

LONG RANGE TRANSPORT OF AIR POLLUTANTS

A cooperative OECD technical programme

LRTAP GROUND SAMPLING STATIONS SITE DESCRIPTIONS



CENTRAL COORDINATING UNIT
Norwegian Institute for Air Research
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NORWAY

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INTRODUCTION

This survey describes the ground sampling station sites used in the OECD-project Long Range Transport of Air Pollutants (LRTAP), which was started in July 1972. The locations of the stations were selected on the basis of WMO criteria*. Most of the stations have been in continuous operation from 1972 until 31st March 1975.

The informations given in this report about ground cover and local emission of sulphur dioxide near the stations, as well as the climatological data have been given by each participating country on special questionnaires.

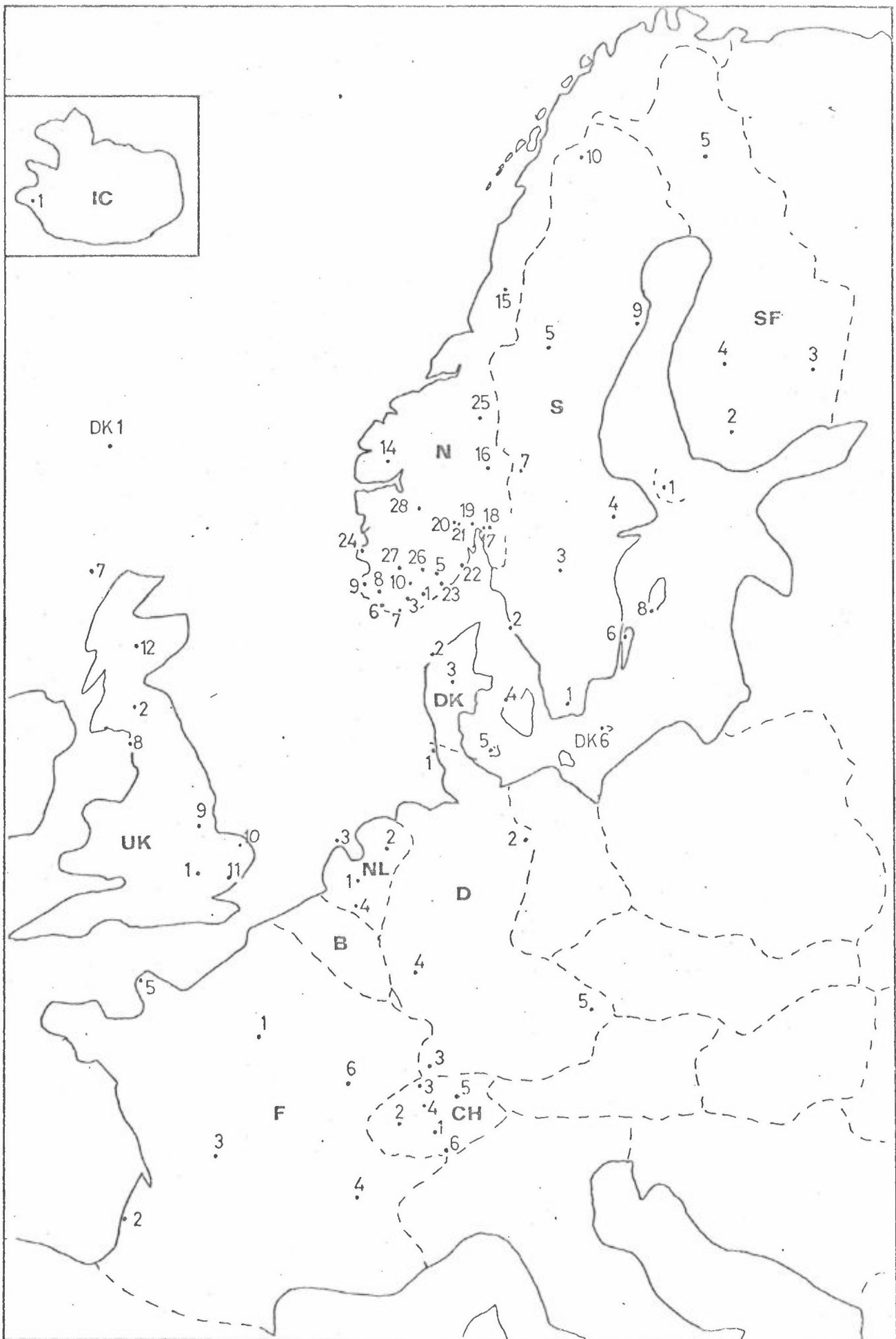
Britt Rystad

* WMO Operations Manual for Sampling and Analysis Techniques for Chemical Constituents in Air and Precipitation. WMO Publication No. 299- 1971.

LIST OF STATIONS

NO	CODE	NAME	NO	CODE	NAME
1	A01	Kittsee	39	N18	Løken
2	A02	Illmitz	40	N19	Bislingen
3	CH1	Jungfrauoch	41	N20	Grimelid
4	CH2	Payerne	42	N21	Norefjell
5	CH3	Delemont	43	N22	Vasser
6	CH4	Oeschberg	44	N23	Lyngør
7	CH5	Einsiedeln	45	N24	Fitjar
8	CH6	Magadino	46	N25	Hummelfjell
9	D01	Westerland	47	N26	Treungen
10	D02	Waldhof	48	N27	Vatnedalen
11	D03	Schauinsland	49	N28	Fillefjell
12	D04	Deuselbach	50	NL1	Wageningen
13	D05	Brotjackriegel	51	NL2	Witteveen
14	DK1	Færøerne	52	NL3	Den Helder
15	DK2	Hanstholm	53	NL4	Leunen
16	DK3	Tange	54	S01	Ekeröd
17	DK4	Gniben	55	S02	Råö
18	DK5	Keldsnor	56	S03	Sjöangen
19	DK6	Dueodde	57	S04	Ryda Kungsgård
20	F01	Vert-le-Petit	58	S05	Bredkålen
21	F02	Le Barp	59	S06	Ekerum
22	F03	La Crouzille	60	S07	Rörbäcksnäs
23	F04	Grenoble	61	S08	Hoburg
24	F05	La Hague	62	S09	Rickleå
25	F06	Valduc	63	S10	Katterjåkk
26	IC1	Rjupnahød	64	SF1	Jomala
27	N01	Birkenes	65	SF2	Jokioinen
28	N03	Finsland	66	SF3	Puumala
29	N05	Gjerstad	67	SF4	Ähtäri
30	N06	Lista	68	SF5	Sodankylä
31	N07	Mandal	69	UK1	Cottered
32	N08	Skreådalen	70	UK2	Eskdalemuir
33	N09	Søyland	71	UK7	Stornoway
34	N10	Tovdal	72	UK8	Dean Moor
35	N14	Skei i Jølster	73	UK9	Kirkby Underwood
36	N15	Tustervatn	74	UK10	Sibton
37	N16	Tågmyra	75	UK11	Little Horkesley
38	N17	Kjeller	76	UK12	Pitlochry

MAP OF STATIONS



SECTION I

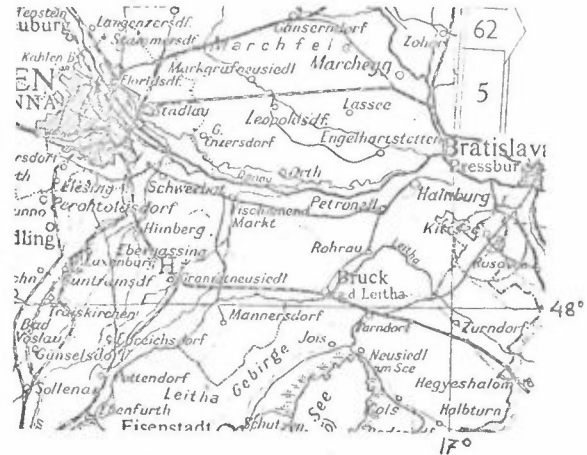
STATION DESCRIPTIONS

STATION: A01 Kittsee

GEOGRAPHICAL COORDINATES: $48^{\circ} 05' N$, $17^{\circ} 04' E$

ALTITUDE: 137 m a.s.l.

GROUND COVER Cultivated:
within a circle Pasture:
of radius 1 km: Forest:
Grass:
Heather:
Water:



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m									x 1 kg SO ₂ /year
100. m-1 km									x 10 ² kg SO ₂ /year
1-10 km									x 10 ⁴ kg SO ₂ /year
10-100 km									x 10 ⁶ kg SO ₂ /year

STATION: A02 Illmitz

GEOGRAPHICAL COORDINATES: $47^{\circ} 46' N$, $16^{\circ} 46' E$.

ALTITUDE: 117 m a.s.l.

GROUND COVER Cultivated:
within a circle Pasture:
of radius 1 km: Forest:
Grass:
Heather:
Water:



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45 $^{\circ}$	45-90 $^{\circ}$	90-135 $^{\circ}$	135-180 $^{\circ}$	180-225 $^{\circ}$	225-270 $^{\circ}$	270-315 $^{\circ}$	315-360 $^{\circ}$	
0-100 m									x 1 kg SO ₂ /year
100 m-1 km									x 10 ² kg SO ₂ /year
1-10 km									x 10 ⁴ kg SO ₂ /year
10-100 km									x 10 ⁶ kg SO ₂ /year

STATION: CH01 Jungfrauoch

GEOGRAPHICAL COORDINATES: 46° 33' N, 7° 59' E

ALTITUDE: 3573 m a.s.l.

GROUND COVER Cultivated:
 within a circle Pasture:
 of radius 1 km: Forest:
 Grass:
 Heather:
 Water:



ESTIMATED EMISSION FROM NEARBY SOURCES

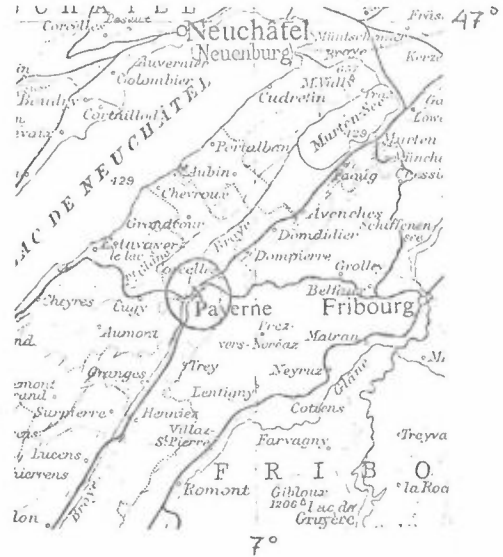
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m									x 1 kg SO ₂ /year
100 m-1 km									x 10 ² kg SO ₂ /year
1-10 km									x 10 ⁴ kg SO ₂ /year
10-100 km									x 10 ⁶ kg SO ₂ /year

STATION: CH02 Payerne

GEOGRAPHICAL COORDINATES: $46^{\circ} 48' N$, $6^{\circ} 57' E$

ALTITUDE: 510 m a.s.l.

GROUND COVER Cultivated:
within a circle Pasture:
of radius 1 km: Forest:
Grass:
Heather:
Water:



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m									x 1 kg SO ₂ /year
100 m-1 km									x 10 ² kg SO ₂ /year
1-10 km									x 10 ⁴ kg SO ₂ /year
10-100 km									x 10 ⁶ kg SO ₂ /year

STATION: CH03 Delemont

GEOGRAPHICAL COORDINATES: $47^{\circ} 22' N$, $7^{\circ} 21' E$

ALTITUDE: 420 m a.s.l.

GROUND COVER Cultivated:
 within a circle Pasture:
 of radius 1 km: Forest:
 Grass:
 Heather:
 Water:



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m									x 1 kg SO ₂ /year
100. m-1 km									x 10 ² kg SO ₂ /year
1-10 km									x 10 ⁴ kg SO ₂ /year
10-100 km									x 10 ⁶ kg SO ₂ /year

STATION: CH04 Oeschberg

GEOGRAPHICAL COORDINATES: 47° 08' N, 7° 37' E

ALTITUDE: 480 m a.s.l.

GROUND COVER. Cultivated:
within a circle Pasture:
of radius 1 km: Forest:
Grass:
Heather:
Water:



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m									x 1 kg SO ₂ /year
100 m-1 km									x 10 ² kg SO ₂ /year
1-10 km									x 10 ⁴ kg SO ₂ /year
10-100 km									x 10 ⁶ kg SO ₂ /year

STATION: CH05 Einsiedeln

GEOGRAPHICAL COORDINATES: $47^{\circ} 08' N$, $8^{\circ} 45' E$

ALTITUDE: 910 m a.s.l.

GROUND COVER Cultivated:
 within a circle Pasture:
 of radius 1 km: Forest:
 Grass:
 Heather:
 Water:



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m									x 1 kg SO ₂ /year
100. m-1 km									x 10 ² kg SO ₂ /year
1-10 km									x 10 ⁴ kg SO ₂ /year
10-100 km									x 10 ⁶ kg SO ₂ /year

STATION: CH06 Magadino

GEOGRAPHICAL COORDINATES: $46^{\circ} 10' N$, $8^{\circ} 53' E$

ALTITUDE: 197 m a.s.l.

GROUND COVER Cultivated:
within a circle Pasture:
of radius 1 km: Forest:
Grass:
Heather:
Water:



ESTIMATED EMISSION FROM NEARBY SOURCES

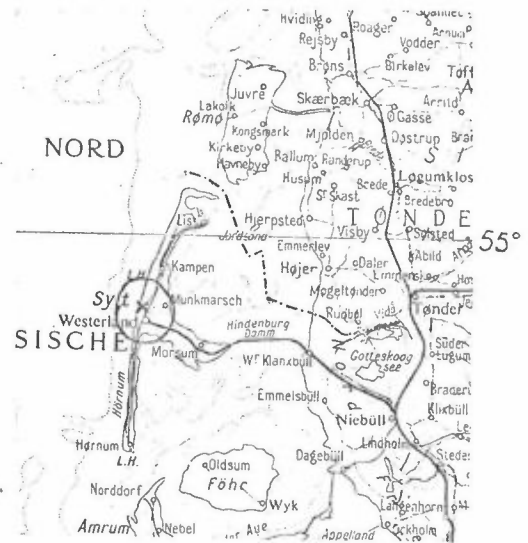
Dist. from st.	Sector									Unit
	N-NE 0-45°	NE-E 45-90°	E-SE 90-135°	SE-S 135-180°	S-SW 180-225°	SW-W 225-270°	W-NW 270-315°	NW-N 315-360°		
0-100 m										x 1 kg SO ₂ /year
100. m-1 km										x 10 ² kg SO ₂ /year
1-10 km										x 10 ⁴ kg SO ₂ /year
10-100 km										x 10 ⁶ kg SO ₂ /year

STATION: D01 Westerland

GEOGRAPHICAL COORDINATES: $54^{\circ} 56' N, 8^{\circ} 19' E$

ALTITUDE: 12 m a.s.l.

GROUND COVER Cultivated: -
 within a circle Pasture: -
 of radius 1 km: Forest: -
 Grass: yes
 Heather: yes
 Water: yes



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	50	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	5	5	30	20	0.5	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	1	0.2	0.1	4	4	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0.1	3	3	3	0	0	0	0	x 10 ⁶ kg SO ₂ /year

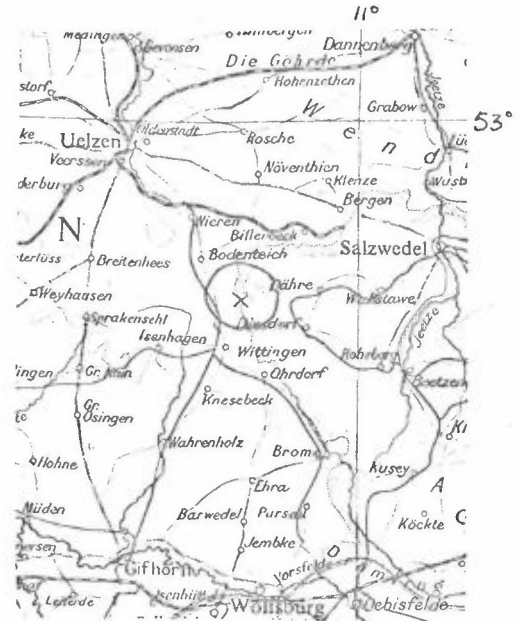
STATION: D02 Waldhof

GEOGRAPHICAL COORDINATES: $52^{\circ} 48' N$, $10^{\circ} 46' E$

ALTITUDE: 73 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	20%
Pasture:	5%
Forest:	70%
Grass:	2%
Heather:	3%
Water:	-



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	Sector								Unit
	N-NE 0-45°	NE-E 45-90°	E-SE 90-135°	SE-S 135-180°	S-SW 180-225°	SW-W 225-270°	W-NW 270-315°	NW-N 315-360°	
0-100 m									x 1 kg SO ₂ /year
100. m-1 km	0	0	0	0	0.2	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	2.9	0.9	0.5	0.3	4.6	0.4	2.8	0.4	x 10 ⁴ kg SO ₂ /year
10-100 km									x 10 ⁶ kg SO ₂ /year

STATION: D03 Schauinsland

GEOGRAPHICAL COORDINATES: $47^{\circ} 55' N$, $7^{\circ} 55' E$

ALTITUDE: 1205 m a.s.l.

GROUND COVER within a circle of radius 1 km:	Cultivated:	-
	Pasture:	10%
	Forest:	50%
	Grass:	40%
	Heather:	-
	Water:	-



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0		x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	0	0	0.2	x 10 ² kg SO ₂ /year
1-10 km	8.8	1.4	0.3	4.1	0.7	4.9	5.0	38	x 10 ⁴ kg SO ₂ /year
10-100 km									x 10 ⁶ kg SO ₂ /year

STATION: D04 Deuselbach

GEOGRAPHICAL COORDINATES: $49^{\circ} 46' N$, $7^{\circ} 03' E$

ALTITUDE: 480 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	27%
Pasture:	3%
Forest:	47%
Grass:	22%
Heather:	-
Water:	-
Buildings:	0.4%
Roads:	0.4%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45 $^{\circ}$	45-90 $^{\circ}$	90-135 $^{\circ}$	135-180 $^{\circ}$	180-225 $^{\circ}$	225-270 $^{\circ}$	270-315 $^{\circ}$	315-360 $^{\circ}$	
0-100 m	0	0	0	0	0	0	0	0	$\times 1$ kg SO ₂ /year
100. m-1 km	0	0	0	0	12	0	3	0	$\times 10^2$ kg SO ₂ /year
1-10 km	31	10	4	2	6	17	7	5	$\times 10^4$ kg SO ₂ /year
10-100 km									$\times 10^6$ kg SO ₂ /year

STATION: D05 Brotjackriegel

GEOGRAPHICAL COORDINATES: 48° 49' N, 13° 13' E

ALTITUDE: 1016 m a.s.l.

GROUND COVER Cultivated: -
 within a circle Pasture: -
 of radius 1 km: Forest: 100%
 Grass: -
 Heather: -
 Water: -



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100. m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	3.7	3.8	3.8	3.9	4.9	4.5	3.0	3.2	x 10 ⁴ kg SO ₂ /year
10-100 km									x 10 ⁶ kg SO ₂ /year

STATION: DK01 Færøerne

GEOGRAPHICAL COORDINATES: 62° 04' N, 6° 58' W

ALTITUDE: 740 m a.s.l.

GROUND COVER within a circle of radius 1 km:

- Cultivated: -
- Pasture: -
- Forest: -
- Grass: 10%
- Heather: -
- Water: -
- Bare rock: 90%



ESTIMATED EMISSION FROM NEARBY SOURCES

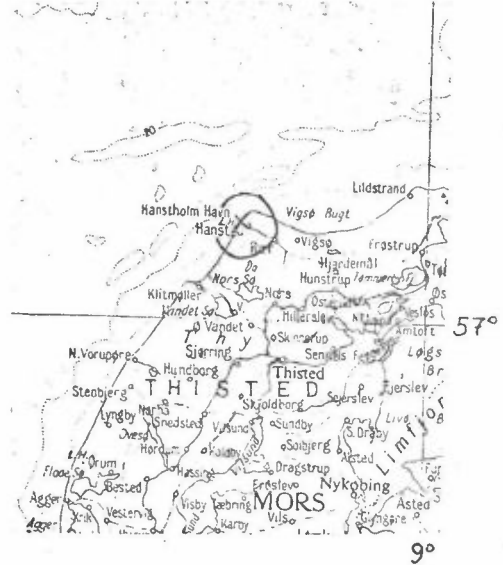
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	0	0	0	0	0	0	0	x 10 ⁶ kg SO ₂ /year

STATION: DK02 Hanstholm

GEOGRAPHICAL COORDINATES: 57° 07' N, 8° 36' E

ALTITUDE: 46 m a.s.l.

GROUND COVER Cultivated: -
 within a circle Pasture: -
 of radius 1 km: Forest: 20%
 Grass: 20%
 Heather: 40%
 Water: 10%
 Built up: 10%



ESTIMATED EMISSION FROM NEARBY SOURCES

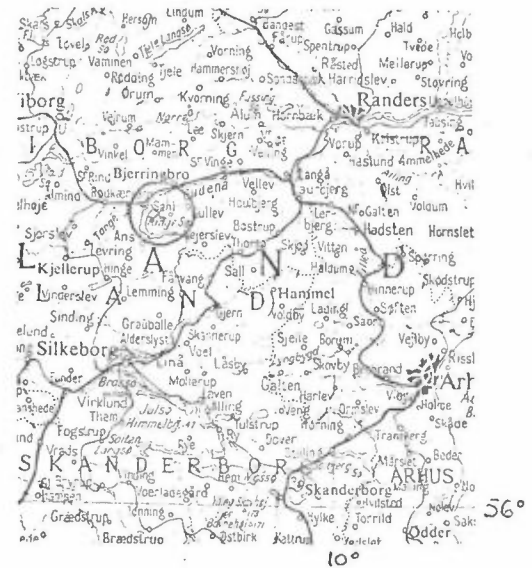
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	264	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	200	200	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	37	1	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	9	55	22	0	0	0	0	x 10 ⁶ kg SO ₂ /year

STATION: DK03 Tange

GEOGRAPHICAL COORDINATES: $56^{\circ} 21' N$, $9^{\circ} 36' E$

ALTITUDE: 13 m a.s.l.

GROUND COVER	Cultivated:	15%
within a circle	Pasture:	20%
of radius 1 km:	Forest:	10%
	Grass:	25%
	Heather:	-
	Water:	25%
	Built up:	5%



ESTIMATED EMISSION FROM NEARBY SOURCES

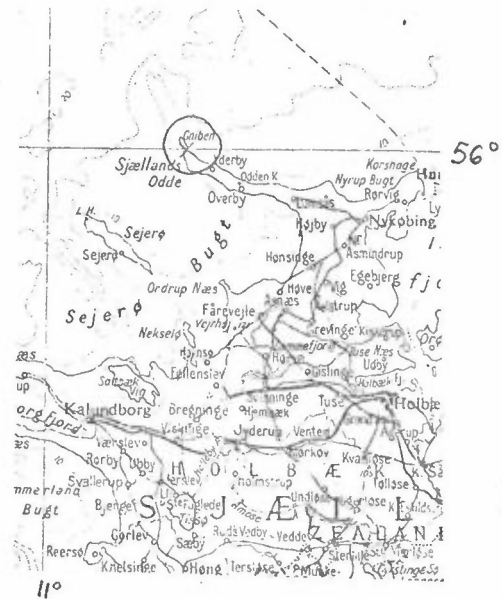
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45 ^o	45-90 ^o	90-135 ^o	135-180 ^o	180-225 ^o	225-270 ^o	270-315 ^o	315-360 ^o	
0-100 m	160	0	0	0	0	0	141	35	x 1 kg SO ₂ /year
100 m-1 km	2	1	0	2	0	12	5	2	x 10 ² kg SO ₂ /year
1-10 km	1	7	1	1	1	3	1	1	x 10 ⁴ kg SO ₂ /year
10-100 km	56	20	61	28	32	12	22	7	x 10 ⁶ kg SO ₂ /year

STATION: DK04 Griben

GEOGRAPHICAL COORDINATES: $56^{\circ} 00' N$, $11^{\circ} 17' E$

ALTITUDE: 3 m a.s.l.

GROUND COVER. Cultivated: -
 within a circle Pasture: -
 of radius 1 km: Forest: -
 Grass: 25%
 Heather: -
 Water: 75%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100. m-1 km	0	0	0	1	0	0	0	27	x 10 ² kg SO ₂ /year
1-10 km	0	0	1	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	4*	143*	45	106	8	42	2	x 10 ⁶ kg SO ₂ /year

* These sectors are partly covered by Sweden. Emissions from these areas are not included.

