861	73° 16.5'
Equinox	49876	14984	7° 08.2'	52078	14868	1862	73° 16.7'
Summer	49878	14985	7° 08.5'	52080	14869	1863	73° 16.6'
Year	49876	14985	7° 08.3'	52079	14869	1862	73° 16.6'

5 Disturbed days

	Z	H	D	F	X	Y	I
January	49859	14986	7° 04.1'	52062	14872	1844	73° 16.3'
February	49865	14978	7° 06.1'	52066	14864	1852	73° 16.8'
March	49863	14985	7° 05.6'	52066	14870	1851	73° 16.4'
April	49864	14966	7° 07.6'	52061	14850	1857	73° 17.6'
May	49878	14980	7° 08.4'	52078	14864	1862	73° 17.0'
June	49871	14984	7° 08.4'	52073	14868	1863	73° 16.6'
July	49874	14986	7° 08.8'	52077	14869	1864	73° 16.6'
August	49873	14971	7° 11.0'	52072	14854	1872	73° 17.5'
September	49886	14977	7° 11.0'	52086	14860	1873	73° 17.3'
October	49895	14971	7° 11.6'	52093	14853	1875	73° 17.9'
November	49892	14974	7° 13.1'	52091	14856	1882	73° 17.6'
December	49897	14975	7° 13.7'	52096	14856	1884	73° 17.7'
Winter	49878	14978	7° 09.2'	52079	14862	1865	73° 17.1'
Equinox	49877	14975	7° 09.0'	52076	14858	1864	73° 17.3'
Summer	49874	14980	7° 09.2'	52075	14864	1865	73° 16.9'
Year	49876	14978	7° 09.1'	52077	14861	1865	73° 17.1'

## 12 Hourly Means of All Days as Sequenced in Bartels' 27-day Solar Rotation Number

### 12.1 H-Component

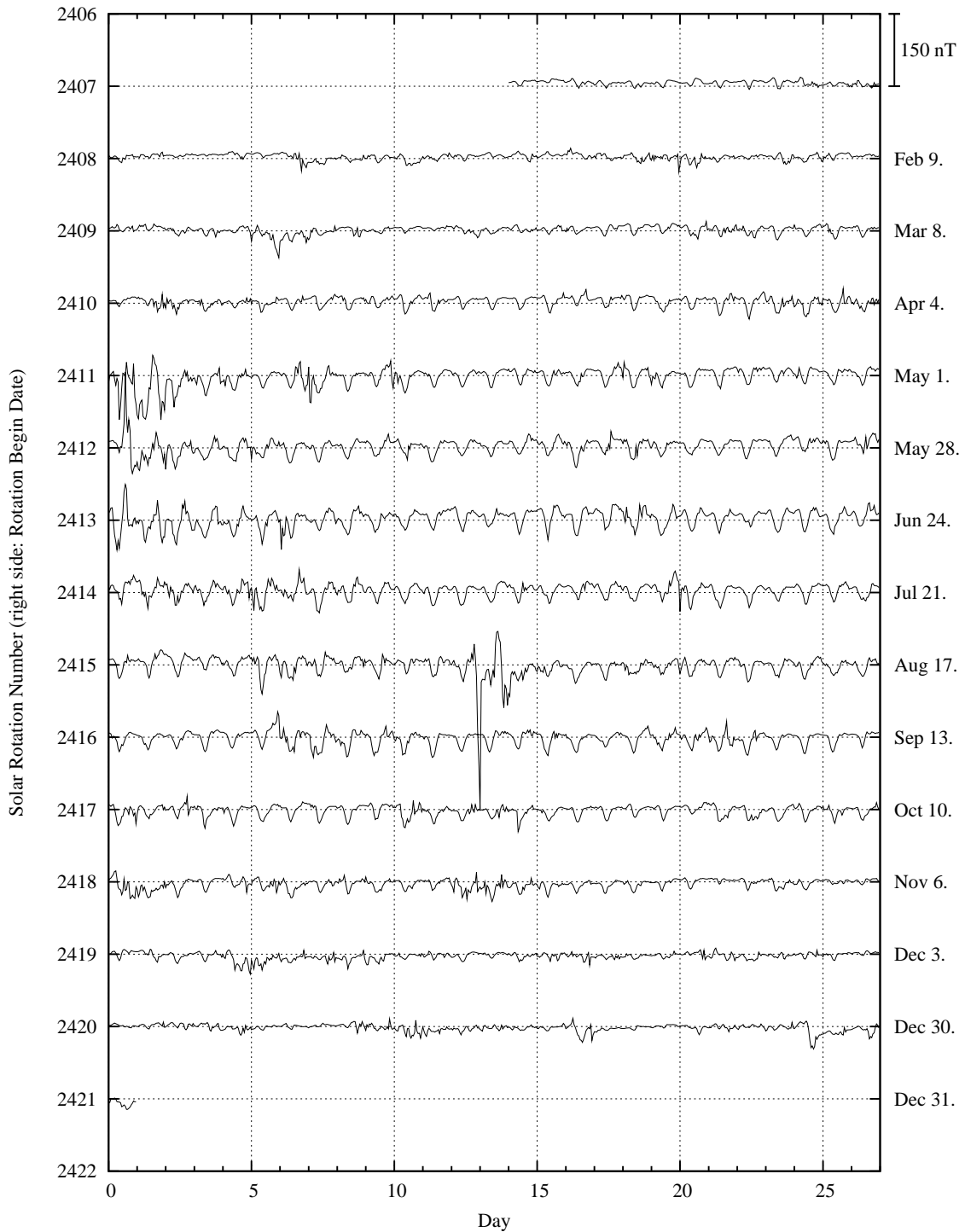


Figure 4: Hourly means of H sequenced in Bartels' solar rotation cycles.

## 12.2 D-Component

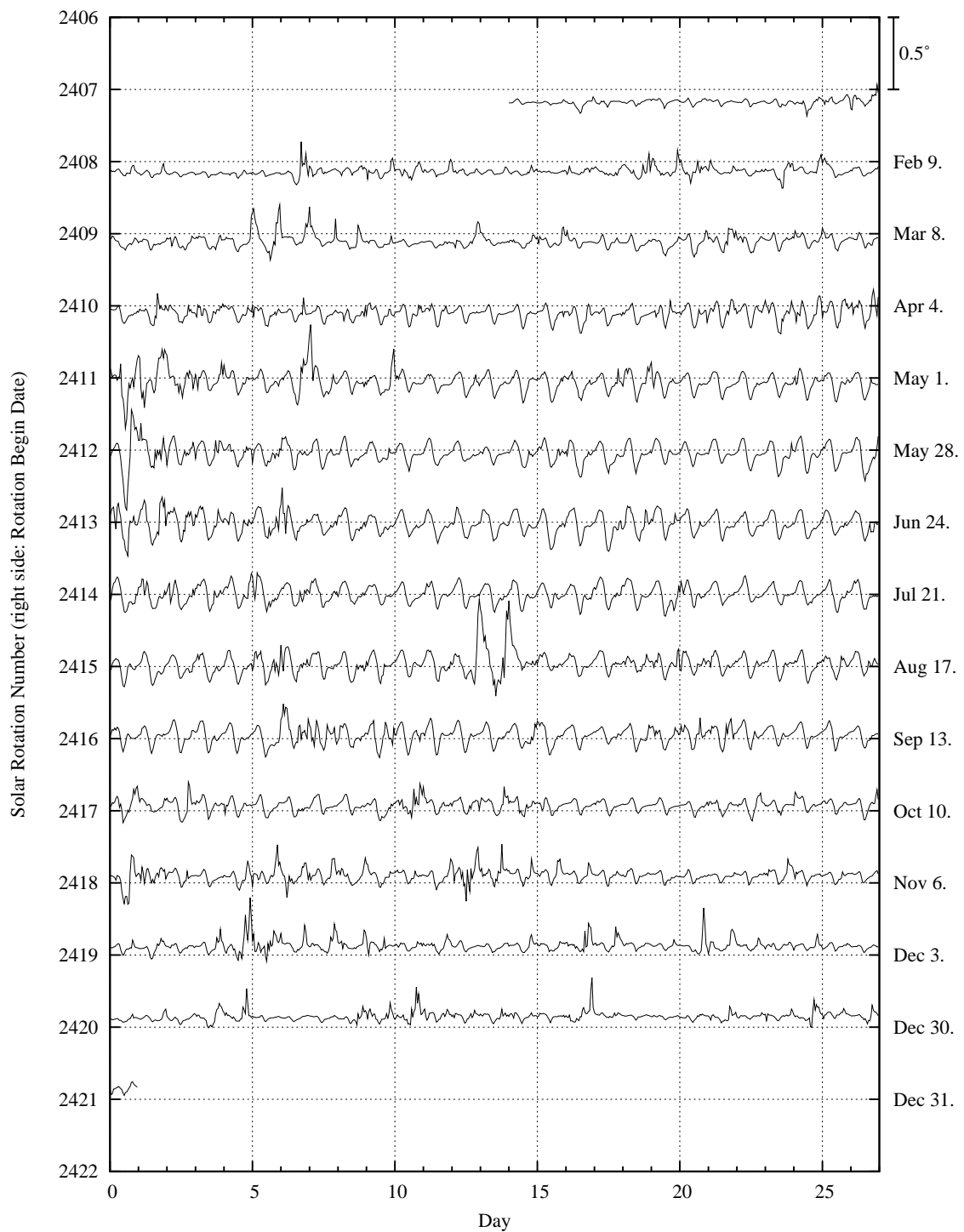


Figure 5: Hourly means of D sequenced in Bartels' solar rotation cycles.

