

**NURMIJÄRVI GEOPHYSICAL
OBSERVATORY**

MAGNETIC RESULTS 2007

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**ILMATIETEEN LAITOS
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Abstract 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 2007. Magnetic isolines describing the distribution of geomagnetic field components in Finland 2008.0 are shown by a series of maps.		
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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, 2007. The observatory is operated by the Finnish Meteorological Institute (FMI) and was part of the Space Research Division of the institute until the end of 2007. 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 38,000 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 digital 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 (Fig. 1). 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. The Vaisala Company has at the observatory an automatic station as part of the Helsinki Testbed project. Precipitation and snow depth are measured also manually at the observatory. Helsinki University operates the seismic station. Nurmijärvi municipality needs the water level observations in the lake Sääksjärvi. University of Leicester installed a radio transmitter at the observatory in December 2006 for ionospheric research. The transmitter operates at several frequencies in the range 4 - 14 MHz. The receiver is in United Kingdom.

The Nurmijärvi observatory has a magnetic calibration and test laboratory that has facility and expertise for magnetometer and sight compass calibrations and for compass swing base measurements at airfields. The laboratory was accredited on 17th of August by FINAS (Finnish Accreditation Services) (see figure 2).

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

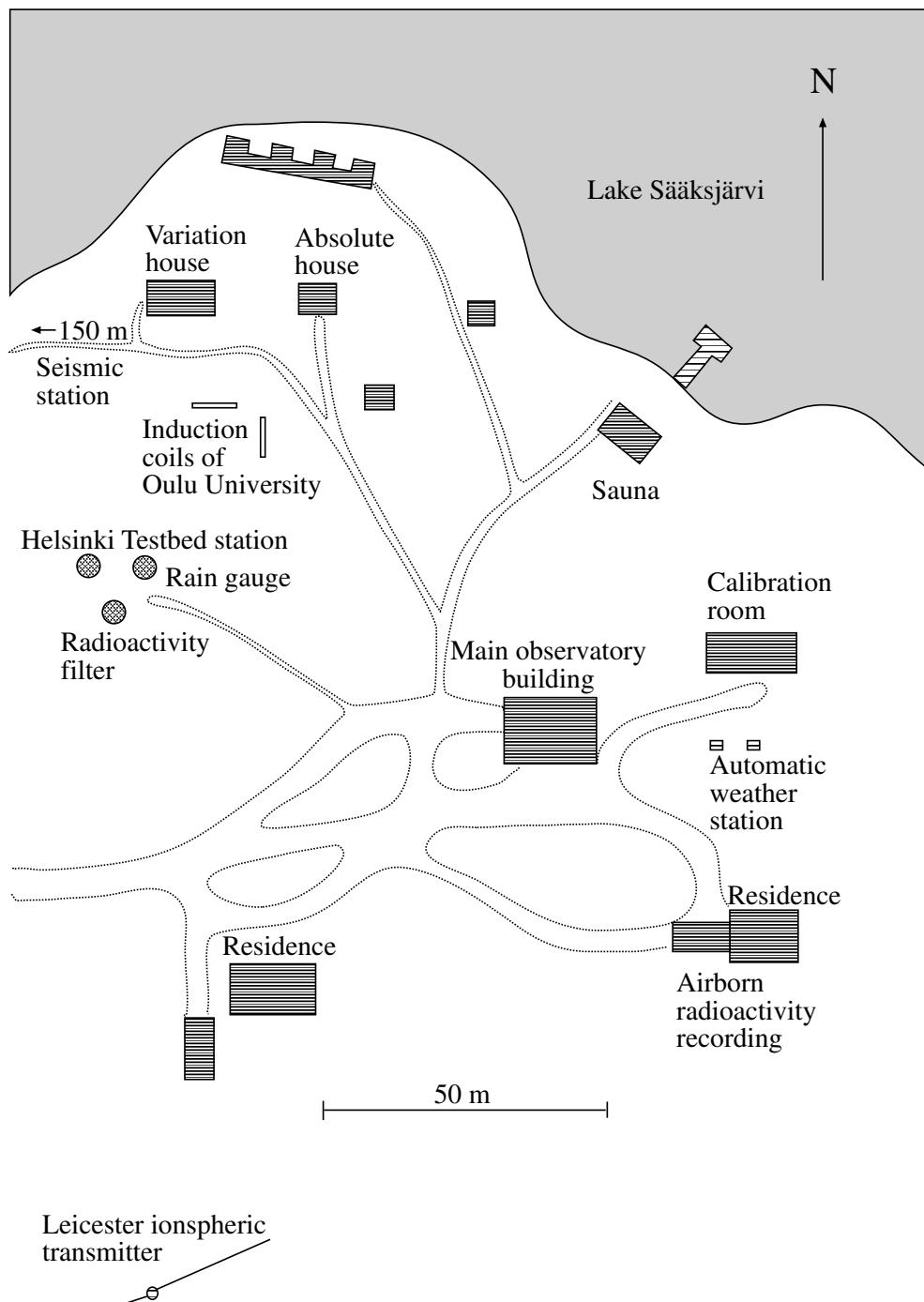


Figure 1: Formal map of the observatory.



Figure 2: Accreditation certificate of the magnetic calibration and test laboratory.

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°C . The FGE magnetometer data is corrected for temperature variations with coefficients -0.22 , -0.10 and $-0.05nT/\text{ }^{\circ}\text{C}$. 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.).

On May 30 a lightning strike hit close to the variation room and caused breakdown of the FGE magnetometer. The data recording was replaced by the LEMI-004 magnetometer and by a new Ukrainian GEOMAG-02 magnetotelluric station. The FGE was back in operation at the end of November. Few hours of data was lost due to lightning strike on 30th of May and another gap exist on 23rd of May.

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 flux-gate element mounted on the telescope of a non-magnetic Zeiss-Jena theodolite (010B). The absolute measurements were done on average once a week. The base line values as determined for the FGE are shown in Fig. 4.

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 CD-ROM 2005 was published in 2007 containing minute data, annual means and base line values from Nurmijärvi together with over a hundred of other magnetic observatories.

6 IMAGE stations

The IMAGE magnetometer network (Fig. 3) consisted at the end of 2007 of 29 stations from Tartu in Estonia to Ny Ålesund on Svalbard. The principal investigator of this international project was Ari Viljanen 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.

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.

Data from MAS, IVA, MUO and PEL was transmitted through ISDN modems to Nurmijärvi. TAR in Estonia and HAN, MEK, KEV and KIL had ADSL or direct network connections and OUJ was still operated through ordinary modems. The data of the eleven stations were processed and inspected at the observatory and was sent for IMAGE filing. Data transmission from the other IMAGE stations was also operated at the observatory.

At Oulujärvi the absolute measurements were made in the new absolute house. In the table below the annual mean values are calculated for the old absolute house since 1993 and for the new absolute house since 2007. The coordinates of the station are (64°31'N, 27°14'E).

Year	X[nT]	Y[nT]	Z[nT]	
1993.5	12971	1912	50591	
1994.5	12953	1935	50616	
1995.5	12951	1963	50642	
1996.5	12937	1994	50664	
1997.5	12926	2023	50701	
1998.5	12912	2051	50742	
1999.5	12902	2077	50780	
2000.5	12892	2108	50828	
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	

7 SAMNET stations

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

8 Personnel

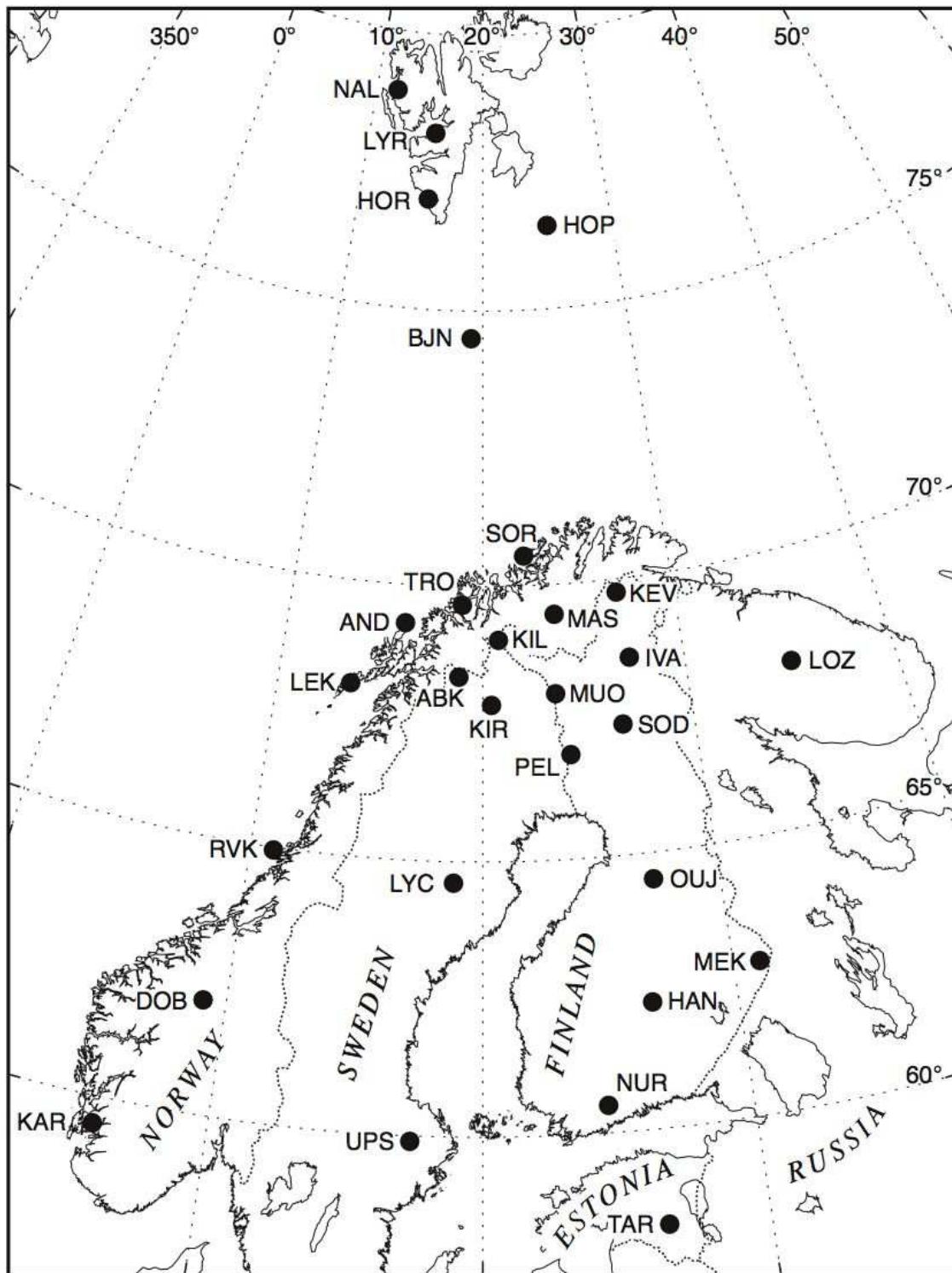
Ph.D. Kari Pajunpää, head of the observatory

M.Sc. Anja Koistinen, assistant

Mr. Pentti Posio, technician

9 IMAGE Magnetometer Network

IMAGE Magnetometer Network



December 2004

Figure 3: Map of IMAGE magnetometer network

10 Baseline Measurements for FGE

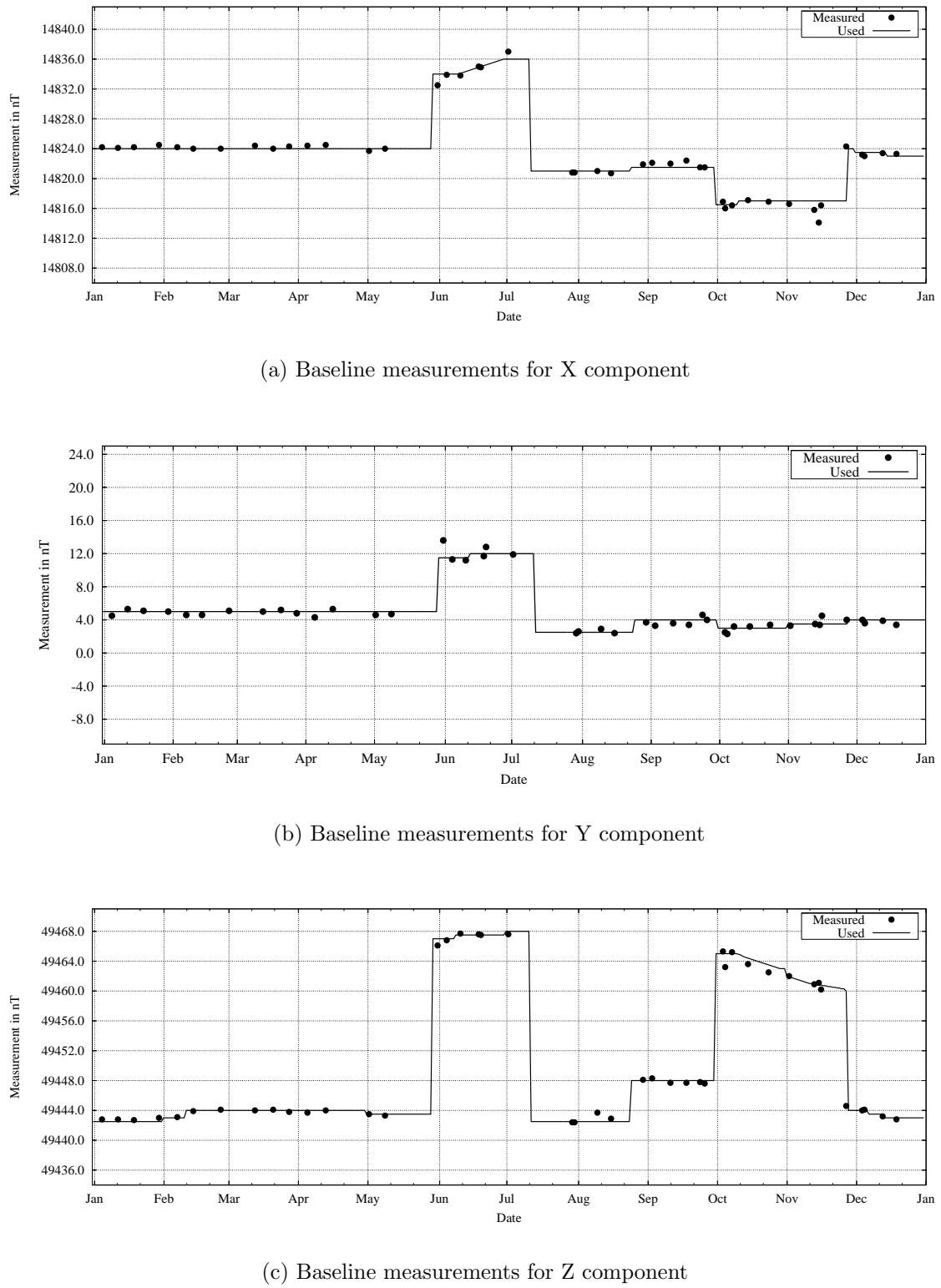


Figure 4: Baseline measurements

11 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)

Nurmijärvi Finland

January 2007 North component X in nT (X = 14800 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		87	85	87	88	88	89	89	87	87	90	94	85	79	88	95	88	75	71	73	82	82	86	87	84	85
2	D	95	99	68	71	85	92	89	84	83	72	69	60	49	65	73	62	71	79	87	65	77	78	93	83	77
3	D	77	78	73	64	68	85	84	80	71	65	69	81	73	43	59	74	74	74	81	73	70	65	83	67	72
4		72	70	66	83	86	86	87	68	58	67	76	79	66	72	71	89	67	76	88	76	85	70	65	75	
5		74	75	73	81	82	83	83	83	78	71	72	77	79	62	78	70	82	89	84	79	84	81	81	77	
6		76	77	79	81	84	84	84	84	83	81	79	81	82	80	81	80	87	79	80	88	79	84	81	82	
7	Q	79	82	83	82	82	82	82	80	80	78	77	78	81	78	82	83	84	85	85	84	83	81	80	81	
8		78	79	81	82	84	86	85	83	83	82	86	86	84	86	87	88	86	83	86	90	83	86	84	84	
9		85	85	87	89	91	92	89	86	82	81	83	89	93	90	88	87	87	82	79	81	88	89	88	86	
10		85	83	82	80	89	90	85	84	83	76	77	85	84	84	83	79	71	68	76	78	82	83	82	81	
11		80	79	77	78	83	85	91	93	86	84	81	81	82	82	87	85	82	84	82	80	83	83	81	83	
12		87	82	80	77	79	79	77	76	74	74	74	77	81	84	84	86	84	85	85	84	84	83	83	81	
13	Q	83	83	83	83	82	79	75	73	72	74	78	81	83	85	85	86	87	87	86	86	86	85	82		
14		85	84	84	85	86	86	85	85	81	79	80	86	97	96	93	94	96	95	96	97	92	81	79	88	
15		76	78	74	79	81	83	87	92	94	91	79	80	46	44	71	66	60	54	78	75	77	78	80	75	
16		76	76	77	79	65	88	90	84	82	80	75	79	83	83	76	63	70	79	81	70	62	70	54	96	
17	D	65	70	80	83	85	65	83	77	62	53	65	70	60	75	80	75	73	64	111	51	50	62	64	71	
18		72	78	73	65	84	81	77	74	66	68	71	63	76	78	74	73	72	79	78	68	63	74	84	78	
19		71	74	77	53	89	89	85	80	78	74	76	78	73	83	73	79	85	81	84	74	84	83	79	78	
20		79	73	78	84	82	83	81	82	78	73	78	82	83	82	80	82	76	81	82	88	88	83	83	81	
21		81	80	78	89	93	89	85	83	77	71	62	67	75	79	85	85	85	77	92	92	84	85	84	81	
22		85	83	84	86	86	85	83	82	83	78	81	83	82	82	83	84	84	82	85	81	82	83	83	81	
23		88	81	79	82	83	85	84	82	79	80	80	82	85	85	84	84	87	88	85	85	85	85	84	84	
24	Q	85	86	87	88	89	89	88	87	83	82	80	80	82	85	88	87	80	84	86	85	86	86	84	85	
25	Q	85	87	88	88	88	87	86	85	83	81	80	82	91	92	88	87	89	88	87	95	86	83	87		
26	Q	85	89	90	90	90	90	90	95	85	79	78	80	84	81	84	87	89	89	89	88	90	88	85	86	
27		83	82	84	83	86	90	88	86	81	80	84	84	87	90	89	90	91	89	85	87	84	94	86		
28		88	81	91	90	91	88	89	89	87	85	79	82	87	93	94	94	93	94	92	85	82	78	83	87	
29	D	93	94	91	93	97	98	100	89	95	90	88	89	89	89	73	89	61	114	50	59	55	65	76	70	84
30	D	70	62	61	75	72	73	83	81	71	69	76	65	67	73	59	75	78	75	89	75	86	93	72	53	
31		68	79	74	82	78	78	77	68	71	70	55	64	69	64	74	71	79	80	106	55	76	72	67	76	
All		80	80	80	84	85	85	83	83	80	80	77	76	78	80	80	80	81	81	82	84	79	80	81	80	
Quiet		83	85	86	86	86	86	85	82	79	78	78	79	83	84	87	87	85	87	87	86	86	87	85	84	
Dist.		80	80	75	77	81	83	88	83	76	70	73	71	69	75	66	72	71	81	84	65	68	72	77	69	

January 2007 East component Y in nT (Y = 1700 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		37	37	34	36	33	32	34	34	32	27	15	20	17	19	28	25	26	31	43	34	35	36	39	49	31
2	D	37	60	39	13	33	31	28	37	37	29	24	23	49	19	56	35	43	59	57	49	45	46	80	52	41
3	D	50	39	31	19	-3	18	28	29	30	28	32	45	33	24	57	52	27	37	64	55	52	60	56	30	37
4		35	31	21	20	28	33	31	26	37	40	42	31	27	36	47	37	63	48	41	42	40	51	44	37	
5		43	39	33	32	31	34	37	33	39	34	39	36	30	47	35	38	42	46	39	37	44	40	43	38	
6		41	36	35	35	37	36	37	35	31	35	31	30	32	34	36	34	47	59	39	34	36	38	42	41	
7	Q	39	40	38	37	37	38	38	37	34	32	32	32	34	35	35	33	34	34	36	35	38	39	38	36	
8		41	37	39	39	38	38	39	37	34	30	36	33	30	30	33	33	37	37	38	38	38	38	39	36	
9		37	35	32	33	33	33	34	33	32	30	26	22	21	27	23	25	30	32	31	34	35	37	38	32	
10		35	38	39	40	41	39	38	35	34	22	19	22	27	24	23	23	24	23	24	47	44	45	39	40	
11		40	39	40	38	35	38	33	32	36	25	24	23	33	32	36	32	36	32	33	36	32	33	35	36	
12		41	49	44	41	40	40	42	42	41	39	35	30	29	33	35	34	37	37	41	40	39	39	39	38	
13	Q	38	40	40	39	41	43	39	36	33	30	30	33	33	36	37	37	38	37	38	38	38	38	38	37	
14		37	37	37	37	37	38	41	41	37	34	29	27	27	29	32	34	34	34	35	36	34	35	41	35	
15		49	55	54	56	48	47	46	44	33	19	15	25	22	49	31	34	43	55	68	47	43	49	41	43	
16		36	35	34	16	20	27	35	34	33	30	30	32	35	33	53	42	41	75	57	42	17	29	36		
17	D	45	13	44	31	37	22	27	35	41	31	32	32	27	31	31	36	49	156	73	106	92	60	42	47	
18		34	31	38	15	14	36	37	40	43	45	35	37	39	32	43	53	80	35	37	100	72	48	30	38	
19		51	43	49	17	31	35	40	44	43	39	37	31	36	35	50	48	44	46	41	61	60	30	40		
20		36	31	23	36	33	38	43	37	34	30	25	25</td													