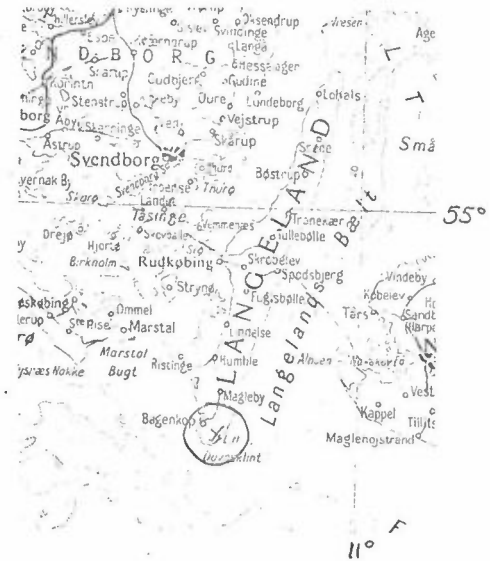
STATION: DK05 Keldsnor

GEOGRAPHICAL COORDINATES: $54^{\circ} 44' N$, $10^{\circ} 44' E$

ALTITUDE: 8 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	25%
Pasture:	-
Forest:	-
Grass:	15%
Heather:	-
Water:	60%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	160	0	0	0	0	0	x 1 kg SO ₂ /year
100. m-1 km	0	0	0	0	0	0	1	2	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	1	1	x 10 ⁴ kg SO ₂ /year
10-100 km	26	18	0	0*	0*	0*	11*	37	x 10 ⁶ kg SO ₂ /year

* These sectors are partly covered by Germany. Emissions from these areas are not included.

STATION: DK06 Dueodde

GEOGRAPHICAL COORDINATES: 55° 00' N, 15° 05' E

ALTITUDE: 6 m a.s.l.

GROUND COVER Cultivated: -

within a circle Pasture: -

of radius 1 km: Forest: 40%

 Grass: -

 Heather: + dunes: 35%

 Water: 25%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	106	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	5	0	0	0	0	0	1	2	x 10 ⁴ kg SO ₂ /year
10-100 km	1	0	0	0	0	0	3*	1*	x 10 ⁶ kg SO ₂ /year

* These sectors are partly covered by Sweden. Emissions from these areas are not included.

STATION: F01 Vert-le-Petit

GEOGRAPHICAL COORDINATES: 48° 32' N, 2° 22' E

ALTITUDE: 64 m a.s.l.

GROUND COVER Cultivated: 60%
 within a circle Pasture: -
 of radius 1 km: Forest: 15%
 Grass: -
 Heather: -
 Water: 5%
 Other: 20%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	5000	x 1 kg SO ₂ /year
100. m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	24	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	220	5	1	1	5	1	5	220	x 10 ⁶ kg SO ₂ /year

STATION: F02 Le Barp

GEOGRAPHICAL COORDINATES: $44^{\circ} 25' N$, $0^{\circ} 54' W$

ALTITUDE: 48 m a.s.l.

GROUND COVER. Cultivated: -
 within a circle Pasture: -
 of radius 1 km: Forest: 60%
 Grass: -
 Heather: 40%
 Water: -



ESTIMATED EMISSION FROM NEARBY SOURCES

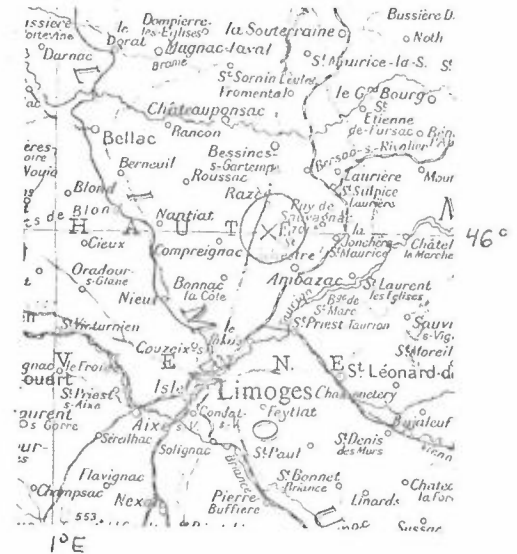
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	$0-45^{\circ}$	$45-90^{\circ}$	$90-135^{\circ}$	$135-180^{\circ}$	$180-225^{\circ}$	$225-270^{\circ}$	$270-315^{\circ}$	$315-360^{\circ}$	
0-100 m	0	0	0	0	0	0	0	0	$\times 1 \text{ kg SO}_2/\text{year}$
100. m-1 km	0	0	0	0	0	0	0	0	$\times 10^2 \text{ kg SO}_2/\text{year}$
1-10 km	0	0	0	0	0	0	0	0	$\times 10^4 \text{ kg SO}_2/\text{year}$
10-100 km	28	1.5	2.5	1.5	17	0.5	0.5	2	$\times 10^6 \text{ kg SO}_2/\text{year}$

STATION: F03 La Crouzille

GEOGRAPHICAL COORDINATES: $46^{\circ} 00' N$, $1^{\circ} 22' E$

ALTITUDE: 460 m a.s.l.

GROUND COVER Cultivated: 2%
 within a circle Pasture: -
 of radius 1 km: Forest: 63%
 Grass: 5%
 Heather: 20%
 Water: 10%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	36	0	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0.5	0.5	0.5	0.5	4	2	1	1	x 10 ⁶ kg SO ₂ /year

STATION: F04 Grenoble

GEOGRAPHICAL COORDINATES: $45^{\circ} 18' N$, $5^{\circ} 46' E$

ALTITUDE: 1325 m a.s.l.

GROUND COVER Cultivated: -
 within a circle Pasture: 10%
 of radius 1 km: Forest: 85%
 Grass: 5%
 Heather: -
 Water: -



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45 ^o	45-90 ^o	90-135 ^o	135-180 ^o	180-225 ^o	225-270 ^o	270-315 ^o	315-360 ^o	
0-100 m	0	0	0	0	600	0	0	0	x 1 kg SO ₂ /year
100. m-1 km	0	0	0	1.5	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	6	9.8	4.2	0	3.4	x 10 ⁴ kg SO ₂ /year
10-100 km	1.8	0.5	0.2	0.4	3	1.7	11.2	0.4	x 10 ⁶ kg SO ₂ /year

STATION: F05 La Hague

GEOGRAPHICAL COORDINATES: $49^{\circ} 37' N$, $1^{\circ} 50' W$

ALTITUDE: 133 m a.s.l.

GROUND COVER Cultivated: 10%
 within a circle Pasture: 90%
 of radius 1 km: Forest: -
 Grass: -
 Heather: -
 Water: -



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	$\times 1 \text{ kg SO}_2/\text{year}$
100. m-1 km	0	0	0	0	0	0	0	0	$\times 10^2 \text{ kg SO}_2/\text{year}$
1-10 km	0	0	0	0	0	0	50	0	$\times 10^4 \text{ kg SO}_2/\text{year}$
10-100 km	0	5	0	0	0	0	0	0	$\times 10^6 \text{ kg SO}_2/\text{year}$

STATION: F06 Valduc

GEOGRAPHICAL COORDINATES: $47^{\circ} 35' N$, $4^{\circ} 52' E$

ALTITUDE: 470 m a.s.l.

GROUND COVER Cultivated: 2%
 within a circle Pasture: -
 of radius 1 km: Forest: 95%
 Grass: -
 Heather: -
 Water: -
 Other: 3%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100. m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	56	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	1.5	2.0	6	10	1.0	0.5	1.5	0.5	x 10 ⁶ kg SO ₂ /year

STATION: IC01 Rjupnahæd

GEOGRAPHICAL COORDINATES: $64^{\circ} 05' N$, $21^{\circ} 51' W$

ALTITUDE: 120 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	-
Pasture:	60%
Forest:	-
Grass:	5%
Heather:	-
Water:	-
Gravel and bare soil:	35%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	30*	0	0	0	30*	0	0	0	x 1 kg SO ₂ /year
100. m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	50	0	0	0	0	140	4	150	x 10 ⁴ kg SO ₂ /year
10-100 km	0	0	<1	0	0	<1	0	<1	x 10 ⁶ kg SO ₂ /year

* The station building is heated with diesel fuel and the yearly emission is estimated to 60 kg SO₂. Direction from the chimney to the air intake is in sector N-NE, direction from chimney to rain gauge is SW-W-erly.

STATION: N01 Birkenes

GEOGRAPHICAL COORDINATES: $58^{\circ} 23' N$, $8^{\circ} 15' E$

ALTITUDE: 190 m a.s.l.

GROUND COVER Cultivated: -
 within a circle Pasture: 15%
 of radius 1 km: Forest: 55%
 Grass: -
 Heather: -
 Water: 30%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	2	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	3	0	0	5.5	2.5	0	0	x 10 ⁶ kg SO ₂ /year

STATION: N03 Finsland

GEOGRAPHICAL COORDINATES: 58° 19' N, 7° 35' E

ALTITUDE: 275 m a.s.l.

GROUND COVER : Cultivated: 20%
 within a circle : Pasture: 10%
 of radius 1 km: Forest: 65%
 Grass: -
 Heather: -
 Water: 5%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	Sector								Unit
	N-NE 0-45°	NE-E 45-90°	E-SE 90-135°	SE-S 135-180°	S-SW 180-225°	SW-W 225-270°	W-NW 270-315°	NW-N 315-360°	
0-100 m	0	1	1	0	0	0	0	0	x 1 kg SO ₂ /year
100. m-1 km	0	0	0	0	0.5	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	2	3	3	0.2	0.5	0.5	0	x 10 ⁶ kg SO ₂ /year

STATION: N05 Gjerstad

GEOGRAPHICAL COORDINATES: $58^{\circ} 53' N, 8^{\circ} 57' E$

ALTITUDE: 240 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	40%
Pasture:	10%
Forest:	50%
Grass:	-
Heather:	-
Water:	-



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	Sector								Unit
	N-NE 0-45°	NE-E 45-90°	E-SE 90-135°	SE-S 135-180°	S-SW 180-225°	SW-W 225-270°	W-NW 270-315°	NW-N 315-360°	
0-100 m	5	0	0	0	0	0	0	5	x 1 kg SO ₂ /year
100. m-1 km	1	1	0	0	2.5	1	0.5	0.5	x 10 ² kg SO ₂ /year
1-10 km	0	0	0.1	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	15	10	2	0.1	3.5	0	0	0	x 10 ⁶ kg SO ₂ /year

STATION: N06 Lista

GEOGRAPHICAL COORDINATES: $58^{\circ} 06' N$, $6^{\circ} 34' E$

ALTITUDE: 13 m a.s.l.

GROUND COVER. Cultivated: -
 within a circle Pasture: 30%
 of radius 1 km: Forest: -
 Grass: -
 Heather: 25%
 Water: 45%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	5	5	0	0	0	0	5	10	x 1 kg SO ₂ /year
100 m-1 km	0	0	2.5	2.5	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0.2	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0.3	7.0	0.6	0	0	0	0	4	x 10 ⁶ kg SO ₂ /year

STATION: N07 Mandal

GEOGRAPHICAL COORDINATES: 58° 03' N, 7° 27' E

ALTITUDE: 138 m a.s.l.

GROUND COVER Cultivated: 35%
 within a circle Pasture: 20%
 of radius 1 km: Forest: 35%
 Grass: -
 Heather: 10%
 Water: -



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	10	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0.5	0.5	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	17	17	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	8.5	0	0	0	0	1.5	0	x 10 ⁶ kg SO ₂ /year

STATION: N08 Skreådalen

GEOGRAPHICAL COORDINATES: $58^{\circ} 49' N$, $6^{\circ} 43' E$

ALTITUDE: 475 m a.s.l.

GROUND COVER : Cultivated: -
 within a circle Pasture: 30%
 of radius 1 km: Forest: 30%
 Grass: -
 Heather: -
 Water: -
 Mountain: 40%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	10	0	0	0	0	x 1 kg SO ₂ /year
100. m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	0	0	0	0.5	3.5	4.0	2.5	x 10 ⁶ kg SO ₂ /year

STATION: N09 Søyland

GEOGRAPHICAL COORDINATES: 58° 41' N, 5° 59' E

ALTITUDE: 263 m a.s.l.

GROUND COVER Cultivated: 50%
 within a circle Pasture: 20%
 of radius 1 km: Forest: 5%
 Grass: -
 Heather: 15%
 Water: 10%



ESTIMATED EMISSION FROM NEARBY SOURCES

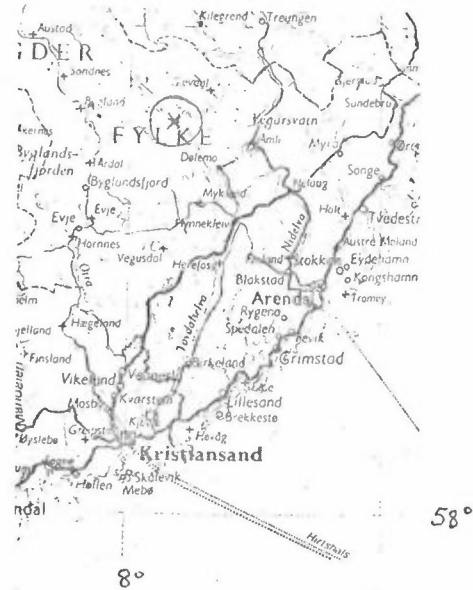
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0.4	0.9	0.3	0.3	0.9	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	0	0	1.2	0	0	2.0	3.0	x 10 ⁶ kg SO ₂ /year

STATION: N10 Tovdal

GEOGRAPHICAL COORDINATES: $58^{\circ} 48' N$, $8^{\circ} 14' E$

ALTITUDE: 227 m a.s.l.

GROUND COVER Cultivated: 10%
 within a circle Pasture: 30%
 of radius 1 km: Forest: 40%
 Grass: -
 Heather: -
 Water: 20%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	$\times 1 \text{ kg SO}_2/\text{year}$
100 m-1 km	0	0	0	0	0.5	0	0	0	$\times 10^2 \text{ kg SO}_2/\text{year}$
1-10 km	0	0	0	0	0	0	0	0	$\times 10^4 \text{ kg SO}_2/\text{year}$
10-100 km	1.0	15	0.1	1.8	5.7	0	0	0	$\times 10^6 \text{ kg SO}_2/\text{year}$

STATION: N14 Skei i Jølster

GEOGRAPHICAL COORDINATES: $61^{\circ} 34' N$, $6^{\circ} 29' E$

ALTITUDE: 205 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	10%
Pasture:	10%
Forest:	55%
Grass:	-
Heather:	-
Water:	15%
Mountain:	10%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	5	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100. m-1 km	0.25	0.25	0	0	0.5	5	1	0.5	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	0	1.5	0	0.5	0	2.3	0.7	x 10 ⁶ kg SO ₂ /year

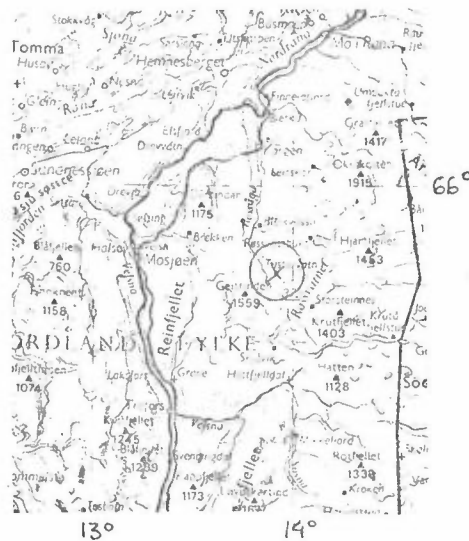
STATION: N15 Tustervatn

GEOGRAPHICAL COORDINATES: $65^{\circ} 50' N$, $13^{\circ} 55' E$

ALTITUDE: 439 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	20%
Pasture:	10%
Forest:	30%
Grass:	-
Heather:	-
Water:	40%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	10	0	x 1 kg SO ₂ /year
100. m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	5.4	0	0	0	0	0	0.5	0	x 10 ⁶ kg SO ₂ /year

STATION: N16 Tågmyra

GEOGRAPHICAL COORDINATES: $61^{\circ} 25' N$, $12^{\circ} 04' E$

ALTITUDE: 536 m a.s.l.

GROUND COVER Cultivated: 5%
 within a circle Pasture: 5%
 of radius 1 km: Forest: 90%
 Grass: -
 Heather: -
 Water: -



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45 ^o	45-90 ^o	90-135 ^o	135-180 ^o	180-225 ^o	225-270 ^o	270-315 ^o	315-360 ^o	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100. m-1 km	0	0.3	0	0	0.1	0.3	0.1	0	x 10 ² kg SO ₂ /year
1-10 km	0	0.6	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	0	0	0	0.5	1.5	0	0	x 10 ⁶ kg SO ₂ /year

STATION: N17 Kjeller

GEOGRAPHICAL COORDINATES: $59^{\circ} 59' N$, $11^{\circ} 03' E$

ALTITUDE: 120 m a.s.l.

GROUND COVER Cultivated:
 within a circle Pasture:
 of radius 1 km: Forest:
 Grass:
 Heather:
 Water:



ESTIMATED EMISSION FROM NEARBY SOURCES

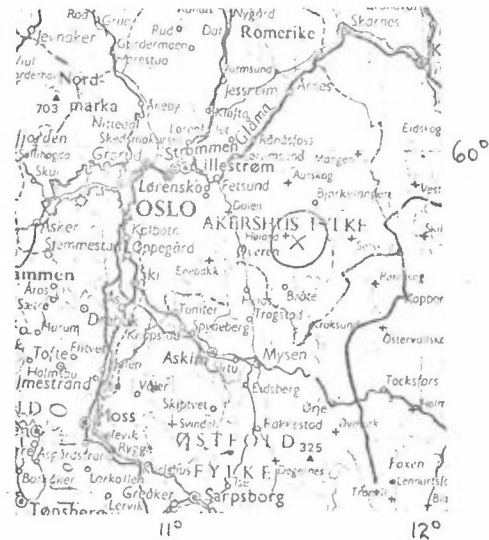
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	$0-45^{\circ}$	$45-90^{\circ}$	$90-135^{\circ}$	$135-180^{\circ}$	$180-225^{\circ}$	$225-270^{\circ}$	$270-315^{\circ}$	$315-360^{\circ}$	
0-100 m									x 1 kg SO ₂ /year
100 m-1 km									x 10 ² kg SO ₂ /year
1-10 km									x 10 ⁴ kg SO ₂ /year
10-100 km									x 10 ⁶ kg SO ₂ /year

STATION: N18 Løken

GEOGRAPHICAL COORDINATES: 59° 48' N, 11° 27' E

ALTITUDE: 150 m a.s.l.

GROUND COVER Cultivated: 50%
 within a circle Pasture: 20%
 of radius 1 km: Forest: 30%
 Grass: -
 Heather: -
 Water: -



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	50	50	50	50	50	20	x 1 kg SO ₂ /year
100. m-1 km	0	0	1.5	1.5	1.5	1.5	0	0	x 10 ² kg SO ₂ /year
1-10. km	0	0	0.5	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	0.5	1	3	14	33	2.5	2.0	x 10 ⁶ kg SO ₂ /year

STATION: N19 Bislingen

GEOGRAPHICAL COORDINATES: 60° 14' N, 10° 37' E

ALTITUDE: 680 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	-
Pasture:	-
Forest:	100%
Grass:	-
Heather:	-
Water:	-



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	50	x 1 kg SO ₂ /year
100. m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0.1	0.1	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	1.5	0.3	0	25	16	4.5	1.5	0	x 10 ⁶ kg SO ₂ /year

STATION: N20 Grimelid

GEOGRAPHICAL COORDINATES: 60° 08' N, 9° 36' E

ALTITUDE: 367 m a.s.l.

GROUND COVER. Cultivated: 5%
 within a circle of radius 1 km: Pasture: 10%
 Forest: 85%
 Grass: -
 Heather: -
 Water: -



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	10	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0.1	0	0	0	0.1	0	0	x 10 ² kg SO ₂ /year
1-10 km	0.2	0	0.2	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	1.5	1.5	22	21	4.5	0.2	0	0	x 10 ⁶ kg SO ₂ /year

STATION: N21 Norefjell

GEOGRAPHICAL COORDINATES: 60° 13' N, 9° 31' E

ALTITUDE: 810 m a.s.l.

GROUND COVER Cultivated:
 within a circle Pasture:
 of radius 1 km: Forest:
 Grass:
 Heather:
 Water:



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m									x 1 kg SO ₂ /year
100 m-1 km									x 10 ² kg SO ₂ /year
1-10 km									x 10 ⁴ kg SO ₂ /year
10-100 km									x 10 ⁶ kg SO ₂ /year

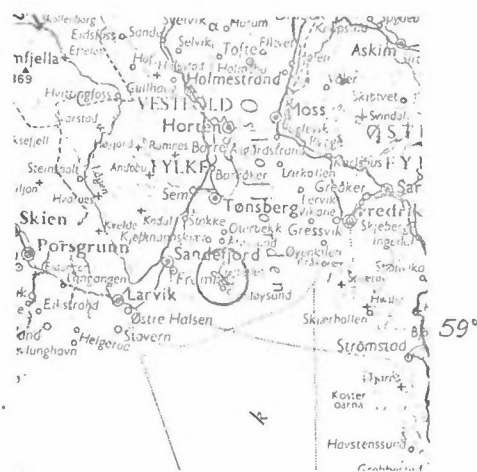
STATION: N22 Vasser

GEOGRAPHICAL COORDINATES: $59^{\circ} 04' N$, $10^{\circ} 26' E$

ALTITUDE: 35 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	5%
Pasture:	5%
Forest:	5%
Grass:	-
Heather:	25%
Water:	60%



ESTIMATED EMISSION FROM NEARBY SOURCES

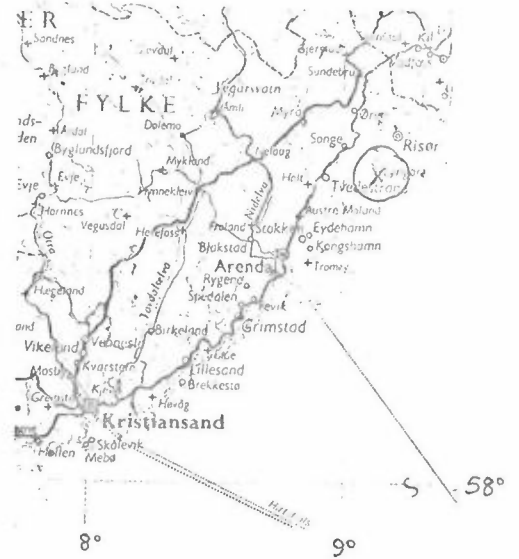
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	0.3	x 10 ⁴ kg SO ₂ /year
10-100 km	20	12	3	0	0	3	18	15	x 10 ⁶ kg SO ₂ /year

STATION: N23 Lyngør

GEOGRAPHICAL COORDINATES: $58^{\circ} 38' N, 9^{\circ} 08' E$

ALTITUDE: 20 m a.s.l.

GROUND COVER Cultivated: -
 within a circle Pasture: -
 of radius 1 km: Forest: -
 Grass: -
 Heather: 5%
 Water: 95%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	10	0	0	0	0	0	0	10	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	25	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	1.0	x 10 ⁴ kg SO ₂ /year
10-100 km	18	2.0	0	0	0	7.5	0	0	x 10 ⁶ kg SO ₂ /year

STATION: N24 Fitjar

GEOGRAPHICAL COORDINATES: 59° 55' N, 5° 19' E

ALTITUDE: 20 m a.s.l.

GROUND COVER	Cultivated:	5%
within a circle	Pasture:	20%
of radius 1 km:	Forest:	5%
	Grass:	-
	Heather:	20%
	Water:	50%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	10	0	0	0	10	0	x 1 kg SO ₂ /year
100. m-1 km	1	3	2	0	1	0	0	50	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	1.4	2.0	2.4	0.5	1.5	0	0	1.5	x 10 ⁶ kg SO ₂ /year

STATION: N25 Hummelfjell

GEOGRAPHICAL COORDINATES: 62° 27' N, 11° 16' E

ALTITUDE: 1539 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	-
Pasture:	-
Forest:	-
Grass:	-
Heather:	-
Water:	-
Mountain:	100%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0.1	0	0	0	0.1	0	0.1	0	x 10 ⁶ kg SO ₂ /year

STATION: N26 Treungen

GEOGRAPHICAL COORDINATES: $59^{\circ} 01' N$, $8^{\circ} 31' E$

ALTITUDE: 300 m a.s.l.

GROUND COVER Cultivated: 20%
 within a circle Pasture: 10%
 of radius 1 km: Forest: 60%
 Grass: -
 Heather: -
 Water: 10%



ESTIMATED EMISSION FROM NEARBY SOURCES

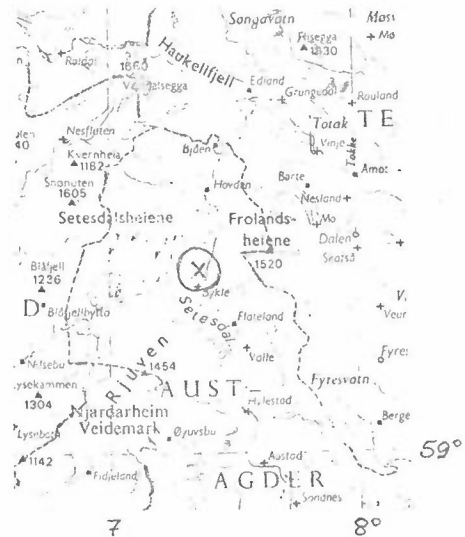
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	10	0	0	0	0	0	0	10	x 1 kg SO ₂ /year
100 m-1 km	0.5	0.2	0	3	0.5	0.5	0.5	0.5	x 10 ² kg SO ₂ /year
1-10 km	0	0	0.25	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	5.5	18	2.0	0.5	5.5	0	0	0.5	x 10 ⁶ kg SO ₂ /year

STATION: N27 Vatnedalen

GEOGRAPHICAL COORDINATES: 59° 28' N, 7° 22' E

ALTITUDE: 800 m a.s.l.