### 12.3 Z-Component

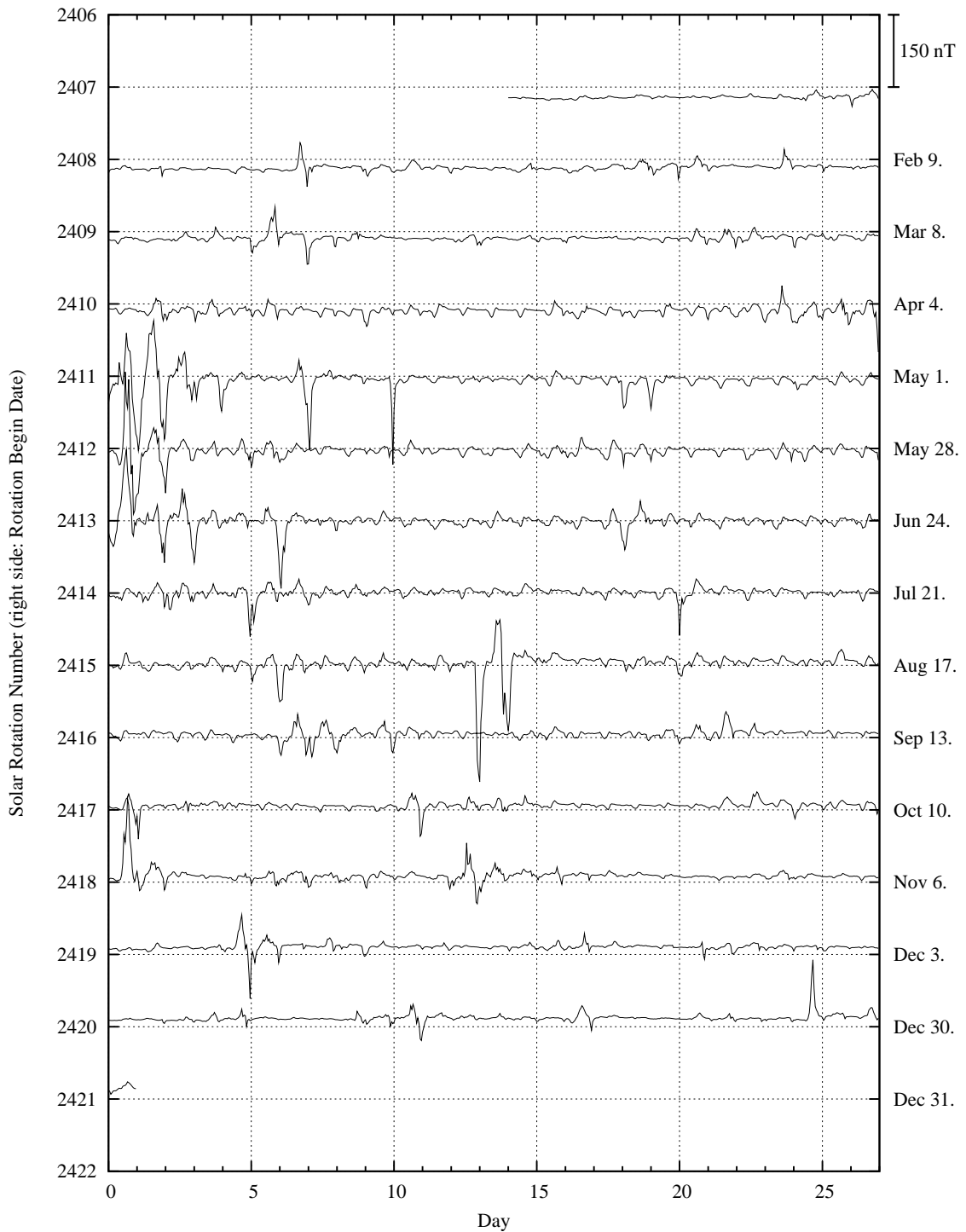


Figure 6: Hourly means of Z sequenced in Bartels' solar rotation cycles.



# 13 K-Indices

## 13.1 Monthly Tables of K-Indices

January				February				March										
Day	K			Ak	Day	K			Ak	Day	K			Ak				
1	0	0	0	0	0	0	0	0	0	1	1	0	1	1	2	4		
2	0	0	0	0	0	0	0	1	0	2	0	0	0	1	2	3	4	
3	0	1	0	2	2	1	0	1	3	3	2	1	1	2	2	3	9	
4	1	0	0	0	0	0	0	0	0	4	2	2	1	1	1	1	5	
5	0	0	0	0	0	0	0	0	0	5	0	0	1	1	1	1	2	
6	1	0	1	0	0	0	0	0	1	6	2	0	0	0	0	1	3	
7	0	0	0	0	0	0	1	0	0	7	2	2	2	1	0	0	3	
8	1	0	0	0	0	0	0	0	0	8	0	1	1	0	0	1	2	
9	0	0	0	0	0	0	0	0	0	9	0	0	0	1	1	0	2	
10	0	0	0	1	1	1	0	0	1	10	1	1	1	1	2	4	11	
11	1	1	2	2	2	1	1	2	5	11	3	2	2	2	1	1	8	
12	2	1	1	1	0	0	1	1	3	12	2	2	2	1	2	2	7	
13	3	2	1	1	1	2	2	3	8	13	2	0	0	0	0	1	4	
14	2	0	0	1	2	1	2	1	4	14	3	1	1	1	2	1	6	
15	0	0	0	0	0	1	3	3	4	15	0	0	0	0	0	1	4	4
16	0	0	0	0	0	0	0	1	0	16	0	1	1	1	1	1	3	4
17	0	0	0	0	0	0	0	0	0	17	1	2	2	1	1	1	3	6
18	0	0	0	1	1	2	1	0	2	18	3	2	0	0	1	1	2	5
19	0	0	0	0	0	0	0	0	0	19	0	0	1	1	1	3	2	4
20	1	0	1	1	2	5	4	4	15	20	1	1	2	1	2	2	0	5
21	2	1	2	1	1	0	0	1	3	21	0	0	0	0	0	0	1	0
22	1	1	0	0	0	0	1	2	2	22	0	0	0	0	0	0	0	0
23	3	1	0	2	2	1	1	2	6	23	0	0	0	1	1	1	0	1
24	1	1	1	1	2	1	1	2	4	24	0	0	0	1	2	1	2	3
25	1	0	1	0	1	0	0	2	2	25	0	1	0	2	2	3	1	6
26	2	1	0	0	0	0	2	2	3	26	0	1	1	2	2	1	0	4
27	0	0	0	1	0	0	0	1	1	27	1	1	1	1	1	1	0	3
28	0	0	0	0	1	1	3	1	3	28	0	2	2	2	2	1	1	5
29	1	0	0	0	0	0	0	1	1	29	1	1	1	1	2	2	1	6
30	2	2	1	0	1	1	2	2	5	30	3	1	1	1	1	2	3	7
31	2	1	1	1	1	1	2	1	4	31	2	1	0	1	1	1	2	4
Mean				2.6	Mean				4.2	Mean				4.4				

April				May				June											
Day	K			Ak	Day	K			Ak	Day	K			Ak					
1	2	2	1	2	3	3	2	3	10	1	3	2	2	2	3	2	3	11	
2	3	2	3	3	2	2	3	2	11	2	2	2	2	2	2	3	2	8	
3	3	1	1	1	3	4	3	2	11	3	1	2	2	3	3	3	2	4	12
4	3	2	2	2	2	3	3	4	13	4	5	4	2	3	2	2	1	2	15
5	4	3	3	6	5	5	4	5	39	5	1	1	1	1	1	2	2	2	5
6	5	4	3	4	4	5	5	5	36	6	2	1	1	1	2	1	3	2	6
7	4	2	3	3	3	5	5	4	25	7	2	1	1	2	3	2	2	1	7
8	3	2	2	3	2	1	3	4	12	8	1	0	1	1	2	2	1	0	3
9	3	2	1	1	1	2	2	1	6	9	1	1	1	1	1	2	1	1	4
10	0	0	1	0	1	1	1	2	2	10	2	2	2	3	2	1	1	1	7
11	1	0	1	0	4	4	4	5	17	11	2	1	0	1	2	2	0	1	4
12	5	3	3	2	2	3	3	1	16	12	2	2	1	3	3	1	0	2	7
13	0	0	1	0	0	1	0	3	3	13	1	0	0	0	1	2	1	0	2
14	1	0	0	2	2	2	2	4	7	14	0	0	0	1	1	2	2	0	3
15	3	2	1	2	2	2	0	0	6	15	1	1	1	1	1	0	0	2	2
16	1	1	1	1	1	1	1	0	3	16	1	0	1	0	1	2	2	1	3
17	1	1	1	1	0	0	2	2	3	17	2	1	1	2	2	3	3	2	8
18	1	0	1	1	1	1	1	1	3	18	2	1	1	2	2	2	1	1	5
19	1	1	1	2	2	2	1	1	5	19	1	1	1	3	4	3	3	2	11
20	0	0	1	2	2	2	2	2	5	20	3	1	2	3	4	3	1	3	13
21	1	2	1	2	3	2	2	1	7	21	2	1	1	1	2	2	1	0	4
22	1	1	1	1	1	2	3	1	5	22	0	1	1	2	1	1	0	0	2
23	4	3	2	1	2	1	2	3	11	23	1	0	0	0	1	0	0	0	1
24	4	2	1	1	2	1	1	0	7	24	0	0	0	0	1	1	1	0	1
25	1	1	1	1	0	1	0	1	2	25	1	1	2	2	2	1	1	3	6
26	0	0	0	1	1	1	0	0	1	26	1	1	1	3	2	2	1	2	6
27	2	0	1	1	1	3	1	2	5	27	1	0	0	1	1	0	0	2	2
28	1	0	1	0	2	1	0	1	2	28	2	2	2	4	4	2	2	3	13
29	2	3	1	1	1	0	1	0	4	29	2	3	4	3	5	5	3	3	24
30	1	0	0	1	1	1	0	1	2	30	2	2	3	3	3	4	5	4	20
31	2	2	3	3	4	4	3	3	16	31	2	2	3	3	4	4	3	3	16
Mean				9.3	Mean				8.9	Mean				7.8					

July

Day	K	Ak
1	2 3 2 3	3 4 3 2 14
2	2 2 2 2	3 2 2 3 9
3	2 2 1 2	3 3 1 2 8
4	2 1 2 2	2 2 1 1 6
5	0 1 1 2	2 1 1 0 3
6	1 1 1 1	1 1 0 0 2
7	0 0 0 0	1 1 0 1 1
8	0 0 1 1	1 1 2 2 3
9	1 2 1 2	2 1 1 0 4
10	0 0 0 0	1 1 0 0 1
11	0 1 1 0	2 3 1 2 5
12	1 0 1 2	2 1 2 2 5
13	1 0 1 0	1 0 0 1 2
14	1 2 1 3	3 3 2 3 10
15	5 2 2 2	2 3 1 1 12
16	1 1 1 1	3 1 1 1 5
17	0 0 1 1	2 1 0 1 2
18	0 0 1 1	1 2 0 1 2
19	0 0 1 1	1 2 1 1 3
20	1 0 2 2	2 2 2 2 6
21	1 2 1 1	2 2 2 1 5
22	1 0 1 1	2 2 1 1 4
23	1 1 2 3	2 3 2 2 8
24	1 1 1 1	2 2 2 2 5
25	2 1 1 3	2 2 2 2 7
26	2 2 2 2	1 2 1 2 6
27	3 3 3 4	3 3 3 3 17
28	4 2 2 3	3 3 2 2 13
29	2 2 2 2	3 2 1 2 8
30	2 1 1 2	3 4 2 3 11
31	2 1 1 2	3 3 1 1 7
Mean		6.3

August

Day	K	Ak
1	1 1 2 2	2 1 1 1 5
2	1 2 2 2	2 2 1 2 6
3	2 2 2 2	3 4 5 7 32
4	8 4 3 6	6 4 6 5 75
5	4 3 1 2	3 2 2 2 11
6	2 2 2 2	3 2 2 1 8
7	0 1 1 2	1 2 0 1 3
8	0 1 1 2	1 2 2 1 4
9	2 2 1 2	3 4 2 2 10
10	2 2 2 2	2 2 2 3 8
11	3 2 2 2	2 2 2 1 8
12	2 1 0 1	1 1 1 2 4
13	1 1 1 1	1 2 1 1 4
14	1 1 0 2	1 2 1 1 4
15	2 2 0 2	2 2 2 2 6
16	1 2 1 1	2 2 3 1 6
17	1 1 0 1	1 3 2 2 5
18	2 1 2 1	2 1 1 0 4
19	1 1 1 1	1 0 0 1 2
20	0 0 0 1	2 2 0 2 3
21	0 1 0 1	2 1 0 1 2
22	0 0 0 1	1 0 0 0 1
23	0 0 1 1	2 2 2 4 7
24	4 3 3 3	3 4 3 3 18
25	3 3 3 3	3 4 2 3 16
26	3 2 3 2	3 3 2 2 11
27	2 2 3 3	3 4 1 3 13
28	2 2 3 3	2 2 2 2 9
29	1 0 1 1	1 0 0 0 2
30	0 0 0 0	0 0 0 1 0
31	0 1 1 1	2 1 1 2 4
Mean		9.4

