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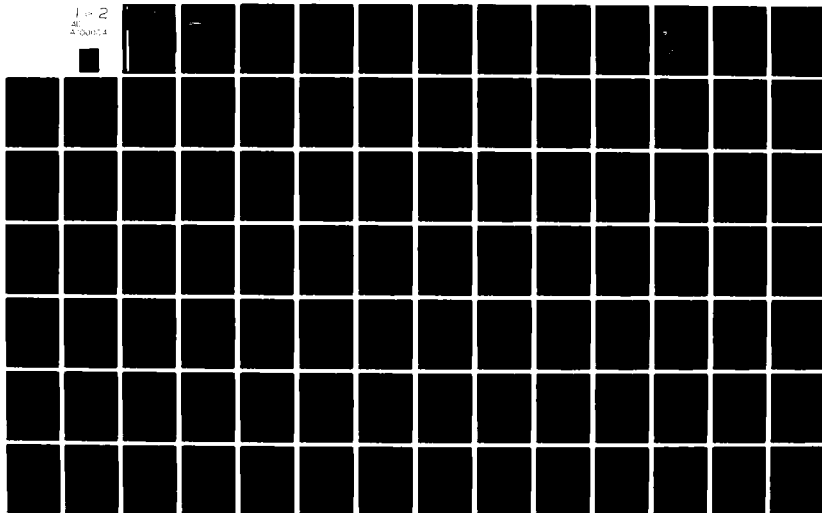
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PARAMETERIZATION OF THE VERTICAL PROFILE OF THE AEROSOL CONSTIT--ETC(U)  
MAR 81 R REITER, R SLADKOVIC, W CARNUTH AFOSR-77-3228

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PARAMETERIZATION OF THE VERTICAL PROFILE OF THE AEROSOL  
CONSTITUTION IN THE LOWER TROPOSPHERE AS A FUNCTION OF  
METEOROLOGICAL CONDITIONS AND HORIZONTAL EXTENSION.

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Director: Dr. R. Reiter

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and

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London, England

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| 18. Supplementary Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                                                                                      |
| 19. Key Words Aerosol particle size spectra, measurements over 11 years at 0.7, 1.8, and 3 km a.s.l / measurements at neighboring mountain stations / five-fold double stage impactors / parameterization of data / influence of height and season, air mass type, temperature, humidity, aerosol concentration, visibility                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |                                                                                      |
| 20. Abstract<br>On 51 tables and 24 figures results are given of 11-year daily measurements of the aerosol particle spectrum measured with 5-fold double stage impactors (mean particle diam. 0.2...5 $\mu$ m). The measurements were made at three neighboring mountain stations (0.7, 1.8, and 3 km a.s.l.) in the northern Alps and are valid (verified by radiosonde comparisons over 90 km distance) for a range of round 200 km diameter if no disturbances of synoptic scale are close by. The spectra have been parameterized according to various meteorological aspects: Seasons / air mass type / temperature and humidity / aerosol mass per volume / visibility range / height dependence.<br><br>The data serve as climatological basis by means of which visibility and light transmission can be estimated from meteorological data under conditions in Middle Europe. |                       |                                                                                      |

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A. D. BLOSE

Technical Information Officer

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## 1. BRIEF DESCRIPTION OF THE RESEARCH WORK

The study under contract was designed to statistical processing and meteorological parameterization of the aerosol particle spectrum obtained from simultaneous measurements at three neighboring mountain stations of about 1 km height difference each (highest-situated station 3 km a.s.l.). The measured values compiled in this report and their parameterization shall provide the means to infer for a larger geographical area around our stations on the basis of known meteorological conditions the particle size spectrum and to derive therefrom predictions about visibility conditions.

The large-scale validity of the measurement results has been verified through comparing the fine structures of radiosonde ascents at our Institute with those from the German Weather Service at Munich. The linear distance between the two radiosondes is nearly 90 km. From the clearly positive results of these comparisons it can be concluded that under certain meteorological conditions (no front systems close by) the applicability of our data obtained at 1.8 km (about 830 mb) and 3.0 km a.s.l. (about 710 mb) is valid in practice for a range of 200 km distance at least from the west across the north to the east and thus specifically at and above the boundary layer, i.e., between 2 - 3 km altitude above sea level where the influence of near-ground sources of air pollution is negligible. Yet, it is but natural that within the boundary layer, mainly between ground and 500 - 800 m above, also horizontal inhomogeneities are to be expected.

The data tables compiled in our present report show the frequency distributions of the particle concentration per size interval whereby the applicability of these tables certainly gains in value.

For the most important parameters used for classifying the data material the aerosol profiles have been plotted graphically in order to increase in this manner the clearness of the results.

We refrained from including in this report - on account of the voluminous amount of data alone - our verbal interpretations of the measured results. Thus, the data tables and diagrams presented per parameter constitute the core of the information to be provided.

## 2. SUPPLEMENTARY STATEMENTS AND REFERENCES TO PRECEDING REPORTS TO FACILITATE UNDERSTANDING OF THE RESULTS

First it should be mentioned that we dispense in this report with the presentation of data obtained with the Knollenberg particle analyzer. Results acquired with this type of instrument in the valley (0.7 km) and on the Wank (1.8 km a.s.l.) are found in our Interim Scientific Report of 30 April 1979. A noteworthy augmentation of this type of data was not possible because the measuring device on the Wank was so severely damaged by a lightning stroke that it was out of operation for 9 months until complete repair and recalibration. Therefore, we restrict ourselves in the present report to the 11-year measuring series obtained with the five-fold double stage impactors, including the full year 1980.

A detailed description of this five-fold double stage impactor is found in our Progress Report No.2 of 20 October 1978 in Chapter 3, pages 5-10. This description includes also the method of counting the aerosol particles deposited on the slides of the 5 stages by means of an automatic microscope with TV-camera and connected computer for the control of the

microscope table and recording of particles. In Figure A we show once more the deposition curves for the separately working but parallel-operated double impactor stages.

The mean diameter  $D_1 - D_5$  is indicated in each deposition curve:

$$D_1 = 0.23 \text{ } \mu\text{m}$$

$$D_2 = 0.45 \text{ } \mu\text{m}$$

$$D_3 = 0.93 \text{ } \mu\text{m}$$

$$D_4 = 2.0 \text{ } \mu\text{m}$$

$$D_5 = 4.5 \text{ } \mu\text{m}$$

Besides, the data tables show always the relevant mean particle diameter per impactor stage.

Based on different parameters, Tables 1 - 98 present, as mentioned, a. the frequency distribution of the particle concentration per particle size class,  $D_1 \dots D_5$ , where the frequency is given in 1/10%, b. the appertaining mean value, c. the number of measurements, and d. the simple scatter sigma.

On a total of 51 diagrams the spectra are given on the basis of the different parameterizations. The particle concentration  $dN \text{ d log } D \text{ (cm}^3\text{)}$  is plotted at the ordinate; the abscissa shows diameter  $D$  in micrometers where the five mean deposition diameters per impactor stage (see Figure A) are indicated by values  $D_1 - D_5$ .

The legend of tables contains the respective parameters as well as a reference to the number of the appertaining table in which the measured values can be found in digitized form.

deposition functions,  
particle density = 1

deposition  
efficiency

- 0.23  $\mu\text{m}$

- 0.45  $\mu\text{m}$

- 0.93  $\mu\text{m}$

- 2.00  $\mu\text{m}$

- 4.50  $\mu\text{m}$

$D_1$

$D_2$

$D_3$

$D_4$

$D_5$

$10^{-5}$  cm

0.1  $\mu\text{m}$

$10^{-4}$  cm

1  $\mu\text{m}$

$10^{-3}$  cm

10  $\mu\text{m}$

particle diameter

Fig. A

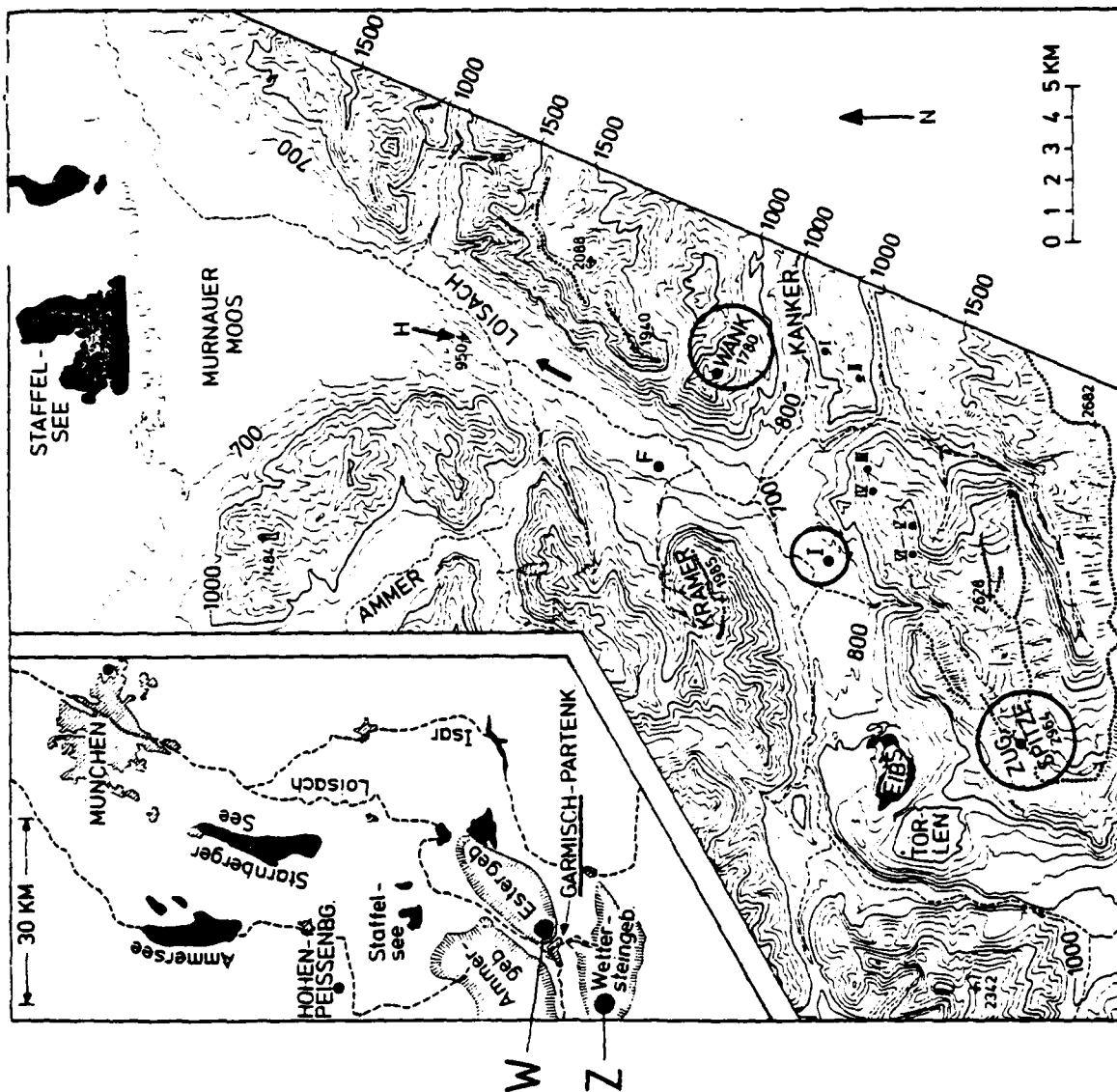
### 3. BRIEF DESCRIPTION OF THE GEOGRAPHICAL SITUATION

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Figure B gives an overview of the geographical situation. The partial picture in the upper left clearly reveals that our measuring stations Garmisch-Partenkirchen (0.7 km), Wank peak (W; 1.8 km), and Zugspitze peak (Z; 3 km a.s.l.) are located at the northern edge of the Alps south-south-west of Munich. With regard to their favorable geographic location, at least the stations W and Z provide particle size spectra whose range of validity extends far to the north into the pre-alpine region. Something must be said hereon later.

The main map on Figure B illustrates in detail the topography of the terrain (the 3 stations in circles, I = Institute, valley station at 740 m a.s.l.).

Fig. B



#### 4. THE PARAMETERS USED FOR CLASSIFYING THE ENTIRE MATERIAL

---

TABLE A  
Parameterization of aerosol particle spectra at the three  
stations on Data Tables 1 - 98

| Table Number | Parameter                                                                                                         |
|--------------|-------------------------------------------------------------------------------------------------------------------|
| 1 - 3        | Total mean values for the 3 stations<br>Garmisch, Wank peak, and Zugspitze peak                                   |
| 4 - 15       | Total mean values per station, separately for seasons                                                             |
| 16 - 21      | Differentiation according to air mass<br>type, valley station                                                     |
| 22 - 27      | Differentiation according to air mass<br>type, Wank peak                                                          |
| 28 - 33      | Differentiation according to air mass<br>type, Zugspitze peak                                                     |
| 34 - 35      | Measured values in Garmisch at extremely<br>high and extremely low temperature,<br>respectively, on the Zugspitze |
| 36 - 37      | Same as above for particle spectra at<br>Wank peak                                                                |
| 38 - 39      | Same as above for particle spectra at<br>the Zugspitze                                                            |

|         |                                                                                                                                                    |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 40 - 46 | Particle spectra in Garmisch at different rel. humidity                                                                                            |
| 47 - 53 | Same as above for station Wank                                                                                                                     |
| 54 - 60 | Same as above for station Zugspitze                                                                                                                |
| 61 - 65 | Particle spectra in the valley at different aerosol concentration (measured by weighing of exposed aerosol filters)                                |
| 66 - 67 | Same as above for station Wank                                                                                                                     |
| 72 - 74 | Particle size spectra for different visibility conditions in Garmisch                                                                              |
| 75 - 79 | Same as above for station Wank peak                                                                                                                |
| 80      | Particle size spectra on the Zugspitze at visibility >95 km                                                                                        |
| 81 - 87 | Particle size spectra in Garmisch with different exchange coefficients between valley and Wank                                                     |
| 88 - 94 | Same as above for particle size spectra at Wank peak                                                                                               |
| 95      | Particle size spectra on the Zugspitze at extremely weak exchange between valley and Wank                                                          |
| 96 - 98 | Particle spectra at the 3 station with high concentration of Be7, i.e., during strong influx of stratospheric air down to Zugspitze level at least |

TABLE B

Parameterization of aerosol particle spectra at the three  
stations on Figures 1 - 51

| Figure Number | Parameter                                                                  |
|---------------|----------------------------------------------------------------------------|
| 1             | Entire material                                                            |
| 1 - 5         | Mean spectra per station for the four seasons                              |
| 6 - 8         | Spectra for extreme particle concentration                                 |
| 9 - 11        | Spectra per station for different seasons                                  |
| 12 - 13       | Spectra for extremely high and extremely low aerosol concentrations, resp. |
| 14 - 19       | Spectra for different air mass types, separately for stations              |
| 20 - 25       | Different air mass types per station                                       |
| 26 - 30       | Spectra from the 3 stations at extreme temperatures on the Zugspitze       |
| 31 - 37       | Spectra with different rel. humidities per station                         |
| 38 - 41       | Spectra at different aerosol concentrations per station                    |
| 42 - 46       | Particle spectra at different visibility conditions per station            |

47 - 50

Particle spectra at different exchange coefficients between valley and Wank

51

Particle spectra at the 3 stations in the case of extremely high values of the Be7 as indicator of stratospheric air intrusions down to Zugspitze.

As mentioned before, we dispense here with a discussion of singularities in the contents of tables and figures. The importance of those will largely depend on the specific scientific aspect of the respective reviewer. Depending on the kind of parameter and station there are indeed significant differences in the spectra allowing a manifold application of same.

5. ON THE SPACIAL VALIDITY OF THE AEROSOL SPECTRA MEASURED  
AT THE MOUNTAIN STATIONS; VERIFICATIONS WITH THE AID OF  
RADIOSONDE COMPARISONS

A first study, based on comparative radiosonde ascents at Garmisch-Partenkirchen and Munich, was described in the Interim Scientific Report of 30 April 1979 in Chapter 4 from page 8 on. It should be noted at this point that, in all, further more than 100 radiosonde comparisons are available which practically led to the same result as shown in Table 2 on page 10 of the above report. That means in other words: In round 50% of the cases we find between 900 and 600 mb agreement - often down to the details - in the fine structures of radiosondes flown the same day at Garmisch-Partenkirchen and Munich. The accompanying weather situations have been analyzed: In the majority of cases we had high pressure weather permitting for-

mation of homogeneous layers over an area of 200 - 400 diameter north of the alpine region. If there appeared differences in the structures between Garmisch-Partenkirchen and Munich they could, as a rule, readily be attributed to meteorological disturbances of synoptic scale like frontal systems.

In Figures 1 - 15 we show at first cases with good to excellent agreement between 900 and 700 mb (800 - 700 mb at least) mainly of the lapse rates of temperature but in many cases also of relative humidity which is, of course, stronger subjected to local fluctuations. But there are cases in which almost perfect agreement is found even in the fine structure of the relative humidity (Fig.1, Fig.4, Fig.5, Fig.6, Fig.8, Fig.11, Fig.12, Fig.14).

This first group of 15 comparisons is however only a representative selection from a still greater number of comparisons we made. In Figures 16 - 19 follows a series where still reasonably good agreement is observed in the range of temperature. In the relative humidity we have partly very good (Fig.18) and partly moderate conformity.

A group of radiosonde comparisons is now shown in Figures 20 - 24. We observe that here marked differences appear in the temperature lapse rate and relative humidity which clearly contrast with the good agreement in the other figures mentioned. Studying the weather maps regularly reveals that in such cases a frontal system moved between the Munich and the Garmisch radiosonde leading inevitably to temperature changes in the lower troposphere and thus also to humidity changes in the same region. Naturally, under such conditions, agreement in the atmospheric structure and hence also in the aerosol distribution with height can no longer be expected.

## 6. CONCLUSIONS

The importance of such radiosonde comparisons Garmisch-Partenkirchen/Munich for a verification of the horizontal range of validity of our measurements lies in the fact that the vertical thermal stratification or temperature structure is decisive for the control of the vertical exchange and thus for the inhomogeneity or homogeneity of the aerosol layer. This has been extensively described in our Interim Scientific Report of 30 April 1979 and documented there by Figures 5 - 6.

We believe that the analysis performed by us of radiosonde ascents the same day at two sites round 90 km apart gives more conclusive evidence than a few (originally planned) comparative lidar profile measurements which could have been made on some rare days only. Moreover, expenditure of time and material required for the performance of such comparative lidar measurements over a large horizontal distance would have exceeded by far the funds available as became apparent only during the course of practical work in the last three years.

Thus, we are convinced to have been able to prove, even without such expensive field experiments, that the aerosol spectra obtained at our mountain stations during 11 years are under the respectively defined meteorological conditions of sufficiently large-scale significance and applicable to an atmospheric layer of about 850 - 650 mb.

1.           T A B L E S   1 - 98
2.       A E R O S O L   S P E C T R A   1 - 51
3.           R A D I O S O N D E   P L O T S ,  
              Figures 1 - 24

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 01

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

## PARAMETER= MEAN FREQUENCY DISTRIBUTION OF TOTAL PERIOD

| D1 = 0.23 MI                              | D2 = 0.45 MI                              | D3 = 0.93 MI                              | D4 = 2.00 MI                              | D5 = 4.50 MI                              |
|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| RES. NR. : 001                            | RES. NR. : 002                            | RES. NR. : 003                            | RES. NR. : 004                            | RES. NR. : 005                            |
| PARTIC. CONC. [X10E-2] FREQUENCY [1/10 %] | PARTIC. CONC. [X10E-2] FREQUENCY [1/10 %] | PARTIC. CONC. [X10E-3] FREQUENCY [1/10 %] | PARTIC. CONC. [X10E-4] FREQUENCY [1/10 %] | PARTIC. CONC. [X10E-5] FREQUENCY [1/10 %] |
| < 00500                                   | < 00500                                   | < 00150                                   | < 00050                                   | < 00200                                   |
| 00500 - 01000                             | 00500 - 01000                             | 00150 - 00300                             | 00050 - 00100                             | 00200 - 00400                             |
| 01000 - 01500                             | 01000 - 01500                             | 00300 - 00450                             | 00100 - 00150                             | 00400 - 00600                             |
| 01500 - 02000                             | 01500 - 02000                             | 00450 - 00600                             | 00150 - 00200                             | 00600 - 00800                             |
| 02000 - 02500                             | 02000 - 02500                             | 00600 - 00750                             | 00200 - 00250                             | 00800 - 01000                             |
| 02500 - 03000                             | 02500 - 03000                             | 00750 - 00900                             | 00250 - 00300                             | 01000 - 01200                             |
| 03000 - 03500                             | 03000 - 03500                             | 00900 - 01050                             | 00300 - 00350                             | 01200 - 01400                             |
| 03500 - 04000                             | 03500 - 04000                             | 01050 - 01200                             | 00350 - 00400                             | 01400 - 01600                             |
| 04000 - 04500                             | 04000 - 04500                             | 01200 - 01350                             | 00400 - 00500                             | 01600 - 01800                             |
| 04500 - 05000                             | 04500 - 05000                             | 01350 - 01500                             | 00500 - 00600                             | 01800 - 02000                             |
| 05000 - 06000                             | 05000 - 06000                             | 01500 - 01650                             | 00600 - 00700                             | 02000 - 02250                             |
| 06000 - 07000                             | 06000 - 07000                             | 01650 - 01800                             | 00700 - 00800                             | 02250 - 02500                             |
| 07000 - 08000                             | 07000 - 08000                             | 01800 - 02000                             | 00800 - 00900                             | 02500 - 03000                             |
| 08000 - 09000                             | 08000 - 09000                             | 02000 - 02300                             | 00900 - 01000                             | 03000 - 03500                             |
| 09000 - 10000                             | 09000 - 10000                             | 02300 - 02500                             | 01000 - 01250                             | 03500 - 04000                             |
| 10000 - 15000                             | 10000 - 15000                             | 02500 - 03000                             | 01250 - 01500                             | 04000 - 05000                             |
| 15000 - 25000                             | 15000 - 25000                             | 03000 - 04000                             | 01500 - 02000                             | 05000 - 07000                             |
| 25000 - 40000                             | 25000 - 40000                             | 04000 - 06000                             | 02000 - 03000                             | 07000 - 09000                             |
| 40000 - 60000                             | 40000 - 60000                             | 06000 - 10000                             | 03000 - 06000                             | 09000 - 12000                             |
| 60000 - 100000                            | 60000 - 100000                            | 10000 - 20000                             | > 06000                                   | > 12000                                   |
| > 100000                                  | > 50000                                   | > 20000                                   |                                           |                                           |
| NO OF MEASUR. +01559                      | NO OF MEASUR. +01525                      | NO OF MEASUR. +01525                      | NO OF MEASUR. +01522                      | NO OF MEASUR. +01509                      |
| MEAN [X10E-2] +07481                      | MEAN [X10E-2] +05856                      | MEAN [X10E-3] +01315                      | MEAN [X10E-4] +00711                      | MEAN [X10E-5] +02093                      |
| SIGMA [X10E-2] +10278                     | SIGMA [X10E-2] +06931                     | SIGMA [X10E-3] +01586                     | SIGMA [X10E-4] +00744                     | SIGMA [X10E-5] +01783                     |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 02

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= MEAN FREQUENCY DISTRIBUTION OF TOTAL PERIOD

| D1 = 0.23 MI             | D2 = 0.45 MI             | D3 = 0.93 MI             | D4 = 2.00 MI             | D5 = 4.50 MI             |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| RES. NR. : 006           | RES. NR. : 007           | RES. NR. : 008           | RES. NR. : 009           | RES. NR. : 010           |
| PARTICL CONC<br>[X10E-2] | PARTICL CONC<br>[X10E-2] | PARTICL CONC<br>[X10E-3] | PARTICL CONC<br>[X10E-4] | PARTICL CONC<br>[X10E-5] |
| FREQUENCY<br>[1/10 %]    | FREQUENCY<br>[1/10 %]    | FREQUENCY<br>[1/10 %]    | FREQUENCY<br>[1/10 %]    | FREQUENCY<br>[1/10 %]    |
| < 00200                  | < 00100                  | < 00025                  | < 00025                  | < 00025                  |
| 00200 - 00400            | 00100 - 00200            | 00025 - 00050            | 00025 - 00050            | 00025 - 00050            |
| 00400 - 00600            | 00200 - 00300            | 00050 - 00076            | 00050 - 00076            | 00050 - 00076            |
| 00600 - 00800            | 00300 - 00400            | 00076 - 00100            | 00076 - 00100            | 00076 - 00100            |
| 00800 - 01000            | 00400 - 00500            | 00100 - 00150            | 00100 - 00125            | 00100 - 00125            |
| 01000 - 01200            | 00500 - 00600            | 00150 - 00200            | 00125 - 00150            | 00125 - 00150            |
| 01200 - 01400            | 00600 - 00750            | 00200 - 00250            | 00150 - 00175            | 00150 - 00175            |
| 01400 - 01600            | 00750 - 01000            | 00250 - 00300            | 00175 - 00200            | 00175 - 00200            |
| 01600 - 01800            | 01000 - 01500            | 00300 - 00350            | 00200 - 00250            | 00200 - 00250            |
| 01800 - 02000            | 01500 - 02000            | 00350 - 00400            | 00250 - 00300            | 00250 - 00300            |
| 02000 - 02500            | 02000 - 02500            | 00400 - 00450            | 00300 - 00350            | 00300 - 00350            |
| 02500 - 03000            | 02500 - 03000            | 00450 - 00500            | 00350 - 00400            | 00350 - 00400            |
| 03000 - 03500            | 03000 - 04000            | 00500 - 00600            | 00400 - 00450            | 00400 - 00450            |
| 03500 - 04000            | 04000 - 05000            | 00600 - 00700            | 00450 - 00500            | 00450 - 00500            |
| 04000 - 05000            | 05000 - 07000            | 00700 - 01000            | 00500 - 00600            | 00500 - 00600            |
| 05000 - 06000            | 07000 - 09000            | 01000 - 01500            | 00600 - 00700            | 00600 - 00700            |
| 06000 - 08000            | 09000 - 12000            | 01500 - 02000            | 00700 - 01000            | 00700 - 01000            |
| 08000 - 10000            | 12000 - 15000            | 02000 - 03500            | 01000 - 02000            | 01000 - 02000            |
| 10000 - 15000            | 15000 - 20000            | 03500 - 06000            | 02000 - 04000            | 02000 - 04000            |
| > 15000                  | > 20000                  | > 06000                  | > 04000                  | > 04000                  |
| NO OF MEASUR             | NO OF MEASUR             | NO OF MEASUR             | NO OF MEASUR             | NO OF MEASUR             |
| +01363                   | +01339                   | +01361                   | +01366                   | +01339                   |
| MEAN [X10E-2]            | MEAN [X10E-2]            | MEAN [X10E-3]            | MEAN [X10E-4]            | MEAN [X10E-5]            |
| +02113                   | +02565                   | +00547                   | +00272                   | +00487                   |
| SIGMA [X10E-2]           | SIGMA [X10E-2]           | SIGMA [X10E-3]           | SIGMA [X10E-4]           | SIGMA [X10E-5]           |
| +02014                   | +03282                   | +00659                   | +00325                   | +00405                   |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 03

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= MEAN FREQUENCY DISTRIBUTION OF TOTAL PERIOD

| D1 = 0.23 MI                                                                                                                                                                                                                                                                                                                         | D2 = 0.45 MI                                                                                                                                                                                                                                                                                                        | D3 = 0.93 MI                                                                                                                                                                                                                                                                                                        | D4 = 2.00 MI                                                                                                                                                                                                                                                                                                        | D5 = 4.50 MI                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RES NR : 011                                                                                                                                                                                                                                                                                                                         | RES NR : 012                                                                                                                                                                                                                                                                                                        | RES NR : 013                                                                                                                                                                                                                                                                                                        | RES NR : 014                                                                                                                                                                                                                                                                                                        | RES NR : 015                                                                                                                                                                                                                                                                                                                         |
| PARTICL. CONC.<br>[X10E-2] [1/10 %]                                                                                                                                                                                                                                                                                                  | PARTICL. CONC.<br>[X10E-2] [1/10 %]                                                                                                                                                                                                                                                                                 | PARTICL. CONC.<br>[X10E-3] [1/10 %]                                                                                                                                                                                                                                                                                 | PARTICL. CONC.<br>[X10E-4] [1/10 %]                                                                                                                                                                                                                                                                                 | PARTICL. CONC.<br>[X10E-5] [1/10 %]                                                                                                                                                                                                                                                                                                  |
| < 00050<br>00050 - 00100<br>00100 - 00150<br>00150 - 00200<br>00200 - 00250<br>00250 - 00300<br>00300 - 00350<br>00350 - 00400<br>00400 - 00500<br>00500 - 00600<br>00600 - 00800<br>00800 - 01000<br>01000 - 01250<br>01250 - 01500<br>01500 - 02000<br>02000 - 03000<br>03000 - 04000<br>04000 - 06000<br>06000 - 12000<br>> 12000 | < 00015<br>00015 - 00030<br>00030 - 00045<br>00045 - 00060<br>00060 - 00075<br>00075 - 00090<br>00090 - 00105<br>00105 - 00120<br>00120 - 00150<br>00150 - 00200<br>00200 - 00250<br>00250 - 00300<br>00300 - 00400<br>00400 - 00600<br>00600 - 01500<br>01500 - 02500<br>02500 - 05000<br>05000 - 10000<br>> 10000 | < 00015<br>00015 - 00030<br>00030 - 00045<br>00045 - 00060<br>00060 - 00075<br>00075 - 00090<br>00090 - 00105<br>00105 - 00120<br>00120 - 00150<br>00150 - 00200<br>00200 - 00250<br>00250 - 00300<br>00300 - 00400<br>00400 - 00600<br>00600 - 01500<br>01500 - 02500<br>02500 - 05000<br>05000 - 10000<br>> 10000 | < 00015<br>00015 - 00030<br>00030 - 00045<br>00045 - 00060<br>00060 - 00075<br>00075 - 00090<br>00090 - 00105<br>00105 - 00120<br>00120 - 00150<br>00150 - 00200<br>00200 - 00250<br>00250 - 00300<br>00300 - 00400<br>00400 - 00600<br>00600 - 01500<br>01500 - 02500<br>02500 - 05000<br>05000 - 10000<br>> 10000 | < 00025<br>00025 - 00050<br>00050 - 00076<br>00076 - 00100<br>00100 - 00125<br>00125 - 00150<br>00150 - 00175<br>00175 - 00200<br>00200 - 00225<br>00225 - 00250<br>00250 - 00275<br>00275 - 00300<br>00300 - 00325<br>00325 - 00350<br>00350 - 00400<br>00400 - 00500<br>00500 - 00750<br>00750 - 01000<br>01000 - 02000<br>> 02000 |
| FREQUENCY<br>[1/10 %]<br>038<br>053<br>064<br>058<br>038<br>040<br>038<br>034<br>058<br>042<br>098<br>067<br>065<br>038<br>070<br>071<br>042<br>054<br>022<br>000                                                                                                                                                                    | FREQUENCY<br>[1/10 %]<br>018<br>043<br>061<br>052<br>048<br>030<br>032<br>028<br>054<br>062<br>042<br>036<br>053<br>069<br>074<br>096<br>084<br>089<br>020<br>000                                                                                                                                                   | FREQUENCY<br>[1/10 %]<br>036<br>074<br>063<br>054<br>054<br>046<br>058<br>046<br>059<br>075<br>047<br>035<br>072<br>076<br>070<br>070<br>042<br>014<br>000<br>000                                                                                                                                                   | FREQUENCY<br>[1/10 %]<br>073<br>133<br>093<br>092<br>067<br>053<br>060<br>039<br>058<br>075<br>049<br>038<br>037<br>044<br>035<br>030<br>018<br>000<br>000<br>000                                                                                                                                                   | FREQUENCY<br>[1/10 %]<br>009<br>014<br>043<br>042<br>049<br>051<br>048<br>045<br>057<br>051<br>039<br>045<br>046<br>053<br>068<br>103<br>129<br>054<br>047<br>000                                                                                                                                                                    |
| NO OF MEASUR.<br>+01377                                                                                                                                                                                                                                                                                                              | NO OF MEASUR.<br>+01390                                                                                                                                                                                                                                                                                             | NO OF MEASUR.<br>+01387                                                                                                                                                                                                                                                                                             | NO OF MEASUR.<br>+01397                                                                                                                                                                                                                                                                                             | NO OF MEASUR.<br>+01347                                                                                                                                                                                                                                                                                                              |
| MEAN [X10E-2] +01234                                                                                                                                                                                                                                                                                                                 | MEAN [X10E-2] +00869                                                                                                                                                                                                                                                                                                | MEAN [X10E-3] +00386                                                                                                                                                                                                                                                                                                | MEAN [X10E-4] +00204                                                                                                                                                                                                                                                                                                | MEAN [X10E-5] +00367                                                                                                                                                                                                                                                                                                                 |
| SIGMA [X10E-2] +01498                                                                                                                                                                                                                                                                                                                | SIGMA [X10E-2] +01241                                                                                                                                                                                                                                                                                               | SIGMA [X10E-3] +00545                                                                                                                                                                                                                                                                                               | SIGMA [X10E-4] +00336                                                                                                                                                                                                                                                                                               | SIGMA [X10E-5] +00271                                                                                                                                                                                                                                                                                                                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 04

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= MEAN FREQUENCY DISTRIBUTION PER SEASON : WINTER

| D1 = 0.23 MI               |                       |  | D2 = 0.45 MI               |                       |  | D3 = 0.93 MI               |                       |  | D4 = 2.00 MI               |                       |  | D5 = 4.50 MI               |                       |  |
|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|
| RES. NR. : 016             |                       |  | RES. NR. : 020             |                       |  | RES. NR. : 024             |                       |  | RES. NR. : 028             |                       |  | RES. NR. : 032             |                       |  |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |
| < 00500                    | 089                   |  | < 00500                    | 113                   |  | < 00150                    | 098                   |  | < 00050                    | 048                   |  | < 00200                    | 002                   |  |
| 00500 - 01000              | 091                   |  | 00500 - 01000              | 137                   |  | 00150 - 00300              | 169                   |  | 00050 - 00100              | 084                   |  | 00200 - 00400              | 052                   |  |
| 01000 - 01500              | 083                   |  | 01000 - 01500              | 106                   |  | 00300 - 00450              | 167                   |  | 00100 - 00150              | 079                   |  | 00400 - 00600              | 118                   |  |
| 01500 - 02000              | 043                   |  | 01500 - 02000              | 080                   |  | 00450 - 00600              | 108                   |  | 00150 - 00200              | 100                   |  | 00600 - 00800              | 107                   |  |
| 02000 - 02500              | 053                   |  | 02000 - 02500              | 077                   |  | 00600 - 00750              | 071                   |  | 00200 - 00250              | 071                   |  | 00800 - 01000              | 099                   |  |
| 02500 - 03000              | 055                   |  | 02500 - 03000              | 051                   |  | 00750 - 00900              | 061                   |  | 00250 - 00300              | 061                   |  | 01000 - 01200              | 078                   |  |
| 03000 - 03500              | 035                   |  | 03000 - 03500              | 033                   |  | 00900 - 01050              | 045                   |  | 00300 - 00350              | 058                   |  | 01200 - 01400              | 049                   |  |
| 03500 - 04000              | 027                   |  | 03500 - 04000              | 033                   |  | 01050 - 01200              | 034                   |  | 00350 - 00400              | 041                   |  | 01400 - 01600              | 039                   |  |
| 04000 - 05000              | 045                   |  | 04000 - 04500              | 036                   |  | 01200 - 01350              | 018                   |  | 00400 - 00500              | 064                   |  | 01600 - 01800              | 041                   |  |
| 05000 - 06000              | 053                   |  | 04500 - 05000              | 025                   |  | 01350 - 01500              | 018                   |  | 00500 - 00600              | 051                   |  | 01800 - 02000              | 044                   |  |
| 06000 - 07000              | 022                   |  | 05000 - 06000              | 049                   |  | 01500 - 01650              | 018                   |  | 00600 - 00700              | 048                   |  | 02000 - 02250              | 041                   |  |
| 07000 - 08000              | 022                   |  | 06000 - 07000              | 031                   |  | 01650 - 01800              | 010                   |  | 00700 - 00800              | 043                   |  | 02250 - 02500              | 039                   |  |
| 08000 - 10000              | 083                   |  | 07000 - 08000              | 028                   |  | 01800 - 02000              | 015                   |  | 00800 - 00900              | 038                   |  | 02500 - 03000              | 052                   |  |
| 10000 - 15000              | 109                   |  | 08000 - 10000              | 049                   |  | 02000 - 02500              | 037                   |  | 00900 - 01000              | 020                   |  | 03000 - 03500              | 028                   |  |
| 15000 - 25000              | 096                   |  | 10000 - 15000              | 064                   |  | 02500 - 03000              | 023                   |  | 01000 - 01250              | 053                   |  | 03500 - 04000              | 039                   |  |
| 25000 - 40000              | 050                   |  | 15000 - 20000              | 025                   |  | 03000 - 04000              | 034                   |  | 01250 - 01500              | 023                   |  | 04000 - 05000              | 052                   |  |
| 40000 - 60000              | 027                   |  | 20000 - 30000              | 046                   |  | 04000 - 06000              | 042                   |  | 01500 - 02000              | 035                   |  | 05000 - 07000              | 086                   |  |
| 60000 - 80000              | 005                   |  | 30000 - 40000              | 007                   |  | 06000 - 10000              | 023                   |  | 02000 - 03000              | 035                   |  | 07000 - 09000              | 023                   |  |
| 80000 - 100000             | 000                   |  | 40000 - 50000              | 000                   |  | 10000 - 20000              | 000                   |  | 03000 - 04000              | 038                   |  | 09000 - 12000              | 000                   |  |
| >100000                    | 000                   |  | > 50000                    | 000                   |  | > 20000                    | 000                   |  | > 06000                    | 000                   |  | > 12000                    | 000                   |  |
| NO OF MEASUR               | +00393                |  | NO OF MEASUR.              | +00386                |  | NO OF MEASUR               | +00377                |  | NO OF MEASUR               | +00390                |  | NO OF MEASUR.              | +00381                |  |
| MEAN [X10E-2]              | +08733                |  | MEAN [X10E-2]              | +05056                |  | MEAN [X10E-3]              | +01124                |  | MEAN [X10E-4]              | +00644                |  | MEAN [X10E-5]              | +02110                |  |
| SIGMA [X10E-2]             | +11280                |  | SIGMA [X10E-2]             | +06487                |  | SIGMA [X10E-3]             | +01518                |  | SIGMA [X10E-4]             | +00771                |  | SIGMA [X10E-5]             | +01871                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 05

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= MEAN FREQUENCY DISTRIBUTION PER SEASON : SPRING

| D1 = 0. 23 MI              |                       |  | D2 = 0. 45 MI              |                       |  | D3 = 0. 93 MI              |                       |  | D4 = 2. 00 MI              |                       |  | D5 = 4. 50 MI              |                       |  |
|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|
| RES. NR. : 017             |                       |  | RES. NR. : 021             |                       |  | RES. NR. : 025             |                       |  | RES. NR. : 029             |                       |  | RES. NR. : 033             |                       |  |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] |  | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] |  | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 X] |  | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 X] |  | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 X] |  |
| < 00500                    | 098                   |  | < 00500                    | 072                   |  | < 00150                    | 069                   |  | < 00050                    | 051                   |  | < 00200                    | 000                   |  |
| 00500 - 01000              | 093                   |  | 00500 - 01000              | 106                   |  | 00150 - 00300              | 119                   |  | 00050 - 00100              | 070                   |  | 00200 - 00400              | 036                   |  |
| 01000 - 01500              | 077                   |  | 01000 - 01500              | 077                   |  | 00300 - 00450              | 103                   |  | 00100 - 00150              | 073                   |  | 00400 - 00600              | 058                   |  |
| 01500 - 02000              | 062                   |  | 01500 - 02000              | 050                   |  | 00450 - 00600              | 029                   |  | 00150 - 00200              | 043                   |  | 00600 - 00800              | 081                   |  |
| 02000 - 02500              | 049                   |  | 02000 - 02500              | 064                   |  | 00600 - 00750              | 087                   |  | 00200 - 00250              | 070                   |  | 00800 - 01000              | 081                   |  |
| 02500 - 03000              | 046                   |  | 02500 - 03000              | 042                   |  | 00750 - 00900              | 050                   |  | 00250 - 00300              | 035                   |  | 01000 - 01200              | 075                   |  |
| 03000 - 03500              | 049                   |  | 03000 - 03500              | 029                   |  | 00900 - 01050              | 050                   |  | 00300 - 00350              | 019                   |  | 01200 - 01400              | 081                   |  |
| 03500 - 04000              | 033                   |  | 03500 - 04000              | 050                   |  | 01050 - 01200              | 047                   |  | 00350 - 00400              | 032                   |  | 01400 - 01600              | 044                   |  |
| 04000 - 05000              | 041                   |  | 04000 - 04500              | 018                   |  | 01200 - 01350              | 047                   |  | 00400 - 00500              | 048                   |  | 01600 - 01800              | 061                   |  |
| 05000 - 06000              | 049                   |  | 04500 - 05000              | 032                   |  | 01350 - 01500              | 026                   |  | 00500 - 00600              | 081                   |  | 01800 - 02000              | 028                   |  |
| 06000 - 07000              | 033                   |  | 05000 - 06000              | 040                   |  | 01500 - 01650              | 029                   |  | 00600 - 00700              | 035                   |  | 02000 - 02250              | 053                   |  |
| 07000 - 08000              | 031                   |  | 06000 - 07000              | 040                   |  | 01650 - 01800              | 039                   |  | 00700 - 00800              | 051                   |  | 02250 - 02500              | 019                   |  |
| 08000 - 10000              | 038                   |  | 07000 - 08000              | 056                   |  | 01800 - 02000              | 029                   |  | 00800 - 00900              | 049                   |  | 02500 - 03000              | 078                   |  |
| 10000 - 15000              | 083                   |  | 08000 - 10000              | 061                   |  | 02000 - 02500              | 079                   |  | 00900 - 01000              | 035                   |  | 03000 - 03500              | 050                   |  |
| 15000 - 25000              | 098                   |  | 10000 - 15000              | 114                   |  | 02500 - 03000              | 039                   |  | 01000 - 01250              | 062                   |  | 03500 - 04000              | 058                   |  |
| 25000 - 40000              | 062                   |  | 15000 - 20000              | 042                   |  | 03000 - 04000              | 037                   |  | 01250 - 01500              | 057                   |  | 04000 - 05000              | 067                   |  |
| 40000 - 60000              | 038                   |  | 20000 - 30000              | 082                   |  | 04000 - 06000              | 039                   |  | 01500 - 02000              | 073                   |  | 05000 - 07000              | 078                   |  |
| 60000 - 80000              | 010                   |  | 30000 - 40000              | 016                   |  | 06000 - 10000              | 055                   |  | 02000 - 03000              | 057                   |  | 07000 - 09000              | 044                   |  |
| 80000 - 100000             | 000                   |  | 40000 - 50000              | 000                   |  | 10000 - 20000              | 000                   |  | 03000 - 06000              | 029                   |  | 09000 - 12000              | 000                   |  |
| >100000                    | 000                   |  | > 50000                    | 000                   |  | > 20000                    | 000                   |  | > 06000                    | 000                   |  | > 12000                    | 000                   |  |
| NO OF MEASUR.              | +00395                |  | NO OF MEASUR.              | +00374                |  | NO OF MEASUR.              | +00378                |  | NO OF MEASUR.              | +00367                |  | NO OF MEASUR.              | +00357                |  |
| MEAN [X10E-2]              | +09668                |  | MEAN [X10E-2]              | +07220                |  | MEAN [X10E-3]              | +01579                |  | MEAN [X10E-4]              | +00797                |  | MEAN [X10E-5]              | +02447                |  |
| SIGMA [X10E-2]             | +13205                |  | SIGMA [X10E-2]             | +07693                |  | SIGMA [X10E-3]             | +01833                |  | SIGMA [X10E-4]             | +00796                |  | SIGMA [X10E-5]             | +01939                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 06

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= MEAN FREQUENCY DISTRIBUTION PER SEASON : SUMMER

| D1 = 0.23 MI                                                                                                                                                                                                                                                                                                                                                                                                                       | D2 = 0.45 MI                                                                                                                                                                                                                                                                                                                                                                                                                     | D3 = 0.93 MI                                                                                                                                                                                                                                                                                                                                                                                                                     | D4 = 2.00 MI                                                                                                                                                                                                                                                                                                                                                                                                                     | D5 = 4.50 MI                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RES. NR. : 018                                                                                                                                                                                                                                                                                                                                                                                                                     | RES. NR. : 022                                                                                                                                                                                                                                                                                                                                                                                                                   | RES. NR. : 026                                                                                                                                                                                                                                                                                                                                                                                                                   | RES. NR. : 030                                                                                                                                                                                                                                                                                                                                                                                                                   | RES. NR. : 034                                                                                                                                                                                                                                                                                                                                                                                                                   |
| PARTIC. CONC. FREQUENCY<br>[X10E-2] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                       | PARTIC. CONC. FREQUENCY<br>[X10E-2] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                     | PARTIC. CONC. FREQUENCY<br>[X10E-3] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                     | PARTIC. CONC. FREQUENCY<br>[X10E-4] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                     | PARTIC. CONC. FREQUENCY<br>[X10E-5] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                     |
| < 00500 085<br>00500 - 01000 093<br>01000 - 01500 085<br>01500 - 02000 108<br>02000 - 02500 068<br><br>02500 - 03000 060<br>03000 - 03500 055<br>03500 - 04000 047<br>04000 - 05000 073<br>05000 - 06000 062<br><br>06000 - 07000 037<br>07000 - 08000 032<br>08000 - 10000 065<br>10000 - 15000 055<br>15000 - 25000 042<br><br>25000 - 40000 022<br>40000 - 60000 002<br>60000 - 80000 000<br>80000 - 100000 000<br>> 100000 000 | < 00500 053<br>00500 - 01000 086<br>01000 - 01500 076<br>01500 - 02000 071<br>02000 - 02500 086<br><br>02500 - 03000 086<br>03000 - 03500 076<br>03500 - 04000 051<br>04000 - 04500 066<br>04500 - 05000 038<br><br>05000 - 06000 071<br>06000 - 07000 030<br>07000 - 08000 025<br>08000 - 10000 033<br>10000 - 15000 071<br><br>15000 - 20000 040<br>20000 - 30000 025<br>30000 - 40000 005<br>40000 - 50000 000<br>> 50000 000 | < 00150 055<br>00150 - 00300 157<br>00300 - 00450 104<br>00450 - 00600 078<br>00600 - 00750 089<br><br>00750 - 00900 053<br>00900 - 01050 053<br>01050 - 01200 055<br>01200 - 01350 033<br>01350 - 01500 045<br><br>01500 - 01650 027<br>01650 - 01800 033<br>01800 - 02000 025<br>02000 - 02500 050<br>02500 - 03000 053<br><br>03000 - 04000 022<br>04000 - 06000 043<br>06000 - 10000 015<br>10000 - 20000 000<br>> 20000 000 | < 00050 077<br>00050 - 00100 053<br>00100 - 00150 074<br>00150 - 00200 043<br>00200 - 00250 043<br><br>00250 - 00300 038<br>00300 - 00350 041<br>00350 - 00400 038<br>00400 - 00500 037<br>00500 - 00600 059<br><br>00600 - 00700 066<br>00700 - 00800 051<br>00800 - 00900 046<br>00900 - 01000 035<br>01000 - 01250 061<br><br>01250 - 01500 041<br>01500 - 02000 071<br>02000 - 03000 051<br>03000 - 06000 015<br>> 06000 000 | < 00200 017<br>00200 - 00400 082<br>00400 - 00600 112<br>00600 - 00800 092<br>00800 - 01000 089<br><br>01000 - 01200 079<br>01200 - 01400 079<br>01400 - 01600 046<br>01600 - 01800 058<br>01800 - 02000 025<br><br>02000 - 02250 056<br>02250 - 02500 051<br>02500 - 03000 064<br>03000 - 03500 035<br>03500 - 04000 017<br><br>04000 - 05000 025<br>05000 - 07000 045<br>07000 - 09000 017<br>09000 - 12000 000<br>> 12000 000 |
| NO OF MEASUR. +00397                                                                                                                                                                                                                                                                                                                                                                                                               | NO OF MEASUR. +00391                                                                                                                                                                                                                                                                                                                                                                                                             | NO OF MEASUR. +00393                                                                                                                                                                                                                                                                                                                                                                                                             | NO OF MEASUR. +00387                                                                                                                                                                                                                                                                                                                                                                                                             | NO OF MEASUR. +00390                                                                                                                                                                                                                                                                                                                                                                                                             |
| MEAN [X10E-2] +05106                                                                                                                                                                                                                                                                                                                                                                                                               | MEAN [X10E-2] +05046                                                                                                                                                                                                                                                                                                                                                                                                             | MEAN [X10E-3] +01259                                                                                                                                                                                                                                                                                                                                                                                                             | MEAN [X10E-4] +00721                                                                                                                                                                                                                                                                                                                                                                                                             | MEAN [X10E-5] +01768                                                                                                                                                                                                                                                                                                                                                                                                             |
| SIGMA [X10E-2] +06272                                                                                                                                                                                                                                                                                                                                                                                                              | SIGMA [X10E-2] +05437                                                                                                                                                                                                                                                                                                                                                                                                            | SIGMA [X10E-3] +01393                                                                                                                                                                                                                                                                                                                                                                                                            | SIGMA [X10E-4] +00708                                                                                                                                                                                                                                                                                                                                                                                                            | SIGMA [X10E-5] +01596                                                                                                                                                                                                                                                                                                                                                                                                            |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 07

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= MEAN FREQUENCY DISTRIBUTION PER SEASON : AUTUMN

| D1 = 0.23 MI                                 |                 |     |     | D2 = 0.45 MI                                 |                 |     |     | D3 = 0.93 MI                                 |                 |     |     | D4 = 2.00 MI                                 |                 |     |     | D5 = 4.50 MI                                 |                 |     |     |
|----------------------------------------------|-----------------|-----|-----|----------------------------------------------|-----------------|-----|-----|----------------------------------------------|-----------------|-----|-----|----------------------------------------------|-----------------|-----|-----|----------------------------------------------|-----------------|-----|-----|
| RES. NR. : 019                               |                 |     |     | RES. NR. : 023                               |                 |     |     | RES. NR. : 027                               |                 |     |     | RES. NR. : 031                               |                 |     |     | RES. NR. : 035                               |                 |     |     |
| PARTIC. CONC. FREQUENCY<br>[X10E-2] [1/10 %] |                 |     |     | PARTIC. CONC. FREQUENCY<br>[X10E-2] [1/10 %] |                 |     |     | PARTIC. CONC. FREQUENCY<br>[X10E-3] [1/10 %] |                 |     |     | PARTIC. CONC. FREQUENCY<br>[X10E-4] [1/10 %] |                 |     |     | PARTIC. CONC. FREQUENCY<br>[X10E-5] [1/10 %] |                 |     |     |
| < 00500                                      |                 |     |     | < 00500                                      |                 |     |     | < 00150                                      |                 |     |     | < 00050                                      |                 |     |     | < 00200                                      |                 |     |     |
| 00500 -                                      | 01000           | 078 | 083 | 00500 -                                      | 01000           | 083 | 112 | 00150 -                                      | 00300           | 074 | 172 | 00050 -                                      | 00100           | 037 | 098 | 00200 -                                      | 00400           | 013 | 076 |
| 01000 -                                      | 01500           | 073 | 123 | 01000 -                                      | 01500           | 123 | 101 | 00300 -                                      | 00450           | 101 | 101 | 00100 -                                      | 00150           | 090 | 090 | 00400 -                                      | 00600           | 055 | 055 |
| 01500 -                                      | 02000           | 080 | 075 | 01500 -                                      | 02000           | 075 | 085 | 00450 -                                      | 00600           | 103 | 103 | 00150 -                                      | 00200           | 053 | 053 | 00600 -                                      | 00800           | 071 | 071 |
| 02000 -                                      | 02500           | 065 | 085 | 02000 -                                      | 02500           | 085 | 085 | 00600 -                                      | 00750           | 069 | 069 | 00200 -                                      | 00250           | 064 | 064 | 00800 -                                      | 01000           | 076 | 076 |
| 02500 -                                      | 03000           | 073 | 040 | 02500 -                                      | 03000           | 040 | 040 | 00750 -                                      | 00900           | 061 | 061 | 00250 -                                      | 00300           | 053 | 053 | 01000 -                                      | 01200           | 052 | 052 |
| 03000 -                                      | 03500           | 033 | 045 | 03000 -                                      | 03500           | 045 | 045 | 00900 -                                      | 01050           | 045 | 045 | 00300 -                                      | 00350           | 056 | 056 | 01200 -                                      | 01400           | 081 | 081 |
| 03500 -                                      | 04000           | 054 | 032 | 03500 -                                      | 04000           | 032 | 032 | 01050 -                                      | 01200           | 061 | 061 | 00350 -                                      | 00400           | 058 | 058 | 01400 -                                      | 01600           | 086 | 086 |
| 04000 -                                      | 05000           | 065 | 024 | 04000 -                                      | 04500           | 024 | 024 | 01200 -                                      | 01350           | 029 | 029 | 00400 -                                      | 00500           | 066 | 066 | 01600 -                                      | 01800           | 028 | 028 |
| 05000 -                                      | 06000           | 049 | 026 | 04500 -                                      | 05000           | 026 | 026 | 01350 -                                      | 01500           | 034 | 034 | 00500 -                                      | 00600           | 064 | 064 | 01800 -                                      | 02000           | 055 | 055 |
| 06000 -                                      | 07000           | 054 | 045 | 05000 -                                      | 06000           | 045 | 045 | 01500 -                                      | 01650           | 013 | 013 | 00600 -                                      | 00700           | 058 | 058 | 02000 -                                      | 02250           | 050 | 050 |
| 07000 -                                      | 08000           | 018 | 024 | 06000 -                                      | 07000           | 024 | 024 | 01650 -                                      | 01800           | 023 | 023 | 00700 -                                      | 00800           | 042 | 042 | 02250 -                                      | 02500           | 050 | 050 |
| 08000 -                                      | 10000           | 065 | 032 | 07000 -                                      | 08000           | 032 | 032 | 01800 -                                      | 02000           | 013 | 013 | 00800 -                                      | 00900           | 026 | 026 | 02500 -                                      | 03000           | 092 | 092 |
| 10000 -                                      | 15000           | 086 | 042 | 08000 -                                      | 10000           | 042 | 042 | 02000 -                                      | 02500           | 023 | 023 | 00900 -                                      | 01000           | 040 | 040 | 03000 -                                      | 03500           | 047 | 047 |
| 15000 -                                      | 25000           | 073 | 083 | 10000 -                                      | 15000           | 083 | 083 | 02500 -                                      | 03000           | 045 | 045 | 01000 -                                      | 01250           | 042 | 042 | 03500 -                                      | 04000           | 050 | 050 |
| 25000 -                                      | 40000           | 023 | 050 | 15000 -                                      | 20000           | 050 | 050 | 03000 -                                      | 04000           | 055 | 055 | 01250 -                                      | 01500           | 069 | 069 | 04000 -                                      | 05000           | 042 | 042 |
| 40000 -                                      | 60000           | 013 | 045 | 20000 -                                      | 30000           | 045 | 045 | 04000 -                                      | 06000           | 047 | 047 | 01500 -                                      | 02000           | 066 | 066 | 05000 -                                      | 07000           | 055 | 055 |
| 60000 -                                      | 80000           | 002 | 026 | 30000 -                                      | 40000           | 026 | 026 | 06000 -                                      | 10000           | 023 | 023 | 02000 -                                      | 03000           | 026 | 026 | 07000 -                                      | 09000           | 015 | 015 |
| 80000 -                                      | 100000          | 000 | 000 | 40000 -                                      | 50000           | 000 | 000 | 10000 -                                      | 20000           | 000 | 000 | 03000 -                                      | 06000           | 024 | 024 | 09000 -                                      | 12000           | 000 | 000 |
| >100000                                      |                 | 000 | 000 | > 50000                                      |                 | 000 | 000 | > 20000                                      |                 | 000 | 000 | > 06000                                      |                 | 000 | 000 | > 12000                                      |                 | 000 | 000 |
| NO OF MEASUR.                                | +00383          |     |     | NO OF MEASUR.                                | +00373          |     |     | NO OF MEASUR.                                | +00376          |     |     | NO OF MEASUR.                                | +00375          |     |     | NO OF MEASUR.                                | +00380          |     |     |
| MEAN                                         | [X10E-2] +06477 |     |     | MEAN                                         | [X10E-2] +06178 |     |     | MEAN                                         | [X10E-3] +01302 |     |     | MEAN                                         | [X10E-4] +00689 |     |     | MEAN                                         | [X10E-5] +02081 |     |     |
| SIGMA                                        | [X10E-2] +08415 |     |     | SIGMA                                        | [X10E-2] +07714 |     |     | SIGMA                                        | [X10E-3] +01545 |     |     | SIGMA                                        | [X10E-4] +00696 |     |     | SIGMA                                        | [X10E-5] +01658 |     |     |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 08

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= MEAN FREQUENCY DISTRIBUTION PER SEASON : WINTER

| D1 = 0.23 MI               |                       |  | D2 = 0.45 MI               |                       |  | D3 = 0.93 MI               |                       |  | D4 = 2.00 MI               |                       |  | D5 = 4.50 MI               |                       |  |
|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|
| RES. NR. : 036             |                       |  | RES. NR. : 040             |                       |  | RES. NR. : 044             |                       |  | RES. NR. : 048             |                       |  | RES. NR. : 052             |                       |  |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |
| < 00200                    | 108                   |  | < 00100                    | 188                   |  | < 00025                    | 042                   |  | < 00025                    | 118                   |  | < 00025                    | 006                   |  |
| 00200 - 00400              | 148                   |  | 00100 - 00200              | 142                   |  | 00025 - 00050              | 092                   |  | 00025 - 00050              | 130                   |  | 00025 - 00050              | 024                   |  |
| 00400 - 00600              | 141                   |  | 00200 - 00300              | 086                   |  | 00050 - 00076              | 088                   |  | 00050 - 00076              | 108                   |  | 00050 - 00076              | 030                   |  |
| 00600 - 00800              | 039                   |  | 00300 - 00400              | 058                   |  | 00076 - 00100              | 095                   |  | 00076 - 00100              | 099                   |  | 00076 - 00100              | 046                   |  |
| 00800 - 01000              | 064                   |  | 00400 - 00500              | 083                   |  | 00100 - 00150              | 156                   |  | 00100 - 00125              | 105                   |  | 00100 - 00125              | 040                   |  |
| 01000 - 01200              | 040                   |  | 00500 - 00600              | 043                   |  | 00150 - 00200              | 095                   |  | 00125 - 00150              | 068                   |  | 00125 - 00150              | 040                   |  |
| 01200 - 01400              | 043                   |  | 00600 - 00750              | 055                   |  | 00200 - 00250              | 092                   |  | 00150 - 00175              | 055                   |  | 00150 - 00175              | 037                   |  |
| 01400 - 01600              | 027                   |  | 00750 - 01000              | 037                   |  | 00250 - 00300              | 064                   |  | 00175 - 00200              | 059                   |  | 00175 - 00200              | 040                   |  |
| 01600 - 01800              | 024                   |  | 01000 - 01500              | 068                   |  | 00300 - 00350              | 052                   |  | 00200 - 00250              | 065                   |  | 00200 - 00250              | 111                   |  |
| 01800 - 02000              | 040                   |  | 01500 - 02000              | 046                   |  | 00350 - 00400              | 042                   |  | 00250 - 00300              | 043                   |  | 00250 - 00300              | 104                   |  |
| 02000 - 02500              | 067                   |  | 02000 - 02500              | 049                   |  | 00400 - 00450              | 030                   |  | 00300 - 00350              | 034                   |  | 00300 - 00350              | 109                   |  |
| 02500 - 03000              | 055                   |  | 02500 - 03000              | 027                   |  | 00450 - 00500              | 012                   |  | 00350 - 00400              | 009                   |  | 00350 - 00400              | 064                   |  |
| 03000 - 03500              | 055                   |  | 03000 - 04000              | 043                   |  | 00500 - 00600              | 033                   |  | 00400 - 00450              | 012                   |  | 00400 - 00450              | 064                   |  |
| 03500 - 04000              | 027                   |  | 04000 - 05000              | 021                   |  | 00600 - 00700              | 009                   |  | 00450 - 00500              | 015                   |  | 00450 - 00500              | 043                   |  |
| 04000 - 05000              | 015                   |  | 05000 - 07000              | 018                   |  | 00700 - 01000              | 039                   |  | 00500 - 00600              | 024                   |  | 00500 - 00600              | 074                   |  |
| 05000 - 06000              | 015                   |  | 07000 - 09000              | 009                   |  | 01000 - 01500              | 027                   |  | 00600 - 00700              | 012                   |  | 00600 - 00700              | 024                   |  |
| 06000 - 08000              | 015                   |  | 09000 - 12000              | 012                   |  | 01500 - 02000              | 015                   |  | 00700 - 01000              | 018                   |  | 00700 - 01000              | 095                   |  |
| 08000 - 10000              | 018                   |  | 12000 - 15000              | 006                   |  | 02000 - 03500              | 009                   |  | 01000 - 02000              | 018                   |  | 01000 - 02000              | 043                   |  |
| 10000 - 15000              | 000                   |  | 15000 - 20000              | 000                   |  | 03500 - 06000              | 000                   |  | 02000 - 04000              | 000                   |  | 02000 - 04000              | 000                   |  |
| > 15000                    | 000                   |  | > 20000                    | 000                   |  | > 06000                    | 000                   |  | > 04000                    | 000                   |  | > 04000                    | 000                   |  |
| NO OF MEASUR.              | +00324                |  | NO OF MEASUR.              | +00323                |  | NO OF MEASUR.              | +00326                |  | NO OF MEASUR.              | +00322                |  | NO OF MEASUR.              | +00324                |  |
| MEAN [X10E-2]              | +01529                |  | MEAN [X10E-2]              | +01184                |  | MEAN [X10E-3]              | +00283                |  | MEAN [X10E-4]              | +00178                |  | MEAN [X10E-5]              | +00381                |  |
| SIGMA [X10E-2]             | +01686                |  | SIGMA [X10E-2]             | +01947                |  | SIGMA [X10E-3]             | +00370                |  | SIGMA [X10E-4]             | +00223                |  | SIGMA [X10E-5]             | +00291                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 09

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= MEAN FREQUENCY DISTRIBUTION PER SEASON : SPRING

| D1 = 0.23 MI               |                       |  |  | D2 = 0.45 MI               |                       |  |  | D3 = 0.93 MI               |                       |  |  | D4 = 2.00 MI               |                       |  |  | D5 = 4.50 MI               |                       |  |  |
|----------------------------|-----------------------|--|--|----------------------------|-----------------------|--|--|----------------------------|-----------------------|--|--|----------------------------|-----------------------|--|--|----------------------------|-----------------------|--|--|
| RES. NR. : 037             |                       |  |  | RES. NR. : 041             |                       |  |  | RES. NR. : 045             |                       |  |  | RES. NR. : 049             |                       |  |  | RES. NR. : 053             |                       |  |  |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  |  | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  |  | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  |  | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  |  | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |  |
| < 00200                    | 032                   |  |  | < 00100                    | 091                   |  |  | < 00025                    | 078                   |  |  | < 00025                    | 082                   |  |  | < 00025                    | 002                   |  |  |
| 00200 - 00400              | 046                   |  |  | 00100 - 00200              | 039                   |  |  | 00025 - 00050              | 052                   |  |  | 00025 - 00050              | 090                   |  |  | 00025 - 00050              | 014                   |  |  |
| 00400 - 00600              | 049                   |  |  | 00200 - 00300              | 057                   |  |  | 00050 - 00076              | 043                   |  |  | 00050 - 00076              | 090                   |  |  | 00050 - 00076              | 017                   |  |  |
| 00600 - 00800              | 073                   |  |  | 00300 - 00400              | 024                   |  |  | 00076 - 00100              | 028                   |  |  | 00076 - 00100              | 056                   |  |  | 00076 - 00100              | 031                   |  |  |
| 00800 - 01000              | 061                   |  |  | 00400 - 00500              | 042                   |  |  | 00100 - 00150              | 078                   |  |  | 00100 - 00125              | 067                   |  |  | 00100 - 00125              | 037                   |  |  |
| 01000 - 01200              | 049                   |  |  | 00500 - 00600              | 024                   |  |  | 00150 - 00200              | 057                   |  |  | 00125 - 00150              | 053                   |  |  | 00125 - 00150              | 025                   |  |  |
| 01200 - 01400              | 043                   |  |  | 00600 - 00750              | 042                   |  |  | 00200 - 00250              | 040                   |  |  | 00150 - 00175              | 036                   |  |  | 00150 - 00175              | 034                   |  |  |
| 01400 - 01600              | 040                   |  |  | 00750 - 01000              | 036                   |  |  | 00250 - 00300              | 066                   |  |  | 00175 - 00200              | 053                   |  |  | 00175 - 00200              | 040                   |  |  |
| 01600 - 01800              | 052                   |  |  | 01000 - 01500              | 114                   |  |  | 00300 - 00350              | 046                   |  |  | 00200 - 00250              | 065                   |  |  | 00200 - 00250              | 080                   |  |  |
| 01800 - 02000              | 029                   |  |  | 01500 - 02000              | 078                   |  |  | 00350 - 00400              | 037                   |  |  | 00250 - 00300              | 042                   |  |  | 00250 - 00300              | 060                   |  |  |
| 02000 - 02500              | 102                   |  |  | 02000 - 02500              | 048                   |  |  | 00400 - 00450              | 037                   |  |  | 00300 - 00350              | 028                   |  |  | 00300 - 00350              | 080                   |  |  |
| 02500 - 03000              | 096                   |  |  | 02500 - 03000              | 060                   |  |  | 00450 - 00500              | 037                   |  |  | 00350 - 00400              | 031                   |  |  | 00350 - 00400              | 051                   |  |  |
| 03000 - 03500              | 076                   |  |  | 03000 - 04000              | 075                   |  |  | 00500 - 00600              | 040                   |  |  | 00400 - 00450              | 042                   |  |  | 00400 - 00450              | 074                   |  |  |
| 03500 - 04000              | 046                   |  |  | 04000 - 05000              | 054                   |  |  | 00600 - 00700              | 034                   |  |  | 00450 - 00500              | 031                   |  |  | 00450 - 00500              | 028                   |  |  |
| 04000 - 05000              | 058                   |  |  | 05000 - 07000              | 093                   |  |  | 00700 - 01000              | 101                   |  |  | 00500 - 00600              | 076                   |  |  | 00500 - 00600              | 083                   |  |  |
| 05000 - 06000              | 040                   |  |  | 07000 - 09000              | 045                   |  |  | 01000 - 01500              | 089                   |  |  | 00600 - 00700              | 036                   |  |  | 00600 - 00700              | 066                   |  |  |
| 06000 - 08000              | 055                   |  |  | 09000 - 12000              | 039                   |  |  | 01500 - 02000              | 057                   |  |  | 00700 - 01000              | 062                   |  |  | 00700 - 01000              | 137                   |  |  |
| 08000 - 10000              | 043                   |  |  | 12000 - 15000              | 036                   |  |  | 02000 - 03500              | 072                   |  |  | 01000 - 02000              | 050                   |  |  | 01000 - 02000              | 129                   |  |  |
| 10000 - 15000              | 000                   |  |  | 15000 - 20000              | 006                   |  |  | 03500 - 06000              | 000                   |  |  | 02000 - 04000              | 000                   |  |  | 02000 - 04000              | 002                   |  |  |
| > 15000                    | 000                   |  |  | > 20000                    | 000                   |  |  | > 06000                    | 000                   |  |  | > 04000                    | 000                   |  |  | > 04000                    | 000                   |  |  |
| NO OF MEASUR.              | +00342                |  |  | NO OF MEASUR.              | +00331                |  |  | NO OF MEASUR.              | +00346                |  |  | NO OF MEASUR.              | +00353                |  |  | NO OF MEASUR.              | +00348                |  |  |
| MEAN [X10E-2]              | +02655                |  |  | MEAN [X10E-2]              | +03071                |  |  | MEAN [X10E-3]              | +00653                |  |  | MEAN [X10E-4]              | +00314                |  |  | MEAN [X10E-5]              | +00536                |  |  |
| SIGMA [X10E-2]             | +02211                |  |  | SIGMA [X10E-2]             | +03453                |  |  | SIGMA [X10E-3]             | +00742                |  |  | SIGMA [X10E-4]             | +00346                |  |  | SIGMA [X10E-5]             | +00412                |  |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 10

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= MEAN FREQUENCY DISTRIBUTION PER SEASON : SUMMER

| D1 = 0.23 MI                    |                    |  | D2 = 0.45 MI                    |                    |  | D3 = 0.93 MI                    |                    |  | D4 = 2.00 MI                    |                    |  | D5 = 4.50 MI                    |                    |  |
|---------------------------------|--------------------|--|---------------------------------|--------------------|--|---------------------------------|--------------------|--|---------------------------------|--------------------|--|---------------------------------|--------------------|--|
| RES. NR. : 038                  |                    |  | RES. NR. : 042                  |                    |  | RES. NR. : 046                  |                    |  | RES. NR. : 050                  |                    |  | RES. NR. : 054                  |                    |  |
| PARTIC. CONC. [X10E-2] [1/10 %] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-2] [1/10 %] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-3] [1/10 %] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-4] [1/10 %] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-5] [1/10 %] | FREQUENCY [1/10 %] |  |
| < 00200                         | 030                |  | < 00100                         | 050                |  | < 00025                         | 059                |  | < 00025                         | 070                |  | < 00025                         | 005                |  |
| 00200 - 00400                   | 064                |  | 00100 - 00200                   | 053                |  | 00025 - 00050                   | 067                |  | 00025 - 00050                   | 099                |  | 00025 - 00050                   | 008                |  |
| 00400 - 00600                   | 075                |  | 00200 - 00300                   | 042                |  | 00050 - 00076                   | 062                |  | 00050 - 00076                   | 053                |  | 00050 - 00076                   | 026                |  |
| 00600 - 00800                   | 064                |  | 00300 - 00400                   | 033                |  | 00076 - 00100                   | 028                |  | 00076 - 00100                   | 076                |  | 00076 - 00100                   | 035                |  |
| 00800 - 01000                   | 083                |  | 00400 - 00500                   | 019                |  | 00100 - 00150                   | 070                |  | 00100 - 00125                   | 033                |  | 00100 - 00125                   | 026                |  |
| 01000 - 01200                   | 077                |  | 00500 - 00600                   | 022                |  | 00150 - 00200                   | 050                |  | 00125 - 00150                   | 053                |  | 00125 - 00150                   | 026                |  |
| 01200 - 01400                   | 038                |  | 00600 - 00750                   | 044                |  | 00200 - 00250                   | 022                |  | 00150 - 00175                   | 036                |  | 00150 - 00175                   | 038                |  |
| 01400 - 01600                   | 061                |  | 00750 - 01000                   | 070                |  | 00250 - 00300                   | 036                |  | 00175 - 00200                   | 031                |  | 00175 - 00200                   | 023                |  |
| 01600 - 01800                   | 052                |  | 01000 - 01500                   | 084                |  | 00300 - 00350                   | 045                |  | 00200 - 00250                   | 050                |  | 00200 - 00250                   | 052                |  |
| 01800 - 02000                   | 038                |  | 01500 - 02000                   | 064                |  | 00350 - 00400                   | 008                |  | 00250 - 00300                   | 050                |  | 00250 - 00300                   | 029                |  |
| 02000 - 02500                   | 077                |  | 02000 - 02500                   | 056                |  | 00400 - 00450                   | 016                |  | 00300 - 00350                   | 039                |  | 00300 - 00350                   | 073                |  |
| 02500 - 03000                   | 069                |  | 02500 - 03000                   | 036                |  | 00450 - 00500                   | 025                |  | 00350 - 00400                   | 053                |  | 00350 - 00400                   | 043                |  |
| 03000 - 03500                   | 047                |  | 03000 - 04000                   | 078                |  | 00500 - 00600                   | 079                |  | 00400 - 00450                   | 036                |  | 00400 - 00450                   | 055                |  |
| 03500 - 04000                   | 044                |  | 04000 - 05000                   | 056                |  | 00600 - 00700                   | 039                |  | 00450 - 00500                   | 025                |  | 00450 - 00500                   | 049                |  |
| 04000 - 05000                   | 052                |  | 05000 - 07000                   | 117                |  | 00700 - 01000                   | 124                |  | 00500 - 00600                   | 056                |  | 00500 - 00600                   | 105                |  |
| 05000 - 06000                   | 050                |  | 07000 - 09000                   | 064                |  | 01000 - 01500                   | 132                |  | 00600 - 00700                   | 056                |  | 00600 - 00700                   | 079                |  |
| 06000 - 08000                   | 041                |  | 09000 - 12000                   | 078                |  | 01500 - 02000                   | 073                |  | 00700 - 01000                   | 093                |  | 00700 - 01000                   | 137                |  |
| 08000 - 10000                   | 025                |  | 12000 - 15000                   | 025                |  | 02000 - 03500                   | 056                |  | 01000 - 02000                   | 079                |  | 01000 - 02000                   | 167                |  |
| 10000 - 15000                   | 002                |  | 15000 - 20000                   | 000                |  | 03500 - 06000                   | 000                |  | 02000 - 04000                   | 000                |  | 02000 - 04000                   | 014                |  |
| > 15000                         | 000                |  | > 20000                         | 000                |  | > 06000                         | 000                |  | > 04000                         | 000                |  | > 04000                         | 000                |  |
| NO OF MEASUR.                   | +00359             |  | NO OF MEASUR.                   | +00356             |  | NO OF MEASUR.                   | +00354             |  | NO OF MEASUR.                   | +00353             |  | NO OF MEASUR.                   | +00341             |  |
| MEAN [X10E-2]                   | +02299             |  | MEAN [X10E-2]                   | +03491             |  | MEAN [X10E-3]                   | +00691             |  | MEAN [X10E-4]                   | +00379             |  | MEAN [X10E-5]                   | +00609             |  |
| SIGMA [X10E-2]                  | +02046             |  | SIGMA [X10E-2]                  | +03520             |  | SIGMA [X10E-3]                  | +00692             |  | SIGMA [X10E-4]                  | +00389             |  | SIGMA [X10E-5]                  | +00463             |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 11

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= MEAN FREQUENCY DISTRIBUTION PER SEASON : AUTUMN

| D1 = 0.23 MI            |                    |  | D2 = 0.45 MI            |                    |  | D3 = 0.93 MI            |                    |  | D4 = 2.00 MI            |                    |  | D5 = 4.50 MI            |                    |  |
|-------------------------|--------------------|--|-------------------------|--------------------|--|-------------------------|--------------------|--|-------------------------|--------------------|--|-------------------------|--------------------|--|
| RES. NR. :              | 039                |  | RES. NR. :              | 043                |  | RES. NR. :              | 047                |  | RES. NR. :              | 051                |  | RES. NR. :              | 055                |  |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] |  | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] |  | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 %] |  | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 %] |  | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 %] |  |
| < 00200                 | 048                |  | < 00100                 | 085                |  | < 00025                 | 045                |  | < 00025                 | 110                |  | < 00025                 | 000                |  |
| 00200 - 00400           | 095                |  | 00100 - 00200           | 110                |  | 00025 - 00050           | 072                |  | 00025 - 00050           | 170                |  | 00025 - 00050           | 027                |  |
| 00400 - 00600           | 089                |  | 00200 - 00300           | 076                |  | 00050 - 00076           | 069                |  | 00050 - 00076           | 146                |  | 00050 - 00076           | 034                |  |
| 00600 - 00800           | 092                |  | 00300 - 00400           | 024                |  | 00076 - 00100           | 087                |  | 00076 - 00100           | 077                |  | 00076 - 00100           | 055                |  |
| 00800 - 01000           | 083                |  | 00400 - 00500           | 052                |  | 00100 - 00150           | 120                |  | 00100 - 00125           | 050                |  | 00100 - 00125           | 049                |  |
| 01000 - 01200           | 077                |  | 00500 - 00600           | 052                |  | 00150 - 00200           | 060                |  | 00125 - 00150           | 065                |  | 00125 - 00150           | 040                |  |
| 01200 - 01400           | 047                |  | 00600 - 00750           | 049                |  | 00200 - 00250           | 051                |  | 00150 - 00175           | 035                |  | 00150 - 00175           | 040                |  |
| 01400 - 01600           | 029                |  | 00750 - 01000           | 064                |  | 00250 - 00300           | 036                |  | 00175 - 00200           | 032                |  | 00175 - 00200           | 074                |  |
| 01600 - 01800           | 020                |  | 01000 - 01500           | 092                |  | 00300 - 00350           | 033                |  | 00200 - 00250           | 047                |  | 00200 - 00250           | 095                |  |
| 01800 - 02000           | 041                |  | 01500 - 02000           | 085                |  | 00350 - 00400           | 027                |  | 00250 - 00300           | 023                |  | 00250 - 00300           | 089                |  |
| 02000 - 02500           | 065                |  | 02000 - 02500           | 033                |  | 00400 - 00450           | 024                |  | 00300 - 00350           | 047                |  | 00300 - 00350           | 077                |  |
| 02500 - 03000           | 050                |  | 02500 - 03000           | 027                |  | 00450 - 00500           | 027                |  | 00350 - 00400           | 026                |  | 00350 - 00400           | 065                |  |
| 03000 - 03500           | 053                |  | 03000 - 04000           | 042                |  | 00500 - 00600           | 048                |  | 00400 - 00450           | 044                |  | 00400 - 00450           | 055                |  |
| 03500 - 04000           | 044                |  | 04000 - 05000           | 046                |  | 00600 - 00700           | 045                |  | 00450 - 00500           | 026                |  | 00450 - 00500           | 052                |  |
| 04000 - 05000           | 056                |  | 05000 - 07000           | 049                |  | 00700 - 01000           | 078                |  | 00500 - 00600           | 023                |  | 00500 - 00600           | 040                |  |
| 05000 - 06000           | 035                |  | 07000 - 09000           | 030                |  | 01000 - 01500           | 057                |  | 00600 - 00700           | 014                |  | 00600 - 00700           | 049                |  |
| 06000 - 08000           | 029                |  | 09000 - 12000           | 033                |  | 01500 - 02000           | 054                |  | 00700 - 01000           | 023                |  | 00700 - 01000           | 061                |  |
| 08000 - 10000           | 014                |  | 12000 - 15000           | 039                |  | 02000 - 03500           | 063                |  | 01000 - 02000           | 029                |  | 01000 - 02000           | 083                |  |
| 10000 - 15000           | 000                |  | 15000 - 20000           | 003                |  | 03500 - 06000           | 000                |  | 02000 - 04000           | 000                |  | 02000 - 04000           | 006                |  |
| > 15000                 | 000                |  | > 20000                 | 000                |  | > 06000                 | 000                |  | > 04000                 | 000                |  | > 04000                 | 000                |  |
| NO OF MEASUR.           | +00335             |  | NO OF MEASUR.           | +00326             |  | NO OF MEASUR.           | +00332             |  | NO OF MEASUR.           | +00335             |  | NO OF MEASUR.           | +00323             |  |
| MEAN [X10E-2]           | +01941             |  | MEAN [X10E-2]           | +02431             |  | MEAN [X10E-3]           | +00547             |  | MEAN [X10E-4]           | +00206             |  | MEAN [X10E-5]           | +00417             |  |
| SIGMA [X10E-2]          | +01894             |  | SIGMA [X10E-2]          | +03432             |  | SIGMA [X10E-3]          | +00680             |  | SIGMA [X10E-4]          | +00269             |  | SIGMA [X10E-5]          | +00391             |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 12

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= MEAN FREQUENCY DISTRIBUTION PER SEASON : WINTER

| D1 = 0.23 MI               |                       |  | D2 = 0.45 MI               |                       |  | D3 = 0.93 MI               |                       |  | D4 = 2.00 MI               |                       |  | D5 = 4.50 MI               |                       |  |
|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|
| RES. NR. : 056             |                       |  | RES. NR. : 060             |                       |  | RES. NR. : 064             |                       |  | RES. NR. : 068             |                       |  | RES. NR. : 072             |                       |  |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] |  | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] |  | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 X] |  | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 X] |  | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 X] |  |
| < 00050                    | 065                   |  | < 00015                    | 045                   |  | < 00015                    | 045                   |  | < 00015                    | 093                   |  | < 00025                    | 008                   |  |
| 00050 - 00100              | 062                   |  | 00015 - 00030              | 110                   |  | 00015 - 00030              | 111                   |  | 00015 - 00030              | 139                   |  | 00025 - 00050              | 014                   |  |
| 00100 - 00150              | 079                   |  | 00030 - 00045              | 130                   |  | 00030 - 00045              | 085                   |  | 00030 - 00045              | 147                   |  | 00050 - 00076              | 065                   |  |
| 00150 - 00200              | 079                   |  | 00045 - 00060              | 107                   |  | 00045 - 00060              | 071                   |  | 00045 - 00060              | 133                   |  | 00076 - 00100              | 048                   |  |
| 00200 - 00250              | 048                   |  | 00060 - 00075              | 096                   |  | 00060 - 00075              | 085                   |  | 00060 - 00075              | 099                   |  | 00100 - 00125              | 042                   |  |
| 00250 - 00300              | 039                   |  | 00075 - 00090              | 056                   |  | 00075 - 00090              | 065                   |  | 00075 - 00090              | 076                   |  | 00125 - 00150              | 062                   |  |
| 00300 - 00350              | 051                   |  | 00090 - 00105              | 051                   |  | 00090 - 00105              | 082                   |  | 00090 - 00105              | 068                   |  | 00150 - 00175              | 051                   |  |
| 00350 - 00400              | 037                   |  | 00105 - 00120              | 036                   |  | 00105 - 00120              | 079                   |  | 00105 - 00120              | 045                   |  | 00175 - 00200              | 037                   |  |
| 00400 - 00500              | 56                    |  | 00120 - 00150              | 093                   |  | 00120 - 00150              | 102                   |  | 00120 - 00150              | 059                   |  | 00200 - 00225              | 080                   |  |
| 00500 - 00600              | 4                     |  | 00150 - 00200              | 079                   |  | 00150 - 00200              | 105                   |  | 00150 - 00200              | 062                   |  | 00225 - 00250              | 068                   |  |
| 00600 - 00800              | 122                   |  | 00200 - 00250              | 031                   |  | 00200 - 00250              | 037                   |  | 00200 - 00250              | 017                   |  | 00250 - 00275              | 051                   |  |
| 00800 - 01000              | 045                   |  | 00250 - 00300              | 031                   |  | 00250 - 00300              | 017                   |  | 00250 - 00300              | 014                   |  | 00275 - 00300              | 037                   |  |
| 01000 - 01250              | 062                   |  | 00300 - 00400              | 034                   |  | 00300 - 00400              | 042                   |  | 00300 - 00400              | 002                   |  | 00300 - 00325              | 062                   |  |
| 01250 - 01500              | 031                   |  | 00400 - 00600              | 051                   |  | 00400 - 00600              | 022                   |  | 00400 - 00600              | 014                   |  | 00325 - 00350              | 082                   |  |
| 01500 - 02000              | 045                   |  | 00600 - 00900              | 011                   |  | 00600 - 00900              | 025                   |  | 00600 - 00900              | 011                   |  | 00350 - 00400              | 077                   |  |
| 02000 - 03000              | 039                   |  | 00900 - 01500              | 019                   |  | 00900 - 01500              | 011                   |  | 00900 - 01500              | 011                   |  | 00400 - 00500              | 102                   |  |
| 03000 - 04000              | 031                   |  | 01500 - 02500              | 011                   |  | 01500 - 02500              | 008                   |  | 01500 - 02500              | 002                   |  | 00500 - 00750              | 080                   |  |
| 04000 - 06000              | 019                   |  | 02500 - 05000              | 000                   |  | 02500 - 05000              | 000                   |  | 02500 - 05000              | 000                   |  | 00750 - 01000              | 008                   |  |
| 06000 - 12000              | 005                   |  | 05000 - 10000              | 000                   |  | 05000 - 10000              | 000                   |  | 05000 - 10000              | 000                   |  | 01000 - 02000              | 017                   |  |
| > 12000                    | 000                   |  | > 10000                    | 000                   |  | > 10000                    | 000                   |  | > 10000                    | 000                   |  | > 02000                    | 000                   |  |
| NO OF MEASUR.              | +00351                |  | NO OF MEASUR.              | +00352                |  | NO OF MEASUR.              | +00351                |  | NO OF MEASUR.              | +00352                |  | NO OF MEASUR.              | +00350                |  |
| MEAN [X10E-2]              | +00809                |  | MEAN [X10E-2]              | +00164                |  | MEAN [X10E-3]              | +00153                |  | MEAN [X10E-4]              | +00103                |  | MEAN [X10E-5]              | +00289                |  |
| SIGMA [X10E-2]             | +01033                |  | SIGMA [X10E-2]             | +00264                |  | SIGMA [X10E-3]             | +00223                |  | SIGMA [X10E-4]             | +00181                |  | SIGMA [X10E-5]             | +00193                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 13

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= MEAN FREQUENCY DISTRIBUTION PER SEASON : SPRING

| D1 = 0.23 MI             |                    |  | D2 = 0.45 MI             |                    |  | D3 = 0.93 MI            |                    |  | D4 = 2.00 MI            |                    |  | D5 = 4.50 MI            |                    |  |
|--------------------------|--------------------|--|--------------------------|--------------------|--|-------------------------|--------------------|--|-------------------------|--------------------|--|-------------------------|--------------------|--|
| RES NR. : 057            |                    |  | RES NR. : 061            |                    |  | RES NR. : 065           |                    |  | RES NR. : 069           |                    |  | RES NR. : 073           |                    |  |
| PARTICL. CONC. [X10E-21] | FREQUENCY [1/10 %] |  | PARTICL. CONC. [X10E-21] | FREQUENCY [1/10 %] |  | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 %] |  | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 %] |  | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 %] |  |
| < 00050                  | 016                |  | < 00015                  | 008                |  | < 00015                 | 019                |  | < 00015                 | 064                |  | < 00025                 | 005                |  |
| 00050 - 00100            | 044                |  | 00015 - 00030            | 011                |  | 00015 - 00030           | 071                |  | 00015 - 00030           | 140                |  | 00025 - 00050           | 011                |  |
| 00100 - 00150            | 055                |  | 00030 - 00045            | 030                |  | 00030 - 00045           | 054                |  | 00030 - 00045           | 094                |  | 00050 - 00076           | 028                |  |
| 00150 - 00200            | 038                |  | 00045 - 00060            | 027                |  | 00045 - 00060           | 038                |  | 00045 - 00060           | 072                |  | 00076 - 00100           | 039                |  |
| 00200 - 00250            | 036                |  | 00060 - 00075            | 030                |  | 00060 - 00075           | 046                |  | 00060 - 00075           | 048                |  | 00100 - 00125           | 056                |  |
| 00250 - 00300            | 024                |  | 00075 - 00090            | 024                |  | 00075 - 00090           | 052                |  | 00075 - 00090           | 037                |  | 00125 - 00150           | 048                |  |
| 00300 - 00350            | 041                |  | 00090 - 00105            | 022                |  | 00090 - 00105           | 054                |  | 00090 - 00105           | 056                |  | 00150 - 00175           | 039                |  |
| 00350 - 00400            | 027                |  | 00105 - 00120            | 030                |  | 00105 - 00120           | 027                |  | 00105 - 00120           | 045                |  | 00175 - 00200           | 050                |  |
| 00400 - 00500            | 060                |  | 00120 - 00150            | 046                |  | 00120 - 00150           | 043                |  | 00120 - 00150           | 043                |  | 00200 - 00225           | 042                |  |
| 00500 - 00600            | 030                |  | 00150 - 00200            | 071                |  | 00150 - 00200           | 079                |  | 00150 - 00200           | 070                |  | 00225 - 00250           | 048                |  |
| 00600 - 00800            | 077                |  | 00200 - 00250            | 035                |  | 00200 - 00250           | 063                |  | 00200 - 00250           | 059                |  | 00250 - 00275           | 028                |  |
| 00800 - 01000            | 047                |  | 00250 - 00300            | 033                |  | 00250 - 00300           | 046                |  | 00250 - 00300           | 054                |  | 00275 - 00300           | 045                |  |
| 01000 - 01250            | 074                |  | 00300 - 00400            | 055                |  | 00300 - 00400           | 074                |  | 00300 - 00400           | 062                |  | 00300 - 00325           | 045                |  |
| 01250 - 01500            | 049                |  | 00400 - 00600            | 069                |  | 00400 - 00600           | 104                |  | 00400 - 00600           | 059                |  | 00325 - 00350           | 050                |  |
| 01500 - 02000            | 102                |  | 00600 - 00900            | 080                |  | 00600 - 00900           | 090                |  | 00600 - 00900           | 029                |  | 00350 - 00400           | 079                |  |
| 02000 - 03000            | 085                |  | 00900 - 01500            | 132                |  | 00900 - 01500           | 068                |  | 00900 - 01500           | 027                |  | 00400 - 00500           | 090                |  |
| 03000 - 04000            | 060                |  | 01500 - 02500            | 110                |  | 01500 - 02500           | 041                |  | 01500 - 02500           | 032                |  | 00500 - 00750           | 180                |  |
| 04000 - 06000            | 091                |  | 02500 - 05000            | 143                |  | 02500 - 05000           | 021                |  | 02500 - 05000           | 000                |  | 00750 - 01000           | 053                |  |
| 06000 - 12000            | 033                |  | 05000 - 10000            | 035                |  | 05000 - 10000           | 000                |  | 05000 - 10000           | 000                |  | 01000 - 02000           | 056                |  |
| > 12000                  | 000                |  | > 10000                  | 000                |  | > 10000                 | 000                |  | > 10000                 | 000                |  | > 02000                 | 000                |  |
| NO OF MEASUR.            | +00361             |  | NO OF MEASUR.            | +00362             |  | NO OF MEASUR.           | +00364             |  | NO OF MEASUR.           | +00370             |  | NO OF MEASUR.           | +00354             |  |
| MEAN [X10E-21]           | +01618             |  | MEAN [X10E-21]           | +01242             |  | MEAN [X10E-3]           | +00434             |  | MEAN [X10E-4]           | +00239             |  | MEAN [X10E-5]           | +00397             |  |
| SIGMA [X10E-21]          | +01705             |  | SIGMA [X10E-21]          | +01461             |  | SIGMA [X10E-3]          | +00569             |  | SIGMA [X10E-4]          | +00392             |  | SIGMA [X10E-5]          | +00278             |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 14

