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ATMOSPHERIC DISPERSION EXPERIMENTS AT LILLESTRØM

1986-87
Data-report

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CONTENTS

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1986-1987

DATA REPORT

1 INTRODUCTION

The Norwegian Institute for Air Research (NILU) has carried out a number of atmospheric dispersion experiments at Lillestrøm during the winters of 1986 and 1987. This is a documentation of the results, and further discussion and conclusions will be made in another report. Two tracer gases have been applied; sulphur hexafluoride (SF_6) and bromtrifluoromethane ($CBrF_3$). When only one tracer was needed, SF_6 was always used. When there was a need for dual tracers, for identifying different sources, $CBrF_3$ was also applied. The purpose of the experiments was to study the pollutant contributions from oil combustion and road traffic. Only SF_6 was used in one of the experiments. SF_6 was released from a mast either 16 or 36 metres above ground level and $CBrF_3$ was released from ground level (1 m).

2 DESCRIPTION OF THE AREA AND THE RELEASE POINTS

A map of the test field is shown in Figure 1. The test area is a flat, open area bounded on the south by residential area and on the east by a major road and residential areas. The area is situated between gently rolling hills. The height of roughness elements (houses and trees) is estimated to be about 6-7 m. The figure shows the main roads and the release points.

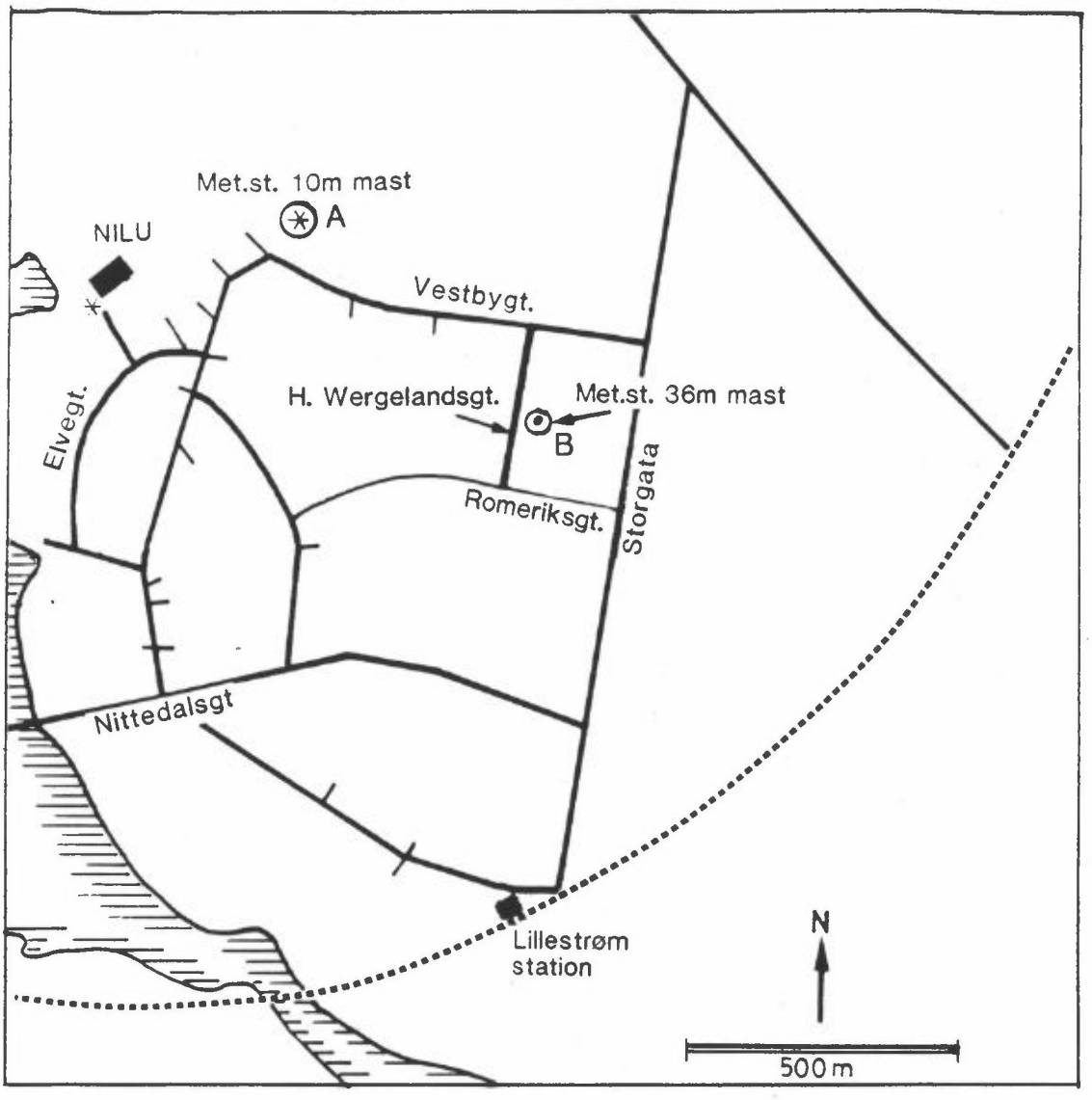

Figure 1: Map of the field for tracer experiments at Lillestrøm.
A: Release point A, and automatic weather station (AWS) with 10 m mast.
B: Release point B, and automatic weather station (AWS) with 36 m mast.

3 EQUIPMENT USED IN DISPERSION EXPERIMENTS

Tracer gases are often used when studying transport and dispersion of air pollutants. The gases are released under controlled conditions. Tracer gases are often benefitial when the dispersion is complex. Such as dispersion in streets surrounded by buildings, in narrow valleys, behind buildings or even in ventilation systems. The method is described in detail by Heggen and Sivertsen (1983).

3.1 THE TRACER GASES

Sulphur hexafluoride (SF_6) is ideal as a tracer. SF_6 is a non-toxic gas which is dissolvent in water and does not occur naturally in the atmosphere. It does not disappear from the air by deposition to the ground, or washed out by precipitation and it is broken down very slowly. SF_6 can be detected at extremely low levels using electron capture gas chromatography with detection 1 ppt (part per trillion, one part per 10^{12} parts of air). A wide range of SF_6 concentrations can be analyzed, from 1 ppt to 10^6 ppt.

The accuracy of bromtrifluoromethane ($CBrF_3$) analysis is not as good as the SF_6 analysis at low concentrations (detection limit 30-50 ppt). The results of $CBrF_3$ concentrations occur on the same chromatogram using the same air sample.

3.2 EMISSION

The tracer gases are normally emitted directly from a gas cylinder with a pressure valve, connected to a flowmeter and a hose of variable length. In each test, the tracer gases were released continuously at a steady rate. Every release was monitored continuously. The release rate was determined by the gas flowmeter. To control the release rate, the weight of the gas bottles were determined before and after each test. The difference between the release rates determined by these two methods were within 10%. A summary of the release data is given in Table 1.

Table 1: SF_6 and $CBrF_3$ release data.

Test	Tracer gas	Date	Emission (GMT + 1 hour)	Site	Height (m)	Release rate (g/s)
1-1986	SF_6	86.01.09	0945-1045	A	10	0.051
2-1986	SF_6	86.02.07	0915-1015	B	16	0.102
	$CBrF_3$				1	0.104
3-1986	SF_6	86.02.11	0905-1005	B	16	0.102
	$CBrF_3$				1	0.104
4-1986	SF_6	86.02.13	0810-0910	B	16	0.102
	$CBrF_3$				1	0.104
5-1986	SF_6	86.02.18	0815-0915	B	16	0.102
	$CBrF_3$				1	0.104
6-1986	SF_6	86.02.19	0800-0900	B	16	0.102
	$CBrF_3$				1	0.104
7-1986	SF_6	86.02.21	0748-0848	B	16	0.082
	$CBrF_3$				1	0.078
1-1987	SF_6	87.01.02	1005-1105	B	36	0.102
	$CBrF_3$				1	0.104
2-1987	SF_6	87.01.06	0900-1000	B	36	0.102
	$CBrF_3$				1	0.104
3-1987	SF_6	87.01.07	0900-1000	B	36	0.102
	$CBrF_3$				1	0.104
4-1987	SF_6	87.01.10	0900-1000	B	36	0.102
	$CBrF_3$				1	0.104
5-1987	SF_6	87.01.12	0900-1000	B	36	0.102
	$CBrF_3$				1	0.104
6-1987	SF_6	87.01.17	0930-1030	B	36	0.102
	$CBrF_3$				1	0.104
7-1987	SF_6	87.02.09	0930-1030	B	36	0.102
	$CBrF_3$				1	0.104
8-1987	SF_6	87.02.19	0930-1030	B	36	0.102
	$CBrF_3$				1	0.104

3.3 SAMPLING SYSTEM

Air samples were collected in 20 cm^3 plastic syringes, either as instantaneous samples or as fifteen minutes average samples. The samples were collected at fixed points. The samplers used were battery powered, with electronic setting for start and stop. The automatic samplers were loaded with two syringes each. As the first one stops, the second one starts. The air is sucked through a small bore hypodermic needle at the end of each syringe intake to prevent escape of the sampled air.

3.4 ANALYSES OF SAMPLES

Air samples were analyzed using portable gas chromatographs with electron capture detection. The samples are usually analyzed immediately after each experiment. If the analyses were not carried out within the first few hours, the hypodermic needles on all syringes were sealed with caps. The simple sampling and analysis methods permit the collection of a large number of samples during each tracer experiment. In a tracer field study, these techniques allow the results of one experiment to be used in the design of succeeding experiments. Two gas chromatographs were prepared for each field study. The calibration of the chromatographs were made before each field study by means of a dilution chamber. A calibration curve based upon reading maximum values can be determined by an accuracy of ±5% (Lamb and Sivertsen, 1978).

A potentially serious problem associated with prolonged use of the gas chromatographs is contamination of the radioactive foil by deposition of diluted contaminates. As the foil becomes contaminated, the detector operating characteristics change. The concentrations of samples analyzed under these conditions can be as much as 15% to 25% in error. One way of monitoring changes in the detector response is to crosscheck samples between the gas chromatographs. Calibrating crosscheck data for these tests indicate that concentrations are accurate to within 15%.

4 A SHORT DESCRIPTION OF THE TRACER EXPERIMENTS

15 tracer experiments were carried out. Seven of the tests have been carried out in January-February 1986, and eight tests in January-February 1987. In the first test we only used SF_6, but all the others involved both SF_6 and $CBrF_3$. All the tests were carried out within two 15-minutes subsequent periods. The SF_6 tests are referred to as A and B, and the simultaneous $CBrF_3$ tests are referred to as C and D. A summary of data on releases and meteorology in each test is given in Table 2.

Table 2: Summary of the dispersion experiments at Lillestrøm, 1986-1987.

Test	Date	Time	Height, release rate (SF_6/$CBrF_3$) (m)	(g/s)	Wind Direction (at 10/36 m) (deg.)	Speed (at 10/36 m) (m/s)	Temperature (at 3 m) (^{0}C)	Horizontal turbulence (deg.)
1-1986	86.01.09	0945-1015	10/-	0.051/-	320/-	1.0/-	-27	-
2-1986	86.02.07	0945-1015	16/1	0.102/0.104	310/295	0.5/4.0	- 7	99
3-1986	86.02.11	0935-1005	16/1	0.102/0.104	305/340	2.9/4.2	-20	59
4-1986	86.02.13	0840-0910	16/1	0.102/0.104	290/320	0.7/1.1	-18	22
5-1986	86.02.18	0845-0915	16/1	0.102/0.104	34/ 37	1.6/3.0	-10	12
6-1986	86.02.19	0830-0900	16/1	0.102/0.104	340/310	0.5/0.5	-26	20
7-1986	86.02.21	0818-0848	16/1	0.082/0.078	330/ 30	1.0/0.5	-27	51
1-1987	87.01.02	1035-1105	36/1	0.102/0.104	330/-	0.8/0.0	-20	31
2-1987	87.01.06*	0930-1000	36/1	0.102/0.104	42/ 27	0.6/1.9	-13	15
3-1987	87.01.07*	0930-1000	36/1	0.102/0.104	335/309	0.3/0.6	-25	17
4-1987	87.01.10*	0930-1000	36/1	0.102/0.104	23/ 22	1.5/3.5	-25	14
5-1987	87.01.12	0930-1000	36/1	0.102/0.104	69/ 38	1.0/2.9	-20	16
6-1987	87.01.17*	1000-1030	36/1	0.102/0.104	335/327	0.3/0.7	-22	7
7-1987	87.02.09*	1000-1030	36/1	0.102/0.104	337/300	0.3/0.5	-14	51
8-1987	87.02.19*	1000-1030	36/1	0.102/0.104	146/143	0.3/0.3		30

Method for producing crosswind traverses

First the points to be included in the crosswind concentration profile are selected. The process thereafter is automatic. The azimuth for the vectors from release to sampling point is determined. The azimuths are then checked so that they are ordered "left to right", viewed from the release point, and that there are no "gaps" in the arc of more than 30

degrees between two adjacent points. All the points are then projected along their azimuth the mean distance from the release point. The observations retain their concentration value.

4.1 TEST 1-1986. 9 JANUARY 1986

SF_6 was released from site A from 0915 to 1015 at a rate of 0.051 g/s. The release height was 10 m.

At Lillestrøm the sky was clear. Light air (1.0 m/s) was blowing from northwest (320^0), with sharp frost (-27^0C) and ground level inversion.

Figures 2 and 4 show the average 15-minute concentrations from the dispersion experiment and Figures 3 and 5 show the corresponding traverses marked on Figures 2 and 4.

A well defined plume in quasistationary dispersion conditions was observed.

STED : SF6-LILLESTRØM KILDE 1 : 13.950 49.850
TEST NR. : 1A
DATO : 860109
TIDSPKT. : 0945-1000
ANT.OBS. : 32
MIN,MAKS X : 13.450 15.450
MIN,MAKS Y : 47.900 49.900

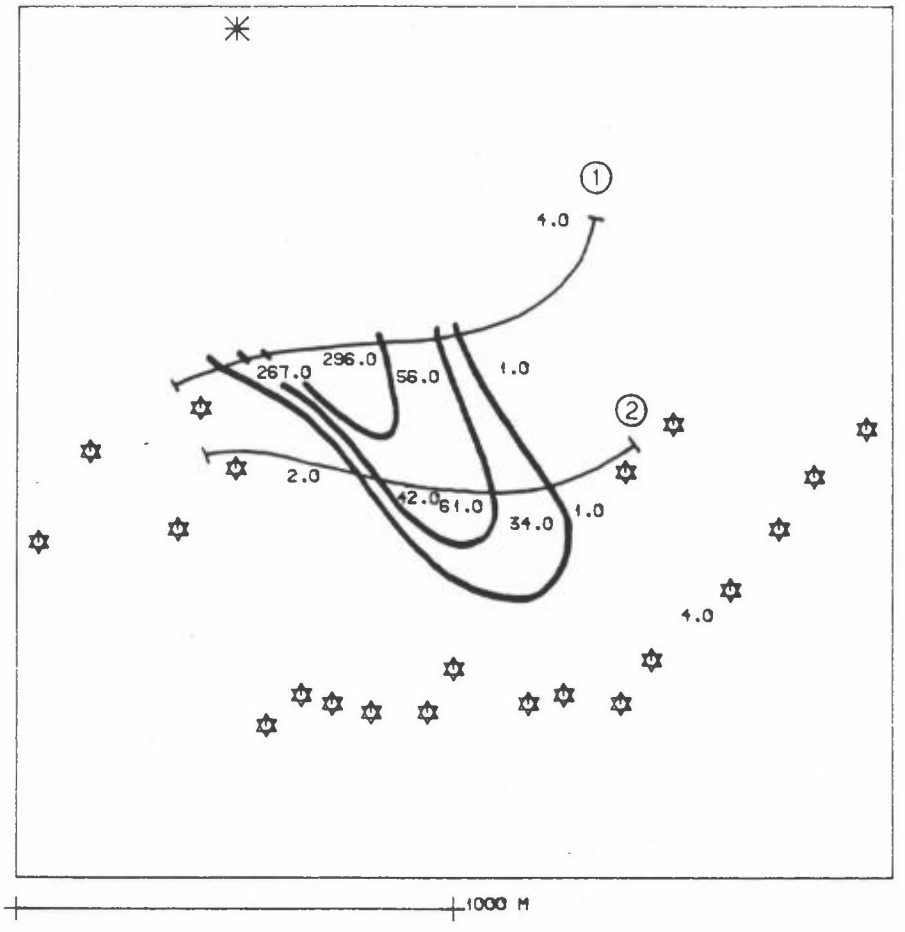

Figure 2: Test 1A-1986. SF_6 concentrations, Lillestrøm 9 January 1986, 0945-1000.
Unit: 0.1 mg/m^3.

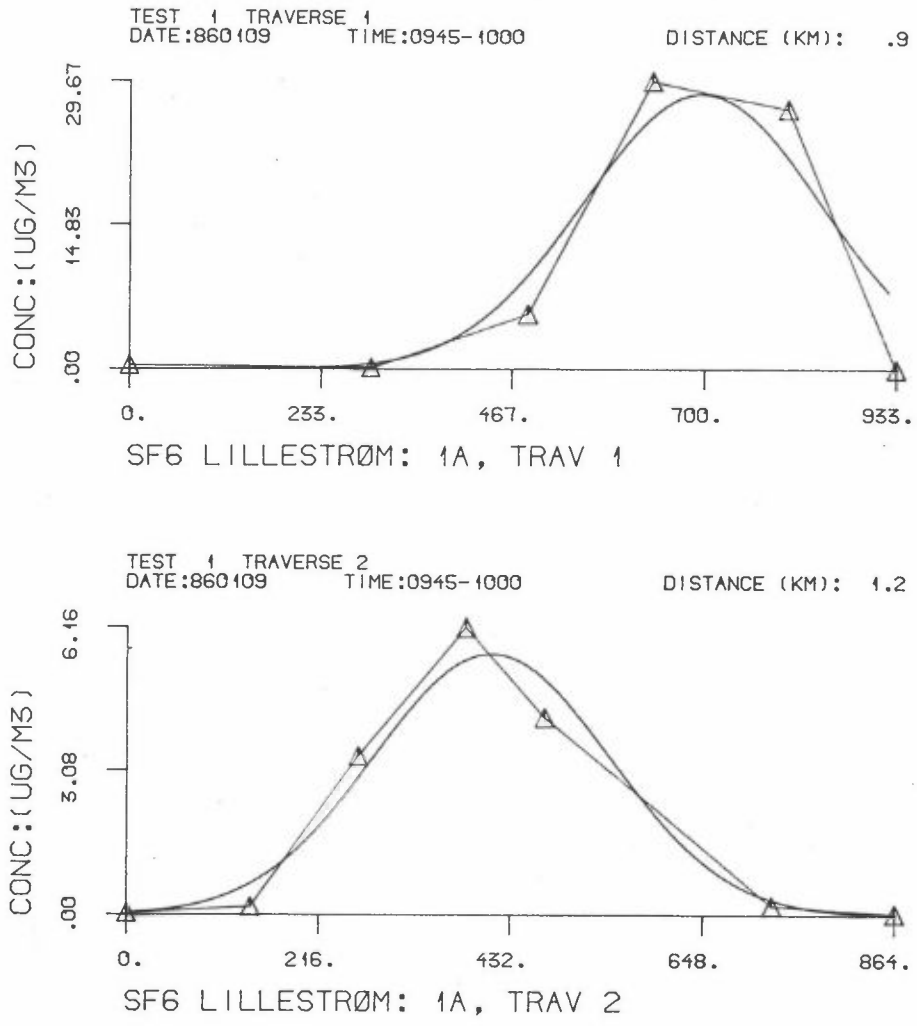

Figure 3: Crosswind SF_6 concentration profiles observed along sampling traverses 1 and 2 marked on Figure 2. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

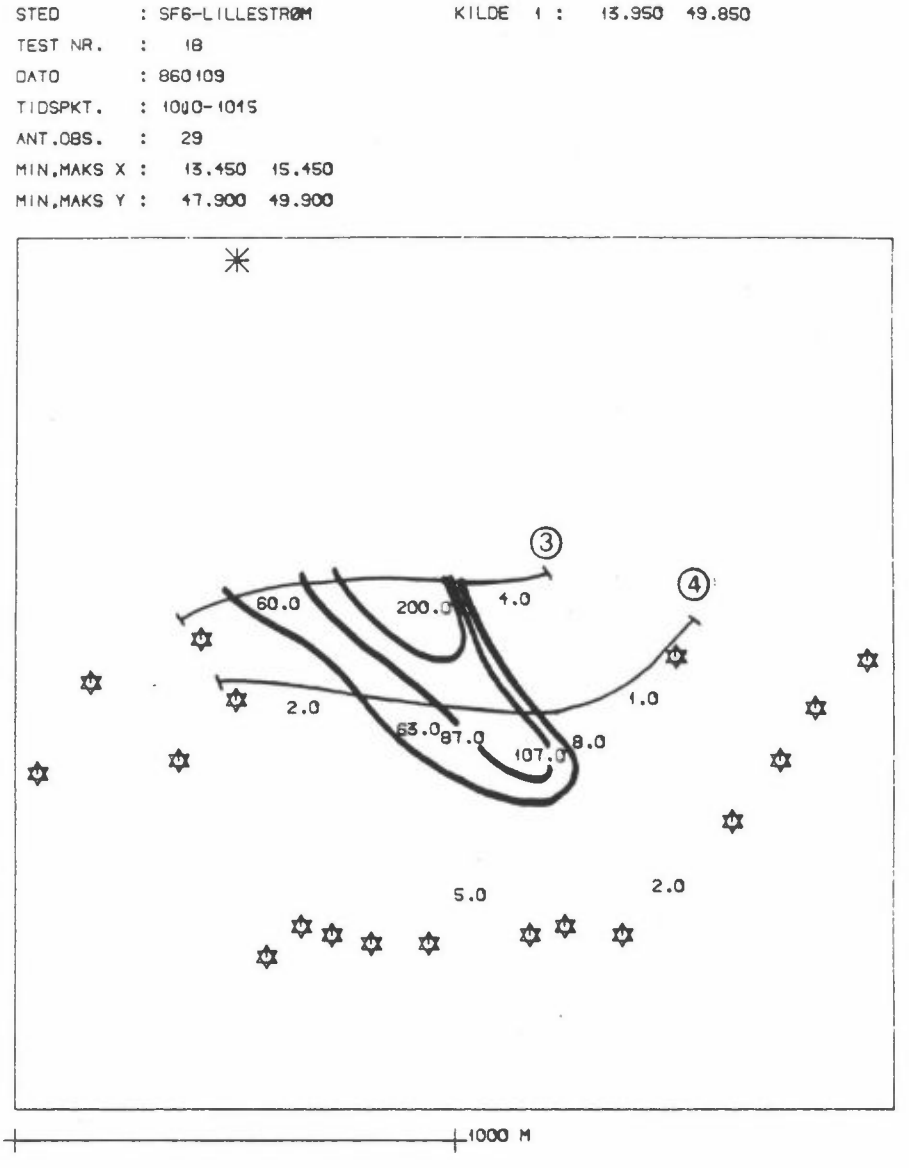

Figure 4: Test 1B-1986. SF_6 concentrations, Lillestrøm 9 January 1986, 1000-1015.
Unit: 0.1 mg/m^3.

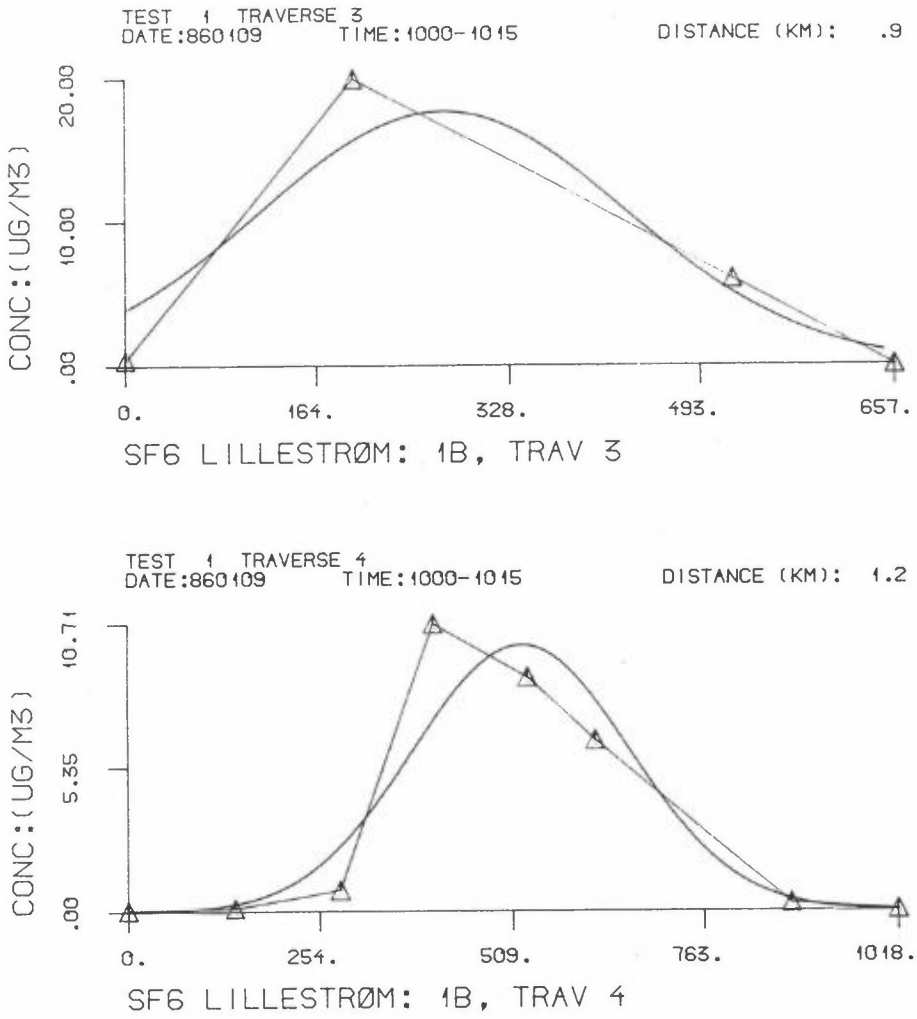

Figure 5: Crosswind SF_6 concentration profiles observed along sampling traverses 3 and 4 marked on Figure 4. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

4.2 TEST 2-1986. 7 FEBRUARY 1986

SF_6 and $CBrF_3$ were released from site B from 0915 to 1015 at rates of 0.102 and 0.104 g/s.

At Lillestrøm it was cloudy with some light snowfall. Light air (0.5 m/s) was blowing from northwest (310^0). The temperature was -7^0C and the temperature stratification was slightly stable.

Figures 6 and 8 show the average 15-minute concentrations from the SF_6 dispersion experiment, and the Figures 7 and 9 show the corresponding traverses marked on Figures 6 and 8.

Figures 10 and 12 show the average 15-minute concentrations from the $CBrF_3$ dispersion experiment, and the Figures 11 and 13 show the corresponding traverses marked on Figures 10 and 12.

Large horizontal wind fluctuations made large plume fluctuations, giving variable dispersion conditions. The maximum hour concentrations were observed on right hand side of the traverses in the first part of the experiment, and on the left hand side of the traverses on the last part of the experiment. The results should not be used to determine dispersion parametres.

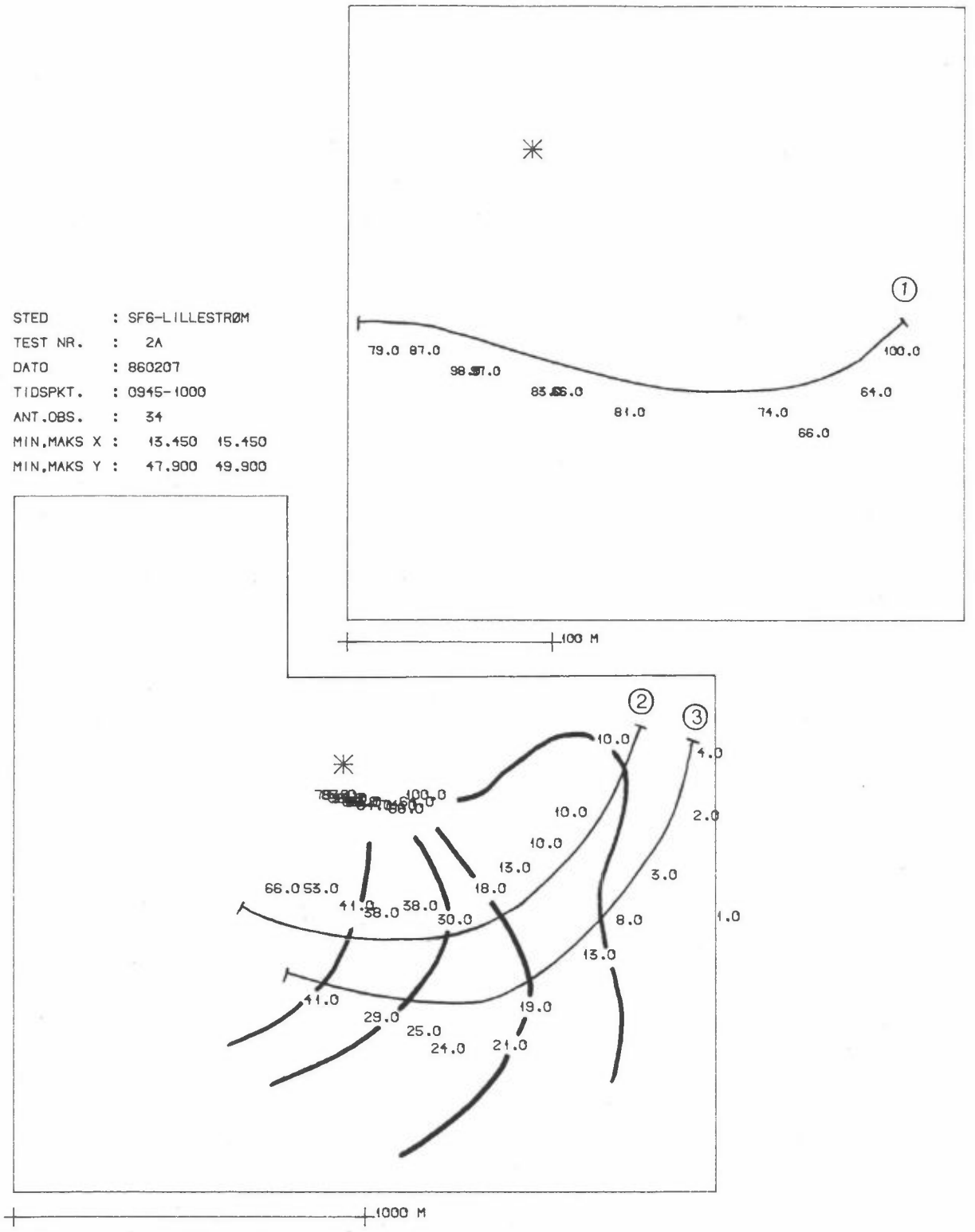

Figure 6: Test 2A-1986. SF_6 concentrations, Lillestrøm 7 February 1986, 0945-1000.
Unit: 0.1 mg/m^3.
The observations close to the source are given in a separate figure.

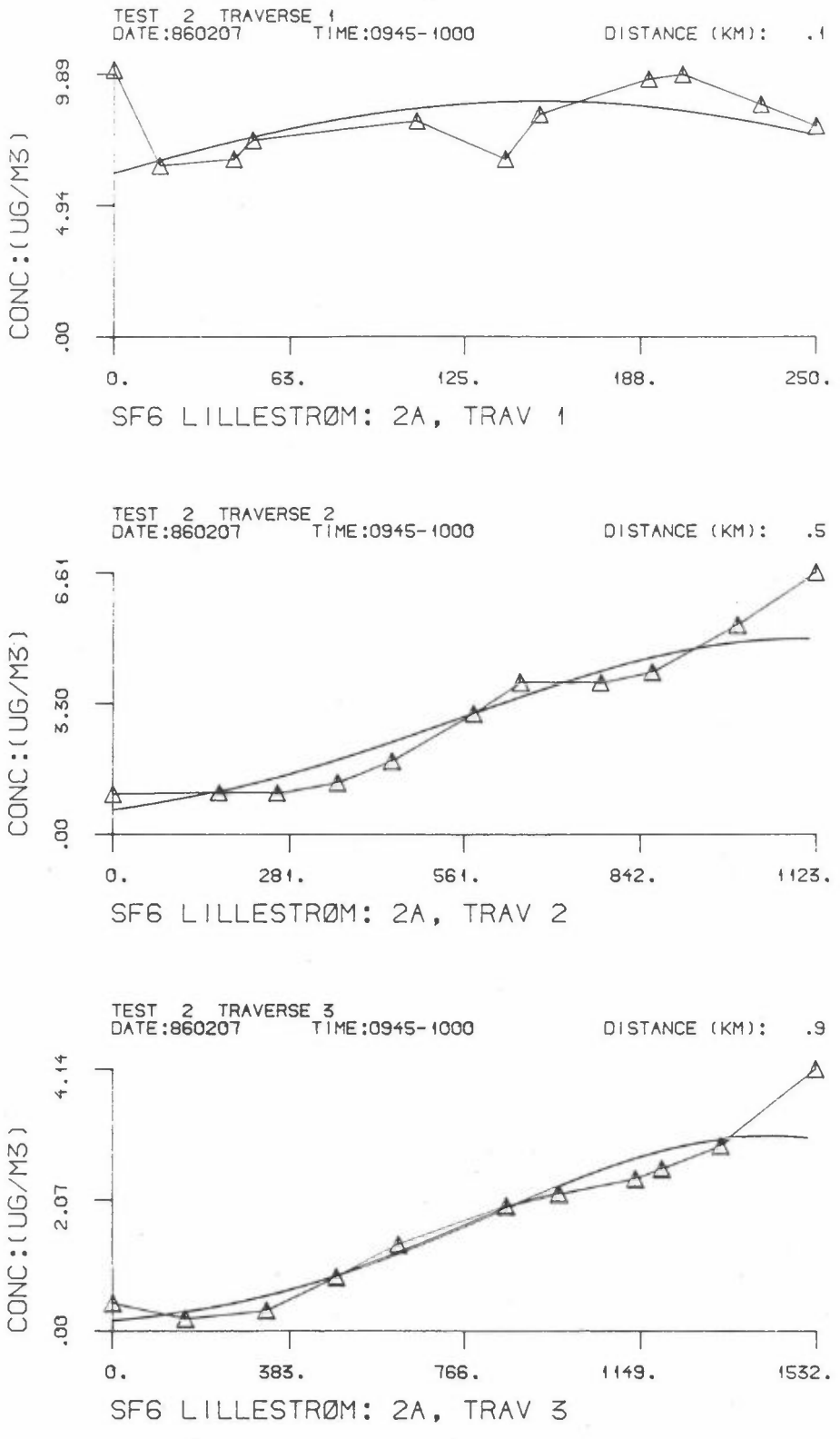

Figure 7: Crosswind SF_6 concentration profiles observed along sampling traverses 1, 2 and 3 marked on Figure 6. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

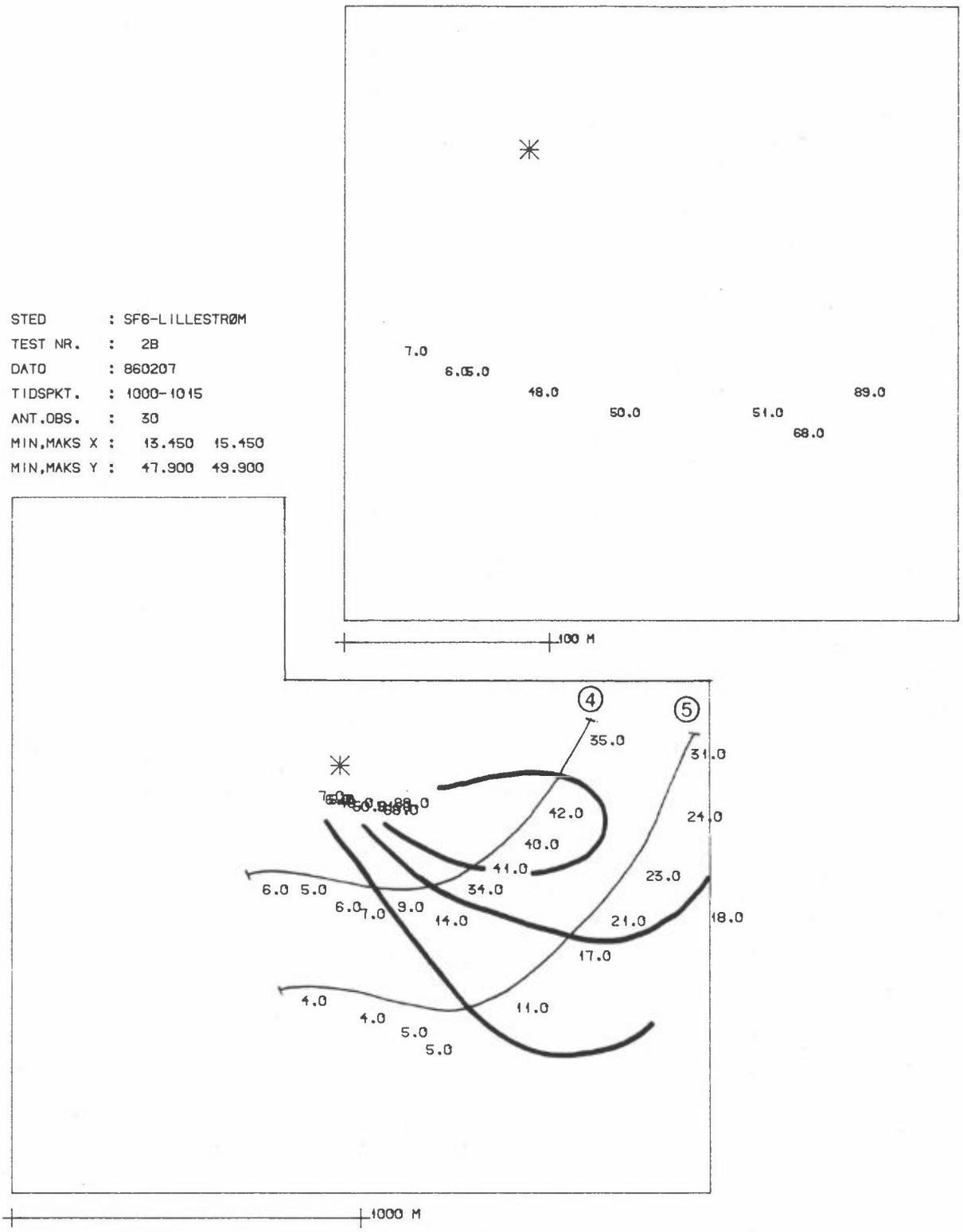

Figure 8: Test 2B-1986. SF_6 concentrations, Lillestrøm 7 February 1986, 1000-1015.
Unit: 0.1 mg/m^3.

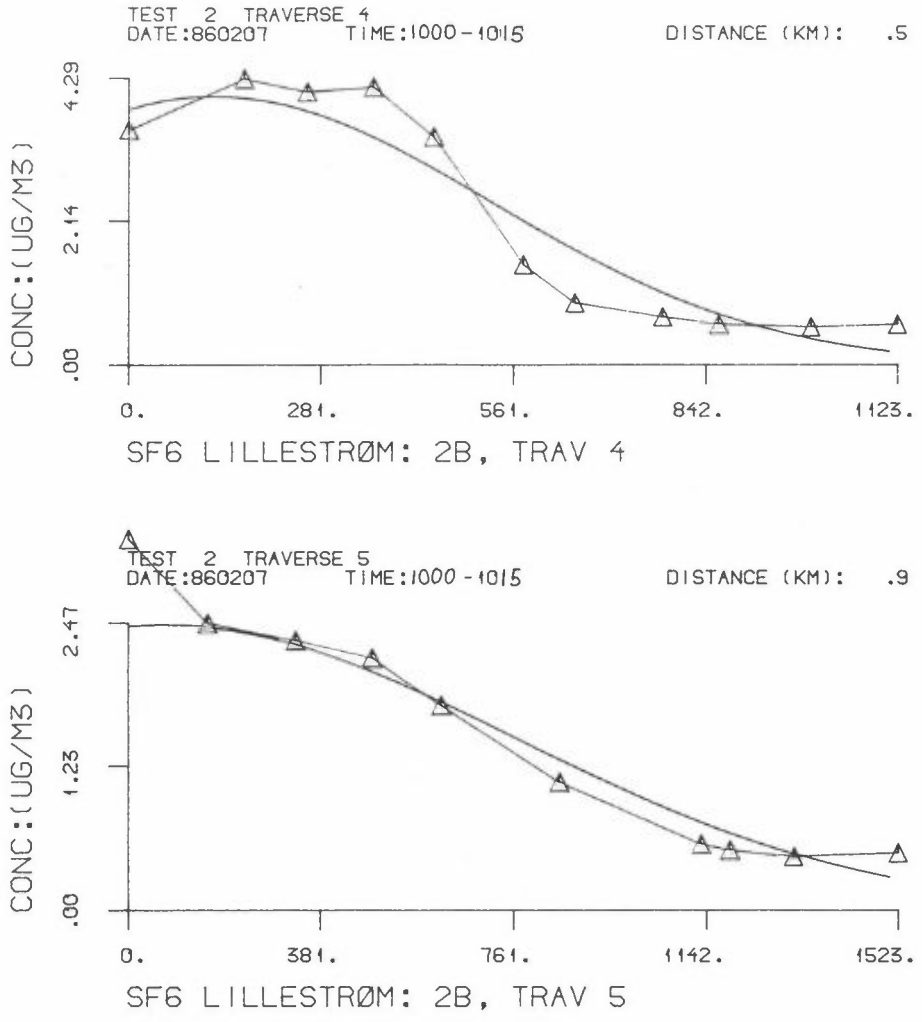

Figure 9: Crosswind SF_6 concentration profiles observed along sampling traverses 4 and 5 marked on Figure 8. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

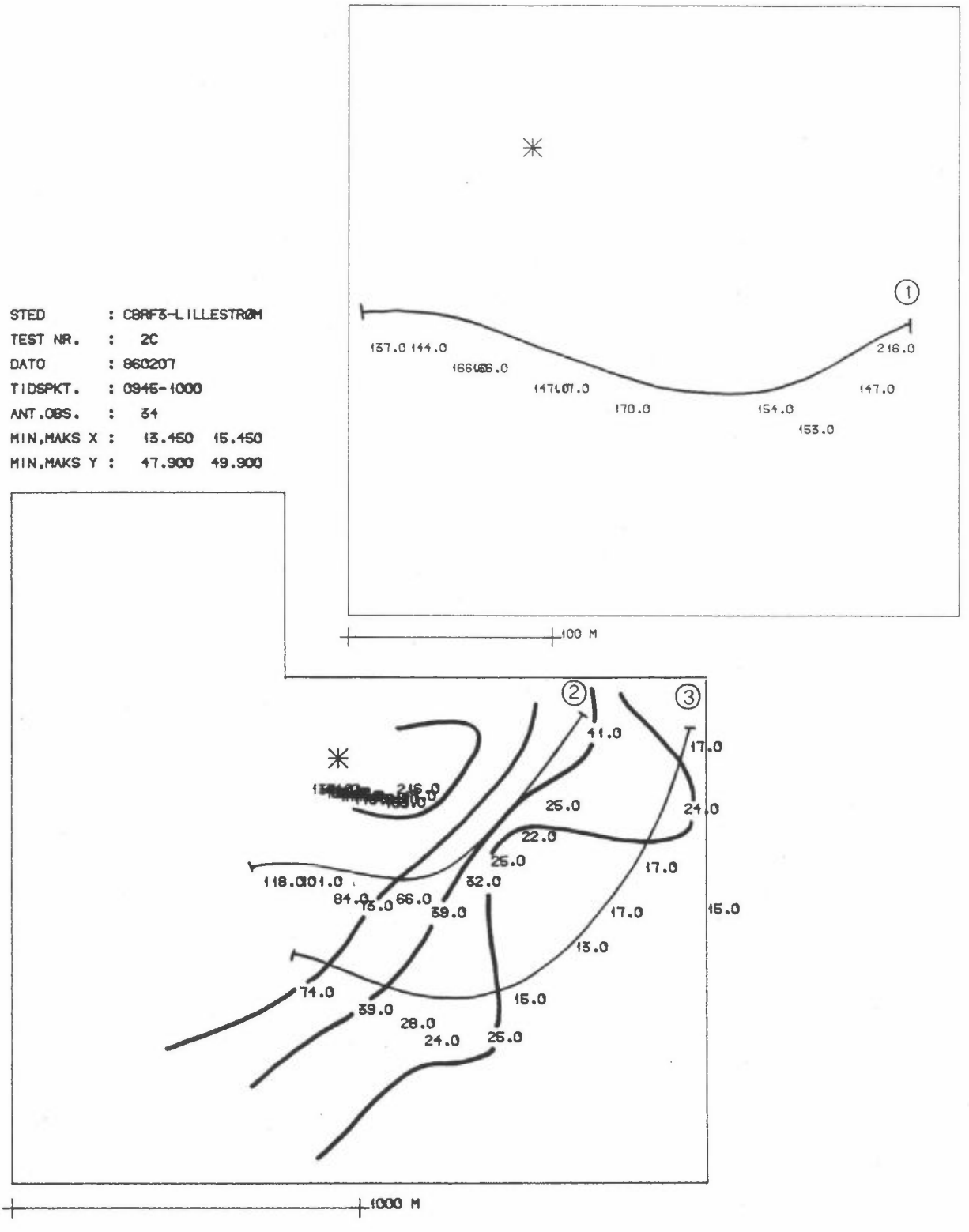

Figure 10: Test 2C-1986. $CBrF_3$ concentrations, Lillestrøm 7 February 1986, 0945-1000.
Unit: 0.1 mg/m^3.

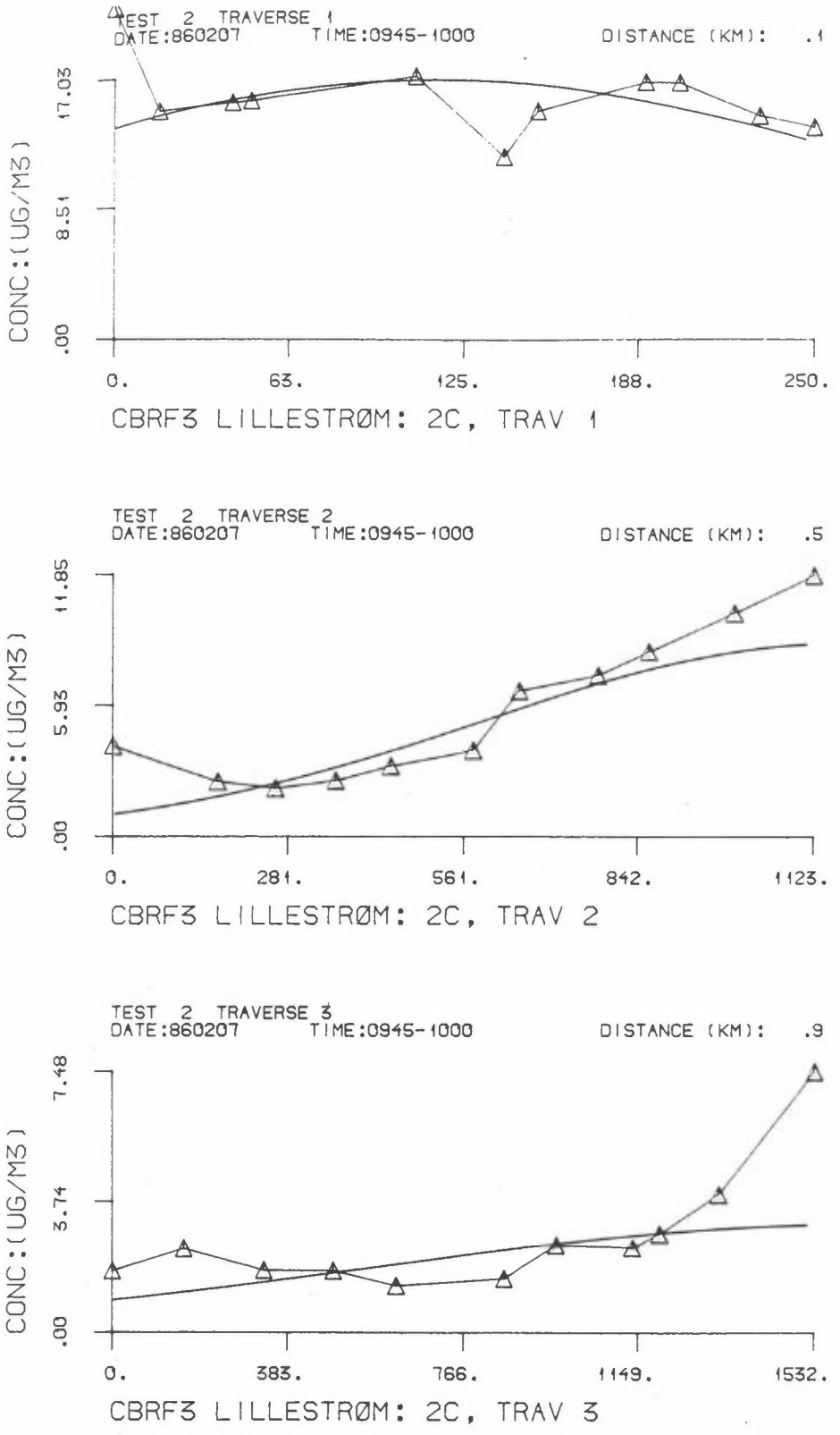

Figure 11: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 1, 2 and 3 marked on Figure 10. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

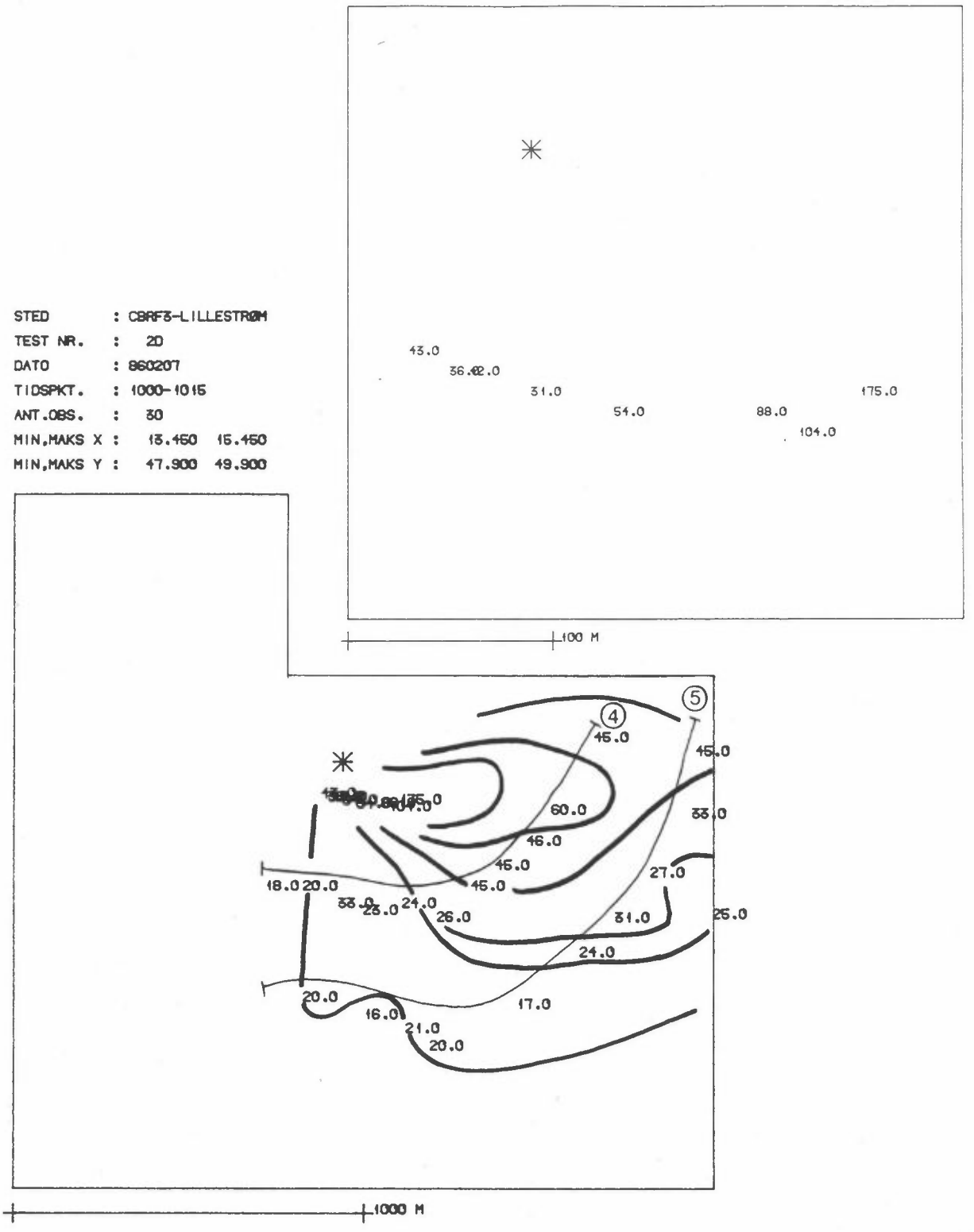

Figure 12: Test 2D-1986. $CBrF_3$ concentrations, Lillestrøm 7 February 1986, 1000-1015.
Unit: 0.1 mg/m^3.

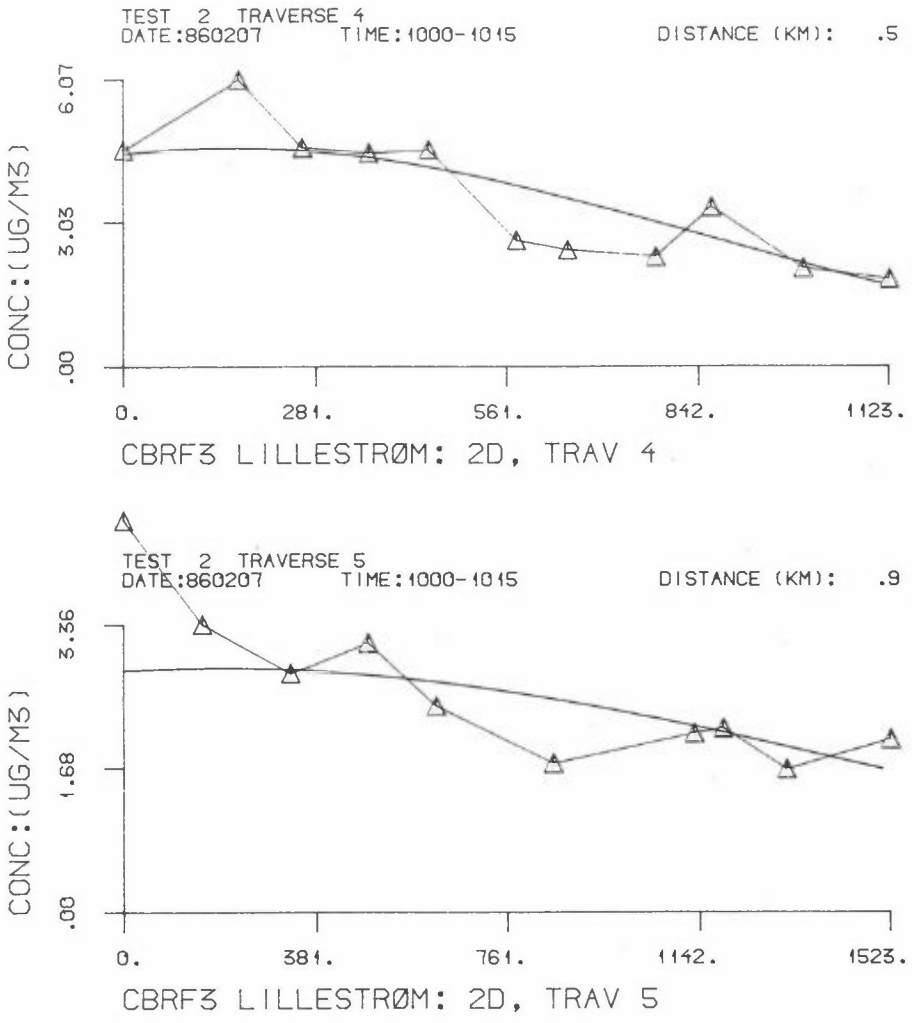

Figure 13: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 4 and 5 marked on Figure 12. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

4.3 TEST 3-1986. 11 FEBRUARY 1986

SF_6 and $CBrF_3$ were released from site B from 0905 to 1005 at rates of 0.102 and 0.104 g/s.

At Lillestrøm the sky was almost covered with a thin layer of alto-stratus clouds. Light breeze (2.9 m/s) was blowing from northwest (305^0), the temperature was -20^0C and the air temperature stratification was stable as the sun broke through at 0950.

Figures 14 and 16 show the average 15-minute concentrations from the SF_6 dispersion experiment, and the Figures 15 and 17 show the corresponding traverses along the routes on Figures 14 and 16.

Figures 18 and 20 show the average 15-minute concentrations from the $CBrF_3$ dispersion experiment, and the Figures 19 and 21 show the corresponding traverses along the routes on Figures 18 and 20.

A stationary plume for SF_6-dispersion in the period 0935-0950 was disrupted during the second part of the experiment, 0950-1015. For $CBrF_3$ a more complicated plume with lower maximum concentrations appeared.

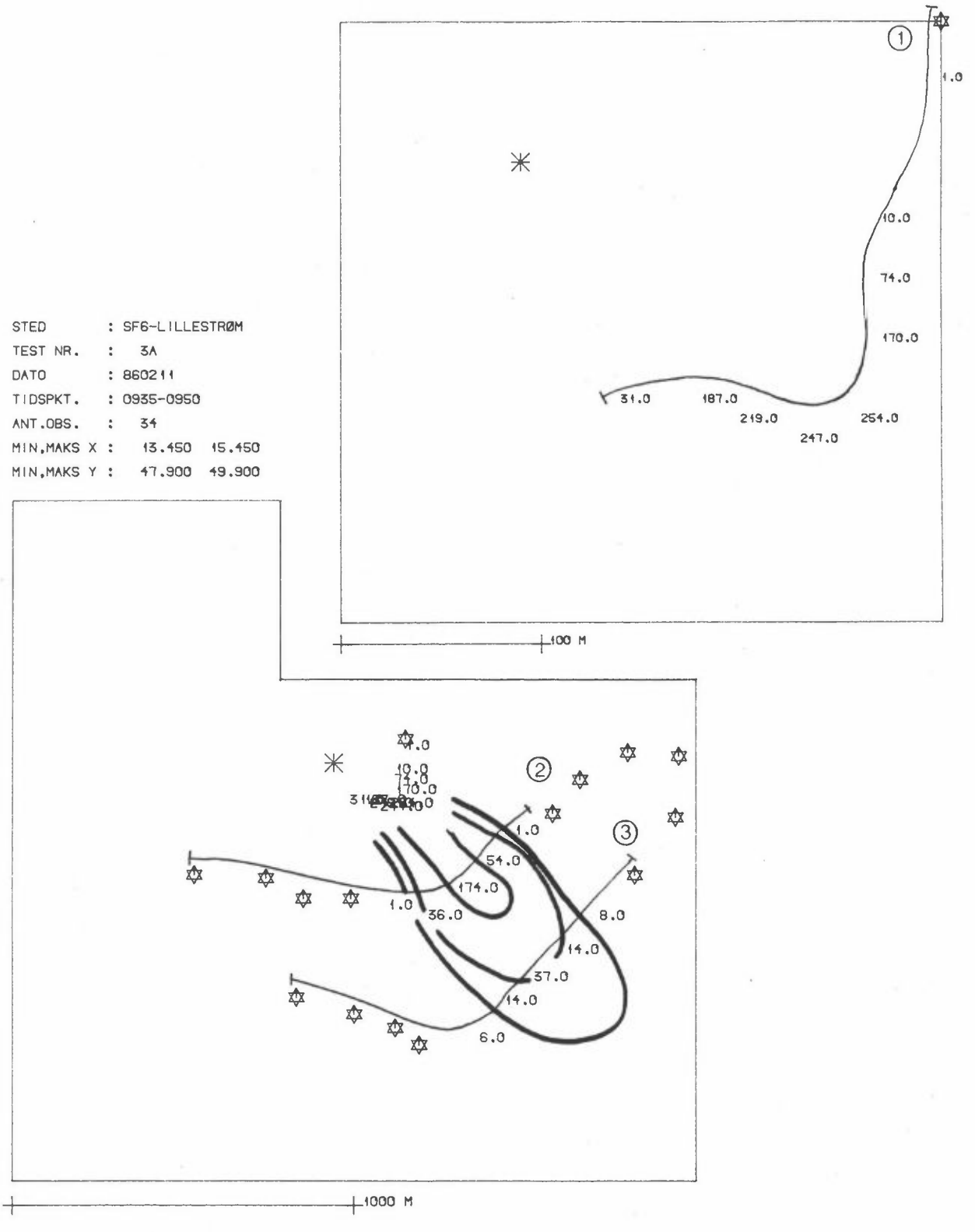

Figure 14: Test 3A-1986. SF_6 concentrations, Lillestrøm 11 February 1986, 0935-0950.
Unit: 0.1 mg/m^3.

