

**DNMI**

DET NORSKE METEOROLOGISKE INSTITUTT

# *klima*

HANØYTANGEN , APRIL 1994

Knut A. Iden

RAPPORT NR. 22/94 KLIMA



DET NORSKE METEOROLOGISKE INSTITUTT  
P.O.BOX 43, BLINDERN 0313 OSLO

TEL. : (02) 96 30 00

ISBN

REPORT NR.

22/94 KLIMA

DATE: June 03,  
1994.

TITLE

HANØYTANGEN , APRIL 1994

PREPARED BY

Knut A. Iden

ORDERED BY

KVÆRNER CONCRETE CONSTRUCTION  
CONTRACT NO: KCC/PAC004/001

SUMMARY

Monthly summary based on the meteorological data  
measured at the building site of Kværner at  
Hanøytangen, Askøy near Bergen.

SIGNATURE

Knut A. Iden

Bjørn Aune

Knut A. Iden  
PROJ. RESPONSIBLE

HEAD OF DIVISION

## **MONTHLY REPORT APRIL 1994**

---

**PAC 004 WEATHER ANALYSIS IN HANØYTANGEN**  
**REPORT 6 : June 3 1994**

CLIENT : DNMI  
CONTRACT NO. : KCC/PAC004/001  
PROJECT NO. :  
DOCUMENT NAME : RAPPAPR.94  
PROJ. MANAGER : Knut A. Iden  
EXECUTED BY : Bjørn. H. Halvorsen and Knut A. Iden  
APPROVED BY : Bjørn Aune *Bjørn Aune* 03.06.1994  
COMPLETION DATE : JUNE 03 1994  
REV 1. :

DSU : serial no. 6642  
Received : MAY 16 1994

**Comments regarding the data :**

The DSU serial no.6642 contains data for the period 05/4/94 to 6/5/94.

The DSU is read by the standard software (P3059) delivered from Aanderaa a/s. The calibration factors applied is provided by Aanderaa in a fax dated January 21 1994.

The processing is based on this data set and the following steps are conducted :

- . A SAS data set of the data for February are generated

In this step 10 min mean wind speed > 35 m/s and gust wind speed > 40 m/s are replaced with missing values. The wind speed in 30 m is also compared to the wind speed measured 18 m above the ground. If deviation is 10 m/s above or 5 m/s below the wind speed measured in 18 m, the wind speed in 30 m is replaced by missing value. The reason for this handling is there seem to be some disturbances connected to the measurements in the top of the mast (30 m above the ground).

The other meteorological parameters are checked to be inside reasonable intervals. The original data which is replaced due to the specified criterions are saved for an assessment. Appendix 2 gives a listing of these records.

- . Plots of the time series are generated and examined.
- . Un physical values (spikes) are eliminated.
- . Final plots of the time series are generated.

For wind speed and wind direction 10 min values are plotted. For the parameters air temperature (T), humidity (UU) and air pressure reduced to mean sea level (QFF), hourly means are plotted. The hourly mean for 11.00<sup>h</sup> is defined by the measurements for 10.30<sup>h</sup>, 10.40<sup>h</sup>, 10.50<sup>h</sup>, 11.00<sup>h</sup>, 11.10<sup>h</sup> and 11.20<sup>h</sup>.

- . Distribution tables wind speed /direction are generated. 22.5° intervals are applied for the direction. N='348.76° - 11.25°, NNE = '11.26 - 33.75' ...
- . Wind roses are generated.
- . Coefficient transfert tables are generated.
- . Duration table are generated.
- . Climatological summary table are updated.

Logging each 10 minute

## WIND

Parameter Height Cover. Unit Mean ST.D. Max Dir<sup>1</sup> D.:Hour Min Dir<sup>1</sup> D.:Hour

Wind speed	30 m	93.0 %	m/s	6.7	3.4	19.4	164	04:0046	0.4	042	16:0138
Wind speed	18 m	100.0 %	m/s	6.5	3.4	19.4	N/A	04:0046	0.4	N/A	10:2118
Wind speed	10 m	100.0 %	m/s	6.5	3.5	19.4	165	04:0046	0.4	102	10:2118

Wind gust	30 m	93.0 %	m/s	8.8	4.3	24.9	164 <sup>2</sup>	04:0046	0.7	42 <sup>2</sup>	16:0138
Wind gust	18 m	100.0 %	m/s	8.6	4.3	24.9	N/A	04:0046	0.4	N/A	10:2118
Wind gust	10 m	100.0 %	m/s	8.6	4.4	26.1	165 <sup>2</sup>	04:0046	0.7	102 <sup>2</sup>	10:2128

## OTHER METEOROLOGICAL DATA

Parameter Height Cover. Unit Mean ST.D. Max D.:hour Min D.:hour

Air Temp.	2. m <sup>3</sup>	99.0 %	C	5.9	2.5	14.9	25:1809	0.3	04:2116
Rel. Hum.	2. m <sup>3</sup>	100.0 %	%	72	13.6	91	29:0549	30	10:1208
Air pr.	0. m <sup>3</sup>	100.0 %	hPa	1008.2	12.9	1028.8	15:2108	970.9	01:1506

1 Direction is referenced to True North (accuracy +- 2°)

2 Direction of gust wind is not measured. The mean wind direction for the ten minute period when it has occurred is applied.

3 Air temperature sensor and humidity sensor are placed in the mast 2 m above the reference point on the ground while the pressure sensor have the same height as the reference.

The reference point on the ground is located 15.64 m above the mean sea level (NGO).

The time for the logging this month is not 00,10,20,30... as should be the case. In the beginning of the month the logging is made 06,16,26.. Later in the month the logging is made 08,18,28 ... and in the end of the month 09,19,29,... giving some problems to the computing of the hourly means strictly after the definition given.

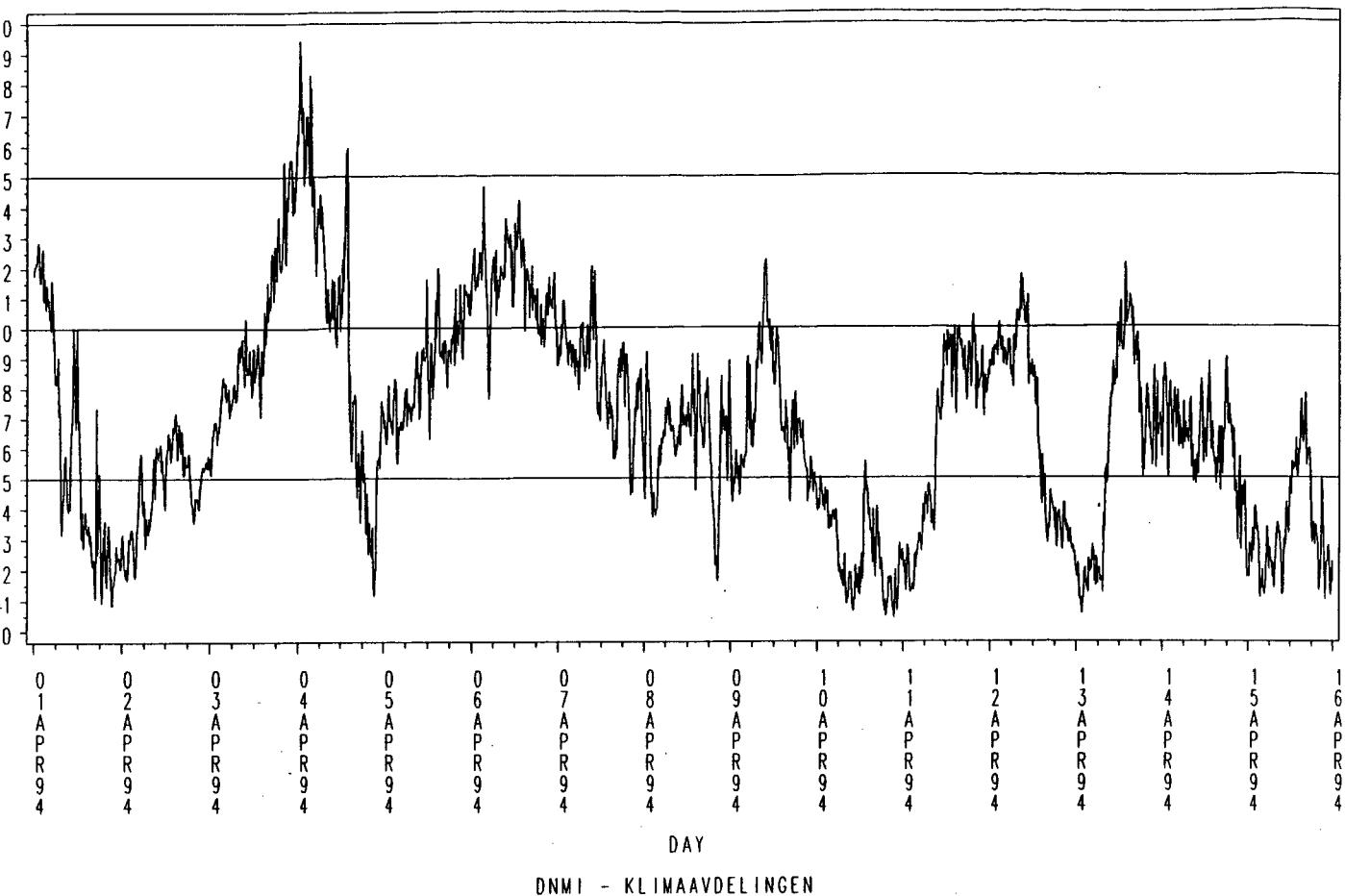
Unphysical values were encountered for the air temperature April 29 and April 30. The values are removed.

The minimum of the wind speed (0.4 m/s) has occurred several times this month. It is the first occurrence which is given in the table.

## **PLOT OF TIME SERIES**

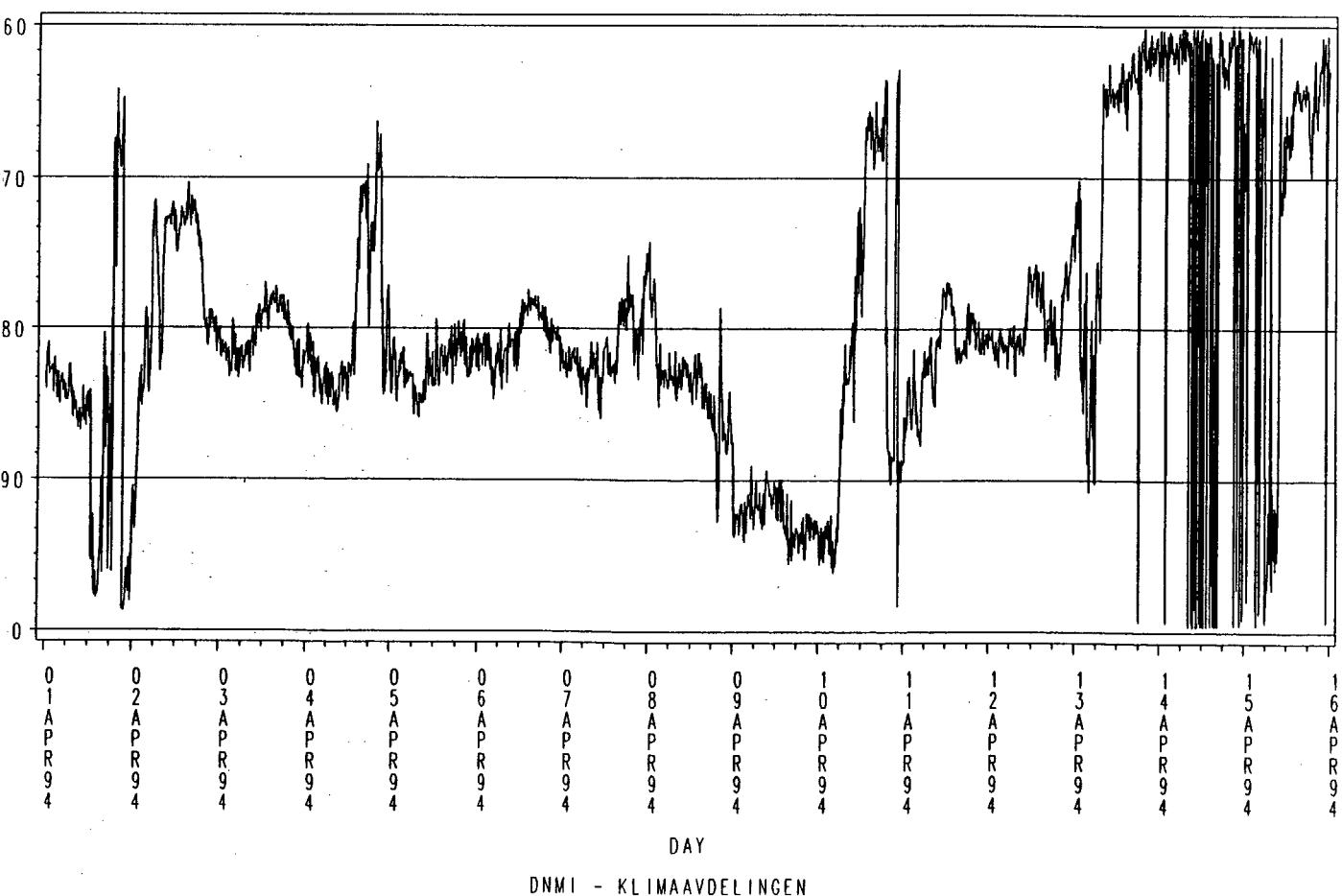
# HANØYTANGEN 1994

Wind speed 10 m above the ground (m/s)