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= MEAN FREQUENCY DISTRIBUTION PER SEASON : SUMMER

| D1 = 0.23 MI               |                       |  | D2 = 0.45 MI               |                       |  | D3 = 0.93 MI               |                       |  | D4 = 2.00 MI               |                       |  | D5 = 4.50 MI               |                       |  |
|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|
| RES. NR. : 058             |                       |  | RES. NR. : 062             |                       |  | RES. NR. : 066             |                       |  | RES. NR. : 070             |                       |  | RES. NR. : 074             |                       |  |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |
| < 00050                    | 017                   |  | < 00015                    | 000                   |  | < 00015                    | 036                   |  | < 00015                    | 071                   |  | < 00025                    | 005                   |  |
| 00050 - 00100              | 031                   |  | 00015 - 00030              | 011                   |  | 00015 - 00030              | 050                   |  | 00015 - 00030              | 090                   |  | 00025 - 00050              | 005                   |  |
| 00100 - 00150              | 037                   |  | 00030 - 00045              | 016                   |  | 00030 - 00045              | 061                   |  | 00030 - 00045              | 055                   |  | 00050 - 00076              | 056                   |  |
| 00150 - 00200              | 060                   |  | 00045 - 00060              | 025                   |  | 00045 - 00060              | 039                   |  | 00045 - 00060              | 055                   |  | 00076 - 00100              | 038                   |  |
| 00200 - 00250              | 034                   |  | 00060 - 00075              | 011                   |  | 00060 - 00075              | 030                   |  | 00060 - 00075              | 046                   |  | 00100 - 00125              | 032                   |  |
| 00250 - 00300              | 045                   |  | 00075 - 00090              | 008                   |  | 00075 - 00090              | 030                   |  | 00075 - 00090              | 044                   |  | 00125 - 00150              | 032                   |  |
| 00300 - 00350              | 025                   |  | 00090 - 00105              | 028                   |  | 00090 - 00105              | 036                   |  | 00090 - 00105              | 049                   |  | 00150 - 00175              | 029                   |  |
| 00350 - 00400              | 031                   |  | 00105 - 00120              | 005                   |  | 00105 - 00120              | 033                   |  | 00105 - 00120              | 024                   |  | 00175 - 00200              | 035                   |  |
| 00400 - 00500              | 071                   |  | 00120 - 00150              | 019                   |  | 00120 - 00150              | 033                   |  | 00120 - 00150              | 055                   |  | 00200 - 00225              | 053                   |  |
| 00500 - 00600              | 045                   |  | 00150 - 00200              | 033                   |  | 00150 - 00200              | 036                   |  | 00150 - 00200              | 093                   |  | 00225 - 00250              | 044                   |  |
| 00600 - 00800              | 100                   |  | 00200 - 00250              | 044                   |  | 00200 - 00250              | 042                   |  | 00200 - 00250              | 066                   |  | 00250 - 00275              | 032                   |  |
| 00800 - 01000              | 091                   |  | 00250 - 00300              | 036                   |  | 00250 - 00300              | 033                   |  | 00250 - 00300              | 055                   |  | 00275 - 00300              | 044                   |  |
| 01000 - 01250              | 057                   |  | 00300 - 00400              | 053                   |  | 00300 - 00400              | 095                   |  | 00300 - 00400              | 057                   |  | 00300 - 00325              | 041                   |  |
| 01250 - 01500              | 042                   |  | 00400 - 00600              | 087                   |  | 00400 - 00600              | 084                   |  | 00400 - 00600              | 085                   |  | 00325 - 00350              | 044                   |  |
| 01500 - 02000              | 071                   |  | 00600 - 00900              | 120                   |  | 00600 - 00900              | 092                   |  | 00600 - 00900              | 068                   |  | 00350 - 00400              | 058                   |  |
| 02000 - 03000              | 105                   |  | 00900 - 01500              | 137                   |  | 00900 - 01500              | 151                   |  | 00900 - 01500              | 060                   |  | 00400 - 00500              | 103                   |  |
| 03000 - 04000              | 034                   |  | 01500 - 02500              | 162                   |  | 01500 - 02500              | 089                   |  | 01500 - 02500              | 019                   |  | 00500 - 00750              | 150                   |  |
| 04000 - 06000              | 065                   |  | 02500 - 05000              | 160                   |  | 02500 - 05000              | 022                   |  | 02500 - 05000              | 000                   |  | 00750 - 01000              | 106                   |  |
| 06000 - 12000              | 031                   |  | 05000 - 10000              | 036                   |  | 05000 - 10000              | 000                   |  | 05000 - 10000              | 000                   |  | 01000 - 02000              | 085                   |  |
| > 12000                    | 000                   |  | > 10000                    | 000                   |  | > 10000                    | 000                   |  | > 10000                    | 000                   |  | > 02000                    | 000                   |  |
| NO OF MEASUR               | +00350                |  | NO OF MEASUR               | +00356                |  | NO OF MEASUR               | +00357                |  | NO OF MEASUR               | +00363                |  | NO OF MEASUR               | +00339                |  |
| MEAN [X10E-2]              | +01420                |  | MEAN [X10E-2]              | +01425                |  | MEAN [X10E-3]              | +00607                |  | MEAN [X10E-4]              | +00295                |  | MEAN [X10E-5]              | +00449                |  |
| SIGMA [X10E-2]             | +01593                |  | SIGMA [X10E-2]             | +01410                |  | SIGMA [X10E-3]             | +00684                |  | SIGMA [X10E-4]             | +00386                |  | SIGMA [X10E-5]             | +00321                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 15

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= MEAN FREQUENCY DISTRIBUTION PER SEASON : AUTUMN

| D1 = 0.23 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | D2 = 0.45 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | D3 = 0.93 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | D4 = 2.00 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | D5 = 4.50 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RES. NR. : 059                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RES. NR. : 063                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RES. NR. : 067                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RES. NR. : 071                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RES. NR. : 075                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| PARTIC. CONC. [X10E-2] FREQUENCY [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PARTIC. CONC. [X10E-2] FREQUENCY [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PARTIC. CONC. [X10E-3] FREQUENCY [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PARTIC. CONC. [X10E-4] FREQUENCY [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PARTIC. CONC. [X10E-5] FREQUENCY [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <p>&lt; 00050 054</p> <p>00050 - 00100 076</p> <p>00100 - 00150 089</p> <p>00150 - 00200 057</p> <p>00200 - 00250 032</p> <p>00250 - 00300 054</p> <p>00300 - 00350 035</p> <p>00350 - 00400 044</p> <p>00400 - 00500 044</p> <p>00500 - 00600 038</p> <p>00600 - 00800 092</p> <p>00800 - 01000 067</p> <p>01000 - 01250 067</p> <p>01250 - 01500 028</p> <p>01500 - 02000 060</p> <p>02000 - 03000 051</p> <p>03000 - 04000 044</p> <p>04000 - 06000 038</p> <p>06000 - 12000 019</p> <p>&gt; 12000 000</p> | <p>&lt; 00015 018</p> <p>00015 - 00030 044</p> <p>00030 - 00045 069</p> <p>00045 - 00060 047</p> <p>00060 - 00075 059</p> <p>00075 - 00090 031</p> <p>00090 - 00105 028</p> <p>00105 - 00120 041</p> <p>00120 - 00150 059</p> <p>00150 - 00200 066</p> <p>00200 - 00250 059</p> <p>00250 - 00300 044</p> <p>00300 - 00400 072</p> <p>00400 - 00600 069</p> <p>00600 - 00900 085</p> <p>00900 - 01500 094</p> <p>01500 - 02500 050</p> <p>02500 - 05000 006</p> <p>05000 - 10000 000</p> <p>&gt; 10000 000</p> | <p>&lt; 00015 038</p> <p>00015 - 00030 067</p> <p>00030 - 00045 051</p> <p>00045 - 00060 073</p> <p>00060 - 00075 057</p> <p>00075 - 00090 035</p> <p>00090 - 00105 060</p> <p>00105 - 00120 044</p> <p>00120 - 00150 057</p> <p>00150 - 00200 083</p> <p>00200 - 00250 048</p> <p>00250 - 00300 044</p> <p>00300 - 00400 076</p> <p>00400 - 00600 096</p> <p>00600 - 00900 073</p> <p>00900 - 01500 048</p> <p>01500 - 02500 028</p> <p>02500 - 05000 012</p> <p>05000 - 10000 000</p> <p>&gt; 10000 000</p> | <p>&lt; 00015 058</p> <p>00015 - 00030 168</p> <p>00030 - 00045 071</p> <p>00045 - 00060 113</p> <p>00060 - 00075 077</p> <p>00075 - 00090 058</p> <p>00090 - 00105 067</p> <p>00105 - 00120 042</p> <p>00120 - 00150 080</p> <p>00150 - 00200 074</p> <p>00200 - 00250 055</p> <p>00250 - 00300 029</p> <p>00300 - 00400 022</p> <p>00400 - 00600 012</p> <p>00600 - 00900 029</p> <p>00900 - 01500 019</p> <p>01500 - 02500 019</p> <p>02500 - 05000 000</p> <p>05000 - 10000 000</p> <p>&gt; 10000 000</p> | <p>&lt; 00025 016</p> <p>00025 - 00050 026</p> <p>00050 - 00076 019</p> <p>00076 - 00100 043</p> <p>00100 - 00125 069</p> <p>00125 - 00150 063</p> <p>00150 - 00175 076</p> <p>00175 - 00200 056</p> <p>00200 - 00225 049</p> <p>00225 - 00250 043</p> <p>00250 - 00275 046</p> <p>00275 - 00300 056</p> <p>00300 - 00325 033</p> <p>00325 - 00350 033</p> <p>00350 - 00400 056</p> <p>00400 - 00500 122</p> <p>00500 - 00750 106</p> <p>00750 - 01000 049</p> <p>01000 - 02000 029</p> <p>&gt; 02000 000</p> |
| NO OF MEASUR. +00312                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | NO OF MEASUR. +00317                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | NO OF MEASUR. +00312                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | NO OF MEASUR. +00309                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | NO OF MEASUR. +00301                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| MEAN [X10E-2] +01070                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | MEAN [X10E-2] +00608                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | MEAN [X10E-3] +00342                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | MEAN [X10E-4] +00170                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | MEAN [X10E-5] +00331                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| SIGMA [X10E-2] +01434                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SIGMA [X10E-2] +00941                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SIGMA [X10E-3] +00479                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SIGMA [X10E-4] +00300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SIGMA [X10E-5] +00246                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 16

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: POLAR-MARITIME

| D1 = 0.23 MI            |                    | D2 = 0.45 MI            |                    | D3 = 0.93 MI            |                    | D4 = 2.00 MI            |                    | D5 = 4.50 MI            |                    |
|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|
| RES. NR. : 187          |                    | RES. NR. : 188          |                    | RES. NR. : 189          |                    | RES. NR. : 190          |                    | RES. NR. : 191          |                    |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 X] |
| < 00500                 | 103                | < 00500                 | 130                | < 00150                 | 109                | < 00050                 | 051                | < 00200                 | 013                |
| 00500 - 01000           | 114                | 00500 - 01000           | 103                | 00150 - 00300           | 209                | 00050 - 00100           | 091                | 00200 - 00400           | 097                |
| 01000 - 01500           | 098                | 01000 - 01500           | 081                | 00300 - 00450           | 134                | 00100 - 00150           | 129                | 00400 - 00600           | 114                |
| 01500 - 02000           | 053                | 01500 - 02000           | 057                | 00450 - 00600           | 083                | 00150 - 00200           | 105                | 00600 - 00800           | 095                |
| 02000 - 02500           | 034                | 02000 - 02500           | 084                | 00600 - 00750           | 093                | 00200 - 00250           | 091                | 00800 - 01000           | 116                |
| 02500 - 03000           | 050                | 02500 - 03000           | 051                | 00750 - 00900           | 056                | 00250 - 00300           | 072                | 01000 - 01200           | 081                |
| 03000 - 03500           | 039                | 03000 - 03500           | 048                | 00900 - 01050           | 042                | 00300 - 00350           | 054                | 01200 - 01400           | 065                |
| 03500 - 04000           | 050                | 03500 - 04000           | 057                | 01050 - 01200           | 032                | 00350 - 00400           | 024                | 01400 - 01600           | 057                |
| 04000 - 05000           | 061                | 04000 - 05000           | 032                | 01200 - 01350           | 026                | 00400 - 00500           | 064                | 01600 - 01800           | 046                |
| 05000 - 06000           | 045                | 04500 - 05000           | 024                | 01350 - 01500           | 018                | 00500 - 00600           | 045                | 01800 - 02000           | 032                |
| 06000 - 07000           | 029                | 05000 - 06000           | 048                | 01500 - 01650           | 018                | 00600 - 00700           | 045                | 02000 - 02250           | 043                |
| 07000 - 08000           | 026                | 06000 - 07000           | 029                | 01650 - 01800           | 016                | 00700 - 00900           | 035                | 02250 - 02500           | 024                |
| 08000 - 10000           | 058                | 07000 - 08000           | 038                | 01800 - 02000           | 029                | 00800 - 00900           | 032                | 02500 - 03000           | 054                |
| 10000 - 15000           | 087                | 08000 - 10000           | 051                | 02000 - 02500           | 040                | 00900 - 01000           | 013                | 03000 - 03500           | 043                |
| 15000 - 25000           | 079                | 10000 - 15000           | 078                | 02500 - 03000           | 021                | 01000 - 01250           | 035                | 03500 - 04000           | 032                |
| 25000 - 40000           | 045                | 15000 - 20000           | 021                | 03000 - 04000           | 026                | 01250 - 01500           | 035                | 04000 - 05000           | 043                |
| 40000 - 60000           | 013                | 20000 - 30000           | 059                | 04000 - 06000           | 021                | 01500 - 02000           | 029                | 05000 - 07000           | 021                |
| 60000 - 80000           | 007                | 30000 - 40000           | 000                | 06000 - 10000           | 018                | 02000 - 03000           | 018                | 07000 - 09000           | 016                |
| 80000 - 100000          | 000                | 40000 - 50000           | 000                | 10000 - 20000           | 000                | 03000 - 06000           | 021                | 09000 - 12000           | 000                |
| > 100000                | 000                | > 50000                 | 000                | > 20000                 | 000                | > 06000                 | 000                | > 12000                 | 000                |
| NO OF MEASUR            | +00376             | NO OF MEASUR            | +00368             | NO OF MEASUR            | +00373             | NO OF MEASUR            | +00370             | NO OF MEASUR            | +00368             |
| MEAN [X10E-2]           | +07511             | MEAN [X10E-2]           | +05299             | MEAN [X10E-3]           | +00994             | MEAN [X10E-4]           | +00518             | MEAN [X10E-5]           | +01680             |
| SIGMA [X10E-2]          | +10544             | SIGMA [X10E-2]          | +06203             | SIGMA [X10E-3]          | +01301             | SIGMA [X10E-4]          | +00645             | SIGMA [X10E-5]          | +01519             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 17

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: POLAR

| D1 = 0.23 MI           |                    | D2 = 0.45 MI           |                    | D3 = 0.93 MI           |                    | D4 = 2.00 MI           |                    | D5 = 4.50 MI           |                    |
|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|
| RES NR :               | 202                | RES NR :               | 203                | RES NR :               | 204                | RES NR :               | 205                | RES NR :               | 206                |
| PARTICL CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL CONC. [X10E-3] | FREQUENCY [1/10 X] | PARTICL CONC. [X10E-4] | FREQUENCY [1/10 X] | PARTICL CONC. [X10E-5] | FREQUENCY [1/10 X] |
| < 00500                | 052                | < 00500                | 055                | < 00150                | 000                | < 00050                | 000                | < 00200                | 000                |
| 00500 - 01000          | 105                | 00500 - 01000          | 111                | 00150 - 00300          | 000                | 00050 - 00100          | 000                | 00200 - 00400          | 058                |
| 01000 - 01500          | 105                | 01000 - 01500          | 055                | 00300 - 00450          | 166                | 00100 - 00150          | 000                | 00400 - 00600          | 058                |
| 01500 - 02000          | 052                | 01500 - 02000          | 000                | 00450 - 00600          | 111                | 00150 - 00200          | 000                | 00600 - 00800          | 000                |
| 02000 - 02500          | 000                | 02000 - 02500          | 000                | 00600 - 00750          | 000                | 00200 - 00250          | 000                | 00800 - 01000          | 176                |
| 02500 - 03000          | 000                | 02500 - 03000          | 000                | 00750 - 00900          | 055                | 00250 - 00300          | 000                | 01000 - 01200          | 058                |
| 03000 - 03500          | 105                | 03000 - 03500          | 000                | 00900 - 01050          | 055                | 00300 - 00350          | 100                | 01200 - 01400          | 058                |
| 03500 - 04000          | 000                | 03500 - 04000          | 055                | 01050 - 01200          | 111                | 00350 - 00400          | 050                | 01400 - 01600          | 058                |
| 04000 - 05000          | 052                | 04000 - 04500          | 000                | 01200 - 01350          | 222                | 00400 - 00500          | 150                | 01600 - 01800          | 000                |
| 05000 - 06000          | 052                | 04500 - 05000          | 000                | 01350 - 01500          | 000                | 00500 - 00600          | 150                | 01800 - 02000          | 058                |
| 06000 - 07000          | 052                | 05000 - 06000          | 111                | 01500 - 01650          | 000                | 00600 - 00700          | 050                | 02000 - 02250          | 000                |
| 07000 - 08000          | 000                | 06000 - 07000          | 000                | 01650 - 01800          | 000                | 00700 - 00800          | 100                | 02250 - 02500          | 000                |
| 08000 - 10000          | 000                | 07000 - 08000          | 055                | 01800 - 02000          | 000                | 00800 - 00900          | 000                | 02500 - 03000          | 176                |
| 10000 - 15000          | 210                | 08000 - 10000          | 111                | 02000 - 02500          | 055                | 00900 - 01000          | 000                | 03000 - 03500          | 000                |
| 15000 - 25000          | 157                | 10000 - 15000          | 111                | 02500 - 03000          | 055                | 01000 - 01250          | 000                | 03500 - 04000          | 058                |
| 25000 - 40000          | 052                | 15000 - 20000          | 111                | 03000 - 04000          | 111                | 01250 - 01500          | 050                | 04000 - 05000          | 000                |
| 40000 - 60000          | 000                | 20000 - 30000          | 111                | 04000 - 06000          | 055                | 01500 - 02000          | 100                | 05000 - 07000          | 117                |
| 60000 - 80000          | 000                | 30000 - 40000          | 111                | 06000 - 10000          | 000                | 02000 - 03000          | 150                | 07000 - 09000          | 117                |
| 80000 - 100000         | 000                | 40000 - 50000          | 000                | 10000 - 20000          | 000                | 03000 - 06000          | 100                | 09000 - 12000          | 000                |
| > 100000               | 000                | > 50000                | 000                | > 20000                | 000                | > 06000                | 000                | > 12000                | 000                |
| NO OF MEASUR.          | +00019             | NO OF MEASUR.          | +00018             | NO OF MEASUR.          | +00018             | NO OF MEASUR.          | +00020             | NO OF MEASUR.          | +00017             |
| MEAN [X10E-2]          | +08197             | MEAN [X10E-2]          | +12300             | MEAN [X10E-3]          | +01623             | MEAN [X10E-4]          | +01253             | MEAN [X10E-5]          | +02859             |
| SIGMA [X10E-2]         | +07325             | SIGMA [X10E-2]         | +11238             | SIGMA [X10E-3]         | +01439             | SIGMA [X10E-4]         | +01056             | SIGMA [X10E-5]         | +02569             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 18

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: POLAR-CONTINENTAL

| D1 = 0.23 MI            |                    | D2 = 0.45 MI            |                    | D3 = 0.93 MI            |                    | D4 = 2.00 MI            |                    | D5 = 4.50 MI            |                    |
|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|
| RES. NR. : 217          |                    | RES. NR. : 218          |                    | RES. NR. : 219          |                    | RES. NR. : 220          |                    | RES. NR. : 221          |                    |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 X] |
| < 00500                 | 000                | < 00500                 | 000                | < 00150                 | 047                | < 00050                 | 000                | < 00200                 | 000                |
| 00500 - 01000           | 000                | 00500 - 01000           | 080                | 00150 - 00300           | 000                | 00050 - 00100           | 080                | 00200 - 00400           | 120                |
| 01000 - 01500           | 000                | 01000 - 01500           | 040                | 00300 - 00450           | 000                | 00100 - 00150           | 000                | 00400 - 00600           | 040                |
| 01500 - 02000           | 041                | 01500 - 02000           | 000                | 00450 - 00600           | 047                | 00150 - 00200           | 040                | 00600 - 00800           | 080                |
| 02000 - 02500           | 000                | 02000 - 02500           | 040                | 00600 - 00750           | 047                | 00200 - 00250           | 000                | 00800 - 01000           | 040                |
| 02500 - 03000           | 041                | 02500 - 03000           | 000                | 00750 - 00900           | 000                | 00250 - 00300           | 000                | 01000 - 01200           | 000                |
| 03000 - 03500           | 041                | 03000 - 03500           | 040                | 00900 - 01050           | 000                | 00300 - 00350           | 000                | 01200 - 01400           | 080                |
| 03500 - 04000           | 000                | 03500 - 04000           | 000                | 01050 - 01200           | 095                | 00350 - 00400           | 000                | 01400 - 01600           | 040                |
| 04000 - 05000           | 000                | 04000 - 04500           | 080                | 01200 - 01350           | 095                | 00400 - 00500           | 040                | 01600 - 01800           | 040                |
| 05000 - 06000           | 083                | 04500 - 05000           | 120                | 01350 - 01500           | 047                | 00500 - 00600           | 040                | 01800 - 02000           | 000                |
| 06000 - 07000           | 000                | 05000 - 06000           | 080                | 01500 - 01650           | 047                | 00600 - 00700           | 040                | 02000 - 02250           | 000                |
| 07000 - 08000           | 000                | 06000 - 07000           | 000                | 01650 - 01800           | 000                | 00700 - 00800           | 040                | 02250 - 02500           | 000                |
| 08000 - 10000           | 208                | 07000 - 08000           | 080                | 01800 - 02000           | 000                | 00800 - 00900           | 040                | 02500 - 03000           | 160                |
| 10000 - 15000           | 208                | 08000 - 10000           | 000                | 02000 - 02500           | 190                | 00900 - 01000           | 000                | 03000 - 03500           | 040                |
| 15000 - 25000           | 000                | 10000 - 15000           | 080                | 02500 - 03000           | 142                | 01000 - 01250           | 080                | 03500 - 04000           | 000                |
| 25000 - 40000           | 041                | 15000 - 20000           | 160                | 03000 - 04000           | 095                | 01250 - 01500           | 160                | 04000 - 05000           | 160                |
| 40000 - 60000           | 041                | 20000 - 30000           | 120                | 04000 - 06000           | 095                | 01500 - 02000           | 240                | 05000 - 07000           | 160                |
| 60000 - 80000           | 041                | 30000 - 40000           | 080                | 06000 - 10000           | 047                | 02000 - 03000           | 000                | 07000 - 09000           | 040                |
| 80000 - 100000          | 000                | 40000 - 50000           | 000                | 10000 - 20000           | 000                | 03000 - 06000           | 200                | 09000 - 12000           | 000                |
| > 100000                | 000                | > 50000                 | 000                | > 20000                 | 000                | > 06000                 | 000                | > 12000                 | 000                |
| NO OF MEASUR.           | +00024             | NO OF MEASUR.           | +00025             | NO OF MEASUR.           | +00021             | NO OF MEASUR.           | +00025             | NO OF MEASUR.           | +00025             |
| MEAN [X10E-2]           | +15233             | MEAN [X10E-2]           | +11414             | MEAN [X10E-3]           | +02348             | MEAN [X10E-4]           | +01532             | MEAN [X10E-5]           | +02938             |
| SIGMA [X10E-2]          | +13848             | SIGMA [X10E-2]          | +09895             | SIGMA [X10E-3]          | +01635             | SIGMA [X10E-4]          | +01062             | SIGMA [X10E-5]          | +02265             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 19

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: MARITIME

| D1 = 0.23 MI              |                       |  | D2 = 0.45 MI              |                       |  | D3 = 0.93 MI              |                       |  | D4 = 2.00 MI              |                       |  | D5 = 4.50 MI              |                       |  |
|---------------------------|-----------------------|--|---------------------------|-----------------------|--|---------------------------|-----------------------|--|---------------------------|-----------------------|--|---------------------------|-----------------------|--|
| RES. NR. : 232            |                       |  | RES. NR. : 233            |                       |  | RES. NR. : 234            |                       |  | RES. NR. : 235            |                       |  | RES. NR. : 236            |                       |  |
| PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |
| < 00500                   | 111                   |  | < 00500                   | 083                   |  | < 00150                   | 092                   |  | < 00050                   | 061                   |  | < 00200                   | 011                   |  |
| 00500 - 01000             | 100                   |  | 00500 - 01000             | 137                   |  | 00150 - 00300             | 162                   |  | 00050 - 00100             | 072                   |  | 00200 - 00400             | 056                   |  |
| 01000 - 01500             | 078                   |  | 01000 - 01500             | 124                   |  | 00300 - 00450             | 142                   |  | 00100 - 00150             | 076                   |  | 00400 - 00600             | 087                   |  |
| 01500 - 02000             | 098                   |  | 01500 - 02000             | 080                   |  | 00450 - 00600             | 099                   |  | 00150 - 00200             | 044                   |  | 00600 - 00800             | 100                   |  |
| 02000 - 02500             | 083                   |  | 02000 - 02500             | 093                   |  | 00600 - 00750             | 083                   |  | 00200 - 00250             | 052                   |  | 00800 - 01000             | 087                   |  |
| 02500 - 03000             | 063                   |  | 02500 - 03000             | 063                   |  | 00750 - 00900             | 053                   |  | 00250 - 00300             | 050                   |  | 01000 - 01200             | 064                   |  |
| 03000 - 03500             | 047                   |  | 03000 - 03500             | 055                   |  | 00900 - 01050             | 049                   |  | 00300 - 00350             | 050                   |  | 01200 - 01400             | 074                   |  |
| 03500 - 04000             | 029                   |  | 03500 - 04000             | 033                   |  | 01050 - 01200             | 055                   |  | 00350 - 00400             | 057                   |  | 01400 - 01600             | 051                   |  |
| 04000 - 05000             | 060                   |  | 04000 - 04500             | 035                   |  | 01200 - 01350             | 018                   |  | 00400 - 00500             | 089                   |  | 01600 - 01800             | 056                   |  |
| 05000 - 06000             | 051                   |  | 04500 - 05000             | 018                   |  | 01350 - 01500             | 031                   |  | 00500 - 00600             | 072                   |  | 01800 - 02000             | 037                   |  |
| 06000 - 07000             | 038                   |  | 05000 - 06000             | 063                   |  | 01500 - 01650             | 012                   |  | 00600 - 00700             | 054                   |  | 02000 - 02250             | 055                   |  |
| 07000 - 08000             | 027                   |  | 06000 - 07000             | 022                   |  | 01650 - 01800             | 029                   |  | 00700 - 00800             | 052                   |  | 02250 - 02500             | 041                   |  |
| 08000 - 10000             | 054                   |  | 07000 - 08000             | 027                   |  | 01800 - 02000             | 016                   |  | 00800 - 00900             | 042                   |  | 02500 - 03000             | 064                   |  |
| 10000 - 15000             | 054                   |  | 08000 - 10000             | 027                   |  | 02000 - 02500             | 047                   |  | 00900 - 01000             | 033                   |  | 03000 - 03500             | 034                   |  |
| 15000 - 25000             | 052                   |  | 10000 - 15000             | 061                   |  | 02500 - 03000             | 035                   |  | 01000 - 01250             | 071                   |  | 03500 - 04000             | 043                   |  |
| 25000 - 40000             | 031                   |  | 15000 - 20000             | 027                   |  | 03000 - 04000             | 023                   |  | 01250 - 01500             | 035                   |  | 04000 - 05000             | 041                   |  |
| 40000 - 60000             | 016                   |  | 20000 - 30000             | 031                   |  | 04000 - 06000             | 025                   |  | 01500 - 02000             | 039                   |  | 05000 - 07000             | 066                   |  |
| 60000 - 80000             | 000                   |  | 30000 - 40000             | 011                   |  | 06000 - 10000             | 020                   |  | 02000 - 03000             | 028                   |  | 07000 - 09000             | 024                   |  |
| 80000 - 100000            | 000                   |  | 40000 - 50000             | 000                   |  | 10000 - 20000             | 000                   |  | 03000 - 04000             | 013                   |  | 09000 - 12000             | 000                   |  |
| >100000                   | 000                   |  | > 50000                   | 000                   |  | > 20000                   | 000                   |  | > 06000                   | 000                   |  | > 12000                   | 000                   |  |
| NO OF MEASUR              | +00548                |  | NO OF MEASUR.             | +00537                |  | NO OF MEASUR.             | +00542                |  | NO OF MEASUR.             | +00535                |  | NO OF MEASUR.             | +00527                |  |
| MEAN [X10E-2]             | +06008                |  | MEAN [X10E-2]             | +04672                |  | MEAN [X10E-3]             | +01087                |  | MEAN [X10E-4]             | +00617                |  | MEAN [X10E-5]             | +02058                |  |
| SIGMA [X10E-2]            | +08918                |  | SIGMA [X10E-2]            | +06093                |  | SIGMA [X10E-3]            | +01354                |  | SIGMA [X10E-4]            | +00620                |  | SIGMA [X10E-5]            | +01769                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 20

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: CONTINENTAL

| D1 = 0.23 MI                                          |        | D2 = 0.45 MI                                          |        | D3 = 0.93 MI                                          |        | D4 = 2.00 MI                                          |        | D5 = 4.50 MI                                          |        |
|-------------------------------------------------------|--------|-------------------------------------------------------|--------|-------------------------------------------------------|--------|-------------------------------------------------------|--------|-------------------------------------------------------|--------|
| RES. NR. : 247                                        |        | RES. NR. : 248                                        |        | RES. NR. : 249                                        |        | RES. NR. : 250                                        |        | RES. NR. : 251                                        |        |
| PARTICL. CONC.<br>[X10E-2]      FREQUENCY<br>[1/10 %] |        | PARTICL. CONC.<br>[X10E-2]      FREQUENCY<br>[1/10 %] |        | PARTICL. CONC.<br>[X10E-3]      FREQUENCY<br>[1/10 %] |        | PARTICL. CONC.<br>[X10E-4]      FREQUENCY<br>[1/10 %] |        | PARTICL. CONC.<br>[X10E-5]      FREQUENCY<br>[1/10 %] |        |
| < 00500                                               | 026    | < 00500                                               | 006    | < 00150                                               | 027    | < 00050                                               | 064    | < 00200                                               | 006    |
| 00500 - 01000                                         | 073    | 00500 - 01000                                         | 083    | 00150 - 00300                                         | 102    | 00050 - 00100                                         | 028    | 00200 - 00400                                         | 013    |
| 01000 - 01500                                         | 080    | 01000 - 01500                                         | 083    | 00300 - 00450                                         | 061    | 00100 - 00150                                         | 050    | 00400 - 00600                                         | 076    |
| 01500 - 02000                                         | 046    | 01500 - 02000                                         | 076    | 00450 - 00600                                         | 034    | 00150 - 00200                                         | 028    | 00600 - 00800                                         | 076    |
| 02000 - 02500                                         | 073    | 02000 - 02500                                         | 062    | 00600 - 00750                                         | 047    | 00200 - 00250                                         | 035    | 00800 - 01000                                         | 027    |
| 02500 - 03000                                         | 026    | 02500 - 03000                                         | 055    | 00750 - 00900                                         | 047    | 00250 - 00300                                         | 028    | 01000 - 01200                                         | 020    |
| 03000 - 03500                                         | 040    | 03000 - 03500                                         | 062    | 00900 - 01050                                         | 061    | 00300 - 00350                                         | 007    | 01200 - 01400                                         | 048    |
| 03500 - 04000                                         | 046    | 03500 - 04000                                         | 034    | 01050 - 01200                                         | 068    | 00350 - 00400                                         | 050    | 01400 - 01600                                         | 069    |
| 04000 - 04500                                         | 060    | 04000 - 04500                                         | 034    | 01200 - 01350                                         | 040    | 00400 - 00500                                         | 035    | 01600 - 01800                                         | 034    |
| 04500 - 05000                                         | 053    | 04500 - 05000                                         | 034    | 01350 - 01500                                         | 054    | 00500 - 00600                                         | 057    | 01800 - 02000                                         | 027    |
| 05000 - 05500                                         | 020    | 05000 - 05500                                         | 041    | 01500 - 01650                                         | 047    | 00600 - 00700                                         | 035    | 02000 - 02250                                         | 062    |
| 05500 - 06000                                         | 013    | 05500 - 06000                                         | 027    | 01650 - 01800                                         | 040    | 00700 - 00800                                         | 035    | 02250 - 02500                                         | 034    |
| 06000 - 06500                                         | 100    | 06000 - 06500                                         | 055    | 01800 - 02000                                         | 020    | 00800 - 00900                                         | 071    | 02500 - 03000                                         | 118    |
| 06500 - 07000                                         | 086    | 06500 - 07000                                         | 034    | 02000 - 02500                                         | 068    | 00900 - 01000                                         | 042    | 03000 - 03500                                         | 041    |
| 07000 - 07500                                         | 140    | 07000 - 07500                                         | 111    | 02500 - 03000                                         | 040    | 01000 - 01250                                         | 078    | 03500 - 04000                                         | 083    |
| 07500 - 08000                                         | 040    | 07500 - 08000                                         | 076    | 03000 - 04000                                         | 074    | 01250 - 01500                                         | 071    | 04000 - 05000                                         | 083    |
| 08000 - 08500                                         | 046    | 08000 - 08500                                         | 090    | 04000 - 06000                                         | 108    | 01500 - 02000                                         | 121    | 05000 - 07000                                         | 118    |
| 08500 - 09000                                         | 006    | 08500 - 09000                                         | 027    | 06000 - 10000                                         | 054    | 02000 - 03000                                         | 107    | 07000 - 09000                                         | 055    |
| 09000 - 100000                                        | 000    | 09000 - 100000                                        | 000    | 10000 - 20000                                         | 000    | 03000 - 06000                                         | 050    | 09000 - 12000                                         | 000    |
| >100000                                               | 000    | > 50000                                               | 000    | > 20000                                               | 000    | > 06000                                               | 000    | > 12000                                               | 000    |
| NO OF MEASUR.                                         | +00150 | NO OF MEASUR.                                         | +00144 | NO OF MEASUR.                                         | +00147 | NO OF MEASUR.                                         | +00140 | NO OF MEASUR.                                         | +00144 |
| MEAN [X10E-2]                                         | +10074 | MEAN [X10E-2]                                         | +08325 | MEAN [X10E-3]                                         | +02073 | MEAN [X10E-4]                                         | +01075 | MEAN [X10E-5]                                         | +02912 |
| SIGMA [X10E-2]                                        | +11984 | SIGMA [X10E-2]                                        | +08597 | SIGMA [X10E-3]                                        | +02003 | SIGMA [X10E-4]                                        | +00907 | SIGMA [X10E-5]                                        | +02041 |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 21

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: TROPICAL-MARITIME

| D1 = 0.23 MI               |                       | D2 = 0.45 MI               |                       | D3 = 0.93 MI               |                       | D4 = 2.00 MI               |                       | D5 = 4.50 MI               |                       |
|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|
| RES. NR. : 262             |                       | RES. NR. : 263             |                       | RES. NR. : 264             |                       | RES. NR. : 265             |                       | RES. NR. : 266             |                       |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |
| < 00500                    | 140                   | < 00500                    | 070                   | < 00150                    | 115                   | < 00050                    | 088                   | < 00200                    | 000                   |
| 00500 - 01000              | 105                   | 00500 - 01000              | 149                   | 00150 - 00300              | 132                   | 00050 - 00100              | 053                   | 00200 - 00400              | 009                   |
| 01000 - 01500              | 122                   | 01000 - 01500              | 087                   | 00300 - 00450              | 061                   | 00100 - 00150              | 044                   | 00400 - 00600              | 073                   |
| 01500 - 02000              | 078                   | 01500 - 02000              | 114                   | 00450 - 00600              | 044                   | 00150 - 00200              | 017                   | 00600 - 00800              | 082                   |
| 02000 - 02500              | 070                   | 02000 - 02500              | 061                   | 00600 - 00750              | 061                   | 00200 - 00250              | 053                   | 00800 - 01000              | 100                   |
| 02500 - 03000              | 096                   | 02500 - 03000              | 070                   | 00750 - 00900              | 097                   | 00250 - 00300              | 008                   | 01000 - 01200              | 110                   |
| 03000 - 03500              | 017                   | 03000 - 03500              | 017                   | 00900 - 01050              | 035                   | 00300 - 00350              | 035                   | 01200 - 01400              | 137                   |
| 03500 - 04000              | 035                   | 03500 - 04000              | 052                   | 01050 - 01200              | 061                   | 00350 - 00400              | 053                   | 01400 - 01600              | 045                   |
| 04000 - 05000              | 035                   | 04000 - 04500              | 035                   | 01200 - 01350              | 035                   | 00400 - 00500              | 053                   | 01600 - 01800              | 045                   |
| 05000 - 06000              | 035                   | 04500 - 05000              | 035                   | 01350 - 01500              | 035                   | 00500 - 00600              | 053                   | 01800 - 02000              | 073                   |
| 06000 - 07000              | 035                   | 05000 - 06000              | 052                   | 01500 - 01650              | 026                   | 00600 - 00700              | 053                   | 02000 - 02250              | 027                   |
| 07000 - 08000              | 035                   | 06000 - 07000              | 008                   | 01650 - 01800              | 026                   | 00700 - 00800              | 044                   | 02250 - 02500              | 073                   |
| 08000 - 10000              | 043                   | 07000 - 08000              | 035                   | 01800 - 02000              | 026                   | 00800 - 00900              | 017                   | 02500 - 03000              | 073                   |
| 10000 - 15000              | 052                   | 08000 - 10000              | 052                   | 02000 - 02500              | 044                   | 00900 - 01000              | 053                   | 03000 - 03500              | 009                   |
| 15000 - 25000              | 061                   | 10000 - 15000              | 105                   | 02500 - 03000              | 061                   | 01000 - 01250              | 061                   | 03500 - 04000              | 009                   |
| 25000 - 40000              | 026                   | 15000 - 20000              | 026                   | 03000 - 04000              | 026                   | 01250 - 01500              | 079                   | 04000 - 05000              | 018                   |
| 40000 - 60000              | 008                   | 20000 - 30000              | 026                   | 04000 - 06000              | 053                   | 01500 - 02000              | 106                   | 05000 - 07000              | 100                   |
| 60000 - 80000              | 000                   | 30000 - 40000              | 000                   | 06000 - 10000              | 053                   | 02000 - 03000              | 088                   | 07000 - 09000              | 009                   |
| 80000 - 100000             | 000                   | 40000 - 50000              | 000                   | 10000 - 20000              | 000                   | 03000 - 06000              | 035                   | 09000 - 12000              | 000                   |
| >100000                    | 000                   | > 50000                    | 000                   | > 20000                    | 000                   | > 06000                    | 000                   | > 12000                    | 000                   |
| NO OF MEASUR.              | +00114                | NO OF MEASUR.              | +00114                | NO OF MEASUR.              | +00113                | NO OF MEASUR.              | +00113                | NO OF MEASUR.              | +00109                |
| MEAN [X10E-2]              | +05164                | MEAN [X10E-2]              | +04853                | MEAN [X10E-3]              | +01566                | MEAN [X10E-4]              | +00926                | MEAN [X10E-5]              | +02039                |
| SIGMA [X10E-2]             | +07442                | SIGMA [X10E-2]             | +05542                | SIGMA [X10E-3]             | +01905                | SIGMA [X10E-4]             | +00940                | SIGMA [X10E-5]             | +01720                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 22

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: POLAR-MARITIME

| D1 = 0.23 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | D2 = 0.45 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | D3 = 0.93 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | D4 = 2.00 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | D5 = 4.50 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RES. NR. : 192                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RES. NR. : 193                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RES. NR. : 194                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RES. NR. : 195                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RES. NR. : 196                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| PARTICL. CONC. [X10E-2] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PARTICL. CONC. [X10E-2] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PARTICL. CONC. [X10E-3] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PARTICL. CONC. [X10E-4] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PARTICL. CONC. [X10E-5] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p>&lt; 00200 058</p> <p>00200 - 00400 082</p> <p>00400 - 00600 103</p> <p>00600 - 00800 070</p> <p>00800 - 01000 088</p> <p>01000 - 01200 079</p> <p>01200 - 01400 038</p> <p>01400 - 01600 023</p> <p>01600 - 01800 032</p> <p>01800 - 02000 041</p> <p>02000 - 02500 091</p> <p>02500 - 03000 085</p> <p>03000 - 03500 047</p> <p>03500 - 04000 041</p> <p>04000 - 05000 041</p> <p>05000 - 06000 017</p> <p>06000 - 08000 038</p> <p>08000 - 10000 017</p> <p>10000 - 15000 000</p> <p>&gt; 15000 000</p> | <p>&lt; 00100 101</p> <p>00100 - 00200 107</p> <p>00200 - 00300 071</p> <p>00300 - 00400 023</p> <p>00400 - 00500 044</p> <p>00500 - 00600 023</p> <p>00600 - 00750 047</p> <p>00750 - 01000 050</p> <p>01000 - 01500 113</p> <p>01500 - 02000 074</p> <p>02000 - 02500 038</p> <p>02500 - 03000 035</p> <p>03000 - 04000 056</p> <p>04000 - 05000 047</p> <p>05000 - 07000 068</p> <p>07000 - 09000 035</p> <p>09000 - 12000 029</p> <p>12000 - 15000 029</p> <p>15000 - 20000 000</p> <p>&gt; 20000 000</p> | <p>&lt; 00025 064</p> <p>00025 - 00050 100</p> <p>00050 - 00076 073</p> <p>00076 - 00100 052</p> <p>00100 - 00150 114</p> <p>00150 - 00200 070</p> <p>00200 - 00250 073</p> <p>00250 - 00300 050</p> <p>00300 - 00350 050</p> <p>00350 - 00400 052</p> <p>00400 - 00450 020</p> <p>00450 - 00500 023</p> <p>00500 - 00600 041</p> <p>00600 - 00700 035</p> <p>00700 - 01000 064</p> <p>01000 - 01500 047</p> <p>01500 - 02000 050</p> <p>02000 - 03500 014</p> <p>03500 - 06000 000</p> <p>&gt; 06000 000</p> | <p>&lt; 00025 106</p> <p>00025 - 00050 153</p> <p>00050 - 00076 144</p> <p>00076 - 00100 109</p> <p>00100 - 00125 067</p> <p>00125 - 00150 067</p> <p>00150 - 00175 050</p> <p>00175 - 00200 032</p> <p>00200 - 00250 050</p> <p>00250 - 00300 026</p> <p>00300 - 00350 029</p> <p>00350 - 00400 014</p> <p>00400 - 00450 026</p> <p>00450 - 00500 017</p> <p>00500 - 00600 032</p> <p>00600 - 00700 020</p> <p>00700 - 01000 029</p> <p>01000 - 02000 020</p> <p>02000 - 04000 000</p> <p>&gt; 04000 000</p> | <p>&lt; 00025 006</p> <p>00025 - 00050 024</p> <p>00050 - 00076 024</p> <p>00076 - 00100 058</p> <p>00100 - 00125 064</p> <p>00125 - 00150 036</p> <p>00150 - 00175 033</p> <p>00175 - 00200 040</p> <p>00200 - 00250 107</p> <p>00250 - 00300 070</p> <p>00300 - 00350 101</p> <p>00350 - 00400 049</p> <p>00400 - 00450 030</p> <p>00450 - 00500 040</p> <p>00500 - 00600 064</p> <p>00600 - 00700 049</p> <p>00700 - 01000 083</p> <p>01000 - 02000 061</p> <p>02000 - 04000 003</p> <p>&gt; 04000 000</p> |
| NO OF MEASUR. +00339                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | NO OF MEASUR. +00336                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | NO OF MEASUR. +00340                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | NO OF MEASUR. +00339                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | NO OF MEASUR. +00325                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| MEAN [X10E-2] +01989                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | MEAN [X10E-2] +02420                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | MEAN [X10E-3] +00406                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | MEAN [X10E-4] +00191                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | MEAN [X10E-5] +00407                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| SIGMA [X10E-2] +01881                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SIGMA [X10E-2] +03192                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SIGMA [X10E-3] +00495                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SIGMA [X10E-4] +00244                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SIGMA [X10E-5] +00344                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 23

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: POLAR

| D1 = 0.23 MI             |                       |  | D2 = 0.45 MI             |                       |  | D3 = 0.93 MI             |                       |  | D4 = 2.00 MI             |                       |  | D5 = 4.50 MI             |                       |  |
|--------------------------|-----------------------|--|--------------------------|-----------------------|--|--------------------------|-----------------------|--|--------------------------|-----------------------|--|--------------------------|-----------------------|--|
| RES. NR : 207            |                       |  | RES. NR : 208            |                       |  | RES. NR : 209            |                       |  | RES. NR : 210            |                       |  | RES. NR : 211            |                       |  |
| PARTICL CONC<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |
| < 00200                  | 100                   |  | < 00100                  | 166                   |  | < 00025                  | 058                   |  | < 00025                  | 000                   |  | < 00025                  | 000                   |  |
| 00200 - 00400            | 100                   |  | 00100 - 00200            | 055                   |  | 00025 - 00050            | 000                   |  | 00025 - 00050            | 105                   |  | 00025 - 00050            | 000                   |  |
| 00400 - 00600            | 050                   |  | 00200 - 00300            | 222                   |  | 00050 - 00076            | 058                   |  | 00050 - 00076            | 000                   |  | 00050 - 00076            | 000                   |  |
| 00600 - 00800            | 100                   |  | 00300 - 00400            | 000                   |  | 00076 - 00100            | 058                   |  | 00076 - 00100            | 157                   |  | 00076 - 00100            | 000                   |  |
| 00800 - 01000            | 000                   |  | 00400 - 00500            | 000                   |  | 00100 - 00150            | 058                   |  | 00100 - 00125            | 000                   |  | 00100 - 00125            | 000                   |  |
| 01000 - 01200            | 050                   |  | 00500 - 00600            | 000                   |  | 00150 - 00200            | 176                   |  | 00125 - 00150            | 052                   |  | 00125 - 00150            | 000                   |  |
| 01200 - 01400            | 000                   |  | 00600 - 00750            | 111                   |  | 00200 - 00250            | 058                   |  | 00150 - 00175            | 052                   |  | 00150 - 00175            | 000                   |  |
| 01400 - 01600            | 150                   |  | 00750 - 01000            | 000                   |  | 00250 - 00300            | 058                   |  | 00175 - 00200            | 052                   |  | 00175 - 00200            | 000                   |  |
| 01600 - 01800            | 000                   |  | 01000 - 01500            | 055                   |  | 00300 - 00350            | 000                   |  | 00200 - 00250            | 157                   |  | 00200 - 00250            | 111                   |  |
| 01800 - 02000            | 050                   |  | 01500 - 02000            | 000                   |  | 00350 - 00400            | 000                   |  | 00250 - 00300            | 052                   |  | 00250 - 00300            | 111                   |  |
| 02000 - 02500            | 050                   |  | 02000 - 02500            | 000                   |  | 00400 - 00450            | 000                   |  | 00300 - 00350            | 052                   |  | 00300 - 00350            | 222                   |  |
| 02500 - 03000            | 200                   |  | 02500 - 03000            | 000                   |  | 00450 - 00500            | 000                   |  | 00350 - 00400            | 052                   |  | 00350 - 00400            | 111                   |  |
| 03000 - 03500            | 100                   |  | 03000 - 04000            | 055                   |  | 00500 - 00600            | 117                   |  | 00400 - 00450            | 000                   |  | 00400 - 00450            | 055                   |  |
| 03500 - 04000            | 000                   |  | 04000 - 05000            | 111                   |  | 00600 - 00700            | 117                   |  | 00450 - 00500            | 000                   |  | 00450 - 00500            | 055                   |  |
| 04000 - 05000            | 000                   |  | 05000 - 07000            | 111                   |  | 00700 - 01000            | 000                   |  | 00500 - 00600            | 105                   |  | 00500 - 00600            | 055                   |  |
| 05000 - 06000            | 050                   |  | 07000 - 09000            | 055                   |  | 01000 - 01500            | 117                   |  | 00600 - 00700            | 052                   |  | 00600 - 00700            | 055                   |  |
| 06000 - 08000            | 000                   |  | 09000 - 12000            | 000                   |  | 01500 - 02000            | 058                   |  | 00700 - 01000            | 105                   |  | 00700 - 01000            | 111                   |  |
| 08000 - 10000            | 000                   |  | 12000 - 15000            | 000                   |  | 02000 - 03500            | 058                   |  | 01000 - 02000            | 000                   |  | 01000 - 02000            | 111                   |  |
| 10000 - 15000            | 000                   |  | 15000 - 20000            | 055                   |  | 03500 - 06000            | 000                   |  | 02000 - 04000            | 000                   |  | 02000 - 04000            | 000                   |  |
| > 15000                  | 000                   |  | > 20000                  | 000                   |  | > 06000                  | 000                   |  | > 04000                  | 000                   |  | > 04000                  | 000                   |  |
| NO OF MEASUR             | +00020                |  | NO OF MEASUR             | +00018                |  | NO OF MEASUR             | +00017                |  | NO OF MEASUR             | +00019                |  | NO OF MEASUR             | +00018                |  |
| MEAN [X10E-2]            | +01829                |  | MEAN [X10E-2]            | +02924                |  | MEAN [X10E-3]            | +00624                |  | MEAN [X10E-4]            | +00321                |  | MEAN [X10E-5]            | +00507                |  |
| SIGMA [X10E-2]           | +01446                |  | SIGMA [X10E-2]           | +04085                |  | SIGMA [X10E-3]           | +00712                |  | SIGMA [X10E-4]           | +00280                |  | SIGMA [X10E-5]           | +00307                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 24

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: POLAR-CONTINENTAL

| D1 = 0.23 MI               |                       | D2 = 0.45 MI               |                       | D3 = 0.93 MI               |                       | D4 = 2.00 MI               |                       | D5 = 4.50 MI               |                       |
|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|
| RES. NR. : 222             |                       | RES. NR. : 223             |                       | RES. NR. : 224             |                       | RES. NR. : 225             |                       | RES. NR. : 226             |                       |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 X] | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 X] | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 X] |
| < 00200                    | 058                   | < 00100                    | 058                   | < 00025                    | 055                   | < 00025                    | 055                   | < 00025                    | 000                   |
| 00200 - 00400              | 000                   | 00100 - 00200              | 058                   | 00025 - 00050              | 000                   | 00025 - 00050              | 055                   | 00025 - 00050              | 000                   |
| 00400 - 00600              | 000                   | 00200 - 00300              | 000                   | 00050 - 00076              | 000                   | 00050 - 00076              | 055                   | 00050 - 00076              | 000                   |
| 00600 - 00800              | 000                   | 00300 - 00400              | 000                   | 00076 - 00100              | 055                   | 00076 - 00100              | 000                   | 00076 - 00100              | 000                   |
| 00800 - 01000              | 058                   | 00400 - 00500              | 000                   | 00100 - 00150              | 000                   | 00100 - 00125              | 000                   | 00100 - 00125              | 000                   |
| 01000 - 01200              | 000                   | 00500 - 00600              | 000                   | 00150 - 00200              | 000                   | 00125 - 00150              | 055                   | 00125 - 00150              | 000                   |
| 01200 - 01400              | 058                   | 00600 - 00750              | 000                   | 00200 - 00250              | 055                   | 00150 - 00175              | 055                   | 00150 - 00175              | 105                   |
| 01400 - 01600              | 000                   | 00750 - 01000              | 000                   | 00250 - 00300              | 000                   | 00175 - 00200              | 055                   | 00175 - 00200              | 000                   |
| 01600 - 01800              | 058                   | 01000 - 01500              | 117                   | 00300 - 00350              | 055                   | 00200 - 00250              | 000                   | 00200 - 00250              | 052                   |
| 01800 - 02000              | 000                   | 01500 - 02000              | 000                   | 00350 - 00400              | 055                   | 00250 - 00300              | 166                   | 00250 - 00300              | 052                   |
| 02000 - 02500              | 058                   | 02000 - 02500              | 117                   | 00400 - 00450              | 000                   | 00300 - 00350              | 055                   | 00300 - 00350              | 000                   |
| 02500 - 03000              | 235                   | 02500 - 03000              | 058                   | 00450 - 00500              | 000                   | 00350 - 00400              | 111                   | 00350 - 00400              | 157                   |
| 03000 - 03500              | 117                   | 03000 - 04000              | 058                   | 00500 - 00600              | 166                   | 00400 - 00450              | 111                   | 00400 - 00450              | 105                   |
| 03500 - 04000              | 058                   | 04000 - 05000              | 058                   | 00600 - 00700              | 000                   | 00450 - 00500              | 055                   | 00450 - 00500              | 000                   |
| 04000 - 05000              | 058                   | 05000 - 07000              | 176                   | 00700 - 01000              | 166                   | 00500 - 00600              | 055                   | 00500 - 00600              | 052                   |
| 05000 - 06000              | 058                   | 07000 - 09000              | 058                   | 01000 - 01500              | 055                   | 00600 - 00700              | 000                   | 00600 - 00700              | 052                   |
| 06000 - 08000              | 000                   | 09000 - 12000              | 058                   | 01500 - 02000              | 000                   | 00700 - 01000              | 055                   | 00700 - 01000              | 210                   |
| 08000 - 10000              | 176                   | 12000 - 15000              | 117                   | 02000 - 03500              | 333                   | 01000 - 02000              | 055                   | 01000 - 02000              | 157                   |
| 10000 - 15000              | 000                   | 15000 - 20000              | 058                   | 03500 - 06000              | 000                   | 02000 - 04000              | 000                   | 02000 - 04000              | 052                   |
| > 15000                    | 000                   | > 20000                    | 000                   | > 06000                    | 000                   | > 04000                    | 000                   | > 04000                    | 000                   |
| NO OF MEASUR.              | +00017                | NO OF MEASUR.              | +00017                | NO OF MEASUR.              | +00018                | NO OF MEASUR.              | +00018                | NO OF MEASUR.              | +00019                |
| MEAN [X10E-2]              | +03820                | MEAN [X10E-2]              | +05558                | MEAN [X10E-3]              | +01167                | MEAN [X10E-4]              | +00376                | MEAN [X10E-5]              | +00736                |
| SIGMA [X10E-2]             | +02866                | SIGMA [X10E-2]             | +04889                | SIGMA [X10E-3]             | +00961                | SIGMA [X10E-4]             | +00344                | SIGMA [X10E-5]             | +00581                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 25

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: MARITIME

| D1 = 0.23 MI               |                       |     | D2 = 0.45 MI               |                       |     | D3 = 0.93 MI               |                       |     | D4 = 2.00 MI               |                       |     | D5 = 4.50 MI               |                       |     |
|----------------------------|-----------------------|-----|----------------------------|-----------------------|-----|----------------------------|-----------------------|-----|----------------------------|-----------------------|-----|----------------------------|-----------------------|-----|
| RES. NR : 237              |                       |     | RES. NR : 238              |                       |     | RES. NR : 239              |                       |     | RES. NR : 240              |                       |     | RES. NR : 241              |                       |     |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |     | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |     | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |     | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |     | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |     |
| < 00200                    | 060                   |     | < 00100                    | 116                   |     | < 00025                    | 068                   |     | < 00025                    | 125                   |     | < 00025                    | 004                   |     |
| 00200 -                    | 0400                  | 024 | 00100 -                    | 0200                  | 095 | 00025 -                    | 00050                 | 074 | 00025 -                    | 00050                 | 140 | 00025 -                    | 00050                 | 021 |
| 00400 -                    | 00600                 | 109 | 00200 -                    | 00300                 | 082 | 00050 -                    | 00076                 | 068 | 00050 -                    | 00076                 | 078 | 00050 -                    | 00076                 | 030 |
| 00600 -                    | 00800                 | 096 | 00300 -                    | 00400                 | 043 | 00076 -                    | 00100                 | 059 | 00076 -                    | 00100                 | 065 | 00076 -                    | 00100                 | 052 |
| 00800 -                    | 01000                 | 079 | 00400 -                    | 00500                 | 058 | 00100 -                    | 00150                 | 106 | 00100 -                    | 00125                 | 065 | 00100 -                    | 00125                 | 043 |
| 01000 -                    | 01200                 | 062 | 00500 -                    | 00600                 | 041 | 00150 -                    | 00200                 | 079 | 00125 -                    | 00150                 | 051 | 00125 -                    | 00150                 | 037 |
| 01200 -                    | 01400                 | 058 | 00600 -                    | 00750                 | 056 | 00200 -                    | 00250                 | 049 | 00150 -                    | 00175                 | 046 | 00150 -                    | 00175                 | 043 |
| 01400 -                    | 01600                 | 043 | 00750 -                    | 01000                 | 064 | 00250 -                    | 00300                 | 053 | 00175 -                    | 00200                 | 046 | 00175 -                    | 00200                 | 050 |
| 01600 -                    | 01800                 | 043 | 01000 -                    | 01500                 | 086 | 00300 -                    | 00350                 | 049 | 00200 -                    | 00250                 | 072 | 00200 -                    | 00250                 | 087 |
| 01800 -                    | 02000                 | 034 | 01500 -                    | 02000                 | 066 | 00350 -                    | 00400                 | 019 | 00250 -                    | 00300                 | 055 | 00250 -                    | 00300                 | 074 |
| 02000 -                    | 02500                 | 064 | 02000 -                    | 02500                 | 043 | 00400 -                    | 00450                 | 025 | 00300 -                    | 00350                 | 036 | 00300 -                    | 00350                 | 076 |
| 02500 -                    | 03000                 | 049 | 02500 -                    | 03000                 | 036 | 00450 -                    | 00500                 | 034 | 00350 -                    | 00400                 | 025 | 00350 -                    | 00400                 | 052 |
| 03000 -                    | 03500                 | 035 | 03000 -                    | 04000                 | 049 | 00500 -                    | 00600                 | 055 | 00400 -                    | 00450                 | 040 | 00400 -                    | 00450                 | 056 |
| 03500 -                    | 04000                 | 036 | 04000 -                    | 05000                 | 038 | 00600 -                    | 00700                 | 027 | 00450 -                    | 00500                 | 021 | 00450 -                    | 00500                 | 043 |
| 04000 -                    | 05000                 | 038 | 05000 -                    | 07000                 | 053 | 00700 -                    | 01000                 | 070 | 00500 -                    | 00600                 | 040 | 00500 -                    | 00600                 | 094 |
| 05000 -                    | 06000                 | 025 | 07000 -                    | 09000                 | 030 | 01000 -                    | 01500                 | 070 | 00600 -                    | 00700                 | 023 | 00600 -                    | 00700                 | 045 |
| 06000 -                    | 08000                 | 025 | 09000 -                    | 12000                 | 017 | 01500 -                    | 02000                 | 036 | 00700 -                    | 01000                 | 034 | 00700 -                    | 01000                 | 102 |
| 08000 -                    | 10000                 | 021 | 12000 -                    | 15000                 | 019 | 02000 -                    | 03500                 | 051 | 01000 -                    | 02000                 | 029 | 01000 -                    | 02000                 | 076 |
| 10000 -                    | 15000                 | 000 | 15000 -                    | 20000                 | 000 | 03500 -                    | 06000                 | 000 | 02000 -                    | 04000                 | 000 | 02000 -                    | 04000                 | 004 |
| > 15000                    | 000                   |     | > 20000                    | 000                   |     | > 06000                    | 000                   |     | > 04000                    | 000                   |     | > 04000                    | 000                   |     |
| NO OF MEASUR               | +00465                |     | NO OF MEASUR               | +00463                |     | NO OF MEASUR               | +00468                |     | NO OF MEASUR               | +00470                |     | NO OF MEASUR               | +00457                |     |
| MEAN [X10E-2]              | +01857                |     | MEAN [X10E-2]              | +01953                |     | MEAN [X10E-3]              | +00507                |     | MEAN [X10E-4]              | +00237                |     | MEAN [X10E-5]              | +00436                |     |
| SIGMA [X10E-2]             | +01874                |     | SIGMA [X10E-2]             | +02709                |     | SIGMA [X10E-3]             | +00652                |     | SIGMA [X10E-4]             | +00296                |     | SIGMA [X10E-5]             | +00359                |     |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 26

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: CONTINENTAL

| D1 = 0.23 MI               |                       | D2 = 0.45 MI               |                       | D3 = 0.93 MI               |                       | D4 = 2.00 MI               |                       | D5 = 4.50 MI               |                       |
|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|
| RES. NR. : 252             |                       | RES. NR. : 253             |                       | RES. NR. : 254             |                       | RES. NR. : 255             |                       | RES. NR. : 256             |                       |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |
| < 00200                    | 023                   | < 00100                    | 084                   | < 00025                    | 078                   | < 00025                    | 112                   | < 00025                    | 000                   |
| 00200 - 00400              | 102                   | 00100 - 00200              | 042                   | 00025 - 00050              | 046                   | 00025 - 00050              | 080                   | 00025 - 00050              | 031                   |
| 00400 - 00600              | 031                   | 00200 - 00300              | 059                   | 00050 - 00076              | 046                   | 00050 - 00076              | 080                   | 00050 - 00076              | 046                   |
| 00600 - 00800              | 086                   | 00300 - 00400              | 033                   | 00076 - 00100              | 062                   | 00076 - 00100              | 032                   | 00076 - 00100              | 023                   |
| 00800 - 01000              | 039                   | 00400 - 00500              | 042                   | 00100 - 00150              | 070                   | 00100 - 00125              | 048                   | 00100 - 00125              | 023                   |
| 01000 - 01200              | 039                   | 00500 - 00600              | 016                   | 00150 - 00200              | 039                   | 00125 - 00150              | 048                   | 00125 - 00150              | 031                   |
| 01200 - 01400              | 055                   | 00600 - 00750              | 016                   | 00200 - 00250              | 015                   | 00150 - 00175              | 024                   | 00150 - 00175              | 046                   |
| 01400 - 01600              | 039                   | 00750 - 01000              | 025                   | 00250 - 00300              | 031                   | 00175 - 00200              | 016                   | 00175 - 00200              | 031                   |
| 01600 - 01800              | 031                   | 01000 - 01500              | 067                   | 00300 - 00350              | 039                   | 00200 - 00250              | 040                   | 00200 - 00250              | 085                   |
| 01800 - 02000              | 070                   | 01500 - 02000              | 067                   | 00350 - 00400              | 015                   | 00250 - 00300              | 040                   | 00250 - 00300              | 031                   |
| 02000 - 02500              | 094                   | 02000 - 02500              | 050                   | 00400 - 00450              | 046                   | 00300 - 00350              | 048                   | 00300 - 00350              | 031                   |
| 02500 - 03000              | 023                   | 02500 - 03000              | 059                   | 00450 - 00500              | 007                   | 00350 - 00400              | 056                   | 00350 - 00400              | 031                   |
| 03000 - 03500              | 047                   | 03000 - 04000              | 101                   | 00500 - 00600              | 039                   | 00400 - 00450              | 040                   | 00400 - 00450              | 054                   |
| 03500 - 04000              | 070                   | 04000 - 05000              | 067                   | 00600 - 00700              | 054                   | 00450 - 00500              | 056                   | 00450 - 00500              | 054                   |
| 04000 - 05000              | 055                   | 05000 - 07000              | 110                   | 00700 - 01000              | 179                   | 00500 - 00600              | 040                   | 00500 - 00600              | 069                   |
| 05000 - 06000              | 086                   | 07000 - 09000              | 050                   | 01000 - 01500              | 085                   | 00600 - 00700              | 048                   | 00600 - 00700              | 069                   |
| 06000 - 08000              | 055                   | 09000 - 12000              | 050                   | 01500 - 02000              | 054                   | 00700 - 01000              | 096                   | 00700 - 01000              | 178                   |
| 08000 - 10000              | 047                   | 12000 - 15000              | 042                   | 02000 - 03500              | 085                   | 01000 - 02000              | 096                   | 01000 - 02000              | 162                   |
| 10000 - 15000              | 000                   | 15000 - 20000              | 008                   | 03500 - 06000              | 000                   | 02000 - 04000              | 000                   | 02000 - 04000              | 000                   |
| > 15000                    | 000                   | > 20000                    | 000                   | > 06000                    | 000                   | > 04000                    | 000                   | > 04000                    | 000                   |
| NO OF MEASUR               | +00127                | NO OF MEASUR               | +00118                | NO OF MEASUR               | +00128                | NO OF MEASUR               | +00125                | NO OF MEASUR               | +00129                |
| MEAN [X10E-2]              | +02704                | MEAN [X10E-2]              | +03535                | MEAN [X10E-3]              | +00700                | MEAN [X10E-4]              | +00396                | MEAN [X10E-5]              | +00573                |
| SIGMA [X10E-2]             | +02318                | SIGMA [X10E-2]             | +03719                | SIGMA [X10E-3]             | +00724                | SIGMA [X10E-4]             | +00411                | SIGMA [X10E-5]             | +00426                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 27

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: TROPICAL-MARITIME

| D1 = 0.23 MI   |                                  | D2 = 0.45 MI   |                                  | D3 = 0.93 MI   |                                  | D4 = 2.00 MI   |                                  | D5 = 4.50 MI   |                                  |
|----------------|----------------------------------|----------------|----------------------------------|----------------|----------------------------------|----------------|----------------------------------|----------------|----------------------------------|
| RES. NR. : 267 | PARTICL. CONC. [X10E-2] [1/10 X] | RES. NR. : 268 | PARTICL. CONC. [X10E-2] [1/10 X] | RES. NR. : 269 | PARTICL. CONC. [X10E-3] [1/10 X] | RES. NR. : 270 | PARTICL. CONC. [X10E-4] [1/10 X] | RES. NR. : 271 | PARTICL. CONC. [X10E-5] [1/10 X] |
| < 00200        | 077                              | < 00100        | 090                              | < 00025        | 030                              | < 00025        | 060                              | < 00025        | 000                              |
| 00200 - 00400  | 116                              | 00100 - 00200  | 040                              | 00025 - 00050  | 102                              | 00025 - 00050  | 090                              | 00025 - 00050  | 009                              |
| 00400 - 00600  | 077                              | 00200 - 00300  | 010                              | 00050 - 00076  | 051                              | 00050 - 00076  | 040                              | 00050 - 00076  | 039                              |
| 00600 - 00800  | 009                              | 00300 - 00400  | 060                              | 00076 - 00100  | 061                              | 00076 - 00100  | 070                              | 00076 - 00100  | 039                              |
| 00800 - 01000  | 038                              | 00400 - 00500  | 040                              | 00100 - 00150  | 091                              | 00100 - 00125  | 040                              | 00100 - 00125  | 009                              |
| 01000 - 01200  | 058                              | 00500 - 00600  | 050                              | 00150 - 00200  | 061                              | 00125 - 00150  | 060                              | 00125 - 00150  | 049                              |
| 01200 - 01400  | 019                              | 00600 - 00750  | 050                              | 00200 - 00250  | 030                              | 00150 - 00175  | 010                              | 00150 - 00175  | 029                              |
| 01400 - 01600  | 029                              | 00750 - 01000  | 070                              | 00250 - 00300  | 030                              | 00175 - 00200  | 030                              | 00175 - 00200  | 039                              |
| 01600 - 01800  | 029                              | 01000 - 01500  | 090                              | 00300 - 00350  | 010                              | 00200 - 00250  | 030                              | 00200 - 00250  | 059                              |
| 01800 - 02000  | 058                              | 01500 - 02000  | 090                              | 00350 - 00400  | 000                              | 00250 - 00300  | 060                              | 00250 - 00300  | 029                              |
| 02000 - 02500  | 077                              | 02000 - 02500  | 040                              | 00400 - 00450  | 020                              | 00300 - 00350  | 030                              | 00300 - 00350  | 059                              |
| 02500 - 03000  | 135                              | 02500 - 03000  | 030                              | 00450 - 00500  | 030                              | 00350 - 00400  | 040                              | 00350 - 00400  | 059                              |
| 03000 - 03500  | 087                              | 03000 - 04000  | 040                              | 00500 - 00600  | 040                              | 00400 - 00450  | 020                              | 00400 - 00450  | 069                              |
| 03500 - 04000  | 022                              | 04000 - 05000  | 030                              | 00600 - 00700  | 040                              | 00450 - 00500  | 040                              | 00450 - 00500  | 039                              |
| 04000 - 05000  | 038                              | 05000 - 07000  | 100                              | 00700 - 01000  | 081                              | 00500 - 00600  | 090                              | 00500 - 00600  | 059                              |
| 05000 - 06000  | 048                              | 07000 - 09000  | 040                              | 01000 - 01500  | 142                              | 00600 - 00700  | 040                              | 00600 - 00700  | 069                              |
| 06000 - 08000  | 058                              | 09000 - 12000  | 100                              | 01500 - 02000  | 081                              | 00700 - 01000  | 120                              | 00700 - 01000  | 128                              |
| 08000 - 10000  | 009                              | 12000 - 15000  | 010                              | 02000 - 03500  | 091                              | 01000 - 02000  | 130                              | 01000 - 02000  | 207                              |
| 10000 - 15000  | 000                              | 15000 - 20000  | 000                              | 03500 - 06000  | 000                              | 02000 - 04000  | 000                              | 02000 - 04000  | 000                              |
| > 15000        | 000                              | > 20000        | 000                              | > 06000        | 000                              | > 04000        | 000                              | > 04000        | 000                              |
| NO OF MEASUR.  | +00103                           | NO OF MEASUR.  | +00100                           | NO OF MEASUR.  | +00098                           | NO OF MEASUR.  | +00100                           | NO OF MEASUR.  | +00101                           |
| MEAN [X10E-2]  | +02265                           | MEAN [X10E-2]  | +02939                           | MEAN [X10E-3]  | +00735                           | MEAN [X10E-4]  | +00463                           | MEAN [X10E-5]  | +00608                           |
| SIGMA [X10E-2] | +01949                           | SIGMA [X10E-2] | +03389                           | SIGMA [X10E-3] | +00771                           | SIGMA [X10E-4] | +00446                           | SIGMA [X10E-5] | +00475                           |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 28

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: POLAR-MARITIME

| D1 = 0.23 MI           |                    | D2 = 0.45 MI           |                    | D3 = 0.93 MI           |                    | D4 = 2.00 MI           |                    | D5 = 4.50 MI           |                    |
|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|
| RES. NR :              | 197                | RES. NR. :             | 198                | RES. NR. :             | 199                | RES. NR. :             | 200                | RES. NR. :             | 201                |
| PARTICL CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL CONC. [X10E-3] | FREQUENCY [1/10 %] | PARTICL CONC. [X10E-4] | FREQUENCY [1/10 %] | PARTICL CONC. [X10E-5] | FREQUENCY [1/10 %] |
| < 00050                | 035                | < 00015                | 008                | < 00015                | 058                | < 00015                | 087                | < 00025                | 011                |
| 00050 - 00100          | 071                | 00015 - 00030          | 038                | 00015 - 00030          | 085                | 00015 - 00030          | 183                | 00025 - 00050          | 011                |
| 00100 - 00150          | 062                | 00030 - 00045          | 076                | 00030 - 00045          | 085                | 00030 - 00045          | 142                | 00050 - 00076          | 043                |
| 00150 - 00200          | 074                | 00045 - 00060          | 064                | 00045 - 00060          | 056                | 00045 - 00060          | 101                | 00076 - 00100          | 049                |
| 00200 - 00250          | 044                | 00060 - 00075          | 049                | 00060 - 00075          | 067                | 00060 - 00075          | 078                | 00100 - 00125          | 046                |
| 00250 - 00300          | 038                | 00075 - 00090          | 029                | 00075 - 00090          | 064                | 00075 - 00090          | 052                | 00125 - 00150          | 073                |
| 00300 - 00350          | 029                | 00090 - 00105          | 043                | 00090 - 00105          | 073                | 00090 - 00105          | 078                | 00150 - 00175          | 067                |
| 00350 - 00400          | 035                | 00105 - 00120          | 032                | 00105 - 00120          | 047                | 00105 - 00120          | 052                | 00175 - 00200          | 041                |
| 00400 - 00500          | 065                | 00120 - 00150          | 070                | 00120 - 00150          | 070                | 00120 - 00150          | 055                | 00200 - 00225          | 082                |
| 00500 - 00600          | 044                | 00150 - 00200          | 079                | 00150 - 00200          | 079                | 00150 - 00200          | 046                | 00225 - 00250          | 055                |
| 00600 - 00800          | 094                | 00200 - 00250          | 046                | 00200 - 00250          | 053                | 00200 - 00250          | 034                | 00250 - 00275          | 026                |
| 00800 - 01000          | 086                | 00250 - 00300          | 041                | 00250 - 00300          | 053                | 00250 - 00300          | 029                | 00275 - 00300          | 038                |
| 01000 - 01250          | 065                | 00300 - 00400          | 070                | 00300 - 00400          | 064                | 00300 - 00400          | 008                | 00300 - 00325          | 046                |
| 01250 - 01500          | 056                | 00400 - 00600          | 108                | 00400 - 00600          | 070                | 00400 - 00600          | 011                | 00325 - 00350          | 061                |
| 01500 - 02000          | 050                | 00600 - 00900          | 058                | 00600 - 00900          | 032                | 00600 - 00900          | 023                | 00350 - 00400          | 067                |
| 02000 - 03000          | 059                | 00900 - 01500          | 079                | 00900 - 01500          | 023                | 00900 - 01500          | 002                | 00400 - 00500          | 111                |
| 03000 - 04000          | 035                | 01500 - 02500          | 055                | 01500 - 02500          | 011                | 01500 - 02500          | 011                | 00500 - 00750          | 096                |
| 04000 - 06000          | 014                | 02500 - 05000          | 038                | 02500 - 05000          | 000                | 02500 - 05000          | 000                | 00750 - 01000          | 035                |
| > 12000                | 000                | 05000 - 10000          | 003                | 05000 - 10000          | 000                | 05000 - 10000          | 000                | 01000 - 02000          | 032                |
| NO OF MEASUR           | +00337             | NO OF MEASUR           | +00341             | NO OF MEASUR           | +00339             | NO OF MEASUR           | +00344             | NO OF MEASUR           | +00341             |
| MEAN [X10E-2]          | +01056             | MEAN [X10E-2]          | +00569             | MEAN [X10E-3]          | +00210             | MEAN [X10E-4]          | +00121             | MEAN [X10E-5]          | +00323             |
| SIGMA [X10E-2]         | +01313             | SIGMA [X10E-2]         | +00898             | SIGMA [X10E-3]         | +00287             | SIGMA [X10E-4]         | +00240             | SIGMA [X10E-5]         | +00234             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 29

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: POLAR

| D1 = 0.23 MI           |                    | D2 = 0.45 MI           |                    | D3 = 0.93 MI           |                    | D4 = 2.00 MI           |                    | D5 = 4.50 MI           |                    |
|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|
| RES. NR. : 212         |                    | RES. NR. : 213         |                    | RES. NR. : 214         |                    | RES. NR. : 215         |                    | RES. NR. : 216         |                    |
| PARTICL CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL CONC. [X10E-3] | FREQUENCY [1/10 X] | PARTICL CONC. [X10E-4] | FREQUENCY [1/10 X] | PARTICL CONC. [X10E-5] | FREQUENCY [1/10 X] |
| < 00050                | 055                | < 00015                | 000                | < 00015                | 000                | < 00015                | 000                | < 00025                | 000                |
| 00050 - 00100          | 222                | 00015 - 00030          | 111                | 00015 - 00030          | 000                | 00015 - 00030          | 125                | 00025 - 00050          | 000                |
| 00100 - 00150          | 166                | 00030 - 00045          | 000                | 00030 - 00045          | 000                | 00030 - 00045          | 187                | 00050 - 00076          | 000                |
| 00150 - 00200          | 055                | 00045 - 00060          | 166                | 00045 - 00060          | 166                | 00045 - 00060          | 125                | 00076 - 00100          | 000                |
| 00200 - 00250          | 000                | 00060 - 00075          | 111                | 00060 - 00075          | 111                | 00060 - 00075          | 125                | 00100 - 00125          | 000                |
| 00250 - 00300          | 000                | 00075 - 00090          | 000                | 00075 - 00090          | 055                | 00075 - 00090          | 062                | 00125 - 00150          | 000                |
| 00300 - 00350          | 055                | 00090 - 00105          | 111                | 00090 - 00105          | 166                | 00090 - 00105          | 000                | 00150 - 00175          | 000                |
| 00350 - 00400          | 000                | 00105 - 00120          | 000                | 00105 - 00120          | 055                | 00105 - 00120          | 125                | 00175 - 00200          | 000                |
| 00400 - 00500          | 055                | 00120 - 00150          | 055                | 00120 - 00150          | 000                | 00120 - 00150          | 000                | 00200 - 00225          | 000                |
| 00500 - 00600          | 055                | 00150 - 00200          | 055                | 00150 - 00200          | 055                | 00150 - 00200          | 000                | 00225 - 00250          | 111                |
| 00600 - 00800          | 000                | 00200 - 00250          | 000                | 00200 - 00250          | 055                | 00200 - 00250          | 000                | 00250 - 00275          | 166                |
| 00800 - 01000          | 000                | 00250 - 00300          | 055                | 00250 - 00300          | 055                | 00250 - 00300          | 000                | 00275 - 00300          | 111                |
| 01000 - 01250          | 000                | 00300 - 00400          | 000                | 00300 - 00400          | 111                | 00300 - 00400          | 000                | 00300 - 00325          | 111                |
| 01250 - 01500          | 000                | 00400 - 00600          | 111                | 00400 - 00600          | 000                | 00400 - 00600          | 062                | 00325 - 00350          | 111                |
| 01500 - 02000          | 055                | 00600 - 00900          | 055                | 00600 - 00900          | 055                | 00600 - 00900          | 000                | 00350 - 00400          | 111                |
| 02000 - 03000          | 111                | 00900 - 01500          | 055                | 00900 - 01500          | 055                | 00900 - 01500          | 062                | 00400 - 00500          | 166                |
| 03000 - 04000          | 055                | 01500 - 02500          | 055                | 01500 - 02500          | 055                | 01500 - 02500          | 125                | 00500 - 00750          | 055                |
| 04000 - 06000          | 055                | 02500 - 05000          | 055                | 02500 - 05000          | 000                | 02500 - 05000          | 000                | 00750 - 01000          | 055                |
| 06000 - 12000          | 055                | 05000 - 10000          | 000                | 05000 - 10000          | 000                | 05000 - 10000          | 000                | 01000 - 02000          | 000                |
| > 12000                | 000                | > 10000                | 000                | > 10000                | 000                | > 10000                | 000                | > 02000                | 000                |
| NO OF MEASUR.          | +00018             | NO OF MEASUR.          | +00018             | NO OF MEASUR.          | +00018             | NO OF MEASUR.          | +00016             | NO OF MEASUR.          | +00018             |
| MEAN [X10E-2]          | +01306             | MEAN [X10E-2]          | +00469             | MEAN [X10E-3]          | +00316             | MEAN [X10E-4]          | +00391             | MEAN [X10E-5]          | +00375             |
| SIGMA [X10E-2]         | +01961             | SIGMA [X10E-2]         | +00750             | SIGMA [X10E-3]         | +00444             | SIGMA [X10E-4]         | +00697             | SIGMA [X10E-5]         | +00173             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 30

ZUGSPITZE PEAK 3000 M

PARAMETER= AIR MASS TYPE: POLAR-CONTINENTAL

| D1 = 0.23 MI             |                       | D2 = 0.45 MI              |                       | D3 = 0.93 MI              |                       | D4 = 2.00 MI              |                       | D5 = 4.50 MI              |                       |
|--------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|
| RES. NR. : 227           |                       | RES. NR. : 228            |                       | RES. NR. : 229            |                       | RES. NR. : 230            |                       | RES. NR. : 231            |                       |
| PARTICL CONC<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 X] | PARTICL CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 X] | PARTICL CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 X] |
| < 00050                  | 043                   | < 00015                   | 000                   | < 00015                   | 000                   | < 00015                   | 000                   | < 00025                   | 000                   |
| 00050 - 00100            | 086                   | 00015 - 00030             | 095                   | 00015 - 00030             | 045                   | 00015 - 00030             | 090                   | 00025 - 00050             | 000                   |
| 00100 - 00150            | 043                   | 00030 - 00045             | 047                   | 00030 - 00045             | 045                   | 00030 - 00045             | 000                   | 00050 - 00076             | 086                   |
| 00150 - 00200            | 000                   | 00045 - 00060             | 095                   | 00045 - 00060             | 090                   | 00045 - 00060             | 045                   | 00076 - 00100             | 043                   |
| 00200 - 00250            | 000                   | 00060 - 00075             | 047                   | 00060 - 00075             | 000                   | 00060 - 00075             | 045                   | 00100 - 00125             | 000                   |
| 00250 - 00300            | 000                   | 00075 - 00090             | 047                   | 00075 - 00090             | 090                   | 00075 - 00090             | 136                   | 00125 - 00150             | 000                   |
| 00300 - 00350            | 000                   | 00090 - 00105             | 000                   | 00090 - 00105             | 045                   | 00090 - 00105             | 181                   | 00150 - 00175             | 000                   |
| 00350 - 00400            | 043                   | 00105 - 00120             | 000                   | 00105 - 00120             | 045                   | 00105 - 00120             | 090                   | 00175 - 00200             | 043                   |
| 00400 - 00500            | 043                   | 00120 - 00150             | 047                   | 00120 - 00150             | 136                   | 00120 - 00150             | 045                   | 00200 - 00225             | 000                   |
| 00500 - 00600            | 086                   | 00150 - 00200             | 095                   | 00150 - 00200             | 000                   | 00150 - 00200             | 136                   | 00225 - 00250             | 130                   |
| 00600 - 00800            | 086                   | 00200 - 00250             | 047                   | 00200 - 00250             | 136                   | 00200 - 00250             | 090                   | 00250 - 00275             | 086                   |
| 00800 - 01000            | 043                   | 00250 - 00300             | 000                   | 00250 - 00300             | 000                   | 00250 - 00300             | 000                   | 00275 - 00300             | 086                   |
| 01000 - 01250            | 043                   | 00300 - 00400             | 000                   | 00300 - 00400             | 090                   | 00300 - 00400             | 045                   | 00300 - 00325             | 000                   |
| 01250 - 01500            | 086                   | 00400 - 00600             | 142                   | 00400 - 00600             | 136                   | 00400 - 00600             | 000                   | 00325 - 00350             | 000                   |
| 01500 - 02000            | 173                   | 00600 - 00900             | 000                   | 00600 - 00900             | 045                   | 00600 - 00900             | 090                   | 00350 - 00400             | 173                   |
| 02000 - 03000            | 086                   | 00900 - 01500             | 190                   | 00900 - 01500             | 045                   | 00900 - 01500             | 000                   | 00400 - 00500             | 130                   |
| 03000 - 04000            | 086                   | 01500 - 02500             | 000                   | 01500 - 02500             | 045                   | 01500 - 02500             | 000                   | 00500 - 00750             | 130                   |
| 04000 - 06000            | 043                   | 02500 - 05000             | 095                   | 02500 - 05000             | 000                   | 02500 - 05000             | 000                   | 00750 - 01000             | 086                   |
| 06000 - 12000            | 000                   | 05000 - 10000             | 047                   | 05000 - 10000             | 000                   | 05000 - 10000             | 000                   | 01000 - 02000             | 000                   |
| > 12000                  | 000                   | > 10000                   | 000                   | > 10000                   | 000                   | > 10000                   | 000                   | > 02000                   | 000                   |
| NO OF MEASUR.            | +00023                | NO OF MEASUR.             | +00021                | NO OF MEASUR.             | +00022                | NO OF MEASUR.             | +00022                | NO OF MEASUR.             | +00023                |
| MEAN [X10E-2]            | +01332                | MEAN [X10E-2]             | +01055                | MEAN [X10E-3]             | +00346                | MEAN [X10E-4]             | +00187                | MEAN [X10E-5]             | +00374                |
| SIGMA [X10E-2]           | +01174                | SIGMA [X10E-2]            | +01666                | SIGMA [X10E-3]            | +00443                | SIGMA [X10E-4]            | +00222                | SIGMA [X10E-5]            | +00222                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 31

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: MARITIME

| D1 = 0.23 MI            |                    | D2 = 0.45 MI            |                    | D3 = 0.93 MI            |                    | D4 = 2.00 MI            |                    | D5 = 4.50 MI            |                    |
|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|
| RES. NR. : 242          |                    | RES. NR. : 243          |                    | RES. NR. : 244          |                    | RES. NR. : 245          |                    | RES. NR. : 246          |                    |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 X] |
| < 00050                 | 046                | < 00015                 | 020                | < 00015                 | 039                | < 00015                 | 074                | < 00025                 | 012                |
| 00050 - 00100           | 048                | 00015 - 00030           | 043                | 00015 - 00030           | 081                | 00015 - 00030           | 128                | 00025 - 00050           | 014                |
| 00100 - 00150           | 049                | 00030 - 00045           | 060                | 00030 - 00045           | 062                | 00030 - 00045           | 101                | 00050 - 00076           | 044                |
| 00150 - 00200           | 055                | 00045 - 00060           | 041                | 00045 - 00060           | 075                | 00045 - 00060           | 103                | 00076 - 00100           | 049                |
| 00200 - 00250           | 040                | 00060 - 00075           | 047                | 00060 - 00075           | 058                | 00060 - 00075           | 068                | 00100 - 00125           | 055                |
| 00250 - 00300           | 036                | 00075 - 00090           | 033                | 00075 - 00090           | 047                | 00075 - 00090           | 066                | 00125 - 00150           | 044                |
| 00300 - 00350           | 040                | 00090 - 00105           | 041                | 00090 - 00105           | 060                | 00090 - 00105           | 058                | 00150 - 00175           | 044                |
| 00350 - 00400           | 036                | 00105 - 00120           | 022                | 00105 - 00120           | 041                | 00105 - 00120           | 035                | 00175 - 00200           | 066                |
| 00400 - 00500           | 049                | 00120 - 00150           | 047                | 00120 - 00150           | 058                | 00120 - 00150           | 062                | 00200 - 00225           | 059                |
| 00500 - 00600           | 052                | 00150 - 00200           | 062                | 00150 - 00200           | 068                | 00150 - 00200           | 076                | 00225 - 00250           | 068                |
| 00600 - 00800           | 108                | 00200 - 00250           | 045                | 00200 - 00250           | 039                | 00200 - 00250           | 054                | 00250 - 00275           | 034                |
| 00800 - 01000           | 057                | 00250 - 00300           | 035                | 00250 - 00300           | 029                | 00250 - 00300           | 037                | 00275 - 00300           | 038                |
| 01000 - 01250           | 061                | 00300 - 00400           | 060                | 00300 - 00400           | 085                | 00300 - 00400           | 037                | 00300 - 00325           | 059                |
| 01250 - 01500           | 031                | 00400 - 00600           | 060                | 00400 - 00600           | 079                | 00400 - 00600           | 037                | 00325 - 00350           | 055                |
| 01500 - 02000           | 093                | 00600 - 00900           | 076                | 00600 - 00900           | 075                | 00600 - 00900           | 022                | 00350 - 00400           | 064                |
| 02000 - 03000           | 072                | 00900 - 01500           | 101                | 00900 - 01500           | 058                | 00900 - 01500           | 020                | 00400 - 00500           | 096                |
| 03000 - 04000           | 025                | 01500 - 02500           | 103                | 01500 - 02500           | 025                | 01500 - 02500           | 012                | 00500 - 00750           | 113                |
| 04000 - 06000           | 033                | 02500 - 05000           | 083                | 02500 - 05000           | 014                | 02500 - 05000           | 000                | 00750 - 01000           | 049                |
| 06000 - 12000           | 021                | 05000 - 10000           | 010                | 05000 - 10000           | 000                | 05000 - 10000           | 000                | 01000 - 02000           | 027                |
| > 12000                 | 000                | > 10000                 | 000                | > 10000                 | 000                | > 10000                 | 000                | > 02000                 | 000                |
| NO OF MEASUR.           | +00472             | NO OF MEASUR.           | +00481             | NO OF MEASUR.           | +00480             | NO OF MEASUR.           | +00481             | NO OF MEASUR.           | +00468             |
| MEAN [X10E-2]           | +01094             | MEAN [X10E-2]           | +00829             | MEAN [X10E-3]           | +00341             | MEAN [X10E-4]           | +00174             | MEAN [X10E-5]           | +00334             |
| SIGMA [X10E-2]          | +01343             | SIGMA [X10E-2]          | +01143             | SIGMA [X10E-3]          | +00492             | SIGMA [X10E-4]          | +00301             | SIGMA [X10E-5]          | +00242             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 32

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: CONTINENTAL

| D1 = 0.23 MI              |                       |  | D2 = 0.45 MI              |                       |  | D3 = 0.93 MI              |                       |  | D4 = 2.00 MI              |                       |  | D5 = 4.50 MI              |                       |  |
|---------------------------|-----------------------|--|---------------------------|-----------------------|--|---------------------------|-----------------------|--|---------------------------|-----------------------|--|---------------------------|-----------------------|--|
| RES. NR. : 257            |                       |  | RES. NR. : 258            |                       |  | RES. NR. : 259            |                       |  | RES. NR. : 260            |                       |  | RES. NR. : 261            |                       |  |
| PARTIC. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTIC. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTIC. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  | PARTIC. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  | PARTIC. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |
| < 00050                   | 022                   |  | < 00015                   | 039                   |  | < 00015                   | 037                   |  | < 00015                   | 082                   |  | < 00025                   | 016                   |  |
| 00050 - 00100             | 060                   |  | 00015 - 00030             | 031                   |  | 00015 - 00030             | 082                   |  | 00015 - 00030             | 112                   |  | 00025 - 00050             | 008                   |  |
| 00100 - 00150             | 067                   |  | 00030 - 00045             | 047                   |  | 00030 - 00045             | 067                   |  | 00030 - 00045             | 045                   |  | 00050 - 00076             | 081                   |  |
| 00150 - 00200             | 067                   |  | 00045 - 00060             | 047                   |  | 00045 - 00060             | 045                   |  | 00045 - 00060             | 075                   |  | 00076 - 00100             | 032                   |  |
| 00200 - 00250             | 030                   |  | 00060 - 00075             | 070                   |  | 00060 - 00075             | 022                   |  | 00060 - 00075             | 037                   |  | 00100 - 00125             | 049                   |  |
| 00250 - 00300             | 037                   |  | 00075 - 00090             | 047                   |  | 00075 - 00090             | 030                   |  | 00075 - 00090             | 022                   |  | 00125 - 00150             | 032                   |  |
| 00300 - 00350             | 030                   |  | 00090 - 00105             | 015                   |  | 00090 - 00105             | 045                   |  | 00090 - 00105             | 022                   |  | 00150 - 00175             | 032                   |  |
| 00350 - 00400             | 022                   |  | 00105 - 00120             | 031                   |  | 00105 - 00120             | 067                   |  | 00105 - 00120             | 022                   |  | 00175 - 00200             | 016                   |  |
| 00400 - 00500             | 037                   |  | 00120 - 00150             | 070                   |  | 00120 - 00150             | 045                   |  | 00120 - 00150             | 067                   |  | 00200 - 00225             | 065                   |  |
| 00500 - 00600             | 030                   |  | 00150 - 00200             | 039                   |  | 00150 - 00200             | 037                   |  | 00150 - 00200             | 075                   |  | 00225 - 00250             | 016                   |  |
| 00600 - 00800             | 020                   |  | 00200 - 00250             | 007                   |  | 00200 - 00250             | 037                   |  | 00200 - 00250             | 030                   |  | 00250 - 00275             | 032                   |  |
| 00800 - 01000             | 067                   |  | 00250 - 00300             | 039                   |  | 00250 - 00300             | 030                   |  | 00250 - 00300             | 052                   |  | 00275 - 00300             | 040                   |  |
| 01000 - 01250             | 075                   |  | 00300 - 00400             | 031                   |  | 00300 - 00400             | 045                   |  | 00300 - 00400             | 082                   |  | 00300 - 00325             | 016                   |  |
| 01250 - 01500             | 022                   |  | 00400 - 00600             | 039                   |  | 00400 - 00600             | 075                   |  | 00400 - 00600             | 097                   |  | 00325 - 00350             | 040                   |  |
| 01500 - 02000             | 060                   |  | 00600 - 00900             | 055                   |  | 00600 - 00900             | 067                   |  | 00600 - 00900             | 075                   |  | 00350 - 00400             | 040                   |  |
| 02000 - 03000             | 090                   |  | 00900 - 01500             | 094                   |  | 00900 - 01500             | 165                   |  | 00900 - 01500             | 082                   |  | 00400 - 00500             | 073                   |  |
| 03000 - 04000             | 052                   |  | 01500 - 02500             | 086                   |  | 01500 - 02500             | 060                   |  | 01500 - 02500             | 015                   |  | 00500 - 00750             | 180                   |  |
| 04000 - 06000             | 120                   |  | 02500 - 05000             | 157                   |  | 02500 - 05000             | 037                   |  | 02500 - 05000             | 000                   |  | 00750 - 01000             | 090                   |  |
| 06000 - 12000             | 015                   |  | 05000 - 10000             | 047                   |  | 05000 - 10000             | 000                   |  | 05000 - 10000             | 000                   |  | 01000 - 02000             | 131                   |  |
| > 12000                   | 000                   |  | > 10000                   | 000                   |  | > 10000                   | 000                   |  | > 10000                   | 000                   |  | > 02000                   | 000                   |  |
| NO OF MEASUR              | +00133                |  | NO OF MEASUR              | +00127                |  | NO OF MEASUR              | +00133                |  | NO OF MEASUR              | +00133                |  | NO OF MEASUR              | +00122                |  |
| MEAN [X10E-2]             | +01534                |  | MEAN [X10E-2]             | +01214                |  | MEAN [X10E-3]             | +00574                |  | MEAN [X10E-4]             | +00311                |  | MEAN [X10E-5]             | +00472                |  |
| SIGMA [X10E-2]            | +01720                |  | SIGMA [X10E-2]            | +01578                |  | SIGMA [X10E-3]            | +00719                |  | SIGMA [X10E-4]            | +00380                |  | SIGMA [X10E-5]            | +00361                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 33