GROUND COVER Cultivated: 15%
 within a circle Pasture: 10%
 of radius 1 km: Forest: 70%
 Grass: -
 Heather: -
 Water: 5%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	10	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0.2	0.1	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	0.5	3.5	0	0	0	3.0	2.5	x 10 ⁶ kg SO ₂ /year

STATION: N28 Fillefjell

GEOGRAPHICAL COORDINATES: $61^{\circ} 11' N$, $8^{\circ} 07' E$

ALTITUDE: 956 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	-
Pasture:	-
Forest:	-
Grass:	-
Heather:	40%
Water:	5%
Mountain:	55%



ESTIMATED EMISSION FROM NEARBY SOURCES

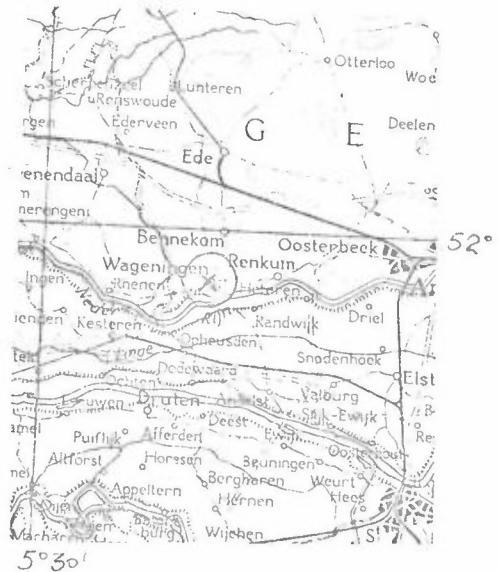
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0.3	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	0	0	0	0	0	1.2	0	x 10 ⁶ kg SO ₂ /year

STATION: NL01 Wageningen

GEOGRAPHICAL COORDINATES: $51^{\circ} 58' N$, $5^{\circ} 38' E$

ALTITUDE: 7 m a.s.l.

GROUND COVER Cultivated: 20%
 within a circle Pasture: 70%
 of radius 1 km: Forest: -
 Grass: -
 Heather: -
 Water: -
 Buildings: 10%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	100	50	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	700	220	5	40	25	100	200	5	x 10 ⁴ kg SO ₂ /year
10-100 km	1	15	1	1.5	40	110	200	1	x 10 ⁶ kg SO ₂ /year

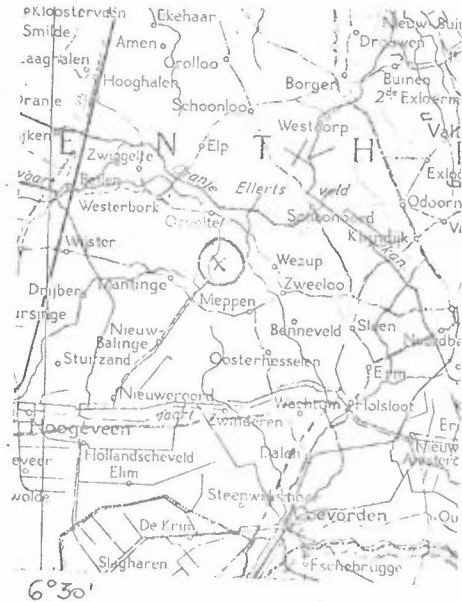
STATION: NL02 Witteveen

GEOGRAPHICAL COORDINATES: $52^{\circ} 49' N$, $6^{\circ} 40' E$

ALTITUDE: 17 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	30%
Pasture:	10%
Forest:	50%
Grass:	-
Heather:	0.5%
Water:	0.5%
Other:	9%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	1	5	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	40	x 10 ⁴ kg SO ₂ /year
10-100 km	1*	0*	1*	25*	1	1	0	1.5	x 10 ⁶ kg SO ₂ /year

* Partly covered by Germany, emissions from these areas are included.

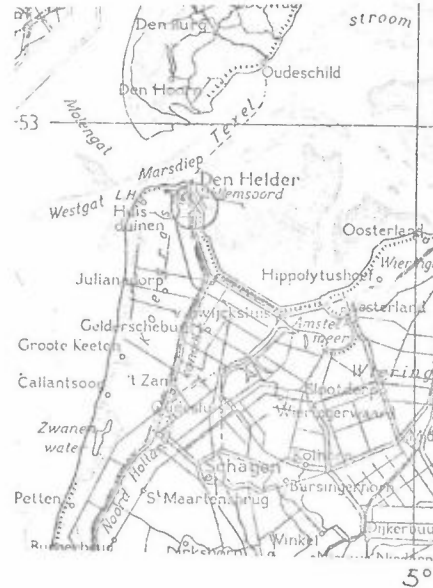
STATION: NL03 Den Helder

GEOGRAPHICAL COORDINATES: $52^{\circ} 55' N$, $4^{\circ} 47' E$

ALTITUDE: 0 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	45%
Pasture:	45%
Forest:	-
Grass:	-
Heather:	-
Water:	4%
Buildings:	6%



ESTIMATED EMISSION FROM NEARBY SOURCES

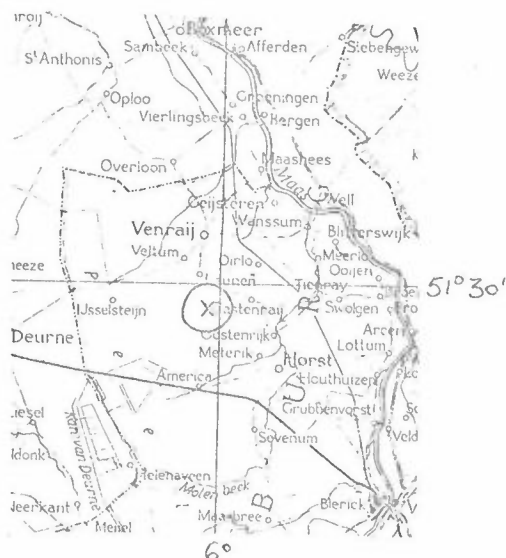
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	100	100	100	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	20	20	20	10	0	1	1	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	180	180	x 10 ⁴ kg SO ₂ /year
10-100 km	0	1	0	150	80	0	0	0	x 10 ⁶ kg SO ₂ /year

STATION: NL04 Leunen

GEOGRAPHICAL COORDINATES: $51^{\circ} 28' N$, $5^{\circ} 59' E$

ALTITUDE: 29 m a.s.l.

GROUND COVER Cultivated:
within a circle Pasture:
of radius 1 km: Forest:
Grass:
Heather:
Water:



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	0	0	1	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	180	x 10 ⁴ kg SO ₂ /year
10-100 km	1	300*	430*	300*	50**	25	25	100	x 10 ⁶ kg SO ₂ /year

* Almost covered by Germany, emissions from this area are included.

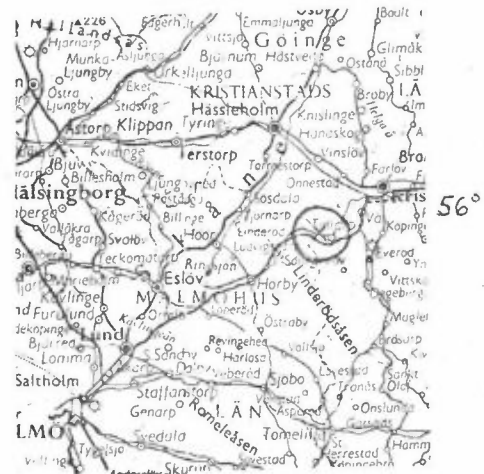
** Partly covered by Belgium, emissions from this area are included.

STATION: S01 Ekeröd

GEOGRAPHICAL COORDINATES: 55° 54' N, 13° 43' E

ALTITUDE: 140 m a.s.l.

GROUND COVER Cultivated: 25%
 within a circle Pasture: 5%
 of radius 1 km: Forest: 70%
 Grass: -
 Heather: -
 Water: -



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	50	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	1	3	3	1	33	3	4	2	x 10 ⁴ kg SO ₂ /year
10-100 km	3	48	1	3	4	26	19	8	x 10 ⁶ kg SO ₂ /year

STATION: S02 Råö

GEOGRAPHICAL COORDINATES: $57^{\circ} 23' N$, $11^{\circ} 55' E$

ALTITUDE: 4 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	-
Pasture:	5%
Forest:	10%
Grass:	-
Heather:	5%
Water:	75%
Other:	5%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	1	4	2	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	25	4	4	11	0	0	0	25	x 10 ⁶ kg SO ₂ /year

STATION: S03 Sjöängen

GEOGRAPHICAL COORDINATES: $58^{\circ} 46' N$, $14^{\circ} 18' E$

ALTITUDE: 127 m a.s.l.

GROUND COVER Cultivated: 5%
 within a circle Pasture: 2%
 of radius 1 km: Forest: 65%
 Grass: 5%
 Heather: 3%
 Water: 20%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	2	7	0	x 10 ⁴ kg SO ₂ /year
10-100 km	17	7	15	3	5	7	8	29	x 10 ⁶ kg SO ₂ /year

STATION: S04 Ryda Kungsgård

GEOGRAPHICAL COORDINATES: $59^{\circ} 46' N$, $17^{\circ} 08' E$

ALTITUDE: 25 m a.s.l.

GROUND COVER Cultivated: 10%
 within a circle Pasture: 15%
 of radius 1 km: Forest: 75%
 Grass: -
 Heather: -
 Water: -



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	2	1	2	1	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	9	23	25	9	6	26	15	11	x 10 ⁶ kg SO ₂ /year

STATION: S05 Bredkälén

GEOGRAPHICAL COORDINATES: $63^{\circ} 51' N$, $15^{\circ} 20' E$

ALTITUDE: 404 m a.s.l.

GROUND COVER Cultivated: 25%
 within a circle Pasture: 5%
 of radius 1 km: Forest: 69%
 Grass: 1%
 Heather: -
 Water: -



ESTIMATED EMISSION FROM NEARBY SOURCES

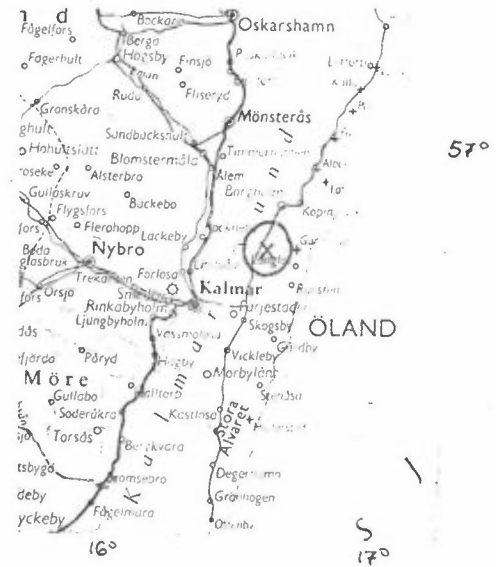
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	0	0	0	7	0	0	0	x 10 ⁶ kg SO ₂ /year

STATION: S06 Ekerum

GEOGRAPHICAL COORDINATES: $56^{\circ} 47' N$, $16^{\circ} 34' E$

ALTITUDE: 16 m a.s.l.

GROUND COVER: Cultivated: 60%
 within a circle Pasture: 15%
 of radius 1 km: Forest: 15%
 Grass: 5%
 Heather: -
 Water: -
 Other: 5%



ESTIMATED EMISSION FROM NEARBY SOURCES

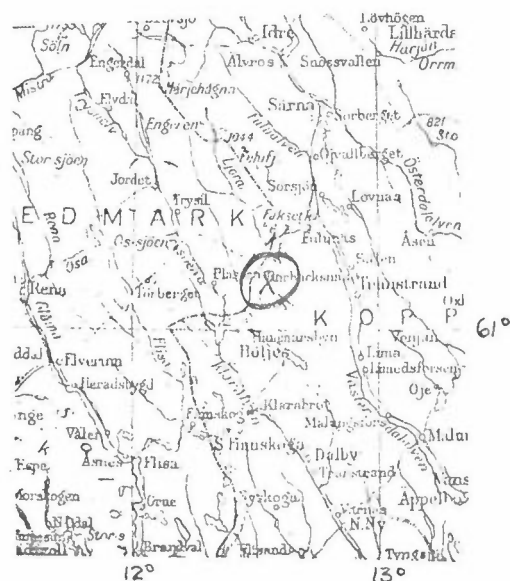
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	35	35	0	0	0	$\times 1 \text{ kg SO}_2/\text{year}$
100 m-1 km	0	0	0	0	5	0	0	0	$\times 10^2 \text{ kg SO}_2/\text{year}$
1-10 km	0	0	1	2	3	2	0	0	$\times 10^4 \text{ kg SO}_2/\text{year}$
10-100 km	0	0	0	0	4	5	1	7	$\times 10^6 \text{ kg SO}_2/\text{year}$

STATION: S07 Rörbäcksnäs

GEOGRAPHICAL COORDINATES: $61^{\circ} 07' N$, $12^{\circ} 48' E$

ALTITUDE: 470 m a.s.l.

GROUND COVER. Cultivated: -
 within a circle Pasture: 25%
 of radius 1 km: Forest: 45%
 Grass: 15%
 Heather: 10%
 Water: 5%



ESTIMATED EMISSION FROM NEARBY SOURCES

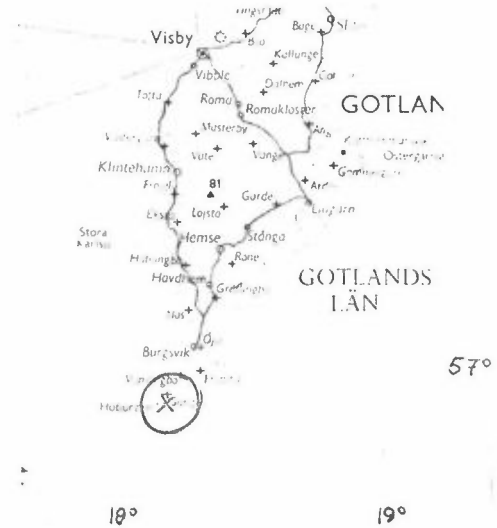
Sector Dist. from st.	Sector								Unit
	N-NE 0-45°	NE-E 45-90°	E-SE 90-135°	SE-S 135-180°	S-SW 180-225°	SW-W 225-270°	W-NW 270-315°	NW-N 315-360°	
0-100 m	0	0	0	0	0	0	0	30	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	4	6	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	0	1	0	0	1	0	0	x 10 ⁶ kg SO ₂ /year

STATION: S08 Hoburg

GEOGRAPHICAL COORDINATES: 56° 55' N, 18° 09' E

ALTITUDE: 57.9 m a.s.l.

GROUND COVER Cultivated: 40%
 within a circle Pasture: 50%
 of radius 1 km: Forest: -
 Grass: 9%
 Heather: -
 Water: 1%



ESTIMATED EMISSION FROM NEARBY SOURCES

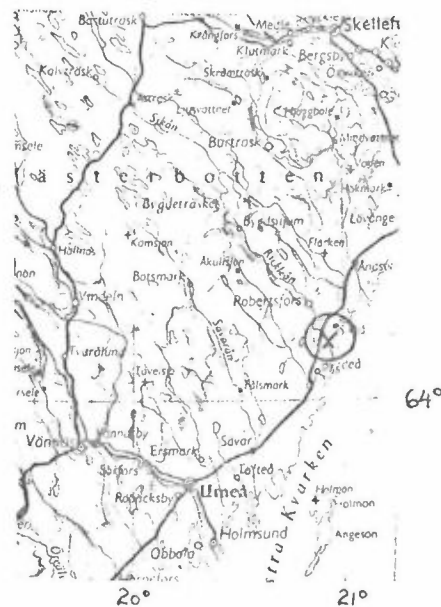
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100. m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	5	0	0	0	0	0	0	0	x 10 ⁶ kg SO ₂ /year

STATION: S09 Rickleå

GEOGRAPHICAL COORDINATES: $64^{\circ} 10' N$, $20^{\circ} 56' E$

ALTITUDE: 4 m a.s.l.

GROUND COVER Cultivated: 5%
 within a circle Pasture: -
 of radius 1 km: Forest: 60%
 Grass: 5%
 Heather: 5%
 Water: 25%



ESTIMATED EMISSION FROM NEARBY SOURCES

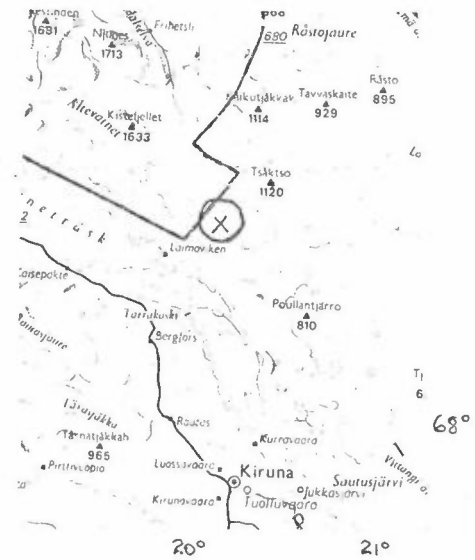
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	2	0	0	0	0	2	0	1	x 10 ⁴ kg SO ₂ /year
10-100 km	26	0	0	0	6	12	0	2	x 10 ⁶ kg SO ₂ /year

STATION: S10 Katterjåkk

GEOGRAPHICAL COORDINATES: $68^{\circ} 24' N$, $20^{\circ} 05' E$

ALTITUDE: 517 m a.s.l.

GROUND COVER Cultivated: -
 within a circle Pasture: -
 of radius 1 km: Forest: 20%
 Grass: 30%
 Heather: 20%
 Water: 4%
 Other: 26%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100. m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	1	0	0	0	0	1	0	0	x 10 ⁶ kg SO ₂ /year

STATION: SF01 Jomala

GEOGRAPHICAL COORDINATES: 60° 11' N, 19° 59' E

ALTITUDE: 21 m a.s.l.

GROUND COVER Cultivated: 27%
 within a circle Pasture: 9%
 of radius 1 km: Forest: 44%
 Grass: 2%
 Heather: -
 Water: 17%
 Marsh: 1%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	650	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	1.7	2.5	0	x 10 ² kg SO ₂ /year
1-10 km	0.3	0	0	0.1	72	0	0.4	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	0	0	0	0	*	0	0	x 10 ⁶ kg SO ₂ /year

* This sector is partly covered by Sweden.

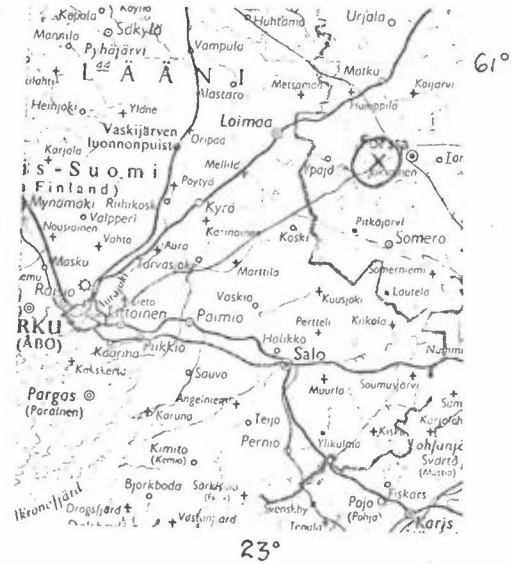
STATION: SF02 Jokioinen

GEOGRAPHICAL COORDINATES: $60^{\circ} 49' N$, $23^{\circ} 30' E$

ALTITUDE: 106 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	79%
Pasture:	3%
Forest:	8%
Grass:	-
Heather:	-
Water:	3%
Urban area:	3%
One storey buildings:	4%



ESTIMATED EMISSION FROM NEARBY SOURCES

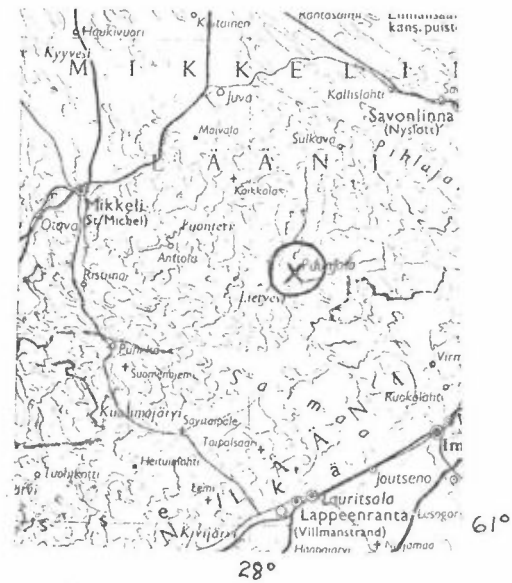
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45 ^o	45-90 ^o	90-135 ^o	135-180 ^o	180-225 ^o	225-270 ^o	270-315 ^o	315-360 ^o	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	35.6	815	1.5	0	x 10 ² kg SO ₂ /year
1-10 km	0	69.5	0.2	0.2	2.9	0.7	0	0.2	x 10 ⁴ kg SO ₂ /year
10-100 km	28.6	2.9	31.9	8.3	0	25	13.3	11.6	x 10 ⁶ kg SO ₂ /year

STATION: SF03 Puumala

GEOGRAPHICAL COORDINATES: 61° 34' N, 28° 04' E

ALTITUDE: 122 m a.s.l.

GROUND COVER Cultivated: 13%
 within a circle Pasture: -
 of radius 1 km: Forest: 75%
 Grass: -
 Heather: -
 Water: 4%
 Wooded
 marsh: 8%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0.1	0	0	0	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	0.8	4.8	25.6	0	0	0.5	12.1	x 10 ⁶ kg SO ₂ /year

STATION: SF04 Ähtäri

GEOGRAPHICAL COORDINATES: $62^{\circ} 33' N$, $24^{\circ} 13' E$

ALTITUDE: 162 m a.s.l.

GROUND COVER	Cultivated:	12%
within a circle	Pasture:	-
of radius 1 km:	Forest:	52%
	Grass:	-
	Heather:	-
	Water:	19%
	Wooded	
	marsh:	11%
	Bushes:	2%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE 0-45°	NE-E 45-90°	E-SE 90-135°	SE-S 135-180°	S-SW 180-225°	SW-W 225-270°	W-NW 270-315°	NW-N 315-360°	Unit
	0-100 m	0	0	0	0	0	0	0	
100. m-1 km	0	0	0	0	0	0.2	0	0	x 10 ² kg SO ₂ /year
1-10 km	0.1	0	0.5	0	0	0.2	14.7	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	9.2	5.2	21.1	0	0	0.5	0	x 10 ⁶ kg SO ₂ /year

STATION: SF05 Sodankylä

GEOGRAPHICAL COORDINATES: 67° 22' N, 26° 39' E

ALTITUDE: 180 m a.s.l.

GROUND COVER Cultivated: 4%
 within a circle Pasture: 3%
 of radius 1 km: Forest: 50%
 Grass: -
 Heather: -
 Water: 12%
 Wooded
 marsh: 31%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	350	0	x 1 kg SO ₂ /year
100 m-1 km	0	0	0	2.5	0.5	0.8	0	5.0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0	0	0	0	21.5	x 10 ⁴ kg SO ₂ /year
10-100 km	0	0	0	3.3	0.2	0	0	0	x 10 ⁶ kg SO ₂ /year

STATION: UK1 Cottered

GEOGRAPHICAL COORDINATES: $51^{\circ} 56' N$, $0^{\circ} 05' W$

ALTITUDE: 125 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	50%
Pasture:	10%
Forest:	-
Grass:	40%
Heather:	-
Water:	-



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	Sector								Unit
	N-NE 0-45°	NE-E 45-90°	E-SE 90-135°	SE-S 135-180°	S-SW 180-225°	SW-W 225-270°	W-NW 270-315°	NW-N 315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100 m-1 km	3.6	0.6	0.6	0	0.6	0	0	0.6	x 10 ² kg SO ₂ /year
1-10 km	1.8	5.4	6.0	1.3	7.2	60	6.0	1.8	x 10 ⁴ kg SO ₂ /year
10-100 km	28	52	55	200	560	10	100	50	x 10 ⁶ kg SO ₂ /year

STATION: UK2 Eskdalemuir

GEOGRAPHICAL COORDINATES: 55° 19' N, 3° 12' W

ALTITUDE: 243 m a.s.l.