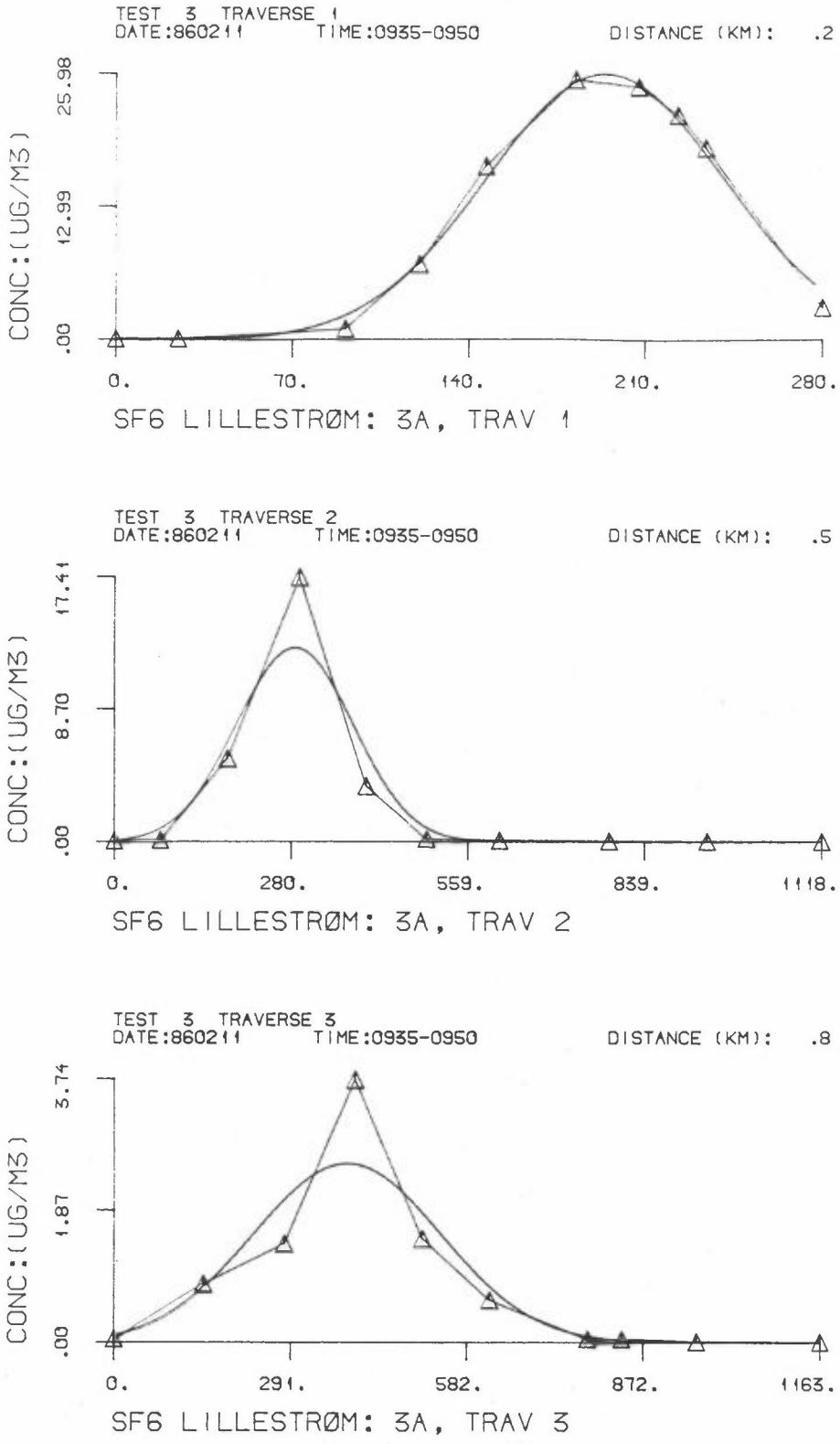

Figure 15: Crosswind SF_6 concentration profiles observed along sampling traverses 1, 2 and 3 marked on Figure 14. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

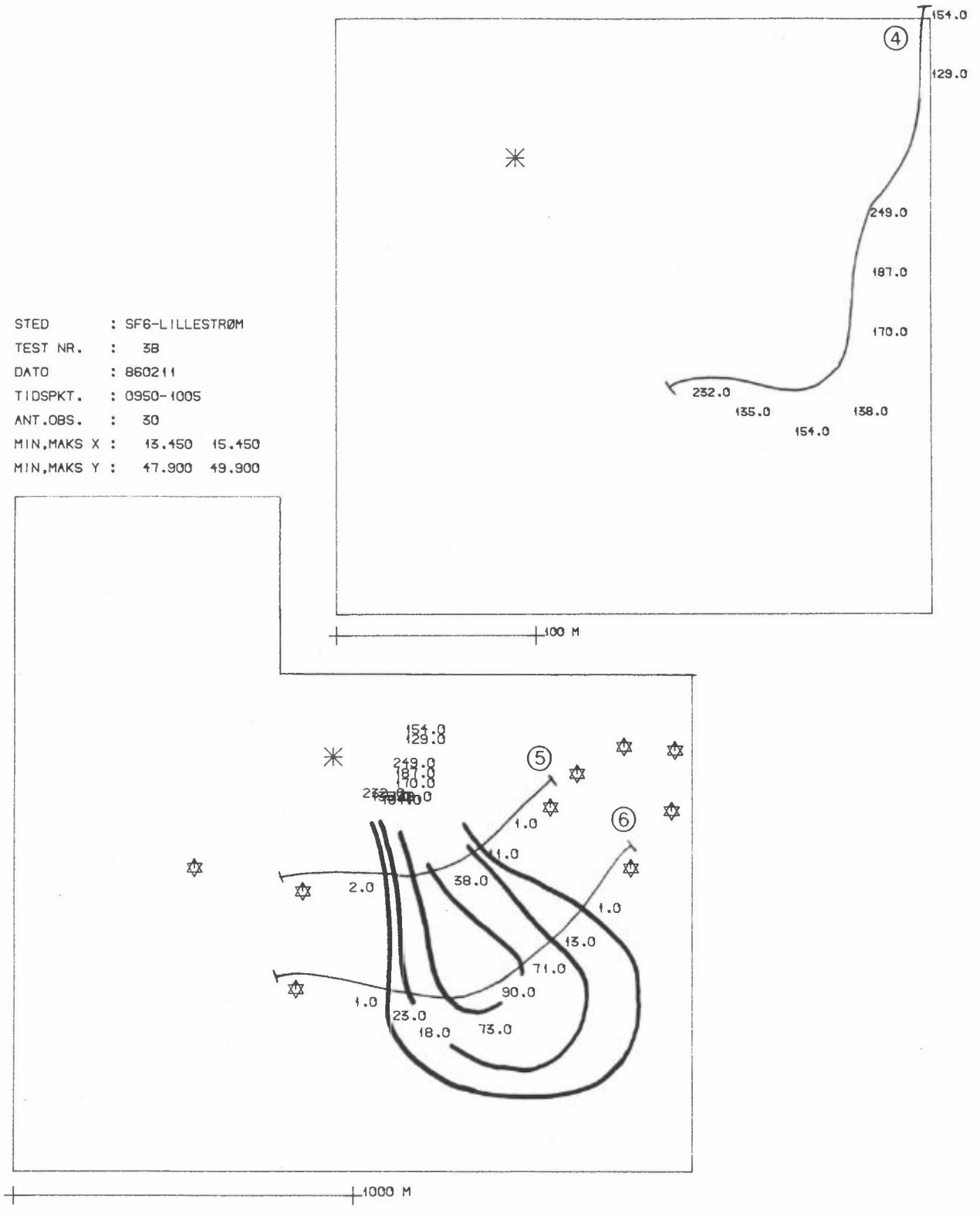

Figure 16: Test 3B-1986. SF_6 concentrations, Lillestrøm 11 February 1986, 0950-1005.
Unit: 0.1 mg/m^3.

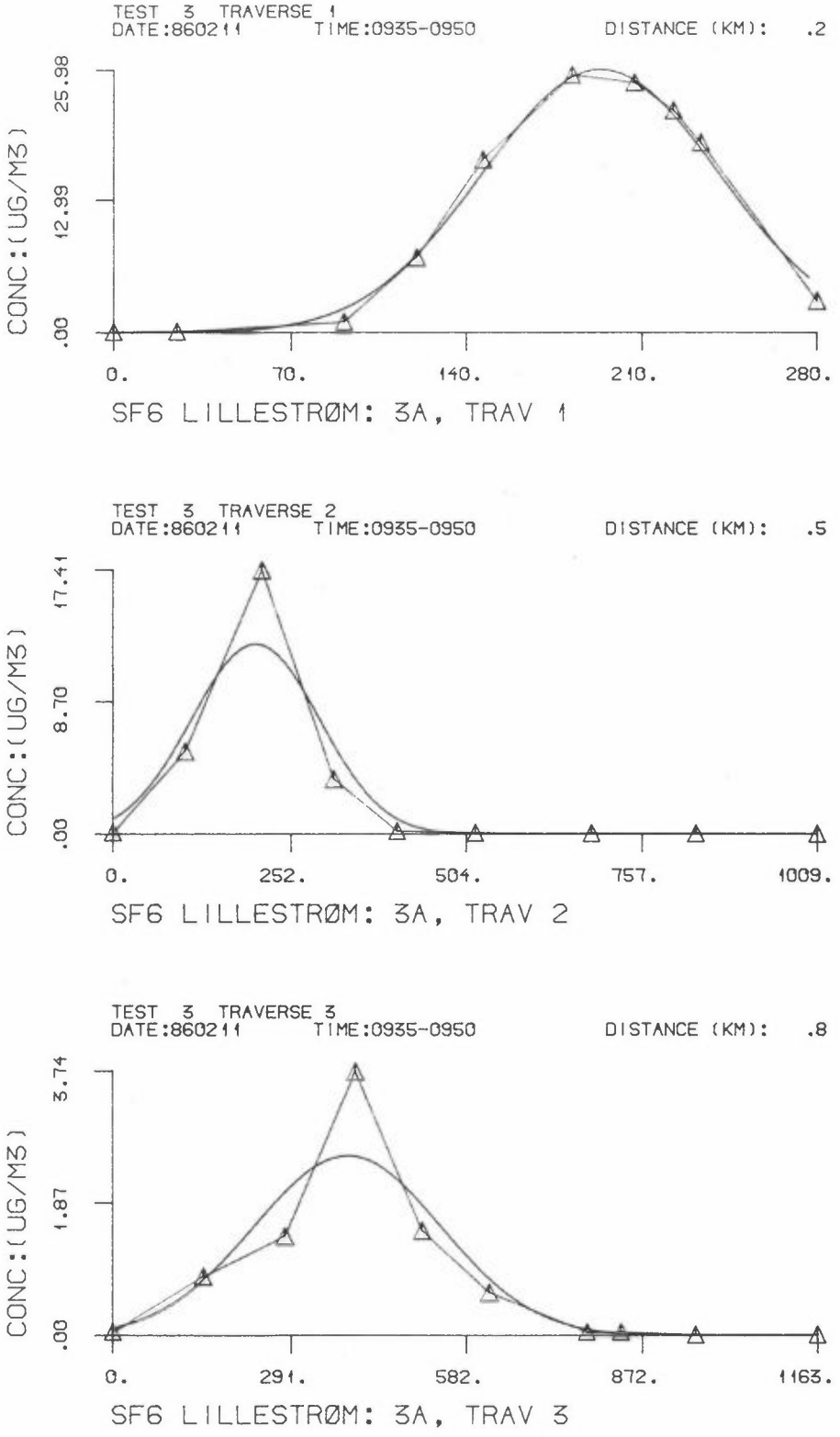

Figure 17: Crosswind SF_6 concentration profiles observed along sampling traverses 4, 5 and 6 marked on Figure 16. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

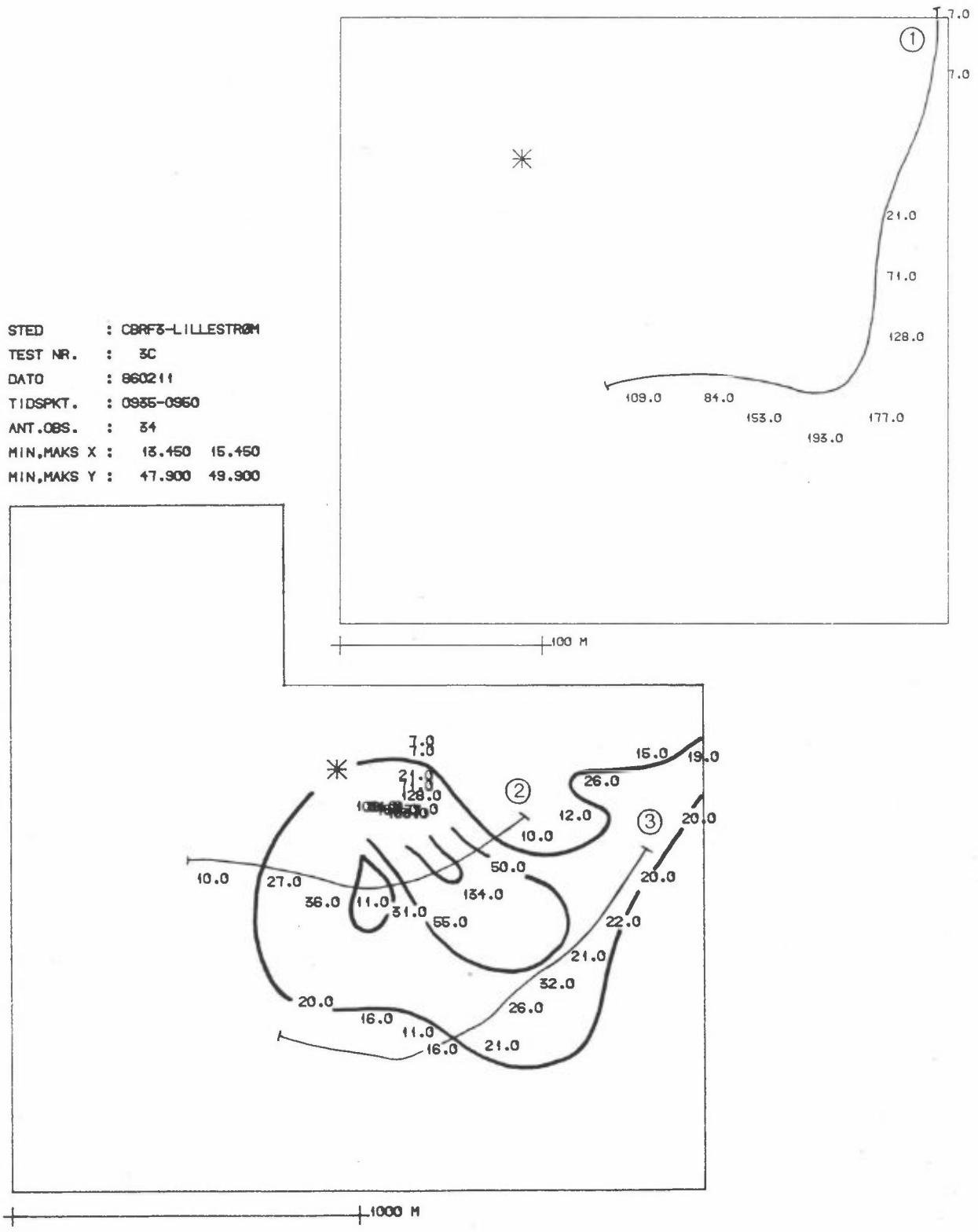

Figure 18: Test 3C-1986. $CBrF_3$ concentrations, Lillestrøm 11 February 1986, 0935-0950.
Unit: 0.1 mg/m^3 .

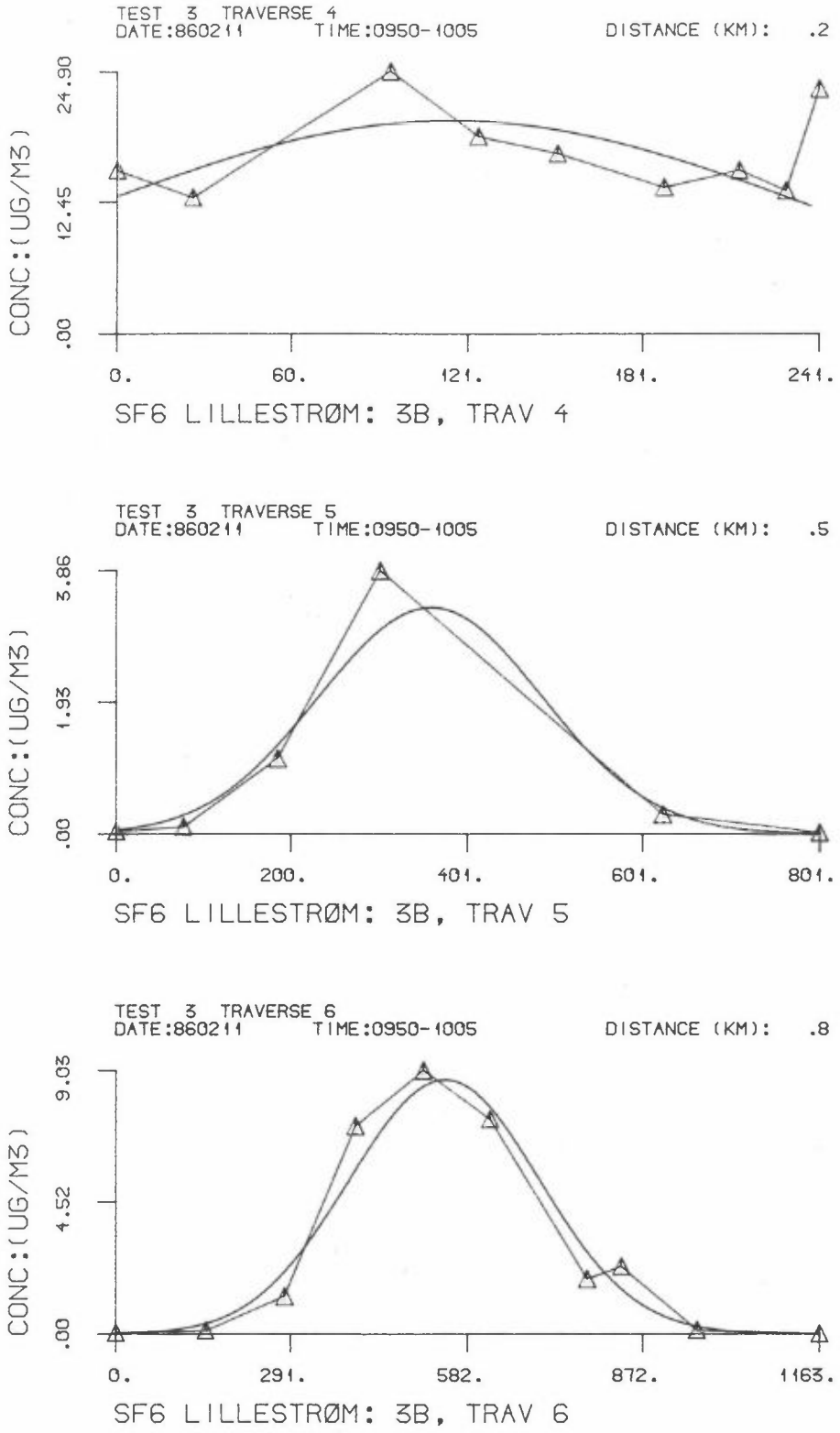

Figure 19: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 1, 2 and 3 marked on Figure 18. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

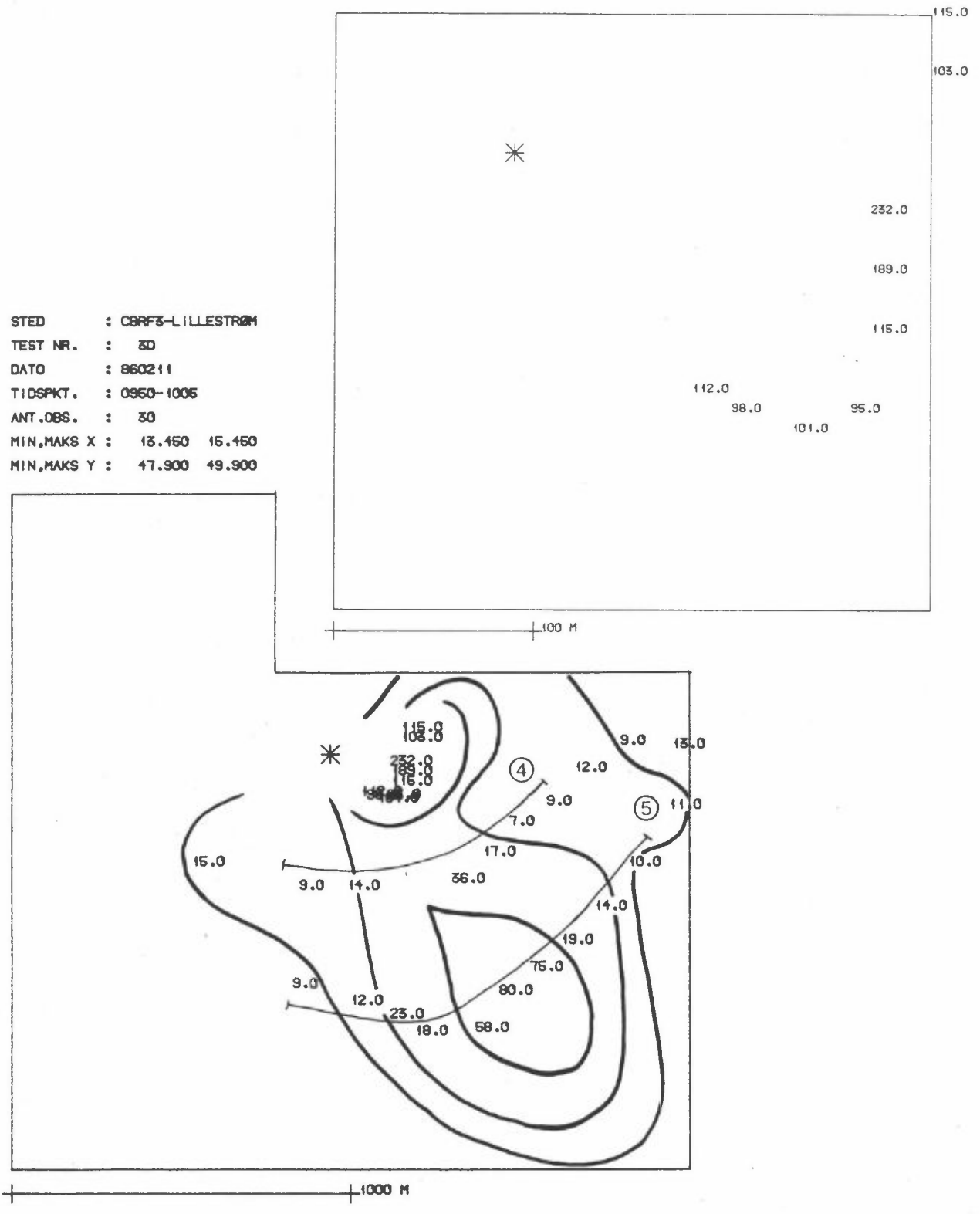

Figure 20: Test 3D-1986. $CBrF_3$ concentrations, Lillestrøm 11 February 1986, 0950-1005.
Unit: 0.1 mg/m^3.

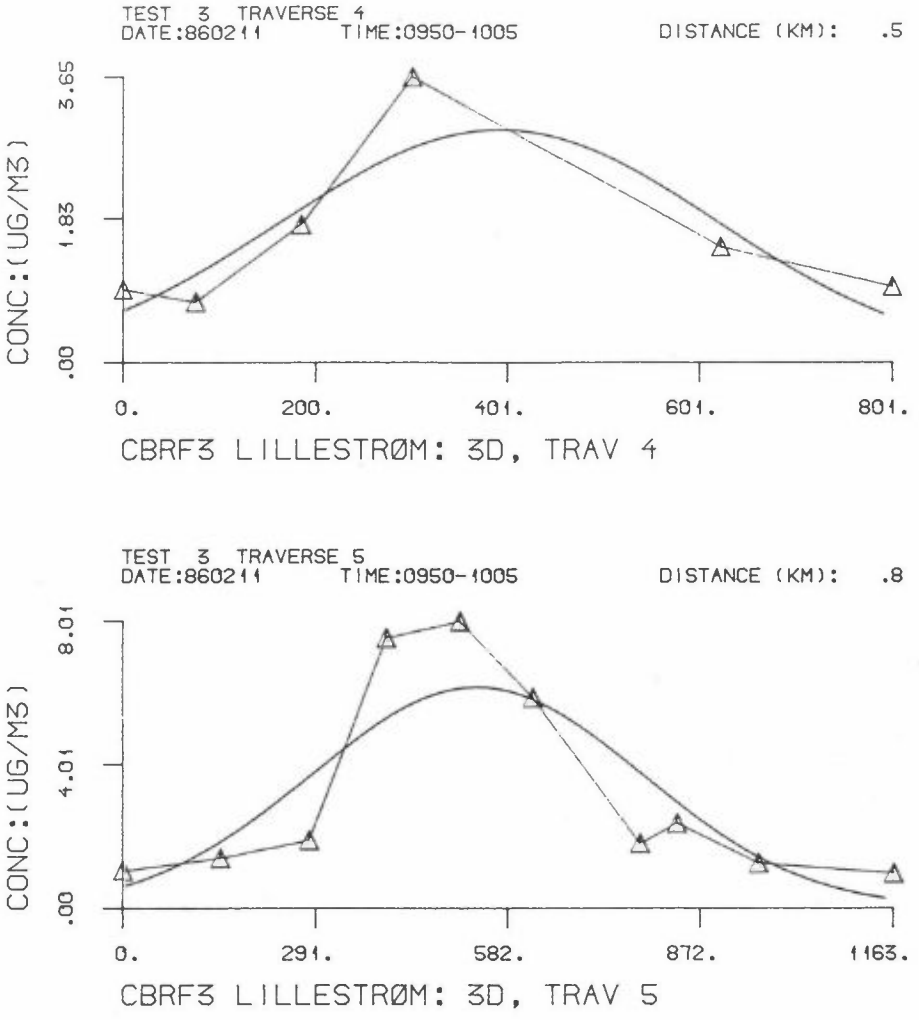

Figure 21: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 4 and 5 marked on Figure 20. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

4.4 TEST 4-1986. 13 FEBRUARY 1986

SF_6 and $CBrF_3$ were released from site B from 0810 to 0910 at rates of 0.102 and 0.104 g/s.

At Lillestrøm half of the sky was covered with altocumulus/stratocumulus clouds. Light air (0.7 m/s) was blowing from northwest (290^0), the temperature was -18^0C at bottom of a ground level inversion. Sodar readings estimated an interlocking layer at 125 m. At 0905 this layer was gone.

Figures 22 and 24 show the average 15-minute concentrations from the SF_6 dispersion experiment, and the Figures 23 and 25 show the corresponding traverses along the routes on Figures 22 and 24.

Figures 26 and 28 show the average 15-minute concentrations from the $CBrF_3$ dispersion experiment, and the Figures 27 and 29 show the corresponding traverses along the routes on Figures 26 and 28.

Bifocal plumes were observed both for SF_6 and $CBrF_3$. The concentration maxima were observed along the traverses.

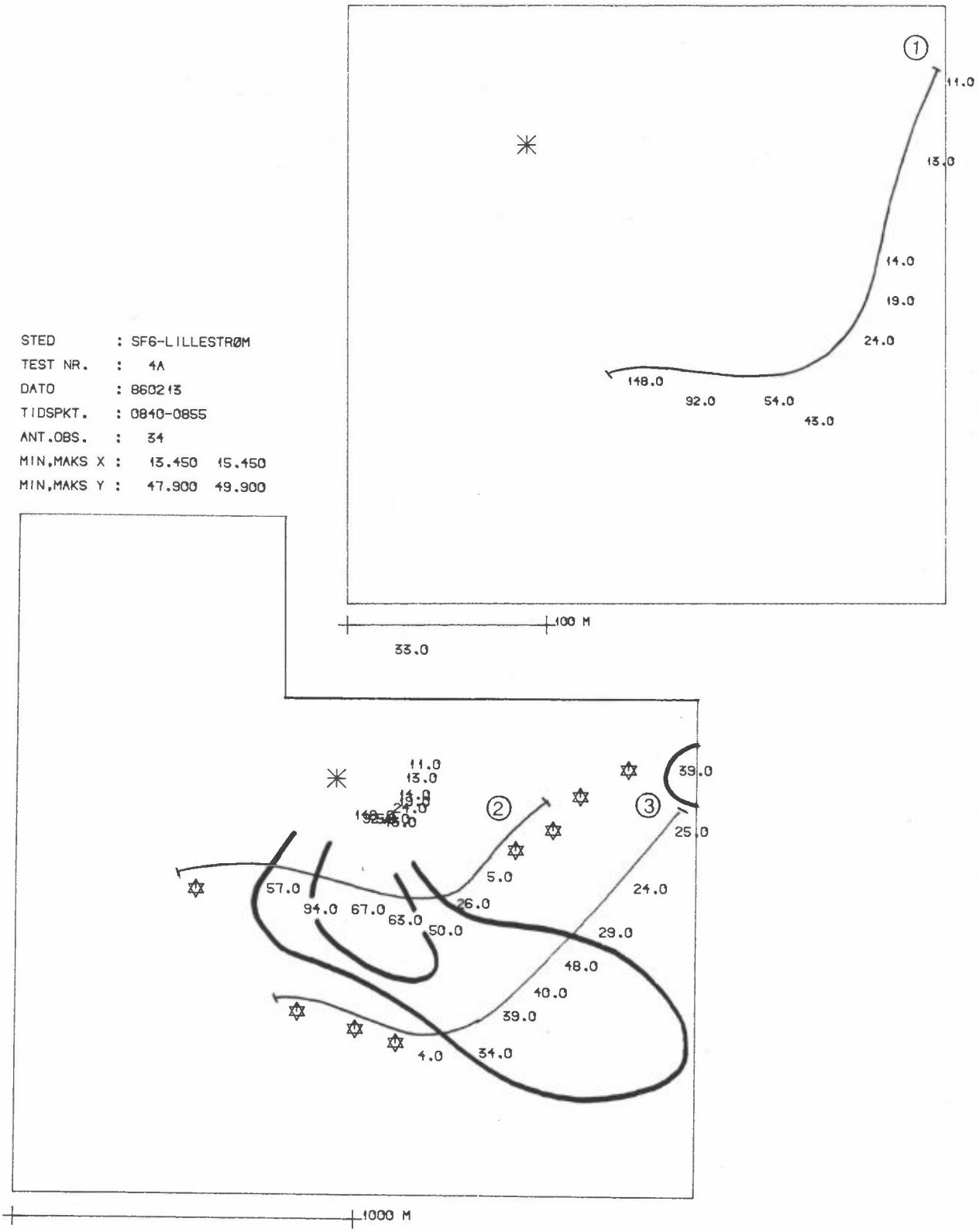

Figure 22: Test 4A-1986. SF_6 concentrations, Lillestrøm 13 February 1986, 0840-0855.
Unit: 0.1 mg/m^3.

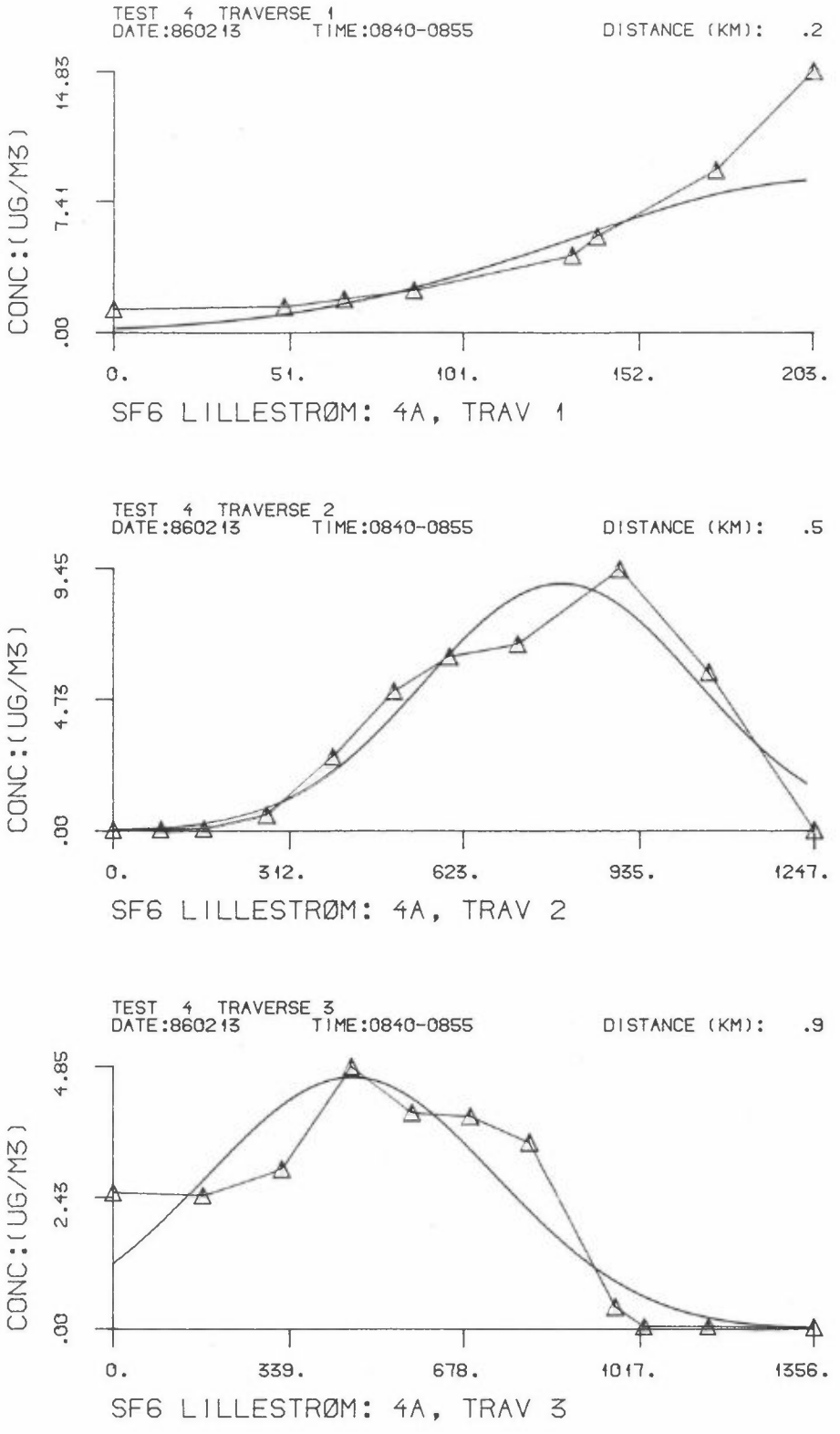

Figure 23: Crosswind SF_6 concentration profiles observed along sampling traverses 1, 2 and 3 marked on Figure 22. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

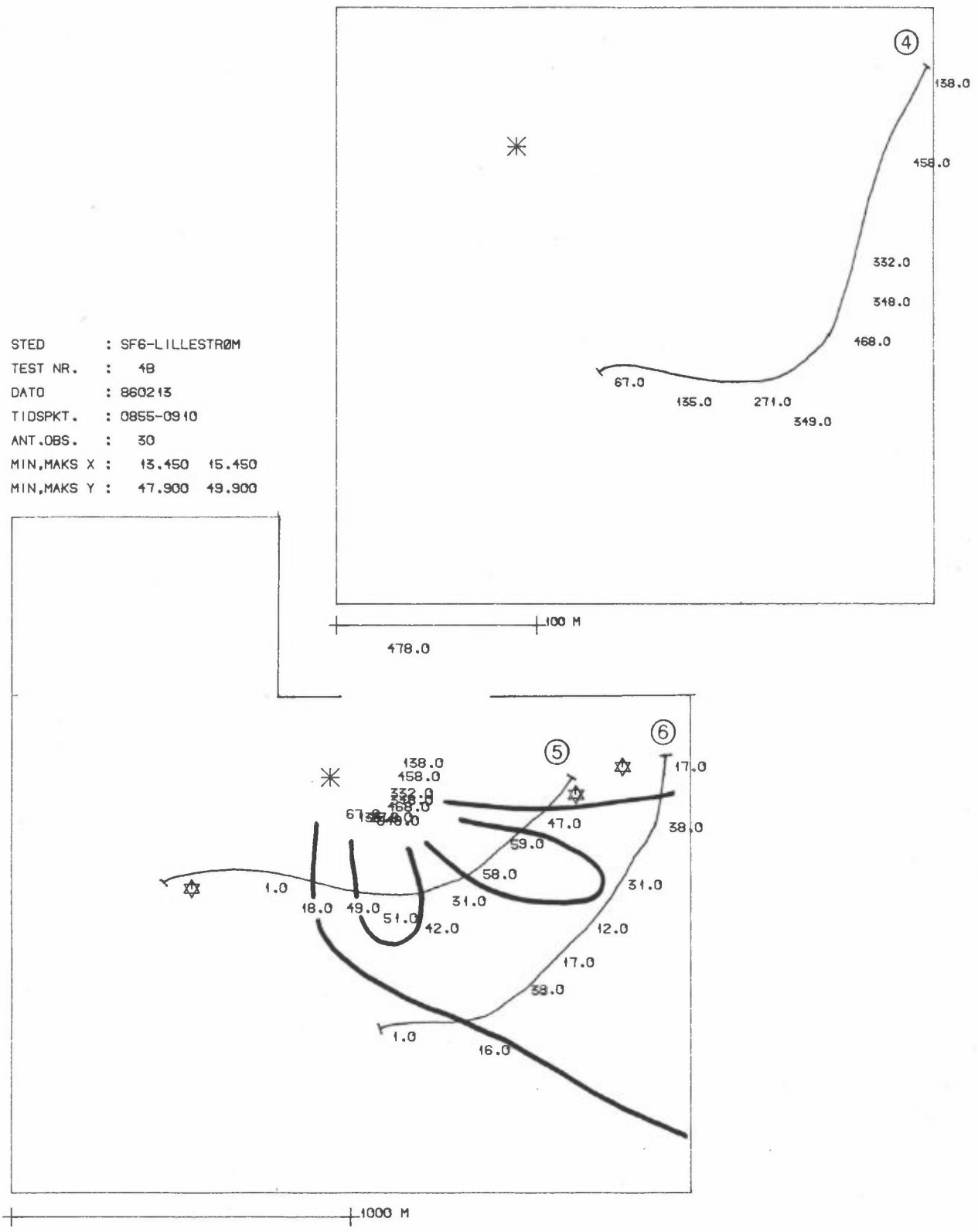

Figure 24: Test 4B-1986. SF_6 concentrations, Lillestrøm 13 February 1986, 0855-0910.
Unit: 0.1 mg/m^3.

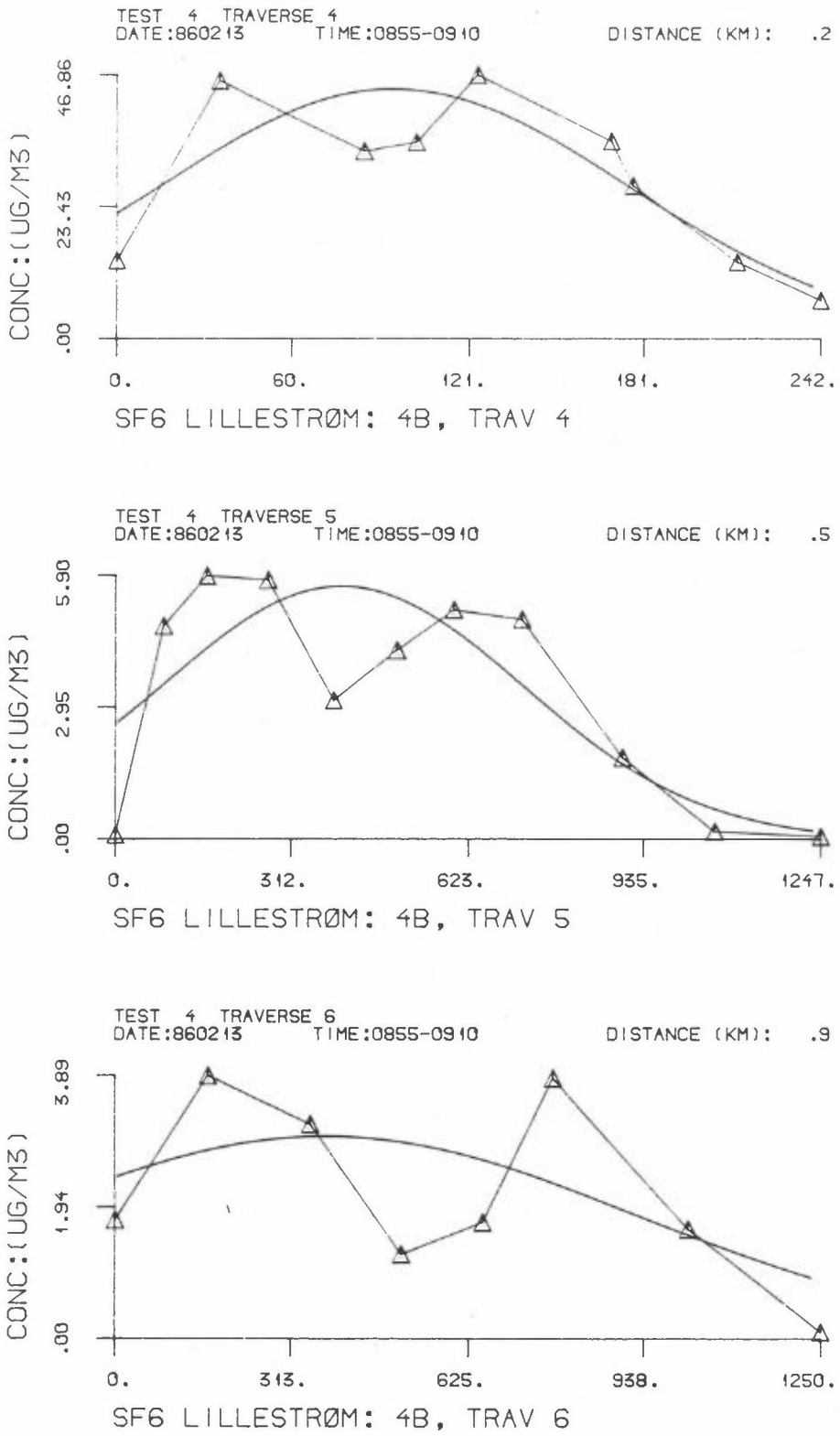

Figure 25: Crosswind SF_6 concentration profiles observed along sampling traverses 4, 5 and 6 marked on Figure 24. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

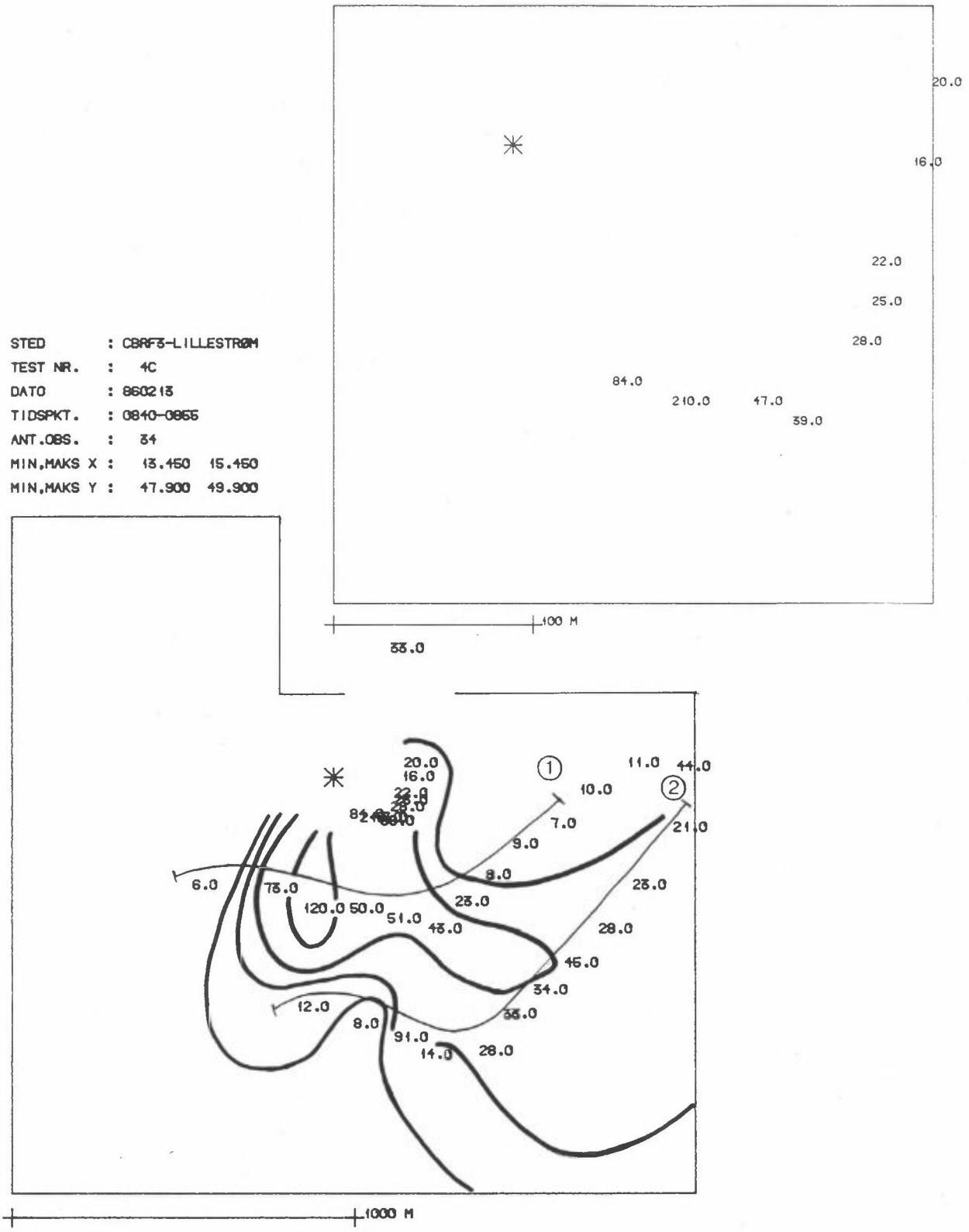

Figure 26: Test 4C-1986. $CBrF_3$ concentrations, Lillestrøm 13 February 1986, 0840-0855.
Unit: 0.1 mg/m^3.

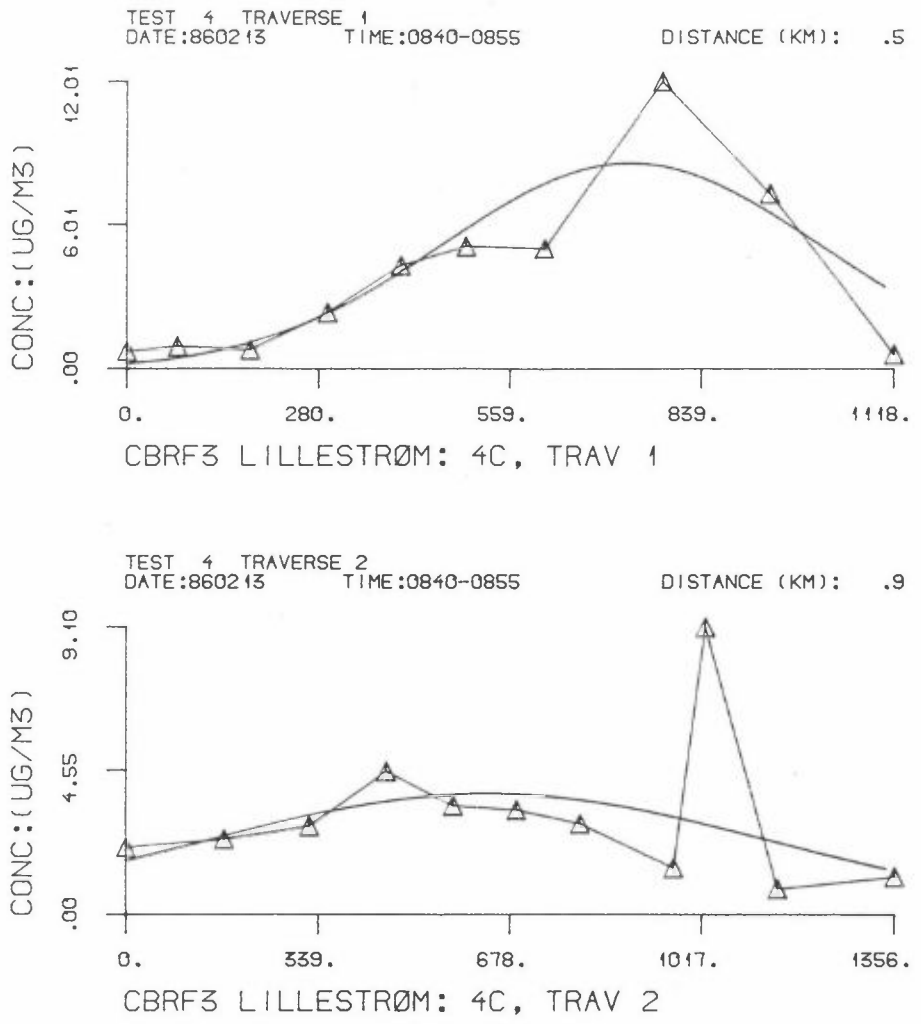

Figure 27: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 1 and 2 marked on Figure 26. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

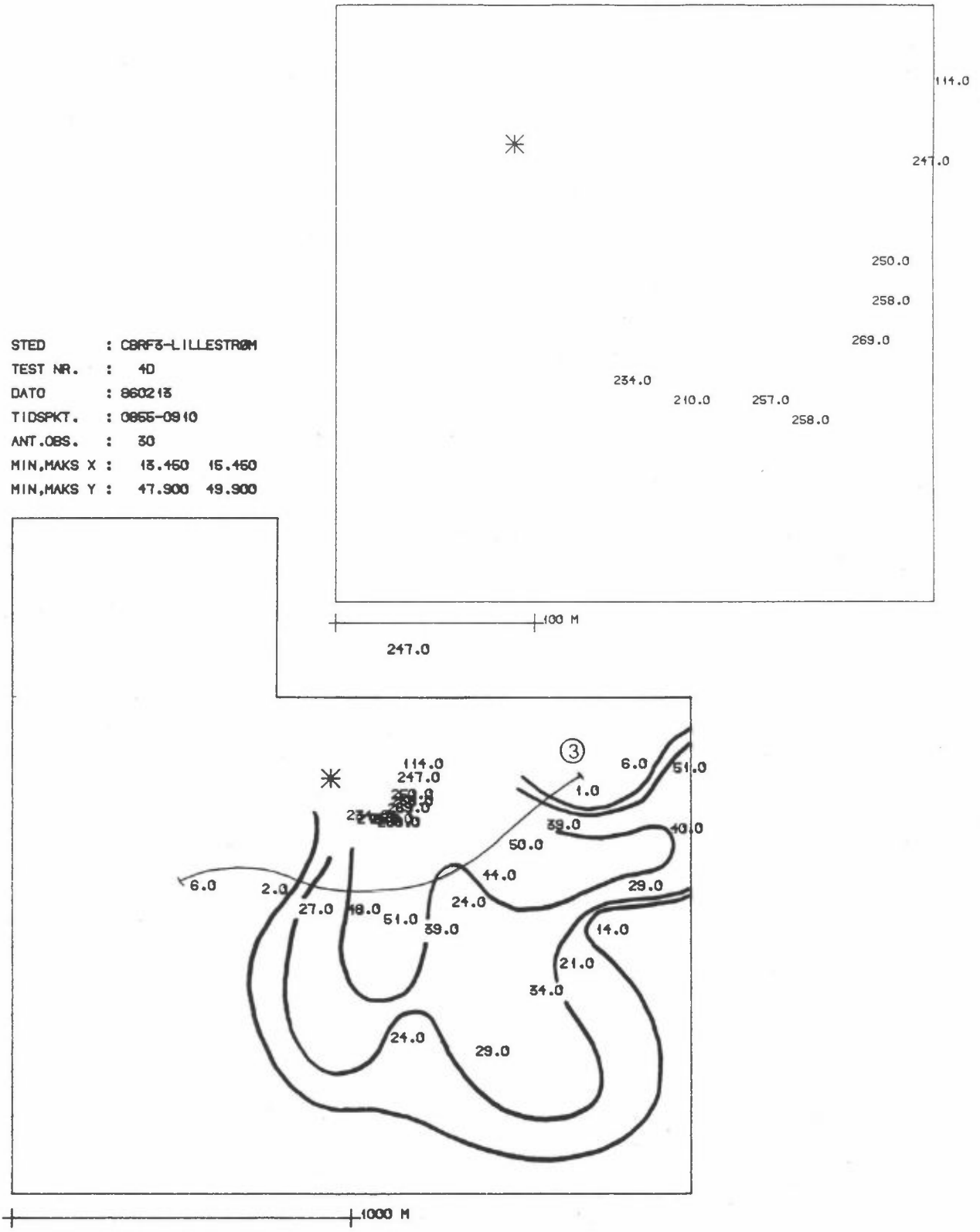

Figure 28: Test 4D-1986. $CBrF_3$ concentrations, Lillestrøm 13 February 1986, 0855-0910.
Unit: 0.1 mg/m^3.

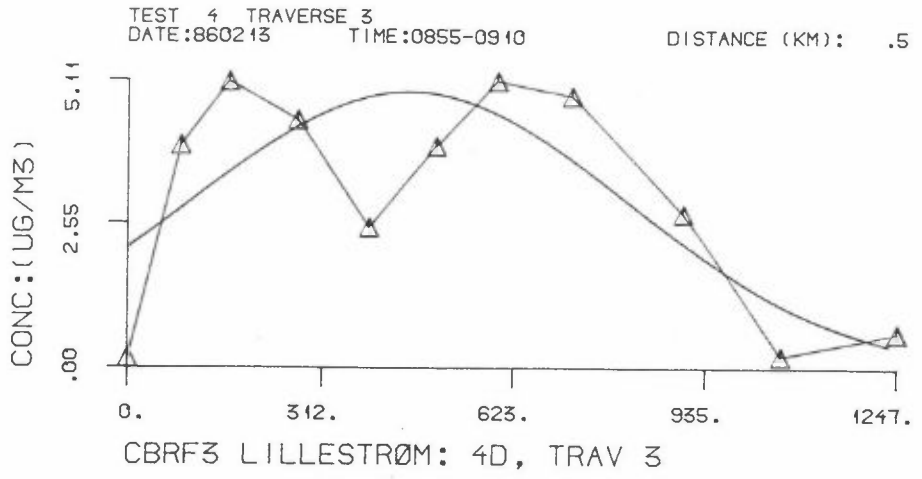

Figure 29: Crosswind $CBrF_3$ concentration profile observed along sampling traverse 3 marked on Figure 28. Profile was observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

4.5 TEST 5-1986. 18 FEBRUARY 1986

SF_6 and $CBrF_3$ were released from site B from 0815 to 0915 at rates of 0.102 and 0.104 g/s.

At Lillestrøm the sky was clear. Light breeze (1.6 m/s) was blowing from east (90^0), the temperature was -10^0C at bottom of a slightly stable ground inversion. As the sun rose at 0850 GMT the wind direction shifted from east to northeast (34^0), and the ground level inversion dissolved. The tracer from the high release was not picked up by the samplers, but some of the tracer from the low release was.

Figure 30 shows the average 15-minute concentrations from the SF_6 dispersion experiment.

Figure 31 shows the average 15-minute concentrations from the $CBrF_3$ dispersion experiment.

No crosswind profiles have been produced. More detailed wind observations are require to explain the observed concentration values for $CBrF_3$. The observations should not be used to determined dispersion parametres.

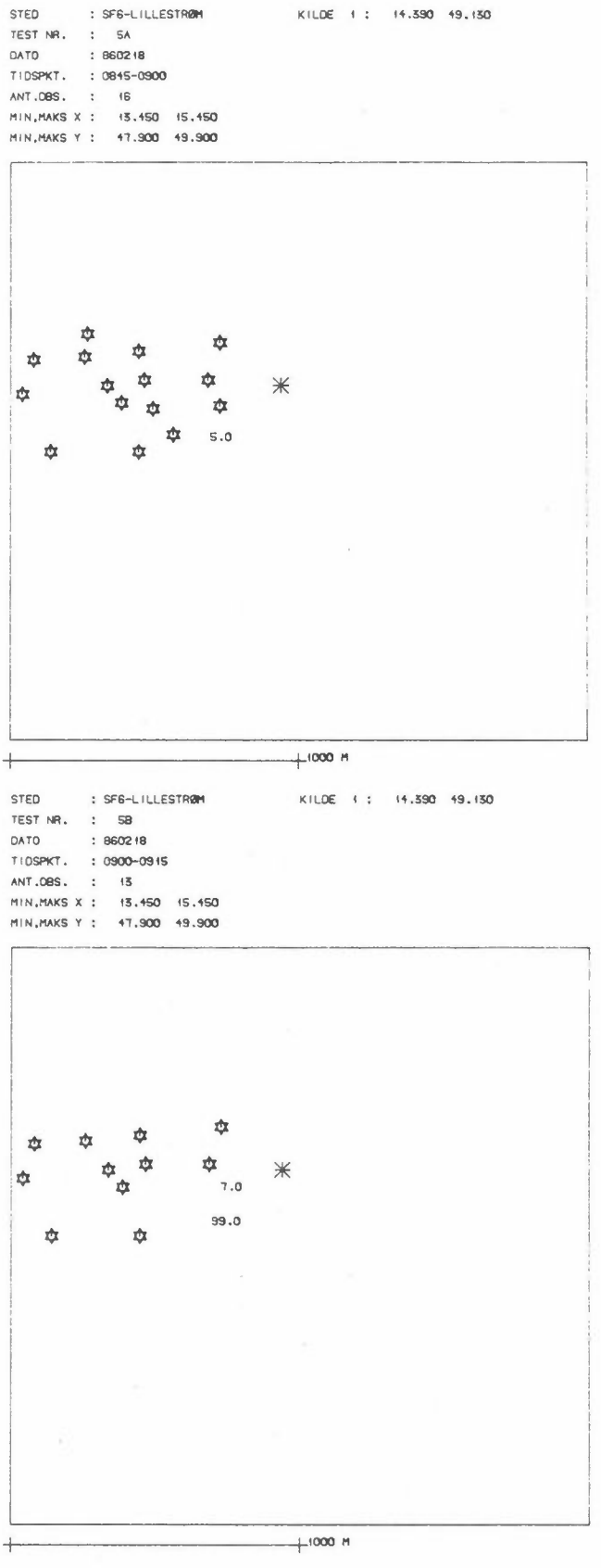

Figure 30: Test 5A and 5B 1986. SF_6 concentrations, Lillestrøm 18 February 1986, from 0845-0900 (5A), and from 0900-0915 (5B). Unit: 0.1 mg/m^3 .

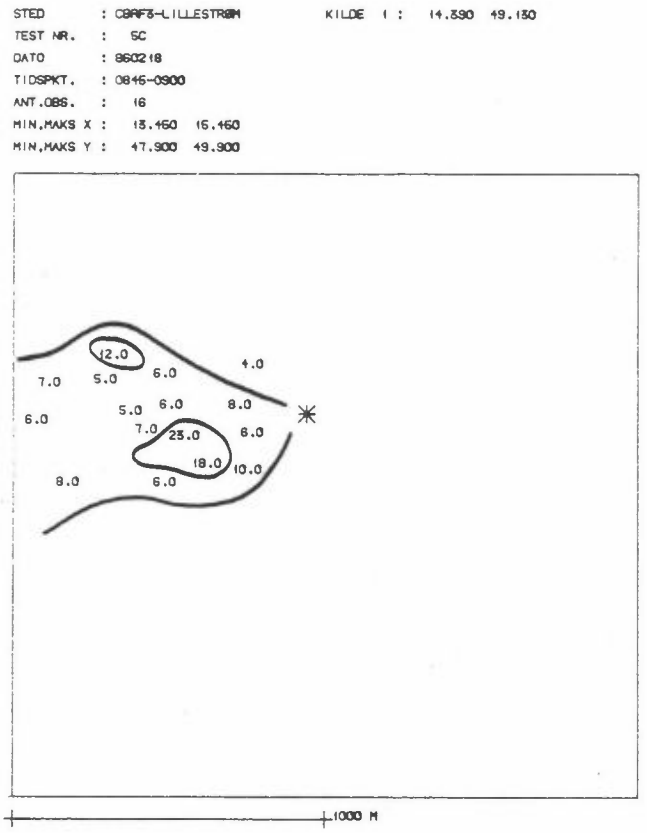

Figure 31: Test 5C and 5D 1986. $CBrF_3$ concentrations, Lillestrøm 18 February 1986, from 0845-0900 (5C), and from 0900-0915 (5D).
Unit: 0.1 mg/m^3.

4.6 TEST 6-1986. 19 FEBRUARY 1986

SF_6 and $CBrF_3$ were released from site B from 0800 to 0900 at rates of 0.102 and 0.104 g/s.

At Lillestrøm the sky was clear. Light air (0.5 m/s) was blowing from northwest (340^0). The temperature was -26^0C at the bottom of a ground level inversion. Sodar readings estimated an interlocking layer at 150 m.

Figures 32 and 34 show the average 15-minute concentrations from the SF_6 dispersion experiment, and the Figures 33 and 35 show the corresponding traverses marked on Figures 32 and 34.

Figures 36 and 38 show the average 15-minute concentrations from the $CBrF_3$ dispersion experiment, and the Figures 37 and 39 show the corresponding traverses marked on Figures 36 and 38.

The plumes were well defined and the maxima were observed within the sampling networks.

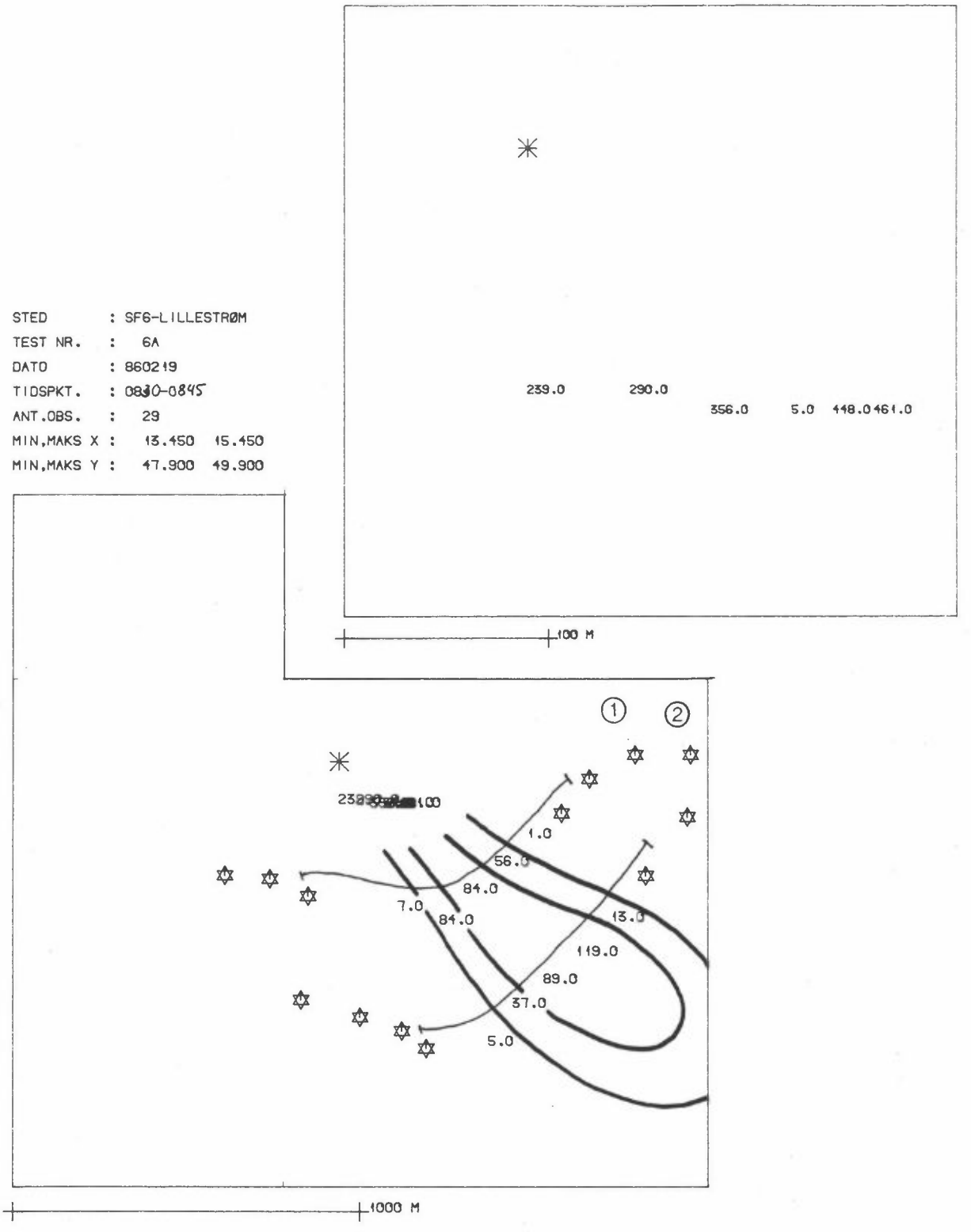

Figure 32: Test 6A-1986. SF_6 concentrations, Lillestrøm 19 February 1986, 0830-0845.
Unit: 0.1 mg/m^3.