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= AIR MASS TYPE: TROPICAL-MARITIME

| D1 = 0.23 MI               |                       | D2 = 0.43 MI               |                       | D3 = 0.93 MI               |                       | D4 = 2.00 MI               |                       | D5 = 4.50 MI               |                       |
|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|
| RES. NR. : 272             |                       | RES. NR. : 273             |                       | RES. NR. : 274             |                       | RES. NR. : 275             |                       | RES. NR. : 276             |                       |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 X] | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 X] | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 X] |
| < 00050                    | 047                   | < 00015                    | 000                   | < 00015                    | 009                   | < 00015                    | 067                   | < 00025                    | 000                   |
| 00050 - 00100              | 028                   | 00015 - 00030              | 057                   | 00015 - 00030              | 059                   | 00015 - 00030              | 057                   | 00025 - 00050              | 011                   |
| 00100 - 00150              | 028                   | 00030 - 00045              | 038                   | 00030 - 00045              | 039                   | 00030 - 00045              | 067                   | 00050 - 00076              | 044                   |
| 00150 - 00200              | 028                   | 00045 - 00060              | 009                   | 00045 - 00060              | 019                   | 00045 - 00060              | 048                   | 00076 - 00100              | 055                   |
| 00200 - 00250              | 047                   | 00060 - 00075              | 038                   | 00060 - 00075              | 069                   | 00060 - 00075              | 019                   | 00100 - 00125              | 044                   |
| 00250 - 00300              | 057                   | 00075 - 00090              | 038                   | 00075 - 00090              | 019                   | 00075 - 00090              | 038                   | 00125 - 00150              | 055                   |
| 00300 - 00350              | 009                   | 00090 - 00105              | 009                   | 00090 - 00105              | 009                   | 00090 - 00105              | 067                   | 00150 - 00175              | 044                   |
| 00350 - 00400              | 028                   | 00105 - 00120              | 000                   | 00105 - 00120              | 019                   | 00105 - 00120              | 057                   | 00175 - 00200              | 033                   |
| 00400 - 00500              | 057                   | 00120 - 00150              | 028                   | 00120 - 00150              | 059                   | 00120 - 00150              | 019                   | 00200 - 00225              | 011                   |
| 00500 - 00600              | 028                   | 00150 - 00200              | 066                   | 00150 - 00200              | 059                   | 00150 - 00200              | 067                   | 00225 - 00250              | 022                   |
| 00600 - 00800              | 133                   | 00200 - 00250              | 028                   | 00200 - 00250              | 049                   | 00200 - 00250              | 096                   | 00250 - 00275              | 044                   |
| 00800 - 01000              | 076                   | 00250 - 00300              | 028                   | 00250 - 00300              | 029                   | 00250 - 00300              | 057                   | 00275 - 00300              | 066                   |
| 01000 - 01250              | 057                   | 00300 - 00400              | 057                   | 00300 - 00400              | 059                   | 00300 - 00400              | 038                   | 00300 - 00325              | 000                   |
| 01250 - 01500              | 038                   | 00400 - 00600              | 047                   | 00400 - 00600              | 079                   | 00400 - 00600              | 076                   | 00325 - 00350              | 011                   |
| 01500 - 02000              | 057                   | 00600 - 00900              | 133                   | 00600 - 00900              | 089                   | 00600 - 00900              | 086                   | 00350 - 00400              | 055                   |
| 02000 - 03000              | 028                   | 00900 - 01500              | 114                   | 00900 - 01500              | 128                   | 00900 - 01500              | 086                   | 00400 - 00500              | 133                   |
| 03000 - 04000              | 104                   | 01500 - 02500              | 180                   | 01500 - 02500              | 148                   | 01500 - 02500              | 048                   | 00500 - 00750              | 188                   |
| 04000 - 06000              | 104                   | 02500 - 05000              | 114                   | 02500 - 05000              | 049                   | 02500 - 05000              | 000                   | 00750 - 01000              | 077                   |
| 06000 - 12000              | 038                   | 05000 - 10000              | 009                   | 05000 - 10000              | 000                   | 05000 - 10000              | 000                   | 01000 - 02000              | 100                   |
| > 12000                    | 000                   | > 10000                    | 000                   | > 10000                    | 000                   | > 10000                    | 000                   | > 02000                    | 000                   |
| NO OF MEASUR.              | +00105                | NO OF MEASUR.              | +00105                | NO OF MEASUR.              | +00101                | NO OF MEASUR.              | +00104                | NO OF MEASUR.              | +00090                |
| MEAN [X10E-2]              | +01691                | MEAN [X10E-2]              | +01130                | MEAN [X10E-3]              | +00743                | MEAN [X10E-4]              | +00378                | MEAN [X10E-5]              | +00458                |
| SIGMA [X10E-2]             | +01867                | SIGMA [X10E-2]             | +01215                | SIGMA [X10E-3]             | +00793                | SIGMA [X10E-4]             | +00462                | SIGMA [X10E-5]             | +00340                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 34

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= AIR TEMPERATURE AT ZUGSPITZE <-15 DEGREE CELSIUS (VERY COLD AIR MASSES)

| D1 = 0.23 MI              |                       |  | D2 = 0.45 MI              |                       |  | D3 = 0.93 MI              |                       |  | D4 = 2.00 MI              |                       |  | D5 = 4.50 MI              |                       |  |
|---------------------------|-----------------------|--|---------------------------|-----------------------|--|---------------------------|-----------------------|--|---------------------------|-----------------------|--|---------------------------|-----------------------|--|
| RES. NR. : 122            |                       |  | RES. NR. : 123            |                       |  | RES. NR. : 124            |                       |  | RES. NR. : 125            |                       |  | RES. NR. : 126            |                       |  |
| PARTIC. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTIC. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTIC. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  | PARTIC. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  | PARTIC. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |
| < 00500                   | 075                   |  | < 00500                   | 179                   |  | < 00150                   | 067                   |  | < 00050                   | 033                   |  | < 00200                   | 000                   |  |
| 00500 - 01000             | 109                   |  | 00500 - 01000             | 102                   |  | 00150 - 00300             | 203                   |  | 00050 - 00100             | 084                   |  | 00200 - 00400             | 052                   |  |
| 01000 - 01500             | 126                   |  | 01000 - 01500             | 076                   |  | 00300 - 00450             | 152                   |  | 00100 - 00150             | 092                   |  | 00400 - 00600             | 086                   |  |
| 01500 - 02000             | 042                   |  | 01500 - 02000             | 042                   |  | 00450 - 00600             | 101                   |  | 00150 - 00200             | 126                   |  | 00600 - 00800             | 060                   |  |
| 02000 - 02500             | 050                   |  | 02000 - 02500             | 128                   |  | 00600 - 00750             | 067                   |  | 00200 - 00250             | 075                   |  | 00800 - 01000             | 121                   |  |
| 02500 - 03000             | 042                   |  | 02500 - 03000             | 051                   |  | 00750 - 00900             | 059                   |  | 00250 - 00300             | 067                   |  | 01000 - 01200             | 086                   |  |
| 03000 - 03500             | 067                   |  | 03000 - 03500             | 025                   |  | 00900 - 01050             | 042                   |  | 00300 - 00350             | 094                   |  | 01200 - 01400             | 060                   |  |
| 03500 - 04000             | 042                   |  | 03500 - 04000             | 042                   |  | 01050 - 01200             | 042                   |  | 00350 - 00400             | 042                   |  | 01400 - 01600             | 052                   |  |
| 04000 - 05000             | 042                   |  | 04000 - 04500             | 025                   |  | 01200 - 01350             | 067                   |  | 00400 - 00500             | 042                   |  | 01600 - 01800             | 069                   |  |
| 05000 - 06000             | 050                   |  | 04500 - 05000             | 034                   |  | 01350 - 01500             | 008                   |  | 00500 - 00600             | 050                   |  | 01800 - 02000             | 043                   |  |
| 06000 - 07000             | 033                   |  | 05000 - 06000             | 042                   |  | 01500 - 01650             | 025                   |  | 00600 - 00700             | 058                   |  | 02000 - 02250             | 034                   |  |
| 07000 - 08000             | 025                   |  | 06000 - 07000             | 008                   |  | 01650 - 01800             | 016                   |  | 00700 - 00800             | 058                   |  | 02250 - 02500             | 017                   |  |
| 08000 - 10000             | 075                   |  | 07000 - 08000             | 034                   |  | 01800 - 02000             | 025                   |  | 00800 - 00900             | 025                   |  | 02500 - 03000             | 113                   |  |
| 10000 - 15000             | 092                   |  | 08000 - 10000             | 068                   |  | 02000 - 02500             | 016                   |  | 00900 - 01000             | 008                   |  | 03000 - 03500             | 052                   |  |
| 15000 - 25000             | 075                   |  | 10000 - 15000             | 051                   |  | 02500 - 03000             | 033                   |  | 01000 - 01250             | 025                   |  | 03500 - 04000             | 026                   |  |
| 25000 - 40000             | 033                   |  | 15000 - 20000             | 034                   |  | 03000 - 04000             | 016                   |  | 01250 - 01500             | 008                   |  | 04000 - 05000             | 034                   |  |
| 40000 - 60000             | 008                   |  | 20000 - 30000             | 042                   |  | 04000 - 06000             | 016                   |  | 01500 - 02000             | 016                   |  | 05000 - 07000             | 034                   |  |
| 60000 - 80000             | 008                   |  | 30000 - 40000             | 008                   |  | 06000 - 10000             | 033                   |  | 02000 - 03000             | 058                   |  | 07000 - 09000             | 052                   |  |
| 80000 - 100000            | 000                   |  | 40000 - 50000             | 000                   |  | 10000 - 20000             | 000                   |  | 03000 - 06000             | 042                   |  | 09000 - 12000             | 000                   |  |
| > 100000                  | 000                   |  | > 50000                   | 000                   |  | > 20000                   | 000                   |  | > 06000                   | 000                   |  | > 12000                   | 000                   |  |
| NO OF MEASUR.             | +00119                |  | NO OF MEASUR.             | +00117                |  | NO OF MEASUR.             | +00118                |  | NO OF MEASUR.             | +00119                |  | NO OF MEASUR.             | +00115                |  |
| MEAN [X10E-2]             | +07054                |  | MEAN [X10E-2]             | +05026                |  | MEAN [X10E-3]             | +01082                |  | MEAN [X10E-4]             | +00633                |  | MEAN [X10E-5]             | +02120                |  |
| SIGMA [X10E-2]            | +09795                |  | SIGMA [X10E-2]            | +06536                |  | SIGMA [X10E-3]            | +01488                |  | SIGMA [X10E-4]            | +00823                |  | SIGMA [X10E-5]            | +01844                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 35

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= AIR TEMPERATURE AT ZUGSPITZE >+5 DEGREE CELSIUS (VERY WARM AIR MASSES)

| D1 = 0.23 MI               |                       | D2 = 0.45 MI               |                       | D3 = 0.93 MI               |                       | D4 = 2.00 MI               |                       | D5 = 4.50 MI               |                       |
|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|
| RES. NR. : 137             |                       | RES. NR. : 138             |                       | RES. NR. : 139             |                       | RES. NR. : 140             |                       | RES. NR. : 141             |                       |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |
| < 00500                    |                       | < 00500                    |                       | < 00150                    |                       | < 00050                    |                       | < 00200                    |                       |
| 00500 - 01000              | 060                   | 00500 - 01000              | 008                   | 00150 - 00300              | 018                   | 00050 - 00100              | 081                   | 00200 - 00400              | 000                   |
| 01000 - 01500              | 026                   | 01000 - 01500              | 061                   | 00300 - 00450              | 009                   | 00100 - 00150              | 018                   | 00400 - 00600              | 053                   |
| 01500 - 02000              | 060                   | 01500 - 02000              | 044                   | 00450 - 00600              | 072                   | 00150 - 00200              | 018                   | 00600 - 00800              | 070                   |
| 02000 - 02500              | 086                   | 02000 - 02500              | 097                   | 00600 - 00750              | 081                   | 00200 - 00250              | 009                   | 00800 - 01000              | 079                   |
| 02500 - 03000              | 104                   | 02500 - 03000              | 088                   | 00750 - 00900              | 072                   | 00250 - 00300              | 018                   | 01000 - 01200              | 026                   |
| 03000 - 03500              | 086                   | 03000 - 03500              | 097                   | 00900 - 01050              | 063                   | 00300 - 00350              | 009                   | 01200 - 01400              | 070                   |
| 03500 - 04000              | 078                   | 03500 - 04000              | 088                   | 01050 - 01200              | 036                   | 00350 - 00400              | 009                   | 01400 - 01600              | 123                   |
| 04000 - 05000              | 060                   | 04000 - 04500              | 044                   | 01200 - 01350              | 109                   | 00400 - 00500              | 036                   | 01600 - 01800              | 035                   |
| 05000 - 06000              | 060                   | 04500 - 05000              | 061                   | 01350 - 01500              | 054                   | 00500 - 00600              | 036                   | 01800 - 02000              | 079                   |
| 06000 - 07000              | 043                   | 05000 - 06000              | 053                   | 01500 - 01650              | 054                   | 00600 - 00700              | 045                   | 02000 - 02250              | 035                   |
| 07000 - 08000              | 052                   | 06000 - 07000              | 044                   | 01650 - 01800              | 036                   | 00700 - 00800              | 109                   | 02250 - 02500              | 079                   |
| 08000 - 10000              | 026                   | 07000 - 08000              | 044                   | 01800 - 02000              | 072                   | 00800 - 00900              | 090                   | 02500 - 03000              | 079                   |
| 10000 - 15000              | 086                   | 08000 - 10000              | 044                   | 02000 - 02500              | 036                   | 00900 - 01000              | 054                   | 03000 - 03500              | 088                   |
| 15000 - 25000              | 078                   | 10000 - 15000              | 053                   | 02500 - 03000              | 090                   | 01000 - 01250              | 054                   | 03500 - 04000              | 017                   |
| 25000 - 40000              | 060                   | 15000 - 20000              | 106                   | 03000 - 04000              | 100                   | 01250 - 01500              | 100                   | 04000 - 05000              | 044                   |
| 40000 - 60000              | 017                   | 20000 - 30000              | 026                   | 04000 - 06000              | 027                   | 01500 - 02000              | 109                   | 05000 - 07000              | 026                   |
| 60000 - 80000              | 008                   | 30000 - 40000              | 026                   | 06000 - 10000              | 045                   | 02000 - 03000              | 100                   | 07000 - 09000              | 070                   |
| 80000 - 100000             | 000                   | 40000 - 50000              | 008                   | 10000 - 20000              | 018                   | 03000 - 06000              | 063                   | 09000 - 12000              | 017                   |
| >100000                    | 000                   | > 50000                    | 000                   | > 20000                    | 000                   | > 06000                    | 036                   | > 12000                    | 000                   |
| NO OF MEASUR.              | +00115                | NO OF MEASUR.              | +00113                | NO OF MEASUR.              | +00110                | NO OF MEASUR.              | +00110                | NO OF MEASUR.              | +00113                |
| MEAN [X10E-2]              | +06024                | MEAN [X10E-2]              | +05790                | MEAN [X10E-3]              | +01646                | MEAN [X10E-4]              | +01010                | MEAN [X10E-5]              | +02131                |
| SIGMA [X10E-2]             | +06802                | SIGMA [X10E-2]             | +05795                | SIGMA [X10E-3]             | +01322                | SIGMA [X10E-4]             | +00762                | SIGMA [X10E-5]             | +01646                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 36

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= AIR TEMPERATURE AT ZUGSPITZE <-15 DEGREE CELSIUS (VERY COLD AIR MASSES)

| D1 = 0.23 MI             |                       | D2 = 0.45 MI              |                       | D3 = 0.93 MI              |                       | D4 = 2.00 MI              |                       | D5 = 4.50 MI              |                       |
|--------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|
| RES. NR :                | 127                   | RES. NR. :                | 128                   | RES. NR. :                | 129                   | RES. NR. :                | 130                   | RES. NR. :                | 131                   |
| PARTICL CONC<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] | PARTICL CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] | PARTICL CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |
| < 00200                  | 057                   | < 00100                   | 151                   | < 00025                   | 049                   | < 00025                   | 133                   | < 00025                   | 000                   |
| 00200 - 00400            | 134                   | 00100 - 00200             | 121                   | 00025 - 00050             | 088                   | 00025 - 00050             | 152                   | 00025 - 00050             | 029                   |
| 00400 - 00600            | 134                   | 00200 - 00300             | 111                   | 00050 - 00076             | 058                   | 00050 - 00076             | 114                   | 00050 - 00076             | 009                   |
| 00600 - 00800            | 057                   | 00300 - 00400             | 040                   | 00076 - 00100             | 039                   | 00076 - 00100             | 046                   | 00076 - 00100             | 049                   |
| 00800 - 01000            | 028                   | 00400 - 00500             | 040                   | 00100 - 00150             | 137                   | 00100 - 00125             | 095                   | 00100 - 00125             | 058                   |
| 01000 - 01200            | 096                   | 00500 - 00600             | 040                   | 00150 - 00200             | 098                   | 00125 - 00150             | 085                   | 00125 - 00150             | 029                   |
| 01200 - 01400            | 067                   | 00600 - 00750             | 040                   | 00200 - 00250             | 107                   | 00150 - 00175             | 019                   | 00150 - 00175             | 049                   |
| 01400 - 01600            | 028                   | 00750 - 01000             | 090                   | 00250 - 00300             | 039                   | 00175 - 00200             | 038                   | 00175 - 00200             | 068                   |
| 01600 - 01800            | 019                   | 01000 - 01500             | 060                   | 00300 - 00350             | 058                   | 00200 - 00250             | 085                   | 00200 - 00250             | 058                   |
| 01800 - 02000            | 028                   | 01500 - 02000             | 050                   | 00350 - 00400             | 068                   | 00250 - 00300             | 009                   | 00250 - 00300             | 127                   |
| 02000 - 02500            | 038                   | 02000 - 02500             | 050                   | 00400 - 00450             | 019                   | 00300 - 00350             | 028                   | 00300 - 00350             | 107                   |
| 02500 - 03000            | 076                   | 02500 - 03000             | 050                   | 00450 - 00500             | 009                   | 00350 - 00400             | 038                   | 00350 - 00400             | 039                   |
| 03000 - 03500            | 067                   | 03000 - 04000             | 050                   | 00500 - 00600             | 049                   | 00400 - 00450             | 019                   | 00400 - 00450             | 058                   |
| 03500 - 04000            | 048                   | 04000 - 05000             | 020                   | 00600 - 00700             | 029                   | 00450 - 00500             | 009                   | 00450 - 00500             | 019                   |
| 04000 - 05000            | 038                   | 05000 - 07000             | 030                   | 00700 - 01000             | 029                   | 00500 - 00600             | 047                   | 00500 - 00600             | 049                   |
| 05000 - 06000            | 028                   | 07000 - 09000             | 020                   | 01000 - 01500             | 049                   | 00600 - 00700             | 019                   | 00600 - 00700             | 039                   |
| 06000 - 08000            | 009                   | 09000 - 12000             | 020                   | 01500 - 02000             | 039                   | 00700 - 01000             | 019                   | 00700 - 01000             | 166                   |
| 08000 - 10000            | 038                   | 12000 - 15000             | 010                   | 02000 - 03500             | 029                   | 01000 - 02000             | 019                   | 01000 - 02000             | 029                   |
| 10000 - 15000            | 000                   | 15000 - 20000             | 000                   | 03500 - 06000             | 000                   | 02000 - 04000             | 000                   | 02000 - 04000             | 009                   |
| > 15000                  | 000                   | > 20000                   | 000                   | > 06000                   | 000                   | > 04000                   | 000                   | > 04000                   | 000                   |
| NO OF MEASUR             | +00104                | NO OF MEASUR              | +00099                | NO OF MEASUR              | +00102                | NO OF MEASUR              | +00105                | NO OF MEASUR              | +00102                |
| MEAN [X10E-2]            | +01936                | MEAN [X10E-2]             | +01585                | MEAN [X10E-3]             | +00409                | MEAN [X10E-4]             | +00195                | MEAN [X10E-5]             | +00417                |
| SIGMA [X10E-2]           | +01997                | SIGMA [X10E-2]            | +02469                | SIGMA [X10E-3]            | +00534                | SIGMA [X10E-4]            | +00262                | SIGMA [X10E-5]            | +00347                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 37

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= AIR TEMPERATURE AT ZUGSPITZE >+5 DEGREE CELSIUS (VERY WARM AIR MASSES)

| D1 = 0.23 MI            |                    | D2 = 0.45 MI            |                    | D3 = 0.93 MI            |                    | D4 = 2.00 MI            |                    | D5 = 4.50 MI            |                    |
|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|
| RES. NR. : 142          |                    | RES. NR. : 143          |                    | RES. NR. : 144          |                    | RES. NR. : 145          |                    | RES. NR. : 146          |                    |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 %] |
| < 00200                 | 009                | < 00100                 | 009                | < 00025                 | 009                | < 00025                 | 029                | < 00025                 | 000                |
| 00200 - 00400           | 045                | 00100 - 00200           | 029                | 00025 - 00050           | 019                | 00025 - 00050           | 039                | 00025 - 00050           | 000                |
| 00400 - 00600           | 036                | 00200 - 00300           | 009                | 00050 - 00076           | 039                | 00050 - 00076           | 039                | 00050 - 00076           | 010                |
| 00600 - 00800           | 027                | 00300 - 00400           | 009                | 00076 - 00100           | 029                | 00076 - 00100           | 029                | 00076 - 00100           | 000                |
| 00800 - 01000           | 036                | 00400 - 00500           | 000                | 00100 - 00150           | 068                | 00100 - 00125           | 029                | 00100 - 00125           | 000                |
| 01000 - 01200           | 082                | 00500 - 00600           | 019                | 00150 - 00200           | 029                | 00125 - 00150           | 039                | 00125 - 00150           | 010                |
| 01200 - 01400           | 045                | 00600 - 00750           | 000                | 00200 - 00250           | 009                | 00150 - 00175           | 009                | 00150 - 00175           | 040                |
| 01400 - 01600           | 045                | 00750 - 01000           | 079                | 00250 - 00300           | 000                | 00175 - 00200           | 039                | 00175 - 00200           | 020                |
| 01600 - 01800           | 036                | 01000 - 01500           | 089                | 00300 - 00350           | 019                | 00200 - 00250           | 049                | 00200 - 00250           | 030                |
| 01800 - 02000           | 064                | 01500 - 02000           | 059                | 00350 - 00400           | 009                | 00250 - 00300           | 029                | 00250 - 00300           | 010                |
| 02000 - 02500           | 110                | 02000 - 02500           | 079                | 00400 - 00450           | 009                | 00300 - 00350           | 049                | 00300 - 00350           | 080                |
| 02500 - 03000           | 128                | 02500 - 03000           | 059                | 00450 - 00500           | 039                | 00350 - 00400           | 049                | 00350 - 00400           | 040                |
| 03000 - 03500           | 045                | 03000 - 04000           | 079                | 00500 - 00600           | 088                | 00400 - 00450           | 039                | 00400 - 00450           | 030                |
| 03500 - 04000           | 055                | 04000 - 05000           | 039                | 00600 - 00700           | 068                | 00450 - 00500           | 058                | 00450 - 00500           | 080                |
| 04000 - 05000           | 100                | 05000 - 07000           | 178                | 00700 - 01000           | 205                | 00500 - 00600           | 078                | 00500 - 00600           | 150                |
| 05000 - 06000           | 045                | 07000 - 09000           | 079                | 01000 - 01500           | 127                | 00600 - 00700           | 068                | 00600 - 00700           | 070                |
| 06000 - 08000           | 073                | 09000 - 12000           | 148                | 01500 - 02000           | 117                | 00700 - 01000           | 186                | 00700 - 01000           | 180                |
| 08000 - 10000           | 009                | 12000 - 15000           | 029                | 02000 - 03500           | 107                | 01000 - 02000           | 137                | 01000 - 02000           | 250                |
| 10000 - 15000           | 000                | 15000 - 20000           | 000                | 03500 - 06000           | 000                | 02000 - 04000           | 000                | 02000 - 04000           | 000                |
| > 15000                 | 000                | > 20000                 | 000                | > 06000                 | 000                | > 04000                 | 000                | > 04000                 | 000                |
| NO OF MEASUR            | +00109             | NO OF MEASUR            | +00101             | NO OF MEASUR            | +00102             | NO OF MEASUR            | +00102             | NO OF MEASUR            | +00100             |
| MEAN [X10E-2]           | +02716             | MEAN [X10E-2]           | +04731             | MEAN [X10E-3]           | +00934             | MEAN [X10E-4]           | +00544             | MEAN [X10E-5]           | +00722             |
| SIGMA [X10E-2]          | +01887             | SIGMA [X10E-2]          | +03628             | SIGMA [X10E-3]          | +00733             | SIGMA [X10E-4]          | +00415             | SIGMA [X10E-5]          | +00427             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 38

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= AIR TEMPERATURE AT ZUGSPITZE <-15 DEGREE CELSIUS (VERY COLD AIR MASSES)

| D1 = 0.23 MI               | D2 = 0.45 MI               | D3 = 0.93 MI               | D4 = 2.00 MI               | D5 = 4.50 MI               |
|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| RES. NR. : 132             | RES. NR. : 133             | RES. NR. : 134             | RES. NR. : 135             | RES. NR. : 136             |
| PARTICL. CONC.<br>[X10E-2] | PARTICL. CONC.<br>[X10E-2] | PARTICL. CONC.<br>[X10E-3] | PARTICL. CONC.<br>[X10E-4] | PARTICL. CONC.<br>[X10E-5] |
| FREQUENCY<br>[1/10 %]      | FREQUENCY<br>[1/10 %]      | FREQUENCY<br>[1/10 %]      | FREQUENCY<br>[1/10 %]      | FREQUENCY<br>[1/10 %]      |
| < 00050                    | < 00015                    | < 00015                    | < 00015                    | < 00025                    |
| 00050 - 00100              | 00015 - 00030              | 00015 - 00030              | 00015 - 00030              | 00025 - 00050              |
| 00100 - 00150              | 00030 - 00045              | 00030 - 00045              | 00030 - 00045              | 00050 - 00076              |
| 00150 - 00200              | 00045 - 00060              | 00045 - 00060              | 00045 - 00060              | 00076 - 00100              |
| 00200 - 00250              | 00060 - 00075              | 00060 - 00075              | 00060 - 00075              | 00100 - 00125              |
| 00250 - 00300              | 00075 - 00090              | 00075 - 00090              | 00075 - 00090              | 00125 - 00150              |
| 00300 - 00350              | 00090 - 00105              | 00090 - 00105              | 00090 - 00105              | 00150 - 00175              |
| 00350 - 00400              | 00105 - 00120              | 00105 - 00120              | 00105 - 00120              | 00175 - 00200              |
| 00400 - 00500              | 00120 - 00150              | 00120 - 00150              | 00120 - 00150              | 00200 - 00225              |
| 00500 - 00600              | 00150 - 00200              | 00150 - 00200              | 00150 - 00200              | 00225 - 00250              |
| 00600 - 00800              | 00200 - 00250              | 00200 - 00250              | 00200 - 00250              | 00250 - 00275              |
| 00800 - 01000              | 00250 - 00300              | 00250 - 00300              | 00250 - 00300              | 00275 - 00300              |
| 01000 - 01250              | 00300 - 00400              | 00300 - 00400              | 00300 - 00400              | 00300 - 00325              |
| 01250 - 01500              | 00400 - 00600              | 00400 - 00600              | 00400 - 00600              | 00325 - 00350              |
| 01500 - 02000              | 00600 - 00900              | 00600 - 00900              | 00600 - 00900              | 00350 - 00400              |
| 02000 - 03000              | 00900 - 01500              | 00900 - 01500              | 00900 - 01500              | 00400 - 00500              |
| 03000 - 04000              | 01500 - 02500              | 01500 - 02500              | 01500 - 02500              | 00500 - 00750              |
| 04000 - 06000              | 02500 - 05000              | 02500 - 05000              | 02500 - 05000              | 00750 - 01000              |
| 06000 - 12000              | 05000 - 10000              | 05000 - 10000              | 05000 - 10000              | 01000 - 02000              |
| > 12000                    | > 10000                    | > 10000                    | > 10000                    | > 02000                    |
| NO OF MEASUR.              | NO OF MEASUR.              | NO OF MEASUR.              | NO OF MEASUR.              | NO OF MEASUR.              |
| 000105                     | 000103                     | 000104                     | 000105                     | 000106                     |
| MEAN [X10E-2]              | MEAN [X10E-2]              | MEAN [X10E-3]              | MEAN [X10E-4]              | MEAN [X10E-5]              |
| 001182                     | 000381                     | 000184                     | 000159                     | 000317                     |
| SIGMA [X10E-2]             | SIGMA [X10E-2]             | SIGMA [X10E-3]             | SIGMA [X10E-4]             | SIGMA [X10E-5]             |
| 001529                     | 000569                     | 000284                     | 000320                     | 000242                     |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 39

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= AIR TEMPERATURE AT ZUGSPITZE >+5 DEGREE CELSIUS (VERY WARM AIR MASSES)

| D1 = 0.23 MI               |                       | D2 = 0.45 MI               |                       | D3 = 0.93 MI               |                       | D4 = 2.00 MI               |                       | D5 = 4.50 MI               |                       |
|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|
| RES. NR. : 147             |                       | RES. NR. : 148             |                       | RES. NR. : 149             |                       | RES. NR. : 150             |                       | RES. NR. : 151             |                       |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |
| < 00050                    | 000                   | 00015                      | 000                   | < 00015                    | 000                   | < 00015                    | 040                   | < 00025                    | 012                   |
| 00050 - 00100              | 010                   | 015 - 00030                | 000                   | 00015 - 00030              | 031                   | 00015 - 00030              | 020                   | 00025 - 00050              | 012                   |
| 00100 - 00150              | 010                   | 00030 - 00045              | 000                   | 00030 - 00045              | 031                   | 00030 - 00045              | 030                   | 00050 - 00076              | 037                   |
| 00150 - 00200              | 010                   | 00045 - 00060              | 000                   | 00045 - 00060              | 021                   | 00045 - 00060              | 020                   | 00076 - 00100              | 000                   |
| 00200 - 00250              | 020                   | 00060 - 00075              | 010                   | 00060 - 00075              | 021                   | 00060 - 00075              | 010                   | 00100 - 00125              | 000                   |
| 00250 - 00300              | 041                   | 00075 - 00090              | 000                   | 00075 - 00090              | 021                   | 00075 - 00090              | 020                   | 00125 - 00150              | 037                   |
| 00300 - 00350              | 000                   | 00090 - 00105              | 010                   | 00090 - 00105              | 010                   | 00090 - 00105              | 030                   | 00150 - 00175              | 012                   |
| 00350 - 00400              | 020                   | 00105 - 00120              | 000                   | 00105 - 00120              | 000                   | 00105 - 00120              | 010                   | 00175 - 00200              | 012                   |
| 00400 - 00500              | 062                   | 00120 - 00150              | 000                   | 00120 - 00150              | 010                   | 00120 - 00150              | 040                   | 00200 - 00225              | 012                   |
| 00500 - 00600              | 031                   | 00150 - 00200              | 000                   | 00150 - 00200              | 042                   | 00150 - 00200              | 102                   | 00225 - 00250              | 012                   |
| 00600 - 00800              | 104                   | 00200 - 00250              | 020                   | 00200 - 00250              | 000                   | 00200 - 00250              | 071                   | 00250 - 00275              | 000                   |
| 00800 - 01000              | 166                   | 00250 - 00300              | 020                   | 00250 - 00300              | 021                   | 00250 - 00300              | 081                   | 00275 - 00300              | 012                   |
| 01000 - 01250              | 072                   | 00300 - 00400              | 020                   | 00300 - 00400              | 052                   | 00300 - 00400              | 081                   | 00300 - 00325              | 037                   |
| 01250 - 01500              | 041                   | 00400 - 00600              | 072                   | 00400 - 00600              | 084                   | 00400 - 00600              | 122                   | 00325 - 00350              | 025                   |
| 01500 - 02000              | 083                   | 00600 - 00900              | 154                   | 00600 - 00900              | 157                   | 00600 - 00900              | 163                   | 00350 - 00400              | 025                   |
| 02000 - 03000              | 093                   | 00900 - 01500              | 206                   | 00900 - 01500              | 263                   | 00900 - 01500              | 132                   | 00400 - 00500              | 137                   |
| 03000 - 04000              | 052                   | 01500 - 02500              | 216                   | 01500 - 02500              | 189                   | 01500 - 02500              | 020                   | 00500 - 00750              | 237                   |
| 04000 - 06000              | 156                   | 02500 - 05000              | 185                   | 02500 - 05000              | 042                   | 02500 - 05000              | 000                   | 00750 - 01000              | 225                   |
| 06000 - 12000              | 020                   | 05000 - 10000              | 082                   | 05000 - 10000              | 000                   | 05000 - 10000              | 000                   | 01000 - 02000              | 150                   |
| > 12000                    | 000                   | > 10000                    | 000                   | > 10000                    | 000                   | > 10000                    | 000                   | > 02000                    | 000                   |
| NO OF MEASUR               | +00096                | NO OF MEASUR               | +00097                | NO OF MEASUR               | +00095                | NO OF MEASUR               | +00098                | NO OF MEASUR               | +00080                |
| MEAN [X10E-2]              | +01894                | MEAN [X10E-2]              | +01925                | MEAN [X10E-3]              | +01000                | MEAN [X10E-4]              | +00455                | MEAN [X10E-5]              | +00633                |
| SIGMA [X10E-2]             | +01731                | SIGMA [X10E-2]             | +01505                | SIGMA [X10E-3]             | +00769                | SIGMA [X10E-4]             | +00385                | SIGMA [X10E-5]             | +00346                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 40

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY <40%

| D1 = 0.23 MI             |                       |  | D2 = 0.45 MI             |                       |  | D3 = 0.93 MI             |                       |  | D4 = 2.00 MI             |                       |  | D5 = 4.50 MI             |                       |  |
|--------------------------|-----------------------|--|--------------------------|-----------------------|--|--------------------------|-----------------------|--|--------------------------|-----------------------|--|--------------------------|-----------------------|--|
| RES NR : 092             |                       |  | RES NR : 093             |                       |  | RES NR : 094             |                       |  | RES NR : 095             |                       |  | RES NR : 096             |                       |  |
| PARTICL CONC<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |
| < 00500                  | 068                   |  | < 00500                  | 026                   |  | < 00150                  | 068                   |  | < 00050                  | 027                   |  | < 00200                  | 000                   |  |
| 00500 - 01000            | 086                   |  | 00500 - 01000            | 061                   |  | 00150 - 00300            | 085                   |  | 00050 - 00100            | 036                   |  | 00200 - 00400            | 018                   |  |
| 01000 - 01500            | 060                   |  | 01000 - 01500            | 079                   |  | 00300 - 00450            | 076                   |  | 00100 - 00150            | 036                   |  | 00400 - 00600            | 000                   |  |
| 01500 - 02000            | 060                   |  | 01500 - 02000            | 070                   |  | 00450 - 00600            | 076                   |  | 00150 - 00200            | 027                   |  | 00600 - 00800            | 064                   |  |
| 02000 - 02500            | 034                   |  | 02000 - 02500            | 035                   |  | 00600 - 00750            | 042                   |  | 00200 - 00250            | 045                   |  | 00800 - 01000            | 027                   |  |
| 02500 - 03000            | 043                   |  | 02500 - 03000            | 026                   |  | 00750 - 00900            | 076                   |  | 00250 - 00300            | 027                   |  | 01000 - 01200            | 082                   |  |
| 03000 - 03500            | 034                   |  | 03000 - 03500            | 044                   |  | 00900 - 01050            | 085                   |  | 00300 - 00350            | 009                   |  | 01200 - 01400            | 100                   |  |
| 03500 - 04000            | 025                   |  | 03500 - 04000            | 026                   |  | 01050 - 01200            | 051                   |  | 00350 - 00400            | 036                   |  | 01400 - 01600            | 073                   |  |
| 04000 - 04500            | 040                   |  | 04000 - 04500            | 017                   |  | 01200 - 01350            | 051                   |  | 00400 - 00500            | 072                   |  | 01600 - 01800            | 082                   |  |
| 04500 - 05000            | 051                   |  | 04500 - 05000            | 053                   |  | 01350 - 01500            | 017                   |  | 00500 - 00600            | 072                   |  | 01800 - 02000            | 045                   |  |
| 05000 - 07000            | 051                   |  | 05000 - 06000            | 026                   |  | 01500 - 01650            | 025                   |  | 00600 - 00700            | 081                   |  | 02000 - 02250            | 036                   |  |
| 07000 - 08000            | 034                   |  | 06000 - 07000            | 070                   |  | 01650 - 01800            | 042                   |  | 00700 - 00800            | 036                   |  | 02250 - 02500            | 055                   |  |
| 08000 - 10000            | 051                   |  | 07000 - 08000            | 061                   |  | 01800 - 02000            | 051                   |  | 00800 - 00900            | 054                   |  | 02500 - 03000            | 064                   |  |
| 10000 - 15000            | 086                   |  | 08000 - 10000            | 115                   |  | 02000 - 02500            | 068                   |  | 00900 - 01000            | 018                   |  | 03000 - 03500            | 045                   |  |
| 15000 - 25000            | 112                   |  | 10000 - 15000            | 123                   |  | 02500 - 03000            | 051                   |  | 01000 - 01250            | 127                   |  | 03500 - 04000            | 073                   |  |
| 25000 - 40000            | 077                   |  | 15000 - 20000            | 070                   |  | 03000 - 04000            | 042                   |  | 01250 - 01500            | 090                   |  | 04000 - 05000            | 064                   |  |
| 40000 - 60000            | 060                   |  | 20000 - 30000            | 070                   |  | 04000 - 06000            | 076                   |  | 01500 - 02000            | 109                   |  | 05000 - 07000            | 146                   |  |
| 60000 - 80000            | 000                   |  | 30000 - 40000            | 017                   |  | 06000 - 10000            | 034                   |  | 02000 - 03000            | 072                   |  | 07000 - 09000            | 018                   |  |
| 80000 - 100000           | 000                   |  | 40000 - 50000            | 000                   |  | 10000 - 20000            | 000                   |  | 03000 - 06000            | 018                   |  | 09000 - 12000            | 000                   |  |
| > 100000                 | 000                   |  | > 50000                  | 000                   |  | > 20000                  | 000                   |  | > 06000                  | 000                   |  | > 12000                  | 000                   |  |
| NO OF MEASUR             | +00116                |  | NO OF MEASUR             | +00113                |  | NO OF MEASUR             | +00117                |  | NO OF MEASUR             | +00110                |  | NO OF MEASUR             | +00109                |  |
| MEAN [X10E-2]            | +11150                |  | MEAN [X10E-2]            | +07939                |  | MEAN [X10E-3]            | +01676                |  | MEAN [X10E-4]            | +00957                |  | MEAN [X10E-5]            | +02710                |  |
| SIGMA [X10E-2]           | +13777                |  | SIGMA [X10E-2]           | +07142                |  | SIGMA [X10E-3]           | +01688                |  | SIGMA [X10E-4]           | +00751                |  | SIGMA [X10E-5]           | +01790                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 41

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY 41-50%

| D1 = 0.23 MI              | D2 = 0.45 MI              | D3 = 0.93 MI              | D4 = 2.00 MI              | D5 = 4.50 MI              |
|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| RES. NR. : 402            | RES. NR. : 403            | RES. NR. : 404            | RES. NR. : 405            | RES. NR. : 406            |
| PARTIC. CONC.<br>[X10E-2] | PARTIC. CONC.<br>[X10E-2] | PARTIC. CONC.<br>[X10E-3] | PARTIC. CONC.<br>[X10E-4] | PARTIC. CONC.<br>[X10E-5] |
| FREQUENCY<br>[1/10 %]     | FREQUENCY<br>[1/10 %]     | FREQUENCY<br>[1/10 %]     | FREQUENCY<br>[1/10 %]     | FREQUENCY<br>[1/10 %]     |
| < 00500                   | < 00500                   | < 00150                   | < 00050                   | < 00200                   |
| 00500 - 01000             | 00500 - 01000             | 00150 - 00300             | 00050 - 00100             | 00200 - 00400             |
| 01000 - 01500             | 01000 - 01500             | 00300 - 00450             | 00100 - 00150             | 00400 - 00600             |
| 01500 - 02000             | 01500 - 02000             | 00450 - 00600             | 00150 - 00200             | 00600 - 00800             |
| 02000 - 02500             | 02000 - 02500             | 00600 - 00750             | 00200 - 00250             | 00800 - 01000             |
| 02500 - 03000             | 02500 - 03000             | 00750 - 00900             | 00250 - 00300             | 01000 - 01200             |
| 03000 - 03500             | 03000 - 03500             | 00900 - 01050             | 00300 - 00350             | 01200 - 01400             |
| 03500 - 04000             | 03500 - 04000             | 01050 - 01200             | 00350 - 00400             | 01400 - 01600             |
| 04000 - 05000             | 04000 - 04500             | 01200 - 01350             | 00400 - 00500             | 01600 - 01800             |
| 05000 - 06000             | 04500 - 05000             | 01350 - 01500             | 00500 - 00600             | 01800 - 02000             |
| 06000 - 07000             | 05000 - 06000             | 01500 - 01650             | 00600 - 00700             | 02000 - 02250             |
| 07000 - 08000             | 06000 - 07000             | 01650 - 01800             | 00700 - 00800             | 02250 - 02500             |
| 08000 - 10000             | 07000 - 08000             | 01800 - 02000             | 00800 - 00900             | 02500 - 03000             |
| 10000 - 15000             | 08000 - 10000             | 02000 - 02500             | 00900 - 01000             | 03000 - 03500             |
| 15000 - 25000             | 10000 - 15000             | 02500 - 03000             | 01000 - 01250             | 03500 - 04000             |
| 25000 - 40000             | 15000 - 20000             | 03000 - 04000             | 01250 - 01500             | 04000 - 05000             |
| 40000 - 60000             | 20000 - 30000             | 04000 - 06000             | 01500 - 02000             | 05000 - 07000             |
| 60000 - 80000             | 30000 - 40000             | 06000 - 10000             | 02000 - 03000             | 07000 - 09000             |
| 80000 - 100000            | 40000 - 50000             | 10000 - 20000             | 03000 - 06000             | 09000 - 12000             |
| >100000                   | > 50000                   | > 20000                   | > 06000                   | > 12000                   |
| NO OF MEASUR              | NO OF MEASUR.             | NO OF MEASUR.             | NO OF MEASUR.             | NO OF MEASUR.             |
| +00154                    | +00152                    | +00153                    | +00150                    | +00143                    |
| MEAN [X10E-2]             | MEAN [X10E-2]             | MEAN [X10E-3]             | MEAN [X10E-4]             | MEAN [X10E-5]             |
| +07926                    | +06277                    | +01500                    | +00960                    | +02541                    |
| SIGMA [X10E-2]            | SIGMA [X10E-2]            | SIGMA [X10E-3]            | SIGMA [X10E-4]            | SIGMA [X10E-5]            |
| +11536                    | +06834                    | +01494                    | +00860                    | +01963                    |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD : 1970-1980

GARMISCH (VALLEY 740 M)

TABLE: 42

PARAMETER= RELATIVE HUMIDITY 51-50%

| D1 = 0.23 MI           |                    |  | D2 = 0.45 MI           |                    |  | D3 = 0.93 MI           |                    |  | D4 = 2.00 MI           |                    |  | D5 = 4.50 MI           |                    |  |
|------------------------|--------------------|--|------------------------|--------------------|--|------------------------|--------------------|--|------------------------|--------------------|--|------------------------|--------------------|--|
| RES. NR. : 407         |                    |  | RES. NR. : 408         |                    |  | RES. NR. : 409         |                    |  | RES. NR. : 410         |                    |  | RES. NR. : 411         |                    |  |
| PARTIC. CONC. [X10E-2] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-2] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-3] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-4] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-5] | FREQUENCY [1/10 %] |  |
| < 00500                | 064                |  | < 00500                | 062                |  | < 00150                | 064                |  | < 00050                | 066                |  | < 00200                | 000                |  |
| 00500 - 01000          | 076                |  | 00500 - 01000          | 078                |  | 00150 - 00300          | 137                |  | 00050 - 00100          | 025                |  | 00200 - 00400          | 061                |  |
| 01000 - 01500          | 072                |  | 01000 - 01500          | 070                |  | 00300 - 00450          | 088                |  | 00100 - 00150          | 050                |  | 00400 - 00600          | 077                |  |
| 01500 - 02000          | 064                |  | 01500 - 02000          | 058                |  | 00450 - 00600          | 036                |  | 00150 - 00200          | 046                |  | 00600 - 00800          | 077                |  |
| 02000 - 02500          | 064                |  | 02000 - 02500          | 074                |  | 00600 - 00750          | 084                |  | 00200 - 00250          | 029                |  | 00800 - 01000          | 069                |  |
| 02500 - 03000          | 080                |  | 02500 - 03000          | 087                |  | 00750 - 00900          | 044                |  | 00250 - 00300          | 037                |  | 01000 - 01200          | 081                |  |
| 03000 - 03500          | 040                |  | 03000 - 03500          | 045                |  | 00900 - 01050          | 068                |  | 00300 - 00350          | 033                |  | 01200 - 01400          | 061                |  |
| 03500 - 04000          | 044                |  | 03500 - 04000          | 053                |  | 01050 - 01200          | 068                |  | 00350 - 00400          | 037                |  | 01400 - 01600          | 077                |  |
| 04000 - 04500          | 085                |  | 04000 - 04500          | 016                |  | 01200 - 01350          | 036                |  | 00400 - 00500          | 071                |  | 01600 - 01800          | 045                |  |
| 04500 - 05000          | 040                |  | 04500 - 05000          | 041                |  | 01350 - 01500          | 056                |  | 00500 - 00600          | 041                |  | 01800 - 02000          | 020                |  |
| 05000 - 06000          | 044                |  | 05000 - 06000          | 058                |  | 01500 - 01650          | 048                |  | 00600 - 00700          | 050                |  | 02000 - 02250          | 045                |  |
| 06000 - 07000          | 024                |  | 06000 - 07000          | 029                |  | 01650 - 01800          | 024                |  | 00700 - 00800          | 075                |  | 02250 - 02500          | 053                |  |
| 07000 - 08000          | 080                |  | 07000 - 08000          | 029                |  | 01800 - 02000          | 024                |  | 00800 - 00900          | 066                |  | 02500 - 03000          | 096                |  |
| 08000 - 10000          | 080                |  | 08000 - 10000          | 066                |  | 02000 - 02500          | 040                |  | 00900 - 01000          | 058                |  | 03000 - 03500          | 040                |  |
| 10000 - 15000          | 093                |  | 10000 - 15000          | 099                |  | 02500 - 03000          | 064                |  | 01000 - 01250          | 062                |  | 03500 - 04000          | 061                |  |
| 15000 - 25000          | 024                |  | 15000 - 25000          | 070                |  | 03000 - 04000          | 044                |  | 01250 - 01500          | 087                |  | 04000 - 05000          | 040                |  |
| 25000 - 40000          | 012                |  | 20000 - 30000          | 041                |  | 04000 - 06000          | 048                |  | 01500 - 02000          | 062                |  | 05000 - 07000          | 069                |  |
| 40000 - 60000          | 004                |  | 30000 - 40000          | 016                |  | 06000 - 10000          | 020                |  | 02000 - 03000          | 062                |  | 07000 - 09000          | 028                |  |
| 60000 - 100000         | 000                |  | 40000 - 50000          | 000                |  | 10000 - 20000          | 000                |  | 03000 - 06000          | 033                |  | 09000 - 12000          | 000                |  |
| >100000                | 000                |  | > 50000                | 000                |  | > 20000                | 000                |  | > 06000                | 000                |  | > 12000                | 000                |  |
| NO OF MEASUR.          | +00247             |  | NO OF MEASUR.          | +00241             |  | NO OF MEASUR.          | +00243             |  | NO OF MEASUR.          | +00239             |  | NO OF MEASUR.          | +00244             |  |
| MEAN [X10E-2]          | +07152             |  | MEAN [X10E-2]          | +06644             |  | MEAN [X10E-3]          | +01422             |  | MEAN [X10E-4]          | +00867             |  | MEAN [X10E-5]          | +02212             |  |
| SIGMA [X10E-2]         | +09164             |  | SIGMA [X10E-2]         | +07031             |  | SIGMA [X10E-3]         | +01472             |  | SIGMA [X10E-4]         | +00766             |  | SIGMA [X10E-5]         | +01814             |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 43

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY 61-70%

| D1 = 0.23 MI            |                    | D2 = 0.45 MI            |                    | D3 = 0.93 MI            |                    | D4 = 2.00 MI            |                    | D5 = 4.50 MI            |                    |
|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|
| RES. NR. : 412          |                    | RES. NR. : 413          |                    | RES. NR. : 414          |                    | RES. NR. : 415          |                    | RES. NR. : 416          |                    |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 %] |
| < 00500                 | 077                | < 00500                 | 050                | < 00150                 | 043                | < 00050                 | 051                | < 00200                 | 012                |
| 00500 - 01000           | 070                | 00500 - 01000           | 125                | 00150 - 00300           | 121                | 00050 - 00100           | 071                | 00200 - 00400           | 048                |
| 01000 - 01500           | 062                | 01000 - 01500           | 129                | 00300 - 00450           | 121                | 00100 - 00150           | 043                | 00400 - 00600           | 085                |
| 01500 - 02000           | 093                | 01500 - 02000           | 054                | 00450 - 00600           | 117                | 00150 - 00200           | 027                | 00600 - 00800           | 069                |
| 02000 - 02500           | 081                | 02000 - 02500           | 070                | 00600 - 00750           | 086                | 00200 - 00250           | 075                | 00800 - 01000           | 057                |
| 02500 - 03000           | 070                | 02500 - 03000           | 054                | 00750 - 00900           | 066                | 00250 - 00300           | 027                | 01000 - 01200           | 065                |
| 03000 - 03500           | 042                | 03000 - 03500           | 043                | 00900 - 01050           | 050                | 00300 - 00350           | 047                | 01200 - 01400           | 089                |
| 03500 - 04000           | 046                | 03500 - 04000           | 039                | 01050 - 01200           | 047                | 00350 - 00400           | 051                | 01400 - 01600           | 053                |
| 04000 - 05000           | 073                | 04000 - 04500           | 050                | 01200 - 01350           | 019                | 00400 - 00500           | 071                | 01600 - 01800           | 065                |
| 05000 - 06000           | 046                | 04500 - 05000           | 043                | 01350 - 01500           | 031                | 00500 - 00600           | 067                | 01800 - 02000           | 053                |
| 06000 - 07000           | 038                | 05000 - 06000           | 062                | 01500 - 01650           | 015                | 00600 - 00700           | 047                | 02000 - 02250           | 061                |
| 07000 - 08000           | 035                | 06000 - 07000           | 023                | 01650 - 01800           | 039                | 00700 - 00800           | 075                | 02250 - 02500           | 065                |
| 08000 - 10000           | 081                | 07000 - 08000           | 047                | 01800 - 02000           | 015                | 00800 - 00900           | 027                | 02500 - 03000           | 089                |
| 10000 - 15000           | 085                | 08000 - 10000           | 054                | 02000 - 02500           | 074                | 00900 - 01000           | 055                | 03000 - 03500           | 078                |
| 15000 - 25000           | 042                | 10000 - 15000           | 074                | 02500 - 03000           | 039                | 01000 - 01250           | 059                | 03500 - 04000           | 044                |
| 25000 - 40000           | 042                | 15000 - 20000           | 031                | 03000 - 04000           | 054                | 01250 - 01500           | 047                | 04000 - 05000           | 036                |
| 40000 - 60000           | 003                | 20000 - 30000           | 035                | 04000 - 06000           | 031                | 01500 - 02000           | 079                | 05000 - 07000           | 053                |
| 60000 - 80000           | 003                | 30000 - 40000           | 007                | 06000 - 10000           | 023                | 02000 - 03000           | 035                | 07000 - 09000           | 020                |
| 80000 - 100000          | 000                | 40000 - 50000           | 000                | 10000 - 20000           | 000                | 03000 - 04000           | 039                | 09000 - 12000           | 000                |
| > 100000                | 000                | > 50000                 | 000                | > 20000                 | 000                | > 06000                 | 000                | > 12000                 | 000                |
| NO OF MEASUR.           | +00257             | NO OF MEASUR.           | +00255             | NO OF MEASUR.           | +00255             | NO OF MEASUR.           | +00253             | NO OF MEASUR.           | +00245             |
| MEAN [X10E-2]           | +06398             | MEAN [X10E-2]           | +05323             | MEAN [X10E-3]           | +01348             | MEAN [X10E-4]           | +00793             | MEAN [X10E-5]           | +02097             |
| SIGMA [X10E-2]          | +08224             | SIGMA [X10E-2]          | +06156             | SIGMA [X10E-3]          | +01529             | SIGMA [X10E-4]          | +00782             | SIGMA [X10E-5]          | +01695             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD : 1970-1980

GARMISCH (VALLEY 740 M)

TABLE: 44

PARAMETER= RELATIVE HUMIDITY 71-80%

| D1 = 0.23 MI                     |                    | D2 = 0.45 MI                     |                    | D3 = 0.93 MI                     |                    | D4 = 2.00 MI                     |                    | D5 = 4.50 MI                     |                    |
|----------------------------------|--------------------|----------------------------------|--------------------|----------------------------------|--------------------|----------------------------------|--------------------|----------------------------------|--------------------|
| RES. NR. : 417                   |                    | RES. NR. : 418                   |                    | RES. NR. : 419                   |                    | RES. NR. : 420                   |                    | RES. NR. : 421                   |                    |
| PARTICL. CONC. [X10E-2] [1/10 %] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-2] [1/10 %] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-3] [1/10 %] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-4] [1/10 %] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-5] [1/10 %] | FREQUENCY [1/10 %] |
| < 00500                          | 095                | < 00500                          | 127                | < 00150                          | 087                | < 00050                          | 053                | < 00200                          | 003                |
| 00500 - 01000                    | 123                | 00500 - 01000                    | 148                | 00150 - 00300                    | 175                | 00050 - 00100                    | 061                | 00200 - 00400                    | 075                |
| 01000 - 01500                    | 084                | 01000 - 01500                    | 085                | 00300 - 00450                    | 131                | 00100 - 00150                    | 093                | 00400 - 00600                    | 111                |
| 01500 - 02000                    | 074                | 01500 - 02000                    | 074                | 00450 - 00600                    | 073                | 00150 - 00200                    | 104                | 00600 - 00800                    | 057                |
| 02000 - 02500                    | 049                | 02000 - 02500                    | 085                | 00600 - 00750                    | 091                | 00200 - 00250                    | 053                | 00800 - 01000                    | 162                |
| 02500 - 03000                    | 063                | 02500 - 03000                    | 053                | 00750 - 00900                    | 036                | 00250 - 00300                    | 061                | 01000 - 01200                    | 086                |
| 03000 - 03500                    | 042                | 03000 - 03500                    | 053                | 00900 - 01050                    | 051                | 00300 - 00350                    | 039                | 01200 - 01400                    | 061                |
| 03500 - 04000                    | 028                | 03500 - 04000                    | 039                | 01050 - 01200                    | 043                | 00350 - 00400                    | 028                | 01400 - 01600                    | 036                |
| 04000 - 05000                    | 060                | 04000 - 04500                    | 028                | 01200 - 01350                    | 040                | 00400 - 00500                    | 064                | 01600 - 01800                    | 054                |
| 05000 - 06000                    | 063                | 04500 - 05000                    | 017                | 01350 - 01500                    | 036                | 00500 - 00600                    | 075                | 01800 - 02000                    | 043                |
| 06000 - 07000                    | 038                | 05000 - 06000                    | 049                | 01500 - 01650                    | 014                | 00600 - 00700                    | 046                | 02000 - 02250                    | 061                |
| 07000 - 08000                    | 014                | 06000 - 07000                    | 031                | 01650 - 01800                    | 025                | 00700 - 00800                    | 032                | 02250 - 02500                    | 014                |
| 08000 - 10000                    | 049                | 07000 - 08000                    | 024                | 01800 - 02000                    | 010                | 00800 - 00900                    | 053                | 02500 - 03000                    | 046                |
| 10000 - 15000                    | 063                | 08000 - 10000                    | 021                | 02000 - 02500                    | 047                | 00900 - 01000                    | 028                | 03000 - 03500                    | 039                |
| 15000 - 25000                    | 077                | 10000 - 15000                    | 067                | 02500 - 03000                    | 036                | 01000 - 01250                    | 050                | 03500 - 04000                    | 036                |
| 25000 - 40000                    | 028                | 15000 - 20000                    | 021                | 03000 - 04000                    | 021                | 01250 - 01500                    | 035                | 04000 - 05000                    | 036                |
| 40000 - 60000                    | 035                | 20000 - 30000                    | 053                | 04000 - 06000                    | 051                | 01500 - 02000                    | 053                | 05000 - 07000                    | 039                |
| 60000 - 80000                    | 007                | 30000 - 40000                    | 017                | 06000 - 10000                    | 021                | 02000 - 03000                    | 035                | 07000 - 09000                    | 032                |
| 80000 - 100000                   | 000                | 40000 - 50000                    | 000                | 10000 - 20000                    | 000                | 03000 - 06000                    | 025                | 09000 - 12000                    | 000                |
| > 100000                         | 000                | > 50000                          | 000                | > 20000                          | 000                | > 06000                          | 000                | > 12000                          | 000                |
| NO OF MEASUR.                    | +00283             | NO OF MEASUR.                    | +00282             | NO OF MEASUR.                    | +00273             | NO OF MEASUR.                    | +00278             | NO OF MEASUR.                    | +00277             |
| MEAN [X10E-2]                    | +07445             | MEAN [X10E-2]                    | +05344             | MEAN [X10E-3]                    | +01209             | MEAN [X10E-4]                    | +00665             | MEAN [X10E-5]                    | +01876             |
| SIGMA [X10E-2]                   | +11186             | SIGMA [X10E-2]                   | +07477             | SIGMA [X10E-3]                   | +01510             | SIGMA [X10E-4]                   | +00736             | SIGMA [X10E-5]                   | +01747             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS.

TABLE: 45

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY 81-90%

| D1 = 0.23 MI            |                    | D2 = 0.45 MI            |                    | D3 = 0.93 MI            |                    | D4 = 2.00 MI            |                    | D5 = 4.50 MI            |                    |
|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|
| RES. NR. : 422          |                    | RES. NR. : 423          |                    | RES. NR. : 424          |                    | RES. NR. : 425          |                    | RES. NR. : 426          |                    |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 %] |
| < 00500                 | 103                | < 00500                 | 124                | < 00150                 | 114                | < 00050                 | 049                | < 00200                 | 015                |
| 00500 - 01000           | 085                | 00500 - 01000           | 124                | 00150 - 00300           | 194                | 00050 - 00100           | 118                | 00200 - 00400           | 077                |
| 01000 - 01500           | 100                | 01000 - 01500           | 111                | 00300 - 00450           | 146                | 00100 - 00150           | 121                | 00400 - 00600           | 108                |
| 01500 - 02000           | 079                | 01500 - 02000           | 063                | 00450 - 00600           | 092                | 00150 - 00200           | 083                | 00600 - 00800           | 120                |
| 02000 - 02500           | 048                | 02000 - 02500           | 085                | 00600 - 00750           | 089                | 00200 - 00250           | 080                | 00800 - 01000           | 105                |
| 02500 - 03000           | 054                | 02500 - 03000           | 050                | 00750 - 00900           | 057                | 00250 - 00300           | 068                | 01000 - 01200           | 065                |
| 03000 - 03500           | 051                | 03000 - 03500           | 035                | 00900 - 01050           | 031                | 00300 - 00350           | 049                | 01200 - 01400           | 055                |
| 03500 - 04000           | 042                | 03500 - 04000           | 038                | 01050 - 01200           | 041                | 00350 - 00400           | 052                | 01400 - 01600           | 043                |
| 04000 - 05000           | 033                | 04000 - 05000           | 050                | 01200 - 01350           | 012                | 00400 - 00500           | 068                | 01600 - 01800           | 030                |
| 05000 - 06000           | 054                | 04500 - 05000           | 019                | 01350 - 01500           | 012                | 00500 - 00600           | 068                | 01800 - 02000           | 034                |
| 06000 - 07000           | 027                | 05000 - 06000           | 038                | 01500 - 01650           | 009                | 00600 - 00700           | 046                | 02000 - 02250           | 030                |
| 07000 - 08000           | 027                | 06000 - 07000           | 022                | 01650 - 01800           | 015                | 00700 - 00800           | 034                | 02250 - 02500           | 043                |
| 08000 - 10000           | 054                | 07000 - 08000           | 028                | 01800 - 02000           | 022                | 00800 - 00900           | 024                | 02500 - 03000           | 074                |
| 10000 - 15000           | 077                | 08000 - 10000           | 035                | 02000 - 02500           | 031                | 00900 - 01000           | 015                | 03000 - 03500           | 037                |
| 15000 - 25000           | 079                | 10000 - 15000           | 076                | 02500 - 03000           | 019                | 01000 - 01250           | 024                | 03500 - 04000           | 027                |
| 25000 - 40000           | 042                | 15000 - 20000           | 035                | 03000 - 04000           | 044                | 01250 - 01500           | 027                | 04000 - 05000           | 046                |
| 40000 - 60000           | 012                | 20000 - 30000           | 044                | 04000 - 06000           | 035                | 01500 - 02000           | 027                | 05000 - 07000           | 065                |
| 60000 - 80000           | 006                | 30000 - 40000           | 015                | 06000 - 10000           | 028                | 02000 - 03000           | 024                | 07000 - 09000           | 018                |
| 80000 - 100000          | 000                | 40000 - 50000           | 000                | 10000 - 20000           | 000                | 03000 - 06000           | 012                | 09000 - 12000           | 000                |
| > 100000                | 000                | > 50000                 | 000                | > 20000                 | 000                | > 06000                 | 000                | > 12000                 | 000                |
| NO OF MEASUR.           | +00329             | NO OF MEASUR.           | +00314             | NO OF MEASUR.           | +00314             | NO OF MEASUR.           | +00322             | NO OF MEASUR.           | +00323             |
| MEAN [X10E-2]           | +07249             | MEAN [X10E-2]           | +05282             | MEAN [X10E-3]           | +01132             | MEAN [X10E-4]           | +00484             | MEAN [X10E-5]           | +01914             |
| SIGMA [X10E-2]          | +09997             | SIGMA [X10E-2]          | +06802             | SIGMA [X10E-3]          | +01586             | SIGMA [X10E-4]          | +00576             | SIGMA [X10E-5]          | +01747             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 46

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY >90%

| D1 = 0.23 MI              |                       | D2 = 0.45 MI              |                       | D3 = 0.93 MI              |                       | D4 = 2.00 MI              |                       | D5 = 4.50 MI              |                       |
|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|
| RES. NR. : 107            |                       | RES. NR. : 108            |                       | RES. NR. : 109            |                       | RES. NR. : 110            |                       | RES. NR. : 111            |                       |
| PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 X] | PARTICL CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 X] | PARTICL CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 X] |
| < 00500                   | 071                   | < 00500                   | 078                   | < 00150                   | 103                   | < 00050                   | 058                   | < 00200                   | 009                   |
| 00500 - 01000             | 109                   | 00500 - 01000             | 102                   | 00150 - 00300             | 242                   | 00050 - 00100             | 022                   | 00200 - 00400             | 058                   |
| 01000 - 01500             | 080                   | 01000 - 01500             | 112                   | 00300 - 00450             | 148                   | 00100 - 00150             | 131                   | 00400 - 00600             | 112                   |
| 01500 - 02000             | 071                   | 01500 - 02000             | 097                   | 00450 - 00600             | 094                   | 00150 - 00200             | 078                   | 00600 - 00800             | 146                   |
| 02000 - 02500             | 080                   | 02000 - 02500             | 078                   | 00600 - 00750             | 074                   | 00200 - 00250             | 102                   | 00800 - 01000             | 078                   |
| 02500 - 03000             | 052                   | 02500 - 03000             | 053                   | 00750 - 00900             | 059                   | 00250 - 00300             | 063                   | 01000 - 01200             | 068                   |
| 03000 - 03500             | 052                   | 03000 - 03500             | 048                   | 00900 - 01050             | 024                   | 00300 - 00350             | 068                   | 01200 - 01400             | 078                   |
| 03500 - 04000             | 052                   | 03500 - 04000             | 039                   | 01050 - 01200             | 014                   | 00350 - 00400             | 053                   | 01400 - 01600             | 053                   |
| 04000 - 05000             | 033                   | 04000 - 04500             | 039                   | 01200 - 01350             | 024                   | 00400 - 00500             | 043                   | 01600 - 01800             | 029                   |
| 05000 - 06000             | 042                   | 04500 - 05000             | 024                   | 01350 - 01500             | 014                   | 00500 - 00600             | 043                   | 01800 - 02000             | 043                   |
| 06000 - 07000             | 014                   | 05000 - 06000             | 053                   | 01500 - 01650             | 004                   | 00600 - 00700             | 058                   | 02000 - 02250             | 048                   |
| 07000 - 08000             | 023                   | 06000 - 07000             | 034                   | 01650 - 01800             | 014                   | 00700 - 00800             | 019                   | 02250 - 02500             | 024                   |
| 08000 - 10000             | 071                   | 07000 - 08000             | 053                   | 01800 - 02000             | 019                   | 00800 - 00900             | 024                   | 02500 - 03000             | 039                   |
| 10000 - 15000             | 080                   | 08000 - 10000             | 034                   | 02000 - 02500             | 014                   | 00900 - 01000             | 024                   | 03000 - 03500             | 029                   |
| 15000 - 25000             | 114                   | 10000 - 15000             | 058                   | 02500 - 03000             | 024                   | 01000 - 01250             | 043                   | 03500 - 04000             | 053                   |
| 25000 - 40000             | 033                   | 15000 - 20000             | 029                   | 03000 - 04000             | 024                   | 01250 - 01500             | 024                   | 04000 - 05000             | 058                   |
| 40000 - 60000             | 014                   | 20000 - 30000             | 058                   | 04000 - 06000             | 039                   | 01500 - 02000             | 034                   | 05000 - 07000             | 053                   |
| 60000 - 80000             | 000                   | 30000 - 40000             | 004                   | 06000 - 10000             | 054                   | 02000 - 03000             | 019                   | 07000 - 09000             | 014                   |
| 80000 - 100000            | 000                   | 40000 - 50000             | 000                   | 10000 - 20000             | 000                   | 03000 - 06000             | 014                   | 09000 - 12000             | 000                   |
| > 100000                  | 000                   | > 50000                   | 000                   | > 20000                   | 000                   | > 06000                   | 000                   | > 12000                   | 000                   |
| NO OF MEASUR.             | +00210                | NO OF MEASUR.             | +00205                | NO OF MEASUR.             | +00202                | NO OF MEASUR.             | +00205                | NO OF MEASUR.             | +00205                |
| MEAN [X10E-2]             | +07037                | MEAN [X10E-2]             | +05346                | MEAN [X10E-3]             | +01203                | MEAN [X10E-4]             | +00504                | MEAN [X10E-5]             | +01898                |
| SIGMA [X10E-2]            | +08650                | SIGMA [X10E-2]            | +06523                | SIGMA [X10E-3]            | +01819                | SIGMA [X10E-4]            | +00625                | SIGMA [X10E-5]            | +01664                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 47

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY <40%

| D1 = 0.23 MI                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  | D2 = 0.45 MI                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  | D3 = 0.93 MI                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  | D4 = 2.00 MI                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  | D5 = 4.50 MI                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| RES. NR. : 097                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  | RES. NR. : 098                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  | RES. NR. : 099                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  | RES. NR. : 100                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  | RES. NR. : 101                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |
| PARTIC. CONC. FREQUENCY<br>[X10E-2] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                            |  |  |  | PARTIC. CONC. FREQUENCY<br>[X10E-2] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                            |  |  |  | PARTIC. CONC. FREQUENCY<br>[X10E-3] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                            |  |  |  | PARTIC. CONC. FREQUENCY<br>[X10E-4] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                            |  |  |  | PARTIC. CONC. FREQUENCY<br>[X10E-5] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |
| $\leq 00200$<br>00200 - 00400 082<br>00400 - 00600 136<br>00600 - 00800 112<br>00800 - 01000 068<br>01000 - 01200 048<br>01200 - 01400 029<br>01400 - 01600 024<br>01600 - 01800 024<br>01800 - 02000 053<br>02000 - 02500 078<br>02500 - 03000 043<br>03000 - 03500 034<br>03500 - 04000 039<br>04000 - 05000 039<br>05000 - 06000 024<br>06000 - 08000 014<br>08000 - 10000 009<br>10000 - 15000 000<br>$> 15000$ 000 |  |  |  | $\leq 00100$<br>00100 - 00200 162<br>00200 - 00300 157<br>00300 - 00400 088<br>00400 - 00500 059<br>00500 - 00600 044<br>00600 - 00750 054<br>00750 - 01000 039<br>01000 - 01500 073<br>01500 - 02000 073<br>02000 - 02500 039<br>02500 - 03000 029<br>03000 - 04000 034<br>04000 - 05000 019<br>05000 - 07000 029<br>07000 - 09000 014<br>09000 - 12000 019<br>12000 - 15000 004<br>15000 - 20000 000<br>$> 20000$ 000 |  |  |  | $\leq 00025$<br>00025 - 00050 058<br>00050 - 00076 087<br>00076 - 00100 135<br>00100 - 00150 097<br>00150 - 00200 165<br>00200 - 00250 033<br>00250 - 00300 019<br>00300 - 00350 063<br>00350 - 00400 043<br>00400 - 00450 009<br>00450 - 00500 019<br>00500 - 00600 033<br>00600 - 00700 038<br>00700 - 01000 082<br>01000 - 01500 053<br>01500 - 02000 009<br>02000 - 03500 019<br>03500 - 06000 000<br>$> 06000$ 000 |  |  |  | $\leq 00025$<br>00025 - 00050 169<br>00050 - 00076 149<br>00076 - 00100 109<br>00100 - 00125 069<br>00125 - 00150 069<br>00150 - 00175 064<br>00175 - 00200 029<br>00200 - 00250 034<br>00250 - 00300 044<br>00300 - 00350 024<br>00350 - 00400 024<br>00400 - 00450 009<br>00450 - 00500 019<br>00500 - 00600 044<br>00600 - 00700 024<br>00700 - 01000 034<br>01000 - 02000 029<br>02000 - 04000 000<br>$> 04000$ 000 |  |  |  | $\leq 00025$<br>00025 - 00050 010<br>00050 - 00076 020<br>00076 - 00100 045<br>00100 - 00125 070<br>00125 - 00150 040<br>00150 - 00175 055<br>00175 - 00200 050<br>00200 - 00250 065<br>00250 - 00300 125<br>00300 - 00350 070<br>00350 - 00400 060<br>00400 - 00450 045<br>00450 - 00500 040<br>00500 - 00600 040<br>00600 - 00700 060<br>00700 - 01000 035<br>01000 - 02000 090<br>02000 - 04000 080<br>$> 04000$ 000 |  |  |  |
| NO OF MEASUR                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  | NO OF MEASUR                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  | NO OF MEASUR                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  | NO OF MEASUR                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  | NO OF MEASUR                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |
| +00205                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  | +00203                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  | +00206                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  | +00201                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  | +00200                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  |
| MEAN [X10E-2] +01583                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  | MEAN [X10E-2] +01332                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  | MEAN [X10E-3] +00352                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  | MEAN [X10E-4] +00209                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  | MEAN [X10E-5] +00405                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |
| SIGMA [X10E-2] +01649                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  | SIGMA [X10E-2] +02145                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  | SIGMA [X10E-3] +00478                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  | SIGMA [X10E-4] +00271                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  | SIGMA [X10E-5] +00378                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD : 1970-1980

WANK PEAK 1780 M

TABLE: 48

PARAMETER= RELATIVE HUMIDITY 41-50%

| D1 = 0.23 MI            |                    | D2 = 0.45 MI            |                    | D3 = 0.93 MI            |                    | D4 = 2.00 MI            |                    | D5 = 4.50 MI            |                    |
|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|
| RES. NR. : 427          |                    | RES. NR. : 428          |                    | RES. NR. : 429          |                    | RES. NR. : 430          |                    | RES. NR. : 431          |                    |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 %] |
| < 00200                 | 042                | < 00100                 | 063                | < 00025                 | 021                | < 00025                 | 049                | < 00025                 | 000                |
| 00200 - 00400           | 091                | 00100 - 00200           | 042                | 00025 - 00050           | 049                | 00025 - 00050           | 091                | 00025 - 00050           | 021                |
| 00400 - 00600           | 112                | 00200 - 00300           | 035                | 00050 - 00076           | 042                | 00050 - 00076           | 098                | 00050 - 00076           | 014                |
| 00600 - 00800           | 070                | 00300 - 00400           | 042                | 00076 - 00100           | 028                | 00076 - 00100           | 056                | 00076 - 00100           | 021                |
| 00800 - 01000           | 063                | 00400 - 00500           | 063                | 00100 - 00150           | 077                | 00100 - 00125           | 049                | 00100 - 00125           | 028                |
| 01000 - 01200           | 063                | 00500 - 00600           | 028                | 00150 - 00200           | 077                | 00125 - 00150           | 049                | 00125 - 00150           | 007                |
| 01200 - 01400           | 049                | 00600 - 00750           | 070                | 00200 - 00250           | 091                | 00150 - 00175           | 035                | 00150 - 00175           | 021                |
| 01400 - 01600           | 056                | 00750 - 01000           | 049                | 00250 - 00300           | 035                | 00175 - 00200           | 056                | 00175 - 00200           | 042                |
| 01600 - 01800           | 021                | 01000 - 01500           | 112                | 00300 - 00350           | 035                | 00200 - 00250           | 049                | 00200 - 00250           | 098                |
| 01800 - 02000           | 070                | 01500 - 02000           | 063                | 00350 - 00400           | 042                | 00250 - 00300           | 035                | 00250 - 00300           | 105                |
| 02000 - 02500           | 070                | 02000 - 02500           | 056                | 00400 - 00450           | 028                | 00300 - 00350           | 070                | 00300 - 00350           | 070                |
| 02500 - 03000           | 049                | 02500 - 03000           | 021                | 00450 - 00500           | 007                | 00350 - 00400           | 042                | 00350 - 00400           | 035                |
| 03000 - 03500           | 063                | 03000 - 04000           | 070                | 00500 - 00600           | 056                | 00400 - 00450           | 028                | 00400 - 00450           | 056                |
| 03500 - 04000           | 021                | 04000 - 05000           | 049                | 00600 - 00700           | 056                | 00450 - 00500           | 035                | 00450 - 00500           | 049                |
| 04000 - 05000           | 063                | 05000 - 07000           | 098                | 00700 - 01000           | 133                | 00500 - 00600           | 070                | 00500 - 00600           | 077                |
| 05000 - 06000           | 014                | 07000 - 09000           | 028                | 01000 - 01500           | 077                | 00600 - 00700           | 035                | 00600 - 00700           | 063                |
| 06000 - 08000           | 075                | 09000 - 12000           | 070                | 01500 - 02000           | 077                | 00700 - 01000           | 091                | 00700 - 01000           | 112                |
| 08000 - 10000           | 042                | 12000 - 15000           | 035                | 02000 - 03500           | 063                | 01000 - 02000           | 056                | 01000 - 02000           | 169                |
| 10000 - 15000           | 000                | 15000 - 20000           | 000                | 03500 - 06000           | 000                | 02000 - 04000           | 000                | 02000 - 04000           | 007                |
| > 15000                 | 000                | > 20000                 | 000                | > 06000                 | 000                | > 04000                 | 000                | > 04000                 | 000                |
| NO OF MEASUR.           | +00142             | NO OF MEASUR.           | +00142             | NO OF MEASUR.           | +00142             | NO OF MEASUR.           | +00142             | NO OF MEASUR.           | +00142             |
| MEAN [X10E-2]           | +02150             | MEAN [X10E-2]           | +03049             | MEAN [X10E-3]           | +00676             | MEAN [X10E-4]           | +00353             | MEAN [X10E-5]           | +00564             |
| SIGMA [X10E-2]          | +02154             | SIGMA [X10E-2]          | +03466             | SIGMA [X10E-3]          | +00704             | SIGMA [X10E-4]          | +00374             | SIGMA [X10E-5]          | +00431             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 49

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY 51-50%

| D1 = 0.23 MI           |                    |  | D2 = 0.45 MI           |                    |  | D3 = 0.93 MI           |                    |  | D4 = 2.00 MI           |                    |  | D5 = 4.50 MI           |                    |  |
|------------------------|--------------------|--|------------------------|--------------------|--|------------------------|--------------------|--|------------------------|--------------------|--|------------------------|--------------------|--|
| RES. NR. : 412         |                    |  | RES. NR. : 433         |                    |  | RES. NR. : 434         |                    |  | RES. NR. : 435         |                    |  | RES. NR. : 436         |                    |  |
| PARTIC. CONC. [X10E-2] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-2] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-3] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-4] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-5] | FREQUENCY [1/10 %] |  |
| < 00200                | 032                |  | < 00100                | 080                |  | < 00025                | 021                |  | < 00025                | 071                |  | < 00025                | 000                |  |
| 00200 - 00400          | 065                |  | 00100 - 00200          | 040                |  | 00025 - 00050          | 027                |  | 00025 - 00050          | 071                |  | 00025 - 00050          | 016                |  |
| 00400 - 00600          | 054                |  | 00200 - 00300          | 052                |  | 00050 - 00076          | 038                |  | 00050 - 00076          | 076                |  | 00050 - 00076          | 005                |  |
| 00600 - 00800          | 092                |  | 00300 - 00400          | 046                |  | 00076 - 00100          | 076                |  | 00076 - 00100          | 060                |  | 00076 - 00100          | 032                |  |
| 00800 - 01000          | 114                |  | 00400 - 00500          | 069                |  | 00100 - 00150          | 092                |  | 00100 - 00125          | 049                |  | 00100 - 00125          | 027                |  |
| 01000 - 01200          | 038                |  | 00500 - 00600          | 011                |  | 00150 - 00200          | 065                |  | 00125 - 00150          | 054                |  | 00125 - 00150          | 027                |  |
| 01200 - 01400          | 054                |  | 00600 - 00750          | 046                |  | 00200 - 00250          | 065                |  | 00150 - 00175          | 065                |  | 00150 - 00175          | 038                |  |
| 01400 - 01600          | 059                |  | 00750 - 01000          | 040                |  | 00250 - 00300          | 054                |  | 00175 - 00200          | 043                |  | 00175 - 00200          | 060                |  |
| 01600 - 01800          | 032                |  | 01000 - 01500          | 080                |  | 00300 - 00350          | 038                |  | 00200 - 00250          | 060                |  | 00200 - 00250          | 038                |  |
| 01800 - 02000          | 032                |  | 01500 - 02000          | 075                |  | 00350 - 00400          | 043                |  | 00250 - 00300          | 038                |  | 00250 - 00300          | 049                |  |
| 02000 - 02500          | 070                |  | 02000 - 02500          | 080                |  | 00400 - 00450          | 032                |  | 00300 - 00350          | 049                |  | 00300 - 00350          | 087                |  |
| 02500 - 03000          | 086                |  | 02500 - 03000          | 040                |  | 00450 - 00500          | 027                |  | 00350 - 00400          | 010                |  | 00350 - 00400          | 071                |  |
| 03000 - 03500          | 059                |  | 03000 - 04000          | 046                |  | 00500 - 00600          | 054                |  | 00400 - 00450          | 065                |  | 00400 - 00450          | 076                |  |
| 03500 - 04000          | 059                |  | 04000 - 05000          | 075                |  | 00600 - 00700          | 021                |  | 00450 - 00500          | 027                |  | 00450 - 00500          | 043                |  |
| 04000 - 05000          | 043                |  | 05000 - 07000          | 086                |  | 00700 - 01000          | 076                |  | 00500 - 00600          | 071                |  | 00500 - 00600          | 092                |  |
| 05000 - 06000          | 059                |  | 07000 - 09000          | 040                |  | 01000 - 01500          | 120                |  | 00600 - 00700          | 027                |  | 00600 - 00700          | 071                |  |
| 06000 - 08000          | 043                |  | 09000 - 12000          | 057                |  | 01500 - 02000          | 071                |  | 00700 - 01000          | 081                |  | 00700 - 01000          | 153                |  |
| 08000 - 10000          | 000                |  | 12000 - 15000          | 023                |  | 02000 - 03500          | 071                |  | 01000 - 02000          | 076                |  | 01000 - 02000          | 098                |  |
| 10000 - 15000          | 000                |  | 15000 - 20000          | 003                |  | 03500 - 06000          | 000                |  | 02000 - 04000          | 000                |  | 02000 - 04000          | 010                |  |
| > 15000                | 000                |  | > 20000                | 000                |  | > 06000                | 000                |  | > 04000                | 000                |  | > 04000                | 000                |  |
| NO OF MEASUR.          | +00184             |  | NO OF MEASUR.          | +00173             |  | NO OF MEASUR.          | +00183             |  | NO OF MEASUR.          | +00183             |  | NO OF MEASUR.          | +00183             |  |
| MEAN [X10E-2]          | +02161             |  | MEAN [X10E-2]          | +03003             |  | MEAN [X10E-3]          | +00685             |  | MEAN [X10E-4]          | +00355             |  | MEAN [X10E-5]          | +00542             |  |
| SIGMA [X10E-2]         | +01771             |  | SIGMA [X10E-2]         | +03430             |  | SIGMA [X10E-3]         | +00739             |  | SIGMA [X10E-4]         | +00366             |  | SIGMA [X10E-5]         | +00415             |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 50

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY 61-70%

| D1 = 0.23 MI             |                       | D2 = 0.45 MI             |                       | D3 = 0.93 MI             |                       | D4 = 2.00 MI             |                       | D5 = 4.50 MI             |                       |
|--------------------------|-----------------------|--------------------------|-----------------------|--------------------------|-----------------------|--------------------------|-----------------------|--------------------------|-----------------------|
| RES. NR. : 437           |                       | RES. NR. : 438           |                       | RES. NR. : 439           |                       | RES. NR. : 440           |                       | RES. NR. : 441           |                       |
| PARTICL CONC<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL CONC<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL CONC<br>[X10E-3] | FREQUENCY<br>[1/10 %] | PARTICL CONC<br>[X10E-4] | FREQUENCY<br>[1/10 %] | PARTICL CONC<br>[X10E-5] | FREQUENCY<br>[1/10 %] |
| < 00200                  | 041                   | < 00100                  | 036                   | < 00025                  | 040                   | < 00025                  | 051                   | < 00025                  | 000                   |
| 00700 -                  | 051                   | 00100 -                  | 062                   | 00025 -                  | 051                   | 00025 -                  | 086                   | 00025 -                  | 005                   |
| 00400 -                  | 067                   | 00200 -                  | 052                   | 00050 -                  | 045                   | 00050 -                  | 056                   | 00050 -                  | 015                   |
| 00600 -                  | 077                   | 00300 -                  | 015                   | 00076 -                  | 045                   | 00076 -                  | 066                   | 00076 -                  | 021                   |
| 00300 -                  | 046                   | 00400 -                  | 052                   | 00100 -                  | 061                   | 00100 -                  | 056                   | 00100 -                  | 005                   |
| 01000 -                  | 056                   | 00500 -                  | 036                   | 00150 -                  | 040                   | 00150 -                  | 056                   | 00125 -                  | 015                   |
| 01200 -                  | 056                   | 00600 -                  | 031                   | 00200 -                  | 025                   | 00175 -                  | 030                   | 00150 -                  | 026                   |
| 01400 -                  | 030                   | 00750 -                  | 036                   | 00250 -                  | 045                   | 00200 -                  | 051                   | 00175 -                  | 015                   |
| 01600 -                  | 061                   | 01000 -                  | 098                   | 00300 -                  | 066                   | 00250 -                  | 081                   | 00200 -                  | 063                   |
| 01800 -                  | 036                   | 01500 -                  | 062                   | 00350 -                  | 015                   | 00300 -                  | 076                   | 00250 -                  | 058                   |
| 02000 -                  | 092                   | 02000 -                  | 052                   | 00400 -                  | 040                   | 00350 -                  | 040                   | 00300 -                  | 089                   |
| 02500 -                  | 061                   | 02500 -                  | 041                   | 00450 -                  | 010                   | 00400 -                  | 040                   | 00350 -                  | 074                   |
| 03000 -                  | 061                   | 03000 -                  | 062                   | 00500 -                  | 076                   | 00450 -                  | 025                   | 00400 -                  | 074                   |
| 03500 -                  | 046                   | 04000 -                  | 052                   | 00600 -                  | 045                   | 00500 -                  | 030                   | 00450 -                  | 052                   |
| 04000 -                  | 061                   | 05000 -                  | 135                   | 00700 -                  | 127                   | 00550 -                  | 040                   | 00500 -                  | 116                   |
| 05000 -                  | 041                   | 07000 -                  | 072                   | 01000 -                  | 107                   | 00600 -                  | 066                   | 00600 -                  | 058                   |
| 06000 -                  | 067                   | 09000 -                  | 057                   | 01500 -                  | 056                   | 00700 -                  | 066                   | 00700 -                  | 148                   |
| 08000 -                  | 036                   | 12000 -                  | 036                   | 02000 -                  | 096                   | 01000 -                  | 076                   | 01000 -                  | 159                   |
| 10000 -                  | 005                   | 15000 -                  | 005                   | 03500 -                  | 000                   | 02000 -                  | 000                   | 02000 -                  | 000                   |
| > 15000                  | 000                   | > 20000                  | 000                   | > 06000                  | 000                   | > 04000                  | 000                   | > 04000                  | 000                   |
| NO OF MEASUR             | +00194                | NO OF MEASUR             | +00192                | NO OF MEASUR             | +00196                | NO OF MEASUR             | +00196                | NO OF MEASUR             | +00189                |
| MEAN [X10E-2]            | +02597                | MEAN [X10E-2]            | +03572                | MEAN [X10E-3]            | +00739                | MEAN [X10E-4]            | +00355                | MEAN [X10E-5]            | +00589                |
| SIGMA [X10E-2]           | +02284                | SIGMA [X10E-2]           | +03629                | SIGMA [X10E-3]           | +00746                | SIGMA [X10E-4]           | +00361                | SIGMA [X10E-5]           | +00397                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 51

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY 71-80%

| D1 = 0.23 MI           |                    | D2 = 0.45 MI           |                    | D3 = 0.93 MI           |                    | D4 = 2.00 MI           |                    | D5 = 4.50 MI           |                    |
|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|
| RES. NR. : 442         |                    | RES. NR. : 443         |                    | RES. NR. : 444         |                    | RES. NR. : 445         |                    | RES. NR. : 446         |                    |
| PARTIC. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTIC. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTIC. CONC. [X10E-3] | FREQUENCY [1/10 %] | PARTIC. CONC. [X10E-4] | FREQUENCY [1/10 %] | PARTIC. CONC. [X10E-5] | FREQUENCY [1/10 %] |
| < 00200                | 040                | < 00100                | 051                | < 00025                | 036                | < 00025                | 034                | < 00025                | 005                |
| 00200 - 00400          | 075                | 00100 - 00200          | 072                | 00025 - 00050          | 041                | 00025 - 00050          | 079                | 00025 - 00050          | 000                |
| 00400 - 00600          | 080                | 00200 - 00300          | 077                | 00050 - 00076          | 056                | 00050 - 00076          | 104                | 00050 - 00076          | 020                |
| 00600 - 00800          | 060                | 00300 - 00400          | 025                | 00076 - 00100          | 051                | 00076 - 00100          | 094                | 00076 - 00100          | 010                |
| 00800 - 01000          | 070                | 00400 - 00500          | 051                | 00100 - 00150          | 087                | 00100 - 00125          | 069                | 00100 - 00125          | 020                |
| 01000 - 01200          | 085                | 00500 - 00600          | 036                | 00150 - 00200          | 067                | 00125 - 00150          | 069                | 00125 - 00150          | 055                |
| 01200 - 01400          | 045                | 00600 - 00750          | 056                | 00200 - 00250          | 077                | 00150 - 00175          | 054                | 00150 - 00175          | 060                |
| 01400 - 01600          | 040                | 00750 - 01000          | 056                | 00250 - 00300          | 061                | 00175 - 00200          | 054                | 00175 - 00200          | 050                |
| 01600 - 01800          | 020                | 01000 - 01500          | 062                | 00300 - 00350          | 041                | 00200 - 00250          | 084                | 00200 - 00250          | 050                |
| 01800 - 02000          | 030                | 01500 - 02000          | 108                | 00350 - 00400          | 036                | 00250 - 00300          | 029                | 00250 - 00300          | 055                |
| 02000 - 02500          | 075                | 02000 - 02500          | 031                | 00400 - 00450          | 025                | 00300 - 00350          | 019                | 00300 - 00350          | 090                |
| 02500 - 03000          | 060                | 02500 - 03000          | 041                | 00450 - 00500          | 020                | 00350 - 00400          | 039                | 00350 - 00400          | 080                |
| 03000 - 03500          | 095                | 03000 - 04000          | 056                | 00500 - 00600          | 046                | 00400 - 00450          | 049                | 00400 - 00450          | 080                |
| 03500 - 04000          | 045                | 04000 - 05000          | 056                | 00600 - 00700          | 046                | 00450 - 00500          | 039                | 00450 - 00500          | 050                |
| 04000 - 05000          | 045                | 05000 - 07000          | 082                | 00700 - 01000          | 092                | 00500 - 00600          | 049                | 00500 - 00600          | 065                |
| 05000 - 06000          | 055                | 07000 - 09000          | 046                | 01000 - 01500          | 097                | 00600 - 00700          | 029                | 00600 - 00700          | 075                |
| 06000 - 08000          | 025                | 09000 - 12000          | 031                | 01500 - 02000          | 067                | 00700 - 01000          | 059                | 00700 - 01000          | 101                |
| 08000 - 10000          | 055                | 12000 - 15000          | 046                | 02000 - 03500          | 046                | 01000 - 02000          | 034                | 01000 - 02000          | 116                |
| 10000 - 15000          | 000                | 15000 - 20000          | 005                | 03500 - 06000          | 000                | 02000 - 04000          | 000                | 02000 - 04000          | 010                |
| > 15000                | 000                | > 20000                | 000                | > 06000                | 000                | > 04000                | 000                | > 04000                | 000                |
| NO OF MEASUR.          | +00200             | NO OF MEASUR.          | +00193             | NO OF MEASUR.          | +00194             | NO OF MEASUR.          | +00201             | NO OF MEASUR.          | +00198             |
| MEAN [X10E-2]          | +02449             | MEAN [X10E-2]          | +02978             | MEAN [X10E-3]          | +00606             | MEAN [X10E-4]          | +00293             | MEAN [X10E-5]          | +00516             |
| SIGMA [X10E-2]         | +02243             | SIGMA [X10E-2]         | +03637             | SIGMA [X10E-3]         | +00656             | SIGMA [X10E-4]         | +00319             | SIGMA [X10E-5]         | +00403             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 52