September

Day	K	Ak
1	0 0 1 1	1 2 2 3 5
2	2 1 2 2	2 3 1 1 7
3	2 0 0 1	1 0 1 0 2
4	0 1 0 0	1 0 1 1 2
5	0 1 0 1	1 1 1 3 4
6	2 2 2 2	2 2 2 2 7
7	2 2 1 2	3 3 3 2 10
8	2 2 1 2	4 4 3 3 14
9	1 0 1 2	3 3 0 1 6
10	1 1 1 1	0 0 0 0 2
11	0 0 1 1	1 0 0 0 1
12	0 1 1 0	1 1 0 0 2
13	0 0 0 1	1 2 1 0 2
14	1 1 2 2	2 3 3 4 11
15	3 1 1 3	1 1 0 2 6
16	1 0 1 1	2 3 4 2 8
17	2 2 2 3	2 2 1 1 7
18	2 1 1 1	1 1 1 1 4
19	0 1 1 1	1 1 1 1 3
20	0 1 0 1	0 1 2 0 2
21	1 2 2 1	1 1 0 1 4
22	1 1 0 0	1 1 1 1 2
23	0 1 2 2	3 1 2 2 6
24	2 2 3 2	3 4 3 4 15
25	2 3 1 2	2 1 2 1 7
26	1 0 1 2	3 2 3 3 8
27	2 0 1 1	2 2 3 3 7
28	1 1 3 3	3 2 3 2 10
29	0 2 1 2	1 1 0 0 3
30	0 0 0 1	1 1 0 1 2
Mean		5.6

October

Day	K	Ak
1	1 0 0 1	0 0 0 0 1
2	0 0 0 0	0 0 0 0 0
3	1 0 0 1	0 1 0 0 1
4	0 0 0 0	1 1 1 1 2
5	2 1 2 2	1 2 1 0 5
6	1 0 1 1	2 2 2 1 4
7	1 0 0 1	1 1 0 2 2
8	3 1 1 1	0 1 1 1 4
9	1 1 1 1	0 1 1 0 2
10	0 0 0 1	1 1 1 3 3
11	1 1 2 3	4 5 4 3 18
12	3 3 2 2	2 3 2 3 11
13	2 1 2 1	1 2 0 0 4
14	0 0 0 0	0 0 0 1 0
15	1 1 1 2	2 2 3 3 8
16	3 1 1 0	1 2 3 3 8
17	2 3 2 2	2 1 3 3 10
18	2 1 1 0	0 1 3 3 6
19	2 2 2 2	1 1 0 2 5
20	2 1 1 1	2 1 2 2 5
21	1 1 0 1	1 2 1 0 3
22	0 1 1 1	1 2 2 3 5
23	3 3 3 4	5 4 3 4 24
24	3 3 2 3	3 3 5 3 18
25	2 2 2 2	3 1 3 2 9
26	2 1 2 1	1 3 3 2 8
27	1 1 1 1	1 1 3 2 5
28	1 0 1 2	1 1 2 0 3
29	1 1 1 0	1 1 0 0 2
30	0 0 0 1	1 2 0 0 2
31	0 1 1 2	3 1 0 1 4
Mean		5.9

November

Day	K	Ak
1	0 0 1 1	2 0 1 1 2
2	0 0 1 1	0 0 1 0 1
3	2 1 1 0	1 1 3 1 5
4	2 1 0 1	1 1 0 0 2
5	0 0 0 1	0 2 1 0 2
6	0 0 0 1	1 1 0 2 2
7	0 0 0 0	0 1 2 0 1
8	0 0 1 1	2 2 2 1 4
9	0 1 0 0	0 0 0 0 0
10	0 0 0 0	0 2 3 3 5
11	3 1 1 3	3 4 4 5 19
12	3 3 3 3	3 3 3 3 15
13	3 0 1 1	1 1 3 3 7
14	1 1 1 1	1 2 3 3 7
15	2 3 1 2	1 1 1 3 7
16	3 1 1 1	2 2 1 0 5
17	1 2 2 1	1 0 2 2 5
18	1 1 1 1	2 1 2 2 5
19	1 1 1 1	0 0 0 0 2
20	0 1 1 1	0 1 0 0 2
21	1 1 0 1	1 1 3 1 4
22	1 1 2 1	2 2 2 1 5
23	2 1 2 1	1 3 4 3 10
24	2 1 1 1	1 2 4 2 8
25	1 1 1 1	1 0 1 0 2
26	0 0 0 0	0 0 2 0 1
27	0 0 0 0	0 1 5 5 12
28	3 2 2 1	1 2 3 2 8
29	1 0 1 1	2 1 3 0 4
30	1 1 1 1	1 1 1 1 3
Mean		5.2

December

Day	K	Ak
1	1 0 0 0	0 1 3 0 3
2	2 1 0 0	0 0 0 1 2
3	0 0 0 0	0 0 1 1 1
4	0 0 0 0	0 0 2 0 1
5	0 0 0 0	0 0 0 3 2
6	1 0 0 0	1 1 1 1 2
7	1 1 1 1	2 2 2 1 5
8	2 1 1 1	1 4 4 2 10
9	0 0 0 0	0 0 0 0 0
10	0 0 0 0	0 0 0 0 0
11	0 0 1 0	0 0 0 1 1
12	0 0 0 0	1 3 2 3 5
13	2 2 1 1	0 2 4 3 9
14	2 2 2 2	4 4 5 3 18
15	2 2 1 1	2 3 2 2 7
16	2 1 2 2	1 2 2 2 6
17	2 1 0 1	1 2 3 1 5
18	1 1 1 0	1 0 1 1 2
19	2 1 0 0	0 0 0 2 2
20	1 2 2 1	2 1 2 4 8
21	1 0 0 0	0 2 1 0 2
22	0 0 0 0	0 0 0 0 0
23	0 0 0 0	0 0 0 1 0
24	0 1 1 0	1 1 0 0 2
25	1 1 0 1	1 2 3 2 5
26	0 1 0 1	1 0 2 2 3
27	2 0 0 0	0 0 1 2 2
28	0 0 1 0	3 4 2 1 7
29	1 1 0 1	1 1 3 0 4
30	0 0 0 1	1 2 2 2 3
31	2 1 0 1	1 1 1 0 3
Mean		3.9