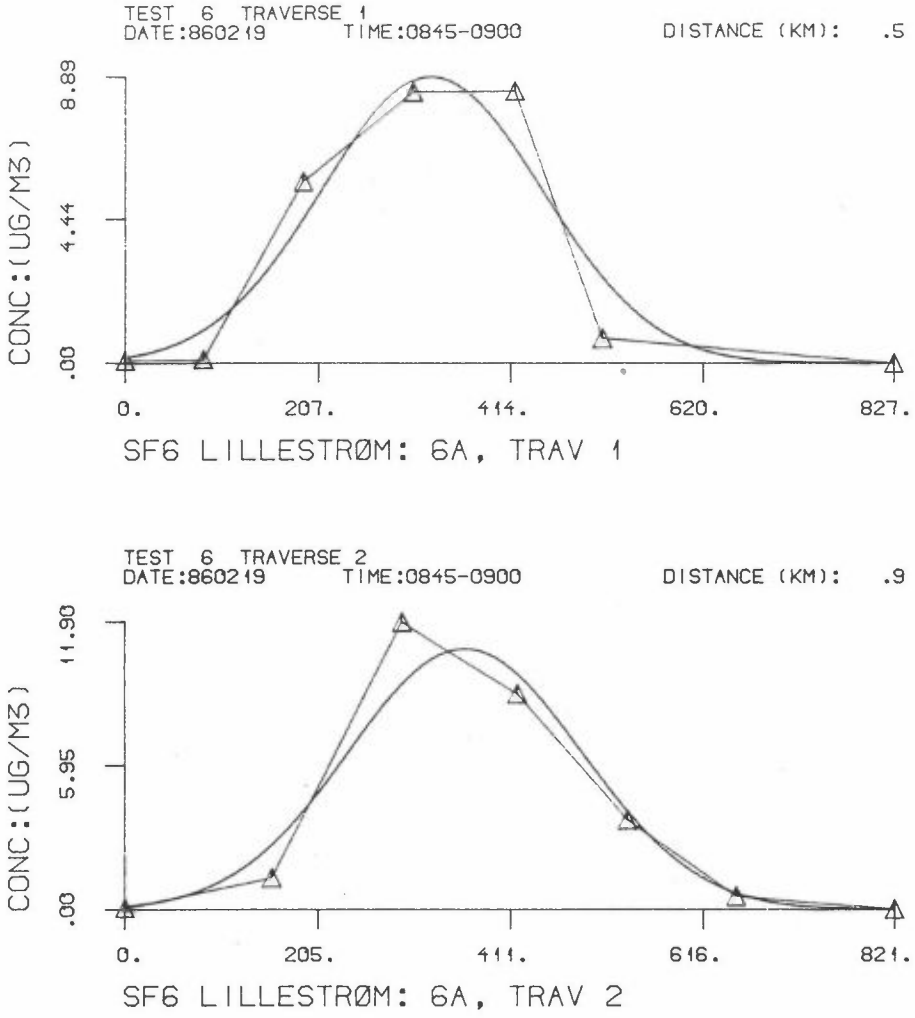

Figure 33: Crosswind SF_6 concentration profiles observed along sampling traverses 1 and 2 marked on Figure 32. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

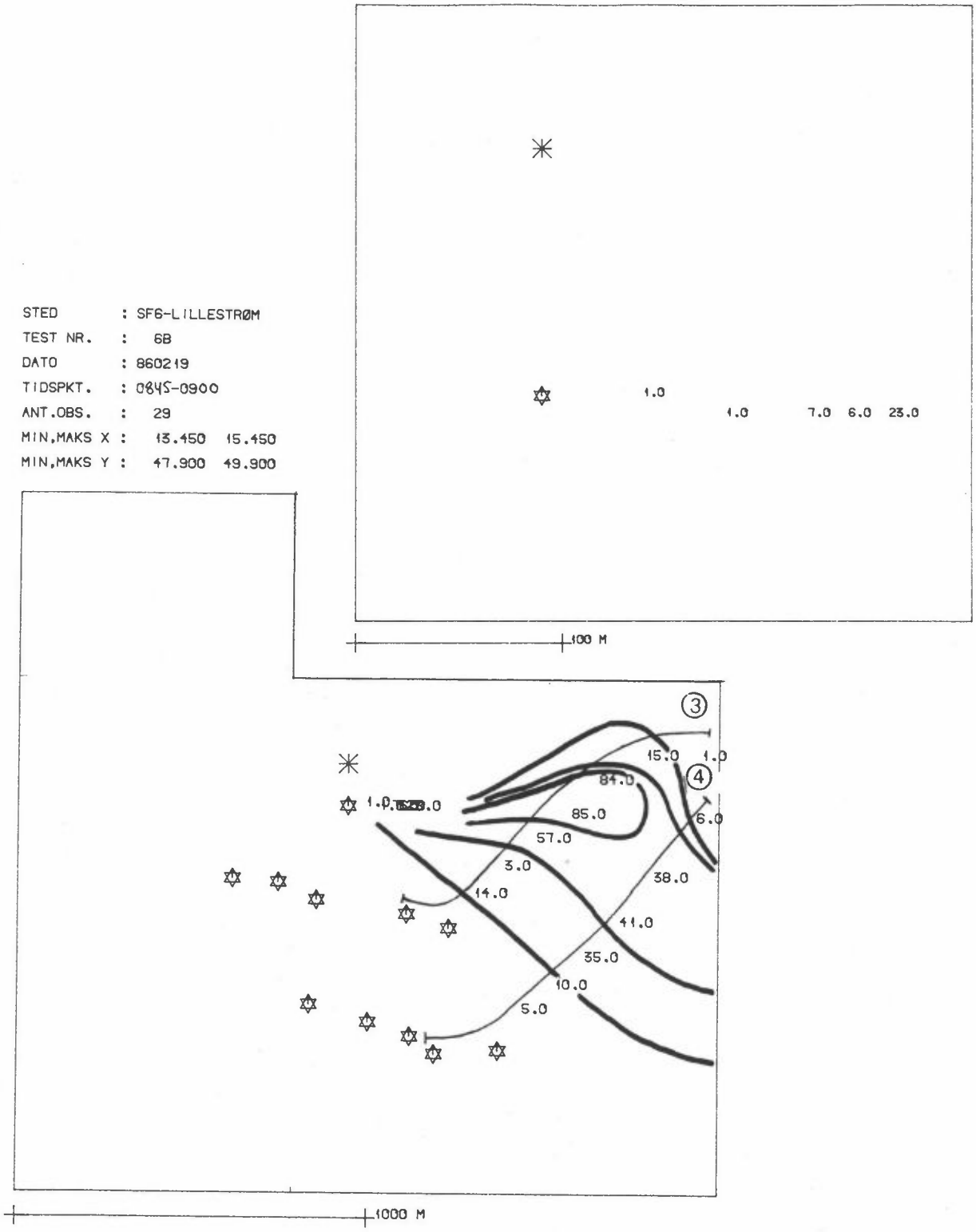

Figure 34: Test 6B-1986. SF_6 concentrations, Lillestrøm 19 February 1986, 0845-0900.
Unit: 0.1 mg/m^3.

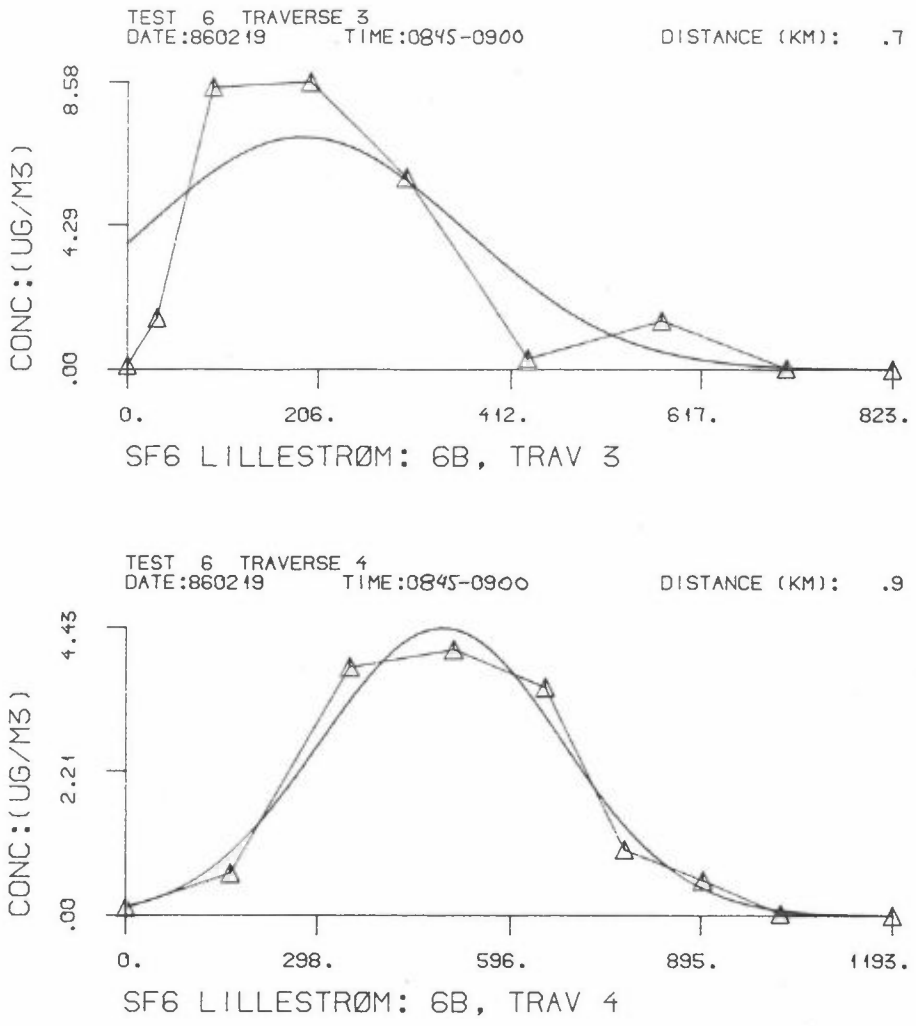

Figure 35: Crosswind SF_6 concentration profiles observed along sampling traverses 3 and 4 marked on Figure 34. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

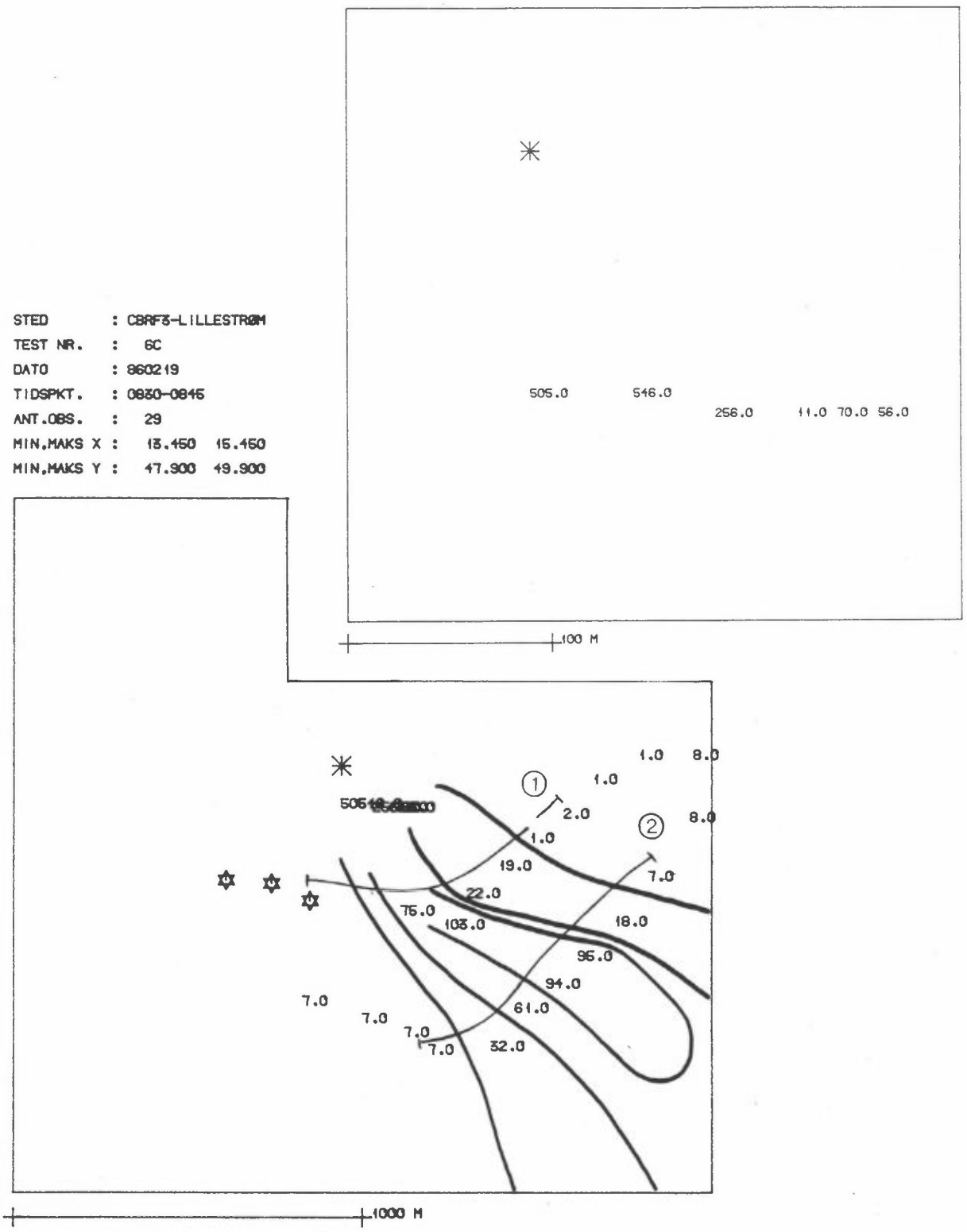

Figure 36: Test 6C-1986. $CBrF_3$ concentrations, Lillestrøm 19 February 1986, 0830-0845.
Unit: 0.1 mg/m^3.

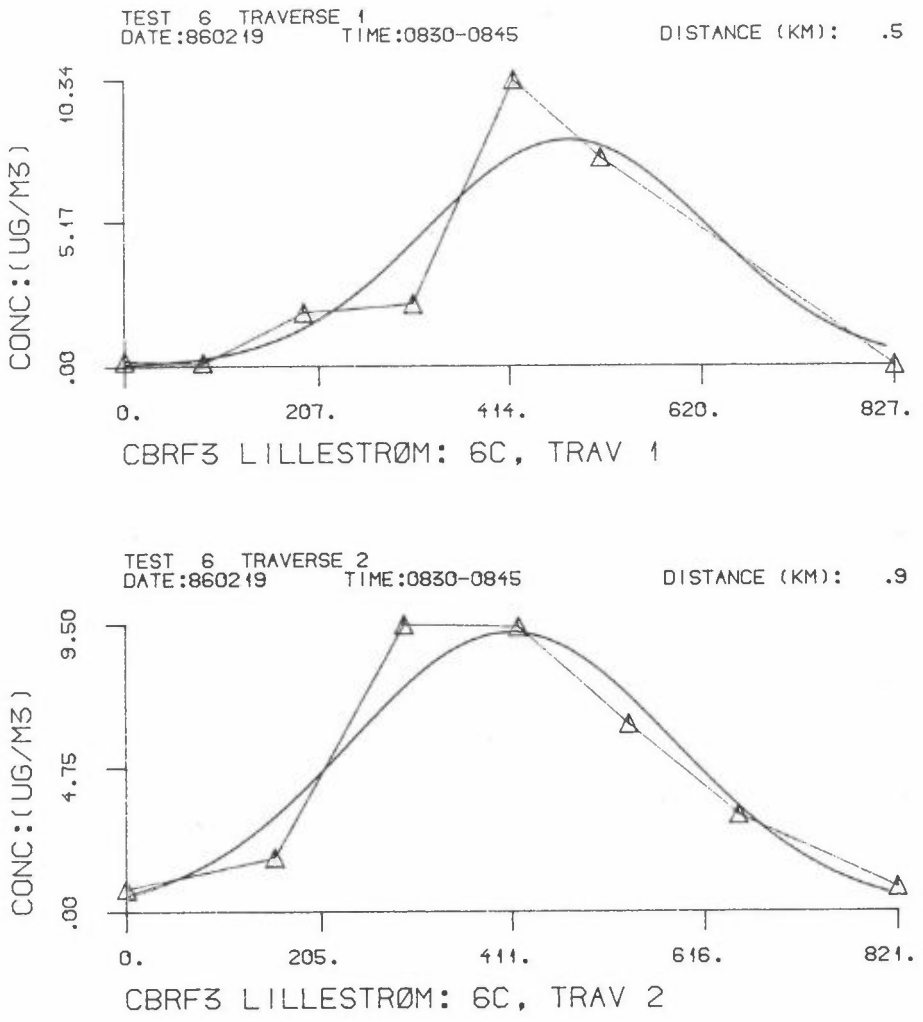

Figure 37: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 1 and 2 marked on Figure 36. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

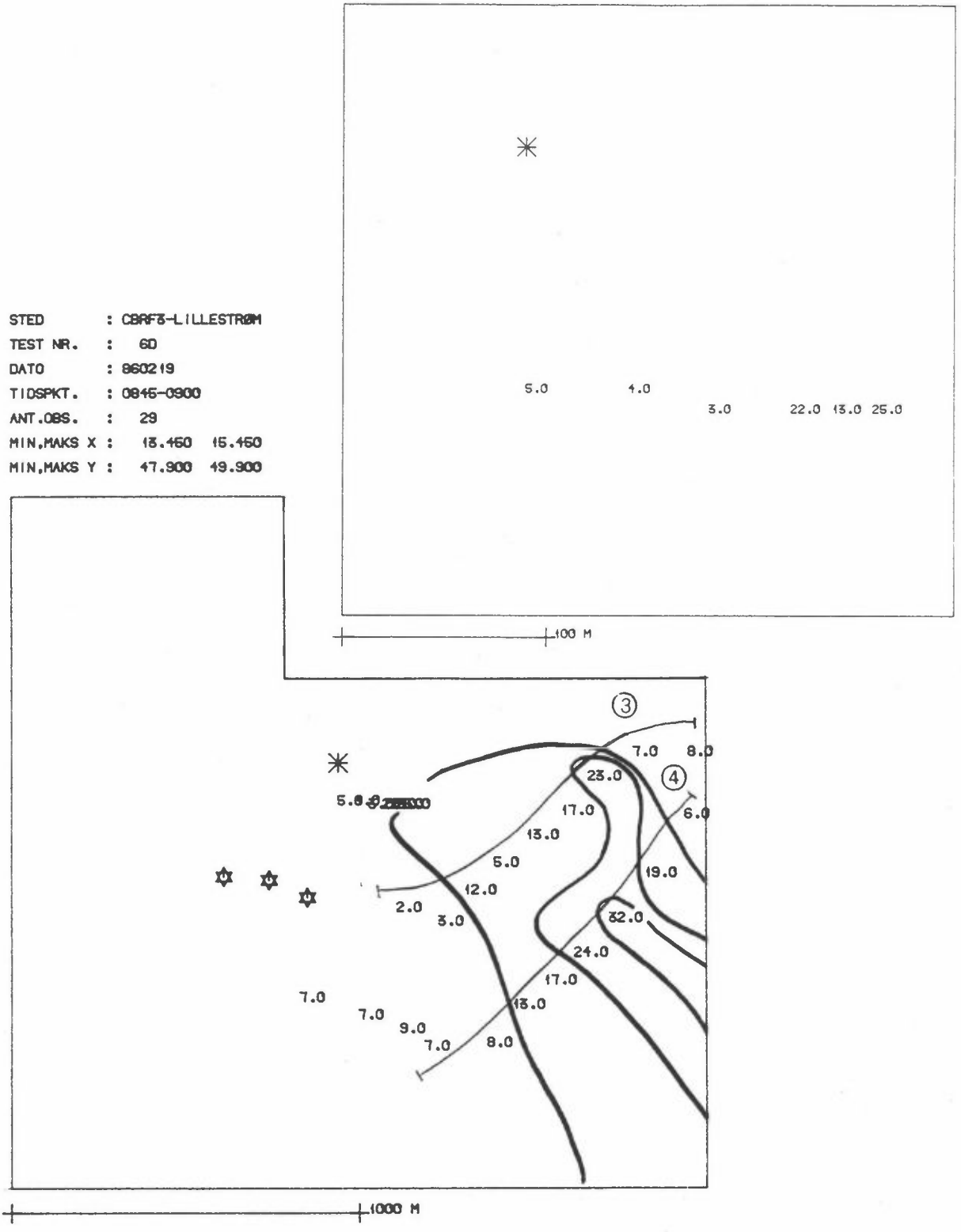

Figure 38: Test 6D-1986. $CBrF_3$ concentrations, Lillestrøm 19 February 1986, 0845-0900.
Unit: 0.1 mg/m^3.

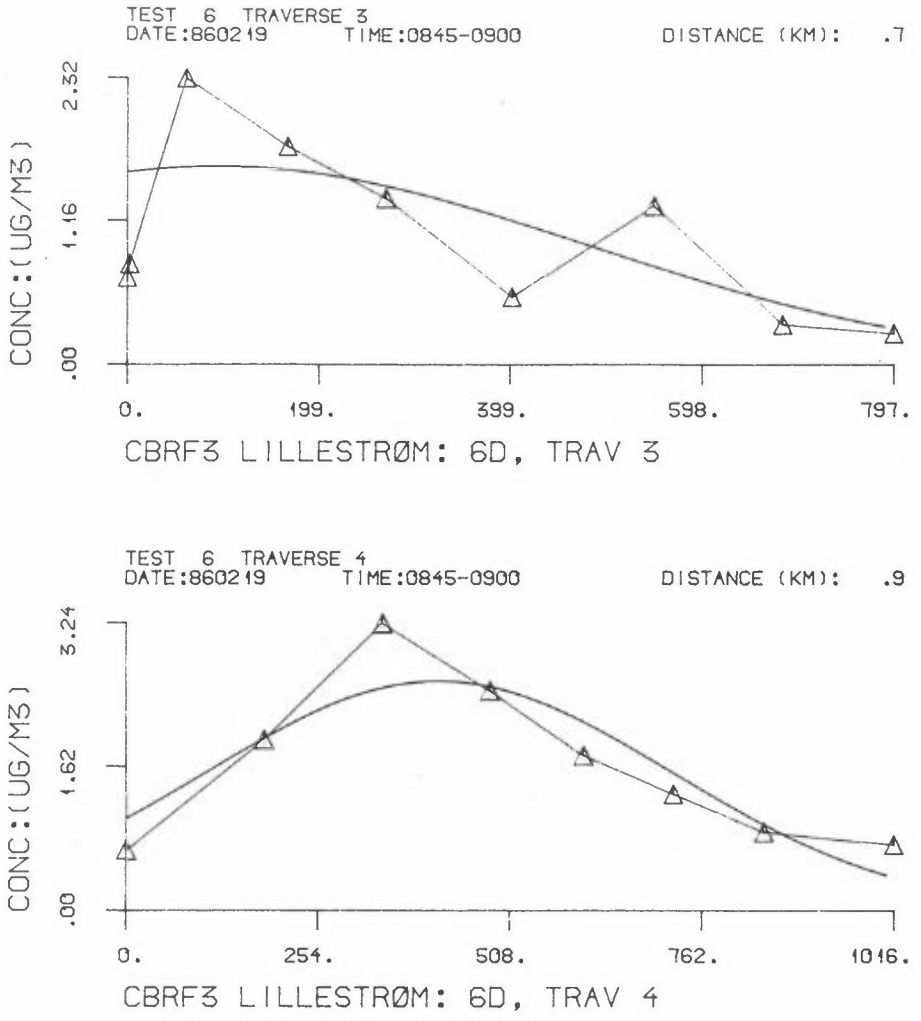

Figure 39: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 3 and 4 marked on Figure 38. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

4.7 TEST 7-1986. 21 FEBRUARY 1986

SF_6 and $CBrF_3$ were released from site B from 0748 to 0848 at rates of 0.082 and 0.078 g/s.

At Lillestrøm the sky was clear. Light air (1.0 m/s) was blowing from northwest (330^0). The temperature was -27^0C at the bottom of a ground level inversion. As the sun rose at 0822 the windspeed increased to 1.5 m/s.

Figures 40 and 42 show the average 15-minute concentrations from the SF_6 dispersion experiment, and the Figures 41 and 43 show the corresponding traverses marked on Figures 40 and 42.

Figures 44 and 46 show the average 15-minute concentrations from the $CBrF_3$ dispersion experiment, and the Figures 45 and 47 show the corresponding traverses marked on Figures 44 and 46.

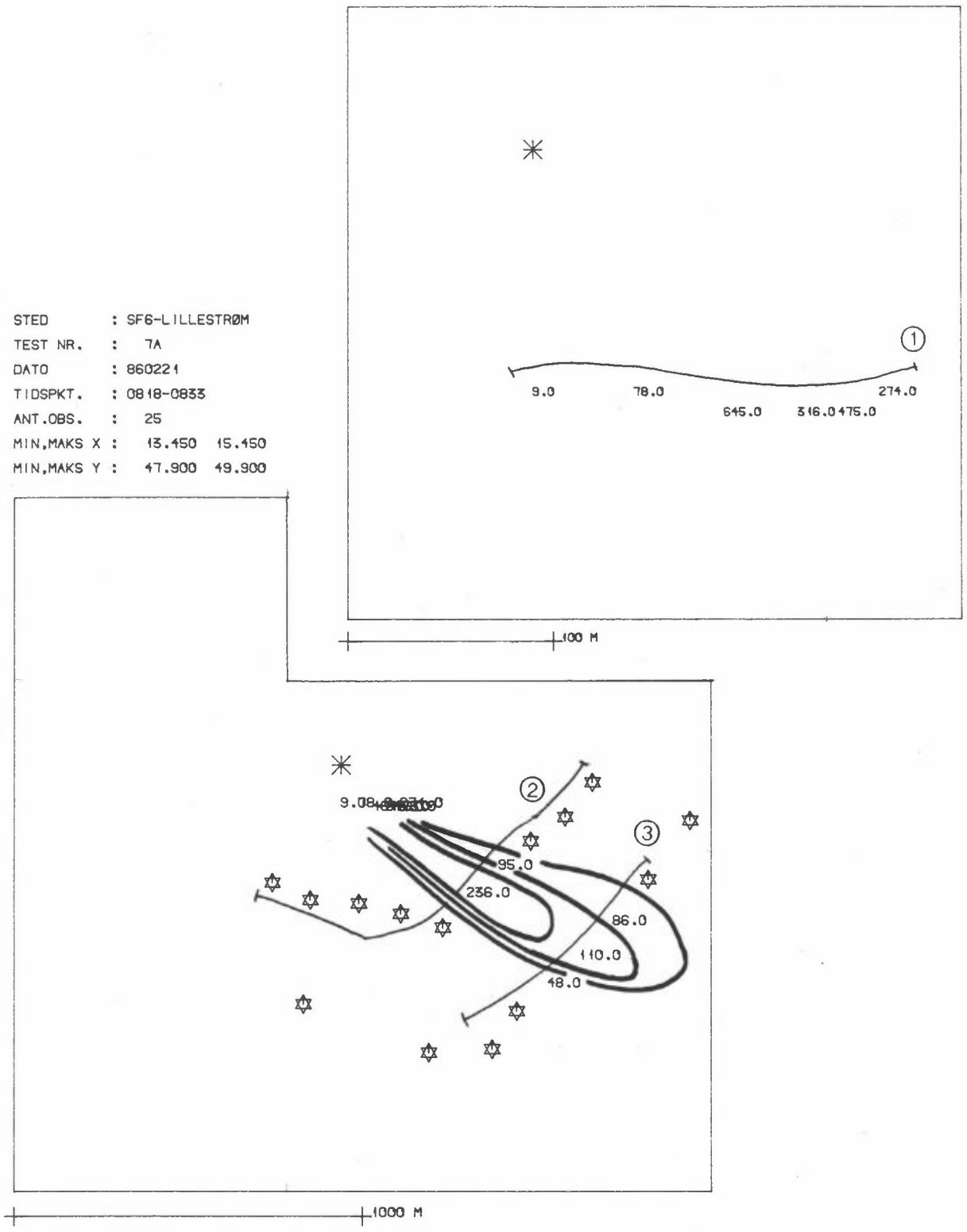

Figure 40: Test 7A-1986. SF_6 concentrations, Lillestrøm 21 February 1986, 0818-0833.
Unit: 0.1 mg/m^3.

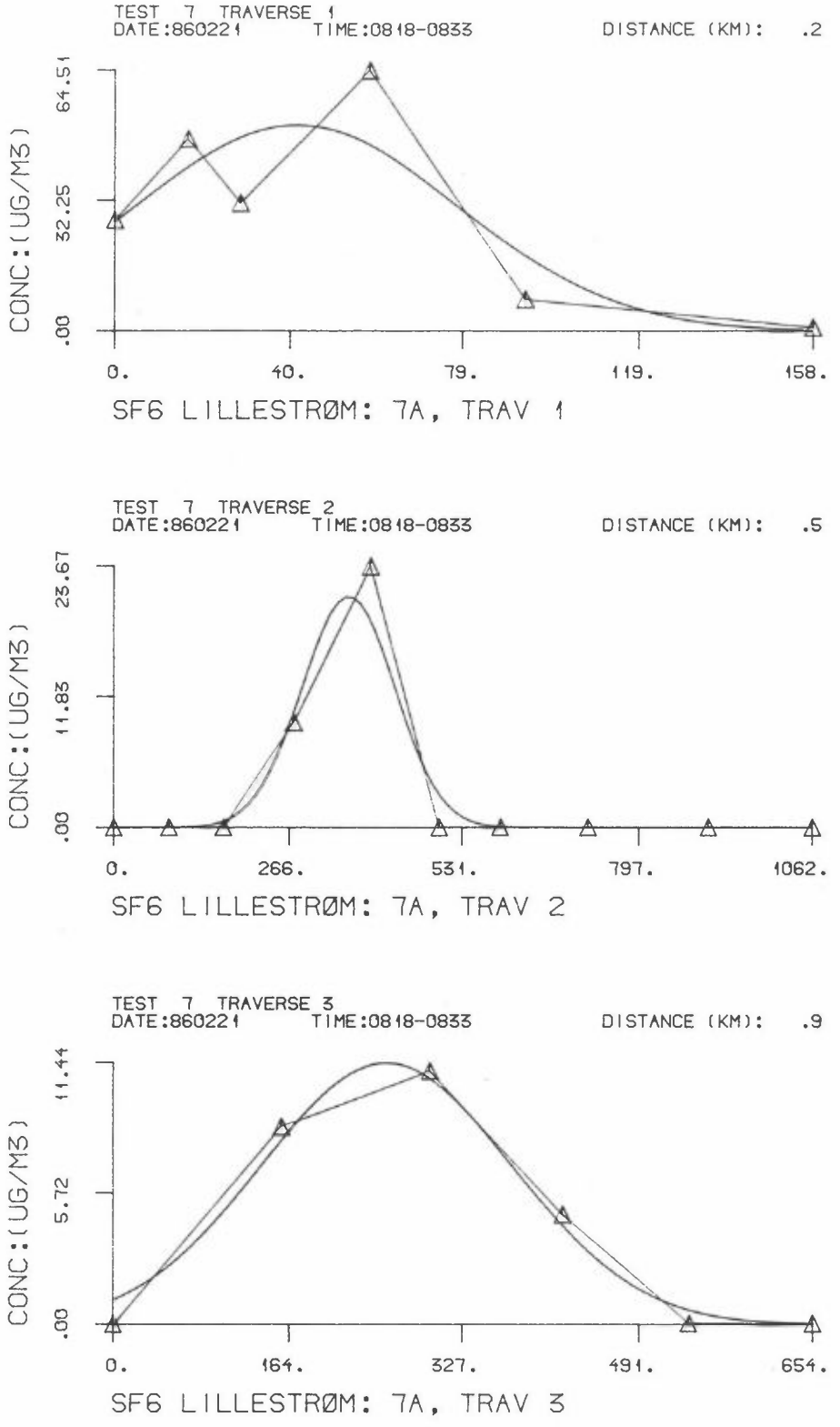

Figure 41: Crosswind SF_6 concentration profiles observed along sampling traverses 1, 2 and 3 marked on Figure 40. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

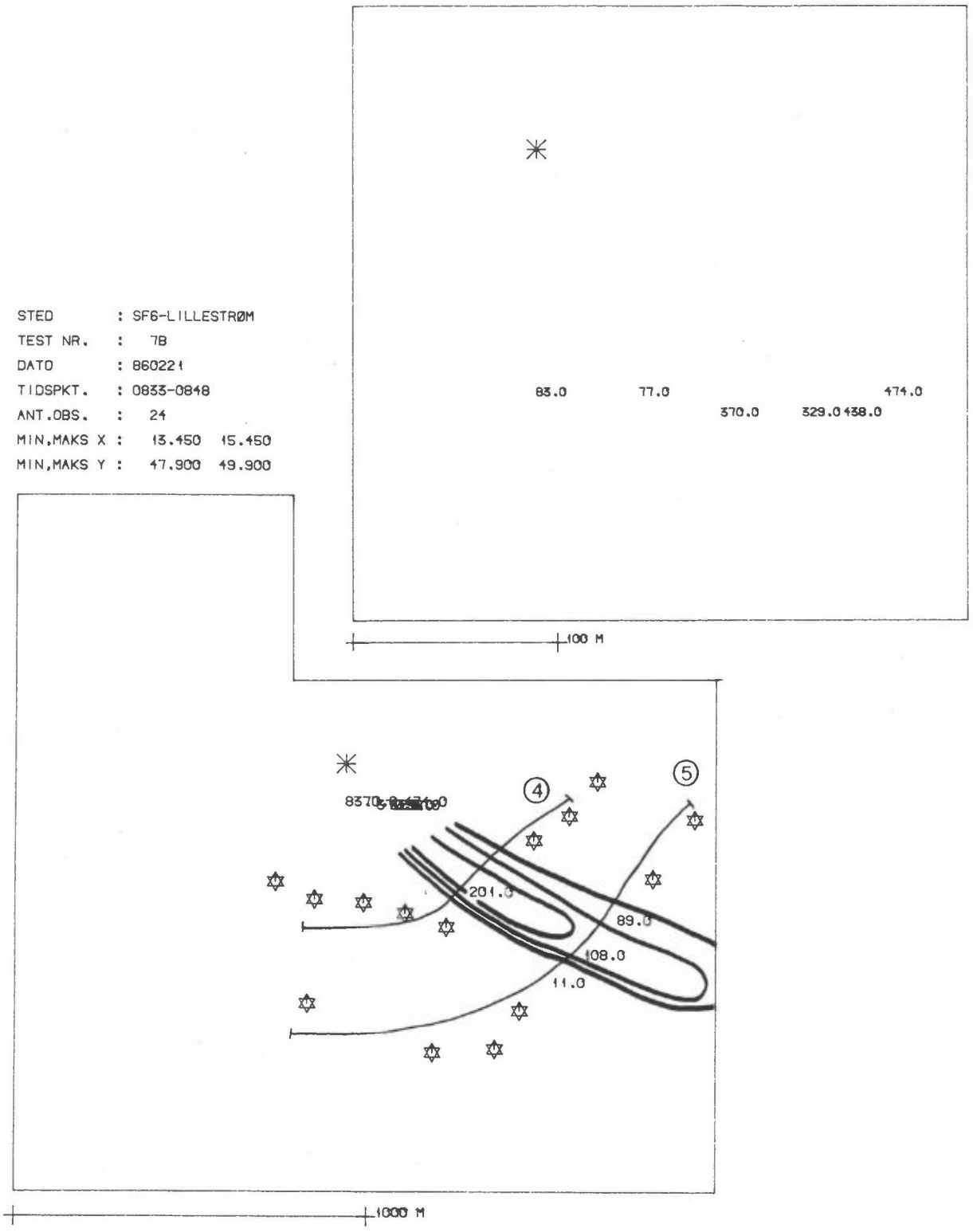

Figure 42: Test 7B-1986. SF_6 concentrations, Lillestrøm 21 February 1986, 0833-0848.
Unit: 0.1 mg/m^3.

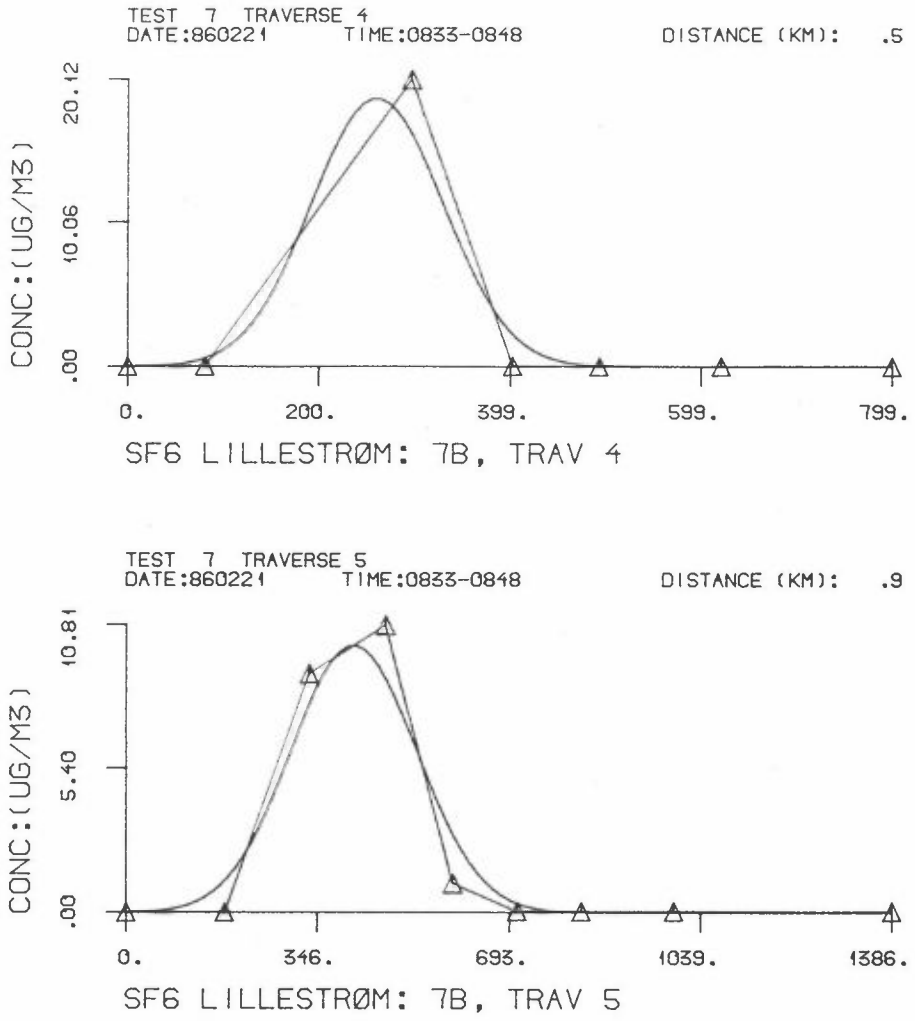

Figure 43: Crosswind SF_6 concentration profiles observed along sampling traverses 4 and 5 marked on Figure 42. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

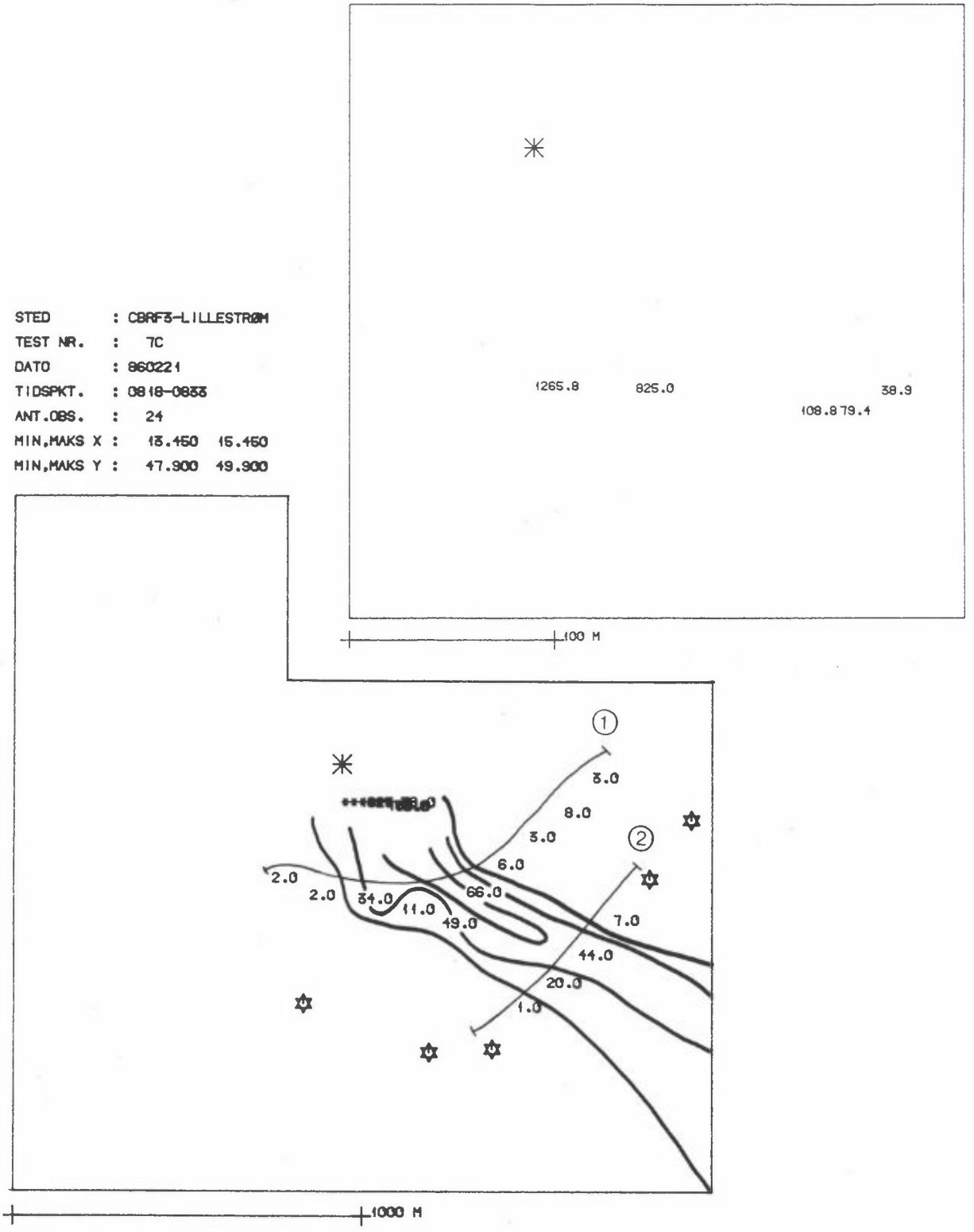

Figure 44: Test 7C-1986. $CBrF_3$ concentrations, Lillestrøm 21 February 1986, 0818-0833.
Unit: 0.1 mg/m^3.

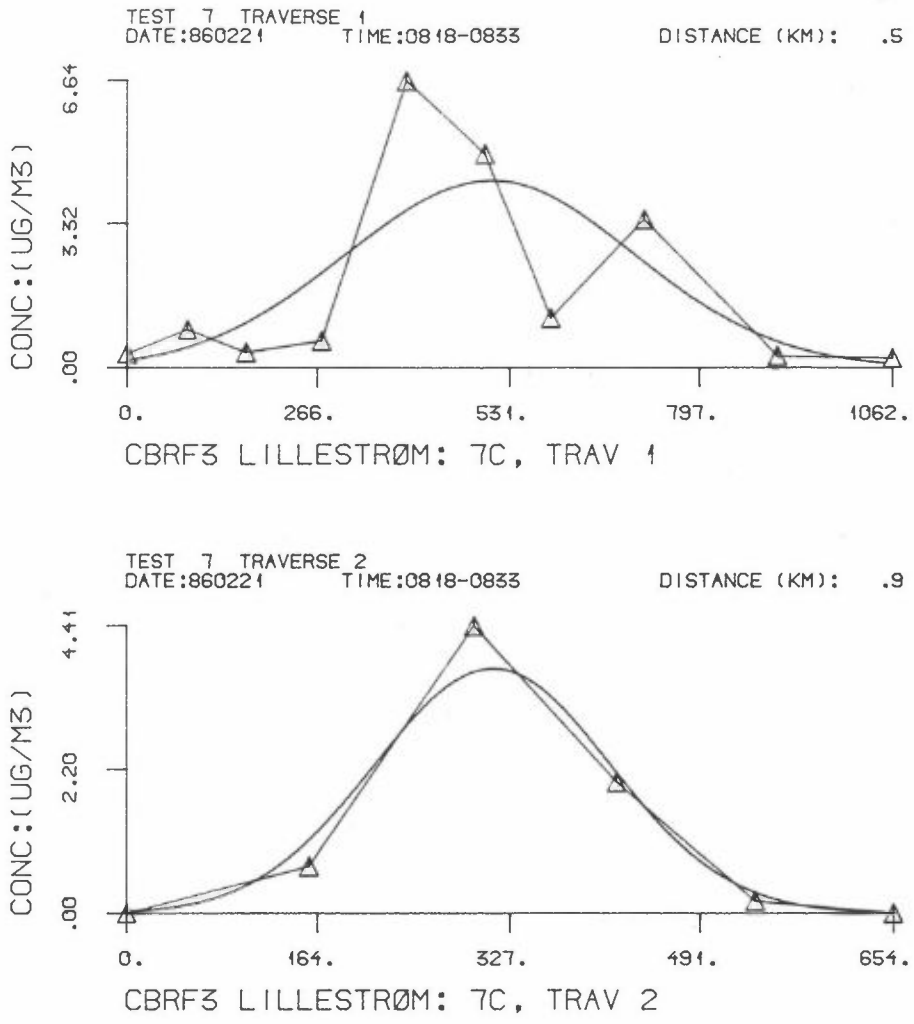

Figure 45: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 1 and 2 marked on Figure 44. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

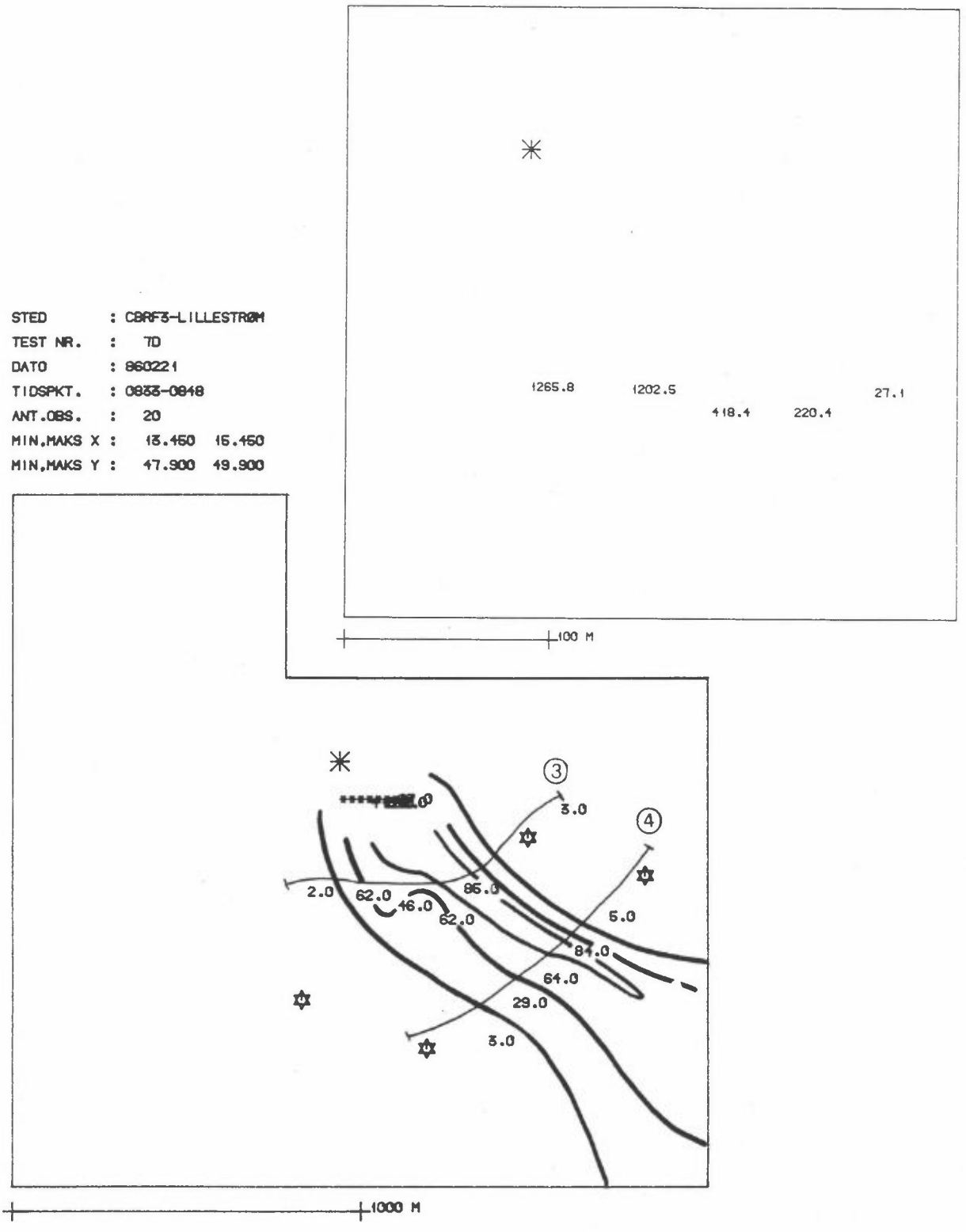

Figure 46: Test 7D-1986. $CBrF_3$ concentrations, Lillestrøm 21 February 1986, 0833-0848.
Unit: 0.1 mg/m^3.

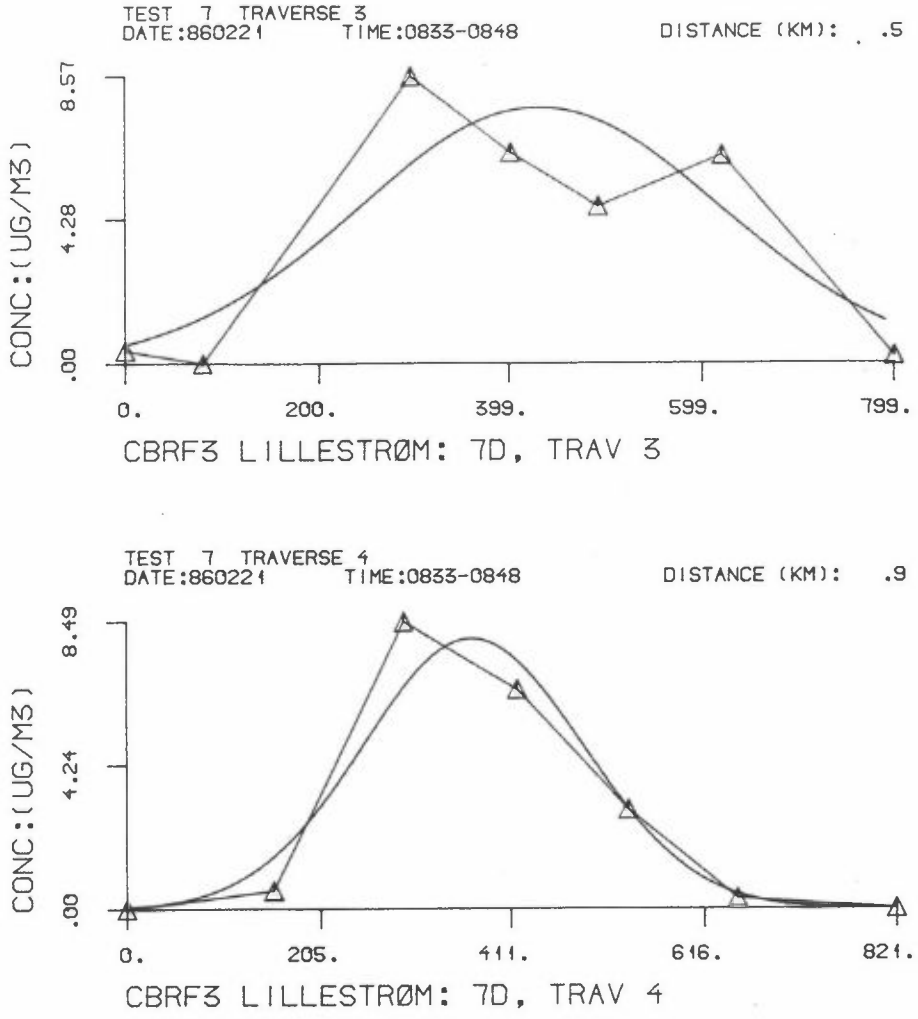

Figure 47: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 3 and 4 marked on Figure 46. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

4.8 TEST 1-1987. 2 JANUARY 1987

SF_6 and $CBrF_3$ were released from site B from 1005 to 1105 at rates of 0.102 and 0.104 g/s.

At Lillestrøm the sky was clear. Light air (0.8 m/s) was blowing from northwest (330^0), and the temperature was -20^0C at the bottom of a ground level inversion.

Figures 48 and 50 show the average 15-minute concentrations from the SF_6 dispersion experiment, and the Figures 49 and 51 show the corresponding traverses marked on Figures 48 and 50.

Figures 52 and 54 show the average 15-minute concentrations from the $CBrF_3$ dispersion experiment, and the Figures 53 and 55 show the corresponding traverses marked on Figures 52 and 54.

STED : SF6-LILLESTRØM KILDE 1 : 14.390 49.130
TEST NR. : 1A
DATO : 870102
TIDSPKT. : 1035-1050
ANT.OBS. : 28
MIN,MAKS X : 14.000 15.400
MIN,MAKS Y : 48.300 49.700

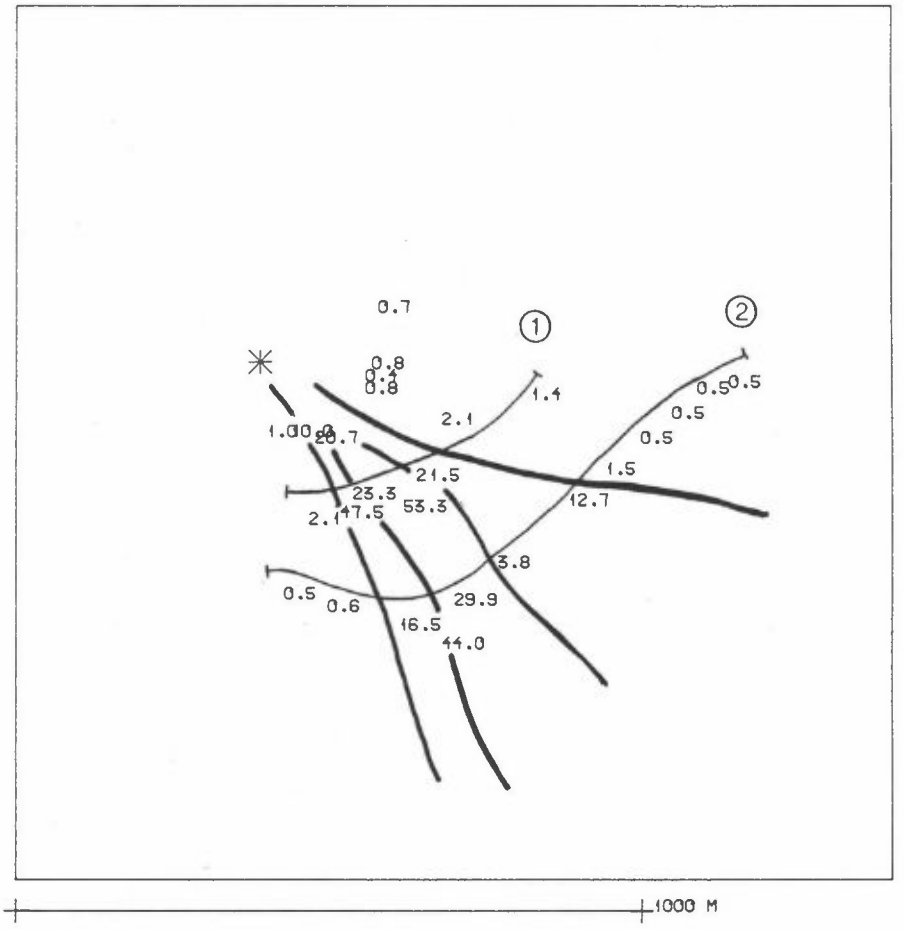

Figure 48: Test 1A-1987. SF_6 concentrations, Lillestrøm 2 January 1987, 1035-1050.
Unit: 0.1 mg/m^3.

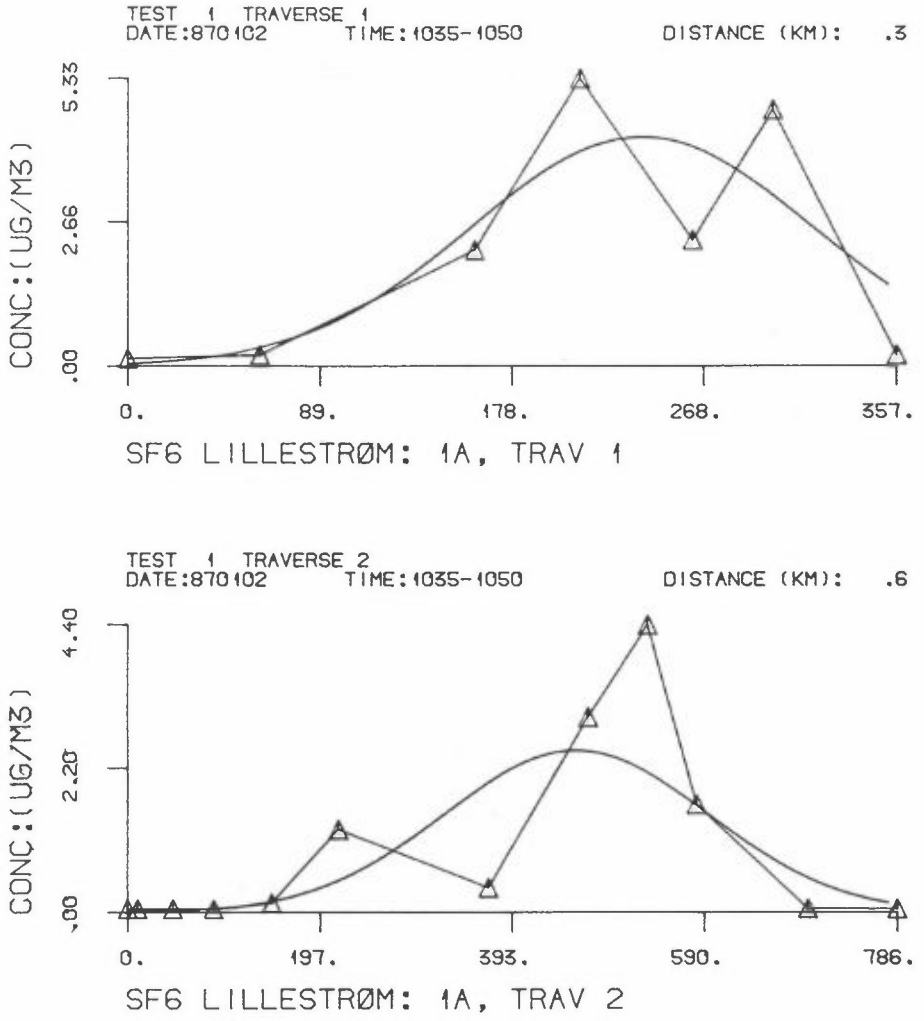

Figure 49: Crosswind SF_6 concentration profiles observed along sampling traverses 1 and 2 marked on Figure 48. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

STED : SF6-LILLESTRØM KILDE 1 : 14.390 49.130
TEST NR. : 1B
DATO : 870102
TIDSPKT. : 1050-1105
ANT.OBS. : 27
MIN,MAKS X : 14.000 15.400
MIN,MAKS Y : 48.300 49.700

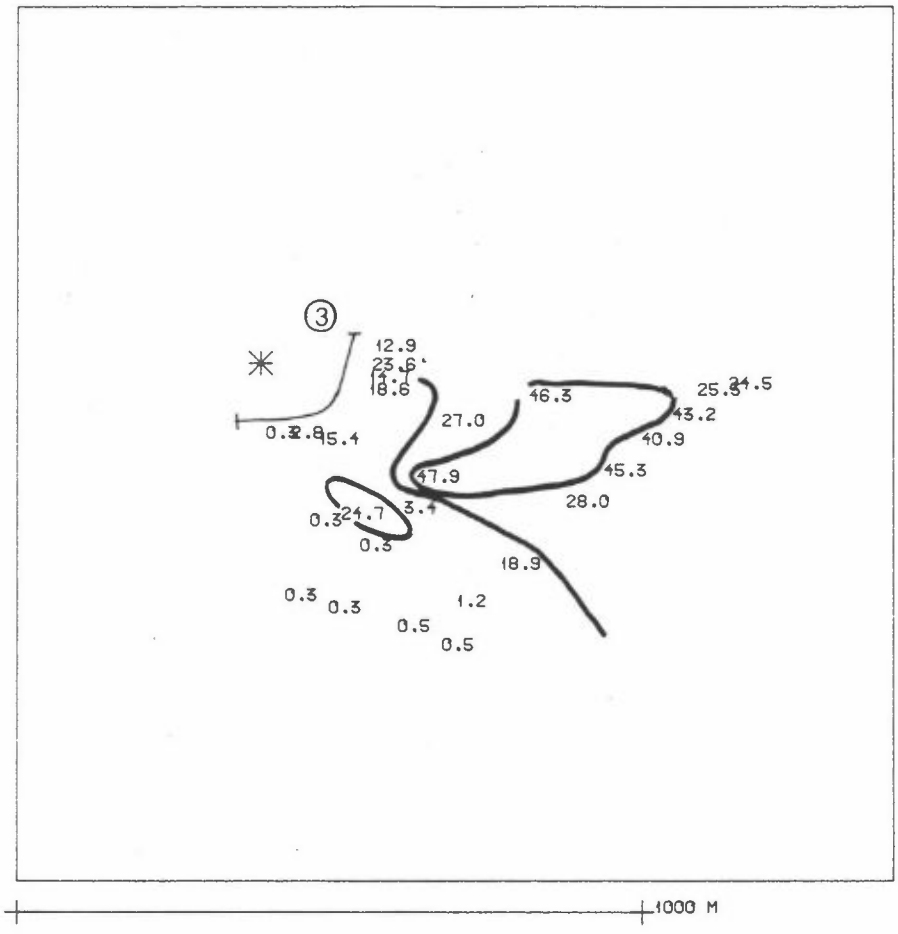

Figure 50: Test 1B-1987. SF_6 concentrations, Lillestrøm 2 January 1987, 1050-1105.
Unit: 0.1 mg/m^3.