GROUND COVER within a circle of radius 1 km:

Cultivated:	5%
Pasture:	80%
Forest:	10%
Grass:	2%
Heather:	-
Water:	1%
Other:	2%



ESTIMATED EMISSION FROM NEARBY SOURCES

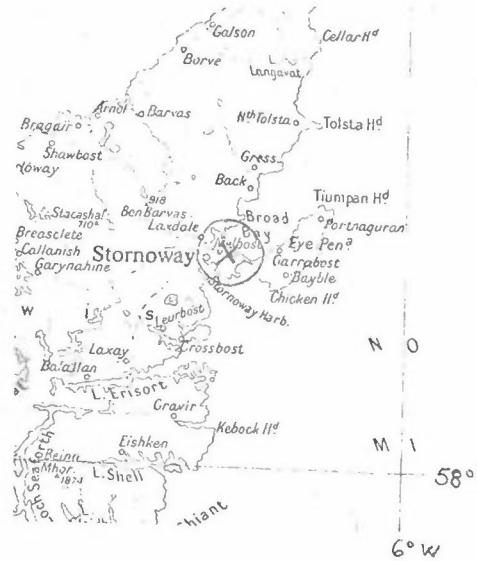
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	100	0	0	0	0	0	0	x 1 kg SO ₂ /year
100. m-1 km	0	0	0	2	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	0	0.5	0	0.5	0.5	0	x 10 ⁴ kg SO ₂ /year
10-100 km	41.7	3.1	55.9	30.5	18.3	0.8	237.7	146.3	x 10 ⁶ kg SO ₂ /year

STATION: UK07 Stornoway

GEOGRAPHICAL COORDINATES: $58^{\circ} 13' N$, $6^{\circ} 20' W$

ALTITUDE: 4 m a.s.l.

GROUND COVER Cultivated: 10%
 within a circle Pasture: -
 of radius 1 km: Forest: -
 Grass: 75%
 Heather: -
 Water: 10%
 Runways: 5%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100. m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	0	0	4.7	0	0	3.6	1.6	0	x 10 ⁴ kg SO ₂ /year
10-100 km	0	0	0.02	0.09	0	0	0	0.06	x 10 ⁶ kg SO ₂ /year

STATION: UK08 - Dean Moor

GEOGRAPHICAL COORDINATES: $54^{\circ} 36' N$, $3^{\circ} 28' W$

ALTITUDE: 200 m a.s.l.

GROUND COVER Cultivated:
 within a circle Pasture:
 of radius 1 km: Forest:
 Grass:
 Heather:
 Water:



ESTIMATED EMISSION FROM NEARBY SOURCES

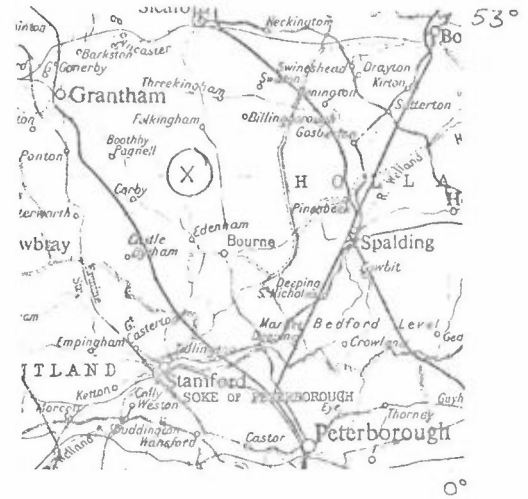
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m									x 1 kg SO ₂ /year
100 m-1 km									x 10 ² kg SO ₂ /year
1-10 km									x 10 ⁴ kg SO ₂ /year
10-100 km									x 10 ⁶ kg SO ₂ /year

STATION: UK09 Kirkby Underwood

GEOGRAPHICAL COORDINATES: $52^{\circ} 51' N$, $0^{\circ} 26' W$

ALTITUDE: 80 m a.s.l.

GROUND COVER Cultivated: 85%
 within a circle Pasture: -
 of radius 1 km: Forest: 15%
 Grass: -
 Heather: -
 Water: -



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	x 1 kg SO ₂ /year
100. m-1 km	0	0	0	0	0	0	0	0	x 10 ² kg SO ₂ /year
1-10 km	1.2	1.2	7.8	1.2	1.2	1.2	1.2	1.2	x 10 ⁴ kg SO ₂ /year
10-100 km	43	6	20	54	58	460	333	435	x 10 ⁶ kg SO ₂ /year

STATION: UK10 Sibton

GEOGRAPHICAL COORDINATES: $52^{\circ} 18' N$, $1^{\circ} 28' E$

ALTITUDE: 50 m a.s.l.

GROUND COVER. Cultivated: 80%
 within a circle Pasture: -
 of radius 1 km: Forest: -
 Grass: 20%
 Heather: -
 Water: -



ESTIMATED EMISSION FROM NEARBY SOURCES

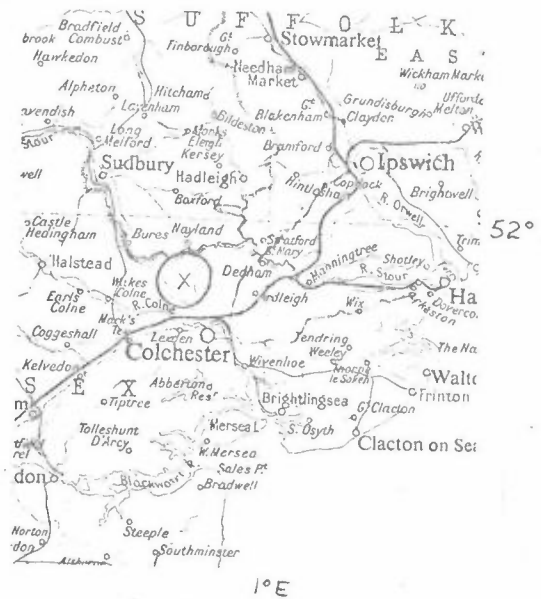
Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	0	0	0	0	0	0	0	0	$\times 1 \text{ kg SO}_2/\text{year}$
100 m-1 km	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	$\times 10^2 \text{ kg SO}_2/\text{year}$
1-10 km	3.6	0.06	0.06	0.06	0.06	0.06	0.06	0.06	$\times 10^4 \text{ kg SO}_2/\text{year}$
10-100 km	64	27	5	107	310	314	58	27	$\times 10^6 \text{ kg SO}_2/\text{year}$

STATION: UK11 Little Horkesley

GEOGRAPHICAL COORDINATES: $51^{\circ} 57' N$, $0^{\circ} 52' E$

ALTITUDE: 60 m a.s.l.

GROUND COVER Cultivated: 60%
 within a circle Pasture: 30%
 of radius 1 km: Forest: -
 Grass: -
 Heather: -
 Water: -
 Domestic &
 roads: 10%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	$0-45^{\circ}$	$45-90^{\circ}$	$90-135^{\circ}$	$135-180^{\circ}$	$180-225^{\circ}$	$225-270^{\circ}$	$270-315^{\circ}$	$315-360^{\circ}$	
0-100 m	0	0	0	0	0	0	0	0	$\times 1$ kg SO ₂ /year
100 m-1 km	0.5	1.0	5.0	5.0	0.5	0.5	0.5	0.5	$\times 10^2$ kg SO ₂ /year
1-10 km	3.0	1.5	3.0	90	15	4	1.5	1.5	$\times 10^4$ kg SO ₂ /year
10-100 km	29.4	26.4	6.0	97.0	295.5	480	84.5	26.0	$\times 10^6$ kg SO ₂ /year

STATION: UK12 Pitlochry :

GEOGRAPHICAL COORDINATES: $56^{\circ} 43' N$, $3^{\circ} 46' W$

ALTITUDE: 94.5 m a.s.l.

GROUND COVER	Cultivated:	-
within a circle	Pasture:	10%
of radius 1 km:	Forest:	35%
	Grass:	10%
	Heather:	15%
	Water:	15%
	Other:	15%



ESTIMATED EMISSION FROM NEARBY SOURCES

Sector Dist. from st.	N-NE	NE-E	E-SE	SE-S	S-SW	SW-W	W-NW	NW-N	Unit
	0-45°	45-90°	90-135°	135-180°	180-225°	225-270°	270-315°	315-360°	
0-100 m	60	0	0	0	30	0	0	0	$\times 1 \text{ kg SO}_2/\text{year}$
100. m-1 km	0	1.5	0	0	0	0	0	1.0	$\times 10^2 \text{ kg SO}_2/\text{year}$
1-10 km	0	0	0	2.3	0	0	0	0	$\times 10^4 \text{ kg SO}_2/\text{year}$
10-100 km	2.1	6.8	28.4	129.2	5.4	2.3	1.2	0.8	$\times 10^6 \text{ kg SO}_2/\text{year}$

SECTION II

CLIMATOLOGICAL DATA

1. Precipitation
2. Wind

1. PRECIPITATION DATA

D. PRECIPITATION

Station	Period	Yearly average prec (mm)	Monthly average precipitation (mm)											
			Jan July	Febr Aug	March Sept	April Oct	May Nov	June Dec						
D01 Westerland	1971-73	613	27	32	39	50	32	60	67	51	59	48	106	41
D02 Waldhof	1971-73	525	24	15	27	45	54	96	53	41	31	40	52	46
D03 Schauinsland	1971-73	1584	106	123	76	183	115	237	122	88	59	94	202	112
D04 Deuselbach	1971-73	577	30	36	25	44	77	61	47	62	44	48	80	22
D05 Brotjackriegel	1971-73	718	14	36	22	86	128	125	67	46	44	39	77	33

DK. PRECIPITATION I

STATION	Precipitation data from	Yearly aver prec		Period	Monthly average precipitation (mm)					
		Period	(mm)		Jan July	Febr Aug	March Sept	April Oct	May Nov	June Dec
DK1 Færøerne	Hoyvik 15 km SE of DK1	1931-60	1434	1931-60	149	136	114	106	67	74
DK2 Hansthholm	Hansthholm	1931-60	668	1931-60	58	41	29	35	36	40
DK3 Tange	Hinge	1931-60	666	1931-60	62	79	79	78	70	61
DK4 Gniben	Sejrø 15 km SW of DK4	1931-60	503	1931-60	55	36	34	39	36	45
DK5 Keldsnor	Keldsnor	1931-60	514	1931-60	82	83	73	71	60	52
DK6 Dueodde	Dueodde	1931-60	553	1931-60	39	29	25	32	31	45
					57	65	54	45	41	39
					38	36	28	35	39	42
					61	66	50	45	37	38
					48	33	29	31	32	42
					57	58	61	60	54	48

DK. PRECIPITATION II

Station	Period	Days per week	
DK1 Færøerne (Hoyvik)	1931-60	257	With precipitation With snowfall With $T_{\min} < 0^{\circ}\text{C}$ With $T_{\max} < 0^{\circ}\text{C}$
		49	
		40.8	
		2.2	

F. PRECIPITATION I

Station	Precipitation data from	Yearly aver prec		Seasonal average precipitation (mm)				
		Period	(mm)	Period	SPRING	SUMMER	AUTUMN	WINTER
F01 Vert-le-Petit	Vert-le-Petit	1973-74	611	1973-74	106	147	204	154
F02 Le Barp	Bordeaux 30 km NE of F02 Cazaux 31 km WSW of F02	1931-60 1931-60	814 931	1931-60 1931-60	234 291	169 174	180 174	231 292
F03 La Crouzille	Limoges 20 km S of F03	1921-50	960	1921-50	256	240	212	261
F04 Grenoble	Grenoble	1963-73 1973	1834 1920	1963-73 1973	574 434	493 654	424 401	484 430
F05 La Hague	La Hague	-	1031	-	-	-	-	Dominating
F06 Valduc	Valduc	1973	680	-	-	-	-	-

F. PRECIPITATION II

Distribution of days with different amounts of precipitation
(precipitation (mm) \geq)

Station	Data from	Prec mm \geq	WINTER	SPRING	SUMMER	AUTUMN	YEAR
F02 Le Barp	Bordeaux 30 km NE of F02	0.0	55	50	49	49	203
		0.1	48	40	39	41	168
		0.5	41	32	32	35	140
		1.0	36	29	26	31	122
		5.0	21	11	13	16	61
	Cazaux 31 km WSW of F02	10.0	11	5	6	8	31
		40.0	0	0	0.4	0.4	0.8
		0.0	51	46	43	47	187
		0.1	45	38	35	40	158
		0.5	41	35	29	36	142
		1.0	30	26	34	128	
		5.0	11	11	18	62	
		10.0	12	4	9	29	
		40.0	0.3	0.1	0.2	0.7	

IC. PRECIPITATION

Station	Period	Yearly aver prec (mm)	Monthly aver prec (mm)	
			June	October
Rjupnahad	-	1037	52	135

Autumn and winter are rainy seasons,
spring and summer relatively dry.

Yearly number of days with precipitation ≥ 0.1 mm at Reykjavik
Airport is 212.

N. PRECIPITATION

Station	Precipitation data from	Yearly aver prec		Monthly average precipitation (mm)						
		Period	(mm)	Period	Jan July	Febr Aug	March Sept	April Oct	May Nov	June Dec
N01 Birkenes	Birkenes	1901-30	1459	1901-30	128 97	102 154	120 121	83 162	81 154	73 164
N03 Finsland	Bjelland 58°21'N, 07°32'E	1931-60	1356	1931-60	124 112	87 143	55 144	76 153	60 167	78 157
N05 Gjerstad	Gjerstad	1901-30	1311	1901-30	91 108	75 159	100 120	75 152	86 125	80 140
N06 Lista	Lista	1931-60	1049	1931-60	85 92	65 113	41 121	61 120	49 123	68 111
N07 Mandal	Mandal	1931-60	1404	1931-60	150 109	97 130	59 152	74 170	62 163	80 158
N08 Skreådalen	Skreådalen	1901-30	1854	1901-30	221 119	144 175	129 162	98 208	102 205	97 194
N09 Søyland	Søyland	1931-60	2043	1931-60	186 159	135 186	84 244	124 247	84 231	127 236
N10 Tovdal	Tovdal	1931-60	1253	1931-60	91 116	65 152	47 121	69 138	73 166	83 132
N14 Skei i Jølster	Klakegg 61°37'N, 06°31'E	1901-30	1629	1901-30	230 99	150 147	122 184	71 157	69 177	85 138
	Skei i Jølster	1970	1407	1970	60 168	64 60	114 216	35 250	82 85	58 215
N15 Tustervatn	Tustervatn 65°49'N, 13°54'E	1901-30	952	1901-30	101 79	79 83	72 120	43 97	49 95	57 77
	N15	1966-70	1098	1966-71	84 129	69 57	154 110	64 141	46 71	48 122
N16 Tågmyra	Trysil 61°20'N, 12°15'E	1931-60	716	1931-60	39 107	24 90	21 84	38 68	45 60	83 57
	Tågmyra	1966-70	668	1966-70	44 98	29 44	34 70	34 70	61 65	57 52
N18 Løken	Mørk 59°46'N, 11°22'E	1901-30	716	1901-30	46 69	34 107	43 63	40 86	50 67	51 60
	Skreppestad 59°52'N, 11°34'E	1901-30	632	1901-30	40 67	28 97	32 54	33 74	47 58	50 52
N19 Bislingen	Gjerdingen 60°12'N, 10°36'E	1901-30	868	1901-30	44 87	41 135	48 81	49 107	66 80	64 66
	Katnosa 60°09'N, 10°36'E	1901-30	1073	1901-30	68 102	57 153	76 89	65 119	76 101	73 94
N20 Grimelid	Grimelid	1931-60	846	1931-60	50 117	36 108	27 92	45 80	53 88	79 71
N22 Vasser	Ferder 59°02'N, 10°32'E	1931-60	725	1931-60	67 56	43 77	34 78	42 76	44 81	48 79
	Sandefjord 59°08'N, 10°14'E	1901-30	745	1901-30	47 67	41 90	61 65	46 88	52 67	49 72
N23 Lyngør	Lyngør	1931-60	888	1931-60	74 74	54 98	42 90	49 99	48 108	54 98
N24 Fitjar	Fitjar	1901-30	1484	1901-30	168 85	105 148	99 152	81 178	81 149	81 157
N26 Treungen	Tveitsund 59°02'N, 08°31'E	1931-60	1005	1931-60	68 104	48 129	37 102	51 112	60 118	80 96
N27 Vatnedalen	Vatnedalen	1901-30	863	1901-30	95 78	57 97	55 93	29 98	44 82	55 80
N28 Fillefjell	Nystuen 61°11'N, 08°10'E	1901-30	460	1901-30	40 60	28 79	24 48	18 41	27 33	31 31
	Maristova 61°07'N, 08°02'E	1931-60	604	1931-60	51 66	48 65	36 66	31 62	29 54	44 52

NL. PRECIPITATION

Station	Precipitation data from	Yearly aver prec (mm)	
		Period	
NL3 Den Helder	Den Helder	1931-60	711.6
NL2 Witteveen	Assen, ca 20 km NNW	1931-60	808.9
	Emmen, ca 15 km E	1931-60	765.1
	Dwingelo, ca 20 km W	1931-60	821.1
NL3 Wageningen	Wageningen	1931-60	766.0

Number of days with precipitation \geq 1.0 mm.

Station	Data from	Winter	Spring	Summer	Autumn	Year
Den Helder	Den Helder	12	8	9	13	10.7
Witteveen	Eelde, 37 km NNW	12	9	11	12	11.1
Wageningen	de Bilt, 37 km WNW	12	9	11	11	10.8

SF, PRECIPITATION I

Station	Precipitation data from	Yearly aver prec		Period	Monthly average prec (mm)											
		Period	(mm)		Jan		Febr		March		April		May		June	
					July	Aug	Sept	Oct	Nov	Dec						
SF1 Jomala	Jomala	1972-73	538	1972-73	25	42	23	34	26	36	72	72	75	38	63	32
SF2 Jokioinen	Jokioinen	1968-73	559	1968-73	35	27	25	33	39	42	70	74	61	51	41	41
SF3 Puumala	Puumala	1970-73	591	1970-73	21	35	36	52	25	38	64	82	63	60	56	56
SF4 Ahtäri	Ahtäri	1969-73	611	1969-73	40	30	28	35	42	60	80	78	69	49	42	42
SF5 Sodankylä	Sodankylä	1968-73	486	1968-73	27	27	21	30	26	53	66	74	48	39	32	32

SF. PRECIPITATION II

Station	Prec data from	Period	Days with prec/year	Days with precipitation/month											
				Period	Jan July	Febr Aug	March Sept	April Oct	May Nov	June Dec					
SF1 Jomala	Jomala	1972-73	152	1972-73	9 11	12 13	8 16	18 15	9 18	7 16					
SF2 Jokioinen	Jokioinen	1968-73	204	1968-73	24 16	18 13	15 19	17 17	13 22	10 20					
SF3 Puumala	Puumala	1970-73	222	1970-73	23 13	20 18	16 21	19 21	12 25	11 23					
SF4 Ahtäri	Ahtäri	1969-73	211	1969-73	17 13	16 18	16 17	25 17	17 19	18 18					
SF5 Sodankylä	Sodankylä	1968-73	176	1968-73	21 6	14 17	11 17	16 12	6 20	19 17					

UK. PRECIPITATION

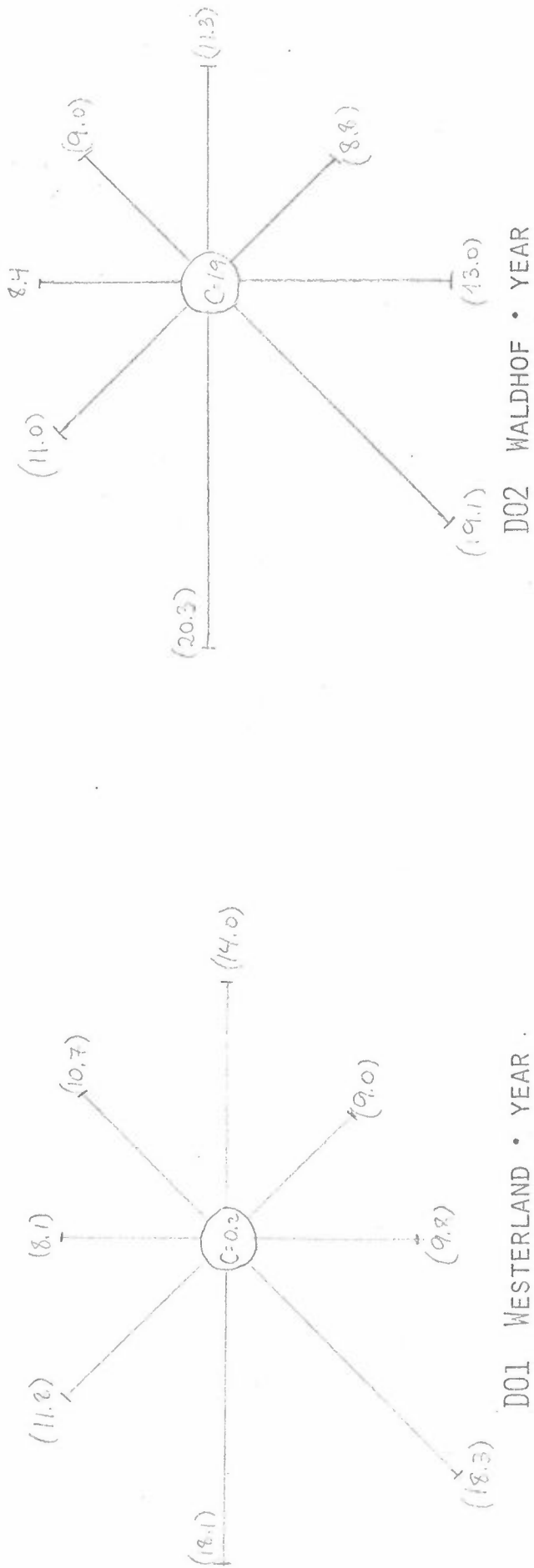
Station	Precipitation data from	Yearly aver prec (mm)		Monthly average prec (mm)						
		Period	(mm)	Period	Jan	April	July	Oct		
UK1 Cottered	Ardeley Bury 2 km NE of UK1	1916-50	678	1961-65	39	63	60	38		
UK2 Eskdalemuir	Eskdalemuir	1916-50	1582	1916-50	192	97	127	141		
UK7 Stornoway	Stornoway	1916-50	1002	1916-50	106	59	78	112		
UK9 Kirkby Underwood	Billingborough 8 km NE of UK9	1916-50	614	1961-65	48	62	45	26		
UK10 Sibton	Framlingham 10 km WSW of UK10	1916-50	645	1961-65	42	58	45	53		
UK11 Little Horkesley	Boxted 3 km ENE of UK11	1916-50	604	1961-65	36	54	44	44		
UK12 Pitlochry	Pitlochry	1916-50 1964-73	900 777	1961-65 1964 1973	49 30 32	58 (March) 47 55	62 (June) 20 45	82 (Sept) 33 50		

2. WIND DATA

Wind roses: C = calm frequency

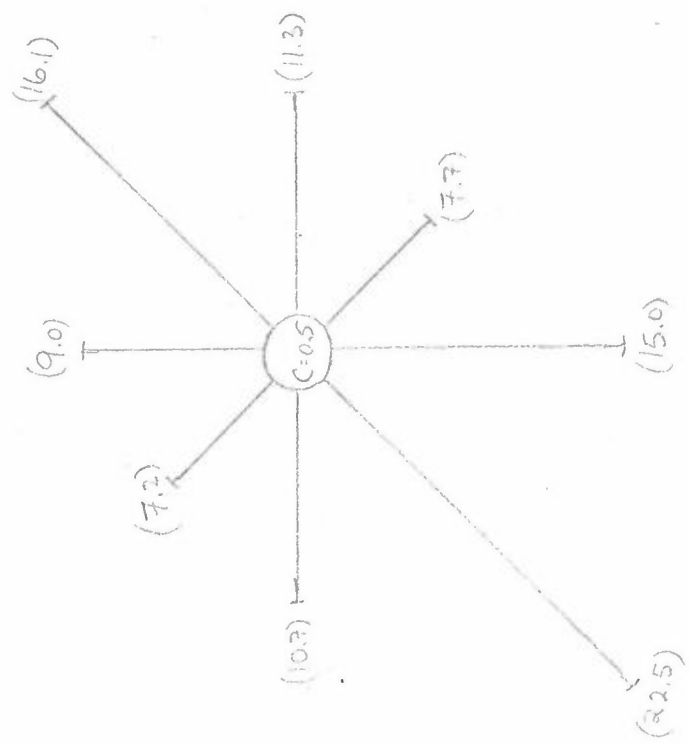
The figures in parantheses give frequencies (%) and the other figures give mean wind speed (m/s) in the directions indicated.