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY 81-90%

| D1 = 0.23 MI           |                    |  | D2 = 0.45 MI           |                    |  | D3 = 0.93 MI           |                    |  | D4 = 2.00 MI           |                    |  | D5 = 4.50 MI           |                    |  |
|------------------------|--------------------|--|------------------------|--------------------|--|------------------------|--------------------|--|------------------------|--------------------|--|------------------------|--------------------|--|
| RES. NR. :             | 447                |  | RES. NR. :             | 448                |  | RES. NR. :             | 449                |  | RES. NR. :             | 450                |  | RES. NR. :             | 451                |  |
| PARTIC. CONC. [X10E-2] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-2] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-3] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-4] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-5] | FREQUENCY [1/10 %] |  |
| < 00200                | 076                |  | < 00100                | 100                |  | < 00025                | 052                |  | < 00025                | 102                |  | < 00025                | 000                |  |
| 00200 - 00400          | 076                |  | 00100 - 00200          | 068                |  | 00025 - 00050          | 080                |  | 00025 - 00050          | 145                |  | 00025 - 00050          | 016                |  |
| 00400 - 00600          | 068                |  | 00200 - 00300          | 060                |  | 00050 - 00076          | 060                |  | 00050 - 00076          | 106                |  | 00050 - 00076          | 012                |  |
| 00600 - 00800          | 076                |  | 00300 - 00400          | 028                |  | 00076 - 00100          | 052                |  | 00076 - 00100          | 106                |  | 00076 - 00100          | 049                |  |
| 00800 - 01000          | 080                |  | 00400 - 00500          | 032                |  | 00100 - 00150          | 116                |  | 00100 - 00125          | 086                |  | 00100 - 00125          | 041                |  |
| 01000 - 01200          | 080                |  | 00500 - 00600          | 048                |  | 00150 - 00200          | 108                |  | 00125 - 00150          | 062                |  | 00125 - 00150          | 032                |  |
| 01200 - 01400          | 028                |  | 00600 - 00750          | 048                |  | 00200 - 00250          | 052                |  | 00150 - 00175          | 027                |  | 00150 - 00175          | 028                |  |
| 01400 - 01600          | 048                |  | 00750 - 01000          | 080                |  | 00250 - 00300          | 036                |  | 00175 - 00200          | 047                |  | 00175 - 00200          | 049                |  |
| 01600 - 01800          | 052                |  | 01000 - 01500          | 096                |  | 00300 - 00350          | 048                |  | 00200 - 00250          | 031                |  | 00200 - 00250          | 115                |  |
| 01800 - 02000          | 040                |  | 01500 - 02000          | 044                |  | 00350 - 00400          | 020                |  | 00250 - 00300          | 035                |  | 00250 - 00300          | 090                |  |
| 02000 - 02500          | 072                |  | 02000 - 02500          | 048                |  | 00400 - 00450          | 032                |  | 00300 - 00350          | 043                |  | 00300 - 00350          | 094                |  |
| 02500 - 03000          | 097                |  | 02500 - 03000          | 040                |  | 00450 - 00500          | 040                |  | 00350 - 00400          | 011                |  | 00350 - 00400          | 053                |  |
| 03000 - 03500          | 044                |  | 03000 - 04000          | 083                |  | 00500 - 00600          | 052                |  | 00400 - 00450          | 047                |  | 00400 - 00450          | 082                |  |
| 03500 - 04000          | 040                |  | 04000 - 05000          | 044                |  | 00600 - 00700          | 016                |  | 00450 - 00500          | 019                |  | 00450 - 00500          | 041                |  |
| 04000 - 05000          | 028                |  | 05000 - 07000          | 060                |  | 00700 - 01000          | 080                |  | 00500 - 00600          | 027                |  | 00500 - 00600          | 069                |  |
| 05000 - 06000          | 036                |  | 07000 - 09000          | 048                |  | 01000 - 01500          | 072                |  | 00600 - 00700          | 027                |  | 00600 - 00700          | 045                |  |
| 06000 - 08000          | 028                |  | 09000 - 12000          | 040                |  | 01500 - 02000          | 060                |  | 00700 - 01000          | 027                |  | 00700 - 01000          | 090                |  |
| 08000 - 10000          | 020                |  | 12000 - 15000          | 020                |  | 02000 - 03500          | 024                |  | 01000 - 02000          | 043                |  | 01000 - 02000          | 078                |  |
| 10000 - 15000          | 000                |  | 15000 - 20000          | 000                |  | 03500 - 06000          | 000                |  | 02000 - 04000          | 000                |  | 02000 - 04000          | 008                |  |
| > 15000                | 000                |  | > 20000                | 000                |  | > 06000                | 000                |  | > 04000                | 000                |  | > 04000                | 000                |  |
| NO OF MEASUR           | +00247             |  | NO OF MEASUR           | +00248             |  | NO OF MEASUR           | +00250             |  | NO OF MEASUR           | +00254             |  | NO OF MEASUR           | +00243             |  |
| MEAN [X10E-2]          | +01393             |  | MEAN [X10E-2]          | +02559             |  | MEAN [X10E-3]          | +00488             |  | MEAN [X10E-4]          | +00234             |  | MEAN [X10E-5]          | +00457             |  |
| SIGMA [X10E-2]         | +01834             |  | SIGMA [X10E-2]         | +03160             |  | SIGMA [X10E-3]         | +00592             |  | SIGMA [X10E-4]         | +00213             |  | SIGMA [X10E-5]         | +00329             |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 53

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY >95%

| D1 = 0.23 MI              |                       |  | D2 = 0.45 MI              |                       |  | D3 = 0.93 MI              |                       |  | D4 = 2.00 MI              |                       |  | D5 = 4.50 MI              |                       |  |
|---------------------------|-----------------------|--|---------------------------|-----------------------|--|---------------------------|-----------------------|--|---------------------------|-----------------------|--|---------------------------|-----------------------|--|
| RES NR :                  | 112                   |  | RES NR :                  | 113                   |  | RES NR :                  | 114                   |  | RES NR :                  | 115                   |  | RES NR :                  | 116                   |  |
| PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |
| < 00200                   | 097                   |  | < 00100                   | 221                   |  | < 00025                   | 223                   |  | < 00025                   | 203                   |  | < 00025                   | 018                   |  |
| 00200 - 00400             | 150                   |  | 00100 - 00200             | 168                   |  | 00025 - 00050             | 196                   |  | 00025 - 00050             | 256                   |  | 00025 - 00050             | 073                   |  |
| 00400 - 00600             | 097                   |  | 00200 - 00300             | 088                   |  | 00050 - 00076             | 080                   |  | 00050 - 00076             | 123                   |  | 00050 - 00076             | 073                   |  |
| 00600 - 00800             | 079                   |  | 00300 - 00400             | 044                   |  | 00076 - 00100             | 044                   |  | 00076 - 00100             | 088                   |  | 00076 - 00100             | 137                   |  |
| 00800 - 01000             | 053                   |  | 00400 - 00500             | 044                   |  | 00100 - 00150             | 107                   |  | 00100 - 00125             | 044                   |  | 00100 - 00125             | 128                   |  |
| 01000 - 01200             | 053                   |  | 00500 - 00600             | 017                   |  | 00150 - 00200             | 035                   |  | 00125 - 00150             | 053                   |  | 00125 - 00150             | 027                   |  |
| 01200 - 01400             | 035                   |  | 00600 - 00750             | 026                   |  | 00200 - 00250             | 026                   |  | 00150 - 00175             | 026                   |  | 00150 - 00175             | 045                   |  |
| 01400 - 01600             | 035                   |  | 00750 - 01000             | 044                   |  | 00250 - 00300             | 053                   |  | 00175 - 00200             | 008                   |  | 00175 - 00200             | 018                   |  |
| 01600 - 01800             | 053                   |  | 01000 - 01500             | 097                   |  | 00300 - 00350             | 026                   |  | 00200 - 00250             | 044                   |  | 00200 - 00250             | 100                   |  |
| 01800 - 02000             | 008                   |  | 01500 - 02000             | 061                   |  | 00350 - 00400             | 035                   |  | 00250 - 00300             | 044                   |  | 00250 - 00300             | 018                   |  |
| 02000 - 02500             | 088                   |  | 02000 - 02500             | 008                   |  | 00400 - 00450             | 000                   |  | 00300 - 00350             | 008                   |  | 00300 - 00350             | 073                   |  |
| 02500 - 03000             | 079                   |  | 02500 - 03000             | 017                   |  | 00450 - 00500             | 035                   |  | 00350 - 00400             | 035                   |  | 00350 - 00400             | 036                   |  |
| 03000 - 03500             | 035                   |  | 03000 - 04000             | 053                   |  | 00500 - 00600             | 017                   |  | 00400 - 00450             | 008                   |  | 00400 - 00450             | 027                   |  |
| 03500 - 04000             | 026                   |  | 04000 - 05000             | 017                   |  | 00600 - 00700             | 008                   |  | 00450 - 00500             | 000                   |  | 00450 - 00500             | 018                   |  |
| 04000 - 05000             | 044                   |  | 05000 - 07000             | 026                   |  | 00700 - 01000             | 017                   |  | 00500 - 00600             | 035                   |  | 00500 - 00600             | 055                   |  |
| 05000 - 06000             | 017                   |  | 07000 - 09000             | 008                   |  | 01000 - 01500             | 035                   |  | 00600 - 00700             | 000                   |  | 00600 - 00700             | 027                   |  |
| 06000 - 08000             | 017                   |  | 09000 - 12000             | 035                   |  | 01500 - 02000             | 017                   |  | 00700 - 01000             | 017                   |  | 00700 - 01000             | 064                   |  |
| 08000 - 10000             | 026                   |  | 12000 - 15000             | 017                   |  | 02000 - 03500             | 035                   |  | 01000 - 02000             | 000                   |  | 01000 - 02000             | 055                   |  |
| 10000 - 15000             | 000                   |  | 15000 - 20000             | 000                   |  | 03500 - 06000             | 000                   |  | 02000 - 04000             | 000                   |  | 02000 - 04000             | 000                   |  |
| > 15000                   | 000                   |  | > 20000                   | 000                   |  | > 06000                   | 000                   |  | > 04000                   | 000                   |  | > 04000                   | 000                   |  |
| NO OF MEASUR              | +00113                |  | NO OF MEASUR              | +00113                |  | NO OF MEASUR              | +00112                |  | NO OF MEASUR              | +00113                |  | NO OF MEASUR              | +00109                |  |
| MEAN [X10E-2]             | +01773                |  | MEAN [X10E-2]             | +01541                |  | MEAN [X10E-3]             | +00306                |  | MEAN [X10E-4]             | +00122                |  | MEAN [X10E-5]             | +00311                |  |
| SIGMA [X10E-2]            | +01946                |  | SIGMA [X10E-2]            | +02773                |  | SIGMA [X10E-3]            | +00584                |  | SIGMA [X10E-4]            | +00161                |  | SIGMA [X10E-5]            | +00339                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 54

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY <40%

| D1 = 0.23 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | D2 = 0.45 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | D3 = 0.93 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | D4 = 2.00 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | D5 = 4.50 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RES NR : 102                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | RES NR : 103                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | RES NR : 104                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | RES NR : 105                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | RES NR : 106                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| PARTICL. CONC<br>[X10E-2] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PARTICL. CONC.<br>[X10E-2] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PARTICL. CONC.<br>[X10E-3] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PARTICL. CONC.<br>[X10E-4] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                              | PARTICL. CONC.<br>[X10E-5] [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p>&lt; 00050</p> <p>00050 - 00100 057</p> <p>00100 - 00150 131</p> <p>00150 - 00200 090</p> <p>00200 - 00250 081</p> <p>00250 - 00300 049</p> <p>00300 - 00350 081</p> <p>00350 - 00400 016</p> <p>00400 - 00500 049</p> <p>00500 - 00600 049</p> <p>00600 - 00800 073</p> <p>00800 - 01000 057</p> <p>01000 - 01250 040</p> <p>01250 - 01500 032</p> <p>01500 - 02000 032</p> <p>02000 - 03000 032</p> <p>03000 - 04000 008</p> <p>04000 - 06000 024</p> <p>06000 - 12000 000</p> <p>&gt; 12000 000</p> | <p>&lt; 00015</p> <p>00015 - 00030 057</p> <p>00030 - 00045 106</p> <p>00045 - 00060 098</p> <p>00060 - 00075 073</p> <p>00075 - 00090 032</p> <p>00090 - 00105 057</p> <p>00105 - 00120 049</p> <p>00120 - 00150 065</p> <p>00150 - 00200 098</p> <p>00200 - 00250 073</p> <p>00250 - 00300 040</p> <p>00300 - 00400 016</p> <p>00400 - 00600 049</p> <p>00600 - 00900 040</p> <p>00900 - 01500 032</p> <p>01500 - 02500 008</p> <p>02500 - 05000 016</p> <p>05000 - 10000 008</p> <p>&gt; 10000 000</p> | <p>&lt; 00015</p> <p>00015 - 00030 065</p> <p>00030 - 00045 154</p> <p>00045 - 00060 065</p> <p>00060 - 00075 032</p> <p>00075 - 00090 073</p> <p>00090 - 00105 081</p> <p>00105 - 00120 081</p> <p>00120 - 00150 032</p> <p>00150 - 00200 105</p> <p>00200 - 00250 073</p> <p>00250 - 00300 040</p> <p>00300 - 00400 032</p> <p>00400 - 00600 032</p> <p>00600 - 00900 016</p> <p>00900 - 01500 024</p> <p>01500 - 02500 008</p> <p>02500 - 05000 008</p> <p>05000 - 10000 000</p> <p>&gt; 10000 000</p> | <p>&lt; 00015</p> <p>00015 - 00030 107</p> <p>00030 - 00045 173</p> <p>00045 - 00060 107</p> <p>00060 - 00075 090</p> <p>00075 - 00090 033</p> <p>00090 - 00105 049</p> <p>00105 - 00120 057</p> <p>00120 - 00150 090</p> <p>00150 - 00200 082</p> <p>00200 - 00250 041</p> <p>00250 - 00300 024</p> <p>00300 - 00400 000</p> <p>00400 - 00900 033</p> <p>00900 - 01500 016</p> <p>01500 - 02500 024</p> <p>02500 - 05000 000</p> <p>05000 - 10000 000</p> <p>&gt; 10000 000</p> | <p>&lt; 00025</p> <p>00025 - 00050 000</p> <p>00050 - 00076 016</p> <p>00076 - 00100 083</p> <p>00100 - 00125 058</p> <p>00125 - 00150 033</p> <p>00150 - 00175 041</p> <p>00175 - 00200 075</p> <p>00200 - 00225 033</p> <p>00225 - 00250 075</p> <p>00250 - 00275 008</p> <p>00275 - 00300 058</p> <p>00300 - 00325 033</p> <p>00325 - 00350 066</p> <p>00350 - 00400 083</p> <p>00400 - 00500 083</p> <p>00500 - 00750 108</p> <p>00750 - 01000 041</p> <p>01000 - 02000 041</p> <p>&gt; 02000 000</p> |
| NO OF MEASUR +00122                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | NO OF MEASUR. +00122                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | NO OF MEASUR. +00123                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | NO OF MEASUR. +00121                                                                                                                                                                                                                                                                                                                                                                                                                                                             | NO OF MEASUR. +00120                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| MEAN [X10E-2] +00628                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | MEAN [X10E-2] +00290                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | MEAN [X10E-3] +00190                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | MEAN [X10E-4] +00168                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MEAN [X10E-5] +00335                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| SIGMA [X10E-2] +00914                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SIGMA [X10E-2] +00657                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SIGMA [X10E-3] +00350                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SIGMA [X10E-4] +00306                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SIGMA [X10E-5] +00257                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 55 ZUGSPITZE PEAK 3000 M PERIOD : 1970-1980  
PARAMETER= RELATIVE HUMIDITY 41-50%

| D1 = 0.23 MI                     | D2 = 0.45 MI                     | D3 = 0.93 MI                     | D4 = 2.00 MI                     | D5 = 4.50 MI                     |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| RES. NR. : 452                   | RES. NR. : 453                   | RES. NR. : 454                   | RES. NR. : 455                   | RES. NR. : 456                   |
| PARTICL. CONC. [X10E-2] [1/10 X] | PARTICL. CONC. [X10E-2] [1/10 X] | PARTICL. CONC. [X10E-3] [1/10 X] | PARTICL. CONC. [X10E-4] [1/10 X] | PARTICL. CONC. [X10E-5] [1/10 X] |
| < 00050                          | < 00015                          | < 00015                          | < 00015                          | < 00025                          |
| 00050 - 00100                    | 00015 - 00030                    | 00015 - 00030                    | 00015 - 00030                    | 00025 - 00050                    |
| 00100 - 00150                    | 00030 - 00045                    | 00030 - 00045                    | 00030 - 00045                    | 00050 - 00075                    |
| 00150 - 00200                    | 00045 - 00060                    | 00045 - 00060                    | 00045 - 00060                    | 00075 - 00100                    |
| 00200 - 00250                    | 00060 - 00075                    | 00060 - 00075                    | 00060 - 00075                    | 00100 - 00125                    |
| 00250 - 00300                    | 00075 - 00090                    | 00075 - 00090                    | 00075 - 00090                    | 00125 - 00150                    |
| 00300 - 00350                    | 00090 - 00105                    | 00090 - 00105                    | 00090 - 00105                    | 00150 - 00175                    |
| 00350 - 00400                    | 00105 - 00120                    | 00105 - 00120                    | 00105 - 00120                    | 00175 - 00200                    |
| 00400 - 00500                    | 00120 - 00150                    | 00120 - 00150                    | 00120 - 00150                    | 00200 - 00225                    |
| 00500 - 00600                    | 00150 - 00200                    | 00150 - 00200                    | 00150 - 00200                    | 00225 - 00250                    |
| 00600 - 00800                    | 00200 - 00250                    | 00200 - 00250                    | 00200 - 00250                    | 00250 - 00275                    |
| 00800 - 01000                    | 00250 - 00300                    | 00250 - 00300                    | 00250 - 00300                    | 00275 - 00300                    |
| 01000 - 01250                    | 00300 - 00400                    | 00300 - 00400                    | 00300 - 00400                    | 00300 - 00325                    |
| 01250 - 01500                    | 00400 - 00500                    | 00400 - 00500                    | 00400 - 00500                    | 00325 - 00350                    |
| 01500 - 02000                    | 00500 - 00700                    | 00500 - 00700                    | 00500 - 00700                    | 00350 - 00400                    |
| 02000 - 03000                    | 00700 - 01500                    | 00700 - 01500                    | 00700 - 01500                    | 00400 - 00500                    |
| 03000 - 04000                    | 01500 - 02500                    | 01500 - 02500                    | 01500 - 02500                    | 00500 - 00750                    |
| 04000 - 06000                    | 02500 - 05000                    | 02500 - 05000                    | 02500 - 05000                    | 00750 - 01000                    |
| 06000 - 12000                    | 05000 - 10000                    | 05000 - 10000                    | 05000 - 10000                    | 01000 - 02000                    |
| > 12000                          | > 10000                          | > 10000                          | > 10000                          | > 02000                          |
| NO OF MEASUR. +00060             | NO OF MEASUR. +00060             | NO OF MEASUR. +00059             | NO OF MEASUR. +00060             | NO OF MEASUR. +00057             |
| MEAN [X10E-2] +00909             | MEAN [X10E-2] +00368             | MEAN [X10E-3] +00254             | MEAN [X10E-4] +00205             | MEAN [X10E-5] +00335             |
| SIGMA [X10E-2] +01192            | SIGMA [X10E-2] +00716            | SIGMA [X10E-3] +00459            | SIGMA [X10E-4] +00356            | SIGMA [X10E-5] +00252            |
| FREQUENCY [1/10 X]               | FREQUENCY [1/10 X]               | FREQUENCY [1/10 X]               | FREQUENCY [1/10 X]               | FREQUENCY [1/10 X]               |
| 033                              | 016                              | 033                              | 066                              | 017                              |
| 100                              | 083                              | 033                              | 083                              | 017                              |
| 083                              | 066                              | 101                              | 133                              | 017                              |
| 050                              | 050                              | 152                              | 116                              | 035                              |
| 066                              | 100                              | 101                              | 116                              | 105                              |
| 016                              | 066                              | 050                              | 033                              | 070                              |
| 050                              | 016                              | 050                              | 116                              | 070                              |
| 050                              | 033                              | 016                              | 016                              | 035                              |
| 066                              | 116                              | 101                              | 033                              | 035                              |
| 050                              | 133                              | 067                              | 050                              | 070                              |
| 083                              | 016                              | 067                              | 033                              | 052                              |
| 050                              | 016                              | 016                              | 033                              | 035                              |
| 116                              | 083                              | 016                              | 016                              | 017                              |
| 016                              | 066                              | 067                              | 050                              | 035                              |
| 033                              | 050                              | 050                              | 033                              | 070                              |
| 066                              | 033                              | 050                              | 033                              | 140                              |
| 016                              | 016                              | 000                              | 016                              | 105                              |
| 000                              | 033                              | 000                              | 000                              | 052                              |
| 000                              | 000                              | 000                              | 000                              | 017                              |
| 000                              | 000                              | 000                              | 000                              | 000                              |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 56

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY 51-50%

| D1 = 0.23 MI               |                       | D2 = 0.45 MI               |                       | D3 = 0.93 MI               |                       | D4 = 2.00 MI               |                       | D5 = 4.50 MI               |                       |
|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|
| RES. NR. : 457             |                       | RES. NR. : 458             |                       | RES. NR. : 459             |                       | RES. NR. : 460             |                       | RES. NR. : 461             |                       |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |
| < 00050                    | 035                   | < 00015                    | 035                   | < 00015                    | 000                   | < 00015                    | 048                   | < 00025                    | 012                   |
| 00050 - 00100              | 035                   | 00015 - 00030              | 058                   | 00015 - 00030              | 036                   | 00015 - 00030              | 120                   | 00025 - 00050              | 012                   |
| 00100 - 00150              | 129                   | 00030 - 00045              | 141                   | 00030 - 00045              | 097                   | 00030 - 00045              | 060                   | 00050 - 00076              | 036                   |
| 00150 - 00200              | 035                   | 00045 - 00060              | 058                   | 00045 - 00060              | 036                   | 00045 - 00060              | 156                   | 00076 - 00100              | 024                   |
| 00200 - 00250              | 023                   | 00060 - 00075              | 058                   | 00060 - 00075              | 024                   | 00060 - 00075              | 060                   | 00100 - 00125              | 036                   |
| 00250 - 00300              | 023                   | 00075 - 00090              | 047                   | 00075 - 00090              | 036                   | 00075 - 00090              | 096                   | 00125 - 00150              | 048                   |
| 00300 - 00350              | 047                   | 00090 - 00105              | 023                   | 00090 - 00105              | 048                   | 00090 - 00105              | 012                   | 00150 - 00175              | 036                   |
| 00350 - 00400              | 070                   | 00105 - 00120              | 023                   | 00105 - 00120              | 036                   | 00105 - 00120              | 060                   | 00175 - 00200              | 024                   |
| 00400 - 00500              | 082                   | 00120 - 00150              | 070                   | 00120 - 00150              | 060                   | 00120 - 00150              | 036                   | 00200 - 00225              | 048                   |
| 00500 - 00600              | 035                   | 00150 - 00200              | 035                   | 00150 - 00200              | 073                   | 00150 - 00200              | 072                   | 00225 - 00250              | 036                   |
| 00600 - 00800              | 105                   | 00200 - 00250              | 011                   | 00200 - 00250              | 060                   | 00200 - 00250              | 036                   | 00250 - 00275              | 048                   |
| 00800 - 01000              | 105                   | 00250 - 00300              | 011                   | 00250 - 00300              | 073                   | 00250 - 00300              | 036                   | 00275 - 00300              | 072                   |
| 01000 - 01250              | 058                   | 00300 - 00400              | 035                   | 00300 - 00400              | 097                   | 00300 - 00400              | 094                   | 00300 - 00325              | 024                   |
| 01250 - 01500              | 047                   | 00400 - 00600              | 117                   | 00400 - 00600              | 085                   | 00400 - 00600              | 060                   | 00325 - 00350              | 048                   |
| 01500 - 02000              | 058                   | 00600 - 00900              | 058                   | 00600 - 00900              | 158                   | 00600 - 00900              | 024                   | 00350 - 00400              | 072                   |
| 02000 - 03000              | 047                   | 00900 - 01500              | 105                   | 00900 - 01500              | 060                   | 00900 - 01500              | 024                   | 00400 - 00500              | 144                   |
| 03000 - 04000              | 023                   | 01500 - 02500              | 047                   | 01500 - 02500              | 012                   | 01500 - 02500              | 012                   | 00500 - 00750              | 180                   |
| 04000 - 06000              | 023                   | 02500 - 05000              | 035                   | 02500 - 05000              | 000                   | 02500 - 05000              | 000                   | 00750 - 01000              | 072                   |
| 06000 - 12000              | 011                   | 05000 - 10000              | 023                   | 05000 - 10000              | 000                   | 05000 - 10000              | 000                   | 01000 - 02000              | 024                   |
| > 12000                    | 000                   | > 10000                    | 000                   | > 10000                    | 000                   | > 10000                    | 000                   | > 02000                    | 000                   |
| NO OF MEASUR.              | +00085                | NO OF MEASUR.              | +00085                | NO OF MEASUR.              | +00082                | NO OF MEASUR.              | +00083                | NO OF MEASUR.              | +00083                |
| MEAN [X10E-2]              | +00905                | MEAN [X10E-2]              | +00589                | MEAN [X10E-3]              | +00355                | MEAN [X10E-4]              | +00196                | MEAN [X10E-5]              | +00393                |
| SIGMA [X10E-2]             | +01127                | SIGMA [X10E-2]             | +01004                | SIGMA [X10E-3]             | +00362                | SIGMA [X10E-4]             | +00291                | SIGMA [X10E-5]             | +00251                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 57

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY 61-70%

| D1 = 0.23 MI            |                    | D2 = 0.45 MI            |                    | D3 = 0.93 MI            |                    | D4 = 2.00 MI            |                    | D5 = 4.50 MI            |                    |
|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|
| RES. NR. : 462          |                    | RES. NR. : 463          |                    | RES. NR. : 464          |                    | RES. NR. : 465          |                    | RES. NR. : 466          |                    |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 X] |
| < 00050                 | 032                | < 00015                 | 000                | < 00015                 | 016                | < 00015                 | 033                | < 00025                 | 009                |
| 00050 - 00100           | 065                | 00015 - 00030           | 024                | 00015 - 00030           | 025                | 00015 - 00030           | 082                | 00025 - 00050           | 009                |
| 00100 - 00150           | 065                | 00030 - 00045           | 024                | 00030 - 00045           | 033                | 00030 - 00045           | 079                | 00050 - 00076           | 009                |
| 00150 - 00200           | 048                | 00045 - 00060           | 040                | 00045 - 00060           | 042                | 00045 - 00060           | 074                | 00076 - 00100           | 028                |
| 00200 - 00250           | 032                | 00060 - 00075           | 040                | 00060 - 00075           | 058                | 00060 - 00075           | 049                | 00100 - 00125           | 056                |
| 00250 - 00300           | 056                | 00075 - 00090           | 024                | 00075 - 00090           | 067                | 00075 - 00090           | 057                | 00125 - 00150           | 018                |
| 00300 - 00350           | 032                | 00090 - 00105           | 008                | 00090 - 00105           | 042                | 00090 - 00105           | 057                | 00150 - 00175           | 056                |
| 00350 - 00400           | 056                | 00105 - 00120           | 048                | 00105 - 00120           | 033                | 00105 - 00120           | 008                | 00175 - 00200           | 037                |
| 00400 - 00500           | 024                | 00120 - 00150           | 064                | 00120 - 00150           | 033                | 00120 - 00150           | 041                | 00200 - 00225           | 018                |
| 00500 - 00600           | 024                | 00150 - 00200           | 040                | 00150 - 00200           | 075                | 00150 - 00200           | 057                | 00225 - 00250           | 028                |
| 00600 - 00800           | 073                | 00200 - 00250           | 032                | 00200 - 00250           | 033                | 00200 - 00250           | 066                | 00250 - 00275           | 037                |
| 00800 - 01000           | 065                | 00250 - 00300           | 016                | 00250 - 00300           | 033                | 00250 - 00300           | 057                | 00275 - 00300           | 047                |
| 01000 - 01250           | 081                | 00300 - 00400           | 048                | 00300 - 00400           | 050                | 00300 - 00400           | 057                | 00300 - 00325           | 047                |
| 01250 - 01500           | 048                | 00400 - 00600           | 072                | 00400 - 00600           | 100                | 00400 - 00600           | 066                | 00325 - 00350           | 094                |
| 01500 - 02000           | 081                | 00600 - 00900           | 088                | 00600 - 00900           | 100                | 00600 - 00900           | 074                | 00350 - 00400           | 084                |
| 02000 - 03000           | 032                | 00900 - 01500           | 128                | 00900 - 01500           | 126                | 00900 - 01500           | 041                | 00400 - 00500           | 084                |
| 03000 - 04000           | 081                | 01500 - 02500           | 144                | 01500 - 02500           | 084                | 01500 - 02500           | 074                | 00500 - 00750           | 169                |
| 04000 - 06000           | 065                | 02500 - 05000           | 120                | 02500 - 05000           | 042                | 02500 - 05000           | 000                | 00750 - 01000           | 075                |
| 06000 - 12000           | 032                | 05000 - 10000           | 040                | 05000 - 10000           | 000                | 05000 - 10000           | 000                | 01000 - 02000           | 084                |
| > 12000                 | 000                | > 10000                 | 000                | > 10000                 | 000                | > 10000                 | 000                | > 02000                 | 000                |
| NO OF MEASUR            | +00123             | NO OF MEASUR            | +00125             | NO OF MEASUR            | +00119             | NO OF MEASUR            | +00121             | NO OF MEASUR            | +00106             |
| MEAN [X10E-2]           | +01423             | MEAN [X10E-2]           | +01234             | MEAN [X10E-3]           | +00619             | MEAN [X10E-4]           | +00362             | MEAN [X10E-5]           | +00444             |
| SIGMA [X10E-2]          | +01702             | SIGMA [X10E-2]          | +01424             | SIGMA [X10E-3]          | +00720             | SIGMA [X10E-4]          | +00508             | SIGMA [X10E-5]          | +00306             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 58

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY 71-80%

| D1 = 0.23 MI              |                       | D2 = 0.45 MI              |                       | D3 = 0.93 MI              |                       | D4 = 2.00 MI              |                       | D5 = 4.50 MI              |                       |
|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|
| RES. NR. : 467            |                       | RES. NR. : 468            |                       | RES. NR. : 469            |                       | RES. NR. : 470            |                       | RES. NR. : 471            |                       |
| PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 X] | PARTICL CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 X] | PARTICL CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 X] |
| < 00050                   | 036                   | < 00015                   | 005                   | < 00015                   | 011                   | < 00015                   | 035                   | < 00025                   | 000                   |
| 00050 - 00100             | 030                   | 00015 - 00030             | 041                   | 00015 - 00030             | 039                   | 00015 - 00030             | 052                   | 00025 - 00050             | 006                   |
| 00100 - 00150             | 030                   | 00030 - 00045             | 035                   | 00030 - 00045             | 053                   | 00030 - 00045             | 052                   | 00050 - 00076             | 018                   |
| 00150 - 00200             | 036                   | 00045 - 00060             | 053                   | 00045 - 00060             | 047                   | 00045 - 00060             | 088                   | 00076 - 00100             | 018                   |
| 00200 - 00250             | 018                   | 00060 - 00075             | 047                   | 00060 - 00075             | 047                   | 00060 - 00075             | 058                   | 00100 - 00125             | 049                   |
| 00250 - 00300             | 030                   | 00075 - 00090             | 023                   | 00075 - 00090             | 023                   | 00075 - 00090             | 070                   | 00125 - 00150             | 049                   |
| 00300 - 00350             | 036                   | 00090 - 00105             | 017                   | 00090 - 00105             | 047                   | 00090 - 00105             | 047                   | 00150 - 00175             | 018                   |
| 00350 - 00400             | 054                   | 00105 - 00120             | 005                   | 00105 - 00120             | 047                   | 00105 - 00120             | 047                   | 00175 - 00200             | 043                   |
| 00400 - 00500             | 066                   | 00120 - 00150             | 041                   | 00120 - 00150             | 053                   | 00120 - 00150             | 058                   | 00200 - 00225             | 024                   |
| 00500 - 00600             | 060                   | 00150 - 00200             | 047                   | 00150 - 00200             | 082                   | 00150 - 00200             | 111                   | 00225 - 00250             | 031                   |
| 00600 - 00800             | 084                   | 00200 - 00250             | 082                   | 00200 - 00250             | 047                   | 00200 - 00250             | 064                   | 00250 - 00275             | 037                   |
| 00800 - 01000             | 066                   | 00250 - 00300             | 023                   | 00250 - 00300             | 011                   | 00250 - 00300             | 076                   | 00275 - 00300             | 049                   |
| 01000 - 01250             | 072                   | 00300 - 00400             | 029                   | 00300 - 00400             | 094                   | 00300 - 00400             | 064                   | 00300 - 00325             | 049                   |
| 01250 - 01500             | 024                   | 00400 - 00600             | 047                   | 00400 - 00600             | 094                   | 00400 - 00600             | 052                   | 00325 - 00350             | 068                   |
| 01500 - 02000             | 084                   | 00600 - 00900             | 106                   | 00600 - 00900             | 088                   | 00600 - 00900             | 058                   | 00350 - 00400             | 080                   |
| 02000 - 03000             | 078                   | 00900 - 01500             | 112                   | 00900 - 01500             | 106                   | 00900 - 01500             | 041                   | 00400 - 00500             | 149                   |
| 03000 - 04000             | 066                   | 01500 - 02500             | 124                   | 01500 - 02500             | 071                   | 01500 - 02500             | 017                   | 00500 - 00750             | 130                   |
| 04000 - 06000             | 090                   | 02500 - 05000             | 136                   | 02500 - 05000             | 011                   | 02500 - 05000             | 000                   | 00750 - 01000             | 099                   |
| 06000 - 12000             | 036                   | 05000 - 10000             | 017                   | 05000 - 10000             | 000                   | 05000 - 10000             | 000                   | 01000 - 02000             | 074                   |
| > 12000                   | 000                   | > 10000                   | 000                   | > 10000                   | 000                   | > 10000                   | 000                   | > 02000                   | 000                   |
| NO OF MEASUR.             | +00166                | NO OF MEASUR.             | +00169                | NO OF MEASUR.             | +00169                | NO OF MEASUR.             | +00170                | NO OF MEASUR.             | +00161                |
| MEAN [X10E-2]             | +01582                | MEAN [X10E-2]             | +01125                | MEAN [X10E-3]             | +00499                | MEAN [X10E-4]             | +00263                | MEAN [X10E-5]             | +00448                |
| SIGMA [X10E-2]            | +01704                | SIGMA [X10E-2]            | +01370                | SIGMA [X10E-3]            | +00603                | SIGMA [X10E-4]            | +00354                | SIGMA [X10E-5]            | +00299                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 59

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY 81-90%

| D1 = 0.23 MI            |                    | D2 = 0.45 MI            |                    | D3 = 0.93 MI            |                    | D4 = 2.00 MI            |                    | D5 = 4.50 MI            |                    |
|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|
| RES. NR. : 472          |                    | RES. NR. : 473          |                    | RES. NR. : 474          |                    | RES. NR. : 475          |                    | RES. NR. : 476          |                    |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 X] |
| < 00050                 | 013                | < 00015                 | 004                | < 00015                 | 017                | < 00015                 | 033                | < 00025                 | 000                |
| 00050 - 00100           | 030                | 00015 - 00030           | 026                | 00015 - 00030           | 038                | 00015 - 00030           | 100                | 00025 - 00050           | 000                |
| 00100 - 00150           | 017                | 00030 - 00045           | 039                | 00030 - 00045           | 046                | 00030 - 00045           | 067                | 00050 - 00076           | 043                |
| 00150 - 00200           | 057                | 00045 - 00060           | 026                | 00045 - 00060           | 025                | 00045 - 00060           | 058                | 00076 - 00100           | 013                |
| 00200 - 00250           | 013                | 00060 - 00075           | 039                | 00060 - 00075           | 034                | 00060 - 00075           | 063                | 00100 - 00125           | 017                |
| 00250 - 00300           | 030                | 00075 - 00090           | 030                | 00075 - 00090           | 025                | 00075 - 00090           | 058                | 00125 - 00150           | 048                |
| 00300 - 00350           | 035                | 00090 - 00105           | 026                | 00090 - 00105           | 051                | 00090 - 00105           | 054                | 00150 - 00175           | 048                |
| 00350 - 00400           | 035                | 00105 - 00120           | 030                | 00105 - 00120           | 059                | 00105 - 00120           | 033                | 00175 - 00200           | 030                |
| 00400 - 00500           | 035                | 00120 - 00150           | 026                | 00120 - 00150           | 085                | 00120 - 00150           | 063                | 00200 - 00225           | 052                |
| 00500 - 00600           | 039                | 00150 - 00200           | 061                | 00150 - 00200           | 063                | 00150 - 00200           | 113                | 00225 - 00250           | 048                |
| 00600 - 00800           | 115                | 00200 - 00250           | 035                | 00200 - 00250           | 042                | 00200 - 00250           | 054                | 00250 - 00275           | 026                |
| 00800 - 01000           | 084                | 00250 - 00300           | 043                | 00250 - 00300           | 029                | 00250 - 00300           | 037                | 00275 - 00300           | 052                |
| 01000 - 01250           | 097                | 00300 - 00400           | 052                | 00300 - 00400           | 068                | 00300 - 00400           | 042                | 00300 - 00325           | 061                |
| 01250 - 01500           | 044                | 00400 - 00500           | 061                | 00400 - 00500           | 089                | 00400 - 00500           | 088                | 00325 - 00350           | 052                |
| 01500 - 02000           | 092                | 00500 - 00700           | 078                | 00500 - 00700           | 097                | 00500 - 00700           | 050                | 00350 - 00400           | 026                |
| 02000 - 03000           | 110                | 00700 - 01500           | 118                | 00700 - 01500           | 106                | 00700 - 01500           | 058                | 00400 - 00500           | 127                |
| 03000 - 04000           | 044                | 01500 - 02500           | 131                | 01500 - 02500           | 089                | 01500 - 02500           | 021                | 00500 - 00750           | 192                |
| 04000 - 06000           | 061                | 02500 - 05000           | 127                | 02500 - 05000           | 029                | 02500 - 05000           | 000                | 00750 - 01000           | 065                |
| 06000 - 12000           | 039                | 05000 - 10000           | 039                | 05000 - 10000           | 000                | 05000 - 10000           | 000                | 01000 - 02000           | 092                |
| > 12000                 | 000                | > 10000                 | 000                | > 10000                 | 000                | > 10000                 | 000                | > 02000                 | 000                |
| NO OF MEASUR.           | +00226             | NO OF MEASUR.           | +00228             | NO OF MEASUR.           | +00235             | NO OF MEASUR.           | +00238             | NO OF MEASUR.           | +00228             |
| MEAN [X10E-2]           | +01585             | MEAN [X10E-2]           | +01219             | MEAN [X10E-3]           | +00584             | MEAN [X10E-4]           | +00279             | MEAN [X10E-5]           | +00452             |
| SIGMA [X10E-2]          | +01647             | SIGMA [X10E-2]          | +01454             | SIGMA [X10E-3]          | +00696             | SIGMA [X10E-4]          | +00385             | SIGMA [X10E-5]          | +00305             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 60

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= RELATIVE HUMIDITY >95%

| D1 = 0.23 MI               |                       |  | D2 = 0.45 MI               |                       |  | D3 = 0.93 MI               |                       |  | D4 = 2.00 MI               |                       |  | D5 = 4.50 MI               |                       |  |
|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|
| RES. NR. : 117             |                       |  | RES. NR. : 118             |                       |  | RES. NR. : 119             |                       |  | RES. NR. : 120             |                       |  | RES. NR. : 121             |                       |  |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |
| < 00050                    | 055                   |  | < 00015                    | 018                   |  | < 00015                    | 053                   |  | < 00015                    | 099                   |  | < 00025                    | 018                   |  |
| 00050 - 00100              | 055                   |  | 00015 - 00030              | 047                   |  | 00015 - 00030              | 095                   |  | 00015 - 00030              | 190                   |  | 00025 - 00050              | 020                   |  |
| 00100 - 00150              | 072                   |  | 00030 - 00045              | 065                   |  | 00030 - 00045              | 071                   |  | 00030 - 00045              | 139                   |  | 00050 - 00076              | 053                   |  |
| 00150 - 00200              | 065                   |  | 00045 - 00060              | 061                   |  | 00045 - 00060              | 071                   |  | 00045 - 00060              | 097                   |  | 00076 - 00100              | 063                   |  |
| 00200 - 00250              | 047                   |  | 00060 - 00075              | 045                   |  | 00060 - 00075              | 071                   |  | 00060 - 00075              | 073                   |  | 00100 - 00125              | 061                   |  |
| 00250 - 00300              | 051                   |  | 00075 - 00090              | 032                   |  | 00075 - 00090              | 055                   |  | 00075 - 00090              | 052                   |  | 00125 - 00150              | 041                   |  |
| 00300 - 00350              | 026                   |  | 00090 - 00105              | 051                   |  | 00090 - 00105              | 067                   |  | 00090 - 00105              | 070                   |  | 00150 - 00175              | 055                   |  |
| 00350 - 00400              | 024                   |  | 00105 - 00120              | 026                   |  | 00105 - 00120              | 044                   |  | 00105 - 00120              | 040                   |  | 00175 - 00200              | 063                   |  |
| 00400 - 00500              | 084                   |  | 00120 - 00150              | 057                   |  | 00120 - 00150              | 063                   |  | 00120 - 00150              | 056                   |  | 00200 - 00225              | 076                   |  |
| 00500 - 00600              | 037                   |  | 00150 - 00200              | 057                   |  | 00150 - 00200              | 075                   |  | 00150 - 00200              | 038                   |  | 00225 - 00250              | 072                   |  |
| 00600 - 00800              | 098                   |  | 00200 - 00250              | 037                   |  | 00200 - 00250              | 044                   |  | 00200 - 00250              | 034                   |  | 00250 - 00275              | 039                   |  |
| 00800 - 01000              | 063                   |  | 00250 - 00300              | 045                   |  | 00250 - 00300              | 038                   |  | 00250 - 00300              | 032                   |  | 00275 - 00300              | 034                   |  |
| 01000 - 01250              | 049                   |  | 00300 - 00400              | 067                   |  | 00300 - 00400              | 079                   |  | 00300 - 00400              | 024                   |  | 00300 - 00325              | 047                   |  |
| 01250 - 01500              | 034                   |  | 00400 - 00600              | 082                   |  | 00400 - 00600              | 061                   |  | 00400 - 00600              | 018                   |  | 00325 - 00350              | 041                   |  |
| 01500 - 02000              | 057                   |  | 00600 - 00900              | 072                   |  | 00600 - 00900              | 044                   |  | 00600 - 00900              | 014                   |  | 00350 - 00400              | 063                   |  |
| 02000 - 03000              | 076                   |  | 00900 - 01500              | 090                   |  | 00900 - 01500              | 034                   |  | 00900 - 01500              | 012                   |  | 00400 - 00500              | 082                   |  |
| 03000 - 04000              | 034                   |  | 01500 - 02500              | 061                   |  | 01500 - 02500              | 020                   |  | 01500 - 02500              | 004                   |  | 00500 - 00750              | 098                   |  |
| 04000 - 06000              | 043                   |  | 02500 - 05000              | 067                   |  | 02500 - 05000              | 006                   |  | 02500 - 05000              | 000                   |  | 00750 - 01000              | 026                   |  |
| 06000 - 12000              | 020                   |  | 05000 - 10000              | 010                   |  | 05000 - 10000              | 000                   |  | 05000 - 10000              | 000                   |  | 01000 - 02000              | 018                   |  |
| > 12000                    | 000                   |  | > 10000                    | 000                   |  | > 10000                    | 000                   |  | > 10000                    | 000                   |  | > 02000                    | 000                   |  |
| NO OF MEASUR               | +00486                |  | NO OF MEASUR.              | +00486                |  | NO OF MEASUR.              | +00490                |  | NO OF MEASUR.              | +00493                |  | NO OF MEASUR.              | +00486                |  |
| MEAN [X10E-2]              | +01114                |  | MEAN [X10E-2]              | +00703                |  | MEAN [X10E-3]              | +00258                |  | MEAN [X10E-4]              | +00116                |  | MEAN [X10E-5]              | +00291                |  |
| SIGMA [X10E-2]             | +01430                |  | SIGMA [X10E-2]             | +01072                |  | SIGMA [X10E-3]             | +00394                |  | SIGMA [X10E-4]             | +00205                |  | SIGMA [X10E-5]             | +00214                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 61

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= VERY LOW AEROSOL CONCENTRATION <5 X 10E-6 G/CU M

| D1 = 0.23 MI   |                        |                    | D2 = 0.45 MI   |                        |                    | D3 = 0.93 MI   |                        |                    | D4 = 2.00 MI   |                        |                    | D5 = 4.50 MI   |                        |                    |
|----------------|------------------------|--------------------|----------------|------------------------|--------------------|----------------|------------------------|--------------------|----------------|------------------------|--------------------|----------------|------------------------|--------------------|
| RES. NR. : 292 | PARTIC. CONC. [X10E-2] | FREQUENCY [1/10 X] | RES. NR. : 293 | PARTIC. CONC. [X10E-2] | FREQUENCY [1/10 X] | RES. NR. : 294 | PARTIC. CONC. [X10E-3] | FREQUENCY [1/10 X] | RES. NR. : 295 | PARTIC. CONC. [X10E-4] | FREQUENCY [1/10 X] | RES. NR. : 296 | PARTIC. CONC. [X10E-5] | FREQUENCY [1/10 X] |
| < 00500        | 167                    |                    | < 00500        | 149                    |                    | < 00150        | 196                    |                    | < 00050        | 066                    |                    | < 00200        | 003                    |                    |
| 00500 - 01000  | 131                    |                    | 00500 - 01000  | 192                    |                    | 00150 - 00300  | 226                    |                    | 00050 - 00100  | 112                    |                    | 00200 - 00400  | 046                    |                    |
| 01000 - 01500  | 128                    |                    | 01000 - 01500  | 162                    |                    | 00300 - 00450  | 163                    |                    | 00100 - 00150  | 132                    |                    | 00400 - 00600  | 107                    |                    |
| 01500 - 02000  | 078                    |                    | 01500 - 02000  | 093                    |                    | 00450 - 00600  | 085                    |                    | 00150 - 00200  | 099                    |                    | 00600 - 00800  | 117                    |                    |
| 02000 - 02500  | 069                    |                    | 02000 - 02500  | 089                    |                    | 00600 - 00750  | 078                    |                    | 00200 - 00250  | 105                    |                    | 00800 - 01000  | 093                    |                    |
| 02500 - 03000  | 042                    |                    | 02500 - 03000  | 043                    |                    | 00750 - 00900  | 065                    |                    | 00250 - 00300  | 056                    |                    | 01000 - 01200  | 090                    |                    |
| 03000 - 03500  | 029                    |                    | 03000 - 03500  | 039                    |                    | 00900 - 01050  | 022                    |                    | 00300 - 00350  | 056                    |                    | 01200 - 01400  | 080                    |                    |
| 03500 - 04000  | 032                    |                    | 03500 - 04000  | 019                    |                    | 01050 - 01200  | 036                    |                    | 00350 - 00400  | 042                    |                    | 01400 - 01600  | 040                    |                    |
| 04000 - 05000  | 052                    |                    | 04000 - 04500  | 016                    |                    | 01200 - 01350  | 022                    |                    | 00400 - 00500  | 062                    |                    | 01600 - 01800  | 020                    |                    |
| 05000 - 06000  | 049                    |                    | 04500 - 05000  | 016                    |                    | 01350 - 01500  | 013                    |                    | 00500 - 00600  | 059                    |                    | 01800 - 02000  | 067                    |                    |
| 06000 - 07000  | 046                    |                    | 05000 - 06000  | 029                    |                    | 01500 - 01650  | 009                    |                    | 00600 - 00700  | 076                    |                    | 02000 - 02250  | 036                    |                    |
| 07000 - 08000  | 019                    |                    | 06000 - 07000  | 013                    |                    | 01650 - 01800  | 006                    |                    | 00700 - 00800  | 036                    |                    | 02250 - 02500  | 040                    |                    |
| 08000 - 10000  | 055                    |                    | 07000 - 08000  | 033                    |                    | 01800 - 02000  | 000                    |                    | 00800 - 00900  | 036                    |                    | 02500 - 03000  | 063                    |                    |
| 10000 - 15000  | 052                    |                    | 08000 - 10000  | 016                    |                    | 02000 - 02500  | 016                    |                    | 00900 - 01000  | 006                    |                    | 03000 - 03500  | 030                    |                    |
| 15000 - 25000  | 026                    |                    | 10000 - 15000  | 036                    |                    | 02500 - 03000  | 009                    |                    | 01000 - 01250  | 019                    |                    | 03500 - 04000  | 043                    |                    |
| 25000 - 40000  | 013                    |                    | 15000 - 20000  | 019                    |                    | 03000 - 04000  | 022                    |                    | 01250 - 01500  | 026                    |                    | 04000 - 05000  | 046                    |                    |
| 40000 - 60000  | 003                    |                    | 20000 - 30000  | 016                    |                    | 04000 - 06000  | 016                    |                    | 01500 - 02000  | 023                    |                    | 05000 - 07000  | 050                    |                    |
| 60000 - 80000  | 000                    |                    | 30000 - 40000  | 009                    |                    | 06000 - 10000  | 006                    |                    | 02000 - 03000  | 026                    |                    | 07000 - 09000  | 020                    |                    |
| 80000 - 100000 | 000                    |                    | 40000 - 50000  | 000                    |                    | 10000 - 20000  | 000                    |                    | 03000 - 04000  | 006                    |                    | 09000 - 12000  | 000                    |                    |
| > 100000       | 000                    |                    | > 50000        | 000                    |                    | > 20000        | 000                    |                    | > 06000        | 000                    |                    | > 12000        | 000                    |                    |
| NO OF MEASUR.  | +00304                 |                    | NO OF MEASUR.  | +00301                 |                    | NO OF MEASUR.  | +00305                 |                    | NO OF MEASUR.  | +00303                 |                    | NO OF MEASUR.  | +00298                 |                    |
| MEAN [X10E-2]  | +04025                 |                    | MEAN [X10E-2]  | +03358                 |                    | MEAN [X10E-3]  | +00693                 |                    | MEAN [X10E-4]  | +00444                 |                    | MEAN [X10E-5]  | +01934                 |                    |
| SIGMA [X10E-2] | +05544                 |                    | SIGMA [X10E-2] | +05258                 |                    | SIGMA [X10E-3] | +01041                 |                    | SIGMA [X10E-4] | +00557                 |                    | SIGMA [X10E-5] | +01677                 |                    |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 62

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= AEROSOL CONCENTRATION: 10-15 X 10E-6 O/CBM

| D1 = 0.23 MI               |                       | D2 = 0.45 MI               |                       | D3 = 0.93 MI               |                       | D4 = 2.00 MI               |                       | D5 = 4.50 MI               |                       |
|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|
| RES. NR. : 477             |                       | RES. NR. : 478             |                       | RES. NR. : 479             |                       | RES. NR. : 480             |                       | RES. NR. : 481             |                       |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 X] | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 X] | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 X] |
| < 00500                    | 110                   | < 00500                    | 093                   | < 00150                    | 057                   | < 00050                    | 047                   | < 00200                    | 017                   |
| 00500 - 01000              | 110                   | 00500 - 01000              | 187                   | 00150 - 00300              | 173                   | 00050 - 00100              | 082                   | 00200 - 00400              | 065                   |
| 01000 - 01500              | 075                   | 01000 - 01500              | 122                   | 00300 - 00450              | 144                   | 00100 - 00150              | 088                   | 00400 - 00600              | 065                   |
| 01500 - 02000              | 069                   | 01500 - 02000              | 052                   | 00450 - 00600              | 132                   | 00150 - 00200              | 065                   | 00600 - 00800              | 083                   |
| 02000 - 02500              | 063                   | 02000 - 02500              | 070                   | 00600 - 00750              | 075                   | 00200 - 00250              | 076                   | 00800 - 01000              | 101                   |
| 02500 - 03000              | 040                   | 02500 - 03000              | 093                   | 00750 - 00900              | 069                   | 00250 - 00300              | 071                   | 01000 - 01200              | 089                   |
| 03000 - 03500              | 029                   | 03000 - 03500              | 046                   | 00900 - 01050              | 075                   | 00300 - 00350              | 023                   | 01200 - 01400              | 071                   |
| 03500 - 04000              | 040                   | 03500 - 04000              | 046                   | 01050 - 01200              | 075                   | 00350 - 00400              | 076                   | 01400 - 01600              | 047                   |
| 04000 - 05000              | 075                   | 04000 - 04500              | 023                   | 01200 - 01350              | 011                   | 00400 - 00500              | 076                   | 01600 - 01800              | 059                   |
| 05000 - 06000              | 046                   | 04500 - 05000              | 040                   | 01350 - 01500              | 023                   | 00500 - 00600              | 029                   | 01800 - 02000              | 029                   |
| 06000 - 07000              | 034                   | 05000 - 06000              | 046                   | 01500 - 01650              | 017                   | 00600 - 00700              | 065                   | 02000 - 02250              | 047                   |
| 07000 - 08000              | 040                   | 06000 - 07000              | 011                   | 01650 - 01800              | 017                   | 00700 - 00800              | 017                   | 02250 - 02500              | 035                   |
| 08000 - 10000              | 075                   | 07000 - 08000              | 000                   | 01800 - 02000              | 017                   | 00800 - 00900              | 053                   | 02500 - 03000              | 047                   |
| 10000 - 15000              | 093                   | 08000 - 10000              | 064                   | 02000 - 02500              | 023                   | 00900 - 01000              | 053                   | 03000 - 03500              | 041                   |
| 15000 - 25000              | 058                   | 10000 - 15000              | 040                   | 02500 - 03000              | 011                   | 01000 - 01250              | 047                   | 03500 - 04000              | 053                   |
| 25000 - 40000              | 034                   | 15000 - 20000              | 040                   | 03000 - 04000              | 028                   | 01250 - 01500              | 047                   | 04000 - 05000              | 053                   |
| 40000 - 60000              | 000                   | 20000 - 30000              | 011                   | 04000 - 06000              | 028                   | 01500 - 02000              | 017                   | 05000 - 07000              | 083                   |
| 60000 - 80000              | 000                   | 30000 - 40000              | 005                   | 06000 - 10000              | 017                   | 02000 - 03000              | 035                   | 07000 - 09000              | 005                   |
| 80000 - 100000             | 000                   | 40000 - 50000              | 000                   | 10000 - 20000              | 000                   | 03000 - 06000              | 023                   | 09000 - 12000              | 000                   |
| >100000                    | 000                   | > 50000                    | 000                   | > 20000                    | 000                   | > 06000                    | 000                   | > 12000                    | 000                   |
| NO OF MEASUR.              | +00172                | NO OF MEASUR.              | +00171                | NO OF MEASUR.              | +00173                | NO OF MEASUR.              | +00169                | NO OF MEASUR.              | +00168                |
| MEAN [X10E-2]              | +05933                | MEAN [X10E-2]              | +04115                | MEAN [X10E-3]              | +01010                | MEAN [X10E-4]              | +00618                | MEAN [X10E-5]              | +02057                |
| SIGMA [X10E-2]             | +07039                | SIGMA [X10E-2]             | +05268                | SIGMA [X10E-3]             | +01268                | SIGMA [X10E-4]             | +00682                | SIGMA [X10E-5]             | +01623                |

**FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS**

TABLE: 63

**GARMISCH (VALLEY 740 M)**

**PERIOD : 1970-1980**

PARAMETER= AEROSOL CONCENTRATION: 20-25 X 10E-6 G/CBM

| D1 = 0.23 MI               |                       |  | D2 = 0.45 MI               |                       |  | D3 = 0.93 MI               |                       |  | D4 = 2.00 MI               |                       |  | D5 = 4.50 MI               |                       |  |
|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|
| RES. NR. : 482             |                       |  | RES. NR. : 483             |                       |  | RES. NR. : 484             |                       |  | RES. NR. : 485             |                       |  | RES. NR. : 486             |                       |  |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] |  | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] |  | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 X] |  | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 X] |  | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 X] |  |
| < 00500                    | 051                   |  | < 00500                    | 082                   |  | < 00150                    | 064                   |  | < 00050                    | 032                   |  | < 00200                    | 000                   |  |
| 00500 - 01000              | 108                   |  | 00500 - 01000              | 076                   |  | 00150 - 00300              | 167                   |  | 00050 - 00100              | 071                   |  | 00200 - 00400              | 027                   |  |
| 01000 - 01500              | 064                   |  | 01000 - 01500              | 082                   |  | 00300 - 00450              | 096                   |  | 00100 - 00150              | 052                   |  | 00400 - 00600              | 067                   |  |
| 01500 - 02000              | 064                   |  | 01500 - 02000              | 089                   |  | 00450 - 00600              | 045                   |  | 00150 - 00200              | 013                   |  | 00600 - 00800              | 060                   |  |
| 02000 - 02500              | 070                   |  | 02000 - 02500              | 101                   |  | 00600 - 00750              | 103                   |  | 00200 - 00250              | 058                   |  | 00800 - 01000              | 108                   |  |
| 02500 - 03000              | 070                   |  | 02500 - 03000              | 038                   |  | 00750 - 00900              | 038                   |  | 00250 - 00300              | 026                   |  | 01000 - 01200              | 067                   |  |
| 03000 - 03500              | 070                   |  | 03000 - 03500              | 031                   |  | 00900 - 01050              | 045                   |  | 00300 - 00350              | 019                   |  | 01200 - 01400              | 081                   |  |
| 03500 - 04000              | 064                   |  | 03500 - 04000              | 057                   |  | 01050 - 01200              | 045                   |  | 00350 - 00400              | 045                   |  | 01400 - 01600              | 047                   |  |
| 04000 - 05000              | 057                   |  | 04000 - 04500              | 070                   |  | 01200 - 01350              | 058                   |  | 00400 - 00500              | 091                   |  | 01600 - 01800              | 074                   |  |
| 05000 - 06000              | 064                   |  | 04500 - 05000              | 057                   |  | 01350 - 01500              | 051                   |  | 00500 - 00600              | 071                   |  | 01800 - 02000              | 054                   |  |
| 06000 - 07000              | 025                   |  | 05000 - 06000              | 044                   |  | 01500 - 01650              | 006                   |  | 00600 - 00700              | 098                   |  | 02000 - 02250              | 094                   |  |
| 07000 - 08000              | 019                   |  | 06000 - 07000              | 031                   |  | 01650 - 01800              | 025                   |  | 00700 - 00800              | 084                   |  | 02250 - 02500              | 033                   |  |
| 08000 - 10000              | 051                   |  | 07000 - 08000              | 019                   |  | 01800 - 02000              | 025                   |  | 00800 - 00900              | 052                   |  | 02500 - 03000              | 087                   |  |
| 10000 - 15000              | 083                   |  | 08000 - 10000              | 057                   |  | 02000 - 02500              | 070                   |  | 00900 - 01000              | 039                   |  | 03000 - 03500              | 040                   |  |
| 15000 - 25000              | 076                   |  | 10000 - 15000              | 050                   |  | 02500 - 03000              | 045                   |  | 01000 - 01250              | 052                   |  | 03500 - 04000              | 033                   |  |
| 25000 - 40000              | 038                   |  | 15000 - 20000              | 063                   |  | 03000 - 04000              | 064                   |  | 01250 - 01500              | 065                   |  | 04000 - 05000              | 047                   |  |
| 40000 - 60000              | 019                   |  | 20000 - 30000              | 031                   |  | 04000 - 06000              | 032                   |  | 01500 - 02000              | 071                   |  | 05000 - 07000              | 060                   |  |
| 60000 - 80000              | 000                   |  | 30000 - 40000              | 012                   |  | 06000 - 10000              | 012                   |  | 02000 - 03000              | 019                   |  | 07000 - 09000              | 013                   |  |
| 80000 - 100000             | 000                   |  | 40000 - 50000              | 000                   |  | 10000 - 20000              | 000                   |  | 03000 - 06000              | 032                   |  | 09000 - 12000              | 000                   |  |
| >100000                    | 000                   |  | > 50000                    | 000                   |  | > 20000                    | 000                   |  | > 06000                    | 000                   |  | > 12000                    | 000                   |  |
| NO OF MEASUR.              | +00156                |  | NO OF MEASUR.              | +00157                |  | NO OF MEASUR.              | +00155                |  | NO OF MEASUR.              | +00153                |  | NO OF MEASUR.              | +00148                |  |
| MEAN [X10E-2]              | +06855                |  | MEAN [X10E-2]              | +05653                |  | MEAN [X10E-3]              | +01308                |  | MEAN [X10E-4]              | +00789                |  | MEAN [X10E-5]              | +02115                |  |
| SIGMA [X10E-2]             | +09829                |  | SIGMA [X10E-2]             | +06692                |  | SIGMA [X10E-3]             | +01327                |  | SIGMA [X10E-4]             | +00748                |  | SIGMA [X10E-5]             | +01577                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 64

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= AEROSOL CONCENTRATION: 30-40 X 10E-6 G/CBM

| D1 = 0.23 MI                    |                    | D2 = 0.45 MI                    |                    | D3 = 0.93 MI                    |                    | D4 = 2.00 MI                    |                    | D5 = 4.50 MI                    |                    |
|---------------------------------|--------------------|---------------------------------|--------------------|---------------------------------|--------------------|---------------------------------|--------------------|---------------------------------|--------------------|
| RES. NR. : 487                  |                    | RES. NR. : 488                  |                    | RES. NR. : 489                  |                    | RES. NR. : 490                  |                    | RES. NR. : 491                  |                    |
| PARTIC. CONC. [X10E-2] [1/10 X] | FREQUENCY [1/10 X] | PARTIC. CONC. [X10E-2] [1/10 X] | FREQUENCY [1/10 X] | PARTIC. CONC. [X10E-3] [1/10 X] | FREQUENCY [1/10 X] | PARTIC. CONC. [X10E-4] [1/10 X] | FREQUENCY [1/10 X] | PARTIC. CONC. [X10E-5] [1/10 X] | FREQUENCY [1/10 X] |
| < 00500                         | 074                | < 00500                         | 012                | < 00150                         | 067                | < 00050                         | 045                | < 00200                         | 012                |
| 00500 - 01000                   | 086                | 00500 - 01000                   | 046                | 00150 - 00300                   | 071                | 00050 - 00100                   | 041                | 00200 - 00400                   | 086                |
| 01000 - 01500                   | 049                | 01000 - 01500                   | 067                | 00300 - 00450                   | 071                | 00100 - 00150                   | 041                | 00400 - 00600                   | 064                |
| 01500 - 02000                   | 095                | 01500 - 02000                   | 059                | 00450 - 00600                   | 037                | 00150 - 00200                   | 053                | 00600 - 00800                   | 051                |
| 02000 - 02500                   | 033                | 02000 - 02500                   | 084                | 00600 - 00750                   | 097                | 00200 - 00250                   | 029                | 00800 - 01000                   | 060                |
| 02500 - 03000                   | 053                | 02500 - 03000                   | 063                | 00750 - 00900                   | 050                | 00250 - 00300                   | 049                | 01000 - 01200                   | 051                |
| 03000 - 03500                   | 033                | 03000 - 03500                   | 063                | 00900 - 01050                   | 084                | 00300 - 00350                   | 037                | 01200 - 01400                   | 094                |
| 03500 - 04000                   | 037                | 03500 - 04000                   | 059                | 01050 - 01200                   | 054                | 00350 - 00400                   | 024                | 01400 - 01600                   | 077                |
| 04000 - 05000                   | 045                | 04000 - 04500                   | 033                | 01200 - 01350                   | 054                | 00400 - 00500                   | 070                | 01600 - 01800                   | 077                |
| 05000 - 06000                   | 045                | 04500 - 05000                   | 038                | 01350 - 01500                   | 042                | 00500 - 00600                   | 103                | 01800 - 02000                   | 025                |
| 06000 - 07000                   | 049                | 05000 - 06000                   | 072                | 01500 - 01650                   | 021                | 00600 - 00700                   | 062                | 02000 - 02250                   | 051                |
| 07000 - 08000                   | 024                | 06000 - 07000                   | 050                | 01650 - 01800                   | 037                | 00700 - 00800                   | 049                | 02250 - 02500                   | 043                |
| 08000 - 10000                   | 053                | 07000 - 08000                   | 033                | 01800 - 02000                   | 046                | 00800 - 00900                   | 029                | 02500 - 03000                   | 056                |
| 10000 - 15000                   | 107                | 08000 - 10000                   | 059                | 02000 - 02500                   | 063                | 00900 - 01000                   | 049                | 03000 - 03500                   | 073                |
| 15000 - 25000                   | 099                | 10000 - 15000                   | 084                | 02500 - 03000                   | 037                | 01000 - 01250                   | 078                | 03500 - 04000                   | 030                |
| 25000 - 40000                   | 066                | 15000 - 20000                   | 055                | 03000 - 04000                   | 030                | 01250 - 01500                   | 059                | 04000 - 05000                   | 038                |
| 40000 - 60000                   | 016                | 20000 - 30000                   | 088                | 04000 - 06000                   | 071                | 01500 - 02000                   | 095                | 05000 - 07000                   | 068                |
| 60000 - 80000                   | 008                | 30000 - 40000                   | 025                | 06000 - 10000                   | 037                | 02000 - 03000                   | 049                | 07000 - 09000                   | 034                |
| 80000 - 100000                  | 000                | 40000 - 50000                   | 000                | 10000 - 20000                   | 000                | 03000 - 06000                   | 029                | 09000 - 12000                   | 000                |
| >100000                         | 000                | > 50000                         | 000                | > 20000                         | 000                | > 06000                         | 000                | > 12000                         | 000                |
| NO OF MEASUR                    | +00242             | NO OF MEASUR                    | +00236             | NO OF MEASUR                    | +00237             | NO OF MEASUR                    | +00241             | NO OF MEASUR                    | +00232             |
| MEAN [X10E-2]                   | +08897             | MEAN [X10E-2]                   | +07840             | MEAN [X10E-3]                   | +01700             | MEAN [X10E-4]                   | +00843             | MEAN [X10E-5]                   | +02180             |
| SIGMA [X10E-2]                  | +11120             | SIGMA [X10E-2]                  | +08011             | SIGMA [X10E-3]                  | +01779             | SIGMA [X10E-4]                  | +00747             | SIGMA [X10E-5]                  | +01826             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 65

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= VERY HIGH AEROSOL CONCENTRATION >60 X 10E-6 G/CU M

| D1 = 0.23 MI                    |                    | D2 = 0.45 MI                    |                    | D3 = 0.93 MI                    |                    | D4 = 2.00 MI                    |                    | D5 = 4.50 MI                    |                    |
|---------------------------------|--------------------|---------------------------------|--------------------|---------------------------------|--------------------|---------------------------------|--------------------|---------------------------------|--------------------|
| RES. NR. : 152                  |                    | RES. NR. : 153                  |                    | RES. NR. : 154                  |                    | RES. NR. : 155                  |                    | RES. NR. : 156                  |                    |
| PARTIC. CONC. [X10E-2] [1/10 %] | FREQUENCY [1/10 %] | PARTIC. CONC. [X10E-2] [1/10 %] | FREQUENCY [1/10 %] | PARTIC. CONC. [X10E-3] [1/10 %] | FREQUENCY [1/10 %] | PARTIC. CONC. [X10E-4] [1/10 %] | FREQUENCY [1/10 %] | PARTIC. CONC. [X10E-5] [1/10 %] | FREQUENCY [1/10 %] |
| < 00500                         | 061                | < 00500                         | 019                | < 00150                         | 000                | < 00050                         | 056                | < 00200                         | 000                |
| 00500 - 01000                   | 000                | 00500 - 01000                   | 059                | 00150 - 00300                   | 082                | 00050 - 00100                   | 018                | 00200 - 00400                   | 063                |
| 01000 - 01500                   | 044                | 01000 - 01500                   | 029                | 00300 - 00450                   | 041                | 00100 - 00150                   | 056                | 00400 - 00600                   | 090                |
| 01500 - 02000                   | 017                | 01500 - 02000                   | 009                | 00450 - 00600                   | 103                | 00150 - 00200                   | 018                | 00600 - 00800                   | 054                |
| 02000 - 02500                   | 070                | 02000 - 02500                   | 089                | 00600 - 00750                   | 020                | 00200 - 00250                   | 018                | 00800 - 01000                   | 081                |
| 02500 - 03000                   | 035                | 02500 - 03000                   | 049                | 00750 - 00900                   | 020                | 00250 - 00300                   | 018                | 01000 - 01200                   | 081                |
| 03000 - 03500                   | 017                | 03000 - 03500                   | 049                | 00900 - 01050                   | 010                | 00300 - 00350                   | 028                | 01200 - 01400                   | 054                |
| 03500 - 04000                   | 017                | 03500 - 04000                   | 009                | 01050 - 01200                   | 041                | 00350 - 00400                   | 028                | 01400 - 01600                   | 063                |
| 04000 - 05000                   | 053                | 04000 - 04500                   | 049                | 01200 - 01350                   | 020                | 00400 - 00500                   | 018                | 01600 - 01800                   | 036                |
| 05000 - 06000                   | 097                | 04500 - 05000                   | 019                | 01350 - 01500                   | 030                | 00500 - 00600                   | 037                | 01800 - 02000                   | 018                |
| 06000 - 07000                   | 035                | 05000 - 06000                   | 049                | 01500 - 01650                   | 041                | 00600 - 00700                   | 018                | 02000 - 02250                   | 090                |
| 07000 - 08000                   | 035                | 06000 - 07000                   | 029                | 01650 - 01800                   | 020                | 00700 - 00800                   | 047                | 02250 - 02500                   | 036                |
| 08000 - 10000                   | 097                | 07000 - 08000                   | 108                | 01800 - 02000                   | 041                | 00800 - 00900                   | 037                | 02500 - 03000                   | 081                |
| 10000 - 15000                   | 070                | 08000 - 10000                   | 019                | 02000 - 02500                   | 082                | 00900 - 01000                   | 018                | 03000 - 03500                   | 036                |
| 15000 - 25000                   | 168                | 10000 - 15000                   | 178                | 02500 - 03000                   | 123                | 01000 - 01250                   | 094                | 03500 - 04000                   | 027                |
| 25000 - 40000                   | 106                | 15000 - 20000                   | 059                | 03000 - 04000                   | 082                | 01250 - 01500                   | 066                | 04000 - 05000                   | 063                |
| 40000 - 60000                   | 061                | 20000 - 30000                   | 138                | 04000 - 06000                   | 123                | 01500 - 02000                   | 150                | 05000 - 07000                   | 081                |
| 60000 - 80000                   | 008                | 30000 - 40000                   | 029                | 06000 - 10000                   | 113                | 02000 - 03000                   | 169                | 07000 - 09000                   | 036                |
| 80000 - 100000                  | 000                | 40000 - 50000                   | 000                | 10000 - 20000                   | 000                | 03000 - 06000                   | 094                | 09000 - 12000                   | 000                |
| >100000                         | 000                | > 50000                         | 000                | > 20000                         | 000                | > 06000                         | 000                | > 12000                         | 000                |
| NO OF MEASUR.                   | +00113             | NO OF MEASUR.                   | +00101             | NO OF MEASUR.                   | +00097             | NO OF MEASUR.                   | +00106             | NO OF MEASUR.                   | +00110             |
| MEAN [X10E-2]                   | +13756             | MEAN [X10E-2]                   | +10235             | MEAN [X10E-3]                   | +02658             | MEAN [X10E-4]                   | +01338             | MEAN [X10E-5]                   | +02293             |
| SIGMA [X10E-2]                  | +14131             | SIGMA [X10E-2]                  | +09865             | SIGMA [X10E-3]                  | +02226             | SIGMA [X10E-4]                  | +01007             | SIGMA [X10E-5]                  | +01896             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 66

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= VERY LOW AEROSOL CONCENTRATION <5 X 10E-6 G/CU M

| D1 = 0.23 MI               |                       | D2 = 0.45 MI               |                       | D3 = 0.93 MI               |                       | D4 = 2.00 MI               |                       | D5 = 4.50 MI               |                       |
|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|
| RES. NR :                  | 297                   | RES. NR :                  | 298                   | RES. NR :                  | 299                   | RES. NR :                  | 300                   | RES. NR :                  | 301                   |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |
| < 00200                    | 045                   | < 00100                    | 104                   | < 00025                    | 057                   | < 00025                    | 108                   | < 00025                    | 003                   |
| 00200 - 00400              | 101                   | 00100 - 00200              | 094                   | 00025 - 00050              | 075                   | 00025 - 00050              | 117                   | 00025 - 00050              | 020                   |
| 00400 - 00600              | 118                   | 00200 - 00300              | 085                   | 00050 - 00076              | 073                   | 00050 - 00076              | 108                   | 00050 - 00076              | 023                   |
| 00600 - 00800              | 087                   | 00300 - 00400              | 043                   | 00076 - 00100              | 068                   | 00076 - 00100              | 083                   | 00076 - 00100              | 047                   |
| 00800 - 01000              | 074                   | 00400 - 00500              | 060                   | 00100 - 00150              | 120                   | 00100 - 00125              | 072                   | 00100 - 00125              | 040                   |
| 01000 - 01200              | 058                   | 00500 - 00600              | 036                   | 00150 - 00200              | 062                   | 00125 - 00150              | 070                   | 00125 - 00150              | 029                   |
| 01200 - 01400              | 045                   | 00600 - 00750              | 049                   | 00200 - 00250              | 057                   | 00150 - 00175              | 054                   | 00150 - 00175              | 042                   |
| 01400 - 01600              | 038                   | 00750 - 01000              | 053                   | 00250 - 00300              | 052                   | 00175 - 00200              | 037                   | 00175 - 00200              | 040                   |
| 01600 - 01800              | 032                   | 01000 - 01500              | 091                   | 00300 - 00350              | 053                   | 00200 - 00250              | 066                   | 00200 - 00250              | 095                   |
| 01800 - 02000              | 034                   | 01500 - 02000              | 080                   | 00350 - 00400              | 037                   | 00250 - 00300              | 039                   | 00250 - 00300              | 082                   |
| 02000 - 02500              | 070                   | 02000 - 02500              | 041                   | 00400 - 00450              | 028                   | 00300 - 00350              | 034                   | 00300 - 00350              | 088                   |
| 02500 - 03000              | 058                   | 02500 - 03000              | 031                   | 00450 - 00500              | 025                   | 00350 - 00400              | 027                   | 00350 - 00400              | 066                   |
| 03000 - 03500              | 056                   | 03000 - 04000              | 040                   | 00500 - 00600              | 059                   | 00400 - 00450              | 037                   | 00400 - 00450              | 066                   |
| 03500 - 04000              | 043                   | 04000 - 05000              | 047                   | 00600 - 00700              | 028                   | 00450 - 00500              | 018                   | 00450 - 00500              | 036                   |
| 04000 - 05000              | 038                   | 05000 - 07000              | 056                   | 00700 - 01000              | 075                   | 00500 - 00600              | 036                   | 00500 - 00600              | 062                   |
| 05000 - 06000              | 021                   | 07000 - 09000              | 023                   | 01000 - 01500              | 061                   | 00600 - 00700              | 023                   | 00600 - 00700              | 060                   |
| 06000 - 08000              | 034                   | 09000 - 12000              | 034                   | 01500 - 02000              | 035                   | 00700 - 01000              | 037                   | 00700 - 01000              | 081                   |
| 08000 - 10000              | 018                   | 12000 - 15000              | 018                   | 02000 - 03500              | 025                   | 01000 - 02000              | 025                   | 01000 - 02000              | 104                   |
| 10000 - 15000              | 001                   | 15000 - 20000              | 001                   | 03500 - 06000              | 000                   | 02000 - 04000              | 000                   | 02000 - 04000              | 005                   |
| > 15000                    | 000                   | > 20000                    | 000                   | > 06000                    | 000                   | > 04000                    | 000                   | > 04000                    | 000                   |
| NO OF MEASUR               | +00550                | NO OF MEASUR               | +00548                | NO OF MEASUR               | +00536                | NO OF MEASUR               | +00553                | NO OF MEASUR               | +00543                |
| MEAN [X10E-2]              | +01892                | MEAN [X10E-2]              | +02111                | MEAN [X10E-3]              | +00435                | MEAN [X10E-4]              | +00225                | MEAN [X10E-5]              | +00468                |
| SIGMA [X10E-2]             | +01889                | SIGMA [X10E-2]             | +02120                | SIGMA [X10E-3]             | +00532                | SIGMA [X10E-4]             | +00265                | SIGMA [X10E-5]             | +00406                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 67

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= AEROSOL CONCENTRATION: 10-15 X 10E-6 G/CBM

| D1 = 0.23 MI           | D2 = 0.45 MI           | D3 = 0.93 MI           | D4 = 2.00 MI           | D5 = 4.50 MI           |
|------------------------|------------------------|------------------------|------------------------|------------------------|
| RES. NR. : 492         | RES. NR. : 493         | RES. NR. : 494         | RES. NR. : 495         | RES. NR. : 496         |
| PARTIC. CONC. [X10E-2] | PARTIC. CONC. [X10E-2] | PARTIC. CONC. [X10E-3] | PARTIC. CONC. [X10E-4] | PARTIC. CONC. [X10E-5] |
| FREQUENCY [1/10 %]     | FREQUENCY [1/10 %]     | FREQUENCY [1/10 %]     | FREQUENCY [1/10 %]     | FREQUENCY [1/10 %]     |
| < 00200                | < 00100                | < 00025                | < 00025                | < 00025                |
| 00200 - 00400          | 00100 - 00200          | 00025 - 00050          | 00025 - 00050          | 00025 - 00050          |
| 00400 - 00600          | 00200 - 00300          | 00050 - 00076          | 00050 - 00076          | 00050 - 00076          |
| 00600 - 00800          | 00300 - 00400          | 00076 - 00100          | 00076 - 00100          | 00076 - 00100          |
| 00800 - 01000          | 00400 - 00500          | 00100 - 00150          | 00100 - 00125          | 00100 - 00125          |
| 01000 - 01200          | 00500 - 00600          | 00150 - 00200          | 00125 - 00150          | 00125 - 00150          |
| 01200 - 01400          | 00600 - 00750          | 00200 - 00250          | 00150 - 00175          | 00150 - 00175          |
| 01400 - 01600          | 00750 - 01000          | 00250 - 00300          | 00175 - 00200          | 00175 - 00200          |
| 01600 - 01800          | 01000 - 01500          | 00300 - 00350          | 00200 - 00250          | 00200 - 00250          |
| 01800 - 02000          | 01500 - 02000          | 00350 - 00400          | 00250 - 00300          | 00250 - 00300          |
| 02000 - 02500          | 02000 - 02500          | 00400 - 00450          | 00300 - 00350          | 00300 - 00350          |
| 02500 - 03000          | 02500 - 03000          | 00450 - 00500          | 00350 - 00400          | 00350 - 00400          |
| 03000 - 03500          | 03000 - 04000          | 00500 - 00600          | 00400 - 00450          | 00400 - 00450          |
| 03500 - 04000          | 04000 - 05000          | 00600 - 00700          | 00450 - 00500          | 00450 - 00500          |
| 04000 - 05000          | 05000 - 07000          | 00700 - 01000          | 00500 - 00600          | 00500 - 00600          |
| 05000 - 06000          | 07000 - 09000          | 01000 - 01500          | 00600 - 00700          | 00600 - 00700          |
| 06000 - 08000          | 09000 - 12000          | 01500 - 02000          | 00700 - 01000          | 00700 - 01000          |
| 08000 - 10000          | 12000 - 15000          | 02000 - 03500          | 01000 - 02000          | 01000 - 02000          |
| 10000 - 15000          | 15000 - 20000          | 03500 - 06000          | 02000 - 04000          | 02000 - 04000          |
| > 15000                | > 20000                | > 06000                | > 04000                | > 04000                |
| NO OF MEASUR.          | NO OF MEASUR.          | NO OF MEASUR.          | NO OF MEASUR.          | NO OF MEASUR.          |
| +00147                 | +00145                 | +00147                 | +00144                 | +00146                 |
| MEAN [X10E-2]          | MEAN [X10E-2]          | MEAN [X10E-3]          | MEAN [X10E-4]          | MEAN [X10E-5]          |
| +02126                 | +02951                 | +00515                 | +00250                 | +00495                 |
| SIGMA [X10E-2]         | SIGMA [X10E-2]         | SIGMA [X10E-3]         | SIGMA [X10E-4]         | SIGMA [X10E-5]         |
| +02110                 | +03697                 | +00571                 | +00264                 | +00403                 |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 68

WAVE PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= AEROSOL CONCENTRATION: 20-25 X 10E-6 G/CBM

| D1 = 0.23 MI             |                       | D2 = 0.45 MI             |                       | D3 = 0.93 MI             |                       | D4 = 2.00 MI             |                       | D5 = 4.50 MI             |                       |
|--------------------------|-----------------------|--------------------------|-----------------------|--------------------------|-----------------------|--------------------------|-----------------------|--------------------------|-----------------------|
| RES. NR. : 497           |                       | RES. NR. : 498           |                       | RES. NR. : 499           |                       | RES. NR. : 500           |                       | RES. NR. : 501           |                       |
| PARTICL CONC<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL CONC<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL CONC<br>[X10E-3] | FREQUENCY<br>[1/10 %] | PARTICL CONC<br>[X10E-4] | FREQUENCY<br>[1/10 %] | PARTICL CONC<br>[X10E-5] | FREQUENCY<br>[1/10 %] |
| < 00200                  | 009                   | < 00100                  | 030                   | < 00025                  | 098                   | < 00025                  | 088                   | < 00025                  | 000                   |
| 00200 - 00400            | 067                   | 00100 - 00200            | 071                   | 00025 - 00050            | 039                   | 00025 - 00050            | 127                   | 00025 - 00050            | 020                   |
| 00400 - 00600            | 028                   | 00200 - 00300            | 030                   | 00050 - 00076            | 039                   | 00050 - 00076            | 068                   | 00050 - 00076            | 020                   |
| 00600 - 00800            | 038                   | 00300 - 00400            | 051                   | 00076 - 00100            | 049                   | 00076 - 00100            | 049                   | 00076 - 00100            | 060                   |
| 00800 - 01000            | 096                   | 00400 - 00500            | 030                   | 00100 - 00150            | 068                   | 00100 - 00125            | 107                   | 00100 - 00125            | 000                   |
| 01000 - 01200            | 048                   | 00500 - 00600            | 020                   | 00150 - 00200            | 049                   | 00125 - 00150            | 039                   | 00125 - 00150            | 050                   |
| 01200 - 01400            | 038                   | 00600 - 00750            | 040                   | 00200 - 00250            | 058                   | 00150 - 00175            | 029                   | 00150 - 00175            | 040                   |
| 01400 - 01600            | 043                   | 00750 - 01000            | 020                   | 00250 - 00300            | 049                   | 00175 - 00200            | 058                   | 00175 - 00200            | 030                   |
| 01600 - 01800            | 067                   | 01000 - 01500            | 091                   | 00300 - 00350            | 058                   | 00200 - 00250            | 068                   | 00200 - 00250            | 111                   |
| 01800 - 02000            | 067                   | 01500 - 02000            | 040                   | 00350 - 00400            | 009                   | 00250 - 00300            | 049                   | 00250 - 00300            | 101                   |
| 02000 - 02500            | 115                   | 02000 - 02500            | 061                   | 00400 - 00450            | 058                   | 00300 - 00350            | 029                   | 00300 - 00350            | 060                   |
| 02500 - 03000            | 125                   | 02500 - 03000            | 061                   | 00450 - 00500            | 029                   | 00350 - 00400            | 019                   | 00350 - 00400            | 090                   |
| 03000 - 03500            | 057                   | 03000 - 04000            | 142                   | 00500 - 00600            | 029                   | 00400 - 00450            | 029                   | 00400 - 00450            | 080                   |
| 03500 - 04000            | 067                   | 04000 - 05000            | 061                   | 00600 - 00700            | 009                   | 00450 - 00500            | 078                   | 00450 - 00500            | 020                   |
| 04000 - 05000            | 019                   | 05000 - 07000            | 102                   | 00700 - 01000            | 137                   | 00500 - 00600            | 019                   | 00500 - 00600            | 111                   |
| 05000 - 06000            | 067                   | 07000 - 09000            | 020                   | 01000 - 01500            | 068                   | 00600 - 00700            | 039                   | 00600 - 00700            | 060                   |
| 06000 - 08000            | 019                   | 09000 - 12000            | 061                   | 01500 - 02000            | 068                   | 00700 - 01000            | 039                   | 00700 - 01000            | 030                   |
| 08000 - 10000            | 019                   | 12000 - 15000            | 061                   | 02000 - 03500            | 078                   | 01000 - 02000            | 058                   | 01000 - 02000            | 111                   |
| 10000 - 15000            | 000                   | 15000 - 20000            | 000                   | 03500 - 06000            | 000                   | 02000 - 04000            | 000                   | 02000 - 04000            | 000                   |
| > 15000                  | 000                   | > 20000                  | 000                   | > 06000                  | 000                   | > 04000                  | 000                   | > 04000                  | 000                   |
| NO OF MEASUR.            | +00104                | NO OF MEASUR.            | +00098                | NO OF MEASUR.            | +00102                | NO OF MEASUR.            | +00102                | NO OF MEASUR.            | +00099                |
| MEAN [X10E-2]            | +02110                | MEAN [X10E-2]            | +03591                | MEAN [X10E-3]            | +00659                | MEAN [X10E-4]            | +00295                | MEAN [X10E-5]            | +00463                |
| SIGMA [X10E-2]           | +01830                | SIGMA [X10E-2]           | +03750                | SIGMA [X10E-3]           | +00749                | SIGMA [X10E-4]           | +00352                | SIGMA [X10E-5]           | +00398                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 69

WAVE PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= AEROSOL CONCENTRATION: 30-40 X 10E-6 O/CBM

| D1 = 0.23 MI               |                       | D2 = 0.45 MI               |                       | D3 = 0.93 MI               |                       | D4 = 2.00 MI               |                       | D5 = 4.50 MI               |                       |
|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|
| RES. NR : 502              |                       | RES. NR : 503              |                       | RES. NR : 504              |                       | RES. NR : 505              |                       | RES. NR : 506              |                       |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 X] | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 X] | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 X] |
| < 00200                    | 066                   | < 00100                    | 119                   | < 00025                    | 029                   | < 00025                    | 101                   | < 00025                    | 000                   |
| 00200 - 00400              | 051                   | 00100 - 00200              | 067                   | 00025 - 00050              | 097                   | 00025 - 00050              | 130                   | 00025 - 00050              | 015                   |
| 00400 - 00600              | 081                   | 00200 - 00300              | 059                   | 00050 - 00076              | 089                   | 00050 - 00076              | 079                   | 00050 - 00076              | 053                   |
| 00600 - 00800              | 096                   | 00300 - 00400              | 014                   | 00076 - 00100              | 022                   | 00076 - 00100              | 043                   | 00076 - 00100              | 045                   |
| 00800 - 01000              | 074                   | 00400 - 00500              | 037                   | 00100 - 00150              | 074                   | 00100 - 00125              | 036                   | 00100 - 00125              | 030                   |
| 01000 - 01200              | 081                   | 00500 - 00600              | 029                   | 00150 - 00200              | 089                   | 00125 - 00150              | 028                   | 00125 - 00150              | 015                   |
| 01200 - 01400              | 029                   | 00600 - 00750              | 052                   | 00200 - 00250              | 029                   | 00150 - 00175              | 043                   | 00150 - 00175              | 030                   |
| 01400 - 01600              | 014                   | 00750 - 01000              | 029                   | 00250 - 00300              | 037                   | 00175 - 00200              | 043                   | 00175 - 00200              | 045                   |
| 01600 - 01800              | 044                   | 01000 - 01500              | 082                   | 00300 - 00350              | 044                   | 00200 - 00250              | 036                   | 00200 - 00250              | 091                   |
| 01800 - 02000              | 022                   | 01500 - 02000              | 082                   | 00350 - 00400              | 007                   | 00250 - 00300              | 021                   | 00250 - 00300              | 045                   |
| 02000 - 02500              | 037                   | 02000 - 02500              | 037                   | 00400 - 00450              | 014                   | 00300 - 00350              | 050                   | 00300 - 00350              | 083                   |
| 02500 - 03000              | 088                   | 02500 - 03000              | 059                   | 00450 - 00500              | 022                   | 00350 - 00400              | 050                   | 00350 - 00400              | 022                   |
| 03000 - 03500              | 074                   | 03000 - 04000              | 082                   | 00500 - 00600              | 007                   | 00400 - 00450              | 014                   | 00400 - 00450              | 045                   |
| 03500 - 04000              | 044                   | 04000 - 05000              | 029                   | 00600 - 00700              | 029                   | 00450 - 00500              | 007                   | 00450 - 00500              | 045                   |
| 04000 - 05000              | 059                   | 05000 - 07000              | 074                   | 00700 - 01000              | 126                   | 00500 - 00600              | 079                   | 00500 - 00600              | 091                   |
| 05000 - 06000              | 037                   | 07000 - 09000              | 052                   | 01000 - 01500              | 067                   | 00600 - 00700              | 057                   | 00600 - 00700              | 053                   |
| 06000 - 08000              | 044                   | 09000 - 12000              | 052                   | 01500 - 02000              | 097                   | 00700 - 01000              | 065                   | 00700 - 01000              | 137                   |
| 08000 - 10000              | 051                   | 12000 - 15000              | 037                   | 02000 - 03500              | 111                   | 01000 - 02000              | 108                   | 01000 - 02000              | 007                   |
| 10000 - 15000              | 000                   | 15000 - 20000              | 000                   | 03500 - 04000              | 000                   | 02000 - 04000              | 000                   | 02000 - 04000              | 000                   |
| > 15000                    | 000                   | > 20000                    | 000                   | > 04000                    | 000                   | > 04000                    | 000                   | > 04000                    | 000                   |
| NO OF MEASUR.              | +00135                | NO OF MEASUR.              | +00134                | NO OF MEASUR.              | +00134                | NO OF MEASUR.              | +00138                | NO OF MEASUR.              | +00131                |
| MEAN [X10E-2]              | +02416                | MEAN [X10E-2]              | +02927                | MEAN [X10E-3]              | +00771                | MEAN [X10E-4]              | +00387                | MEAN [X10E-5]              | +00536                |
| SIGMA [X10E-2]             | +02289                | SIGMA [X10E-2]             | +03502                | SIGMA [X10E-3]             | +00865                | SIGMA [X10E-4]             | +00445                | SIGMA [X10E-5]             | +00439                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD : 1970-1980