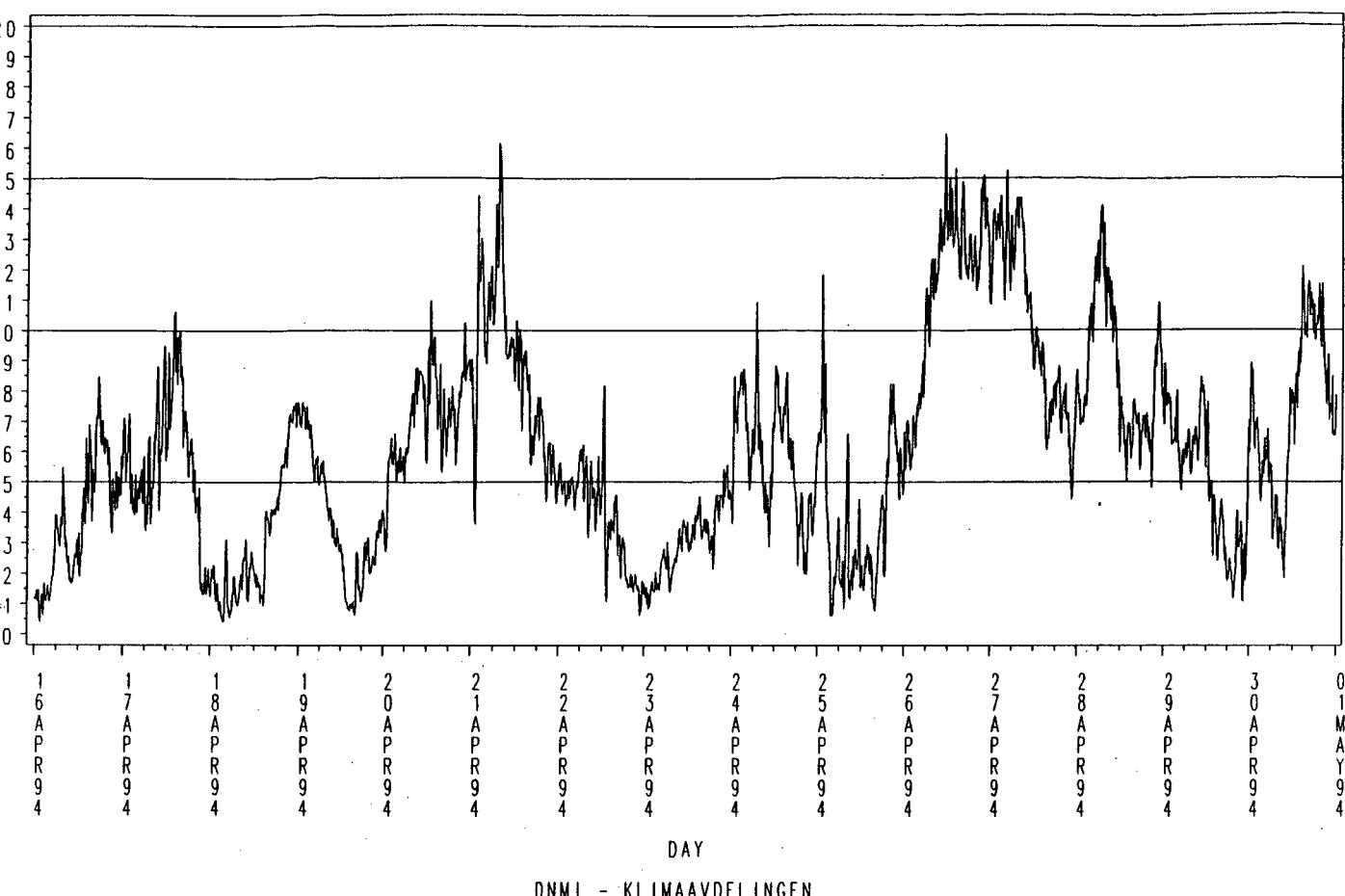
# HANØYTANGEN 1994

Wind direction 10 m above the ground



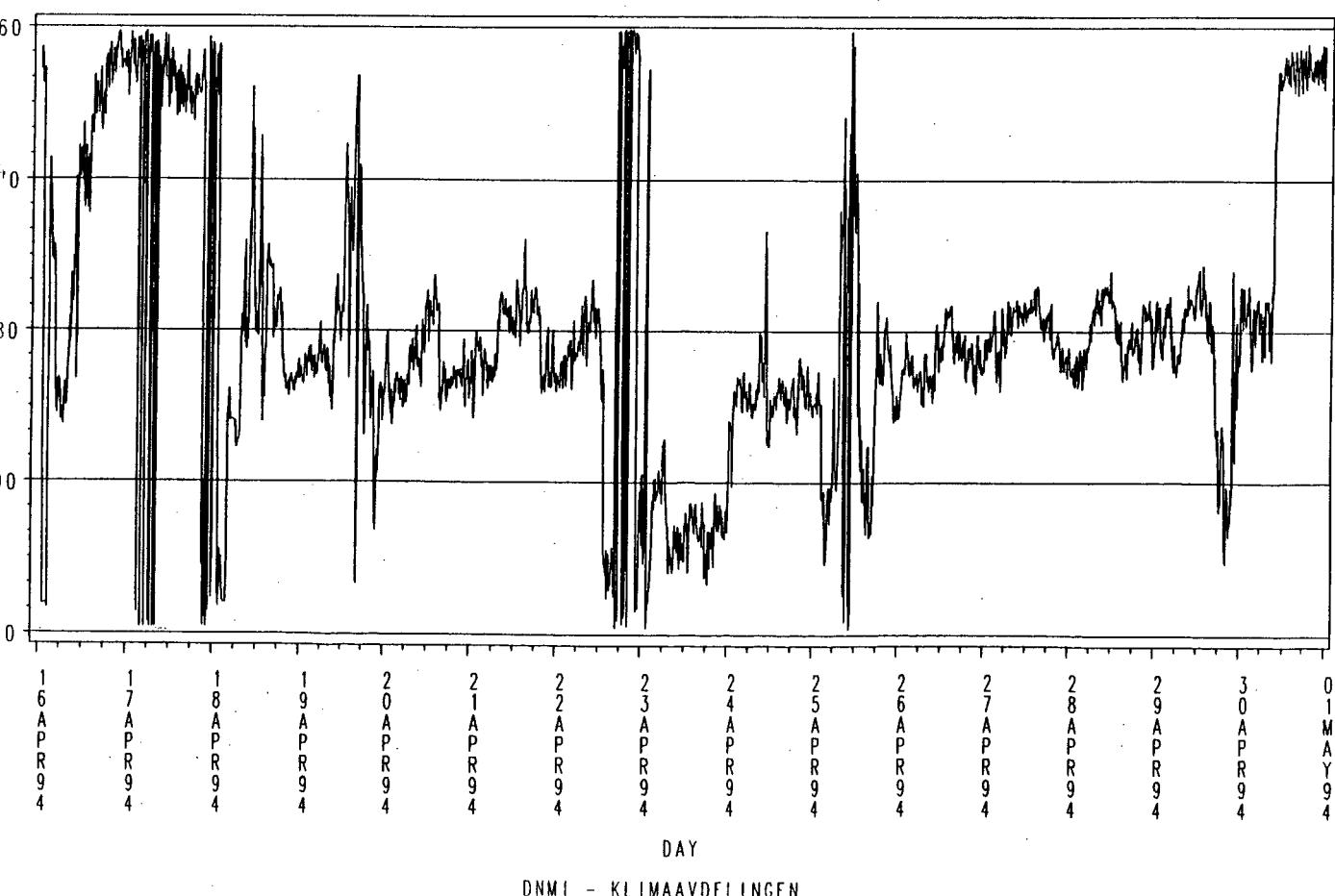
# HANØYTANGEN 1994

Wind speed 10 m above the ground (m/s)



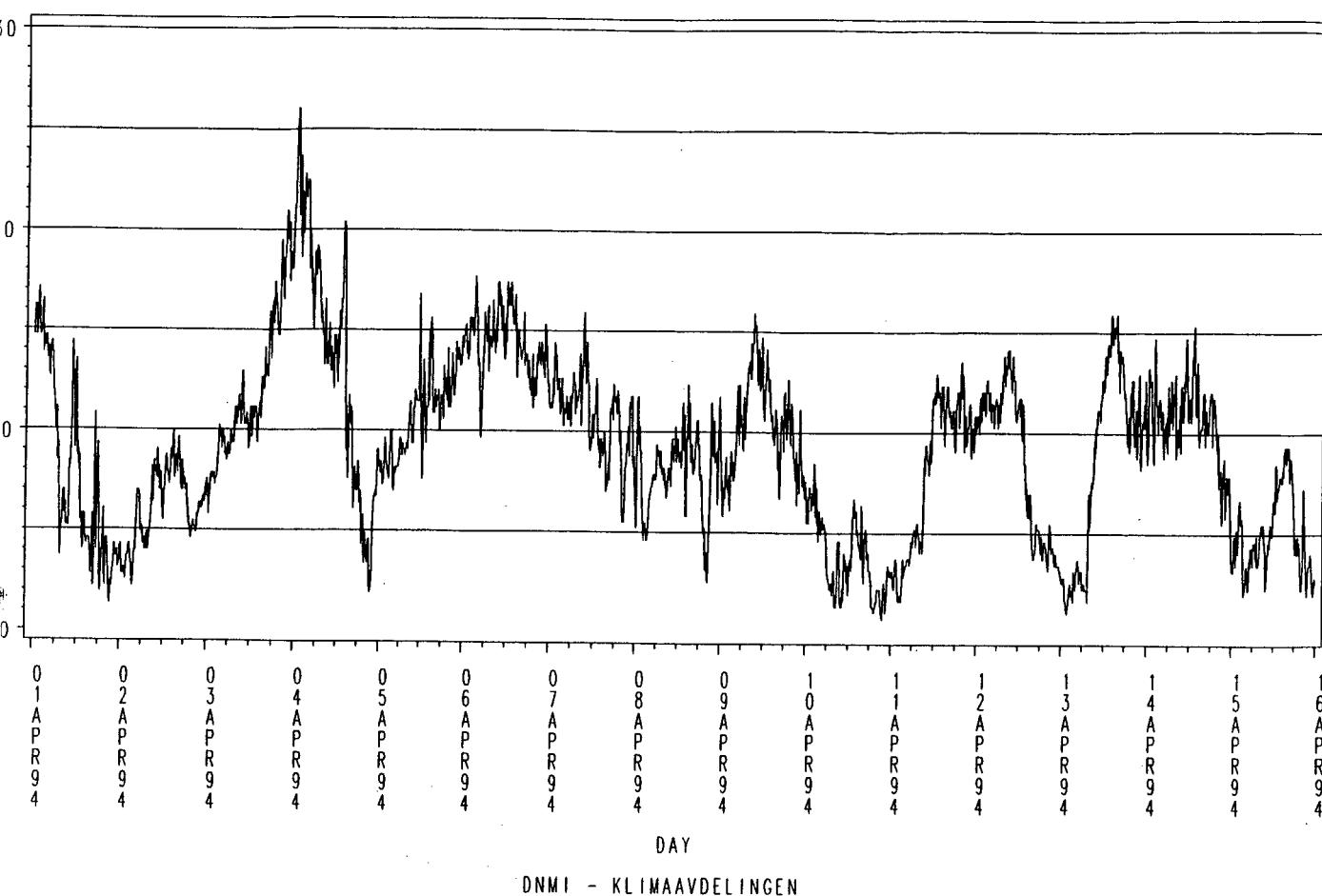
# HANØYTANGEN 1994

Wind direction 10 m above the ground



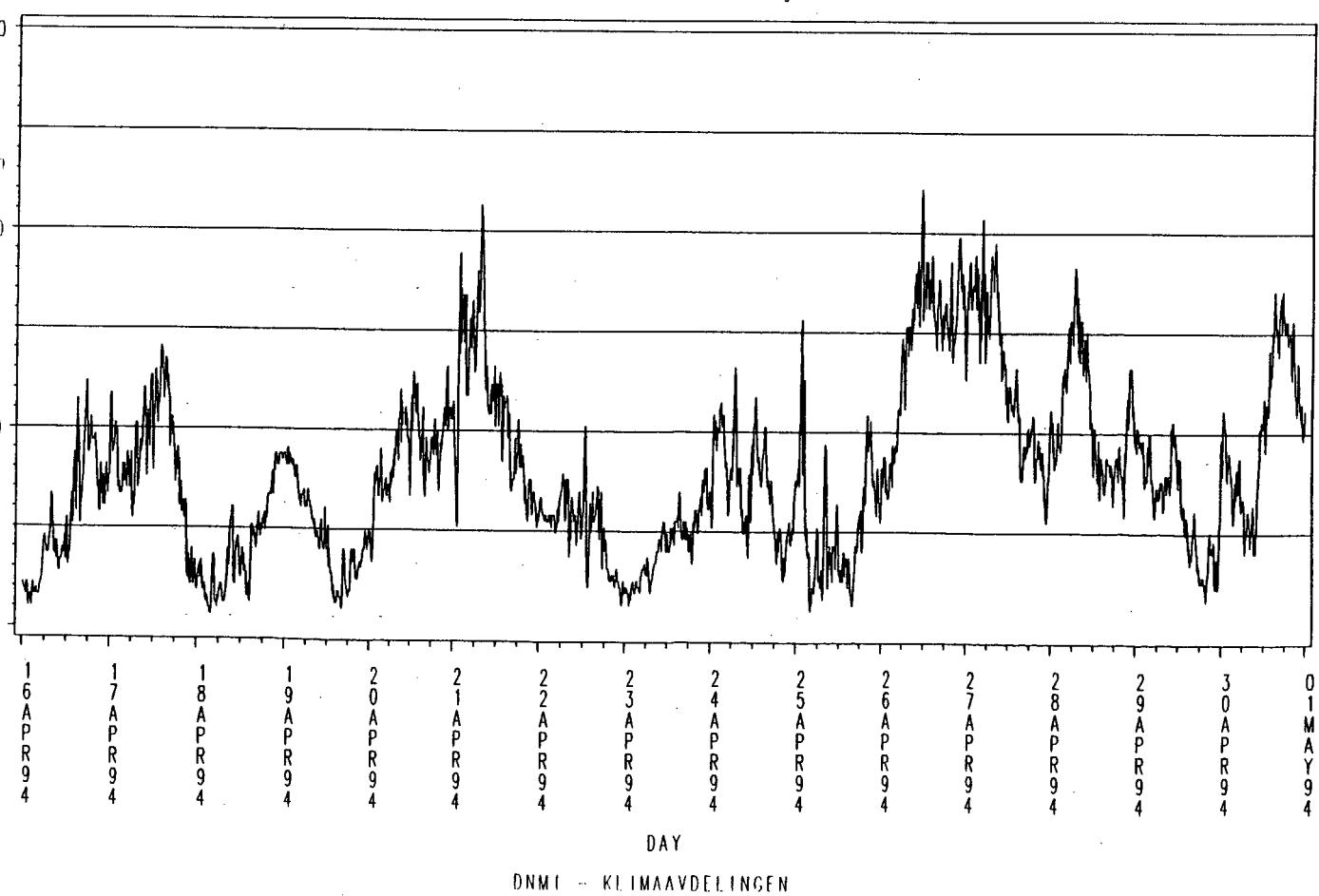
# HANØYTANGEN 1994

Gust wind speed 10 m above the ground (m/s)



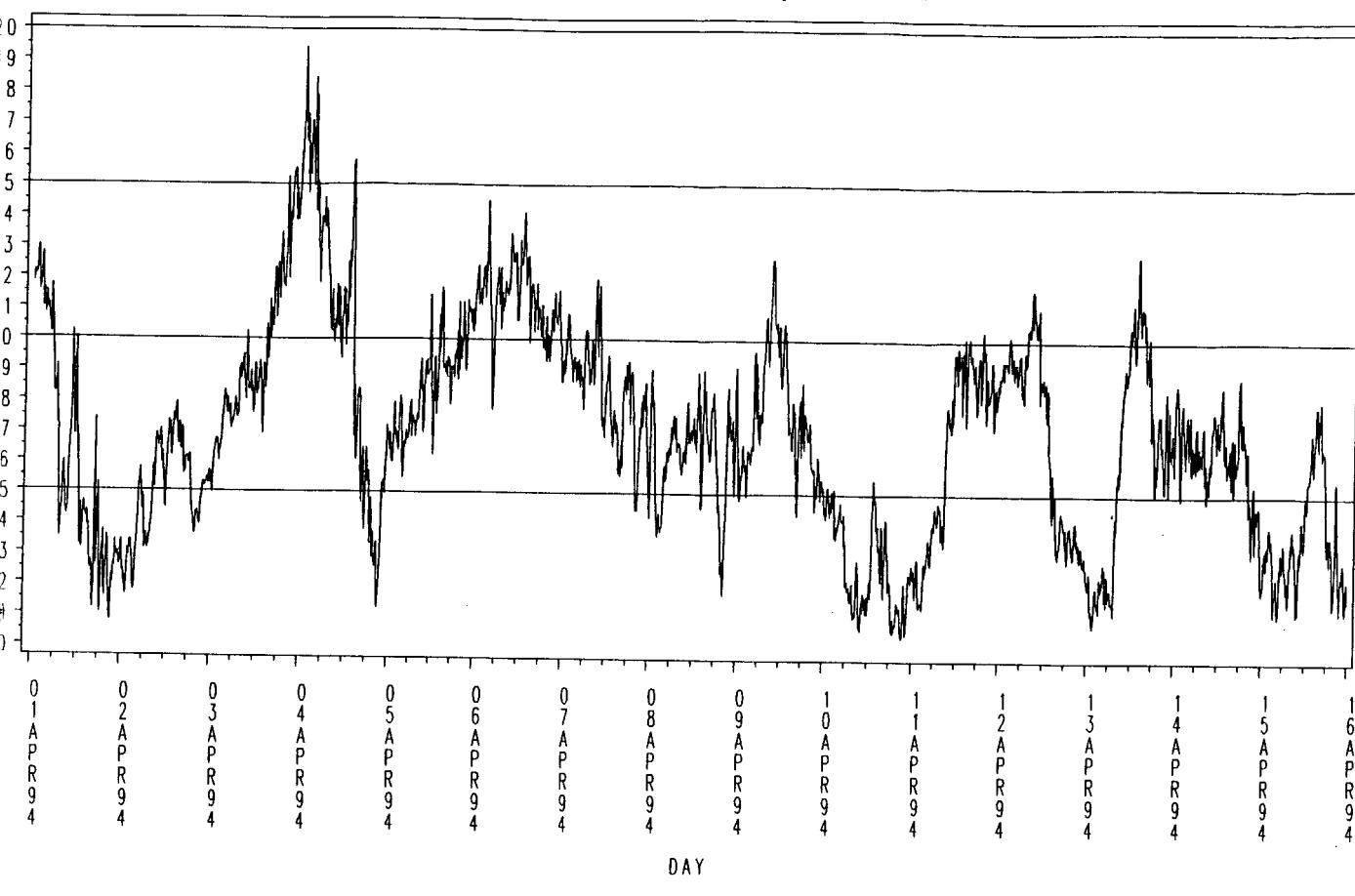
# HANØYTANGEN 1994

Gust wind speed 10 m above the ground (m/s)



# HANØYTANGEN 1994

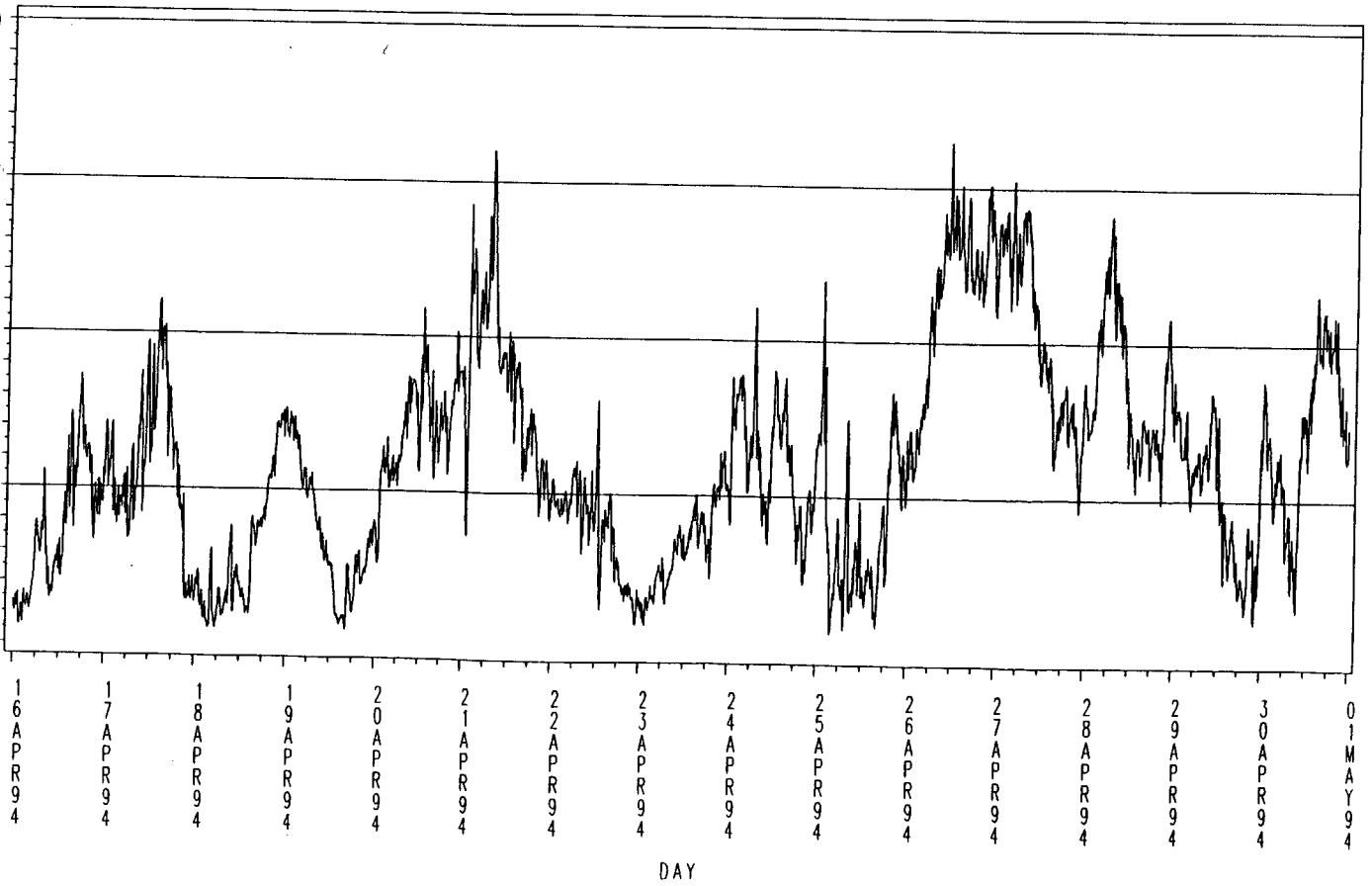
Wind speed 18 m above the ground (m/s)