## 13.2 K-Indices Sequenced in Bartels Solar Rotation Number

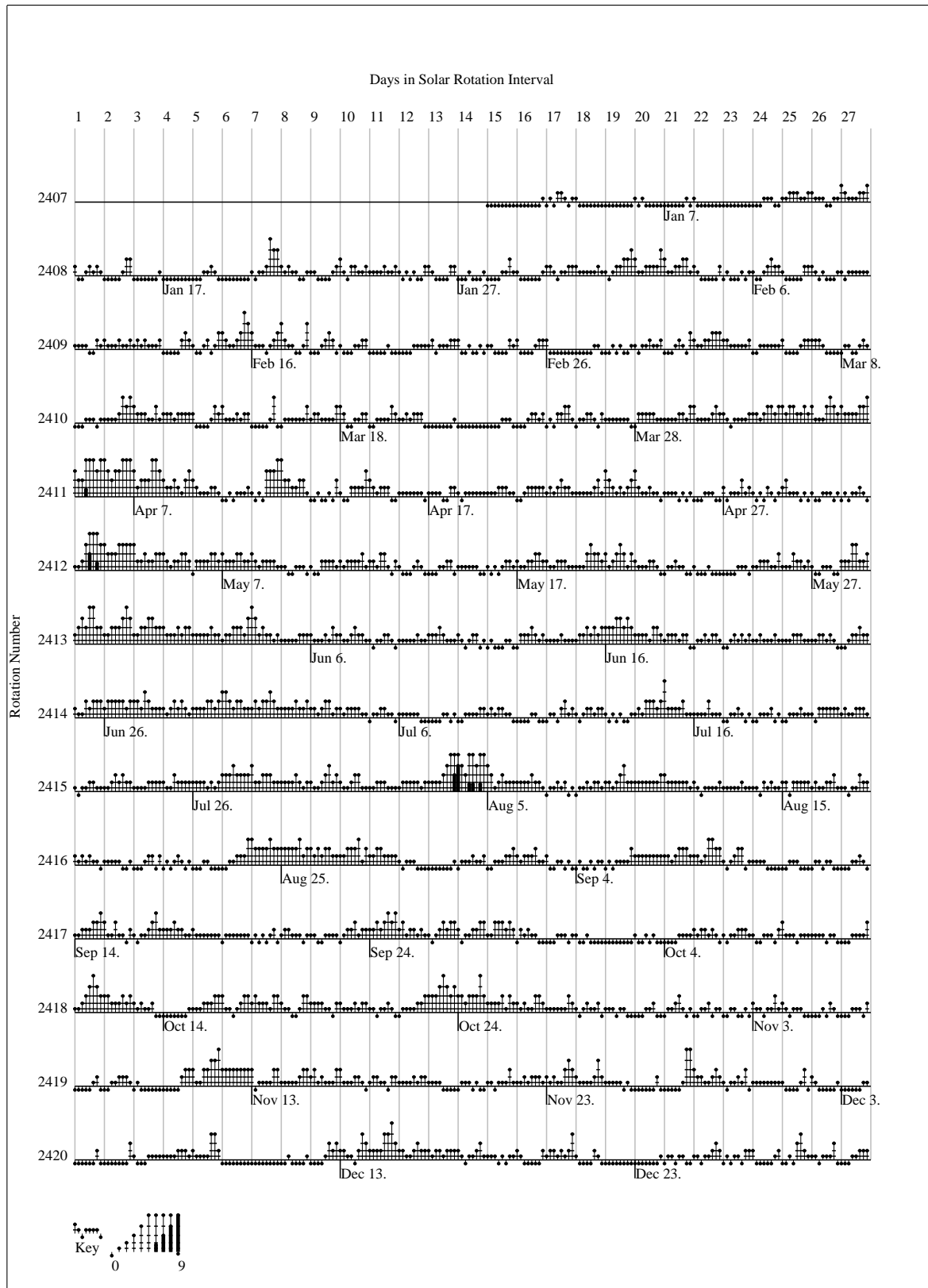


Figure 7: K-indices sequenced in Bartels solar rotation number

### 13.3 Ak-Indices

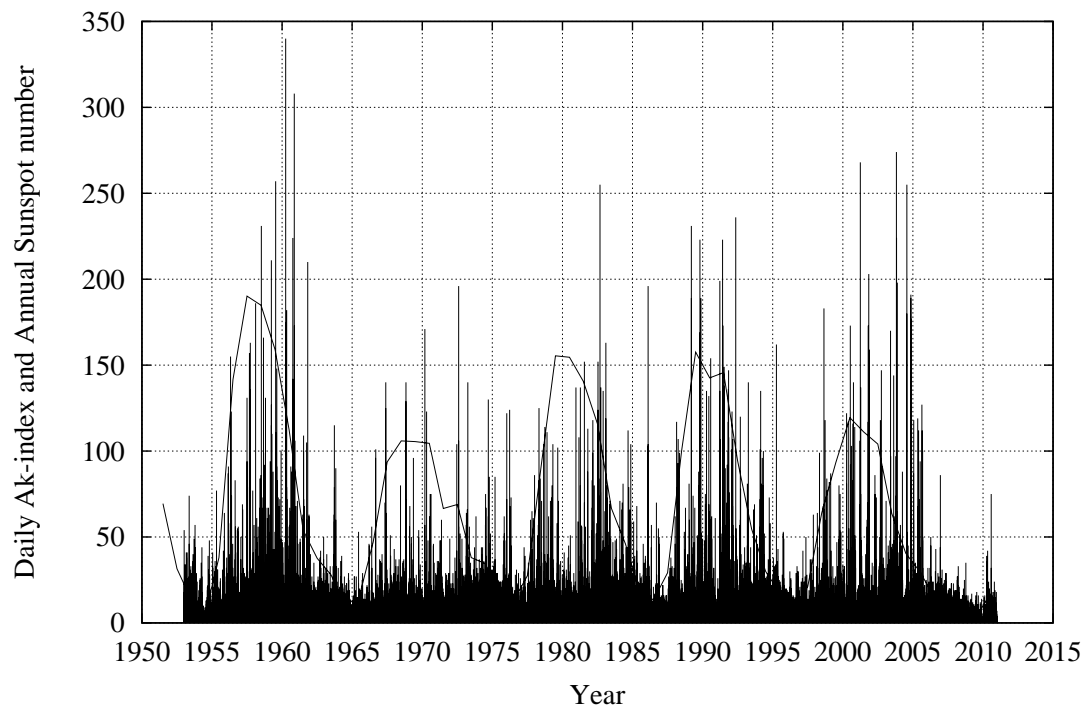


Figure 8: Daily Ak-indices (vertical lines) and sunspots (solid line)

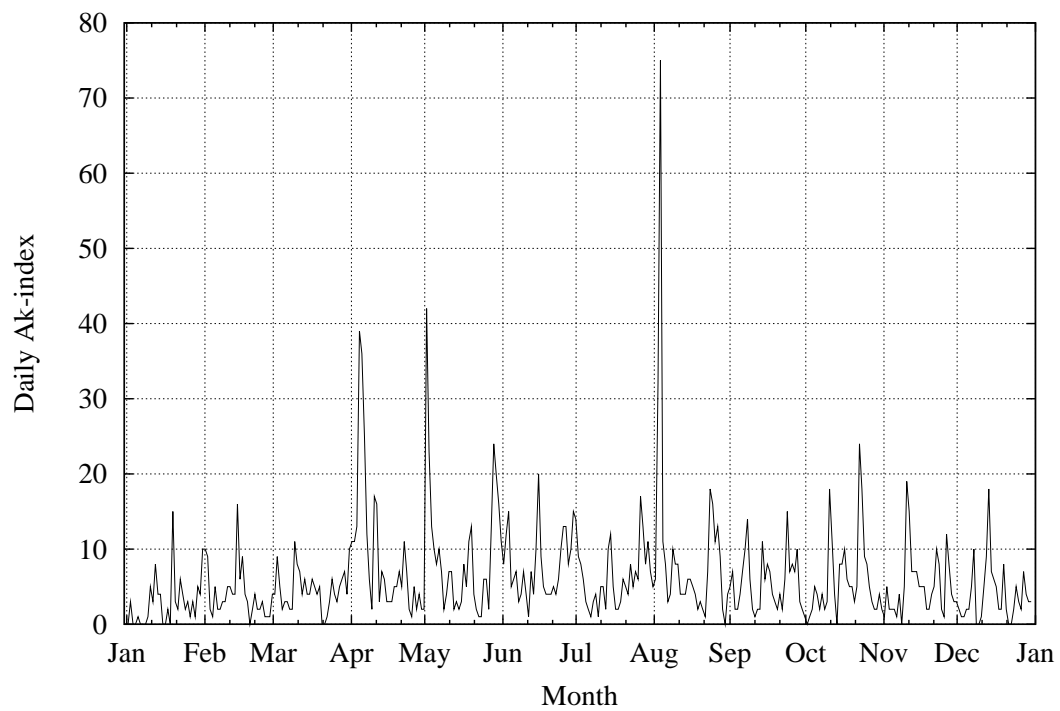


Figure 9: Daily Ak-indices

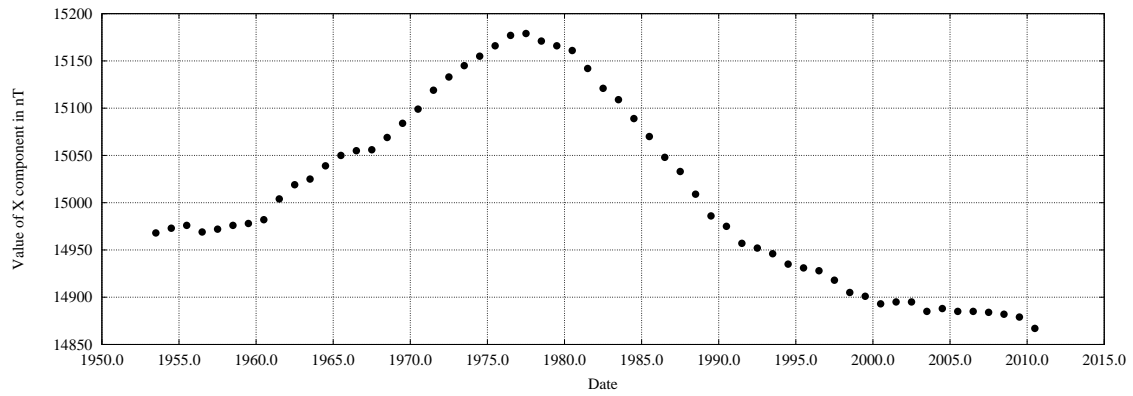
### 13.4 Table of Annual Ak-indices

m/M denotes sunspot minimum/maximum

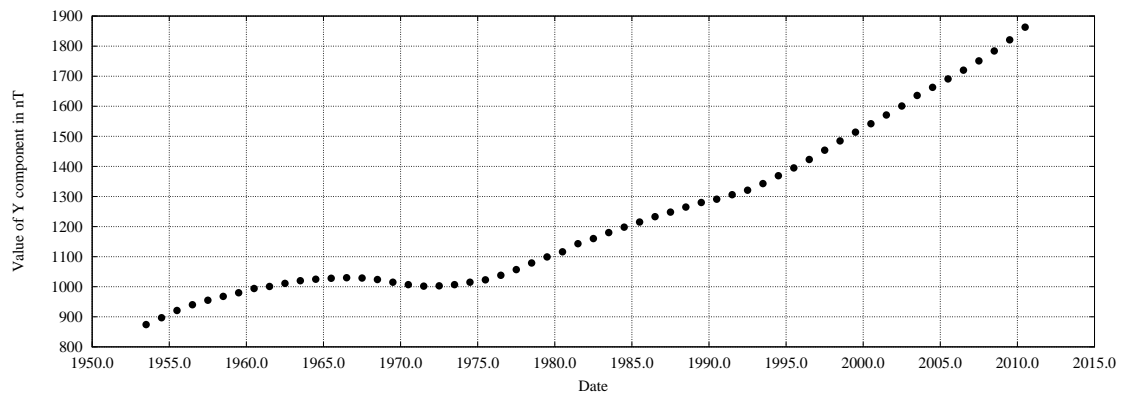
Year	Ak
1953	11
1954m	8
1955	9
1956	14
1957M	16
1958	18
1959	21
1960	22
1961	12
1962	10
1963	10
1964m	8
1965	6
1966	8
1967	10
1968M	11
1969	10
1970	10
1971	9
1972	10
1973	13
1974	15
1975	11
1976m	10
1977	9
1978	13
1979M	12
1980	9
1981	13

Year	Ak
1982	19
1983	15
1984	14
1985	10
1986m	10
1987	8
1988	11
1989M	16
1990	13
1991	21
1992	15
1993	13
1994	16
1995	11
1996m	9
1997	8
1998	12
1999	12
2000M	15
2001	14
2002	13
2003	22
2004	14
2005	14
2006	8
2007	7
2008m	7
2009	4
2010	6