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February 2007 North component X in nT (X = 14800 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		72	82	80	84	83	85	84	81	74	66	60	61	72	80	77	73	79	79	81	82	78	90	82	79	78
2		79	78	80	81	83	85	83	86	84	81	79	78	81	82	82	78	77	77	89	83	84	85	87	86	82
3		82	82	80	81	82	85	89	91	87	84	80	79	72	82	85	85	85	86	87	86	87	86	84	83	84
4	Q	84	84	86	86	88	89	88	87	84	79	76	82	85	86	86	86	86	87	87	87	87	89	90	89	86
5		89	85	86	87	91	94	94	95	93	91	86	77	77	71	71	78	75	73	62	58	70	75	83	77	81
6		78	78	81	82	78	86	87	89	80	77	79	80	83	83	85	85	88	89	86	87	87	84	85	83	83
7	D	81	91	80	87	83	89	90	78	85	87	83	71	75	78	81	83	81	72	80	103	76	77	74	81	82
8		75	81	81	82	88	81	83	71	73	73	72	79	80	77	81	77	77	86	86	85	82	85	81	82	80
9		89	85	83	84	85	83	86	87	85	81	77	78	83	85	86	86	84	83	83	75	76	81	77	79	83
10		79	78	82	87	85	84	83	84	83	80	78	81	84	87	86	87	84	85	79	74	77	79	79	82	
11		78	79	80	80	79	79	80	79	77	75	75	77	80	85	86	86	86	87	89	76	83	91	82	86	82
12		84	83	82	83	83	84	84	82	84	98	95	91	93	87	76	71	85	87	90	89	83	99	86	86	
13	D	88	87	85	86	88	89	90	85	85	86	87	87	90	90	91	80	60	67	59	77	108	106	33	-10	79
14	D	66	72	78	82	86	84	80	82	81	74	66	68	76	78	76	84	82	77	53	64	78	80	78	76	
15	D	79	74	70	51	77	83	86	81	78	75	73	68	71	77	80	81	85	78	81	88	97	82	84	88	79
16		85	85	86	88	86	81	80	78	77	76	75	76	69	75	82	85	83	82	89	79	84	83	100	86	82
17		77	69	74	80	82	82	88	85	77	77	74	73	75	81	77	78	86	81	82	83	85	81	68	81	79
18		81	81	80	81	82	83	83	80	74	74	76	76	74	75	78	76	89	81	85	84	86	85	79	79	
19		85	85	86	87	89	90	89	85	85	80	78	77	76	78	85	86	79	82	81	85	88	86	87	84	
20	Q	87	87	86	87	88	87	84	79	75	75	75	82	88	92	87	85	87	90	90	90	88	88	88	85	
21	Q	86	87	87	90	88	88	87	87	84	79	77	80	83	87	90	89	87	87	88	88	90	92	90	90	87
22	Q	88	89	90	90	91	91	91	89	86	80	75	75	75	85	91	92	91	90	83	87	86	86	90	82	86
23		84	84	87	87	89	90	86	84	78	74	73	76	81	85	90	93	91	92	85	87	84	86	83	85	
24	Q	85	90	88	87	89	88	88	85	85	82	80	81	86	89	90	90	91	93	92	92	90	88	86	88	
25		87	87	89	90	89	88	90	91	93	92	92	90	91	92	90	90	90	90	88	87	85	90	92	90	90
26		88	84	81	89	95	98	89	86	83	71	76	82	88	90	90	88	87	87	87	88	89	88	89	89	
27		89	90	90	93	94	97	99	104	106	98	91	94	96	95	95	84	69	85	77	82	56	75	81	86	
28	D	83	76	70	76	88	49	57	74	75	74	65	59	68	78	83	78	87	68	71	75	79	45	86	66	72
All		82	82	82	84	86	85	86	84	82	79	78	78	78	81	84	85	83	82	82	84	84	83	81	83	
Quiet		86	87	87	88	89	88	88	85	81	77	77	81	85	89	90	89	88	87	89	89	89	87	86	86	
Dist.		79	80	77	76	84	79	81	80	81	79	75	71	76	80	82	81	79	73	74	79	85	78	71	61	77

February 2007 East component Y in nT (Y = 1700 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		19	41	35	35	37	40	42	45	41	43	36	28	30	32	36	39	35	38	60	47	43	49	45	41	39
2		42	39	41	40	38	39	40	40	41	39	35	33	35	37	39	40	39	48	42	42	43	42	39	40	
3		41	41	40	37	39	39	38	38	39	36	30	31	32	34	36	37	37	38	39	40	40	40	40	37	
4	Q	39	39	40	40	37	39	40	39	38	34	28	29	34	35	37	38	38	39	40	39	40	39	42	38	
5		40	43	41	41	38	38	38	38	37	35	31	25	22	14	21	23	24	37	59	52	51	51	56	37	
6		54	47	42	48	44	30	41	38	40	34	31	34	30	31	33	32	32	31	32	34	38	43	47	51	
7	D	50	58	64	52	45	43	39	39	42	35	26	25	25	20	29	29	33	51	36	59	71	59	66	63	
8		53	47	51	42	35	40	39	40	36	36	34	25	14	26	27	38	69	35	33	36	44	43	46	38	
9		45	47	44	41	42	39	40	40	40	34	31	34	28	27	32	34	35	37	39	46	45	47	51	42	
10		40	40	37	48	47	44	43	45	43	40	36	31	30	32	33	34	35	35	41	43	46	45	49	40	
11		49	45	47	45	46	45	45	44	40	34	28	27	30	34	35	36	35	30	31	35	44	52	49	40	
12		47	46	45	46	42	43	39	35	35	35	25	18	18	13	29	23	25	27	29	35	38	49	79	36	
13	D	48	43	37	37	38	40	42	46	48	47	41	32	26	23	25	30	31	32	33	33	38	42	51	49	
14		43	38	45	48	45	47	48	48	46	38	28	20	19	23	30	32	35	35	35	45	51	50	53	40	
15	Q	35	39	44	43	43	43	44	42	36	29	25	26	29	30	30	29	30	30	35	38	42	43	47	37	
16		35	42	41	42	42	43	46	46	47	42	37	30	26	28	33	38	37	37	38	40	41	38	37	38	
17	Q	42	43	41	42	42	43	46	46	47	42	37	30	26	28	33	38	37	37	38	40	41	38	37	38	
18		47	43	41	42	42	43	44	45	45	42	38	33	25	27	29	34	40	44	41	46	51	49	41	39	
19		40	43	41	42	42	41	44	46	44	38	30	28	27	34	38	38	37	38	40	41	41	40	38		
20	Q	39	40	40	39	39	39	41	40	35	28	25	26	26	30	32	35	35	35	37	38	40	41	42		
21		51	57	61	62	63	63	63	63	65	65	66	68	69	68	68	68	67	73	73	71	68	67	68		
22		65	66	66	66	65	65	64	64	65	65	68	69	70	71	71	69	67	66	65	66	67	66	66		

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March 2007 North component X in nT (X = 14800 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		76	77	86	87	80	76	73	76	73	71	72	73	62	70	67	67	73	83	83	84	85	83	83	77		
2		83	82	83	84	83	81	74	68	69	63	65	67	72	80	82	84	85	86	86	87	85	87	94	86	80	
3	Q	86	85	86	87	87	86	85	81	75	72	73	75	81	87	89	84	84	88	89	88	87	90	92	91	85	
4		90	90	90	93	93	93	90	81	73	68	69	70	76	85	86	90	91	94	95	93	92	91	89	85	86	
5		103	87	89	90	93	93	91	87	82	80	63	76	82	83	78	78	77	77	80	93	86	87	83	86	84	
6	D	87	74	70	72	98	97	83	82	81	76	76	82	71	86	88	82	82	83	80	83	86	95	90	53	82	
7	D	49	84	84	83	84	84	86	72	82	72	64	79	83	83	82	85	82	78	95	86	68	69	71	83	69	78
8		70	78	76	81	86	85	83	80	76	72	71	72	72	78	81	80	84	90	89	85	88	85	85	81		
9	Q	85	84	84	85	86	86	86	80	80	72	66	68	74	81	85	88	87	84	86	79	73	75	75	78	82	80
10		78	85	87	90	94	93	95	88	84	79	77	76	79	81	85	86	87	90	87	97	85	90	91	88	86	
11		84	85	86	86	88	89	90	92	86	81	75	74	70	73	89	93	92	83	81	82	85	88	91	90	89	85
12		88	88	88	84	89	88	87	85	85	92	95	91	71	70	88	93	88	75	83	80	100	98	92	88	87	
13	D	83	109	82	68	85	79	77	72	59	48	70	70	81	95	89	86	82	88	89	89	81	89	87	87	81	
14	D	82	78	85	80	89	88	85	77	71	65	70	66	64	80	84	87	93	94	88	89	91	88	82			
15		87	85	85	87	87	84	74	71	58	57	65	80	90	90	87	83	88	88	90	96	96	83	74	82		
16		71	94	72	76	90	85	84	79	74	74	73	78	85	83	79	86	85	88	89	92	89	97	89	76	83	
17		83	89	84	84	88	88	85	83	73	67	68	60	65	75	84	86	87	86	87	88	89	90	89	82		
18		88	87	89	91	93	93	91	83	74	70	67	71	77	86	84	86	85	88	91	92	92	94	91	86		
19	Q	90	89	90	91	93	94	91	81	71	62	65	69	76	83	88	89	89	92	93	91	91	92	91	89	86	
20	Q	89	88	90	92	94	93	86	76	64	61	63	73	81	89	92	87	88	91	97	93	93	94	93	86		
21	Q	93	94	95	96	97	96	93	85	76	70	69	74	81	88	93	95	95	96	97	98	98	98	97	96	90	
22		96	94	95	97	97	94	83	73	64	64	73	80	83	90	94	95	87	91	96	95	92	95	91	88		
23		92	92	91	93	94	91	90	92	78	74	76	70	76	88	94	70	71	73	85	91	87	85	71	59	83	
24	D	84	80	93	98	77	57	52	33	28	36	51	64	82	84	59	73	76	82	88	92	87	84	88	90	72	
25		95	93	93	94	91	87	80	78	76	62	44	47	85	82	66	69	76	77	80	84	85	83	75	81	79	
26		84	83	83	80	81	84	80	76	70	66	68	72	76	81	86	94	91	53	66	76	85	82	85	85	79	
27		85	85	82	85	86	82	68	67	69	77	58	60	77	79	81	85	89	74	72	81	87	91	79			
28		85	80	76	79	79	79	74	66	63	63	71	78	79	80	84	88	88	89	92	92	88	87	87	80		
29		85	83	83	84	85	82	76	74	73	72	74	77	79	81	87	88	89	91	95	95	94	96	97	97	85	
30		97	94	93	93	97	95	93	87	83	72	67	61	78	84	90	86	84	88	92	94	95	94	95	88		
31		93	92	92	93	94	95	94	88	81	78	77	78	86	91	87	85	91	92	95	97	96	97	104	106	91	
All		85	87	86	86	89	87	84	78	73	68	68	72	77	83	84	84	85	85	87	88	88	89	89	86	83	
Quiet		89	88	89	90	91	91	88	81	71	66	68	73	80	86	90	88	88	91	91	89	89	90	90	90	85	
Dist.		77	85	83	80	87	81	74	69	62	58	69	73	76	85	81	82	82	86	86	84	82	86	87	77	79	

March 2007 East component Y in nT (Y = 1700 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		21	30	50	51	39	34	33	36	34	37	31	28	48	45	48	57	60	54	42	42	42	44	43	42	41
2		43	42	42	43	43	48	50	50	45	38	30	23	26	33	37	39	42	42	46	49	44	42	42	41	41
3	Q	40	41	42	42	43	45	50	51	45	36	27	23	24	28	35	40	38	39	41	43	44	43	37	39	39
4		41	40	41	41	43	46	53	57	52	42	28	20	21	21	29	33	36	36	37	59	47	43	48	40	
5		51	53	46	47	46	47	50	50	48	37	28	15	16	14	23	23	28	39	45	83	45	50	53	43	
6	D	60	39	38	44	47	35	43	51	42	35	21	1	14	21	25	34	37	36	40	47	48	46	54	68	39
7	D	45	67	80	58	60	54	53	49	42	42	34	29	24	21	20	40	64	39	66	66	78	77	63	66	53
8		42	50	46	46	47	43	49	53	53	45	34	26	23	24	29	34	37	45	46	42	40	40	40	40	40
9	Q	42	42	44	43	44	47	55	53	55	52	43	32	25	21	21	28	32	36	41	55	67	57	55	43	42
10		56	50	55	53	52	49	46	45	44	39	32	27	21	20	28	34	35	37	38	43	41	40	40	39	40
11		51	51	49	48	48	46	47	43	33	13	0	7	12	17	15	14	32	43	35	39	40	45	47	34	34
12		43	42	41	37	42	46	49	47	37	23	11	12	17	28	26	28	32	48	41	80	69	43	44	39	39
13	D	40	51	82	42	44	43	48	47	33	18	35	23	24	33	44	57	36	58	69	76	57	38	37	21	45
14	D	29	29	55	52	56	46	48	48	44	37	26	18	21	26	38	32	36	63	38	40	60	45	46	42	42
15		42	45	44	38	45	47	52	58	51	53	32	18	21	24	28	33	41	41	41	44	44	40	40	39	40
16		14	34	52	39	52	51	54	53	48	39	28	24	21	35	45	37	37	38	38	43	52	44	50	50	41
17		29	44	46	41	42	41	51	48	39	29	24	26	26	32	36	43	54	53	48	45	43	41	40	40	
18		39	39	40	43	45	47	53	57</																	

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April 2007 North component X in nT (X = 14800 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	101	67	114	84	88	87	55	32	41	59	65	77	55	54	59	73	75	74	79	76	92	50	83	54	71	
2	D	47	54	62	51	77	63	46	59	49	51	49	59	68	74	81	85	75	76	92	105	77	71	64	68	67	
3		72	81	83	68	74	86	76	64	53	49	56	66	76	87	99	91	88	79	71	84	90	87	87	82	77	
4		82	73	79	72	70	84	76	68	60	58	55	66	76	78	85	90	92	86	84	92	91	85	85	93	78	
5		82	84	85	85	88	92	91	81	74	66	65	71	76	83	87	92	91	92	91	90	89	89	90	93	84	
6		86	87	85	87	90	92	90	79	63	56	63	74	86	91	97	95	89	87	86	89	93	91	91	89	85	
7		84	79	83	89	89	92	88	81	74	66	63	71	81	89	95	93	89	90	91	91	93	93	94	93	85	
8	Q	91	90	89	89	89	93	93	84	74	62	64	71	82	92	97	94	91	93	98	97	97	98	102	113	89	
9		111	119	97	96	101	114	107	78	76	70	66	62	68	76	84	89	89	90	92	91	93	92	94	95	89	
10		91	89	91	94	93	92	89	82	74	71	76	83	99	84	96	92	93	101	99	99	101	94	94	89	89	
11		98	93	96	97	95	94	91	83	74	72	70	74	79	83	89	89	95	96	98	96	96	97	98	99	90	
12		97	94	92	92	95	93	89	81	72	64	65	55	63	98	80	79	85	89	79	84	86	88	90	90	87	83
13	Q	85	86	86	87	84	79	74	70	67	63	65	71	77	82	87	89	90	89	91	92	92	93	93	93	83	
14		94	94	95	95	95	91	82	75	68	62	61	70	85	90	92	90	92	97	97	96	97	94	91	97	88	
15		91	92	89	96	100	93	87	75	70	64	65	71	80	83	82	85	91	90	93	91	92	92	92	85		
16	Q	92	91	90	89	86	84	78	73	70	73	77	81	87	86	87	88	94	95	96	95	96	96	97	97	87	
17		97	97	99	95	91	83	76	74	74	76	73	79	62	70	86	91	93	79	84	86	89	90	99	85	85	
18		90	83	77	80	86	78	76	71	62	67	67	74	88	91	94	89	96	98	91	94	101	93	83	92	84	
19		83	86	81	85	90	80	71	65	66	68	71	81	80	86	86	95	91	92	96	95	95	97	94	84	84	
20	Q	92	89	88	88	90	89	86	77	71	65	64	72	82	86	92	97	98	100	101	104	106	103	96	89	89	
21	Q	92	93	93	95	94	89	81	72	63	58	56	65	76	85	93	97	101	101	102	101	103	100	98	97	88	
22		95	101	101	109	111	101	92	85	79	69	60	59	76	95	90	97	92	98	91	101	102	105	107	101	92	
23		102	86	97	109	109	72	62	79	66	52	49	62	74	83	87	90	90	86	88	86	85	84	86	87	82	
24		89	91	92	90	86	83	80	71	62	61	62	72	82	84	87	92	93	98	104	102	99	87	87	87	87	
25		98	94	87	91	90	87	80	72	65	62	67	73	82	91	88	100	99	89	92	95	95	94	93	93	86	
26		94	91	87	91	90	85	78	70	64	58	58	65	85	85	96	105	109	96	107	98	90	89	88	81	86	
27	D	84	83	80	87	85	82	73	71	70	72	50	67	80	98	95	103	105	100	103	90	99	96	51	77	83	
28	D	53	70	76	82	70	44	48	32	43	39	39	71	83	83	102	117	81	97	97	86	90	95	101	75	74	
29	D	76	88	59	73	72	50	69	71	40	53	55	62	79	87	94	93	76	79	91	102	121	94	75	84	78	
30		61	79	65	62	51	65	57	36	30	38	61	82	94	89	94	97	104	89	88	93	98	94	92	90	75	
All		87	87	86	87	88	84	78	70	64	61	62	70	79	84	89	92	91	91	93	94	94	91	91	90	83	
Quiet		90	90	89	89	89	87	82	75	75	69	64	65	72	81	86	91	93	94	95	98	97	98	98	99	87	
Dist.		72	72	78	75	79	65	58	53	49	55	53	69	75	79	86	94	83	88	95	96	90	77	77	72	75	

April 2007 East component Y in nT (Y = 1700 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	47	48	58	86	71	70	65	64	47	44	35	10	0	12	7	31	71	50	54	52	97	80	44	90	51
2	D	86	58	67	48	21	8	46	52	48	45	28	11	17	10	39	35	34	37	52	66	63	69	72	79	46
3		42	43	57	52	41	49	56	59	54	44	36	20	14	16	23	31	54	104	52	44	46	43	42	36	44
4		35	32	42	51	45	58	68	65	51	36	27	22	28	33	38	43	48	44	47	56	52	55	45	45	
5		50	46	52	51	47	55	61	63	57	47	33	19	16	26	34	34	45	44	45	47	44	44	41	43	
6		41	46	51	52	52	58	59	53	40	26	16	15	24	33	39	42	40	41	42	42	53	50	46	44	42
7		47	38	43	54	53	55	58	58	53	42	28	16	13	20	29	36	40	43	43	46	45	43	41	41	
8	Q	42	44	46	49	53	57	62	62	54	43	29	17	12	16	25	33	34	32	38	40	40	42	40	37	40
9		43	44	50	48	47	57	61	68	52	36	18	5	7	20	31	39	44	44	44	46	45	42	40	40	40
10		35	40	47	51	53	58	60	59	54	44	26	10	11	20	25	33	36	42	44	40	42	37	34	51	40
11		49	45	48	51	51	53	56	57	53	44	33	23	16	20	27	33	37	38	40	41	42	43	41	41	41
12		42	45	46	50	57	61	66	65	54	46	30	16	10	34	33	35	53	47	63	54	45	42	42	42	44
13	Q	44	45	47	50	52	54	59	57	52	41	30	20	19	26	32	38	40	40	41	43	43	44	45	42	
14		46	48	49	51	56	60	63	64	51	46	35	30	23	21	25	30	33	38	42	44	44	49	49	44	
15		55	52	53	64	59	55	58	61	54	45	25	17	16	24	35	49	54	54	49	42	40	42	42	47	
16	Q	45	46	48	50	53	57	61	61	54	44	33	25	29	29	36	41	43	41	40	40	41	42	43	43	
17		44	46	49	54	60	62	59	55	43	28	14	6	-4	8	21	29	27	54	60	55	50	43	39	32	
18		55	68	78	53	55	53	51	46	41	35	30	23	21	25	30	33	38	42	44	44	70	79	61	49	
19		57	53	48	47	56	48	49	39	31	20	18	11	36	29	30	42	44	54</td							

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May 2007 North component X in nT (X = 14800 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		90	79	76	88	85	74	64	55	61	60	67	77	84	87	86	90	94	95	93	88	87	88	88	87	81
2	Q	83	82	85	86	87	81	73	64	57	58	65	74	83	86	88	87	90	91	93	94	94	93	93	92	82
3		91	88	90	89	86	80	70	65	62	62	67	79	90	93	91	91	96	97	103	102	94	92	93	91	86
4		92	91	94	92	90	84	78	69	63	58	58	64	83	97	100	98	97	100	103	97	99	95	94	94	87
5	Q	90	91	90	91	89	81	69	58	54	56	62	75	92	100	101	100	96	95	97	98	97	95	93	92	86
6	Q	91	93	94	94	89	84	79	71	65	59	61	72	84	94	97	99	100	101	106	107	108	104	102	101	90
7	D	97	98	95	94	92	88	86	79	74	84	89	96	81	100	121	136	113	91	88	96	94	86	87	94	94
8		97	97	94	84	67	79	79	61	62	65	59	58	79	101	84	103	108	92	106	98	100	92	88	92	85
9		95	94	92	87	90	90	83	74	66	61	61	72	83	89	93	93	96	97	99	99	97	95	94	91	87
10		91	89	91	92	90	86	78	71	64	63	66	73	84	94	98	101	97	103	100	109	94	92	93	94	88
11		94	96	96	95	90	87	80	76	71	71	73	75	85	87	91	92	90	101	98	100	99	96	96	96	89
12	Q	94	94	92	91	90	84	84	81	76	76	78	86	91	95	94	96	97	97	100	100	97	97	96	96	91
13	Q	96	96	93	88	83	79	74	75	73	76	81	88	96	97	98	100	101	100	98	97	97	96	91		
14		96	98	99	98	95	91	86	78	67	64	71	82	87	94	101	105	103	107	102	102	99	98	97	98	93
15		99	99	102	103	102	99	93	83	69	68	76	84	93	85	89	87	97	99	102	106	107	101	97	97	93
16		97	97	98	98	96	93	86	75	67	63	67	75	85	91	98	100	100	100	101	104	105	103	106	96	92
17		95	96	96	96	95	84	81	80	75	72	76	84	101	97	104	101	105	104	102	98	94	107	98	80	93
18	D	72	89	93	96	94	88	82	62	49	68	77	88	96	116	103	107	117	115	106	101	99	102	103	93	
19		100	97	100	96	89	80	75	72	71	68	66	96	114	94	102	109	111	103	114	99	97	97	100	101	94
20		98	101	100	94	89	85	80	77	77	78	79	92	101	101	103	102	105	102	102	99	94	95	94	93	
21		95	90	93	97	98	93	88	81	77	73	73	79	86	94	105	104	108	112	113	113	114	114	111	96	96
22		90	96	101	104	100	96	93	89	86	78	80	84	96	102	114	92	109	122	115	124	83	80	65	70	95
23	D	97	109	106	104	100	95	71	23	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	(75)
24	D	-1	61	84	86	58	53	49	41	45	48	55	67	85	89	121	123	128	112	102	88	61	74	85	82	75
25	D	82	85	81	85	78	36	41	59	69	70	78	67	74	101	123	130	114	99	88	80	90	86	83	85	(82)
26		85	90	79	50	61	77	82	70	63	56	58	58	102	111	106	96	103	97	89	99	89	92	89	88	83
27		88	83	77	72	66	62	66	58	68	72	91	95	85	93	114	100	105	114	96	86	85	86	84		
28		88	82	77	77	78	71	68	62	59	51	59	75	89	89	91	87	89	91	92	94	94	89	86	80	
29		88	88	89	89	81	71	61	58	60	63	72	81	96	93	87	84	89	99	94	98	96	93	92	84	
30		87	91	96	98	93	86	78	75	78	78	78	85	88	90	95	98	99	98	95	91	91	90	90	(91)	
31		91	92	94	94	89	80	75	66	59	61	68	81	89	92	101	104	104	110	111	106	111	108	103	94	
All		89	91	92	91	87	83	76	68	64	65	68	77	89	94	98	100	102	101	101	101	94	93	92	91	88
Quiet		91	91	91	91	89	83	77	69	65	64	68	77	88	94	95	96	96	97	99	100	99	97	96	96	88
Dist.		69	88	92	93	84	81	65	49	51	67	72	82	82	95	111	122	112	102	99	95	73	80	83	83	85

May 2007 East component Y in nT (Y = 1700 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		42	45	29	44	65	69	64	58	48	34	24	18	20	28	36	42	46	58	68	60	49	43	42	46	45
2	Q	50	51	59	62	66	69	68	58	53	43	29	21	22	31	39	46	47	48	47	46	46	45	46	46	
3		47	52	56	60	65	67	66	57	46	31	17	7	9	19	28	34	44	44	48	56	51	48	46	44	
4		49	47	54	59	58	61	65	63	53	37	24	19	16	23	32	39	43	45	46	46	52	48	46	45	
5	Q	48	48	53	66	69	72	72	65	53	41	27	17	15	23	33	40	43	44	45	43	45	46	48	46	
6	Q	49	50	58	65	66	67	69	63	49	35	25	16	23	28	32	35	36	38	40	46	49	50	48	44	
7	D	51	56	63	74	67	62	65	57	51	32	21	12	17	23	27	18	52	58	49	41	44	44	49	49	
8		52	56	58	62	41	48	50	45	41	26	42	22	20	21	30	34	36	42	60	66	55	40	33	43	
9		41	51	55	57	61	64	64	59	44	29	18	16	19	27	37	44	53	47	43	42	51	46	48	44	
10		48	50	51	56	61	67	69	60	44	30	21	15	16	28	38	44	47	46	48	51	47	48	48	45	
11		50	53	59	64	66	67	64	55	33	25	23	22	25	29	35	41	45	45	46	47	48	45	45	45	
12	Q	52	55	58	60	58	59	51	41	33	20	26	27	33	37	39	40	41	43	45	46	46	48	45	45	
13	Q	52	52	53	51	51	51	42	35	27	23	24	29	33	33	37	44	53	47	47	47	47	49	49	42	
14		50	51	54	58	59	60	61	51	42	35	30	24	13	13	20	29	35	46	57	47	47	47	44	44	
15		50	54	59	65	65	67	62	54	33	24	20	23	21	31	32	35	41	49	50	48	49	45	45	47	
16		46	60	67	60	42	58	67	66	57	44	33	22	35	37	34	44	45	56	45	44	47	40	47	43	
17		33	47	57	64	68	65	62	55	45	41	25	20	28	36	43	42	56	44	47	59	59	49	48	41	
18	D	43	71	75	71	69	73	71	67	58	46	41	40	42	50	58	69	93	132	1						