DNMI - KLIMA AVDELINGEN

# HANØYTANGEN 1994

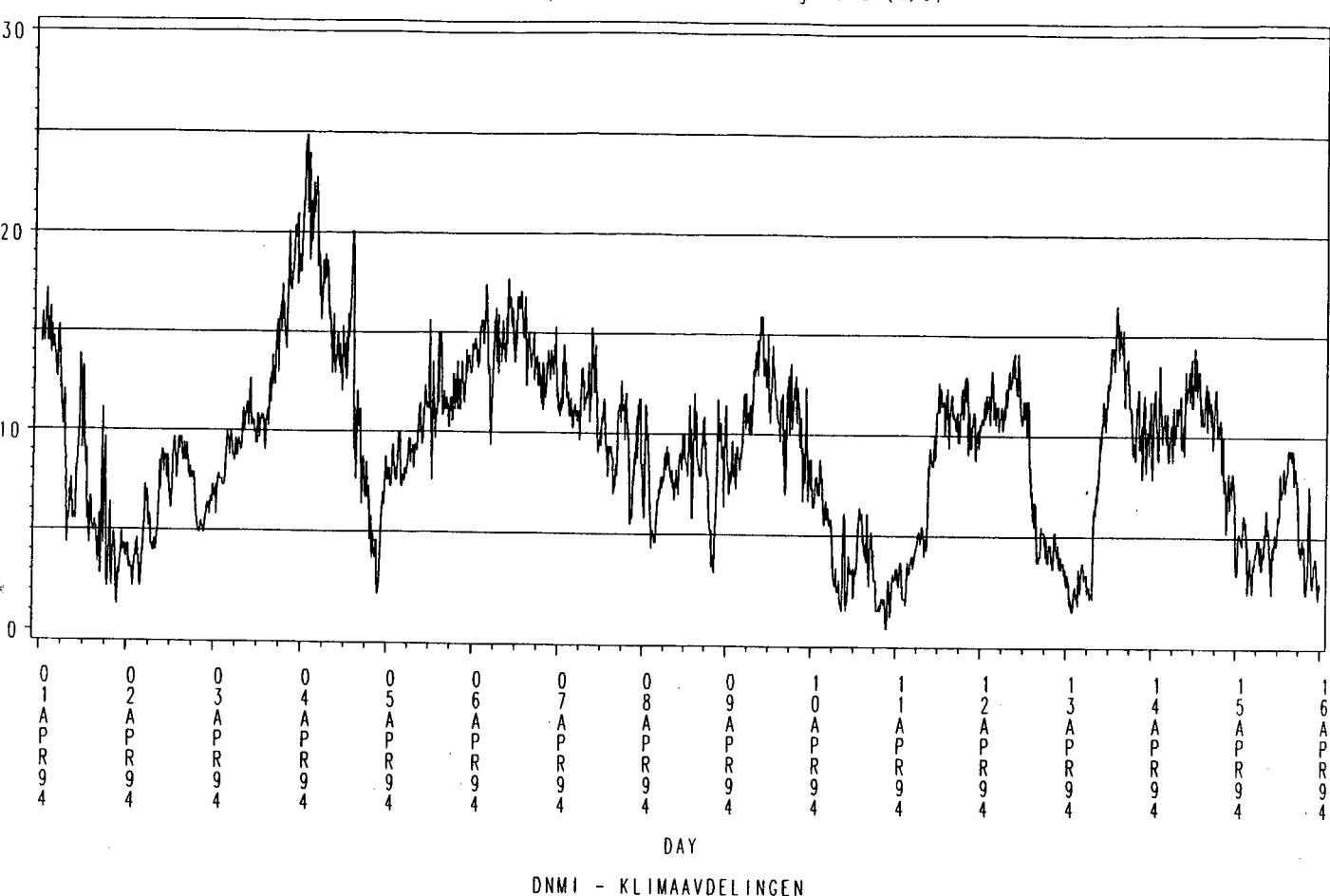
Wind speed 18 m above the ground (m/s)



DNMI - KLIMA AVDELINGEN

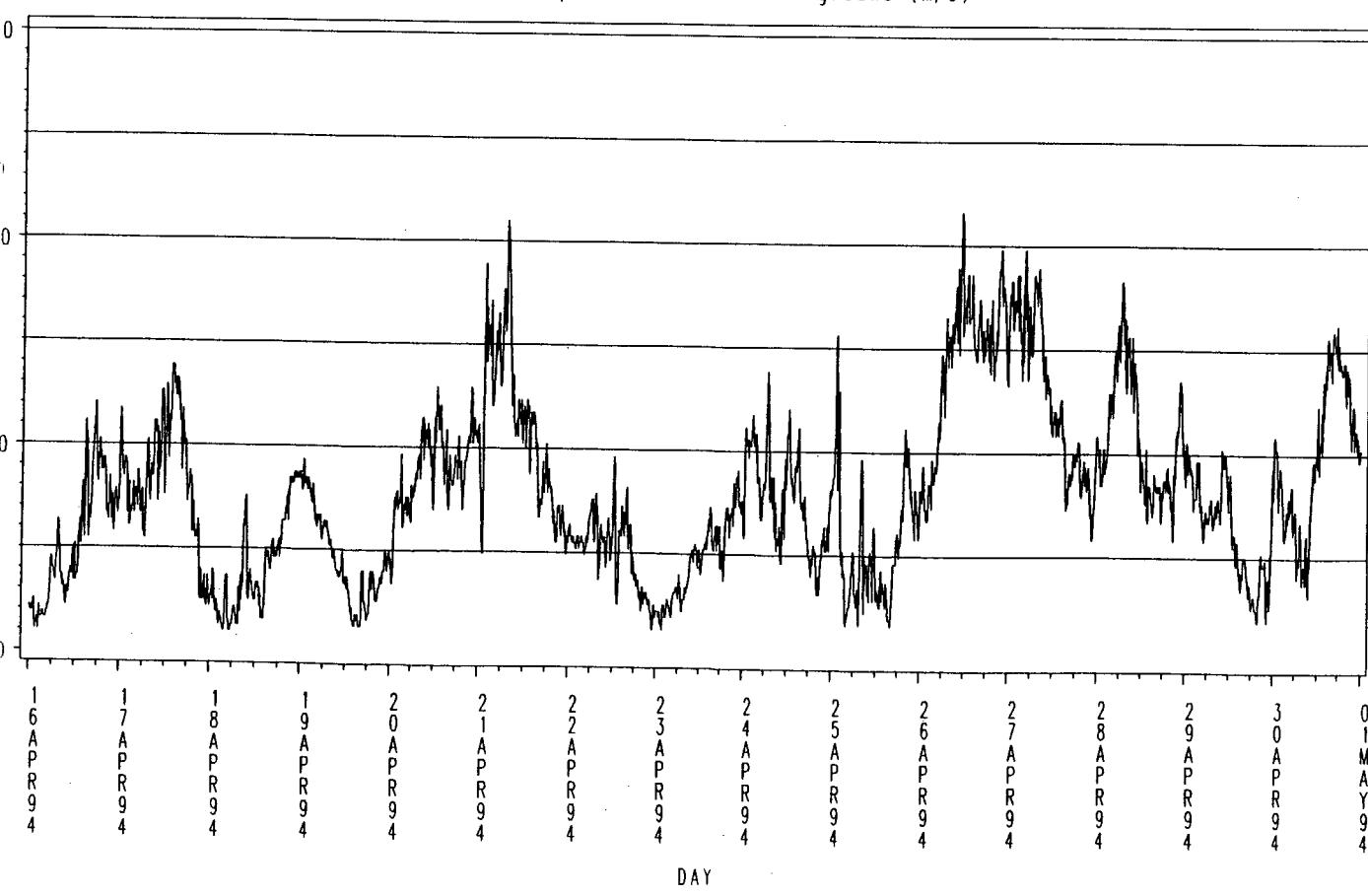
# HANØYTANGEN 1994

Gust wind speed 18 m above the ground (m/s)



HANØYTANGEN 1994

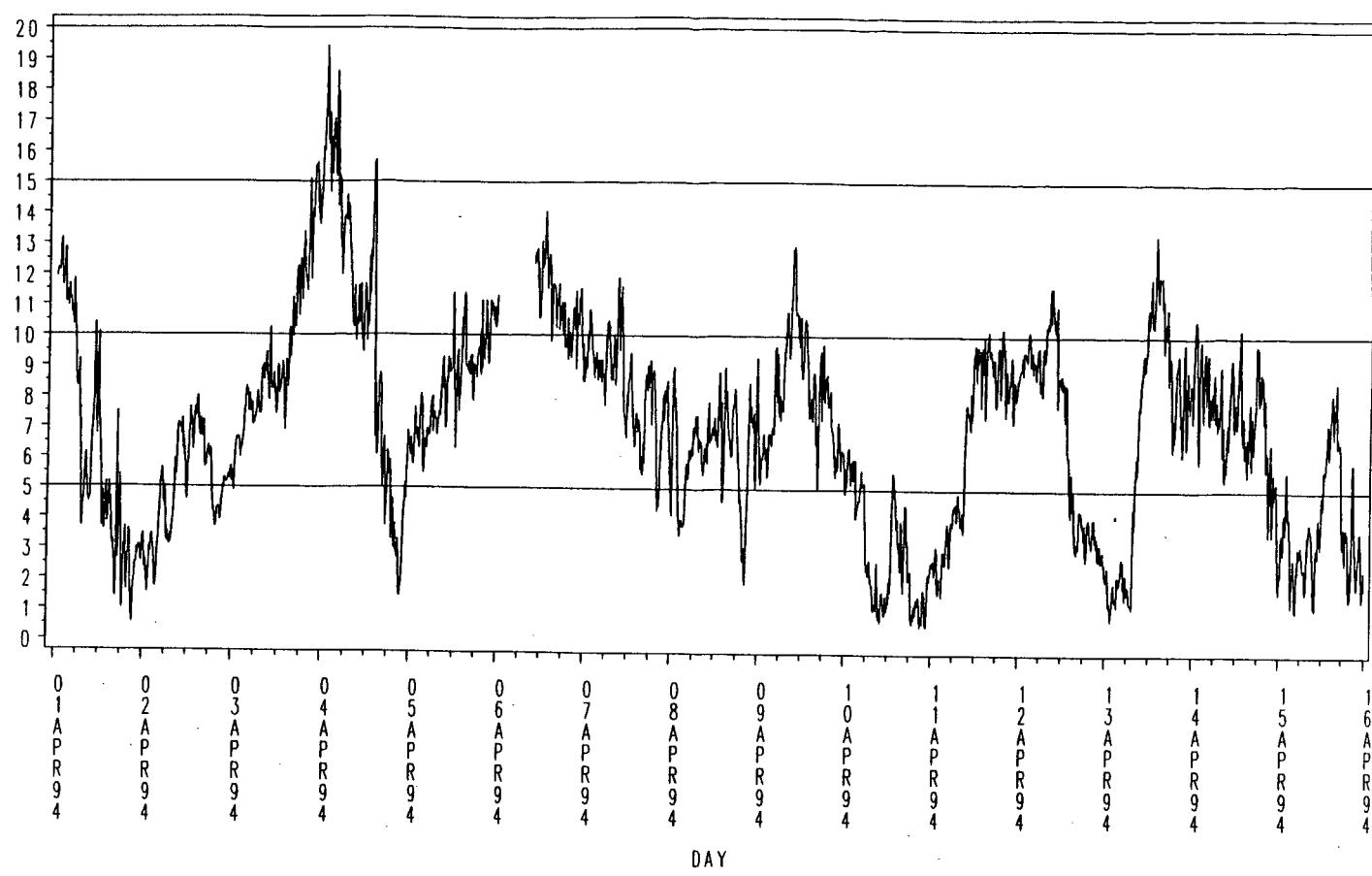
Gust wind speed 18 m above the ground (m/s)



DNMI - KLIMAATDEELINGEN

# HANØYTANGEN 1994

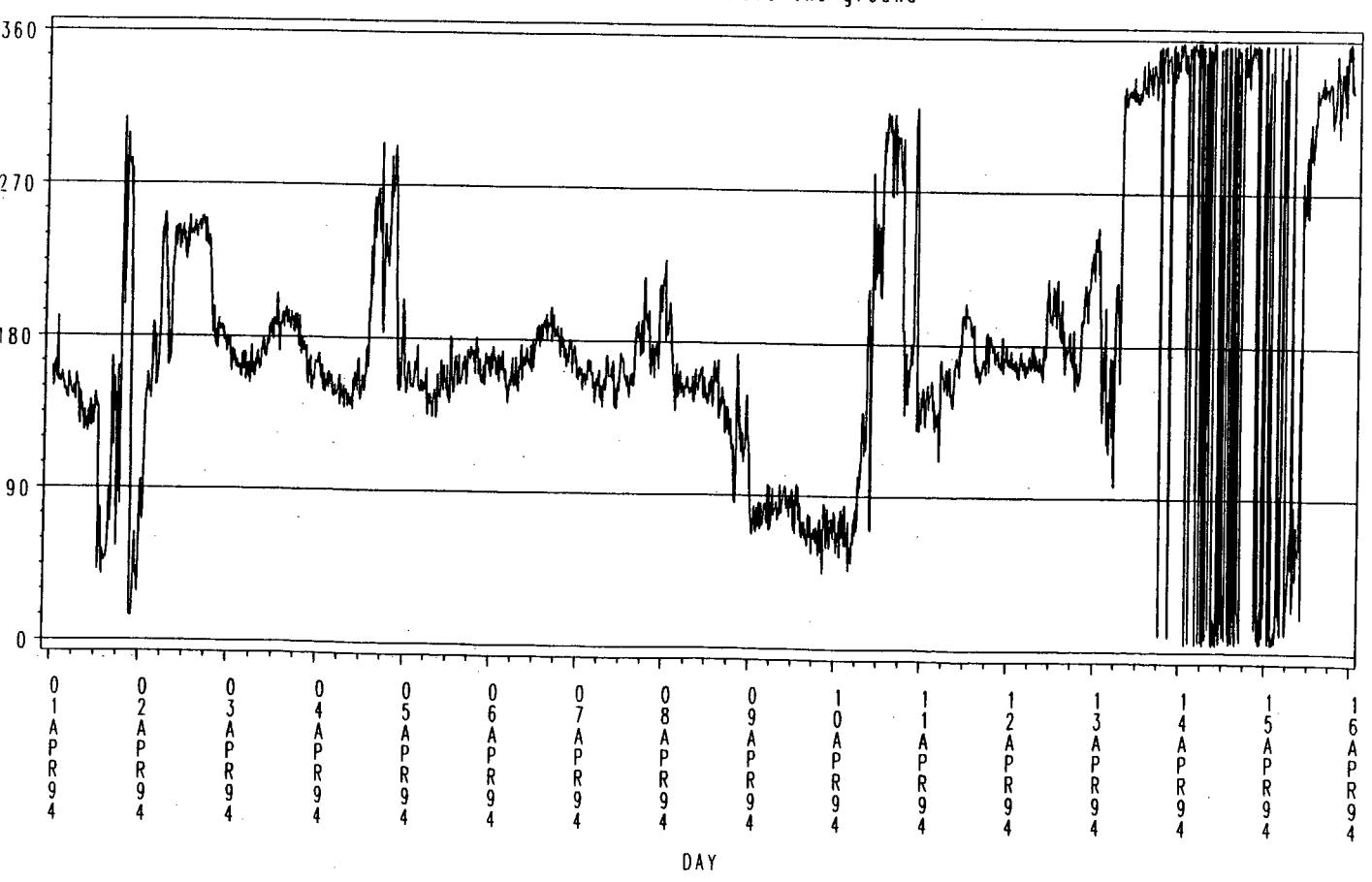
Wind speed 30 m above the ground (m/s)