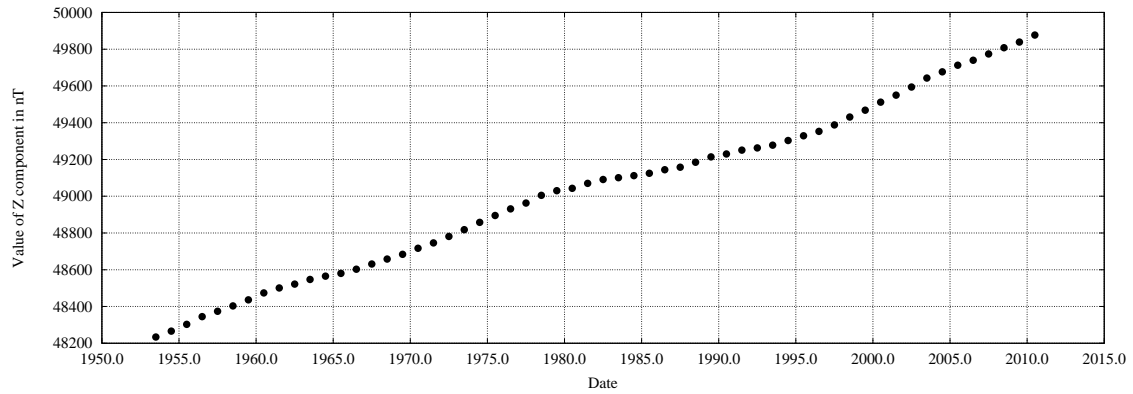
## 14 Annual Means



(a) Annual means for X component

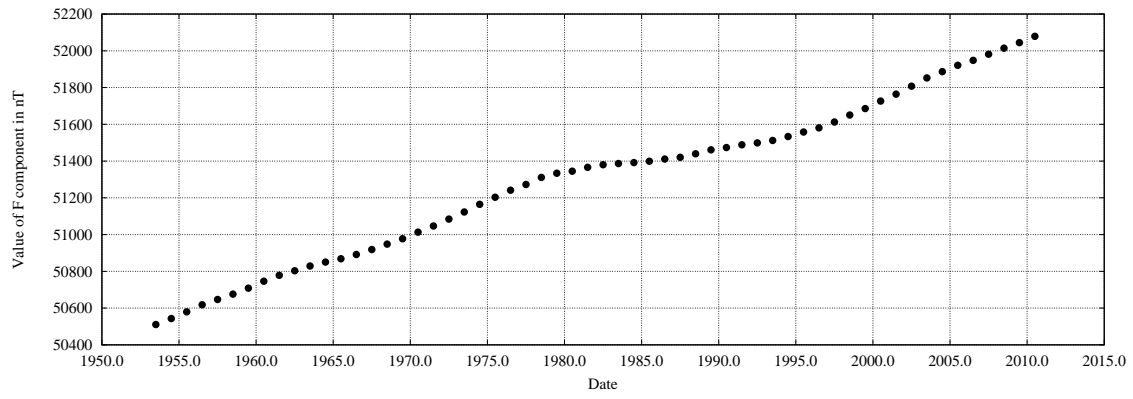


(b) Annual means for Y component

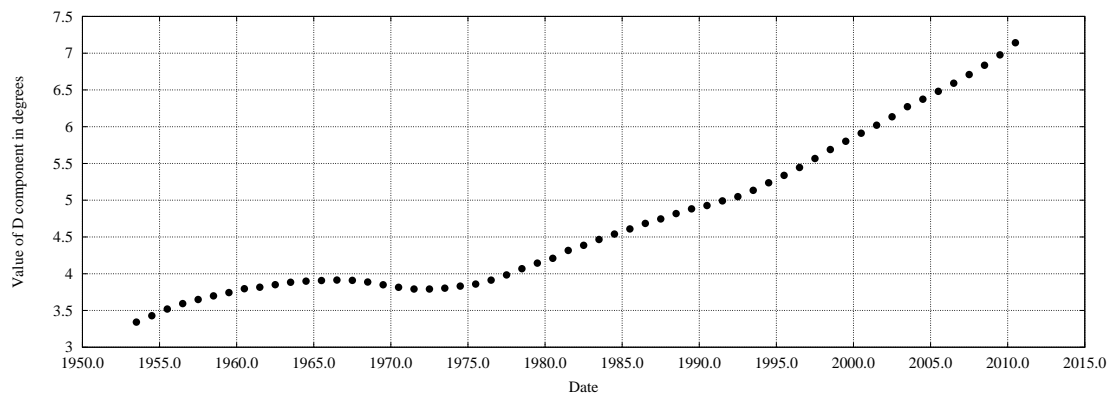


(c) Annual means for Z component

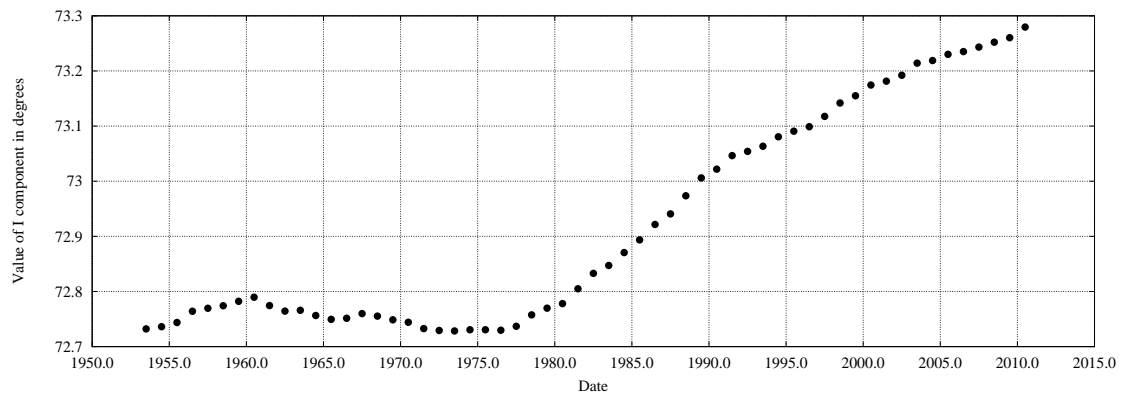
Figure 10: Figures of annual means of X, Y, and Z