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June 2007 North component X in nT (X = 14800 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		91	100	96	89	85	81	77	72	69	59	73	73	84	91	99	103	99	108	116	106	114	116	112	107	93	
2		108	110	108	97	92	89	87	88	76	66	72	80	92	94	105	108	108	105	108	111	107	112	104	104	97	
3	D	102	105	107	110	107	101	86	75	67	70	70	78	89	96	98	104	100	115	125	106	103	104	104	106	97	
4		98	99	98	91	92	98	82	80	67	66	71	75	80	98	94	124	119	128	117	100	95	95	95	95	94	
5	Q	96	97	98	96	99	98	86	70	58	60	70	81	87	95	93	97	96	100	103	102	101	99	98	92	90	
6	Q	93	95	98	97	93	89	79	69	59	55	53	65	82	90	93	99	97	98	101	101	101	98	95	94	87	
7	Q	92	92	95	99	97	93	84	76	68	65	64	76	89	98	100	97	99	98	106	110	111	108	108	108	93	
8		108	110	97	94	95	100	91	74	62	63	69	78	92	103	112	122	119	111	102	97	92	81	98	91	94	
9		91	91	87	89	88	87	83	78	66	65	66	76	56	70	84	91	97	105	99	101	103	98	95	95	86	
10		93	94	85	82	86	89	83	70	52	58	70	80	89	86	90	92	94	100	99	101	97	92	91	91	86	
11	Q	90	89	87	85	84	83	76	69	65	67	76	87	87	88	96	98	103	101	102	101	94	90	89	86	86	
12	Q	91	92	89	88	84	88	78	78	76	67	63	66	79	87	89	92	94	99	104	103	102	97	95	97	98	88
13		97	99	97	96	91	88	81	73	71	75	83	77	79	86	97	100	104	114	121	100	100	95	100	104	93	
14	D	101	87	102	102	98	76	76	75	78	88	64	52	77	83	93	94	121	114	116	107	109	105	106	88	92	
15		86	93	97	92	84	88	73	75	72	65	66	66	84	90	101	105	106	107	107	104	100	98	96	88	86	
16		93	91	89	84	89	91	85	75	65	69	74	83	93	83	97	106	108	114	99	97	92	90	90	93	90	
17		91	92	91	94	97	95	92	81	72	67	62	70	72	89	82	90	92	102	101	98	96	95	93	88	86	
18		95	94	91	94	95	92	88	79	67	58	60	69	76	81	87	95	104	106	110	102	100	95	93	91	89	
19		91	89	95	95	93	89	87	74	56	54	51	59	76	86	95	93	93	102	104	101	99	98	97	96	86	
20		95	95	95	94	96	93	88	79	74	66	60	66	75	88	99	100	102	93	95	98	98	99	97	89	89	
21	D	96	97	96	92	96	91	83	79	81	85	78	102	101	96	131	82	92	111	102	103	106	106	86	107	96	
22	D	83	67	77	90	96	88	67	60	55	52	53	70	77	86	97	96	95	96	99	108	77	103	93	83	83	
23		89	81	93	97	86	73	71	63	55	60	60	73	89	91	93	89	94	95	103	105	100	94	90	92	85	
24		92	97	92	90	84	80	74	67	58	62	68	81	100	96	112	104	107	104	101	99	98	90	88	82	89	
25		83	92	93	90	83	76	71	62	57	55	65	84	97	99	98	104	103	107	105	99	98	92	90	95	87	
26		97	96	96	92	86	81	77	73	73	75	85	87	86	90	98	99	104	109	109	102	100	100	96	95	92	
27		95	96	90	94	89	80	71	69	69	68	66	70	85	97	105	103	103	98	96	94	92	93	94	88	88	
28		92	95	96	94	87	82	79	73	65	66	76	88	101	112	106	108	110	110	105	101	103	106	104	94	94	
29	D	104	104	104	101	92	79	70	62	59	63	74	89	96	101	119	118	122	124	120	123	108	97	94	98	97	
30		102	100	97	94	90	84	80	76	70	71	75	74	84	91	98	100	99	101	102	100	96	95	94	92	90	
All		94	94	94	93	91	86	80	73	66	65	68	76	85	91	98	100	103	106	106	103	101	97	97	96	90	
Quiet		92	93	93	93	91	88	81	72	63	62	64	75	86	92	93	96	98	101	103	103	102	99	97	96	89	
Dist.		97	92	97	99	98	87	86	70	68	72	68	78	88	92	107	99	106	112	112	108	107	98	98	98	93	

June 2007 East component Y in nT (Y = 1700 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		49	59	66	65	65	57	58	61	51	34	18	13	11	18	24	26	35	36	36	42	41	42	49	55	42
2		50	53	58	64	66	69	72	61	51	40	19	9	16	21	28	35	47	48	47	46	39	46	53	44	
3	D	50	54	58	72	79	82	81	76	60	47	36	24	17	18	24	29	29	39	47	61	47	47	63	56	
4		44	58	65	62	58	65	66	68	59	42	28	12	7	8	23	32	36	52	58	62	53	54	53	47	
5	Q	54	55	58	63	66	68	74	72	60	44	28	15	16	22	31	38	43	46	44	44	43	44	47	47	
6	Q	53	56	60	63	69	77	82	79	63	42	24	15	20	30	38	43	46	46	45	43	41	44	45	47	
7	Q	51	52	65	73	75	77	78	71	60	42	26	19	22	24	28	34	41	42	42	41	40	41	43	47	
8		39	55	63	75	81	69	79	83	70	51	32	21	15	21	26	30	33	39	45	47	61	51	57	50	
9		61	66	71	76	76	78	76	70	54	37	24	9	15	24	30	34	44	45	44	42	46	41	49	46	
10		53	53	47	39	58	74	76	70	59	47	34	24	24	25	30	38	41	45	44	44	42	44	46	46	
11	Q	49	57	64	67	72	70	64	55	45	32	19	19	27	38	46	51	50	48	47	48	50	48	49	49	
12	Q	50	53	58	68	75	76	74	63	48	33	23	20	22	27	35	44	51	50	50	48	49	51	52	49	
13		55	56	62	68	73	75	71	61	47	36	22	14	17	20	20	33	39	46	47	45	45	47	47	47	
14	D	41	32	65	67	71	51	43	31	41	43	26	14	17	24	31	45	68	70	64	62	56	71	53	46	
15		53	53	58	65	72	77	82	74	65	31	20	27	37	33	39	47	48	46	47	45	45	45	45	51	
16		59	61	54	57	59	62	55	41	26	9	1	15	26	36	39	56	38	36	42	54	67	42	42	42	
17	D	84	61	53	65	66	78	81	69	57	42	22	19	9	14	29	34	39	44	45	42	64	70	62	49	
18		67	41	50	63	84	77	76	73	55	46	34	26	21	25	29	38	42	43	41	40	46	47	48	48	
19		50	63	69	69																					

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July 2007 North component X in nT (X = 14800 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		91	93	96	95	90	82	74	67	67	69	73	78	83	76	85	94	98	101	101	101	98	91	88	88	87
2		90	94	97	97	91	83	75	69	66	65	75	77	87	93	100	102	100	101	101	101	102	99	96	90	
3		95	97	101	101	98	93	87	82	77	71	69	85	108	123	113	106	109	99	104	106	105	104	88	95	
4	D	90	86	102	104	95	79	70	79	71	44	49	67	79	115	98	115	108	104	111	96	90	92	87	89	
5		92	90	91	87	85	78	75	67	60	58	56	62	79	85	86	96	95	97	100	103	99	92	91	98	
6		90	93	96	93	90	85	77	70	61	61	67	71	77	91	101	106	109	103	103	104	105	94	91	90	
7		89	88	92	96	89	78	70	65	56	63	72	80	85	86	90	91	96	102	100	103	101	97	89	90	
8		82	82	85	85	81	74	72	70	64	57	61	66	75	85	89	97	104	108	100	99	97	95	91	90	
9	Q	89	89	90	89	85	75	70	67	62	59	60	70	84	93	98	99	100	99	101	102	98	96	96	97	
10		98	97	98	99	95	87	82	76	78	77	76	73	71	82	91	96	99	105	117	122	120	105	102	94	
11	D	73	71	97	89	95	73	53	54	61	45	54	51	82	92	107	100	86	95	94	94	92	94	93	89	81
12		83	88	85	85	76	74	72	67	70	66	67	62	66	75	98	103	104	102	102	96	90	84	82	83	
13		82	85	85	82	77	67	63	64	62	61	64	71	84	88	91	95	100	100	102	108	106	104	101	84	
14	D	99	102	97	92	90	90	94	80	78	76	69	91	111	120	125	97	90	103	138	86	86	75	84	94	
15		58	70	81	87	71	61	71	69	60	56	56	72	79	89	92	86	91	96	102	101	87	89	86	84	
16		83	86	86	83	81	77	69	63	60	54	57	66	79	86	94	95	94	98	98	96	93	91	90	82	
17		91	92	90	94	85	80	74	68	66	68	71	71	77	80	84	89	91	95	99	98	98	95	93	92	
18	Q	89	90	89	91	87	86	79	75	65	55	54	62	74	82	87	95	99	100	101	101	100	99	97	96	
19	Q	95	97	99	100	100	96	94	84	74	69	71	80	83	86	90	99	90	95	102	101	99	98	100	99	
20	D	98	97	96	94	95	94	87	85	79	72	70	69	79	89	94	98	95	98	95	101	81	87	83		
21		91	95	83	67	79	75	65	64	62	61	56	59	56	83	92	89	91	97	103	101	103	80	89	88	
22		84	86	87	89	85	76	71	66	62	65	71	73	83	89	93	89	92	91	94	95	94	93	90		
23		90	91	91	94	90	82	73	62	60	59	60	67	77	86	89	93	95	102	99	97	95	98	97	95	
24	Q	94	95	94	94	91	82	76	74	73	67	61	69	74	89	100	96	100	99	99	99	98	95	96	88	
25	Q	94	94	96	97	91	85	82	79	72	70	69	79	89	94	98	102	100	99	96	95	95	88	88		
All		89	91	93	91	87	82	82	76	71	66	62	63	68	77	88	95	99	98	99	103	101	98	96	94	
Quiet		92	93	93	94	91	85	78	74	68	64	63	70	79	86	93	94	97	98	101	101	99	97	97	88	
Dist.		94	93	100	96	91	90	84	78	73	58	55	63	75	95	102	106	98	99	109	97	93	92	88	89	

July 2007 East component Y in nT (Y = 1700 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		54	58	60	64	66	69	69	69	62	50	34	23	18	24	31	39	46	47	45	44	47	49	49	56	49
2		57	58	59	60	64	73	75	69	63	50	41	34	30	30	30	35	39	43	42	44	46	46	48	47	
3		50	55	64	69	76	79	75	66	58	44	29	19	6	1	1	16	27	35	38	35	38	37	66	79	
4	D	62	71	74	71	82	82	65	68	61	45	35	27	19	15	40	45	36	52	52	46	47	45	50	52	
5		57	61	62	71	69	73	75	71	60	49	35	25	24	29	34	36	37	41	42	46	44	46	49		
6		56	62	67	70	67	68	63	49	37	22	13	12	17	29	39	43	52	48	46	46	47	54	55	47	
7		57	56	59	69	78	79	78	69	59	51	38	30	26	24	29	34	38	41	43	43	44	46	55	51	
8		70	61	69	66	59	63	67	61	66	53	36	22	21	22	28	38	43	47	47	46	47	48	48	50	
9	Q	54	56	63	72	79	77	74	67	57	46	35	29	24	27	36	39	42	44	45	46	47	50	52	50	
10		53	55	59	62	67	62	61	63	58	47	31	22	25	28	31	36	38	37	29	32	35	51	75		
11	D	112	136	115	71	77	61	38	60	52	40	29	31	25	34	39	46	47	46	45	42	46	52	51	58	
12		58	67	64	66	67	68	74	70	67	62	49	36	34	39	45	48	48	48	45	45	45	45	45		
13		57	56	59	69	78	79	78	69	59	51	38	30	26	24	29	34	39	41	43	43	45	45	50		
14	D	50	51	60	62	69	67	64	61	58	38	28	20	10	13	7	36	45	50	50	74	72	56	63		
15		70	81	88	68	69	66	71	66	68	62	46	34	35	36	40	49	53	56	58	50	50	51	57		
16		46	55	64	68	70	72	74	68	61	52	40	29	32	34	32	34	42	47	46	45	48	55	51		
17		54	54	55	63	69	75	74	69	58	50	40	31	30	31	34	36	41	45	46	47	51	52	54		
18	Q	58	60	60	65	69	63	63	62	53	37	26	24	26	31	36	39	41	44	44	46	48	51	49		
19	Q	57	59	60	62	66	72	70	64	55	40	33	32	35	37	45	49	47	43	43	45	48	51	53		
20	D	55	57	60	63	65	71	65	71	69	46	15	-9	-11	9	17	32	51	47	46	49	54	73	46		
21		60	63	66	69	69	69	69	66	60	36	29	27	25	23	16	14	37	33	59	45	44	44	58		
22		30	49	63	69	62	57	65	62	57	44	32	22	31	31	46	47	49	50	49	49	52	54	49		
23		60	60	61	66	70	73	75	76	70	60	48	37	35	38	45	48	50	47	42	44	45	51	54		
24	D	56	81	72	77	72	55	61	69	64	48	34	21	13	22	22	30	37	32	38	36	52	65	44		
25		71	71	74	61	69	66	59	68	57	46	36	25	24	30	37	51	52	43	43	44	46	51	51		
26		62	63	66	69	70	66	68	66	68	68	67	55	56	56	56	56	5								

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August 2007 North component X in nT (X = 14800 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	94	90	88	91	90	70	61	77	67	68	70	65	87	106	88	105	106	104	104	113	94	86	94	87	88
2	-		90	87	88	87	81	77	75	71	64	60	64	69	76	84	82	86	93	102	104	98	97	94	93	95	84
3	-		92	91	89	88	88	84	84	80	65	57	56	62	68	84	87	101	98	94	94	92	92	95	89	84	84
4	-	Q	89	90	91	90	89	84	79	75	69	64	60	68	77	86	94	101	101	97	92	92	93	93	89	86	86
5	-	Q	90	92	93	95	93	94	90	82	73	66	66	74	85	92	98	104	104	101	102	104	101	97	93	96	91
6	-	D	91	90	96	95	91	89	89	91	81	68	72	74	90	100	103	107	106	91	102	112	109	120	81	89	93
7	-	D	97	88	51	105	99	85	58	43	46	53	65	69	74	97	93	83	95	115	95	100	116	93	91	79	83
8	-		89	86	91	82	65	64	75	70	66	67	71	75	79	88	98	97	92	88	92	90	91	89	88	85	82
9	-		84	81	87	87	83	78	73	73	67	64	73	77	79	84	95	95	92	97	100	98	98	98	97	93	86
10	-	D	95	95	95	92	87	83	82	82	81	78	87	84	73	124	134	96	92	127	108	86	89	88	86	93	
11	-		79	68	84	89	83	78	72	73	67	72	75	78	85	95	100	104	106	92	83	104	84	82	88	90	85
12	-		89	89	90	93	90	88	81	72	66	62	61	71	81	87	95	95	94	88	91	90	89	88	90	85	
13	-	Q	87	86	84	84	86	87	82	76	68	62	63	71	82	85	86	89	91	95	93	93	95	92	90	90	
14	-		89	88	92	92	89	86	80	73	64	56	58	66	77	86	93	95	93	99	103	100	101	99	104	106	87
15	-		103	109	98	89	82	89	84	76	74	70	67	70	88	84	86	94	102	93	100	104	98	99	97	92	90
16	-		93	88	85	85	90	89	80	75	62	55	56	72	87	93	102	98	94	97	96	91	89	88	91	90	85
17	-		90	91	92	91	86	82	79	75	68	64	69	78	90	98	96	93	91	93	97	97	97	94	94	88	
18	-		99	94	92	94	92	83	74	68	65	64	68	73	85	95	95	93	92	93	97	99	97	94	95	87	
19	-		96	95	94	93	89	86	86	84	78	78	81	82	94	92	107	98	94	91	95	93	93	94	91		
20	-		91	89	91	91	87	84	80	71	63	61	64	74	80	84	89	93	93	94	98	100	102	99	95	86	
21	-		95	104	100	99	98	96	93	91	83	79	73	81	82	88	91	101	98	98	99	99	97	96	97	93	
22	-		96	97	97	96	97	97	91	79	67	64	72	75	88	94	92	89	95	94	95	96	97	97	96	90	
23	-	Q	96	95	93	91	91	88	75	79	71	63	62	63	73	81	81	91	87	92	94	97	98	99	97	96	88
24	-	Q	97	96	94	90	88	85	80	74	73	80	86	93	89	91	91	91	94	96	96	99	100	102	101	99	91
25	-		99	100	97	97	94	88	87	88	84	85	90	83	92	82	89	101	109	99	102	106	90	89	91	93	
26	-		91	90	86	86	85	76	70	61	59	67	78	88	89	120	121	104	108	109	82	98	99	101	101	102	90
27	-	D	99	101	95	87	81	76	54	48	63	65	78	81	87	93	88	86	91	92	98	101	92	69	79	75	83
28	-		87	83	82	91	87	83	75	59	52	38	53	65	83	95	84	86	85	89	92	90	92	93	85	80	
29	-		84	85	85	85	80	73	66	59	58	64	71	77	83	89	87	92	90	93	92	102	92	96	91	90	83
30	-		89	83	79	79	83	80	72	63	64	71	81	80	91	92	90	91	91	90	94	98	96	91	94	90	85
31	-		90	92	88	87	82	80	74	68	60	62	62	81	88	92	94	102	96	96	96	99	96	90	86	79	85
All	-		92	91	89	90	87	83	78	73	68	65	69	75	83	92	95	95	96	97	96	98	96	94	93	91	87
Quiet	-		92	92	91	90	89	88	83	77	71	67	68	76	83	87	92	94	96	97	96	98	98	97	95	94	88
Dist.	-		95	93	85	94	90	80	69	68	68	66	74	75	82	104	101	96	102	100	91	89	83	88	80	88	

August 2007 East component Y in nT (Y = 1700 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	53	82	73	74	81	73	60	51	46	27	28	19	13	26	39	51	47	55	71	55	58	43	45	51	
2	-		59	62	63	67	74	81	86	80	71	57	41	31	28	26	36	45	50	55	48	53	49	51	54	56	55
3	-		56	52	59	68	72	73	67	65	60	54	46	33	22	21	30	40	41	45	47	49	51	54	61	59	51
4	-	Q	60	57	59	64	67	73	76	73	67	56	41	29	25	25	31	39	48	51	53	52	52	54	58	57	53
5	-	Q	56	56	60	66	70	77	81	76	67	58	45	30	22	27	36	42	45	46	48	51	49	52	50	52	52
6	-	D	54	59	62	70	75	77	65	66	54	44	37	29	19	22	31	35	30	59	51	38	48	157	107	80	58
7	-	D	69	53	37	57	59	70	71	57	57	53	46	40	32	38	38	37	51	57	53	54	50	49	46	54	
8	-		58	57	65	66	60	55	58	54	61	55	47	43	39	38	43	52	54	53	55	53	55	54	54		
9	-		55	55	64	69	72	75	74	71	60	50	41	33	34	41	45	45	46	44	43	45	47	52	52	53	
10	-	D	60	61	63	67	67	64	66	67	60	46	34	26	23	15	12	14	56	115	80	56	54	59	67	82	55
11	-		85	79	82	74	67	64	70	68	59	44	34	34	52	43	43	59	61	69	72	58	54	50	54	60	
12	-		55	55	79	73	77	73	71	68	66	54	42	34	33	33	43	50	53	56	61	56	56	55	57		
13	-	Q	58	61	63	68	74	76	72	67	65	57	53	49	30	27	30	39	48	56	58	57	51	55	53	55	
14	-		51	49	58	66	72	76	75	78	63	57	43	30	27	35	37	45	51	53	55	57	55	52	51		
15	-		52	42	60	67	75	72	77	67	51	36	49	30	26	31	39	49	53	55	52	54	55	57	51		
16	-		59	67	71	73	71	65	57	42	25	13	17	18	26	35	42	36	35	48	68	42	45	52	54	50	
17	-	D	70	63	79	71	69	71	71	72	76	75	73	77	81	87	94	90	107	92	86	82	42	-			

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September 2007 North component X in nT (X = 14800 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		81	88	90	91	92	88	78	70	55	57	70	69	78	94	103	102	100	90	101	114	112	91	93	102	88
2	D	88	102	89	52	79	90	83	62	40	36	31	52	70	80	86	89	92	80	94	95	83	88	93	89	77
3		90	82	81	72	83	73	69	67	61	63	69	68	66	75	88	107	89	83	88	88	89	95	99	81	80
4		79	79	79	85	85	82	78	68	55	51	59	72	84	85	88	85	86	89	90	92	88	93	93	81	
5		83	90	82	83	74	62	62	57	47	62	69	72	72	78	82	88	93	92	90	98	84	87	93	89	
6		88	88	73	90	86	85	81	74	67	65	62	60	86	93	90	93	90	81	73	79	82	75	96	86	81
7		60	53	64	77	82	77	70	63	61	60	64	75	77	79	90	84	85	101	84	87	86	91	88	89	77
8		87	83	85	85	81	78	70	72	71	66	64	77	83	91	93	93	79	81	86	86	82	86	85	83	81
9	Q	85	85	84	83	83	80	74	68	65	65	74	79	86	85	83	89	88	92	95	95	95	95	95	91	84
10	Q	90	89	87	85	85	85	77	69	67	68	72	77	83	84	85	80	84	89	90	90	91	92	93	93	83
11	Q	93	92	90	88	86	87	85	80	73	68	72	76	80	81	87	89	86	89	89	91	90	88	93	89	85
12	Q	90	88	88	92	90	86	83	73	66	62	65	72	79	87	91	92	90	92	93	94	94	94	93	85	
13	Q	92	90	91	92	93	92	87	79	68	62	67	76	88	92	92	91	91	93	95	99	101	101	100	98	89
14		98	94	94	94	93	93	86	77	67	66	68	77	80	88	92	92	96	106	111	108	106	100	95	95	91
15		97	94	96	95	94	90	83	78	72	71	75	79	84	85	88	88	90	91	95	97	98	93	102	93	89
16		90	91	89	89	87	86	79	72	71	70	77	85	90	93	90	89	90	95	91	93	93	93	92	87	
17		91	90	88	86	85	85	81	75	72	73	76	76	83	88	92	91	93	94	96	97	99	102	106	88	
18		104	96	88	94	94	90	84	79	76	76	83	85	90	88	87	87	89	92	94	94	93	93	89		
19		92	90	91	89	90	85	85	80	76	76	79	84	88	90	89	92	93	95	97	95	94	93	93	89	
20		92	92	92	92	92	92	98	99	94	89	85	98	90	97	97	102	83	89	96	74	66	79	76	82	
21		82	92	86	81	82	82	86	86	77	77	74	77	84	92	80	91	94	99	98	93	90	116	100	84	
22		85	90	93	94	88	85	80	74	73	72	69	72	72	84	83	79	74	82	89	94	94	75	85	90	
23	D	81	80	90	88	88	85	50	74	72	62	64	67	71	81	82	86	90	90	91	88	98	86	85	92	80
24		76	83	87	82	87	78	79	85	76	64	58	60	70	66	84	77	85	98	98	87	87	86	93	92	87
25		80	84	88	87	87	85	80	72	64	62	67	76	84	91	89	87	87	86	86	96	94	88	85	84	
26		82	79	84	89	87	86	82	75	70	67	68	76	82	86	85	86	88	89	88	91	91	88	88	83	
27		88	86	89	91	92	81	86	81	76	69	67	72	87	95	99	105	71	65	80	90	109	76	74	80	
28	D	68	61	88	97	88	86	86	54	35	47	56	66	78	79	84	91	91	91	92	135	81	48	57	76	
29	D	57	76	64	81	73	56	77	63	43	45	46	44	76	82	74	73	76	77	96	92	85	65	73	59	70
30		70	82	87	85	84	71	76	62	56	66	68	73	79	79	82	87	86	86	103	91	89	88	87	84	
All		85	86	86	86	86	86	82	80	72	65	64	67	74	80	86	88	90	88	92	94	91	88	90	88	
Quiet		90	89	88	88	87	86	81	74	68	65	70	76	83	86	88	88	89	91	92	94	94	94	93	85	
Dist.		76	81	84	82	84	74	81	67	51	52	53	64	76	83	85	89	84	81	90	100	91	73	76	79	