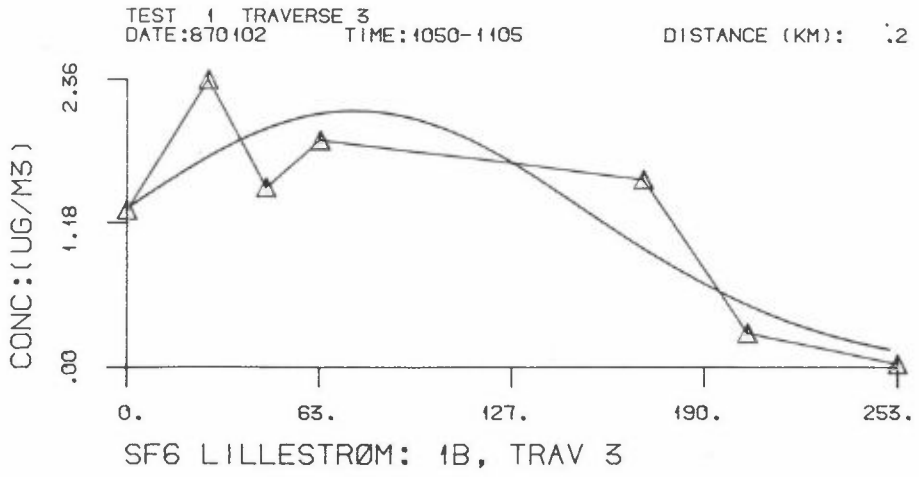

Figure 51: Crosswind SF_6 concentration profiles observed along sampling traverse 3 marked on Figure 50. Profile was observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

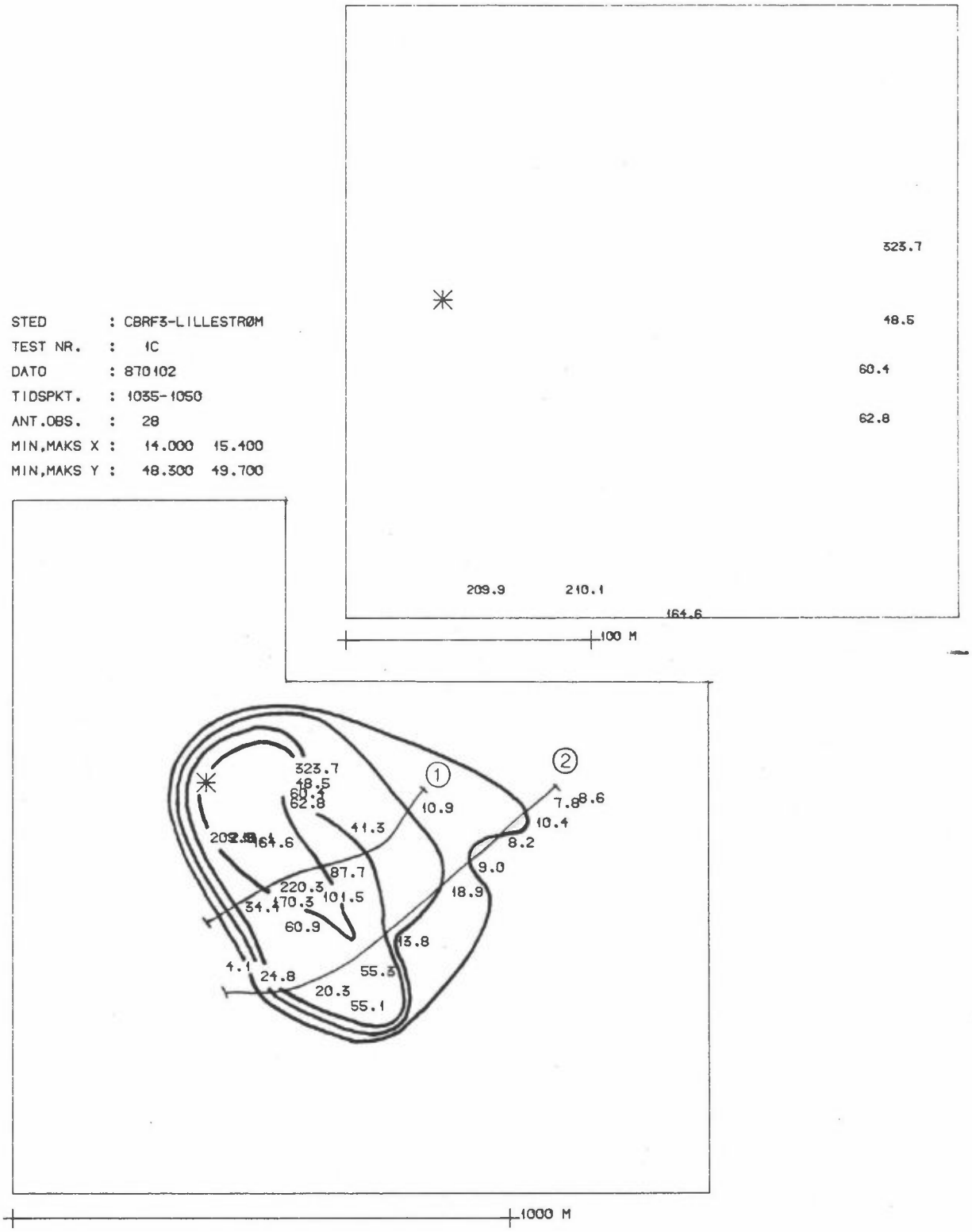

Figure 52: Test 1C-1987. $CBrF_3$ concentrations, Lillestrøm 2 January 1987, 1035-1050.
Unit: 0.1 mg/m^3.

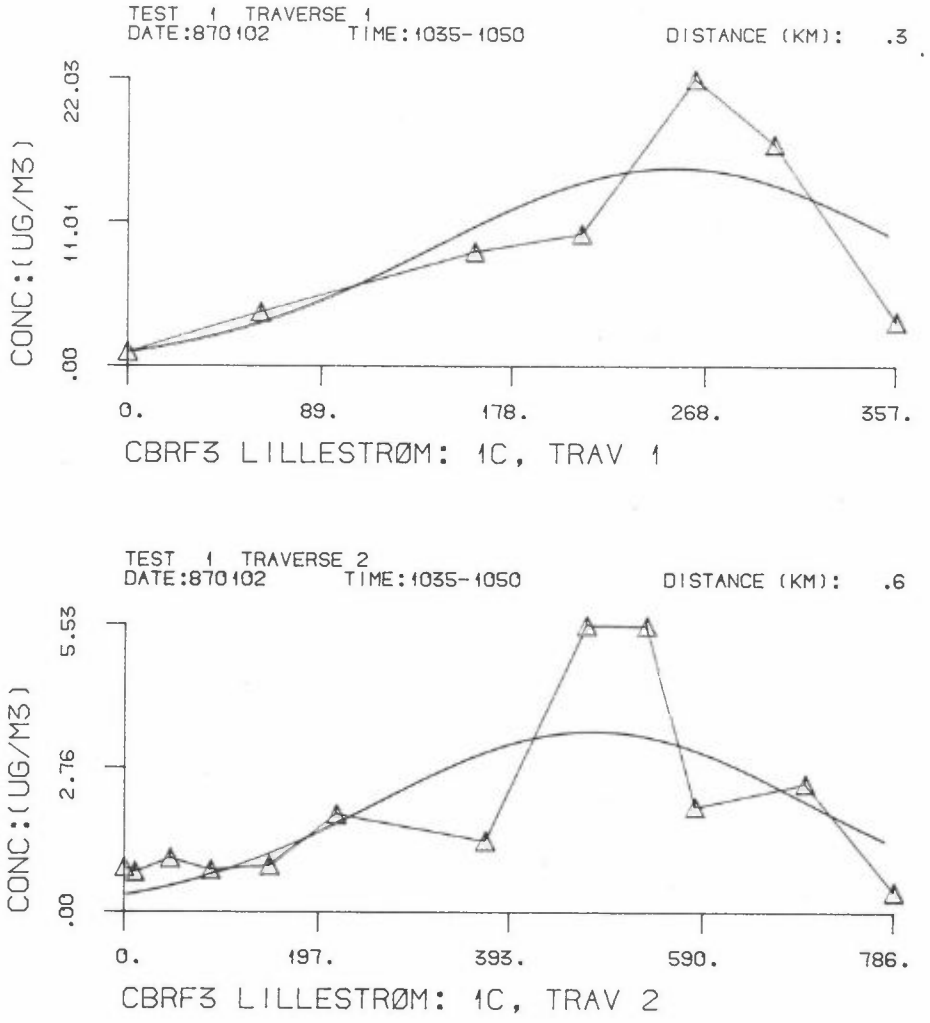

Figure 53: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 1 and 2 marked on Figure 52. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

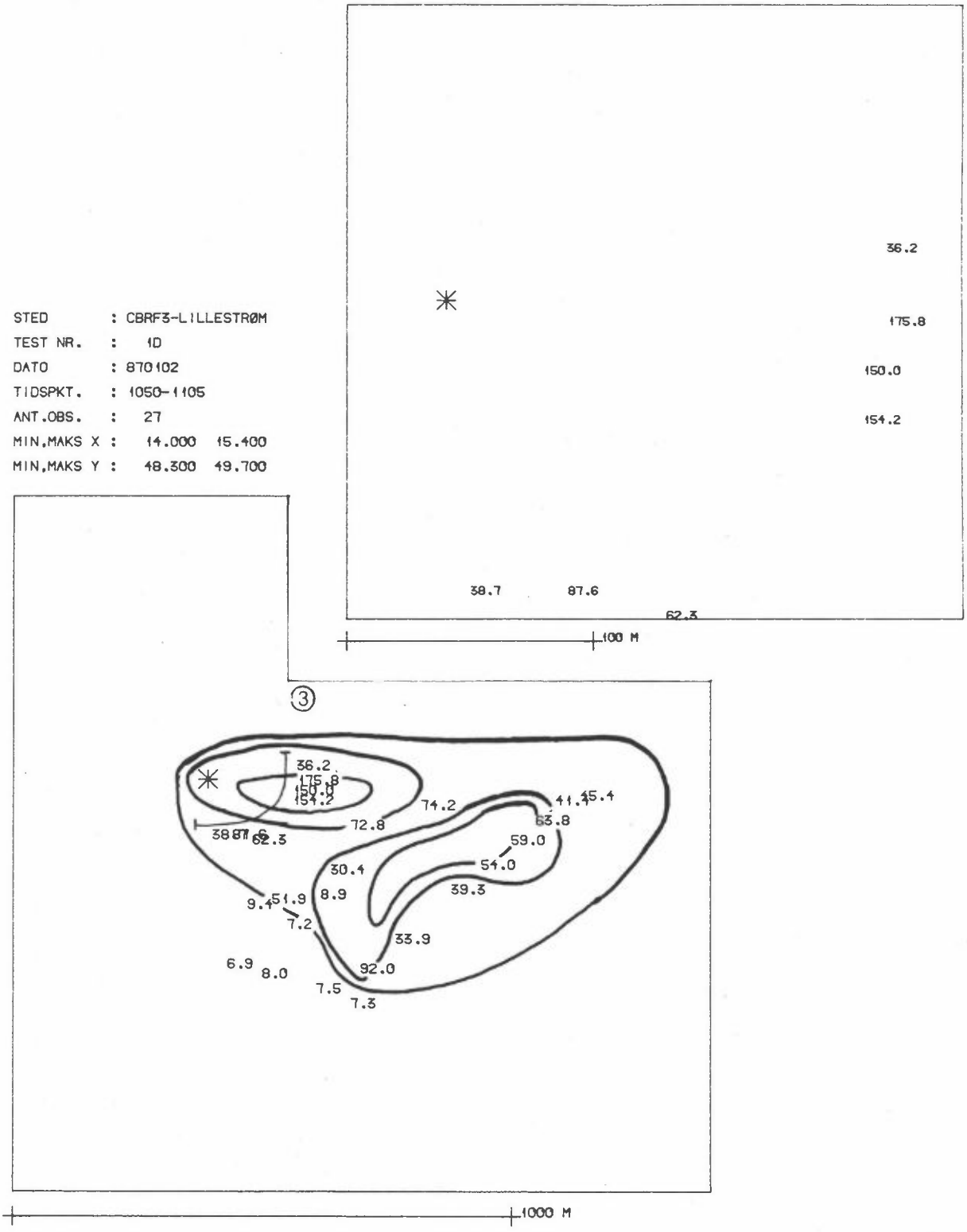

Figure 54: Test 1D-1987. $CBrF_3$ concentrations, Lillestrøm 2 January 1987, 1050-1105.
Unit: 0.1 mg/m^3.

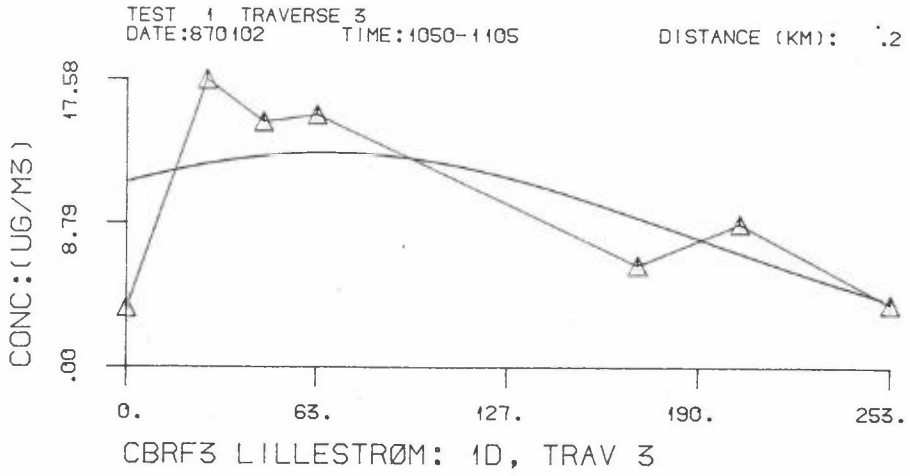

Figure 55: Crosswind $CBrF_3$ concentration profiles observed along sampling traverse 3 marked on Figure 54. Profile was observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

4.9 TEST 2-1987. 6 JANUARY 1987

SF_6 and $CBrF_3$ were released from site B from 0900 to 1000 at rates of 0.102 and 0.104 g/s.

At Lillestrøm light air (0.6 m/s) was blowing from northeast (42^0), and the temperature was -13^0C at the bottom of a ground level inversion. Vertical profiles of wind direction and wind speed are shown in Appendix A.

Figures 56 and 58 show the average 15-minute concentrations from the SF_6 dispersion experiment, and the Figures 57 and 59 show the corresponding traverses marked on Figures 56 and 58.

Figures 60 and 62 show the average 15-minute concentrations from the $CBrF_3$ dispersion experiment, and the Figures 61 and 63 show the corresponding traverses marked on Figures 60 and 62.

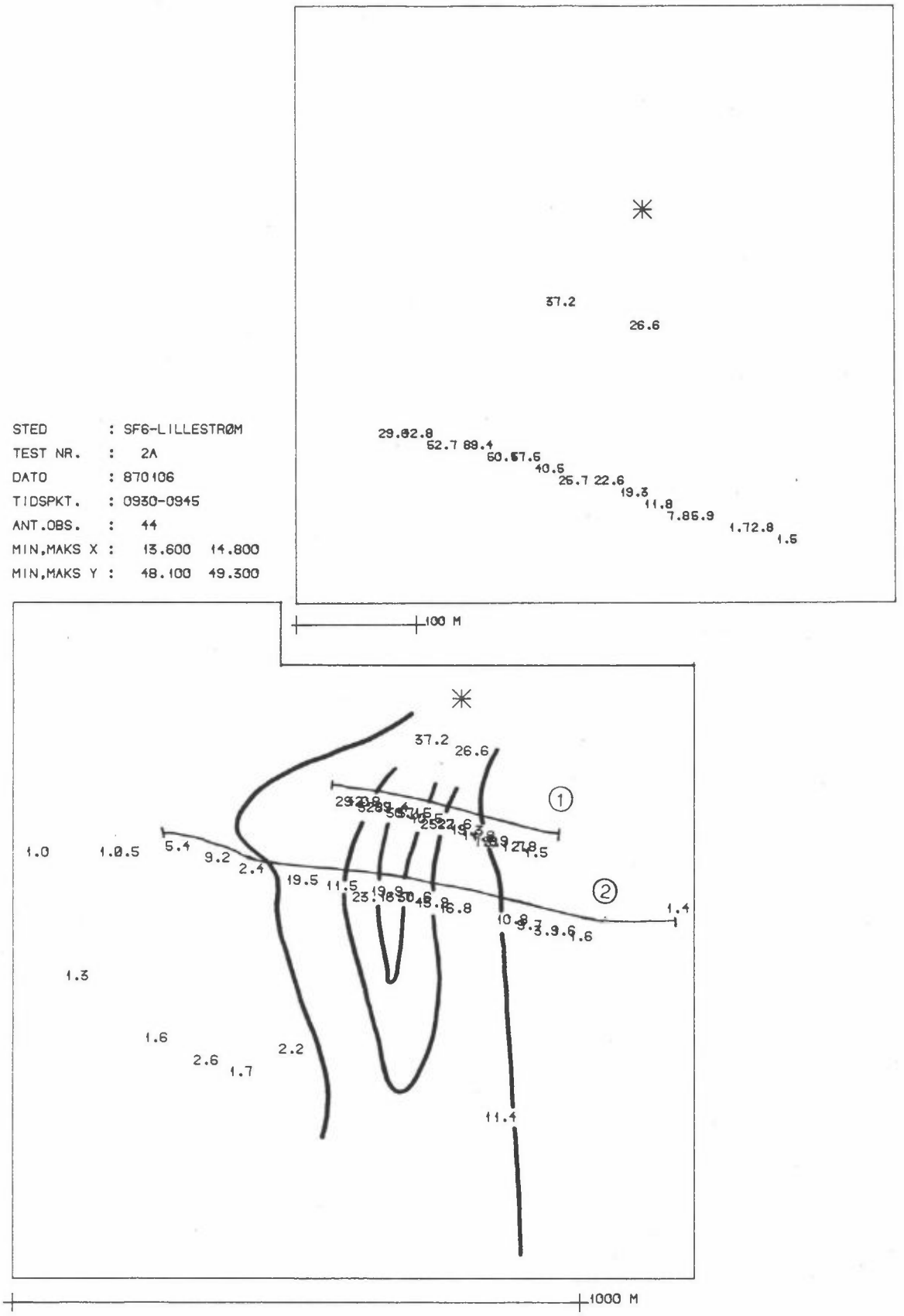

Figure 56: Test 2A-1987. SF_6 concentrations, Lillestrøm 6 January 1987, 0930-0945.
Unit: 0.1 mg/m^3.

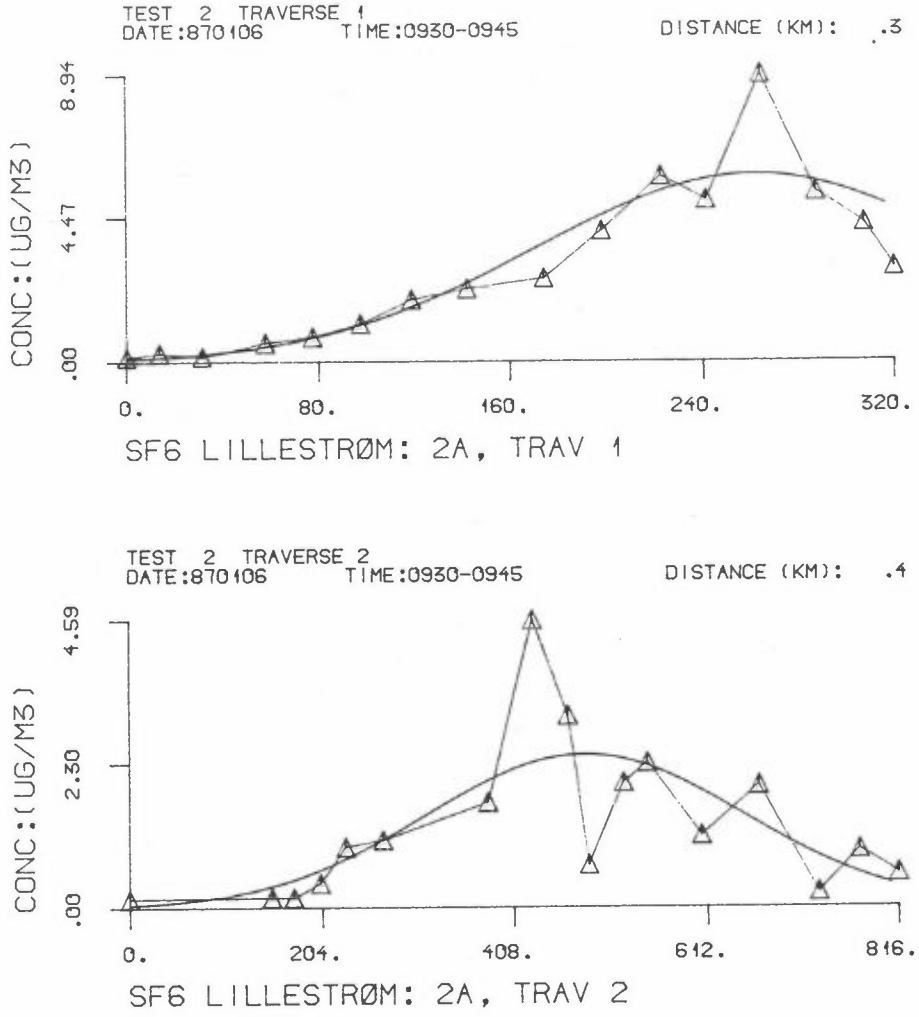

Figure 57: Crosswind SF_6 concentration profiles observed along sampling traverses 1 and 2 marked on Figure 56. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

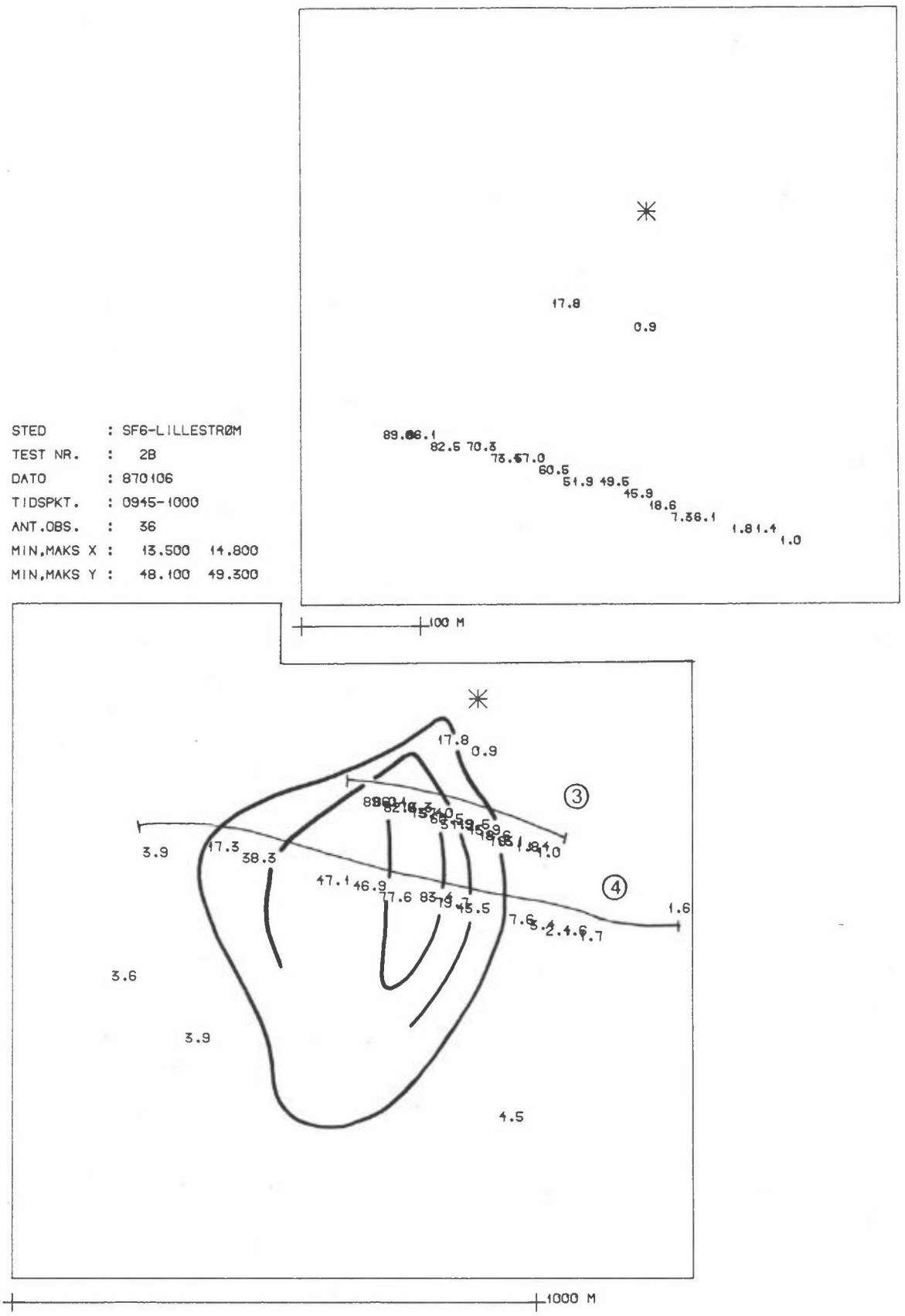

Figure 58: Test 2B-1987. SF_6 concentrations, Lillestrøm 6 January 1987, 0945-1000.
Unit: 0.1 mg/m^3.

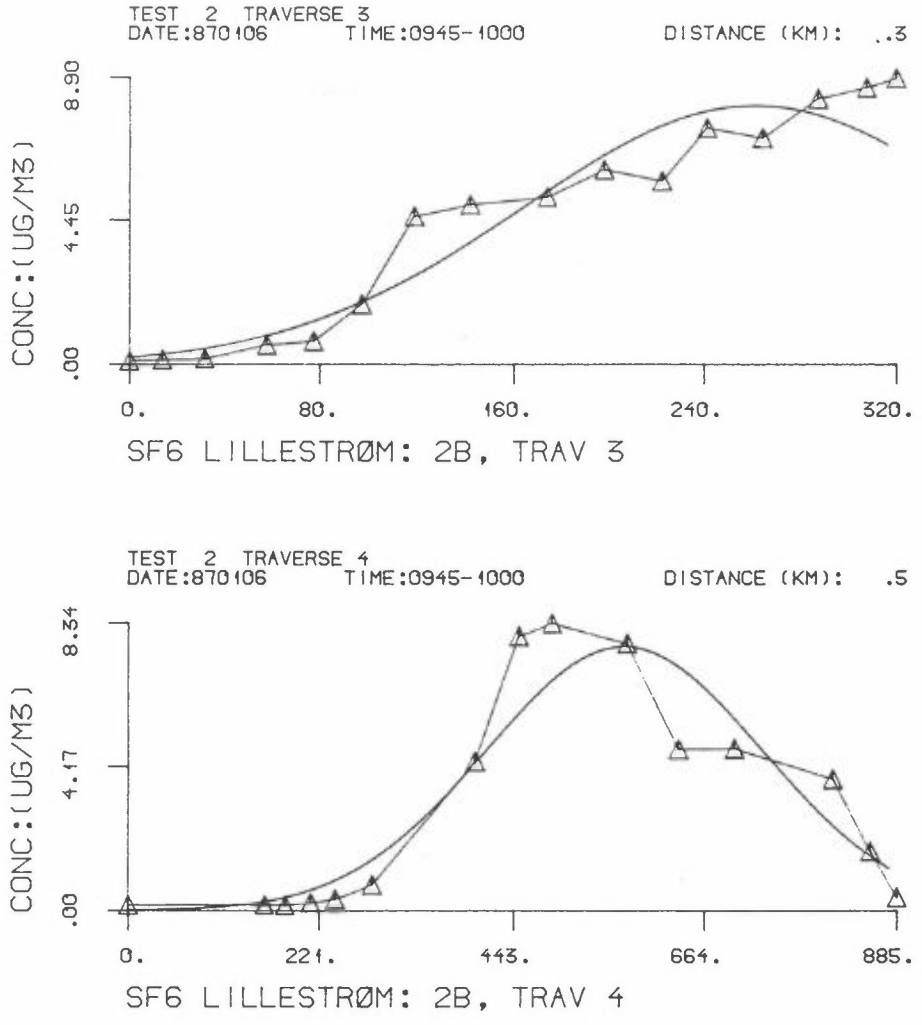

Figure 59: Crosswind SF_6 concentration profiles observed along sampling traverses 3 and 4 marked on Figure 58. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

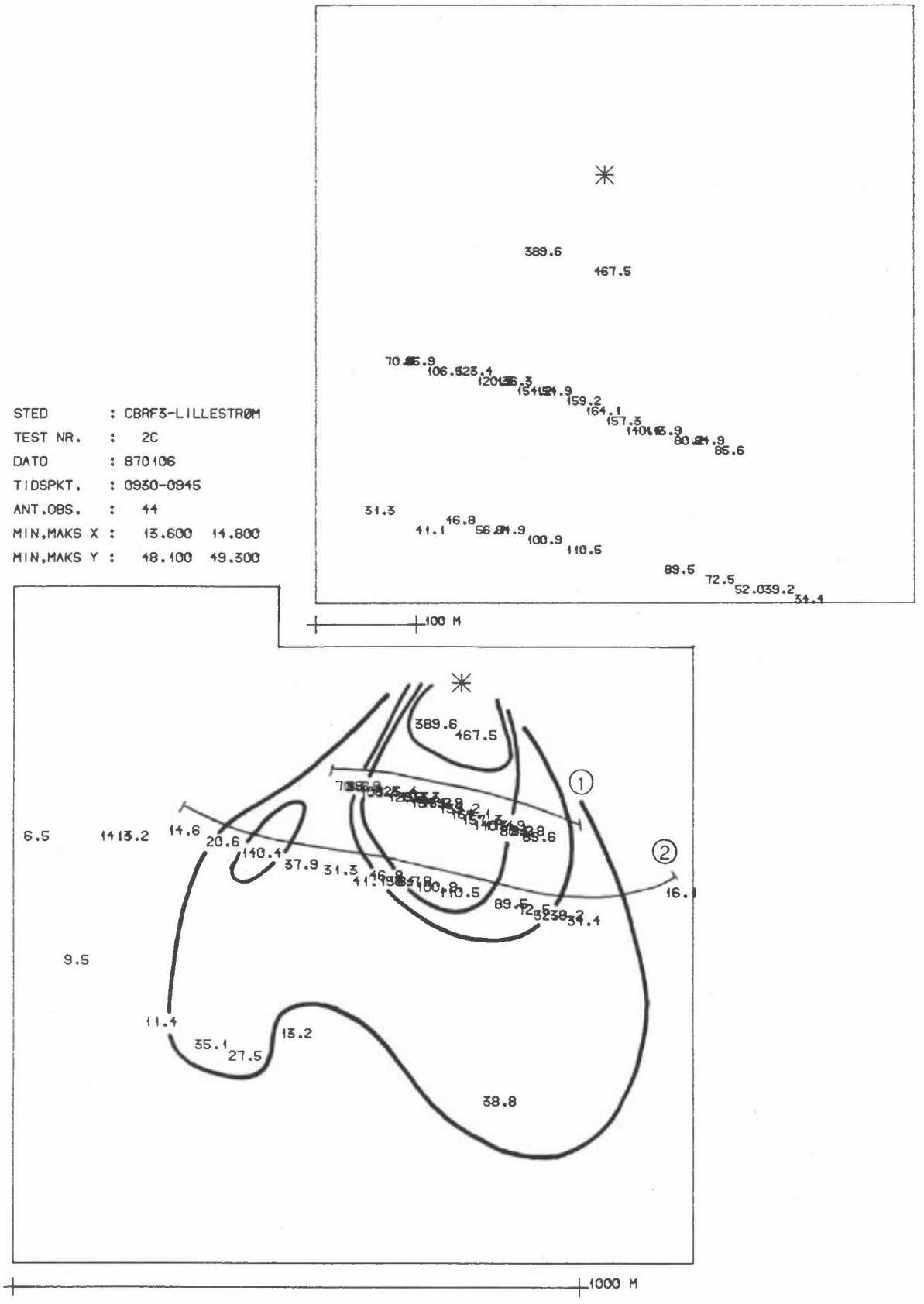

Figure 60: Test 2C-1987. $CBrF_3$ concentrations, Lillestrøm 6 January 1987, 0930-0945.
Unit: 0.1 mg/m^3.

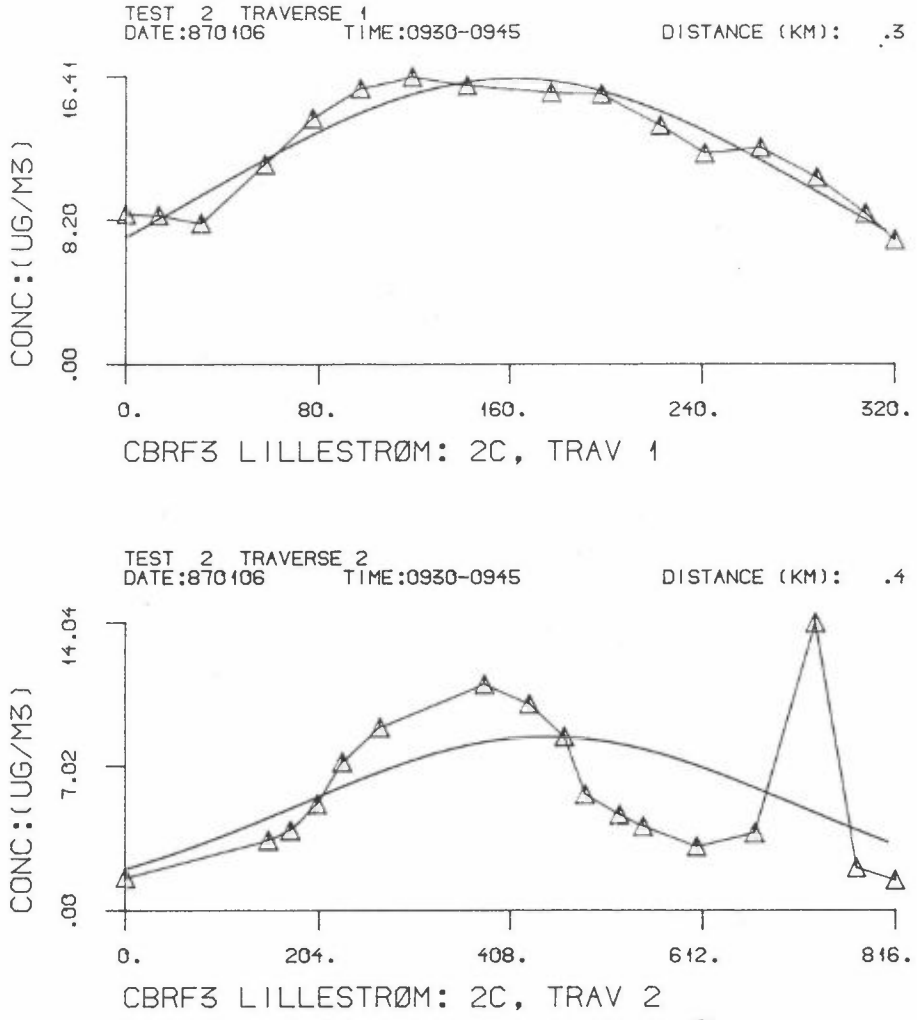

Figure 61: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 1 and 2 marked on Figure 60. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

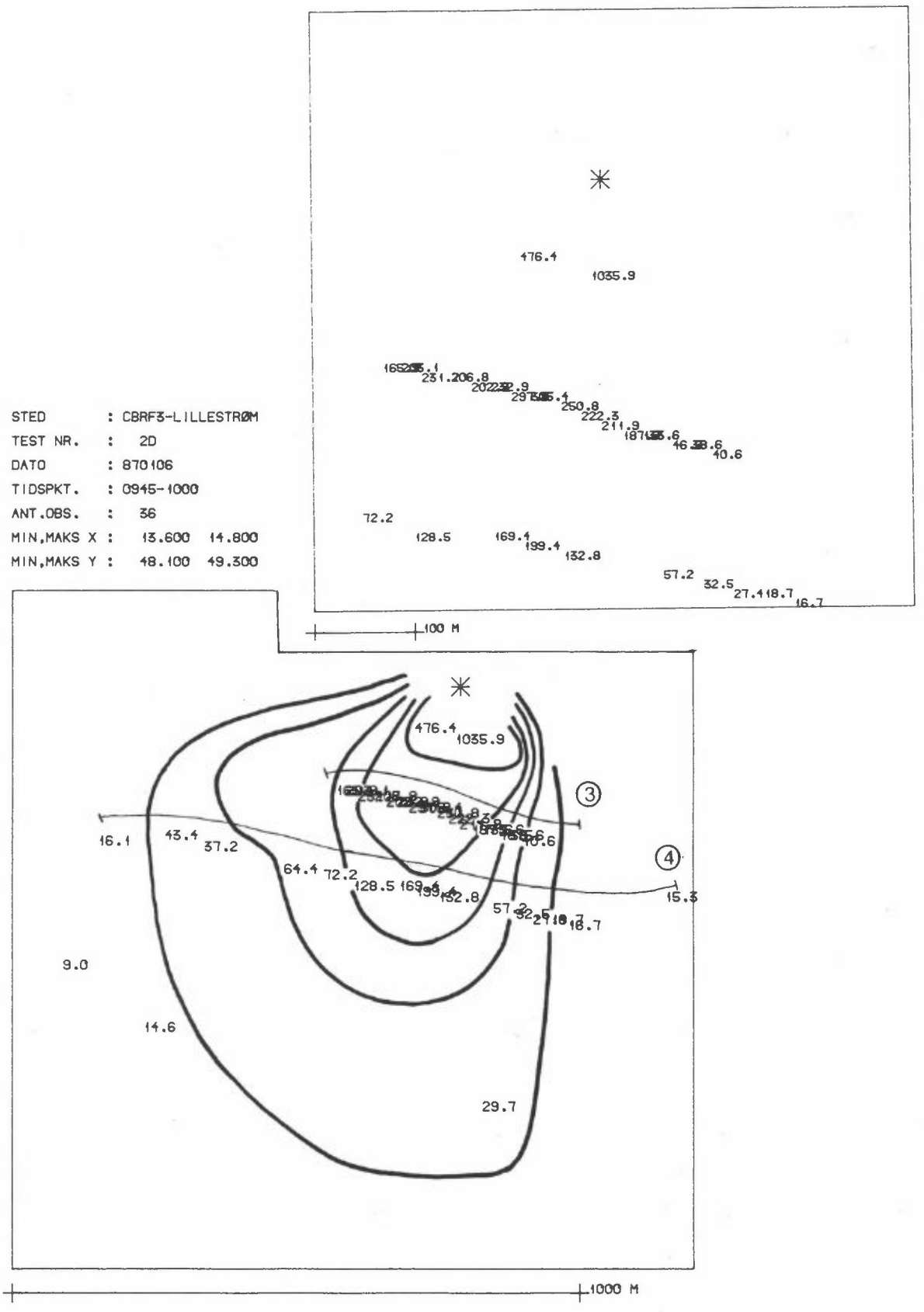

Figure 62: Test 2D-1987. $CBrF_3$ concentrations, Lillestrøm 6 January 1987, 0945-1000.
Unit: 0.1 mg/m^3.

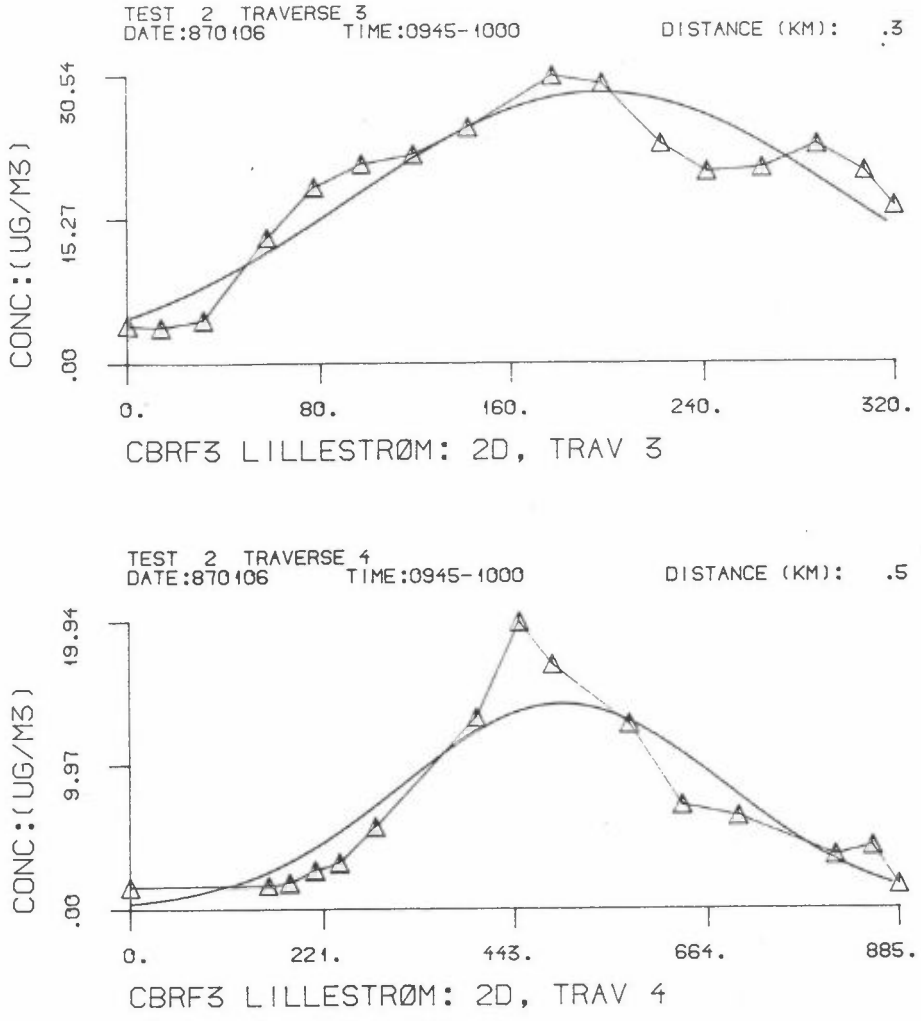

Figure 63: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 3 and 4 marked on Figure 62. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

4.10 TEST 3-1987. 7 JANUARY 1987

SF_6 and $CBrF_3$ were released from site B from 0857 to 1000 at rates of 0.102 and 0.104 g/s.

At Lillestrøm the sky was clear with light air (0.3 m/s) blowing from northwest (335^0), and the temperature was -25^0C at the bottom of a ground level inversion. Vertical profiles of temperature, wind direction and wind speed are shown in Appendix A.

Figures 64 and 66 show the average 15-minute concentrations from the SF_6 dispersion experiment, and the Figures 65 and 67 show the corresponding traverses marked on Figures 64 and 66.

Figures 68 and 70 show the average 15-minute concentrations from the $CBrF_3$ dispersion experiment, and the Figures 69 and 71 show the corresponding traverses marked on Figures 68 and 70.

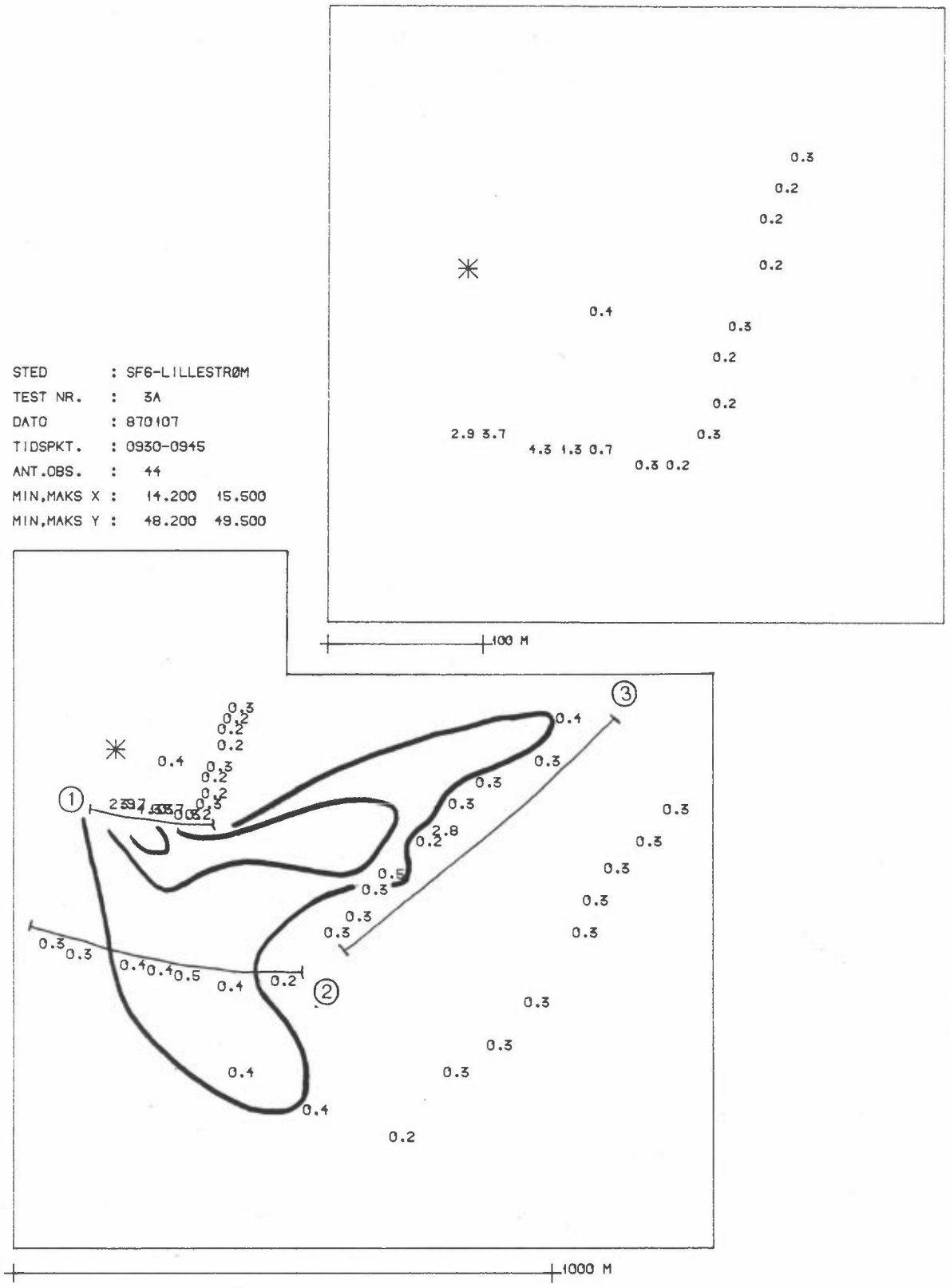

Figure 64: Test 3A-1987. SF_6 concentrations, Lillestrøm 7 January 1987, 0930-0945.
Unit: 0.1 mg/m^3.

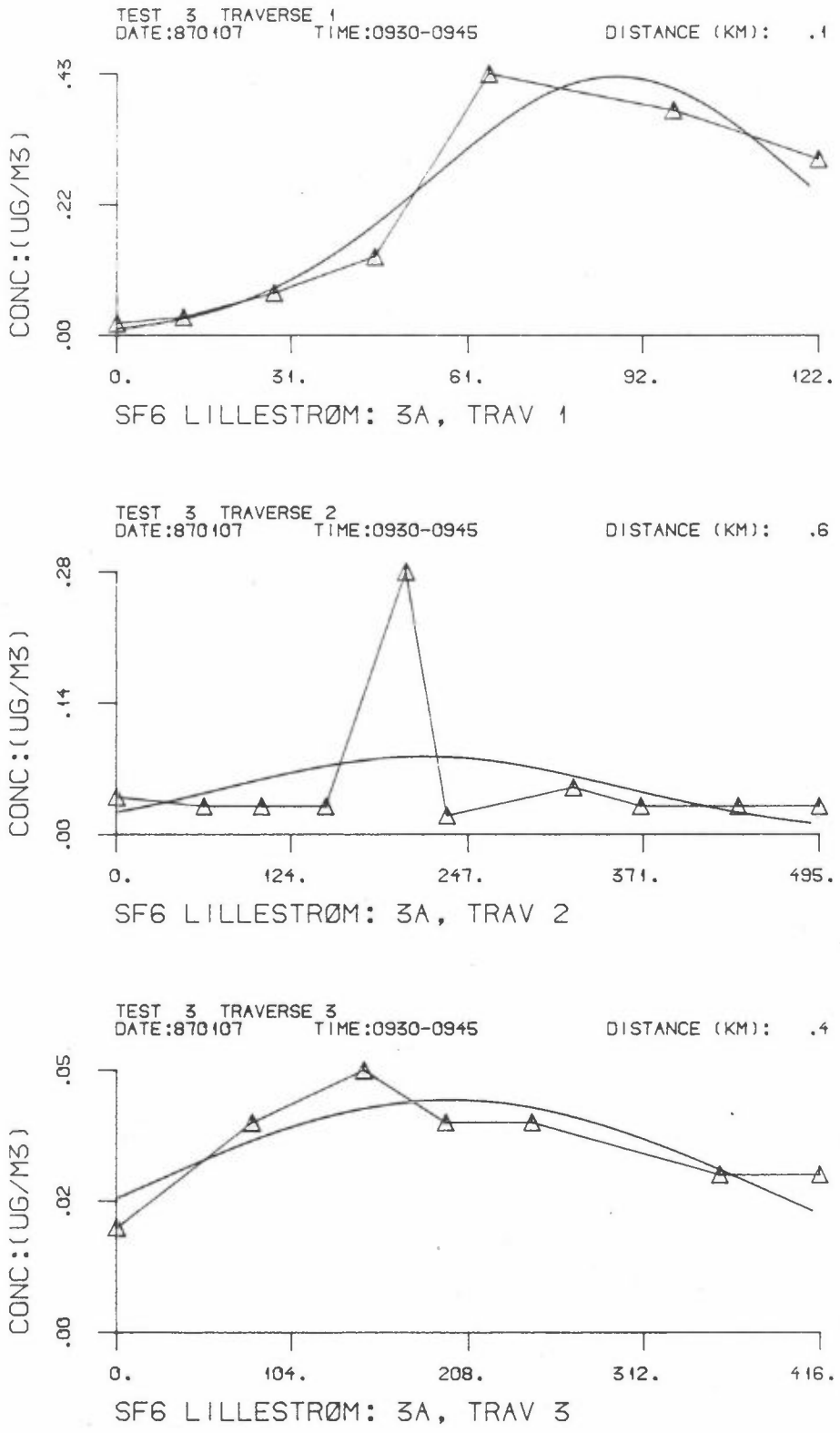

Figure 65: Crosswind SF_6 concentration profiles observed along sampling traverses 1, 2 and 3 marked on Figure 64. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

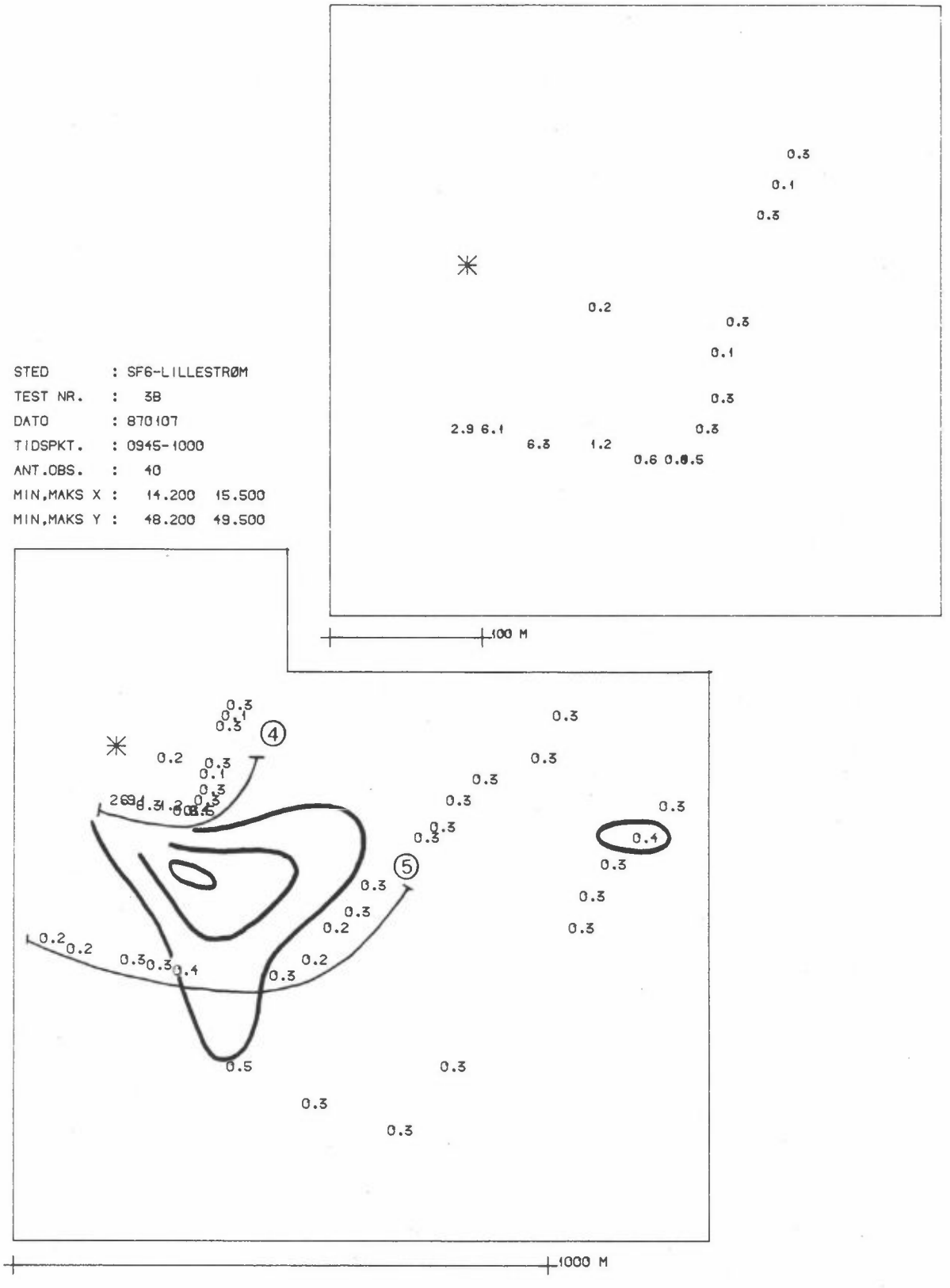

Figure 66: Test 3B-1987. SF_6 concentrations, Lillestrøm 7 January 1987, 0945-1000.
Unit: 0.1 mg/m^3.

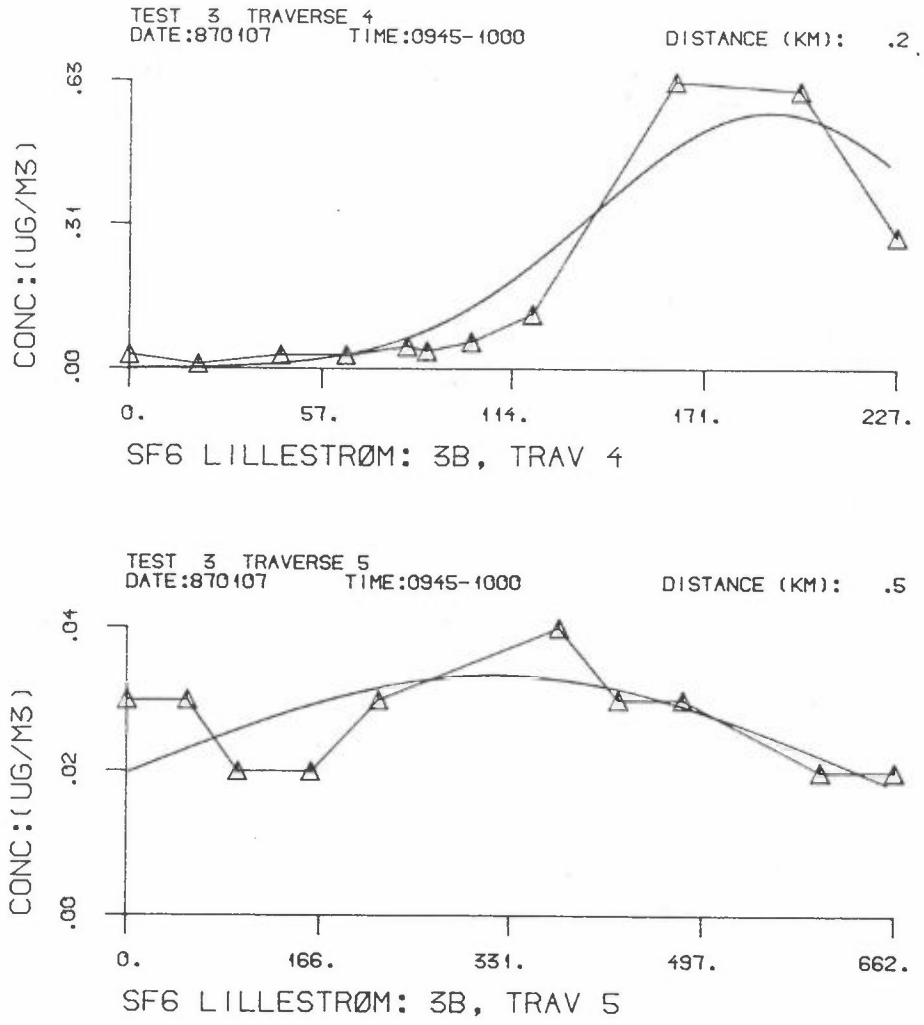

Figure 67: Crosswind SF_6 concentration profiles observed along sampling traverses 4 and 5 marked on Figure 66. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

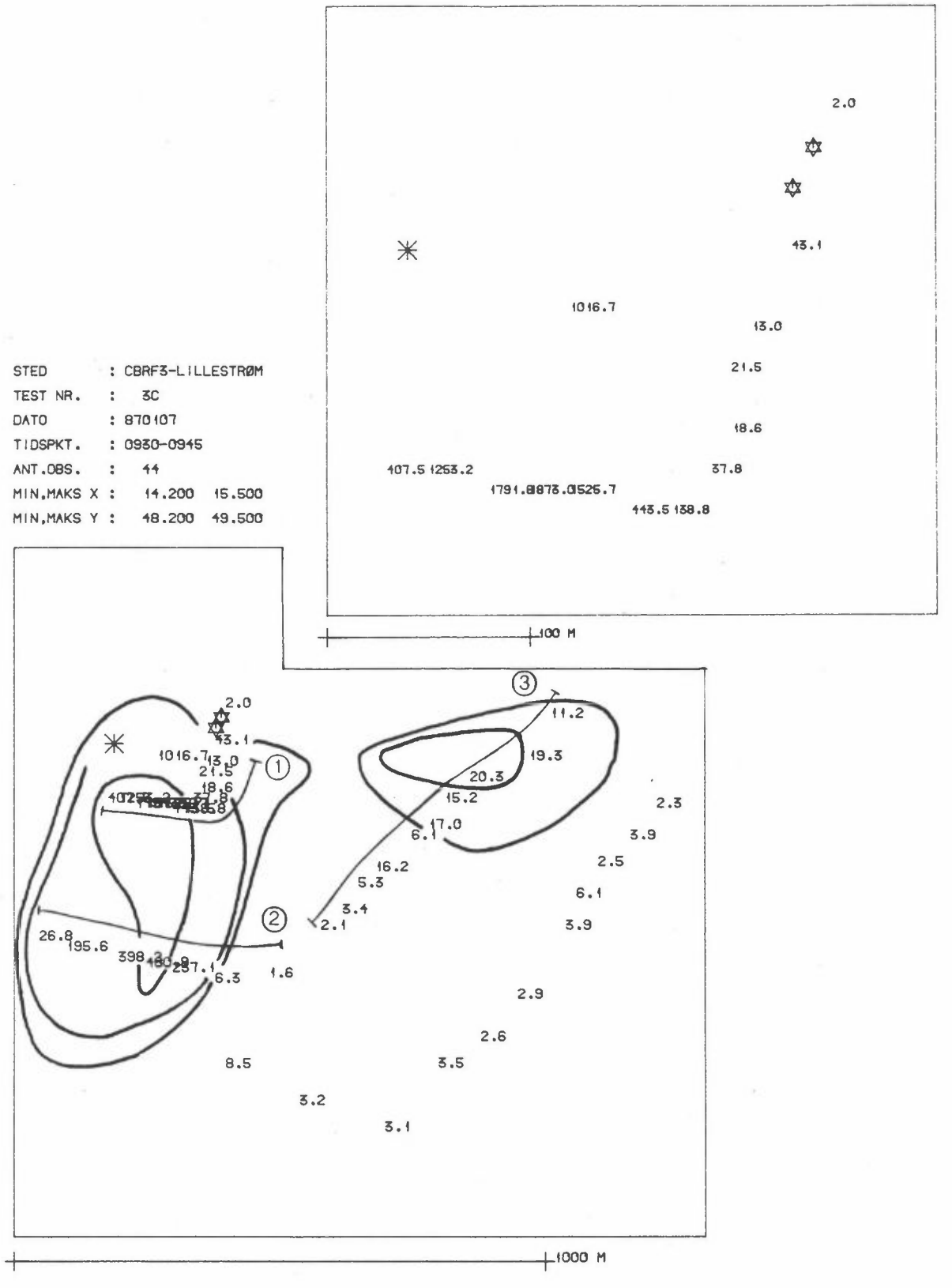

Figure 68: Test 3C-1987. $CBrF_3$ concentrations, Lillestrøm 7 January 1987, 0930-0945.
Unit: 0.1 mg/m^3.