(a) Annual means for F component



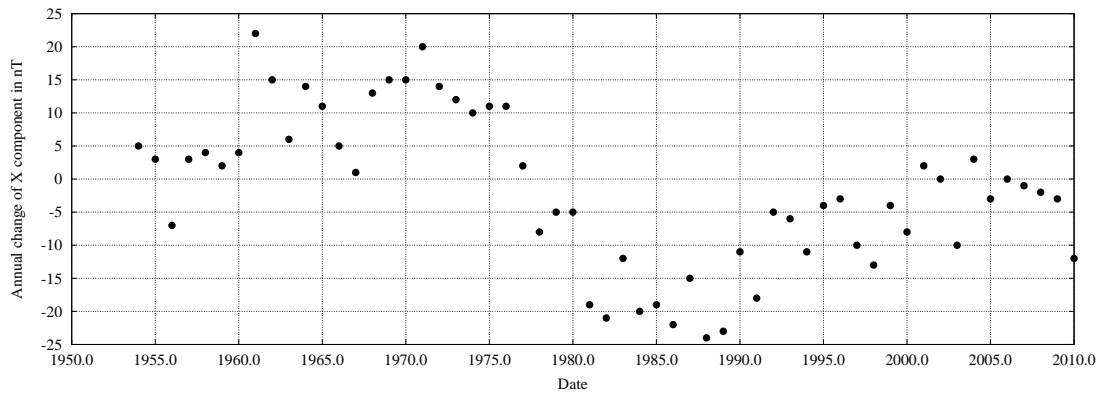
(b) Annual means for D component



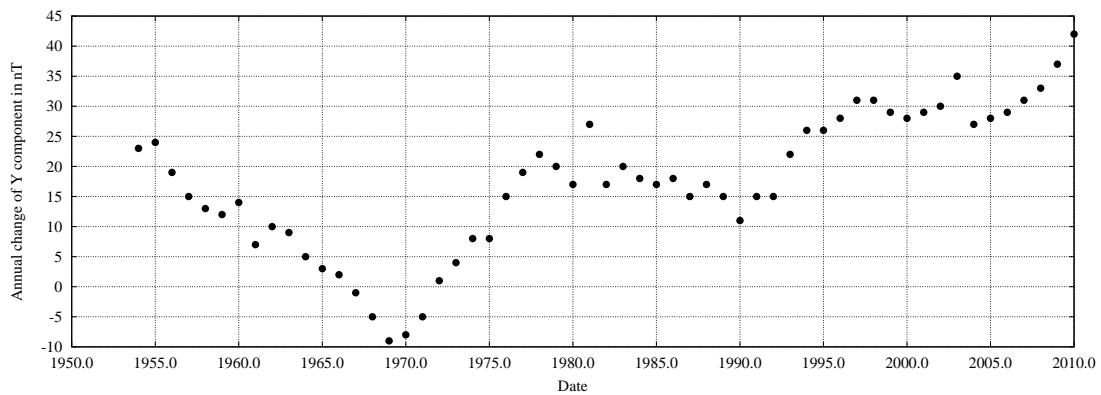
(c) Annual means for I component

Figure 11: Figures of annual means of F, D, and I

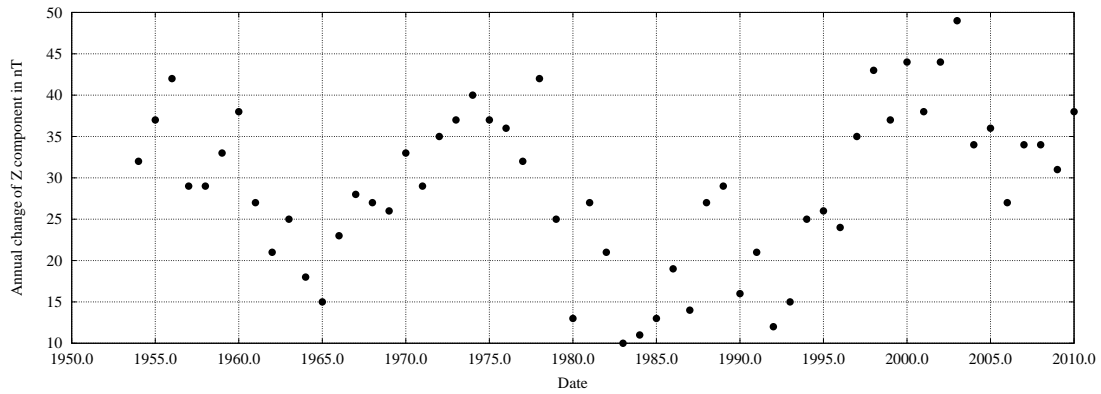
## 15 Secular Variation



(a) Annual change of X component



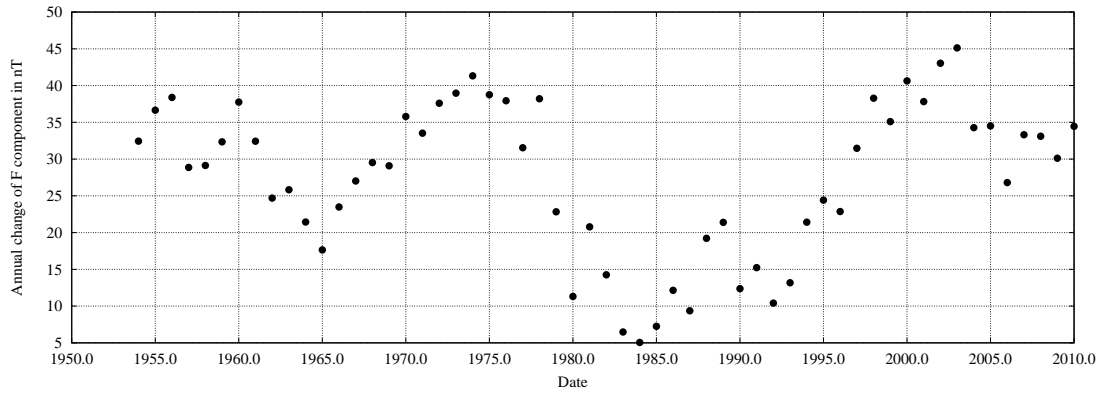
(b) Annual change of Y component



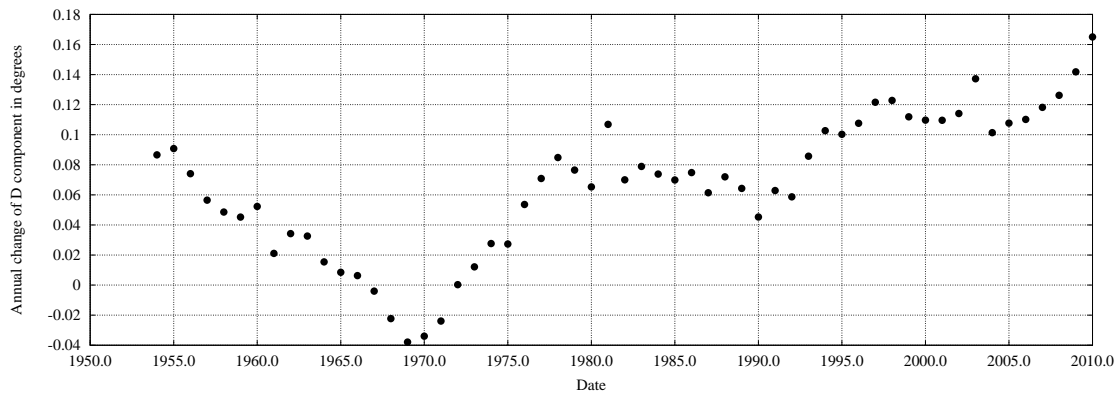
(c) Annual change of Z component

Figure 12: Annual change of components X, Y, and Z

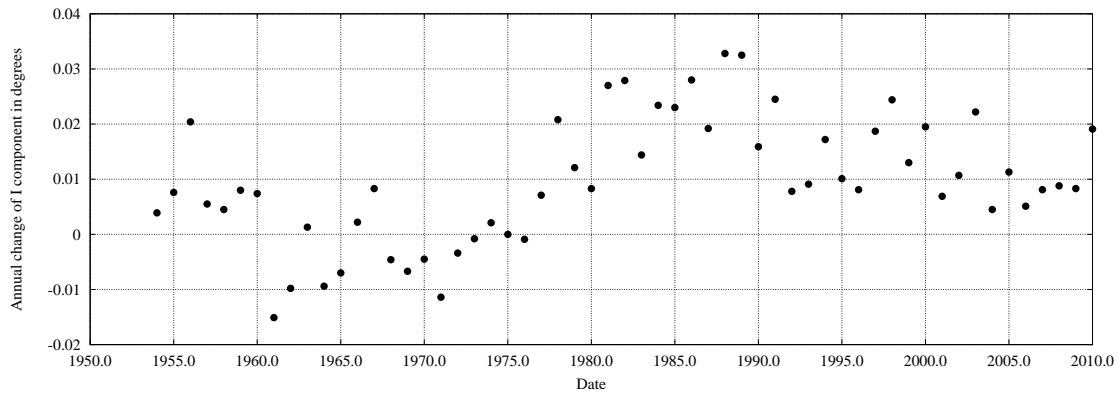




(a) Annual change of F component



(b) Annual change of D component



(c) Annual change of I component

Figure 13: Annual change of components F, D, and I

## 16 Tables of Annual Means

### 16.1 All Days

Year	X	Y	Z	D	H	F	I
1953	14968	874	48234	3° 20.5'	14993	50511	72° 43.9'
1954	14973	897	48266	3° 25.7'	15000	50543	72° 44.2'
1955	14976	921	48303	3° 31.1'	15004	50580	72° 44.6'
1956	14969	940	48345	3° 35.6'	14998	50618	72° 45.8'
1957	14972	955	48374	3° 39.0'	15002	50647	72° 46.2'
1958	14976	968	48403	3° 41.9'	15007	50676	72° 46.4'
1959	14978	980	48436	3° 44.6'	15010	50708	72° 46.9'
1960	14982	994	48474	3° 47.7'	15015	50746	72° 47.4'
1961	15004	1001	48501	3° 49.0'	15037	50779	72° 46.5'
1962	15019	1011	48522	3° 51.1'	15053	50803	72° 45.9'
1963	15025	1020	48547	3° 53.0'	15060	50829	72° 45.9'
1964	15039	1025	48565	3° 53.9'	15074	50851	72° 45.4'
1965	15050	1028	48580	3° 54.5'	15085	50868	72° 45.0'
1966	15055	1030	48603	3° 54.8'	15090	50892	72° 45.1'
1967	15056	1029	48631	3° 54.6'	15091	50919	72° 45.6'
1968	15069	1024	48658	3° 53.3'	15104	50948	72° 45.3'
1969	15084	1015	48684	3° 51.0'	15118	50977	72° 44.9'
1970	15099	1007	48717	3° 48.9'	15133	51013	72° 44.6'
1971	15119	1002	48746	3° 47.5'	15152	51047	72° 44.0'
1972	15133	1003	48781	3° 47.5'	15166	51084	72° 43.8'
1973	15145	1007	48818	3° 48.2'	15178	51123	72° 43.7'
1974	15155	1015	48858	3° 49.9'	15189	51165	72° 43.8'
1975	15166	1023	48895	3° 51.5'	15200	51203	72° 43.8'
1976	15177	1038	48931	3° 54.8'	15212	51241	72° 43.8'
1977	15179	1057	48963	3° 59.0'	15216	51273	72° 44.2'
1978	15171	1079	49005	4° 04.1'	15209	51311	72° 45.5'
1979	15166	1099	49030	4° 08.7'	15206	51334	72° 46.2'
1980	15161	1116	49043	4° 12.6'	15202	51345	72° 46.7'
1981	15142	1143	49070	4° 19.0'	15185	51366	72° 48.3'
1982	15121	1160	49091	4° 23.2'	15165	51380	72° 50.0'
1983	15109	1180	49101	4° 27.9'	15155	51387	72° 50.8'
1984	15089	1198	49112	4° 32.4'	15136	51392	72° 52.2'
1985	15070	1215	49125	4° 36.6'	15119	51399	72° 53.6'
1986	15048	1233	49144	4° 41.1'	15098	51411	72° 55.3'
1987	15033	1248	49158	4° 44.7'	15085	51420	72° 56.4'
1988	15009	1265	49185	4° 49.1'	15062	51440	72° 58.4'
1989	14986	1280	49214	4° 52.9'	15041	51461	73° 00.4'
1990	14975	1291	49230	4° 55.6'	15031	51473	73° 01.3'
1991	14957	1306	49251	4° 59.4'	15014	51489	73° 02.8'
1992	14952	1321	49263	5° 02.9'	15010	51499	73° 03.3'
1993	14946	1343	49278	5° 08.1'	15006	51512	73° 03.8'
1994	14935	1369	49303	5° 14.2'	14998	51534	73° 04.8'
1995	14931	1395	49329	5° 20.3'	14996	51558	73° 05.4'
1996	14928	1423	49353	5° 26.7'	14996	51581	73° 05.9'
1997	14918	1454	49388	5° 34.0'	14989	51612	73° 07.1'
1998	14905	1485	49431	5° 41.4'	14979	51651	73° 08.5'
1999	14901	1514	49468	5° 48.1'	14978	51686	73° 09.3'
2000	14893	1542	49512	5° 54.7'	14973	51726	73° 10.5'
2001	14895	1571	49550	6° 01.2'	14978	51764	73° 10.9'
2002	14895	1601	49594	6° 08.1'	14981	51807	73° 11.5'
2003	14885	1636	49643	6° 16.3'	14975	51852	73° 12.9'
2004	14888	1663	49677	6° 22.4'	14981	51887	73° 13.1'
2005	14885	1691	49713	6° 28.9'	14981	51921	73° 13.8'
2006	14885	1720	49740	6° 35.5'	14984	51948	73° 14.1'
2007	14884	1751	49774	6° 42.6'	14987	51981	73° 14.6'
2008	14882	1784	49808	6° 50.1'	14989	52014	73° 15.1'
2009	14879	1821	49839	6° 58.7'	14990	52044	73° 15.6'
2010	14867	1863	49877	7° 08.6'	14983	52079	73° 16.8'

## 16.2 Quiet Days

Year	X	Y	Z	D	H	F	I
1953	14975	872	48235	3° 20.0'	15000	50514	72° 43.5'
1954	14977	895	48266	3° 25.2'	15004	50544	72° 43.9'
1955	14980	919	48302	3° 30.6'	15008	50580	72° 44.4'
1956	14978	936	48343	3° 34.6'	15007	50619	72° 45.2'
1957	14978	951	48372	3° 38.0'	15008	50647	72° 45.8'
1958	14984	965	48400	3° 41.1'	15015	50676	72° 45.9'
1959	14986	976	48433	3° 43.6'	15018	50708	72° 46.4'
1960	14993	989	48474	3° 46.4'	15026	50749	72° 46.7'
1961	15010	998	48501	3° 48.2'	15043	50780	72° 46.1'
1962	15022	1009	48523	3° 50.6'	15056	50805	72° 45.7'
1963	15032	1018	48547	3° 52.5'	15066	50831	72° 45.5'
1964	15042	1024	48566	3° 53.7'	15077	50852	72° 45.2'
1965	15051	1027	48581	3° 54.2'	15086	50869	72° 44.9'
1966	15059	1028	48602	3° 54.3'	15094	50892	72° 44.8'
1967	15062	1028	48630	3° 54.3'	15097	50920	72° 45.2'
1968	15073	1022	48657	3° 52.7'	15108	50948	72° 45.1'
1969	15089	1013	48684	3° 50.4'	15123	50979	72° 44.6'
1970	15104	1005	48715	3° 48.4'	15137	51013	72° 44.3'
1971	15124	1001	48746	3° 47.2'	15157	51048	72° 43.6'
1972	15139	1001	48780	3° 47.0'	15172	51085	72° 43.4'
1973	15151	1004	48819	3° 47.5'	15184	51126	72° 43.4'
1974	15162	1012	48859	3° 49.1'	15196	51167	72° 43.4'
1975	15171	1020	48896	3° 50.8'	15205	51206	72° 43.5'
1976	15182	1035	48930	3° 54.0'	15217	51242	72° 43.5'
1977	15184	1054	48963	3° 58.2'	15221	51274	72° 43.9'
1978	15178	1075	49003	4° 03.1'	15216	51311	72° 45.0'
1979	15171	1096	49028	4° 07.9'	15211	51333	72° 45.8'
1980	15163	1115	49042	4° 12.3'	15204	51345	72° 46.5'
1981	15148	1140	49067	4° 18.2'	15191	51365	72° 47.9'
1982	15128	1157	49090	4° 22.4'	15172	51381	72° 49.5'
1983	15115	1176	49101	4° 26.9'	15161	51388	72° 50.5'
1984	15095	1195	49113	4° 31.6'	15142	51394	72° 51.9'
1985	15076	1212	49125	4° 35.8'	15125	51401	72° 53.2'
1986	15055	1230	49144	4° 40.2'	15105	51413	72° 54.9'
1987	15037	1246	49158	4° 44.2'	15089	51422	72° 56.2'
1988	15014	1262	49182	4° 48.3'	15067	51438	72° 58.1'
1989	14995	1276	49213	4° 51.8'	15049	51463	72° 59.8'
1990	14982	1288	49227	4° 54.8'	15037	51472	73° 00.8'
1991	14965	1302	49248	4° 58.3'	15022	51488	73° 02.2'
1992	14959	1318	49261	5° 02.1'	15017	51499	73° 02.8'
1993	14952	1341	49277	5° 07.5'	15012	51513	73° 03.4'
1994	14944	1365	49304	5° 13.1'	15006	51537	73° 04.3'
1995	14937	1392	49328	5° 19.4'	15002	51559	73° 05.1'
1996	14934	1421	49353	5° 26.1'	15001	51583	73° 05.6'
1997	14923	1452	49388	5° 33.4'	14993	51614	73° 06.7'
1998	14910	1484	49431	5° 41.0'	14984	51652	73° 08.2'
1999	14905	1512	49467	5° 47.5'	14981	51686	73° 09.0'
2000	14900	1540	49510	5° 54.1'	14979	51726	73° 10.0'
2001	14901	1569	49548	6° 00.6'	14983	51764	73° 10.5'
2002	14901	1599	49593	6° 07.5'	14987	51808	73° 11.1'
2003	14896	1632	49644	6° 15.1'	14985	51856	73° 12.2'
2004	14894	1660	49677	6° 21.6'	14986	51888	73° 12.8'
2005	14891	1689	49714	6° 28.3'	14986	51924	73° 13.5'
2006	14889	1718	49740	6° 34.9'	14988	51949	73° 13.9'
2007	14887	1749	49774	6° 42.0'	14989	51982	73° 14.4'
2008	14885	1783	49808	6° 49.8'	14991	52015	73° 14.9'
2009	14880	1821	49839	6° 58.6'	14991	52045	73° 15.6'
2010	14869	1862	49877	7° 08.3'	14985	52079	73° 16.7'