September 2007 East component Y in nT (Y = 1700 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		65	60	61	65	68	70	65	55	42	28	17	15	23	30	37	46	49	59	79	75	84	76	65	72	54
2	D	19	64	75	64	59	74	69	59	44	33	29	7	9	46	59	68	58	72	94	71	45	48	43	52	
3		48	67	61	58	58	62	63	64	58	49	39	34	38	38	44	85	68	53	51	53	56	61	50	62	
4		61	57	58	66	72	74	71	64	53	42	39	33	43	48	55	60	60	59	62	61	57	58	63	59	
5		43	73	77	70	73	60	57	53	55	39	39	32	35	43	44	49	53	54	58	70	69	58	59	54	
6		50	68	61	65	73	70	68	65	59	46	37	35	42	45	53	58	61	76	79	62	62	65	75	77	
7		79	57	51	60	68	71	69	68	64	54	42	33	32	47	52	54	59	78	58	54	56	54	58	57	
8		60	59	60	68	67	69	67	66	59	50	45	40	39	42	49	55	69	56	56	57	58	59	59	58	
9	Q	59	59	61	63	65	67	65	67	58	47	37	33	33	39	49	51	50	50	52	54	55	58	61	54	
10	Q	62	58	62	65	66	68	71	68	56	45	33	33	36	43	44	49	53	54	55	57	56	56	55	55	
11	Q	58	61	62	63	65	66	66	63	59	50	39	34	34	39	44	49	51	52	55	52	53	55	55	54	
12	Q	60	62	65	66	67	66	61	61	51	37	33	34	40	47	51	53	52	52	53	55	55	57	54		
13	Q	60	59	61	66	67	66	61	61	51	37	33	34	40	47	49	51	53	54	55	55	57	54	54		
14		64	67	68	69	71	65	64	51	44	31	33	41	44	39	43	55	54	55	57	58	57	58	55		
15		73	59	61	66	67	68	66	61	54	48	44	45	38	39	44	50	55	50	57	52	60	66	68		
16		59	46	57	57	57	58	53	50	44	32	32	38	45	50	52	51	56	51	53	55	57	58	55		
17		64	66	70	66	64	64	61	56	51	44	32	32	37	40	43	45	48	49	50	52	54	55	57		
18		73	46	57	57	38	33	60	60	57	44	42	43	39	43	49	51	57	52	63	70	74	49	73		
19		59	58	68	59	58	53	53	50	39	34	30	30	34	42	44	42	47	66	74	62	62	66	59		
20		60	60	59	59	61	67	67	65	56	46	42	34	36	42	46	50	51	53</td							

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October 2007 North component X in nT (X = 14800 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		85	85	76	86	90	89	78	68	60	56	57	61	68	77	82	80	81	81	83	86	93	95	90	85	79	
2		83	79	76	85	84	84	76	70	63	59	61	67	73	77	75	79	82	84	87	92	87	88	84	90	78	
3	D	85	84	87	79	91	81	71	54	51	58	65	67	80	83	70	75	78	82	91	87	92	93	98	73	78	
4		68	71	50	71	69	85	85	76	60	58	66	73	79	79	75	78	78	87	99	86	84	86	87	86	77	
5		84	83	84	82	90	81	70	65	60	65	67	72	78	69	73	76	79	79	84	93	86	87	87	87	78	
6		88	87	84	86	89	89	79	69	62	60	66	70	74	70	70	73	79	87	88	89	88	92	88	80		
7		85	85	88	89	88	86	77	67	60	55	59	67	74	77	75	79	82	84	85	85	86	87	88	88	80	
8	Q	87	87	87	89	91	90	83	73	64	57	58	66	76	84	88	89	90	92	93	91	90	91	92	89	83	
9	Q	87	88	90	93	94	93	84	67	55	52	56	65	74	80	86	88	89	89	90	93	93	93	92	83		
10	Q	91	91	92	92	94	97	95	85	74	64	63	65	71	75	81	84	87	89	90	90	90	90	91	85		
11	Q	91	92	93	94	96	97	95	86	75	67	65	70	79	87	91	92	93	94	95	94	95	91	93	96	88	
12		95	95	95	97	99	100	98	90	73	69	69	78	81	87	91	92	91	96	97	89	82	84	84	87	88	
13		86	88	90	91	94	93	89	81	75	70	68	72	81	86	90	91	93	95	96	95	95	93	96	96	88	
14		90	85	88	89	95	95	85	77	75	62	64	69	75	76	81	82	85	90	92	92	93	92	90	89	83	
15		87	81	88	90	91	98	88	73	71	75	80	86	91	91	91	92	91	92	91	92	91	90	89	87		
16		89	89	89	90	91	91	88	81	72	66	68	77	83	89	85	74	68	77	84	90	91	92	91	90	84	
17	Q	88	87	88	89	90	90	89	81	71	67	71	78	85	90	90	89	91	93	93	93	92	92	92	87		
18		93	93	92	88	86	93	97	92	73	76	81	66	80	83	85	91	92	94	82	85	79	69	89	84	85	
19	D	72	86	82	89	88	91	84	71	63	69	73	81	85	65	69	67	68	67	78	81	84	84	76	76	82	
20		79	73	95	76	75	85	71	68	60	54	60	67	80	85	83	84	74	73	83	82	83	86	85	83	77	
21		82	83	82	84	86	87	83	77	70	69	73	77	80	85	84	83	84	85	85	87	88	90	86	82	82	
22		83	83	86	88	88	87	85	78	73	75	78	84	92	95	92	91	90	80	84	76	87	73	75	74	83	
23		76	88	87	80	88	91	81	76	73	70	74	77	78	83	86	87	90	82	80	90	86	84	85	82		
24		84	83	86	89	91	90	87	79	70	67	69	75	78	85	86	87	84	83	87	90	90	90	88	91	84	
25	D	88	85	88	92	94	98	96	88	80	74	72	84	91	83	65	68	71	69	38	54	20	50	50	70	60	74
26	D	57	65	67	64	73	80	83	77	71	70	69	63	44	53	62	79	75	101	102	61	76	81	81	81	72	
27	D	70	76	70	71	84	89	84	79	69	64	46	38	57	69	71	70	77	92	64	66	72	81	85	81	83	73
28		73	76	79	82	82	85	80	73	68	66	65	63	79	84	79	82	97	71	68	70	79	81	80	79	77	
29		78	78	84	84	87	88	82	76	69	62	60	66	74	72	71	66	62	65	61	54	62	83	80	81	73	
30		76	72	59	82	82	79	76	71	72	65	58	64	69	74	78	75	78	76	78	85	78	79	82	78	74	
31		80	82	84	84	88	89	88	78	72	72	72	73	75	75	77	82	81	83	96	82	83	84	80	78	81	
All		83	83	83	85	88	89	84	76	68	64	66	71	77	80	80	82	83	83	84	84	84	85	87	85	81	
Quiet		89	89	90	91	93	93	89	78	68	61	63	69	77	83	87	88	90	91	92	92	92	92	92	85		
Dist.		74	79	79	79	86	88	84	74	67	63	63	70	73	71	64	74	77	73	68	70	78	83	76	75		

October 2007 East component Y in nT (Y = 1700 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		53	57	52	48	57	64	70	66	64	56	47	48	41	46	50	56	73	63	62	60	65	60	59	57	57
2		63	62	56	60	60	66	68	65	65	56	47	42	41	45	50	55	58	57	59	68	64	65	59	58	
3	D	70	66	66	56	53	63	47	49	48	50	37	38	36	38	88	50	54	54	71	72	68	57	61	65	70
4		56	56	49	61	56	63	68	66	54	53	47	41	54	49	55	91	59	62	61	68	63	61	61	59	
5		61	60	60	56	55	56	60	63	67	58	51	50	45	52	56	59	57	62	63	65	61	64	61	59	
6		60	61	62	59	60	64	70	68	65	52	40	34	40	47	51	57	57	58	59	59	60	58	64	57	
7		62	59	60	51	61	66	72	73	64	56	42	37	36	44	52	53	56	58	59	61	60	59	59	57	
8	Q	60	60	60	60	63	68	74	76	70	61	50	42	39	43	52	56	56	57	58	60	61	67	65	59	
9	Q	59	61	62	64	64	67	73	75	70	57	45	35	34	42	51	55	56	56	56	60	58	58	58	57	
10	Q	58	58	60	62	65	72	76	72	62	49	41	40	44	51	55	56	57	58	60	62	59	58	59	58	
11	Q	59	59	59	59	61	63	68	74	73	61	48	37	35	41	51	54	54	54	56	60	61	62	57	57	
12		59	59	60	61	61	65	66	63	52	41	30	34	43	50	49	47	50	53	57	71	90	82	61	57	
13		60	59	60	62	62	65	69	71	67	55	45	37	37	45	50	51	51	55	57	59	65	67	65	57	
14		65	61	63	64	64	70	69	64	57	31	37	34	29	38	49	52	54	55	58	60	62	66	65	56	
15		66	64	56	62	64	65	68	69	61	49	39	37	40	44	49	51	51	55	59	60	61	61	56	56	
16		60	60	60	61	64	68	71	65	55	44	39	38	43	46	46	59	57	59	60	60	61	61	61	56	
17	Q	61	60	57	60	62	65	68	71	66	56	45	38	39	46	52	52	54	56	58	59	60	61	60	57	
18		61	62	62	63	67	65	63	62	45	36	31	36	45	52	55	54	55	53	55	83	92	69	77	58	
19	D	67	70	59</td																						

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November 2007 North component X in nT (X = 14800 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.		78	81	84	86	88	88	85	77	69	71	71	77	84	84	82	79	77	78	87	84	86	88	87	84	81
2.	Q	84	86	86	88	90	91	91	84	80	77	75	76	83	84	85	86	88	88	89	88	86	86	85	85	85
3.	Q	84	84	85	85	87	88	88	81	76	79	80	80	82	80	84	83	83	83	81	83	84	85	85	84	83
4.		83	87	86	87	89	90	88	83	79	78	79	83	84	81	80	84	87	89	74	75	75	81	84	87	83
5.		86	84	86	87	87	87	87	87	84	80	79	79	79	84	86	84	85	85	88	89	89	89	89	85	85
6.	Q	88	88	89	90	90	91	92	91	86	83	83	83	84	84	88	89	91	91	92	92	90	89	91	91	89
7.	Q	89	91	91	91	92	92	90	89	85	81	80	82	87	89	90	90	90	90	91	90	90	92	90	89	89
8.		88	89	90	91	92	92	92	89	87	87	89	89	92	94	95	96	94	95	91	88	85	86	85	86	90
9.		88	92	89	89	92	93	92	90	85	82	87	90	93	92	89	87	86	86	91	93	93	90	89	92	90
10.		97	91	94	92	90	90	90	86	82	74	77	79	78	83	81	80	83	90	90	90	89	87	87	86	86
11.	Q	85	86	87	88	90	90	87	82	80	77	78	81	83	90	90	90	89	90	89	88	90	89	89	85	86
12.		88	87	87	88	90	91	88	82	77	78	82	89	89	93	95	94	95	96	95	86	92	92	90	90	82
13.		80	79	87	91	101	100	93	90	83	82	84	82	89	88	87	88	86	84	79	78	85	86	88	79	86
14.		85	78	81	83	82	81	81	78	73	68	79	86	76	81	81	62	68	82	88	86	89	93	86	81	80
15.		85	83	83	84	84	89	84	82	79	78	79	83	83	85	83	83	86	81	82	89	90	78	85	88	84
16.		84	84	84	87	87	84	80	79	78	82	83	85	84	84	80	80	86	85	85	84	91	84	80	92	84
17.		75	77	81	82	84	76	78	83	81	77	77	79	82	81	82	84	88	79	78	83	84	83	84	81	81
18.		84	85	84	86	82	83	84	79	77	79	81	84	85	85	84	84	87	87	87	87	86	87	86	84	84
19.		85	83	84	85	87	88	87	82	77	76	79	79	82	86	88	88	89	97	97	97	92	98	88	88	88
20.	D	103	91	87	87	90	92	96	94	98	86	82	76	77	81	29	28	20	31	43	30	23	28	60	72	67
21.	D	62	64	65	69	70	76	63	62	50	49	52	64	71	76	74	68	71	74	73	74	79	79	77	75	69
22.		76	77	76	77	79	82	78	73	72	74	80	84	85	84	73	64	61	72	59	59	66	54	49	72	
23.	D	89	72	74	73	71	81	78	60	63	66	60	69	75	63	71	76	77	76	86	73	80	82	79	77	74
24.	D	76	72	74	82	81	82	85	83	73	74	74	68	67	75	72	74	60	59	73	74	63	73	77	81	74
25.	D	82	81	78	81	79	89	84	67	76	73	76	71	81	76	81	80	75	70	88	87	79	97	84	79	80
All.		84	83	84	85	86	88	86	82	79	77	77	80	83	83	81	81	81	81	84	82	82	83	84	83	82
Quiet.		86	87	87	88	90	90	89	85	81	79	79	81	84	86	87	88	88	89	88	88	88	88	87	86	86
Dist.		82	76	78	78	78	84	81	73	72	69	69	70	74	74	65	65	61	62	73	68	65	72	75	77	72

November 2007 East component Y in nT (Y = 1700 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.		52	50	65	64	64	63	63	64	61	55	54	51	52	55	58	59	61	62	61	62	65	64	62	63	60
2.	Q	64	63	62	60	60	59	61	64	61	56	52	51	52	54	56	58	58	59	60	66	67	64	62	62	59
3.	Q	62	63	63	63	63	65	65	65	61	56	52	54	57	60	61	60	59	60	62	63	63	63	63	61	
4.		61	63	65	65	64	65	65	65	63	58	53	49	51	54	50	56	61	80	89	85	87	98	76	64	
5.		60	64	60	62	57	56	60	63	59	54	53	54	56	57	58	59	60	61	62	64	63	63	59	59	
6.	Q	63	62	62	62	63	63	63	66	67	61	54	51	52	55	57	58	59	61	60	61	62	62	61	61	60
7.	Q	61	61	63	63	63	62	64	66	67	62	53	49	51	55	57	58	59	60	61	61	64	62	63	63	60
8.		63	61	59	63	62	63	62	63	62	57	52	49	50	54	55	55	57	59	61	64	68	67	67	60	
9.		65	65	66	63	62	62	63	66	66	55	59	51	46	49	51	52	54	57	59	60	61	62	67	66	
10.		68	67	63	62	63	65	66	66	63	57	52	57	51	47	57	58	61	71	66	71	75	77	69	67	
11.	Q	65	63	64	63	63	64	65	66	53	50	52	53	56	58	60	60	61	63	65	67	70	62	61	61	
12.		61	64	63	64	64	64	65	65	62	54	50	48	52	58	60	60	59	57	65	74	63	65	66	70	
13.		78	80	87	80	71	70	64	62	61	48	43	48	45	49	53	55	53	54	55	58	68	76	71	80	
14.		56	74	60	71	66	67	67	67	63	60	53	43	47	57	49	71	68	55	61	64	72	70	69	63	
15.		64	69	73	71	66	66	64	62	59	55	50	50	54	53	56	53	66	69	62	62	75	79	72	61	
16.		68	67	66	62	61	62	62	60	57	52	52	51	47	57	58	61	71	66	71	75	77	69	67	63	
17.		87	71	67	68	68	65	67	68	63	59	56	56	60	60	63	61	61	67	73	65	65	68	66	63	
18.		62	67	65	66	64	66	65	65	62	57	56	58	59	60	60	60	66	67	67	65	63	65	64	63	
19.		68	60	59	61	62	64	64	64	62	58	55	59	63	65	68	61	61	67	71	74	72	75	71	65	
20.	D	64	65	63	62	61	63	64	66	63	56	57	56	57	56	58	61	61	61	68	70	74	73	70	65	
All.		66	65	64	64	63	63	64	62	58	54	52	53	58	59	66	69	67	70	73	72	72	70	66	64	
Quiet.		63	62	62	62	62	63	63	65	64	58	53	51	53	56	57	58	59	60	61	62	64	64	62	60	
Dist.		65	65	61	63	61	61	61	60	60	58	54	49	54	66	66	66	96	92	83	90	96	89	80	78	71

November 2007 Vertical component Z in nT (Z = 49700 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

Nurmijärvi Finland

December 2007 North component X in nT (X = 14800 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		85	98	88	90	94	96	95	93	87	87	81	86	89	93	92	91	91	91	91	89	87	86	87	90	
2		88	88	87	88	93	95	92	92	88	82	86	90	91	89	88	89	87	88	88	87	86	87	88	88	
3	Q	87	87	88	90	91	91	89	87	84	83	84	85	90	93	93	92	91	91	91	91	91	91	91	90	
4	Q	90	90	92	94	94	96	94	93	92	91	89	90	90	88	91	95	96	93	92	91	90	88	85	91	
5		83	79	87	89	89	87	87	86	86	88	87	89	93	91	89	87	88	91	91	90	87	86	87	88	
6		87	87	88	87	86	88	88	88	87	88	89	91	95	95	94	94	93	91	90	92	89	83	84	84	
7	Q	84	87	88	89	93	92	90	88	86	85	87	90	93	94	93	92	92	91	91	89	89	87	88	90	
8	Q	88	88	90	91	91	90	89	88	86	84	85	89	94	95	95	94	94	94	95	95	94	92	92	88	
9		87	88	90	90	94	93	92	88	85	85	86	91	95	93	88	78	78	79	79	79	86	87	87	87	
10		85	85	86	87	88	93	90	88	87	85	83	83	87	93	94	92	97	100	99	94	86	76	42	61	
11	D	75	76	73	80	83	85	89	83	80	73	79	85	75	76	80	86	74	87	80	75	68	83	78	77	78
12		78	69	73	77	81	82	75	81	81	75	70	74	79	83	84	84	84	84	82	80	89	82	76	79	
13		88	73	77	76	86	85	82	81	80	79	78	78	78	84	85	84	83	83	82	98	81	83	83	82	
14		81	80	82	83	85	87	87	87	87	82	74	84	85	87	88	88	86	86	80	87	85	83	86	84	
15		83	81	82	83	85	87	89	88	86	83	81	83	85	86	85	85	87	87	87	87	87	86	86	85	
16		85	84	85	85	86	87	89	86	85	82	83	87	90	91	88	86	86	85	85	86	84	85	86	86	
17	D	83	84	87	95	98	107	108	101	88	72	71	76	71	72	63	52	55	56	65	63	76	80	70	91	79
18	D	80	68	68	68	83	80	70	69	71	73	72	64	55	69	60	73	72	63	75	91	81	90	76	74	73
19		D	74	75	87	90	81	82	88	85	78	77	78	80	82	77	86	63	54	78	75	79	75	86	78	70
20		D	65	68	70	75	84	86	74	79	80	77	79	70	84	83	78	65	73	75	80	78	91	83	80	81
21	D	80	82	83	82	84	86	83	79	81	82	80	78	74	76	82	84	83	80	70	76	78	80	80	91	
22			79	82	82	83	84	87	85	85	83	79	75	66	72	81	81	85	88	82	83	80	79	88	84	
23			82	84	83	84	86	89	85	83	81	79	80	82	84	86	83	81	85	86	86	83	79	83	83	
24	Q	82	84	84	83	84	86	89	85	83	81	79	80	82	84	86	83	82	88	87	87	88	86	84	83	
25			83	83	86	86	88	90	89	87	88	88	88	87	87	88	88	87	88	86	84	83	83	82	86	
26			83	83	86	86	88	89	90	90	91	90	89	94	94	91	92	91	91	92	92	91	91	90	91	
27			88	89	89	86	90	92	90	96	86	87	85	83	87	86	88	87	91	93	90	93	88	96	87	
28			86	82	90	89	89	86	87	86	85	84	84	85	89	89	88	88	86	86	87	84	84	86	86	
29			83	84	85	86	88	88	87	86	85	82	86	89	92	90	99	89	88	89	87	85	83	90	87	
30			80	83	85	87	93	92	92	93	93	91	93	95	97	98	96	92	86	85	89	89	88	87	86	
31			87	87	90	91	91	92	91	91	92	96	93	94	101	100	96	94	93	87	90	85	88	88	82	91
All		83	82	84	85	88	89	88	87	85	83	82	84	86	87	87	84	85	86	86	85	86	83	83	85	
Quiet		86	87	89	90	91	90	91	90	89	87	86	88	91	91	91	92	92	91	90	89	88	87	89	89	
Dist.		75	74	77	81	86	88	86	83	80	74	76	75	73	75	73	64	66	72	75	77	78	85	76	77	