D. WIND
 WINDROSES FROM D01 WESTERLAND, D02 WALDHOF
 AND D04 DEUSELBACH (1971-1973).

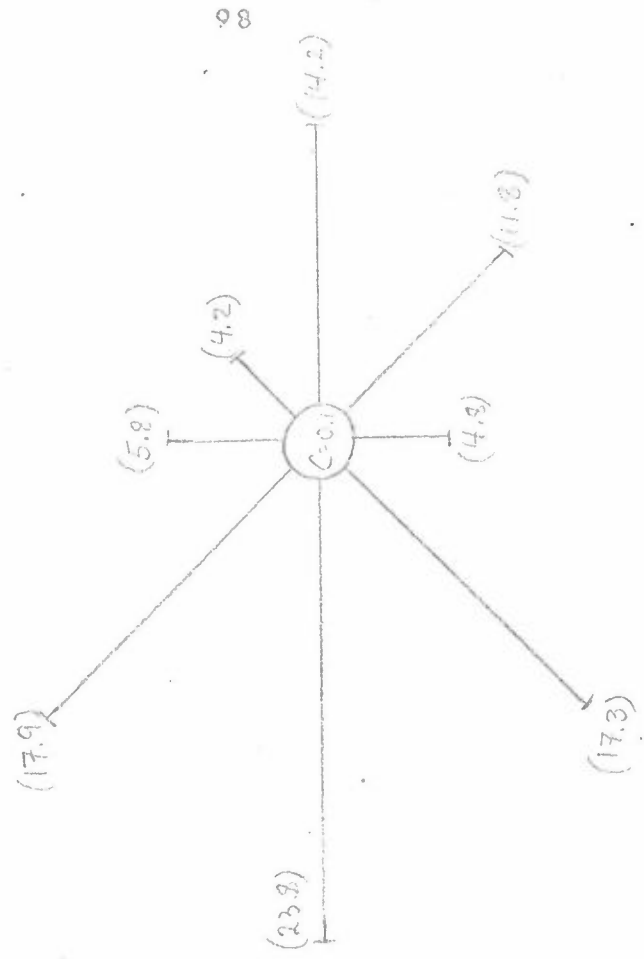


D. WIND WINDROSES FROM D05 BROTJACKRIEGEL AND D03
 SCHAUINSLAND (1971-1973).

D05 BROTJACKRIEGEL • YEAR



D03 SCHAUINSLAND • YEAR

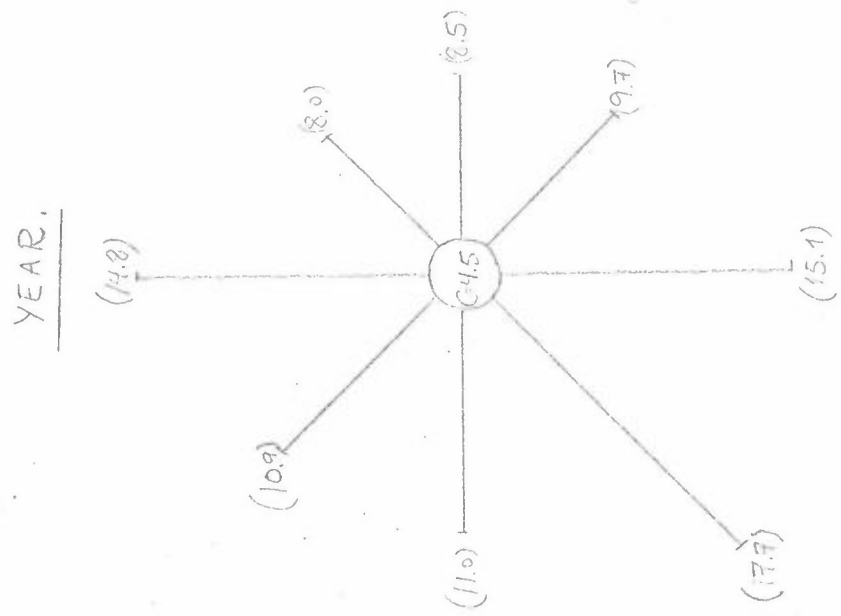


D. WIND WIND SPEED FREQUENCIES.

Station	Period	Wind speed (m/s)	Yearly average %
D01 Westerland	1971-73	0-1	1.7
		1-6	49.9
		>6	49.3
D02 Waldhof	1971-73	0-1	22.3
		1-6	61.4
		>6	16.3
D03 Schauinsland	1971-73	0-1	9.0
		1-6	84.4
		>6	6.6
D04 Deuselbach	1971-73	0-1	13.4
		1-6	65.7
		>6	20.8
D05 Brotjackriegel	1971-73	0-1	31.9
		1-6	67.7
		>6	0.2

DK. WIND

WINDROSE FROM HOYVIK (1931-60), 15 KM SE OF DK01 FÆRØERNE.

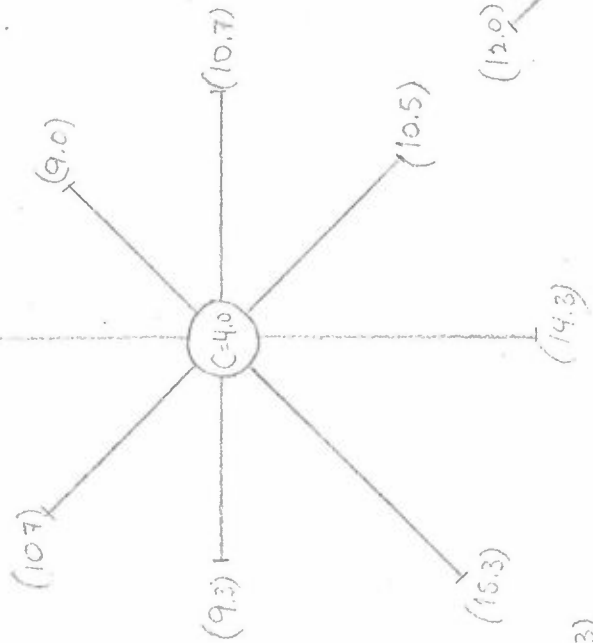


DK. WIND

WINDROSES FROM HOYVIK
(1931-60), 15 KM SE OF
DK01 FÆRØERNE.

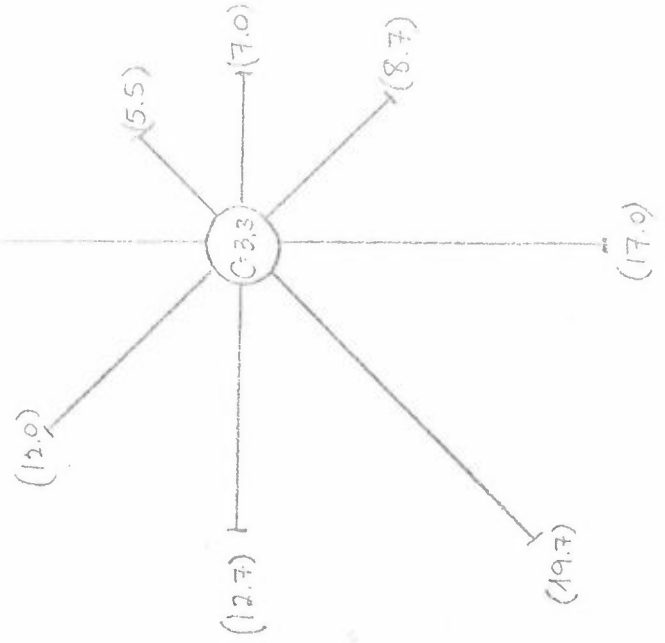
SPRING

(16.2)



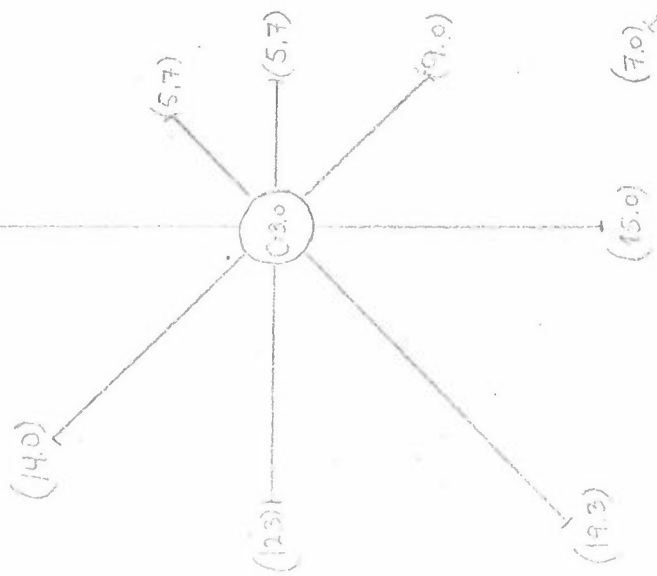
AUTUMN

(14.5)



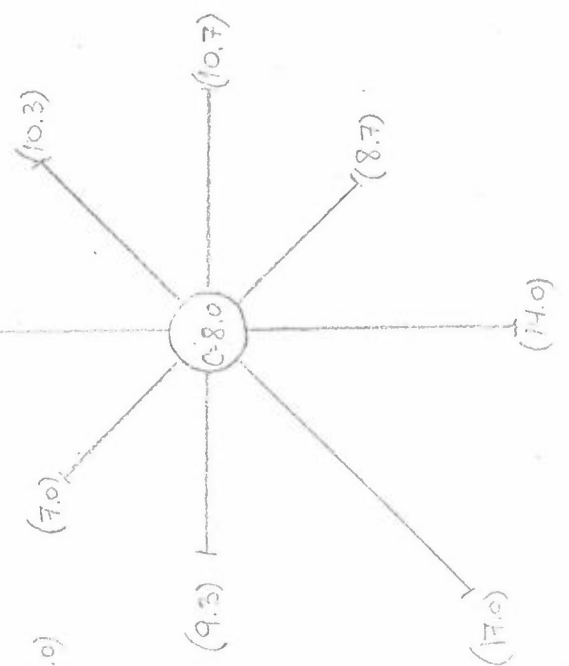
WINTER

(15.3)



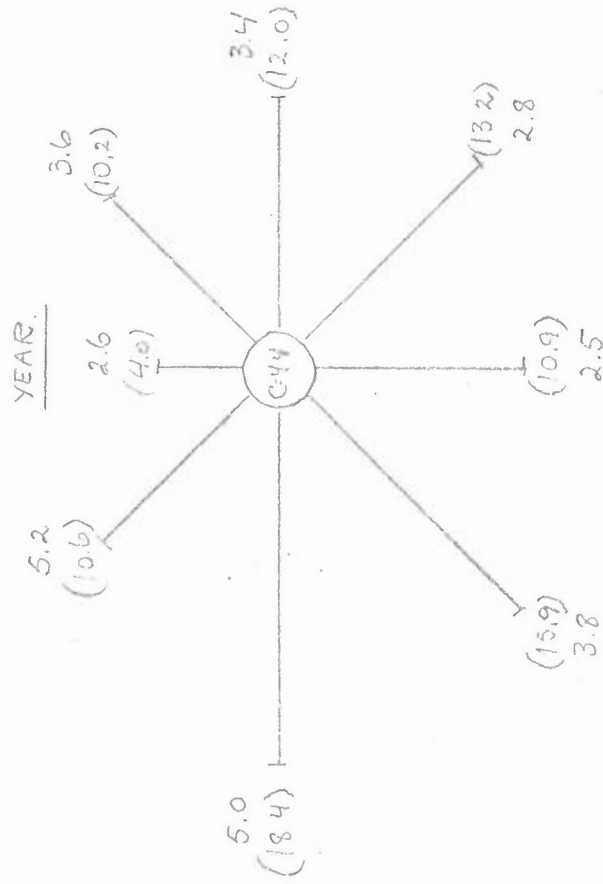
SUMMER

(14.3)

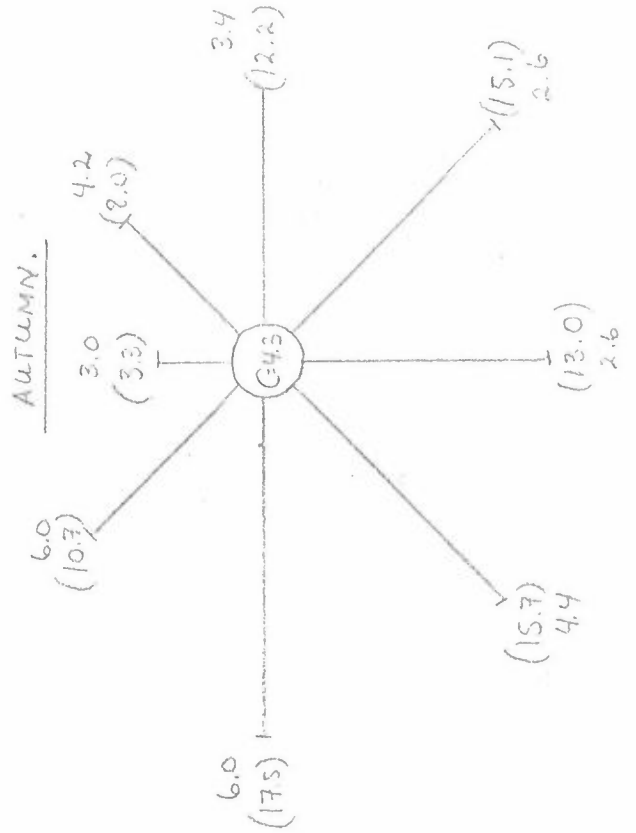
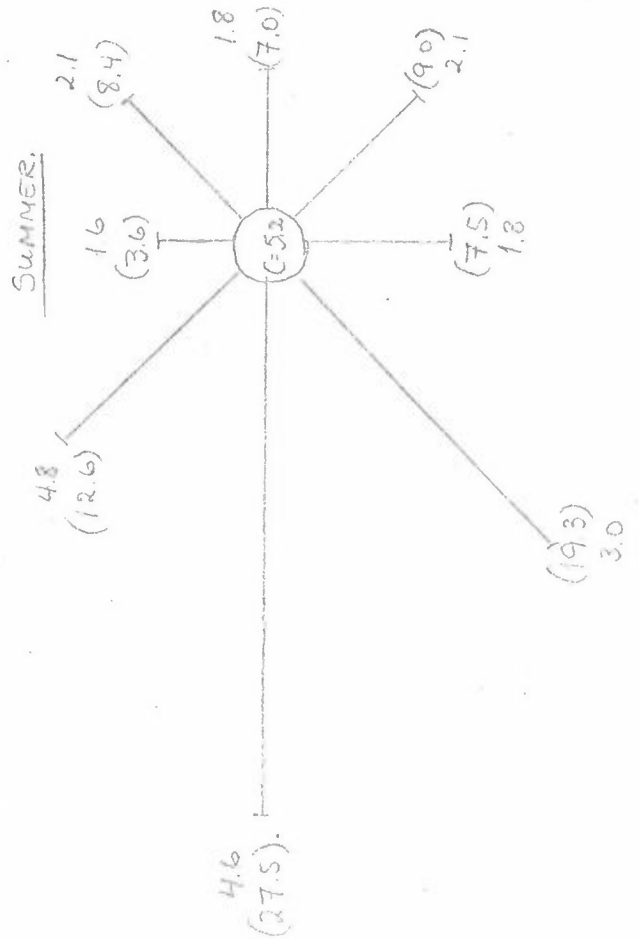
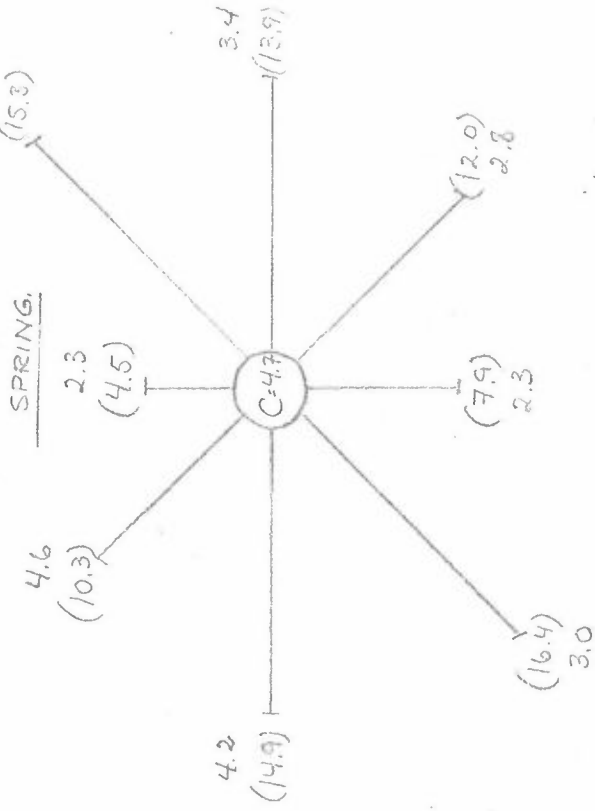
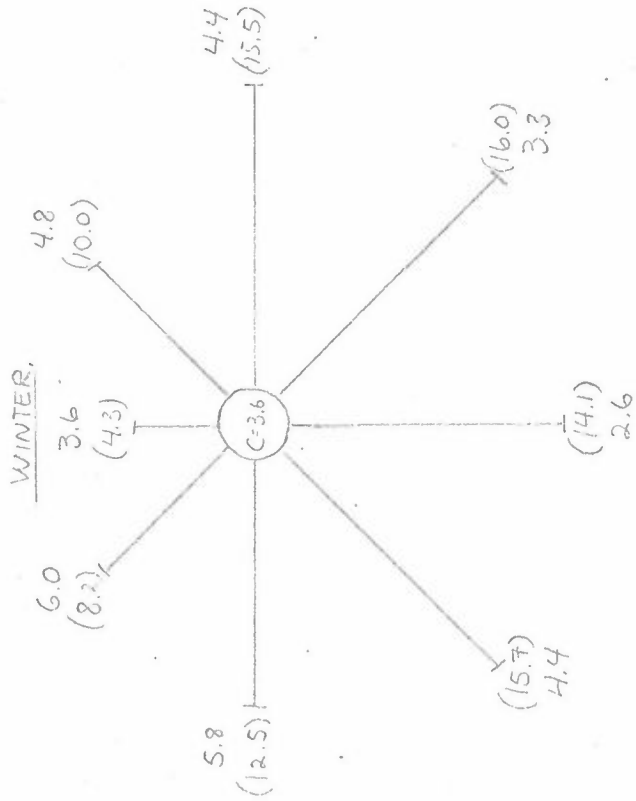


DK. WIND

WINDROSE FROM DK02 HANSTHOLM (1931-60).

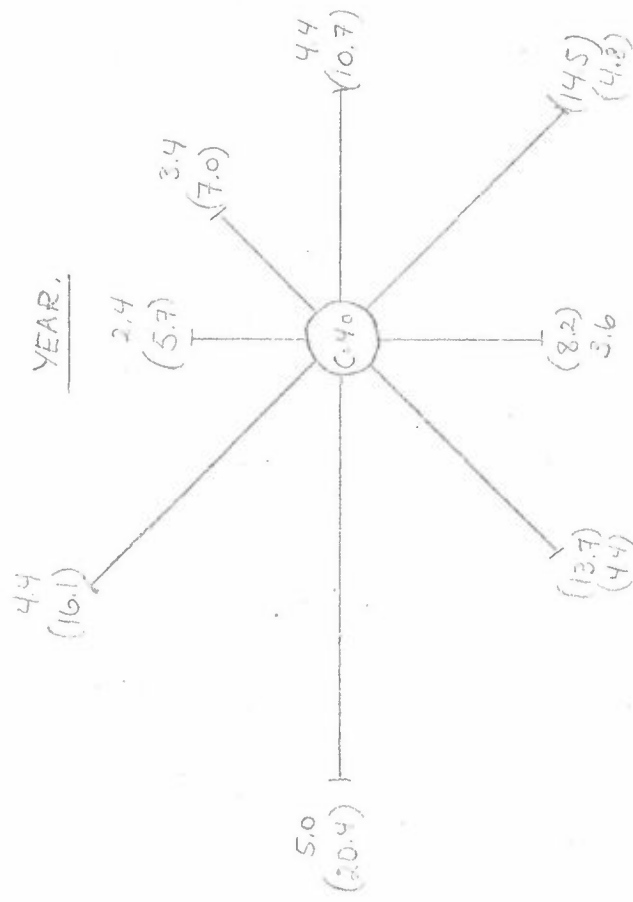


DK. WIND WINDROSES FROM DK02 HANSTHOLM (1931-60).

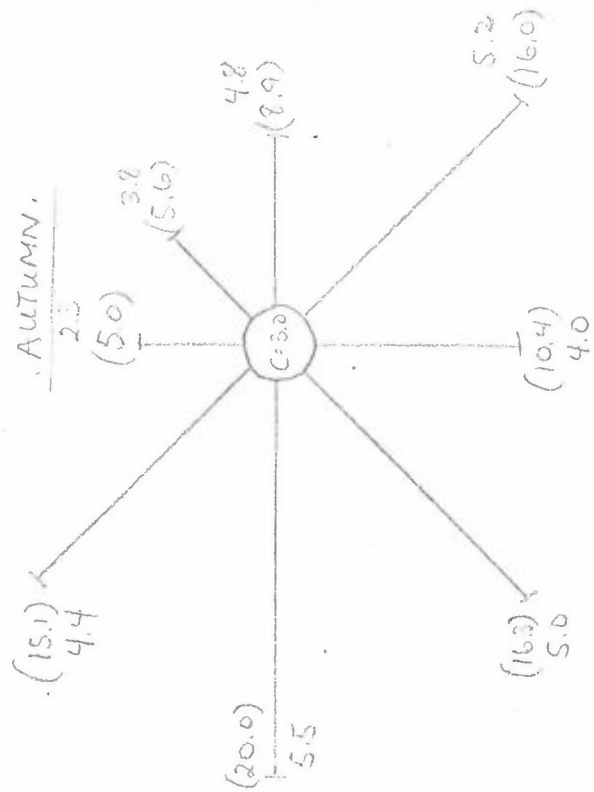
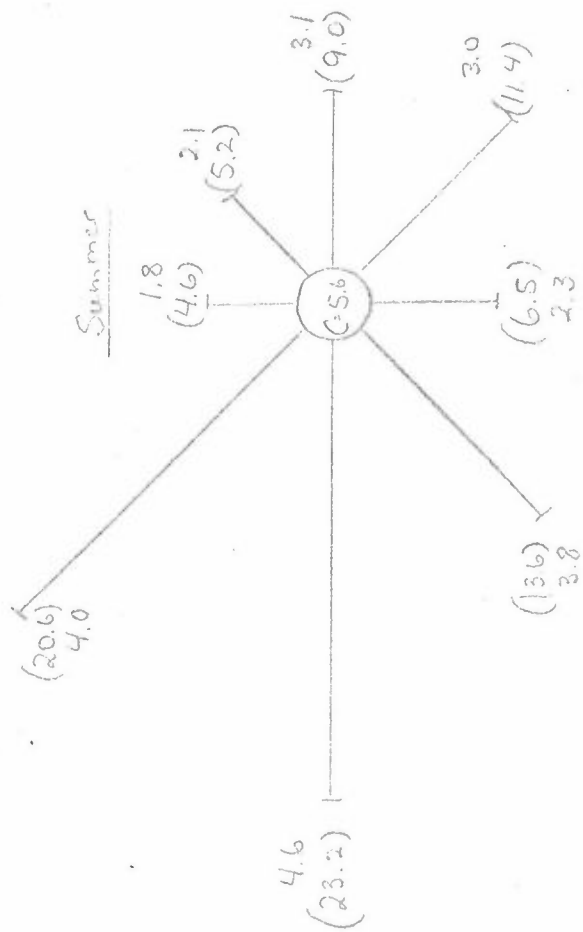
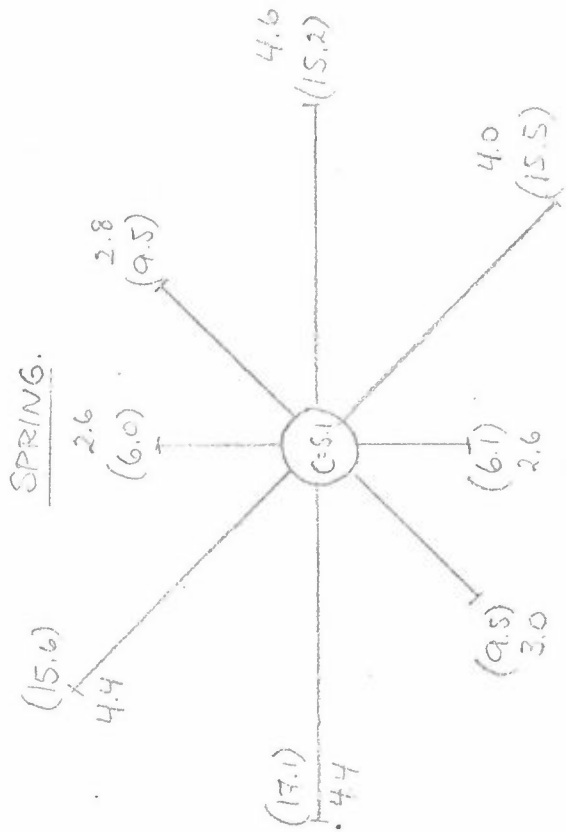
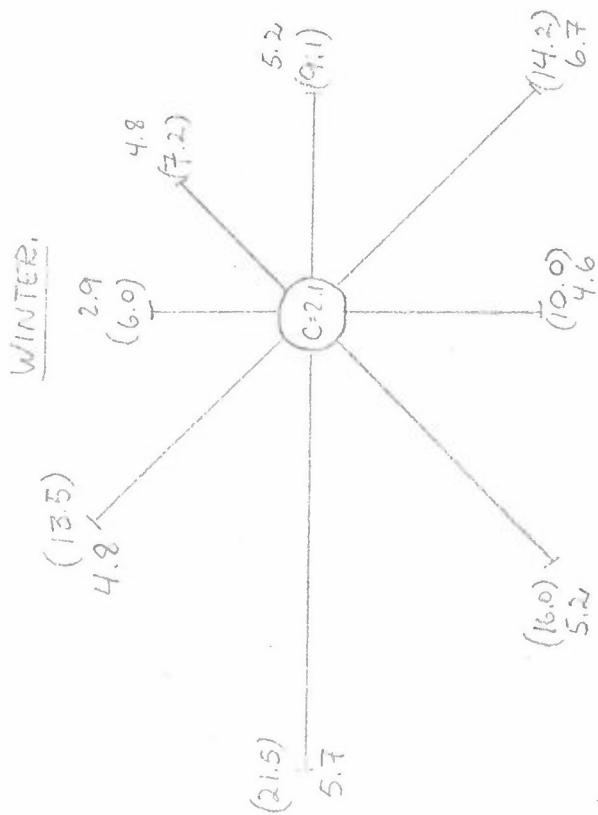


DK. WIND

WINDROSE FROM DK05 KELDSNOR (1931-60).