## 16.3 Disturbed Days

Year	X	Y	Z	D	H	F	I
1953	14959	879	48230	3° 21.8'	14985	50504	72° 44.4'
1954	14968	899	48264	3° 26.2'	14995	50540	72° 44.4'
1955	14967	924	48301	3° 32.0'	14995	50575	72° 45.2'
1956	14952	945	48344	3° 37.0'	14982	50612	72° 46.9'
1957	14959	961	48376	3° 40.5'	14990	50645	72° 47.0'
1958	14958	974	48407	3° 43.5'	14990	50675	72° 47.7'
1959	14963	986	48439	3° 46.2'	14995	50707	72° 47.9'
1960	14960	1004	48468	3° 50.4'	14994	50734	72° 48.6'
1961	14992	1005	48498	3° 50.1'	15026	50772	72° 47.2'
1962	15013	1013	48522	3° 51.6'	15047	50802	72° 46.3'
1963	15014	1025	48543	3° 54.3'	15049	50822	72° 46.6'
1964	15035	1027	48564	3° 54.5'	15070	50848	72° 45.6'
1965	15044	1030	48580	3° 55.0'	15079	50866	72° 45.3'
1966	15046	1033	48602	3° 55.7'	15081	50888	72° 45.6'
1967	15042	1034	48630	3° 55.9'	15077	50914	72° 46.5'
1968	15061	1028	48659	3° 54.3'	15096	50947	72° 45.8'
1969	15074	1019	48684	3° 52.0'	15108	50974	72° 45.5'
1970	15089	1011	48721	3° 50.0'	15123	51014	72° 45.4'
1971	15111	1006	48746	3° 48.5'	15144	51044	72° 44.5'
1972	15122	1007	48780	3° 48.6'	15155	51080	72° 44.4'
1973	15133	1013	48816	3° 49.8'	15167	51118	72° 44.4'
1974	15147	1019	48857	3° 50.9'	15181	51161	72° 44.3'
1975	15157	1027	48892	3° 52.6'	15192	51198	72° 44.3'
1976	15166	1042	48931	3° 55.8'	15202	51238	72° 44.5'
1977	15169	1061	48962	4° 00.1'	15206	51269	72° 44.8'
1978	15158	1086	49006	4° 05.9'	15197	51308	72° 46.3'
1979	15158	1103	49031	4° 09.7'	15198	51332	72° 46.7'
1980	15153	1120	49046	4° 13.6'	15194	51346	72° 47.2'
1981	15133	1146	49073	4° 19.8'	15176	51366	72° 48.9'
1982	15106	1166	49089	4° 24.8'	15151	51374	72° 50.9'
1983	15099	1184	49099	4° 29.0'	15145	51382	72° 51.4'
1984	15078	1203	49108	4° 33.7'	15126	51385	72° 52.8'
1985	15061	1219	49124	4° 37.6'	15110	51395	72° 54.1'
1986	15037	1237	49141	4° 42.2'	15088	51405	72° 55.9'
1987	15027	1250	49161	4° 45.3'	15079	51422	72° 56.9'
1988	15001	1268	49186	4° 49.9'	15054	51438	72° 58.9'
1989	14968	1287	49212	4° 54.9'	15023	51454	73° 01.4'
1990	14964	1296	49232	4° 57.0'	15020	51472	73° 02.0'
1991	14942	1313	49257	5° 01.3'	15000	51490	73° 03.8'
1992	14943	1324	49264	5° 03.8'	15002	51497	73° 03.8'
1993	14937	1348	49277	5° 09.4'	14998	51509	73° 04.3'
1994	14924	1373	49300	5° 15.4'	14987	51528	73° 05.5'
1995	14924	1398	49328	5° 21.1'	14989	51555	73° 05.9'
1996	14923	1425	49350	5° 27.3'	14991	51577	73° 06.2'
1997	14909	1457	49388	5° 34.9'	14980	51610	73° 07.6'
1998	14893	1489	49431	5° 42.6'	14967	51647	73° 09.3'
1999	14891	1517	49468	5° 49.0'	14968	51683	73° 09.9'
2000	14878	1547	49514	5° 56.2'	14958	51724	73° 11.4'
2001	14880	1576	49554	6° 02.8'	14963	51764	73° 11.9'
2002	14886	1604	49594	6° 09.0'	14972	51805	73° 12.1'
2003	14866	1643	49641	6° 18.4'	14957	51845	73° 14.0'
2004	14875	1669	49675	6° 24.1'	14968	51881	73° 13.9'
2005	14879	1696	49711	6° 30.2'	14975	51918	73° 14.1'
2006	14878	1722	49738	6° 36.1'	14977	51944	73° 14.5'
2007	14880	1754	49773	6° 43.4'	14983	51979	73° 14.8'
2008	14879	1787	49807	6° 50.9'	14986	52013	73° 15.3'
2009	14877	1822	49838	6° 58.9'	14988	52043	73° 15.7'
2010	14861	1865	49877	7° 09.2'	14978	52077	73° 17.1'

## **17 Earth's Magnetic Field Maps of Finland 2011.0**

The isolines of total field (F) and horizontal field (H) are given in nanoteslas (nT), declination (D, positive eastwards) and inclination (I, positive downwards) in degrees of arc.