DNMI - KLIMAAVDELINGEN

# HANØYTANGEN 1994

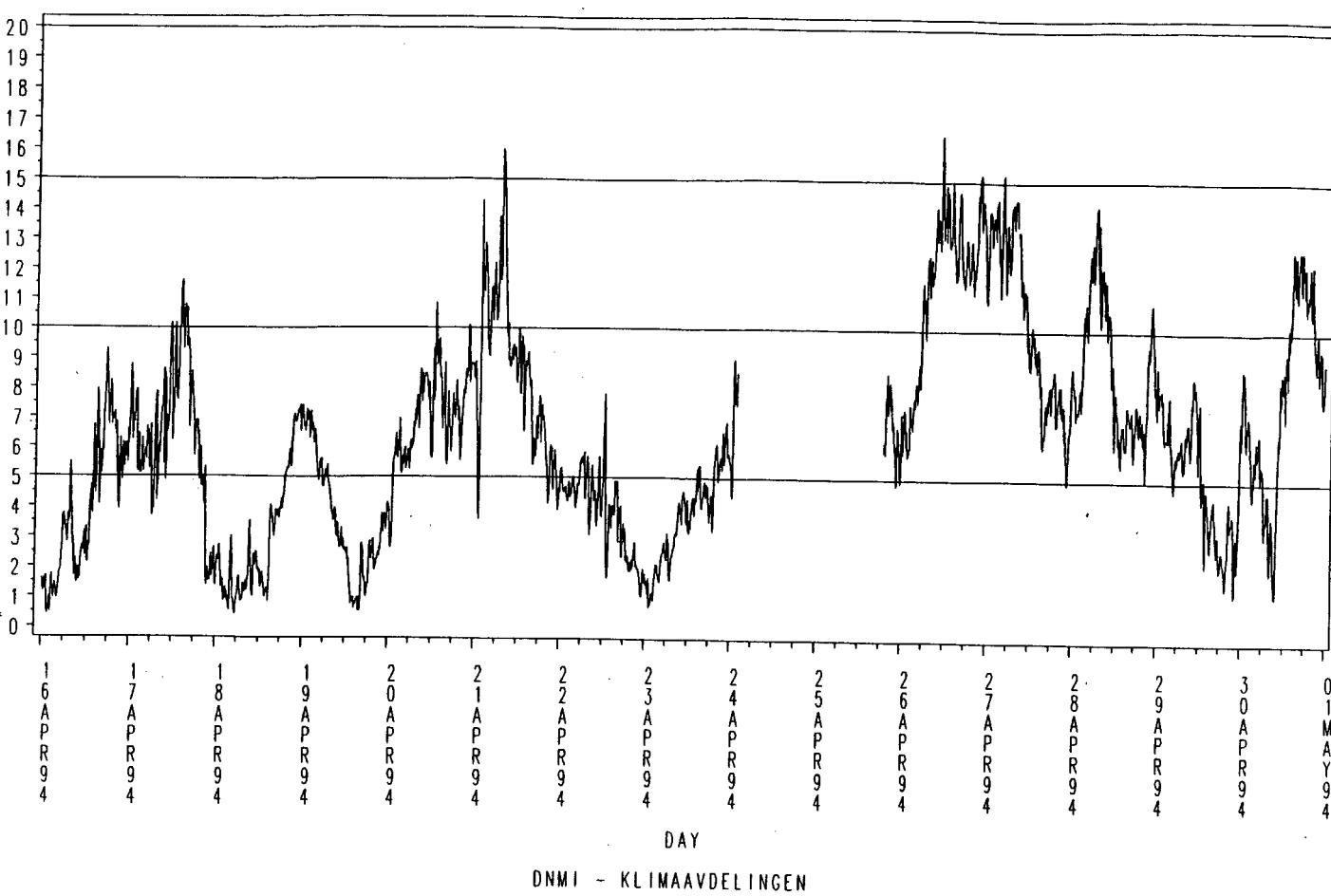
Wind direction 30 m above the ground



DNMI - KLIMAAVDELINGEN

# HANØYTANGEN 1994

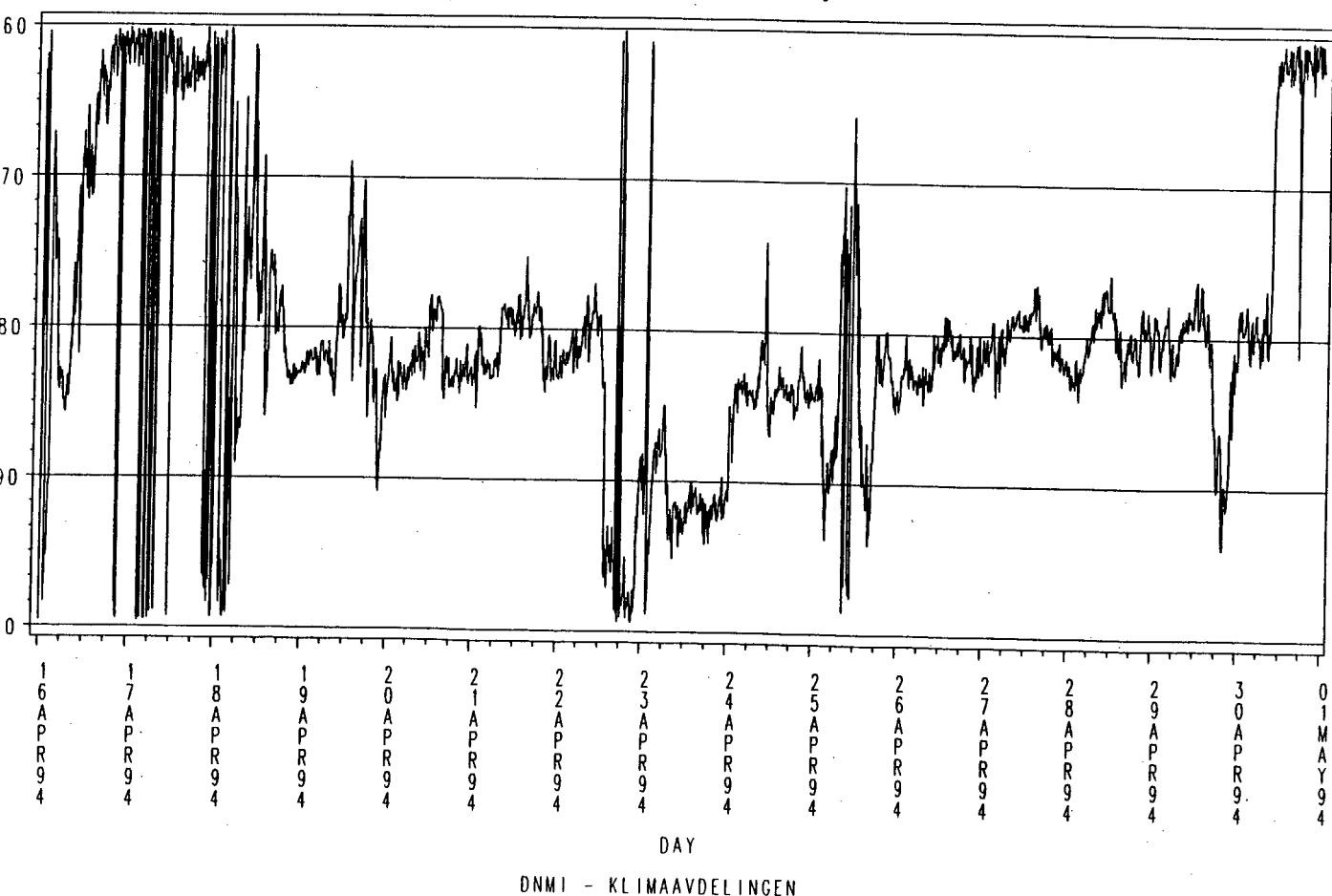
Wind speed 30 m above the ground (m/s)



DNMI - KLIMA AVDELINGEN

# HANØYTANGEN 1994

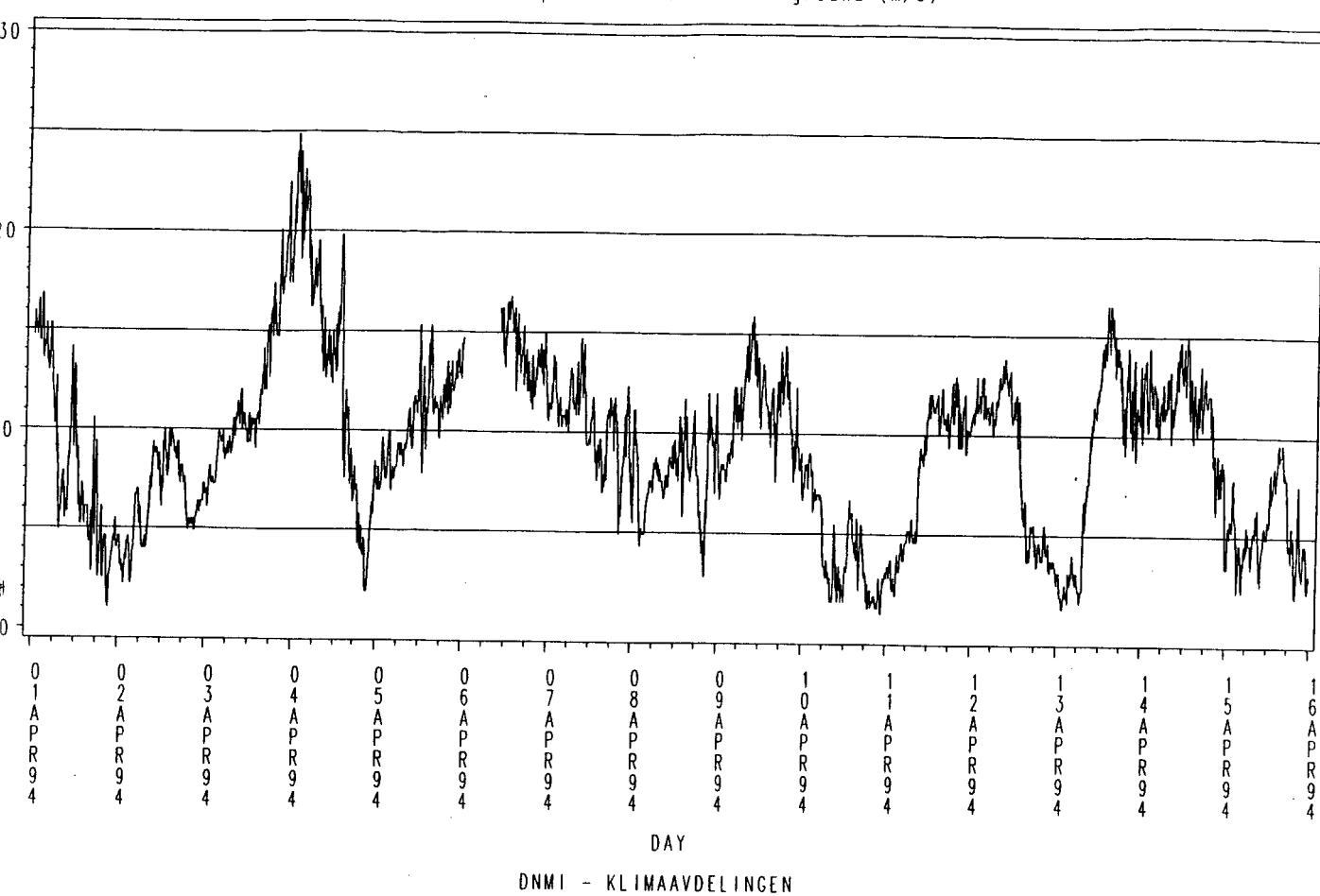
Wind direction 30 m above the ground



DNMI - KLIMA AVDELINGEN

# HANØYTANGEN 1994

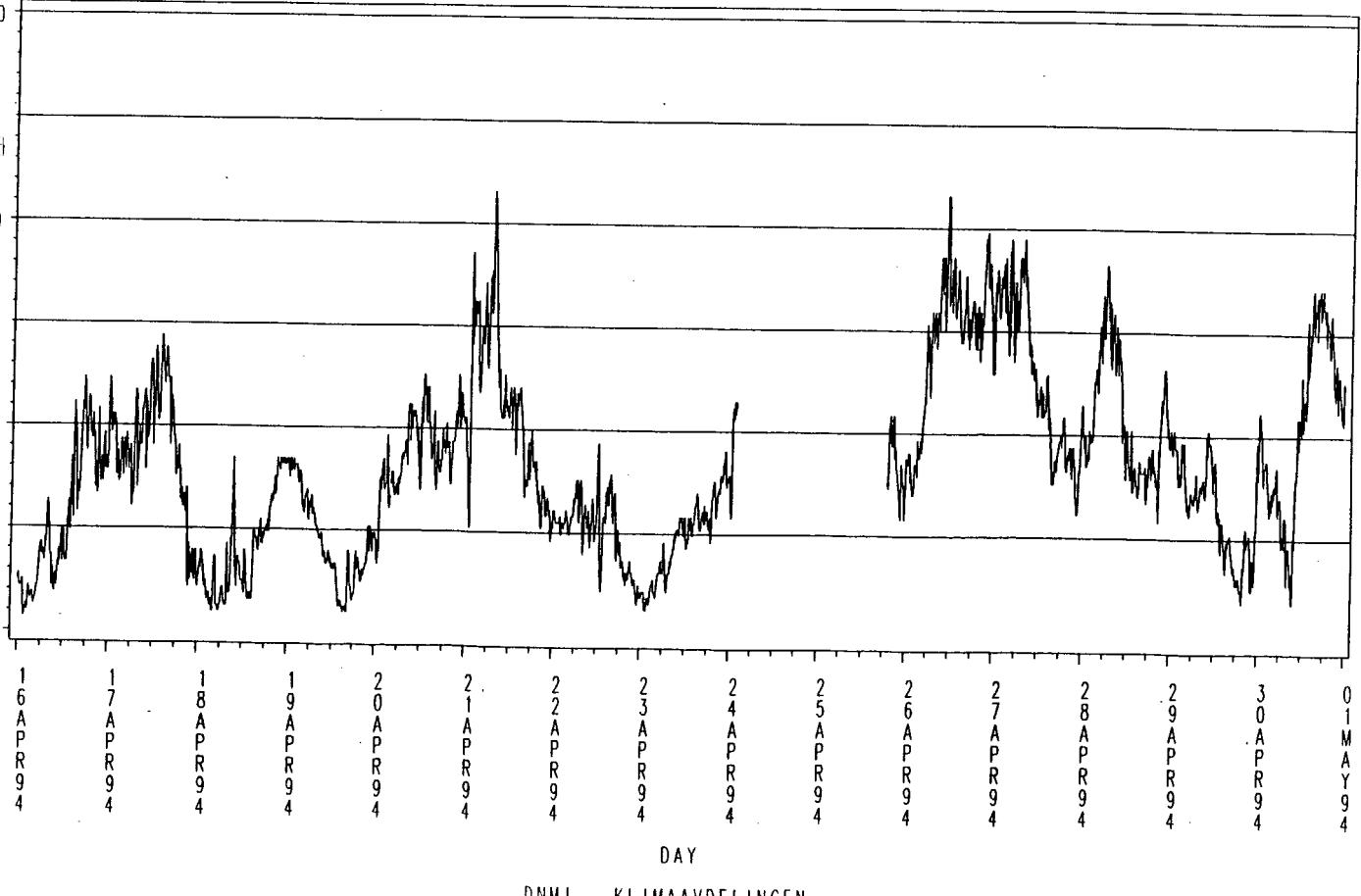
Gust wind speed 30 m above the ground (m/s)