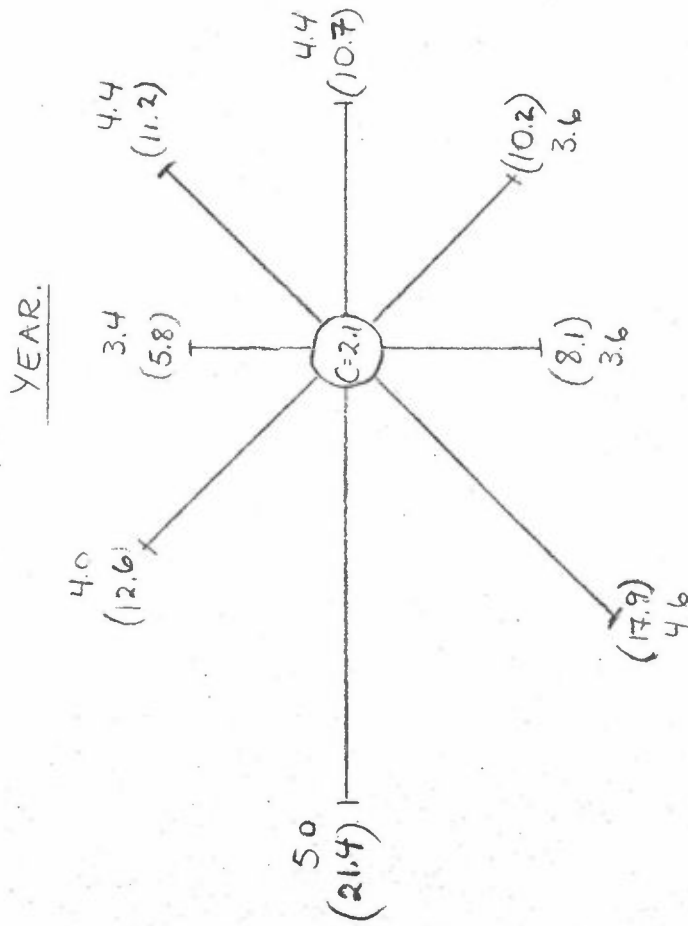


DK. WIND WINDROSES FROM DK05 KELDSNOR (1931-60).



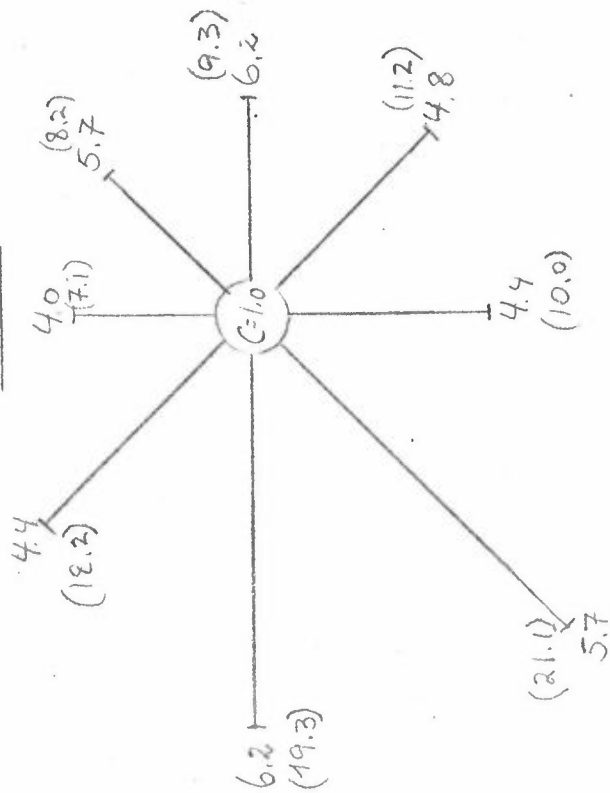
DK. WIND

WINDROSE FROM DK06 DUEODDE (1931-60).

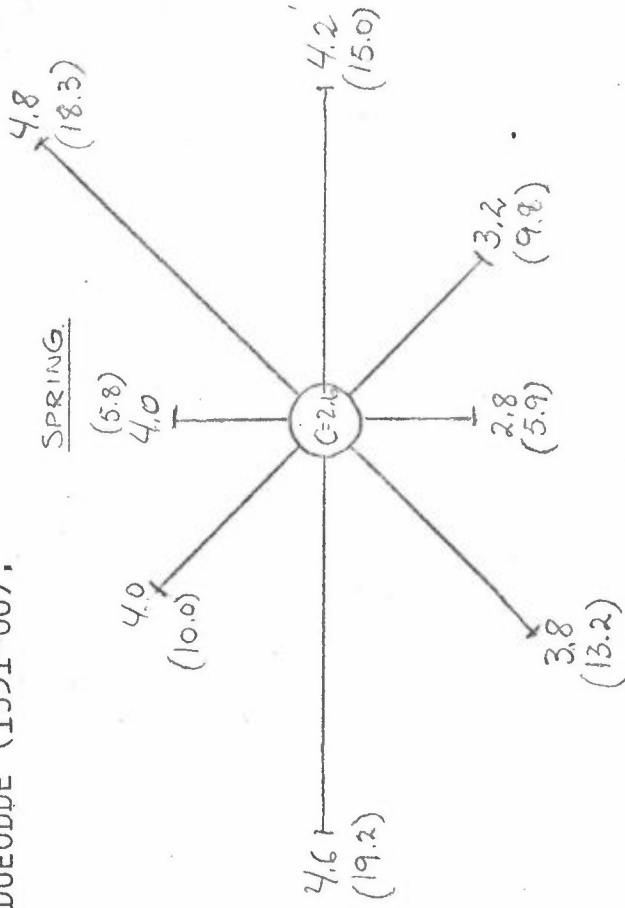


DK. WIND WINDROSES FROM DK06 DUEODDE (1931-60).

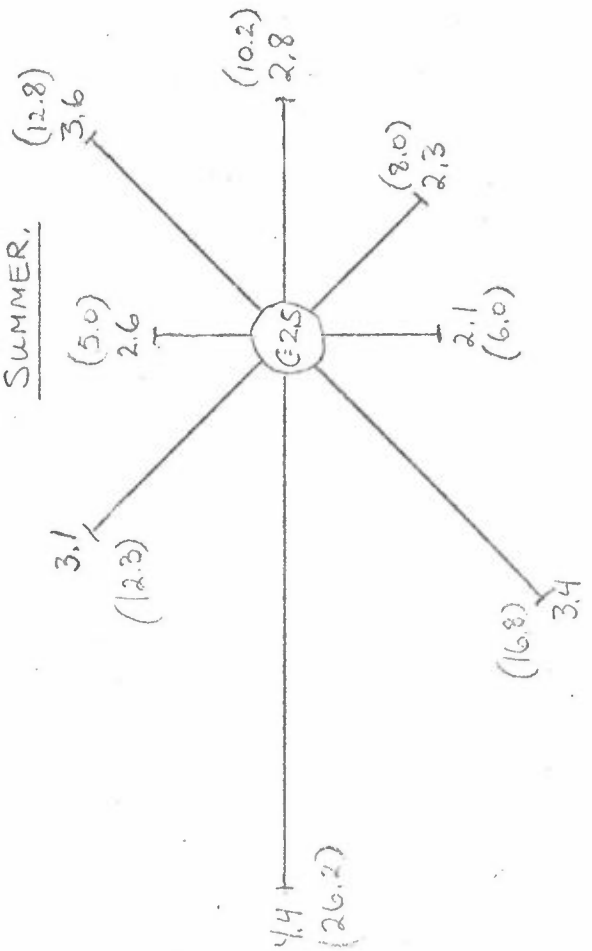
WINTER.



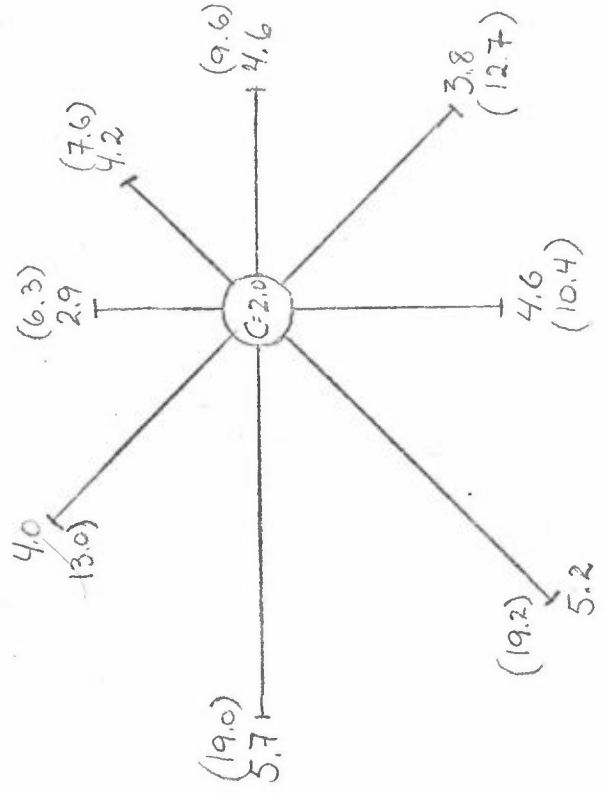
SPRING.



SUMMER.



AUTUMN.

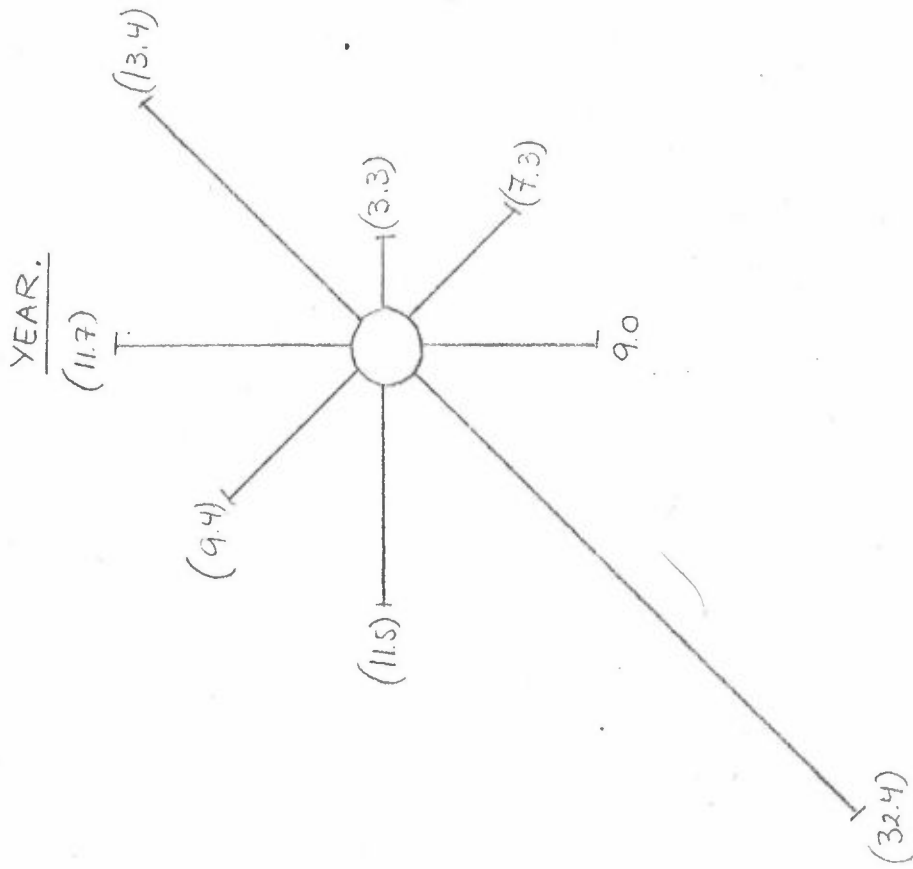


DK. WIND

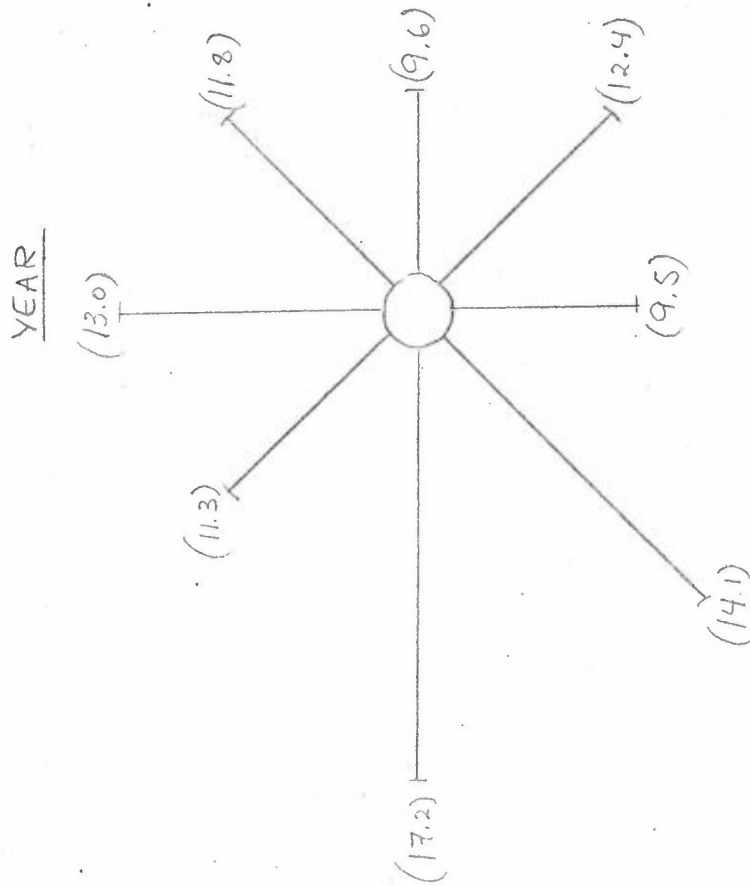
WIND SPEED FREQUENCIES.

Station	Period	Wind speed (m/s)	Year (%)	Winter (%)	Spring (%)	Summer (%)	Autumn (%)
DK01 Færøerne (Hoyvik)	1931-60	0 - 1.5	21.8	19.6	19.8	28.4	19.2
		1.5 - 5.4	39.6	33.7	41.5	43.1	40.5
		>5.4	38.6	46.7	38.7	28.5	40.3
DK02 Hansthholm	1931-60	0 - 1.5	22.1	17.9	24.5	25.9	20.2
		1.5 - 5.4	42.4	40.2	44.5	43.2	41.3
		>5.4	35.4	41.8	30.9	30.8	38.6
DK05 Keldsnor	1931-60	0 - 1.5	16.4	10.8	20.2	20.7	13.7
		1.5 - 5.4	41.5	36.9	43.4	45.9	40.0
		>5.4	42.1	52.3	36.4	33.4	46.3
DK06 Dueodde	1931-60	0 - 1.5	13.8	8.9	15.0	18.4	12.5
		1.5 - 5.4	42.9	35.8	43.2	49.8	42.6
		>5.4	43.3	55.3	41.8	31.8	44.9

F. WIND

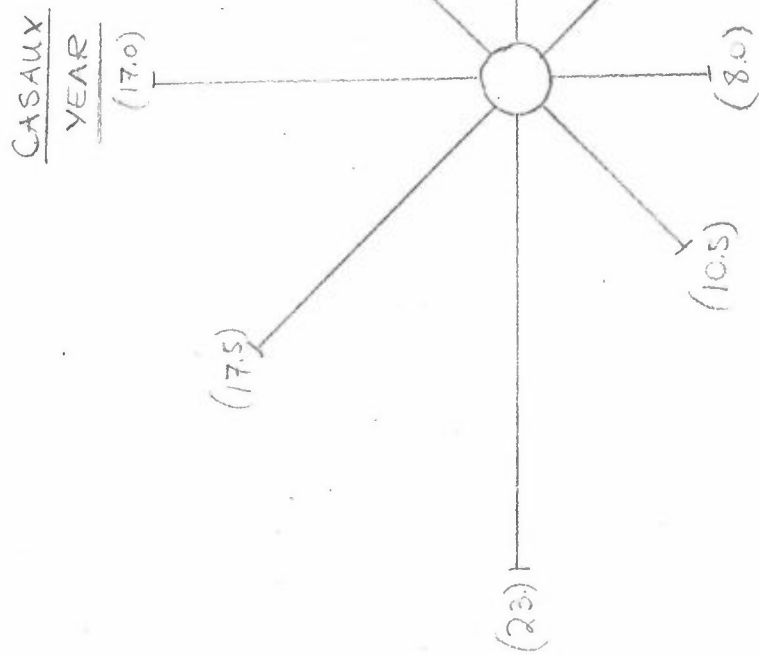


WINDROSE FROM F01 VERT-LE-PETIT (1973-1974).

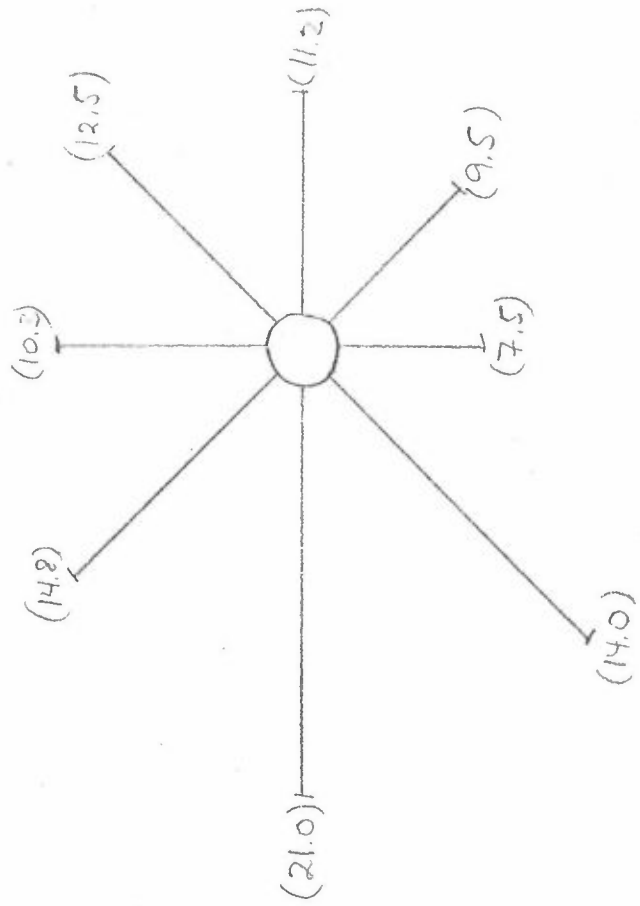


WINDROSE FROM F06 VALDUC (1/10 1967 - 31/12 1971).

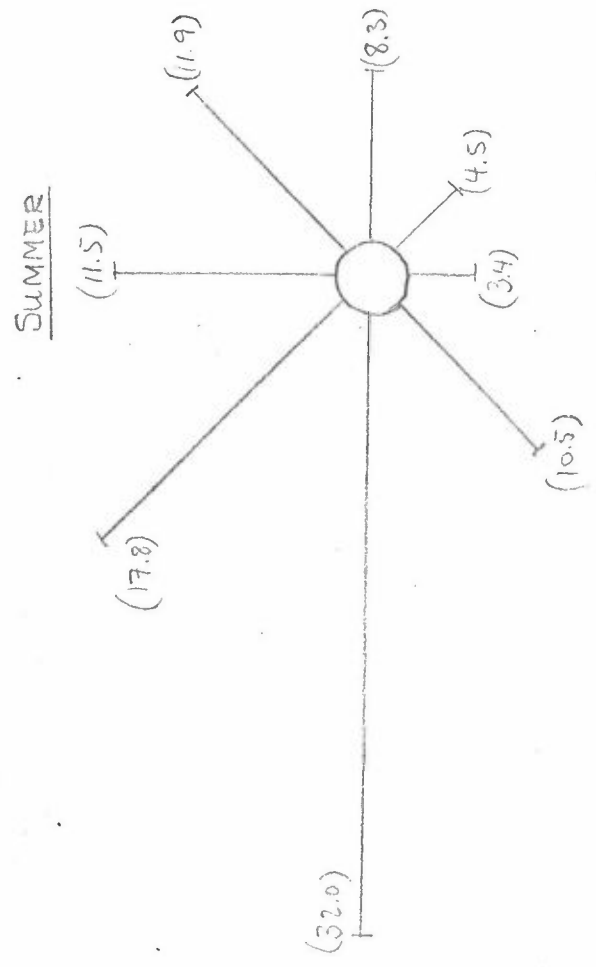
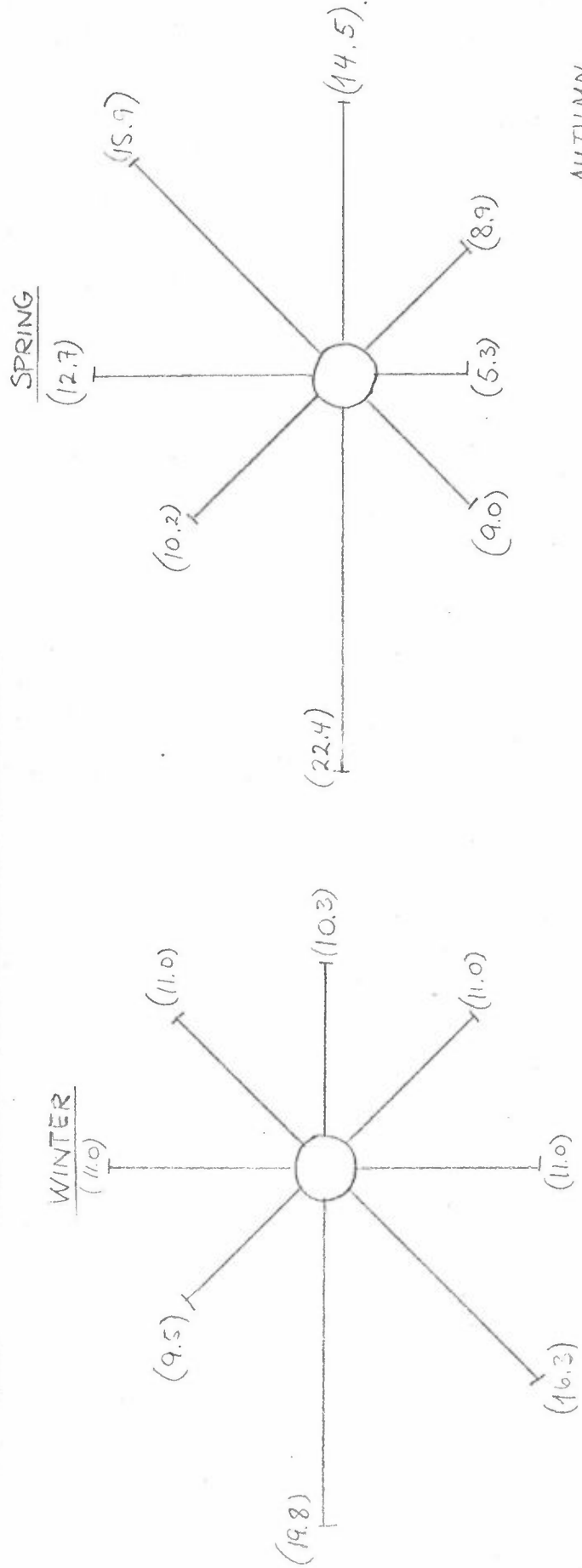
F. WIND WINDROSES FROM CASAux AND BORDEAUX (1951-60)
 CA 30 KM FROM F02 LE BARP.