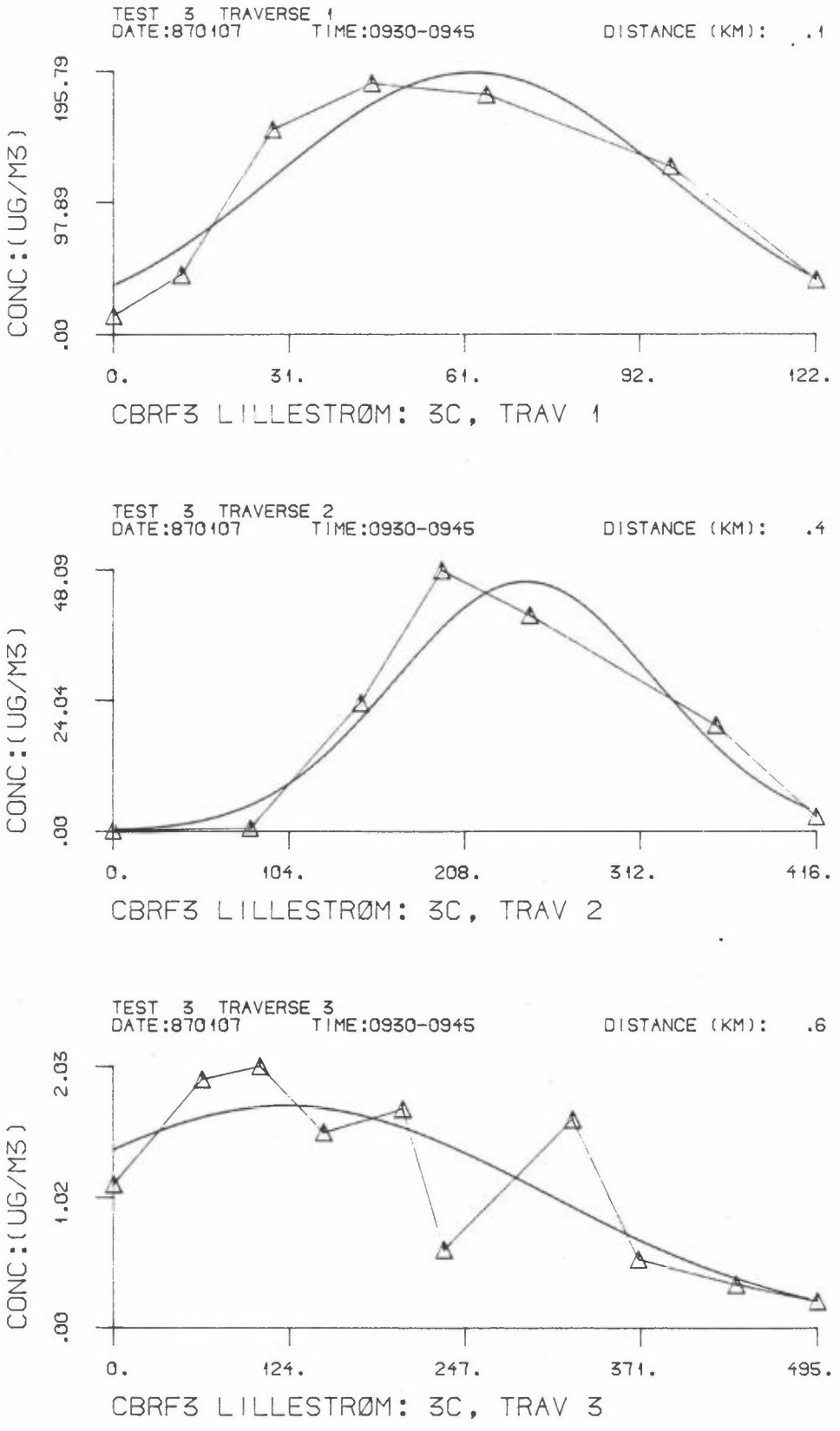

Figure 69: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 1, 2 and 3 marked on Figure 68. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

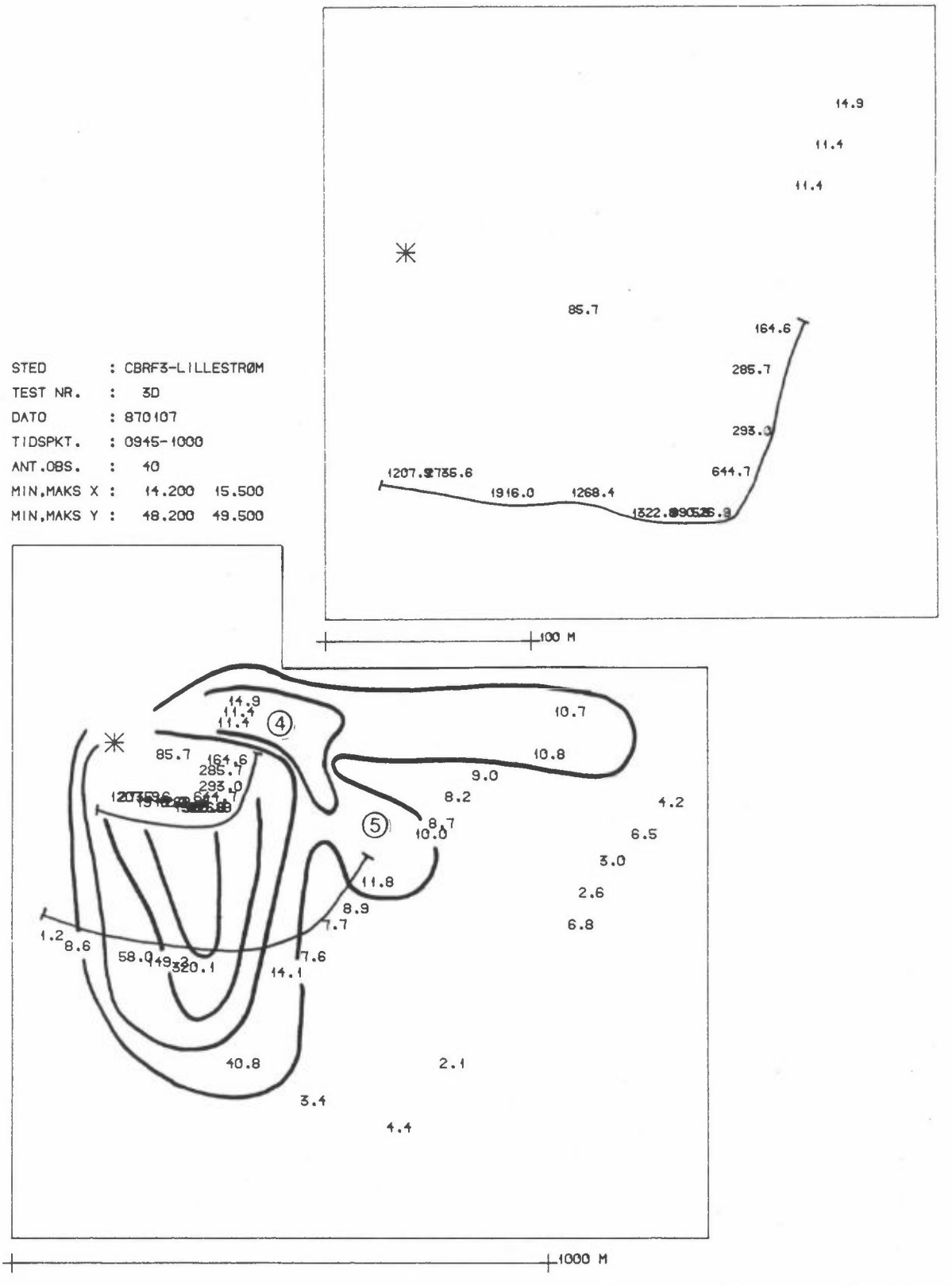

Figure 70: Test 3D-1987. $CBrF_3$ concentrations, Lillestrøm 7 January 1987, 0945-1000.
Unit: 0.1 mg/m^3.

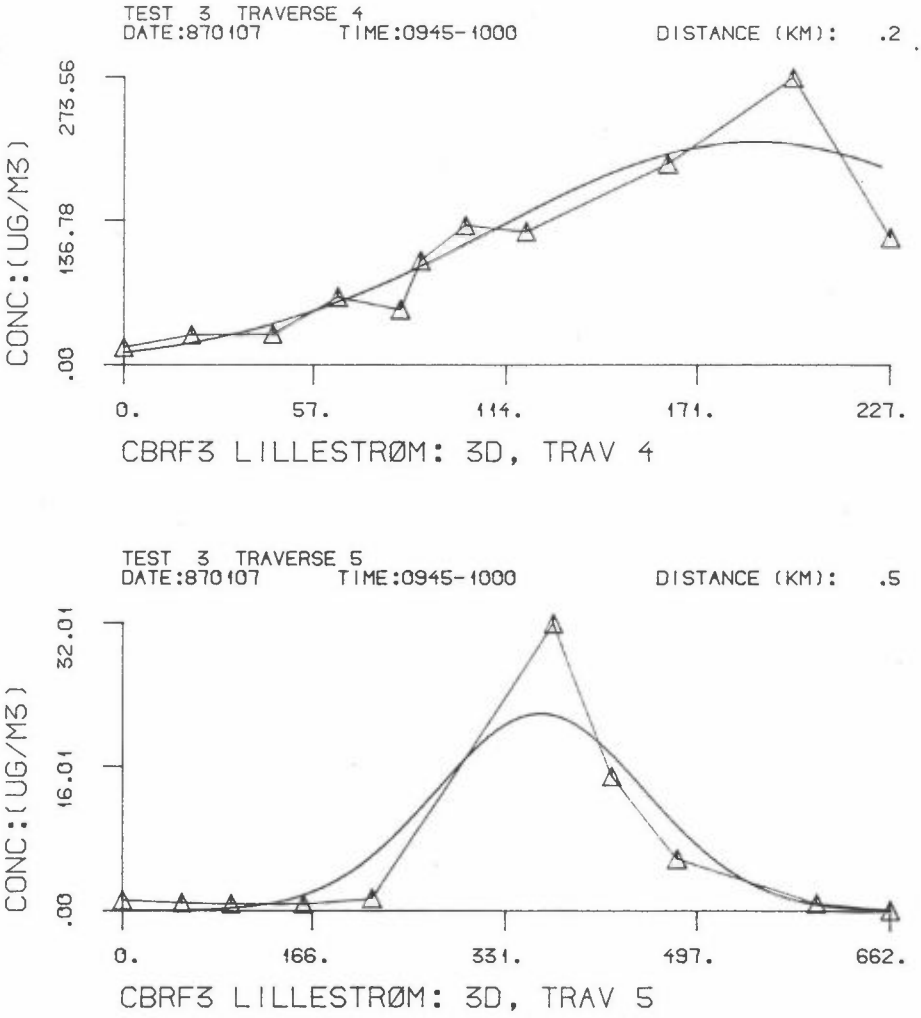

Figure 71: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 4 and 5 marked on Figure 70. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

4.11 TEST 4-1987. 10 JANUARY 1987

SF_6 and $CBrF_3$ were released from site B from 0900 to 1000 at rates of 0.102 and 0.104 g/s.

At Lillestrøm the sky was clear with light air (1.5 m/s) blowing from northeast (23^0), and the temperature was -25^0C at the bottom of a ground level inversion. A vertical profile of temperature is shown in Appendix A.

Figures 72 and 74 show the average 15-minute concentrations from the SF_6 dispersion experiment, and the Figures 73 and 75 show the corresponding traverses marked on Figures 72 and 74.

Figures 76 and 78 show the average 15-minute concentrations from the $CBrF_3$ dispersion experiment, and the Figures 77 and 79 show the corresponding traverses marked on Figures 76 and 78.

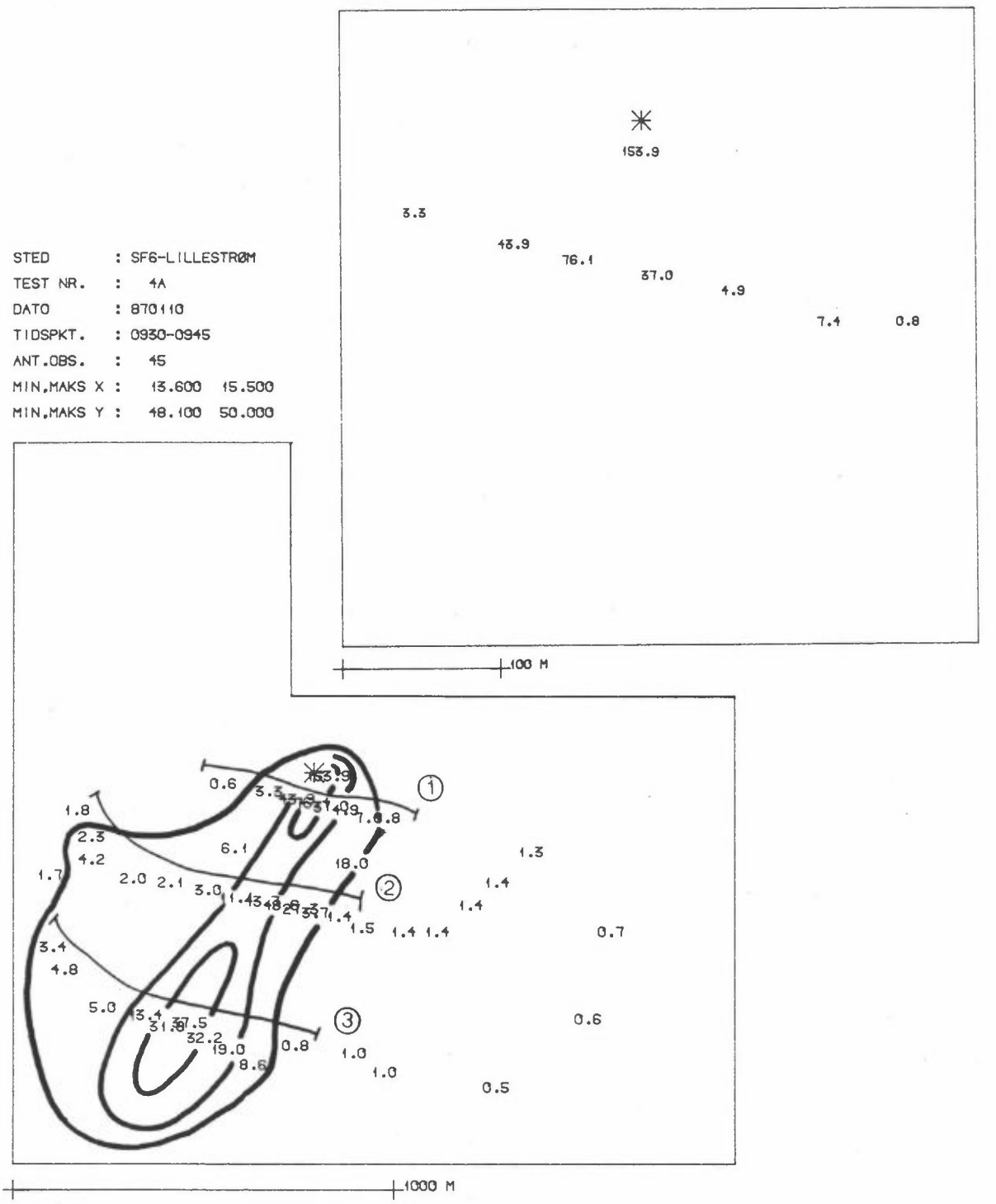

Figure 72: Test 4A-1987. SF_6 concentrations, Lillestrøm 10 January 1987, 0930-0945.
Unit: 0.1 mg/m^3.

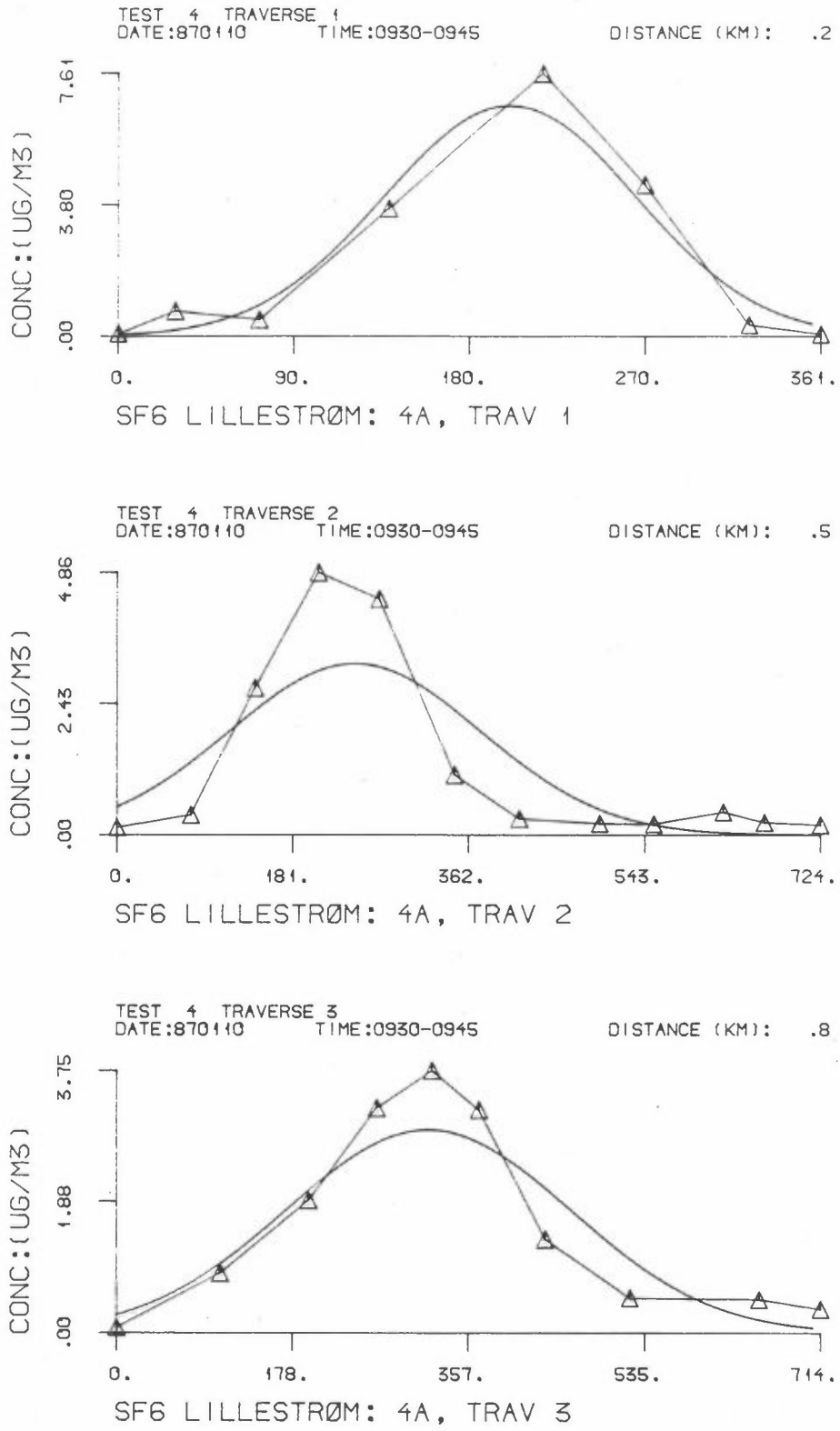

Figure 73: Crosswind SF_6 concentration profiles observed along sampling traverses 1, 2 and 3 marked on Figure 72. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

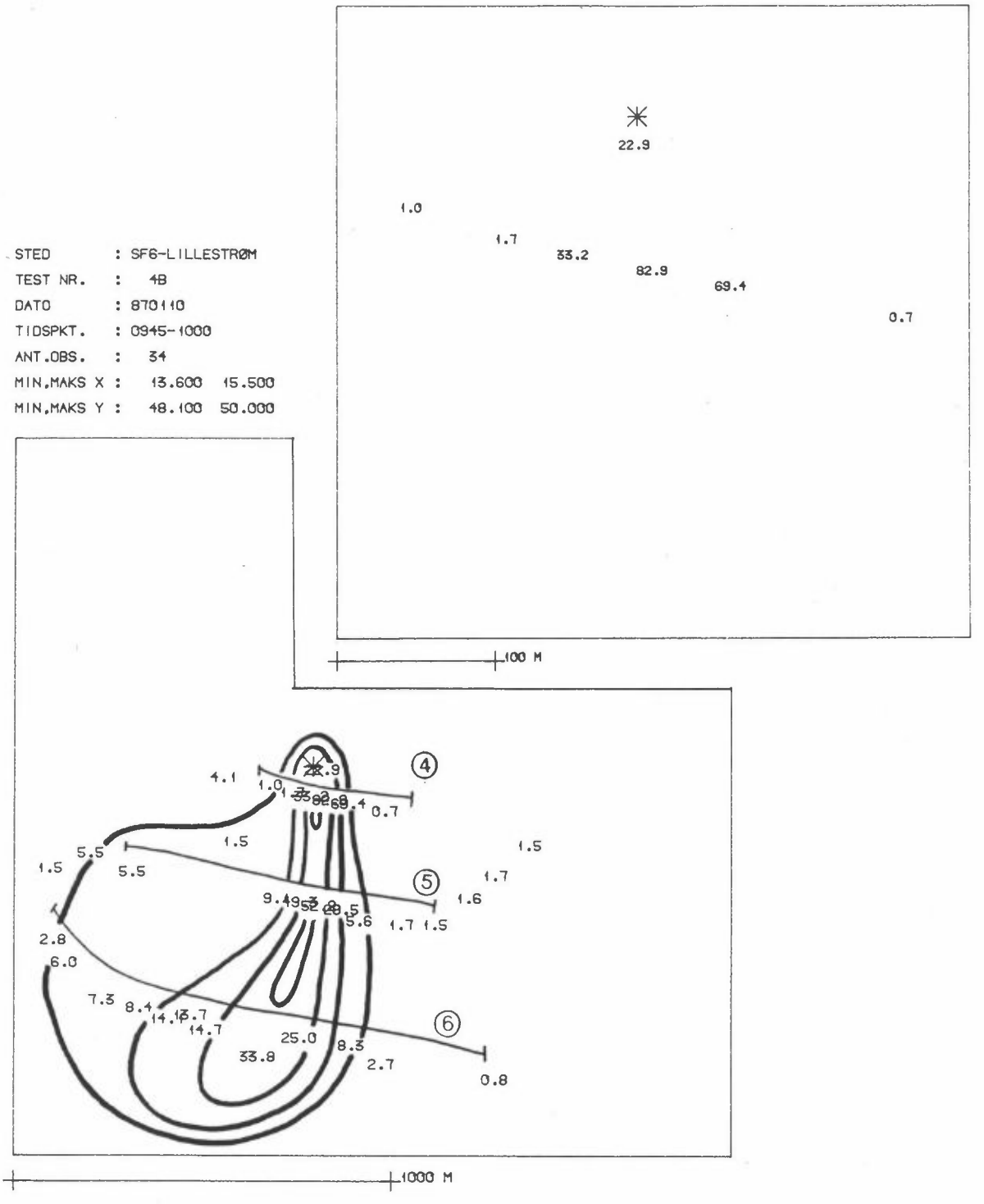

Figure 74: Test 4B-1987. SF_6 concentrations, Lillestrøm 10 January 1987, 0945-1000.
Unit: 0.1 mg/m^3.

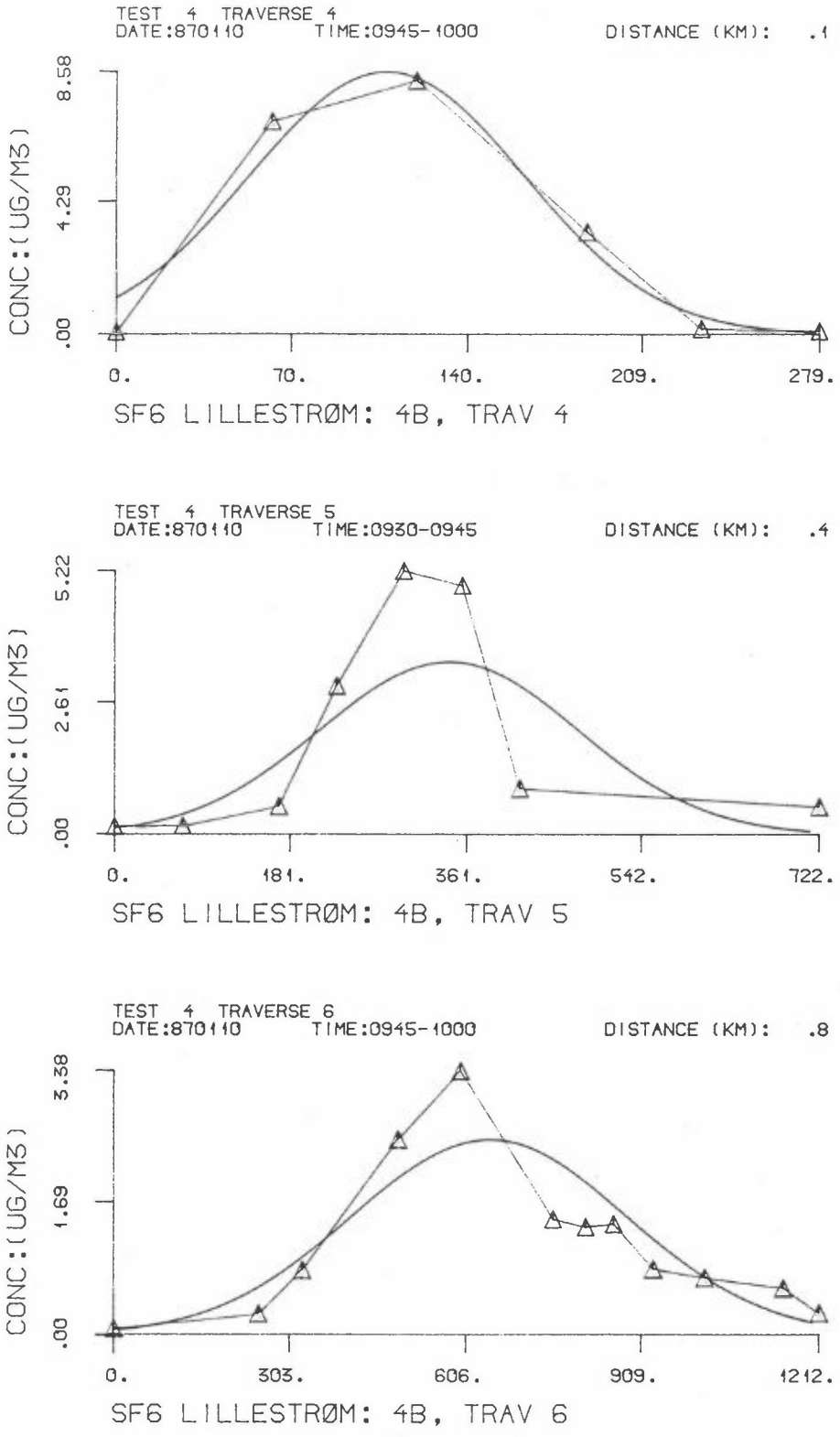

Figure 75: Crosswind SF_6 concentration profiles observed along sampling traverses 4, 5 and 6 marked on Figure 74. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

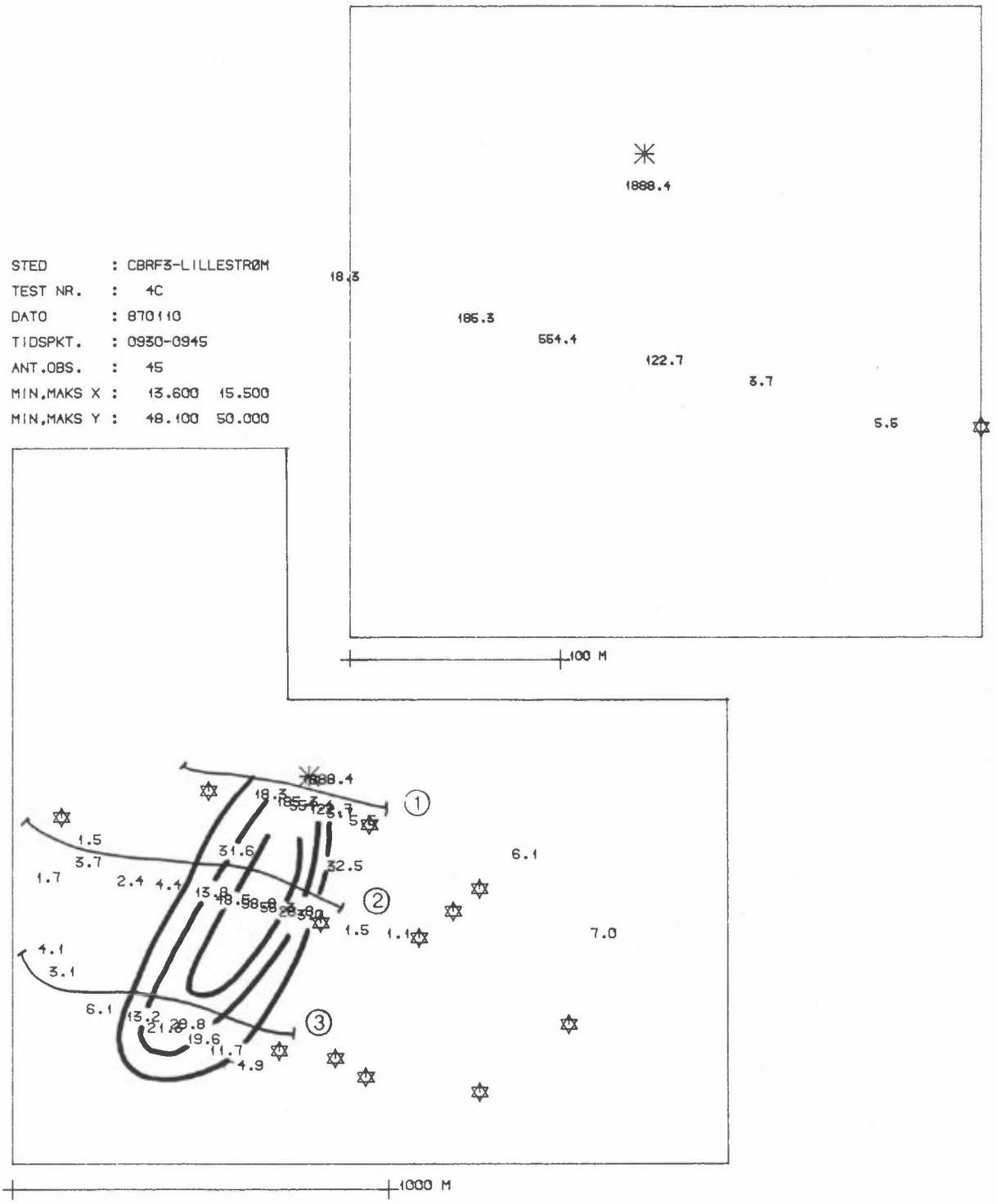

Figure 76: Test 4C-1987. $CBrF_3$ concentrations, Lillestrøm 10 January 1987, 0930-0945.
Unit: 0.1 mg/m^3.

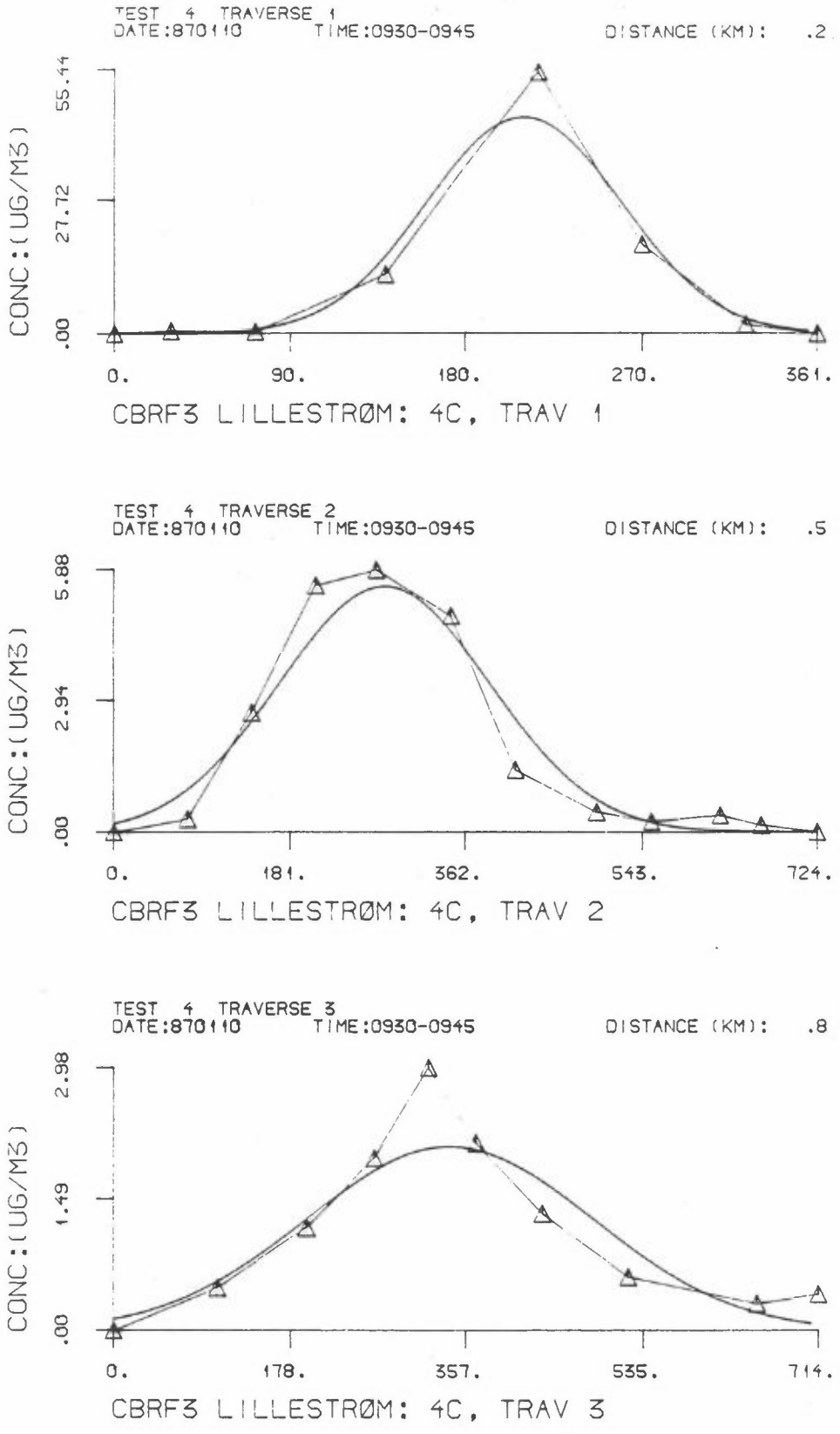

Figure 77: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 1, 2 and 3 marked on Figure 76. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

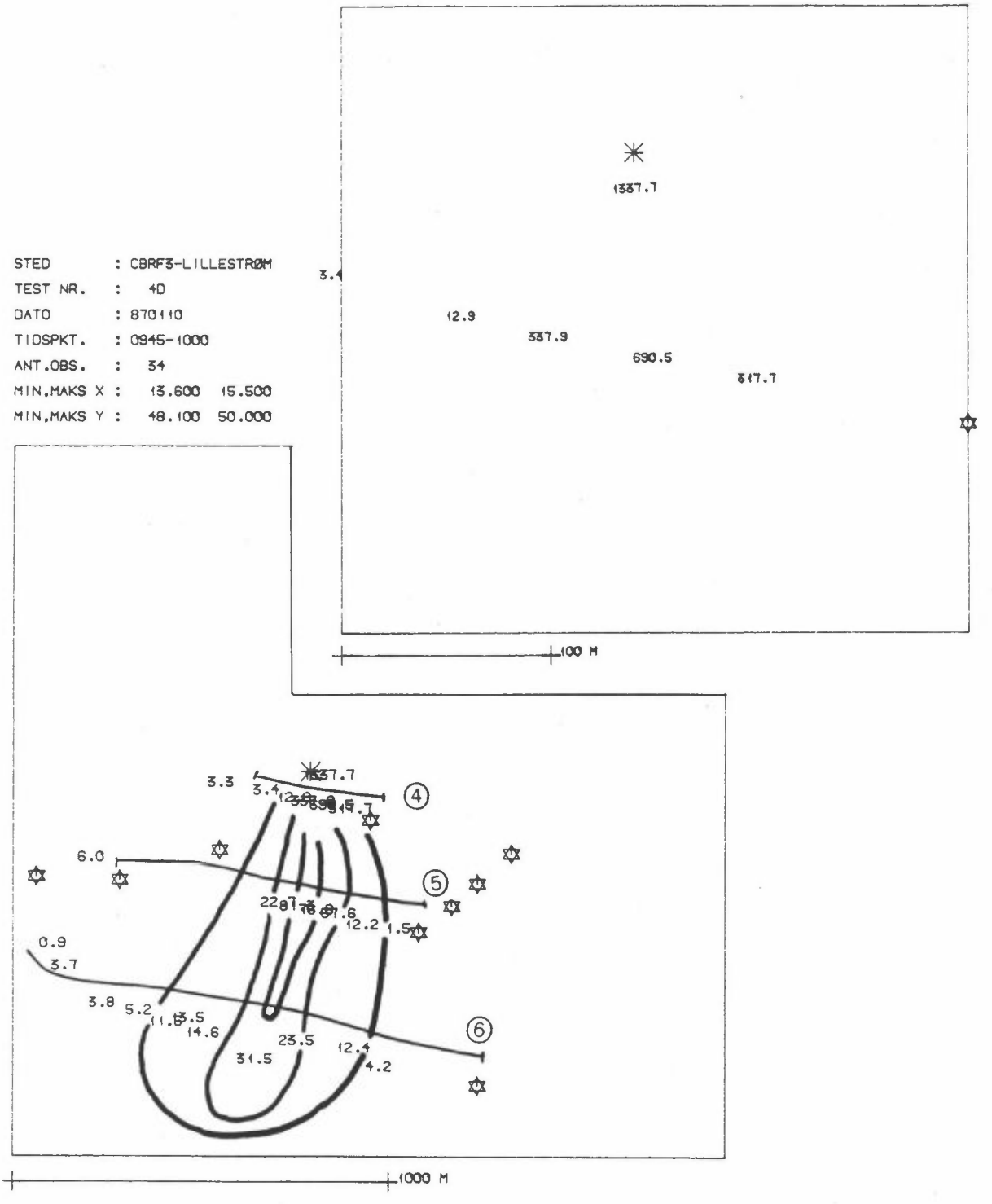

Figure 78: Test 4D-1987. $CBrF_3$ concentrations, Lillestrøm 10 January 1987, 0945-1000.
Unit: 0.1 mg/m^3.

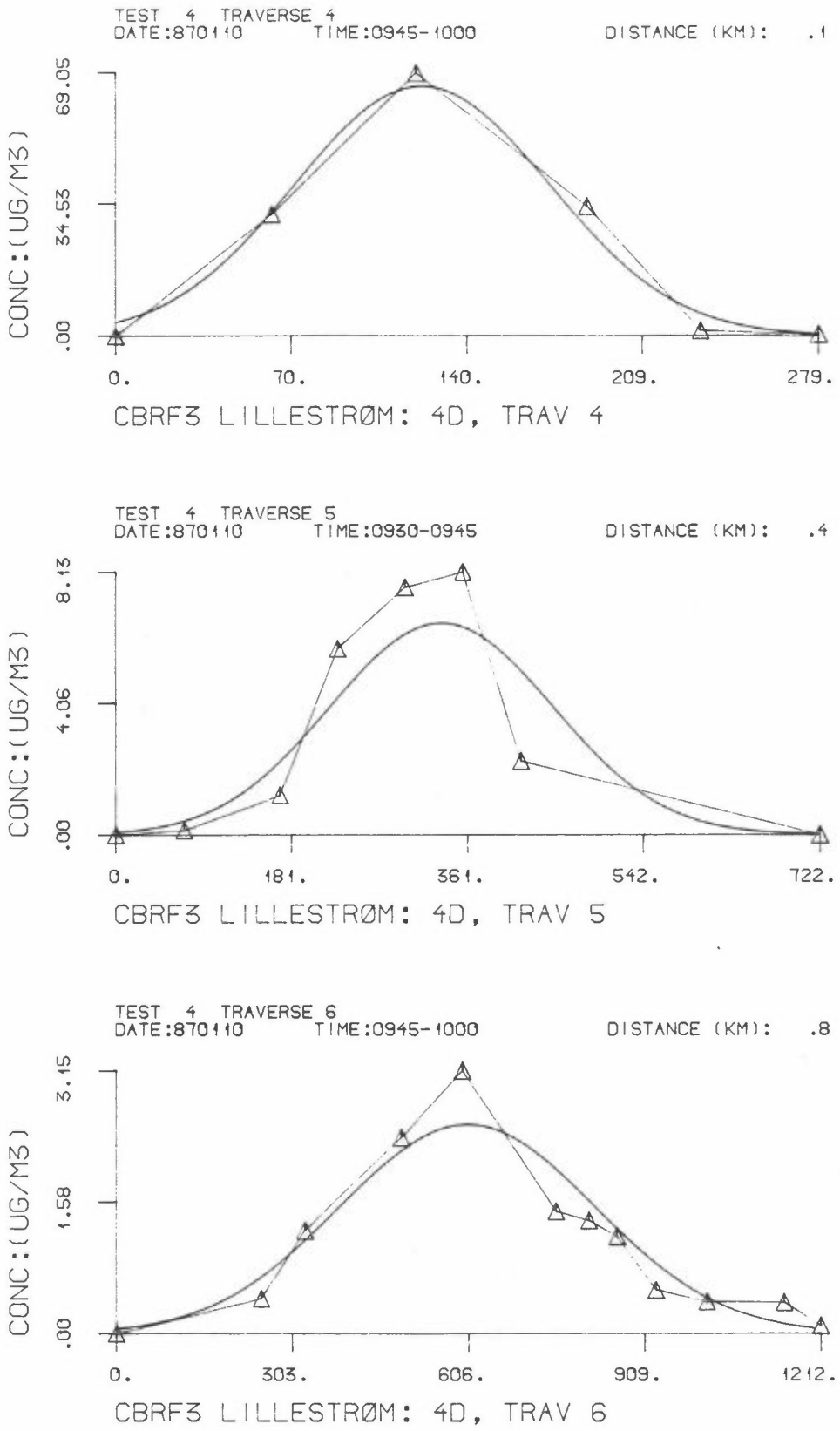

Figure 79: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 4, 5 and 6 marked on Figure 76. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

4.12 TEST 5-1987. 12 JANUARY 1987

SF_6 and $CBrF_3$ were released from site B from 0900 to 1000 at rates of 0.102 and 0.104 g/s.

At Lillestrøm the sky was clear with light air (1.0 m/s) blowing from northeast (69^0). The temperature was -20^0C at the bottom of a ground level inversion. Vertical profiles of temperature, wind direction and wind speed are shown in Appendix A.

Figures 80 and 82 show the average 15-minute concentrations from the SF_6 dispersion experiment, and the Figures 81 and 83 show the corresponding traverses marked on Figures 80 and 82.

Figures 84 and 86 show the average 15-minute concentrations from the $CBrF_3$ dispersion experiment, and the Figures 85 and 87 show the corresponding traverses marked on Figures 84 and 86.

STED : SF6-LILLESTRØM KILDE 1 : 14.390 49.130
TEST NR. : 5A
DATO : 870112
TIDSPKT. : 0930-0945
ANT.OBS. : 44
MIN,MAKS X : 13.400 14.800
MIN,MAKS Y : 48.000 49.400

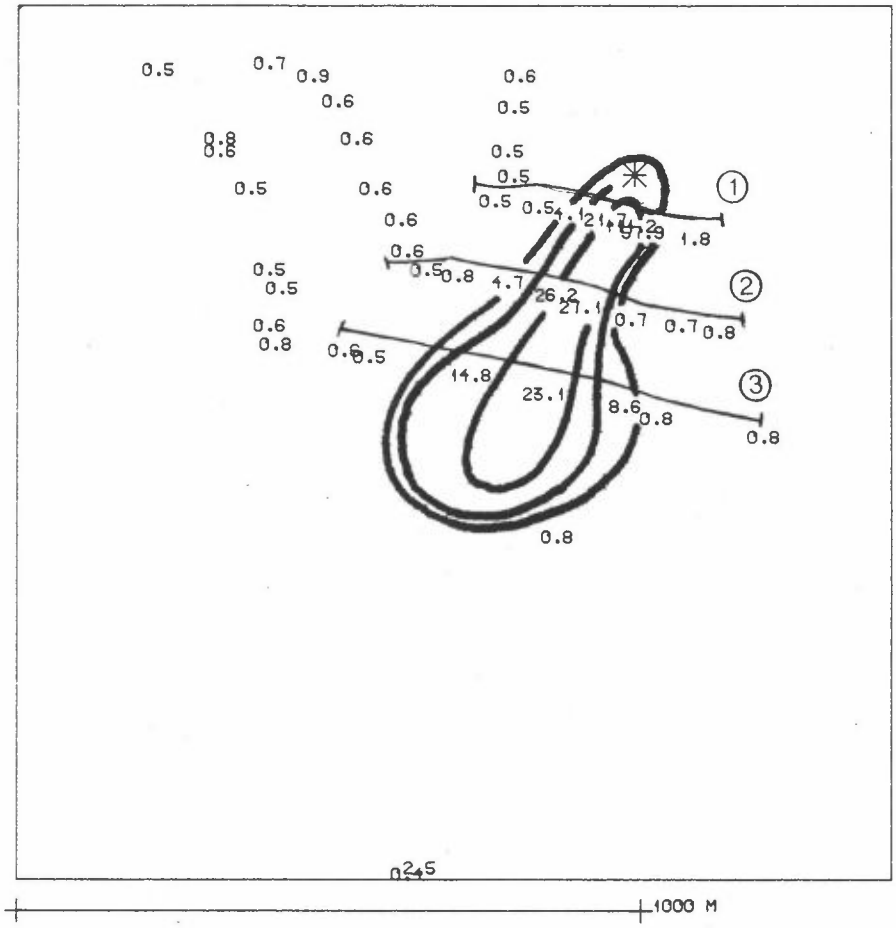

Figure 80: Test 5A-1987. SF_6 concentrations, Lillestrøm 12 January 1987, 0930-0945.
Unit: 0.1 mg/m^3.

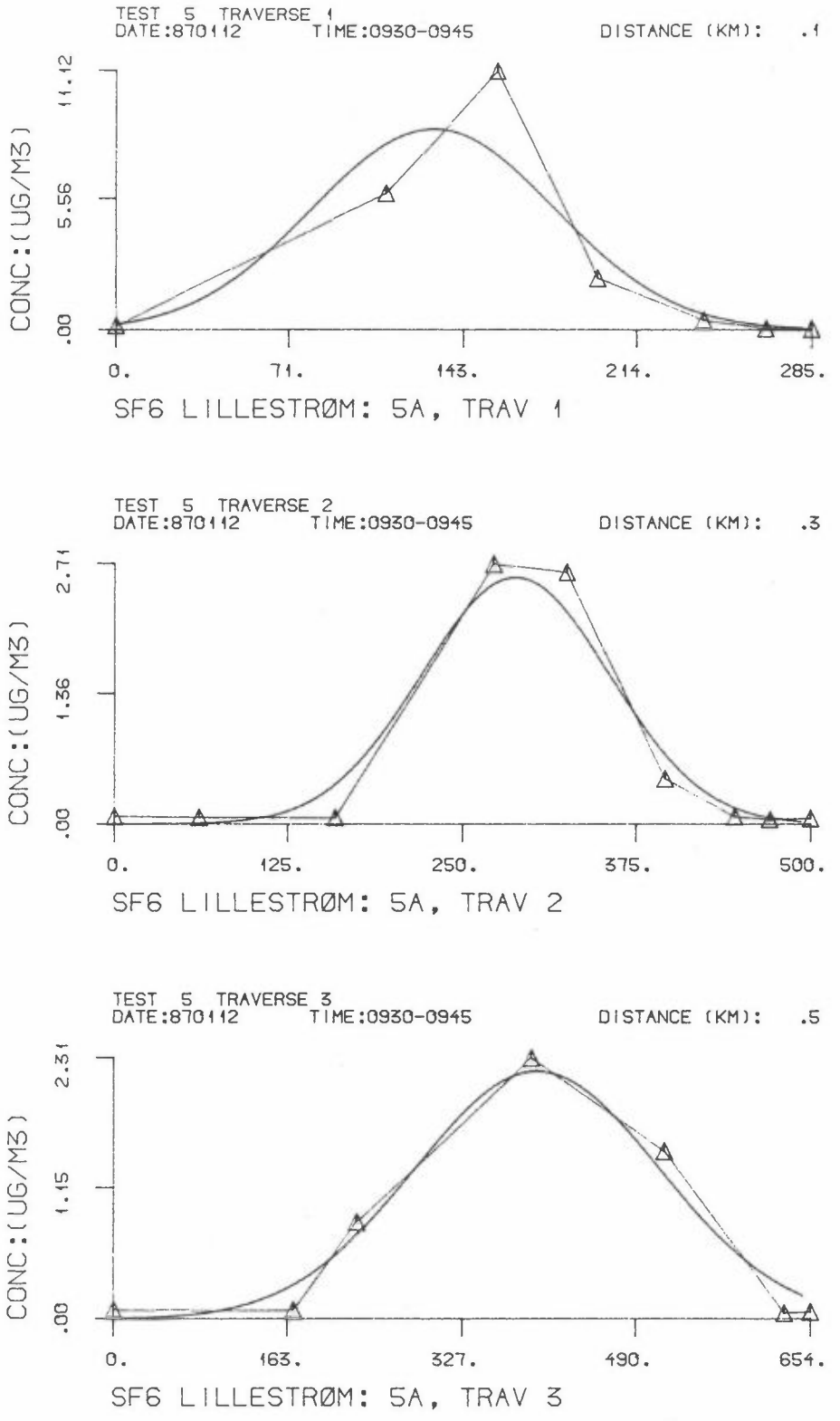

Figure 81: Crosswind SF_6 concentration profiles observed along sampling traverses 1, 2 and 3 marked on Figure 80. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

STED : SF6-LILLESTRØM KILDE 1 : 14.390 49.130
TEST NR. : 5B
DATO : 870112
TIDSPKT. : 0945-1000
ANT.OBS. : 36
MIN,MAKS X : 13.400 14.800
MIN,MAKS Y : 48.000 49.400

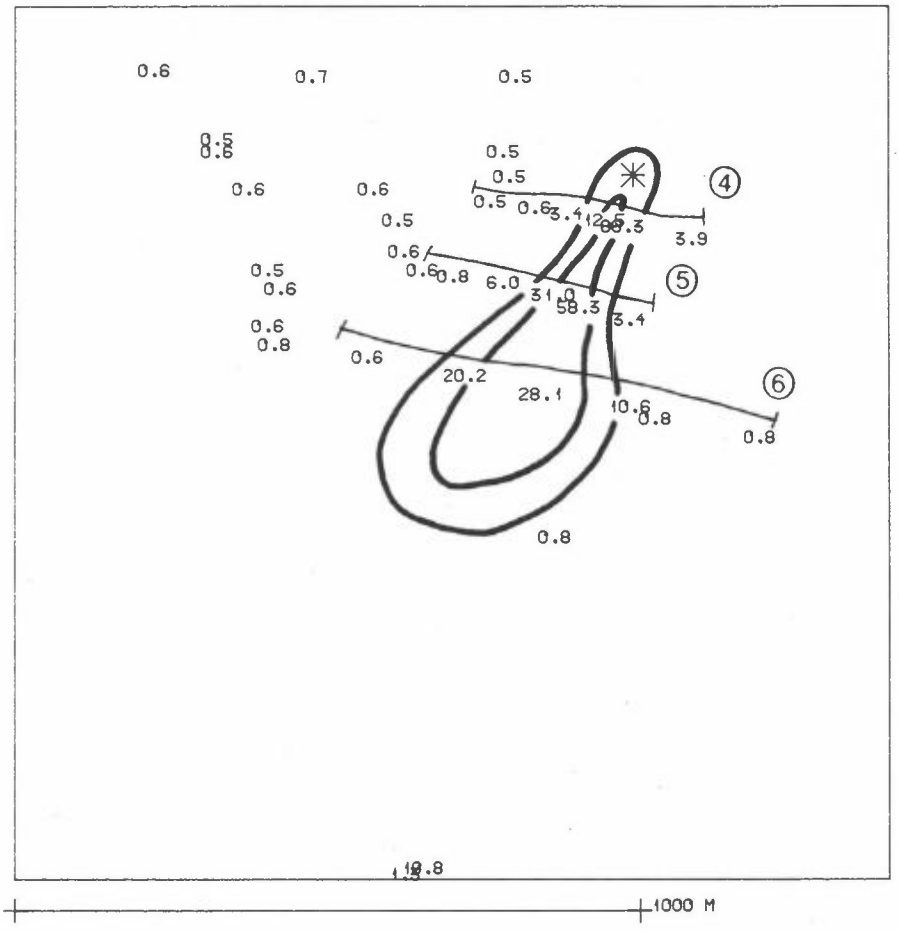

Figure 82: Test 5B-1987. SF_6 concentrations, Lillestrøm 12 January 1987, 0945-1000.
Unit: 0.1 mg/m^3.

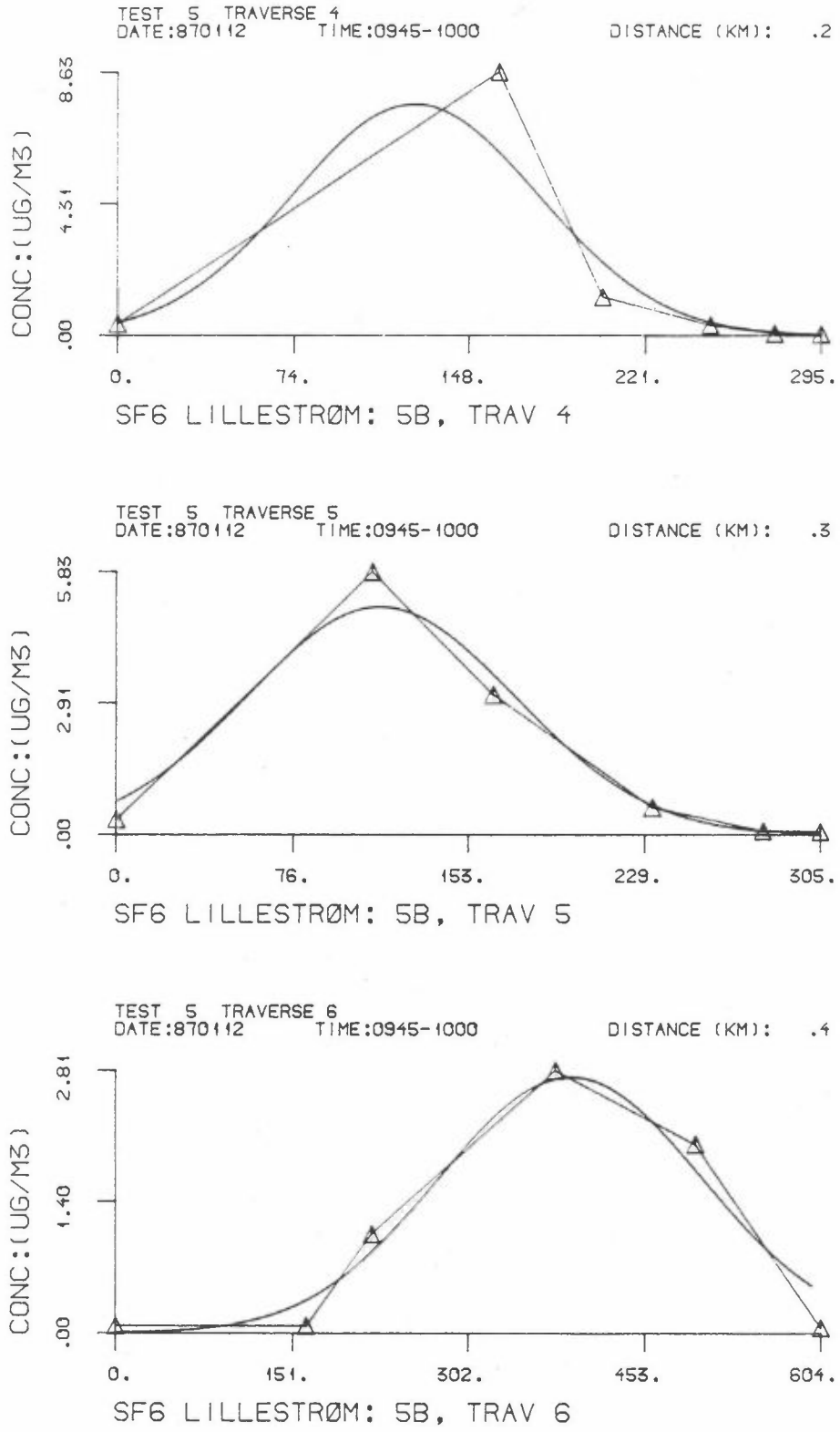

Figure 83: Crosswind SF_6 concentration profiles observed along sampling traverses 4, 5 and 6 marked on Figure 82. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

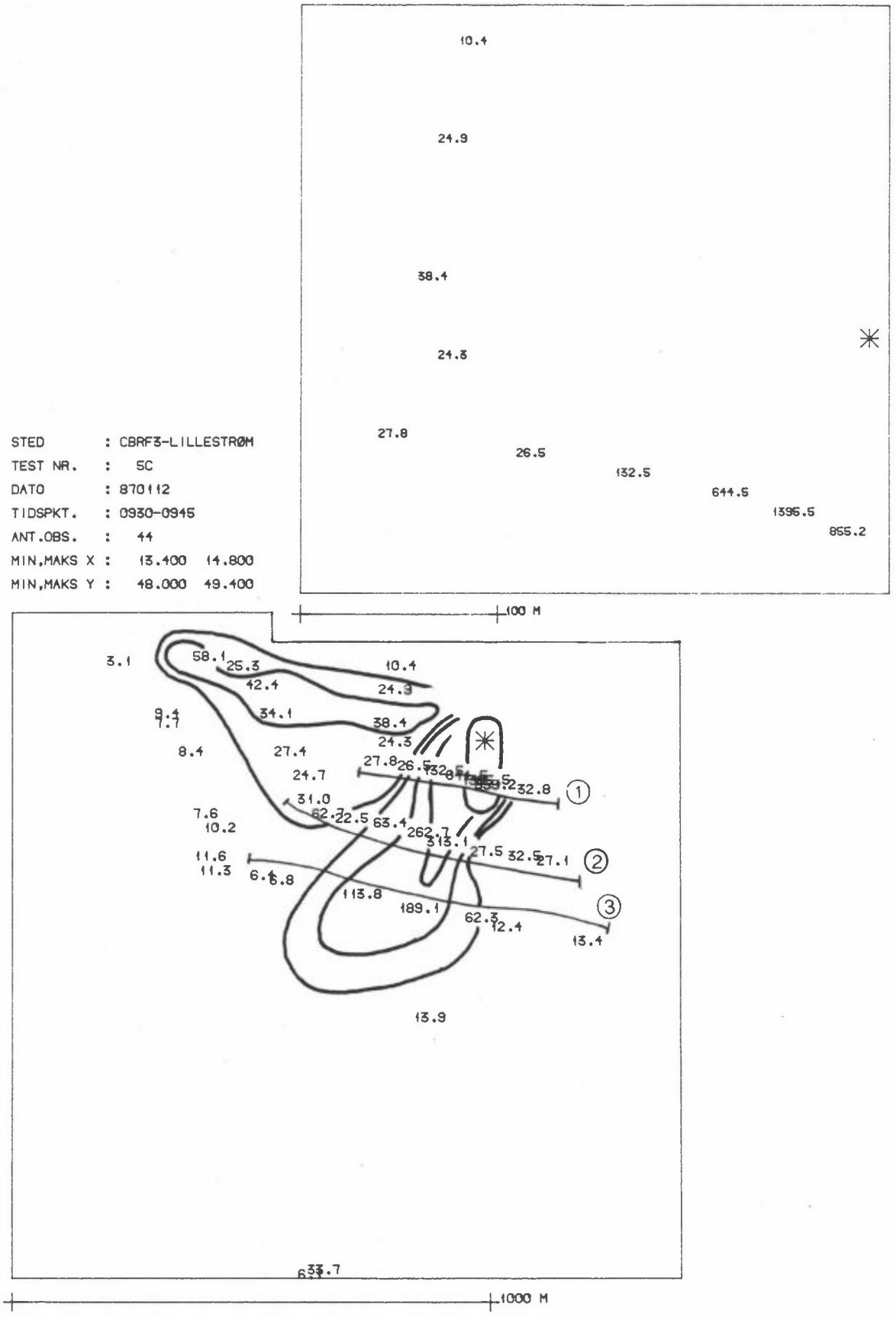

Figure 84: Test 5C-1987. $CBrF_3$ concentrations, Lillestrøm 12 January 1987, 0930-0945.
Unit: 0.1 mg/m^3.