WAVE PEAK 1780 M

TABLE: 70

PARAMETER= VERY HIGH AEROSOL CONCENTRATION >50 X 10E-6 G/CU M

| D1 = 0.23 MI             |                       | D2 = 0.45 MI             |                       | D3 = 0.93 MI             |                       | D4 = 2.00 MI             |                       | D5 = 4.50 MI             |                       |
|--------------------------|-----------------------|--------------------------|-----------------------|--------------------------|-----------------------|--------------------------|-----------------------|--------------------------|-----------------------|
| RES. NR. : 157           |                       | RES. NR. : 158           |                       | RES. NR. : 159           |                       | RES. NR. : 160           |                       | RES. NR. : 161           |                       |
| PARTICL CONC<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL CONC<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL CONC<br>[X10E-3] | FREQUENCY<br>[1/10 X] | PARTICL CONC<br>[X10E-4] | FREQUENCY<br>[1/10 X] | PARTICL CONC<br>[X10E-5] | FREQUENCY<br>[1/10 X] |
| < 00200                  | 062                   | < 00100                  | 162                   | < 00025                  | 129                   | < 00025                  | 112                   | < 00025                  | 025                   |
| 00200 - 00400            | 062                   | 00100 - 00200            | 087                   | 00025 - 00050            | 116                   | 00025 - 00050            | 187                   | 00025 - 00050            | 012                   |
| 00400 - 00600            | 125                   | 00200 - 00300            | 075                   | 00050 - 00076            | 038                   | 00050 - 00076            | 087                   | 00050 - 00076            | 037                   |
| 00600 - 00800            | 062                   | 00300 - 00400            | 012                   | 00076 - 00100            | 051                   | 00076 - 00100            | 100                   | 00076 - 00100            | 063                   |
| 00800 - 01000            | 075                   | 00400 - 00500            | 050                   | 00100 - 00150            | 090                   | 00100 - 00125            | 050                   | 00100 - 00125            | 088                   |
| 01000 - 01200            | 050                   | 00500 - 00600            | 012                   | 00150 - 00200            | 038                   | 00125 - 00150            | 025                   | 00125 - 00150            | 012                   |
| 01200 - 01400            | 050                   | 00600 - 00750            | 050                   | 00200 - 00250            | 012                   | 00150 - 00175            | 037                   | 00150 - 00175            | 050                   |
| 01400 - 01600            | 062                   | 00750 - 01000            | 062                   | 00250 - 00300            | 051                   | 00175 - 00200            | 012                   | 00175 - 00200            | 037                   |
| 01600 - 01800            | 075                   | 01000 - 01500            | 075                   | 00300 - 00350            | 012                   | 00200 - 00250            | 037                   | 00200 - 00250            | 063                   |
| 01800 - 02000            | 050                   | 01500 - 02000            | 025                   | 00350 - 00400            | 012                   | 00250 - 00300            | 037                   | 00250 - 00300            | 037                   |
| 02000 - 02500            | 075                   | 02000 - 02500            | 062                   | 00400 - 00450            | 012                   | 00300 - 00350            | 025                   | 00300 - 00350            | 075                   |
| 02500 - 03000            | 062                   | 02500 - 03000            | 025                   | 00450 - 00500            | 000                   | 00350 - 00400            | 000                   | 00350 - 00400            | 012                   |
| 03000 - 03500            | 037                   | 03000 - 04000            | 050                   | 00500 - 00600            | 077                   | 00400 - 00450            | 012                   | 00400 - 00450            | 050                   |
| 03500 - 04000            | 025                   | 04000 - 05000            | 037                   | 00600 - 00700            | 000                   | 00450 - 00500            | 012                   | 00450 - 00500            | 050                   |
| 04000 - 05000            | 062                   | 05000 - 07000            | 112                   | 00700 - 01000            | 116                   | 00500 - 00600            | 050                   | 00500 - 00600            | 063                   |
| 05000 - 06000            | 062                   | 07000 - 09000            | 062                   | 01000 - 01500            | 116                   | 00600 - 00700            | 025                   | 00600 - 00700            | 025                   |
| 06000 - 08000            | 012                   | 09000 - 12000            | 012                   | 01500 - 02000            | 064                   | 00700 - 01000            | 075                   | 00700 - 01000            | 189                   |
| 08000 - 10000            | 037                   | 12000 - 15000            | 025                   | 02000 - 03500            | 051                   | 01000 - 02000            | 112                   | 01000 - 02000            | 113                   |
| 10000 - 15000            | 000                   | 15000 - 20000            | 000                   | 03500 - 06000            | 000                   | 02000 - 04000            | 000                   | 02000 - 04000            | 000                   |
| > 15000                  | 000                   | > 20000                  | 000                   | > 06000                  | 000                   | > 04000                  | 000                   | > 04000                  | 000                   |
| NO OF MEASUR             | +00080                | NO OF MEASUR             | +00080                | NO OF MEASUR             | +00077                | NO OF MEASUR             | +00080                | NO OF MEASUR             | +00079                |
| MEAN [X10E-2]            | +02134                | MEAN [X10E-2]            | +02486                | MEAN [X10E-3]            | +00609                | MEAN [X10E-4]            | +00346                | MEAN [X10E-5]            | +00510                |
| SIGMA [X10E-2]           | +02070                | SIGMA [X10E-2]           | +03184                | SIGMA [X10E-3]           | +00732                | SIGMA [X10E-4]           | +00470                | SIGMA [X10E-5]           | +00464                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 71

ZUDSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= VERY LOW AEROSOL CONCENTRATION ON WANK <5 X 10E-6 G/CU M

| D1 = 0.23 MI              |                       | D2 = 0.45 MI              |                       | D3 = 0.93 MI              |                       | D4 = 2.00 MI              |                       | D5 = 4.50 MI              |                       |
|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|
| RES. NR : 302             |                       | RES NR : 303              |                       | RES NR : 304              |                       | RES NR : 305              |                       | RES NR : 306              |                       |
| PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] | PARTICL CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] | PARTICL CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |
| < 00050                   | 028                   | < 00015                   | 030                   | < 00015                   | 037                   | < 00015                   | 071                   | < 00025                   | 011                   |
| 00050 - 00100             | 072                   | 00015 - 00030             | 044                   | 00015 - 00030             | 077                   | 00015 - 00030             | 148                   | 00025 - 00050             | 012                   |
| 00100 - 00150             | 065                   | 00030 - 00045             | 082                   | 00030 - 00045             | 062                   | 00030 - 00045             | 096                   | 00050 - 00076             | 053                   |
| 00150 - 00200             | 054                   | 00045 - 00060             |                       | 00045 - 00060             | 064                   | 00045 - 00060             | 092                   | 00076 - 00100             | 042                   |
| 00200 - 00250             | 047                   | 00060 - 00075             |                       | 00060 - 00075             | 046                   | 00060 - 00075             | 073                   | 00100 - 00125             | 057                   |
| 00250 - 00300             | 036                   | 00075 - 00090             | 035                   | 00075 - 00090             | 055                   | 00075 - 00090             | 058                   | 00125 - 00150             | 040                   |
| 00300 - 00350             | 047                   | 00090 - 00105             | 035                   | 00090 - 00105             | 068                   | 00090 - 00105             | 062                   | 00150 - 00175             | 062                   |
| 00350 - 00400             | 045                   | 00105 - 00120             | 039                   | 00105 - 00120             | 055                   | 00105 - 00120             | 041                   | 00175 - 00200             | 031                   |
| 00400 - 00500             | 059                   | 00120 - 00150             | 055                   | 00120 - 00150             | 073                   | 00120 - 00150             | 069                   | 00200 - 00225             | 062                   |
| 00500 - 00600             | 034                   | 00150 - 00200             | 062                   | 00150 - 00200             | 069                   | 00150 - 00200             | 078                   | 00225 - 00250             | 047                   |
| 00600 - 00800             | 097                   | 00200 - 00250             | 055                   | 00200 - 00250             | 046                   | 00200 - 00250             | 046                   | 00250 - 00275             | 042                   |
| 00800 - 01000             | 054                   | 00250 - 00300             | 035                   | 00250 - 00300             | 043                   | 00250 - 00300             | 037                   | 00275 - 00300             | 042                   |
| 01000 - 01250             | 059                   | 00300 - 00400             | 066                   | 00300 - 00400             | 060                   | 00300 - 00400             | 026                   | 00300 - 00325             | 053                   |
| 01250 - 01500             | 047                   | 00400 - 00600             | 076                   | 00400 - 00600             | 073                   | 00400 - 00600             | 028                   | 00325 - 00350             | 053                   |
| 01500 - 02000             | 069                   | 00600 - 00900             | 059                   | 00600 - 00900             | 078                   | 00600 - 00900             | 026                   | 00350 - 00400             | 069                   |
| 02000 - 03000             | 074                   | 00900 - 01500             | 062                   | 00900 - 01500             | 051                   | 00900 - 01500             | 021                   | 00400 - 00500             | 114                   |
| 03000 - 04000             | 036                   | 01500 - 02500             | 062                   | 01500 - 02500             | 032                   | 01500 - 02500             | 019                   | 00500 - 00750             | 128                   |
| 04000 - 06000             | 052                   | 02500 - 05000             | 073                   | 02500 - 05000             | 003                   | 02500 - 05000             | 000                   | 00750 - 01000             | 036                   |
| 06000 - 12000             | 019                   | 05000 - 10000             | 008                   | 05000 - 10000             | 000                   | 05000 - 10000             | 000                   | 01000 - 02000             | 038                   |
| > 12000                   | 000                   | > 10000                   | 000                   | > 10000                   | 000                   | > 10000                   | 000                   | > 02000                   | 000                   |
| NO OF MEASUR.             | +00553                | NO OF MEASUR.             | +00559                | NO OF MEASUR.             | +00558                | NO OF MEASUR.             | +00560                | NO OF MEASUR.             | +00543                |
| MEAN [X10E-2]             | +01177                | MEAN [X10E-2]             | +00680                | MEAN [X10E-3]             | +00320                | MEAN [X10E-4]             | +00183                | MEAN [X10E-5]             | +00348                |
| SIGMA [X10E-2]            | +01451                | SIGMA [X10E-2]            | +01097                | SIGMA [X10E-3]            | +00452                | SIGMA [X10E-4]            | +00328                | SIGMA [X10E-5]            | +00253                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 72

GARMISCH (VALLEY 740 M)

PERIOD : 1975-1980

PARAMETER= VISIBILITY RANGE <1 KM

| D1 = 0.23 MI            |                    | D2 = 0.45 MI            |                    | D3 = 0.93 MI            |                    | D4 = 2.00 MI            |                    | D5 = 4.50 MI            |                    |
|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|
| RES. NR. : 322          |                    | RES. NR. : 323          |                    | RES. NR. : 324          |                    | RES. NR. : 325          |                    | RES. NR. : 326          |                    |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 %] |
| < 00500                 | 242                | < 00500                 | 121                | < 00150                 | 149                | < 00050                 | 201                | < 00200                 | 028                |
| 00500 - 01000           | 093                | 00500 - 01000           | 159                | 00150 - 00300           | 299                | 00050 - 00100           | 163                | 00200 - 00400           | 113                |
| 01000 - 01500           | 121                | 01000 - 01500           | 102                | 00300 - 00450           | 140                | 00100 - 00150           | 182                | 00400 - 00600           | 075                |
| 01500 - 02000           | 121                | 01500 - 02000           | 065                | 00450 - 00600           | 093                | 00150 - 00200           | 086                | 00600 - 00800           | 132                |
| 02000 - 02500           | 140                | 02000 - 02500           | 159                | 00600 - 00750           | 093                | 00200 - 00250           | 105                | 00800 - 01000           | 160                |
| 02500 - 03000           | 112                | 02500 - 03000           | 065                | 00750 - 00900           | 037                | 00250 - 00300           | 038                | 01000 - 01200           | 066                |
| 03000 - 03500           | 046                | 03000 - 03500           | 056                | 00900 - 01050           | 018                | 00300 - 00350           | 028                | 01200 - 01400           | 094                |
| 03500 - 04000           | 028                | 03500 - 04000           | 056                | 01050 - 01200           | 037                | 00350 - 00400           | 028                | 01400 - 01600           | 075                |
| 04000 - 04500           | 037                | 04000 - 04500           | 046                | 01200 - 01350           | 009                | 00400 - 00450           | 048                | 01600 - 01800           | 037                |
| 04500 - 05000           | 037                | 04500 - 05000           | 028                | 01350 - 01500           | 028                | 00450 - 00500           | 019                | 01800 - 02000           | 009                |
| 05000 - 06000           | 000                | 05000 - 06000           | 056                | 01500 - 01650           | 018                | 00500 - 00600           | 028                | 02000 - 02250           | 037                |
| 06000 - 07000           | 000                | 06000 - 07000           | 009                | 01650 - 01800           | 009                | 00600 - 00700           | 019                | 02250 - 02500           | 009                |
| 07000 - 08000           | 000                | 07000 - 08000           | 028                | 01800 - 02000           | 000                | 00700 - 00800           | 000                | 02500 - 03000           | 028                |
| 08000 - 10000           | 000                | 08000 - 10000           | 037                | 02000 - 02500           | 018                | 00800 - 00900           | 000                | 03000 - 03500           | 018                |
| 10000 - 15000           | 000                | 08000 - 10000           | 009                | 02500 - 03000           | 009                | 00900 - 01000           | 000                | 03500 - 04000           | 009                |
| 15000 - 25000           | 000                | 10000 - 15000           | 009                | 03000 - 04000           | 028                | 01000 - 01250           | 000                | 04000 - 05000           | 000                |
| 25000 - 40000           | 018                | 15000 - 20000           | 000                | 04000 - 06000           | 000                | 01250 - 01500           | 009                | 05000 - 07000           | 066                |
| 40000 - 60000           | 000                | 20000 - 30000           | 000                | 06000 - 10000           | 009                | 01500 - 02000           | 028                | 07000 - 09000           | 000                |
| 60000 - 80000           | 000                | 30000 - 40000           | 000                | 04000 - 10000           | 000                | 02000 - 03000           | 009                | 09000 - 12000           | 000                |
| 80000 - 100000          | 000                | 40000 - 50000           | 000                | 10000 - 20000           | 000                | 03000 - 06000           | 000                | > 12000                 | 000                |
| >100000                 | 000                | > 50000                 | 000                | > 20000                 | 000                | > 06000                 | 000                |                         |                    |
| NO OF MEASUR.           | +00107             | NO OF MEASUR            | +00107             | NO OF MEASUR            | +00107             | NO OF MEASUR            | +00104             | NO OF MEASUR            | +00106             |
| MEAN [X10E-2]           | +02344             | MEAN [X10E-2]           | +02677             | MEAN [X10E-3]           | +00667             | MEAN [X10E-4]           | +00259             | MEAN [X10E-5]           | +01373             |
| SIGMA [X10E-2]          | +04419             | SIGMA [X10E-2]          | +02757             | SIGMA [X10E-3]          | +01005             | SIGMA [X10E-4]          | +00384             | SIGMA [X10E-5]          | +01357             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 73

GARMISCH (VALLEY 740 M)

PERIOD : 1975-1980

PARAMETER= VISIBILITY RANGE 5-10 KM

| D1 = 0.23 MI               |                       |  | D2 = 0.45 MI               |                       |  | D3 = 0.93 MI               |                       |  | D4 = 2.00 MI               |                       |  | D5 = 4.50 MI               |                       |  |
|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|
| RES. NR. : 327             |                       |  | RES. NR. : 328             |                       |  | RES. NR. : 329             |                       |  | RES. NR. : 330             |                       |  | RES. NR. : 331             |                       |  |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |
| < 00500                    | 048                   |  | < 00500                    | 013                   |  | < 00150                    | 068                   |  | < 00050                    | 037                   |  | < 00200                    | 000                   |  |
| 00500 - 01000              | 040                   |  | 00500 - 01000              | 026                   |  | 00150 - 00300              | 095                   |  | 00050 - 00100              | 101                   |  | 00200 - 00400              | 027                   |  |
| 01000 - 01500              | 048                   |  | 01000 - 01500              | 026                   |  | 00300 - 00450              | 123                   |  | 00100 - 00150              | 088                   |  | 00400 - 00600              | 013                   |  |
| 01500 - 02000              | 073                   |  | 01500 - 02000              | 013                   |  | 00450 - 00600              | 048                   |  | 00150 - 00200              | 063                   |  | 00600 - 00800              | 083                   |  |
| 02000 - 02500              | 085                   |  | 02000 - 02500              | 093                   |  | 00600 - 00750              | 027                   |  | 00200 - 00250              | 075                   |  | 00800 - 01000              | 069                   |  |
| 02500 - 03000              | 036                   |  | 02500 - 03000              | 040                   |  | 00750 - 00900              | 054                   |  | 00250 - 00300              | 025                   |  | 01000 - 01200              | 055                   |  |
| 03000 - 03500              | 085                   |  | 03000 - 03500              | 000                   |  | 00900 - 01050              | 041                   |  | 00300 - 00350              | 025                   |  | 01200 - 01400              | 055                   |  |
| 03500 - 04000              | 048                   |  | 03500 - 04000              | 026                   |  | 01050 - 01200              | 013                   |  | 00350 - 00400              | 063                   |  | 01400 - 01600              | 097                   |  |
| 04000 - 05000              | 036                   |  | 04000 - 04500              | 106                   |  | 01200 - 01350              | 013                   |  | 00400 - 00500              | 050                   |  | 01600 - 01800              | 055                   |  |
| 05000 - 06000              | 085                   |  | 04500 - 05000              | 026                   |  | 01350 - 01500              | 000                   |  | 00500 - 00600              | 063                   |  | 01800 - 02000              | 041                   |  |
| 06000 - 07000              | 048                   |  | 05000 - 06000              | 053                   |  | 01500 - 01650              | 041                   |  | 00600 - 00700              | 050                   |  | 02000 - 02250              | 041                   |  |
| 07000 - 08000              | 036                   |  | 06000 - 07000              | 066                   |  | 01650 - 01800              | 054                   |  | 00700 - 00800              | 050                   |  | 02250 - 02500              | 013                   |  |
| 08000 - 10000              | 040                   |  | 07000 - 08000              | 093                   |  | 01800 - 02000              | 027                   |  | 00800 - 00900              | 012                   |  | 02500 - 03000              | 125                   |  |
| 10000 - 15000              | 097                   |  | 08000 - 10000              | 080                   |  | 02000 - 02500              | 054                   |  | 00900 - 01000              | 025                   |  | 03000 - 03500              | 069                   |  |
| 15000 - 25000              | 085                   |  | 10000 - 15000              | 133                   |  | 02500 - 03000              | 082                   |  | 01000 - 01250              | 063                   |  | 03500 - 04000              | 041                   |  |
| 25000 - 40000              | 036                   |  | 15000 - 20000              | 080                   |  | 03000 - 04000              | 054                   |  | 01250 - 01500              | 025                   |  | 04000 - 05000              | 041                   |  |
| 40000 - 60000              | 024                   |  | 20000 - 30000              | 093                   |  | 04000 - 06000              | 068                   |  | 01500 - 02000              | 050                   |  | 05000 - 07000              | 111                   |  |
| 60000 - 80000              | 000                   |  | 30000 - 40000              | 026                   |  | 06000 - 10000              | 109                   |  | 02000 - 03000              | 075                   |  | 07000 - 09000              | 055                   |  |
| 80000 - 100000             | 000                   |  | 40000 - 50000              | 000                   |  | 10000 - 20000              | 000                   |  | 03000 - 06000              | 050                   |  | 09000 - 12000              | 000                   |  |
| >100000                    | 000                   |  | > 50000                    | 000                   |  | > 20000                    | 000                   |  | > 06000                    | 000                   |  | > 12000                    | 000                   |  |
| NO OF MEASUR.              | +00082                |  | NO OF MEASUR.              | +00075                |  | NO OF MEASUR.              | +00073                |  | NO OF MEASUR.              | +00079                |  | NO OF MEASUR.              | +00072                |  |
| MEAN [X10E-2]              | +07524                |  | MEAN [X10E-2]              | +09448                |  | MEAN [X10E-3]              | +02151                |  | MEAN [X10E-4]              | +00806                |  | MEAN [X10E-5]              | +02690                |  |
| SIGMA [X10E-2]             | +08676                |  | SIGMA [X10E-2]             | +07816                |  | SIGMA [X10E-3]             | +02310                |  | SIGMA [X10E-4]             | +00916                |  | SIGMA [X10E-5]             | +02025                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 74

GARMISCH (VALLEY 740 M)

PERIOD : 1975-1980

PARAMETER= VISIBILITY RANGE >40 KM

| D1 = 0.23 MI              |                       |  | D2 = 0.45 MI              |                       |  | D3 = 0.93 MI              |                       |  | D4 = 2.00 MI              |                       |  | D5 = 4.50 MI              |                       |  |
|---------------------------|-----------------------|--|---------------------------|-----------------------|--|---------------------------|-----------------------|--|---------------------------|-----------------------|--|---------------------------|-----------------------|--|
| RES. NR. :                | 277                   |  | RES. NR. :                | 278                   |  | RES. NR. :                | 279                   |  | RES. NR. :                | 280                   |  | RES. NR. :                | 281                   |  |
| PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  | PARTICL CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |
| < 00500                   | 267                   |  | < 00500                   | 215                   |  | < 00150                   | 188                   |  | < 00050                   | 107                   |  | < 00200                   | 007                   |  |
| 00500 - 01000             | 183                   |  | 00500 - 01000             | 277                   |  | 00150 - 00300             | 279                   |  | 00050 - 00100             | 064                   |  | 00200 - 00400             | 037                   |  |
| 01000 - 01500             | 161                   |  | 01000 - 01500             | 104                   |  | 00300 - 00450             | 153                   |  | 00100 - 00150             | 092                   |  | 00400 - 00600             | 074                   |  |
| 01500 - 02000             | 084                   |  | 01500 - 02000             | 118                   |  | 00450 - 00600             | 076                   |  | 00150 - 00200             | 042                   |  | 00600 - 00800             | 089                   |  |
| 02000 - 02500             | 056                   |  | 02000 - 02500             | 062                   |  | 00600 - 00750             | 104                   |  | 00200 - 00250             | 064                   |  | 00800 - 01000             | 104                   |  |
| 02500 - 03000             | 063                   |  | 02500 - 03000             | 069                   |  | 00750 - 00900             | 041                   |  | 00250 - 00300             | 057                   |  | 01000 - 01200             | 104                   |  |
| 03000 - 03500             | 021                   |  | 03000 - 03500             | 020                   |  | 00900 - 01050             | 034                   |  | 00300 - 00350             | 035                   |  | 01200 - 01400             | 052                   |  |
| 03500 - 04000             | 007                   |  | 03500 - 04000             | 013                   |  | 01050 - 01200             | 027                   |  | 00350 - 00400             | 085                   |  | 01400 - 01600             | 067                   |  |
| 04000 - 05000             | 049                   |  | 04000 - 04500             | 013                   |  | 01200 - 01350             | 013                   |  | 00400 - 00500             | 128                   |  | 01600 - 01800             | 044                   |  |
| 05000 - 06000             | 028                   |  | 04500 - 05000             | 006                   |  | 01350 - 01500             | 006                   |  | 00500 - 00600             | 071                   |  | 01800 - 02000             | 074                   |  |
| 06000 - 07000             | 021                   |  | 05000 - 06000             | 013                   |  | 01500 - 01650             | 006                   |  | 00600 - 00700             | 035                   |  | 02000 - 02250             | 029                   |  |
| 07000 - 08000             | 007                   |  | 06000 - 07000             | 027                   |  | 01650 - 01800             | 013                   |  | 00700 - 00800             | 021                   |  | 02250 - 02500             | 052                   |  |
| 08000 - 10000             | 035                   |  | 07000 - 08000             | 006                   |  | 01800 - 02000             | 000                   |  | 00800 - 00900             | 042                   |  | 02500 - 03000             | 052                   |  |
| 10000 - 15000             | 014                   |  | 08000 - 10000             | 013                   |  | 02000 - 02500             | 000                   |  | 00900 - 01000             | 021                   |  | 03000 - 03500             | 022                   |  |
| 15000 - 25000             | 000                   |  | 10000 - 15000             | 006                   |  | 02500 - 03000             | 000                   |  | 01000 - 01250             | 028                   |  | 03500 - 04000             | 067                   |  |
| 25000 - 40000             | 000                   |  | 15000 - 20000             | 027                   |  | 03000 - 04000             | 020                   |  | 01250 - 01500             | 028                   |  | 04000 - 05000             | 029                   |  |
| 40000 - 60000             | 000                   |  | 20000 - 30000             | 000                   |  | 04000 - 06000             | 000                   |  | 01500 - 02000             | 028                   |  | 05000 - 07000             | 067                   |  |
| 60000 - 80000             | 000                   |  | 30000 - 40000             | 000                   |  | 06000 - 10000             | 027                   |  | 02000 - 03000             | 028                   |  | 07000 - 09000             | 022                   |  |
| 80000 - 100000            | 000                   |  | 40000 - 50000             | 000                   |  | 10000 - 20000             | 000                   |  | 03000 - 04000             | 014                   |  | 09000 - 12000             | 000                   |  |
| >100000                   | 000                   |  | > 50000                   | 000                   |  | > 20000                   | 000                   |  | > 06000                   | 000                   |  | > 12000                   | 000                   |  |
| NO OF MEASUR.             | +00142                |  | NO OF MEASUR.             | +00144                |  | NO OF MEASUR.             | +00143                |  | NO OF MEASUR.             | +00140                |  | NO OF MEASUR.             | +00134                |  |
| MEAN [X10E-2]             | +02017                |  | MEAN [X10E-2]             | +02146                |  | MEAN [X10E-3]             | +00688                |  | MEAN [X10E-4]             | +00525                |  | MEAN [X10E-5]             | +02097                |  |
| SIGMA [X10E-2]            | +02469                |  | SIGMA [X10E-2]            | +03271                |  | SIGMA [X10E-3]            | +01278                |  | SIGMA [X10E-4]            | +00607                |  | SIGMA [X10E-5]            | +01780                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD : 1975-1980

WANK PEAK 1780 M

TABLE: 75

PARAMETER= VISIBILITY RANGE <1 KM

| D1 = 0.23 MI            |                    | D2 = 0.45 MI            |                    | D3 = 0.93 MI            |                    | D4 = 2.00 MI            |                    | D5 = 4.50 MI            |                    |
|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|
| RES. NR. : 332          |                    | RES. NR. : 333          |                    | RES. NR. : 334          |                    | RES. NR. : 335          |                    | RES. NR. : 336          |                    |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 %] |
| < 00200                 | 100                | < 00100                 | 161                | < 00025                 | 115                | < 00025                 | 153                | < 00025                 | 007                |
| 00200 - 00400           | 100                | 00100 - 00200           | 130                | 00025 - 00050           | 169                | 00025 - 00050           | 200                | 00025 - 00050           | 055                |
| 00400 - 00600           | 108                | 00200 - 00300           | 084                | 00050 - 00076           | 084                | 00050 - 00076           | 138                | 00050 - 00076           | 103                |
| 00600 - 00800           | 062                | 00300 - 00400           | 038                | 00076 - 00100           | 069                | 00076 - 00100           | 069                | 00076 - 00100           | 111                |
| 00800 - 01000           | 093                | 00400 - 00500           | 053                | 00100 - 00150           | 184                | 00100 - 00125           | 107                | 00100 - 00125           | 079                |
| 01000 - 01200           | 100                | 00500 - 00600           | 015                | 00150 - 00200           | 069                | 00125 - 00150           | 061                | 00125 - 00150           | 031                |
| 01200 - 01400           | 031                | 00600 - 00750           | 069                | 00200 - 00250           | 053                | 00150 - 00175           | 046                | 00150 - 00175           | 047                |
| 01400 - 01600           | 038                | 00750 - 01000           | 030                | 00250 - 00300           | 015                | 00175 - 00200           | 030                | 00175 - 00200           | 023                |
| 01600 - 01800           | 054                | 01000 - 01500           | 138                | 00300 - 00350           | 030                | 00200 - 00250           | 053                | 00200 - 00250           | 071                |
| 01800 - 02000           | 031                | 01500 - 02000           | 046                | 00350 - 00400           | 015                | 00250 - 00300           | 030                | 00250 - 00300           | 063                |
| 02000 - 02500           | 054                | 02000 - 02500           | 061                | 00400 - 00450           | 023                | 00300 - 00350           | 030                | 00300 - 00350           | 111                |
| 02500 - 03000           | 054                | 02500 - 03000           | 053                | 00450 - 00500           | 030                | 00350 - 00400           | 007                | 00350 - 00400           | 063                |
| 03000 - 03500           | 046                | 03000 - 04000           | 046                | 00500 - 00600           | 023                | 00400 - 00450           | 000                | 00400 - 00450           | 047                |
| 03500 - 04000           | 031                | 04000 - 05000           | 023                | 00600 - 00700           | 023                | 00450 - 00500           | 007                | 00450 - 00500           | 035                |
| 04000 - 05000           | 023                | 05000 - 07000           | 015                | 00700 - 01000           | 038                | 00500 - 00600           | 030                | 00500 - 00600           | 031                |
| 05000 - 06000           | 046                | 07000 - 09000           | 015                | 01000 - 01500           | 007                | 00600 - 00700           | 007                | 00600 - 00700           | 023                |
| 06000 - 08000           | 007                | 09000 - 12000           | 007                | 01500 - 02000           | 015                | 00700 - 01000           | 015                | 00700 - 01000           | 031                |
| 08000 - 10000           | 015                | 12000 - 15000           | 007                | 02000 - 03500           | 030                | 01000 - 02000           | 007                | 01000 - 02000           | 031                |
| 10000 - 15000           | 000                | 15000 - 20000           | 000                | 03500 - 06000           | 000                | 02000 - 04000           | 000                | 02000 - 04000           | 007                |
| > 15000                 | 000                | > 20000                 | 000                | > 06000                 | 000                | > 04000                 | 000                | > 04000                 | 000                |
| NO OF MEASUR.           | +00129             | NO OF MEASUR.           | +00130             | NO OF MEASUR.           | +00130             | NO OF MEASUR.           | +00130             | NO OF MEASUR.           | +00126             |
| MEAN [X10E-2]           | +01670             | MEAN [X10E-2]           | +01374             | MEAN [X10E-3]           | +00290             | MEAN [X10E-4]           | +00141             | MEAN [X10E-5]           | +00302             |
| SIGMA [X10E-2]          | +01687             | SIGMA [X10E-2]          | +02027             | SIGMA [X10E-3]          | +00504             | SIGMA [X10E-4]          | +00203             | SIGMA [X10E-5]          | +00312             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 76

WANK PEAK 1780 M

PERIOD : 1975-1980

PARAMETER= VISIBILITY RANGE 2-7 KM

| D1 = 0.23 MI               | D2 = 0.45 MI               | D3 = 0.93 MI               | D4 = 2.00 MI               | D5 = 4.50 MI               |
|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| RES NR : 337               | RES NR : 338               | RES NR : 339               | RES NR : 340               | RES NR : 341               |
| PARTICL. CONC.<br>[X10E-2] | PARTICL. CONC.<br>[X10E-2] | PARTICL. CONC.<br>[X10E-3] | PARTICL. CONC.<br>[X10E-4] | PARTICL. CONC.<br>[X10E-5] |
| FREQUENCY<br>[1/10 %]      | FREQUENCY<br>[1/10 %]      | FREQUENCY<br>[1/10 %]      | FREQUENCY<br>[1/10 %]      | FREQUENCY<br>[1/10 %]      |
| < 00200                    | < 00100                    | < 00025                    | < 00025                    | < 00025                    |
| 00200 - 00400              | 00100 - 00200              | 00025 - 00050              | 00025 - 00050              | 00025 - 00050              |
| 00400 - 00600              | 00200 - 00300              | 00050 - 00076              | 00050 - 00076              | 00050 - 00076              |
| 00600 - 00800              | 00300 - 00400              | 00076 - 00100              | 00076 - 00100              | 00076 - 00100              |
| 00800 - 01000              | 00400 - 00500              | 00100 - 00150              | 00100 - 00125              | 00100 - 00125              |
| 01000 - 01200              | 00500 - 00600              | 00150 - 00200              | 00125 - 00150              | 00125 - 00150              |
| 01200 - 01400              | 00600 - 00750              | 00200 - 00250              | 00150 - 00175              | 00150 - 00175              |
| 01400 - 01600              | 00750 - 01000              | 00250 - 00300              | 00175 - 00200              | 00175 - 00200              |
| 01600 - 01800              | 01000 - 01500              | 00300 - 00350              | 00200 - 00250              | 00200 - 00250              |
| 01800 - 02000              | 01500 - 02000              | 00350 - 00400              | 00250 - 00300              | 00250 - 00300              |
| 02000 - 02500              | 02000 - 02500              | 00400 - 00450              | 00300 - 00350              | 00300 - 00350              |
| 02500 - 03000              | 02500 - 03000              | 00450 - 00500              | 00350 - 00400              | 00350 - 00400              |
| 03000 - 03500              | 03000 - 04000              | 00500 - 00600              | 00400 - 00450              | 00400 - 00450              |
| 03500 - 04000              | 04000 - 05000              | 00600 - 00700              | 00450 - 00500              | 00450 - 00500              |
| 04000 - 05000              | 05000 - 07000              | 00700 - 01000              | 00500 - 00600              | 00500 - 00600              |
| 05000 - 06000              | 07000 - 09000              | 01000 - 01500              | 00600 - 00700              | 00600 - 00700              |
| 06000 - 08000              | 09000 - 12000              | 01500 - 02000              | 00700 - 01000              | 00700 - 01000              |
| 08000 - 10000              | 12000 - 15000              | 02000 - 03500              | 01000 - 02000              | 01000 - 02000              |
| 10000 - 15000              | 15000 - 20000              | 03500 - 06000              | 02000 - 04000              | 02000 - 04000              |
| > 15000                    | > 20000                    | > 06000                    | > 04000                    | > 04000                    |
| NO OF MEASUR               | NO OF MEASUR               | NO OF MEASUR               | NO OF MEASUR               | NO OF MEASUR               |
| +00045                     | +00041                     | +00043                     | +00044                     | +00044                     |
| MEAN [X10E-2]              | MEAN [X10E-2]              | MEAN [X10E-3]              | MEAN [X10E-4]              | MEAN [X10E-5]              |
| +02426                     | +02176                     | +00572                     | +00244                     | +00440                     |
| SIGMA [X10E-2]             | SIGMA [X10E-2]             | SIGMA [X10E-3]             | SIGMA [X10E-4]             | SIGMA [X10E-5]             |
| +02253                     | +02743                     | +00698                     | +00395                     | +00379                     |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD : 1975-1980

WANK PEAK 1780 M

TABLE: 77

PARAMETER= VISIBILITY RANGE 10-20 KM

| D1 = 0.23 MI               |                       |  | D2 = 0.45 MI               |                       |  | D3 = 0.93 MI               |                       |  | D4 = 2.00 MI               |                       |  | D5 = 4.50 MI               |                       |  |
|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|
| RES. NR. : 342             |                       |  | RES. NR. : 343             |                       |  | RES. NR. : 344             |                       |  | RES. NR. : 345             |                       |  | RES. NR. : 346             |                       |  |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |
| < 00200                    | 000                   |  | < 00100                    | 107                   |  | < 00025                    | 140                   |  | < 00025                    | 200                   |  | < 00025                    | 000                   |  |
| 00200 - 00400              | 116                   |  | 00100 - 00200              | 125                   |  | 00025 - 00050              | 087                   |  | 00025 - 00050              | 116                   |  | 00025 - 00050              | 016                   |  |
| 00400 - 00600              | 083                   |  | 00200 - 00300              | 035                   |  | 00050 - 00076              | 070                   |  | 00050 - 00076              | 116                   |  | 00050 - 00076              | 016                   |  |
| 00600 - 00800              | 083                   |  | 00300 - 00400              | 000                   |  | 00076 - 00100              | 052                   |  | 00076 - 00100              | 066                   |  | 00076 - 00100              | 098                   |  |
| 00800 - 01000              | 050                   |  | 00400 - 00500              | 071                   |  | 00100 - 00150              | 070                   |  | 00100 - 00125              | 016                   |  | 00100 - 00125              | 032                   |  |
| 01000 - 01200              | 050                   |  | 00500 - 00600              | 071                   |  | 00150 - 00200              | 105                   |  | 00125 - 00150              | 050                   |  | 00125 - 00150              | 016                   |  |
| 01200 - 01400              | 050                   |  | 00600 - 00750              | 071                   |  | 00200 - 00250              | 017                   |  | 00150 - 00175              | 016                   |  | 00150 - 00175              | 016                   |  |
| 01400 - 01600              | 083                   |  | 00750 - 01000              | 053                   |  | 00250 - 00300              | 017                   |  | 00175 - 00200              | 016                   |  | 00175 - 00200              | 016                   |  |
| 01600 - 01800              | 033                   |  | 01000 - 01500              | 071                   |  | 00300 - 00350              | 087                   |  | 00200 - 00250              | 066                   |  | 00200 - 00250              | 131                   |  |
| 01800 - 02000              | 050                   |  | 01500 - 02000              | 089                   |  | 00350 - 00400              | 035                   |  | 00250 - 00300              | 033                   |  | 00250 - 00300              | 163                   |  |
| 02000 - 02500              | 066                   |  | 02000 - 02500              | 053                   |  | 00400 - 00450              | 000                   |  | 00300 - 00350              | 016                   |  | 00300 - 00350              | 049                   |  |
| 02500 - 03000              | 083                   |  | 02500 - 03000              | 017                   |  | 00450 - 00500              | 035                   |  | 00350 - 00400              | 000                   |  | 00350 - 00400              | 000                   |  |
| 03000 - 03500              | 066                   |  | 03000 - 04000              | 071                   |  | 00500 - 00600              | 000                   |  | 00400 - 00450              | 050                   |  | 00400 - 00450              | 081                   |  |
| 03500 - 04000              | 000                   |  | 04000 - 05000              | 017                   |  | 00600 - 00700              | 000                   |  | 00450 - 00500              | 016                   |  | 00450 - 00500              | 032                   |  |
| 04000 - 05000              | 050                   |  | 05000 - 07000              | 107                   |  | 00700 - 01000              | 035                   |  | 00500 - 00600              | 066                   |  | 00500 - 00600              | 049                   |  |
| 05000 - 06000              | 032                   |  | 07000 - 09000              | 017                   |  | 01000 - 01500              | 122                   |  | 00600 - 00700              | 016                   |  | 00600 - 00700              | 032                   |  |
| 06000 - 08000              | 050                   |  | 09000 - 12000              | 000                   |  | 01500 - 02000              | 035                   |  | 00700 - 01000              | 050                   |  | 00700 - 01000              | 098                   |  |
| 08000 - 10000              | 050                   |  | 12000 - 15000              | 017                   |  | 02000 - 03500              | 087                   |  | 01000 - 02000              | 083                   |  | 01000 - 02000              | 131                   |  |
| 10000 - 15000              | 000                   |  | 15000 - 20000              | 000                   |  | 03500 - 06000              | 000                   |  | 02000 - 04000              | 000                   |  | 02000 - 04000              | 016                   |  |
| > 15000                    | 000                   |  | > 20000                    | 000                   |  | > 06000                    | 000                   |  | > 04000                    | 000                   |  | > 04000                    | 000                   |  |
| NO OF MEASUR.              | +00060                |  | NO OF MEASUR.              | +00056                |  | NO OF MEASUR.              | +00057                |  | NO OF MEASUR.              | +00060                |  | NO OF MEASUR.              | +00061                |  |
| MEAN [X10E-2]              | +02395                |  | MEAN [X10E-2]              | +02040                |  | MEAN [X10E-3]              | +00613                |  | MEAN [X10E-4]              | +00299                |  | MEAN [X10E-5]              | +00508                |  |
| SIGMA [X10E-2]             | +02356                |  | SIGMA [X10E-2]             | +02702                |  | SIGMA [X10E-3]             | +00862                |  | SIGMA [X10E-4]             | +00402                |  | SIGMA [X10E-5]             | +00471                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 78

WANK PEAK 1780 M

PERIOD : 1975-1980

PARAMETER= VISIBILITY RANGE 40-50 KM

| D1 = 0.23 MI           |                    |  | D2 = 0.45 MI           |                    |  | D3 = 0.93 MI           |                    |  | D4 = 2.00 MI           |                    |  | D5 = 4.50 MI           |                    |  |
|------------------------|--------------------|--|------------------------|--------------------|--|------------------------|--------------------|--|------------------------|--------------------|--|------------------------|--------------------|--|
| RES. NR. :             | 347                |  | RES. NR. :             | 348                |  | RES. NR. :             | 349                |  | RES. NR. :             | 350                |  | RES. NR. :             | 351                |  |
| PARTIC. CONC. [X10E-2] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-2] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-3] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-4] | FREQUENCY [1/10 %] |  | PARTIC. CONC. [X10E-5] | FREQUENCY [1/10 %] |  |
| < 00200                | 062                |  | < 00100                | 089                |  | < 00025                | 043                |  | < 00025                | 056                |  | < 00025                | 012                |  |
| 00200 - 00400          | 137                |  | 00100 - 00200          | 063                |  | 00025 - 00050          | 037                |  | 00025 - 00050          | 050                |  | 00025 - 00050          | 012                |  |
| 00400 - 00600          | 056                |  | 00200 - 00300          | 044                |  | 00050 - 00076          | 043                |  | 00050 - 00076          | 075                |  | 00050 - 00076          | 025                |  |
| 00600 - 00800          | 062                |  | 00300 - 00400          | 031                |  | 00076 - 00100          | 061                |  | 00076 - 00100          | 063                |  | 00076 - 00100          | 000                |  |
| 00800 - 01000          | 062                |  | 00400 - 00500          | 044                |  | 00100 - 00150          | 061                |  | 00100 - 00125          | 044                |  | 00100 - 00125          | 006                |  |
| 01000 - 01200          | 062                |  | 00500 - 00600          | 031                |  | 00150 - 00200          | 043                |  | 00125 - 00150          | 056                |  | 00125 - 00150          | 025                |  |
| 01200 - 01400          | 037                |  | 00600 - 00750          | 044                |  | 00200 - 00250          | 080                |  | 00150 - 00175          | 050                |  | 00150 - 00175          | 018                |  |
| 01400 - 01600          | 050                |  | 00750 - 01000          | 019                |  | 00250 - 00300          | 086                |  | 00175 - 00200          | 063                |  | 00175 - 00200          | 012                |  |
| 01600 - 01800          | 018                |  | 01000 - 01500          | 076                |  | 00300 - 00350          | 037                |  | 00200 - 00250          | 063                |  | 00200 - 00250          | 068                |  |
| 01800 - 02000          | 050                |  | 01500 - 02000          | 070                |  | 00350 - 00400          | 037                |  | 00250 - 00300          | 050                |  | 00250 - 00300          | 052                |  |
| 02000 - 02500          | 087                |  | 02000 - 02500          | 070                |  | 00400 - 00450          | 037                |  | 00300 - 00350          | 056                |  | 00300 - 00350          | 093                |  |
| 02500 - 03000          | 056                |  | 02500 - 03000          | 012                |  | 00450 - 00500          | 018                |  | 00350 - 00400          | 031                |  | 00350 - 00400          | 056                |  |
| 03000 - 03500          | 075                |  | 03000 - 04000          | 050                |  | 00500 - 00600          | 049                |  | 00400 - 00450          | 031                |  | 00400 - 00450          | 050                |  |
| 03500 - 04000          | 043                |  | 04000 - 05000          | 121                |  | 00600 - 00700          | 049                |  | 00450 - 00500          | 037                |  | 00450 - 00500          | 062                |  |
| 04000 - 05000          | 056                |  | 05000 - 07000          | 101                |  | 00700 - 01000          | 123                |  | 00500 - 00600          | 037                |  | 00500 - 00600          | 106                |  |
| 05000 - 06000          | 031                |  | 07000 - 09000          | 057                |  | 01000 - 01500          | 098                |  | 00600 - 00700          | 101                |  | 00600 - 00700          | 062                |  |
| 06000 - 08000          | 043                |  | 09000 - 12000          | 044                |  | 01500 - 02000          | 037                |  | 00700 - 01000          | 056                |  | 00700 - 01000          | 187                |  |
| 08000 - 10000          | 006                |  | 12000 - 15000          | 025                |  | 02000 - 03500          | 055                |  | 01000 - 02000          | 069                |  | 01000 - 02000          | 118                |  |
| 10000 - 15000          | 000                |  | 15000 - 20000          | 000                |  | 03500 - 06000          | 000                |  | 02000 - 04000          | 000                |  | 02000 - 04000          | 018                |  |
| > 15000                | 000                |  | > 20000                | 000                |  | > 06000                | 000                |  | > 04000                | 000                |  | > 04000                | 000                |  |
| NO OF MEASUR.          | +00160             |  | NO OF MEASUR.          | +00157             |  | NO OF MEASUR.          | +00162             |  | NO OF MEASUR.          | +00158             |  | NO OF MEASUR.          | +00160             |  |
| MEAN [X10E-2]          | +02044             |  | MEAN [X10E-2]          | +03113             |  | MEAN [X10E-3]          | +00596             |  | MEAN [X10E-4]          | +00369             |  | MEAN [X10E-5]          | +00603             |  |
| SIGMA [X10E-2]         | +01875             |  | SIGMA [X10E-2]         | +03344             |  | SIGMA [X10E-3]         | +00621             |  | SIGMA [X10E-4]         | +00380             |  | SIGMA [X10E-5]         | +00439             |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD : 1975-1980

WANK PEAK 1780 M

TABLE: 79

PARAMETER= VISIBILITY RANGE >95 KM

| D1 = 0.23 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | D2 = 0.45 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | D3 = 0.93 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | D4 = 2.00 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | D5 = 4.50 MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RES. NR. : 282                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | RES. NR. : 283                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RES. NR. : 284                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RES. NR. : 285                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RES. NR. : 286                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| PARTIC. CONC. [X10E-2] FREQUENCY [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | PARTIC. CONC. [X10E-2] FREQUENCY [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PARTIC. CONC. [X10E-3] FREQUENCY [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PARTIC. CONC. [X10E-4] FREQUENCY [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PARTIC. CONC. [X10E-5] FREQUENCY [1/10 %]                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <p>&lt; 00200</p> <p>00200 - 00400 092</p> <p>00400 - 00600 134</p> <p>00600 - 00800 134</p> <p>00800 - 01000 117</p> <p>01000 - 01200 084</p> <p>01200 - 01400 050</p> <p>01400 - 01600 058</p> <p>01600 - 01800 008</p> <p>01800 - 02000 033</p> <p>02000 - 02500 025</p> <p>02500 - 03000 050</p> <p>03000 - 03500 042</p> <p>03500 - 04000 042</p> <p>04000 - 05000 050</p> <p>05000 - 06000 008</p> <p>06000 - 08000 008</p> <p>08000 - 10000 000</p> <p>10000 - 15000 000</p> <p>15000 - 20000 000</p> <p>20000 - 25000 000</p> | <p>&lt; 00100</p> <p>00100 - 00200 191</p> <p>00200 - 00300 133</p> <p>00300 - 00400 116</p> <p>00400 - 00500 058</p> <p>00500 - 00600 066</p> <p>00600 - 00750 058</p> <p>00750 - 01000 083</p> <p>01000 - 01500 091</p> <p>01500 - 02000 108</p> <p>02000 - 02500 016</p> <p>02500 - 03000 016</p> <p>03000 - 04000 000</p> <p>04000 - 05000 000</p> <p>05000 - 07000 000</p> <p>07000 - 09000 000</p> <p>09000 - 12000 000</p> <p>12000 - 15000 000</p> <p>15000 - 20000 000</p> <p>20000 - 25000 000</p> | <p>&lt; 00025</p> <p>00025 - 00050 050</p> <p>00050 - 00076 092</p> <p>00076 - 00100 109</p> <p>00100 - 00150 168</p> <p>00150 - 00200 058</p> <p>00200 - 00250 067</p> <p>00250 - 00300 033</p> <p>00300 - 00350 050</p> <p>00350 - 00400 042</p> <p>00400 - 00450 008</p> <p>00450 - 00500 025</p> <p>00500 - 00600 042</p> <p>00600 - 00700 016</p> <p>00700 - 01000 064</p> <p>01000 - 01500 025</p> <p>01500 - 02000 008</p> <p>02000 - 03500 025</p> <p>03500 - 06000 000</p> <p>06000 - 20000 000</p> | <p>&lt; 00025</p> <p>00025 - 00050 168</p> <p>00050 - 00076 193</p> <p>00076 - 00100 117</p> <p>00100 - 00125 058</p> <p>00125 - 00150 042</p> <p>00150 - 00175 075</p> <p>00175 - 00200 025</p> <p>00200 - 00250 025</p> <p>00250 - 00300 058</p> <p>00300 - 00350 033</p> <p>00350 - 00400 025</p> <p>00400 - 00450 016</p> <p>00450 - 00500 025</p> <p>00500 - 00600 025</p> <p>00600 - 00700 025</p> <p>00700 - 01000 033</p> <p>01000 - 02000 025</p> <p>02000 - 04000 000</p> <p>04000 - 20000 000</p> | <p>&lt; 00025</p> <p>00025 - 00050 000</p> <p>00050 - 00076 060</p> <p>00076 - 00100 086</p> <p>00100 - 00125 086</p> <p>00125 - 00150 025</p> <p>00150 - 00175 060</p> <p>00175 - 00200 077</p> <p>00200 - 00250 094</p> <p>00250 - 00300 051</p> <p>00300 - 00350 051</p> <p>00350 - 00400 051</p> <p>00400 - 00450 088</p> <p>00450 - 00500 025</p> <p>00500 - 00600 060</p> <p>00600 - 00700 034</p> <p>00700 - 01000 051</p> <p>01000 - 02000 068</p> <p>02000 - 04000 000</p> <p>04000 - 20000 000</p> |
| NO OF MEASUR +00119                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | NO OF MEASUR +00120                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | NO OF MEASUR +00119                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | NO OF MEASUR +00119                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | NO OF MEASUR +00116                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| MEAN [X10E-2] +01442                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | MEAN [X10E-2] +00632                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | MEAN [X10E-3] +00333                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | MEAN [X10E-4] +00192                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | MEAN [X10E-5] +00353                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| SIGMA [X10E-2] +01414                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | SIGMA [X10E-2] +00636                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SIGMA [X10E-3] +00479                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SIGMA [X10E-4] +00256                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SIGMA [X10E-5] +00360                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

AD-A100 004

FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTE--ETC F/G 4/1  
PARAMETERIZATION OF THE VERTICAL PROFILE OF THE AEROSOL CONSTIT--ETC(U)  
MAR 81 R REITER, R SLADKOVIC, W CARNUTH AFOSR-77-3228

UNCLASSIFIED

AFOSR-TR-81-0471

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# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD : 1975-1980

ZUGSPITZE PEAK 3000 M

TABLE: 80

PARAMETER= VISIBILITY RANGE >95 KM

| D1 = 0.23 MI               |                       |  | D2 = 0.45 MI               |                       |  | D3 = 0.93 MI               |                       |  | D4 = 2.00 MI               |                       |  | D5 = 4.50 MI               |                       |  |
|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|
| RES. NR. : 287             |                       |  | RES. NR. : 288             |                       |  | RES. NR. : 289             |                       |  | RES. NR. : 290             |                       |  | RES. NR. : 291             |                       |  |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |
| < 00050                    | 018                   |  | < 00015                    | 053                   |  | < 00015                    | 036                   |  | < 00015                    | 078                   |  | < 00025                    | 000                   |  |
| 00050 - 00100              | 072                   |  | 00015 - 00030              | 098                   |  | 00015 - 00030              | 126                   |  | 00015 - 00030              | 080                   |  | 00025 - 00050              | 028                   |  |
| 00100 - 00150              | 108                   |  | 00030 - 00045              | 080                   |  | 00030 - 00045              | 054                   |  | 00030 - 00045              | 035                   |  | 00050 - 00076              | 037                   |  |
| 00150 - 00200              | 090                   |  | 00045 - 00060              | 071                   |  | 00045 - 00060              | 072                   |  | 00045 - 00060              | 071                   |  | 00076 - 00100              | 045                   |  |
| 00200 - 00250              | 054                   |  | 00060 - 00075              | 125                   |  | 00060 - 00075              | 063                   |  | 00060 - 00075              | 080                   |  | 00100 - 00125              | 093                   |  |
| 00250 - 00300              | 081                   |  | 00075 - 00090              | 035                   |  | 00075 - 00090              | 054                   |  | 00075 - 00090              | 071                   |  | 00125 - 00150              | 074                   |  |
| 00300 - 00350              | 072                   |  | 00090 - 00105              | 017                   |  | 00090 - 00105              | 034                   |  | 00090 - 00105              | 062                   |  | 00150 - 00175              | 102                   |  |
| 00350 - 00400              | 090                   |  | 00105 - 00120              | 062                   |  | 00105 - 00120              | 036                   |  | 00105 - 00120              | 053                   |  | 00175 - 00200              | 045                   |  |
| 00400 - 00500              | 090                   |  | 00120 - 00150              | 044                   |  | 00120 - 00150              | 036                   |  | 00120 - 00150              | 080                   |  | 00200 - 00225              | 065                   |  |
| 00500 - 00600              | 063                   |  | 00150 - 00200              | 053                   |  | 00150 - 00200              | 126                   |  | 00150 - 00200              | 116                   |  | 00225 - 00250              | 009                   |  |
| 00600 - 00800              | 099                   |  | 00200 - 00250              | 026                   |  | 00200 - 00250              | 063                   |  | 00200 - 00250              | 071                   |  | 00250 - 00275              | 018                   |  |
| 00800 - 01000              | 027                   |  | 00250 - 00300              | 026                   |  | 00250 - 00300              | 045                   |  | 00250 - 00300              | 053                   |  | 00275 - 00300              | 056                   |  |
| 01000 - 01250              | 036                   |  | 00300 - 00400              | 071                   |  | 00300 - 00400              | 045                   |  | 00300 - 00400              | 017                   |  | 00300 - 00325              | 018                   |  |
| 01250 - 01500              | 027                   |  | 00400 - 00600              | 062                   |  | 00400 - 00600              | 081                   |  | 00400 - 00600              | 026                   |  | 00325 - 00350              | 037                   |  |
| 01500 - 02000              | 045                   |  | 00600 - 00900              | 071                   |  | 00600 - 00900              | 081                   |  | 00600 - 00900              | 017                   |  | 00350 - 00400              | 065                   |  |
| 02000 - 03000              | 018                   |  | 00900 - 01500              | 062                   |  | 00900 - 01500              | 009                   |  | 00900 - 01500              | 017                   |  | 00400 - 00500              | 121                   |  |
| 03000 - 04000              | 009                   |  | 01500 - 02500              | 017                   |  | 01500 - 02500              | 018                   |  | 01500 - 02500              | 044                   |  | 00500 - 00750              | 084                   |  |
| 04000 - 06000              | 000                   |  | 02500 - 05000              | 017                   |  | 02500 - 05000              | 000                   |  | 02500 - 05000              | 000                   |  | 00750 - 01000              | 028                   |  |
| 06000 - 12000              | 000                   |  | 05000 - 10000              | 000                   |  | 05000 - 10000              | 000                   |  | 05000 - 10000              | 000                   |  | 01000 - 02000              | 028                   |  |
| > 12000                    | 000                   |  | > 10000                    | 000                   |  | > 10000                    | 000                   |  | > 10000                    | 000                   |  | > 02000                    | 000                   |  |
| NO OF MEASUR.              | +00111                |  | NO OF MEASUR.              | +00112                |  | NO OF MEASUR.              | +00111                |  | NO OF MEASUR.              | +00112                |  | NO OF MEASUR.              | +00107                |  |
| MEAN [X10E-2]              | +00510                |  | MEAN [X10E-2]              | +00330                |  | MEAN [X10E-3]              | +00249                |  | MEAN [X10E-4]              | +00224                |  | MEAN [X10E-5]              | +00302                |  |
| SIGMA [X10E-2]             | +00506                |  | SIGMA [X10E-2]             | +00594                |  | SIGMA [X10E-3]             | +00362                |  | SIGMA [X10E-4]             | +00398                |  | SIGMA [X10E-5]             | +00242                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 81

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK <5 G/CM. SEC (VERY LOW)

| D1 = 0.23 MI              |                       | D2 = 0.45 MI              |                       | D3 = 0.93 MI              |                       | D4 = 2.00 MI              |                       | D5 = 4.50 MI              |                       |
|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|
| RES. NR. : 307            |                       | RES. NR. : 308            |                       | RES. NR. : 309            |                       | RES. NR. : 310            |                       | RES. NR. : 311            |                       |
| PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] | PARTICL CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 X] | PARTICL CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 X] | PARTICL CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 X] |
| < 00500                   | 046                   | < 00500                   | 081                   | < 00150                   | 035                   | < 00050                   | 025                   | < 00200                   | 000                   |
| 00500 - 01000             | 092                   | 00500 - 01000             | 106                   | 00150 - 00300             | 159                   | 00050 - 00100             | 064                   | 00200 - 00400             | 053                   |
| 01000 - 01500             | 087                   | 01000 - 01500             | 115                   | 00300 - 00450             | 136                   | 00100 - 00150             | 064                   | 00400 - 00600             | 067                   |
| 01500 - 02000             | 029                   | 01500 - 02000             | 064                   | 00450 - 00600             | 092                   | 00150 - 00200             | 072                   | 00600 - 00800             | 107                   |
| 02000 - 02500             | 050                   | 02000 - 02500             | 051                   | 00600 - 00750             | 052                   | 00200 - 00250             | 068                   | 00800 - 01000             | 049                   |
| 02500 - 03000             | 046                   | 02500 - 03000             | 042                   | 00750 - 00900             | 048                   | 00250 - 00300             | 072                   | 01000 - 01200             | 080                   |
| 03000 - 03500             | 050                   | 03000 - 03500             | 047                   | 00900 - 01050             | 052                   | 00300 - 00350             | 042                   | 01200 - 01400             | 044                   |
| 03500 - 04000             | 012                   | 03500 - 04000             | 029                   | 01050 - 01200             | 049                   | 00350 - 00400             | 034                   | 01400 - 01600             | 053                   |
| 04000 - 05000             | 054                   | 04000 - 04500             | 021                   | 01200 - 01350             | 044                   | 00400 - 00500             | 060                   | 01600 - 01800             | 040                   |
| 05000 - 06000             | 020                   | 04500 - 05000             | 034                   | 01350 - 01500             | 035                   | 00500 - 00600             | 064                   | 01800 - 02000             | 040                   |
| 06000 - 07000             | 037                   | 05000 - 06000             | 055                   | 01500 - 01650             | 013                   | 00600 - 00700             | 038                   | 02000 - 02250             | 053                   |
| 07000 - 08000             | 020                   | 06000 - 07000             | 029                   | 01650 - 01800             | 022                   | 00700 - 00800             | 025                   | 02250 - 02500             | 017                   |
| 08000 - 10000             | 071                   | 07000 - 08000             | 017                   | 01800 - 02000             | 022                   | 00800 - 00900             | 025                   | 02500 - 03000             | 080                   |
| 10000 - 15000             | 142                   | 08000 - 10000             | 051                   | 02000 - 02500             | 030                   | 00900 - 01000             | 030                   | 03000 - 03500             | 053                   |
| 15000 - 25000             | 138                   | 10000 - 15000             | 098                   | 02500 - 03000             | 052                   | 01000 - 01250             | 064                   | 03500 - 04000             | 076                   |
| 25000 - 40000             | 066                   | 15000 - 20000             | 042                   | 03000 - 04000             | 048                   | 01250 - 01500             | 047                   | 04000 - 05000             | 058                   |
| 40000 - 60000             | 029                   | 20000 - 30000             | 076                   | 04000 - 06000             | 070                   | 01500 - 02000             | 090                   | 05000 - 07000             | 085                   |
| 60000 - 80000             | 004                   | 30000 - 40000             | 034                   | 06000 - 10000             | 035                   | 02000 - 03000             | 047                   | 07000 - 09000             | 035                   |
| 80000 - 100000            | 000                   | 40000 - 50000             | 000                   | 10000 - 20000             | 000                   | 03000 - 06000             | 060                   | 09000 - 12000             | 000                   |
| > 100000                  | 000                   | > 50000                   | 000                   | > 20000                   | 000                   | > 06000                   | 000                   | > 12000                   | 000                   |
| NO OF MEASUR.             | +00239                | NO OF MEASUR.             | +00234                | NO OF MEASUR.             | +00227                | NO OF MEASUR.             | +00233                | NO OF MEASUR.             | +00223                |
| MEAN [X10E-2]             | +10051                | MEAN [X10E-2]             | +07199                | MEAN [X10E-3]             | +01500                | MEAN [X10E-4]             | +00858                | MEAN [X10E-5]             | +02435                |
| SIGMA [X10E-2]            | +11257                | SIGMA [X10E-2]            | +08501                | SIGMA [X10E-3]            | +01689                | SIGMA [X10E-4]            | +00911                | SIGMA [X10E-5]            | +01956                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 82

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK 6-10 G/CM. SEC

| D1 = 0.23 MI            |                    | D2 = 0.45 MI            |                    | D3 = 0.93 MI            |                    | D4 = 2.00 MI            |                    | D5 = 4.50 MI            |                    |
|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|
| RES. NR. :              | 352                | RES. NR. :              | 353                | RES. NR. :              | 354                | RES. NR. :              | 355                | RES. NR. :              | 356                |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 %] |
| < 00500                 | 054                | < 00500                 | 087                | < 00150                 | 068                | < 00050                 | 043                | < 00200                 | 018                |
| 00500 - 01000           | 121                | 00500 - 01000           | 137                | 00150 - 00300           | 161                | 00050 - 00100           | 075                | 00200 - 00400           | 043                |
| 01000 - 01500           | 072                | 01000 - 01500           | 112                | 00300 - 00450           | 124                | 00100 - 00150           | 068                | 00400 - 00600           | 105                |
| 01500 - 02000           | 066                | 01500 - 02000           | 062                | 00450 - 00600           | 068                | 00150 - 00200           | 075                | 00600 - 00800           | 093                |
| 02000 - 02500           | 048                | 02000 - 02500           | 087                | 00600 - 00750           | 062                | 00200 - 00250           | 075                | 00800 - 01000           | 111                |
| 02500 - 03000           | 048                | 02500 - 03000           | 031                | 00750 - 00900           | 074                | 00250 - 00300           | 075                | 01000 - 01200           | 055                |
| 03000 - 03500           | 060                | 03000 - 03500           | 037                | 00900 - 01050           | 037                | 00300 - 00350           | 068                | 01200 - 01400           | 074                |
| 03500 - 04000           | 054                | 03500 - 04000           | 043                | 01050 - 01200           | 049                | 00350 - 00400           | 056                | 01400 - 01600           | 062                |
| 04000 - 05000           | 036                | 04000 - 05000           | 018                | 01200 - 01350           | 031                | 00400 - 00500           | 050                | 01600 - 01800           | 018                |
| 05000 - 06000           | 036                | 04500 - 05000           | 025                | 01350 - 01500           | 024                | 00500 - 00600           | 087                | 01800 - 02000           | 024                |
| 06000 - 07000           | 012                | 05000 - 06000           | 031                | 01500 - 01650           | 006                | 00600 - 00700           | 037                | 02000 - 02250           | 037                |
| 07000 - 08000           | 030                | 06000 - 07000           | 037                | 01650 - 01800           | 037                | 00700 - 00800           | 068                | 02250 - 02500           | 055                |
| 08000 - 10000           | 066                | 07000 - 08000           | 037                | 01800 - 02000           | 018                | 00800 - 00900           | 037                | 02500 - 03000           | 093                |
| 10000 - 15000           | 127                | 08000 - 10000           | 043                | 02000 - 02500           | 080                | 00900 - 01000           | 006                | 03000 - 03500           | 024                |
| 15000 - 25000           | 084                | 10000 - 15000           | 093                | 02500 - 03000           | 031                | 01000 - 01250           | 043                | 03500 - 04000           | 043                |
| 25000 - 40000           | 048                | 15000 - 20000           | 043                | 03000 - 04000           | 049                | 01250 - 01500           | 018                | 04000 - 05000           | 062                |
| 40000 - 60000           | 024                | 20000 - 30000           | 062                | 04000 - 06000           | 043                | 01500 - 02000           | 081                | 05000 - 07000           | 043                |
| 60000 - 80000           | 006                | 30000 - 40000           | 006                | 06000 - 10000           | 031                | 02000 - 03000           | 025                | 07000 - 09000           | 031                |
| 80000 - 100000          | 000                | 40000 - 50000           | 000                | 10000 - 20000           | 000                | 03000 - 06000           | 006                | 09000 - 12000           | 000                |
| >100000                 | 000                | > 50000                 | 000                | > 20000                 | 000                | > 06000                 | 000                | > 12000                 | 000                |
| NO OF MEASUR.           | +00165             | NO OF MEASUR.           | +00160             | NO OF MEASUR.           | +00161             | NO OF MEASUR.           | +00160             | NO OF MEASUR.           | +00161             |
| MEAN [X10E-2]           | +08414             | MEAN [X10E-2]           | +05835             | MEAN [X10E-3]           | +01383             | MEAN [X10E-4]           | +00586             | MEAN [X10E-5]           | +02058             |
| SIGMA [X10E-2]          | +10804             | SIGMA [X10E-2]          | +06877             | SIGMA [X10E-3]          | +01634             | SIGMA [X10E-4]          | +00591             | SIGMA [X10E-5]          | +01779             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 83

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK 11-25 G/CM. SEC

| D1 = 0.23 MI                                                                                                                                                                                                                                                                                                                          | D2 = 0.45 MI                                                                                                                                                                                                                                                                                                                         | D3 = 0.93 MI                                                                                                                                                                                                                                                                                                                         | D4 = 2.00 MI                                                                                                                                                                                                                                                                                                                         | D5 = 4.50 MI                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RES NR : 362                                                                                                                                                                                                                                                                                                                          | RES NR : 363                                                                                                                                                                                                                                                                                                                         | RES NR : 364                                                                                                                                                                                                                                                                                                                         | RES NR : 365                                                                                                                                                                                                                                                                                                                         | RES NR : 366                                                                                                                                                                                                                                                                                                                         |
| PARTIC. CONC.<br>[X10E-2] [1/10 %]                                                                                                                                                                                                                                                                                                    | PARTIC. CONC.<br>[X10E-2] [1/10 %]                                                                                                                                                                                                                                                                                                   | PARTIC. CONC.<br>[X10E-3] [1/10 %]                                                                                                                                                                                                                                                                                                   | PARTIC. CONC.<br>[X10E-4] [1/10 %]                                                                                                                                                                                                                                                                                                   | PARTIC. CONC.<br>[X10E-5] [1/10 %]                                                                                                                                                                                                                                                                                                   |
| < 00500<br>00500 - 01000<br>01000 - 01500<br>01500 - 02000<br>02000 - 02500<br>02500 - 03000<br>03000 - 03500<br>03500 - 04000<br>04000 - 05000<br>05000 - 06000<br>06000 - 07000<br>07000 - 08000<br>08000 - 10000<br>10000 - 15000<br>15000 - 25000<br>25000 - 40000<br>40000 - 60000<br>60000 - 80000<br>80000 - 100000<br>>100000 | < 00500<br>00500 - 01000<br>01000 - 01500<br>01500 - 02000<br>02000 - 02500<br>02500 - 03000<br>03000 - 03500<br>03500 - 04000<br>04000 - 04500<br>04500 - 05000<br>05000 - 06000<br>06000 - 07000<br>07000 - 08000<br>08000 - 10000<br>10000 - 15000<br>15000 - 20000<br>20000 - 30000<br>30000 - 40000<br>40000 - 50000<br>> 50000 | < 00150<br>00150 - 00300<br>00300 - 00450<br>00450 - 00600<br>00600 - 00750<br>00750 - 00900<br>00900 - 01050<br>01050 - 01200<br>01200 - 01350<br>01350 - 01500<br>01500 - 01650<br>01650 - 01800<br>01800 - 02000<br>02000 - 02500<br>02500 - 03000<br>03000 - 04000<br>04000 - 06000<br>06000 - 10000<br>10000 - 20000<br>> 20000 | < 00050<br>00050 - 00100<br>00100 - 00150<br>00150 - 00200<br>00200 - 00250<br>00250 - 00300<br>00300 - 00350<br>00350 - 00400<br>00400 - 00500<br>00500 - 00600<br>00600 - 00700<br>00700 - 00800<br>00800 - 00900<br>00900 - 01000<br>01000 - 01250<br>01250 - 01500<br>01500 - 02000<br>02000 - 03000<br>03000 - 06000<br>> 06000 | < 00200<br>00200 - 00400<br>00400 - 00600<br>00600 - 00800<br>00800 - 01000<br>01000 - 01200<br>01200 - 01400<br>01400 - 01600<br>01600 - 01800<br>01800 - 02000<br>02000 - 02250<br>02250 - 02500<br>02500 - 03000<br>03000 - 03500<br>03500 - 04000<br>04000 - 05000<br>05000 - 07000<br>07000 - 09000<br>09000 - 12000<br>> 12000 |
| FREQUENCY<br>[1/10 %]                                                                                                                                                                                                                                                                                                                 | FREQUENCY<br>[1/10 %]                                                                                                                                                                                                                                                                                                                | FREQUENCY<br>[1/10 %]                                                                                                                                                                                                                                                                                                                | FREQUENCY<br>[1/10 %]                                                                                                                                                                                                                                                                                                                | FREQUENCY<br>[1/10 %]                                                                                                                                                                                                                                                                                                                |
| 111<br>082<br>099<br>074<br>082<br>070<br>041<br>037<br>061<br>045<br>024<br>020<br>061<br>078<br>061<br>028<br>012<br>004<br>000<br>000                                                                                                                                                                                              | 114<br>148<br>063<br>080<br>114<br>055<br>034<br>029<br>025<br>017<br>034<br>012<br>059<br>029<br>080<br>031<br>046<br>000<br>000<br>000                                                                                                                                                                                             | 101<br>168<br>126<br>088<br>092<br>046<br>050<br>046<br>021<br>021<br>025<br>016<br>021<br>042<br>025<br>029<br>037<br>037<br>000<br>000                                                                                                                                                                                             | 062<br>074<br>091<br>058<br>049<br>033<br>033<br>058<br>091<br>049<br>033<br>045<br>033<br>045<br>053<br>049<br>037<br>041<br>000                                                                                                                                                                                                    | 012<br>073<br>086<br>103<br>086<br>077<br>099<br>056<br>025<br>025<br>043<br>038<br>060<br>034<br>043<br>038<br>077<br>017<br>000<br>000                                                                                                                                                                                             |
| NO OF MEASUR                                                                                                                                                                                                                                                                                                                          | NO OF MEASUR                                                                                                                                                                                                                                                                                                                         | NO OF MEASUR                                                                                                                                                                                                                                                                                                                         | NO OF MEASUR                                                                                                                                                                                                                                                                                                                         | NO OF MEASUR                                                                                                                                                                                                                                                                                                                         |
| +00242                                                                                                                                                                                                                                                                                                                                | +00235                                                                                                                                                                                                                                                                                                                               | +00237                                                                                                                                                                                                                                                                                                                               | +00241                                                                                                                                                                                                                                                                                                                               | +00232                                                                                                                                                                                                                                                                                                                               |
| MEAN [X10E-2]                                                                                                                                                                                                                                                                                                                         | MEAN [X10E-2]                                                                                                                                                                                                                                                                                                                        | MEAN [X10E-3]                                                                                                                                                                                                                                                                                                                        | MEAN [X10E-4]                                                                                                                                                                                                                                                                                                                        | MEAN [X10E-5]                                                                                                                                                                                                                                                                                                                        |
| +06332                                                                                                                                                                                                                                                                                                                                | +05221                                                                                                                                                                                                                                                                                                                               | +01240                                                                                                                                                                                                                                                                                                                               | +00727                                                                                                                                                                                                                                                                                                                               | +01996                                                                                                                                                                                                                                                                                                                               |
| SIGMA [X10E-2]                                                                                                                                                                                                                                                                                                                        | SIGMA [X10E-2]                                                                                                                                                                                                                                                                                                                       | SIGMA [X10E-3]                                                                                                                                                                                                                                                                                                                       | SIGMA [X10E-4]                                                                                                                                                                                                                                                                                                                       | SIGMA [X10E-5]                                                                                                                                                                                                                                                                                                                       |
| +09243                                                                                                                                                                                                                                                                                                                                | +06402                                                                                                                                                                                                                                                                                                                               | +01682                                                                                                                                                                                                                                                                                                                               | +00804                                                                                                                                                                                                                                                                                                                               | +01763                                                                                                                                                                                                                                                                                                                               |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 84

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK 26-50 G/CM. SEC

| D1 = 0.23 MI            |                    | D2 = 0.45 MI            |                    | D3 = 0.93 MI            |                    | D4 = 2.00 MI            |                    | D5 = 4.50 MI            |                    |
|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|
| RES. NR. : 372          |                    | RES. NR. : 373          |                    | RES. NR. : 374          |                    | RES. NR. : 375          |                    | RES. NR. : 376          |                    |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 %] |
| < 00500                 | 063                | < 00500                 | 079                | < 00150                 | 069                | < 00050                 | 032                | < 00200                 | 000                |
| 00500 - 01000           | 078                | 00500 - 01000           | 079                | 00150 - 00300           | 132                | 00050 - 00100           | 065                | 00200 - 00400           | 059                |
| 01000 - 01500           | 047                | 01000 - 01500           | 074                | 00300 - 00450           | 148                | 00100 - 00150           | 054                | 00400 - 00600           | 075                |
| 01500 - 02000           | 121                | 01500 - 02000           | 069                | 00450 - 00600           | 042                | 00150 - 00200           | 043                | 00600 - 00800           | 059                |
| 02000 - 02500           | 078                | 02000 - 02500           | 090                | 00600 - 00750           | 095                | 00200 - 00250           | 098                | 00800 - 01000           | 086                |
| 02500 - 03000           | 063                | 02500 - 03000           | 063                | 00750 - 00900           | 074                | 00250 - 00300           | 049                | 01000 - 01200           | 043                |
| 03000 - 03500           | 031                | 03000 - 03500           | 074                | 00900 - 01050           | 053                | 00300 - 00350           | 060                | 01200 - 01400           | 086                |
| 03500 - 04000           | 042                | 03500 - 04000           | 058                | 01050 - 01200           | 031                | 00350 - 00400           | 065                | 01400 - 01600           | 043                |
| 04000 - 04500           | 068                | 04000 - 04500           | 053                | 01200 - 01350           | 031                | 00400 - 00450           | 054                | 01600 - 01800           | 037                |
| 04500 - 05000           | 084                | 04500 - 05000           | 042                | 01350 - 01500           | 021                | 00450 - 00500           | 076                | 01800 - 02000           | 054                |
| 05000 - 05500           | 031                | 05000 - 05500           | 058                | 01500 - 01650           | 026                | 00500 - 00600           | 054                | 02000 - 02250           | 070                |
| 05500 - 06000           | 036                | 05500 - 06000           | 031                | 01650 - 01800           | 026                | 00600 - 00700           | 060                | 02250 - 02500           | 043                |
| 06000 - 06500           | 068                | 06000 - 06500           | 026                | 01800 - 02000           | 015                | 00700 - 00800           | 027                | 02500 - 03000           | 102                |
| 06500 - 07000           | 089                | 06500 - 07000           | 042                | 02000 - 02500           | 074                | 00800 - 00900           | 027                | 03000 - 03500           | 048                |
| 07000 - 07500           | 031                | 07000 - 07500           | 095                | 02500 - 03000           | 042                | 00900 - 01000           | 060                | 03500 - 04000           | 016                |
| 07500 - 08000           | 042                | 07500 - 08000           | 021                | 03000 - 04000           | 047                | 01000 - 01250           | 065                | 04000 - 05000           | 070                |
| 08000 - 08500           | 021                | 08000 - 08500           | 026                | 04000 - 06000           | 031                | 01250 - 01500           | 065                | 05000 - 07000           | 075                |
| 08500 - 09000           | 000                | 08500 - 09000           | 010                | 06000 - 10000           | 031                | 01500 - 02000           | 027                | 07000 - 09000           | 027                |
| 09000 - 100000          | 000                | 09000 - 100000          | 000                | 10000 - 20000           | 000                | 02000 - 03000           | 005                | 09000 - 12000           | 000                |
| > 100000                | 000                | > 50000                 | 000                | > 20000                 | 000                | > 06000                 | 000                | > 12000                 | 000                |
| NO OF MEASUR.           | +00190             | NO OF MEASUR.           | +00188             | NO OF MEASUR.           | +00188             | NO OF MEASUR.           | +00182             | NO OF MEASUR.           | +00185             |
| MEAN [X10E-2]           | +06949             | MEAN [X10E-2]           | +05210             | MEAN [X10E-3]           | +01344             | MEAN [X10E-4]           | +00651             | MEAN [X10E-5]           | +02277             |
| SIGMA [X10E-2]          | +09760             | SIGMA [X10E-2]          | +05676             | SIGMA [X10E-3]          | +01520             | SIGMA [X10E-4]          | +00589             | SIGMA [X10E-5]          | +01794             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD : 1970-1980

GARMISCH (VALLEY 740 M)

TABLE: 85

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK 51-100 G/CM. SEC

| D1 = 0.23 MI                                                                                                                                                                                                                                                                                                                          | D2 = 0.45 MI                                                                                                                                                                                                                                                                                                                                           | D3 = 0.93 MI                                                                                                                                                                                                                                                                                                                                           | D4 = 2.00 MI                                                                                                                                                                                                                                                                                                                                                                             | D5 = 4.50 MI                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RES. NR. : 382                                                                                                                                                                                                                                                                                                                        | RES. NR. : 383                                                                                                                                                                                                                                                                                                                                         | RES. NR. : 384                                                                                                                                                                                                                                                                                                                                         | RES. NR. : 385                                                                                                                                                                                                                                                                                                                                                                           | RES. NR. : 386                                                                                                                                                                                                                                                                                                                                         |
| PARTICL. CONC. [X10E-2] FREQUENCY [(1/10 %)]                                                                                                                                                                                                                                                                                          | PARTICL. CONC. [X10E-2] FREQUENCY [(1/10 %)]                                                                                                                                                                                                                                                                                                           | PARTICL. CONC. [X10E-3] FREQUENCY [(1/10 %)]                                                                                                                                                                                                                                                                                                           | PARTICL. CONC. [X10E-4] FREQUENCY [(1/10 %)]                                                                                                                                                                                                                                                                                                                                             | PARTICL. CONC. [X10E-5] FREQUENCY [(1/10 %)]                                                                                                                                                                                                                                                                                                           |
| < 00500<br>00500 - 01000<br>01000 - 01500<br>01500 - 02000<br>02000 - 02500<br>02500 - 03000<br>03000 - 03500<br>03500 - 04000<br>04000 - 05000<br>05000 - 06000<br>06000 - 07000<br>07000 - 08000<br>08000 - 10000<br>10000 - 15000<br>15000 - 25000<br>25000 - 40000<br>40000 - 60000<br>60000 - 80000<br>80000 - 100000<br>>100000 | < 00500<br>00500 - 01000<br>01000 - 01500<br>01500 - 02000<br>02000 - 02500<br>02500 - 03000<br>03000 - 03500<br>03500 - 04000<br>04000 - 04500<br>04500 - 05000<br>05000 - 06000<br>06000 - 07000<br>07000 - 08000<br>08000 - 10000<br>10000 - 15000<br>15000 - 20000<br>20000 - 30000<br>30000 - 40000<br>40000 - 50000<br>50000 - 100000<br>> 50000 | < 00150<br>00150 - 00300<br>00300 - 00450<br>00450 - 00600<br>00600 - 00750<br>00750 - 00900<br>00900 - 01050<br>01050 - 01200<br>01200 - 01350<br>01350 - 01500<br>01500 - 01650<br>01650 - 01800<br>01800 - 02000<br>02000 - 02500<br>02500 - 03000<br>03000 - 04000<br>04000 - 06000<br>06000 - 10000<br>10000 - 20000<br>20000 - 100000<br>> 20000 | < 00050<br>00050 - 00100<br>00100 - 00150<br>00150 - 00200<br>00200 - 00250<br>00250 - 00300<br>00300 - 00350<br>00350 - 00400<br>00400 - 00500<br>00500 - 00600<br>00600 - 00700<br>00700 - 00800<br>00800 - 00900<br>00900 - 01000<br>01000 - 01250<br>01250 - 01500<br>01500 - 02000<br>02000 - 03000<br>03000 - 06000<br>06000 - 10000<br>10000 - 12000<br>12000 - 100000<br>> 06000 | < 00200<br>00200 - 00400<br>00400 - 00600<br>00600 - 00800<br>00800 - 01000<br>01000 - 01200<br>01200 - 01400<br>01400 - 01600<br>01600 - 01800<br>01800 - 02000<br>02000 - 02250<br>02250 - 02500<br>02500 - 03000<br>03000 - 03500<br>03500 - 04000<br>04000 - 05000<br>05000 - 07000<br>07000 - 09000<br>09000 - 12000<br>12000 - 100000<br>> 12000 |
| 095<br>114<br>090<br>100<br>047<br>047<br>057<br>038<br>038<br>065<br>052<br>023<br>061<br>019<br>095<br>023<br>009<br>000<br>000<br>000                                                                                                                                                                                              | 053<br>101<br>111<br>077<br>062<br>067<br>033<br>038<br>028<br>033<br>062<br>048<br>024<br>043<br>101<br>033<br>062<br>014<br>000<br>000                                                                                                                                                                                                               | 092<br>140<br>106<br>087<br>048<br>058<br>058<br>053<br>038<br>033<br>024<br>009<br>014<br>048<br>063<br>048<br>038<br>033<br>000<br>000                                                                                                                                                                                                               | 058<br>063<br>092<br>058<br>053<br>029<br>029<br>029<br>082<br>063<br>058<br>058<br>029<br>043<br>048<br>039<br>053<br>058<br>048<br>000                                                                                                                                                                                                                                                 | 004<br>058<br>073<br>073<br>073<br>078<br>063<br>034<br>058<br>049<br>058<br>044<br>058<br>044<br>049<br>053<br>102<br>019<br>000<br>000                                                                                                                                                                                                               |
| NO OF MEASUR. +00210<br>MEAN [X10E-2] +05933<br>SIGMA [X10E-2] +07926                                                                                                                                                                                                                                                                 | NO OF MEASUR. +00207<br>MEAN [X10E-2] +06327<br>SIGMA [X10E-2] +07289                                                                                                                                                                                                                                                                                  | NO OF MEASUR. +00206<br>MEAN [X10E-3] +01405<br>SIGMA [X10E-3] +01689                                                                                                                                                                                                                                                                                  | NO OF MEASUR. +00205<br>MEAN [X10E-4] +00793<br>SIGMA [X10E-4] +00846                                                                                                                                                                                                                                                                                                                    | NO OF MEASUR. +00204<br>MEAN [X10E-5] +02296<br>SIGMA [X10E-5] +01859                                                                                                                                                                                                                                                                                  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 86

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK 101-500 G/CM. SEC

| D1 = 0.23 MI            |                    | D2 = 0.45 MI            |                    | D3 = 0.93 MI            |                    | D4 = 2.00 MI            |                    | D5 = 4.50 MI            |                    |
|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|
| RES. NR. : 392          |                    | RES. NR. : 393          |                    | RES. NR. : 394          |                    | RES. NR. : 395          |                    | RES. NR. : 396          |                    |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 %] |
| < 00500                 | 112                | < 00500                 | 053                | < 00150                 | 086                | < 00050                 | 078                | < 00200                 | 000                |
| 00500 - 01000           | 084                | 00500 - 01000           | 066                | 00150 - 00300           | 118                | 00050 - 00100           | 053                | 00200 - 00400           | 065                |
| 01000 - 01500           | 068                | 01000 - 01500           | 090                | 00300 - 00450           | 127                | 00100 - 00150           | 058                | 00400 - 00600           | 082                |
| 01500 - 02000           | 064                | 01500 - 02000           | 057                | 00450 - 00600           | 090                | 00150 - 00200           | 049                | 00600 - 00800           | 061                |
| 02000 - 02500           | 056                | 02000 - 02500           | 086                | 00600 - 00750           | 081                | 00200 - 00250           | 038                | 00800 - 01000           | 102                |
| 02500 - 03000           | 084                | 02500 - 03000           | 070                | 00750 - 00900           | 065                | 00250 - 00300           | 024                | 01000 - 01200           | 090                |
| 03000 - 03500           | 036                | 03000 - 03500           | 066                | 00900 - 01050           | 045                | 00300 - 00350           | 041                | 01200 - 01400           | 078                |
| 03500 - 04000           | 052                | 03500 - 04000           | 061                | 01050 - 01200           | 049                | 00350 - 00400           | 029                | 01400 - 01600           | 069                |
| 04000 - 05000           | 072                | 04000 - 04500           | 070                | 01200 - 01350           | 016                | 00400 - 00500           | 082                | 01600 - 01800           | 061                |
| 05000 - 06000           | 068                | 04500 - 05000           | 033                | 01350 - 01500           | 053                | 00500 - 00600           | 062                | 01800 - 02000           | 037                |
| 06000 - 07000           | 048                | 05000 - 06000           | 049                | 01500 - 01650           | 036                | 00600 - 00700           | 066                | 02000 - 02250           | 057                |
| 07000 - 08000           | 020                | 06000 - 07000           | 041                | 01650 - 01800           | 045                | 00700 - 00800           | 058                | 02250 - 02500           | 049                |
| 08000 - 10000           | 036                | 07000 - 08000           | 041                | 01800 - 02000           | 016                | 00800 - 00900           | 058                | 02500 - 03000           | 065                |
| 10000 - 15000           | 060                | 08000 - 10000           | 045                | 02000 - 02500           | 045                | 00900 - 01000           | 041                | 03000 - 03500           | 037                |
| 15000 - 25000           | 060                | 10000 - 15000           | 074                | 02500 - 03000           | 040                | 01000 - 01250           | 058                | 03500 - 04000           | 037                |
| 25000 - 40000           | 036                | 15000 - 20000           | 041                | 03000 - 04000           | 024                | 01250 - 01500           | 041                | 04000 - 05000           | 024                |
| 40000 - 60000           | 028                | 20000 - 30000           | 045                | 04000 - 06000           | 024                | 01500 - 02000           | 049                | 05000 - 07000           | 049                |
| 60000 - 80000           | 008                | 30000 - 40000           | 004                | 06000 - 10000           | 032                | 02000 - 03000           | 066                | 07000 - 09000           | 028                |
| 80000 - 100000          | 000                | 40000 - 50000           | 000                | 10000 - 20000           | 000                | 03000 - 06000           | 020                | 09000 - 12000           | 000                |
| > 100000                | 000                | > 50000                 | 000                | > 20000                 | 000                | > 06000                 | 000                | > 12000                 | 000                |
| NO OF MEASUR.           | +00248             | NO OF MEASUR.           | +00242             | NO OF MEASUR.           | +00244             | NO OF MEASUR.           | +00241             | NO OF MEASUR.           | +00243             |
| MEAN [X10E-2]           | +07387             | MEAN [X10E-2]           | +05669             | MEAN [X10E-3]           | +01280             | MEAN [X10E-4]           | +00746             | MEAN [X10E-5]           | +01993             |
| SIGMA [X10E-2]          | +11295             | SIGMA [X10E-2]          | +06068             | SIGMA [X10E-3]          | +01599             | SIGMA [X10E-4]          | +00749             | SIGMA [X10E-5]          | +01707             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 87

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK >1000 G/CM SEC (VERY HIGH)

| D1 = 0.23 MI               |                       |  | D2 = 0.45 MI               |                       |  | D3 = 0.93 MI               |                       |  | D4 = 2.00 MI               |                       |  | D5 = 4.50 MI               |                       |  |
|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|
| RES. NR :                  | 162                   |  | RES. NR :                  | 163                   |  | RES. NR :                  | 164                   |  | RES. NR :                  | 165                   |  | RES. NR :                  | 166                   |  |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |
| < 00500                    | 089                   |  | < 00500                    | 070                   |  | < 00150                    | 096                   |  | < 00050                    | 071                   |  | < 00200                    | 028                   |  |
| 00500 - 01000              | 096                   |  | 00500 - 01000              | 127                   |  | 00150 - 00300              | 165                   |  | 00050 - 00100              | 042                   |  | 00200 - 00400              | 057                   |  |
| 01000 - 01500              | 089                   |  | 01000 - 01500              | 113                   |  | 00300 - 00450              | 068                   |  | 00100 - 00150              | 128                   |  | 00400 - 00600              | 092                   |  |
| 01500 - 02000              | 089                   |  | 01500 - 02000              | 085                   |  | 00450 - 00600              | 117                   |  | 00150 - 00200              | 078                   |  | 00600 - 00800              | 114                   |  |
| 02000 - 02500              | 027                   |  | 02000 - 02500              | 070                   |  | 00600 - 00750              | 110                   |  | 00200 - 00250              | 050                   |  | 00800 - 01000              | 121                   |  |
| 02500 - 03000              | 034                   |  | 02500 - 03000              | 063                   |  | 00750 - 00900              | 034                   |  | 00250 - 00300              | 057                   |  | 01000 - 01200              | 057                   |  |
| 03000 - 03500              | 041                   |  | 03000 - 03500              | 035                   |  | 00900 - 01050              | 034                   |  | 00300 - 00350              | 028                   |  | 01200 - 01400              | 064                   |  |
| 03500 - 04000              | 062                   |  | 03500 - 04000              | 021                   |  | 01050 - 01200              | 053                   |  | 00350 - 00400              | 050                   |  | 01400 - 01600              | 057                   |  |
| 04000 - 05000              | 034                   |  | 04000 - 05000              | 035                   |  | 01200 - 01350              | 048                   |  | 00400 - 00500              | 064                   |  | 01600 - 01800              | 085                   |  |
| 05000 - 06000              | 041                   |  | 04500 - 05000              | 021                   |  | 01350 - 01500              | 034                   |  | 00500 - 00600              | 057                   |  | 01800 - 02000              | 042                   |  |
| 06000 - 07000              | 055                   |  | 05000 - 06000              | 070                   |  | 01500 - 01650              | 027                   |  | 00600 - 00700              | 057                   |  | 02000 - 02250              | 028                   |  |
| 07000 - 08000              | 041                   |  | 06000 - 07000              | 028                   |  | 01650 - 01800              | 034                   |  | 00700 - 00800              | 028                   |  | 02250 - 02500              | 050                   |  |
| 08000 - 10000              | 075                   |  | 07000 - 08000              | 056                   |  | 01800 - 02000              | 041                   |  | 00800 - 00900              | 042                   |  | 02500 - 03000              | 078                   |  |
| 10000 - 15000              | 082                   |  | 08000 - 10000              | 063                   |  | 02000 - 02500              | 027                   |  | 00900 - 01000              | 042                   |  | 03000 - 03500              | 021                   |  |
| 15000 - 25000              | 068                   |  | 10000 - 15000              | 078                   |  | 02500 - 03000              | 041                   |  | 01000 - 01250              | 050                   |  | 03500 - 04000              | 028                   |  |
| 25000 - 40000              | 041                   |  | 15000 - 20000              | 021                   |  | 03000 - 04000              | 013                   |  | 01250 - 01500              | 050                   |  | 04000 - 05000              | 028                   |  |
| 40000 - 60000              | 020                   |  | 20000 - 30000              | 035                   |  | 04000 - 06000              | 041                   |  | 01500 - 02000              | 050                   |  | 05000 - 07000              | 028                   |  |
| 60000 - 80000              | 006                   |  | 30000 - 40000              | 000                   |  | 06000 - 10000              | 006                   |  | 02000 - 03000              | 050                   |  | 07000 - 09000              | 014                   |  |
| 80000 - 100000             | 000                   |  | 40000 - 50000              | 000                   |  | 10000 - 20000              | 000                   |  | 03000 - 06000              | 000                   |  | 09000 - 12000              | 000                   |  |
| > 100000                   | 000                   |  | > 50000                    | 000                   |  | > 20000                    | 000                   |  | > 06000                    | 000                   |  | > 12000                    | 000                   |  |
| NO OF MEASUR.              | +00145                |  | NO OF MEASUR.              | +00141                |  | NO OF MEASUR.              | +00145                |  | NO OF MEASUR.              | +00140                |  | NO OF MEASUR.              | +00140                |  |
| MEAN [X10E-2]              | +07681                |  | MEAN [X10E-2]              | +04931                |  | MEAN [X10E-3]              | +01091                |  | MEAN [X10E-4]              | +00607                |  | MEAN [X10E-5]              | +01696                |  |
| SIGMA [X10E-2]             | +10737                |  | SIGMA [X10E-2]             | +05517                |  | SIGMA [X10E-3]             | +01168                |  | SIGMA [X10E-4]             | +00600                |  | SIGMA [X10E-5]             | +01462                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 88