DNMI - KLIMA AVDELINGEN

# HANØYTANGEN 1994

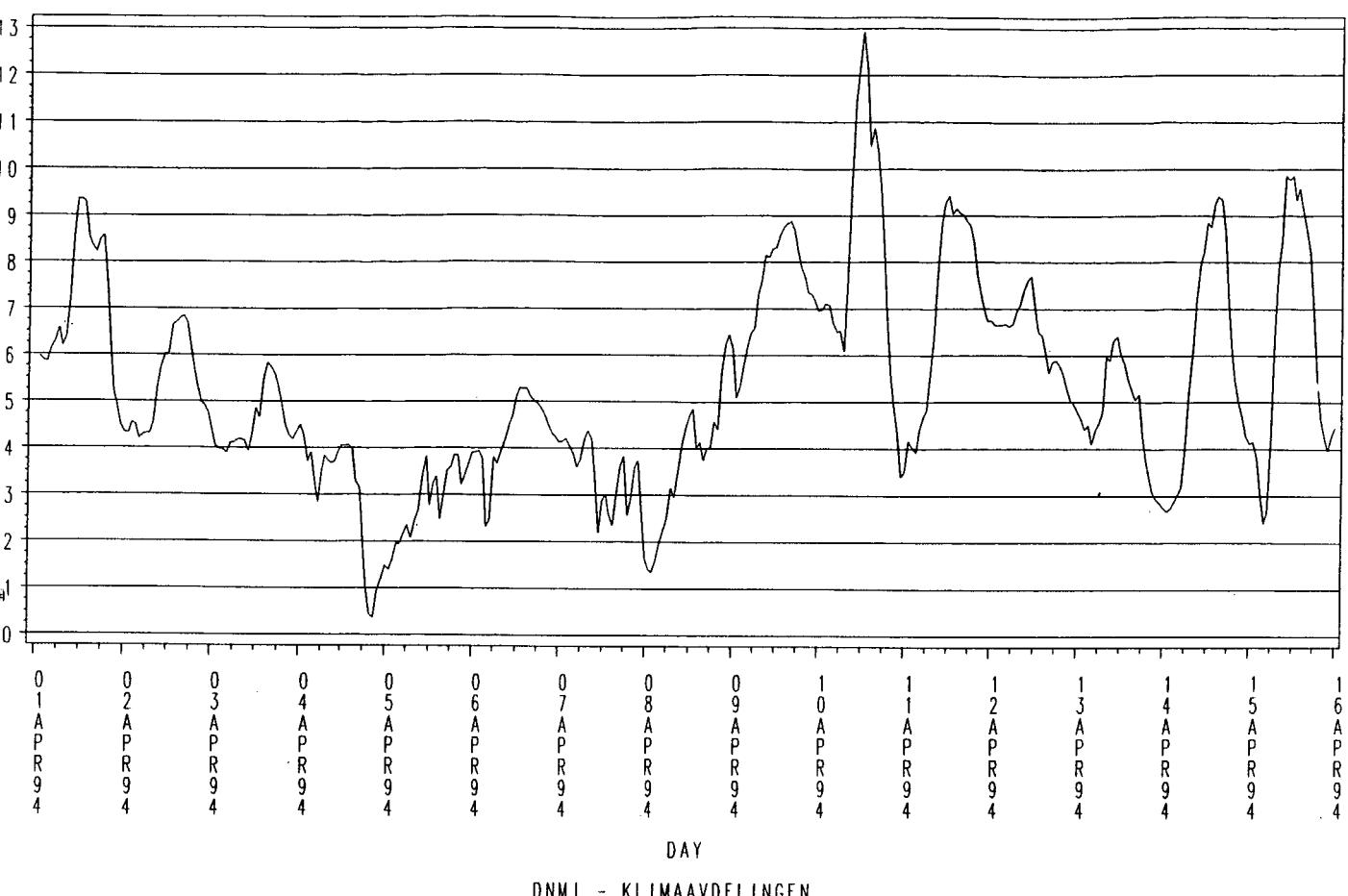
Gust wind speed 30 m above the ground (m/s)



DNMI - KLIMA AVDELINGEN

# HANØYTANGEN 1994

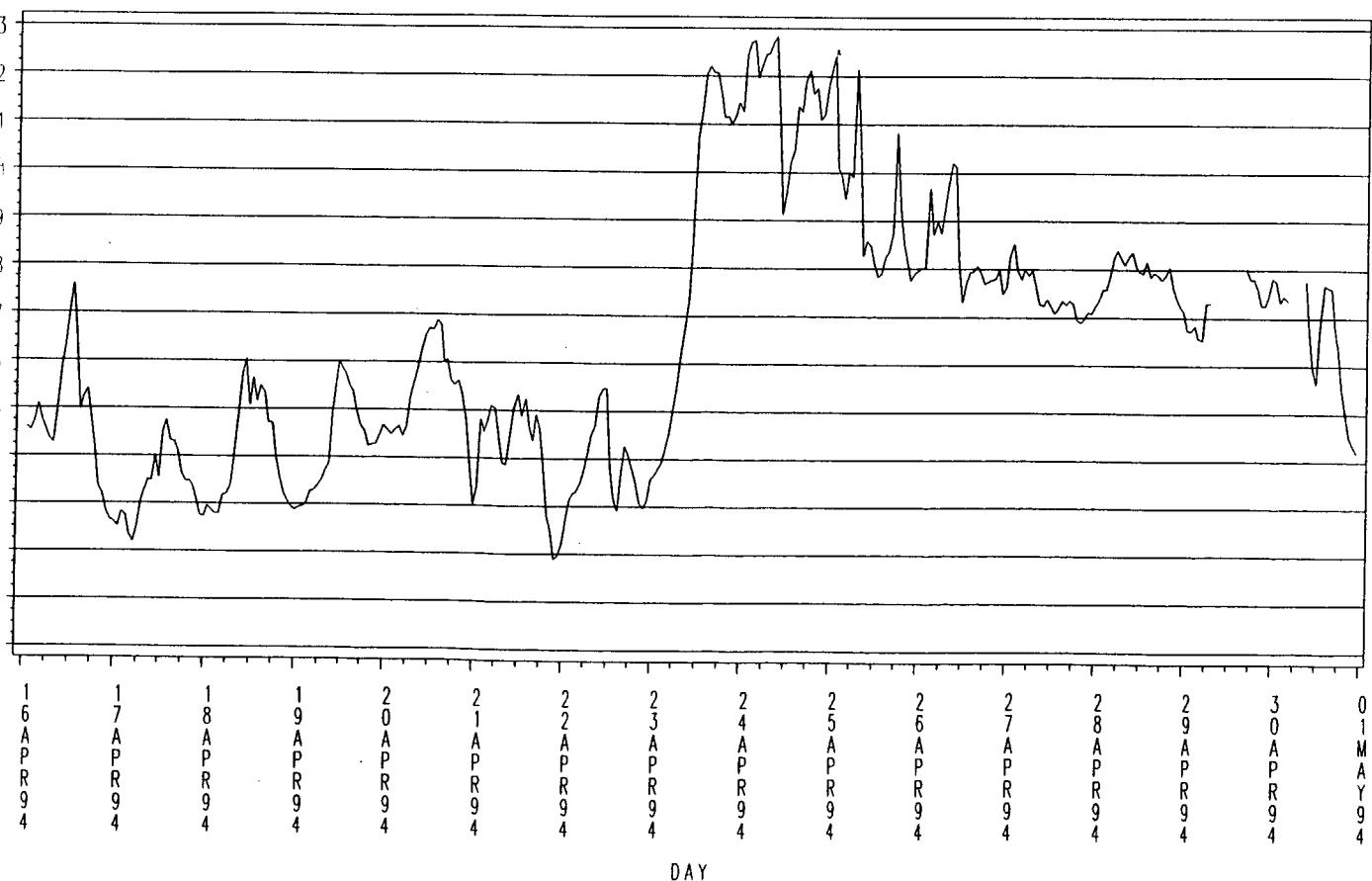
Air Temperature in degrees C (Hourly Means)



DNMI - KLIMAAVDELINGEN

# HANØYTANGEN 1994

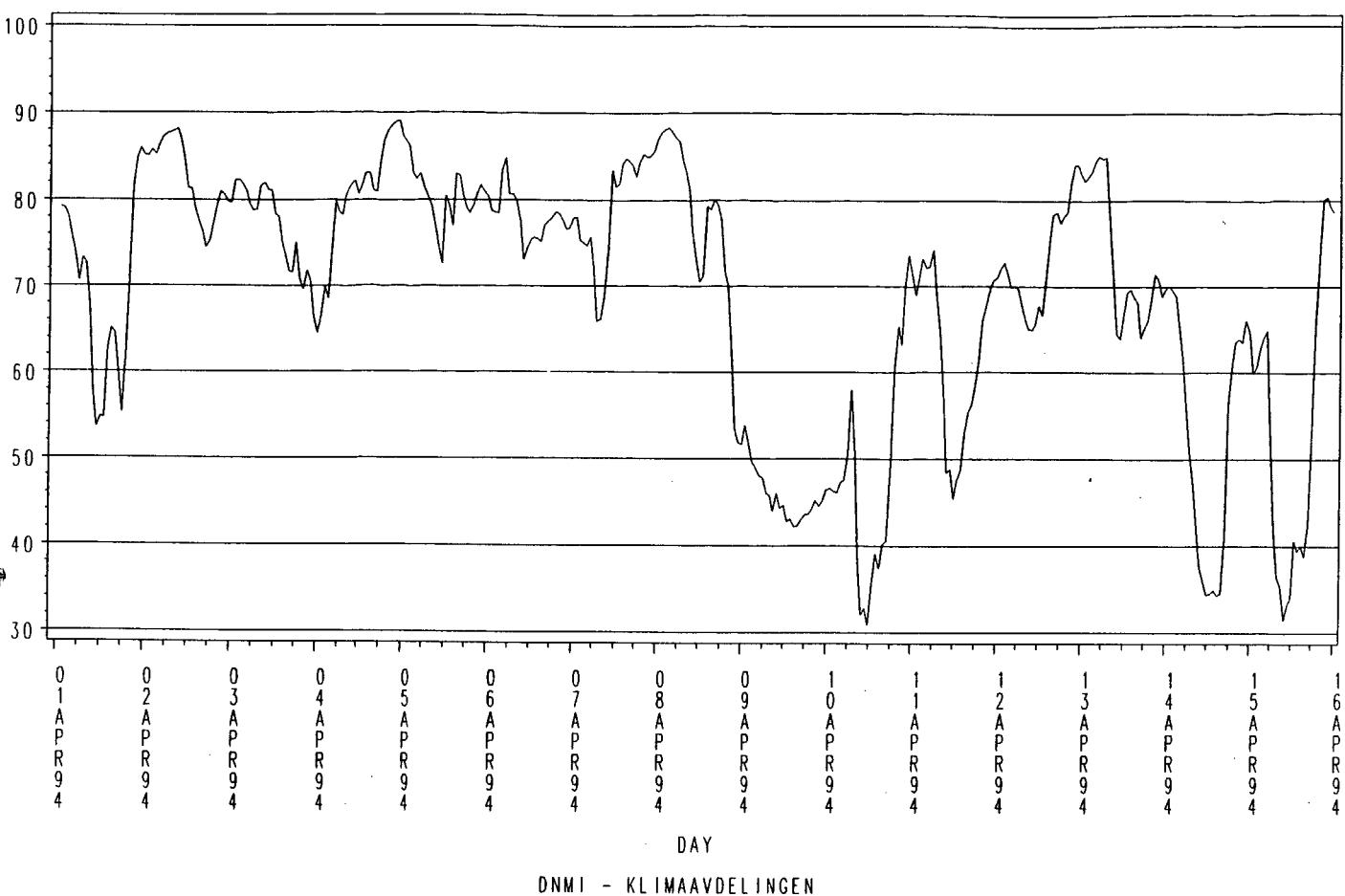
Air Temperature in degrees C (Hourly Means)



DNMI - KLIMAAVDELINGEN

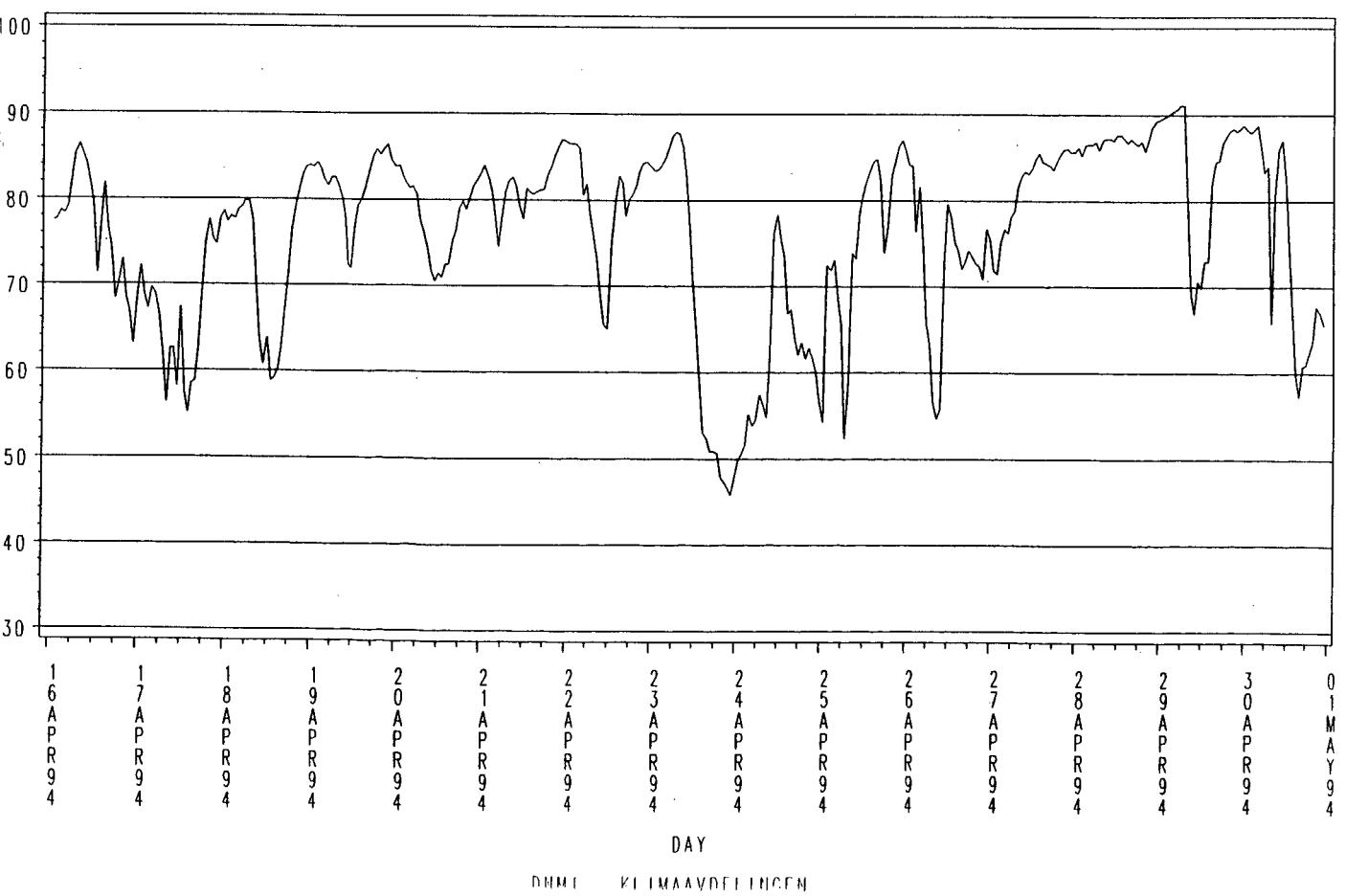
# HANØYTANGEN 1994

Air Humidity in % (Hourly Means)



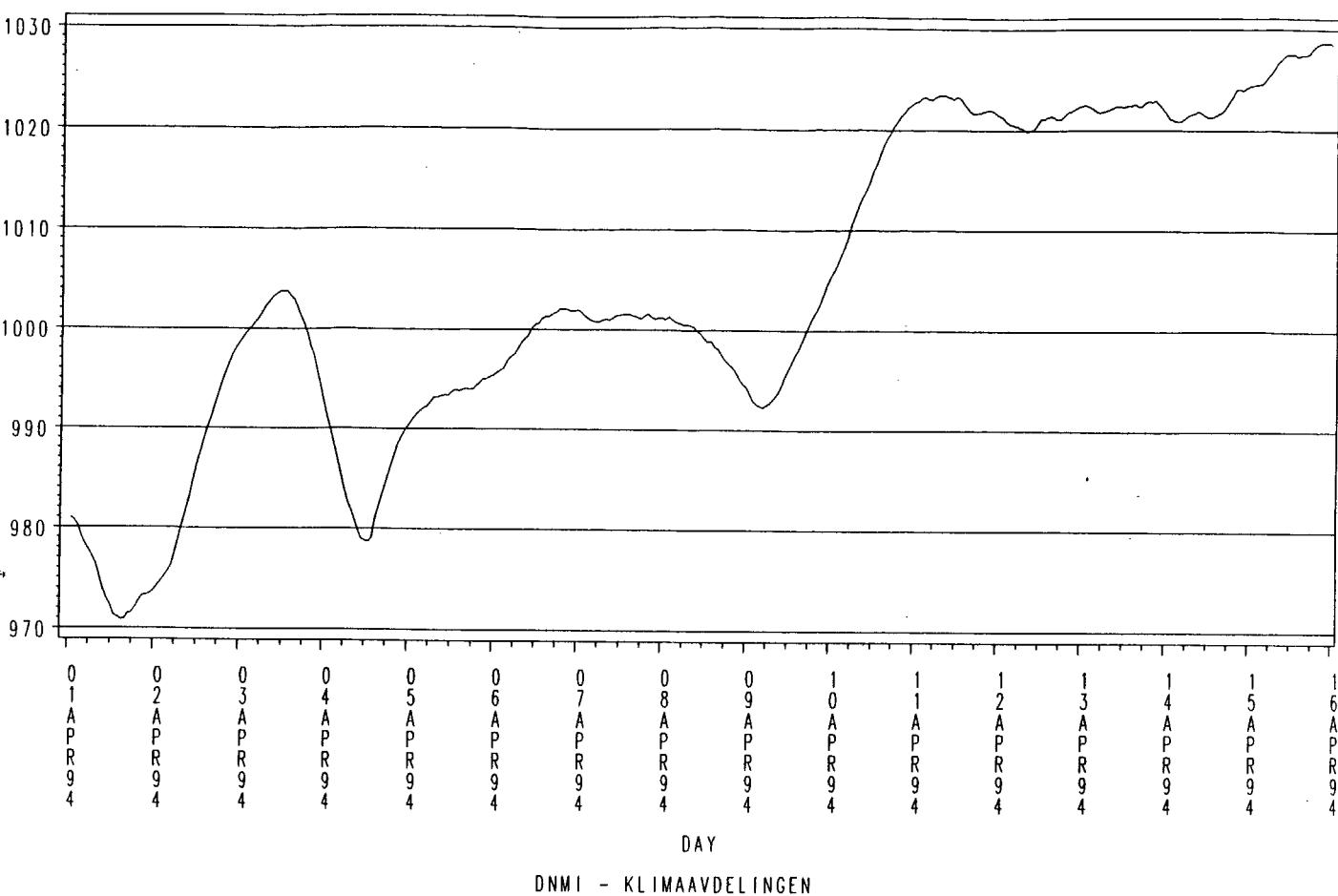
# HANØYTANGEN 1994

Air Humidity in % (Hourly Means)