December 2007 East component Y in nT ($Y = 1700$ 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		58	53	66	65	65	64	63	63	64	59	54	51	53	58	60	63	63	64	65	66	67	67	65	62		
2		64	63	64	64	64	65	65	63	60	56	54	55	60	61	62	63	64	64	65	67	66	65	64	63		
3	Q	62	62	62	63	63	64	65	66	64	61	59	57	58	60	62	64	64	64	63	63	63	62	62	62		
4	Q	62	61	62	63	62	63	64	64	60	55	52	54	56	56	59	62	63	63	65	66	67	61	61	62		
5		65	71	68	66	66	65	64	63	59	58	54	53	56	59	59	59	62	63	65	66	65	64	63	62		
6		63	62	62	64	63	66	67	64	63	58	56	55	58	61	62	64	64	64	65	68	73	74	73	68	64	
7	Q	65	65	65	63	67	69	68	67	63	59	56	55	58	60	62	63	64	64	65	66	68	66	65	63	64	
8	Q	64	63	63	62	63	64	65	65	63	59	54	54	57	59	61	62	62	64	64	65	66	69	70	68	63	
9		67	61	63	64	65	64	65	65	62	58	55	54	56	58	56	56	54	60	63	93	90	77	73	67	64	
10		65	63	64	65	62	63	66	67	63	60	55	48	53	59	58	58	60	64	86	95	164	116	69	69		
11	D	71	70	71	68	63	64	65	72	65	66	63	59	53	64	67	63	88	85	83	81	81	92	76	77	71	
12		73	71	60	52	74	73	76	72	65	64	68	60	61	66	65	65	65	66	70	72	97	90	78	69		
13		88	78	70	64	65	57	67	69	65	63	60	58	61	60	64	64	64	64	79	67	69	69	69	67		
14		69	68	67	69	68	65	67	68	65	65	63	61	57	61	64	65	64	64	64	71	69	73	71	69	66	
15		69	66	67	67	67	66	69	70	67	63	61	59	58	62	64	65	73	68	66	68	67	69	68	66		
16		65	67	67	68	66	65	67	67	64	59	58	57	58	59	61	65	62	63	64	67	71	62	83	72	65	
17	D	66	65	64	62	63	58	57	55	63	54	54	47	46	58	61	94	118	81	84	104	86	80	74	66	70	
18	D	103	80	78	64	58	51	60	49	48	57	57	63	70	64	64	91	90	95	93	85	72	65	92	86	72	
19																										(-1700)	
20	D	64	51	60	62	60	55	65	58	64	58	61	59	58	70	69	71	97	87	102	95	80	81	87	87	71	
21	D	70	55	64	60	66	64	66	65	66	65	69	65	66	66	74	106	106	69	78	79	80	75	76	71	67	70
22		66	64	61	58	63	67	70	72	69	63	59	58	62	69	66	81	91	97	82	87	68	78	77	70	71	
23		71	73	64	65	66	66	69	67	68	63	70	69	66	74	78	77	69	69	77	82	81	78	70	70		
24		67	66	65	64	62	64	67	71	69	65	60	59	62	65	65	68	66	66	67	68	79	87	75	69	67	
25	Q	66	66	65	64	66	66	67	67	65	63	60	61	62	66	67	68	67	66	67	68	69	73	72	71	66	
26		70	66	65	67	68	67	67	66	64	63	62	58	57	59	59	58	61	62	65	67	68	68	69	70	64	
27		70	68	70	68	65	62	64	64	61	57	57	61	64	64	63	60	63	65	69	77	71	68	65	65		
28		68	49	64	70	68	63	66	67	67	66	64	60	60	64	65	66	67	66	71	72	69	68	66	66		
29		69	68	66	66	67	67	66	64	63	64	61	58	62	65	66	65	64	66	67	70	70	77	74	66		
30		68	67	67	63	64	65	66	65	64	63	59	61	60	60	63	62	63	66	67	68	70	70	68	67	65	
31		66	66	67	66	67	66	65	63	61	60	62	58	58	60	60	61	69	64	74	79	75	70	66			
All		68	65	65	64	65	64	66	66	64	61	59	58	59	61	63	67	69	69	70	73	72	74	76	71	66	
Quiet		64	63	63	63	64	65	66	66	64	60	57	56	58	60	61	63	64	64	65	65	66	67	66	63		
Dist.		75	64	67	63	62	58	63	60	61	59	63	64	67	85	92	85	88	79	79	79	80	77	71			

December 2007 Vertical component Z in nT ($Z = 49700$ nT + tabular values)

Day	Char	Performance Metrics (A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z)																									
		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		85	74	81	85	86	85	85	85	84	85	88	88	88	89	89	89	89	89	89	89	89	89	89	88	87	
2		87	88	88	88	88	88	88	88	86	84	83	85	86	89	90	89	89	89	90	90	90	90	88	89	88	
3	Q	88	88	88	88	88	88	88	87	86	85	85	87	90	90	89	89	89	88	88	87	87	87	87	87	88	
4	Q	86	86	87	87	86	86	85	85	84	85	86	86	88	89	89	90	90	88	89	88	88	88	88	87	87	
5		85	85	88	88	88	87	88	87	85	84	85	88	90	90	91	91	91	90	90	89	88	88	88	88		
6		88	88	88	88	89	89	88	88	87	87	88	90	90	90	89	89	88	89	89	90	90	88	88	89	88	
7	Q	89	89	88	87	86	86	88	87	87	88	89	89	89	89	89	89	89	89	89	89	89	89	88	88	88	
8	Q	88	88	87	87	87	87	87	87	87	87	86	87	87	87	87	87	87	87	88	87	87	87	86	85	87	
9		86	86	85	86	86	86	87	86	86	86	87	87	88	89	88	90	94	97	101	104	90	92	90	89	89	
10		88	88	88	87	87	86	86	85	85	84	85	88	89	89	88	88	88	89	89	98	99	87	78	60	87	
11	D	61	83	90	91	90	92	90	92	89	91	93	92	96	101	102	109	115	101	95	98	75	56	83	84	91	
12		75	82	76	68	87	90	91	96	95	97	98	99	98	98	95	95	95	96	98	102	104	92	92	92		
13		89	87	92	95	92	90	93	94	93	93	94	95	96	96	95	95	96	98	95	91	94	93	92	94		
14		92	91	91	91	91	92	91	90	89	88	91	93	94	94	93	93	94	94	98	98	94	94	93	91	93	
15		90	91	92	92	92	92	92	91	90	90	90	93	94	94	94	95	92	92	92	92	92	91	90	92		
16		88	89	89	90	90	90	91	91	91	90	89	88	90	92	92	93	94	95	96	96	96	86	79	90	91	
17	D	92	92	91	91	89	86	84	82	82	87	91	96	102	130	108	114	123	140	117	110	108	96	83	76	42	97
18	D	40	60	73	80	86	84	96	96	96	99	105	119	112	115	125	103	112	101	91	73	54	56	67	89	(-4970)	
19		D	83	85	89	88	87	88	91	89	92	93	96	97	99	103	100	111	124	115	91	93	92	82	76	76	93
20	D	76	78	86	94	93	91	91	95	93	94	95	97	100	99	100	108	102	107	102	85	75	86	90	92	93	
21		93	93	92	92	92	92	93	93	94	94	94	96	100	104	100	102	98	99	96	71	88	87	73	93		
22		74	83	87	91	92	93	92	94	93	93	95	98	102	100	100	97	98	95	97	97	92	80	82	89	92	
23		92	92	93	92	93	93	93	94	92	91	95	97	96	95	96	96	96	95	96	94	96	91	92	93	94	
24	Q	92	92	92	92	93	93	93	94	94	92	91	92	95	97	96	95	96	96	96	95	96	94	93	92	93	
25		91	92	92	92	93	93	92	91	91	91	90	91	94	95	94	94	94	93	93	94	95	94	94	93		
26		93	92	90	90	91	91	90	89	89	90	89	88	90	92	92	93	93	93	93	93	92	91	89	91		
27		90	89	89	89	90	88	89	88	89	89	89	89	90	94	94	93	92	92	94	93	94	92	84	88	90	
28		89	85	87	88	88	89	91	92	92	91	91	92	94	94	93	92	92	93	93	91	91	92	91	91		
29		92	92	92	92	91	91	91	90	90	92	91	93	95	93	93	92	92	92	92	93	92	93	89	80	91	
30		87	90	89	89	90	90	91	90	90	90	90	89	90	90	90	93	95	93	93	92	92	91	91	91		
31		91	91	90	89	89	89	89	87	87	88	89	91	91	90	90	91	92	96	95	98	91	84	82	86	90	
All		85	86	88	89	89	89	90	89	89	90	90	92	95	94	94	96	96	96	94	93	90	87	86	85	91	
Quiet		89	89	89	88	88	88	87	87	87	87	88	89	90	90	90	90	89	89	89	89	88	89	88	89		
Dist		70	79	76	89	88	88	90	91	91	93	96	99	109	105	106	115	117	110	100	95	83	72	76	72	92	

12 Hourly Means minus Monthly Means

12.1 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	0	3	4	5	2	-1	-4	-4	-3	-1	-1	-1	0	0	1	3	-1	-1	1	0	-1	14881
February	0	0	0	1	3	3	3	2	-1	-4	-5	-5	-1	1	2	1	-1	0	0	1	1	0	0	-2	14883
March	2	4	3	4	6	5	1	-5	-10	-15	-15	-11	-6	0	1	1	2	3	4	5	5	6	6	3	14883
April	4	3	3	4	4	1	-5	-13	-20	-22	-21	-13	-5	1	5	8	8	9	10	10	7	7	7	7	14883
May	1	4	4	3	-1	-5	-12	-20	-24	-23	-19	-11	1	6	10	12	14	13	13	13	6	5	4	3	14888
June	4	4	4	3	1	-4	-10	-17	-24	-25	-23	-14	-5	1	8	10	13	16	16	13	11	7	6	6	14890
July	2	5	6	5	1	-5	-10	-16	-21	-25	-24	-18	-9	1	9	12	11	13	16	14	12	9	7	6	14887
August	5	4	2	3	0	-4	-9	-14	-19	-22	-18	-12	-4	5	8	9	9	10	9	11	9	7	6	4	14887
September	1	2	3	3	3	-1	-3	-11	-19	-19	-16	-10	-3	3	4	6	5	6	9	11	8	5	7	5	14883
October	2	3	3	5	7	9	4	-5	-13	-16	-15	-10	-4	-1	-1	1	3	3	4	3	3	5	6	4	14881
November	1	0	2	3	4	5	3	0	-4	-6	-5	-2	0	1	-1	-2	-2	-1	1	0	1	1	1	1	14882
December	-2	-3	-1	0	3	4	3	1	0	-2	-3	-1	1	2	1	-1	0	0	1	1	0	1	-3	-2	14885
Winter	0	-1	0	1	3	4	3	1	-1	-4	-4	-3	0	1	0	-1	-1	0	1	0	0	1	0	-1	14883
Equinox	2	3	3	4	5	3	-1	-8	-15	-18	-17	-11	-4	1	3	4	4	5	6	7	7	6	6	5	14883
Summer	3	4	4	4	0	-4	-10	-17	-22	-24	-21	-14	-4	3	9	11	12	13	14	13	9	7	6	5	14888
Year	2	2	2	3	3	1	-3	-8	-13	-15	-14	-9	-3	2	4	5	5	6	7	7	5	5	4	3	14884

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	0	-1	-4	-4	-3	-2	-1	-2	-4	-7	-9	-9	-7	-3	-3	1	6	14	9	10	10	6	4	1738
February	6	5	4	1	1	0	1	2	1	-3	-8	-12	-13	-10	-7	-4	0	0	2	5	7	7	8	9	1740
March	0	4	7	5	6	5	9	11	7	-1	-12	-21	-21	-18	-10	-4	-2	1	5	8	8	6	5	3	1741
April	6	4	7	10	11	13	16	15	8	-3	-15	-26	-29	-22	-15	-8	-2	2	3	3	6	5	4	7	1744
May	4	8	12	16	18	20	18	13	1	-11	-22	-28	-28	-22	-15	-9	-3	-1	2	5	2	6	6	4	1746
June	5	7	13	18	23	23	23	19	9	-4	-18	-27	-29	-25	-19	-13	-7	-4	-1	0	0	3	4	1748	
July	8	13	16	16	19	19	19	17	9	-2	-14	-24	-26	-23	-18	-11	-7	-5	-5	-3	-2	-2	1	5	1751
August	5	6	11	15	18	19	18	14	6	-5	-18	-26	-28	-23	-16	-9	-4	1	0	1	0	5	5	4	1754
September	1	4	6	7	8	8	9	8	3	-7	-15	-19	-20	-16	-11	-4	0	0	1	6	12	9	5	5	1757
October	1	-1	0	-1	0	3	6	8	4	-4	-13	-18	-18	-12	-4	-3	3	6	9	8	9	8	6	4	1760
November	2	1	0	0	-1	-1	-1	0	-1	-6	-10	-12	-11	-6	-4	2	5	3	6	9	9	8	6	2	1764
December	2	-1	-1	-2	-1	-2	0	-1	-3	-5	-7	-9	-7	-5	-3	1	3	3	4	7	6	8	10	5	1766
Winter	3	1	0	-1	-1	-2	-1	0	-1	-4	-8	-10	-10	-7	-4	-1	2	3	7	8	8	8	7	5	1752
Equinox	2	3	5	5	6	7	10	10	5	-4	-14	-21	-22	-17	-10	-5	0	2	4	6	9	7	5	5	1750
Summer	6	9	13	16	19	20	20	15	6	-5	-18	-26	-28	-23	-17	-11	-5	-2	-1	0	0	2	4	4	1750
Year	3	4	6	7	8	9	10	9	3	-4	-13	-19	-20	-16	-10	-5	-1	1	3	5	5	6	5	5	1751

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	-9	-10	-7	-7	-6	-3	-2	-1	-1	1	2	3	6	8	12	12	9	12	7	4	1	-7	-13	-11	49764
February	-8	-5	-4	-2	-2	-2	-2	-3	-3	-2	0	3	5	6	7	8	9	10	6	0	-3	-6	-12	49764	
March	-12	-11	-9	-7	-4	-2	-1	-1	-3	-5	-3	0	5	9	12	11	10	10	8	4	2	-2	-4	-7	49766
April	-17	-13	-10	-6	-3	-2	0	0	-1	-3	-4	-2	5	11	13	14	16	15	10	5	1	-3	-11	-15	49766
May	-9	-4	-1	0	0	1	1	-1	-4	-8	-8	-5	2	6	10	12	14	12	10	2	-5	-7	-9	-9	49769
June	-3	-3	-3	-2	-3	-2	-3	-5	-8	-9	-5	0	4	7	9	10	9	8	6	3	-1	-4	-4	49773	
July	-9	-7	-4	-2	-2	-3	-4	-5	-6	-6	-3	3	7	10	12	12	10	5	3	2	0	-4	-6	49774	
August	-7	-7	-4	-1	0	0	-1	-3	-5	-6	-5	0	7	10	12	11	9	5	3	0	-2	-7	-6	49777	
September	-14	-11	-7	-4	-2	1	2	0	1	0	0	2	5	9	9	11	12	11	8	2	-3	-5	-12	-13	49778
October	-7	-6	-5	-4	-3	-1	1	1	-1	-3	-2	1	4	8	10	8	9	7	4	1	-4	-6	-6	49785	
November	-9	-6	-4	-3	-2	-2	-1	-1	-2	-2	-1	1	3	8	6	10	9	8	8	4	0	-4	-8	-10	49788
December	-6	-4	-3	-2	-1	-2	-1	-1	-1	-1	0	1	4	4	4	5	6	5	4	3	-1	-4	-4	-6	49791
Winter	-8	-6	-4	-4	-3	-2	-1	-1	-2	-1	0	1	4	6	7	8	8	8	7	4	0	-4	-8	-10	49777
Equinox	-12	-10	-8	-5	-3	-1	0	0	-1	-3	-2	0	5	9	11	11	12	11	7	3	-1	-4	-8	-10	49774
Summer	-7	-5	-3	-1	-1	-1	-1	-2	-4	-7	-7	-4	1	6	9	11	12	10	7	4	0	-3	-6	-6	49773
Year	-9	-7	-5	-3	-2	-1	-1	-2	-4	-3	-1	3	7	9	10	10	10	7	4	0	-4	-7	-9	-9	49774

12.2 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	1	2	2	2	2	0	-2	-5	-6	-6	-5	-2	0	2	2	1	2	3	2	2	3	1	-1	14884
February	0	1	1	2	2	2	1	-1	-6	-9	-9	-5	-1	3	3	2	2	1	2	3	3	2	3	0	14886
March	3	3	4	5	6	6	3	-5	-14	-19	-18	-12	-5	1	5	3	3	5	6	3	4	4	5	5	14885
April	3	3	2	2	2	-1	-5	-12	-18	-23	-22	-15	-7	-1	4	6	7	8	10	10	11	11	11	12	14887
May	3	3	4	3	1	-5	-11	-19	-23	-24	-20	-11	0	6	8	8	8	9	12	12	11	9	8	8	14888
June	3	4	4	4	2	-1	-8	-17	-26	-27	-25	-14	-3	3	4	7	9	12	14	15	13	10	8	7	14889
July	5	5	6	6	3	-3	-9	-14	-20	-23	-25	-18	-9	-2	5	7	9	11	13	13	11	9	9	9	14888
August	4	4	3	2	2	0	-5	-11	-17	-21	-20	-12	-5	-1	4	6	8	9	9	10	10	9	7	6	14888
September	5	3	3	2	2	1	-4	-11	-18	-20	-15	-9	-2	1	2	3	3	6	7	9	9	9	9	7	14885
October	4	4	5	6	8	8	4	-7	-17	-24	-22	-16	-8	-2	2	3	5	6	7	7	7	6	7	7	14885
November	-1	1	1	2	3	4	3	-1	-5	-7	-7	-6	-3	0	1	1	2	2	2	2	2	2	2	0	14886
December	-3	-2	-1	0	2	2	1	0	-2	-3	-3	-1	1	2	2	2	3	2	1	0	-1	-3	-3	14889	
Winter	-1	0	1	1	2	2	1	-1	-4	-6	-7	-4	-1	1	2	2	2	2	2	2	2	1	-1	14887	
Equinox	4	3	3	4	4	4	0	-9	-17	-22	-19	-13	-6	0	3	4	4	6	7	7	8	8	8	8	14886
Summer	4	4	4	4	2	-2	-8	-15	-21	-24	-22	-14	-4	2	5	7	9	10	12	12	11	9	8	8	14888
Year	2	2	3	3	3	1	-2	-8	-14	-17	-16	-10	-4	1	4	4	5	6	7	7	6	6	5	14887	

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	1	2	3	4	3	-2	-5	-8	-9	-8	-4	-2	0	0	0	1	4	7	8	6	1736
February	1	2	3	3	3	4	6	7	5	0	-7	-11	-11	-8	-4	-3	-3	-2	-2	0	2	5	7	6	1738
March	1	2	3	4	5	8	13	15	10	0	-11	-19	-21	-18	-9	-3	-3	-2	2	5	6	5	5	3	1739
April	1	5	7	9	13	17	21	20	13	1	-12	-23	-26	-21	-15	-8	-3	-1	-2	-1	2	2	2	1742	
May	6	7	12	16	17	19	19	13	1	-10	-18	-24	-24	-17	-10	-6	-4	-3	-2	-1	1	2	3	4	1744
June	4	7	13	19	23	26	28	22	9	-7	-21	-30	-29	-24	-15	-8	-2	-1	-2	-3	-3	-3	-1	0	1748
July	6	8	11	15	20	21	21	18	11	1	-13	-20	-23	-20	-15	-11	-7	-6	-6	-6	-4	-3	0	2	1751
August	4	5	8	13	16	21	23	19	11	-1	-14	-24	-26	-22	-14	-8	-3	-3	-2	-1	-2	-1	1	1	1754
September	6	6	8	10	11	13	13	11	4	-6	-18	-22	-20	-14	-7	-2	-2	-3	0	0	1	4	4	4	1754
October	2	2	2	3	5	8	14	17	12	2	-10	-19	-20	-15	-7	-3	-2	-1	-1	2	2	2	4	3	1758
November	2	2	2	2	2	2	3	5	4	-2	-8	-10	-8	-5	-3	-2	-1	0	0	1	4	4	4	2	1760
December	1	0	0	0	1	2	2	3	1	-3	-6	-7	-6	-4	-2	-1	1	1	2	2	3	4	4	3	1763
Winter	1	1	1	1	2	3	4	5	3	-2	-7	-9	-8	-6	-3	-2	-1	0	0	1	3	5	6	4	1749
Equinox	2	4	5	6	8	11	15	16	10	-1	-13	-21	-22	-17	-9	-4	-3	-2	0	1	2	3	4	3	1748
Summer	5	7	11	16	19	22	22	18	8	-4	-17	-24	-25	-21	-14	-8	-4	-3	-3	-3	-2	-1	1	2	1749
Year	3	4	6	8	10	12	14	13	7	-2	-12	-18	-19	-14	-9	-5	-3	-2	-1	0	1	2	3	3	1749

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	0	0	0	0	0	0	0	-1	-2	-2	-1	0	1	2	2	2	2	2	1	1	1	1	-1	-3	-3	49763
February	-1	-2	-1	0	0	0	0	-1	-3	-3	-2	-1	1	2	2	1	2	2	2	2	1	-1	-1	-1	49765	
March	-1	0	0	0	0	1	0	-1	-4	-7	-7	-4	-1	3	5	4	3	2	3	4	3	0	-1	-2	49766	
April	-1	1	2	2	2	3	2	-1	-3	-7	-9	-8	-4	0	2	5	6	4	2	2	2	0	-1	-1	49767	
May	2	2	2	3	3	4	3	-1	-7	-11	-11	-8	-5	-2	1	3	4	4	4	3	3	2	2	49767		
June	1	1	1	1	0	1	2	2	-3	-8	-11	-8	-1	1	3	4	4	4	4	3	2	-1	-2	49773		
July	3	4	4	4	2	0	-2	-4	-5	-6	-9	-8	-5	-1	1	2	3	4	4	3	2	2	2	2	49774	
August	1	2	3	3	2	1	1	-1	-3	-5	-7	-8	-3	1	3	3	3	2	1	1	1	0	0	-1	49777	
September	0	1	1	1	1	0	-1	-3	-5	-6	-5	-3	0	4	4	3	2	2	2	1	1	1	1	0	49781	
October	-1	0	0	0	0	1	3	2	-1	-5	-6	-4	-1	1	4	4	2	1	1	1	1	0	0	-1	-2	49784
November	0	0	0	0	-1	-1	-1	-3	-4	-3	-2	0	2	2	2	2	1	2	2	2	1	0	-1	-1	49785	
December	0	0	0	0	-1	-1	-1	-2	-1	-1	-1	1	1	1	1	1	1	1	1	1	1	1	0	-1	-1	49789
Winter	0	-1	0	0	0	0	-1	-1	-2	-3	-2	-1	1	2	2	1	2	2	1	2	1	0	-1	-1	49775	
Equinox	0	0	1	1	1	1	1	-1	-3	-6	-7	-5	-1	3	4	3	3	2	2	1	0	-1	-1	49775		
Summer	2	2	2	3	2	2	1	-1	-4	-8	-10	-8	-3	0	2	3	4	3	3	2	1	0	0	0	49773	
Year	0	1	1	1	1	1	1	-1	-3	-5	-6	-5	-1	1	2	3	3	2	2	2	0	0	-1	49774		

12.3 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	5	5	0	2	6	7	13	7	1	-6	-2	-4	-6	0	-10	-3	-4	6	8	-11	-7	-3	2	-7	14875
February	2	2	-1	-1	7	1	3	2	3	2	-3	-7	-1	3	4	4	2	-4	-4	2	7	0	-6	-17	14877
March	-2	6	4	1	8	3	-5	-10	-17	-21	-10	-6	-3	7	2	3	3	8	7	5	3	7	8	-2	14879
April	-3	-2	3	1	4	-9	-16	-22	-26	-20	-21	-5	0	5	12	20	8	13	20	21	16	3	2	-3	14875
May	-15	4	8	9	0	-4	-20	-35	-33	-17	-12	-2	-2	10	27	38	28	18	14	10	-11	-4	-1	-1	14884
June	4	-1	4	6	5	-6	-16	-23	-25	-21	-25	-14	-5	-1	15	6	13	19	20	15	14	5	6	5	14893
July	6	5	12	8	3	2	-4	-10	-15	-30	-33	-26	-13	7	14	18	10	10	21	8	5	3	0	0	14888
August	7	5	-3	6	2	-7	-19	-20	-20	-22	-14	-13	-6	16	13	8	10	18	13	14	12	3	1	-5	14888
September	-1	4	7	4	7	-3	4	-11	-26	-26	-25	-13	-1	6	8	11	7	3	13	23	14	-5	-1	2	14877
October	0	5	4	5	12	13	9	-1	-8	-11	-11	-4	-2	-4	-10	-1	2	2	-2	-6	-5	3	8	2	14875
November	10	3	5	6	6	12	9	1	-1	-3	-4	-3	1	1	-7	-7	-12	-11	0	-5	-8	-1	3	4	14872
December	-2	-3	0	4	9	11	9	6	3	-3	-1	-2	-4	-2	-4	-13	-11	-5	-2	0	1	8	-1	1	14877
Winter	4	2	1	3	7	8	8	4	2	-2	-2	-4	-3	1	-4	-5	-6	-4	1	-3	-2	1	0	-4	14876
Equinox	-1	3	5	3	7	1	-2	-11	-19	-19	-17	-7	-1	3	3	8	5	7	10	11	7	2	4	0	14876
Summer	0	3	5	7	2	-4	-15	-22	-23	-23	-21	-14	-6	8	17	17	15	16	17	12	5	2	1	0	14888
Year	1	3	4	4	6	2	-3	-9	-14	-15	-13	-9	-3	4	5	6	5	6	9	6	4	2	2	-2	14880