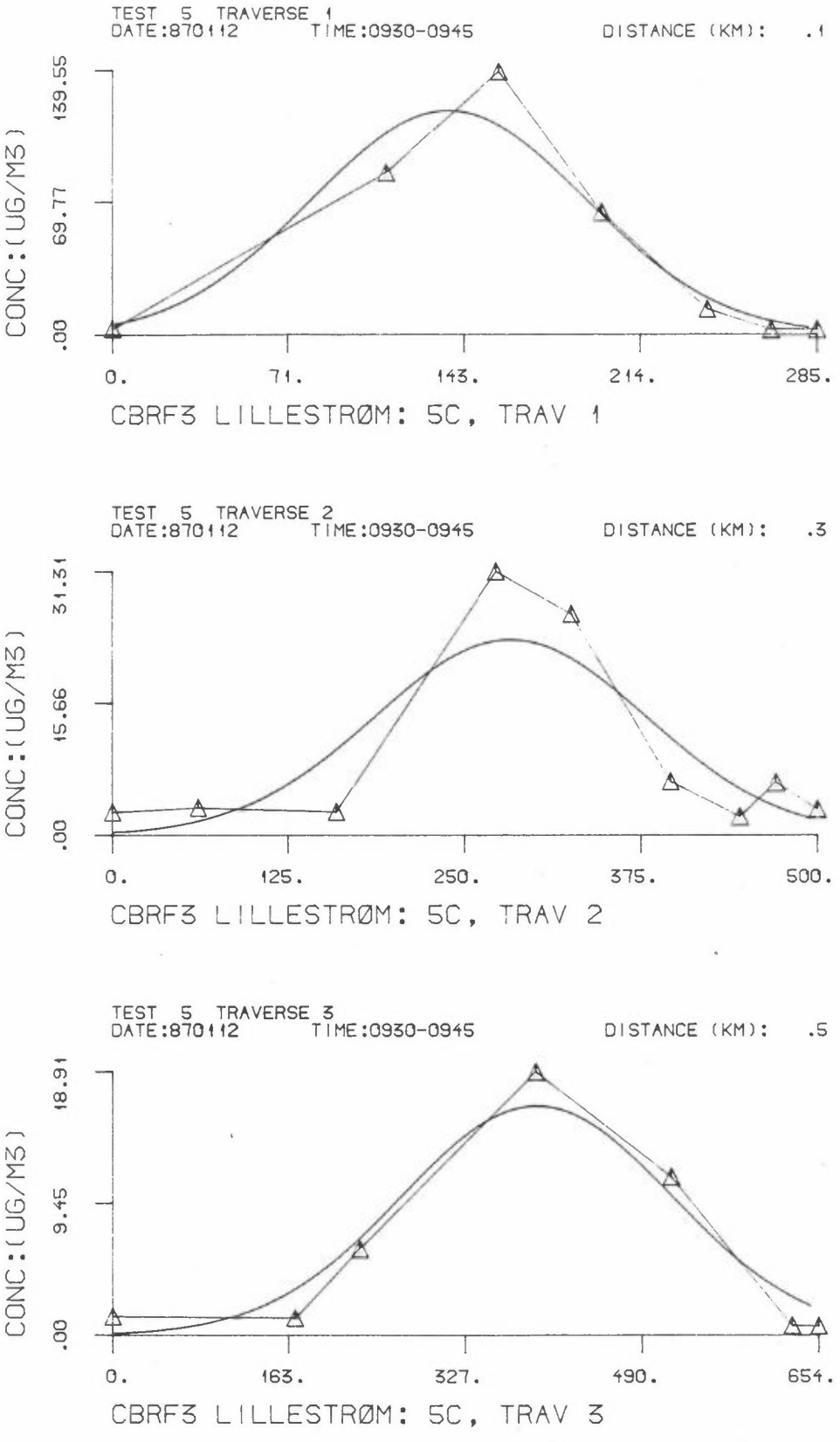

Figure 85: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 1, 2 and 3 marked on Figure 84. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

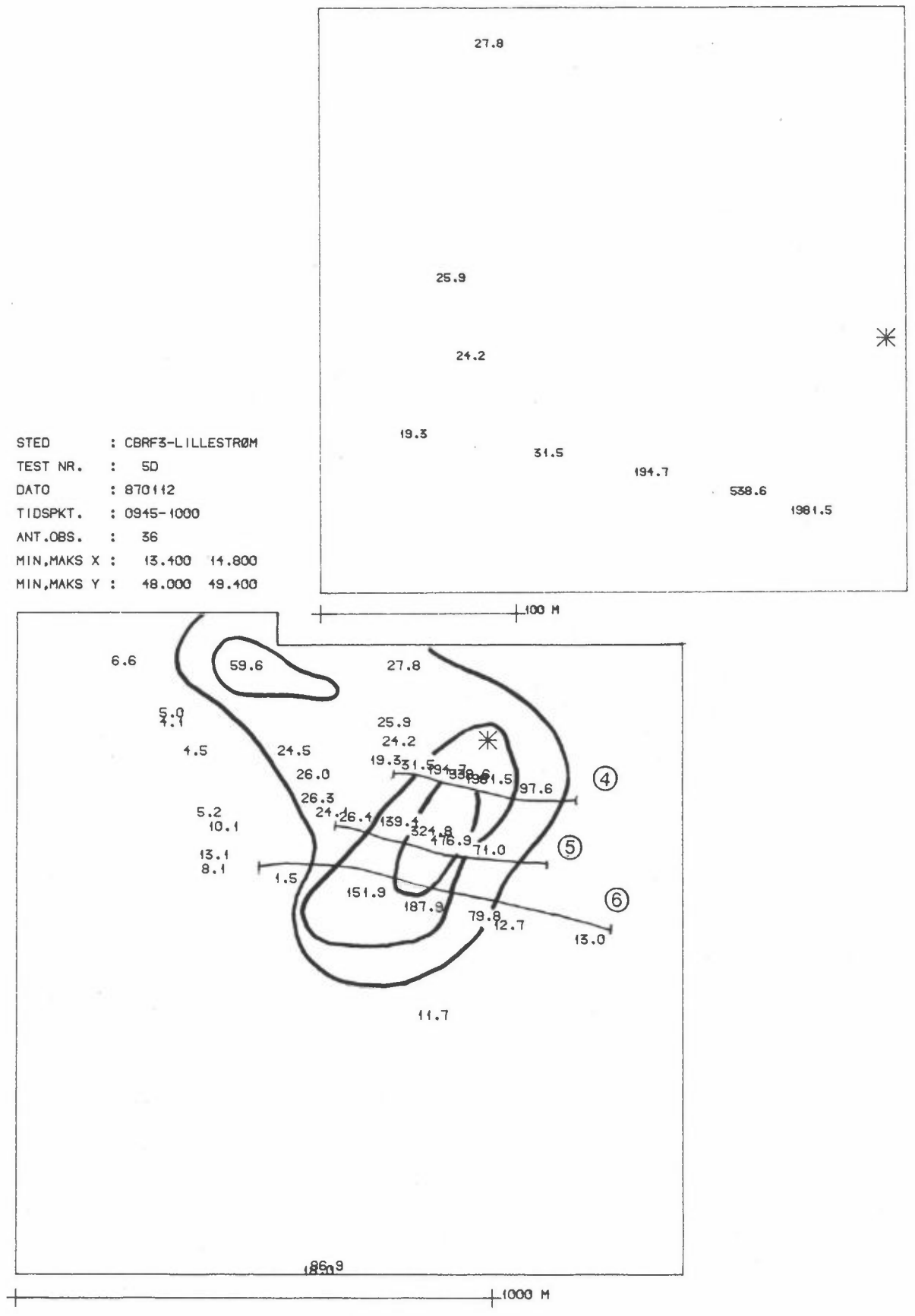

Figure 86: Test 5D-1987. $CBrF_3$ concentrations, Lillestrøm 12 January 1987, 0945-1000.
Unit: 0.1 mg/m^3.

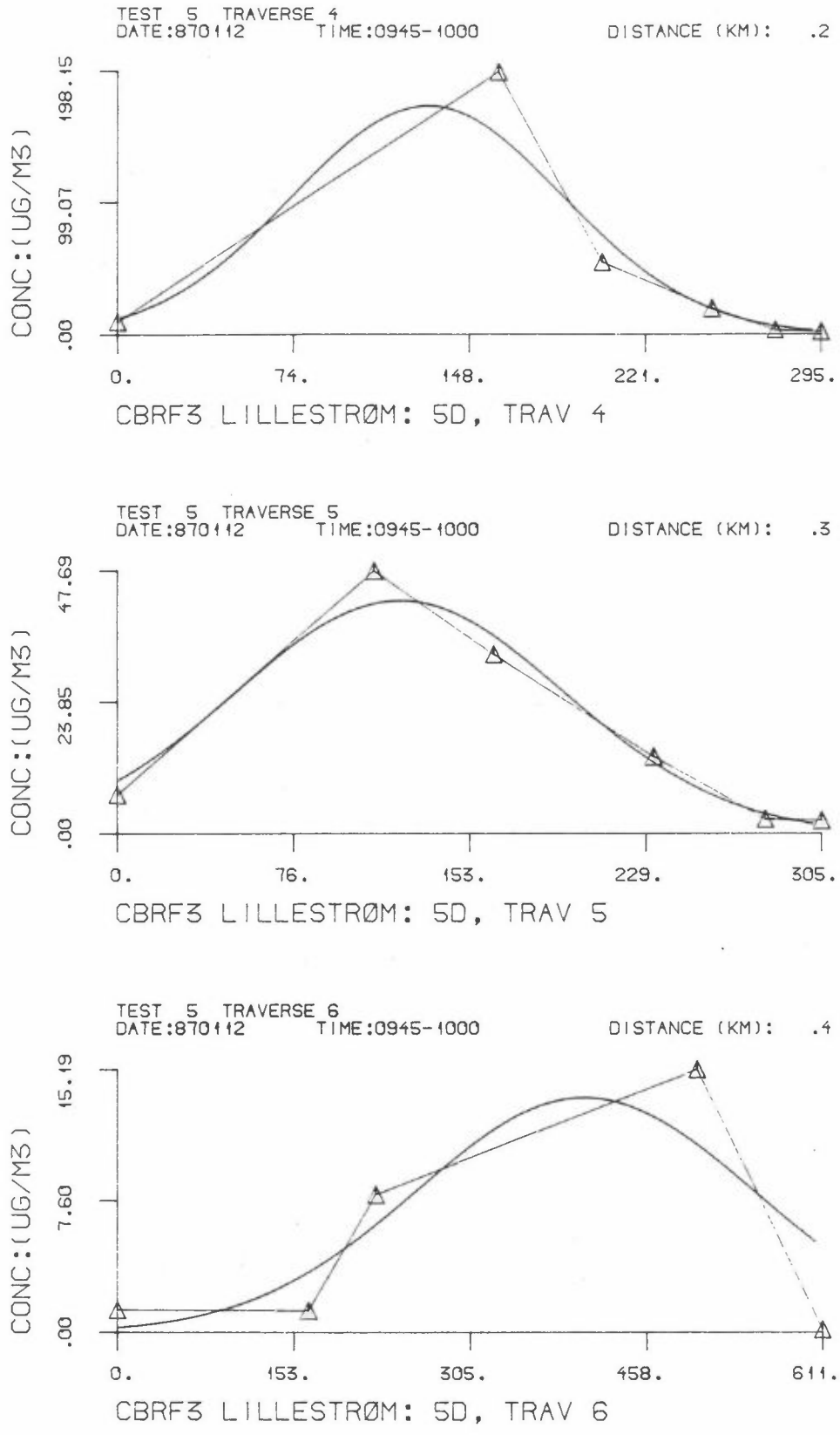

Figure 87: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 4, 5 and 6 marked on Figure 86. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

4.13 TEST 6-1987. 17 JANUARY 1987

SF_6 and $CBrF_3$ were released from site B from 0930 to 1030 at rates of 0.102 and 0.104 g/s.

At Lillestrøm the sky was clear with light air (0.3 m/s) blowing from northwest (335^0). The temperature was -22^0C at the bottom of a ground level inversion. The vertical profile of the temperature is shown in Appendix A.

Figures 88 and 90 show the average 15-minute concentrations from the SF_6 dispersion experiment, and the Figures 89 and 91 show the corresponding traverses marked on Figures 88 and 90.

Figures 92 and 94 show the average 15-minute concentrations from the $CBrF_3$ dispersion experiment, and the Figures 93 and 95 show the corresponding traverses marked on Figures 92 and 94.

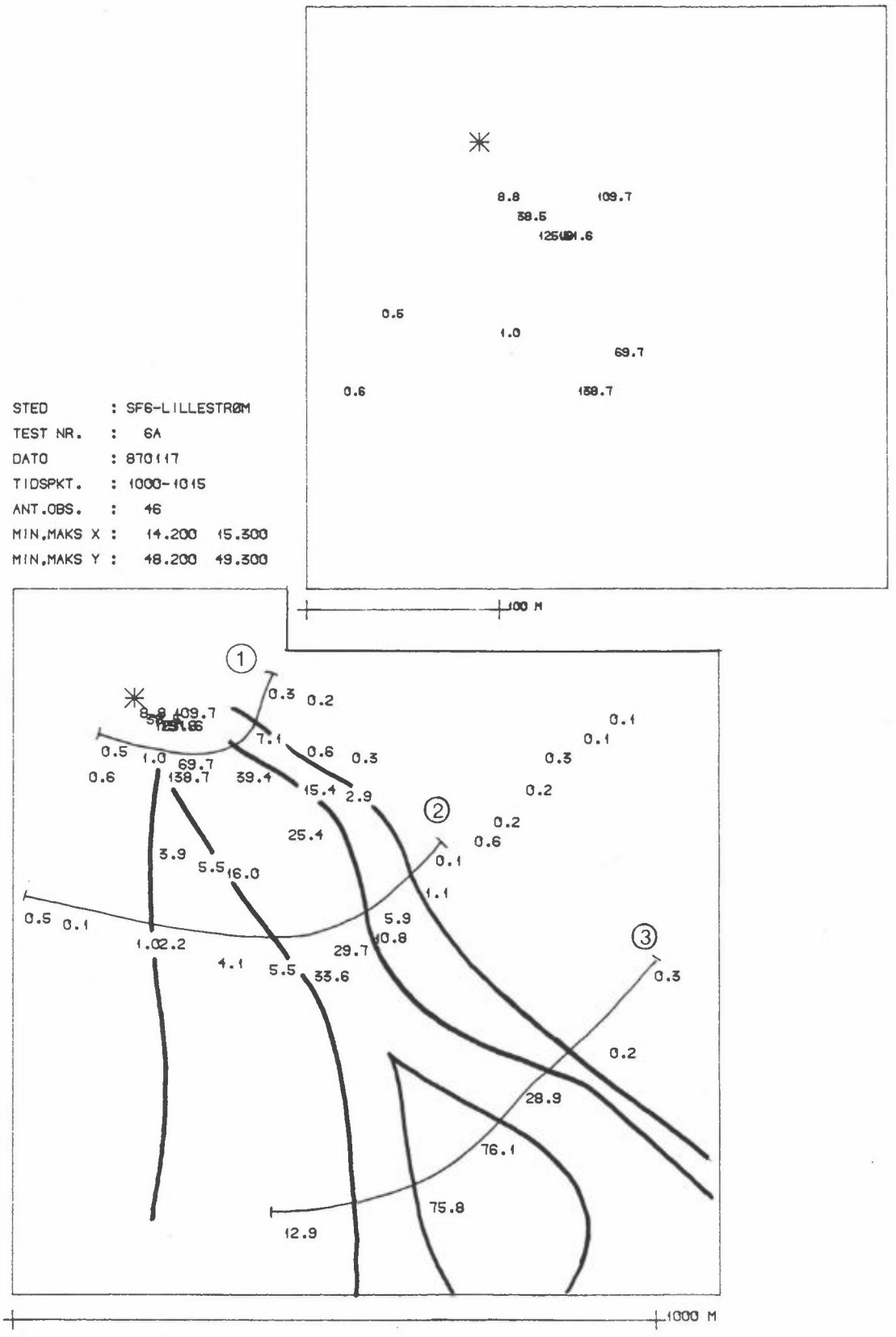

Figure 88: Test 6A-1987. SF_6 concentrations, Lillestrøm 17 January 1987, 1000-1015.
Unit: 0.1 mg/m^3.

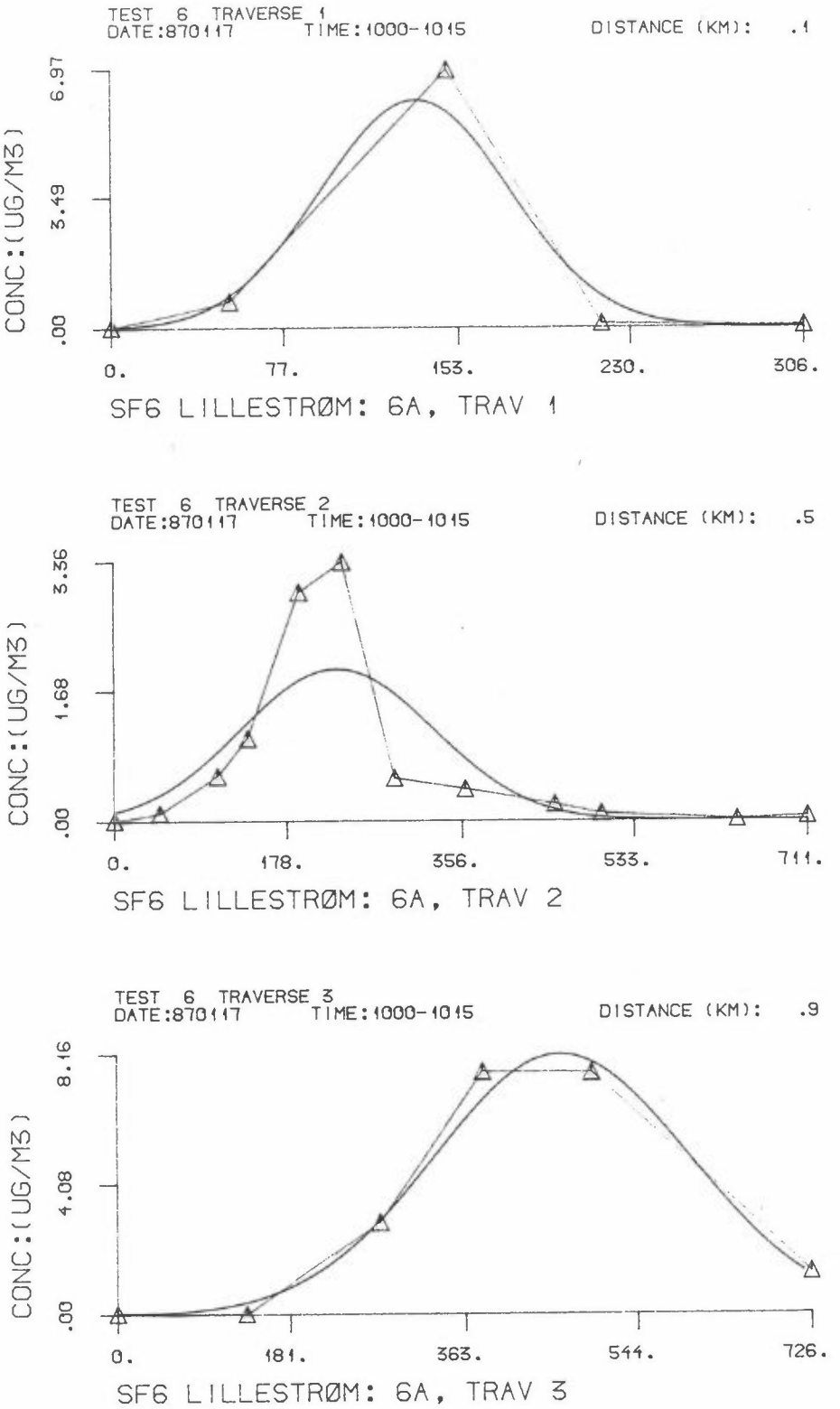

Figure 89: Crosswind SF_6 concentration profiles observed along sampling traverses 1, 2 and 3 marked on Figure 88. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

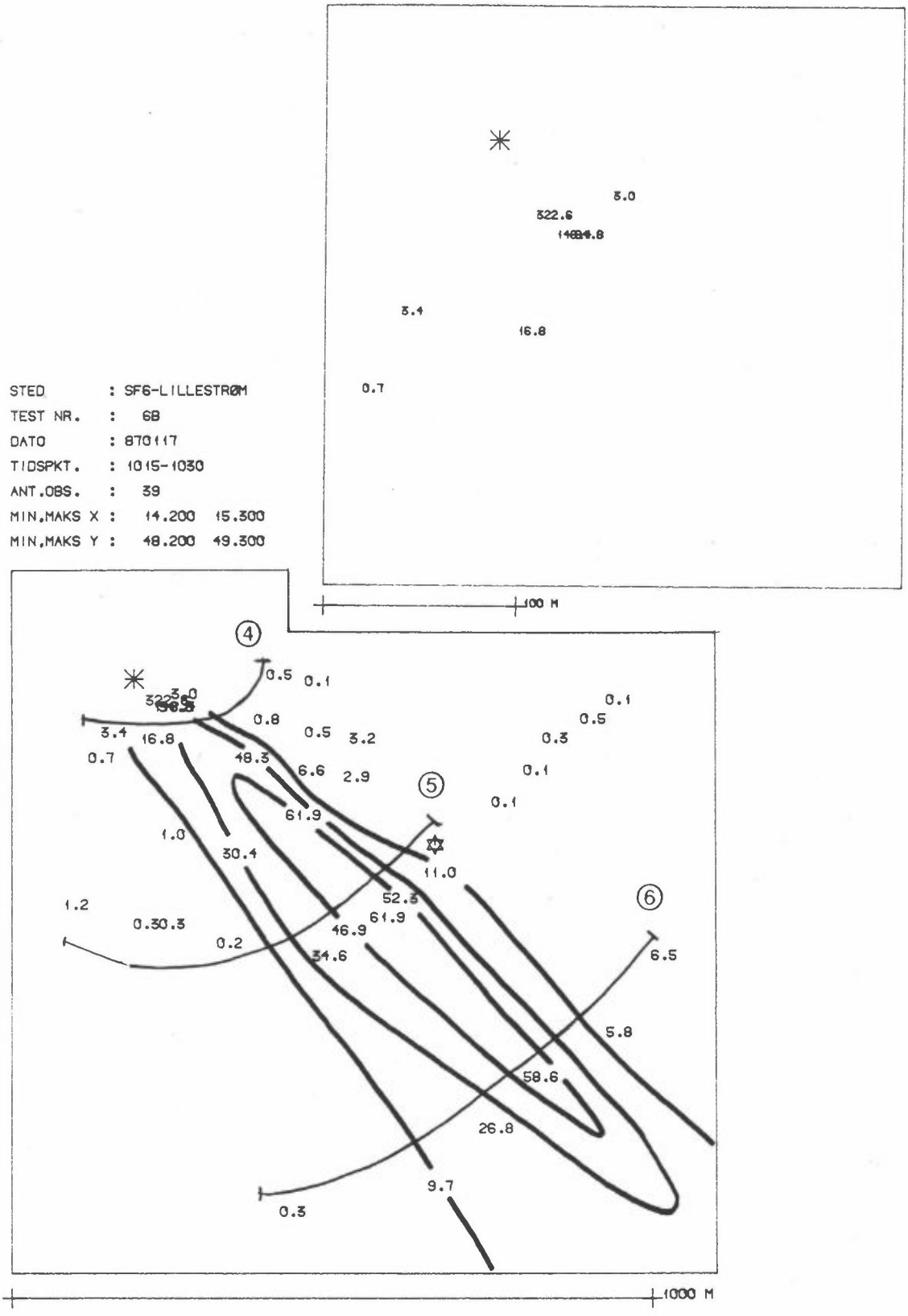

Figure 90: Test 6B-1987. SF_6 concentrations, Lillestrøm 17 January 1987, 1015-1030.
Unit: 0.1 mg/m^3.

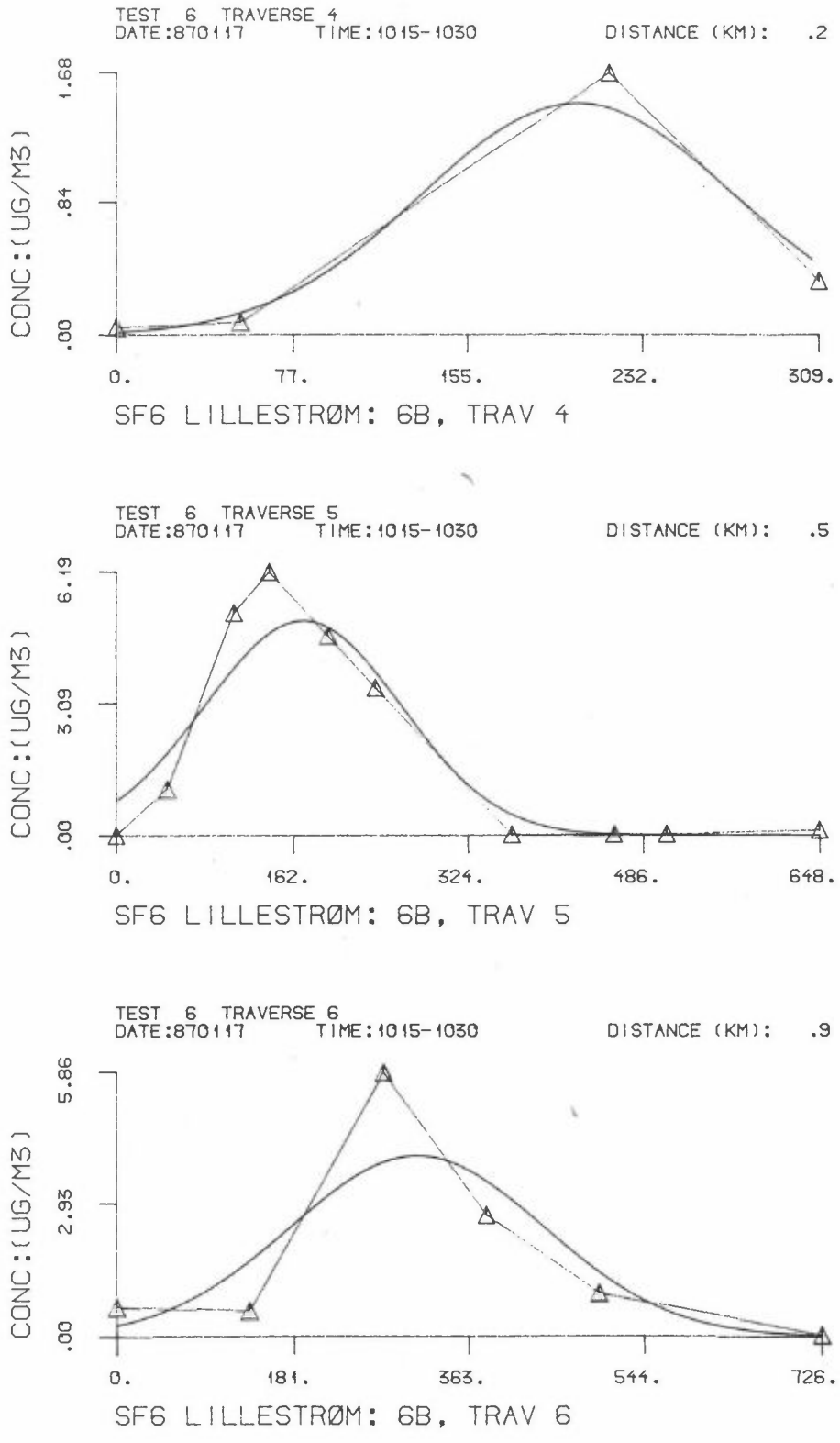

Figure 91: Crosswind SF_6 concentration profiles observed along sampling traverses 4, 5 and 6 marked on Figure 90. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

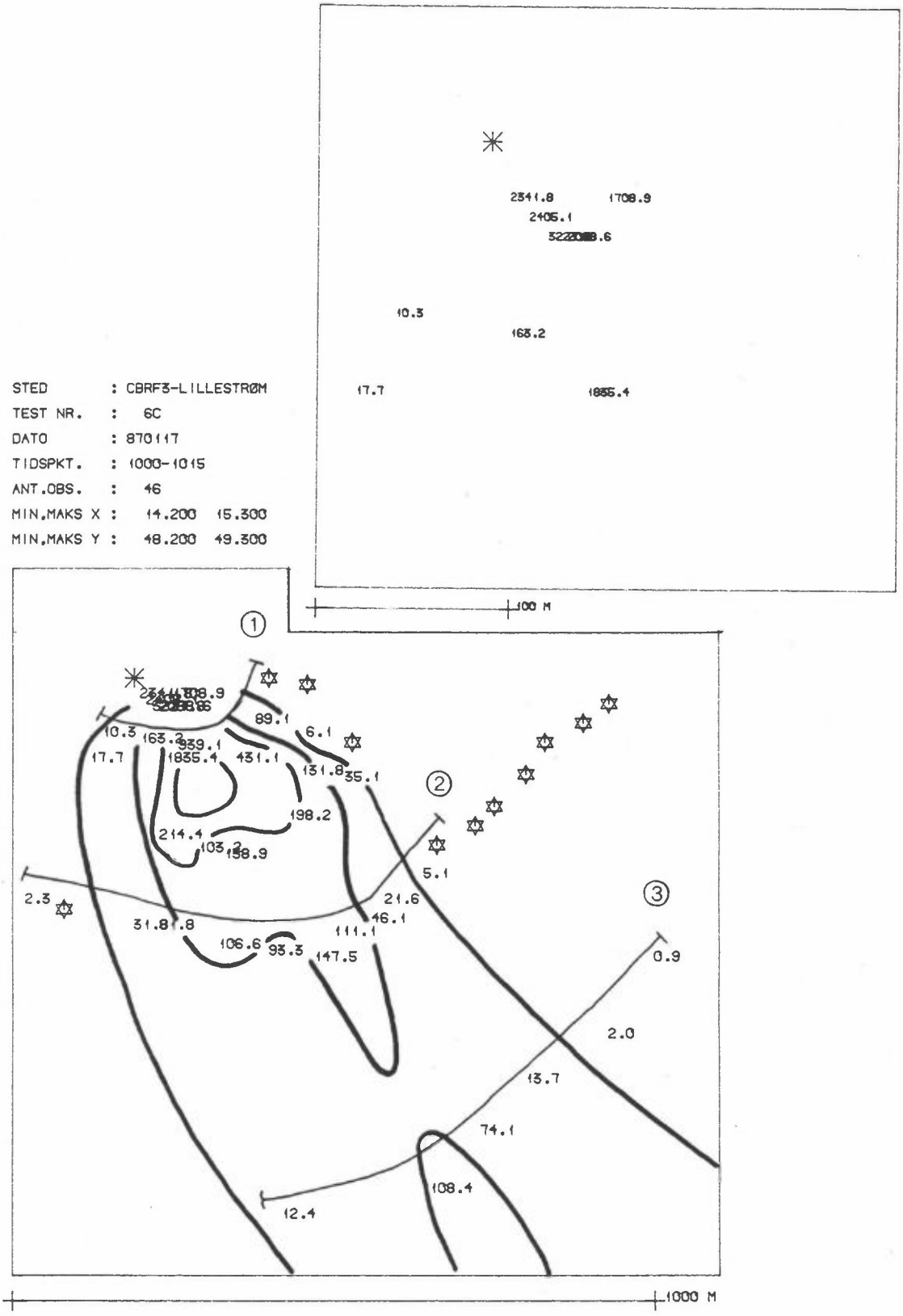

Figure 92: Test 6C-1987. $CBrF_3$ concentrations, Lillestrøm 17 January 1987, 1000-1015.
Unit: 0.1 mg/m^3.

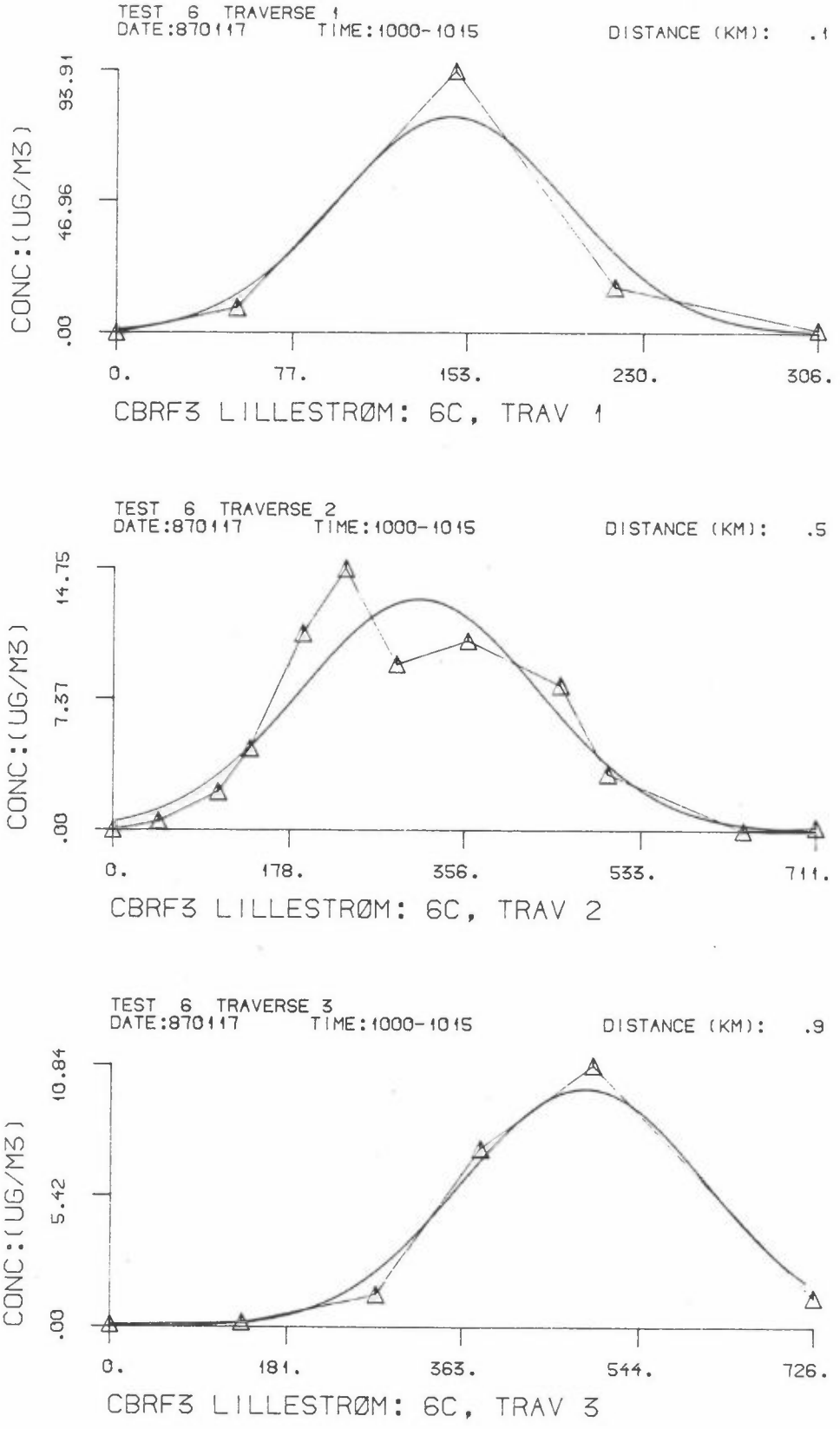

Figure 93: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 1, 2 and 3 marked on Figure 92. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

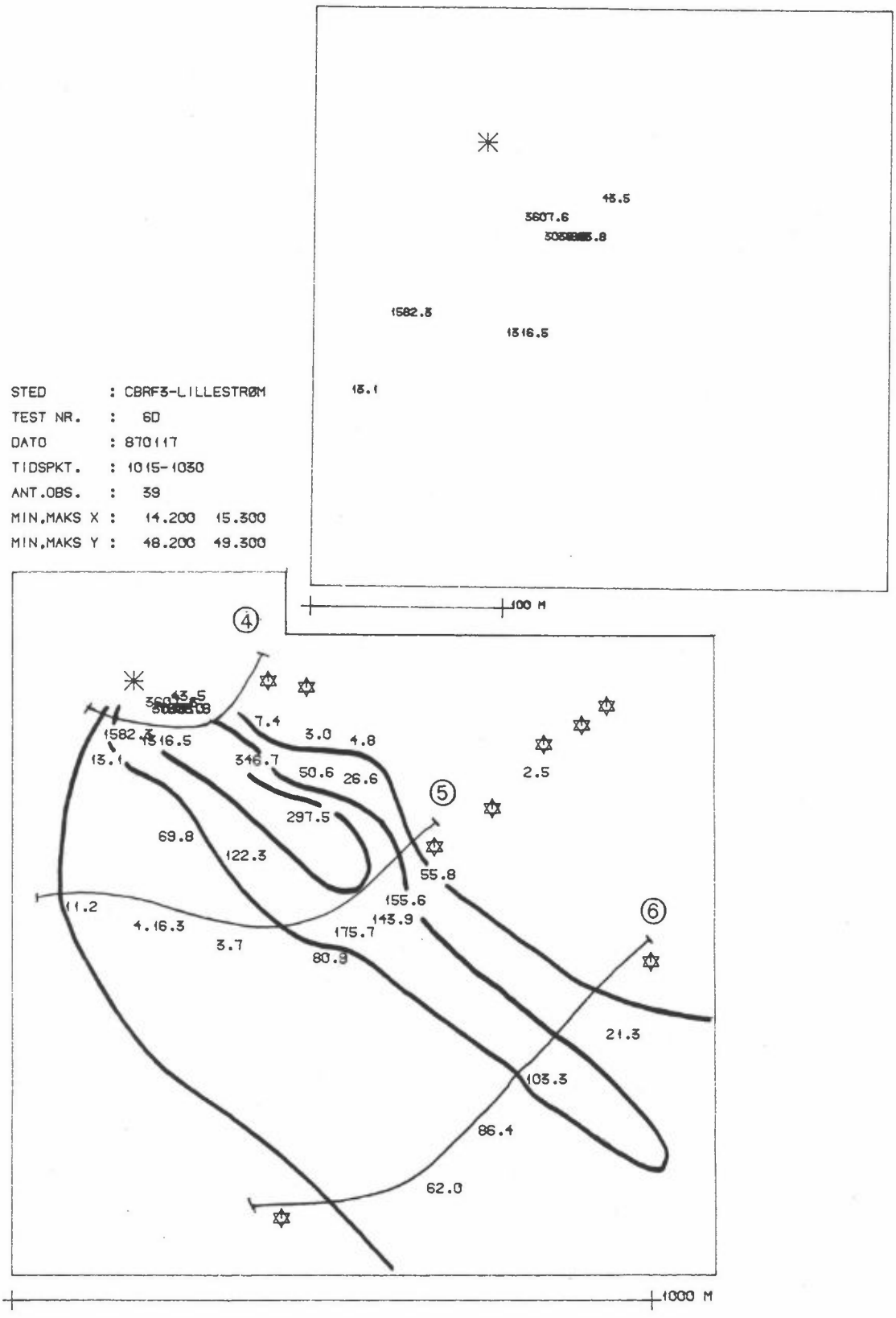

Figure 94: Test 6D-1987. $CBrF_3$ concentrations, Lillestrøm 17 January 1987, 1015-1030.
Unit: 0.1 mg/m^3.

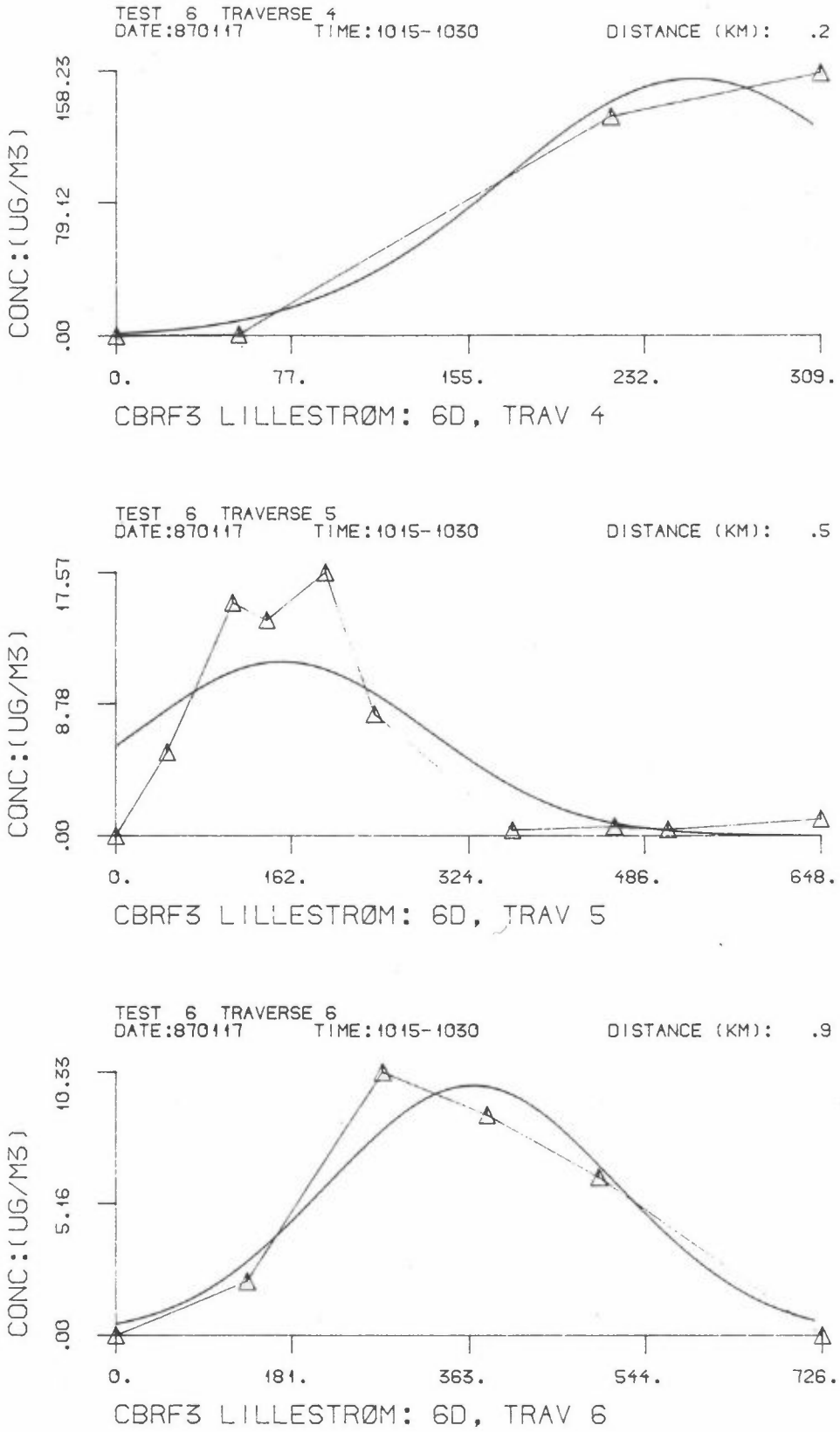

Figure 95: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 4, 5 and 6 marked on Figure 94. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

4.14 TEST 7-1987. 9 FEBRUARY 1987

SF_6 and $CBrF_3$ were released from site B from 0930 to 1030 at rates of 0.102 and 0.104 g/s.

At Lillestrøm light air (0.3 m/s) was blowing from northwest (337^0) and the temperature was -14^0C at the bottom of a ground level inversion. The vertical profiles of temperature, wind speed and wind direction are shown in Appendix A.

Figures 96 and 98 show the average 15-minute concentrations from the SF_6 dispersion experiment, and the Figures 97 and 99 show the corresponding traverses marked on Figures 96 and 98.

Figures 100 and 102 show the average 15-minute concentrations from the $CBrF_3$ dispersion experiment, and the Figures 101 and 103 show the corresponding traverses marked on Figures 100 and 102.

STED : SF6-LILLESTRØM KILDE 1 : 14.390 49.130
TEST NR. : 7A
DATO : 870209
TIDSPKT. : 1000-1015
ANT.OBS. : 24
MIN,MAKS X : 14.300 15.000
MIN,MAKS Y : 48.700 49.400

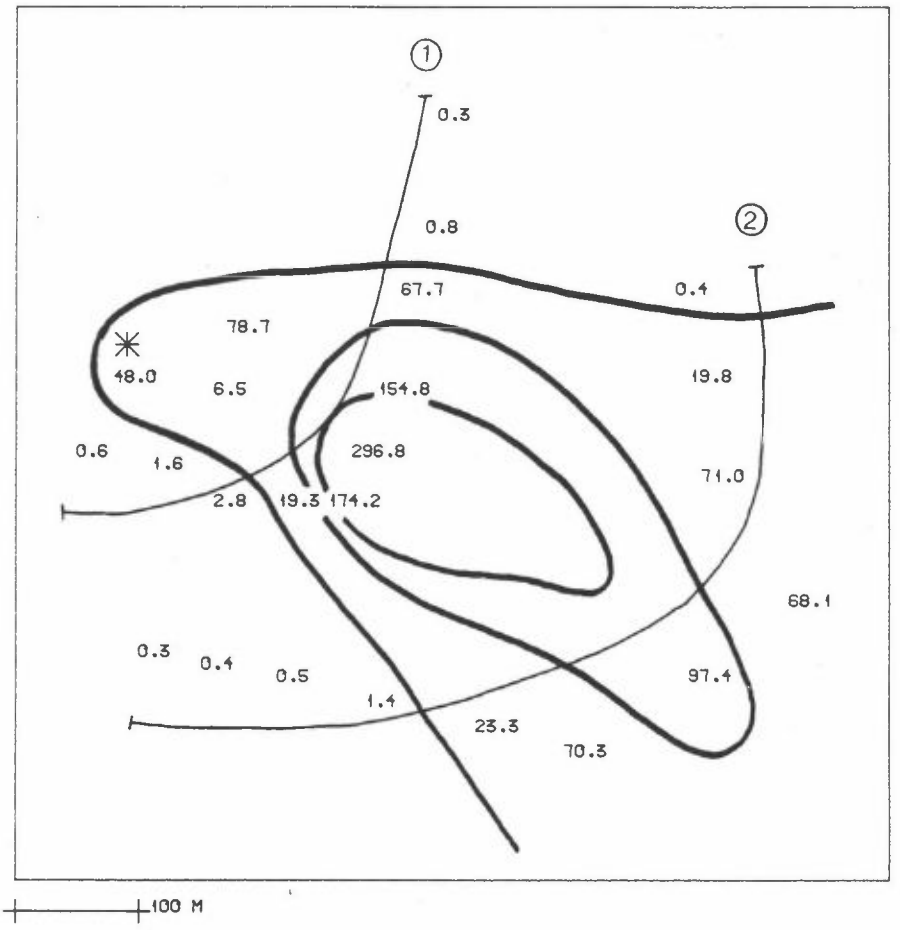

Figure 96: Test 7A-1987. SF_6 concentrations, Lillestrøm 9 February 1987, 1000-1015.
Unit: 0.1 mg/m^3.

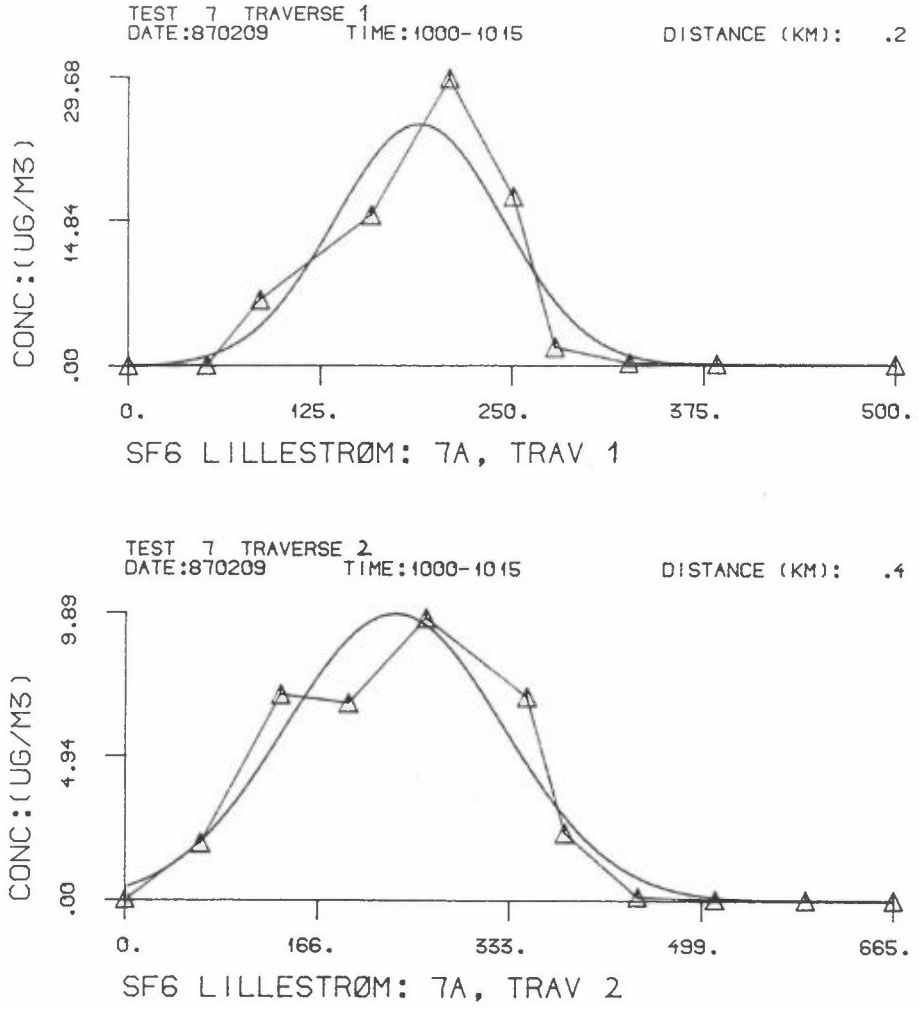

Figure 97: Crosswind SF_6 concentration profiles observed along sampling traverses 1 and 2 marked on Figure 96. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

STED : SF6-LILLESTRØM KILDE 1 : 14.390 49.130
TEST NR. : 7B
DATO : 870209
TIDSPKT. : 1015-1030
ANT.OBS. : 22
MIN,MAKS X : 14.300 15.000
MIN,MAKS Y : 48.700 49.400

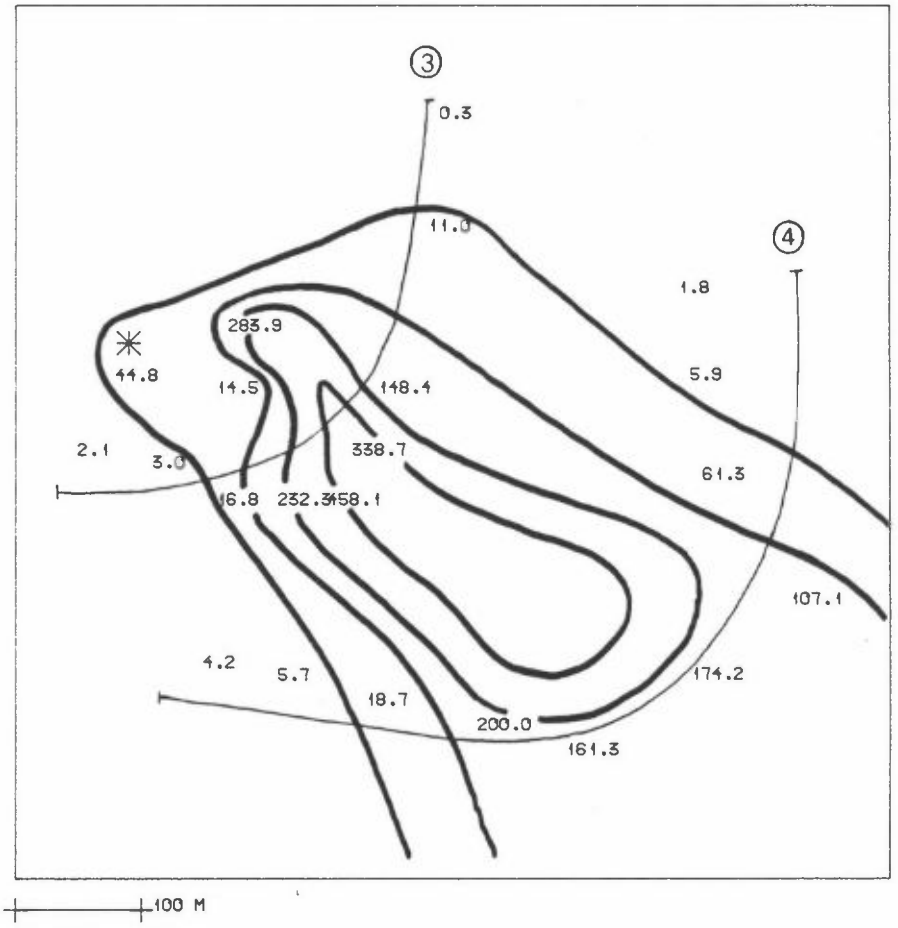

Figure 98: Test 7B-1987. SF_6 concentrations, Lillestrøm 9 February 1987, 1015-1030.
Unit: 0.1 mg/m^3.

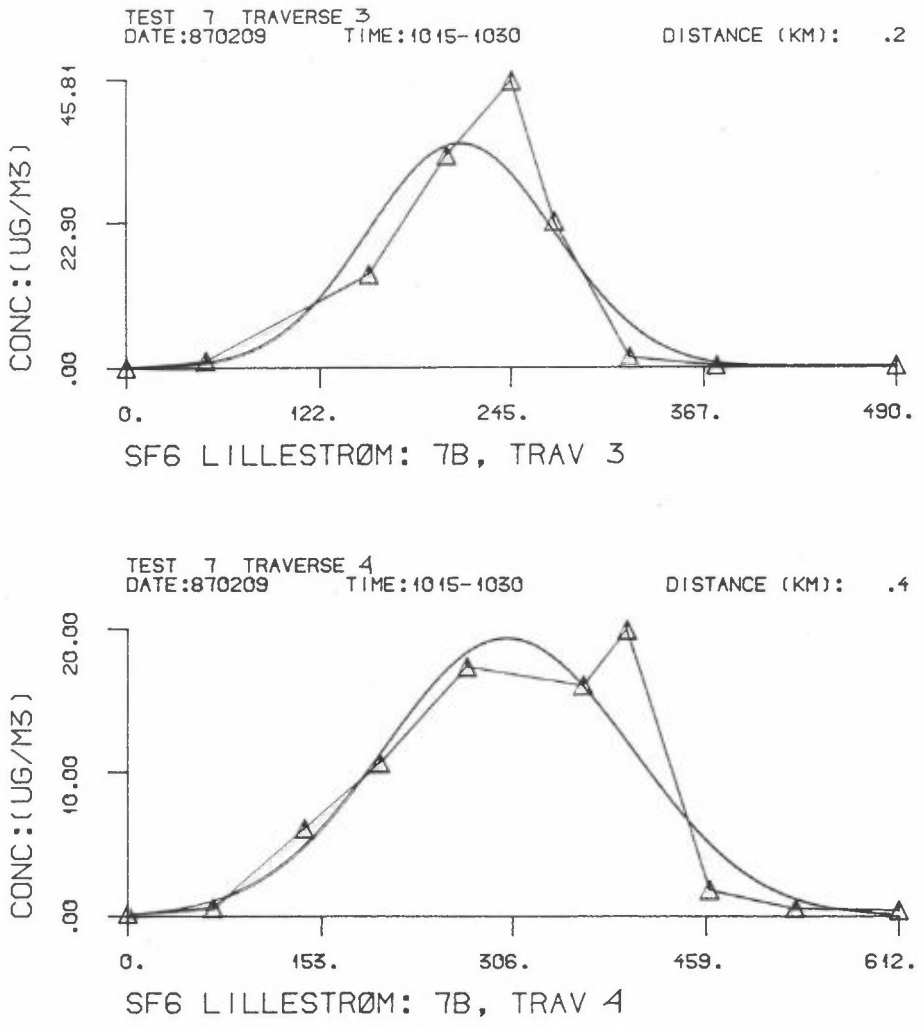

Figure 99: Crosswind SF_6 concentration profiles observed along sampling traverses 3 and 4 marked on Figure 98. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

STED : CBRF3-LILLESTRØM KILDE 1 : 14.390 49.130
TEST NR. : 7C
DATO : 870209
TIDSPKT. : 1000-1015
ANT.OBS. : 24
MIN,MAKS X : 14.300 15.000
MIN,MAKS Y : 48.700 49.400

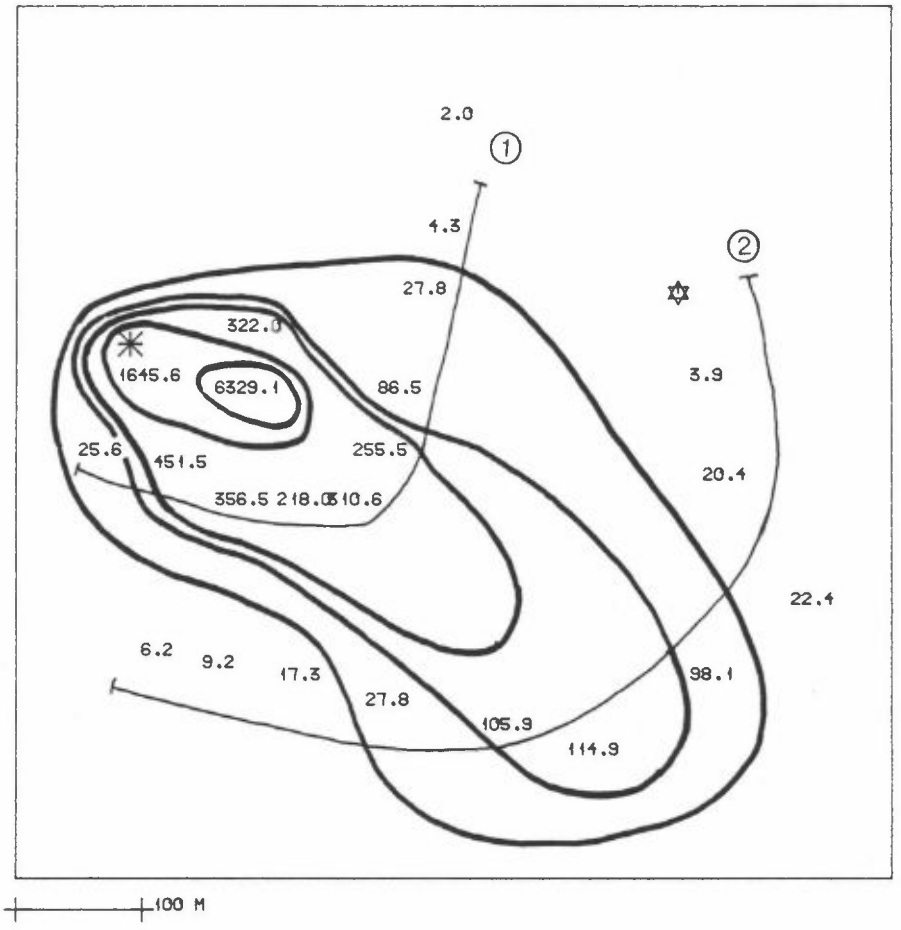

Figure 100: Test 7C-1987. $CBrF_3$ concentrations, Lillestrøm 9 February 1987, 1000-1015.
Unit: 0.1 mg/m^3.

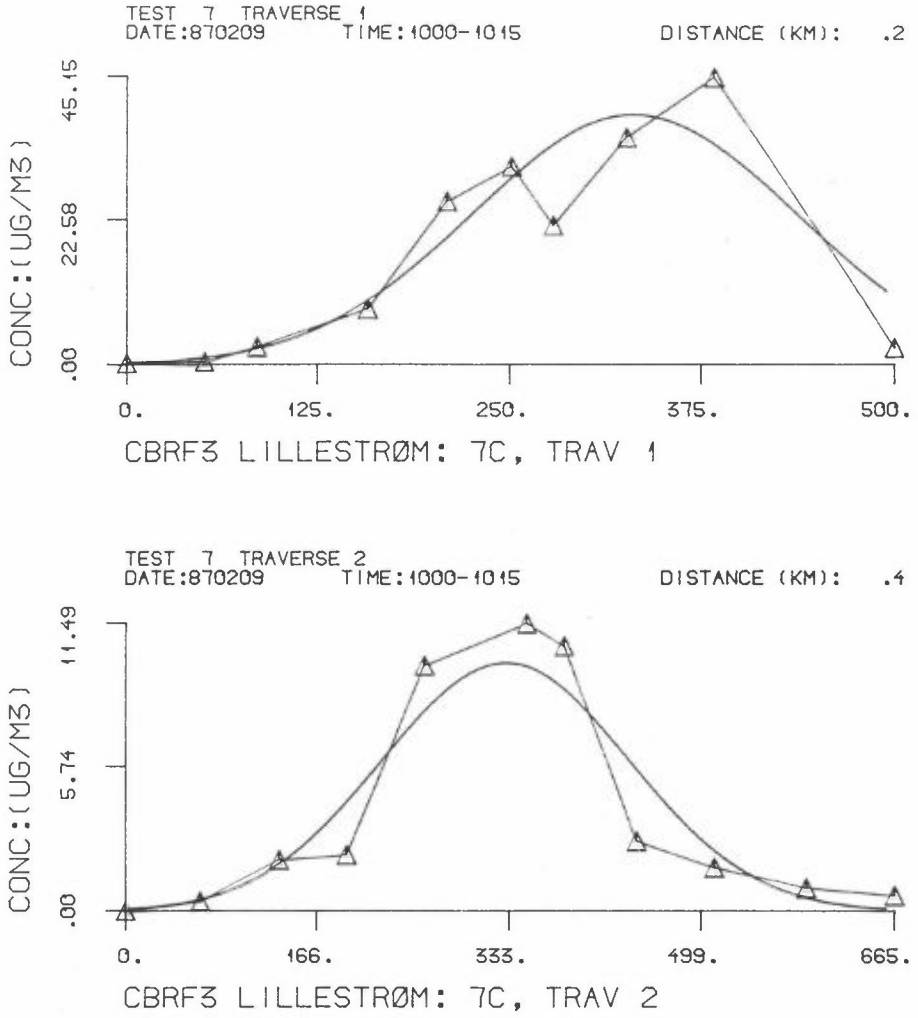

Figure 101: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 1 and 2 marked on Figure 100. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

STED : CBRF3-LILLESTRØM KILDE 1 : 14.390 49.130
TEST NR. : 7D
DATO : 870209
TIDSPKT. : 1015-1030
ANT.OBS. : 22
MIN,MAKS X : 14.300 15.000
MIN,MAKS Y : 48.700 49.400

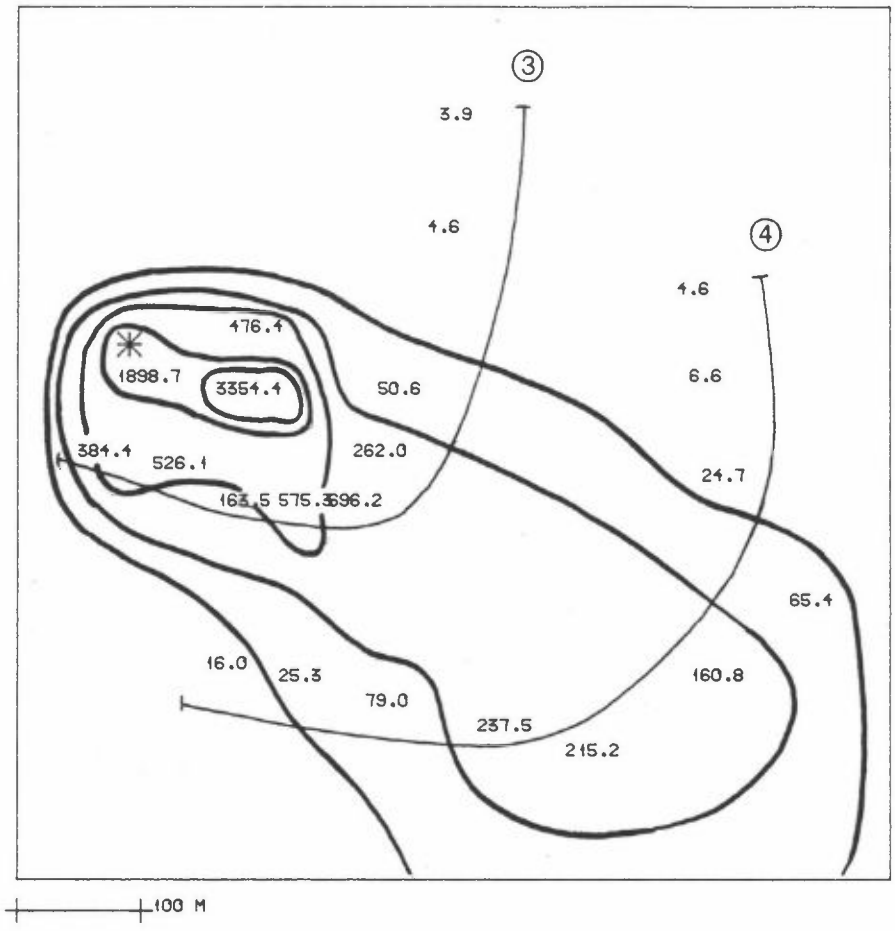

Figure 102: Test 7D-1987. $CBrF_3$ concentrations, Lillestrøm 9 February 1987, 1015-1030.
Unit: 0.1 mg/m^3.