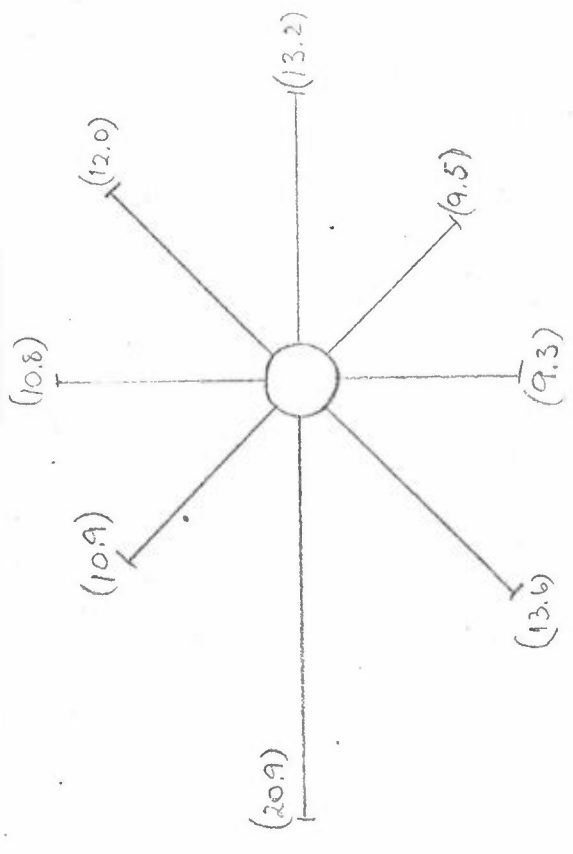
BORDEAUX
YEAR



F. WIND WINDROSES FROM BORDEAUX (1951-60).



AUTUMN,



F. WIND

WIND SPEED FREQUENCY

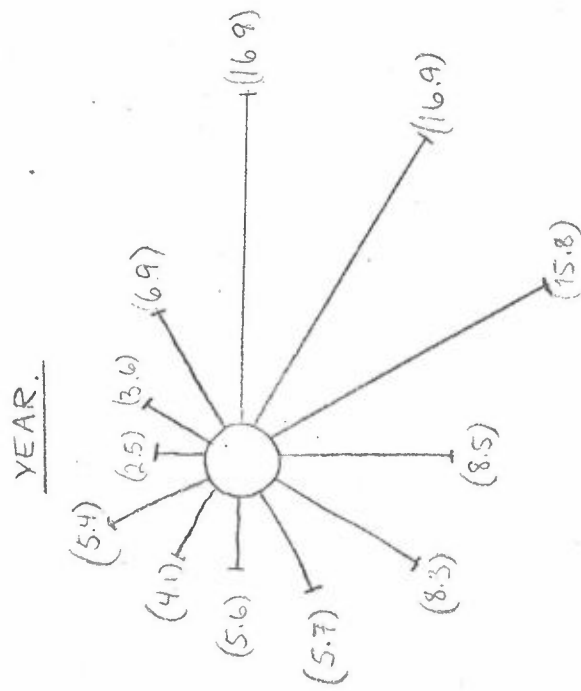
Station	Period	Wind speed (m/s)	Year (%)
F06 Valduc	1967-71	0 - 1	27.5
		1 - 5	56.5
		>5	16.0
Vert-le-Petit	1973-74	0 - 2	36.3
		2 - 6	51.7
		>6	12.0

AVERAGE WIND SPEED (M/S) AT DIFFERENT TIMES OF THE DAY

Station	Time	Winter	Spring	Summer	Autumn	Year
Bordeaux	0	3.0	2.5	1.9	2.0	2.4
	6	2.8	2.1	1.7	1.9	2.1
	12	4.4	5.1	4.3	4.0	4.5
	18	3.2	4.1	4.2	2.3	3.5

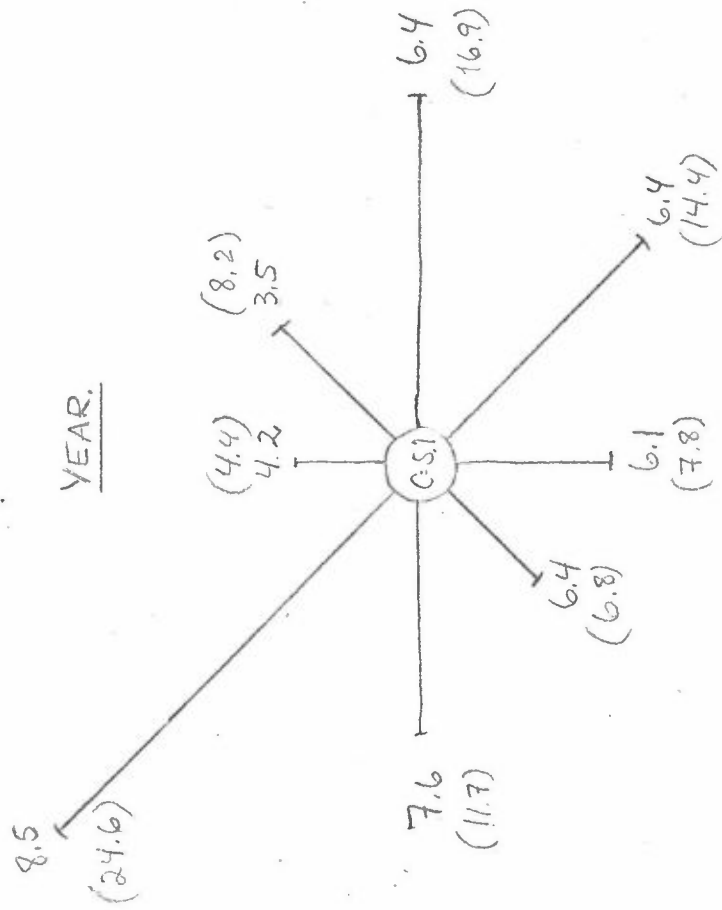
IC. WIND

WINDROSE FROM BREIDHOLTSHVARF 3 KM FROM
IC01 RJUPNAHED.

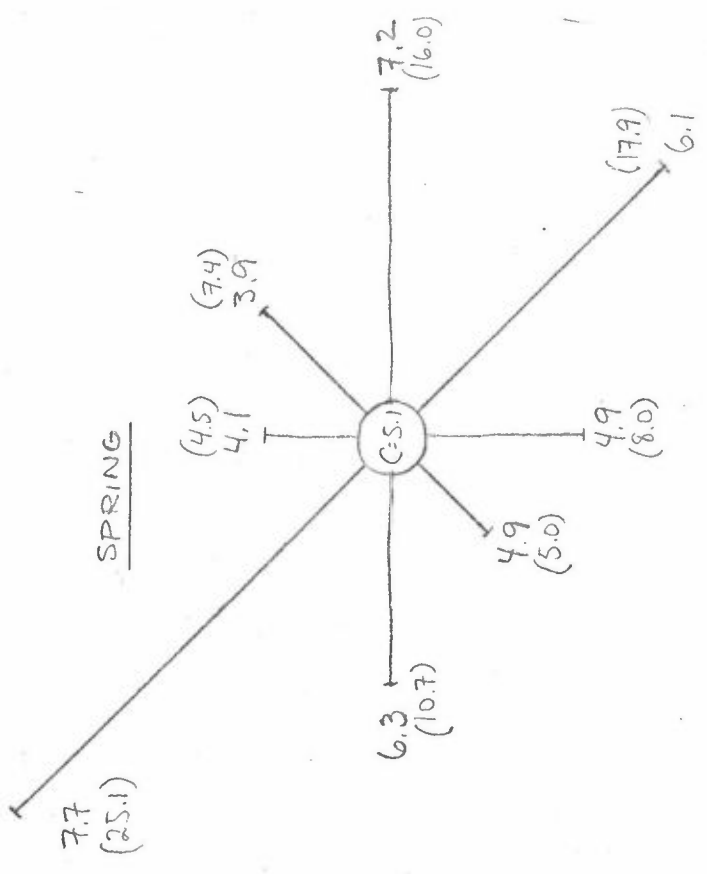
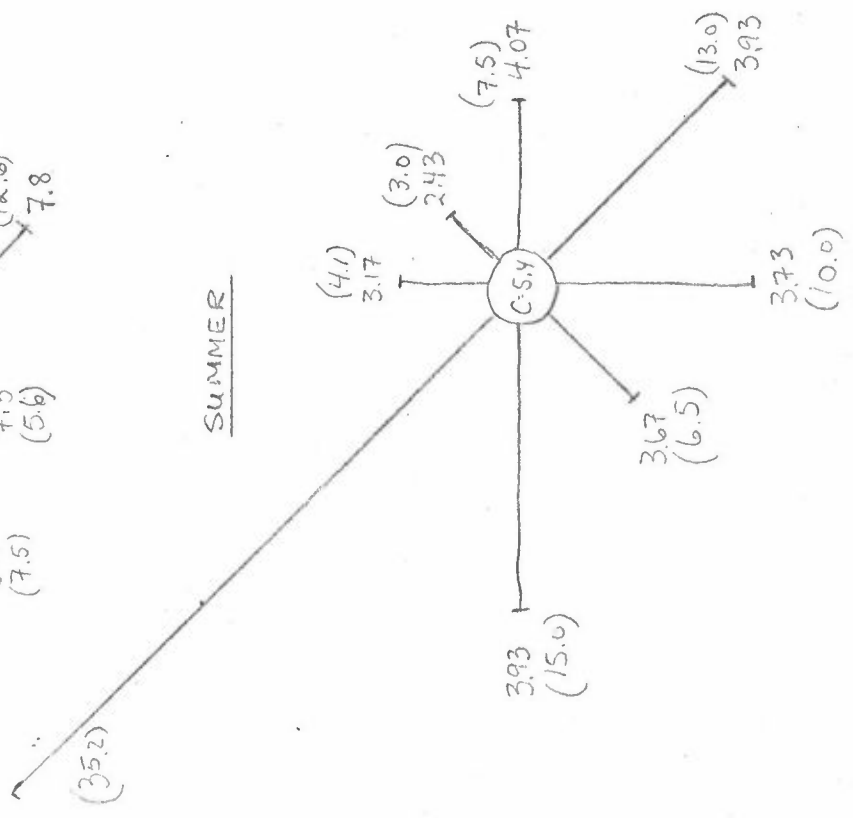
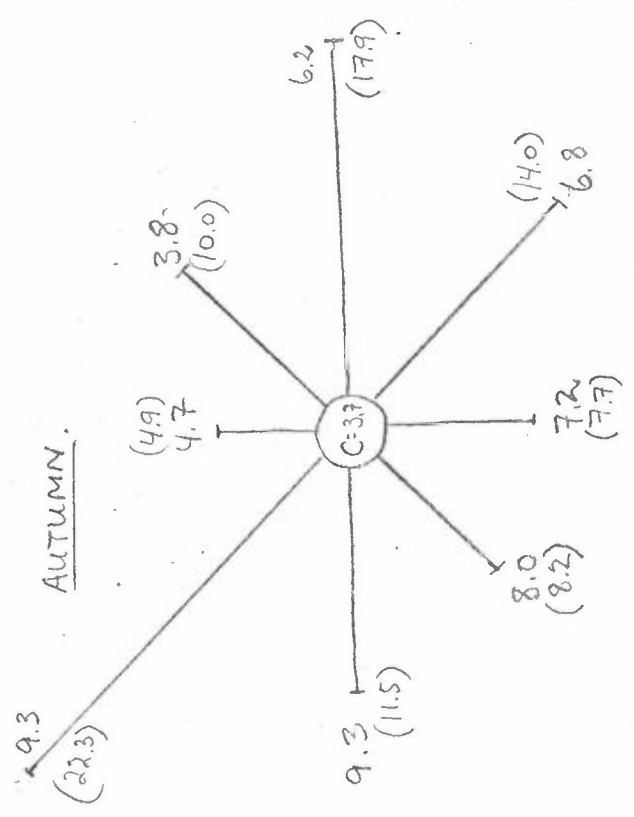
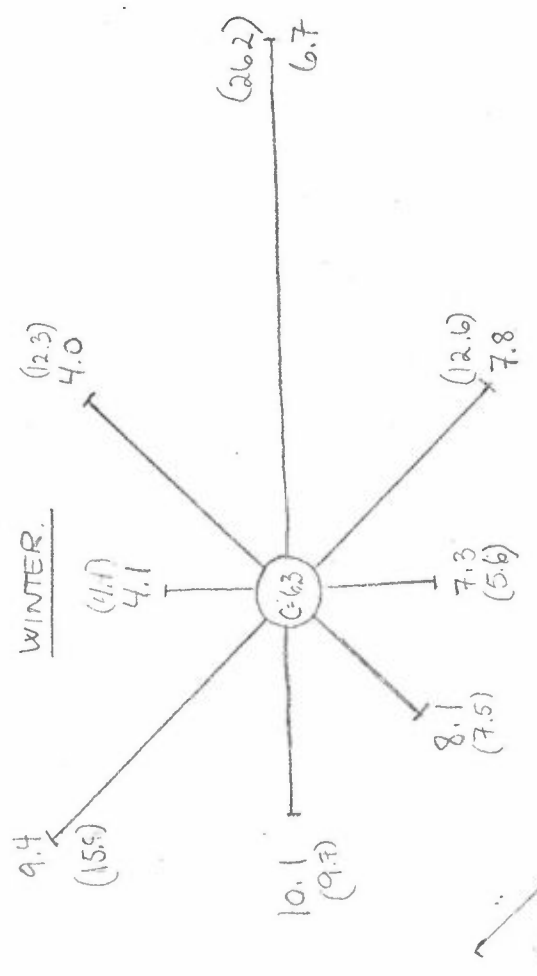


N. WIND

WINDROSE FROM N06 LISTA (1931-60).

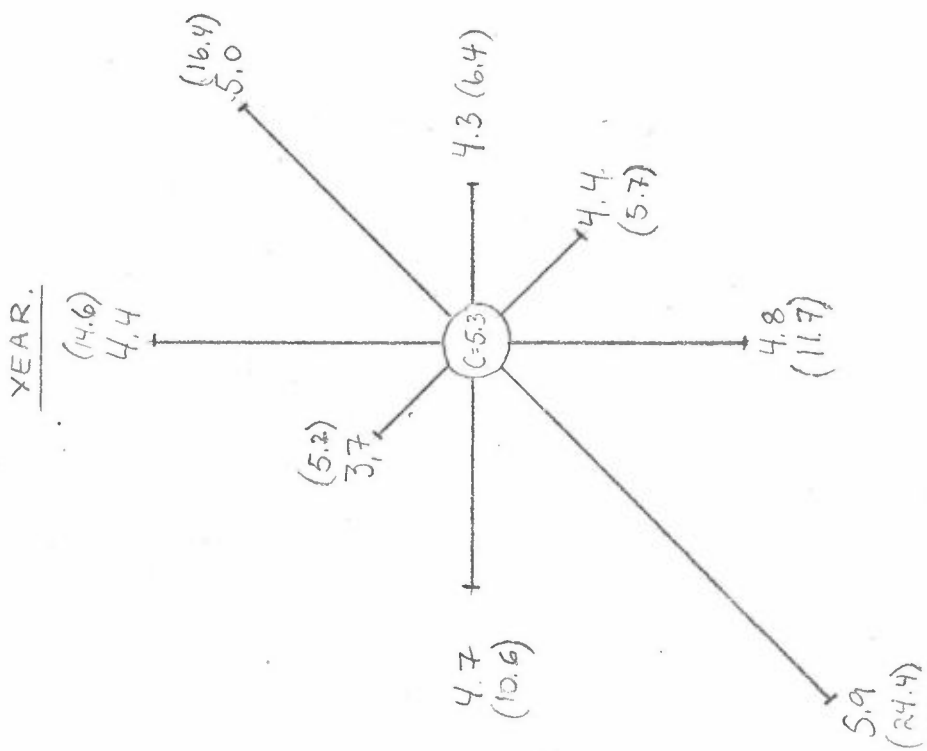


N. WIND WINDROSES FROM N06 LISTA (1931-60).



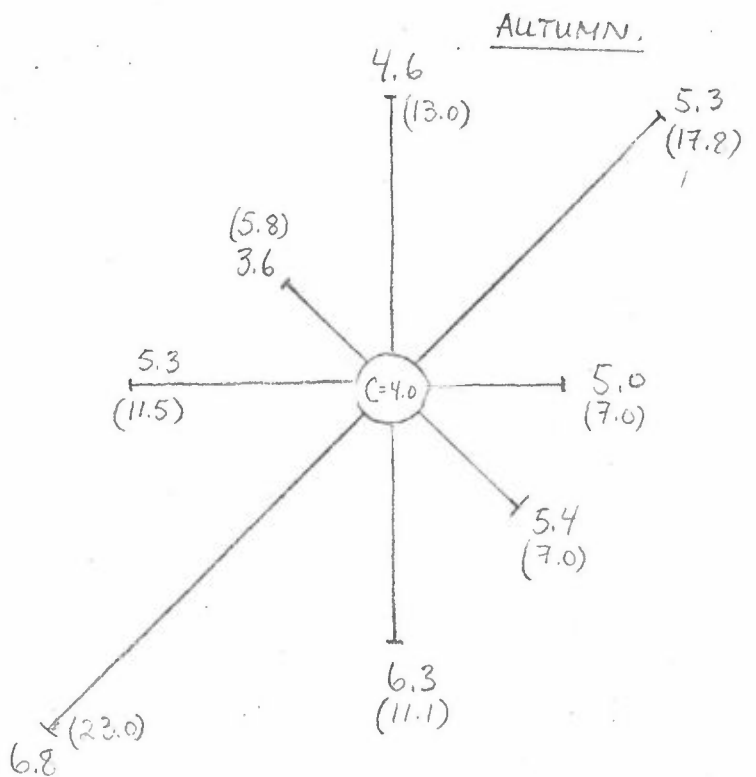
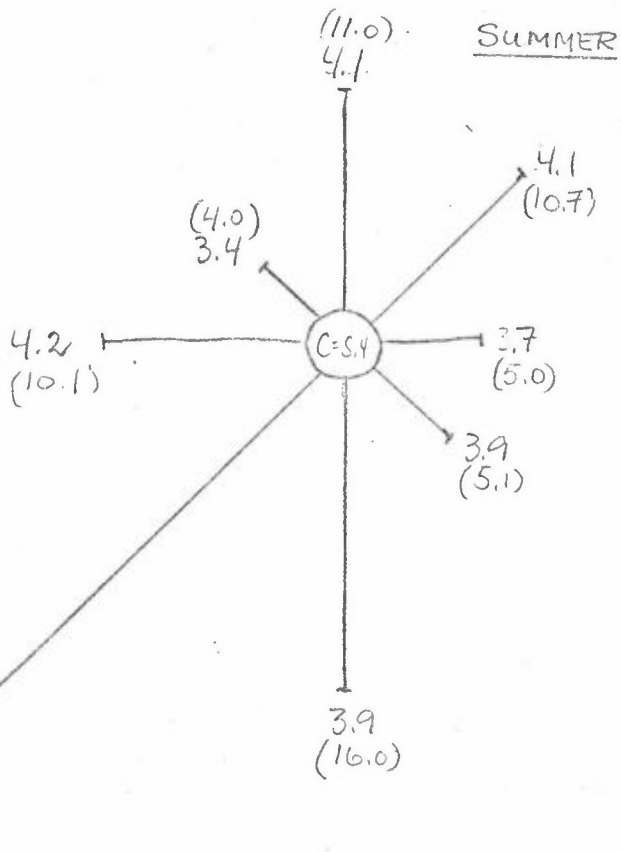
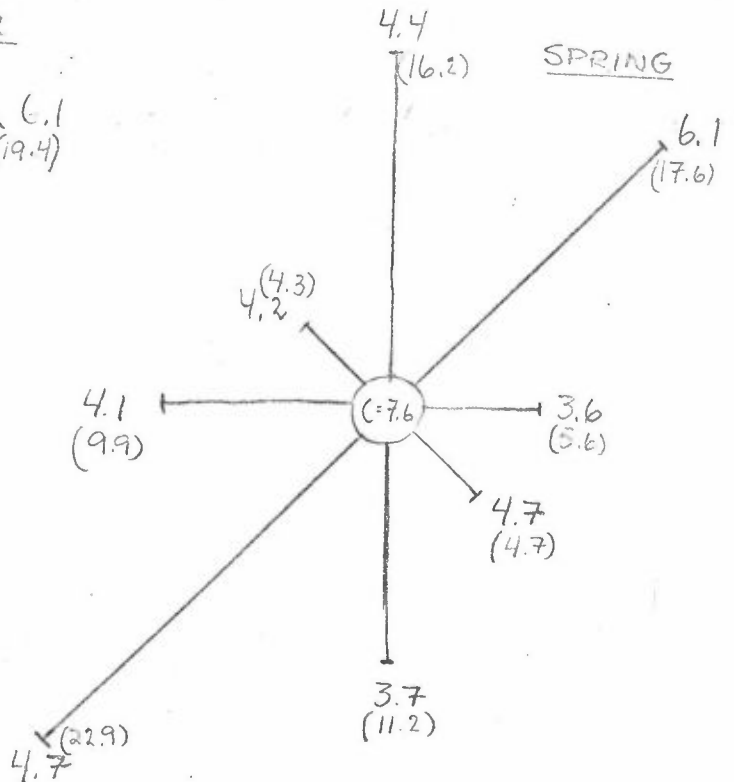
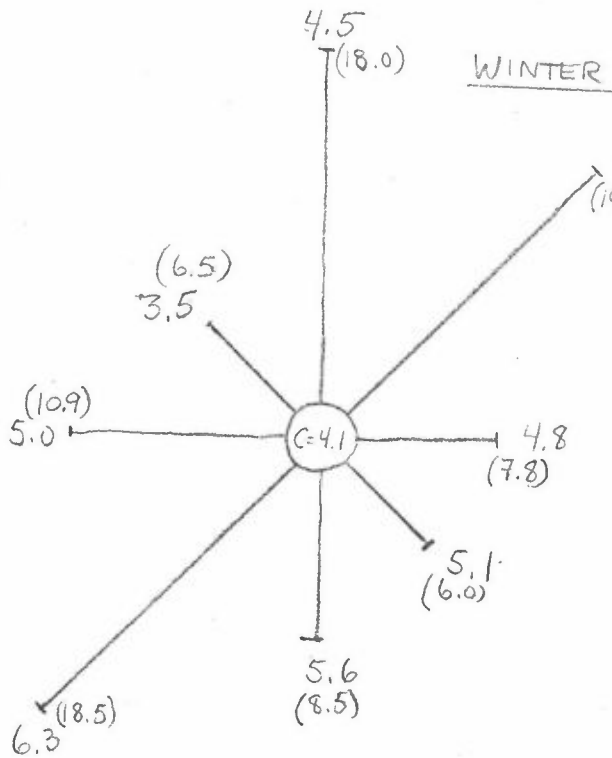
N. WIND

WINDROSE FROM FERDER (1931-60), 8 KM FROM N22 VASSER.



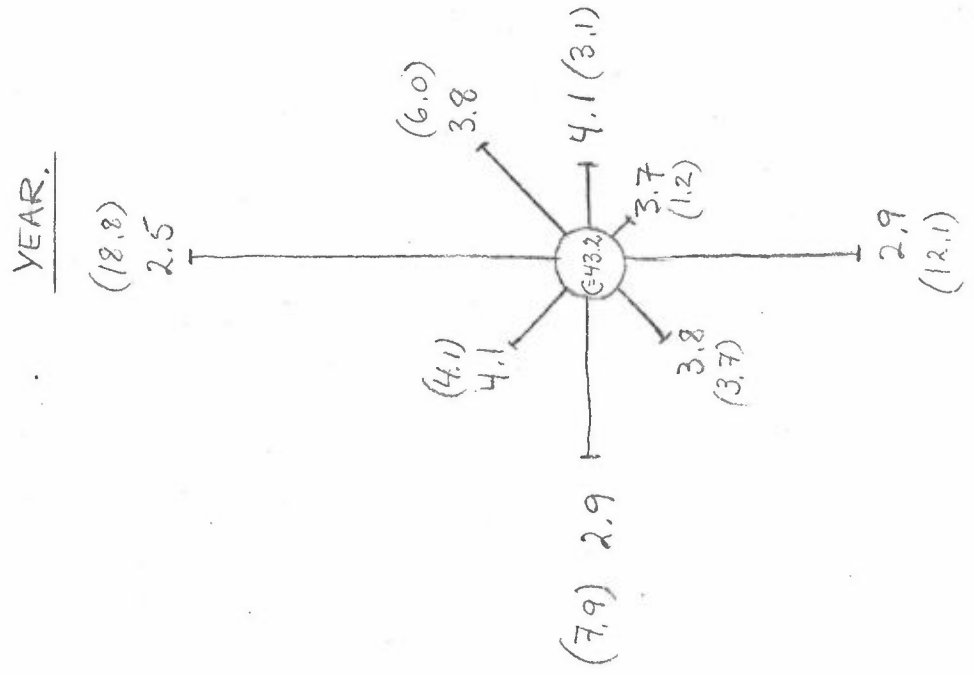
N. WIND

WINDROSES FROM FERDER (1931-60), 8 KM FROM N22 VASSER.