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK <5 G/CM. SEC (VERY LOW)

| D1 = 0.23 MI       |                         | D2 = 0.45 MI       |                         | D3 = 0.93 MI       |                         | D4 = 2.00 MI       |                         | D5 = 4.50 MI       |                         |
|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|
| RES. NR. : 312     | PARTICL. CONC. [X10E-2] | RES. NR. : 313     | PARTICL. CONC. [X10E-2] | RES. NR. : 314     | PARTICL. CONC. [X10E-3] | RES. NR. : 315     | PARTICL. CONC. [X10E-4] | RES. NR. : 316     | PARTICL. CONC. [X10E-5] |
| FREQUENCY [1/10 X] | FREQUENCY [1/10 X]      | FREQUENCY [1/10 X] | FREQUENCY [1/10 X]      | FREQUENCY [1/10 X] | FREQUENCY [1/10 X]      | FREQUENCY [1/10 X] | FREQUENCY [1/10 X]      | FREQUENCY [1/10 X] | FREQUENCY [1/10 X]      |
| < 00200            | 106                     | < 00100            | 175                     | < 00025            | 033                     | < 00025            | 057                     | < 00025            | 004                     |
| 00200 - 00400      | 120                     | 00100 - 00200      | 082                     | 00025 - 00050      | 042                     | 00025 - 00050      | 129                     | 00025 - 00050      | 019                     |
| 00400 - 00600      | 120                     | 00200 - 00300      | 073                     | 00050 - 00076      | 057                     | 00050 - 00076      | 100                     | 00050 - 00076      | 019                     |
| 00600 - 00800      | 057                     | 00300 - 00400      | 039                     | 00076 - 00100      | 066                     | 00076 - 00100      | 072                     | 00076 - 00100      | 024                     |
| 00800 - 01000      | 043                     | 00400 - 00500      | 043                     | 00100 - 00150      | 152                     | 00100 - 00125      | 120                     | 00100 - 00125      | 024                     |
| 01000 - 01200      | 062                     | 00500 - 00600      | 034                     | 00150 - 00200      | 061                     | 00125 - 00150      | 062                     | 00125 - 00150      | 019                     |
| 01200 - 01400      | 019                     | 00600 - 00750      | 058                     | 00200 - 00250      | 080                     | 00150 - 00175      | 067                     | 00150 - 00175      | 034                     |
| 01400 - 01600      | 053                     | 00750 - 01000      | 048                     | 00250 - 00300      | 057                     | 00175 - 00200      | 057                     | 00175 - 00200      | 059                     |
| 01600 - 01800      | 019                     | 01000 - 01500      | 082                     | 00300 - 00350      | 038                     | 00200 - 00250      | 052                     | 00200 - 00250      | 148                     |
| 01800 - 02000      | 038                     | 01500 - 02000      | 073                     | 00350 - 00400      | 047                     | 00250 - 00300      | 028                     | 00250 - 00300      | 108                     |
| 02000 - 02500      | 067                     | 02000 - 02500      | 034                     | 00400 - 00450      | 028                     | 00300 - 00350      | 043                     | 00300 - 00350      | 054                     |
| 02500 - 03000      | 067                     | 02500 - 03000      | 034                     | 00450 - 00500      | 028                     | 00350 - 00400      | 038                     | 00350 - 00400      | 049                     |
| 03000 - 03500      | 043                     | 03000 - 04000      | 053                     | 00500 - 00600      | 052                     | 00400 - 00450      | 019                     | 00400 - 00450      | 059                     |
| 03500 - 04000      | 057                     | 04000 - 05000      | 034                     | 00600 - 00700      | 038                     | 00450 - 00500      | 028                     | 00450 - 00500      | 054                     |
| 04000 - 05000      | 048                     | 05000 - 07000      | 043                     | 00700 - 01000      | 071                     | 00500 - 00600      | 033                     | 00500 - 00600      | 059                     |
| 05000 - 06000      | 019                     | 07000 - 09000      | 019                     | 01000 - 01500      | 042                     | 00600 - 00700      | 019                     | 00600 - 00700      | 049                     |
| 06000 - 08000      | 033                     | 09000 - 12000      | 034                     | 01500 - 02000      | 038                     | 00700 - 01000      | 043                     | 00700 - 01000      | 138                     |
| 08000 - 10000      | 014                     | 12000 - 15000      | 029                     | 02000 - 03500      | 061                     | 01000 - 02000      | 024                     | 01000 - 02000      | 067                     |
| 10000 - 15000      | 004                     | 15000 - 20000      | 004                     | 03500 - 05000      | 000                     | 02000 - 04000      | 000                     | 02000 - 04000      | 000                     |
| > 15000            | 000                     | > 20000            | 000                     | > 05000            | 000                     | > 04000            | 000                     | > 04000            | 000                     |
| NO OF MEASUR.      | +00207                  | NO OF MEASUR.      | +00205                  | NO OF MEASUR.      | +00210                  | NO OF MEASUR.      | +00208                  | NO OF MEASUR.      | +00202                  |
| MEAN [X10E-2]      | +01909                  | MEAN [X10E-2]      | +02136                  | MEAN [X10E-3]      | +00519                  | MEAN [X10E-4]      | +00230                  | MEAN [X10E-5]      | +00451                  |
| SIGMA [X10E-2]     | +01970                  | SIGMA [X10E-2]     | +03237                  | SIGMA [X10E-3]     | +00660                  | SIGMA [X10E-4]     | +00260                  | SIGMA [X10E-5]     | +00346                  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 89

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK 6-10 G/CM SEC

| D1 = 0.23 MI            | D2 = 0.45 MI            | D3 = 0.93 MI            | D4 = 2.00 MI            | D5 = 4.50 MI            |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| RES. NR. : 357          | RES. NR. : 358          | RES. NR. : 359          | RES. NR. : 360          | RES. NR. : 361          |
| PARTICL. CONC. [X10E-2] | PARTICL. CONC. [X10E-2] | PARTICL. CONC. [X10E-3] | PARTICL. CONC. [X10E-4] | PARTICL. CONC. [X10E-5] |
| FREQUENCY [1/10 %]      | FREQUENCY [1/10 %]      | FREQUENCY [1/10 %]      | FREQUENCY [1/10 %]      | FREQUENCY [1/10 %]      |
| < 00200                 | < 00100                 | < 00025                 | < 00025                 | < 00025                 |
| 00200 - 00400           | 00100 - 00200           | 00025 - 00050           | 00025 - 00050           | 00025 - 00050           |
| 00400 - 00600           | 00200 - 00300           | 00050 - 00076           | 00050 - 00076           | 00050 - 00076           |
| 00600 - 00800           | 00300 - 00400           | 00076 - 00100           | 00076 - 00100           | 00076 - 00100           |
| 00800 - 01000           | 00400 - 00500           | 00100 - 00150           | 00100 - 00125           | 00100 - 00125           |
| 01000 - 01200           | 00500 - 00600           | 00150 - 00200           | 00125 - 00150           | 00125 - 00150           |
| 01200 - 01400           | 00600 - 00750           | 00200 - 00250           | 00150 - 00175           | 00150 - 00175           |
| 01400 - 01600           | 00750 - 01000           | 00250 - 00300           | 00175 - 00200           | 00175 - 00200           |
| 01600 - 01800           | 01000 - 01500           | 00300 - 00350           | 00200 - 00250           | 00200 - 00250           |
| 01800 - 02000           | 01500 - 02000           | 00350 - 00400           | 00250 - 00300           | 00250 - 00300           |
| 02000 - 02500           | 02000 - 02500           | 00400 - 00450           | 00300 - 00350           | 00300 - 00350           |
| 02500 - 03000           | 02500 - 03000           | 00450 - 00500           | 00350 - 00400           | 00350 - 00400           |
| 03000 - 03500           | 03000 - 04000           | 00500 - 00600           | 00400 - 00450           | 00400 - 00450           |
| 03500 - 04000           | 04000 - 05000           | 00600 - 00700           | 00450 - 00500           | 00450 - 00500           |
| 04000 - 05000           | 05000 - 07000           | 00700 - 01000           | 00500 - 00600           | 00500 - 00600           |
| 05000 - 06000           | 07000 - 09000           | 01000 - 01500           | 00600 - 00700           | 00600 - 00700           |
| 06000 - 08000           | 09000 - 12000           | 01500 - 02000           | 00700 - 01000           | 00700 - 01000           |
| 08000 - 10000           | 12000 - 15000           | 02000 - 03500           | 01000 - 02000           | 01000 - 02000           |
| 10000 - 15000           | 15000 - 20000           | 03500 - 06000           | 02000 - 04000           | 02000 - 04000           |
| > 15000                 | > 20000                 | > 06000                 | > 04000                 | > 04000                 |
| NO OF MEASUR            | NO OF MEASUR.           | NO OF MEASUR.           | NO OF MEASUR.           | NO OF MEASUR.           |
| +00146                  | +00142                  | +00146                  | +00144                  | +00141                  |
| MEAN [X10E-2]           | MEAN [X10E-2]           | MEAN [X10E-3]           | MEAN [X10E-4]           | MEAN [X10E-5]           |
| +01772                  | +01793                  | +00408                  | +00192                  | +00375                  |
| SIGMA [X10E-2]          | SIGMA [X10E-2]          | SIGMA [X10E-3]          | SIGMA [X10E-4]          | SIGMA [X10E-5]          |
| +02018                  | +02442                  | +00496                  | +00211                  | +00303                  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 90

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK 11-25 G/CM. SEC

| D1 = 0.23 MI            |                    | D2 = 0.45 MI            |                    | D3 = 0.93 MI            |                    | D4 = 2.00 MI            |                    | D5 = 4.50 MI            |                    |
|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|
| RES. NR. : 367          |                    | RES. NR. : 368          |                    | RES. NR. : 369          |                    | RES. NR. : 370          |                    | RES. NR. : 371          |                    |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 %] |
| < 00200                 | 075                | < 00100                 | 111                | < 00025                 | 052                | < 00025                 | 115                | < 00025                 | 009                |
| 00200 - 00400           | 093                | 00100 - 00200           | 101                | 00025 - 00050           | 110                | 00025 - 00050           | 195                | 00025 - 00050           | 034                |
| 00400 - 00600           | 075                | 00200 - 00300           | 067                | 00050 - 00076           | 048                | 00050 - 00076           | 106                | 00050 - 00076           | 024                |
| 00600 - 00800           | 084                | 00300 - 00400           | 038                | 00076 - 00100           | 033                | 00076 - 00100           | 053                | 00076 - 00100           | 049                |
| 00800 - 01000           | 075                | 00400 - 00500           | 057                | 00100 - 00150           | 125                | 00100 - 00125           | 043                | 00100 - 00125           | 034                |
| 01000 - 01200           | 065                | 00500 - 00600           | 062                | 00150 - 00200           | 043                | 00125 - 00150           | 072                | 00125 - 00150           | 039                |
| 01200 - 01400           | 042                | 00600 - 00750           | 028                | 00200 - 00250           | 067                | 00150 - 00175           | 024                | 00150 - 00175           | 039                |
| 01400 - 01600           | 023                | 00750 - 01000           | 043                | 00250 - 00300           | 038                | 00175 - 00200           | 048                | 00175 - 00200           | 054                |
| 01600 - 01800           | 056                | 01000 - 01500           | 082                | 00300 - 00350           | 067                | 00200 - 00250           | 057                | 00200 - 00250           | 054                |
| 01800 - 02000           | 028                | 01500 - 02000           | 077                | 00350 - 00400           | 033                | 00250 - 00300           | 053                | 00250 - 00300           | 079                |
| 02000 - 02500           | 103                | 02000 - 02500           | 043                | 00400 - 00450           | 019                | 00300 - 00350           | 033                | 00300 - 00350           | 109                |
| 02500 - 03000           | 051                | 02500 - 03000           | 038                | 00450 - 00500           | 009                | 00350 - 00400           | 024                | 00350 - 00400           | 054                |
| 03000 - 03500           | 051                | 03000 - 04000           | 033                | 00500 - 00600           | 043                | 00400 - 00450           | 024                | 00400 - 00450           | 039                |
| 03500 - 04000           | 046                | 04000 - 05000           | 038                | 00600 - 00700           | 019                | 00450 - 00500           | 033                | 00450 - 00500           | 049                |
| 04000 - 05000           | 042                | 05000 - 07000           | 062                | 00700 - 01000           | 134                | 00500 - 00600           | 038                | 00500 - 00600           | 079                |
| 05000 - 06000           | 032                | 07000 - 09000           | 038                | 01000 - 01500           | 072                | 00600 - 00700           | 024                | 00600 - 00700           | 029                |
| 06000 - 08000           | 037                | 09000 - 12000           | 028                | 01500 - 02000           | 038                | 00700 - 01000           | 038                | 00700 - 01000           | 069                |
| 08000 - 10000           | 014                | 12000 - 15000           | 038                | 02000 - 03500           | 043                | 01000 - 02000           | 072                | 01000 - 02000           | 139                |
| 10000 - 15000           | 000                | 15000 - 20000           | 004                | 03500 - 06000           | 000                | 02000 - 04000           | 000                | 02000 - 04000           | 004                |
| > 15000                 | 000                | > 20000                 | 000                | > 06000                 | 000                | > 04000                 | 000                | > 04000                 | 000                |
| NO OF MEASUR.           | +00213             | NO OF MEASUR.           | +00207             | NO OF MEASUR.           | +00208             | NO OF MEASUR.           | +00207             | NO OF MEASUR.           | +00201             |
| MEAN [X10E-2]           | +01998             | MEAN [X10E-2]           | +02460             | MEAN [X10E-3]           | +00518             | MEAN [X10E-4]           | +00283             | MEAN [X10E-5]           | +00478             |
| SIGMA [X10E-2]          | +01920             | SIGMA [X10E-2]          | +03442             | SIGMA [X10E-3]          | +00628             | SIGMA [X10E-4]          | +00354             | SIGMA [X10E-5]          | +00427             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 91

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK 26-50 G/CM SEC

| D1 = 0.23 MI              |                       | D2 = 0.45 MI              |                       | D3 = 0.93 MI              |                       | D4 = 2.00 MI              |                       | D5 = 4.50 MI              |                       |
|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|
| RES. NR. : 377            |                       | RES. NR. : 378            |                       | RES. NR. : 379            |                       | RES. NR. : 380            |                       | RES. NR. : 381            |                       |
| PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] | PARTICL CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] | PARTICL CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |
| < 00200                   | 050                   | < 00100                   | 086                   | < 00025                   | 068                   | < 00025                   | 116                   | < 00025                   | 000                   |
| 00200 - 00400             | 084                   | 00100 - 00200             | 120                   | 00025 - 00050             | 056                   | 00025 - 00050             | 088                   | 00025 - 00050             | 017                   |
| 00400 - 00600             | 089                   | 00200 - 00300             | 057                   | 00050 - 00076             | 056                   | 00050 - 00076             | 088                   | 00050 - 00076             | 011                   |
| 00600 - 00800             | 089                   | 00300 - 00400             | 045                   | 00076 - 00100             | 062                   | 00076 - 00100             | 060                   | 00076 - 00100             | 074                   |
| 00800 - 01000             | 084                   | 00400 - 00500             | 057                   | 00100 - 00150             | 096                   | 00100 - 00125             | 077                   | 00100 - 00125             | 045                   |
| 01000 - 01200             | 044                   | 00500 - 00600             | 034                   | 00150 - 00200             | 073                   | 00125 - 00150             | 082                   | 00125 - 00150             | 040                   |
| 01200 - 01400             | 039                   | 00600 - 00750             | 045                   | 00200 - 00250             | 051                   | 00150 - 00175             | 049                   | 00150 - 00175             | 022                   |
| 01400 - 01600             | 044                   | 00750 - 01000             | 034                   | 00250 - 00300             | 034                   | 00175 - 00200             | 044                   | 00175 - 00200             | 051                   |
| 01600 - 01800             | 028                   | 01000 - 01500             | 057                   | 00300 - 00350             | 045                   | 00200 - 00250             | 033                   | 00200 - 00250             | 045                   |
| 01800 - 02000             | 039                   | 01500 - 02000             | 068                   | 00350 - 00400             | 022                   | 00250 - 00300             | 044                   | 00250 - 00300             | 051                   |
| 02000 - 02500             | 067                   | 02000 - 02500             | 011                   | 00400 - 00450             | 028                   | 00300 - 00350             | 066                   | 00300 - 00350             | 068                   |
| 02500 - 03000             | 089                   | 02500 - 03000             | 011                   | 00450 - 00500             | 034                   | 00350 - 00400             | 011                   | 00350 - 00400             | 062                   |
| 03000 - 03500             | 061                   | 03000 - 04000             | 074                   | 00500 - 00600             | 056                   | 00400 - 00450             | 027                   | 00400 - 00450             | 030                   |
| 03500 - 04000             | 039                   | 04000 - 05000             | 045                   | 00600 - 00700             | 056                   | 00450 - 00500             | 022                   | 00450 - 00500             | 034                   |
| 04000 - 05000             | 044                   | 05000 - 07000             | 097                   | 00700 - 01000             | 068                   | 00500 - 00600             | 033                   | 00500 - 00600             | 085                   |
| 05000 - 06000             | 022                   | 07000 - 09000             | 057                   | 01000 - 01500             | 039                   | 00600 - 00700             | 039                   | 00600 - 00700             | 062                   |
| 06000 - 08000             | 044                   | 09000 - 12000             | 045                   | 01500 - 02000             | 085                   | 00700 - 01000             | 071                   | 00700 - 01000             | 131                   |
| 08000 - 10000             | 033                   | 12000 - 15000             | 017                   | 02000 - 03500             | 062                   | 01000 - 02000             | 044                   | 01000 - 02000             | 103                   |
| 10000 - 15000             | 000                   | 15000 - 20000             | 000                   | 03500 - 06000             | 000                   | 02000 - 04000             | 000                   | 02000 - 04000             | 005                   |
| > 15000                   | 000                   | > 20000                   | 000                   | > 06000                   | 000                   | > 04000                   | 000                   | > 04000                   | 000                   |
| NO OF MEASUR              | +00178                | NO OF MEASUR              | +00174                | NO OF MEASUR              | +00176                | NO OF MEASUR              | +00181                | NO OF MEASUR              | +00175                |
| MEAN [X10E-2]             | +02153                | MEAN [X10E-2]             | +02707                | MEAN [X10E-3]             | +00586                | MEAN [X10E-4]             | +00293                | MEAN [X10E-5]             | +00511                |
| SIGMA [X10E-2]            | +02028                | SIGMA [X10E-2]            | +03241                | SIGMA [X10E-3]            | +00693                | SIGMA [X10E-4]            | +00365                | SIGMA [X10E-5]            | +00415                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 92

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK 51-100 G/CM. SEC

| D1 = 0.23 MI            |                    | D2 = 0.45 MI            |                    | D3 = 0.93 MI            |                    | D4 = 2.00 MI            |                    | D5 = 4.50 MI            |                    |
|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|
| RES. NR. :              | 397                | RES. NR. :              | 388                | RES. NR. :              | 389                | RES. NR. :              | 390                | RES. NR. :              | 391                |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 %] |
| < 00200                 | 032                | < 00100                 | 064                | < 00025                 | 043                | < 00025                 | 107                | < 00025                 | 005                |
| 00200 - 00400           | 053                | 00100 - 00200           | 054                | 00025 - 00050           | 087                | 00025 - 00050           | 129                | 00025 - 00050           | 016                |
| 00400 - 00600           | 053                | 00200 - 00300           | 075                | 00050 - 00076           | 076                | 00050 - 00076           | 118                | 00050 - 00076           | 039                |
| 00600 - 00800           | 075                | 00300 - 00400           | 027                | 00076 - 00100           | 049                | 00076 - 00100           | 064                | 00076 - 00100           | 039                |
| 00800 - 01000           | 102                | 00400 - 00500           | 010                | 00100 - 00150           | 082                | 00100 - 00125           | 032                | 00100 - 00125           | 044                |
| 01000 - 01200           | 037                | 00500 - 00600           | 027                | 00150 - 00200           | 049                | 00125 - 00150           | 037                | 00125 - 00150           | 039                |
| 01200 - 01400           | 048                | 00600 - 00750           | 064                | 00200 - 00250           | 027                | 00150 - 00175           | 021                | 00150 - 00175           | 027                |
| 01400 - 01600           | 043                | 00750 - 01000           | 059                | 00250 - 00300           | 043                | 00175 - 00200           | 021                | 00175 - 00200           | 044                |
| 01600 - 01800           | 026                | 01000 - 01500           | 113                | 00300 - 00350           | 043                | 00200 - 00250           | 053                | 00200 - 00250           | 083                |
| 01800 - 02000           | 037                | 01500 - 02000           | 037                | 00350 - 00400           | 038                | 00250 - 00300           | 032                | 00250 - 00300           | 050                |
| 02000 - 02500           | 102                | 02000 - 02500           | 075                | 00400 - 00450           | 038                | 00300 - 00350           | 026                | 00300 - 00350           | 078                |
| 02500 - 03000           | 064                | 02500 - 03000           | 027                | 00450 - 00500           | 032                | 00350 - 00400           | 043                | 00350 - 00400           | 033                |
| 03000 - 03500           | 096                | 03000 - 04000           | 059                | 00500 - 00600           | 049                | 00400 - 00450           | 032                | 00400 - 00450           | 061                |
| 03500 - 04000           | 021                | 04000 - 05000           | 064                | 00600 - 00700           | 032                | 00450 - 00500           | 026                | 00450 - 00500           | 039                |
| 04000 - 05000           | 032                | 05000 - 07000           | 075                | 00700 - 01000           | 093                | 00500 - 00600           | 059                | 00500 - 00600           | 044                |
| 05000 - 06000           | 096                | 07000 - 09000           | 043                | 01000 - 01500           | 093                | 00600 - 00700           | 043                | 00600 - 00700           | 033                |
| 06000 - 08000           | 026                | 09000 - 12000           | 081                | 01500 - 02000           | 054                | 00700 - 01000           | 069                | 00700 - 01000           | 156                |
| 08000 - 10000           | 048                | 12000 - 15000           | 037                | 02000 - 03500           | 060                | 01000 - 02000           | 080                | 01000 - 02000           | 156                |
| 10000 - 15000           | 000                | 15000 - 20000           | 000                | 03500 - 06000           | 000                | 02000 - 04000           | 000                | 02000 - 04000           | 005                |
| > 15000                 | 000                | > 20000                 | 000                | > 06000                 | 000                | > 04000                 | 000                | > 04000                 | 000                |
| NO OF MEASUR.           | +00186             | NO OF MEASUR.           | +00185             | NO OF MEASUR.           | +00182             | NO OF MEASUR.           | +00186             | NO OF MEASUR.           | +00179             |
| MEAN [X10E-2]           | +02563             | MEAN [X10E-2]           | +03262             | MEAN [X10E-3]           | +00616             | MEAN [X10E-4]           | +00338             | MEAN [X10E-5]           | +00556             |
| SIGMA [X10E-2]          | +02234             | SIGMA [X10E-2]          | +03690             | SIGMA [X10E-3]          | +00721             | SIGMA [X10E-4]          | +00400             | SIGMA [X10E-5]          | +00480             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 93

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK 101-500 G/CM. SEC

| D1 = 0. 23 MI              |                       | D2 = 0. 45 MI              |                       | D3 = 0. 93 MI              |                       | D4 = 2. 00 MI              |                       | D5 = 4. 50 MI              |                       |
|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|
| RES. NR. :                 | 397                   | RES. NR. :                 | 398                   | RES. NR. :                 | 399                   | RES. NR. :                 | 400                   | RES. NR. :                 | 401                   |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |
| < 00200                    | 014                   | < 00100                    | 060                   | < 00025                    | 083                   | < 00025                    | 074                   | < 00025                    | 000                   |
| 00200 - 00400              | 066                   | 00100 - 00200              | 064                   | 00025 - 00050              | 060                   | 00025 - 00050              | 098                   | 00025 - 00050              | 018                   |
| 00400 - 00600              | 076                   | 00200 - 00300              | 046                   | 00050 - 00076              | 064                   | 00050 - 00076              | 088                   | 00050 - 00076              | 027                   |
| 00600 - 00800              | 076                   | 00300 - 00400              | 046                   | 00076 - 00100              | 074                   | 00076 - 00100              | 084                   | 00076 - 00100              | 041                   |
| 00800 - 01000              | 095                   | 00400 - 00500              | 027                   | 00100 - 00150              | 078                   | 00100 - 00125              | 056                   | 00100 - 00125              | 027                   |
| 01000 - 01200              | 090                   | 00500 - 00600              | 032                   | 00150 - 00200              | 055                   | 00125 - 00150              | 065                   | 00125 - 00150              | 018                   |
| 01200 - 01400              | 033                   | 00600 - 00750              | 050                   | 00200 - 00250              | 041                   | 00150 - 00175              | 037                   | 00150 - 00175              | 045                   |
| 01400 - 01600              | 038                   | 00750 - 01000              | 060                   | 00250 - 00300              | 064                   | 00175 - 00200              | 051                   | 00175 - 00200              | 036                   |
| 01600 - 01800              | 057                   | 01000 - 01500              | 078                   | 00300 - 00350              | 023                   | 00200 - 00250              | 070                   | 00200 - 00250              | 073                   |
| 01800 - 02000              | 042                   | 01500 - 02000              | 087                   | 00350 - 00400              | 023                   | 00250 - 00300              | 032                   | 00250 - 00300              | 050                   |
| 02000 - 02500              | 061                   | 02000 - 02500              | 050                   | 00400 - 00450              | 027                   | 00300 - 00350              | 028                   | 00300 - 00350              | 073                   |
| 02500 - 03000              | 095                   | 02500 - 03000              | 050                   | 00450 - 00500              | 023                   | 00350 - 00400              | 032                   | 00350 - 00400              | 064                   |
| 03000 - 03500              | 057                   | 03000 - 04000              | 069                   | 00500 - 00600              | 060                   | 00400 - 00450              | 051                   | 00400 - 00450              | 077                   |
| 03500 - 04000              | 028                   | 04000 - 05000              | 046                   | 00600 - 00700              | 032                   | 00450 - 00500              | 032                   | 00450 - 00500              | 045                   |
| 04000 - 05000              | 076                   | 05000 - 07000              | 078                   | 00700 - 01000              | 092                   | 00500 - 00600              | 046                   | 00500 - 00600              | 114                   |
| 05000 - 06000              | 038                   | 07000 - 09000              | 050                   | 01000 - 01500              | 083                   | 00600 - 00700              | 032                   | 00600 - 00700              | 077                   |
| 06000 - 08000              | 023                   | 09000 - 12000              | 055                   | 01500 - 02000              | 046                   | 00700 - 01000              | 060                   | 00700 - 01000              | 105                   |
| 08000 - 10000              | 028                   | 12000 - 15000              | 037                   | 02000 - 03500              | 064                   | 01000 - 02000              | 056                   | 01000 - 02000              | 091                   |
| 10000 - 15000              | 000                   | 15000 - 20000              | 004                   | 03500 - 06000              | 000                   | 02000 - 04000              | 000                   | 02000 - 04000              | 009                   |
| > 15000                    | 000                   | > 20000                    | 000                   | > 06000                    | 000                   | > 04000                    | 000                   | > 04000                    | 000                   |
| NO OF MEASUR.              | +00210                | NO OF MEASUR.              | +00216                | NO OF MEASUR.              | +00216                | NO OF MEASUR.              | +00214                | NO OF MEASUR.              | +00218                |
| MEAN [X10E-2]              | +02231                | MEAN [X10E-2]              | +03131                | MEAN [X10E-3]              | +00581                | MEAN [X10E-4]              | +00304                | MEAN [X10E-5]              | +00402                |
| SIGMA [X10E-2]             | +01914                | SIGMA [X10E-2]             | +03613                | SIGMA [X10E-3]             | +00702                | SIGMA [X10E-4]             | +00344                | SIGMA [X10E-5]             | +00395                |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 94

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK >1000 G/CM. SEC (VERY HIGH)

| D1 = 0.23 MI              |                       |        | D2 = 0.45 MI              |                       |        | D3 = 0.93 MI              |                       |        | D4 = 2.00 MI              |                       |        | D5 = 4.50 MI              |                       |        |
|---------------------------|-----------------------|--------|---------------------------|-----------------------|--------|---------------------------|-----------------------|--------|---------------------------|-----------------------|--------|---------------------------|-----------------------|--------|
| RES. NR : 167             |                       |        | RES. NR : 168             |                       |        | RES. NR : 169             |                       |        | RES. NR : 170             |                       |        | RES. NR : 171             |                       |        |
| PARTIC. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |        | PARTIC. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |        | PARTIC. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |        | PARTIC. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |        | PARTIC. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |        |
| < 00200                   |                       |        | < 00100                   |                       |        | < 00025                   |                       |        | < 00025                   |                       |        | < 00025                   |                       |        |
| 00200 - 00400             | 007                   | 033    | 00100 - 00200             | 042                   | 033    | 00025 - 00050             | 063                   | 031    | 00025 - 00050             | 047                   | 031    | 00025 - 00050             | 000                   | 000    |
| 00400 - 00600             | 055                   | 042    | 00200 - 00300             | 110                   | 063    | 00050 - 00076             | 047                   | 063    | 00050 - 00076             | 125                   | 063    | 00050 - 00076             | 000                   | 000    |
| 00600 - 00800             | 095                   | 016    | 00300 - 00400             | 016                   | 016    | 00076 - 00100             | 047                   | 047    | 00076 - 00100             | 078                   | 047    | 00076 - 00100             | 015                   | 015    |
| 00800 - 01000             | 047                   | 042    | 00400 - 00500             | 042                   | 042    | 00100 - 00150             | 111                   | 111    | 00100 - 00125             | 094                   | 111    | 00100 - 00125             | 015                   | 015    |
| 01000 - 01200             | 071                   | 016    | 00500 - 00600             | 016                   | 016    | 00150 - 00200             | 079                   | 079    | 00125 - 00150             | 055                   | 079    | 00125 - 00150             | 047                   | 047    |
| 01200 - 01400             | 063                   | 050    | 00600 - 00750             | 050                   | 050    | 00200 - 00250             | 023                   | 023    | 00150 - 00175             | 062                   | 023    | 00150 - 00175             | 023                   | 023    |
| 01400 - 01600             | 031                   | 084    | 00750 - 01000             | 084                   | 084    | 00250 - 00300             | 063                   | 063    | 00175 - 00200             | 047                   | 063    | 00175 - 00200             | 039                   | 039    |
| 01600 - 01800             | 023                   | 127    | 01000 - 01500             | 127                   | 127    | 00300 - 00350             | 063                   | 063    | 00200 - 00250             | 055                   | 063    | 00200 - 00250             | 031                   | 031    |
| 01800 - 02000             | 039                   | 093    | 01500 - 02000             | 093                   | 093    | 00350 - 00400             | 023                   | 023    | 00250 - 00300             | 055                   | 023    | 00250 - 00300             | 094                   | 094    |
| 02000 - 02500             | 111                   | 059    | 02000 - 02500             | 059                   | 059    | 00400 - 00450             | 039                   | 039    | 00300 - 00350             | 031                   | 039    | 00300 - 00350             | 055                   | 055    |
| 02500 - 03000             | 071                   | 033    | 02500 - 03000             | 033                   | 033    | 00450 - 00500             | 031                   | 031    | 00350 - 00400             | 047                   | 031    | 00350 - 00400             | 118                   | 118    |
| 03000 - 03500             | 047                   | 076    | 03000 - 04000             | 076                   | 076    | 00500 - 00600             | 031                   | 031    | 00400 - 00450             | 031                   | 047    | 00400 - 00450             | 047                   | 047    |
| 03500 - 04000             | 055                   | 042    | 04000 - 05000             | 042                   | 042    | 00600 - 00700             | 023                   | 023    | 00450 - 00500             | 015                   | 031    | 00450 - 00500             | 039                   | 039    |
| 04000 - 05000             | 047                   | 093    | 05000 - 07000             | 093                   | 093    | 00700 - 01000             | 071                   | 071    | 00500 - 00600             | 062                   | 015    | 00500 - 00600             | 070                   | 070    |
| 05000 - 06000             | 031                   | 033    | 07000 - 09000             | 033                   | 033    | 01000 - 01500             | 150                   | 150    | 00600 - 00700             | 039                   | 062    | 00600 - 00700             | 086                   | 086    |
| 06000 - 08000             | 039                   | 033    | 09000 - 12000             | 033                   | 033    | 01500 - 02000             | 047                   | 047    | 00700 - 01000             | 039                   | 150    | 00700 - 01000             | 141                   | 141    |
| 08000 - 10000             | 031                   | 008    | 12000 - 15000             | 008                   | 008    | 02000 - 03500             | 047                   | 047    | 01000 - 02000             | 039                   | 047    | 01000 - 02000             | 133                   | 133    |
| 10000 - 15000             | 000                   | 000    | 15000 - 20000             | 000                   | 000    | 03500 - 06000             | 000                   | 000    | 02000 - 04000             | 000                   | 047    | 02000 - 04000             | 000                   | 000    |
| > 15000                   | 000                   | 000    | > 20000                   | 000                   | 000    | > 06000                   | 000                   | 000    | > 04000                   | 000                   | 000    | > 04000                   | 000                   | 000    |
| NO OF MEASUR.             | +00126                | +00118 | NO OF MEASUR.             | +00118                | +00118 | NO OF MEASUR.             | +00126                | +00126 | NO OF MEASUR.             | +00127                | +00127 | NO OF MEASUR.             | +00127                | +00127 |
| MEAN [X10E-2]             | +02284                | +02450 | MEAN [X10E-2]             | +02450                | +02450 | MEAN [X10E-3]             | +00605                | +00605 | MEAN [X10E-4]             | +00271                | +00271 | MEAN [X10E-5]             | +00537                | +00537 |
| SIGMA [X10E-2]            | +02064                | +02757 | SIGMA [X10E-2]            | +02757                | +02757 | SIGMA [X10E-3]            | +00640                | +00640 | SIGMA [X10E-4]            | +00286                | +00286 | SIGMA [X10E-5]            | +00382                | +00382 |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD : 1970-1980

ZUGSPITZE PEAK 3000 M

TABLE: 95

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK <5 G/CM.SEC (VERY LOW)

| D1 = 0.23 MI                     |                    | D2 = 0.45 MI                     |                    | D3 = 0.93 MI                     |                    | D4 = 2.00 MI                     |                    | D5 = 4.50 MI                     |                    |
|----------------------------------|--------------------|----------------------------------|--------------------|----------------------------------|--------------------|----------------------------------|--------------------|----------------------------------|--------------------|
| RES. NR. : 317                   |                    | RES. NR. : 318                   |                    | RES. NR. : 319                   |                    | RES. NR. : 320                   |                    | RES. NR. : 321                   |                    |
| PARTICL. CONC. [X10E-2] [1/10 %] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-2] [1/10 %] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-3] [1/10 %] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-4] [1/10 %] | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-5] [1/10 %] | FREQUENCY [1/10 %] |
| < 00050                          | 099                | < 00015                          | 048                | < 00015                          | 033                | < 00015                          | 077                | < 00025                          | 000                |
| 00050 - 00100                    | 074                | 00015 - 00030                    | 120                | 00015 - 00030                    | 101                | 00015 - 00030                    | 145                | 00025 - 00050                    | 009                |
| 00100 - 00150                    | 099                | 00030 - 00045                    | 125                | 00030 - 00045                    | 082                | 00030 - 00045                    | 140                | 00050 - 00076                    | 029                |
| 00150 - 00200                    | 108                | 00045 - 00060                    | 120                | 00045 - 00060                    | 057                | 00045 - 00060                    | 121                | 00076 - 00100                    | 029                |
| 00200 - 00250                    | 049                | 00060 - 00075                    | 081                | 00060 - 00075                    | 086                | 00060 - 00075                    | 082                | 00100 - 00125                    | 038                |
| 00250 - 00300                    | 039                | 00075 - 00090                    | 052                | 00075 - 00090                    | 072                | 00075 - 00090                    | 048                | 00125 - 00150                    | 048                |
| 00300 - 00350                    | 074                | 00090 - 00105                    | 033                | 00090 - 00105                    | 082                | 00090 - 00105                    | 072                | 00150 - 00175                    | 077                |
| 00350 - 00400                    | 039                | 00105 - 00120                    | 043                | 00105 - 00120                    | 082                | 00105 - 00120                    | 048                | 00175 - 00200                    | 067                |
| 00400 - 00500                    | 054                | 00120 - 00150                    | 067                | 00120 - 00150                    | 072                | 00120 - 00150                    | 063                | 00200 - 00225                    | 106                |
| 00500 - 00600                    | 049                | 00150 - 00200                    | 076                | 00150 - 00200                    | 082                | 00150 - 00200                    | 063                | 00225 - 00250                    | 043                |
| 00600 - 00800                    | 089                | 00200 - 00250                    | 043                | 00200 - 00250                    | 053                | 00200 - 00250                    | 029                | 00250 - 00275                    | 072                |
| 00800 - 01000                    | 054                | 00250 - 00300                    | 033                | 00250 - 00300                    | 038                | 00250 - 00300                    | 019                | 00275 - 00300                    | 024                |
| 01000 - 01250                    | 059                | 00300 - 00400                    | 043                | 00300 - 00400                    | 043                | 00300 - 00400                    | 014                | 00300 - 00325                    | 048                |
| 01250 - 01500                    | 009                | 00400 - 00600                    | 033                | 00400 - 00600                    | 053                | 00400 - 00600                    | 029                | 00325 - 00350                    | 053                |
| 01500 - 02000                    | 024                | 00600 - 00900                    | 024                | 00600 - 00900                    | 043                | 00600 - 00900                    | 014                | 00350 - 00400                    | 097                |
| 02000 - 03000                    | 044                | 00900 - 01500                    | 038                | 00900 - 01500                    | 004                | 00900 - 01500                    | 009                | 00400 - 00500                    | 111                |
| 03000 - 04000                    | 009                | 01500 - 02500                    | 009                | 01500 - 02500                    | 004                | 01500 - 02500                    | 019                | 00500 - 00750                    | 087                |
| 04000 - 06000                    | 014                | 02500 - 05000                    | 004                | 02500 - 05000                    | 004                | 02500 - 05000                    | 000                | 00750 - 01000                    | 043                |
| 06000 - 12000                    | 004                | 05000 - 10000                    | 000                | 05000 - 10000                    | 000                | 05000 - 10000                    | 000                | 01000 - 02000                    | 009                |
| > 12000                          | 000                | > 10000                          | 000                | > 10000                          | 000                | > 10000                          | 000                | > 02000                          | 000                |
| NO OF MEASUR.                    | +00202             | NO OF MEASUR.                    | +00208             | NO OF MEASUR.                    | +00207             | NO OF MEASUR.                    | +00206             | NO OF MEASUR.                    | +00206             |
| MEAN [X10E-2]                    | +00625             | MEAN [X10E-2]                    | +00198             | MEAN [X10E-3]                    | +00185             | MEAN [X10E-4]                    | +00144             | MEAN [X10E-5]                    | +00320             |
| SIGMA [X10E-2]                   | +00920             | SIGMA [X10E-2]                   | +00359             | SIGMA [X10E-3]                   | +00286             | SIGMA [X10E-4]                   | +00283             | SIGMA [X10E-5]                   | +00209             |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 96

GARMISCH (VALLEY 740 M)

PERIOD : 1970-1980

PARAMETER= BERYLLIUM 7 ON ZUGSPITZE >18 PC/CU M (VERY HIGH)

| D1 = 0.23 MI               |                       |  | D2 = 0.45 MI               |                       |  | D3 = 0.93 MI               |                       |  | D4 = 2.00 MI               |                       |  | D5 = 4.50 MI               |                       |  |
|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|
| RES. NR. : 172             |                       |  | RES. NR. : 173             |                       |  | RES. NR. : 174             |                       |  | RES. NR. : 175             |                       |  | RES. NR. : 176             |                       |  |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 %] |  | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 %] |  |
| < 00500                    | 029                   |  | < 00500                    | 007                   |  | < 00150                    | 029                   |  | < 00050                    | 007                   |  | < 00200                    | 000                   |  |
| 00500 - 01000              | 072                   |  | 00500 - 01000              | 089                   |  | 00150 - 00300              | 118                   |  | 00050 - 00100              | 030                   |  | 00200 - 00400              | 047                   |  |
| 01000 - 01500              | 065                   |  | 01000 - 01500              | 059                   |  | 00300 - 00450              | 044                   |  | 00100 - 00150              | 037                   |  | 00400 - 00600              | 047                   |  |
| 01500 - 02000              | 080                   |  | 01500 - 02000              | 074                   |  | 00450 - 00600              | 059                   |  | 00150 - 00200              | 022                   |  | 00600 - 00800              | 039                   |  |
| 02000 - 02500              | 043                   |  | 02000 - 02500              | 052                   |  | 00600 - 00750              | 074                   |  | 00200 - 00250              | 015                   |  | 00800 - 01000              | 023                   |  |
| 02500 - 03000              | 072                   |  | 02500 - 03000              | 037                   |  | 00750 - 00900              | 022                   |  | 00250 - 00300              | 037                   |  | 01000 - 01200              | 079                   |  |
| 03000 - 03500              | 036                   |  | 03000 - 03500              | 044                   |  | 00900 - 01050              | 044                   |  | 00300 - 00350              | 037                   |  | 01200 - 01400              | 095                   |  |
| 03500 - 04000              | 036                   |  | 03500 - 04000              | 052                   |  | 01050 - 01200              | 037                   |  | 00350 - 00400              | 037                   |  | 01400 - 01600              | 079                   |  |
| 04000 - 05000              | 051                   |  | 04000 - 04500              | 029                   |  | 01200 - 01350              | 059                   |  | 00400 - 00500              | 060                   |  | 01600 - 01800              | 063                   |  |
| 05000 - 06000              | 051                   |  | 04500 - 05000              | 022                   |  | 01350 - 01500              | 059                   |  | 00500 - 00600              | 060                   |  | 01800 - 02000              | 039                   |  |
| 06000 - 07000              | 036                   |  | 05000 - 06000              | 059                   |  | 01500 - 01650              | 044                   |  | 00600 - 00700              | 090                   |  | 02000 - 02250              | 071                   |  |
| 07000 - 08000              | 014                   |  | 06000 - 07000              | 059                   |  | 01650 - 01800              | 014                   |  | 00700 - 00800              | 083                   |  | 02250 - 02500              | 015                   |  |
| 08000 - 10000              | 116                   |  | 07000 - 08000              | 044                   |  | 01800 - 02000              | 037                   |  | 00800 - 00900              | 053                   |  | 02500 - 03000              | 095                   |  |
| 10000 - 15000              | 138                   |  | 08000 - 10000              | 059                   |  | 02000 - 02500              | 088                   |  | 00900 - 01000              | 030                   |  | 03000 - 03500              | 047                   |  |
| 15000 - 25000              | 080                   |  | 10000 - 15000              | 067                   |  | 02500 - 03000              | 066                   |  | 01000 - 01250              | 060                   |  | 03500 - 04000              | 047                   |  |
| 25000 - 40000              | 051                   |  | 15000 - 20000              | 097                   |  | 03000 - 04000              | 066                   |  | 01250 - 01500              | 075                   |  | 04000 - 05000              | 063                   |  |
| 40000 - 60000              | 021                   |  | 20000 - 30000              | 082                   |  | 04000 - 06000              | 059                   |  | 01500 - 02000              | 098                   |  | 05000 - 07000              | 103                   |  |
| 60000 - 80000              | 000                   |  | 30000 - 40000              | 059                   |  | 06000 - 10000              | 074                   |  | 02000 - 03000              | 083                   |  | 07000 - 09000              | 039                   |  |
| 80000 - 100000             | 000                   |  | 40000 - 50000              | 000                   |  | 10000 - 20000              | 000                   |  | 03000 - 06000              | 075                   |  | 09000 - 12000              | 000                   |  |
| >100000                    | 000                   |  | > 50000                    | 000                   |  | > 20000                    | 000                   |  | > 06000                    | 000                   |  | > 12000                    | 000                   |  |
| NO OF MEASUR.              | +00137                |  | NO OF MEASUR.              | +00134                |  | NO OF MEASUR.              | +00135                |  | NO OF MEASUR.              | +00132                |  | NO OF MEASUR.              | +00126                |  |
| MEAN [X10E-2]              | +08336                |  | MEAN [X10E-2]              | +09034                |  | MEAN [X10E-3]              | +02030                |  | MEAN [X10E-4]              | +01105                |  | MEAN [X10E-5]              | +02609                |  |
| SIGMA [X10E-2]             | +09166                |  | SIGMA [X10E-2]             | +09215                |  | SIGMA [X10E-3]             | +02005                |  | SIGMA [X10E-4]             | +00930                |  | SIGMA [X10E-5]             | +01988                |  |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 97

WANK PEAK 1780 M

PERIOD : 1970-1980

PARAMETER= BERYLLIUM 7 ON ZUGSPITZE >18 PC/CU M (VERY HIGH)

| D1 = 0.23 MI   |                         |                    | D2 = 0.45 MI   |                         |                    | D3 = 0.93 MI   |                         |                    | D4 = 2.00 MI   |                         |                    | D5 = 4.50 MI   |                         |                    |
|----------------|-------------------------|--------------------|----------------|-------------------------|--------------------|----------------|-------------------------|--------------------|----------------|-------------------------|--------------------|----------------|-------------------------|--------------------|
| RES. NR. : 177 | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | RES. NR. : 178 | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | RES. NR. : 179 | PARTICL. CONC. [X10E-3] | FREQUENCY [1/10 X] | RES. NR. : 180 | PARTICL. CONC. [X10E-4] | FREQUENCY [1/10 X] | RES. NR. : 181 | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 X] |
| < 00200        |                         | 024                | < 00100        |                         | 072                | < 00025        |                         | 008                | < 00025        |                         | 067                | < 00025        |                         | 008                |
| 00200 -        | 00400                   | 048                | 00100 -        | 00200                   | 036                | 00025 -        | 00050                   | 008                | 00025 -        | 00050                   | 076                | 00025 -        | 00050                   | 008                |
| 00400 -        | 00600                   | 097                | 00200 -        | 00300                   | 036                | 00050 -        | 00076                   | 059                | 00050 -        | 00076                   | 118                | 00050 -        | 00076                   | 025                |
| 00600 -        | 00800                   | 032                | 00300 -        | 00400                   | 027                | 00076 -        | 00100                   | 025                | 00076 -        | 00100                   | 008                | 00076 -        | 00100                   | 008                |
| 00800 -        | 01000                   | 073                | 00400 -        | 00500                   | 027                | 00100 -        | 00150                   | 076                | 00100 -        | 00125                   | 050                | 00100 -        | 00125                   | 016                |
| 01000 -        | 01200                   | 040                | 00500 -        | 00600                   | 045                | 00150 -        | 00200                   | 084                | 00125 -        | 00150                   | 050                | 00125 -        | 00150                   | 025                |
| 01200 -        | 01400                   | 040                | 00600 -        | 00750                   | 027                | 00200 -        | 00250                   | 033                | 00150 -        | 00175                   | 025                | 00150 -        | 00175                   | 041                |
| 01400 -        | 01600                   | 081                | 00750 -        | 01000                   | 063                | 00250 -        | 00300                   | 033                | 00175 -        | 00200                   | 042                | 00175 -        | 00200                   | 050                |
| 01600 -        | 01800                   | 040                | 01000 -        | 01500                   | 099                | 00300 -        | 00350                   | 050                | 00200 -        | 00250                   | 025                | 00200 -        | 00250                   | 091                |
| 01800 -        | 02000                   | 040                | 01500 -        | 02000                   | 090                | 00350 -        | 00400                   | 042                | 00250 -        | 00300                   | 025                | 00250 -        | 00300                   | 075                |
| 02000 -        | 02500                   | 073                | 02000 -        | 02500                   | 027                | 00400 -        | 00450                   | 008                | 00300 -        | 00350                   | 042                | 00300 -        | 00350                   | 050                |
| 02500 -        | 03000                   | 081                | 02500 -        | 03000                   | 027                | 00450 -        | 00500                   | 008                | 00350 -        | 00400                   | 076                | 00350 -        | 00400                   | 075                |
| 03000 -        | 03500                   | 056                | 03000 -        | 04000                   | 054                | 00500 -        | 00600                   | 076                | 00400 -        | 00450                   | 059                | 00400 -        | 00450                   | 083                |
| 03500 -        | 04000                   | 056                | 04000 -        | 05000                   | 090                | 00600 -        | 00700                   | 067                | 00450 -        | 00500                   | 025                | 00450 -        | 00500                   | 033                |
| 04000 -        | 05000                   | 073                | 05000 -        | 07000                   | 171                | 00700 -        | 01000                   | 144                | 00500 -        | 00600                   | 050                | 00500 -        | 00600                   | 075                |
| 05000 -        | 06000                   | 032                | 07000 -        | 09000                   | 054                | 01000 -        | 01500                   | 110                | 00600 -        | 00700                   | 067                | 00600 -        | 00700                   | 058                |
| 06000 -        | 08000                   | 073                | 09000 -        | 12000                   | 036                | 01500 -        | 02000                   | 067                | 00700 -        | 01000                   | 076                | 00700 -        | 01000                   | 066                |
| 08000 -        | 10000                   | 032                | 12000 -        | 15000                   | 018                | 02000 -        | 03500                   | 093                | 01000 -        | 02000                   | 110                | 01000 -        | 02000                   | 200                |
| 10000 -        | 15000                   | 000                | 15000 -        | 20000                   | 000                | 03500 -        | 06000                   | 000                | 02000 -        | 04000                   | 000                | 02000 -        | 04000                   | 008                |
| > 15000        |                         | 000                | > 20000        |                         | 000                | > 06000        |                         | 000                | > 04000        |                         | 000                | > 04000        |                         | 000                |
| NO OF MEASUR.  | +00123                  |                    | NO OF MEASUR.  | +00111                  |                    | NO OF MEASUR.  | +00118                  |                    | NO OF MEASUR.  | +00118                  |                    | NO OF MEASUR.  | +00120                  |                    |
| MEAN [X10E-2]  | +02621                  |                    | MEAN [X10E-2]  | +03240                  |                    | MEAN [X10E-3]  | +00771                  |                    | MEAN [X10E-4]  | +00411                  |                    | MEAN [X10E-5]  | +00589                  |                    |
| SIGMA [X10E-2] | +02205                  |                    | SIGMA [X10E-2] | +03212                  |                    | SIGMA [X10E-3] | +00734                  |                    | SIGMA [X10E-4] | +00406                  |                    | SIGMA [X10E-5] | +00476                  |                    |

# FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 98

ZUGSPITZE PEAK 3000 M

PERIOD : 1970-1980

PARAMETER= BERYLLIUM 7 ON ZUGSPITZE >18 PC/CU M (VERY HIGH)

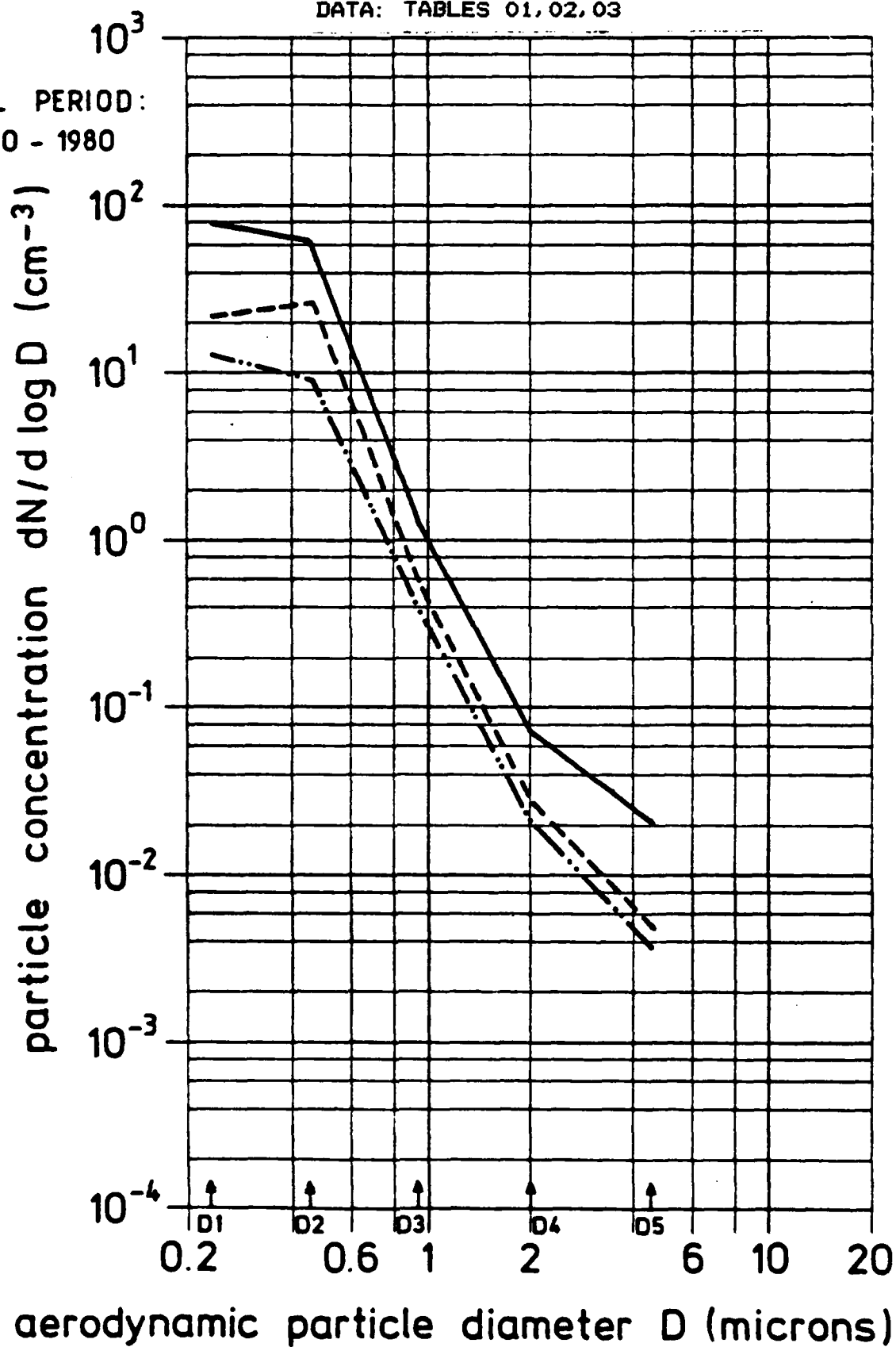
| D1 = 0.23 MI               |                       |  | D2 = 0.45 MI               |                       |  | D3 = 0.93 MI               |                       |  | D4 = 2.00 MI               |                       |  | D5 = 4.50 MI               |                       |  |
|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|----------------------------|-----------------------|--|
| RES. NR. : 182             |                       |  | RES. NR. : 183             |                       |  | RES. NR. : 184             |                       |  | RES. NR. : 185             |                       |  | RES. NR. : 186             |                       |  |
| PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] |  | PARTICL. CONC.<br>[X10E-2] | FREQUENCY<br>[1/10 X] |  | PARTICL. CONC.<br>[X10E-3] | FREQUENCY<br>[1/10 X] |  | PARTICL. CONC.<br>[X10E-4] | FREQUENCY<br>[1/10 X] |  | PARTICL. CONC.<br>[X10E-5] | FREQUENCY<br>[1/10 X] |  |
| < 00050                    | 061                   |  | < 00015                    | 035                   |  | < 00015                    | 009                   |  | < 00015                    | 054                   |  | < 00025                    | 000                   |  |
| 00050 - 00100              | 043                   |  | 00015 - 00030              | 035                   |  | 00015 - 00030              | 072                   |  | 00015 - 00030              | 108                   |  | 00025 - 00050              | 000                   |  |
| 00100 - 00150              | 052                   |  | 00030 - 00045              | 062                   |  | 00030 - 00045              | 072                   |  | 00030 - 00045              | 063                   |  | 00050 - 00076              | 029                   |  |
| 00150 - 00200              | 070                   |  | 00045 - 00060              | 026                   |  | 00045 - 00060              | 027                   |  | 00045 - 00060              | 072                   |  | 00076 - 00100              | 019                   |  |
| 00200 - 00250              | 070                   |  | 00060 - 00075              | 044                   |  | 00060 - 00075              | 027                   |  | 00060 - 00075              | 000                   |  | 00100 - 00125              | 019                   |  |
| 00250 - 00300              | 035                   |  | 00075 - 00090              | 017                   |  | 00075 - 00090              | 036                   |  | 00075 - 00090              | 018                   |  | 00125 - 00150              | 048                   |  |
| 00300 - 00350              | 035                   |  | 00090 - 00105              | 026                   |  | 00090 - 00105              | 063                   |  | 00090 - 00105              | 054                   |  | 00150 - 00175              | 067                   |  |
| 00350 - 00400              | 017                   |  | 00105 - 00120              | 044                   |  | 00105 - 00120              | 036                   |  | 00105 - 00120              | 045                   |  | 00175 - 00200              | 029                   |  |
| 00400 - 00500              | 061                   |  | 00120 - 00150              | 062                   |  | 00120 - 00150              | 009                   |  | 00120 - 00150              | 090                   |  | 00200 - 00225              | 067                   |  |
| 00500 - 00600              | 035                   |  | 00150 - 00200              | 071                   |  | 00150 - 00200              | 099                   |  | 00150 - 00200              | 108                   |  | 00225 - 00250              | 019                   |  |
| 00600 - 00800              | 114                   |  | 00200 - 00250              | 044                   |  | 00200 - 00250              | 054                   |  | 00200 - 00250              | 054                   |  | 00250 - 00275              | 038                   |  |
| 00800 - 01000              | 043                   |  | 00250 - 00300              | 035                   |  | 00250 - 00300              | 018                   |  | 00250 - 00300              | 036                   |  | 00275 - 00300              | 058                   |  |
| 01000 - 01250              | 043                   |  | 00300 - 00400              | 035                   |  | 00300 - 00400              | 081                   |  | 00300 - 00400              | 036                   |  | 00300 - 00325              | 019                   |  |
| 01250 - 01500              | 052                   |  | 00400 - 00600              | 062                   |  | 00400 - 00600              | 072                   |  | 00400 - 00600              | 090                   |  | 00325 - 00350              | 058                   |  |
| 01500 - 02000              | 070                   |  | 00600 - 00900              | 089                   |  | 00600 - 00900              | 072                   |  | 00600 - 00900              | 063                   |  | 00350 - 00400              | 097                   |  |
| 02000 - 03000              | 061                   |  | 00900 - 01500              | 080                   |  | 00900 - 01500              | 117                   |  | 00900 - 01500              | 081                   |  | 00400 - 00500              | 058                   |  |
| 03000 - 04000              | 061                   |  | 01500 - 02500              | 080                   |  | 01500 - 02500              | 090                   |  | 01500 - 02500              | 027                   |  | 00500 - 00750              | 174                   |  |
| 04000 - 06000              | 052                   |  | 02500 - 05000              | 107                   |  | 02500 - 05000              | 045                   |  | 02500 - 05000              | 000                   |  | 00750 - 01000              | 087                   |  |
| 06000 - 12000              | 017                   |  | 05000 - 10000              | 035                   |  | 05000 - 10000              | 000                   |  | 03000 - 10000              | 000                   |  | 01000 - 02000              | 106                   |  |
| > 12000                    | 000                   |  | > 10000                    | 000                   |  | > 10000                    | 000                   |  | > 10000                    | 000                   |  | > 02000                    | 000                   |  |
| NO OF MEASUR.              | +00114                |  | NO OF MEASUR.              | +00112                |  | NO OF MEASUR.              | +00111                |  | NO OF MEASUR.              | +00111                |  | NO OF MEASUR.              | +00103                |  |
| MEAN [X10E-2]              | +01180                |  | MEAN [X10E-2]              | +01027                |  | MEAN [X10E-3]              | +00606                |  | MEAN [X10E-4]              | +00313                |  | MEAN [X10E-5]              | +00469                |  |
| SIGMA [X10E-2]             | +01437                |  | SIGMA [X10E-2]             | +01451                |  | SIGMA [X10E-3]             | +00735                |  | SIGMA [X10E-4]             | +00392                |  | SIGMA [X10E-5]             | +00330                |  |

G — W --- Z ---  
740m 1780m 2964m

FIG. NO: 01

PARAMETER= MEAN OF TOTAL PERIOD  
DATA: TABLES 01, 02, 03

TOTAL PERIOD:  
1970 - 1980

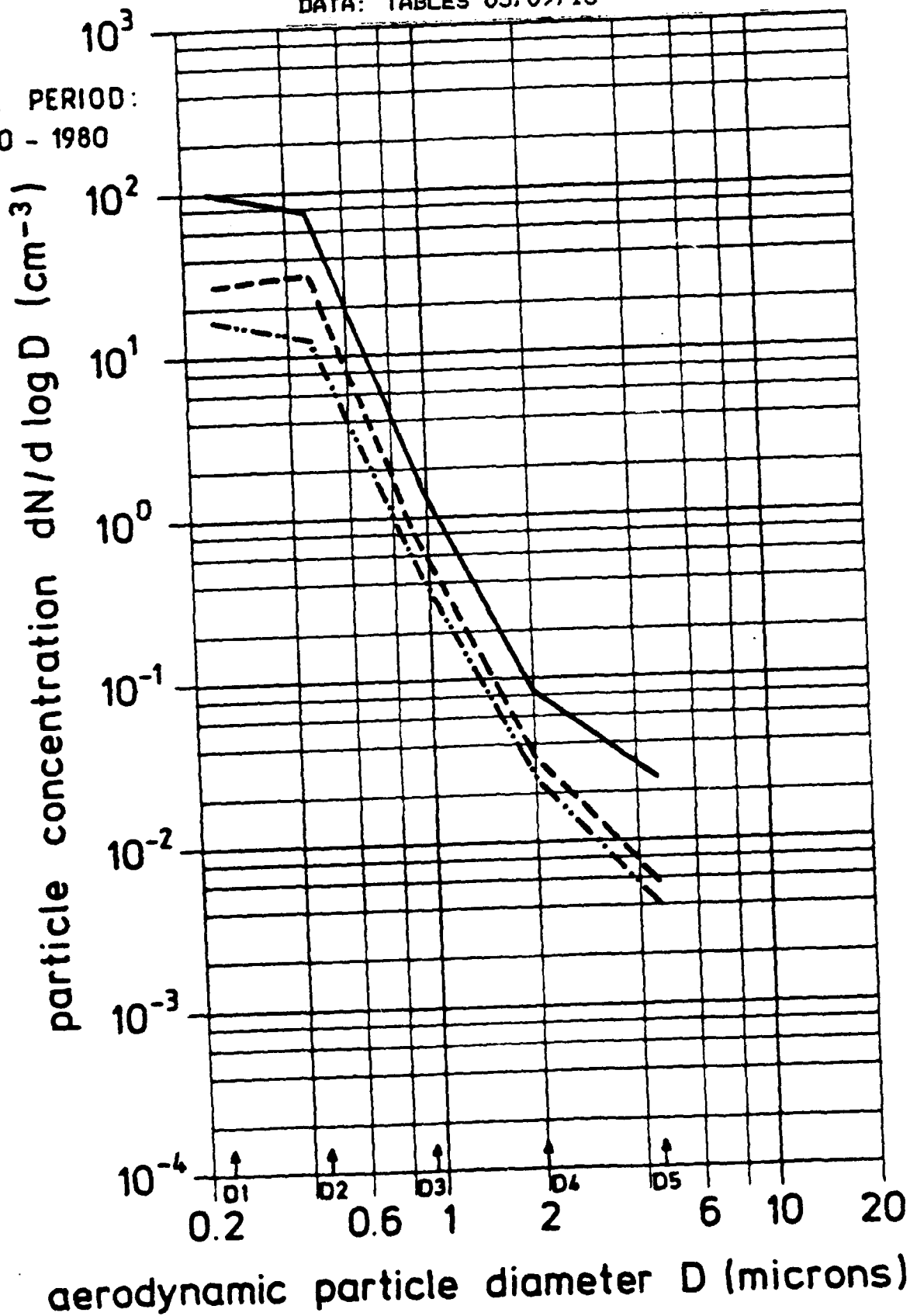


G — W — Z —  
 740m 1780m 2964m

FIG. NO: 02

PARAMETER= MEAN PER SEASON: SPRING  
 DATA: TABLES 05, 09, 13

TOTAL PERIOD:  
 1970 - 1980

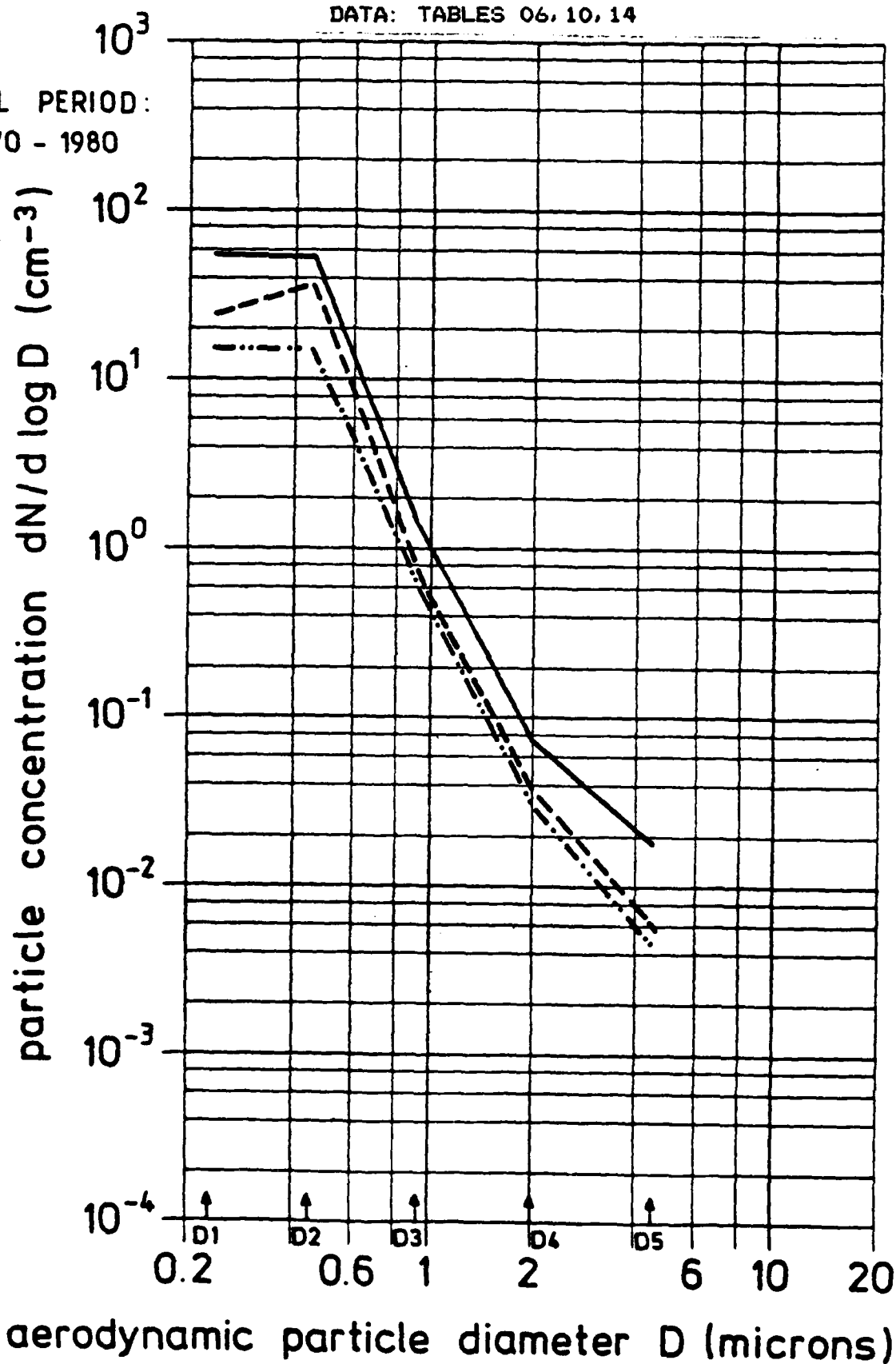


G — 740m    W --- 1780m    Z ... 2964m

FIG. NO: 03

PARAMETER= MEAN PER SEASON: SUMMER  
DATA: TABLES 06, 10, 14

TOTAL PERIOD:  
1970 - 1980

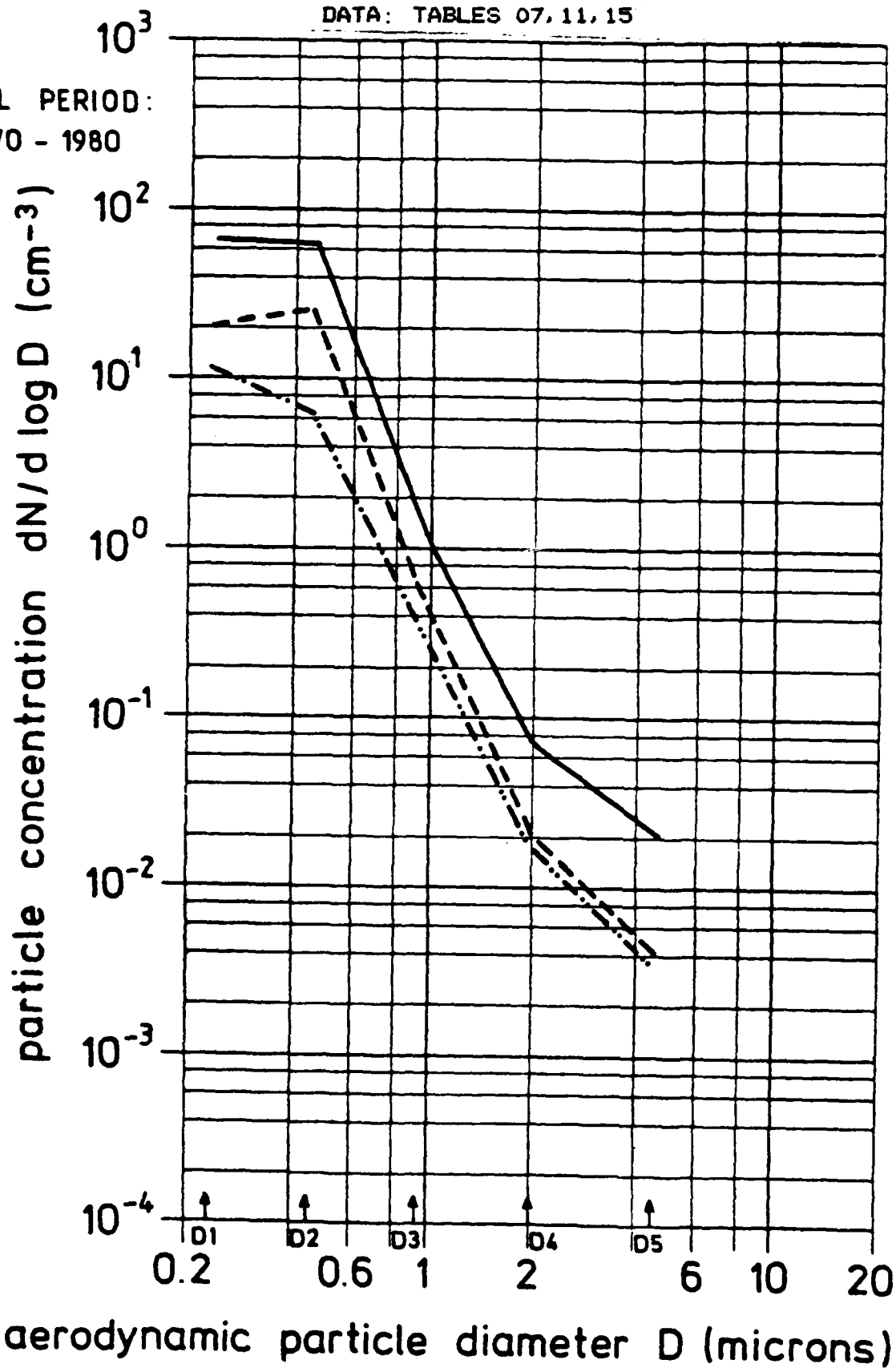


G — W --- Z -.-  
740m 1780m 2964m

FIG. NO: 04

PARAMETER= MEAN PER SEASON: AUTUMN  
DATA: TABLES 07, 11, 15

TOTAL PERIOD:  
1970 - 1980



G — W --- Z ---  
740m 1780m 2964m

FIG. NO: 05

PARAMETER = MEAN PER SEASON: WINTER  
DATA: TABLES 04, 08, 12

TOTAL PERIOD:  
1970 - 1980

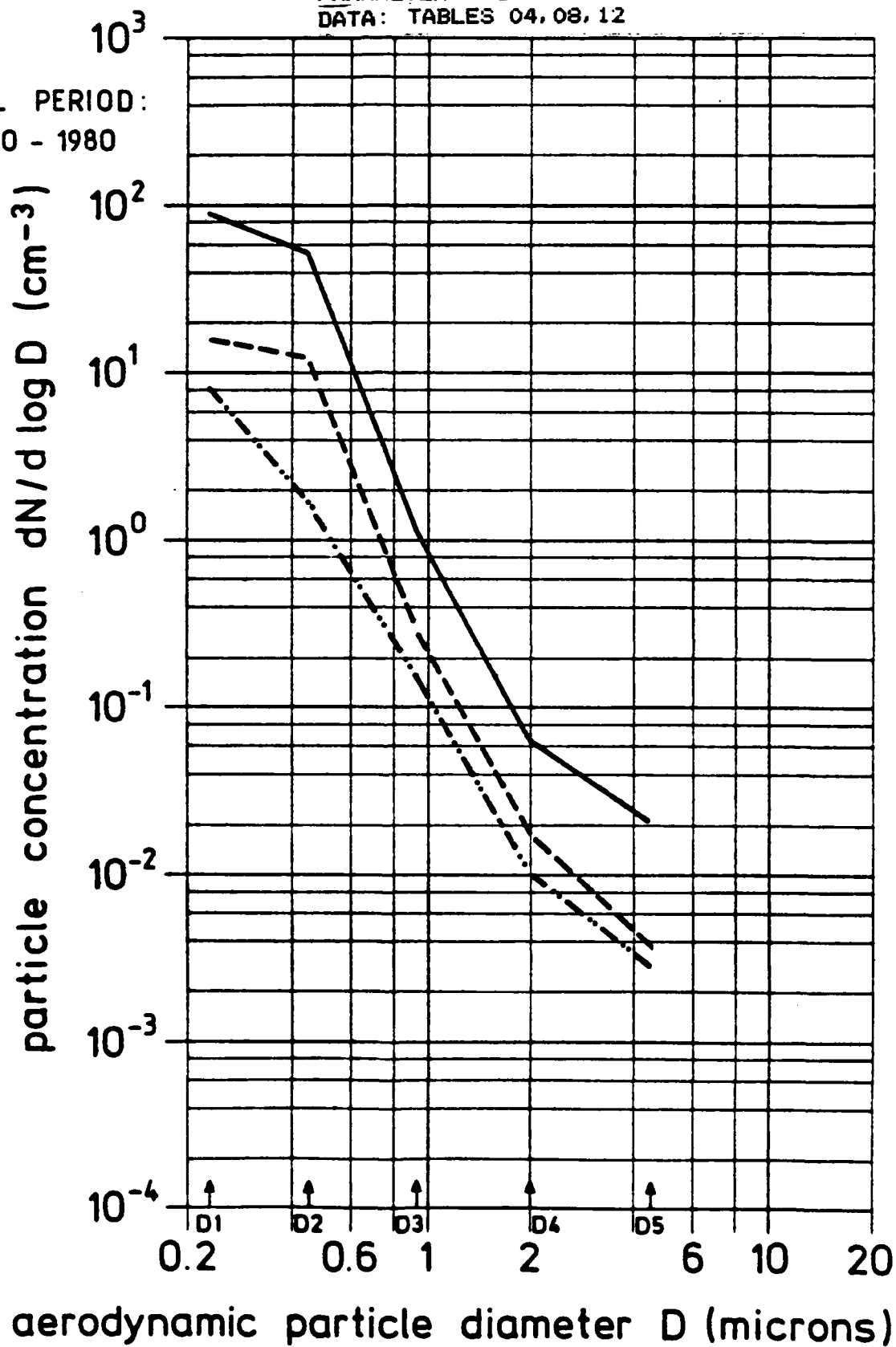


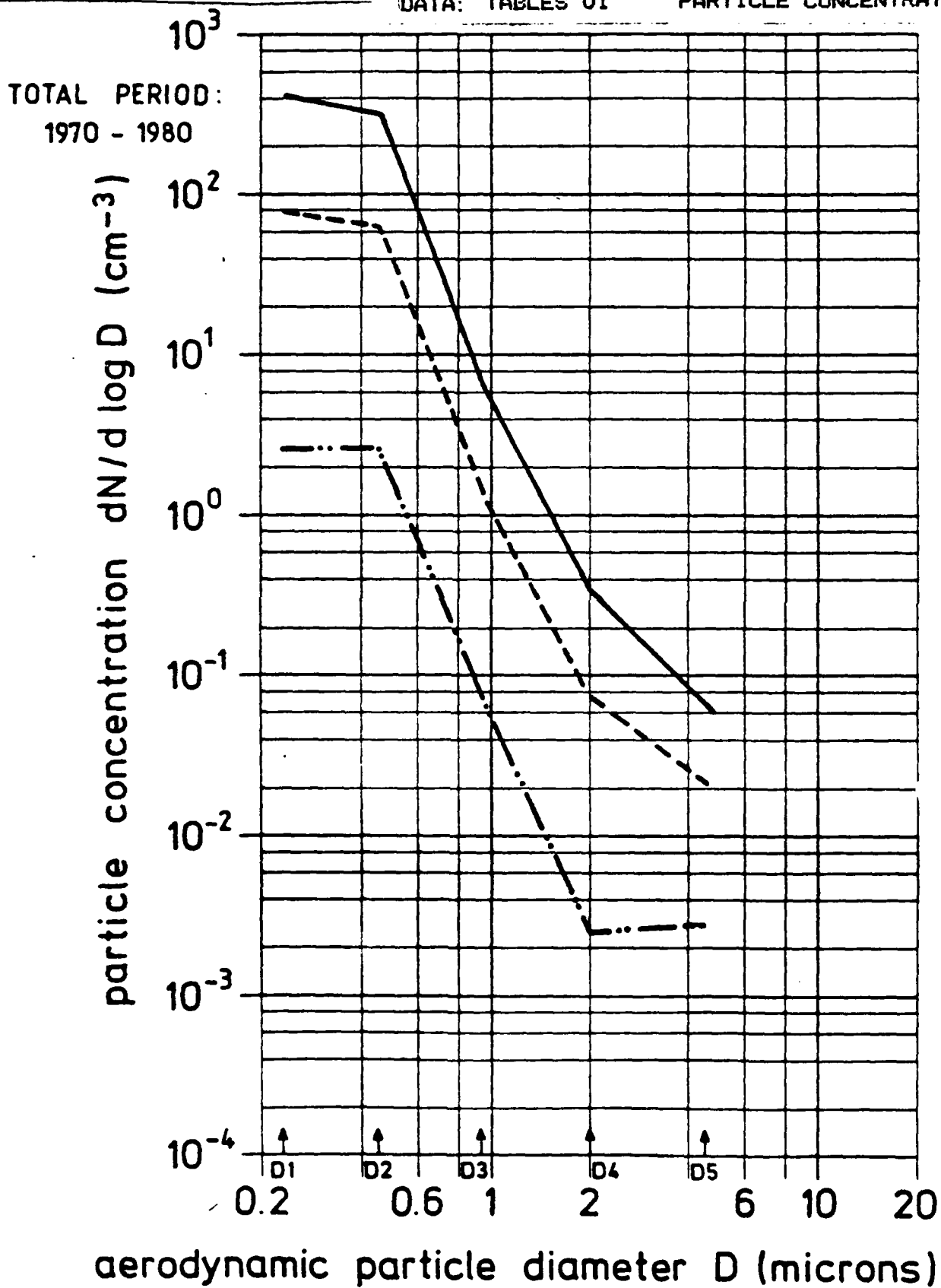
FIG. NO: 06

GARMISCH (VALLEY 740 M)

\*

--- Mean:  
— very high conc. } FREQ. ~10%  
-.-.- very low conc.

PARAMETER= MEAN OF TOTAL PERIOD AND EXTREM  
DATA: TABLES 01 PARTICLE CONCENTRATION



— Mean:  
 --- very high conc. } FREQ. ~10%  
 -.- very low conc.

FIG. NO: 07  
 WANK PEAK 1780 M \*

PARAMETER= MEAN OF TOTAL PERIOD AND EXTREM  
 DATA: TABLES 02 PARTICLE CONCENTRATION

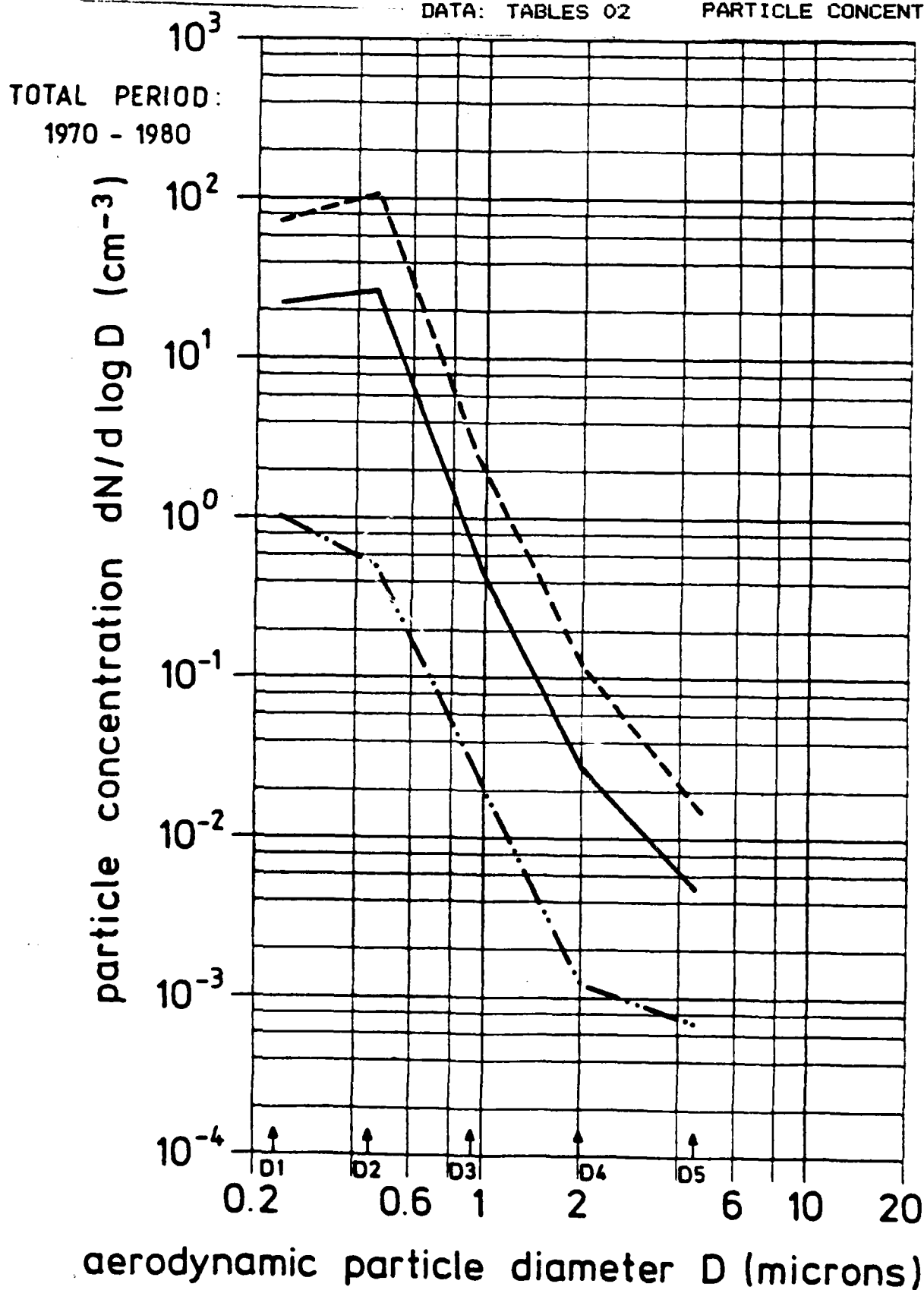


FIG. NO: 08  
ZUGSPITZE PEAK 3000 M

— Mean:  
--- very high conc. } FREQ. ~10%  
-.- very low conc.