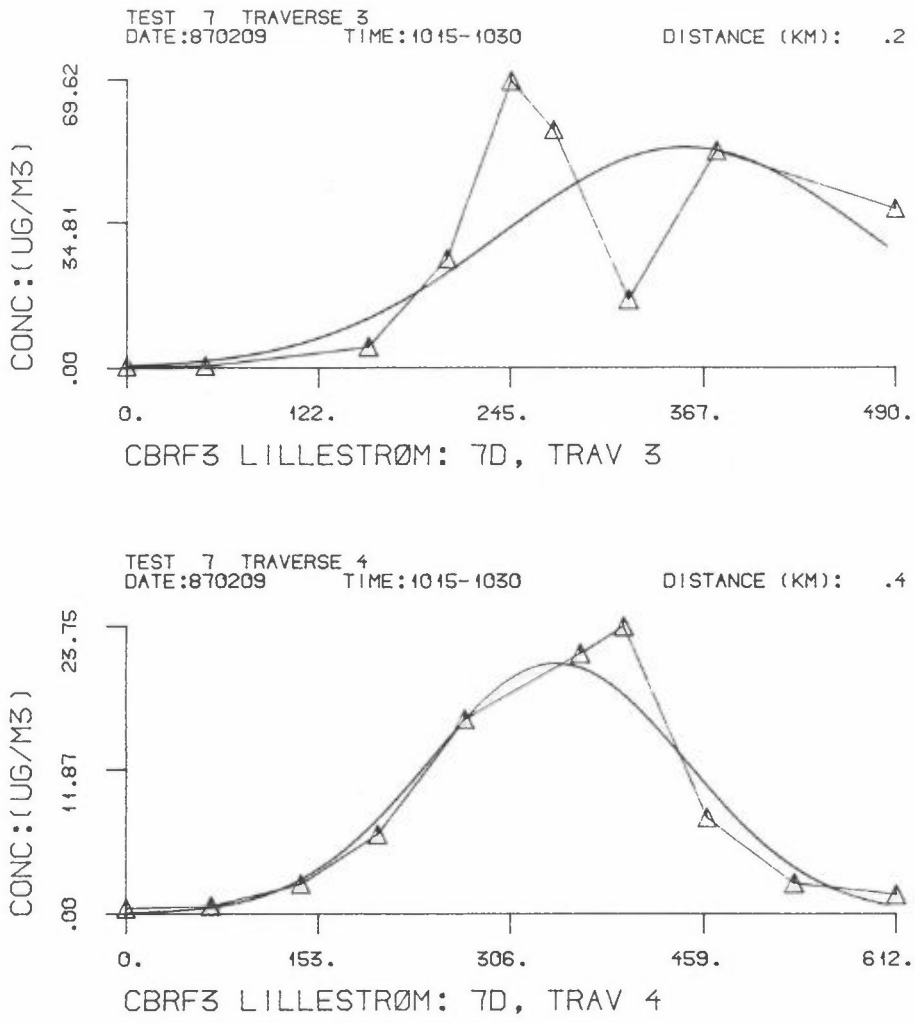

Figure 103: Crosswind $CBrF_3$ concentration profiles observed along sampling traverses 3 and 4 marked on Figure 102. Profiles were observed from the point of emission. The abscissa gives distance along crosswind profiles in metres.

4.15 TEST 8-1987. 19 FEBRUARY 1987

SF_6 and $CBrF_3$ were released from site B from 0930 to 1030 at rates of 0.102 and 0.104 g/s.

At Lillestrøm light air (0.3 m/s) was blowing mostly from southeast (146^0), but was very variable during dispersion experiment, and hence this test came out to be a failure. The vertical profiles at temperature are shown in Appendix A.

Figure 104 shows the average 15-minute concentrations from the SF_6 dispersion experiment.

Figure 105 shows the average 15-minute concentrations from the $CBrF_3$ dispersion experiment.

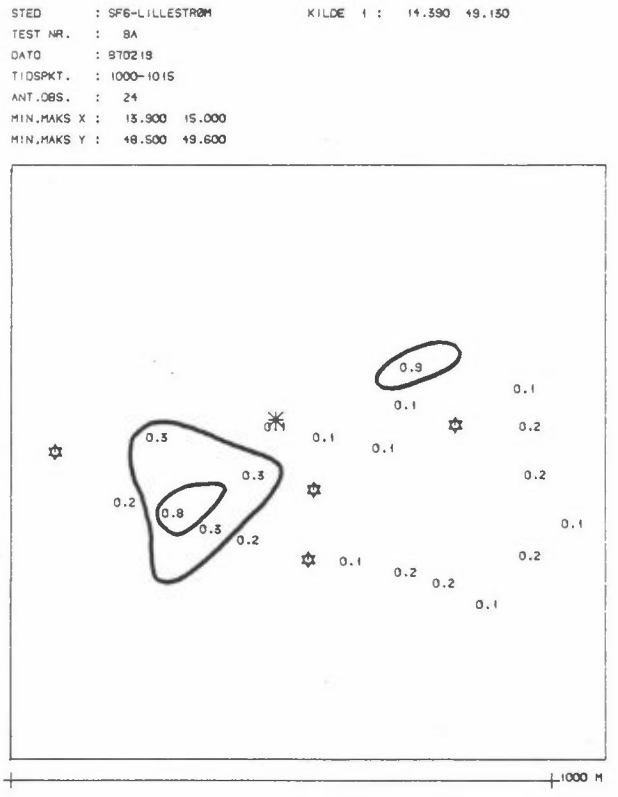

Figure 104: Tests 8A and 8B 1987. SF_6 concentrations, Lillestrøm 19 February 1987 from 1000 to 1015 (8A) and from 1015 to 1030 (8B).
Unit: 0.1 $\mu g/m^3$.

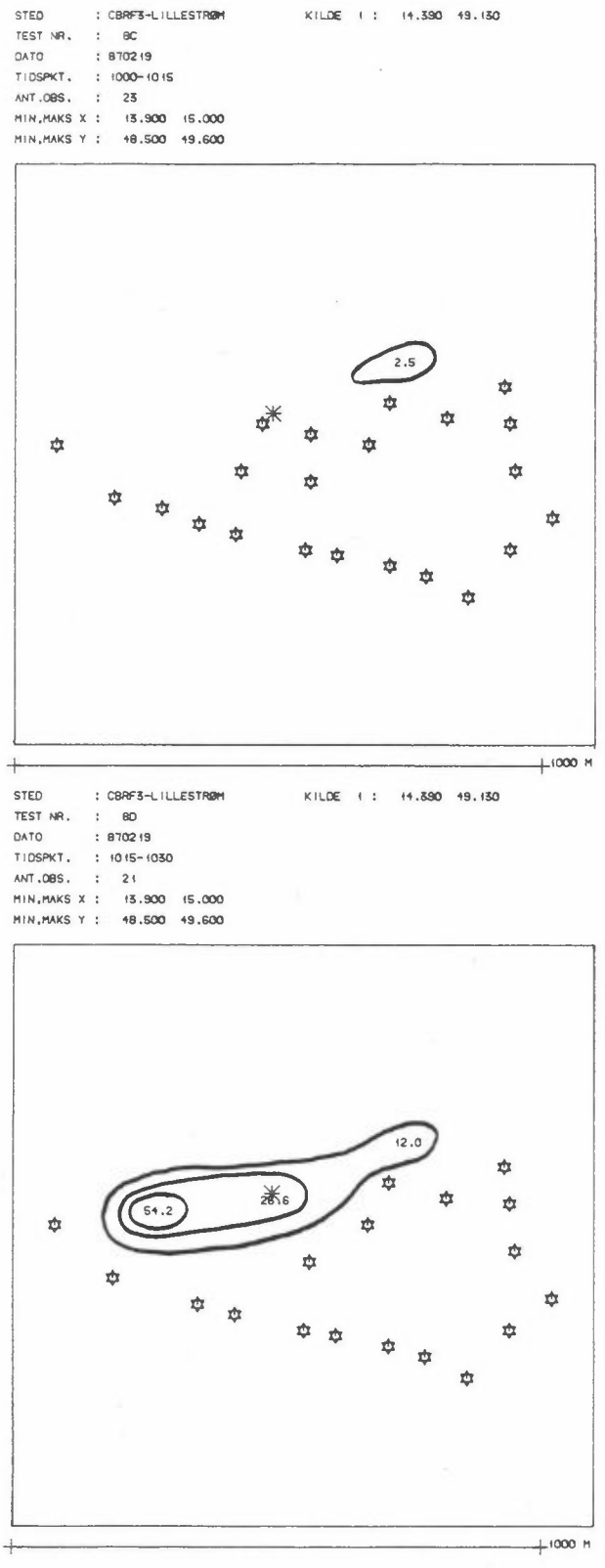

Figure 105: Tests 8C and 8D 1987. $CBrF_3$ concentrations, Lillestrøm 19 February 1987 from 1000 to 1015 (8C) and from 1015 to 1030 (8D).
Unit: 0.1 $\mu g/m^3$.

5 A SUMMARY OF THE RESULTS

Tables 3 and 4 give a summary of dispersion parameters from the dispersion experiments with SF_6 and $CBrF_3$. The tests have been carried out with simultaneous release of SF_6 and $CBrF_3$, except from test 1-1986 in which only SF_6 was released. In test 1, 1986 SF_6 was released from 10 m above ground level, in test 2-7, 1986 from 16 m above ground level and in all tests in 1987 from 36 m above ground level. $CBrF_3$ was released from 1 m above ground level.

The tests in general show that the emissions from 10-16 metres above ground level was brought quickly to the ground level, even under inversion conditions.

The standard deviations in Table 3 have been computed from "best fit" gaussian distributions to the observed distribution. The vertical standard deviations are very small, and even negative, in some cases. The negative values are caused by the iteration procedure in the algorithm deciding the "best fit" gaussian plume. Negative or zero vertical standard deviation indicates that there is a vertical transport in the initial stages of the dispersion (negative plume-rise).

Appendix B gives all the SF_6 and $CBrF_3$ data from the dispersion experiments.

Table 3: A summary of the dispersion parameters from the dispersion experiments with SF_6 at Lillestrøm, January-February 1986 and 1987.
σ_y is the standard deviation in horizontal distribution of concentrations.
σ_z is the standard deviation in vertical distribution of concentrations.

Test no.	Date	Time	Traverse and distance		σ_y (m)	σ_z (m)	Crosswind Integrated tracer ($\mu g/m^2$)	Maximum concentration Observed ($\mu g/m^3$)	Maximum concentration Estimated ($\mu g/m^3$)
1A-1986	86.01.09	0945-1000	1	860	144	0.0	1 023	29.6	28.4
			2	1 210	132	-0.1	1 856	6.1	5.6
1B-1986		1000-1015	3	890	157	0.0	6 962	20.0	17.7
			4	1 220	142	-0.1	3 543	10.6	9.9
2A-1986	86.02.07	0945-1000	1	150	177	37.2	3 927	10.1	8.9
			2	510	539	-0.1	6 709	6.6	5.0
			3	880	598	29.8	4 628	4.1	3.1
2B-1986		1000-1015	4	510	402	35.6	4 052	4.3	4.0
			5	870	691	33.6	4 251	4.2	2.5
3A-1986	86.02.11	0935-0950	1	190	470	0.0	3 059	25.5	26.0
			2	490	91	0.0	2 856	17.3	12.6
			3	850	155	20.4	990	3.7	2.6
3B-1986		0950-1005	4	190	122	0.0	6 180	24.8	20.2
			5	520	127	0.1	1 060	3.8	3.3
			6	850	157	-0.1	3 435	9.0	8.7
4A-1986	86.02.13	0840-0855	1	180	83	55.5	1 959	14.7	9.4
			2	520	242	0.1	5 410	9.4	8.9
			3	860	280	30.5	3 268	4.8	4.7
4B-1986		0855-0910	4	180	81	-0.1	904	46.7	44.3
			5	520	319	-0.1	4 539	5.9	5.7
			6	920	556	19.5	4 175	3.9	3.0
6A-1986	86.02.19	0830-0845	1	530	118	58.6	2 630	8.4	8.9
			2	890	124	44.5	3 355	11.9	10.8
6B-1986		0845-0900	3	650	171	26.8	2 970	8.6	6.9
			4	910	189	9.4	2 079	4.1	4.4
7A-1986	86.02.21	0818-0833	1	170	36	0.1	4 680	64.3	51.0
			2	520	71	0.1	3 737	23.6	21.0
			3	900	118	0.1	3 379	11.1	11.4
7B-1986		0833-0848	4	510	69	-0.1	3 245	20.0	18.8
			5	890	114	0.1	2 874	10.8	10.1

Table 3, cont.

Test no.	Date	Time	Traverse and distance (m)	σ_y (m)	σ_z (m)	Crosswind Integrated tracer ($\mu g/m^2$)	Maximum concentration Observed ($\mu g/m^3$)	Maximum concentration Estimated ($\mu g/m^3$)
1A-1987	87.01.02	1035-1050	1 320	79	111.8	847	5.3	4.3
			2 560	135	112.5	843	4.4	2.5
1B-1987		1050-1105	3 160	77	243.7	405	2.4	2.1
2A-1987	87.01.06	0930-0945	1 260	91	64.1	1 331	8.9	5.8
			2 440	168	124.1	1 027	4.5	2.4
2B-1987		0945-1000	3 260	97	54.6	1 959	8.9	8.0
			4 460	160	0.2	3 079	8.3	7.7
3A-1987	87.01.07	0930-0945	1 140	32	4 627.0	34	0.4	0.4
			2 620	138	5 543.0	29	0.3	0.1
			3 440	188	7 638.0	21	0.05	0.05
3B-1987		0945-1000	4 160	52	2 156.0	74	0.6	0.6
			5 470	310	6 148.0	26	0.04	0.03
4A-1987	87.01.10	0930-0945	1 160	65	0.2	1 082	7.6	6.7
			2 490	129	0.2	1 029	4.8	3.2
			3 810	144	0.2	1 049	3.7	2.9
4B-1987		0945-1000	4 140	54	-0.1	1 161	8.3	8.6
			5 440	132	0.2	1 337	5.2	3.4
			6 820	237	-0.1	1 486	3.4	2.5
5A-1987	87.01.12	0930-0945	1 150	49	-0.1	1 060	11.1	8.6
			2 300	68	83.6	437	2.7	2.6
			3 460	115	46.9	633	2.3	2.2
5B-1987		0945-1000	4 160	52	-0.2	988	8.6	7.6
			5 300	58	0.3	741	5.8	5.1
			6 440	113	-0.3	774	2.8	2.7
6A-1987	87.01.17	1000-1015	1 150	41	247.8	637	6.9	6.1
			2 470	98	327.6	484	3.3	2.0
			3 900	134	0.3	2 732	7.6	8.2
6B-1987		1015-1030	4 150	69	622.4	256	1.7	1.5
			5 490	79	135.3	1 327	6.2	5.8
			6 900	131	114.4	1 138	5.8	4.0
7A-1987	87.02.09	1000-1015	1 190	55	0.2	2 342	29.6	24.9
			2 410	95	54.9	3 411	9.7	9.9
7B-1987		1015-1030	3 190	59	0.1	4 770	45.8	35.8
			4 430	98	-0.1	5 328	20.0	19.4

Table 4: A summary of the dispersion parameters from the dispersion experiments with $CBrF_3$ at Lillestrøm, January-February 1986 and 1987.
σ_y is the standard deviation in horizontal distribution of concentrations.
σ_z is the standard deviation in vertical distribution of concentrations.

Test no.	Date	Time	Traverse and distance (m)	σ_y (m)	σ_z (m)	Crosswind Integrated tracer ($\mu g/m^2$)	Maximum concentration Observed ($\mu g/m^3$)	Estimated ($\mu g/m^3$)
2C-1986	86.02.07	0945-1000	1 150	182	20.7	7 675	21.7	16.8
			2 510	561	12.8	12 360	11.8	8.8
			3 880	1 040	19.4	8 189	7.4	3.1
2D-1986		1000-1015	4 510	686	20.0	7 937	6.1	4.6
			5 870	1 270	17.4	9 116	4.6	2.9
3C-1986	86.02.11	0935-0950	1 190	64	10.4	2 622	19.3	16.4
			2 490	462	3.9	6 786	13.4	5.9
			3 850	659	6.9	3 956	3.2	2.4
3D-1986		0950-1005	4 490	214	17.2	1 594	3.6	3.0
			5 850	250	7.0	3 868	8.0	6.2
4C-1986	86.02.13	0840-0855	1 500	273	19.2	5 912	12.0	8.6
			2 860	505	23.4	4 846	9.1	3.8
4D-1986		0855-0910	3 520	351	26.2	4 329	5.1	4.9
6C-1986	86.02.19	0830-0845	1 530	152	51.0	3 113	10.3	8.2
			2 890	173	39.5	4 025	9.5	9.3
6D-1986		0845-0900	3 660	382	52.0	1 532	2.3	1.6
			4 910	307	19.9	1 994	3.2	2.6
7C-1986	86.02.21	0818-0833	1 520	201	29.1	2 177	6.6	4.3
			2 900	101	66.7	953	4.4	3.8
7D-1986		0833-0848	3 510	189	17.5	3 624	8.5	7.6
			4 890	118	26.9	2 357	8.5	8.0

Table 4, cont.

Test no.	Date	Time	Traverse and distance (m)	σ_y (m)	σ_z (m)	Crosswind Integrated tracer ($\mu g/m^2$)	Maximum concentration Observed ($\mu g/m^3$)	Maximum concentration Estimated ($\mu g/m^3$)
1C-1987	87.01.02	1035-1050	1 320	110	23.6	4 206	22.0	15.3
			2 560	221	51.4	1 929	5.5	3.5
1D-1987		1050-1105	3 160	123	24.7	4 023	17.6	13.1
2C-1987	87.01.06	0930-0945	1 260	126	19.3	5 142	16.4	16.3
			2 440	265	23.5	5 636	14.0	8.5
2D-1987		0945-1000	3 260	104	17.6	7 505	30.5	28.8
			4 460	185	20.0	6 614	19.9	14.3
3C-1987	87.01.07	0930-0945	1 140	34	9.5	16 740	187.3	195.8
			2 440	77	17.9	8 893	48.1	46.0
			3 620	183	201.2	793	2.0	1.7
3D-1987		0945-1000	4 160	78	3.7	41 290	272.5	212.2
			5 470	91	31.6	5 027	31.8	22.0
4C-1987	87.01.10	0930-0945	1 160	49	7.0	5 649	55.3	45.8
			2 490	108	26.5	1 498	5.9	5.5
			3 810	145	52.2	761	3.0	2.1
4D-1987		0945-1000	4 140	50	4.7	8 269	68.9	65.6
			5 440	114	21.2	1 870	8.1	6.6
			6 820	220	28.7	1 381	3.1	2.5
5C-1987	87.01.12	0930-0945	1 150	55	2.2	16 390	139.1	118.7
			2 300	96	7.0	5 618	31.2	23.3
			3 460	125	7.7	5 187	18.9	16.5
5D-1987		0945-1000	4 160	57	0.0	24 440	198.1	172.2
			5 300	71	5.2	7 565	47.6	42.3
			6 450	145	8.0	4 941	15.2	13.6
6C-1987	87.01.17	1000-1015	1 150	50	16.3	975	93.6	77.5
			2 470	120	40.4	3 929	14.6	13.0
			3 900	126	50.7	3 134	10.8	9.9
6D-1987		1015-1030	4 150	84	4.8	32 390	158.1	154.3
			5 480	133	41.0	3 877	17.5	11.6
			6 900	148	43.5	3 647	10.3	9.8
7C-1987	87.02.09	1000-1015	1 190	105	15.4	10 290	45.1	39.3
			2 410	107	59.4	2 672	11.5	9.9
7D-1987		1015-1030	3 190	117	10.1	15 660	69.6	53.5
			4 430	102	29.9	5 307	23.8	20.7

6 REFERENCES

Haugsbakk, I. (1988) Meteorologi og luftkvalitet. Lillestrøm vinteren 1986/87. Lillestrøm (NILU OR 1/88).

Haugsbakk, I. (1987) Meteorologi og luftkvalitet. Lillestrøm vinteren 1985/86. Lillestrøm (NILU OR 10/87).

Haugsbakk, I. og Grønskei, K.E. (1986) Spredningsforsøk med SF_6 og $CBrF_3$ for å studere relative forurensningsbidrag fra oljefyring og biltrafikk. Lillestrøm (NILU TR 9/86).

Heggen, R. og Sivertsen, B. (1983) Tracer gas techniques at NILU. Lillestrøm (NILU TR 7/83).

Lamb, B.K. og Sivertsen, B. (1978) Atmospheric dispersion experiments using the NILU automatic weather station and SF_6 tracer technique. Lillestrøm (NILU TN 12/78).

APPENDIX A

Vertical profiles of temperature and wind speed.

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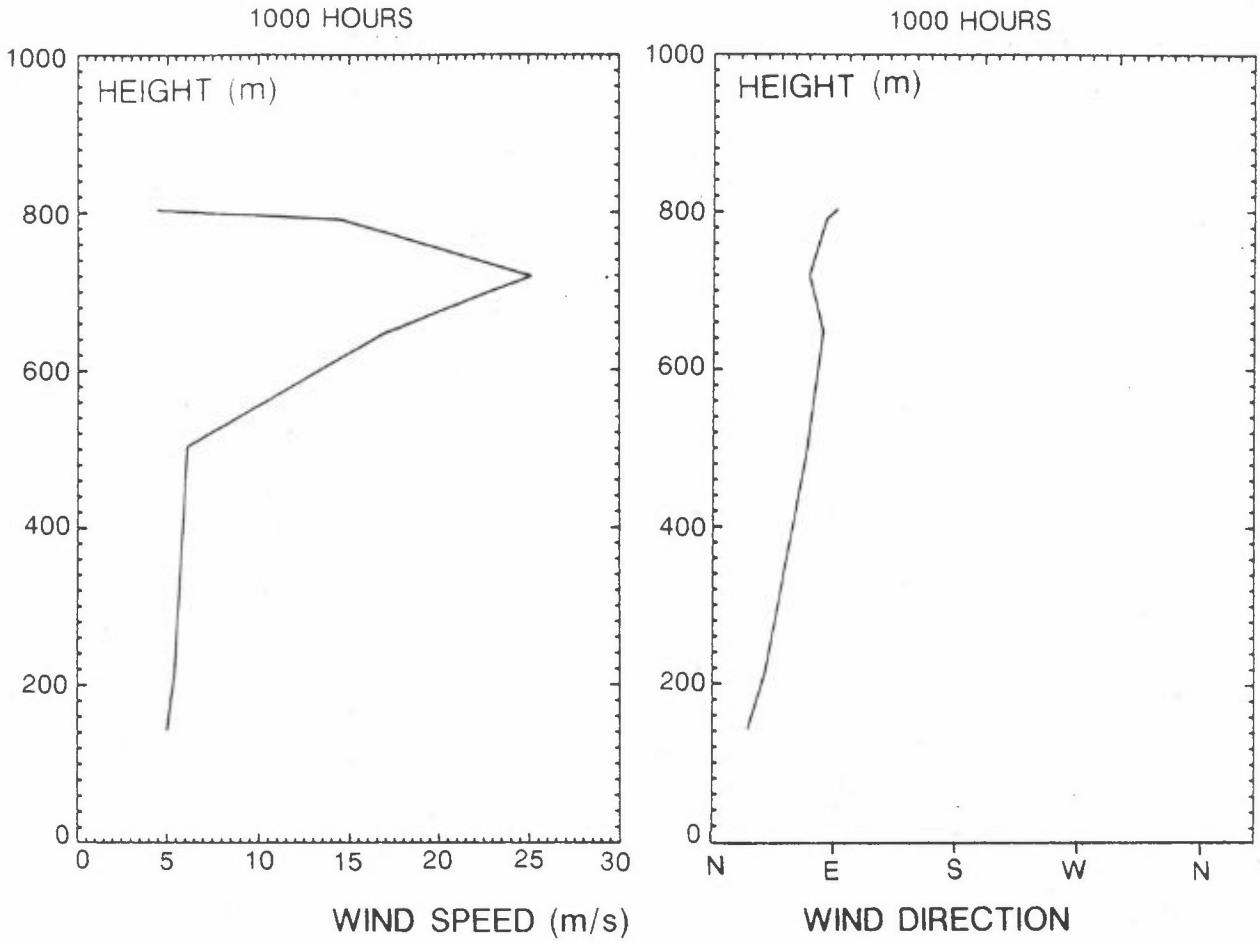

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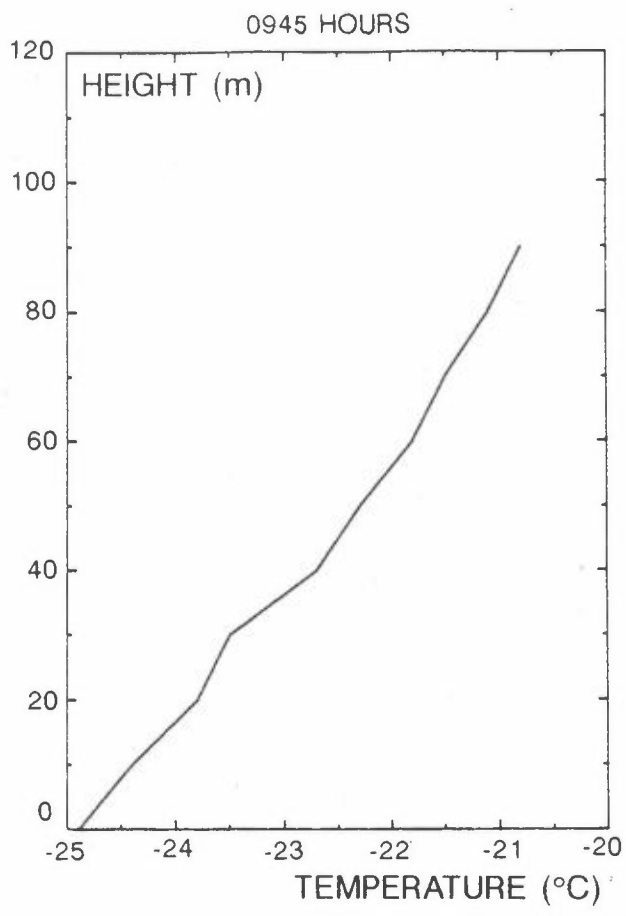

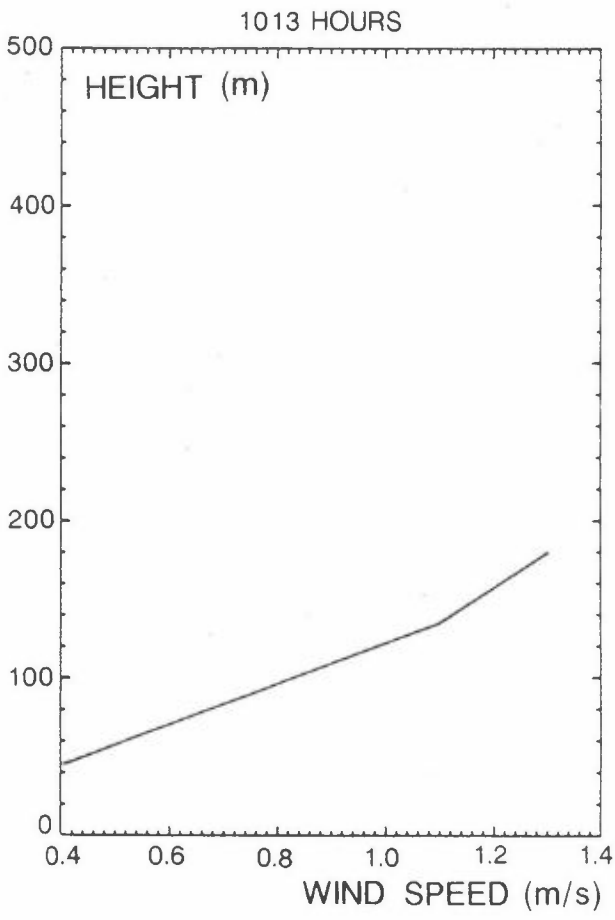

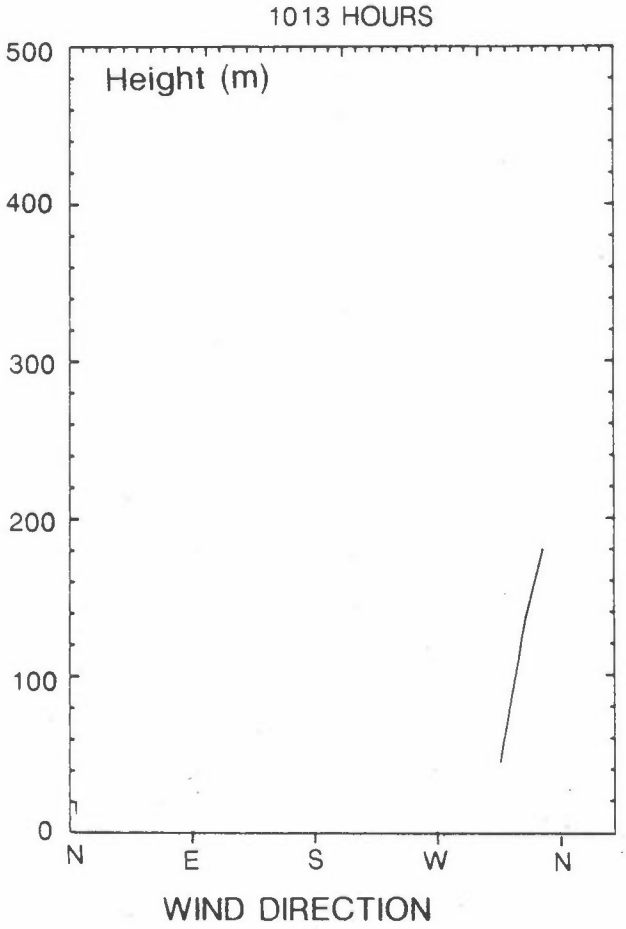

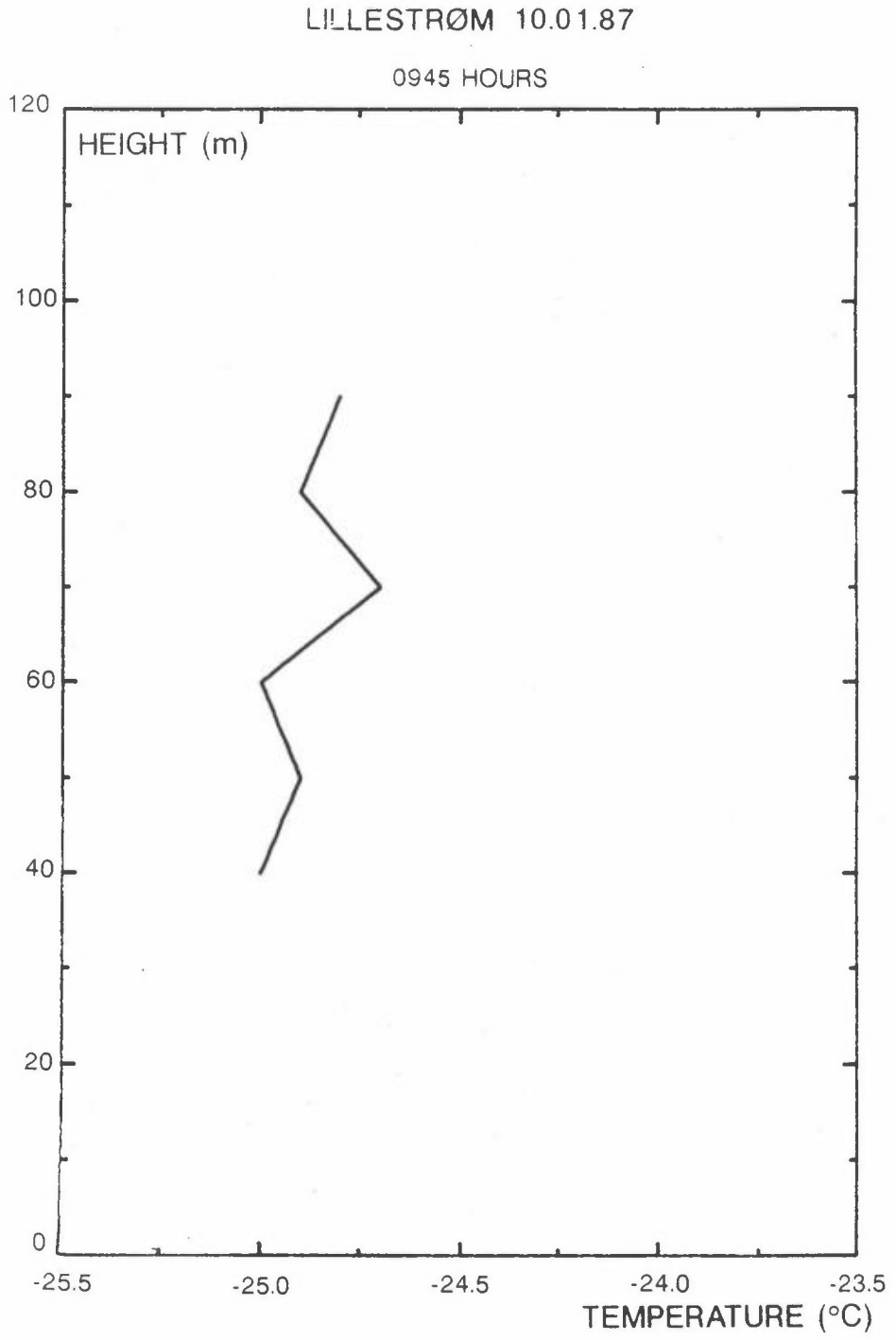
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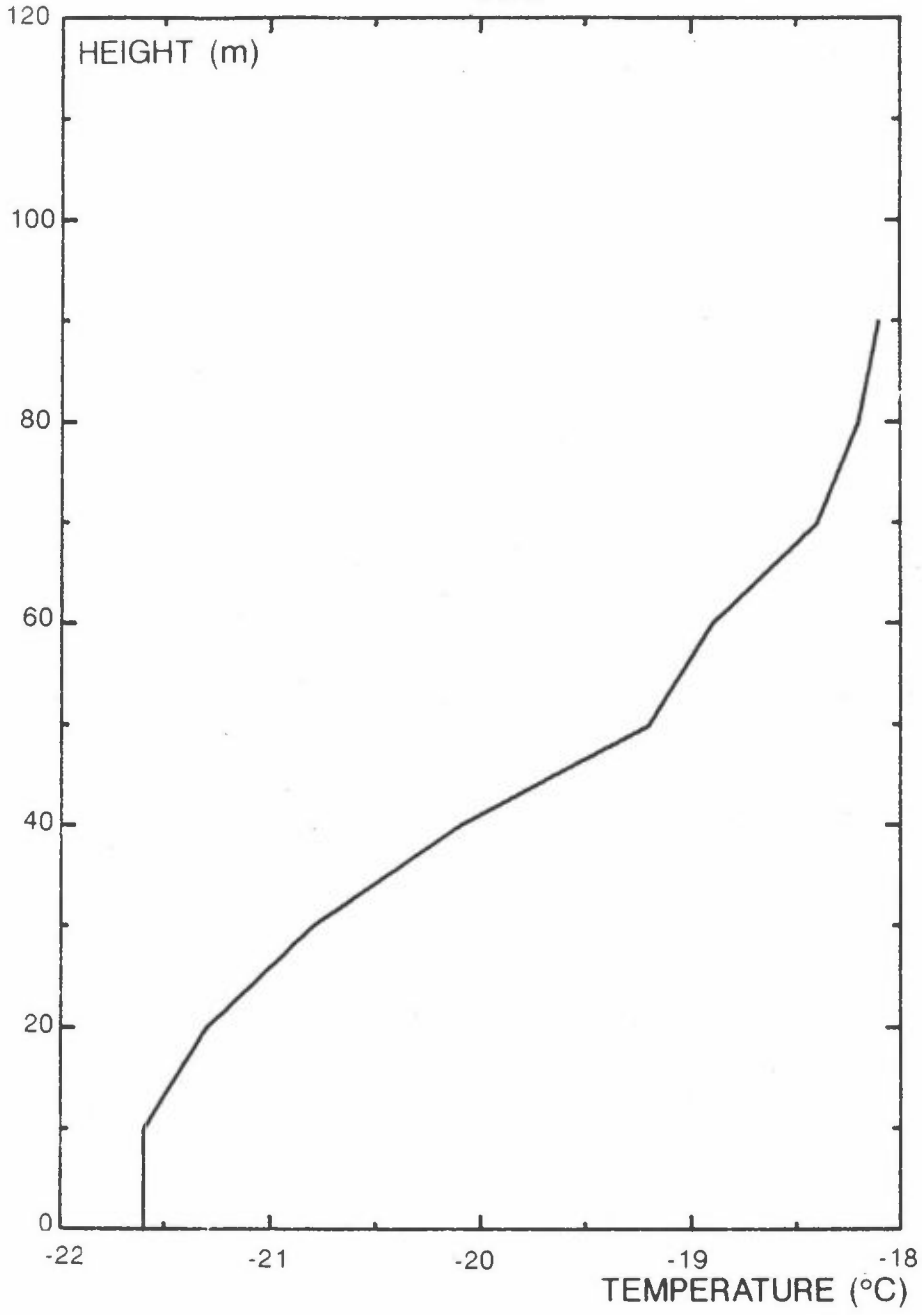
0945 HOURS
HEIGHT (m)
120
100
80
60
40
20
0
-25.5
-25.0
-24.5
-24.0
-23.5
TEMPERATURE (°C)

LILLESTRØM 17.01.87

1013 HOURS



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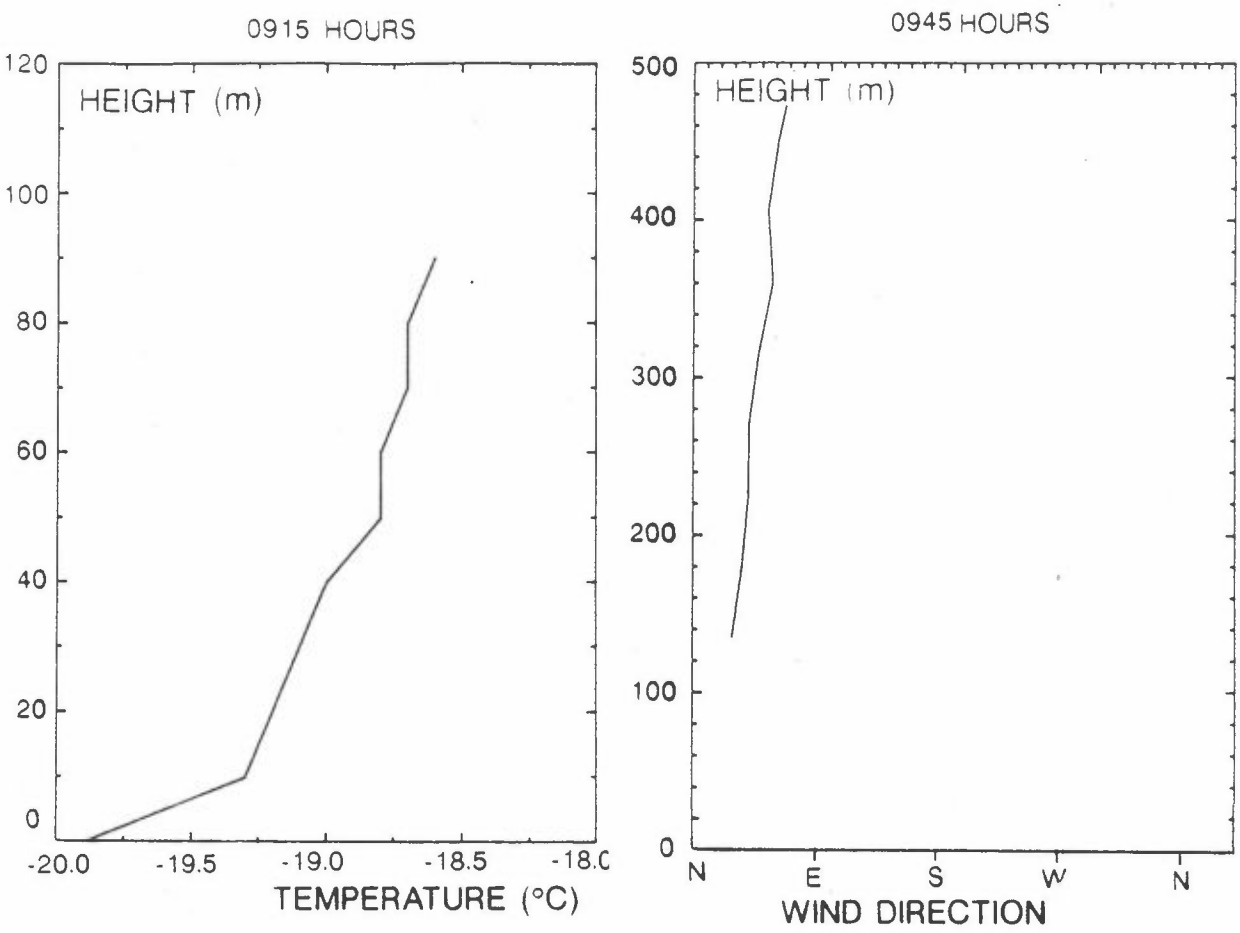

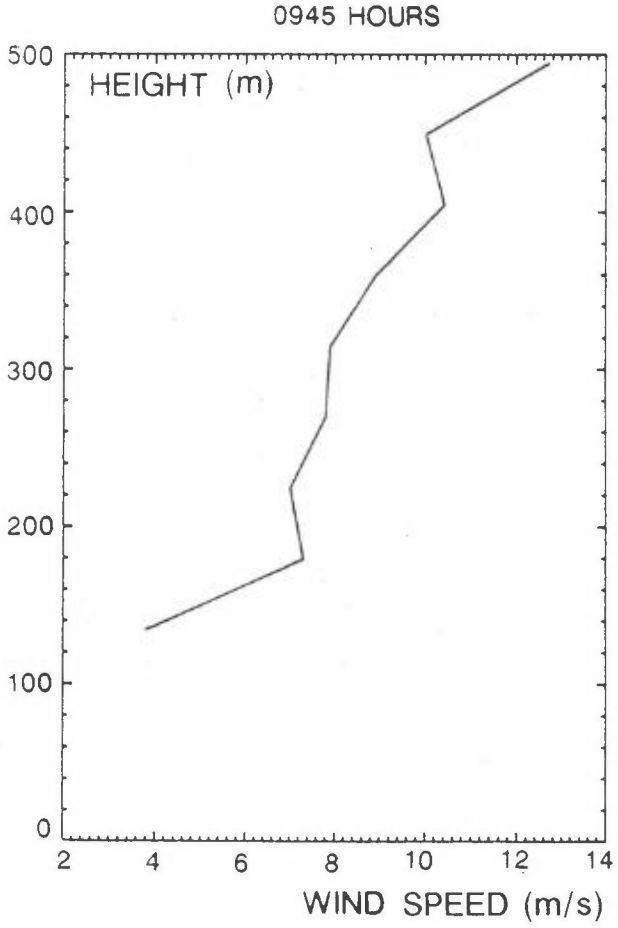

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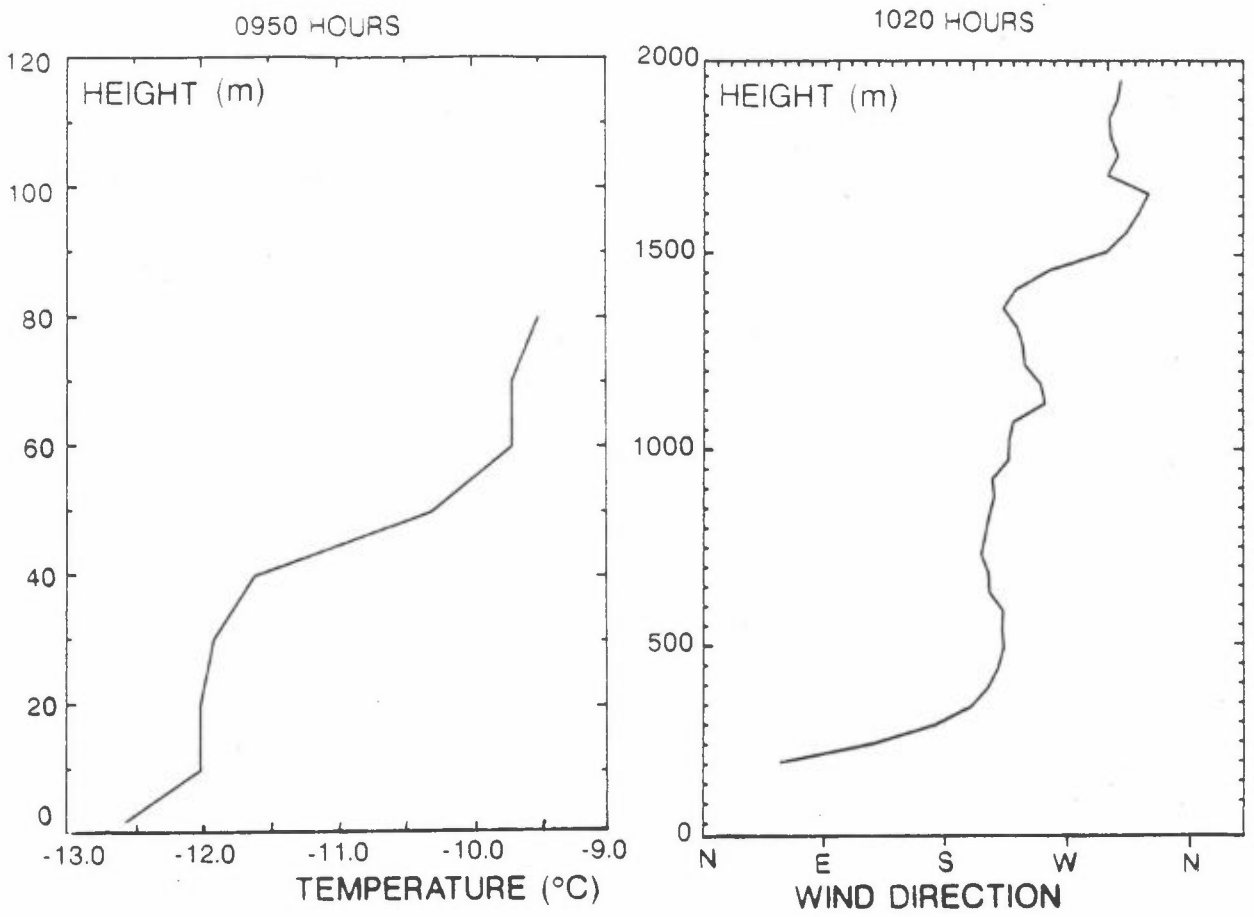

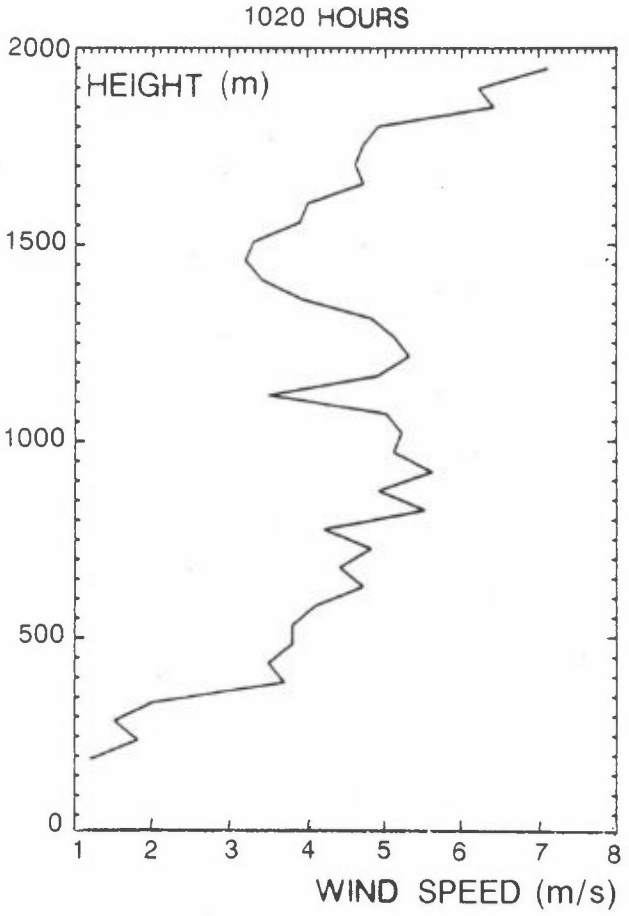

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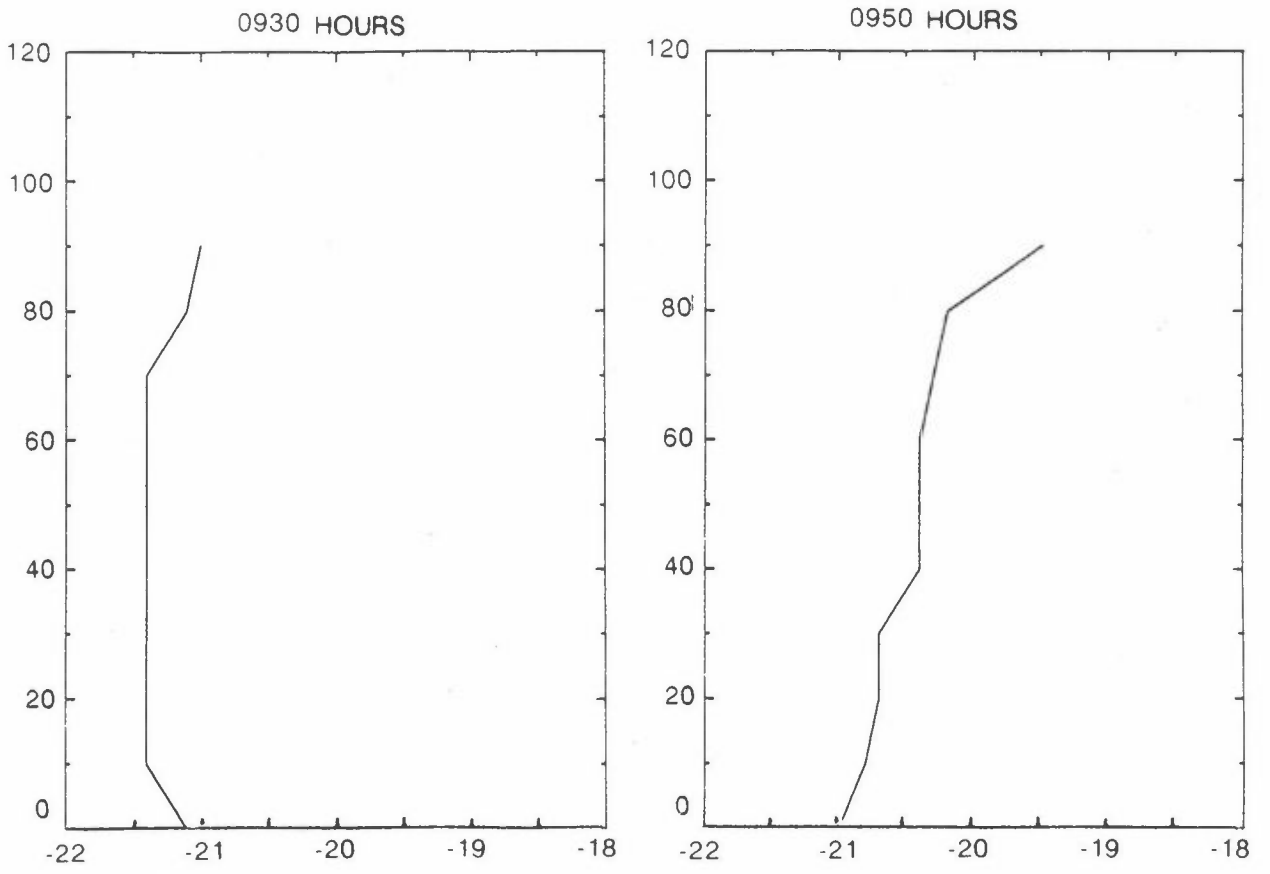
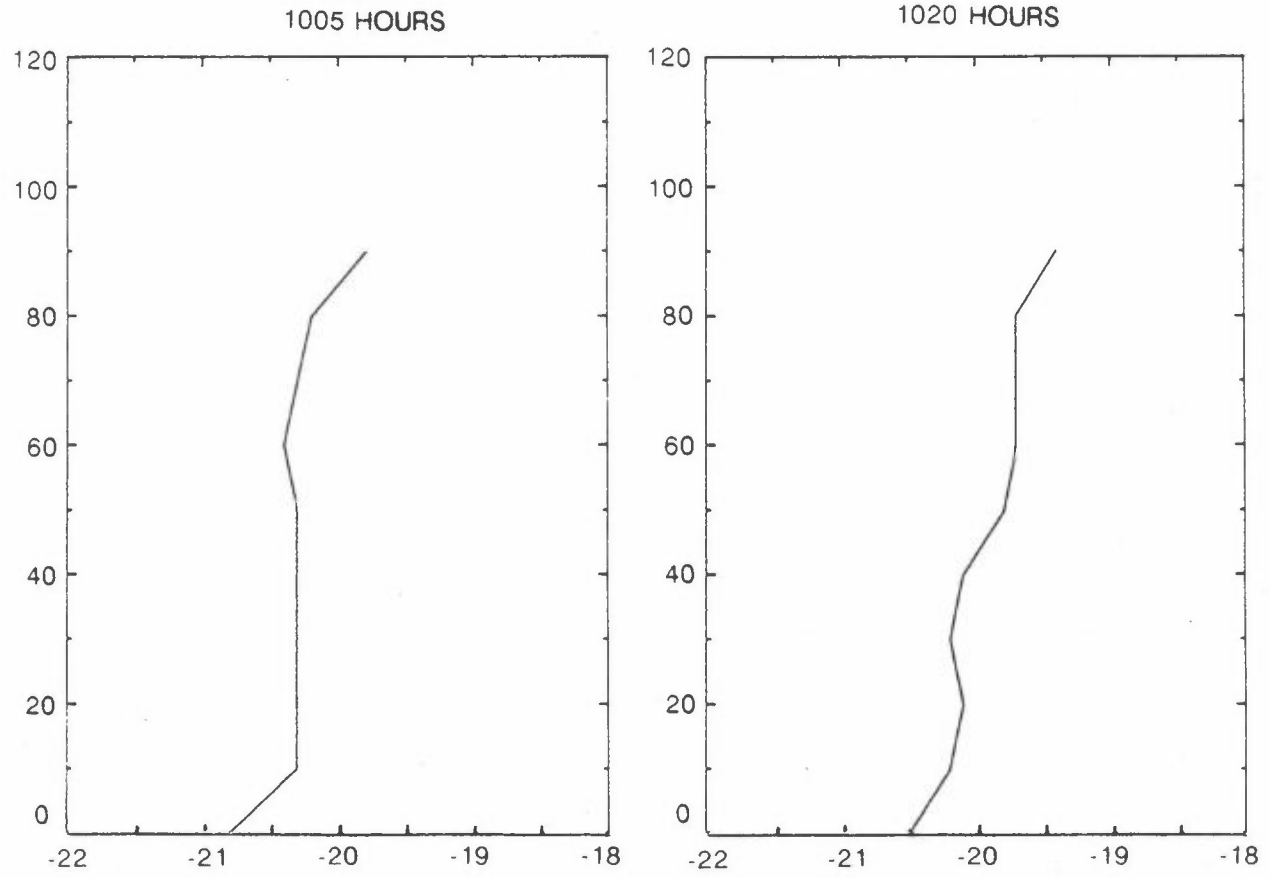
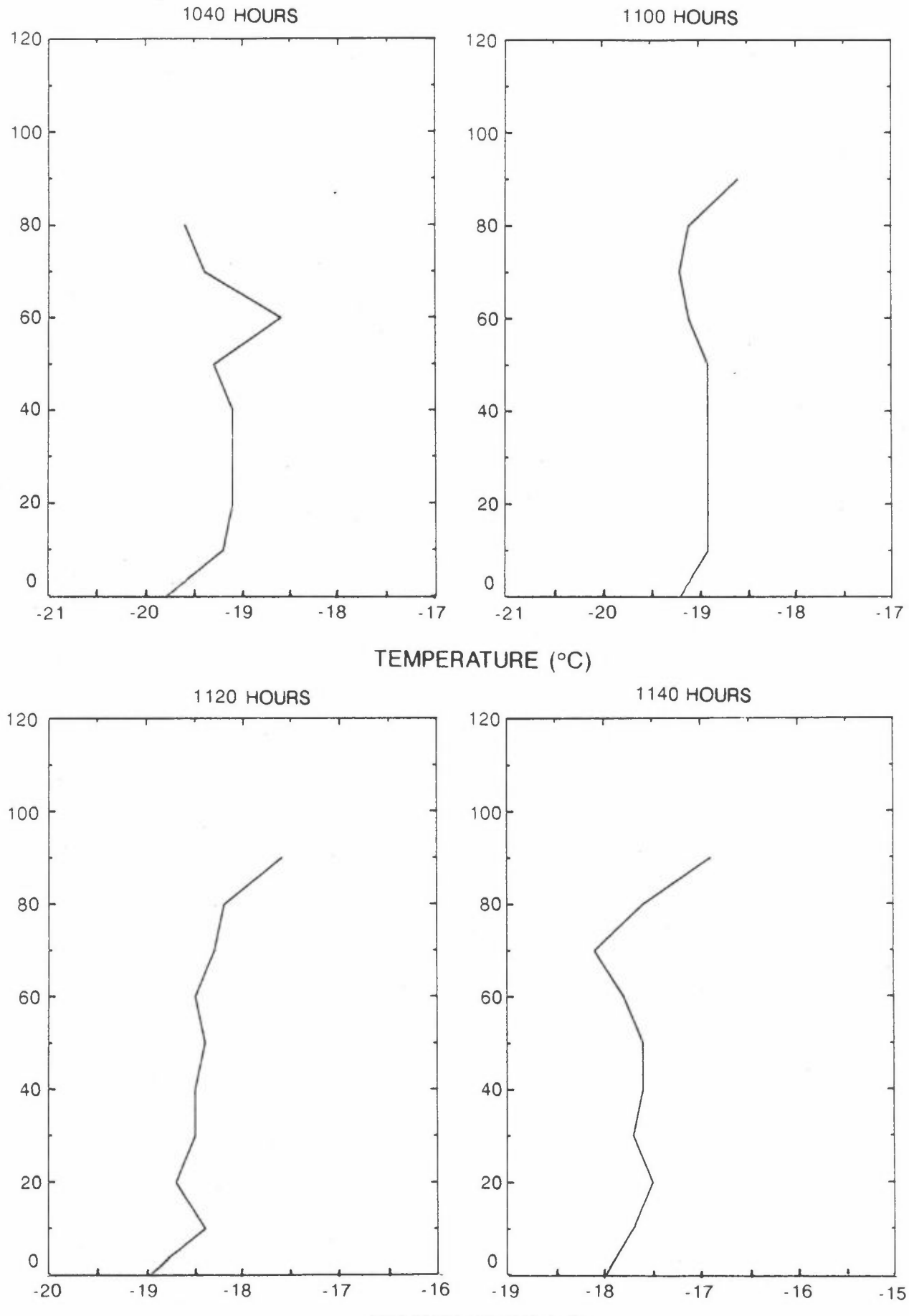




LILLESTRØM 19.02.87



APPENDIX B

SF_6 and $CBrF_3$ data.