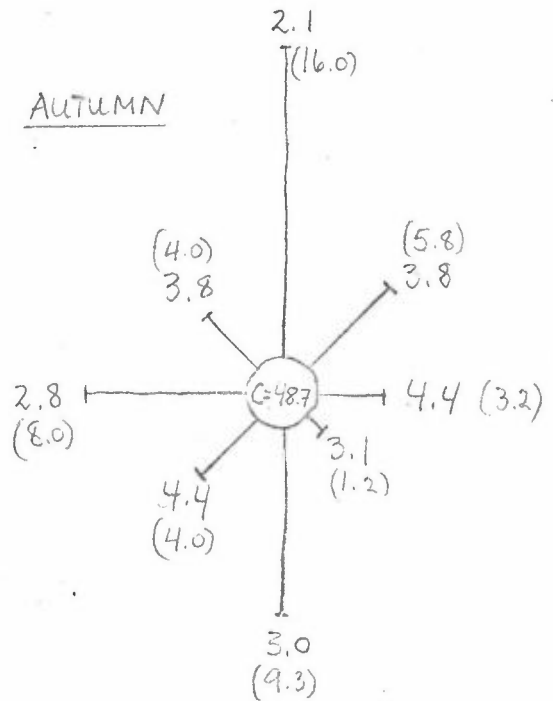
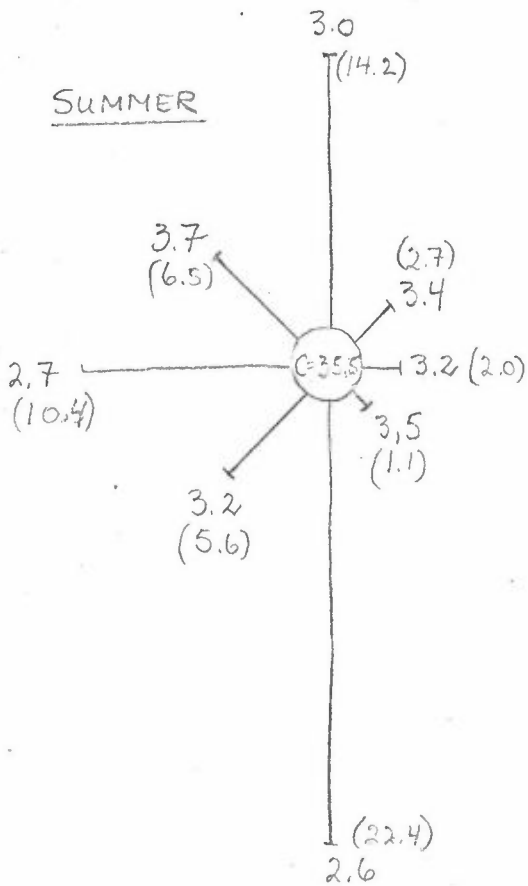
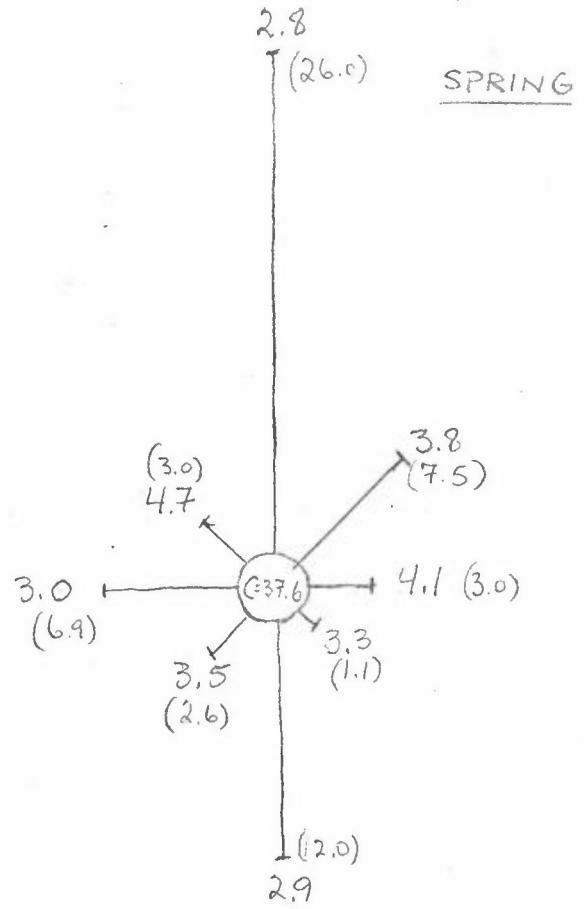
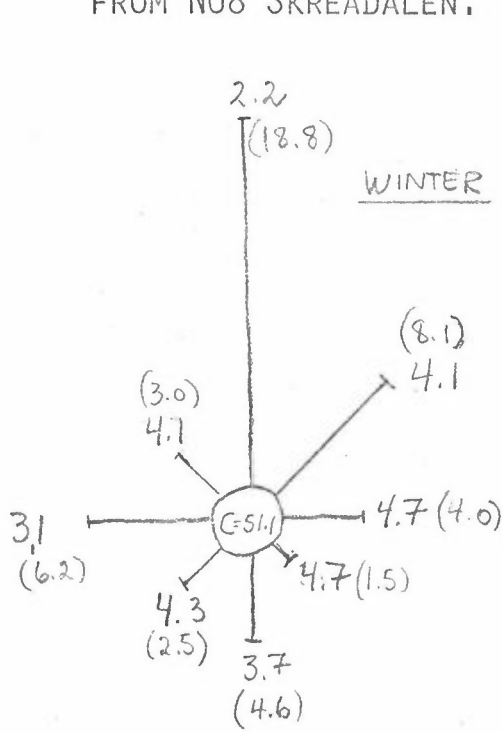
N. WIND

WINDROSE FROM TONSTAD (1931-60) CA 10 KM FROM
N08 SKREÅDALEN.



N. WIND

WINDROSES FROM TONSTAD (1931-60); CA 10 KM FROM N08 SKREÅDALEN.



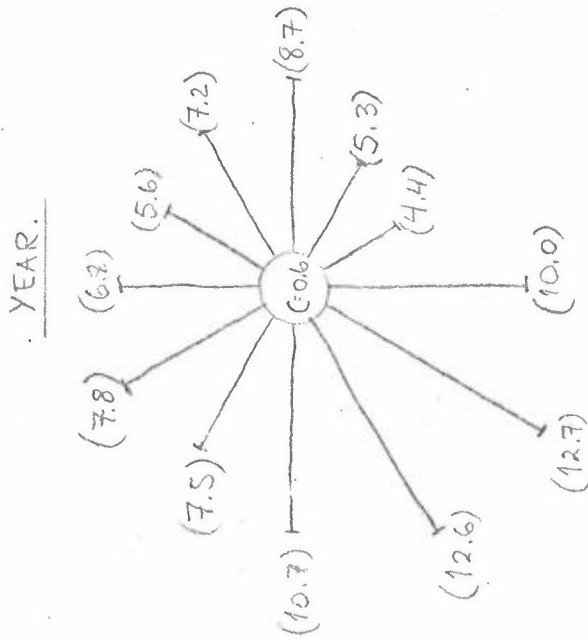
N. WIND

WIND SPEED FREQUENCIES.

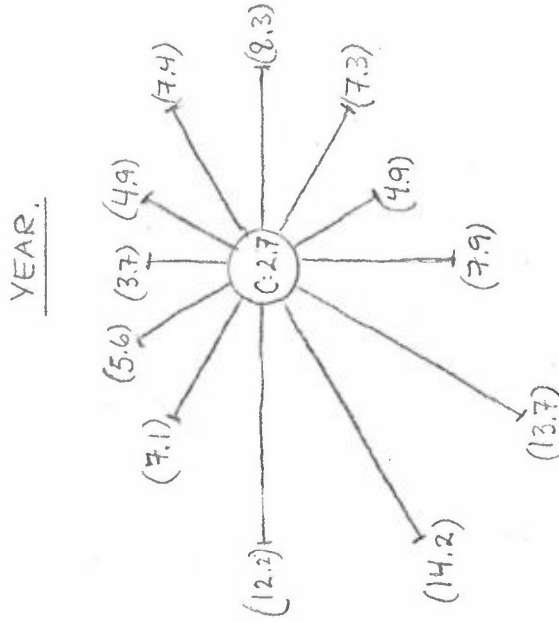
Station	Period	Wind speed (m/s)	Year %	Winter %	Spring %	Summer %	Autumn %
Ferder (N22 Vasser)	1931-60	0 - 10.8	66.7	62.4	74.0	71.2	59.2
		10.8 - 17.2	29.8	32.4	24.4	27.2	35.2
		>17.2	3.5	5.2	1.6	1.6	5.6
Lista	1931-60	0 - 10.8	48.8	44.2	51.6	56.9	44.5
		10.8 - 17.2	39.9	37.6	40.2	39.6	40.4
		>17.2	11.3	18.2	8.2	3.5	15.1
Tonstad (N08 Skreådalen)	1931-60	0 - 10.8	95.6	93.6	95.9	97.8	95.0
		10.8 - 17.2	4.0	5.6	3.8	2.2	4.4
		>17.2	0.4	0.8	0.3	0	0.6

NL. WIND WINDROSES FROM DEN HELDER, EELDE OG DEELEN (1961-70).

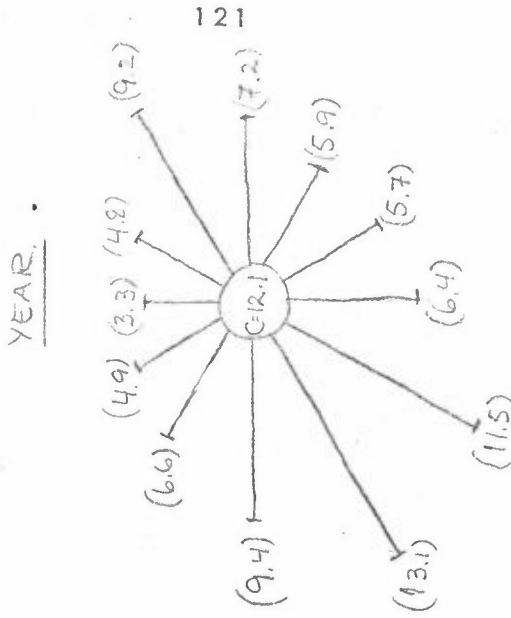
DEN HELDER (1961-70)



EELDE (1961-70)
37 KM NNW OF NL02
WITTEVEEN



DEELEN (1961-70)
19 KM ENE OF NL01
WAGENINGEN.



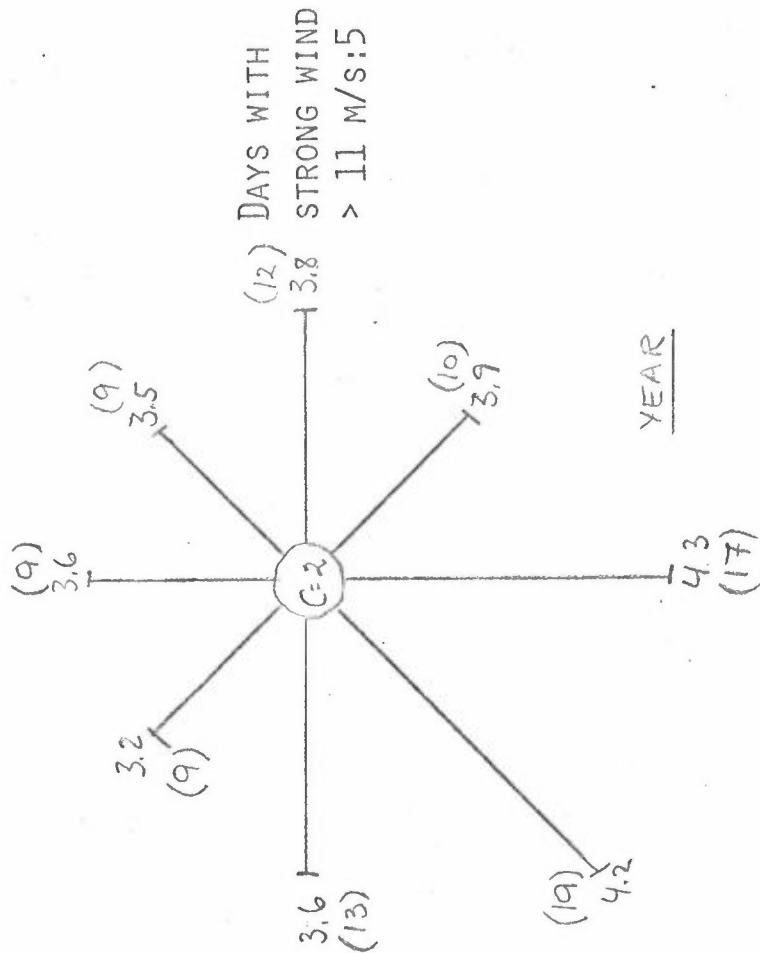
NL. WIND

WIND SPEED FREQUENCIES.

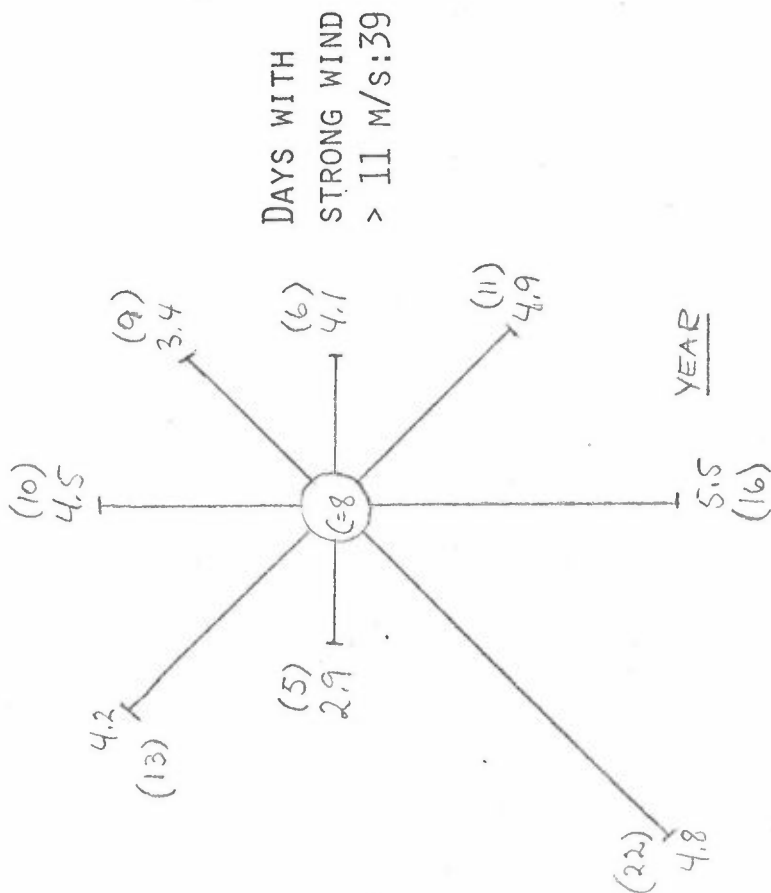
Station	Wind data from	Period	Wind speed (m/s)	Year %
Den Helder	Den Helder	1961-70	0 - 1	2.3
			1 - 5	32.2
			>5	65.5
Witteveen	Eelde, 37 km NNW of Witteveen	1961-70	0 - 1	8.6
			1 - 5	62.3
			>5	29.0
Wageningen	Deelen, 19 km ENE of Wageningen	1961-70	0 - 1	18.2
			1 - 5	59.5
			>5	22.3

SF. WIND

WINDROSE FROM SF02 JOKIOINEN
(1968-73).

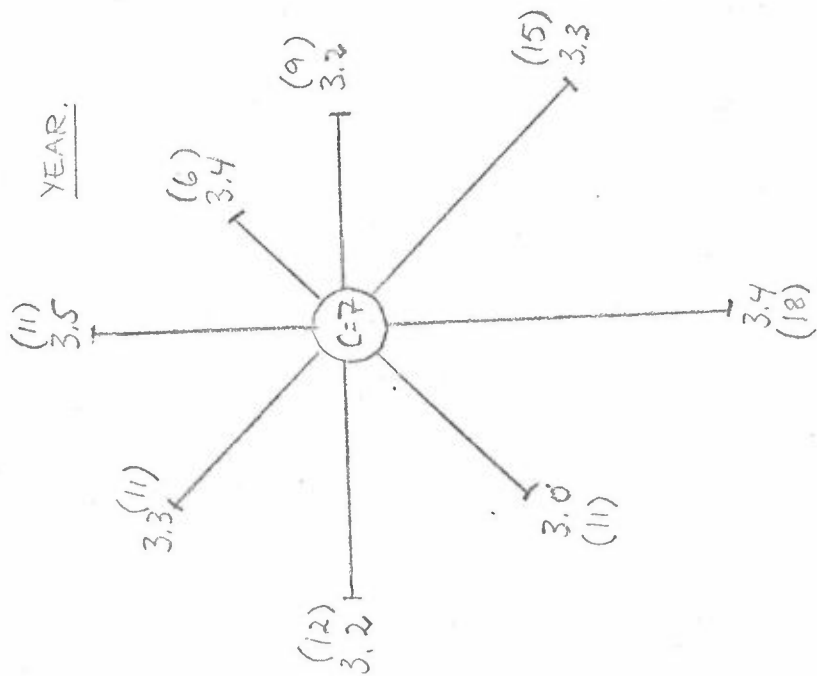


WINDROSE FROM SF01 JOMALA
(1972-73).

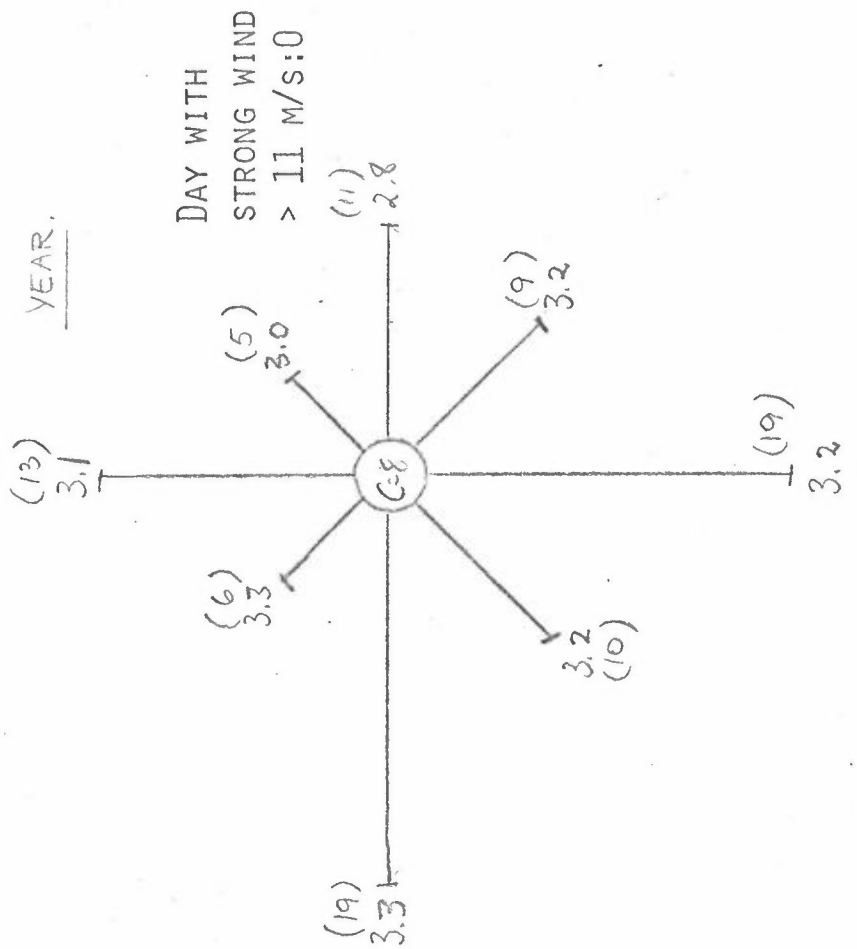


SF. WIND

WINDROSE FROM SF03 PUUMALA
(1970-73).

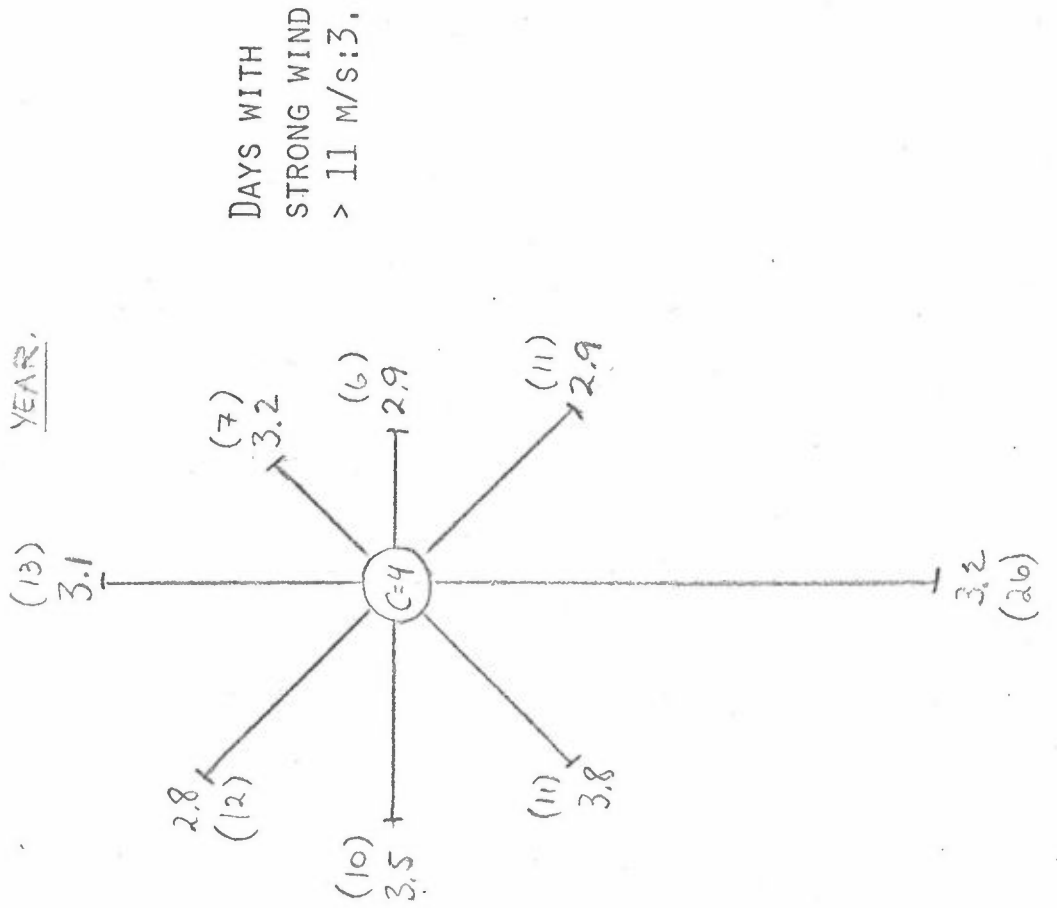


WINDROSE FROM SF04 ÄHTÄRI
(1969-73).



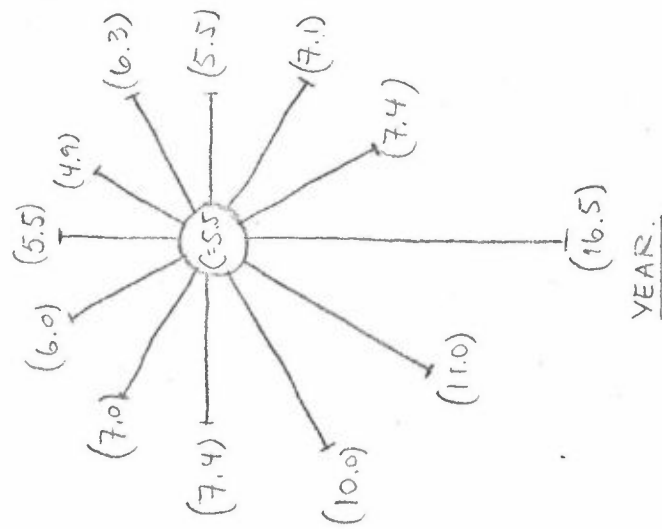
SF. WIND

WINDROSE FROM SF05 SODANKYLÄ (1968-1973).



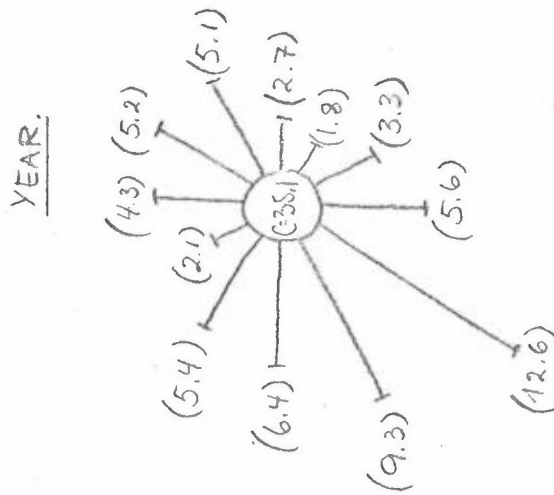
UK. WIND

WINDROSE FROM STORNOWAY AIRPORT (1957-61).



UK. WIND

WINDROSE FROM UK02 ESKDALEMUIR
(1950-59).



WIND DATA FROM UK12 PITLOCHRY
(1973).

Wind direction	Period of year (%)
0-90°	17
90-180°	17
180-270°	27
270-360°	39

UK. WIND

WIND SPEED FREQUENCIES.

Station	Period	Wind speed (m/s)	Yearly average (%)
UK02 Eskdalemuir	1950-59	0 - 2	35.1
		>2	64.9
UK07 Stornoway	1957-61	0 - 0.3	5.5
		0.3 - 5.5	34.2
		>5.5	60.3
UK12 Pitlochry	1973	0 - 0.3	36.0
		0.3 - 5.5	61.5
		>5.5	2.5