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	-1	-2	-16	-15	-15	-17	-12	-11	-10	-13	-12	-5	-17	-4	-1	-6	13	59	11	22	29	23	3	1743
February	17	9	6	-6	-2	-7	-11	-9	-7	-9	-12	-12	-14	-11	-10	-3	10	15	6	11	17	6	9	6	1743
March	0	6	19	8	8	-2	3	5	-1	-7	-16	-27	-22	-25	-10	8	0	5	8	17	11	4	5	3	1743
April	18	7	13	15	10	5	8	8	0	-10	-23	-38	-40	-30	-21	-14	-6	-2	12	14	15	12	9	38	1749
May	13	14	18	21	20	14	9	-8	-19	-29	-34	-35	-34	-25	-24	-8	-4	4	9	-7	21	20	8	1752	
June	7	4	12	19	24	24	21	14	7	-3	-19	-28	-34	-30	-24	-19	-13	-5	3	4	4	8	14	11	1747
July	16	28	25	18	23	15	8	15	9	-6	-20	-33	-39	-34	-25	-11	-5	-4	-1	2	6	-1	5	9	1751
August	7	9	7	15	17	17	14	7	-1	-10	-21	-26	-30	-29	-23	-19	-6	18	4	4	5	23	13	7	1754
September	-17	2	5	0	0	-3	3	5	4	-6	-14	-15	-23	-18	-13	0	13	5	-2	13	33	21	0	8	1759
October	2	0	-2	-7	-5	-2	-3	-2	-4	-8	-19	-23	-25	-20	-3	-9	12	28	29	21	17	10	6	5	1764
November	-5	-5	-9	-7	-9	-9	-8	-10	-10	-12	-16	-21	-16	-4	-4	-26	22	13	20	26	19	10	8	1	1770
December	4	-7	-3	-8	-9	-13	-8	-11	-10	-11	-12	-8	-7	-4	14	21	14	17	18	8	8	9	6	1771	
Winter	4	-1	-2	-9	-9	-11	-11	-10	-10	-11	-13	-14	-11	-10	-6	9	12	14	25	17	16	13	12	4	1757
Equinox	1	4	9	4	3	0	3	4	0	-8	-18	-26	-27	-23	-12	-4	4	9	12	16	19	12	5	13	1754
Summer	11	14	15	18	21	19	14	11	2	-9	-22	-30	-34	-32	-24	-18	-8	1	2	5	2	13	13	9	1751
Year	5	5	7	4	5	2	2	-3	-9	-18	-23	-24	-21	-14	-4	3	8	13	13	12	13	10	9	1754	

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	-28	-36	-25	-21	-18	-9	-4	-1	2	5	7	12	20	17	33	43	23	43	20	8	2	-28	-38	-27	49761
February	-22	-15	-10	-3	0	0	2	3	1	2	5	9	14	18	16	17	18	23	25	8	-14	-26	-22	-46	49760
March	-38	-43	-42	-32	-18	-9	1	4	5	8	15	16	24	25	29	25	14	12	7	2	4	2	-1	-10	49760
April	-49	-37	-28	-16	-9	-9	-2	2	4	11	13	17	26	37	39	35	38	33	22	4	-2	-18	-53	-59	49760
May	-47	-25	-6	-1	1	1	1	2	-3	-3	2	6	16	26	38	41	34	30	6	-22	-30	-29	-23	49765	
June	-7	-9	-6	-3	-3	-4	-4	-5	-7	-9	-8	0	4	8	14	15	14	15	13	5	-4	-15	-18	49771	
July	-21	-23	-7	-2	-4	-9	-11	-10	-9	-9	-5	1	10	23	28	33	36	24	0	-3	1	-5	-18	-19	49776
August	-10	-13	-16	-8	-4	-1	-1	1	1	-1	-3	0	5	18	21	29	30	24	9	6	-8	-17	-36	-27	49773
September	-27	-29	-22	-15	-10	-2	3	2	11	11	12	18	17	25	24	26	29	28	15	-6	-14	-19	-44	-34	49772
October	-15	-7	-5	-3	-2	-3	-1	-2	-2	-3	0	3	9	22	28	22	27	20	6	-7	-19	-24	-23	-19	49787
November	-33	-18	-13	-11	-7	-5	-4	-3	-2	-1	3	4	8	31	21	38	27	24	14	1	-4	-16	-29	-25	49794
December	-22	-13	-7	-4	-4	-5	-3	-2	-1	1	3	6	16	12	14	22	24	18	7	2	-10	-20	-16	-20	49792
Winter	-26	-21	-14	-10	-7	-5	-2	-1	0	2	5	8	15	19	21	30	23	27	16	5	-7	-23	-26	-30	49777
Equinox	-32	-29	-24	-17	-10	-6	0	2	4	7	10	13	19	27	30	27	23	13	-2	-8	-15	-30	-31	49770	
Summer	-21	-17	-9	-4	-2	-3	-4	-4	-4	-6	-5	1	7	16	22	29	30	24	13	5	-6	-14	-25	-22	49771
Year	-27	-22	-16	-10	-6	-5	-2	-1	0	1	3	8	14	21	24	28	27	25	14	3	-7	-17	-27	-27	49773

13 Monthly and Annual Means

All days

	Z	H	D	F	X	Y	I
January	49764	14982	6° 39.8'	51970	14881	1738	73° 14.7'
February	49764	14984	6° 40.1'	51971	14883	1740	73° 14.6'
March	49766	14984	6° 40.3'	51973	14883	1741	73° 14.6'
April	49766	14985	6° 40.9'	51973	14883	1744	73° 14.5'
May	49769	14990	6° 41.4'	51977	14888	1746	73° 14.3'
June	49773	14992	6° 41.6'	51982	14890	1748	73° 14.2'
July	49774	14989	6° 42.4'	51982	14887	1751	73° 14.4'
August	49777	14990	6° 43.1'	51985	14887	1754	73° 14.4'
September	49778	14987	6° 43.9'	51985	14883	1757	73° 14.7'
October	49785	14984	6° 44.6'	51992	14881	1760	73° 15.0'
November	49788	14987	6° 45.6'	51994	14882	1764	73° 14.9'
December	49791	14990	6° 46.0'	51998	14885	1766	73° 14.7'
Winter	49777	14985	6° 42.9'	51983	14883	1752	73° 14.7'
Equinox	49774	14985	6° 42.4'	51981	14883	1750	73° 14.7'
Summer	49773	14990	6° 42.1'	51981	14888	1750	73° 14.3'
Year	49774	14987	6° 42.5'	51982	14884	1751	73° 14.6'

5 Quiet days

	Z	H	D	F	X	Y	I
January	49763	14985	6° 39.3'	51971	14884	1736	73° 14.5'
February	49765	14987	6° 39.5'	51973	14886	1738	73° 14.4'
March	49766	14987	6° 39.9'	51974	14885	1739	73° 14.5'
April	49767	14989	6° 40.4'	51975	14887	1742	73° 14.3'
May	49767	14990	6° 41.0'	51976	14888	1744	73° 14.3'
June	49773	14991	6° 41.7'	51981	14889	1748	73° 14.3'
July	49774	14990	6° 42.4'	51982	14888	1751	73° 14.4'
August	49777	14991	6° 43.1'	51985	14888	1754	73° 14.4'
September	49781	14988	6° 43.2'	51989	14885	1754	73° 14.6'
October	49784	14988	6° 44.0'	51991	14885	1758	73° 14.7'
November	49785	14990	6° 44.6'	51993	14886	1760	73° 14.6'
December	49789	14993	6° 45.2'	51997	14889	1763	73° 14.4'
Winter	49775	14989	6° 42.1'	51983	14887	1749	73° 14.5'
Equinox	49775	14988	6° 41.9'	51982	14886	1748	73° 14.5'
Summer	49773	14990	6° 42.0'	51981	14888	1749	73° 14.3'
Year	49774	14989	6° 42.0'	51982	14887	1749	73° 14.4'

5 Disturbed days

	Z	H	D	F	X	Y	I
January	49761	14977	6° 41.1'	51966	14875	1743	73° 15.0'
February	49760	14979	6° 41.0'	51966	14877	1743	73° 14.8'
March	49760	14981	6° 40.8'	51966	14879	1743	73° 14.7'
April	49760	14977	6° 42.3'	51965	14875	1749	73° 14.9'
May	49765	14987	6° 42.7'	51972	14884	1752	73° 14.4'
June	49771	14995	6° 41.4'	51981	14893	1747	73° 14.0'
July	49776	14991	6° 42.4'	51985	14888	1751	73° 14.4'
August	49773	14991	6° 43.2'	51981	14888	1754	73° 14.3'
September	49772	14981	6° 44.7'	51978	14877	1759	73° 14.9'
October	49787	14979	6° 45.8'	51992	14875	1764	73° 15.3'
November	49794	14977	6° 47.2'	51998	14872	1770	73° 15.6'
December	49792	14982	6° 47.3'	51998	14877	1771	73° 15.2'
Winter	49777	14979	6° 44.2'	51982	14876	1757	73° 15.1'
Equinox	49770	14979	6° 43.4'	51975	14876	1754	73° 15.0'
Summer	49771	14991	6° 42.4'	51980	14888	1751	73° 14.3'
Year	49773	14983	6° 43.3'	51979	14880	1754	73° 14.8'

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

14.1 H-Component

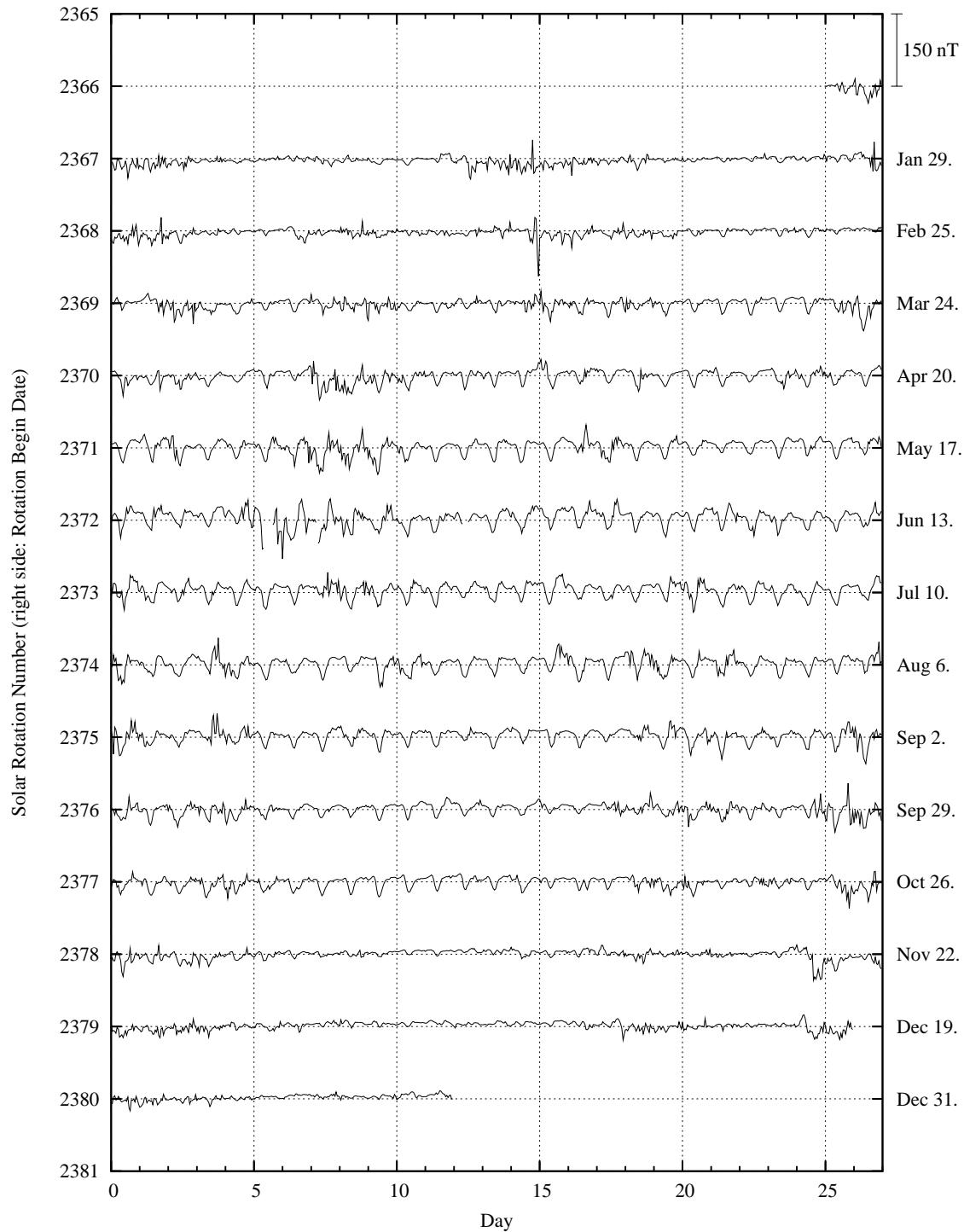


Figure 5: Hourly means of H sequenced in Bartels' solar rotation cycles.

14.2 D-Component

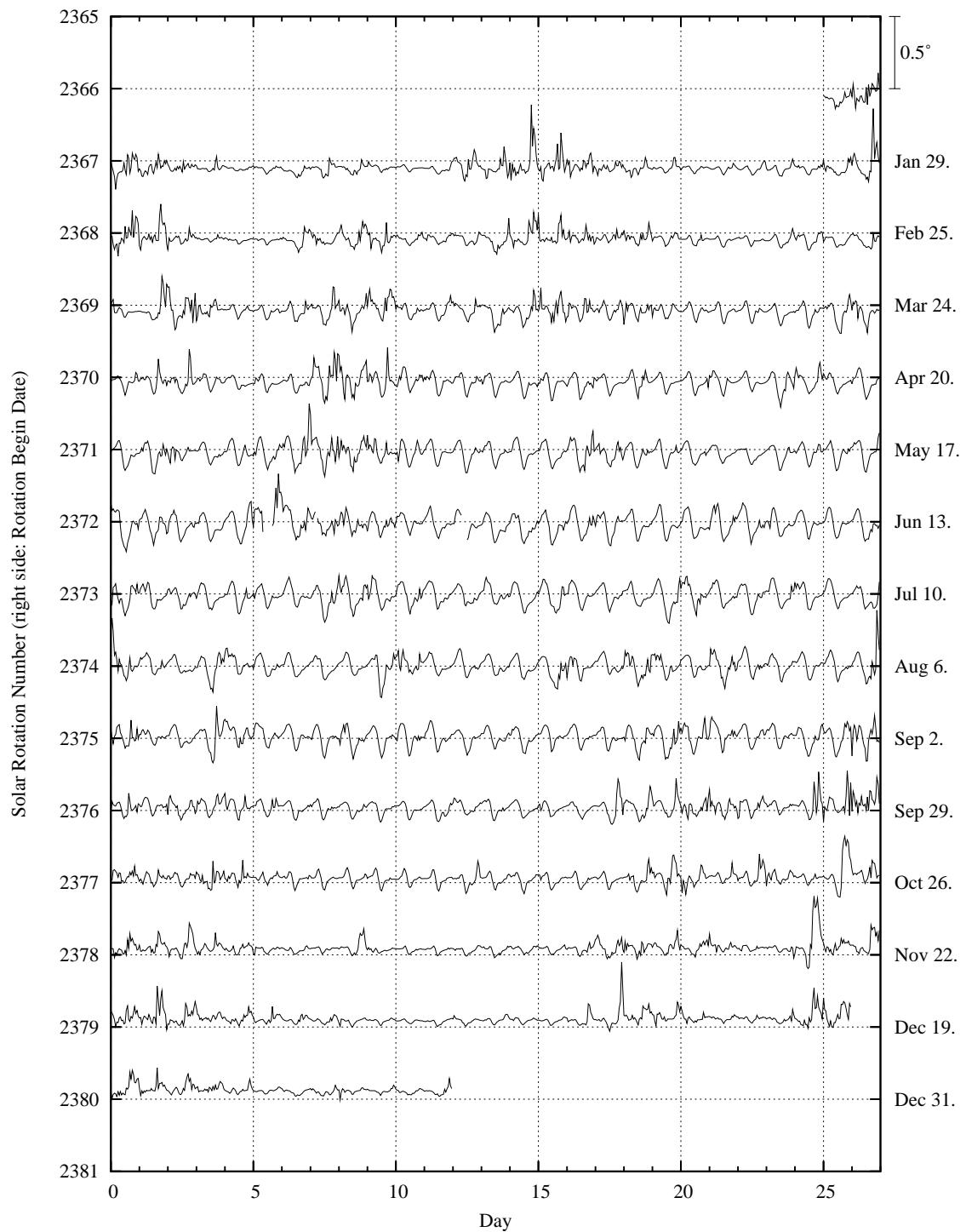


Figure 6: Hourly means of D sequenced in Bartels' solar rotation cycles.

14.3 Z-Component

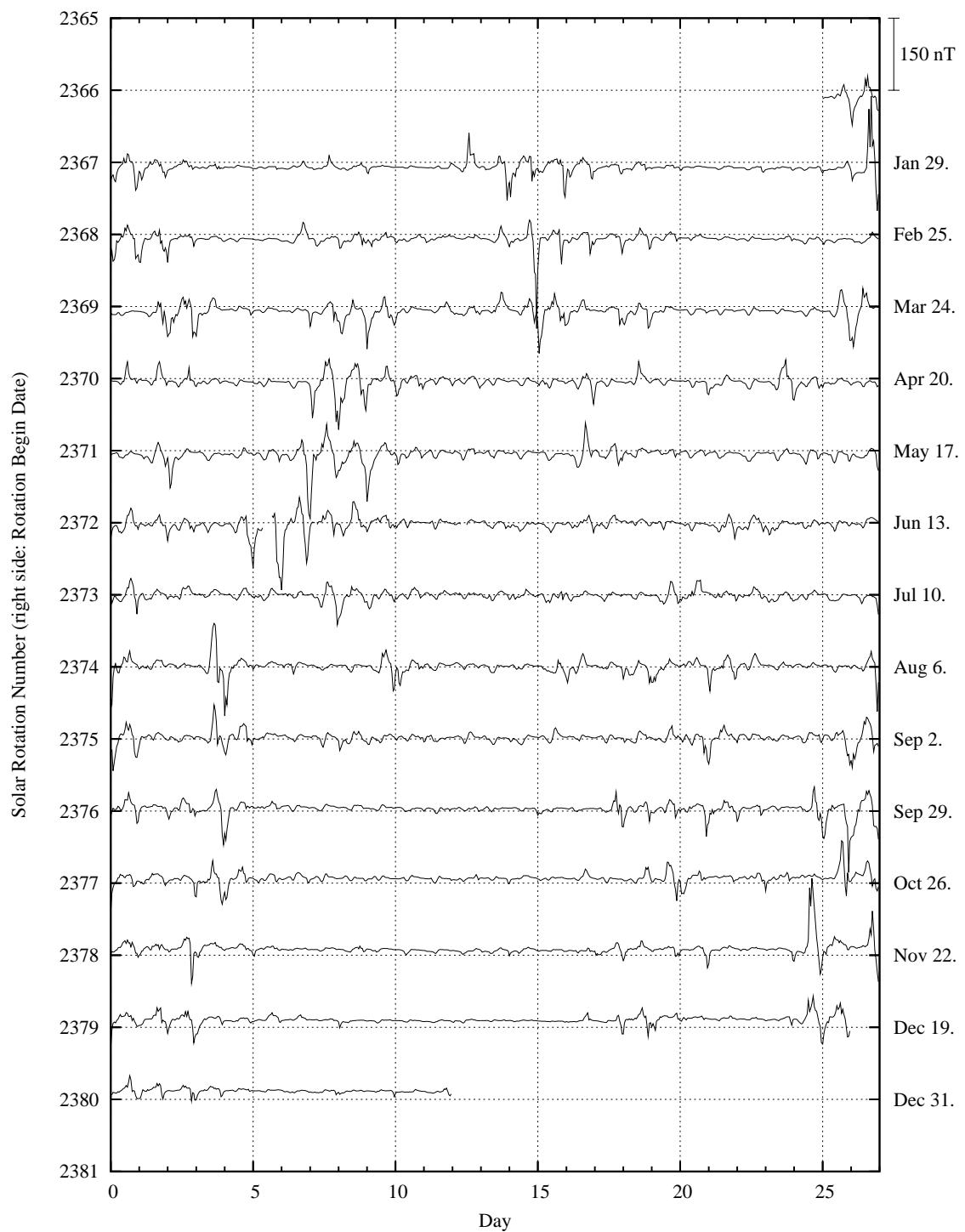


Figure 7: Hourly means of Z sequenced in Bartels' solar rotation cycles.