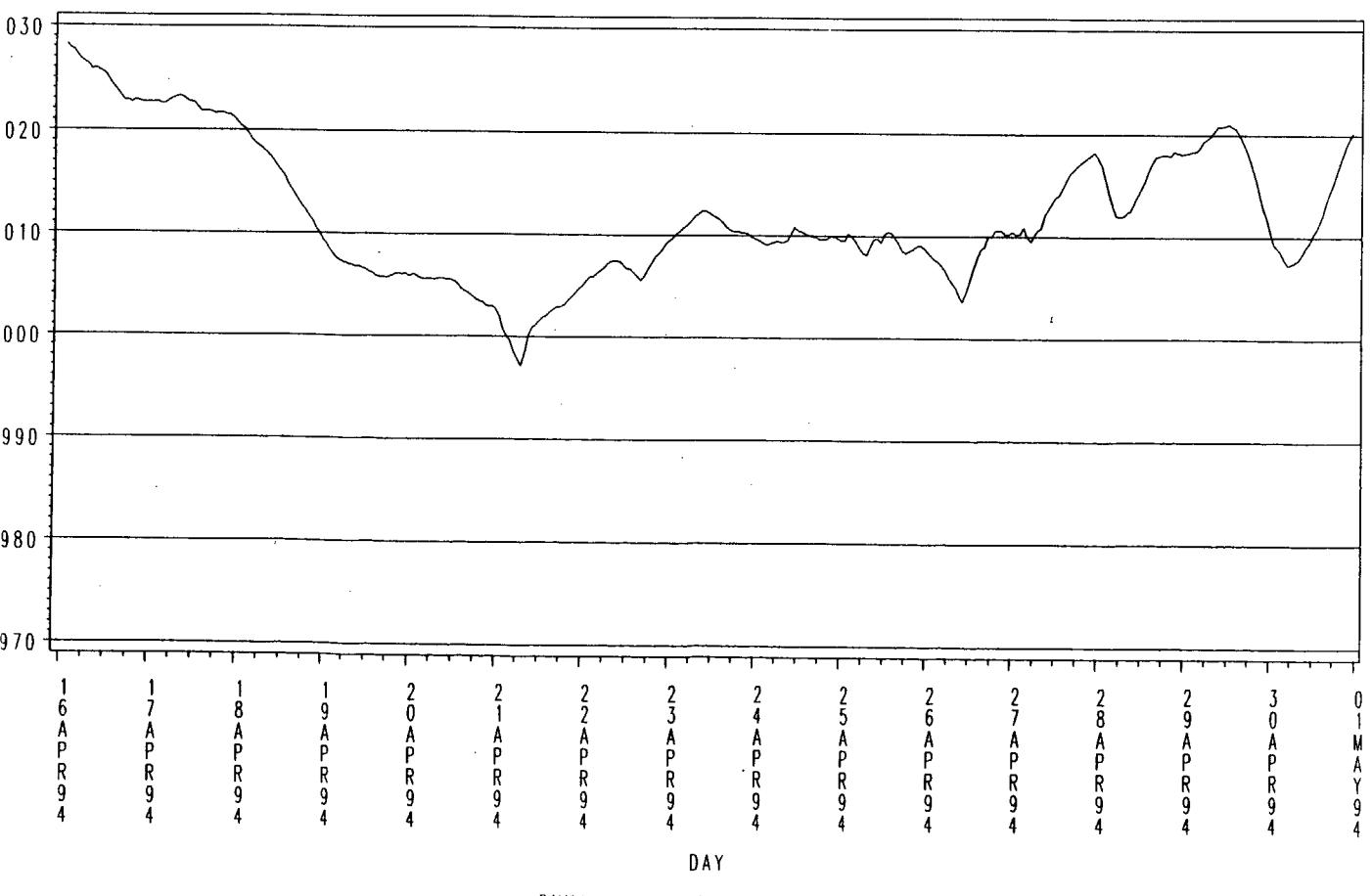
# HANØYTANGEN 1994

### Air Pressure (QFF) in hPa (Hourly Means)



# HANØYTANGEN 1994

Air Pressure (QFF) in hPa (Hourly Means)



## DISTRIBUTION TABLES / WIND ROSES

The distribution table gives details about the distribution of the wind speed for a certain wind direction or the distribution of the wind directions for a certain wind speed.

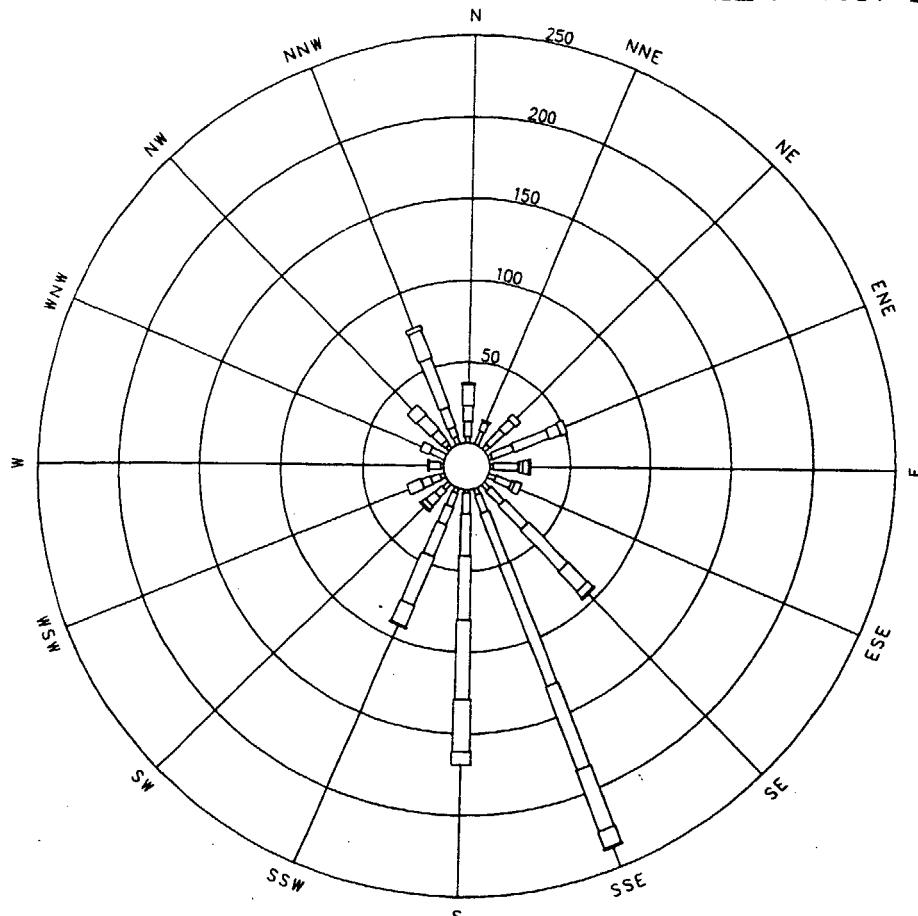
If for example, it is of interest to know the directions for which wind force 5 Beaufort have occurred this month, one has to look at the line for 5 Beaufort in the table.

If the information of the wind forces that have occurred this month for a certain direction is of interest, one has to look at the column for that specific direction.

The frequencies in the table are given per thousand (Prm) of the data available this month.

The wind rose is a graphic representation of the information given in the distribution table. The same number of classes is applied. No Beaufort value is given to the centre of the wind rose. Thus, the first class outside the centre is 0 Beaufort (0-0.2 m/s). Due to the calibration of the wind sensors, this class will always be empty at Hanøytangen.

# HANOYTANGEN APRIL 1994 WIND DISTRIBUTION 10 M

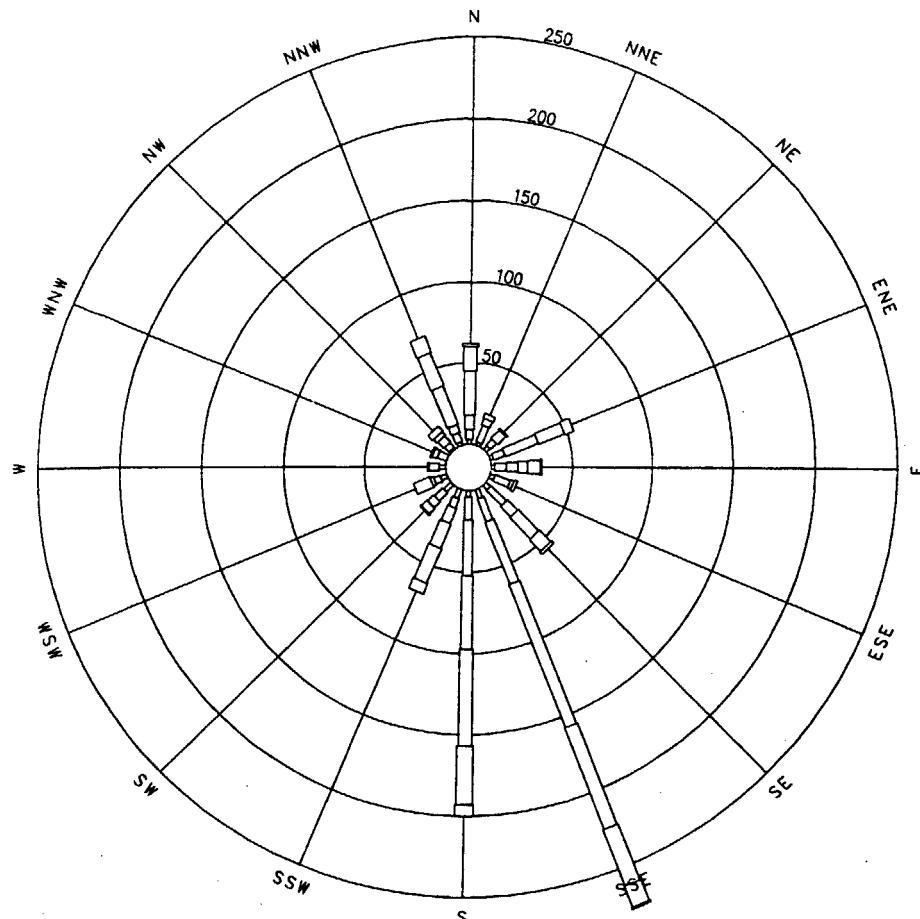


LENGTH : (NUMBER OF OBS/NUMBER OF DATA) \* 1000  
 WIDTH = SPEED (M/S / BEAUFORT SCALE)

Wind direction (DD) / Wind speed (Beaufort and m/s) 10 m above the ground

m / s	Be- au- fo- rt rt	DD															ALL	
		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
		Prm																
.2		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
1.5	1	4	9	4	2	2	5	5	4	2	3	5	3	2	0	3	5	67
3.3	2	9	6	12	14	15	10	12	12	13	9	6	6	7	10	3	6	157
5.4	3	10	11	8	23	1	2	20	34	26	12	7	6	0	6	8	13	184
7.9	4	13	0	4	8	2	4	35	80	39	21	3	9	1	0	12	32	270
10.7	5	1	.	.	4	4	0	17	55	49	32	1	.	.	0	8	18	195
13.8	6	.	.	.	.	.	1	.	5	40	32	14	.	.	.	0	3	98
17.1	7	.	.	.	.	.	.	.	1	11	8	1	.	.	.	.	.	22
20.7	8	.	.	.	.	.	.	.	.	1	0	.	.	.	.	.	.	1
24.4	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
28.4	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
32.6	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	ALL	39	17	31	53	27	23	99	239	172	96	23	26	12	18	38	78	1000

# HANOYTANGEN APRIL 1994 WIND DISTRIBUTION 30 M

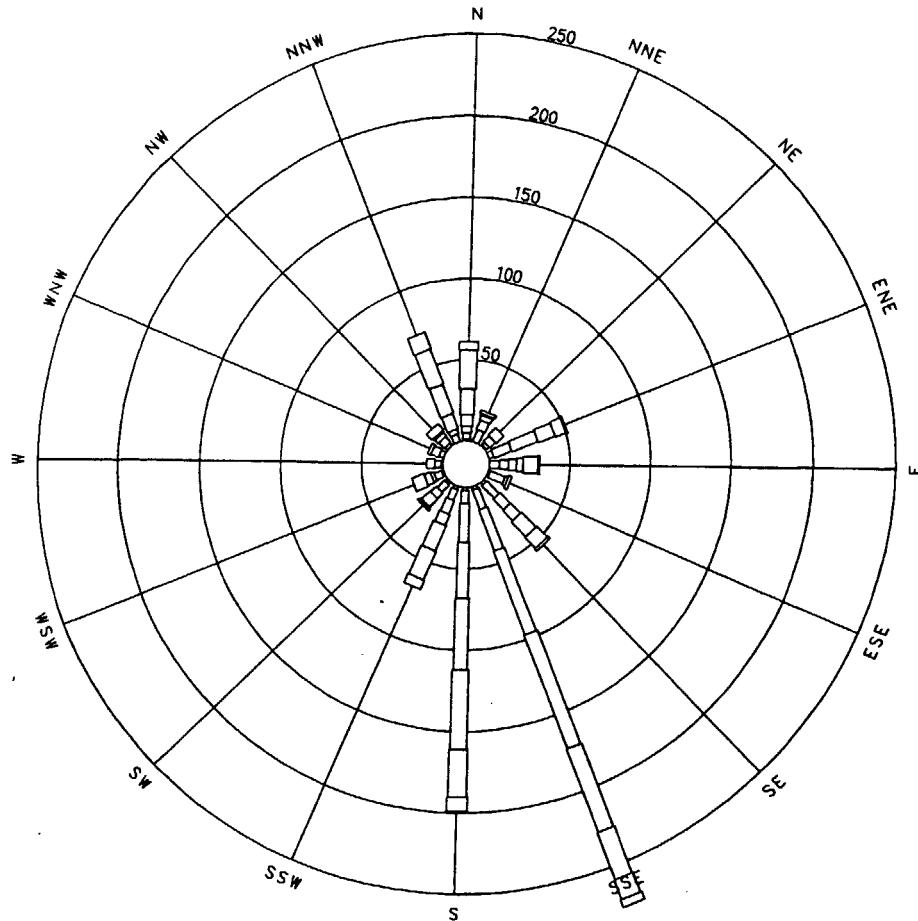


LENGTH : (NUMBER OF OBS/NUMBER OF DATA) \* 1000  
 WIDTH = SPEED (M/S / BEAUFORT SCALE)

Wind direction (DD) / Wind speed (Beaufort and m/s) 30 m above the ground

m / s	Be- au- fo- rt	DD																ALL
		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
		Prm																
.2		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1		3	2	3	2	2	3	4	6	4	6	6	4	4	0	1	2	60
1.5																		
2		6	11	5	7	7	10	13	15	14	6	7	4	6	6	4	6	134
3.3																		
3		9	4	7	22	7	2	9	41	34	10	5	21	1	3	5	5	172
5.4																		
4		27	3	11	17	6	2	18	95	45	16	5	11	0	1	3	25	282
7.9																		
5		15	0	.	6	8	0	10	67	60	23	1	0	0	0	4	22	223
10.7																		
6		2	.	.	.	1	.	2	37	36	7	.	.	.	.	0	11	100
13.8																		
7		.	.	.	.	.	.	0	14	7	0	.	.	.	.	.	.	23
17.1																		
8		.	.	.	.	.	.	.	1	0	.	.	.	.	.	.	.	1
20.7																		
9		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
24.4																		
10		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
28.4																		
11		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
32.6																		
12		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
ALL		64	22	17	55	35	19	59	280	203	71	26	25	13	12	19	73	1000

# HANOYTANGEN APRIL 1994 GUST WIND DISTR. 30 M



LENGTH : (NUMBER OF OBS/NUMBER OF DATA) \* 1000  
 WIDTH = SPEED (M/S / BEAUFORT SCALE)

Wind direction (DD)/ Gust wind speed (m/s) 30 m above the ground.

m/s	DD																ALL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
	Prm																
0-2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0.3-1.5	1	0	1	0	0	1	2	2	2	2	2	1	1	0	0	0	24
1.6-3.3	4	8	2	3	6	10	11	13	8	7	6	51	4	3	2	5	105
3.4-5.4	4	6	5	12	6	2	9	27	24	9	5	21	5	5	5	3	138
5.5-7.9	7	3	6	17	5	0	9	55	34	7	7	41	0	2	3	10	176
8.0-10.7	16	1	0	11	4	2	13	75	44	17	1	81	0	0	1	19	221
10.8-13.8	24	2	0	7	9	0	9	55	49	19	1	01	0	5	23	210	
13.9-17.1	5	0	.	1	1	.	2	31	29	6	.	.	.	0	11	91	
17.2-20.7	.	.	.	.	.	.	0	13	9	0	.	.	.	.	.	24	
20.8-24.5	.	.	.	.	.	.	.	5	0	0	.	.	.	.	.	6	
24.5-28.4	.	.	.	.	.	.	.	0	.	.	.	.	.	.	.	0	
28.5-32.6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
> 32.6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
ALL	64	22	17	55	35	19	59	279	203	71	26	25	13	12	19	73	1000

## COEFFICIENT TRANSFERT TABLES

The tables are actually histograms of the quotient given in the heading of the tables, plotted horizontally. They give details about the distribution of the quotients.