## TOTAL INTENSITY (F) 2011.0

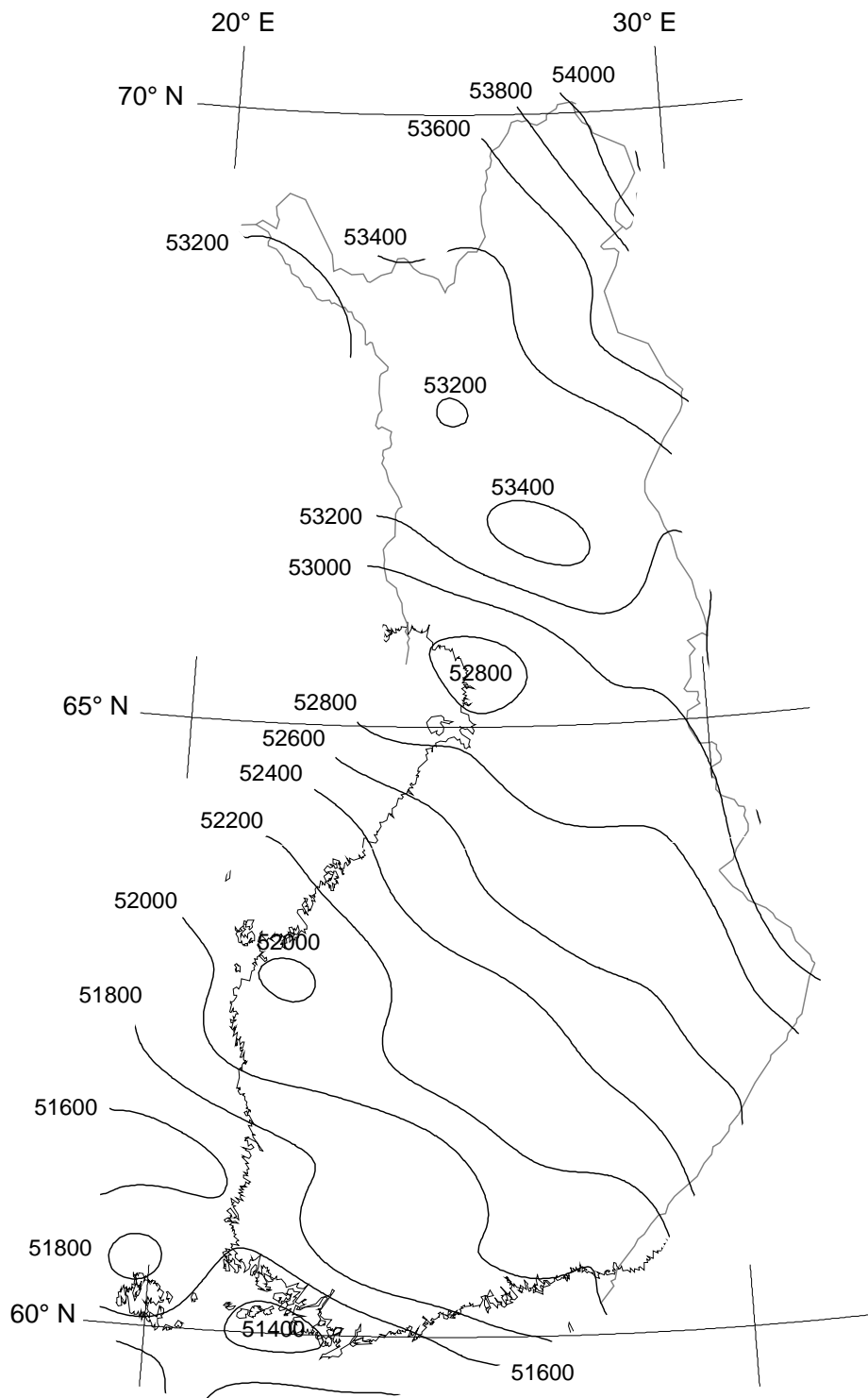


Figure 14: Total intensity F 2011.0 in nT

## HORIZONTAL INTENSITY (H) 2011.0

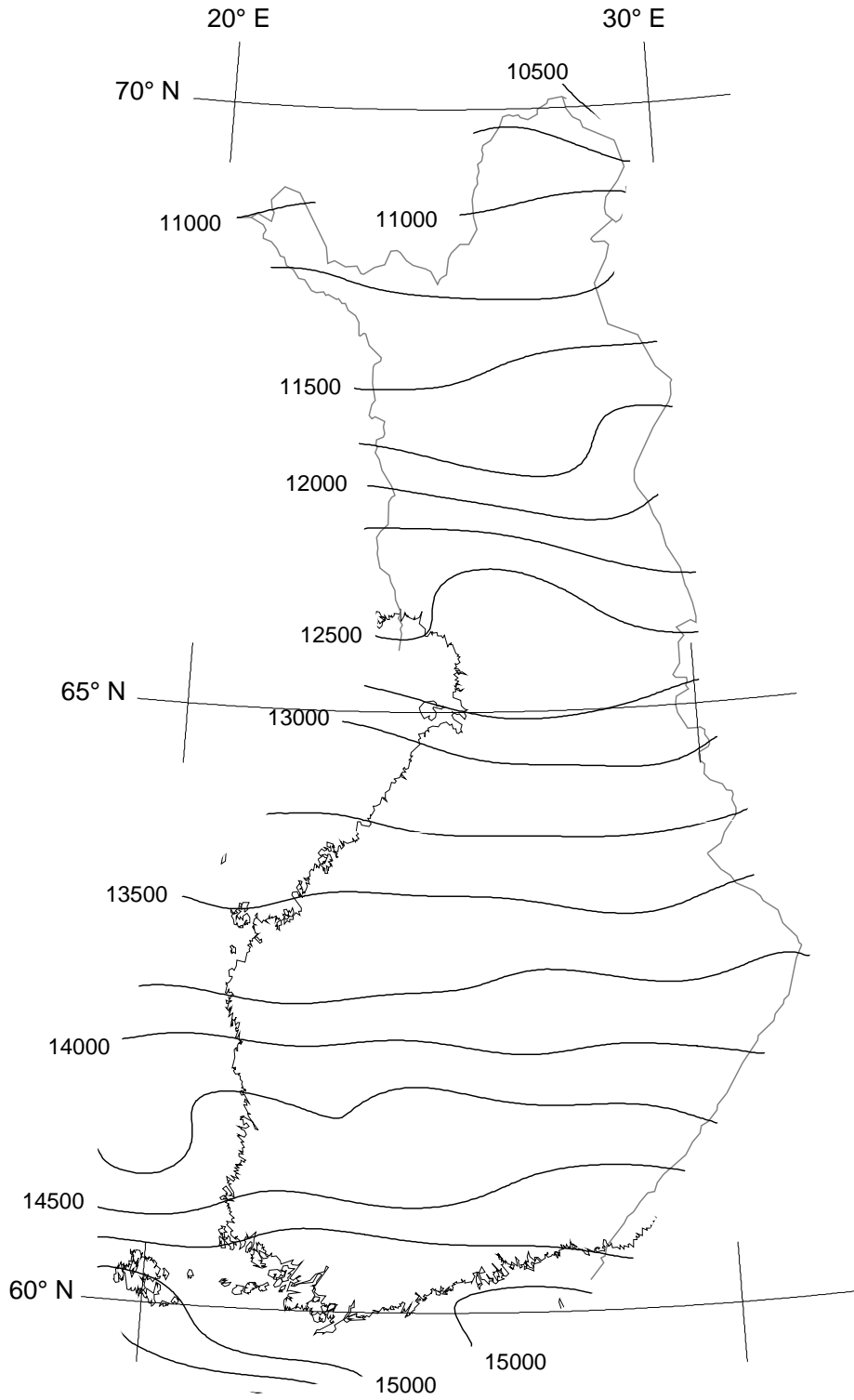


Figure 15: Horizontal intensity H 2011.0 in nT

## DECLINATION (D) 2011.0

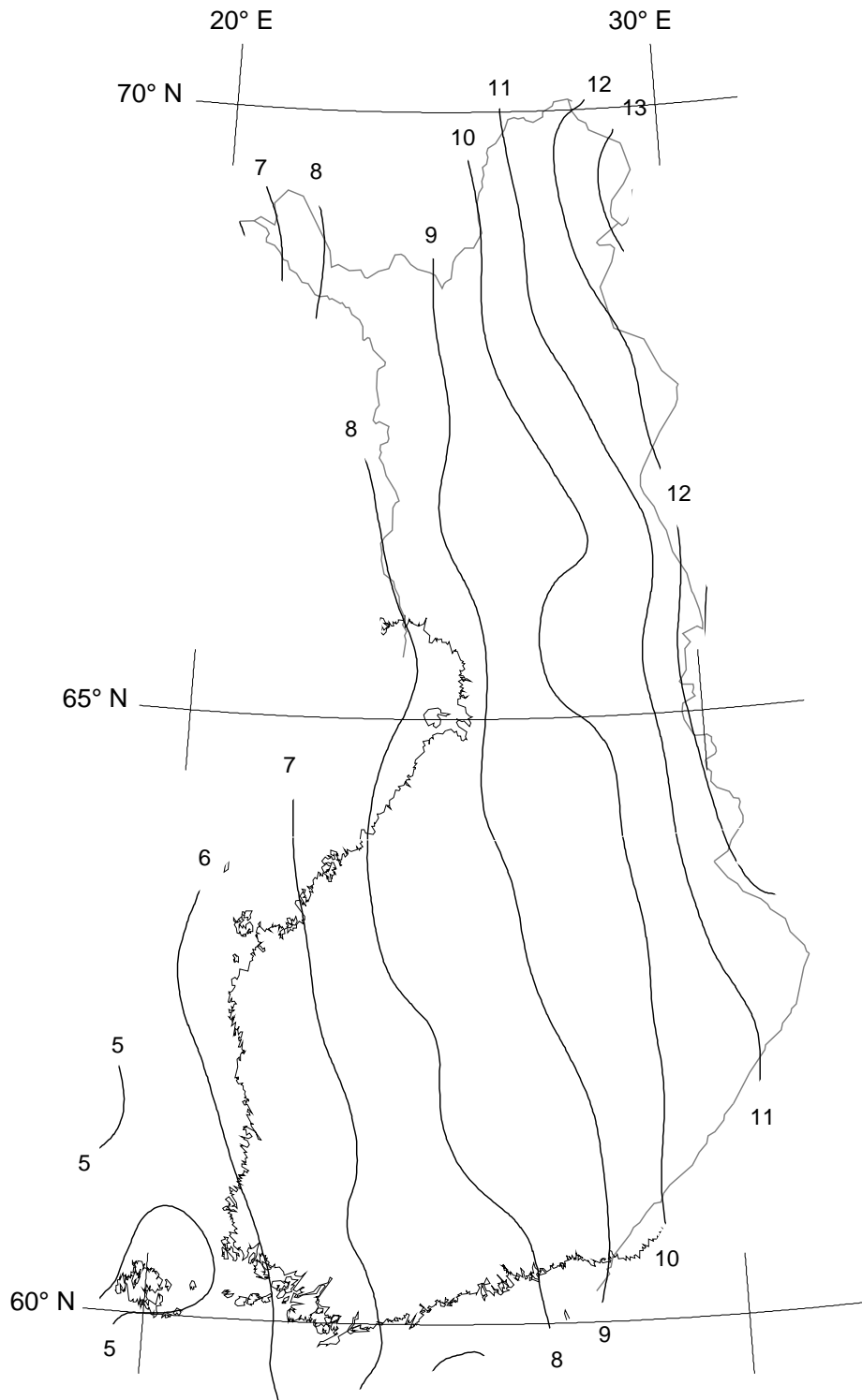


Figure 16: Declination D 2011.0 in degrees



## INCLINATION (I) 2011.0

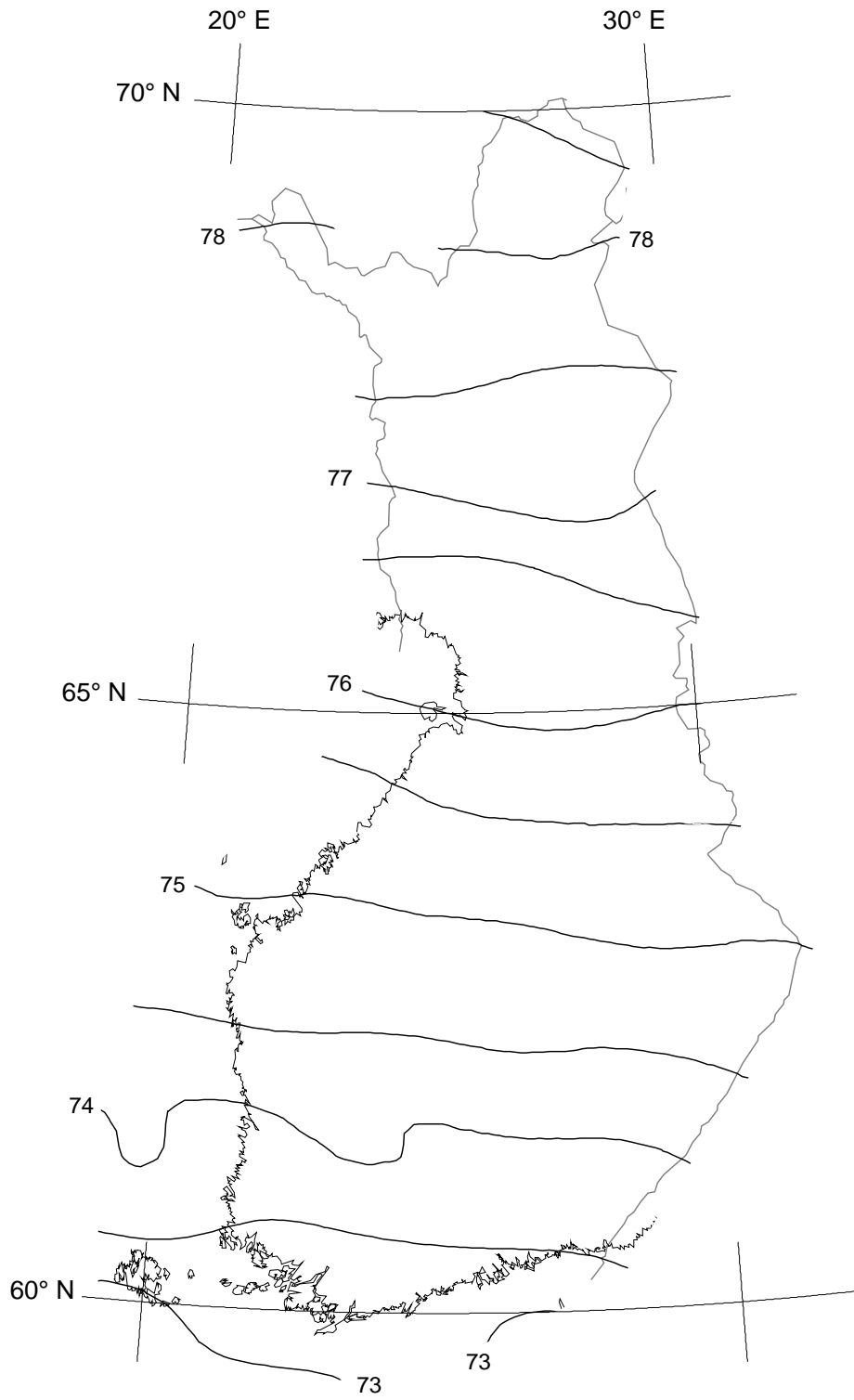


Figure 17: Inclination I 2011.0 in degrees

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- Magneettisia mittauksia — Magnetic Results 1991. Helsinki 1992. 37 pp.  
Magneettisia mittauksia — Magnetic Results 1992. Helsinki 1993. 36 pp.  
Magneettisia mittauksia — Magnetic Results 1993. Helsinki 1994. 47 pp.  
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Magneettisia mittauksia — Magnetic Results 1995. Helsinki 1996. 47 pp.  
Magneettisia mittauksia — Magnetic Results 1996. Helsinki 1997. 47 pp.  
Magneettisia mittauksia — Magnetic Results 1997. Helsinki 1998. 47 pp.  
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