15 K-Indices

15.1 Monthly Tables of K-Indices

January

Day	K			Ak
1	1	0	0	2
2	4	3	2	3
3	1	3	3	3
4	2	2	3	3
5	2	2	2	2
6	1	1	1	1
7	0	0	0	0
8	1	0	0	0
9	0	0	1	0
10	0	1	1	2
11	1	1	2	1
12	2	0	0	0
13	0	0	0	0
14	0	0	0	0
15	2	1	2	2
16	0	4	1	1
17	4	3	3	3
18	2	3	3	3
19	2	3	2	1
20	2	2	2	2
21	2	2	2	2
22	1	0	0	1
23	1	1	1	1
24	0	0	0	0
25	0	0	0	1
26	1	0	1	1
27	1	1	0	0
28	3	1	0	1
29	3	2	2	2
30	3	3	3	3
31	3	2	2	3
Mean	9.5			

February

Day	K			Ak
1	3	1	2	2
2	1	1	2	2
3	1	1	0	1
4	0	0	0	1
5	1	0	0	1
6	1	2	2	2
7	3	2	2	2
8	2	3	2	1
9	2	1	2	0
10	1	1	0	0
11	0	0	0	0
12	0	0	0	2
13	2	2	2	2
14	4	2	3	3
15	3	3	2	3
16	2	1	1	1
17	2	2	1	2
18	2	0	1	2
19	0	0	0	1
20	0	0	0	1
21	0	0	0	0
22	0	0	0	0
23	2	1	0	0
24	2	0	0	1
25	1	0	0	0
26	2	3	2	1
27	0	0	3	2
28	3	4	3	3
Mean	6.7			

March

Day	K			Ak
1	4	2	2	2
2	0	1	2	1
3	0	0	0	0
4	0	0	1	1
5	2	0	1	2
6	3	4	2	3
7	4	2	3	3
8	2	1	1	0
9	0	0	0	0
10	2	0	1	1
11	1	1	1	2
12	1	2	2	3
13	4	3	3	4
14	3	2	1	3
15	1	1	2	2
16	4	3	1	1
17	3	2	2	2
18	0	0	1	2
19	0	0	0	2
20	0	0	0	0
21	0	0	1	1
22	1	0	1	1
23	0	1	2	2
24	3	3	2	3
25	2	1	2	3
26	1	1	1	2
27	2	2	2	3
28	2	2	2	2
29	0	0	1	1
30	2	1	1	2
31	0	1	2	1
Mean	7.5			

April

Day	K			Ak
1	4	3	3	3
2	4	3	3	3
3	3	3	2	1
4	2	2	2	2
5	1	1	1	1
6	1	0	0	0
7	2	1	0	0
8	0	0	1	1
9	3	2	3	3
10	2	1	0	2
11	2	1	1	1
12	2	2	2	2
13	1	0	0	0
14	0	1	0	1
15	2	1	1	2
16	0	0	0	0
17	0	1	2	3
18	3	2	1	2
19	2	2	1	1
20	1	0	0	0
21	1	1	0	0
22	2	2	1	3
23	3	4	3	2
24	1	0	1	2
25	2	1	1	1
26	2	1	1	2
27	2	1	1	3
28	5	3	3	4
29	3	3	3	3
30	4	3	3	2
Mean	8.6			

May

Day	K			Ak
1	2	2	2	1
2	1	1	0	0
3	1	0	1	1
4	1	0	0	1
5	1	0	0	1
6	1	0	0	0
7	1	1	3	3
8	2	3	3	3
9	1	1	2	2
10	0	0	1	1
11	0	0	0	1
12	0	1	1	2
13	0	1	1	1
14	0	0	1	1
15	1	0	1	2
16	0	1	1	1
17	1	2	0	1
18	3	2	3	4
19	2	2	3	3
20	3	2	1	3
21	2	1	0	1
22	1	1	2	2
23	4	2	4	5
24	5	3	2	3
25	3	3	2	3
26	3	3	2	3
27	2	2	2	2
28	2	1	1	2
29	1	1	1	1
30	1	1	0	0
31	1	1	1	1
Mean	8.4			

June

Day	K			Ak
1	2	1	1	3
2	2	2	2	2
3	2	2	1	2
4	3	2	1	2
5	0	0	0	1
6	0	1	0	1
7	1	1	1	1
8	2	3	2	2
9	1	1	2	3
10	2	2	2	2
11	1	0	1	1
12	0	1	0	1
13	0	0	2	2
14	3	2	3	4
15	2	2	2	2
16	2	2	1	2
17	2	1	1	2
18	1	1	1	2
19	2	1	2	1
20	1	1	1	1
21	1	1	1	4
22	3	2	2	3
23	3	3	2	2
24	2	2	1	2
25	1	0	1	1
26	0	1	1	2
27	2	2	1	1
28	2	1	0	1
29	1	1	1	2
30	2	2	2	2
Mean	6.9			

July

Day	K			Ak		
1	1	1	2	2	2	1
2	0	1	2	1	2	0
3	1	1	1	2	3	1
4	3	3	3	4	4	3
5	1	1	2	2	2	1
6	1	1	1	2	2	2
7	2	1	1	1	2	2
8	2	2	1	1	1	0
9	0	1	0	1	0	1
10	0	1	2	1	0	2
11	4	4	4	4	3	3
12	2	2	2	1	2	1
13	0	1	1	1	1	2
14	1	1	2	3	4	4
15	3	3	3	2	2	2
16	2	1	1	2	1	1
17	1	1	1	1	0	1
18	1	1	1	1	0	0
19	0	0	0	1	1	1
20	0	2	3	4	5	3
21	3	3	2	2	2	4
22	1	1	1	1	1	0
23	1	1	1	2	1	1
24	0	1	1	2	1	0
25	0	1	0	1	1	0
26	0	0	0	1	2	4
27	3	3	2	2	2	0
28	1	1	1	1	1	3
29	4	3	2	3	3	3
30	3	2	3	2	2	1
31	1	1	2	2	2	1
Mean	7.2					

August

Day	K			Ak		
1	4	3	3	3	3	3
2	1	1	2	2	2	1
3	1	1	1	1	3	2
4	0	0	1	1	0	0
5	0	0	1	1	1	1
6	1	1	1	3	3	4
7	4	3	3	3	4	3
8	2	3	2	2	2	1
9	1	1	2	2	1	2
10	1	1	1	3	5	4
11	3	2	2	2	2	3
12	2	1	1	2	1	1
13	1	0	1	1	0	0
14	1	0	0	1	1	1
15	3	2	1	2	3	3
16	2	1	1	2	1	1
17	2	1	0	1	1	2
18	1	0	0	1	0	1
19	0	0	0	2	3	2
20	1	0	0	1	1	1
21	2	0	1	2	2	1
22	0	0	1	2	2	2
23	0	0	0	1	2	1
24	0	1	0	1	1	1
25	3	1	1	3	4	2
26	1	1	1	2	3	4
27	3	2	3	3	3	4
28	3	2	2	3	2	1
29	2	1	1	1	2	2
30	1	1	1	2	1	0
31	1	1	1	2	1	2
Mean	7.6					

September

Day	K			Ak		
1	1	0	2	2	2	3
2	4	4	2	3	3	4
3	3	2	2	2	3	3
4	2	2	2	2	1	2
5	3	2	2	3	2	2
6	2	2	1	2	2	3
7	3	2	2	2	3	2
8	2	1	2	2	2	1
9	0	0	1	1	2	0
10	1	0	0	1	1	0
11	0	0	0	1	1	1
12	1	0	0	1	0	1
13	0	0	0	1	1	1
14	1	0	0	1	1	0
15	2	0	1	1	2	2
16	1	1	0	1	1	0
17	0	0	1	3	2	1
18	1	1	2	2	2	0
19	1	1	2	2	2	2
20	0	1	0	2	2	1
21	3	1	1	2	3	2
22	2	2	2	2	2	2
23	3	1	1	2	3	1
24	1	0	0	1	1	1
25	2	0	1	1	2	2
26	1	1	1	2	2	1
27	0	0	0	1	1	0
28	0	0	0	1	1	1
29	0	0	0	1	1	0
30	1	0	0	1	1	0
31	1	1	1	2	1	1
Mean	8.7					

October

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

November

Day	K			Ak		
1	3	1	1	1	1	1
2	0	0	1	1	0	2
3	0	0	0	0	1	0
4	1	0	0	0	1	4
5	1	1	1	1	0	0
6	0	0	0	0	1	0
7	0	0	0	0	0	1
8	1	0	1	0	1	1
9	1	0	0	1	2	0
10	2	0	1	1	2	0
11	2	0	1	1	0	1
12	1	0	0	1	0	3
13	3	2	2	2	1	2
14	3	2	2	2	3	2
15	2	1	0	1	3	2
16	1	0	1	1	2	3
17	2	2	2	1	3	1
18	1	1	0	0	2	0
19	1	0	0	0	2	3
20	2	1	2	3	5	4
21	2	2	2	3	3	2
22	0	2	1	1	2	4
23	3	2	2	2	3	3
24	2	1	2	2	3	5
25	2	2	3	2	2	4
26	3	2	2	3	2	1
27	1	2	1	1	2	5
28	2	0	1	1	2	2
29	0	0	0	1	3	4
30	0	0	1	0	1	2
31	0	0	0	1	2	1
Mean	6.4					

December

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

15.2 K-Indices Sequenced in Bartel's Solar Rotation Number

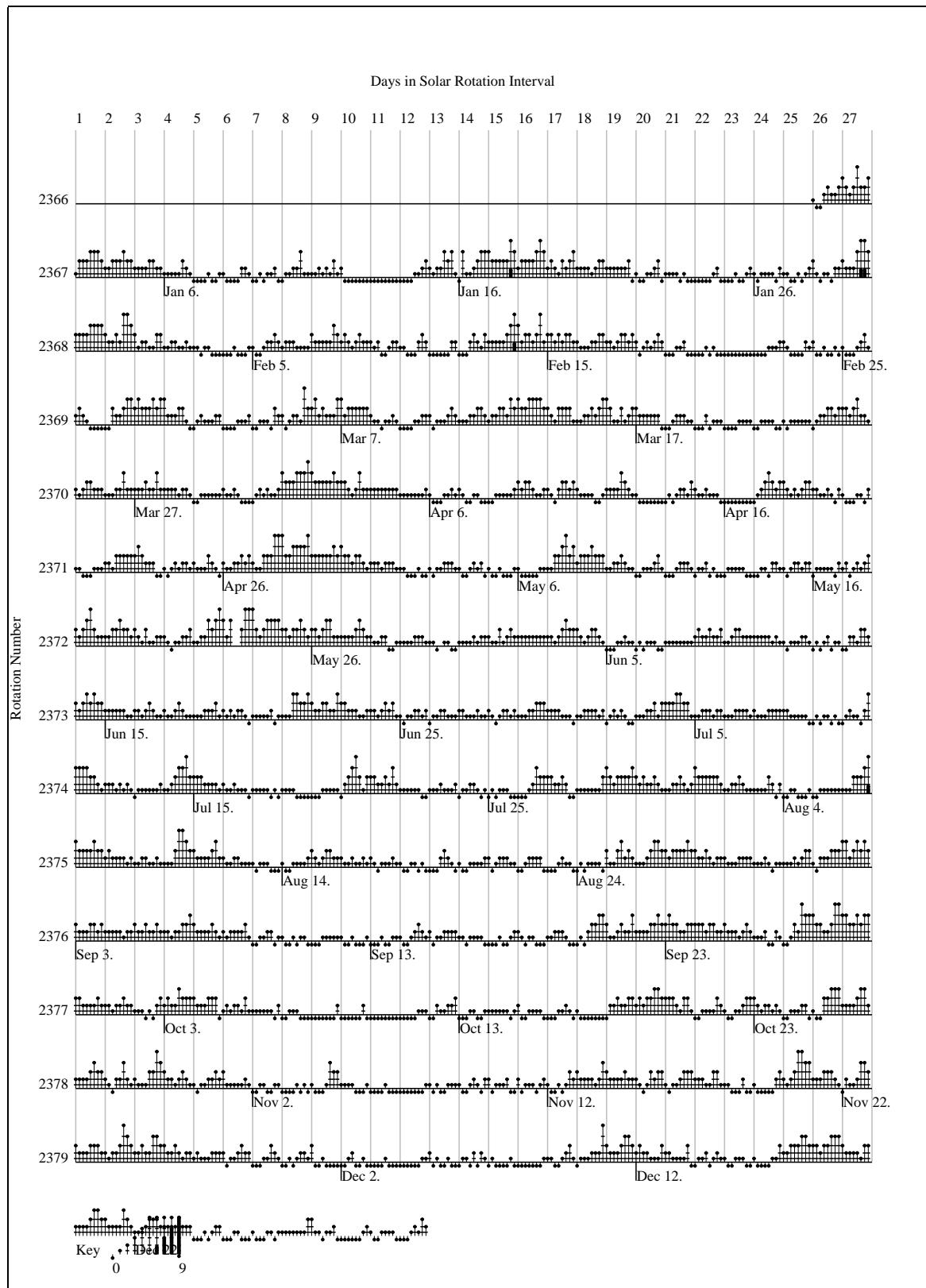


Figure 8: K-indices sequenced in Bartel's solar rotation number

15.3 Ak-Indices

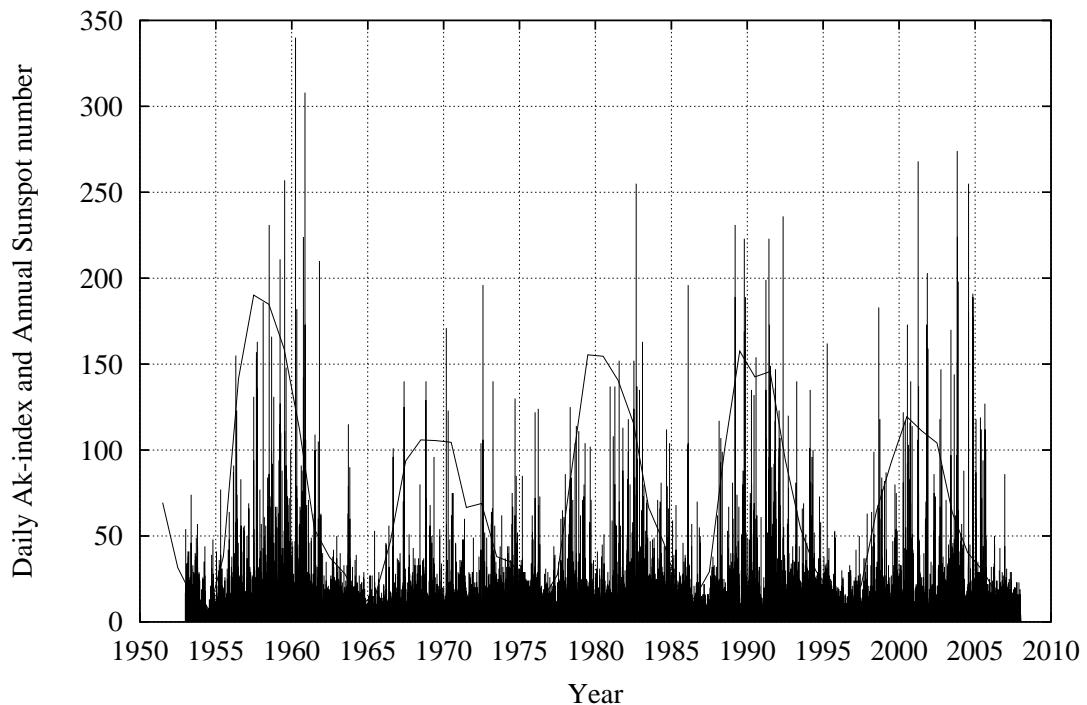


Figure 9: Daily Ak-indices (vertical lines) and sunspots (solid line)

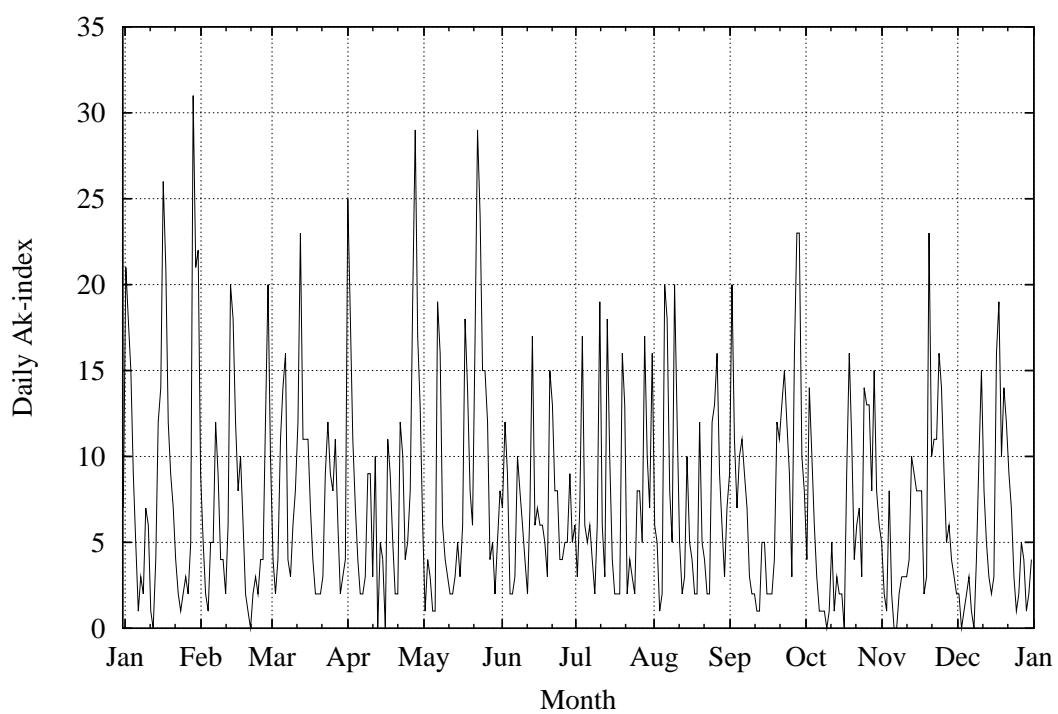


Figure 10: Daily Ak-indices

15.4 Table of Annual Ak-indices

m/M denotes sunspot minimum/maximum

Year	Ak	Year	Ak
1953	11	1981	13
1954m	8	1982	19
1955	9	1983	15
1956	14	1984	14
1957M	16	1985	10
1958	18	1986m	10
1959	21	1987	8
1960	22	1988	11
1961	12	1989M	16
1962	10	1990	13
1963	10	1991	21
1964m	8	1992	15
1965	6	1993	13
1966	8	1994	16
1967	10	1995	11
1968M	11	1996m	9
1969	10	1997	8
1970	10	1998	12
1971	9	1999	12
1972	10	2000M	15
1973	13	2001	14
1974	15	2002	13
1975	11	2003	22
1976m	10	2004	14
1977	9	2005	14
1978	13	2006	8
1979M	12	2007	7
1980	9		