The class interval is 0.5 and the frequencies for the actual class is plotted at the midpoint of the class. If the quotient is 1 the wind speed in the two heights considered have the same value.

The classes start at 0.75 (.725-.774) and end at 1.80 (1.775-1.825). Quotients below or above these limits are counted in these classes respectively.

The tables are giving the frequencies in the actual classes in percent and also as cumulative frequencies in percent.

F30 = Wind speed 30 m above the ground

F18 = Wind speed 18 m above the ground

F10 = Wind speed 10 m above the ground

# HANØYTANGEN APRIL 1994

## QUOTIENT F30/F18

F30/F18 Midpoint		Freq	Cum. Freq	Percent	Cum. Percent
0.75	*	33	33	0.82	0.82
0.80		15	48	0.37	1.19
0.85		25	73	0.62	1.82
0.90	*	52	125	1.29	3.11
0.95	*****	293	418	7.29	10.40
1.00	*****	2292	2710	57.03	67.43
1.05	*****	506	3216	12.59	80.02
1.10	***	226	3442	5.62	85.64
1.15	***	218	3660	5.42	91.07
1.20	**	179	3839	4.45	95.52
1.25	*	112	3951	2.79	98.31
1.30	*	43	3994	1.07	99.38
1.35		9	4003	0.22	99.60
1.40		7	4010	0.17	99.78
1.45		1	4011	0.02	99.80
1.50		3	4014	0.07	99.88
1.55		0	4014	0.00	99.88
1.60		0	4014	0.00	99.88
1.65		1	4015	0.02	99.90
1.70		0	4015	0.00	99.90
1.75		1	4016	0.02	99.93
1.80		3	4019	0.07	100.00

-----+-----+-----  
600      1200      1800  
Frequency

# HANØYTANGEN APRIL 1994

## QUOTIENT F30/F10

F30/F10 Midpoint		Freq	Cum. Freq	Percent	Cum. Percent
0.75	*	57	57	1.42	1.42
0.80		22	79	0.55	1.97
0.85		23	102	0.57	2.54
0.90	*	68	170	1.69	4.23
0.95	*****	610	780	15.18	19.41
1.00	*****	1525	2305	37.94	57.35
1.05	*****	425	2730	10.57	67.93
1.10	*****	369	3099	9.18	77.11
1.15	*****	282	3381	7.02	84.13
1.20	*****	265	3646	6.59	90.72
1.25	***	172	3818	4.28	95.00
1.30	**	92	3910	2.29	97.29
1.35	*	40	3950	1.00	98.28
1.40	*	26	3976	0.65	98.93
1.45		9	3985	0.22	99.15
1.50		8	3993	0.20	99.35
1.55		4	3997	0.10	99.45
1.60		3	4000	0.07	99.53
1.65		6	4006	0.15	99.68
1.70		2	4008	0.05	99.73
1.75		4	4012	0.10	99.83
1.80		7	4019	0.17	100.00

-----+-----+-----

400      800      1200

Frequency

# HANØYTANGEN APRIL 1994

## QUOTIENT F18/F10

F18/F10 Midpoint		Freq	Cum. Freq	Percent	Cum. Percent
0.75	*	12	12	0.28	0.28
0.80		15	27	0.35	0.62
0.85		19	46	0.44	1.06
0.90	*	40	86	0.92	1.99
0.95	*****	405	491	9.36	11.35
1.00	*****	2516	3007	58.16	69.51
1.05	*****	632	3639	14.61	84.12
1.10	****	334	3973	7.72	91.84
1.15	***	193	4166	4.46	96.30
1.20	*	78	4244	1.80	98.10
1.25		34	4278	0.79	98.89
1.30		18	4296	0.42	99.31
1.35		9	4305	0.21	99.51
1.40		13	4318	0.30	99.82
1.45		0	4318	0.00	99.82
1.50		4	4322	0.09	99.91
1.55		2	4324	0.05	99.95
1.60		1	4325	0.02	99.98
1.65		0	4325	0.00	99.98
1.70		0	4325	0.00	99.98
1.75		0	4325	0.00	99.98
1.80		1	4326	0.02	100.00

-----+-----+-----+-----+  
 600      1200      1800      2400  
 Frequency

## OCCURRENCE TABLES

The content of the table is based on the hourly maxima ( $F_x$ ) of the 10 min wind speed. First a period fulfilling the criterion  $F_x < \text{Limit}$  is sought. The length of this period is divided by the length of the windows specified and may result in multiples of the actual window or zero if the length of the period is less than the length of the actual window. This procedure is repeated through the month and the number of the different windows are accumulated.

Observation Period :									Location :	
From : 01/04/94			APRIL	1994					Level :	10 m a.g.r.
To : 30/04/94									Coordinates:	
Coverage : 100.0%			HANØYTANGEN						X =	71908
Number of data: 4320									Y =	47414
			<b>OCCURRENCE TABLE</b>							
			<b>NUMBER OF WINDOWS FROM 6 TO 72 HOURS</b>							
Wind Speed <= Beaufort	1	2	3	4	5	6	7	8		
Duration										
6 H	0	11	28	55	91	109	119	120		
12 H	0	3	10	21	41	52	59	60		
18 H	0	0	5	12	26	34	39	40		
24 H	0	0	2	6	16	24	29	30		
48 H	0	0	0	1	6	11	14	15		
72 H	0	0	0	0	2	5	9	10		
Remarks : Based on maximum 10mn wind speed within the interval period, in any direction, at 10 metres level										

## **CLIMATOLOGICAL SUMMARY**

**Appendix 1****BEAUFORT SCALE OF WIND**

BEAUFORT NUMBER	DESCRIPTIVE TERM	MEAN VELOCITY IN KNOTS	MEAN VELOCITY IN m/s
0	Calm	< 1	0 - 0.2
1	Light air	1 - 3	0.3 - 1.5
2	Light breeze	4 - 6	1.6 - 3.3
3	Gentle breeze	7 - 10	3.4 - 5.4
4	Moder. breeze	11 - 16	5.5 - 7.9
5	Fresh breeze	17 - 21	8.0 - 10.7
6	Strong breeze	22 - 27	10.8 - 13.8
7	Near gale	28 - 33	13.9 - 17.1
8	Gale	34 - 40	17.2 - 20.7
9	Strong gale	41 - 47	20.8 - 24.4
10	Storm	48 - 55	24.5 - 28.4
11	Violent storm	56 - 63	28.5 - 32.6
12	Hurricane	64 and over	32.7 and over

## **Appendix 2**

**Records where at least one of the parameters is outside the criterions set in the automatic filter.**

HAN-YTANGEN 1994

11:34 Thursday, May 19, 1994 1

## RECORDS WITH PARAMETERS OUTSIDE THE CRITERION

OBS	AAR	MND	DAG	TIME	MIN	REF	F30	G30	DD30	F18	G18	F10	G10	DD10	T	UU	P
1	1994	4	6	0	8	645	48.37	19.72	166.58	11.44	14.13	11.66	14.72	162.74	3.97	79.92	993.55
2	1994	4	6	0	18	645	29.27	67.47	162.39	11.89	14.72	12.04	14.72	154.36	3.88	79.52	993.55
3	1994	4	6	0	38	645	20.09	72.24	175.65	12.41	14.42	12.63	15.32	165.18	3.97	78.61	993.89
4	1994	4	6	0	48	645	10.17	24.50	167.27	11.44	14.13	11.59	14.42	166.58	3.88	78.61	993.89
5	1994	4	6	1	8	645	10.02	48.44	169.37	11.29	14.13	11.52	14.42	167.27	3.88	78.30	993.89
6	1994	4	6	1	18	645	10.17	48.37	161.69	11.22	13.23	11.37	13.53	164.13	3.97	78.30	993.89
7	1994	4	6	1	38	645	48.37	19.65	161.69	11.14	13.53	11.37	14.13	174.25	3.97	78.10	993.89
8	1994	4	6	1	48	645	0.62	72.24	165.53	11.59	15.32	11.81	15.62	174.60	3.88	78.71	993.89
9	1994	4	6	1	58	645	29.27	19.80	171.11	11.66	15.02	11.81	15.62	177.40	3.88	79.11	994.22
10	1994	4	6	2	8	645	30.84	67.54	155.41	12.34	15.62	12.49	15.32	164.83	3.97	78.71	994.06
11	1994	4	6	2	28	645	58.96	5.40	169.72	12.41	15.62	12.49	15.62	169.37	4.07	78.71	994.39
12	1994	4	6	2	48	645	36.51	29.27	161.69	11.74	14.42	11.81	14.72	164.13	3.97	78.30	994.22
13	1994	4	6	2	58	645	19.72	57.92	165.53	12.04	15.02	12.26	15.32	160.64	3.97	77.80	994.06
14	1994	4	6	3	8	645	29.27	19.80	173.21	12.78	15.92	13.01	16.51	177.40	3.70	77.80	993.89
15	1994	4	6	3	18	645	29.27	0.55	166.23	14.50	17.41	14.65	17.71	174.25	2.97	79.92	994.39
16	1994	4	6	3	28	645	58.14	67.47	160.64	12.78	15.92	13.01	16.22	163.44	2.70	81.95	994.39
17	1994	4	6	3	38	645	29.94	67.47	160.99	12.56	15.62	12.63	15.92	155.41	2.43	82.76	994.39
18	1994	4	6	3	48	645	19.72	57.92	156.11	12.26	15.02	12.49	15.62	168.32	2.24	83.57	995.07
19	1994	4	6	4	8	645	19.65	57.77	151.92	11.07	13.23	11.22	13.53	145.99	2.24	84.18	995.07
20	1994	4	6	4	28	645	20.77	2.94	148.43	10.69	12.34	10.77	12.63	154.71	1.97	84.38	995.41
21	1994	4	6	4	38	645	0.55	48.29	142.84	8.76	11.14	8.76	11.14	137.61	1.79	85.09	995.41
22	1994	4	6	4	48	645	0.55	38.74	149.13	7.71	9.35	7.64	9.65	142.84	2.06	85.60	995.41
23	1994	4	6	4	58	645	10.10	48.29	152.97	8.01	10.55	7.93	10.55	146.68	2.52	85.60	995.24
24	1994	4	6	5	8	645	19.65	48.37	156.80	9.87	12.04	9.87	12.34	152.62	3.15	84.79	995.24
25	1994	4	6	5	18	645	19.65	57.92	152.97	10.32	12.63	10.40	12.63	164.83	3.34	83.57	995.41
26	1994	4	6	5	28	645	58.29	29.27	158.55	11.37	14.42	11.52	14.13	165.18	3.61	82.36	995.41
27	1994	4	6	5	38	645	19.80	48.37	161.69	11.52	13.83	11.74	13.83	158.55	3.88	81.04	995.58
28	1994	4	6	6	8	645	72.24	29.27	152.62	12.34	16.22	12.34	15.32	159.25	3.88	79.92	995.75
29	1994	4	6	6	18	645	19.65	57.99	155.06	11.66	13.53	11.81	14.42	165.18	3.88	79.52	995.58
30	1994	4	6	6	38	645	38.82	32.78	169.72	11.44	14.72	11.44	15.62	180.19	3.79	80.33	995.58
31	1994	4	6	6	48	645	20.09	67.47	162.74	12.34	15.92	12.56	16.22	161.69	3.52	81.14	996.08
32	1994	4	6	6	58	645	43.59	10.10	152.62	10.32	12.93	10.40	12.93	143.54	3.61	81.14	996.42
33	1994	4	6	7	28	645	19.72	57.92	159.25	10.92	14.42	10.99	14.42	160.99	3.97	79.92	996.25
34	1994	4	6	7	38	645	57.99	24.42	164.83	11.22	14.13	11.29	14.42	165.88	3.97	79.82	996.76
35	1994	4	6	7	48	645	49.34	57.92	162.39	11.07	13.53	11.22	14.13	167.27	4.07	79.32	996.76
36	1994	4	6	7	58	645	57.92	57.92	167.62	11.29	15.02	11.44	15.32	167.97	3.79	79.92	996.76
37	1994	4	6	8	8	645	19.72	48.37	177.40	11.89	15.62	12.04	16.51	167.97	4.07	79.92	996.76
38	1994	4	6	8	18	645	57.92	57.84	164.13	11.52	14.13	11.74	14.42	165.53	3.88	80.23	997.10
39	1994	4	6	8	28	645	19.95	31.51	156.11	11.59	14.42	11.74	15.02	147.38	3.97	79.42	996.76
40	1994	4	6	8	38	645	67.47	29.27	165.88	11.66	14.42	11.81	14.42	167.97	4.16	78.61	997.27
41	1994	4	6	8	48	645	29.94	19.72	167.97	11.44	13.53	11.59	13.83	174.95	4.07	78.20	996.93
42	1994	4	6	8	58	645	19.80	24.50	170.07	11.52	14.13	11.59	14.72	182.98	4.25	77.29	997.27
43	1994	4	6	9	8	645	29.34	32.78	164.83	11.89	15.92	12.04	15.62	171.81	4.34	76.28	997.27
44	1994	4	6	9	18	645	20.09	57.84	165.18	11.59	14.42	11.66	14.42	167.97	4.34	75.87	997.44
45	1994	4	6	9	28	645	20.69	29.27	166.93	13.45	17.71	13.60	17.41	170.07	4.52	73.04	997.44
46	1994	4	6	9	38	645	67.47	72.24	175.65	13.31	16.81	13.38	16.51	172.86	4.52	72.63	996.76
47	1994	4	6	9	48	645	29.12	0.62	172.16	13.16	16.22	13.38	17.41	173.91	4.52	72.63	997.44
48	1994	4	6	9	58	645	8.53	0.40	167.97	12.78	16.81	12.93	16.22	173.21	4.52	73.04	997.94
49	1994	4	20	3	58	645	5.70	0.40	152.27	5.70	6.96	5.70	6.96	150.17	4.70	81.14	1003.69
50	1994	4	24	1	58	645	10.10	38.60	137.96	8.08	10.25	7.79	9.95	144.59	13.19	49.23	1007.41

HAN-YTANGEN 1994

11:34 Thursday, May 19, 1994 2

## RECORDS WITH PARAMETERS OUTSIDE THE CRITERION

OBS	AAR	MND	DAG	TIME	MIN	REF	F30	G30	DD30	F18	G18	F10	G10	DD10	T	UU	P
51	1994	4	24	2	8	645	0.55	48.29	148.78	8.16	10.25	7.86	9.95	141.10	12.72	50.75	1007.41
52	1994	4	24	2	28	645	0.55	38.74	144.59	8.46	10.84	8.23	11.14	138.66	12.72	51.97	1007.41
53	1994	4	24	2	38	645	2.79	41.28	140.05	8.68	10.84	8.53	10.84	135.52	13.47	49.43	1007.24
54	1994	4	24	2	48	645	20.77	5.32	131.33	8.83	11.74	8.61	11.44	144.59	13.37	49.64	1007.24
55	1994	4	24	2	58	645	1.59	1.15	151.92	8.68	10.84	8.53	10.84	152.97	12.35	51.56	1007.24
56	1994	4	24	3	8	645	38.74	0.55	146.33	8.08	10.25	7.86	10.25	147.73	12.44	52.37	1007.24
57	1994	4	24	3	18	645	41.06	5.32	149.13	8.90	10.84	8.68	10.55	151.22	12.07	54.80	1007.24
58	1994	4	24	3	48	645	48.29	10.10	150.87	8.46	10.84	8.23	9.35	148.78	11.89	55.21	1007.41
59	1994	4	24	3	58	645	0.55	67.39	146.33	7.56	9.05	7.34	9.05	145.64	11.89	55.61	1007.41
60	1994	4	24	4	8	645	19.65	22.03	142.84	6.82	8.46	6.67	8.16	135.17	12.07	54.60	1007.24
61	1994																