STED : SF6-LILLESTRØM
TEST NR. : 1A
DATO : 86-01-09
TIDSPKT. : 1015-1030
ANT.OBS. : 32
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	SF6 UG/M3
13.620	48.880	.03
13.870	48.980	.03
14.000	49.050	26.77
14.150	49.080	29.67
14.320	49.040	5.67
14.550	49.060	.15
14.640	49.400	.40
14.950	48.940	.05
14.840	48.830	.04
14.720	48.730	.18
14.580	48.700	3.40
14.420	48.740	6.16
14.320	48.760	4.23
14.070	48.810	.20
13.950	48.840	.03
13.820	48.700	.03
13.500	48.670	.01
15.390	48.930	.01
15.270	48.820	.00
15.190	48.700	.00
15.080	48.560	.00
14.970	48.490	.40
14.900	48.400	.06
14.830	48.300	.00
14.700	48.320	.00
14.620	48.300	.00
14.450	48.380	.03
14.390	48.280	.00
14.260	48.280	.00
14.170	48.300	.00
14.100	48.320	.00
14.020	48.250	.00

STED : SF6-LILLESTRØM
TEST NR. : 1B
DATO : 86-01-09
TIDSPKT. : 1030-1045
ANT.OBS. : 29
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	SF6 UG/M3
13.620	48.880	.03
13.870	48.980	.03
14.000	49.050	6.00
14.320	49.040	20.00
14.550	49.060	.41
14.950	48.940	.04
14.840	48.830	.12
14.720	48.730	.80
14.580	48.700	10.71
14.420	48.740	8.71
14.320	48.760	6.35
14.070	48.810	.29
13.950	48.840	.03
13.820	48.700	.03
13.500	48.670	.02
15.390	48.930	.00
15.270	48.820	.00
15.190	48.700	.00
15.080	48.560	.03
14.900	48.400	.29
14.830	48.300	.00
14.700	48.320	.00
14.620	48.300	.00
14.450	48.380	.50
14.390	48.280	.00
14.260	48.280	.00
14.170	48.300	.00
14.100	48.320	.00
14.020	48.250	.00

STED : SF6-LILLESTRØM
TEST NR. : 2A
DATO : 86-02-07
TIDSPKT. : 0945-1000
ANT.OBS. : 34
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	SF6 UG/M3
14.310	49.030	7.93
14.330	49.030	8.75
14.350	49.020	9.89
14.360	49.020	9.71
14.390	49.010	8.38
14.400	49.010	6.69
14.430	49.000	8.14
14.500	49.000	7.40
14.520	48.990	6.68
14.550	49.010	6.43
14.560	49.030	10.05
15.110	49.190	1.01
14.990	48.980	1.07
14.920	48.890	1.06
14.830	48.820	1.33
14.760	48.760	1.88
14.660	48.670	3.07
14.560	48.710	3.85
14.450	48.690	3.84
14.380	48.710	4.11
14.280	48.760	5.30
14.170	48.760	6.61
14.280	48.440	4.14
14.450	48.390	2.94
14.570	48.350	2.58
14.640	48.300	2.42
14.820	48.310	2.18
14.890	48.420	1.99
15.070	48.570	1.38
15.170	48.670	.87
15.450	48.680	.18
15.270	48.800	.34
15.390	48.970	.21
15.400	49.150	.45

STED : SF6-LILLESTRØM
TEST NR. : 2B
DATO : 86-02-07
TIDSPKT. : 1000-1015
ANT.OBS. : 30
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	SF6 UG/M3
14.330	49.030	.74
14.350	49.020	.64
14.360	49.020	.55
14.390	49.010	4.80
14.430	49.000	5.06
14.500	49.000	5.14
14.520	48.990	6.81
14.550	49.010	8.93
15.110	49.190	3.52
14.990	48.980	4.29
14.920	48.890	4.09
14.830	48.820	4.16
14.760	48.760	3.41
14.660	48.670	1.49
14.560	48.710	.92
14.450	48.690	.71
14.380	48.710	.61
14.280	48.760	.56
14.170	48.760	.60
14.280	48.440	.49
14.450	48.390	.46
14.570	48.350	.52
14.640	48.300	.57
14.890	48.420	1.10
15.070	48.570	1.76
15.170	48.670	2.17
15.450	48.680	1.83
15.270	48.800	2.32
15.390	48.970	2.47
15.400	49.150	3.19

STED : CBRF3-LILLESTRØM
TEST NR. : 2C
DATO : 86-02-07
TIDSPKT. : 0945-1000
ANT.OBS. : 34
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	CBRF3 UG/M3
14.310	49.030	13.75
14.330	49.030	14.48
14.350	49.020	16.67
14.360	49.020	16.69
14.390	49.010	14.75
14.400	49.010	11.78
14.430	49.000	17.03
14.500	49.000	15.46
14.520	48.990	15.33
14.550	49.010	14.78
14.560	49.030	21.67
15.110	49.190	4.10
14.990	48.980	2.50
14.920	48.890	2.20
14.830	48.820	2.55
14.760	48.760	3.20
14.660	48.670	3.91
14.560	48.710	6.61
14.450	48.690	7.32
14.380	48.710	8.40
14.280	48.760	10.17
14.170	48.760	11.85
14.280	48.440	7.48
14.450	48.390	3.97
14.570	48.350	2.84
14.640	48.300	2.44
14.820	48.310	2.51
14.890	48.420	1.55
15.070	48.570	1.34
15.170	48.670	1.77
15.450	48.680	1.54
15.270	48.800	1.78
15.390	48.970	2.40
15.400	49.150	1.76

STED : CBRF3-LILLESTRØM
TEST NR. : 2D
DATO : 86-02-07
TIDSPKT. : 1000-1015
ANT.OBS. : 30
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	CBRF3 UG/M3
14.330	49.030	4.35
14.350	49.020	3.67
14.360	49.020	4.24
14.390	49.010	3.13
14.430	49.000	5.42
14.500	49.000	8.86
14.520	48.990	10.43
14.550	49.010	17.53
15.110	49.190	4.58
14.990	48.980	6.07
14.920	48.890	4.62
14.830	48.820	4.51
14.760	48.760	4.58
14.660	48.670	2.65
14.560	48.710	2.45
14.450	48.690	2.31
14.380	48.710	3.36
14.280	48.760	2.07
14.170	48.760	1.84
14.280	48.440	2.02
14.450	48.390	1.67
14.570	48.350	2.15
14.640	48.300	2.09
14.890	48.420	1.74
15.070	48.570	2.41
15.170	48.670	3.15
15.450	48.680	2.58
15.270	48.800	2.79
15.390	48.970	3.36
15.400	49.150	4.58

STED : SF6-LILLESTRØM
TEST NR. : 3A
DATO : 86-02-11
TIDSPKT. : 0935-0950
ANT.OBS. : 34
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	SF6 UG/M3
14.600	49.200	.08
14.600	49.170	.11
14.570	49.100	1.08
14.570	49.070	7.41
14.570	49.040	17.09
14.560	49.000	25.48
14.530	48.990	24.71
14.500	49.000	21.93
14.480	49.010	18.71
14.440	49.010	3.13
15.250	49.160	.03
15.110	49.080	.03
15.030	48.980	.06
14.920	48.920	.12
14.840	48.830	5.48
14.750	48.750	17.41
14.670	48.670	3.63
14.550	48.700	.19
14.440	48.730	.08
14.300	48.730	.05
14.190	48.790	.03
13.980	48.800	.01
14.280	48.440	.01
14.450	48.390	.01
14.570	48.350	.05
14.640	48.300	.05
14.820	48.310	.61
14.890	48.420	1.48
14.980	48.490	3.74
15.070	48.570	1.41
15.170	48.670	.84
15.270	48.800	.05
15.390	48.970	.03
15.400	49.150	.02

STED : SF6-LILLESTRØM
TEST NR. : 3B
DATO : 86-02-11
TIDSPKT. : 0950-1005
ANT.OBS. : 30
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	SF6 UG/M3
14.600	49.200	15.48
14.600	49.170	12.90
14.570	49.100	24.90
14.570	49.070	18.71
14.570	49.040	17.09
14.560	49.000	13.87
14.530	48.990	15.48
14.500	49.000	13.54
14.480	49.010	23.22
15.250	49.160	.03
15.110	49.080	.02
15.030	48.980	.04
14.920	48.920	.11
14.840	48.830	1.11
14.750	48.750	3.86
14.440	48.730	.29
14.300	48.730	.02
13.980	48.800	.03
14.280	48.440	.01
14.450	48.390	.13
14.570	48.350	2.31
14.640	48.300	1.89
14.820	48.310	7.35
14.890	48.420	9.03
14.980	48.490	7.12
15.070	48.570	1.30
15.170	48.670	.12
15.270	48.800	.04
15.390	48.970	.05
15.400	49.150	.04

STED : CBRF3-LILLESTRØM
TEST NR. : 3C
DATO : 86-02-11
TIDSPKT. : 0935-0950
ANT.OBS. : 34
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	CBRF3 UG/M3
14.600	49.200	.75
14.600	49.170	.75
14.570	49.100	2.15
14.570	49.070	7.10
14.570	49.040	12.84
14.560	49.000	17.79
14.530	48.990	19.31
14.500	49.000	15.31
14.480	49.010	8.46
14.440	49.010	10.99
15.250	49.160	1.53
15.110	49.080	2.67
15.030	48.980	1.29
14.920	48.920	1.05
14.840	48.830	5.03
14.750	48.750	13.41
14.670	48.670	5.53
14.550	48.700	3.19
14.440	48.730	1.19
14.300	48.730	3.69
14.190	48.790	2.76
13.980	48.800	1.01
14.280	48.440	2.01
14.450	48.390	1.61
14.570	48.350	1.13
14.640	48.300	1.60
14.820	48.310	2.17
14.890	48.420	2.61
14.980	48.490	3.20
15.070	48.570	2.10
15.170	48.670	2.20
15.270	48.800	2.07
15.390	48.970	2.01
15.400	49.150	1.93

STED : CBRF3-LILLESTRØM
TEST NR. : 3D
DATO : 86-02-11
TIDSPKT. : 0950-1005
ANT.OBS. : 30
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	CBRF3 UG/M3
14.600	49.200	11.53
14.600	49.170	10.31
14.570	49.100	23.24
14.570	49.070	18.96
14.570	49.040	11.57
14.560	49.000	9.58
14.530	48.990	10.19
14.500	49.000	9.82
14.480	49.010	11.25
15.250	49.160	.96
15.110	49.080	1.27
15.030	48.980	.92
14.920	48.920	.77
14.840	48.830	1.75
14.750	48.750	3.65
14.440	48.730	1.46
14.300	48.730	.96
13.980	48.800	1.57
14.280	48.440	.99
14.450	48.390	1.27
14.570	48.350	2.38
14.640	48.300	1.81
14.820	48.310	5.88
14.890	48.420	8.01
14.980	48.490	7.55
15.070	48.570	1.91
15.170	48.670	1.41
15.270	48.800	1.06
15.390	48.970	1.17
15.400	49.150	1.34

STED : SF6-LILLESTRØM
TEST NR. : 4A
DATO : 86-02-13
TIDSPKT. : 0840-0855
ANT.OBS. : 34
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	SF6 UG/M3
14.440	49.010	14.83
14.470	49.000	9.22
14.510	49.000	5.48
14.530	48.990	4.38
14.560	49.500	3.34
14.560	49.030	2.41
14.570	49.050	1.92
14.570	49.070	1.49
14.590	49.120	1.32
14.600	49.160	1.17
15.250	49.160	.08
15.110	49.080	.04
15.030	48.980	.06
14.920	48.920	.09
14.840	48.830	.59
14.750	48.750	2.68
14.670	48.670	5.06
14.550	48.700	6.30
14.440	48.730	6.75
14.300	48.730	9.45
14.190	48.790	5.72
13.980	48.800	.04
14.280	48.440	.03
14.450	48.390	.05
14.570	48.350	.05
14.640	48.300	.42
14.820	48.310	3.45
14.890	48.420	3.93
14.980	48.490	4.00
15.070	48.570	4.85
15.170	48.670	2.96
15.270	48.800	2.47
15.390	48.970	2.52
15.400	49.150	3.92

STED : SF6-LILLESTRØM
TEST NR. : 4B
DATO : 86-02-13
TIDSPKT. : 0855-0910
ANT.OBS. : 30
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	SF6 UG/M3
14.440	49.010	6.77
14.470	49.000	13.54
14.510	49.000	27.16
14.530	48.990	34.99
14.560	49.500	47.80
14.560	49.030	46.86
14.570	49.050	34.83
14.570	49.070	33.22
14.590	49.120	45.80
14.600	49.160	13.87
15.250	49.160	.09
15.110	49.080	.09
15.030	48.980	4.78
14.920	48.920	5.90
14.840	48.830	5.81
14.750	48.750	3.10
14.670	48.670	4.23
14.550	48.700	5.13
14.440	48.730	4.92
14.300	48.730	1.82
14.190	48.790	.17
13.980	48.800	.06
14.570	48.350	.10
14.820	48.310	1.62
14.980	48.490	3.85
15.070	48.570	1.72
15.170	48.670	1.25
15.270	48.800	3.17
15.390	48.970	3.89
15.400	49.150	1.76

STED : CBRF3-LILLESTRØM
TEST NR. : 4C
DATO : 86-02-13
TIDSPKT. : 0840-0855
ANT.OBS. : 34
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	CBRF3 UG/M3
14.440	49.010	8.43
14.470	49.000	21.05
14.510	49.000	4.72
14.530	48.990	3.93
14.560	49.500	3.37
14.560	49.030	2.89
14.570	49.050	2.55
14.570	49.070	2.28
14.590	49.120	1.66
14.600	49.160	2.05
15.250	49.160	1.17
15.110	49.080	1.00
15.030	48.980	.74
14.920	48.920	.94
14.840	48.830	.80
14.750	48.750	2.36
14.670	48.670	4.32
14.550	48.700	5.11
14.440	48.730	5.03
14.300	48.730	12.01
14.190	48.790	7.31
13.980	48.800	.61
14.280	48.440	1.20
14.450	48.390	.82
14.570	48.350	9.10
14.640	48.300	1.48
14.820	48.310	2.88
14.890	48.420	3.32
14.980	48.490	3.45
15.070	48.570	4.53
15.170	48.670	2.80
15.270	48.800	2.39
15.390	48.970	2.12
15.400	49.150	4.43

STED : CBRF3-LILLESTRØM
TEST NR. : 4D
DATO : 86-02-13
TIDSPKT. : 0855-0910
ANT.OBS. : 30
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	CBRF3 UG/M3
14.440	49.010	23.41
14.470	49.000	21.05
14.510	49.000	25.74
14.530	48.990	25.84
14.560	49.500	24.74
14.560	49.030	26.93
14.570	49.050	25.82
14.570	49.070	25.04
14.590	49.120	24.75
14.600	49.160	11.43
15.250	49.160	.63
15.110	49.080	.17
15.030	48.980	3.96
14.920	48.920	5.09
14.840	48.830	4.41
14.750	48.750	2.49
14.670	48.670	3.94
14.550	48.700	5.11
14.440	48.730	4.84
14.300	48.730	2.74
14.190	48.790	.22
13.980	48.800	.63
14.570	48.350	2.48
14.820	48.310	2.98
14.980	48.490	3.48
15.070	48.570	2.10
15.170	48.670	1.43
15.270	48.800	2.98
15.390	48.970	4.03
15.400	49.150	5.17

STED : SF6-LILLESTRØM
TEST NR. : 5A
DATO : 86-02-18
TIDSPKT. : 0845-0900
ANT.OBS. : 16
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	SF6 UG/M3
14.180	49.280	.00
14.140	49.150	.00
14.180	49.060	.05
14.150	48.940	.54
14.020	48.960	.00
13.950	49.050	.00
13.920	49.150	.00
13.900	49.250	.01
13.720	49.310	.01
13.530	49.220	.01
13.490	49.100	.00
13.590	48.900	.00
13.900	48.900	.00
13.840	49.070	.01
13.790	49.130	.01
13.710	49.230	.00

STED : SF6-LILLESTRØM
TEST NR. : 5B
DATO : 86-02-18
TIDSPKT. : 0900-0915
ANT.OBS. : 13
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	SF6 UG/M3
14.180	49.280	.00
14.140	49.150	.01
14.180	49.060	.74
14.150	48.940	9.93
13.920	49.150	.00
13.900	49.250	.01
13.530	49.220	.00
13.490	49.100	.01
13.590	48.900	.01
13.900	48.900	.05
13.840	49.070	.03
13.790	49.130	.01
13.710	49.230	.00

STED : CBRF3-LILLESTRØM
TEST NR. : 5C
DATO : 86-02-18
TIDSPKT. : 0845-0900
ANT.OBS. : 16
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	CBRF3 UG/M3
14.180	49.280	.47
14.140	49.150	.85
14.180	49.060	.62
14.150	48.940	1.05
14.020	48.960	1.81
13.950	49.050	2.39
13.920	49.150	.64
13.900	49.250	.64
13.720	49.310	1.26
13.530	49.220	.73
13.490	49.100	.61
13.590	48.900	.82
13.900	48.900	.66
13.840	49.070	.75
13.790	49.130	.57
13.710	49.230	.59

STED : CBRF3-LILLESTRØM
TEST NR. : 5D
DATO : 86-02-18
TIDSPKT. : 0900-0915
ANT.OBS. : 13
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	CBRF3 UG/M3
14.180	49.280	.67
14.140	49.150	1.07
14.180	49.060	8.73
14.150	48.940	13.49
13.920	49.150	.48
13.900	49.250	.79
13.530	49.220	.77
13.490	49.100	.29
13.590	48.900	.23
13.900	48.900	.43
13.840	49.070	.62
13.790	49.130	.12
13.710	49.230	.41

STED : SF6-LILLESTRØM
TEST NR. : 6A
DATO : 86-02-19
TIDSPKT. : 0845-0900
ANT.OBS. : 29
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	SF6 UG/M3
14.560	49.000	46.14
14.540	49.000	44.80
14.520	49.000	.58
14.480	49.000	35.61
14.440	49.010	29.03
14.390	49.010	23.92
15.240	49.150	.03
15.110	49.080	.05
15.030	48.980	.08
14.930	48.910	.12
14.840	48.830	5.63
14.750	48.750	8.41
14.680	48.660	8.43
14.560	48.700	.78
14.300	48.740	.00
14.190	48.790	.00
14.060	48.800	.00
14.280	48.440	.01
14.450	48.390	.01
14.570	48.350	.01
14.640	48.300	.01
14.820	48.310	.57
14.890	48.420	3.72
14.980	48.490	8.93
15.070	48.570	11.90
15.170	48.670	1.34
15.270	48.800	.07
15.390	48.970	.08
15.400	49.150	.00

STED : SF6-LILLESTRØM
TEST NR. : 6B
DATO : 86-02-19
TIDSPKT. : 0900-0915
ANT.OBS. : 29
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	SF6 UG/M3
14.560	49.000	2.31
14.540	49.000	.63
14.520	49.000	.77
14.480	49.000	.18
14.440	49.010	.10
14.390	49.010	.06
15.240	49.150	1.53
15.110	49.080	8.45
15.030	48.980	8.58
14.930	48.910	5.72
14.840	48.830	.32
14.750	48.750	1.45
14.680	48.660	.04
14.560	48.700	.00
14.300	48.740	.01
14.190	48.790	.01
14.060	48.800	.01
14.280	48.440	.00
14.450	48.390	.01
14.570	48.350	.01
14.640	48.300	.00
14.820	48.310	.03
14.890	48.420	.54
14.980	48.490	1.01
15.070	48.570	3.52
15.170	48.670	4.10
15.270	48.800	3.83
15.390	48.970	.65
15.400	49.150	.12

STED : CBRF3-LILLESTRØM
TEST NR. : 6C
DATO : 86-02-19
TIDSPKT. : 0830-0845
ANT.OBS. : 29
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	CBRF3 UG/M3
14.560	49.000	5.67
14.540	49.000	7.01
14.520	49.000	1.19
14.480	49.000	25.60
14.440	49.010	54.68
14.390	49.010	50.57
15.240	49.150	.18
15.110	49.080	.15
15.030	48.980	.20
14.930	48.910	.13
14.840	48.830	1.93
14.750	48.750	2.25
14.680	48.660	10.34
14.560	48.700	7.50
14.300	48.740	.00
14.190	48.790	.00
14.060	48.800	.00
14.280	48.440	.79
14.450	48.390	.75
14.570	48.350	.77
14.640	48.300	.79
14.820	48.310	3.22
14.890	48.420	6.19
14.980	48.490	9.43
15.070	48.570	9.50
15.170	48.670	1.81
15.270	48.800	.77
15.390	48.970	.82
15.400	49.150	.88

STED : CBRF3-LILLESTRØM
TEST NR. : 6D
DATO : 86-02-19
TIDSPKT. : 0845-0900
ANT.OBS. : 29
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	CBRF3 UG/M3
14.560	49.000	2.55
14.540	49.000	1.36
14.520	49.000	2.27
14.480	49.000	.37
14.440	49.010	.46
14.390	49.010	.57
15.240	49.150	.70
15.110	49.080	2.32
15.030	48.980	1.76
14.930	48.910	1.34
14.840	48.830	.54
14.750	48.750	1.28
14.680	48.660	.32
14.560	48.700	.25
14.300	48.740	.00
14.190	48.790	.00
14.060	48.800	.00
14.280	48.440	.78
14.450	48.390	.74
14.570	48.350	.98
14.640	48.300	.74
14.820	48.310	.89
14.890	48.420	1.31
14.980	48.490	1.75
15.070	48.570	2.48
15.170	48.670	3.24
15.270	48.800	1.93
15.390	48.970	.68
15.400	49.150	.81

STED : SF6-LILLESTRØM
TEST NR. : 7A
DATO : 86-02-21
TIDSPKT. : 0818-0833
ANT.OBS. : 25
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	SF6 UG/M3
14.560	49.010	27.41
14.540	49.000	47.54
14.520	49.000	31.61
14.480	49.001	64.51
14.440	49.010	7.80
14.390	49.010	.95
15.110	49.080	.01
15.030	48.980	.01
14.930	48.910	.01
14.840	48.830	9.54
14.750	48.750	23.67
14.680	48.660	.01
14.560	48.700	.04
14.440	48.730	.02
14.300	48.740	.02
14.190	48.790	.00
14.280	48.440	.06
14.640	48.300	.02
14.820	48.310	.03
14.890	48.420	.05
14.980	48.490	4.80
15.070	48.570	11.08
15.170	48.670	8.65
15.270	48.800	.01
15.390	48.970	.01

STED : SF6-LILLESTRØM
TEST NR. : 7B
DATO : 86-02-21
TIDSPKT. : 0833-0848
ANT.OBS. : 24
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	SF6 UG/M3
14.560	49.010	47.41
14.540	49.000	43.87
14.520	49.000	32.90
14.480	49.000	37.03
14.440	49.010	7.74
14.390	49.010	8.38
15.110	49.080	.00
15.030	48.980	.00
14.930	48.910	.03
14.750	48.750	20.12
14.680	48.660	.04
14.560	48.700	.01
14.440	48.730	.03
14.300	48.740	.00
14.190	48.790	.00
14.280	48.440	.03
14.640	48.300	.04
14.820	48.310	.04
14.890	48.420	.05
14.980	48.490	1.10
15.070	48.570	10.81
15.170	48.670	8.98
15.270	48.800	.01
15.390	48.970	.00

STED : CBRF3-LILLESTRØM
TEST NR. : 7C
DATO : 86-02-21
TIDSPKT. : 0818-0833
ANT.OBS. : 24
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	CBRF3 UG/M3
14.560	49.010	3.89
14.540	49.000	7.94
14.520	49.000	10.88
14.440	49.011	82.50
14.390	49.012	126.58
15.110	49.080	.32
15.030	48.980	.88
14.930	48.910	.36
14.840	48.830	.62
14.750	48.750	6.64
14.680	48.660	4.93
14.560	48.700	1.14
14.440	48.730	3.42
14.300	48.740	.27
14.190	48.790	.22
14.280	48.440	.00
14.640	48.300	.00
14.820	48.310	.00
14.890	48.420	.19
14.980	48.490	2.01
15.070	48.570	4.41
15.170	48.670	.72
15.270	48.800	.00
15.390	48.970	.00

STED : CBRF3-LILLESTRØM
TEST NR. : 7D
DATO : 86-02-21
TIDSPKT. : 0833-0848
ANT.OBS. : 20
MIN.MAKS X : 13.450 15.450
MIN.MAKS Y : 47.900 49.900

KOORDINATER X	Y	CBRF3 UG/M3
14.560	49.010	2.71
14.520	49.000	22.04
14.480	49.000	41.84
14.440	49.011	120.25
14.390	49.012	126.58
15.030	48.980	.39
14.930	48.910	.00
14.750	48.750	8.57
14.680	48.660	6.28
14.560	48.700	4.67
14.440	48.730	6.20
14.300	48.740	.22
14.280	48.440	.00
14.640	48.300	.00
14.820	48.310	.31
14.890	48.420	2.92
14.980	48.490	6.48
15.070	48.570	8.49
15.170	48.670	.55
15.270	48.800	.00

STED : SF6-LILLESTRØM
TEST NR. : 1A
DATO : 87-01-02
TIDSPKT. : 1035-1050
ANT.OBS. : 28
MIN.MAKS X : 14.000 15.400
MIN.MAKS Y : 48.300 49.700

KOORDINATER X	Y	SF6 UG/M3
15.140	49.090	.05
15.090	49.080	.05
15.050	49.040	.05
15.000	49.000	.05
14.940	48.950	.15
14.880	48.900	1.27
14.770	48.800	.38
14.700	48.740	2.99
14.680	48.670	4.40
14.610	48.700	1.65
14.500	48.730	.06
14.430	48.750	.05
14.470	48.870	.21
14.550	48.830	1.27
14.620	48.890	5.33
14.640	48.940	2.15
14.680	49.030	.21
14.820	49.070	.14
14.560	49.080	.08
14.560	49.100	.04
14.570	49.120	.08
14.580	49.210	.07
14.540	48.910	2.33
14.520	48.880	4.75
14.400	49.010	.10
14.440	49.010	1.00
14.480	49.000	2.07

STED : SF6-LILLESTRØM
TEST NR. : 1B
DATO : 87-01-02
TIDSPKT. : 1050-1105
ANT.OBS. : 27
MIN.MAKS X : 14.000 15.400
MIN.MAKS Y : 48.300 49.700

KOORDINATER X	Y	SF6 UG/M3
15.140	49.090	2.45
15.090	49.080	2.53
15.050	49.040	4.32
15.000	49.000	4.09
14.940	48.950	4.53
14.880	48.900	2.80
14.770	48.800	1.89
14.700	48.740	.12
14.680	48.670	.05
14.610	48.700	.05
14.500	48.730	.03
14.430	48.750	.03
14.470	48.870	.03
14.550	48.830	.03
14.620	48.890	.34
14.640	48.940	4.79
14.680	49.030	2.70
14.820	49.070	4.63
14.560	49.080	1.86
14.560	49.100	1.47
14.570	49.120	2.36
14.570	49.150	1.29
14.520	48.880	2.47
14.400	49.010	.03
14.440	49.010	.28
14.480	49.000	1.54

STED : CBRF3-LILLESTRØM
TEST NR. : 1C
DATO : 87-01-02
TIDSPKT. : 1035-1050
ANT.OBS. : 28
MIN.MAKS X : 14.000 15.400
MIN.MAKS Y : 48.300 49.700

KOORDINATER X	Y	CBRF3 UG/M3
15.140	49.090	.86
15.090	49.080	.78
15.050	49.040	1.04
15.000	49.000	.82
14.940	48.950	.90
14.880	48.900	1.89
14.770	48.800	1.38
14.700	48.740	5.53
14.680	48.670	5.51
14.610	48.700	2.03
14.500	48.730	2.48
14.430	48.750	.41
14.470	48.870	3.44
14.550	48.830	6.09
14.620	48.890	10.15
14.640	48.940	8.77
14.680	49.030	4.13
14.820	49.070	1.09
14.560	49.080	6.28
14.560	49.100	6.04
14.570	49.120	4.85
14.570	49.150	32.37
14.540	48.910	22.03
14.520	48.880	17.03
14.400	49.010	20.99
14.440	49.010	21.01
14.480	49.000	16.46

STED : CBRF3-LILLESTRØM
TEST NR. : 1D
DATO : 87-01-02
TIDSPKT. : 1050-1105
ANT.OBS. : 27
MIN.MAKS X : 14.000 15.400
MIN.MAKS Y : 48.300 49.700

KOORDINATER X	Y	CBRF3 UG/M3
15.140	49.090	4.54
15.090	49.080	4.14
15.050	49.040	6.38
15.000	49.000	5.90
14.940	48.950	5.40
14.880	48.900	3.93
14.770	48.800	3.39
14.700	48.740	9.20
14.680	48.670	.73
14.610	48.700	.75
14.500	48.730	.80
14.430	48.750	.69
14.470	48.870	.94
14.550	48.830	.72
14.620	48.890	.89
14.640	48.940	3.04
14.680	49.030	7.28
14.820	49.070	7.42
14.560	49.080	15.42
14.560	49.100	15.00
14.570	49.120	17.58
14.570	49.150	3.62
14.520	48.880	5.19
14.400	49.010	3.87
14.440	49.010	8.76
14.480	49.000	6.23

STED : SF6-LILLESTRØM
TEST NR. : 2A
DATO : 87-01-06
TIDSPKT. : 0930-0945
ANT.OBS. : 44
MIN.MAKS X : 13.600 14.800
MIN.MAKS Y : 48.100 49.300

KOORDINATER X	Y	SF6 UG/M3
14.500	48.850	.15
14.480	48.860	.28
14.460	48.860	.17
14.430	48.870	.59
14.410	48.870	.78
14.390	48.880	1.18
14.370	48.890	1.93
14.350	48.900	2.26
14.320	48.900	2.57
14.300	48.910	4.05
14.280	48.920	5.75
14.260	48.920	5.01
14.240	48.930	8.94
14.210	48.930	5.27
14.190	48.940	4.28
14.170	48.940	2.90
14.310	49.050	3.72
14.380	49.030	2.66
14.750	48.750	.14
14.580	48.700	.16
14.550	48.710	.16
14.520	48.710	.39
14.490	48.720	.97
14.450	48.730	1.08
14.350	48.750	1.68
14.310	48.760	4.59
14.280	48.770	3.06
14.260	48.770	.67
14.230	48.780	1.99
14.200	48.770	2.31
14.150	48.790	1.15
14.080	48.800	1.95
14.000	48.820	.24
13.940	48.840	.92
13.870	48.860	.54
13.780	48.850	.25
13.750	48.850	.10
13.620	48.850	.10
13.690	48.630	.13
13.830	48.520	.16
13.920	48.480	.26
13.980	48.460	.17
14.070	48.500	.22
14.430	48.380	1.14

STED : SF6-LILLESTRØM
TEST NR. : 2B
DATO : 87-01-06
TIDSPKT. : 0945-1000
ANT.OBS. : 36
MIN.MAKS X : 13.500 14.800
MIN.MAKS Y : 48.100 49.300

KOORDINATER X	Y	SF6 UG/M3
14.500	48.850	.10
14.480	48.860	.14
14.460	48.860	.18
14.430	48.870	.61
14.410	48.870	.73
14.390	48.880	1.86
14.370	48.890	4.59
14.350	48.900	4.95
14.320	48.900	5.19
14.300	48.910	6.05
14.280	48.920	5.70
14.260	48.920	7.34
14.240	48.930	7.03
14.210	48.930	8.25
14.190	48.940	8.61
14.170	48.940	8.90
14.310	49.050	1.78
14.380	49.030	.09
14.750	48.750	.16
14.580	48.700	.17
14.550	48.710	.16
14.520	48.710	.24
14.490	48.720	.34
14.450	48.730	.76
14.350	48.750	4.35
14.310	48.760	7.97
14.280	48.770	8.34
14.200	48.770	7.76
14.150	48.790	4.69
14.080	48.800	4.71
13.940	48.840	3.83
13.870	48.860	1.73
13.750	48.850	.39
13.690	48.630	.36
13.830	48.520	.39
14.430	48.380	.45

STED : CBRF3-LILLESTRØM
TEST NR. : 2C
DATO : 87-01-06
TIDSPKT. : 0930-0945
ANT.OBS. : 44
MIN.MAKS X : 13.600 14.800
MIN.MAKS Y : 48.100 49.300

KOORDINATER X	Y	CBRF3 UG/M3
14.500	48.850	8.56
14.480	48.860	8.49
14.460	48.860	8.02
14.430	48.870	11.39
14.410	48.870	14.04
14.390	48.880	15.73
14.370	48.890	16.41
14.350	48.900	15.92
14.320	48.910	15.49
14.300	48.910	15.42
14.280	48.920	13.63
14.260	48.920	12.03
14.240	48.930	12.34
14.210	48.930	10.65
14.190	48.940	8.59
14.170	48.940	7.06
14.310	49.050	38.96
14.380	49.030	46.75
14.750	48.750	1.61
14.580	48.700	3.44
14.550	48.710	3.92
14.520	48.710	5.20
14.490	48.720	7.25
14.450	48.730	8.95
14.350	48.750	11.05
14.310	48.760	10.09
14.280	48.770	8.49
14.260	48.770	5.67
14.230	48.780	4.68
14.200	48.770	4.11
14.150	48.790	3.13
14.080	48.800	3.79
14.000	48.820	14.04
13.940	48.840	2.06
13.870	48.860	1.46
13.780	48.850	1.32
13.750	48.850	1.44
13.620	48.850	.65
13.690	48.630	.95
13.830	48.520	1.14
13.920	48.480	3.51
13.980	48.460	2.75
14.070	48.500	1.32
14.430	48.380	3.88

STED : CBRF3-LILLESTRØM
TEST NR. : 2D
DATO : 87-01-06
TIDSPKT. : 0945-1000
ANT.OBS. : 36
MIN.MAKS X : 13.600 14.800
MIN.MAKS Y : 48.100 49.300

KOORDINATER X	Y	CBRF3 UG/M3
14.500	48.850	4.06
14.480	48.860	3.86
14.460	48.860	4.65
14.430	48.870	13.36
14.410	48.870	18.76
14.390	48.880	21.19
14.370	48.890	22.23
14.350	48.900	25.08
14.320	48.910	30.54
14.300	48.910	29.78
14.280	48.920	23.29
14.260	48.920	20.29
14.240	48.930	20.68
14.210	48.930	23.17
14.190	48.940	20.31
14.170	48.940	16.59
14.310	49.050	47.64
14.380	49.030	103.59
14.750	48.750	1.53
14.580	48.700	1.67
14.550	48.710	1.87
14.520	48.710	2.74
14.490	48.720	3.25
14.450	48.730	5.72
14.350	48.750	13.28
14.310	48.760	19.94
14.280	48.770	16.94
14.200	48.770	12.85
14.150	48.790	7.22
14.080	48.800	6.44
13.940	48.840	3.72
13.870	48.860	4.34
13.750	48.850	1.61
13.690	48.630	.90
13.830	48.520	1.46
14.430	48.380	2.97

STED : SF6-LILLESTRØM
TEST NR. : 3A
DATO : 87-01-07
TIDSPKT. : 0930-0945
ANT.OBS. : 44
MIN.MAKS X : 14.200 15.500
MIN.MAKS Y : 48.200 49.500

KOORDINATER X	Y	SF6 UG/M3
15.210	49.180	.04
15.170	49.100	.03
15.060	49.060	.03
15.010	49.020	.03
14.980	48.970	.28
14.950	48.950	.02
14.880	48.890	.05
14.850	48.860	.03
14.820	48.810	.03
14.780	48.780	.03
14.680	48.690	.02
14.580	48.680	.04
14.500	48.700	.05
14.450	48.710	.04
14.400	48.720	.04
14.300	48.740	.03
14.250	48.760	.03
15.410	49.010	.03
15.360	48.950	.03
15.300	48.900	.03
15.260	48.840	.03
15.240	48.780	.03
15.150	48.650	.03
15.080	48.570	.03
15.000	48.520	.03
14.900	48.400	.02
14.740	48.450	.04
14.600	48.520	.04
14.600	49.200	.03
14.590	49.180	.02
14.580	49.160	.02
14.580	49.130	.02
14.560	49.090	.03
14.550	49.070	.02
14.550	49.040	.02
14.540	49.020	.03
14.520	49.000	.02
14.500	49.000	.03
14.470	49.010	.07
14.450	49.010	.13
14.430	49.010	.43
14.400	49.020	.37
14.380	49.020	.29
14.470	49.100	.04

STED : SF6-LILLESTRØM
TEST NR. : 3B
DATO : 87-01-07
TIDSPKT. : 0945-1000
ANT.OBS. : 40
MIN.MAKS X : 14.200 15.500
MIN.MAKS Y : 48.200 49.500

KOORDINATER X	Y	SF6 UG/M3
15.210	49.180	.03
15.170	49.100	.03
15.060	49.060	.03
15.010	49.020	.03
14.980	48.970	.03
14.950	48.950	.03
14.850	48.860	.03
14.820	48.810	.03
14.780	48.780	.02
14.740	48.720	.02
14.680	48.690	.03
14.500	48.700	.04
14.450	48.710	.03
14.400	48.720	.03
14.300	48.740	.02
14.250	48.760	.02
15.410	49.010	.03
15.360	48.950	.04
15.300	48.900	.03
15.260	48.840	.03
15.240	48.780	.03
15.000	48.520	.03
14.900	48.400	.03
14.740	48.450	.03
14.600	48.520	.05
14.600	49.200	.03
14.590	49.180	.01
14.580	49.160	.03
14.560	49.090	.03
14.550	49.070	.01
14.550	49.040	.03
14.540	49.020	.03
14.530	49.000	.05
14.520	49.000	.04
14.500	49.000	.06
14.470	49.010	.12
14.430	49.010	.63
14.400	49.020	.61
14.380	49.020	.29
14.470	49.100	.02

STED : CBRF3-LILLESTRØM
TEST NR. : 3C
DATO : 87-01-07
TIDSPKT. : 0930-0945
ANT.OBS. : 44
MIN.MAKS X : 14.200 15.500
MIN.MAKS Y : 48.200 49.500

KOORDINATER X	Y	CBRF3 UG/M3
15.210	49.180	1.12
15.170	49.100	1.93
15.060	49.060	2.03
15.010	49.020	1.52
14.980	48.970	1.70
14.950	48.950	.61
14.880	48.890	1.62
14.850	48.860	.53
14.820	48.810	.34
14.780	48.780	.21
14.680	48.690	.16
14.580	48.680	.63
14.500	48.700	23.71
14.450	48.710	48.09
14.400	48.720	39.82
14.300	48.740	19.56
14.250	48.760	2.68
15.410	49.010	.23
15.360	48.950	.39
15.300	48.900	.25
15.260	48.840	.61
15.240	48.780	.39
15.150	48.650	.29
15.080	48.570	.26
15.000	48.520	.35
14.900	48.400	.31
14.740	48.450	.32
14.600	48.520	.85
14.600	49.200	.20
14.590	49.180	.00
14.580	49.160	.00
14.580	49.130	4.31
14.560	49.090	1.30
14.550	49.070	2.15
14.550	49.040	1.86
14.540	49.020	3.78
14.520	49.000	13.88
14.500	49.000	44.35
14.470	49.010	152.57
14.450	49.010	187.30
14.430	49.010	179.18
14.400	49.020	125.32
14.380	49.020	40.75
14.470	49.100	101.67

STED : CBRF3-LILLESTRØM
TEST NR. : 3D
DATO : 87-01-07
TIDSPKT. : 0945-1000
ANT.OBS. : 40
MIN.MAKS X : 14.200 15.500
MIN.MAKS Y : 48.200 49.500

KOORDINATER X	Y	CBRF3 UG/M3
15.210	49.180	1.07
15.170	49.100	1.08
15.060	49.060	.90
15.010	49.020	.82
14.980	48.970	.87
14.950	48.950	1.00
14.850	48.860	1.18
14.820	48.810	.89
14.780	48.780	.77
14.740	48.720	.76
14.680	48.690	1.41
14.500	48.700	32.01
14.450	48.710	14.92
14.400	48.720	5.80
14.300	48.740	.86
14.250	48.760	.12
15.410	49.010	.42
15.360	48.950	.65
15.300	48.900	.30
15.260	48.840	.26
15.240	48.780	.68
15.000	48.520	.21
14.900	48.400	.44
14.740	48.450	.34
14.600	48.520	4.08
14.600	49.200	1.49
14.590	49.180	1.14
14.580	49.160	1.14
14.560	49.090	16.46
14.550	49.070	28.57
14.550	49.040	29.30
14.540	49.020	64.47
14.530	49.000	52.69
14.520	49.000	99.05
14.500	49.000	132.28
14.470	49.010	126.84
14.430	49.010	191.60
14.400	49.020	273.56
14.380	49.020	120.79
14.470	49.100	8.57

STED : SF6-LILLESTRØM
TEST NR. : 4A
DATO : 87-01-10
TIDSPKT. : 0930-0945
ANT.OBS. : 45
MIN.MAKS X : 13.600 15.500
MIN.MAKS Y : 48.100 50.000

KOORDINATER X	Y	SF6 UG/M3
14.930	48.910	.13
14.840	48.830	.14
14.770	48.770	.14
14.680	48.700	.14
14.590	48.700	.14
14.480	48.710	.15
14.420	48.740	.14
14.360	48.750	.37
14.310	48.760	2.73
14.260	48.770	4.86
14.210	48.780	4.37
14.140	48.790	1.11
14.080	48.810	.30
13.980	48.830	.21
13.880	48.840	.20
13.770	48.890	.42
13.770	48.950	.23
13.730	49.020	.18
14.370	49.110	15.39
14.550	49.000	.08
14.500	49.000	.74
14.440	49.020	.49
14.390	49.030	3.70
14.340	49.040	7.61
14.300	49.050	4.39
14.240	49.070	.33
14.120	49.090	.06
13.660	48.850	.17
13.670	48.660	.34
13.700	48.600	.48
13.800	48.500	.50
13.900	48.480	1.34
13.960	48.450	3.19
14.020	48.460	3.75
14.060	48.420	3.22
14.120	48.390	1.90
14.200	48.350	.86
14.310	48.400	.08
14.460	48.380	.10
14.540	48.330	.10
14.840	48.290	.05
15.080	48.470	.06
15.140	48.700	.07
14.440	48.880	1.80
14.150	48.920	.61

STED : SF6-LILLESTRØM
TEST NR. : 4B
DATO : 87-01-10
TIDSPKT. : 0945-1000
ANT.OBS. : 34
MIN.MAKS X : 13.600 15.500
MIN.MAKS Y : 48.100 50.000

KOORDINATER X	Y	SF6 UG/M3
14.930	48.910	.15
14.840	48.830	.17
14.770	48.770	.16
14.680	48.700	.15
14.590	48.700	.17
14.480	48.710	.56
14.420	48.740	2.95
14.360	48.750	5.22
14.310	48.760	4.93
14.260	48.770	.91
13.880	48.840	.55
13.770	48.890	.55
14.370	49.110	2.29
14.550	49.000	.07
14.440	49.020	6.94
14.390	49.030	8.29
14.340	49.040	3.32
14.300	49.050	.17
14.240	49.070	.10
14.120	49.090	.41
13.660	48.850	.15
13.670	48.660	.28
13.700	48.600	.60
13.800	48.500	.73
13.900	48.480	.84
13.960	48.450	1.41
14.020	48.460	1.37
14.060	48.420	1.47
14.200	48.350	3.38
14.310	48.400	2.50
14.460	48.380	.83
14.540	48.330	.27
14.840	48.290	.08
14.150	48.920	.15

STED : CBRF3-LILLESTRØM
TEST NR. : 4C
DATO : 87-01-10
TIDSPKT. : 0930-0945
ANT.OBS. : 45
MIN.MAKS X : 13.600 15.500
MIN.MAKS Y : 48.100 50.000

KOORDINATER X	Y	CBRF3 UG/M3
14.930	48.910	.61
14.840	48.830	.00
14.770	48.770	.00
14.680	48.700	.00
14.590	48.700	.11
14.480	48.710	.15
14.420	48.740	.00
14.360	48.750	.30
14.310	48.760	2.68
14.260	48.770	5.53
14.210	48.780	5.88
14.140	48.790	4.85
14.080	48.810	1.38
13.980	48.830	.44
13.880	48.840	.24
13.770	48.890	.37
13.770	48.950	.15
13.730	49.020	.00
14.370	49.110	188.84
14.550	49.000	.00
14.500	49.000	.55
14.440	49.020	.37
14.390	49.030	12.27
14.340	49.040	55.44
14.300	49.050	18.53
14.240	49.070	1.83
14.120	49.090	.00
13.660	48.850	.17
13.670	48.660	.41
13.700	48.600	.31
13.800	48.500	.61
13.900	48.480	1.32
13.960	48.450	2.13
14.020	48.460	2.98
14.060	48.420	1.96
14.120	48.390	1.17
14.200	48.350	.49
14.310	48.400	.00
14.460	48.380	.00
14.540	48.330	.00
14.840	48.290	.00
15.080	48.470	.00
15.140	48.700	.70
14.440	48.880	3.25
14.150	48.920	3.16

STED : CBRF3-LILLESTRØM
TEST NR. : 4D
DATO : 87-01-10
TIDSPKT. : 0945-1000
ANT.OBS. : 34
MIN.MAKS X : 13.600 15.500
MIN.MAKS Y : 48.100 50.000

KOORDINATER X	Y	CBRF3 UG/M3
14.930	48.910	.00
14.840	48.830	.00
14.770	48.770	.00
14.680	48.700	.00
14.590	48.700	.15
14.480	48.710	1.22
14.420	48.740	5.76
14.360	48.750	7.66
14.310	48.760	8.13
14.260	48.770	2.27
13.880	48.840	.00
13.770	48.890	.60
14.370	49.110	133.77
14.550	49.000	.00
14.440	49.020	31.77
14.390	49.030	69.05
14.340	49.040	33.79
14.300	49.050	1.29
14.240	49.070	.34
14.120	49.090	.33
13.660	48.850	.00
13.670	48.660	.09
13.700	48.600	.37
13.800	48.500	.38
13.900	48.480	.52
13.960	48.450	1.16
14.020	48.460	1.35
14.060	48.420	1.46
14.200	48.350	3.15
14.310	48.400	2.35
14.460	48.380	1.24
14.540	48.330	.42
14.840	48.290	.00
14.150	48.920	.00

STED : SF6-LILLESTRØM
TEST NR. : 5A
DATO : 87-01-12
TIDSPKT. : 0930-0945
ANT.OBS. : 44
MIN.MAKS X : 13.400 14.800
MIN.MAKS Y : 48.000 49.400

KOORDINATER X	Y	SF6 UG/M3
14.500	48.870	.08
14.440	48.880	.07
14.360	48.890	.07
14.270	48.910	2.71
14.230	48.930	2.62
14.160	48.950	.47
14.080	48.960	.08
14.030	48.970	.05
14.000	49.000	.06
13.990	49.050	.06
13.950	49.100	.06
13.920	49.180	.06
13.890	49.240	.06
13.850	49.280	.09
13.780	49.300	.07
14.570	48.700	.08
14.400	48.730	.08
14.240	48.540	.08
14.350	48.750	.86
14.210	48.770	2.31
14.090	48.800	1.48
14.020	48.010	.25
13.940	48.830	.05
13.900	48.840	.06
13.790	48.850	.08
13.780	48.880	.06
13.800	48.940	.05
13.780	48.970	.05
13.750	49.100	.05
13.700	49.160	.06
13.700	49.180	.08
13.600	49.290	.05
14.000	48.000	.04
14.460	49.020	.18
14.370	49.030	5.79
14.340	49.040	11.12
14.310	49.050	2.17
14.260	49.060	.41
14.210	49.070	.05
14.140	49.080	.05
14.170	49.120	.05
14.160	49.160	.05
14.170	49.230	.05
14.180	49.280	.06

STED : SF6-LILLESTRØM
TEST NR. : 5B
DATO : 87-01-12
TIDSPKT. : 0945-1000
ANT.OBS. : 36
MIN.MAKS X : 13.400 14.800
MIN.MAKS Y : 48.000 49.400

KOORDINATER X	Y	SF6 UG/M3
14.360	48.890	.34
14.270	48.910	5.83
14.230	48.930	3.10
14.160	48.950	.60
14.080	48.960	.08
14.030	48.970	.06
14.000	49.000	.06
13.990	49.050	.05
13.950	49.100	.06
13.850	49.280	.07
14.570	48.700	.08
14.400	48.730	.08
14.240	48.540	.08
14.350	48.750	1.06
14.210	48.770	2.81
14.090	48.800	2.02
14.020	48.010	1.08
13.940	48.830	.06
13.790	48.850	.08
13.780	48.880	.06
13.800	48.940	.06
13.780	48.970	.05
13.750	49.100	.06
13.700	49.160	.06
13.700	49.180	.05
13.600	49.290	.06
14.000	48.000	.13
14.460	49.020	.39
14.340	49.040	8.63
14.310	49.050	1.25
14.260	49.060	.34
14.210	49.070	.06
14.140	49.080	.05
14.170	49.120	.05
14.160	49.160	.05
14.180	49.280	.05

STED	:	CBRF3-LILLESTRØM	
TEST NR.	:	5C	
DATO	:	87-01-12	
TIDSPKT.	:	0930-0945	
ANT.OBS.	:	44	
MIN.MAKS X	:	13.400	14.800
MIN.MAKS Y	:	48.000	49.400

KOORDINATER X	KOORDINATER Y	CBRF3 UG/M3
14.500	48.870	2.71
14.440	48.880	3.25
14.360	48.890	2.75
14.270	48.910	31.31
14.230	48.930	26.27
14.160	48.950	6.34
14.080	48.960	2.25
14.030	48.970	6.27
14.000	49.000	3.10
13.990	49.050	2.47
13.950	49.100	2.74
13.920	49.180	3.41
13.890	49.240	4.24
13.850	49.280	2.53
13.780	49.300	5.81
14.570	48.700	1.34
14.400	48.730	1.24
14.240	48.540	1.39
14.350	48.750	6.23
14.210	48.770	18.91
14.090	48.800	11.38
14.020	48.010	3.37
13.940	48.830	.68
13.900	48.840	.64
13.790	48.850	1.13
13.780	48.880	1.16
13.800	48.940	1.02
13.780	48.970	.76
13.750	49.100	.84
13.700	49.160	.77
13.700	49.180	.94
13.600	49.290	.31
14.000	48.000	.61
14.460	49.020	3.28
14.370	49.030	85.52
14.340	49.040	139.55
14.310	49.050	64.45
14.260	49.060	13.25
14.210	49.070	2.65
14.140	49.080	2.78
14.170	49.120	2.43
14.160	49.160	3.84
14.170	49.230	2.49
14.180	49.280	1.04

STED	:	CBRF3-LILLESTRØM	
TEST NR.	:	5D	
DATO	:	87-01-12	
TIDSPKT.	:	0945-1000	
ANT.OBS.	:	36	
MIN.MAKS X	:	13.400	14.800
MIN.MAKS Y	:	48.000	49.400

KOORDINATER X	KOORDINATER Y	CBRF3 UG/M3
14.360	48.890	7.10
14.270	48.910	47.69
14.230	48.930	32.48
14.160	48.950	13.94
14.080	48.960	2.64
14.030	48.970	2.41
14.000	49.000	2.63
13.990	49.050	2.60
13.950	49.100	2.45
13.850	49.280	5.96
14.570	48.700	1.30
14.400	48.730	1.27
14.240	48.540	1.17
14.350	48.750	7.98
14.210	48.770	18.79
14.090	48.800	15.19
14.020	48.010	8.69
13.940	48.830	.15
13.790	48.850	.81
13.780	48.880	1.31
13.800	48.940	1.01
13.780	48.970	.52
13.750	49.100	.45
13.700	49.160	.41
13.700	49.180	.50
13.600	49.290	.66
14.000	48.000	1.80
14.460	49.020	9.76
14.340	49.040	198.15
14.310	49.050	53.86
14.260	49.060	19.47
14.210	49.070	3.15
14.140	49.080	1.93
14.170	49.120	2.42
14.160	49.160	2.59
14.180	49.280	2.78

STED : SF6-LILLESTRØM
TEST NR. : 6A
DATO : 87-01-17
TIDSPKT. : 1000-1015
ANT.OBS. : 46
MIN.MAKS X : 14.200 15.300
MIN.MAKS Y : 48.200 49.300

KOORDINATER X	Y	SF6 UG/M3
14.400	49.100	.88
14.410	49.090	3.85
14.420	49.080	12.58
14.430	49.080	15.16
14.440	49.000	13.87
14.450	49.100	10.97
14.340	49.040	.05
14.400	49.030	.10
14.460	49.020	6.97
14.550	49.000	3.94
14.580	49.060	.71
14.600	49.130	.03
14.660	49.120	.02
14.660	49.040	.06
14.730	49.030	.03
14.650	48.980	1.54
14.720	48.970	.29
14.630	48.910	2.54
14.530	48.850	1.60
14.490	48.860	.55
14.430	48.880	.39
14.320	49.000	.06
14.620	48.290	1.29
14.850	48.330	7.58
14.930	48.420	7.61
15.000	48.500	2.89
15.130	48.570	.02
15.200	48.690	.03
15.130	49.090	.01
15.090	49.060	.01
15.030	49.030	.03
15.000	48.980	.02
14.950	48.930	.02
14.920	48.900	.06
14.860	48.870	.01
14.840	48.820	.11
14.780	48.780	.59
14.760	48.750	1.08
14.700	48.730	2.97
14.670	48.690	3.36
14.600	48.700	.55
14.520	48.710	.41
14.430	48.740	.22
14.390	48.740	.10
14.280	48.770	.01
14.220	48.780	.05

STED : SF6-LILLESTRØM
TEST NR. : 6B
DATO : 87-01-17
TIDSPKT. : 1015-1030
ANT.OBS. : 39
MIN.MAKS X : 14.200 15.300
MIN.MAKS Y : 48.200 49.300

KOORDINATER X	Y	SF6 UG/M3
14.410	49.090	32.26
14.420	49.080	14.84
14.430	49.080	9.48
14.450	49.100	.30
14.340	49.040	.34
14.400	49.030	1.68
14.550	49.000	4.83
14.580	49.060	.08
14.600	49.130	.05
14.660	49.120	.01
14.660	49.040	.05
14.730	49.030	.32
14.650	48.980	.66
14.720	48.970	.29
14.630	48.910	6.19
14.530	48.850	3.04
14.430	48.880	.10
14.320	49.000	.07
14.620	48.290	.03
14.850	48.330	.97
14.930	48.420	2.68
15.000	48.500	5.86
15.130	48.570	.58
15.200	48.690	.65
15.130	49.090	.01
15.090	49.060	.05
15.030	49.030	.03
15.000	48.980	.01
14.950	48.930	.01
14.860	48.870	.00
14.840	48.820	1.10
14.780	48.780	5.23
14.760	48.750	6.19
14.700	48.730	4.69
14.670	48.690	3.46
14.520	48.710	.02
14.430	48.740	.03
14.390	48.740	.03
14.280	48.770	.12

STED : CBRF3-LILLESTRØM
TEST NR. : 6C
DATO : 87-01-17
TIDSPKT. : 1000-1015
ANT.OBS. : 46
MIN,MAKS X : 14.200 15.300
MIN,MAKS Y : 48.200 49.300

KOORDINATER X	Y	CBRF3 UG/M3
14.400	49.100	234.18
14.410	49.090	240.51
14.420	49.080	322.78
14.430	49.080	208.86
14.440	49.000	183.54
14.450	49.100	170.89
14.340	49.040	1.03
14.400	49.030	16.32
14.460	49.020	93.91
14.550	49.000	43.11
14.580	49.060	8.91
14.600	49.130	.00
14.660	49.120	.00
14.660	49.040	.61
14.730	49.030	.00
14.650	48.980	13.18
14.720	48.970	3.51
14.630	48.910	19.82
14.530	48.850	15.89
14.490	48.860	10.32
14.430	48.880	21.44
14.320	49.000	1.77
14.620	48.290	1.24
14.850	48.330	10.84
14.930	48.420	7.41
15.000	48.500	1.37
15.130	48.570	.20
15.200	48.690	.09
15.130	49.090	.00
15.090	49.060	.00
15.030	49.030	.00
15.000	48.980	.00
14.950	48.930	.00
14.920	48.900	.00
14.860	48.870	.00
14.840	48.820	.51
14.780	48.780	2.16
14.760	48.750	4.61
14.700	48.730	11.11
14.670	48.690	14.75
14.600	48.700	9.33
14.520	48.710	10.66
14.430	48.740	8.18
14.390	48.740	3.18
14.280	48.770	.00
14.220	48.780	.23

STED : CBRF3-LILLESTRØM
TEST NR. : 6D
DATO : 87-01-17
TIDSPKT. : 1015-1030
ANT.OBS. : 39
MIN,MAKS X : 14.200 15.300
MIN,MAKS Y : 48.200 49.300

KOORDINATER X	Y	CBRF3 UG/M3
14.410	49.090	360.76
14.420	49.080	303.80
14.430	49.080	180.38
14.450	49.100	4.35
14.340	49.040	158.23
14.400	49.030	131.65
14.550	49.000	34.67
14.580	49.060	.74
14.600	49.130	.00
14.660	49.120	.00
14.660	49.040	.30
14.730	49.030	.48
14.650	48.980	5.06
14.720	48.970	2.66
14.630	48.910	29.75
14.530	48.850	12.23
14.430	48.880	6.98
14.320	49.000	1.31
14.620	48.290	.00
14.850	48.330	6.20
14.930	48.420	8.64
15.000	48.500	10.33
15.130	48.570	2.13
15.200	48.690	.00
15.130	49.090	.00
15.090	49.060	.00
15.030	49.030	.00
15.000	48.980	.25
14.950	48.930	.00
14.860	48.870	.00
14.840	48.820	5.58
14.780	48.780	15.56
14.760	48.750	14.39
14.700	48.730	17.57
14.670	48.690	8.09
14.520	48.710	.37
14.430	48.740	.63
14.390	48.740	.41
14.280	48.770	1.12

STED : SF6-LILLESTRØM
TEST NR. : 7A
DATO : 87-02-09
TIDSPKT. : 1000-1015
ANT.OBS. : 24
MIN.MAKS X : 14.300 15.000
MIN.MAKS Y : 48.700 49.400

KOORDINATER X	Y	SF6 UG/M3
14.740	48.800	7.03
14.670	48.820	2.33
14.580	48.840	.14
14.510	48.860	.05
14.450	48.870	.04
14.400	48.880	.03
14.470	49.140	7.87
14.460	49.090	.65
14.380	49.100	4.80
14.350	49.040	.06
14.410	49.030	.16
14.460	49.000	.28
14.510	49.000	1.93
14.550	49.000	17.42
14.570	49.040	29.68
14.590	49.090	15.48
14.610	49.170	6.77
14.630	49.220	.08
14.640	49.310	.03
14.830	49.170	.04
14.840	49.100	1.98
14.850	49.020	7.10
14.920	48.920	6.81
14.840	48.860	9.74

STED : SF6-LILLESTRØM
TEST NR. : 7B
DATO : 87-02-09
TIDSPKT. : 1015-1030
ANT.OBS. : 22
MIN.MAKS X : 14.300 15.000
MIN.MAKS Y : 48.700 49.400

KOORDINATER X	Y	SF6 UG/M3
14.740	48.800	16.13
14.670	48.820	20.00
14.580	48.840	1.87
14.510	48.860	.57
14.450	48.870	.42
14.470	49.140	28.39
14.460	49.090	1.45
14.380	49.100	4.48
14.350	49.040	.21
14.410	49.030	.30
14.460	49.000	1.68
14.510	49.000	23.23
14.550	49.000	45.81
14.570	49.040	33.87
14.590	49.090	14.84
14.630	49.220	1.10
14.640	49.310	.03
14.830	49.170	.18
14.840	49.100	.59
14.850	49.020	6.13
14.920	48.920	10.71
14.840	48.860	17.42

STED : CBRF3-LILLESTRØM
TEST NR. : 7D
DATO : 87-02-09
TIDSPKT. : 1015-1030
ANT.OBS. : 22
MIN.MAKS X : 14.300 15.000
MIN.MAKS Y : 48.700 49.400

KOORDINATER X	Y	CBRF3 UG/M3
14.740	48.800	21.52
14.670	48.820	23.75
14.580	48.840	7.90
14.510	48.860	2.53
14.450	48.870	1.60
14.470	49.140	47.64
14.460	49.090	335.44
14.380	49.100	189.87
14.350	49.040	38.44
14.410	49.030	52.61
14.460	49.000	16.35
14.510	49.000	57.53
14.550	49.000	69.62
14.570	49.040	26.20
14.590	49.090	5.06
14.630	49.220	.46
14.640	49.310	.39
14.830	49.170	.46
14.840	49.100	.66
14.850	49.020	2.47
14.920	48.920	6.54
14.840	48.860	16.08

STED : CBRF3-LILLESTRØM
TEST NR. : 7C
DATO : 87-02-09
TIDSPKT. : 1000-1015
ANT.OBS. : 24
MIN.MAKS X : 14.300 15.000
MIN.MAKS Y : 48.700 49.400

KOORDINATER X	Y	CBRF3 UG/M3
14.740	48.800	11.49
14.670	48.820	10.59
14.580	48.840	2.78
14.510	48.860	1.73
14.450	48.870	.92
14.400	48.880	.62
14.470	49.140	32.20
14.460	49.090	632.91
14.380	49.100	164.56
14.350	49.040	2.56
14.410	49.030	45.15
14.460	49.000	35.65
14.510	49.000	21.80
14.550	49.000	31.06
14.570	49.040	25.55
14.590	49.090	8.65
14.610	49.170	2.78
14.630	49.220	.43
14.640	49.310	.20
14.830	49.170	.00
14.840	49.100	.39
14.850	49.020	2.04
14.920	48.920	2.24
14.840	48.860	9.81

STED : SF6-LILLESTRØM
TEST NR. : 8A
DATO : 87-02-19
TIDSPKT. : 1000-1015
ANT.OBS. : 24
MIN.MAKS X : 13.900 15.000
MIN.MAKS Y : 48.500 49.600

KOORDINATER X	Y	SF6 UG/M3
14.180	48.950	.08
14.090	48.970	.02
13.980	49.070	.00
14.150	49.090	.03
14.330	49.020	.03
14.460	49.000	.00
14.370	49.110	.01
14.460	49.090	.01
14.570	49.070	.01
14.610	49.150	.01
14.620	49.220	.09
14.830	49.180	.01
14.720	49.120	.00
14.840	49.110	.02
14.850	49.020	.02
14.920	48.930	.01
14.840	48.870	.02
14.760	48.780	.01
14.680	48.820	.02
14.610	48.840	.02
14.510	48.860	.01
14.450	48.870	.00
14.320	48.900	.02
14.250	48.920	.03

STED : SF6-LILLESTRØM
TEST NR. : 8B
DATO : 87-02-19
TIDSPKT. : 1015-1030
ANT.OBS. : 21
MIN.MAKS X : 13.900 15.000
MIN.MAKS Y : 48.500 49.600

KOORDINATER X	Y	SF6 UG/M3
14.090	48.970	.04
13.980	49.070	.02
14.150	49.090	.12
14.460	49.000	.02
14.370	49.110	.03
14.570	49.070	.00
14.610	49.150	.02
14.620	49.220	.10
14.830	49.180	.01
14.720	49.120	.02
14.840	49.110	.01
14.850	49.020	.03
14.920	48.930	.02
14.840	48.870	.01
14.760	48.780	.01
14.680	48.820	.01
14.610	48.840	.01
14.510	48.860	.01
14.450	48.870	.00
14.320	48.900	.01
14.250	48.920	.01

STED : CBRF3-LILLESTRØM
TEST NR. : 8C
DATO : 87-02-19
TIDSPKT. : 1000-1015
ANT.OBS. : 23
MIN.MAKS X : 13.900 15.000
MIN.MAKS Y : 48.500 49.600

KOORDINATER X	Y	CBRF3 UG/M3
14.180	48.950	.00
14.090	48.970	.00
13.980	49.070	.00
14.330	49.020	.00
14.460	49.000	.00
14.370	49.110	.00
14.460	49.090	.00
14.570	49.070	.00
14.610	49.150	.00
14.620	49.220	.25
14.830	49.180	.00
14.720	49.120	.00
14.840	49.110	.00
14.850	49.020	.00
14.920	48.930	.00
14.840	48.870	.00
14.760	48.780	.00
14.680	48.820	.00
14.610	48.840	.00
14.510	48.860	.00
14.450	48.870	.00
14.320	48.900	.00
14.250	48.920	.00

STED : CBRF3-LILLESTRØM
TEST NR. : 8D
DATO : 87-02-19
TIDSPKT. : 1015-1030
ANT.OBS. : 21
MIN.MAKS X : 13.900 15.000
MIN.MAKS Y : 48.500 49.600

KOORDINATER X	Y	CBRF3 UG/M3
14.090	48.970	.00
13.980	49.070	.00
14.150	49.090	5.42
14.460	49.000	.00
14.370	49.110	2.66
14.570	49.070	.00
14.610	49.150	.00
14.620	49.220	1.20
14.830	49.180	.00
14.720	49.120	.00
14.840	49.110	.00
14.850	49.020	.00
14.920	48.930	.00
14.840	48.870	.00
14.760	48.780	.00
14.680	48.820	.00
14.610	48.840	.00
14.510	48.860	.00
14.450	48.870	.00
14.320	48.900	.00
14.250	48.920	.00

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REFERAT (maks. 300 anslag, 7 linjer)
Rapporten beskriver spredningsforsøk med SF_6 og $CBrF_3$ på Lillestrøm. SF_6 og $CBrF_3$ er sluppet henholdsvis fra en gitt høyde og fra bakkenivå for å simulere spredning fra oljefyring og biltrafikk. Resultatene indikerer dårligere spredning fra bakkenivå enn fra en gitt høyde over bakken.

TITLE Atmospheric dispersion experiments at Lillestrøm.
1986-1987 Data-report

ABSTRACT (max. 300 characters, 7 lines)
A description of emission tests with SF_6 and $CBrF_3$ carried out at Lillestrøm. SF_6 has been released from above ground level to simulate oil combustion, and $CBrF_3$ has been released from ground level to simulate vehicle exhaust. The tests indicate that dispersion is favorized from above ground level.

* Kategorier: Åpen - kan bestilles fra NILU A
Må bestilles gjennom oppdragsgiver B
Kan ikke utleveres C