PARAMETER= MEAN OF TOTAL PERIOD AND EXTREM  
DATA: TABLES 03 PARTICLE CONCENTRATION

TOTAL PERIOD:  
1970 - 1980

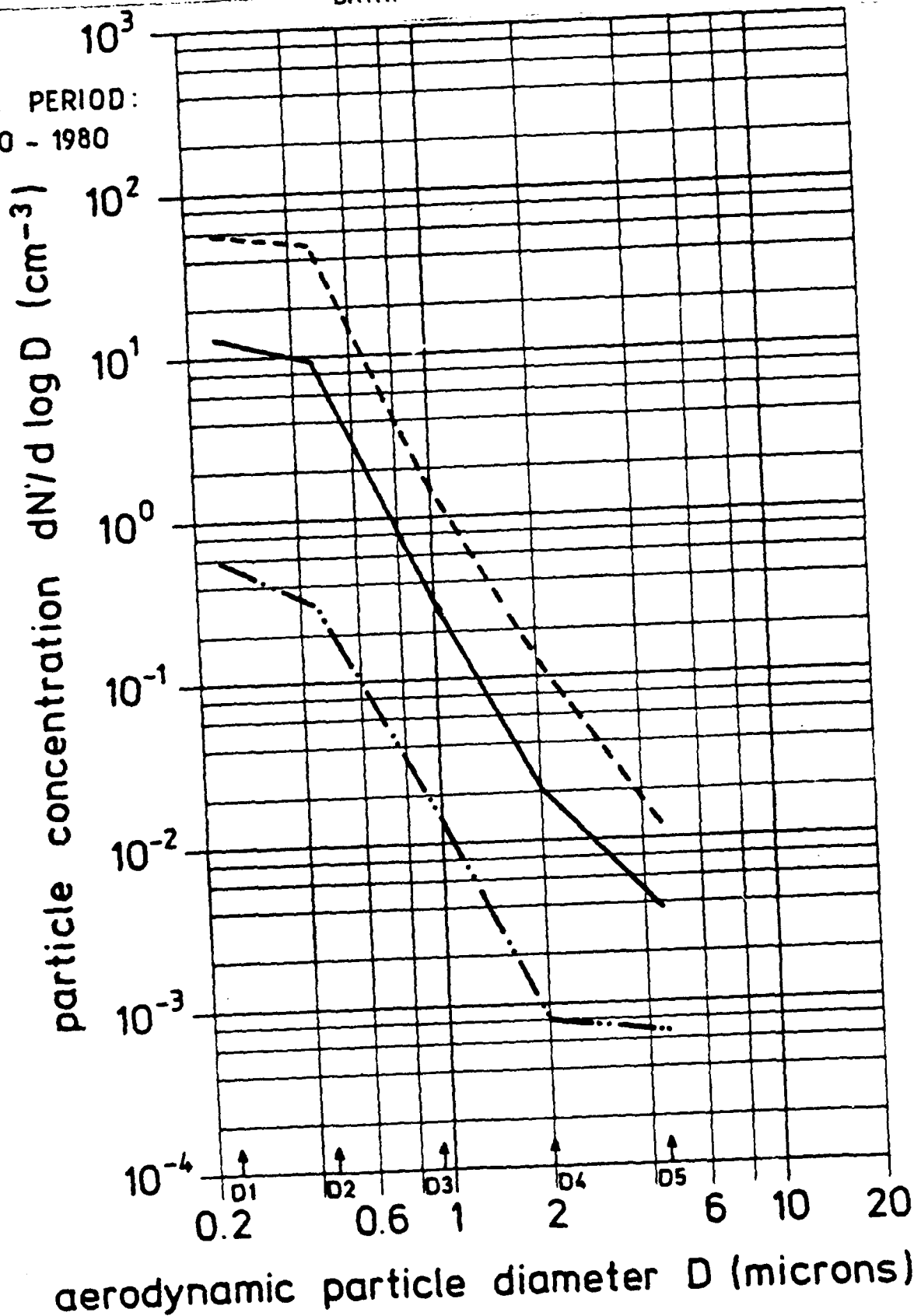
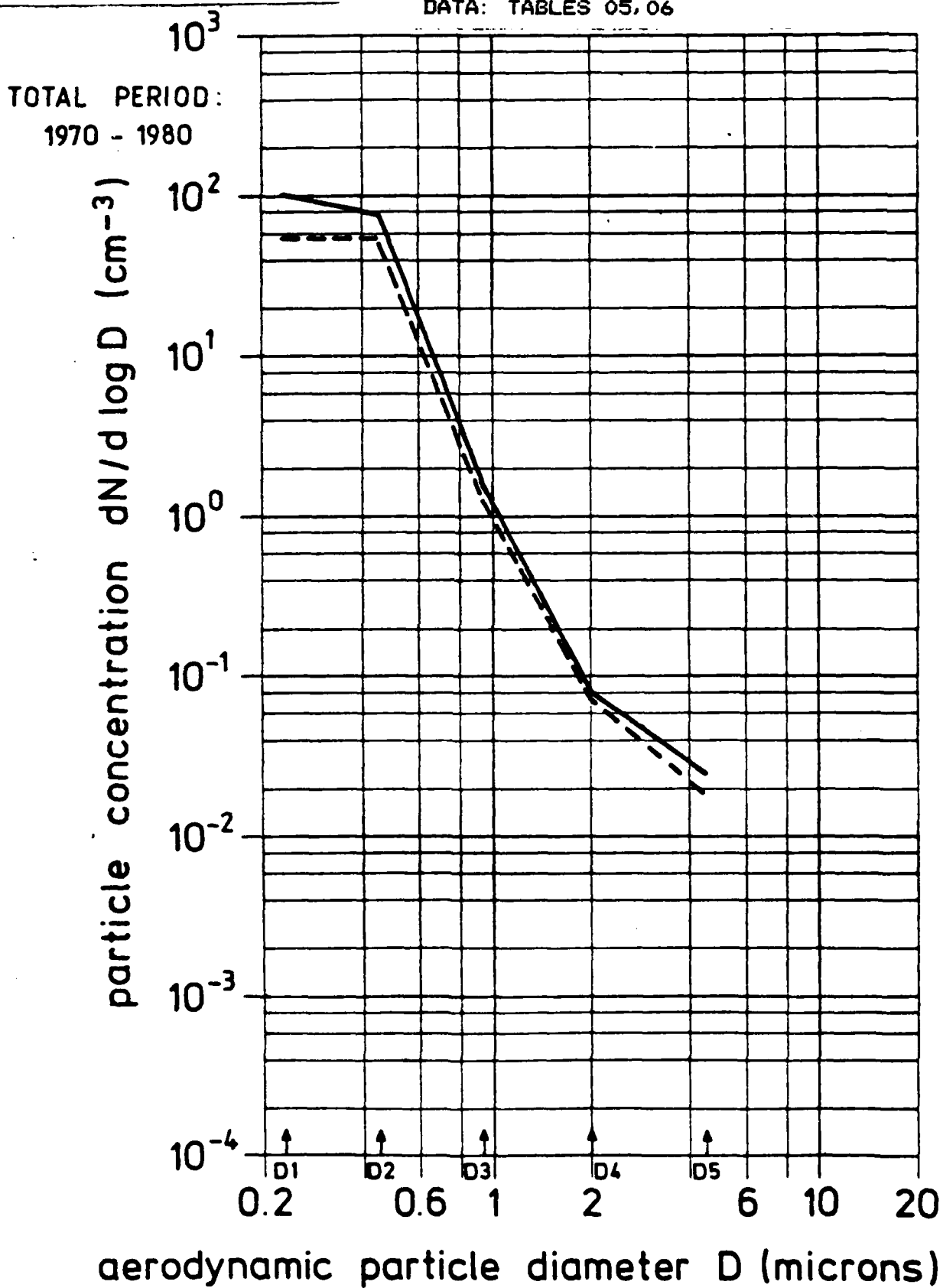


FIG. NO: 09  
GARMISCH (VALLEY 740 M) \*

SPRING ———  
SUMMER - - - -

PARAMETER= MEAN PER SEASON  
DATA: TABLES 05, 06



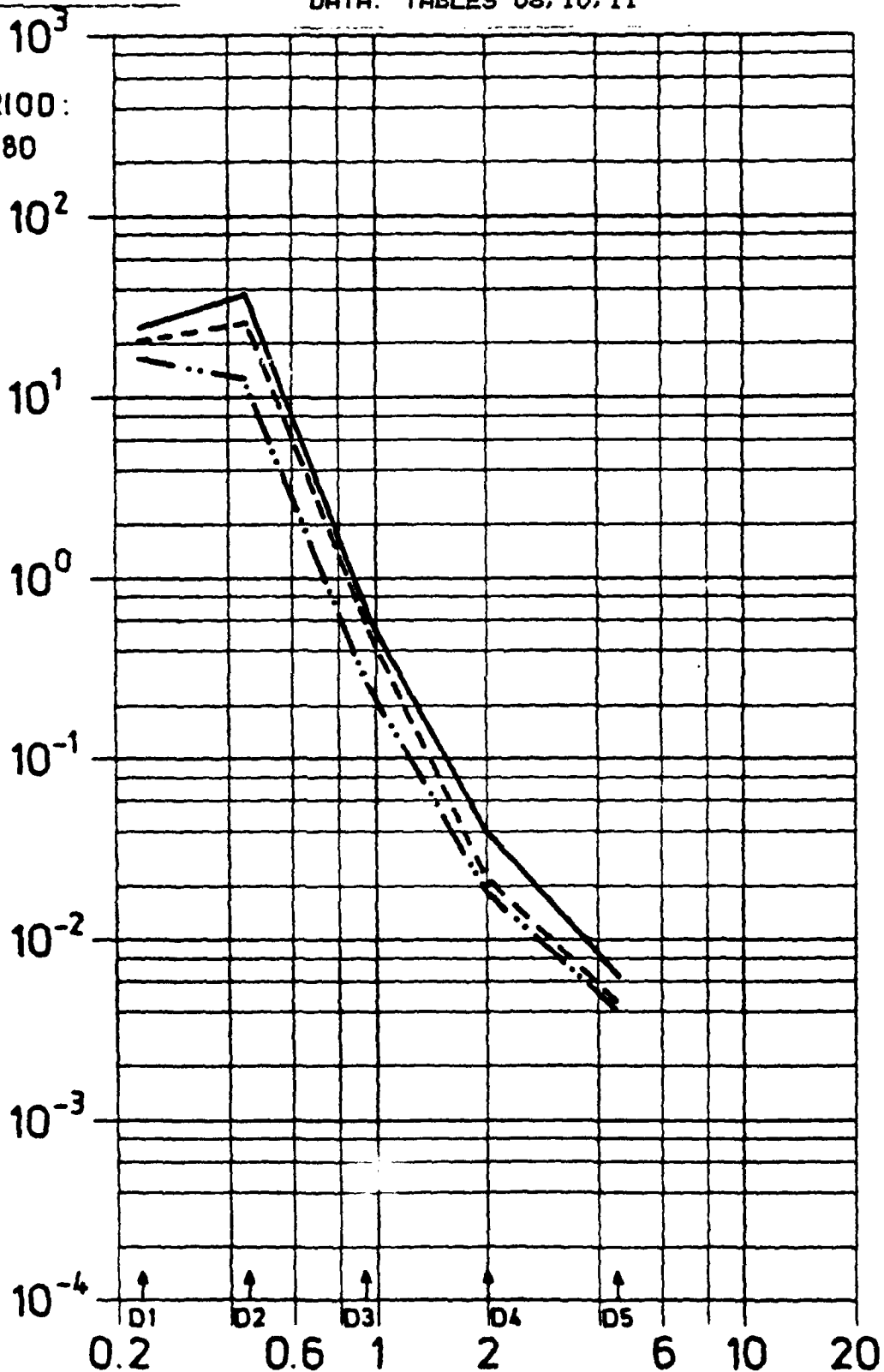
SUMMER ———  
AUTUMN - - - -  
WINTER - · - · -

FIG. NO: 10  
WANK PEAK 1730 M \*

PARAMETER= MEAN PER SEASON  
DATA: TABLES 08, 10, 11

TOTAL PERIOD:  
1970 - 1980

particle concentration  $dN/d \log D$  ( $\text{cm}^{-3}$ )



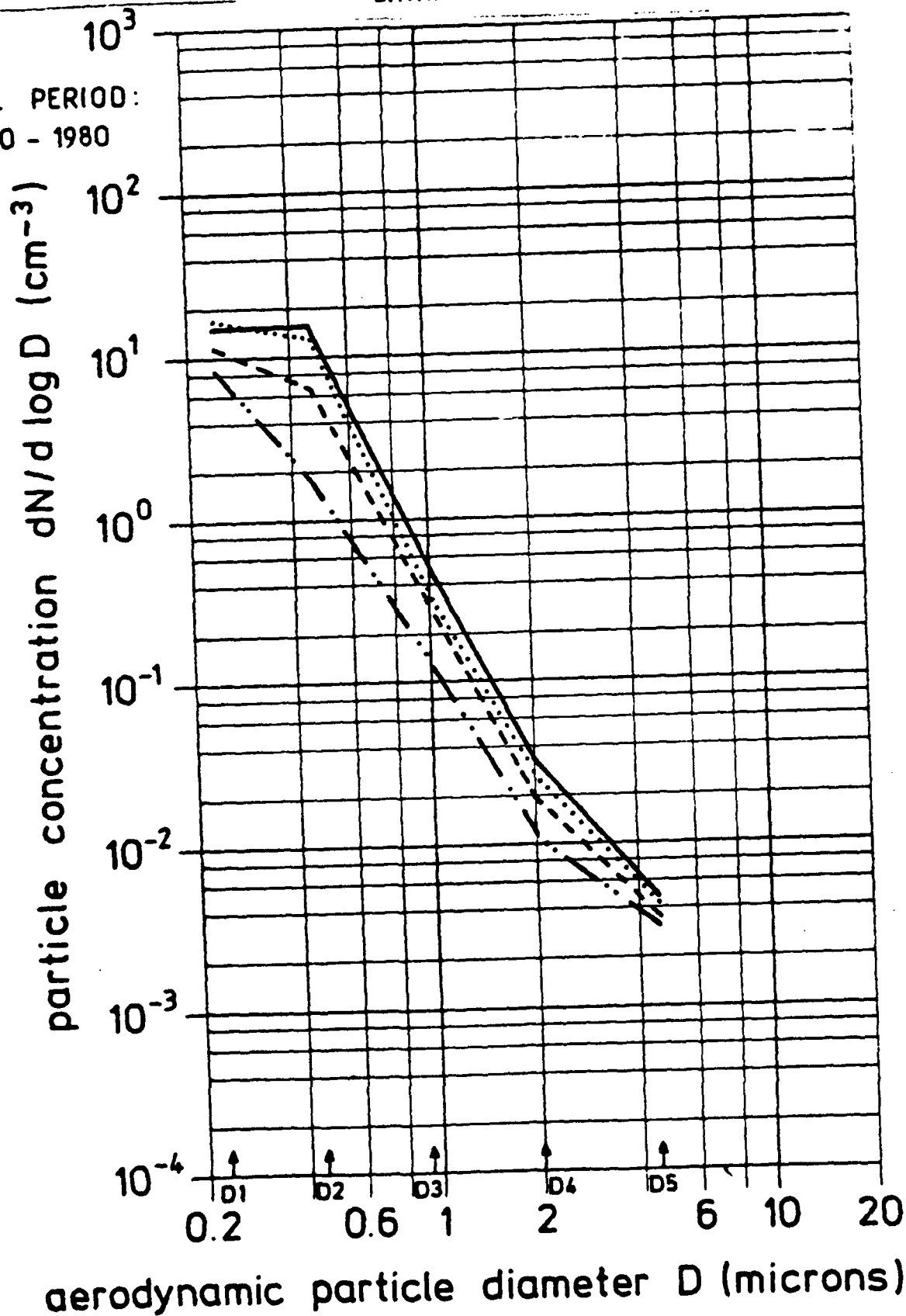
aerodynamic particle diameter  $D$  (microns)

WINTER ---  
 SPRING .....  
 SUMMER ———  
 AUTUMN - - -

FIG. NO: 11  
 ZUGSPITZE PEAK 3000 M

PARAMETER= MEAN PER SEASON  
 DATA: TABLES 12, 13, 14, 15

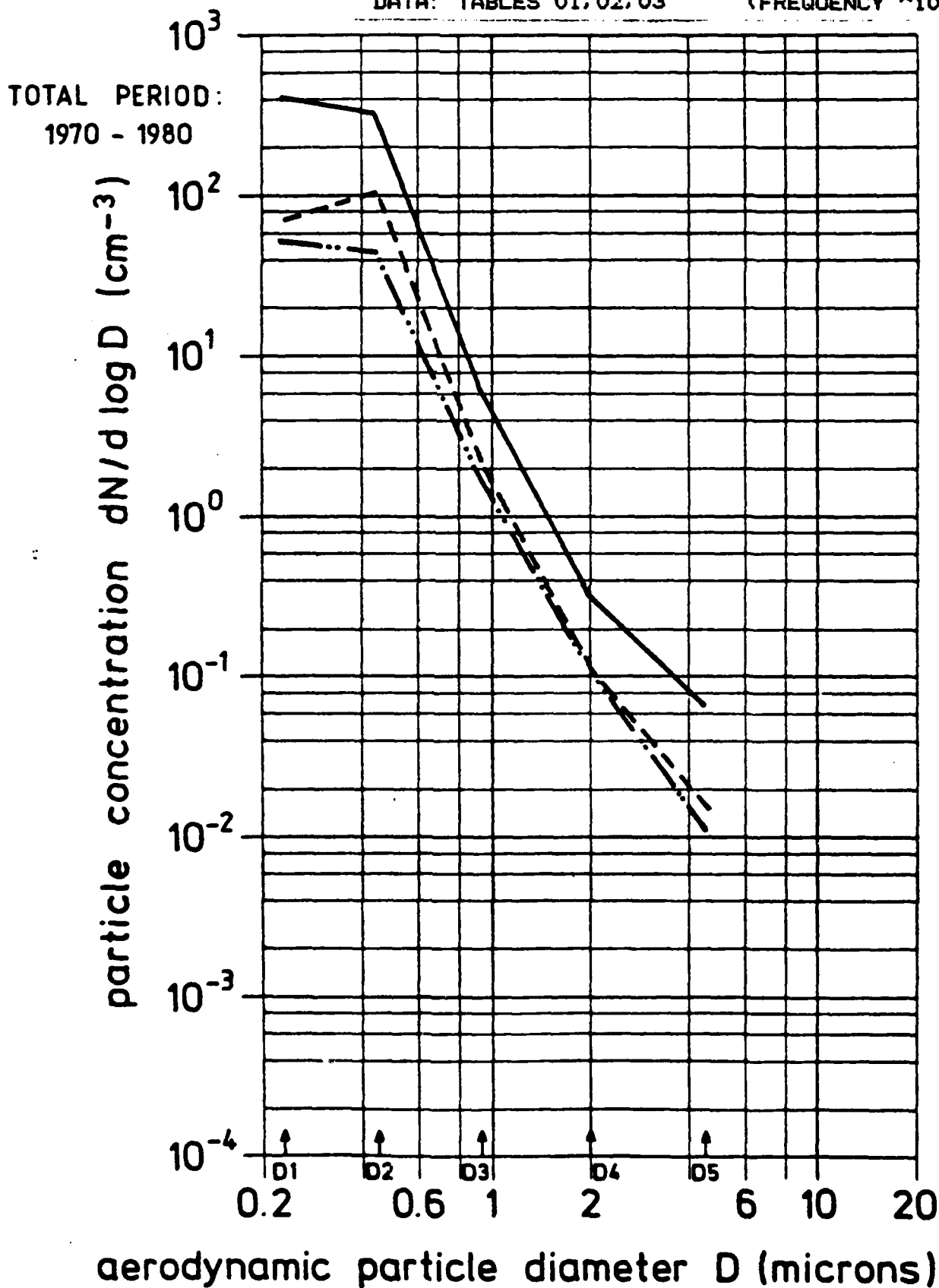
TOTAL PERIOD:  
 1970 - 1980



G — W --- Z ---  
 740m 1780m 2964m

FIG. NO: 12

PARAMETER= VERY HIGH PARTICLE CONCENTRATION  
 DATA: TABLES 01, 02, 03 (FREQUENCY ~10%)

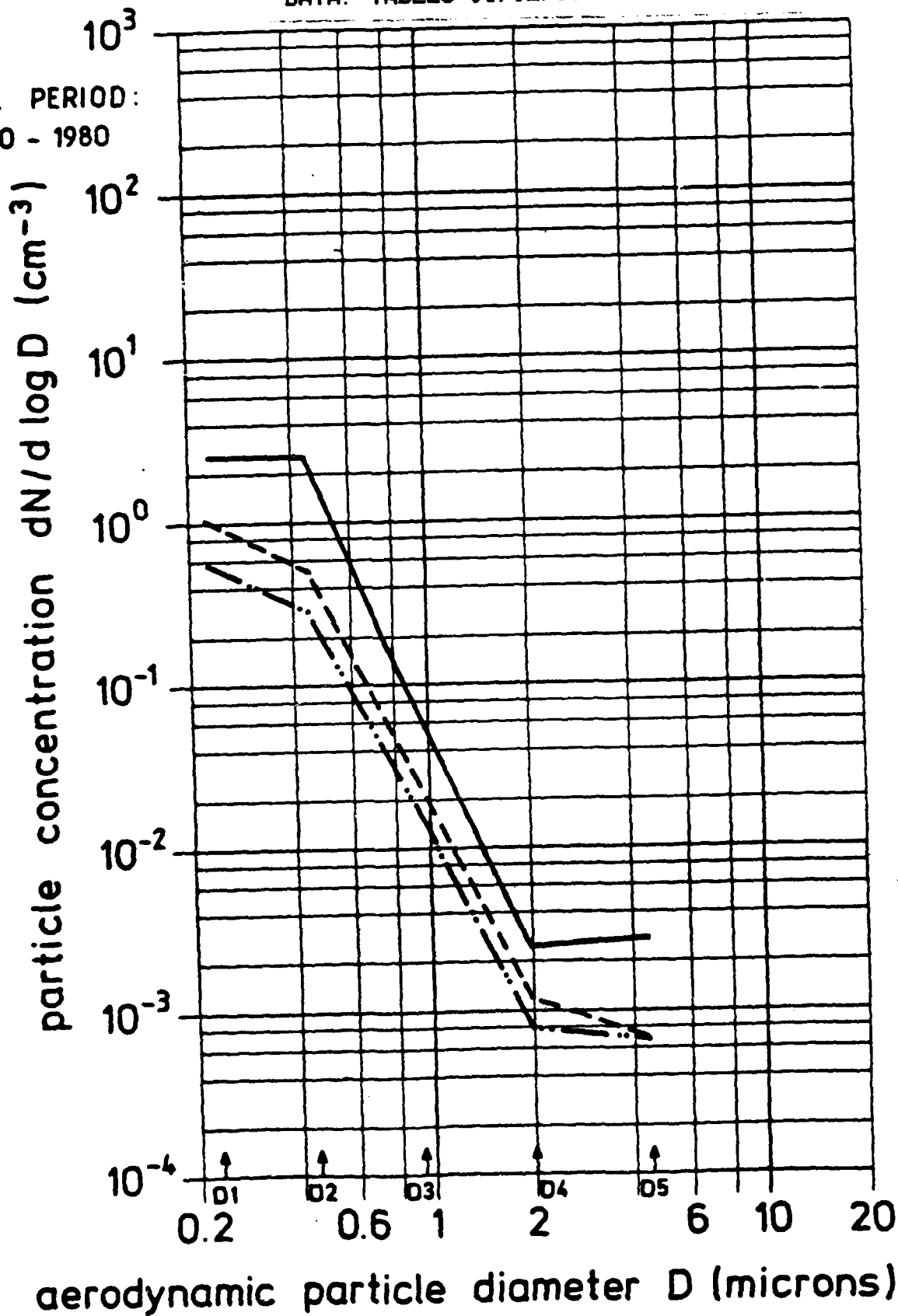


G — W --- Z ---  
740m 1780m 2964m

FIG. NO: 13

PARAMETER= VERY LOW PARTICLE CONCENTRATION  
DATA: TABLES 01, 02, 03 (FREQUENCY  $\sim 10\%$ )

TOTAL PERIOD:  
1970 - 1980

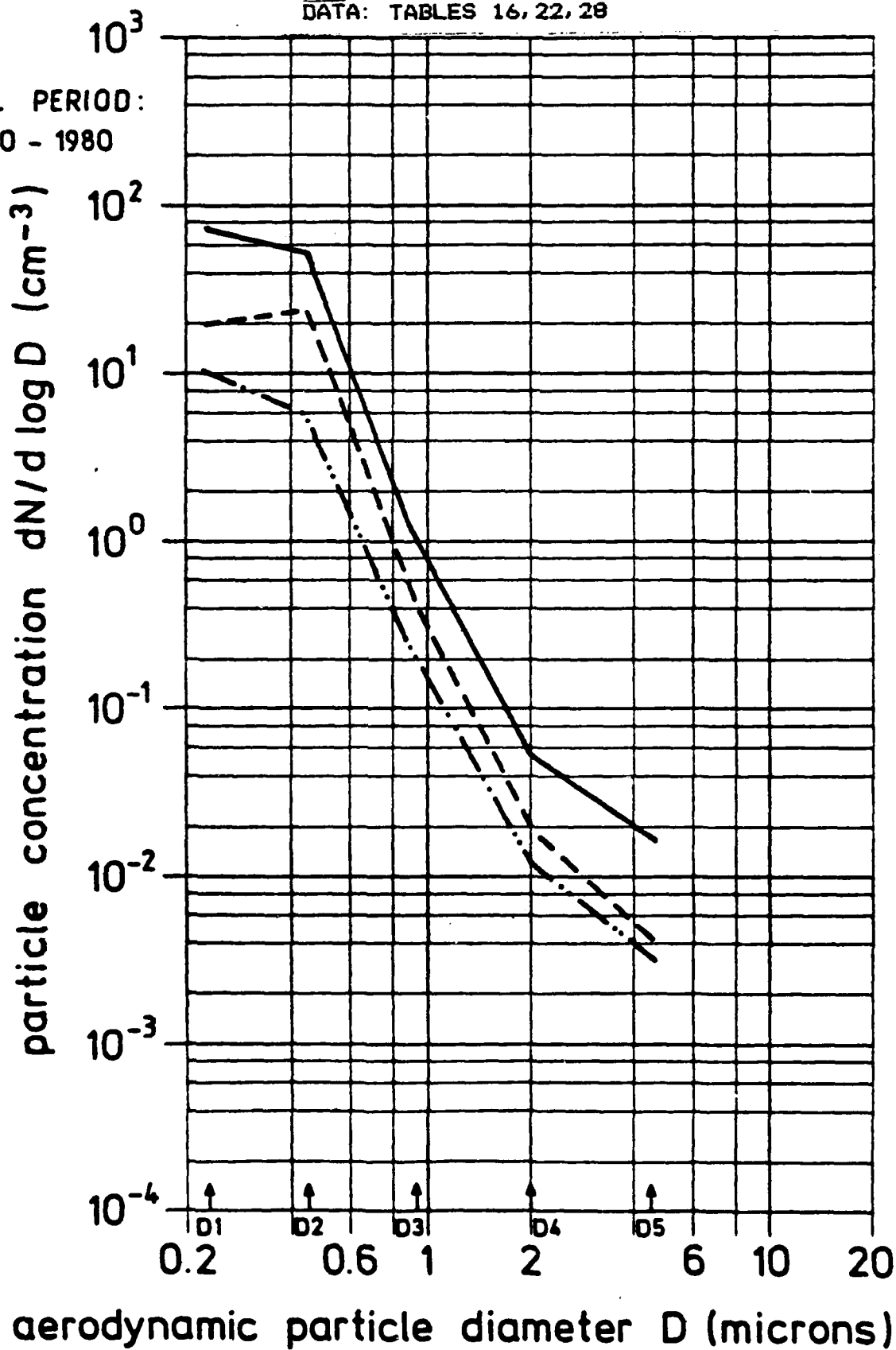


G — 740m    W --- 1780m    Z --- 2964m

FIG. NO: 14

PARAMETER= AIR MASS TYPE: POLAR-MARITIME  
DATA: TABLES 16, 22, 28

TOTAL PERIOD:  
1970 - 1980

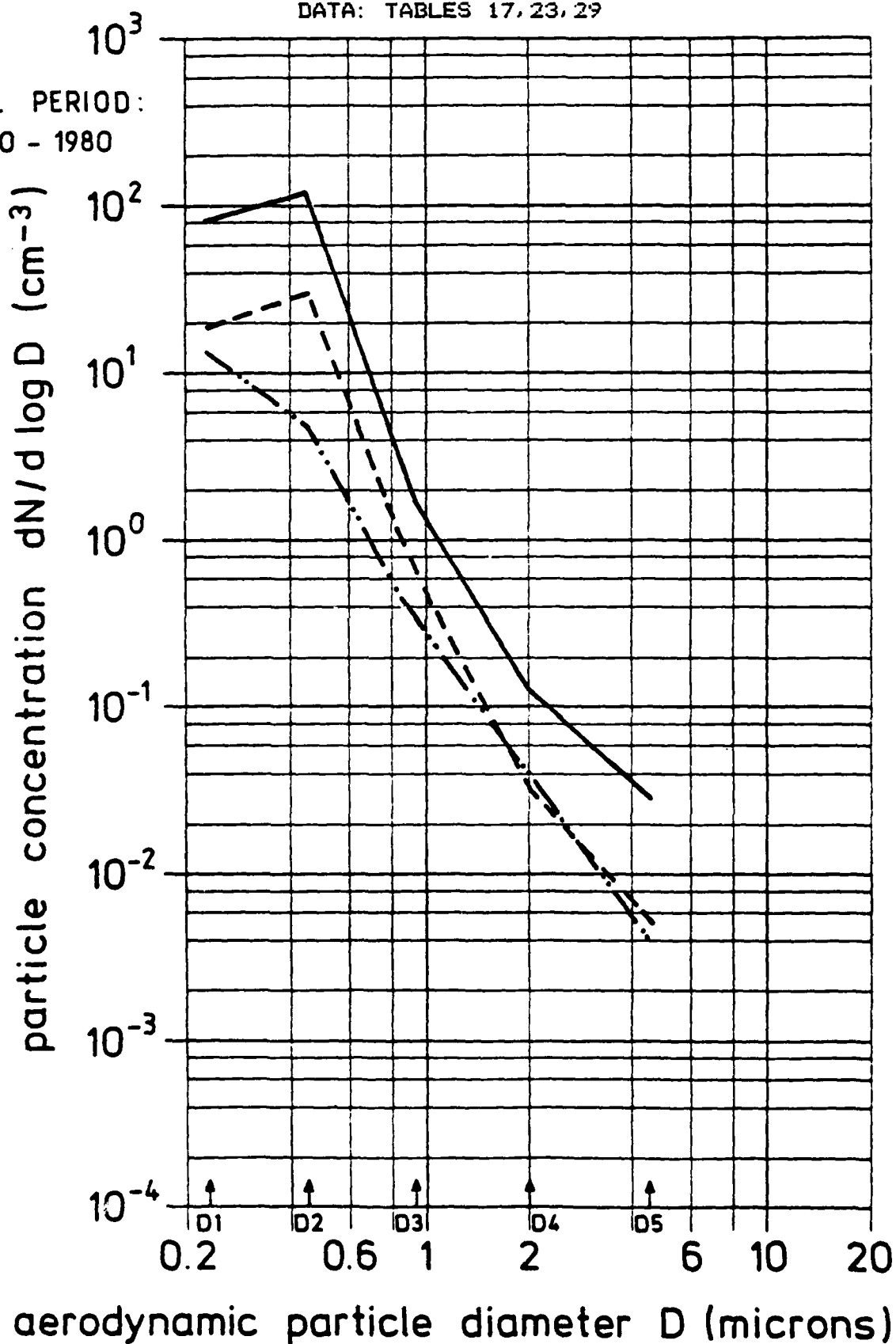


G — W --- Z ---  
740m 1780m 2964m

FIG. NO: 15

PARAMETER= AIR MASS TYPE: POLAR  
DATA: TABLES 17, 23, 29

TOTAL PERIOD:  
1970 - 1980

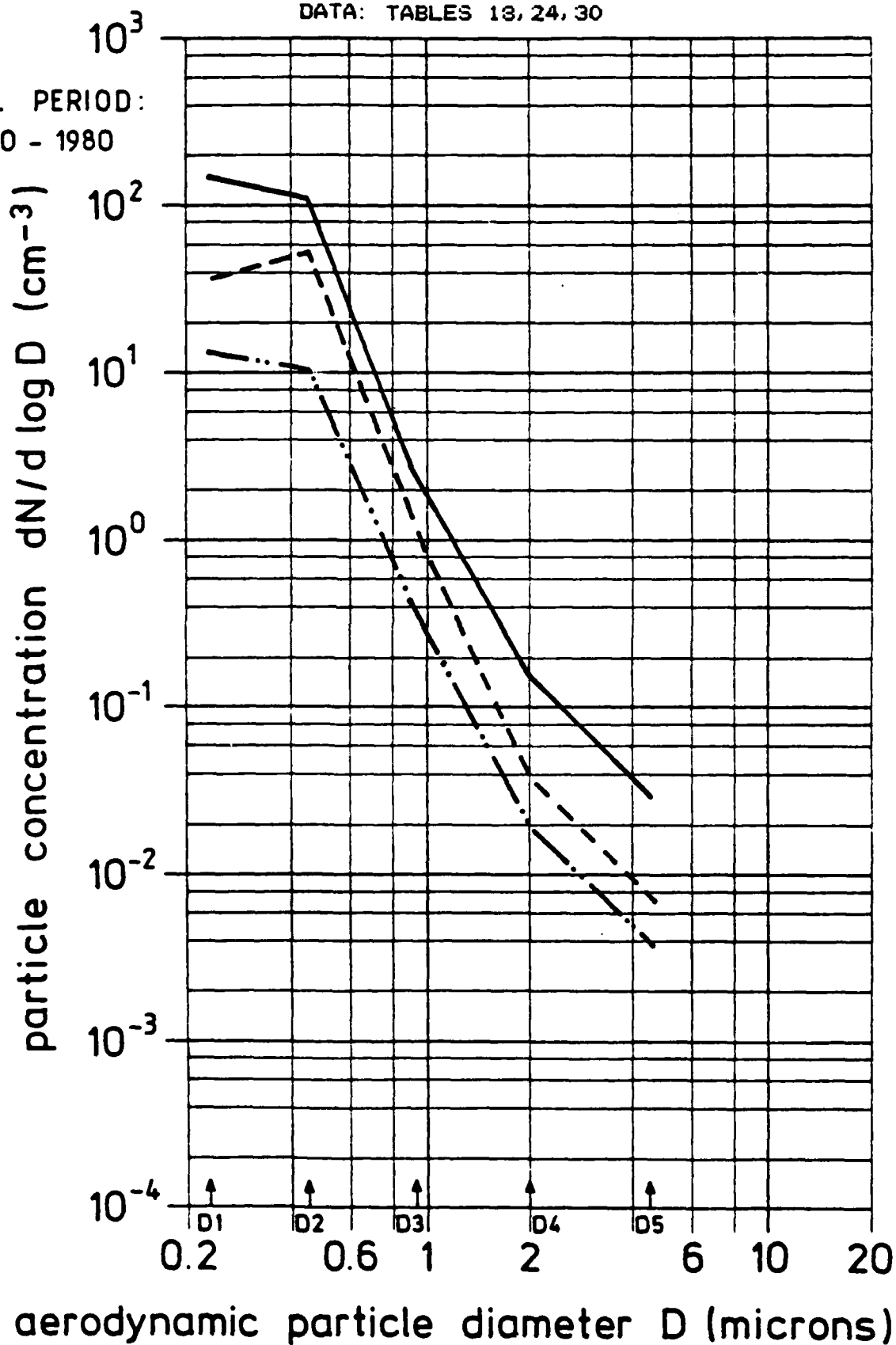


G — W --- Z -...-  
 740m 1780m 2964m

FIG. NO: 16

PARAMETER= AIR MASS TYPE: POLAR-CONTINENTAL  
 DATA: TABLES 13, 24, 30

TOTAL PERIOD:  
 1970 - 1980

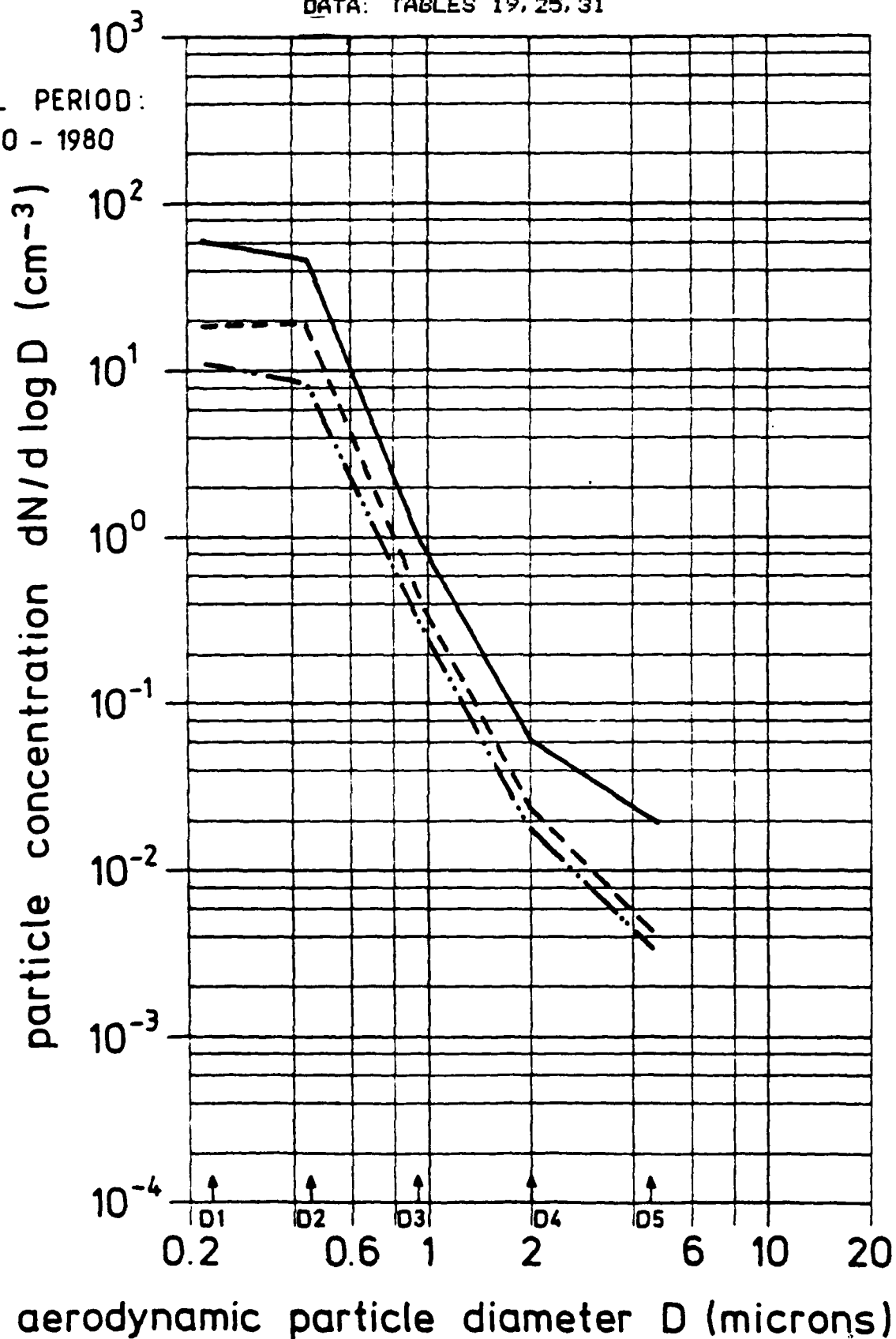


G — W --- Z ---  
740m 1780m 2964m

FIG. NO: 17

PARAMETER= AIR MASS TYPE: MARITIME  
DATA: TABLES 19, 25, 31

TOTAL PERIOD:  
1970 - 1980

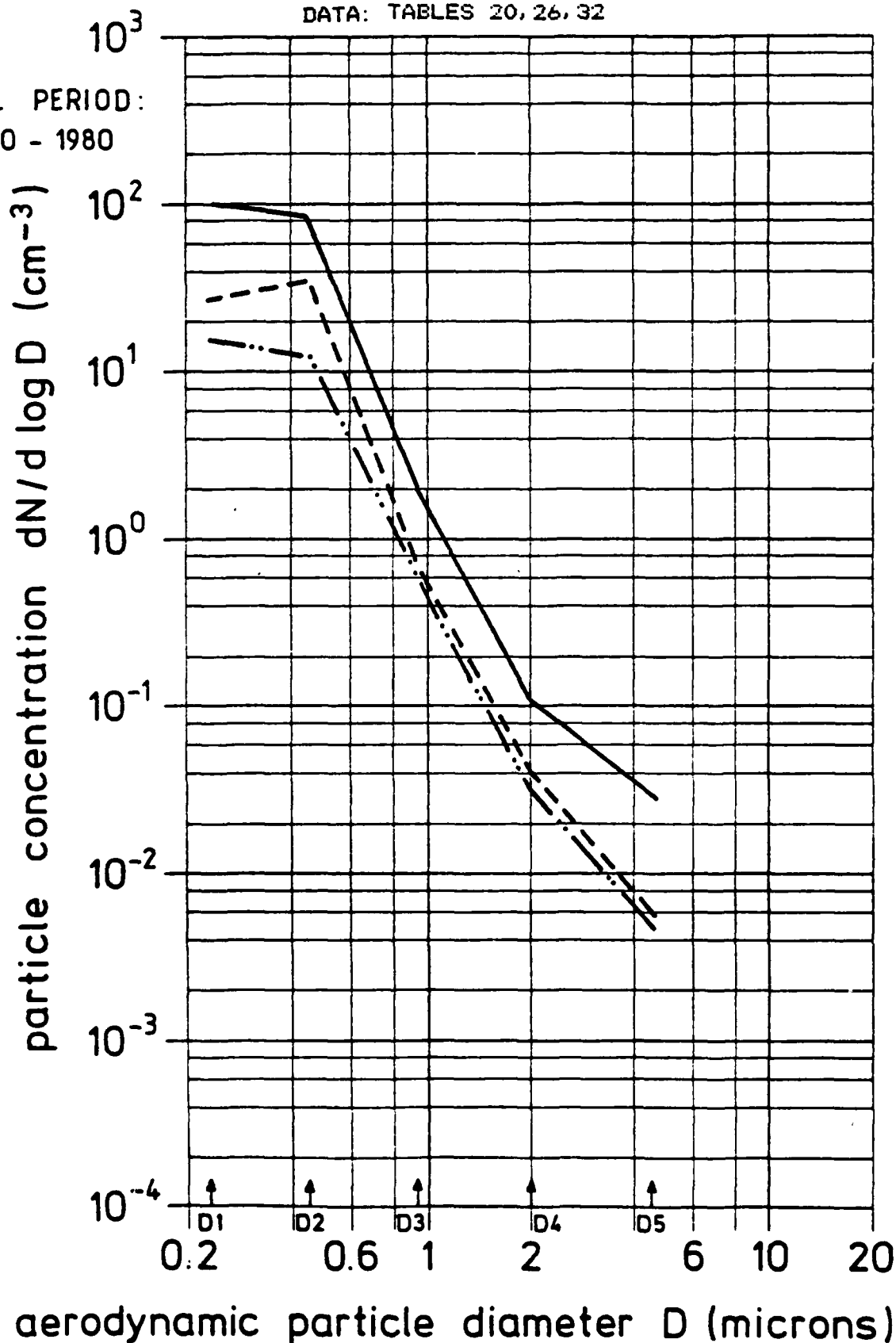


G — 740m    W --- 1780m    Z -.- 2964m

FIG. NO: 13

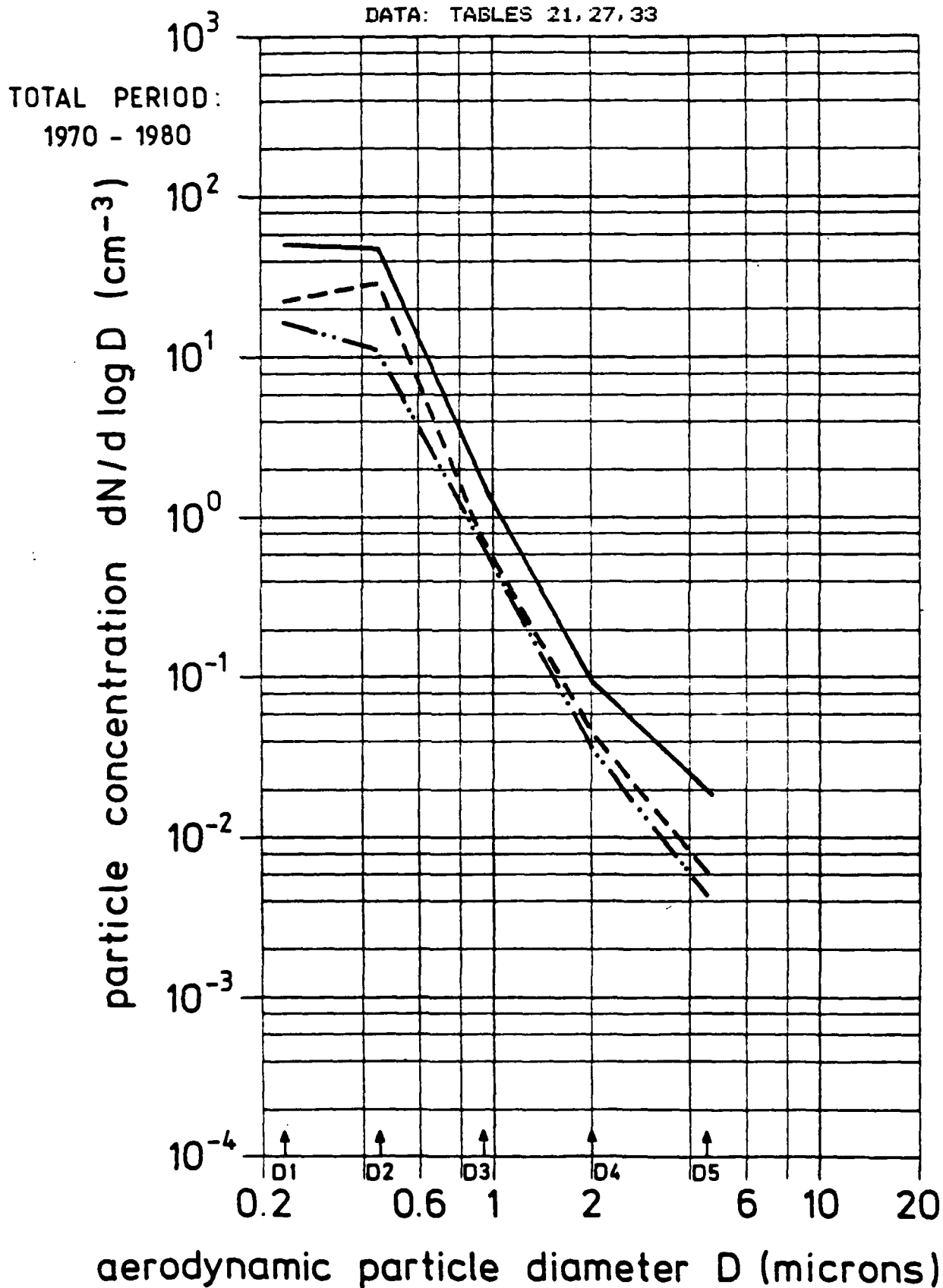
PARAMETER= AIR MASS TYPE: CONTINENTAL  
DATA: TABLES 20, 26, 32

TOTAL PERIOD:  
1970 - 1980



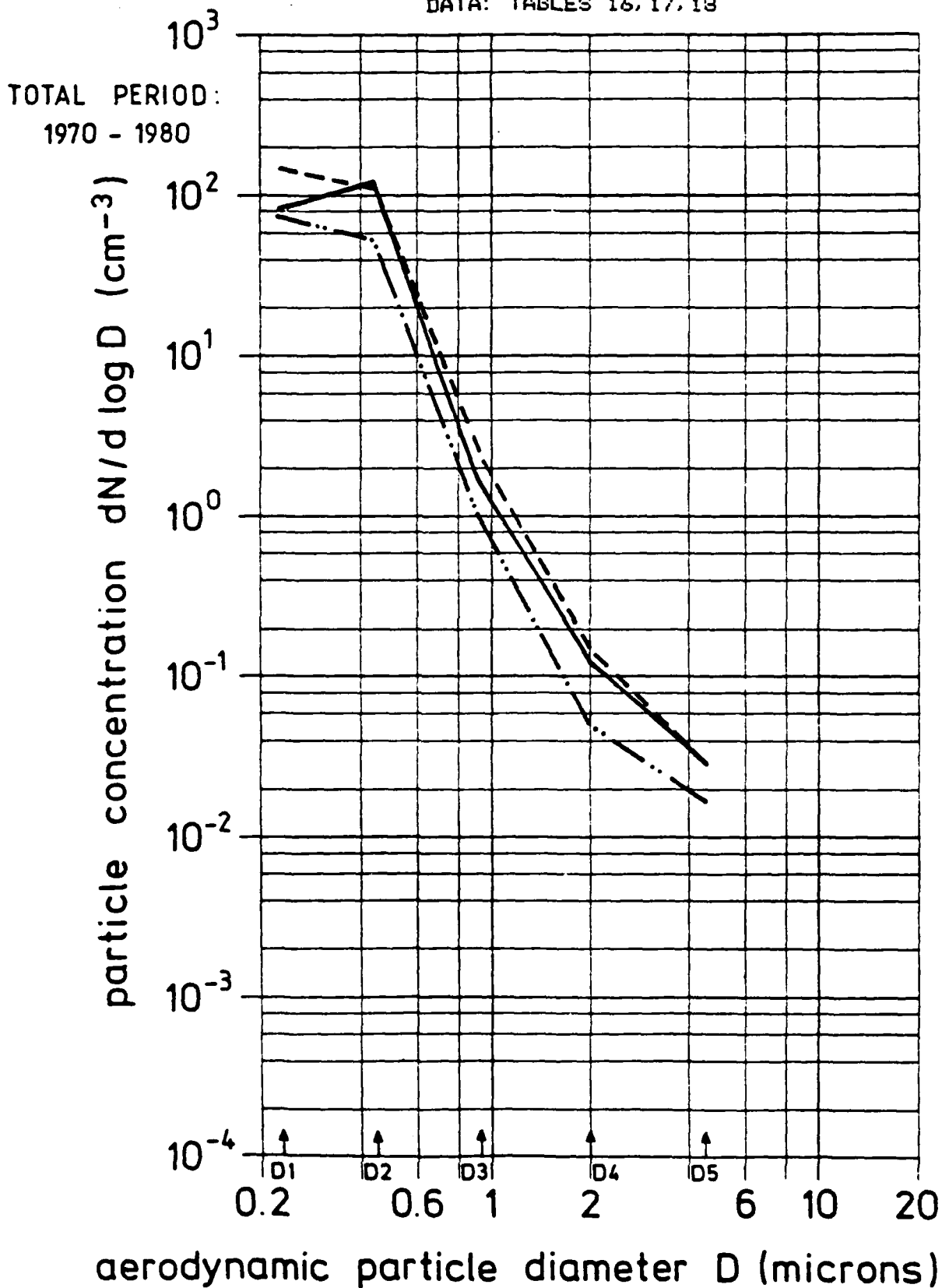
G — W --- Z .... FIG. NO: 19  
740m 1780m 2964m

PARAMETER= AIR MASS TYPE: TROPICAL-MARITIME  
DATA: TABLES 21, 27, 33



POLAR-MARITIME ---  
POLAR ———  
POLAR-CONTINENTAL - - -

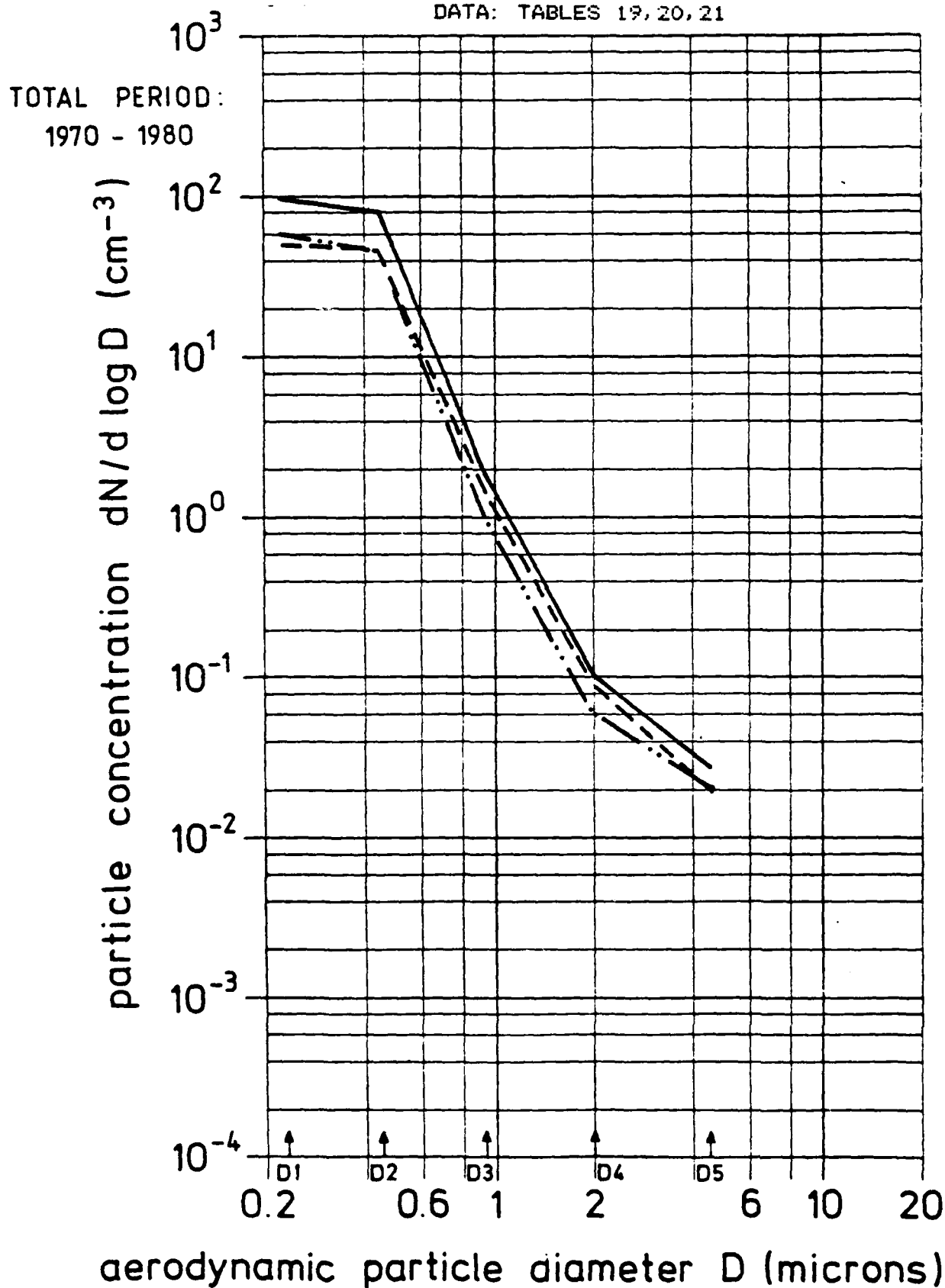
FIG. NO: 20  
GARMISCH (VALLEY 740 M) \*  
PARAMETER= AIR MASS TYPE  
DATA: TABLES 16, 17, 18



MARITIME  
CONTINENTAL  
TROPIC-MARITIME

FIG. NO: 21  
GARMISCH (VALLEY 740 M) \*

PARAMETER= AIR MASS TYPE  
DATA: TABLES 19, 20, 21

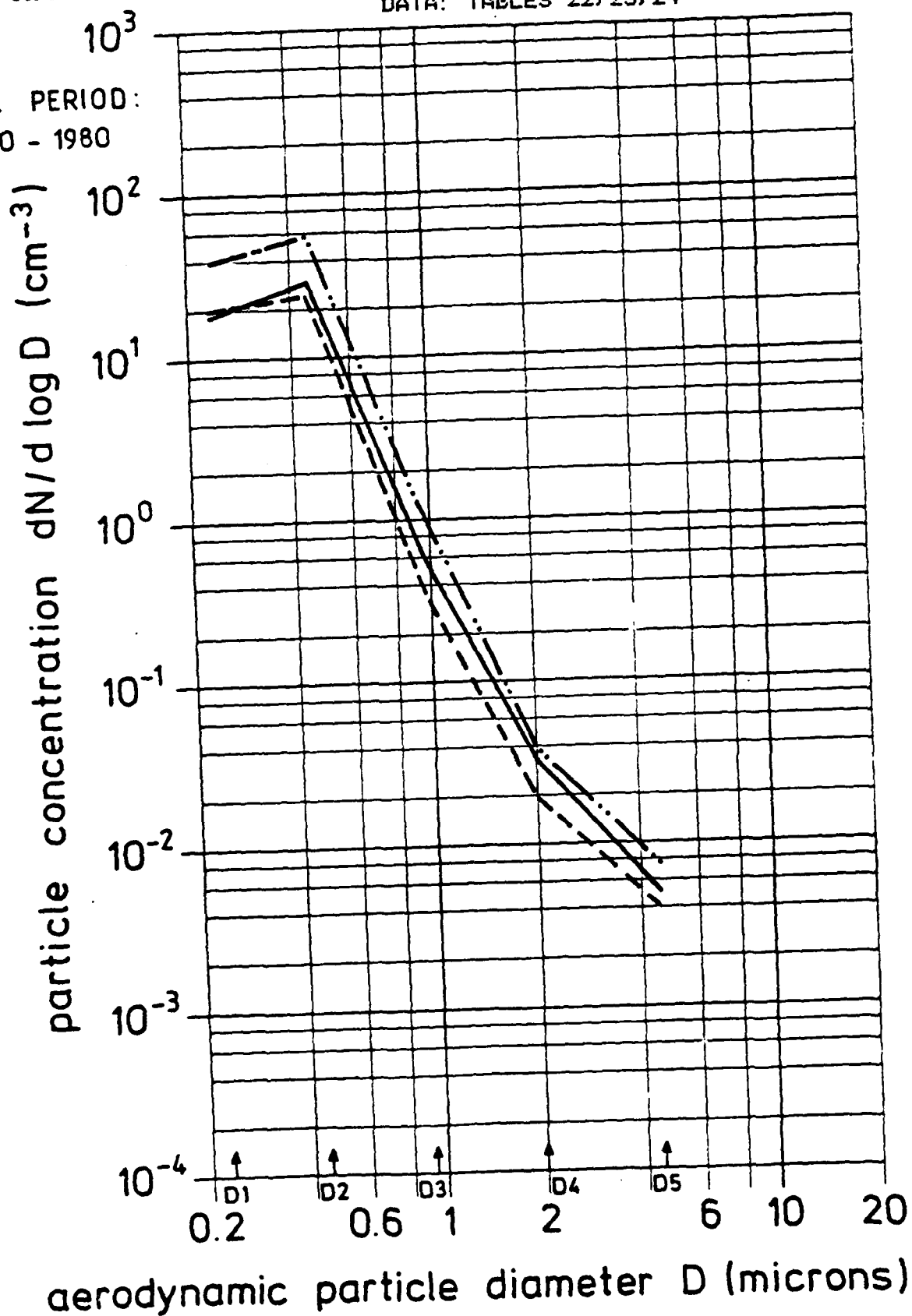


POLAR-MARITIME  
POLAR  
POLAR-CONTINENTAL

FIG. NO: 22  
WANK PEAK 1780 M \*

PARAMETER= AIR MASS TYPE  
DATA: TABLES 22, 23, 24

TOTAL PERIOD:  
1970 - 1980

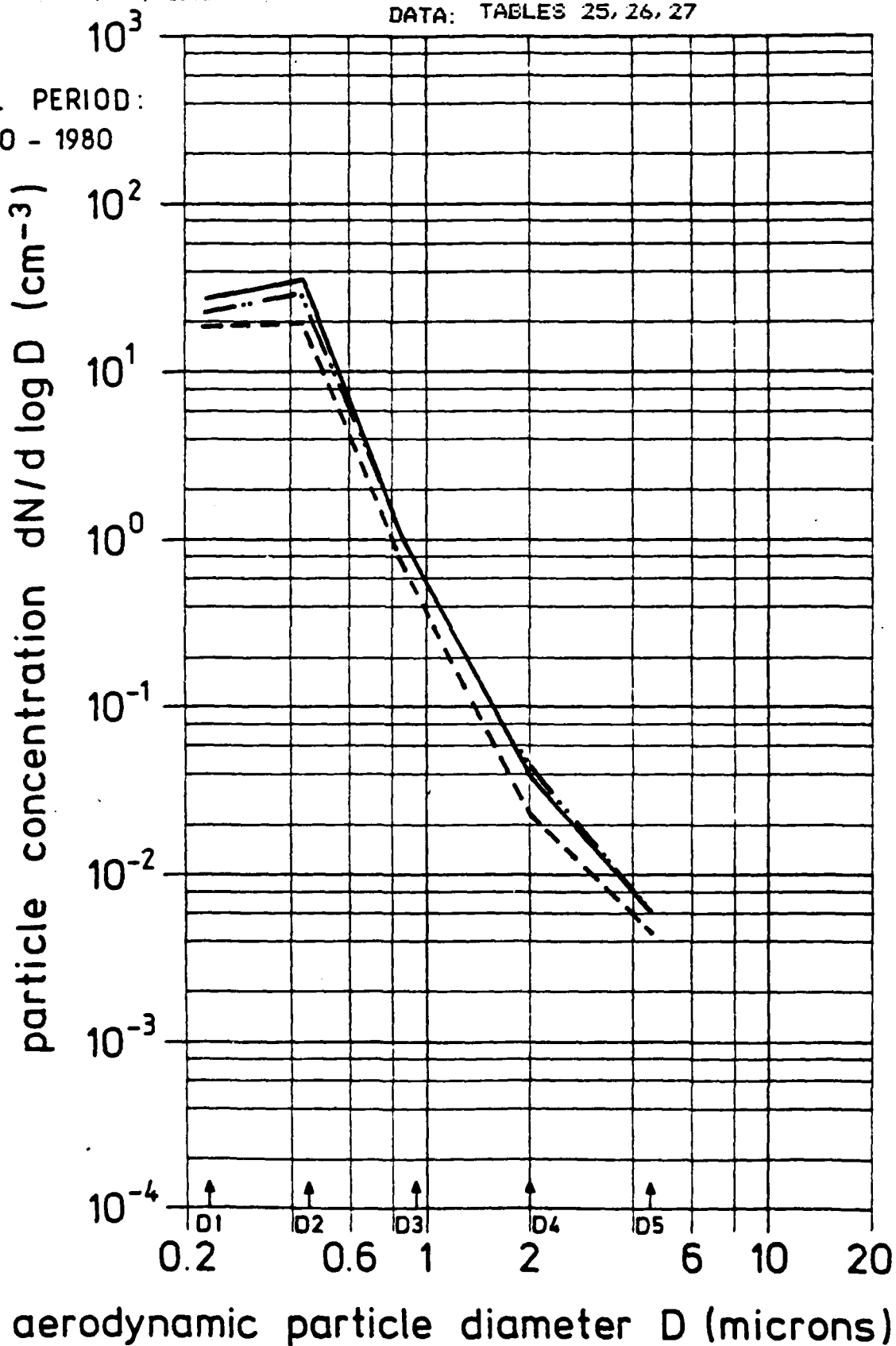


MARITIME  
CONTINENTAL  
TROPIC-MARITIME

FIG. NO: 23  
WANK PEAK 1780 M \*

PARAMETER= AIR MASS TYPE  
DATA: TABLES 25, 26, 27

TOTAL PERIOD:  
1970 - 1980

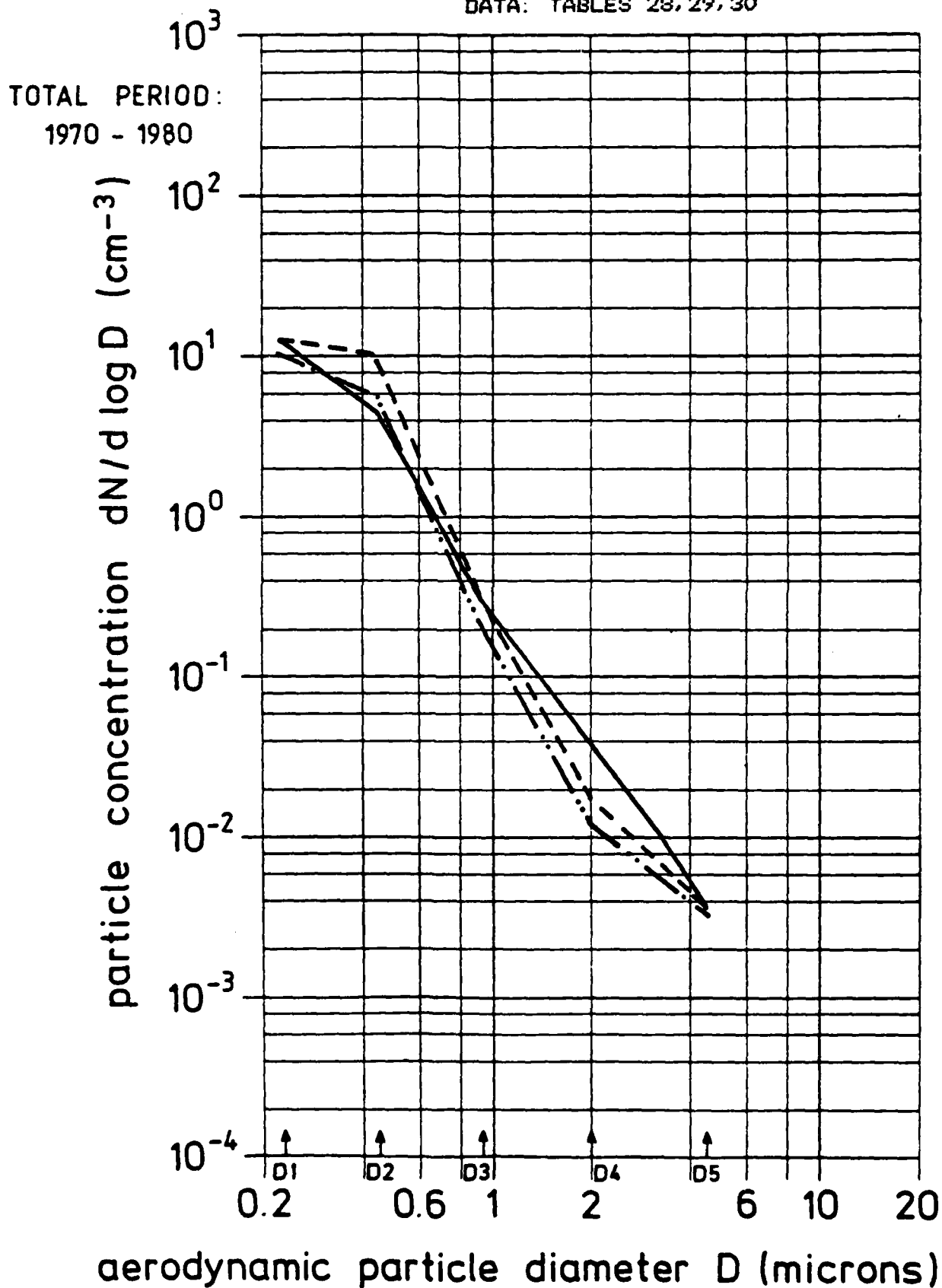


POLAR-MARITIME  
POLAR  
POLAR-CONTINENTAL

---  
---  
---

FIG. NO: 24  
ZUGSPITZE PEAK 3000 M

PARAMETER= AIR MASS TYPE  
DATA: TABLES 28, 29, 30



MARITIME  
CONTINENTAL  
TROPIC-MARITIME

FIG. NO: 25  
ZUGSPITZE PEAK 3000 M

PARAMETER= AIR MASS TYPE  
DATA: TABLES 31, 32, 33

TOTAL PERIOD:  
1970 - 1980

particle concentration  $dN/d \log D$  ( $\text{cm}^{-3}$ )

$10^3$

$10^2$

$10^1$

$10^0$

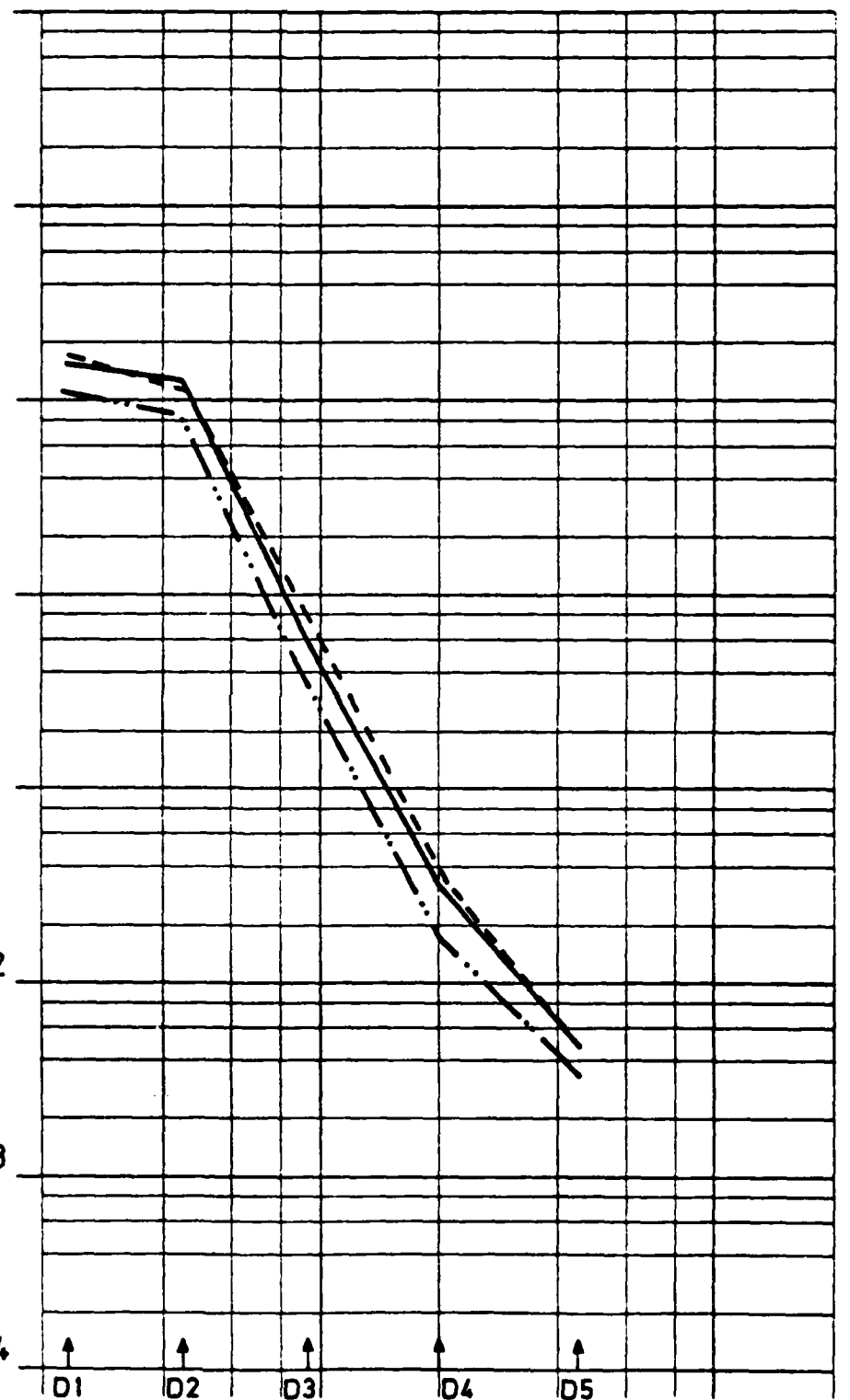
$10^{-1}$

$10^{-2}$

$10^{-3}$

$10^{-4}$

---  
---  
---

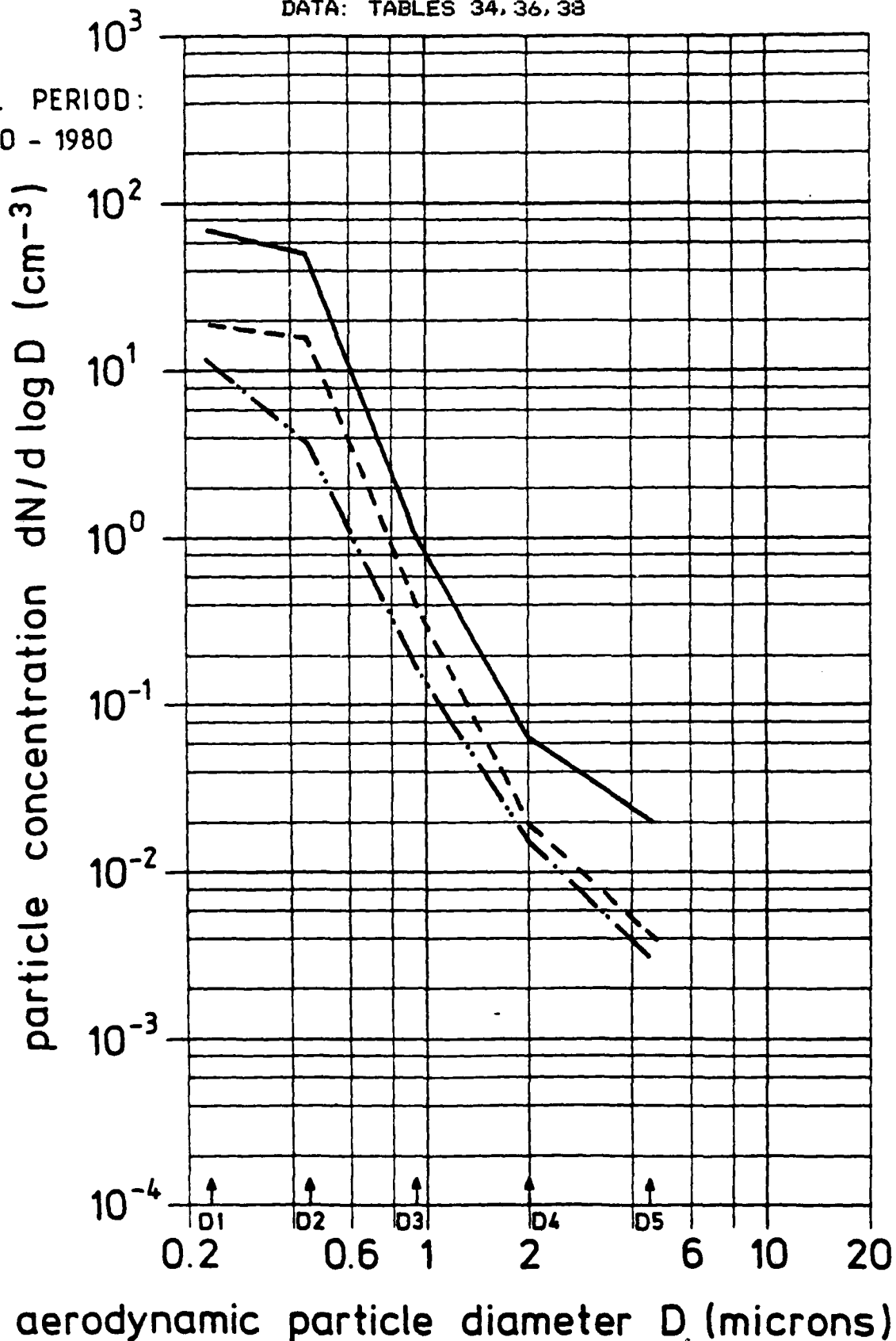


aerodynamic particle diameter D (microns)

G — W --- Z --- FIG. NO: 26  
740m 1780m 2964m

PARAMETER= AIR TEMPERATURE AT ZUGSPITZE  $< -15^{\circ}\text{C}$   
DATA: TABLES 34, 36, 38

TOTAL PERIOD:  
1970 - 1980



G — W --- Z -.- - FIG. NO: 27  
740m 1780m 2964m

PARAMETER= AIR TEMPERATURE AT ZUGSPITZE  $> +5^{\circ}\text{C}$   
DATA: TABLES 35, 37, 39

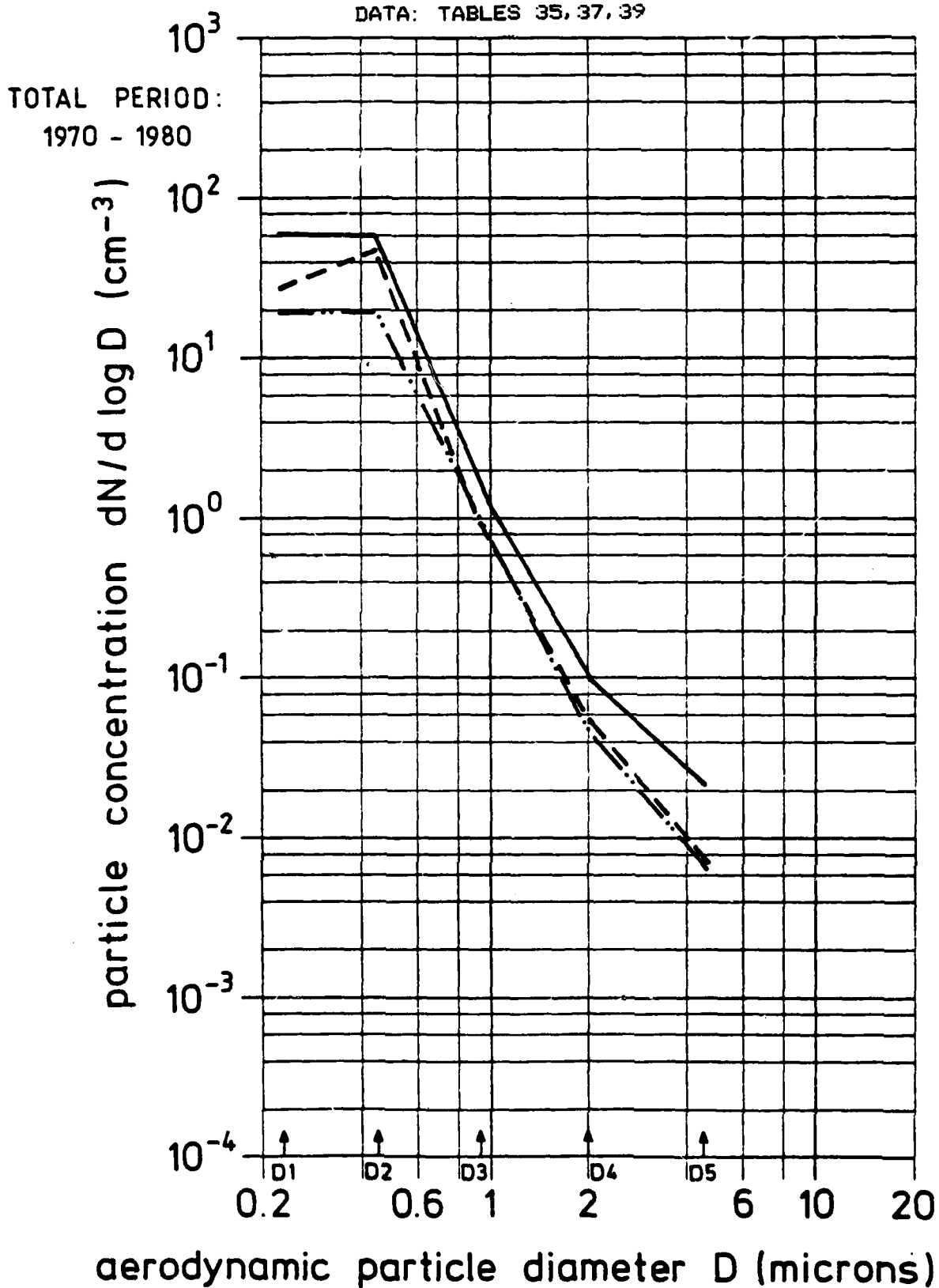


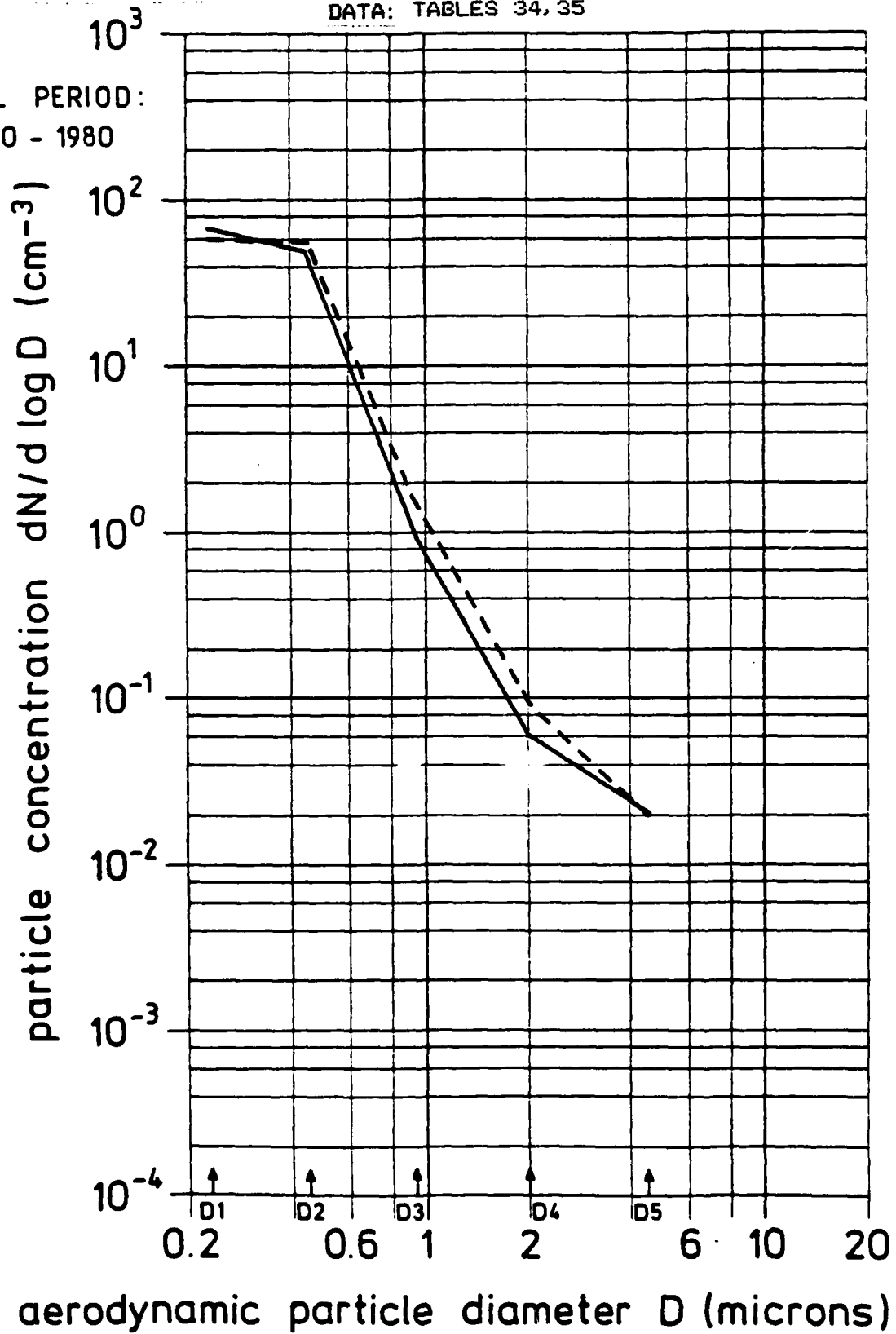
FIG. NO: 28

GARMISCH (VALLEY 740 M) \*

PARAMETER= AIR TEMPERATURE AT ZUGSPITZE  
DATA: TABLES 34, 35

TOTAL PERIOD:  
1970 - 1980

$< -15^{\circ}\text{C}$   
 $> +5^{\circ}\text{C}$



<-15°C  
>+ 5°C

FIG. NO: 29

WANK PEAK 1780 M \*

PARAMETER= AIR TEMPERATURE AT ZUGSPITZE  
DATA: TABLES 36, 37

TOTAL PERIOD:  
1970 - 1980

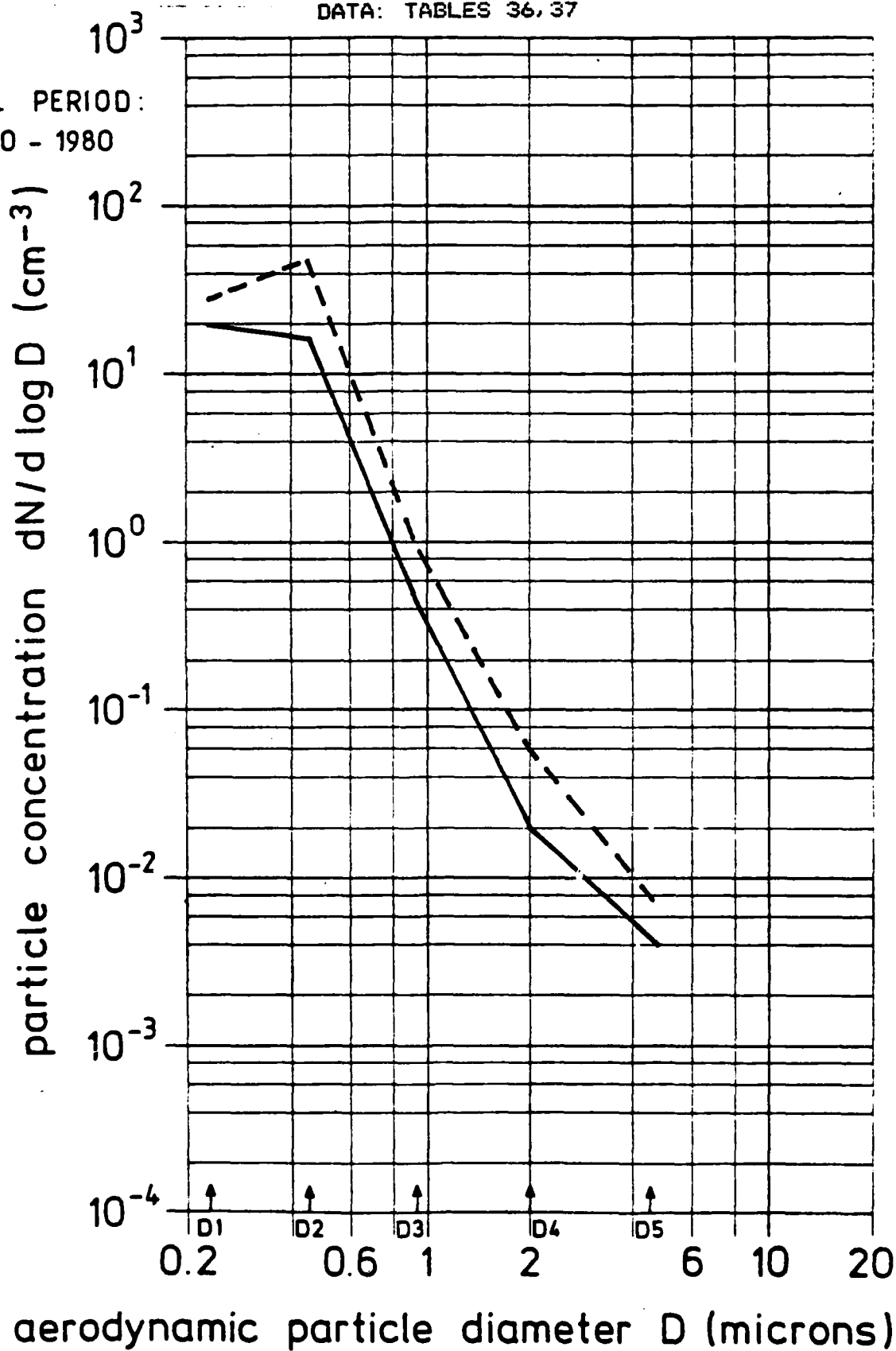
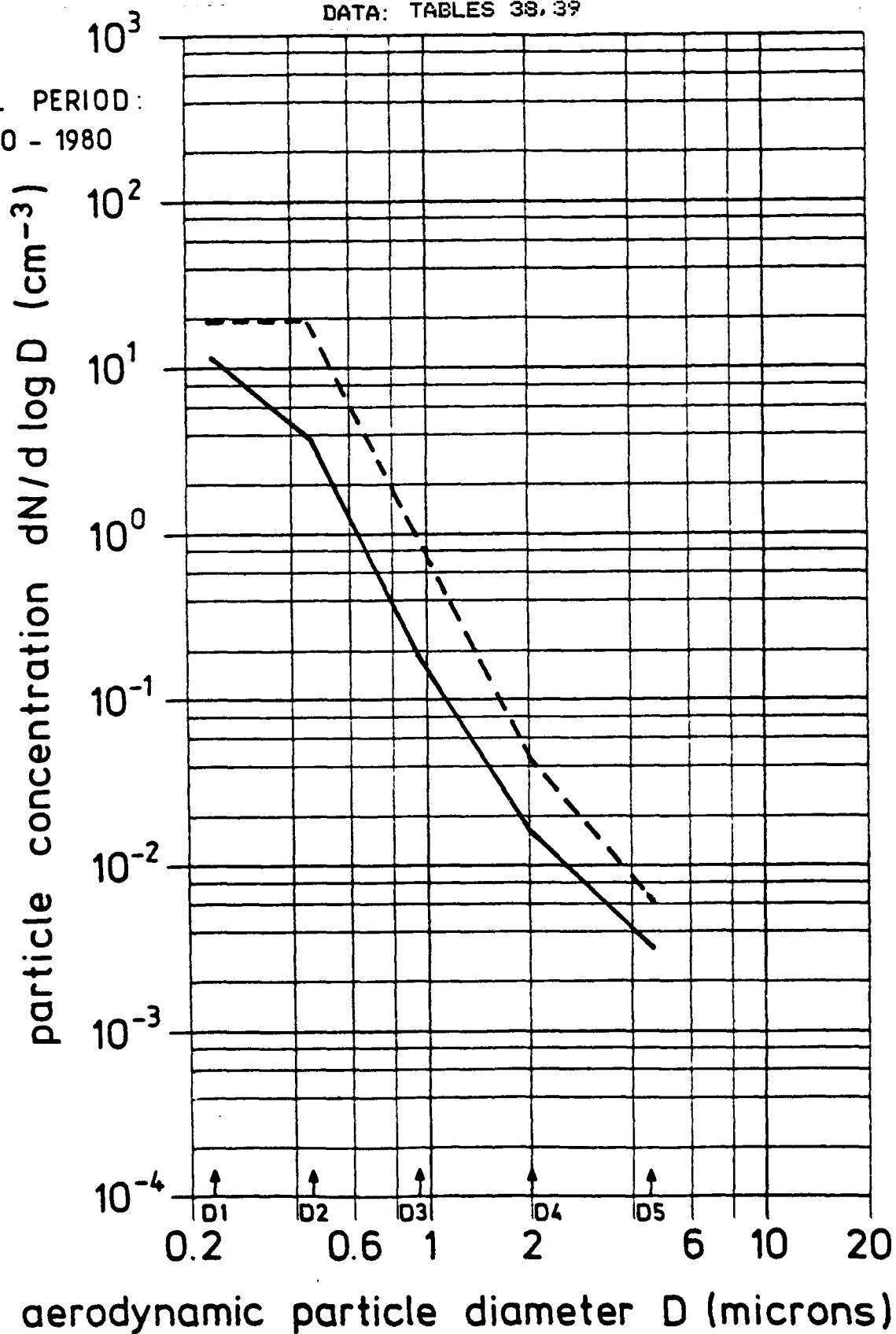