HAN-YTANGEN 1994

11:34 Thursday, May 19, 1994 3

## RECORDS WITH PARAMETERS OUTSIDE THE CRITERION

OBS	AAR	MND	DAG	TIME	MIN	REF	F30	G30	DD30	F18	G18	F10	G10	DD10	T	UU	P
101	1994	4	24	11	18	645	67.32	67.32	136.56	4.80	5.77	4.43	5.47	113.88	8.56	81.04	1008.94
102	1994	4	24	11	28	645	29.12	7.71	130.63	6.29	8.16	6.07	7.86	112.48	9.39	80.33	1008.60
103	1994	4	24	11	38	645	0.55	0.55	122.95	7.26	9.65	6.96	9.35	118.41	9.48	78.91	1008.60
104	1994	4	24	11	48	645	29.20	29.20	118.76	6.82	8.16	6.67	7.86	111.43	9.11	79.11	1008.77
105	1994	4	24	11	58	645	1.00	0.40	117.37	7.34	9.35	6.89	9.05	111.43	9.76	79.11	1008.60
106	1994	4	24	12	8	645	48.29	48.29	136.21	8.01	10.55	7.71	10.25	139.35	10.13	76.18	1008.43
107	1994	4	24	12	18	645	0.55	38.74	141.45	9.05	10.84	8.83	10.25	129.58	9.94	76.28	1008.60
108	1994	4	24	12	28	645	0.55	10.10	131.33	8.98	10.84	8.76	10.55	128.88	9.85	77.49	1008.60
109	1994	4	24	12	38	645	10.10	48.29	134.47	8.76	12.04	8.61	11.74	136.21	10.31	75.47	1008.60
110	1994	4	24	12	48	645	0.55	0.55	139.35	8.76	10.55	8.53	10.25	132.72	10.22	74.66	1008.43
111	1994	4	24	13	8	645	19.65	10.10	131.33	7.56	8.76	7.34	8.46	134.12	10.40	75.26	1008.43
112	1994	4	24	13	18	645	0.55	38.74	141.80	7.41	8.46	7.26	8.46	141.80	10.40	74.25	1008.43
113	1994	4	24	13	28	645	0.55	0.55	146.68	7.64	8.76	7.49	8.76	138.66	10.31	74.05	1008.43
114	1994	4	24	13	38	645	18.38	6.22	142.50	6.96	8.16	6.67	7.86	141.80	10.13	74.66	1008.43
115	1994	4	24	13	48	645	38.67	36.36	141.80	6.89	7.86	6.67	7.86	133.42	10.40	74.66	1008.26
116	1994	4	24	13	58	645	29.12	67.32	145.64	6.52	7.56	6.37	7.56	139.01	10.40	73.64	1008.26
117	1994	4	24	14	8	645	29.20	0.47	143.89	6.59	7.56	6.29	7.26	144.24	10.50	73.44	1008.26
118	1994	4	24	14	18	645	29.20	29.20	147.73	7.19	9.05	6.89	7.86	144.24	10.98	70.81	1008.26
119	1994	4	24	14	28	645	1.00	1.44	145.29	7.71	9.35	7.49	8.76	143.89	11.05	68.98	1008.26
120	1994	4	24	14	48	645	0.47	49.41	151.57	7.41	9.05	7.19	9.05	146.33	11.42	67.36	1008.09
121	1994	4	24	15	8	645	0.55	48.29	145.64	8.38	10.25	8.23	10.25	139.35	11.70	64.53	1008.09
122	1994	4	24	15	18	645	0.55	0.55	149.82	8.83	11.14	8.61	10.25	145.29	11.14	66.35	1008.09
123	1994	4	24	15	28	645	0.55	38.74	149.13	7.93	9.35	7.71	9.05	147.73	11.05	68.58	1008.09
124	1994	4	24	15	38	645	38.67	36.36	153.66	7.04	8.46	6.74	8.16	151.22	10.87	68.17	1008.09
125	1994	4	24	15	48	645	67.32	67.39	148.78	6.14	7.56	5.92	7.26	143.89	11.14	69.39	1008.09
126	1994	4	24	15	58	645	72.09	19.57	141.10	6.14	7.26	5.77	7.26	138.66	11.14	66.76	1008.09
127	1994	4	24	16	8	645	59.33	67.91	144.24	6.29	7.26	5.92	7.56	136.21	11.51	66.15	1008.09
128	1994	4	24	16	18	645	17.26	10.10	143.89	6.67	7.56	6.44	7.28	136.21	11.89	64.73	1008.09
129	1994	4	24	16	28	645	18.30	5.10	144.24	6.07	6.96	5.85	6.96	147.38	11.61	64.53	1008.09
130	1994	4	24	16	38	645	67.39	67.32	149.48	5.70	6.67	5.40	6.37	139.01	11.61	65.34	1008.09
131	1994	4	24	16	48	645	67.32	0.47	140.40	6.22	7.56	5.92	6.96	125.74	12.16	63.72	1008.09
132	1994	4	24	16	58	645	29.20	38.67	139.70	6.67	7.86	6.37	7.56	135.52	11.98	62.91	1008.09
133	1994	4	24	17	18	645	4.43	20.02	142.15	5.55	6.37	5.40	6.37	140.05	12.07	63.31	1007.75
134	1994	4	24	17	28	645	67.32	27.85	145.29	5.03	5.77	4.88	5.77	133.07	12.16	63.31	1007.75
135	1994	4	24	17	38	645	19.57	57.77	139.70	5.03	5.77	4.80	5.47	134.12	12.35	62.50	1007.75
136	1994	4	24	17	48	645	67.32	19.57	138.31	4.80	5.47	4.65	5.17	138.31	12.35	61.29	1007.75
137	1994	4	24	17	58	645	19.57	19.57	144.24	4.50	4.88	4.28	4.88	143.89	12.26	61.08	1007.75
138	1994	4	24	18	8	645	24.35	9.65	149.82	4.43	4.88	4.20	4.58	147.03	12.07	62.10	1007.75
139	1994	4	24	18	18	645	50.53	3.53	145.99	4.13	4.88	3.83	4.58	146.68	11.51	62.10	1007.75
140	1994	4	24	18	28	645	13.90	57.69	143.19	3.31	4.28	2.94	3.68	150.87	11.14	64.93	1007.75
141	1994	4	24	18	38	645	57.77	19.57	146.33	2.86	3.98	2.26	3.38	152.62	10.96	65.34	1007.75
142	1994	4	24	18	48	645	19.57	19.57	128.19	4.13	4.88	3.61	4.88	129.93	11.61	64.93	1007.75
143	1994	4	24	18	58	645	39.27	19.57	130.63	3.76	4.58	3.61	4.58	128.88	12.26	61.69	1007.75
144	1994	4	24	19	8	645	19.57	19.57	135.52	3.61	4.58	3.23	3.98	135.52	11.42	62.91	1007.92
145	1994	4	24	19	18	645	39.86	19.57	135.52	4.13	4.58	3.91	4.88	130.63	12.44	60.88	1007.75
146	1994	4	24	19	28	645	29.12	19.57	135.86	4.73	5.17	4.65	5.17	126.79	12.44	59.26	1007.75
147	1994	4	24	19	38	645	19.57	67.32	134.12	4.73	5.17	4.50	4.88	127.49	12.35	59.26	1007.75
148	1994	4	24	19	48	645	67.32	19.57	133.42	4.06	5.17	3.53	4.58	118.76	11.33	63.11	1007.75
149	1994	4	24	19	58	645	20.09	39.27	151.92	3.61	4.28	3.01	3.98	148.78	11.33	62.91	1007.75
150	1994	4	24	20	8	645	12.71	19.65	151.92	3.01	3.68	2.71	3.09	139.70	11.42	62.91	1007.92

HAN-YTANGEN 1994 4

## RECORDS WITH PARAMETERS OUTSIDE THE CRITERION

OBS	AAR	MND	DAG	TIME	MIN	REF	F30	G30	DD30	F18	G18	F10	G10	DD10	T	UU	P
151	1994	4	24	20	18	645	19.87	9.95	151.57	2.34	3.09	2.19	2.79	162.39	11.61	62.10	1007.92
152	1994	4	24	20	28	645	57.69	19.50	155.41	2.19	3.09	1.97	2.49	164.48	11.33	62.50	1007.92
153	1994	4	24	20	38	645	20.09	10.02	159.60	3.01	3.98	2.71	3.68	158.90	10.77	63.11	1007.92
154	1994	4	24	20	48	645	2.26	19.50	172.16	2.56	3.09	2.04	2.04	158.90	10.96	63.51	1008.09
155	1994	4	24	20	58	645	19.50	23.08	157.15	2.64	3.68	1.97	3.09	145.64	11.14	63.31	1008.26
156	1994	4	24	21	8	645	29.12	26.66	156.80	3.23	4.28	2.41	3.38	154.64	11.14	62.91	1008.26
157	1994	4	24	21	18	645	48.22	13.53	151.22	3.98	4.88	3.31	4.28	154.36	11.24	61.69	1008.26
158	1994	4	24	21	28	645	19.57	67.32	154.36	4.43	4.88	4.13	4.58	154.01	11.42	61.49	1008.26
159	1994	4	24	21	38	645	67.32	33.90	150.17	5.03	5.77	4.58	4.88	147.38	11.05	61.89	1008.26
160	1994	4	24	21	48	645	67.32	70.90	141.45	4.88	5.47	4.35	4.88	137.26	10.87	62.50	1008.09
161	1994	4	24</td														

HANTANGEN 1994

11:34 Thursday, May 19, 1994 5

## RECORDS WITH PARAMETERS OUTSIDE THE CRITERION

OBS	AAR	MND	DAG	TIME	MIN	REF	F30	G30	DD30	F18	G18	F10	G10	DD10	T	UU	P
201	1994	4	25	5	29	645	19.80	57.77	104.80	3.38	3.98	2.79	3.38	79.33	9.66	68.98	1006.57
202	1994	4	25	5	39	645	28.45	39.34	110.39	3.91	4.28	3.23	3.98	87.00	9.57	68.17	1006.57
203	1994	4	25	5	49	645	67.32	42.18	104.45	4.35	5.17	3.83	5.17	89.45	10.03	64.53	1006.40
204	1994	4	25	5	59	645	19.50	19.50	91.19	3.76	4.88	3.38	4.88	115.27	9.94	64.32	1006.40
205	1994	4	25	6	9	645	57.69	43.44	104.11	2.19	3.38	1.82	2.79	152.62	9.39	68.17	1006.40
206	1994	4	25	6	19	645	35.31	19.87	112.13	2.26	3.09	1.82	2.49	98.87	10.87	59.26	1006.40
207	1994	4	25	6	29	645	43.37	6.67	103.06	2.19	3.09	1.67	2.79	98.52	11.14	58.85	1006.23
208	1994	4	25	6	39	645	48.14	48.14	130.98	1.89	2.79	1.74	2.79	91.54	11.89	52.78	1006.40
209	1994	4	25	6	49	645	48.14	12.63	125.74	1.74	2.49	1.52	2.19	86.31	12.26	53.38	1006.23
210	1994	4	25	6	59	645	20.17	48.14	105.85	1.89	3.09	1.74	2.49	85.26	12.44	50.35	1006.23
211	1994	4	25	7	19	645	48.14	9.95	138.66	2.04	2.79	1.97	2.79	110.74	12.44	49.94	1006.23
212	1994	4	25	7	39	645	44.56	2.34	228.00	1.44	3.09	1.59	2.79	251.73	11.24	60.07	1006.74
213	1994	4	25	7	49	645	57.77	57.77	220.67	3.31	4.88	3.01	4.88	234.28	11.89	52.98	1006.91
214	1994	4	25	7	59	645	36.28	5.17	208.11	4.13	6.96	3.68	6.67	227.65	11.42	53.79	1007.08
215	1994	4	25	8	9	645	0.70	38.60	235.68	7.34	9.65	6.52	9.35	244.40	9.11	64.73	1007.41
216	1994	4	25	8	19	645	0.55	67.39	240.22	7.49	9.65	5.59	9.05	243.71	8.37	70.61	1007.75
217	1994	4	25	8	29	645	29.12	67.32	233.24	5.99	7.86	5.25	6.96	250.34	8.10	73.44	1007.58
218	1994	4	25	8	39	645	48.14	9.95	267.79	2.41	5.17	1.97	4.58	307.22	8.10	74.66	1007.75
219	1994	4	25	8	49	645	43.37	6.67	13.37	1.37	2.19	1.22	2.19	23.49	8.19	74.45	1007.92
220	1994	4	25	8	59	645	57.77	10.02	234.98	1.74	4.88	1.52	3.98	265.69	8.37	73.24	1007.92
221	1994	4	25	9	9	645	0.40	48.14	236.73	1.30	3.38	1.15	3.09	39.54	8.37	73.24	1007.75
222	1994	4	25	9	19	645	57.77	19.50	29.07	1.97	4.58	1.89	4.28	8.13	8.47	74.05	1007.75
223	1994	4	25	9	29	645	1.67	19.50	201.83	1.89	4.28	1.89	3.38	69.55	8.37	74.66	1007.92
224	1994	4	25	9	39	645	48.14	10.10	228.00	2.04	4.58	2.12	3.98	248.24	8.56	72.23	1008.26
225	1994	4	25	9	49	645	39.64	48.14	207.06	1.52	3.09	1.44	3.09	216.48	8.56	72.23	1008.26
226	1994	4	25	9	59	645	20.09	48.22	198.34	2.79	4.28	2.56	3.98	211.95	8.74	71.82	1007.75
227	1994	4	25	10	9	645	57.69	1.00	256.62	1.97	2.79	1.89	2.49	297.45	8.74	72.43	1007.58
228	1994	4	25	10	19	645	9.95	57.69	30.12	2.71	4.58	2.26	4.28	17.20	8.47	75.87	1007.41
229	1994	4	25	10	29	645	33.90	10.55	32.91	3.61	5.17	2.79	4.28	357.13	8.56	77.49	1007.41
230	1994	4	25	10	39	645	19.57	14.80	234.98	3.38	4.58	2.41	4.28	3.59	8.47	78.51	1007.41
231	1994	4	25	10	49	645	19.57	19.57	27.67	3.23	4.88	2.34	4.28	16.16	8.56	78.71	1007.24
232	1994	4	25	10	59	645	48.37	57.69	21.74	2.94	4.28	2.12	3.68	349.10	8.65	77.90	1007.41
233	1994	4	25	11	19	645	58.66	67.32	245.80	2.64	5.77	2.64	5.47	248.94	8.10	79.42	1007.92
234	1994	4	25	11	29	645	19.57	33.90	267.44	4.88	6.37	4.43	6.37	285.59	8.01	80.33	1008.09
235	1994	4	25	11	39	645	29.12	29.12	236.03	3.83	5.47	3.31	5.17	239.87	8.10	80.23	1008.43
236	1994	4	25	11	49	645	6.67	19.80	236.03	3.09	4.88	2.64	4.88	267.09	8.19	80.33	1008.43
237	1994	4	25	12	9	645	50.53	6.52	257.67	1.82	2.79	1.74	2.79	274.42	8.19	80.74	1008.09
238	1994	4	25	12	19	645	48.22	48.22	234.98	2.49	3.38	2.26	3.09	249.64	8.10	81.34	1008.26
239	1994	4	25	12	29	645	35.31	19.87	227.30	1.97	3.09	1.59	2.49	256.97	8.10	81.55	1008.43
240	1994	4	25	12	39	645	17.11	48.29	204.62	1.97	3.09	1.82	3.09	204.62	7.91	81.95	1008.43
241	1994	4	25	12	49	645	0.40	38.89	156.46	1.52	2.49	1.44	2.49	129.58	7.64	82.15	1008.43
242	1994	4	25	12	59	645	48.14	57.69	196.24	1.74	3.38	1.44	3.38	209.15	7.82	82.66	1008.60
243	1994	4	25	13	9	645	50.53	4.13	155.41	2.04	2.49	1.89	2.49	141.45	7.73	82.66	1008.60
244	1994	4	25	13	19	645	25.47	1.67	126.44	2.71	3.98	2.49	3.98	118.07	7.82	82.66	1008.60
245	1994	4	25	13	29	645	9.95	49.64	128.88	2.71	4.28	2.56	3.98	124.70	7.82	82.66	1008.60
246	1994	4	25	13	39	645	57.69	48.22	112.48	2.34	2.79	2.19	2.79	96.78	7.82	82.76	1008.60
247	1994	4	25	13	49	645	19.50	16.07	123.30	3.09	3.68	2.94	3.68	100.96	7.73	83.37	1008.43
248	1994	4	25	13	59	645	9.95	49.34	125.74	2.56	3.68	2.49	3.38	115.62	7.91	83.77	1008.26
249	1994	4	25	14	9	645	25.47	1.97	88.75	2.71	3.38	2.86	3.68	78.28	8.01	83.98	1008.26
250	1994	4	25	14	19	645	48.14	48.14	94.33	2.49	3.09	2.56	3.09	92.24	8.10	83.98	1008.26

HANTANGEN 1994

11:34 Thursday, May 19, 1994 6

## RECORDS WITH PARAMETERS OUTSIDE THE CRITERION

OBS	AAR	MND	DAG	TIME	MIN	REF	F30	G30	DD30	F18	G18	F10	G10	DD10	T	UU	P
251	1994	4	25	14	29	645	50.53	3.53	97.13	2.12	2.49	1.97	2.19	96.43	8.19	83.98	1008.26
252	1994	4	25	14	39	645	57.69	48.14	91.19	2.34	2.79	2.19	2.79	98.52	8.01	84.38	1008.09
253	1994	4	25	14	49	645	19.50	44.56	88.75	2.86	3.68	2.64	3.68	77.58	8.10	84.58	1007.92
254	1994	4	25	14	59	645	48.14	48.14	90.15	2.34	3.09	2.34	3.09	77.58	8.28	84.79	1007.75
255	1994	4	25	15	9	645	9.95	48.14	79.68	2.12	2.79	2.04	2.79	69.21	8.28	84.79	1007.58
256	1994	4	25	15	29	645	48.14	1.59	114.58	1.37	1.89	1.15	1.89	94.33	8.37	84.79	1007.58
257	1994	4	25	15	59	645	38.60	5.17	53.15	0.85	1.59	0.77	1.30	75.14	8.19	84.79	1007.24
258	1994	4	25	16	19	645	48.14	48.14	60.13	1.97	2.79	1.89	2.49	59.08	8.56	84.79	1007.08
259	1994	4	25	16	29	645	48.22	19.50	82.47	2.34	3.68	2.04	3.09	61.18	8.65	84.69	1006.91
260	1994	4	25	16	39	645	19.50	50.53	69.21	2.94	4.58	2.56	3.68	59.43	8.74	83.98	1006.74
261	1994	4	25	16	49	645	19.80	19.50	103.06	3.38	4.58	3.01	4				