16 Annual Means

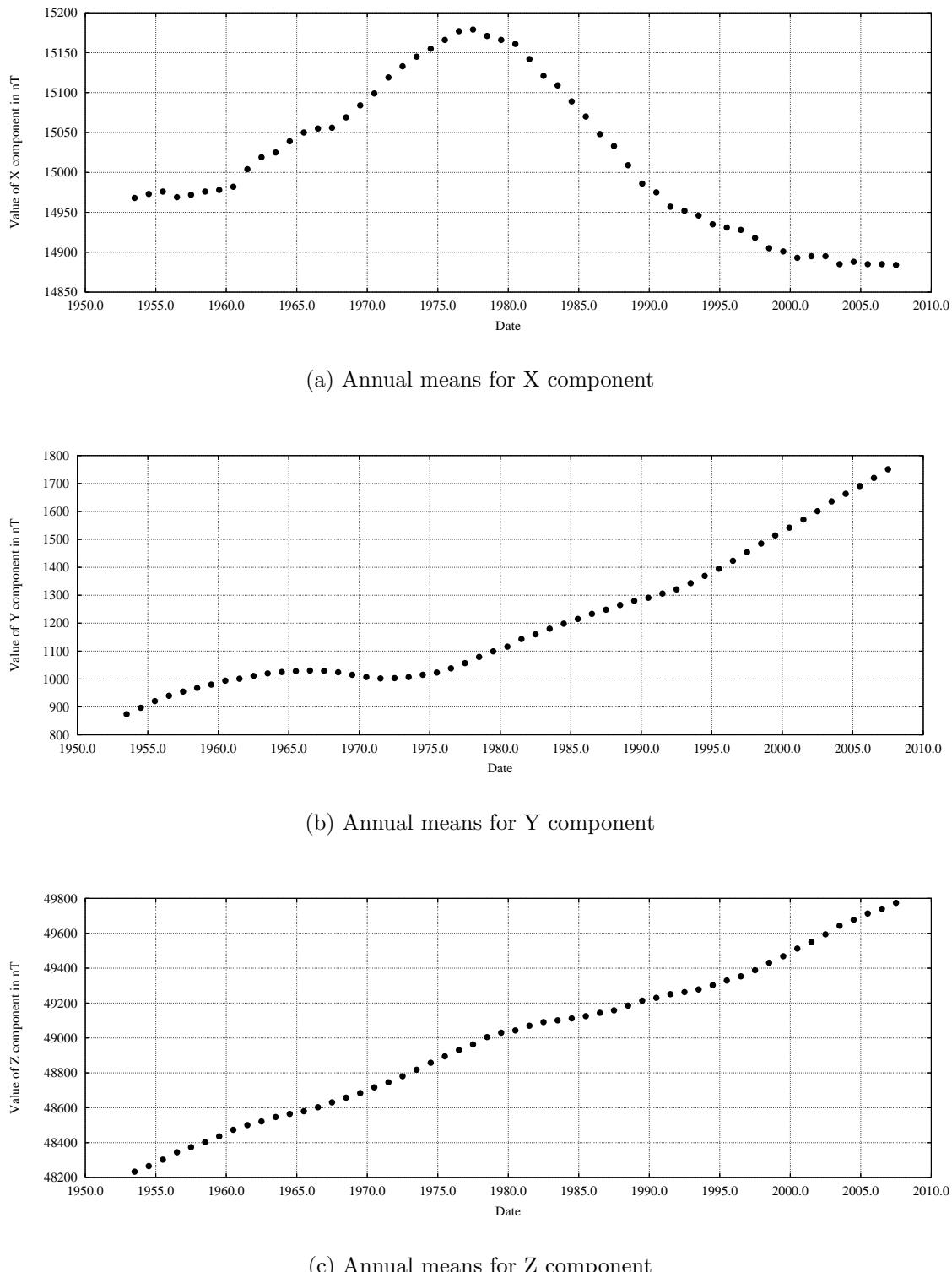


Figure 11: Figures of annual means of X, Y, and Z

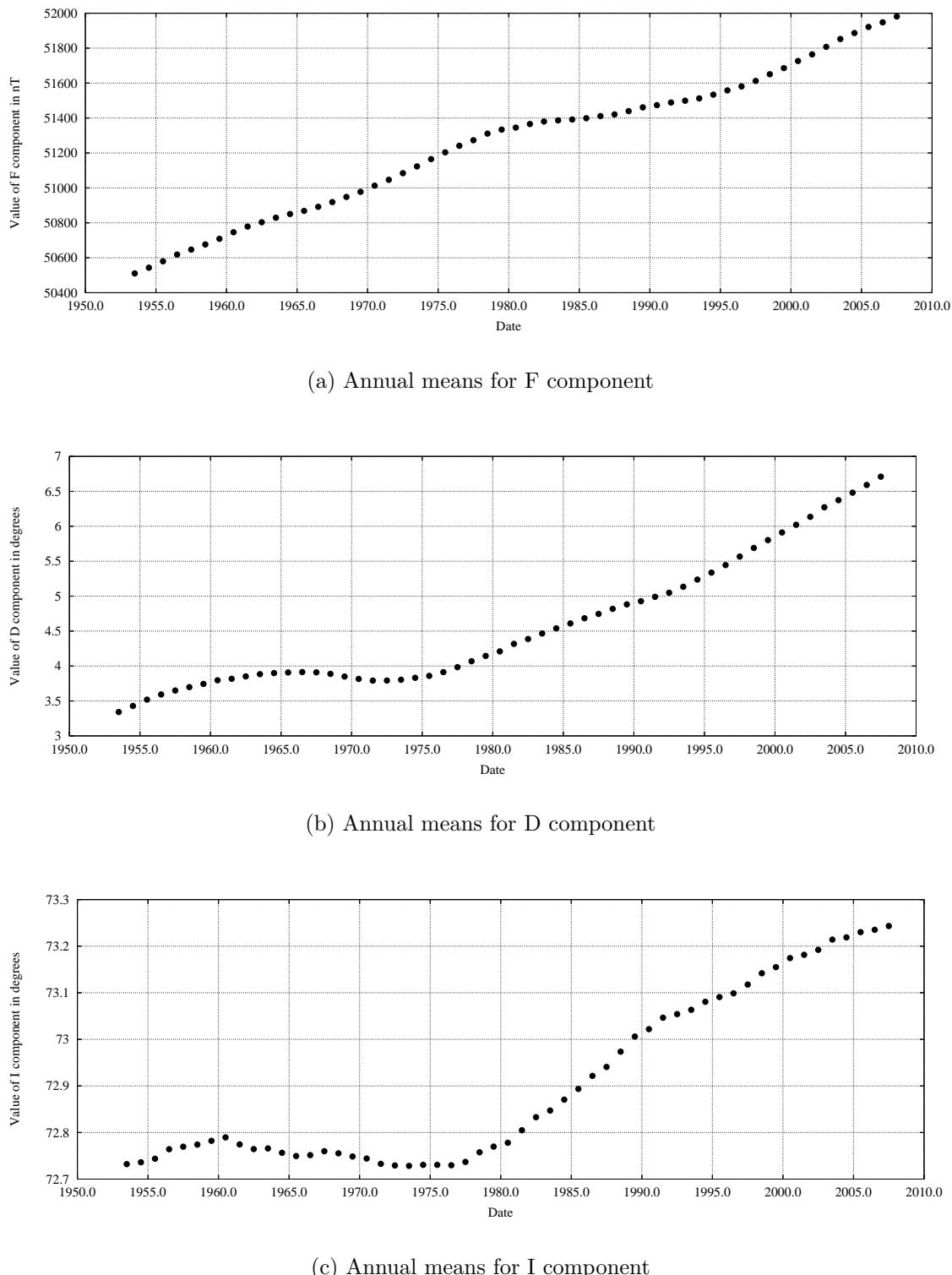


Figure 12: Figures of annual means of F, D, and I

17 Secular Variation

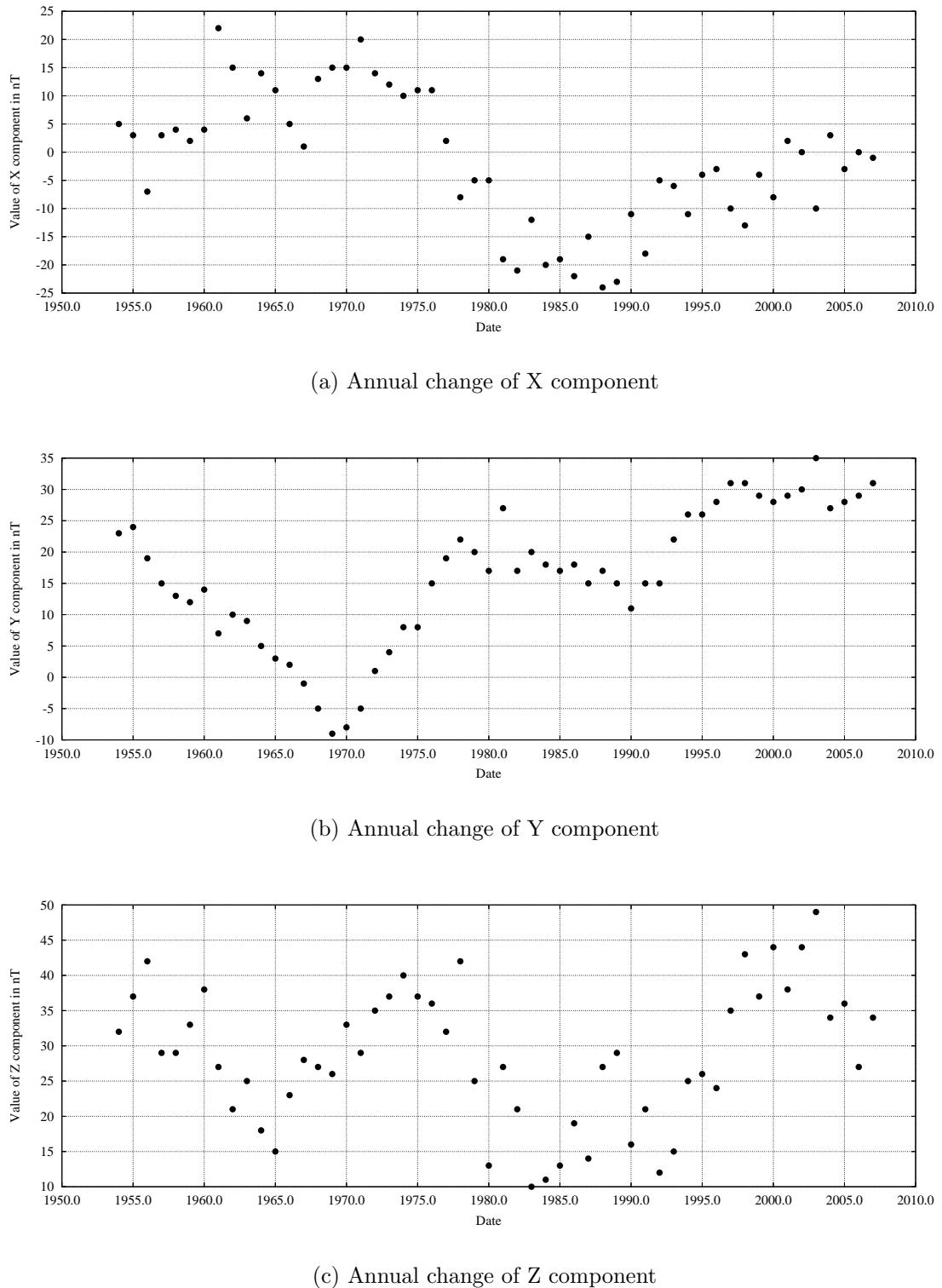


Figure 13: Annual change of components X, Y, and Z

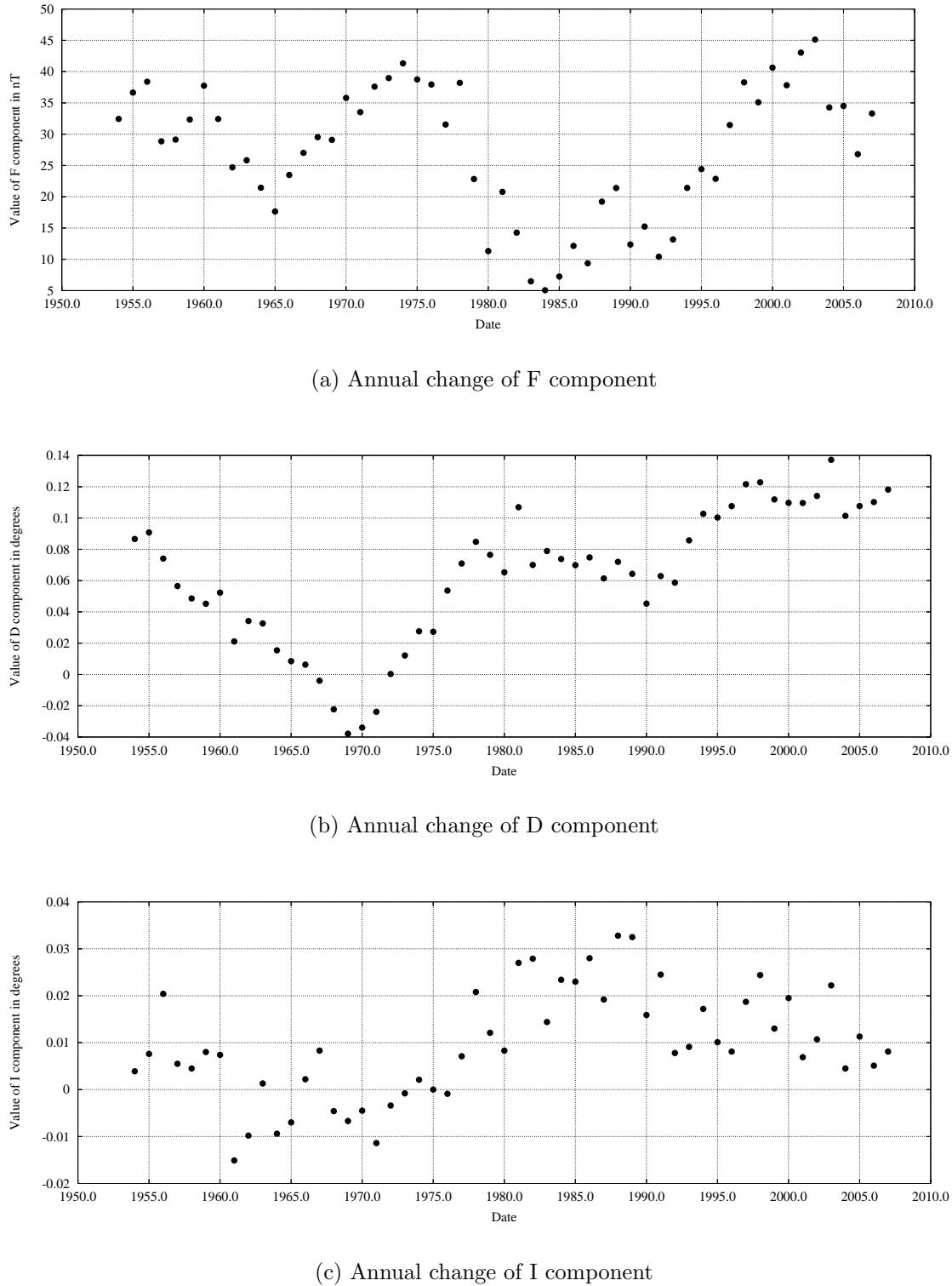


Figure 14: Annual change of components F, D, and I

18 Tables of Annual Means

18.1 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'

18.2 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'

18.3 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'

19 Earth's Magnetic Field Maps of Finland 2008.0

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 (see also www.geo.fmi.fi/MAGN/magncharts.html)

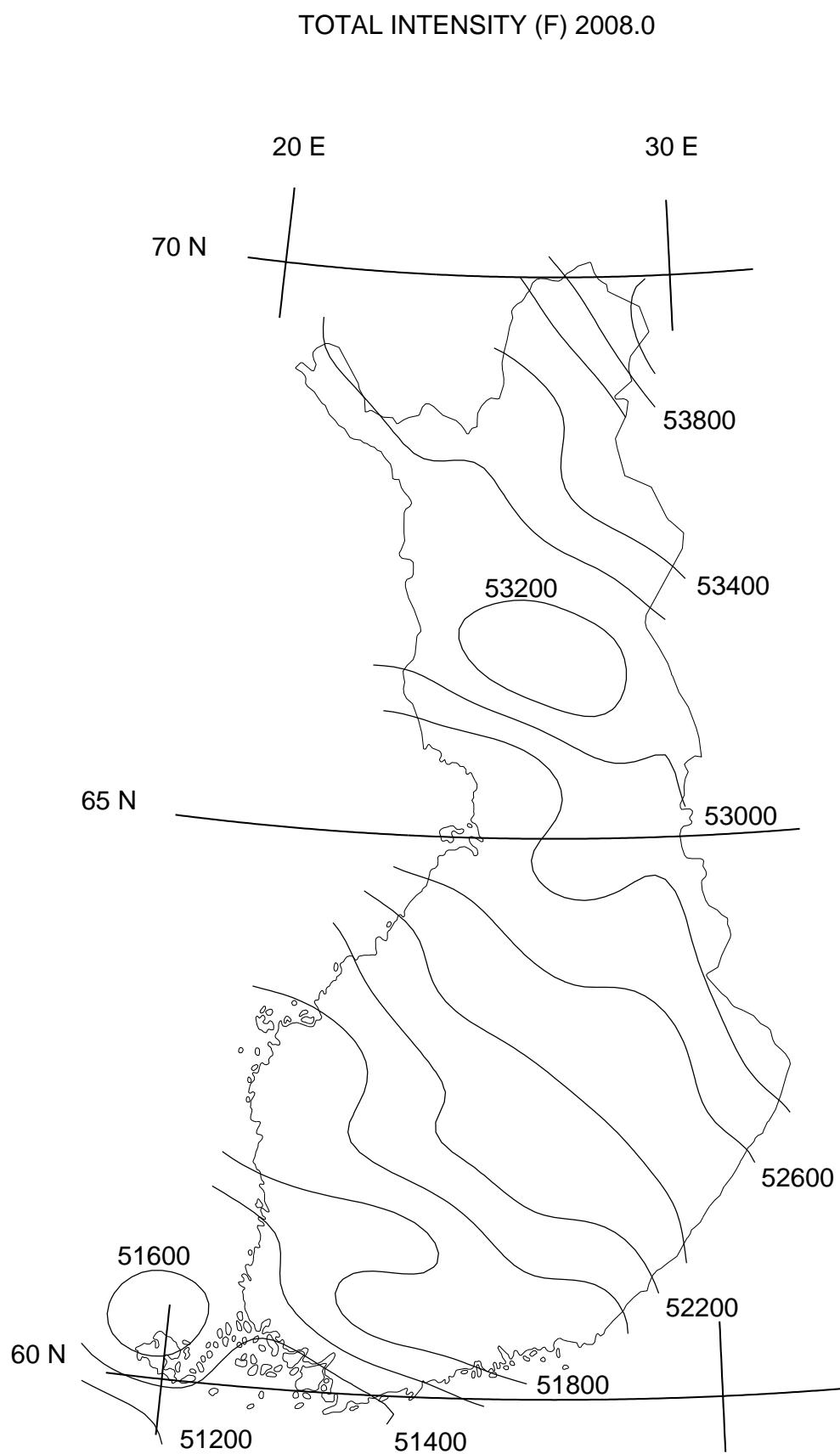


Figure 15: Total intensity F 2008.0 in nT

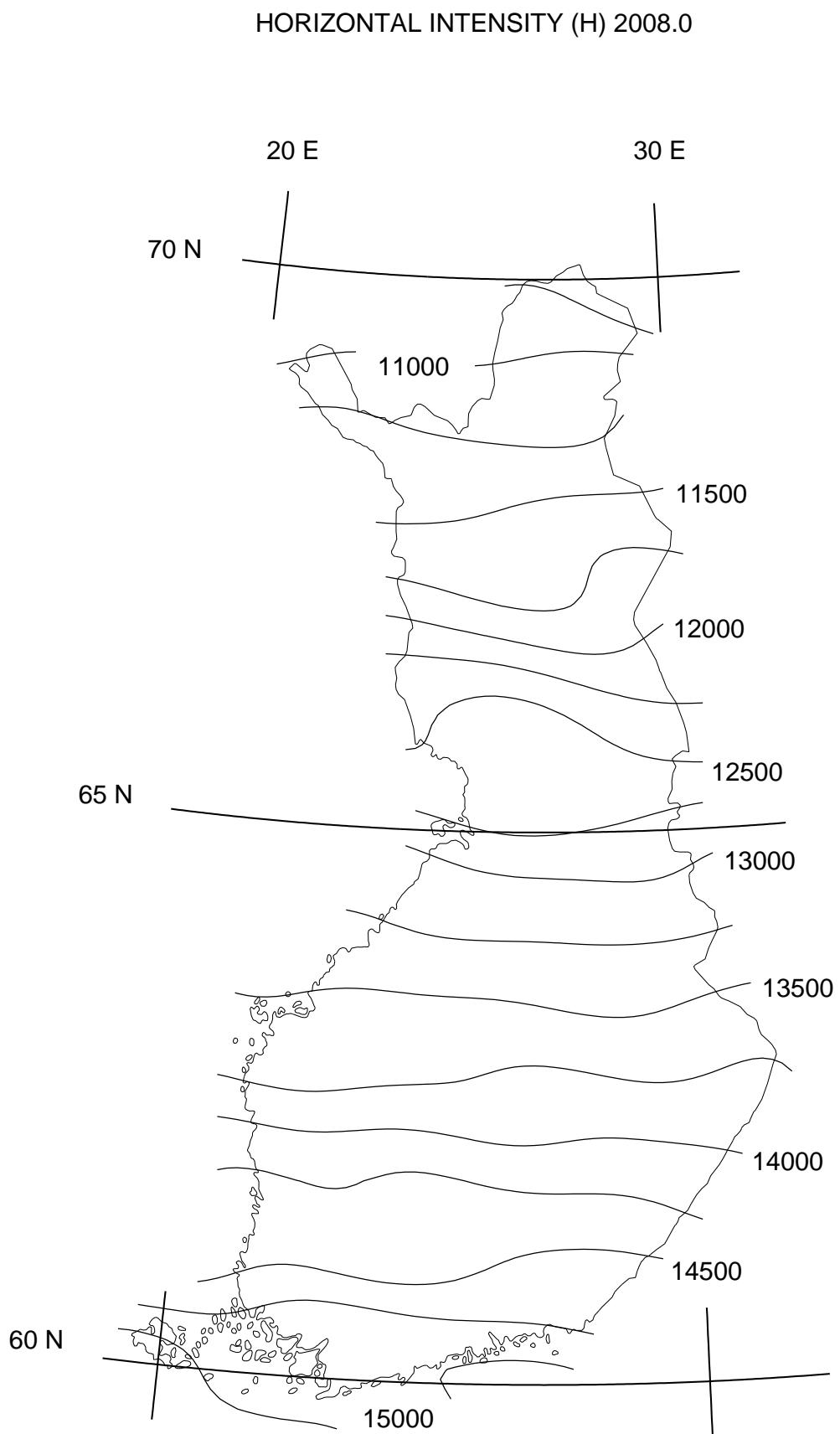


Figure 16: Horizontal intensity H 2008.0 in nT

DECLINATION (D) 2008.0

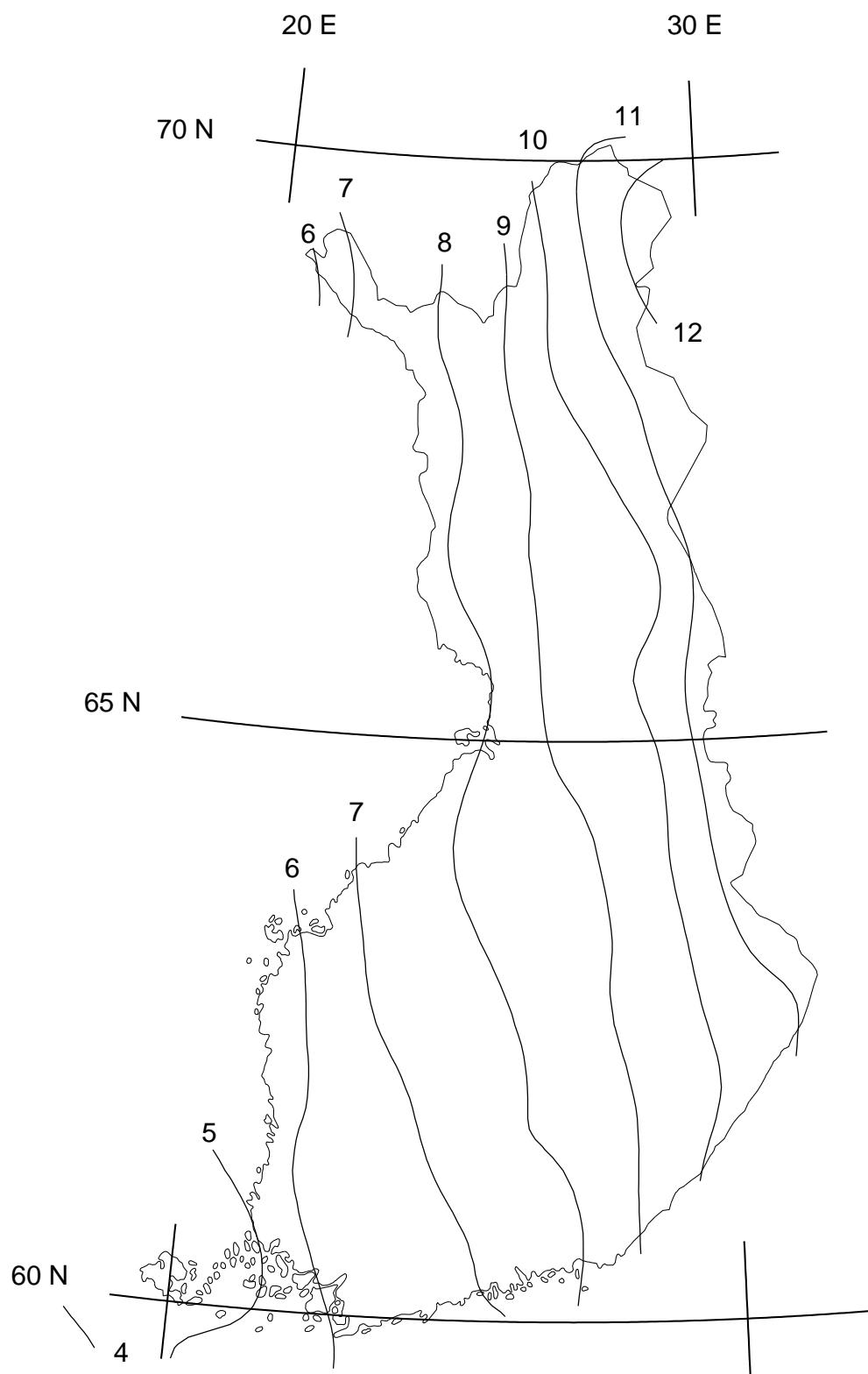


Figure 17: Declination D 2008.0 in degrees

INCLINATION (I) 2008.0

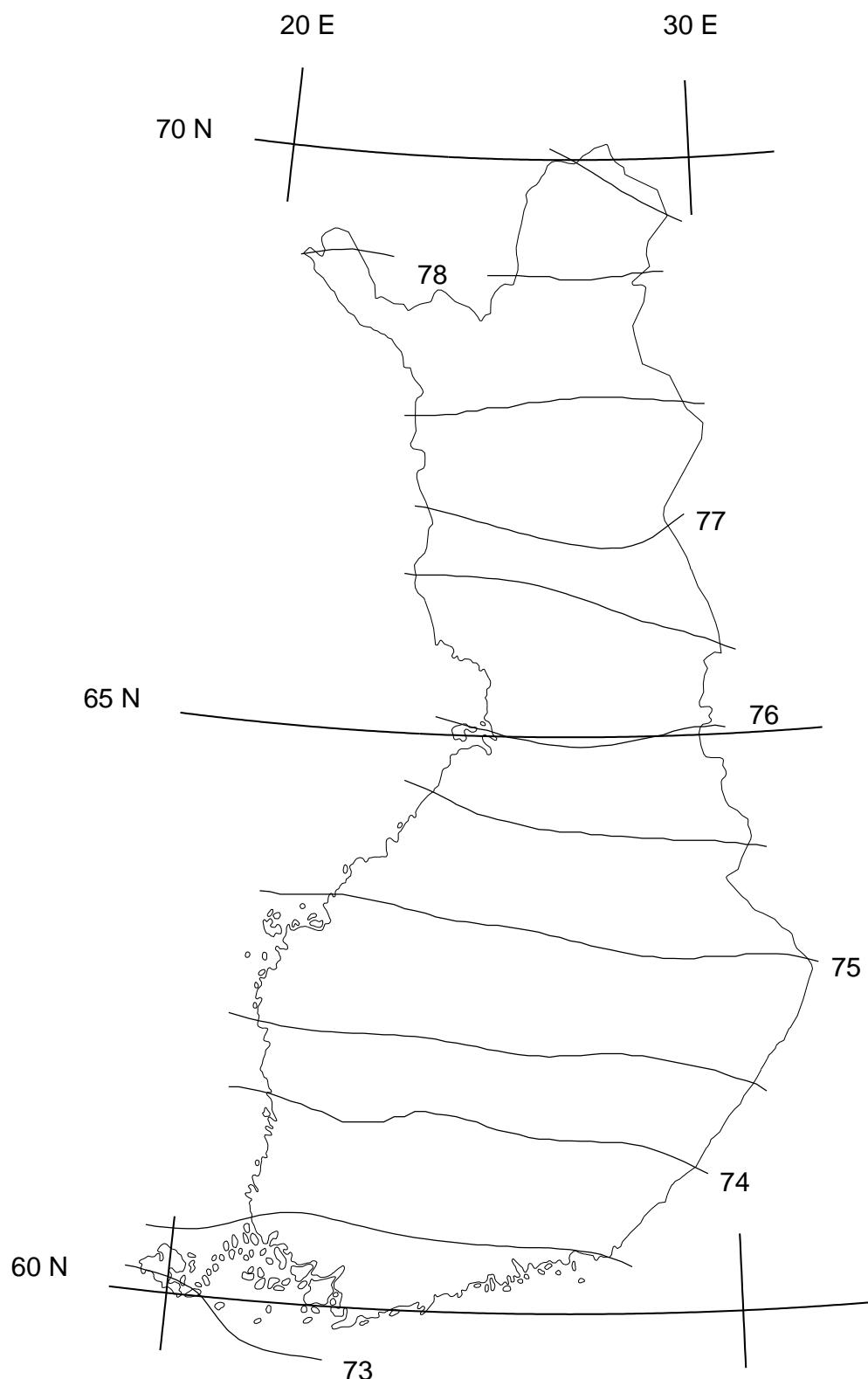


Figure 18: Inclination I 2008.0 in degrees

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Magneettisia mittauksia — Magnetic Results 1991. Helsinki 1992. 37 pp.
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The series Magnetic Results is ceased in 2006. New issues of the Nurmijärvi yearbooks will hereafter appear in the FMI series Reports.

Reports

Magnetic Results 2003, Helsinki 2006, 47 p.
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Magnetic Results 2005, Helsinki 2006, 50 p.
Magnetic Results 2006, Helsinki 2007, 49 p.
Magnetic Results 2007, Helsinki 2008, 49 p.