FIG. NO: 30  
ZUGSPITZE PEAK 3000 M

<-15°C  
>+ 5°C

PARAMETER= AIR TEMPERATURE AT ZUGSPITZE  
DATA: TABLES 38, 39

TOTAL PERIOD:  
1970 - 1980

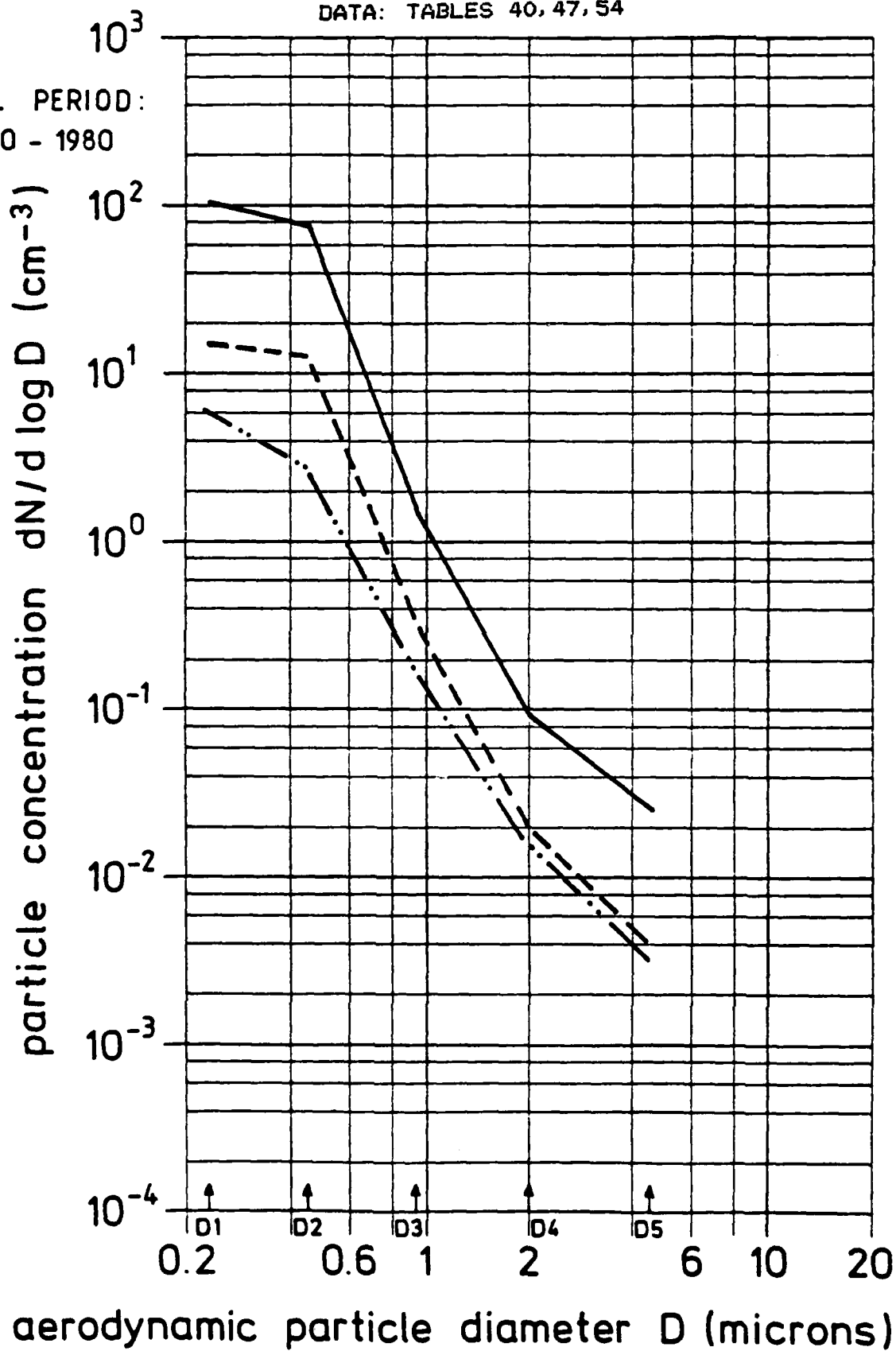


G — W --- Z ---  
740m 1780m 2964m

FIG. NO: 31

PARAMETER= RELATIVE HUMIDITY <40%  
DATA: TABLES 40, 47, 54

TOTAL PERIOD:  
1970 - 1980



G— W--- Z---  
740m 1780m 2964m

FIG. NO: 32

PARAMETER= RELATIVE HUMIDITY >95%  
DATA: TABLES 46, 53, 60

TOTAL PERIOD:  
1970 - 1980

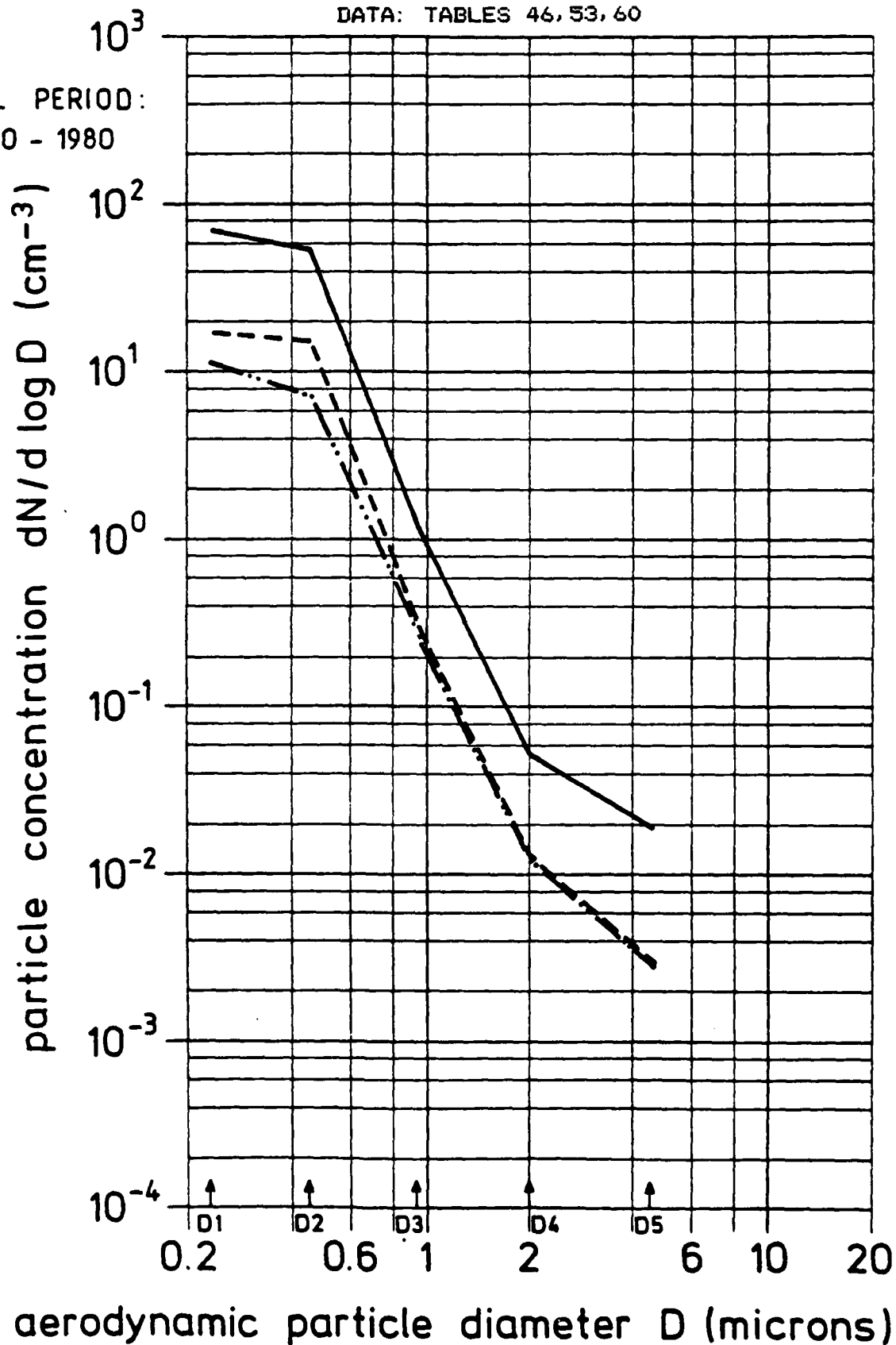


FIG. NO: 33

GARMISCH (VALLEY 740 M) \*

PARAMETER= RELATIVE HUMIDITY  
DATA: TABLES 40, 46

TOTAL PERIOD:  
1970 - 1980

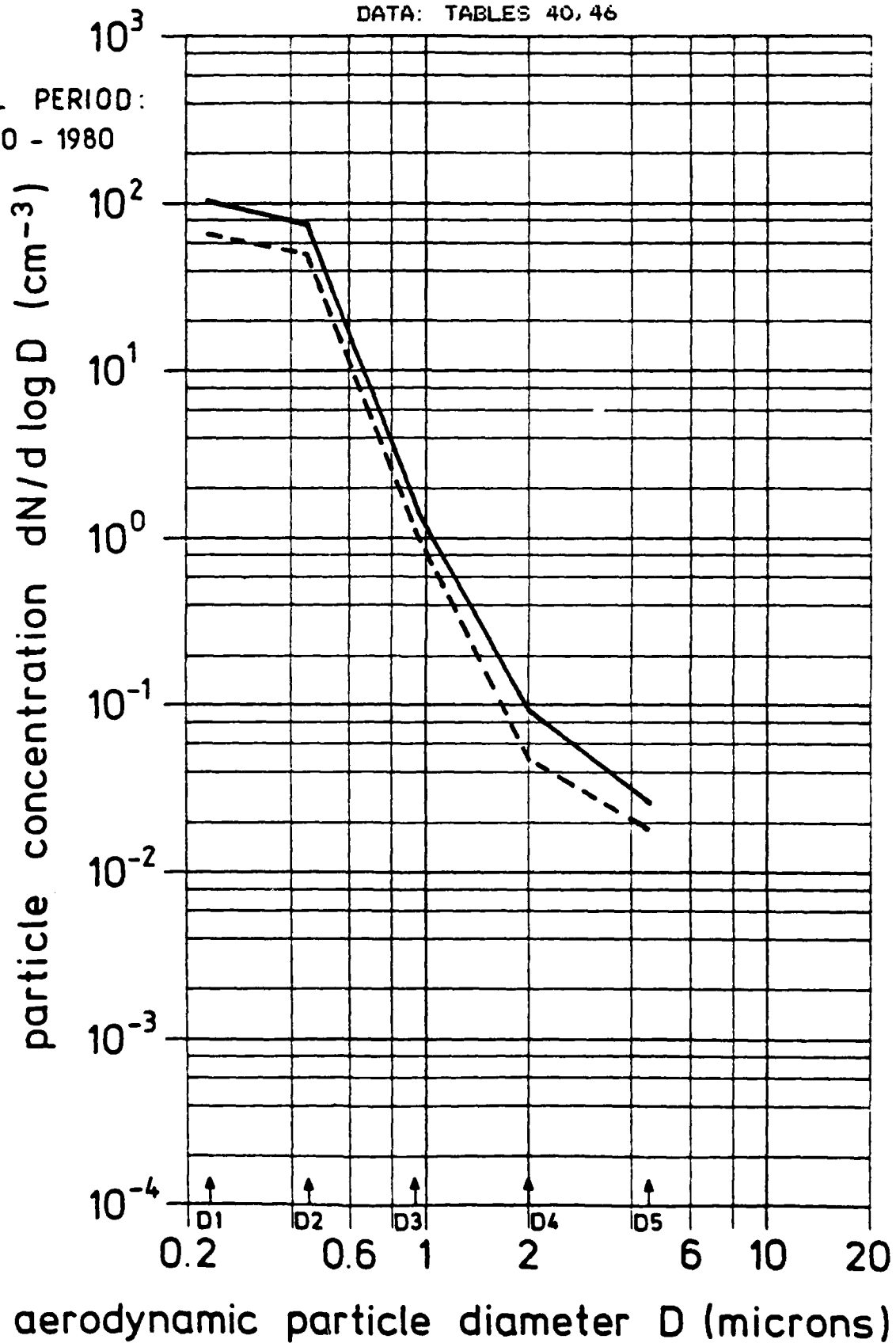


FIG. NO: 34

WANK PEAK 1780 M \*

PARAMETER= RELATIVE HUMIDITY

DATA: TABLES 47, 48, 50

<40%

---

41-50%

---

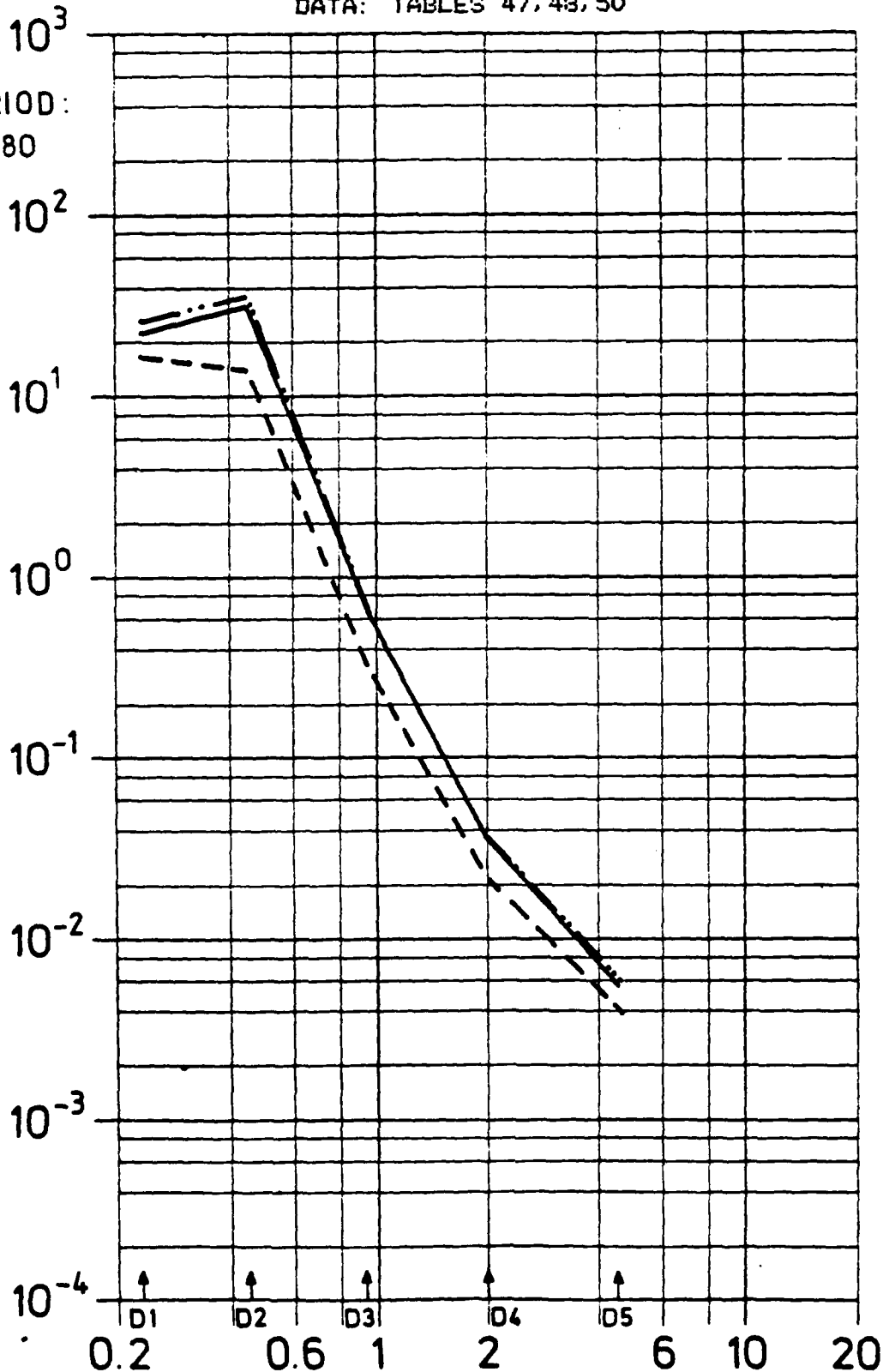
61-70%

---

TOTAL PERIOD:

1970 - 1980

particle concentration  $dN/d \log D$  ( $\text{cm}^{-3}$ )



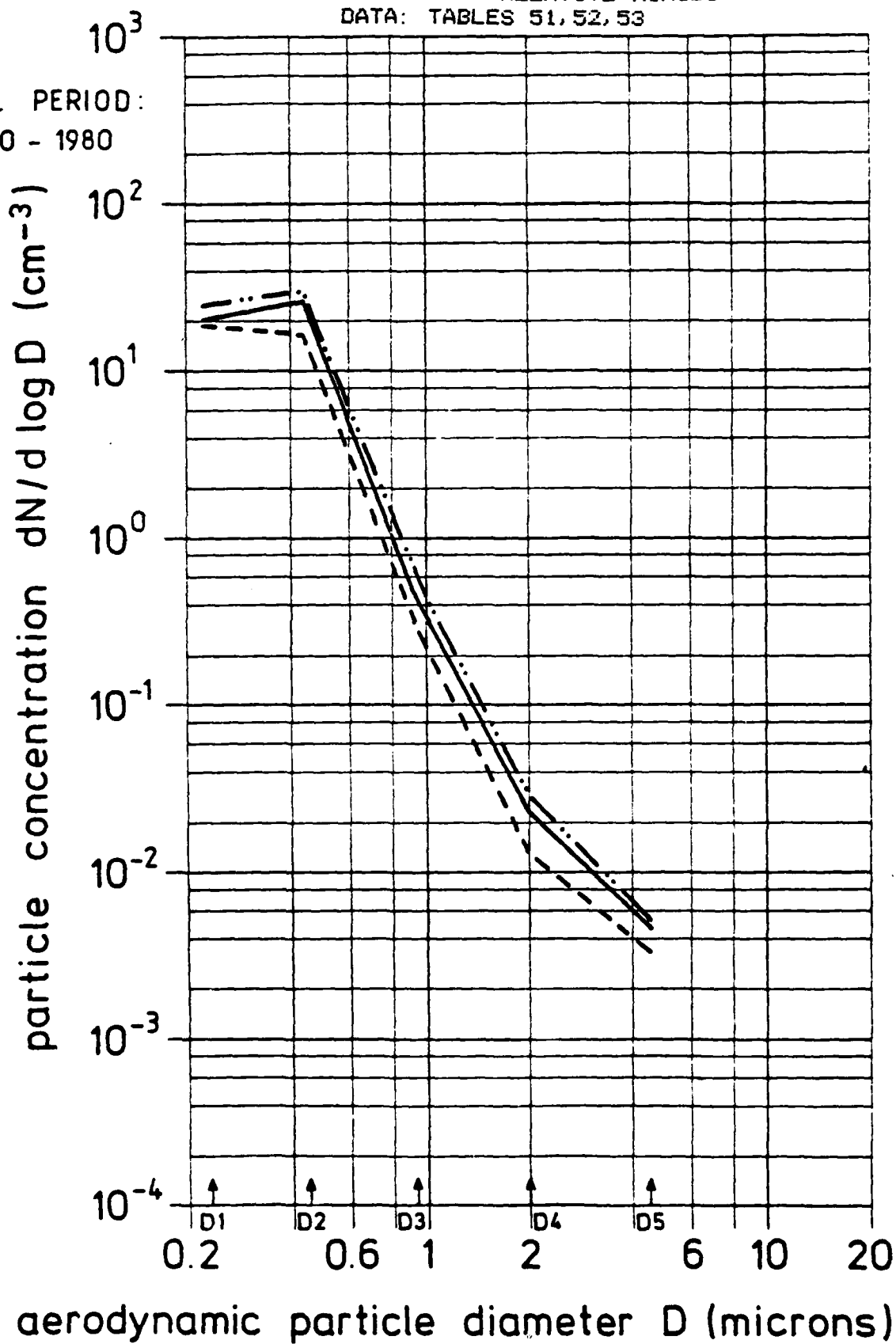
aerodynamic particle diameter D (microns)

71-80% ---  
81-90% ==  
>95% - - -

FIG. NO: 35  
WANK PEAK 1730 M \*

PARAMETER= RELATIVE HUMIDITY  
DATA: TABLES 51, 52, 53

TOTAL PERIOD:  
1970 - 1980

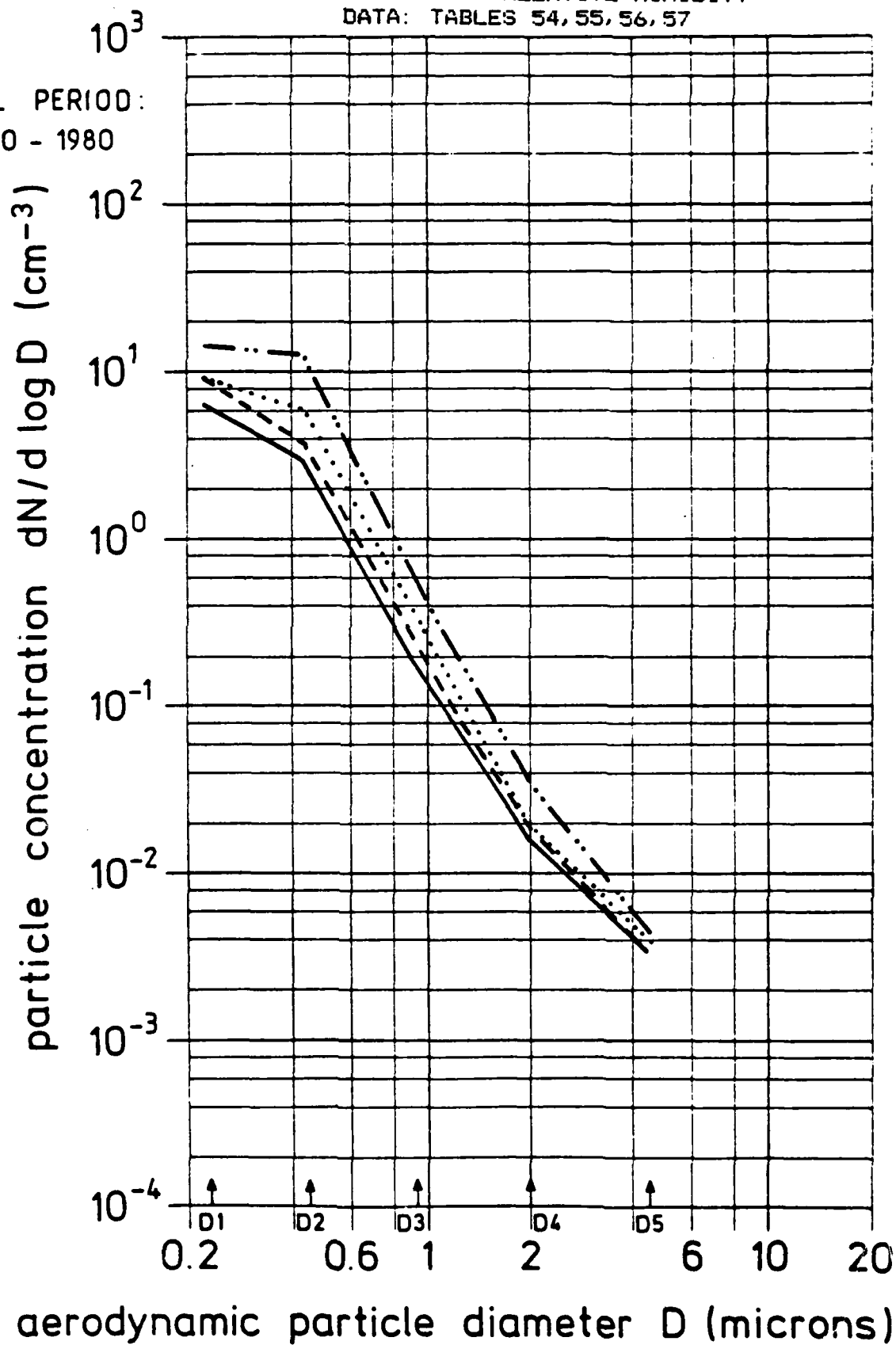


<40%  
 41-50%  
 51-60%  
 61-70%

FIG. NO: 36  
 ZUGSPITZE PEAK 3000 M

PARAMETER= RELATIVE HUMIDITY  
 DATA: TABLES 54, 55, 56, 57

TOTAL PERIOD:  
 1970 - 1980



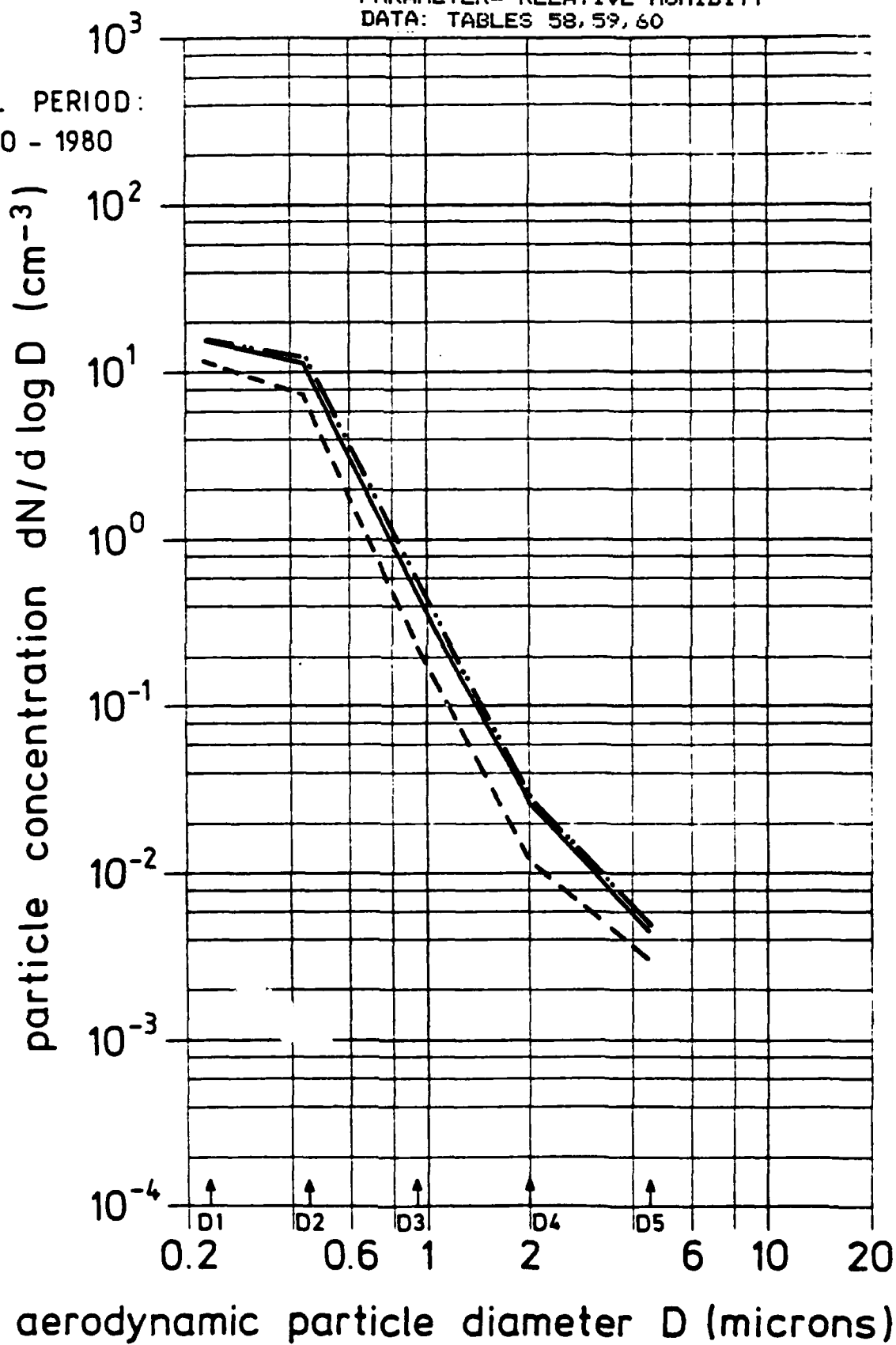
71-80%  
81-90%  
>95%



FIG. NO: 37  
ZUGSPITZE PEAK 3000 M

PARAMETER= RELATIVE HUMIDITY  
DATA: TABLES 58, 59, 60

TOTAL PERIOD:  
1970 - 1980



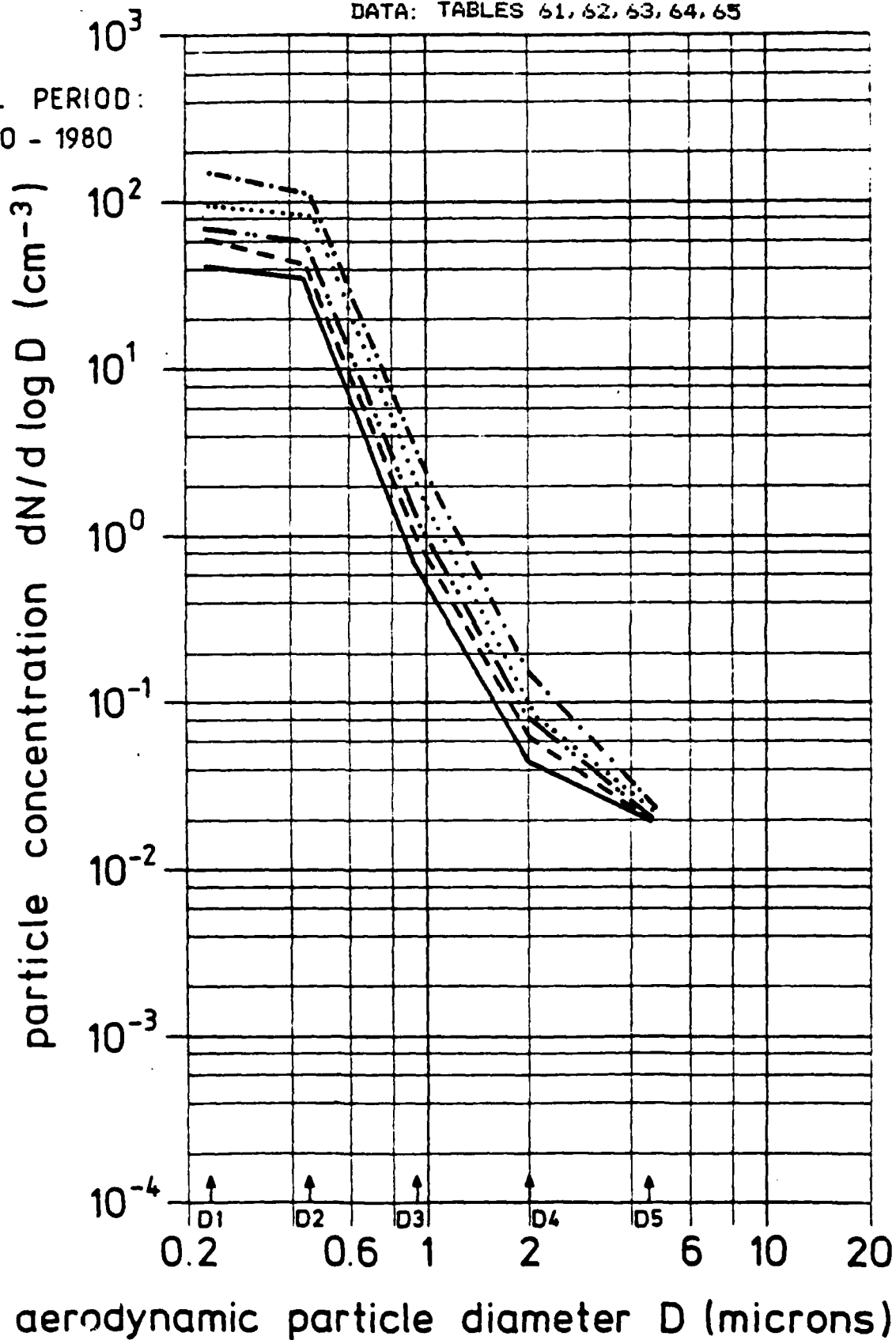
$< 5 \cdot 10^{-6} \text{ g/m}^3$   
 10-15 "  
 20-25 "  
 30-40 "  
 > 60 "

—  
 - - -  
 . . .  
 .....  
 - . - .

FIG. NO: 38  
 GARMISCH (VALLEY 740 M)

PARAMETER= AEROSOL CONCENTRATION  
 DATA: TABLES 61, 62, 63, 64, 65

TOTAL PERIOD:  
 1970 - 1980



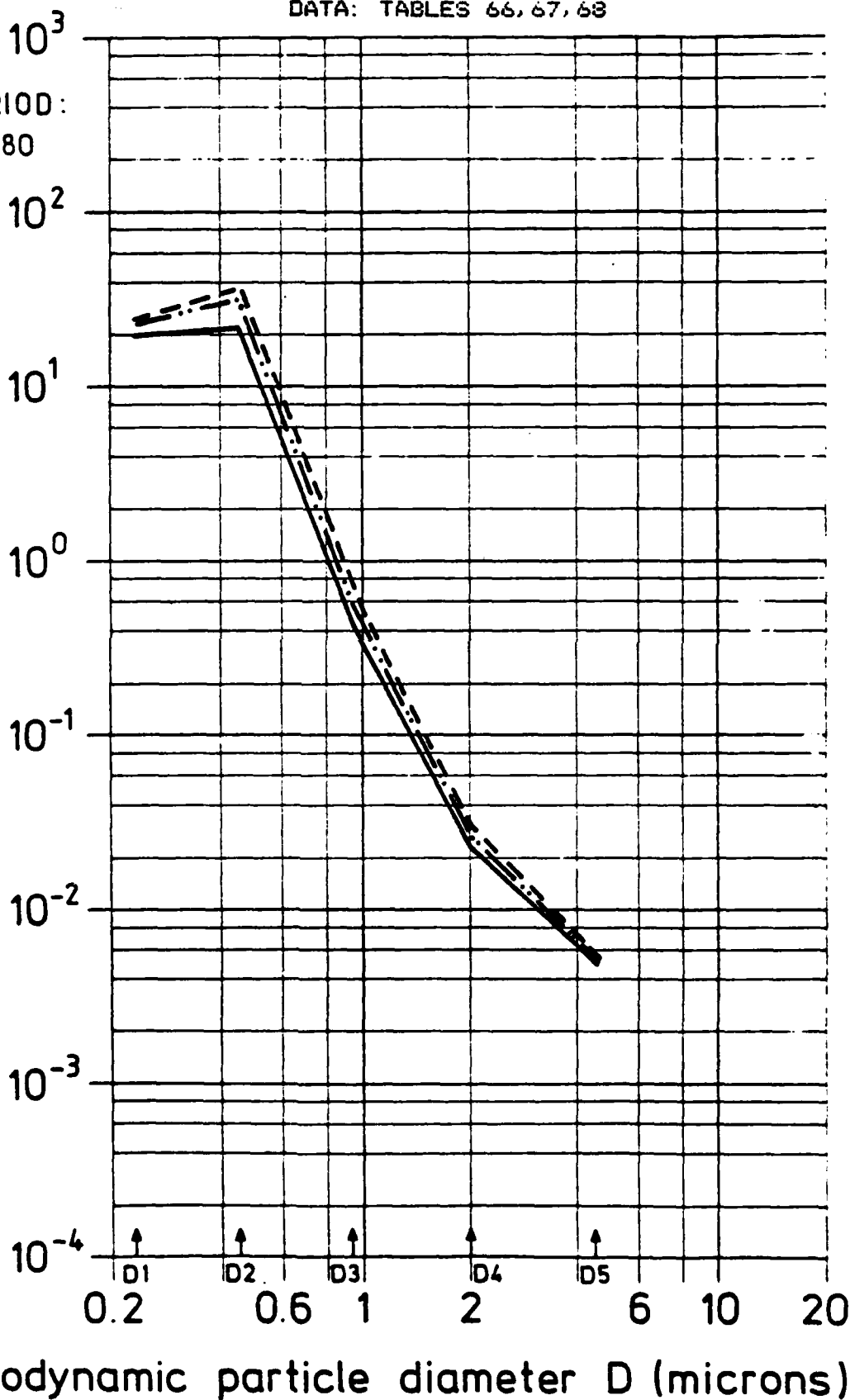
$< 5 \cdot 10^{-6} \text{ g/m}^3$   
 10-15 "  
 20-25 "

FIG. NO: 39  
 WANK PEAK 1730 M

PARAMETER= AEROSOL CONCENTRATION  
 DATA: TABLES 66, 67, 68

TOTAL PERIOD:  
 1970 - 1980

particle concentration  $dN/d \log D \text{ (cm}^{-3}\text{)}$



G— W--- Z---  
740m 1780m 2964m

FIG. NO: 40

PARAMETER= VERY LOW AEROSOL CONCENTRATION ON  
DATA: TABLES 61, 66, 71

WANK <  $5 \cdot 10^{-6} \text{ g/m}^3$

TOTAL PERIOD:  
1970 - 1980

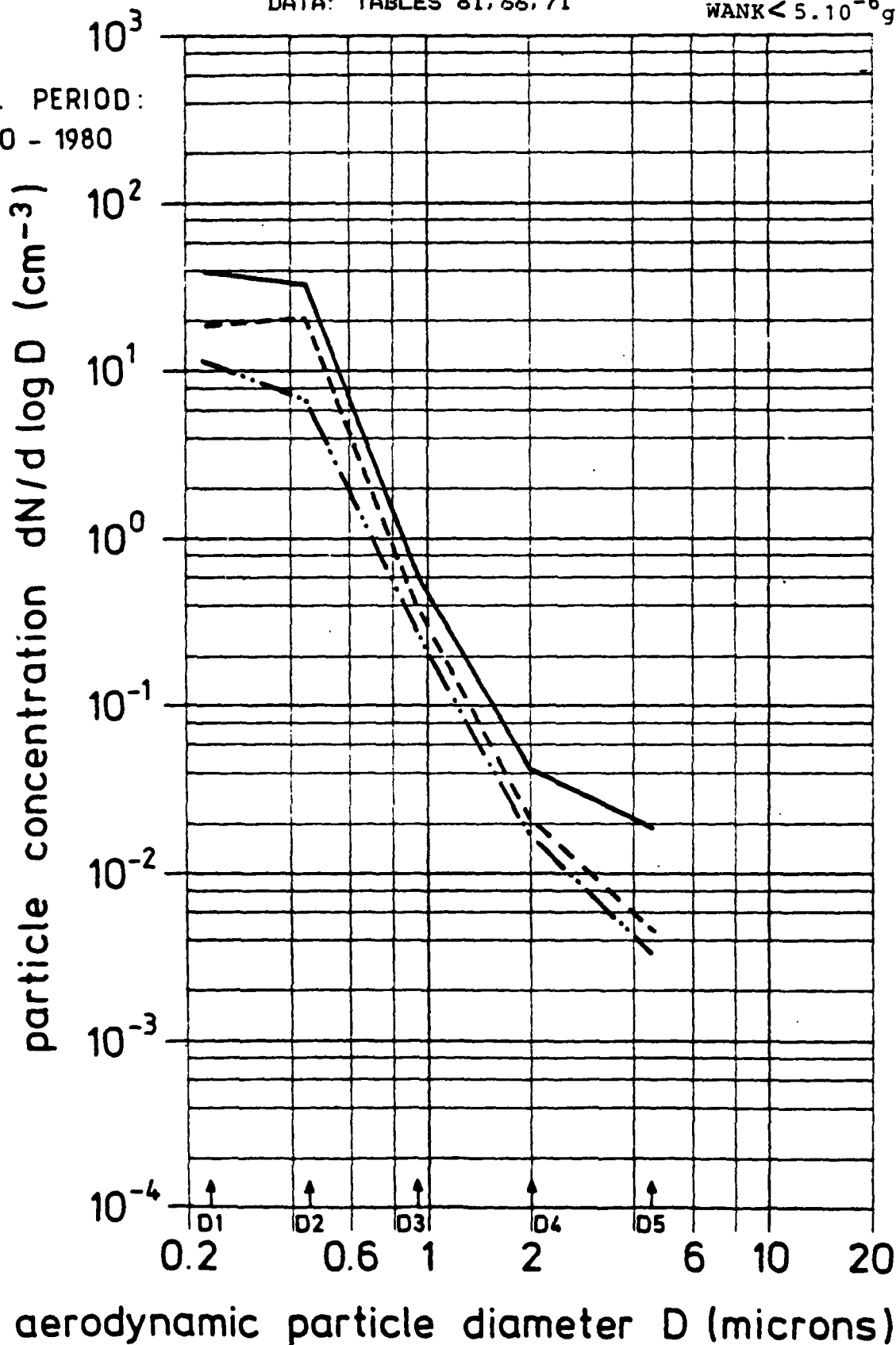


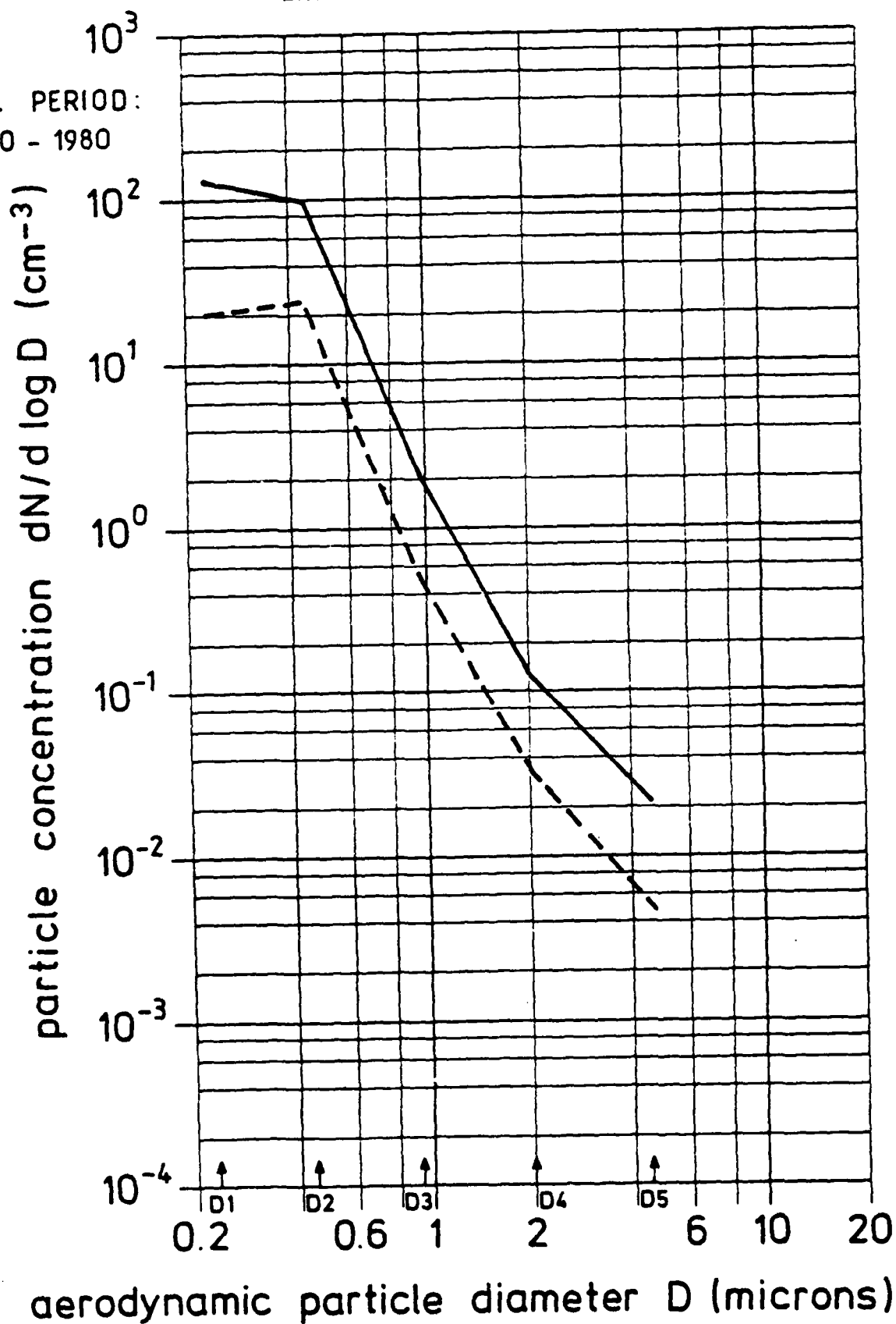
FIG. NO: 41

$>60 \cdot 10^{-6} \text{ g/m}^3$   
 $>50 \cdot \text{ "}$

G — W ---  
740m 1780m

PARAMETER= VERY HIGH AEROSOL CONCENTRATION  
DATA: TABLES 65, 70

TOTAL PERIOD:  
1970 - 1980



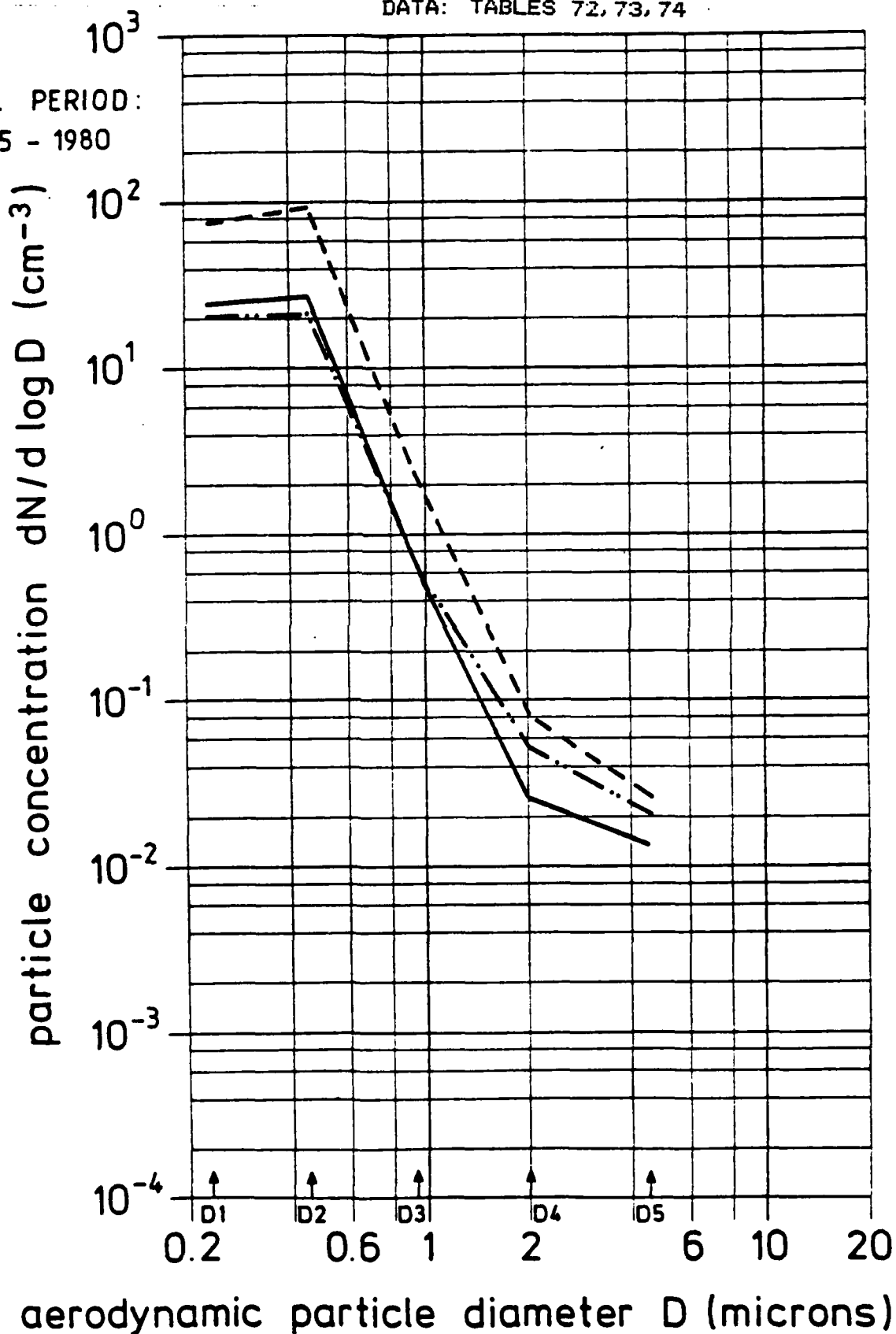
< 1 km (*fog*)  
 5-10 km  
 > 40 km



FIG. NO: 42  
 GARMISCH (VALLEY 740 M)

PARAMETER= VISIBILITY RANGE  
 DATA: TABLES 72, 73, 74

TOTAL PERIOD:  
 1975 - 1980



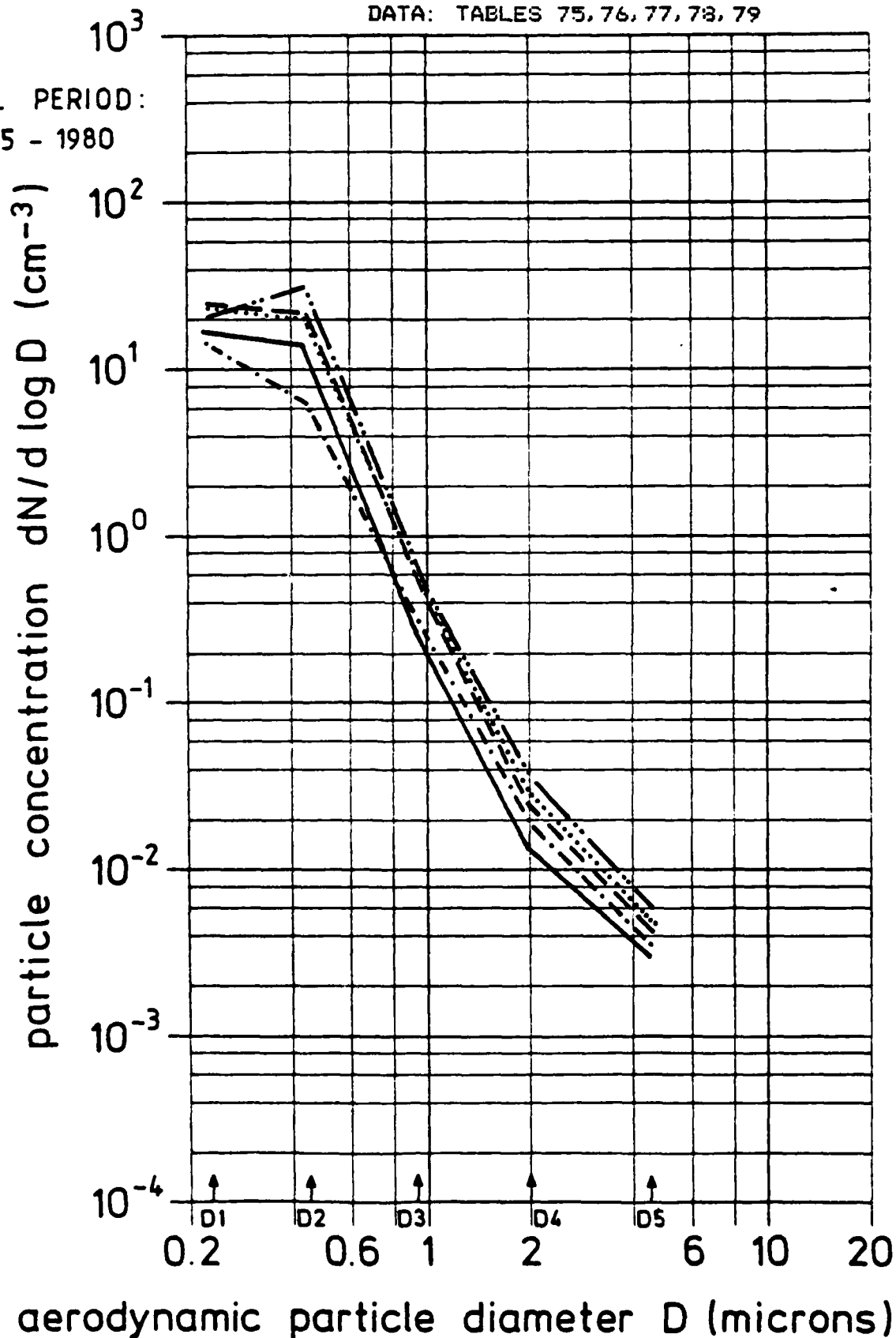
<1 km (fog)  
 2-7 km  
 10-20 km  
 40-50 km  
 > 95 km

—  
 - - -  
 .....  
 - · -  
 · · ·

FIG. NO: 43  
 WANK PEAK 1780 M

PARAMETER= VISIBILITY RANGE  
 DATA: TABLES 75, 76, 77, 78, 79

TOTAL PERIOD:  
 1975 - 1980

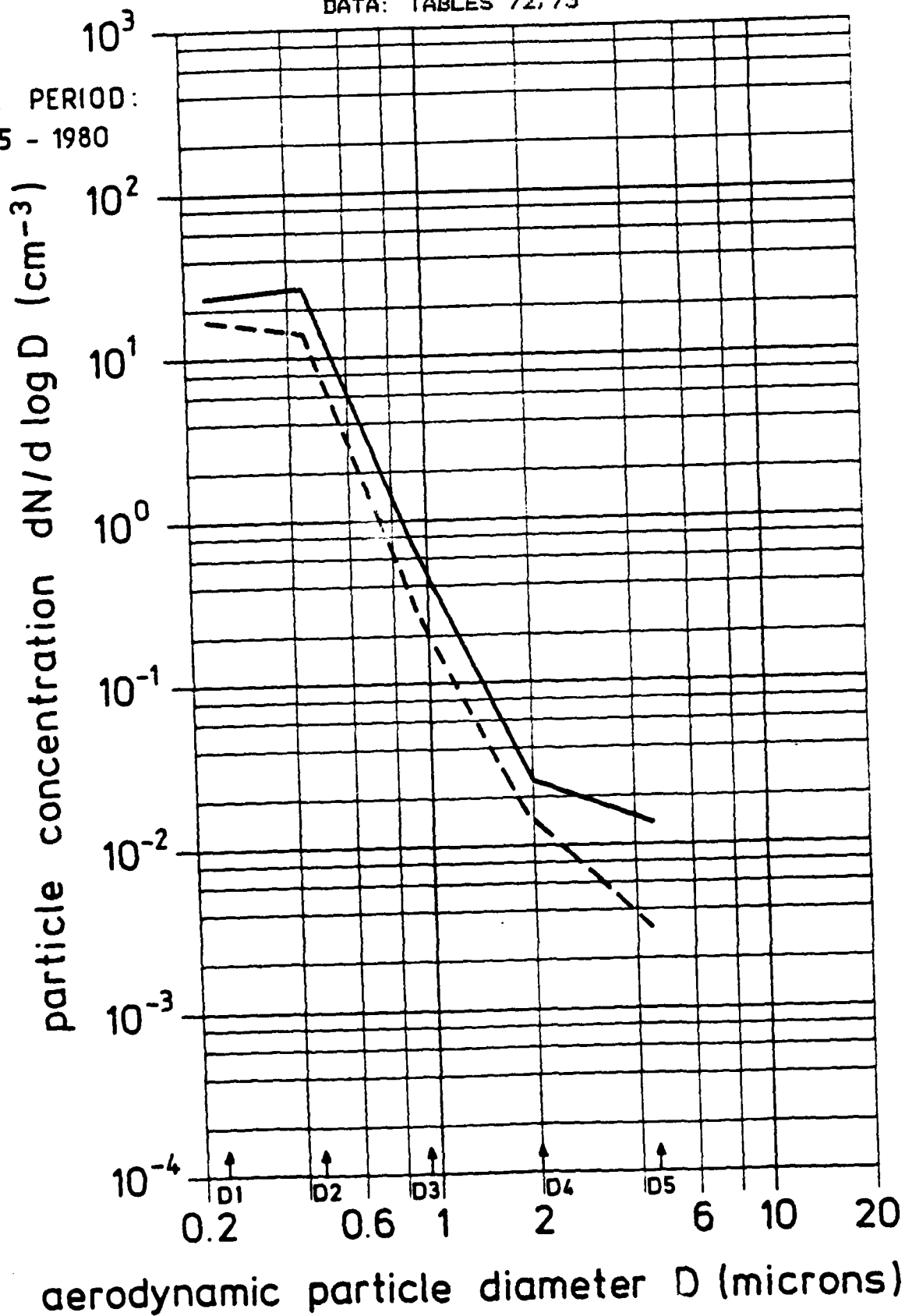


G — 740m  
W --- 1780m

FIG. NO: 44

PARAMETER= VISIBILITY RANGE 1 KM  
DATA: TABLES 72, 75

TOTAL PERIOD:  
1975 - 1980



G — W --- 5-10 km —  
 740m 1780m 10-20 km ---

FIG. NO: 45

PARAMETER= VISIBILITY RANGE  
 DATA: TABLES 73, 77

TOTAL PERIOD:  
 1975 - 1980

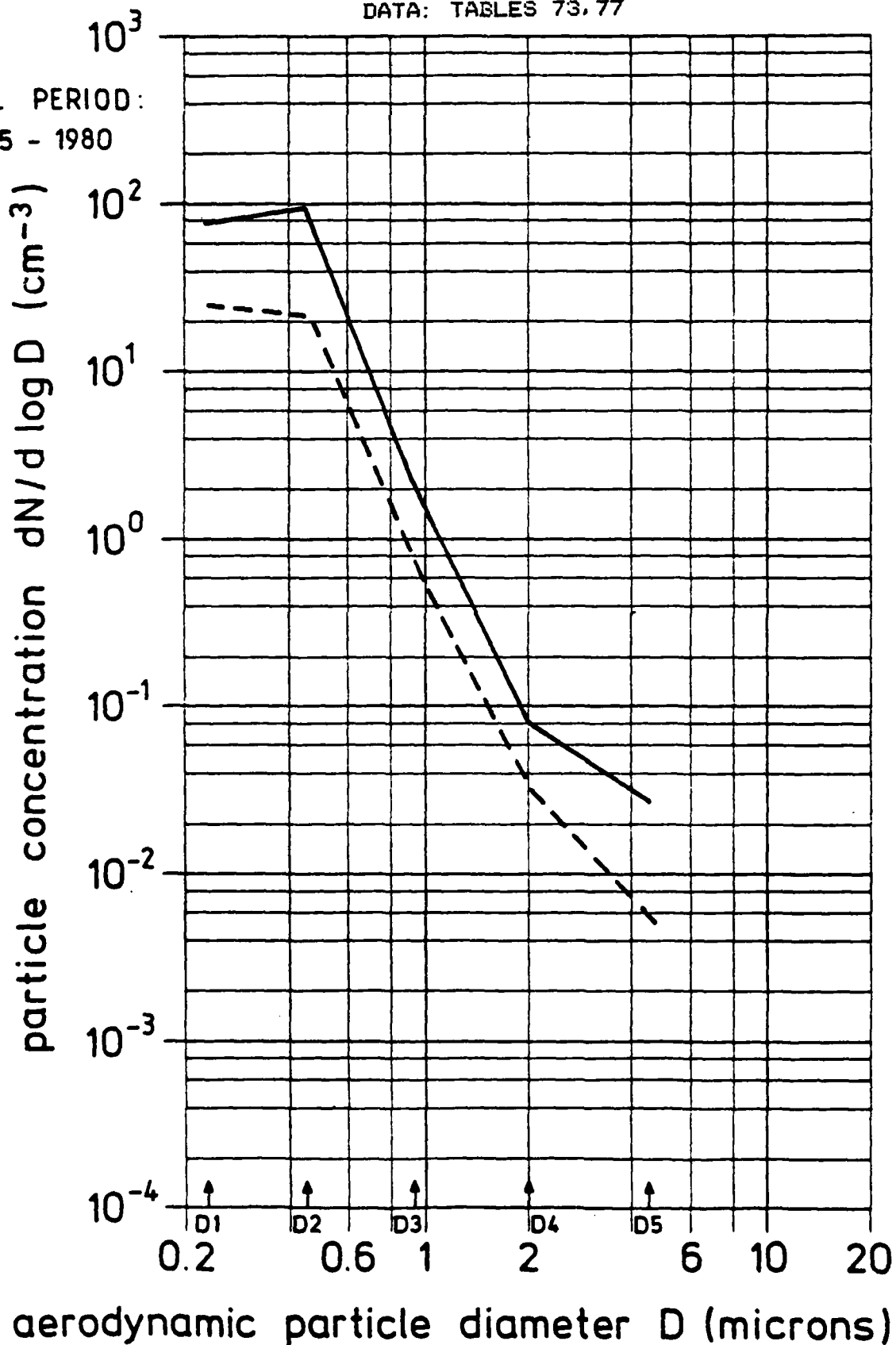


FIG. NO: 46

G — W --- Z ----  
 740m 1780m 2964m

PARAMETER= VISIBILITY RANGE: VERY HIGH  
 DATA: TABLES 74, 79, 80  
 (VALLEY >40 KM, WANK >95 KM)

TOTAL PERIOD:  
 1975 - 1980

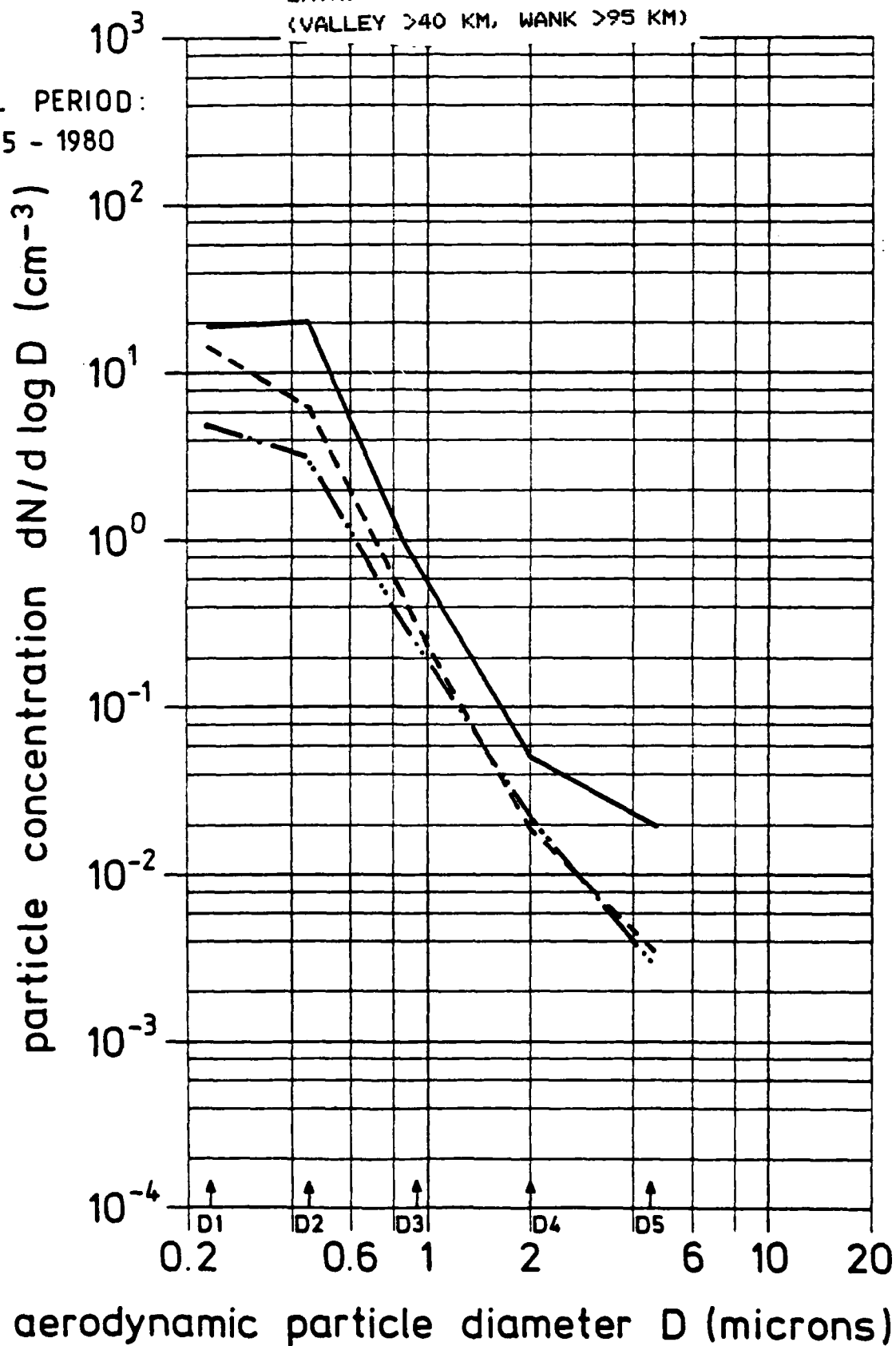


FIG. NO: 47

G — 740m    W --- 1780m    Z --- 2964m

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY  
AND WANK <5 G/CM. SEC (VERY LOW)

DATA: TABLES 81, 88, 95

TOTAL PERIOD:  
1970 - 1980

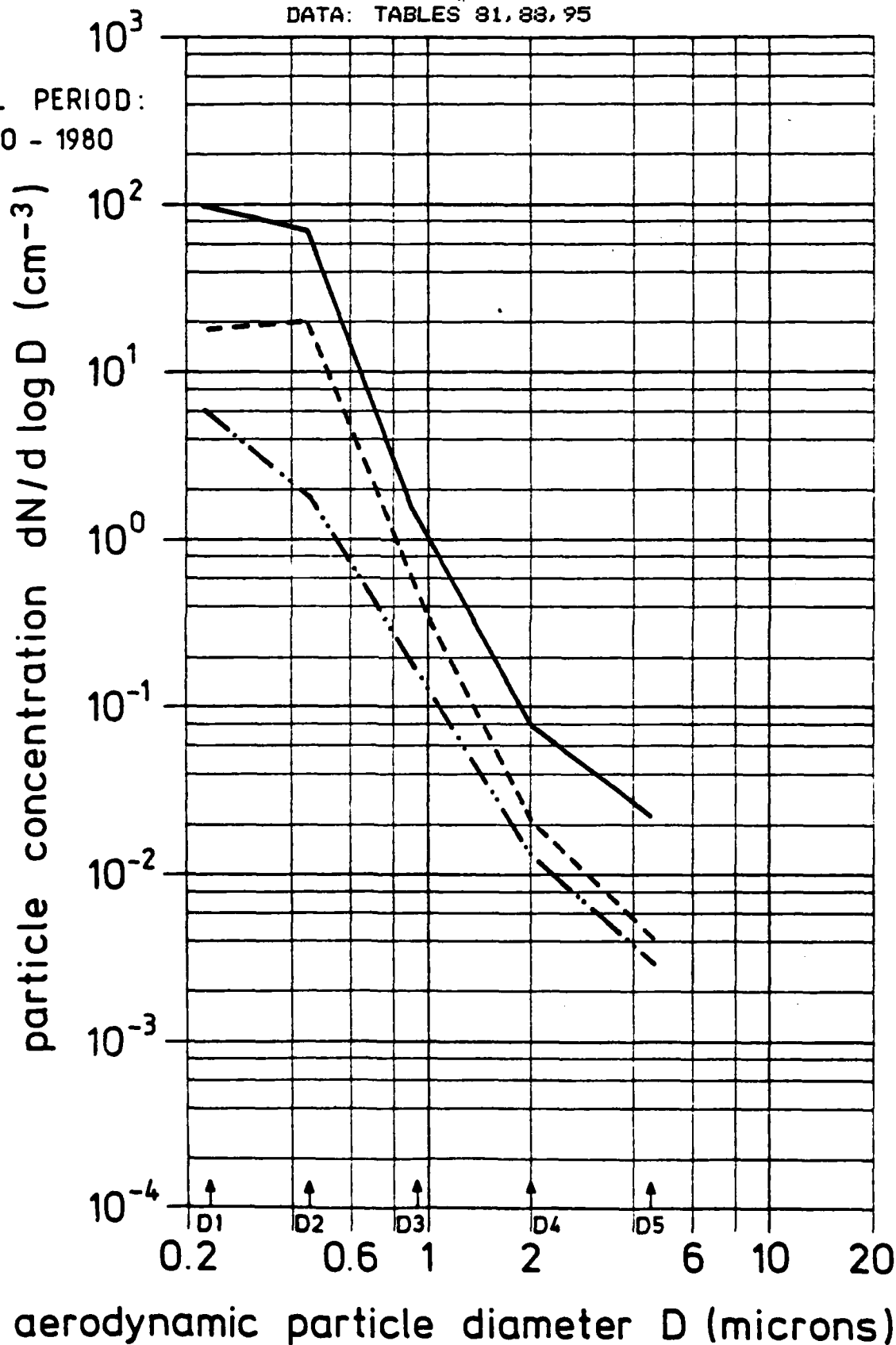


FIG. NO: 48

G — 740m  
W --- 1780m

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND  
WANK >1000 G/CM. SEC

DATA: TABLES 37, 94

TOTAL PERIOD:  
1970 - 1980

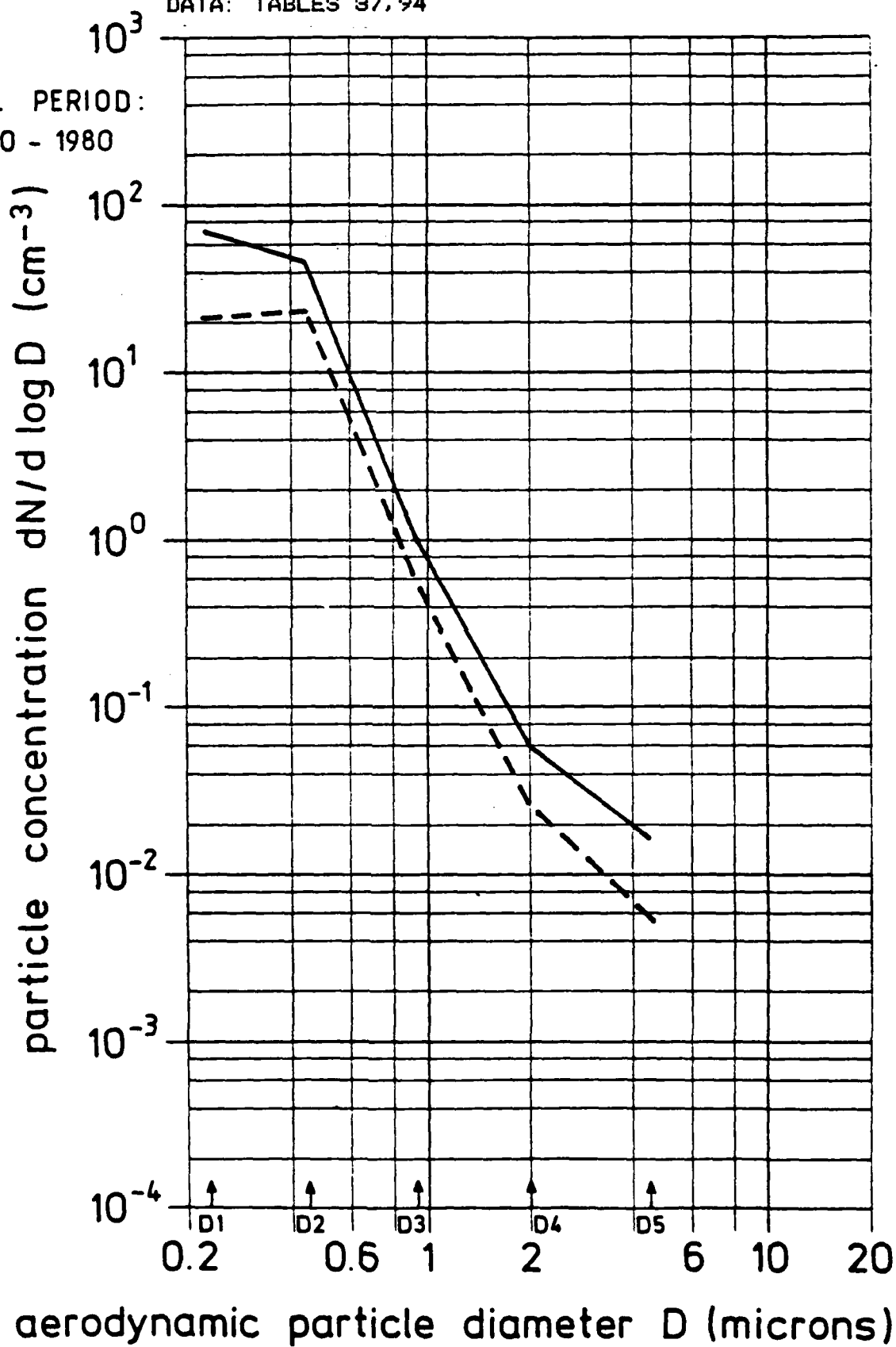


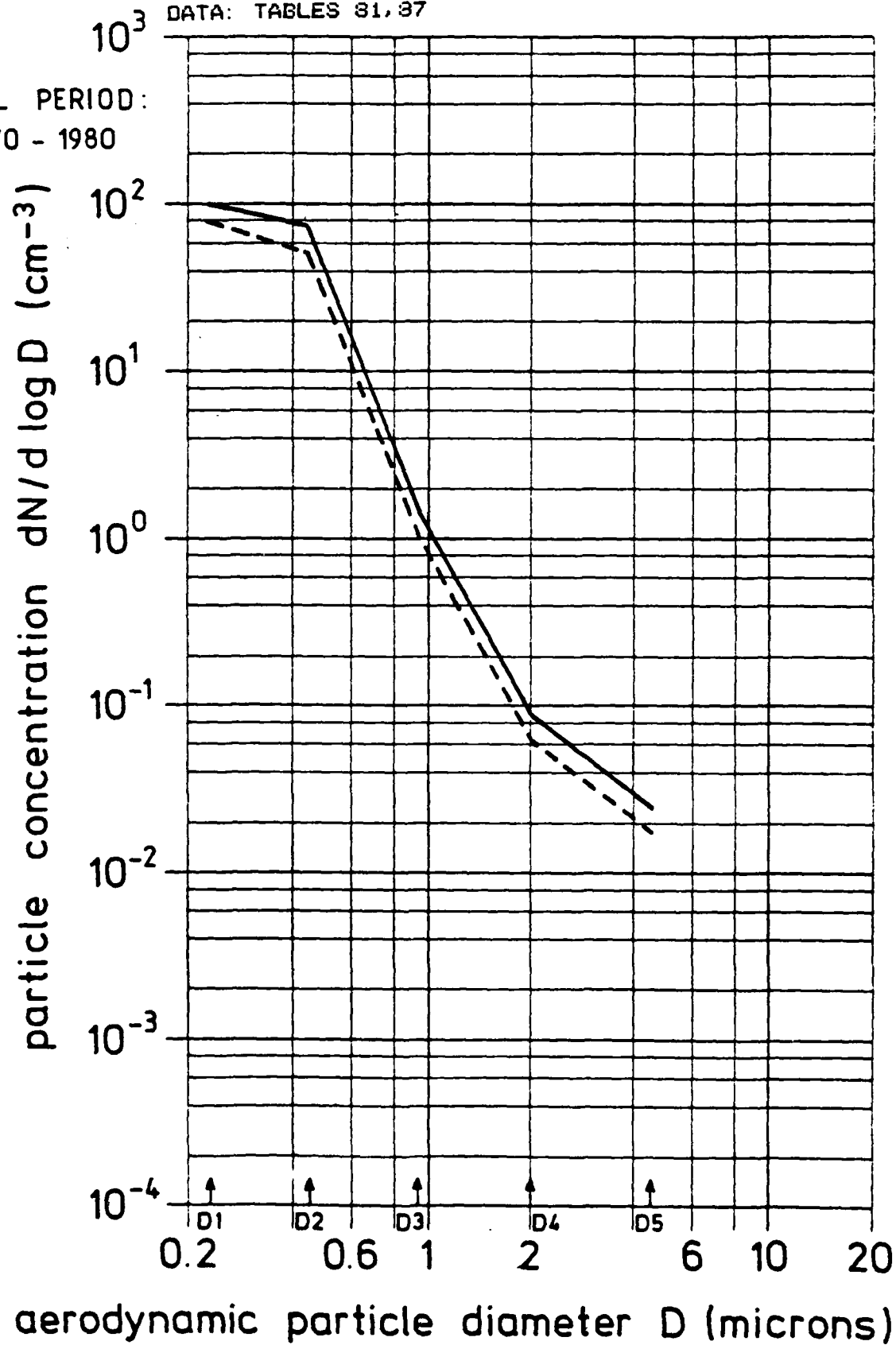
FIG. NO: 49

< 5 g/cm.sec — GARMISCH (VALLEY 740 M)

>1000 g/cm.sec - - -

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK  
DATA: TABLES 81, 87

TOTAL PERIOD:  
1970 - 1980



6-10 g/cm.sec ---  
11-25 " ---  
26-50 " ---

FIG. NO: 50  
WANK PEAK 1780 M

PARAMETER= EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK  
DATA: TABLES 89, 90, 91

TOTAL PERIOD:  
1970 - 1980

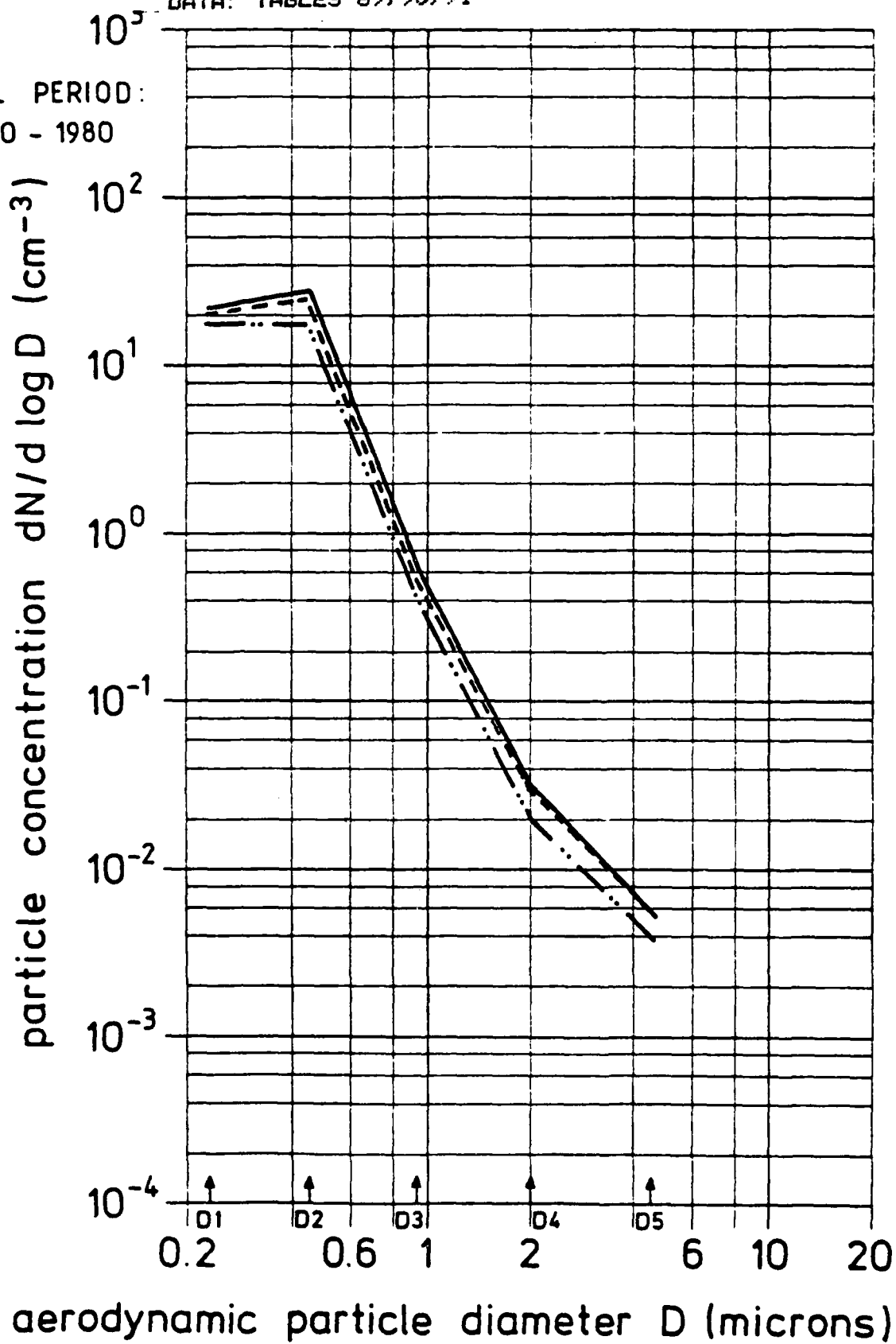


FIG. NO: 51

G — W --- Z ---  
 740m 1780m 2964m

PARAMETER= BERYLLIUM 7 ON ZUGSPITZE >18 PC/CU M  
 (VERY HIGH)

DATA: TABLES 96, 97, 98

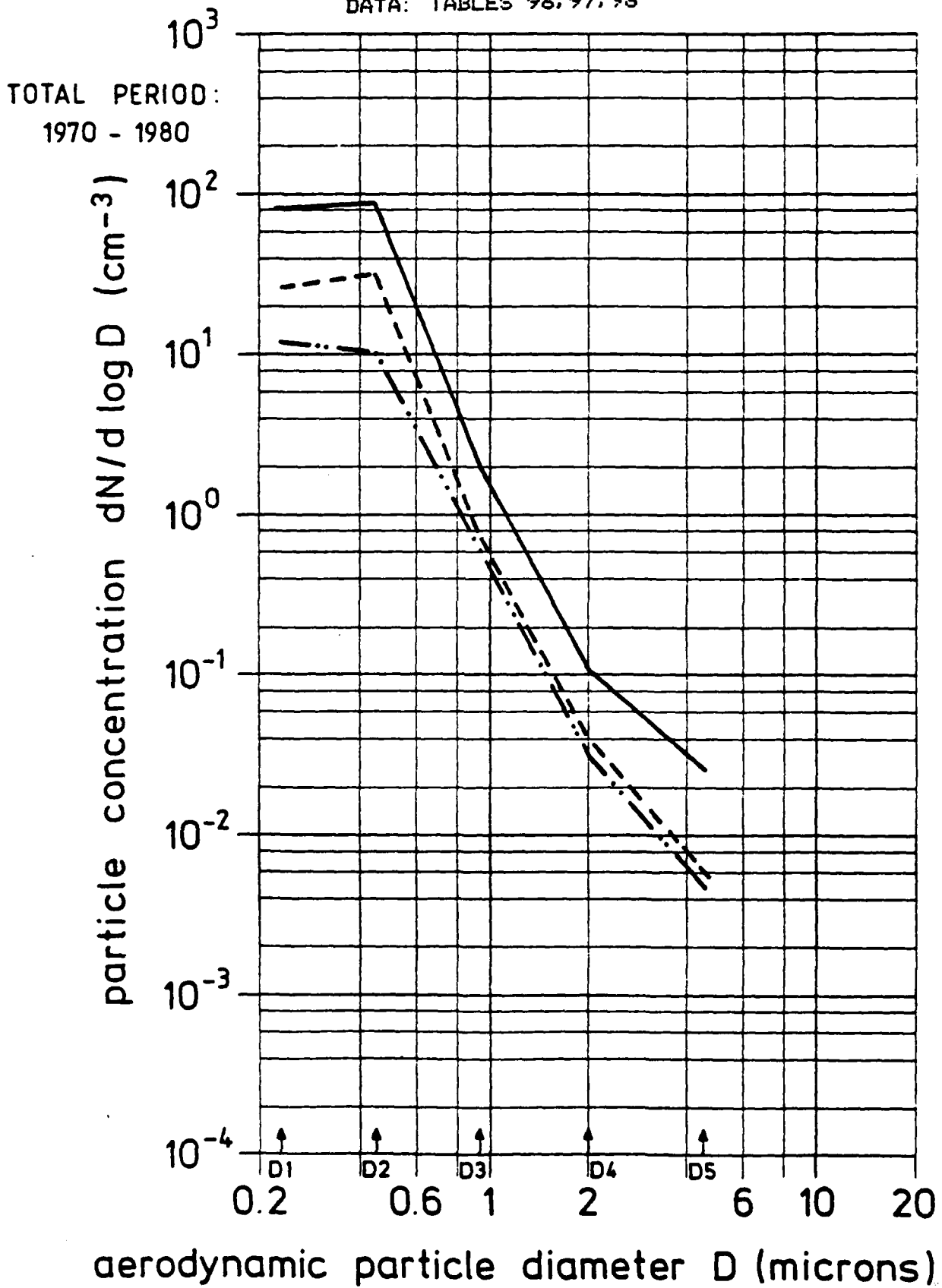


FIG. 1

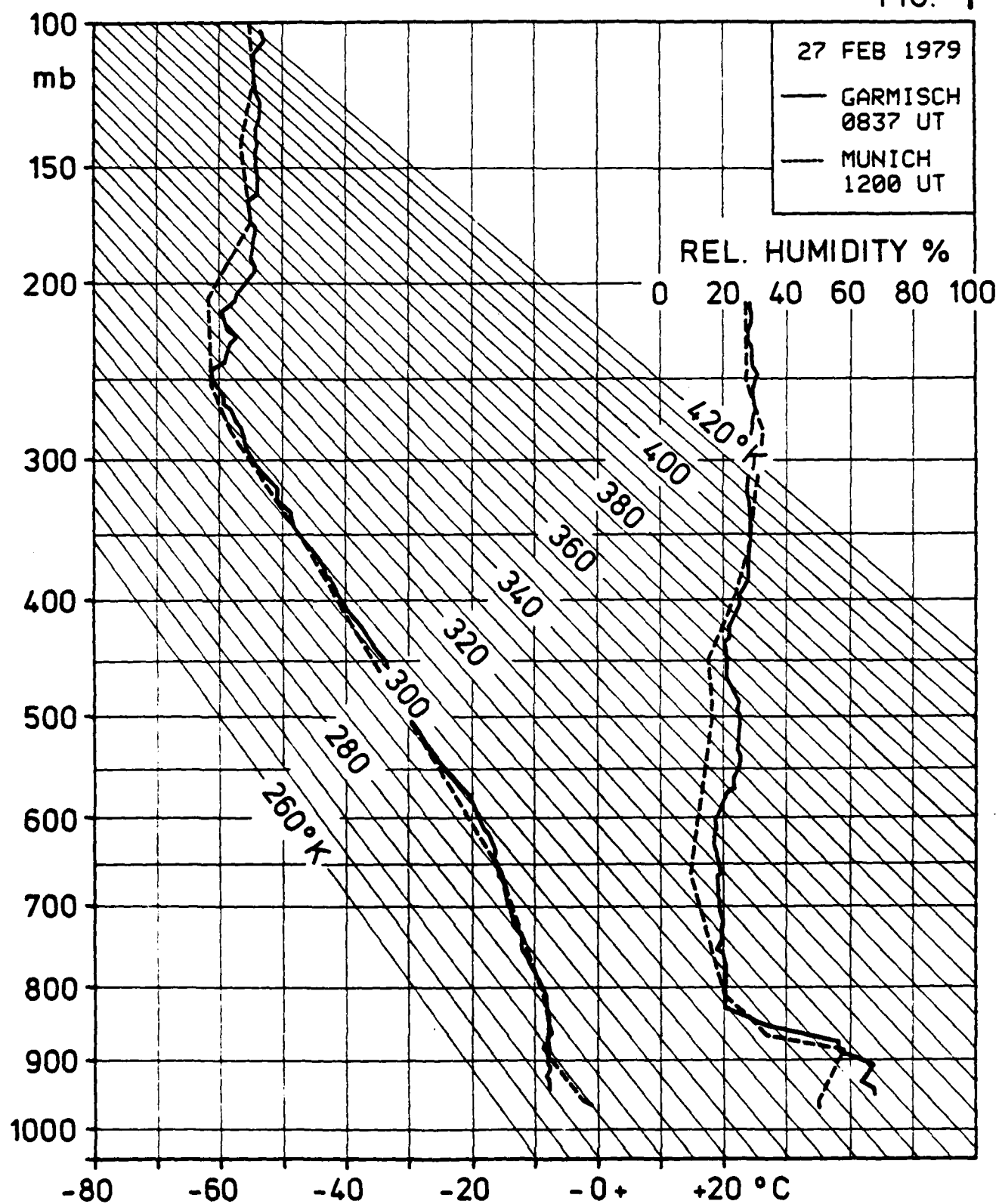


FIG. 2

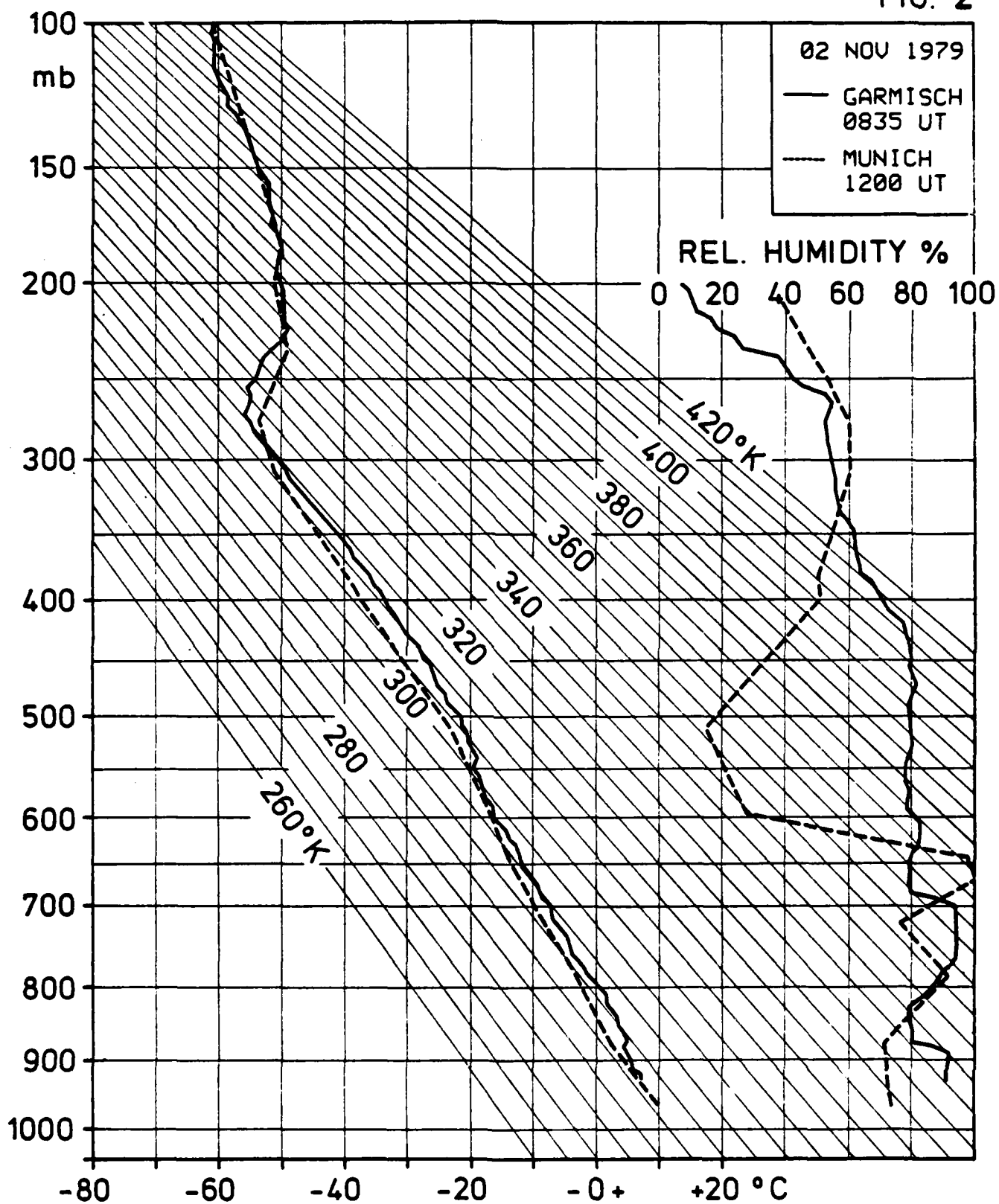


FIG. 3

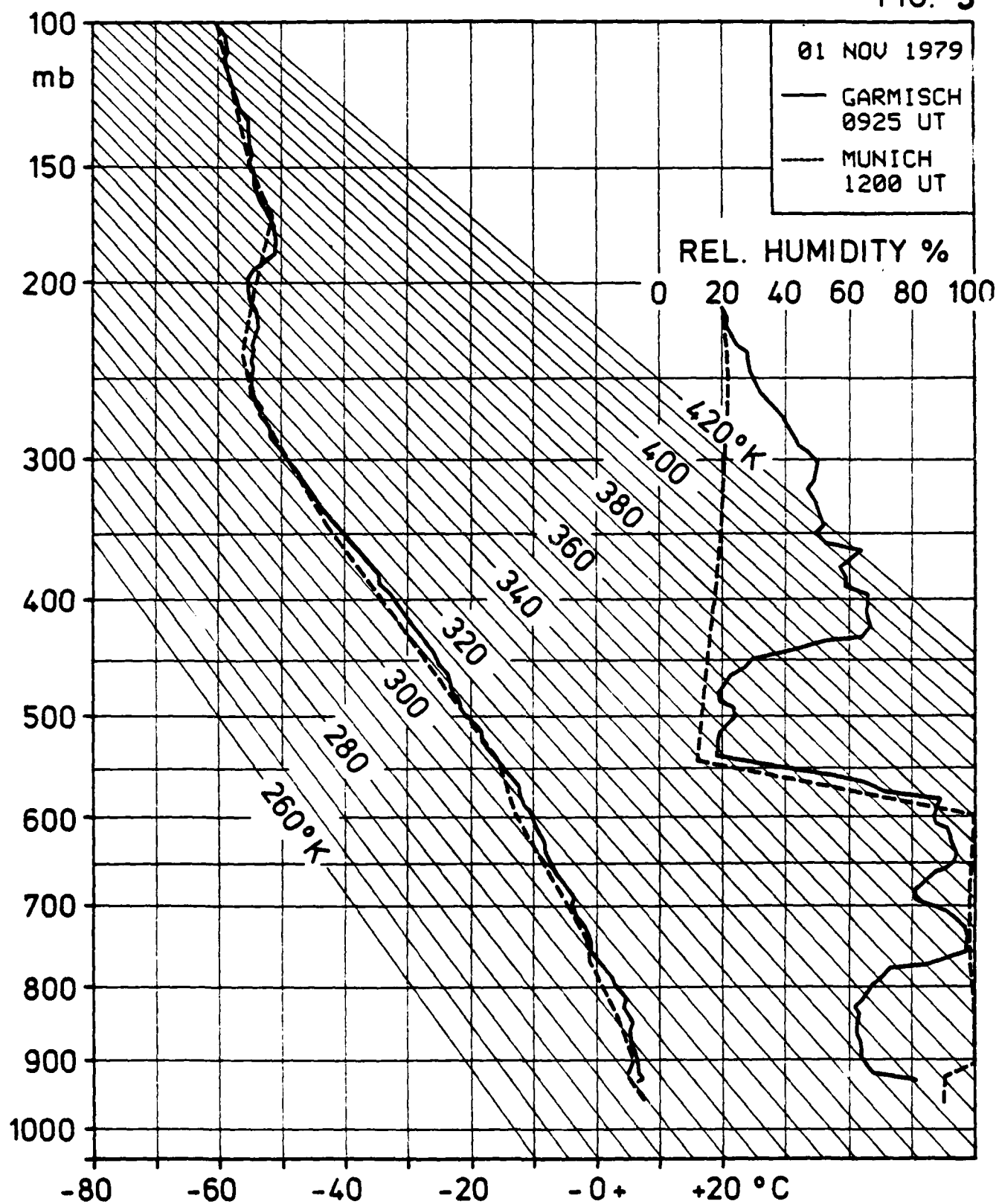


FIG. 4

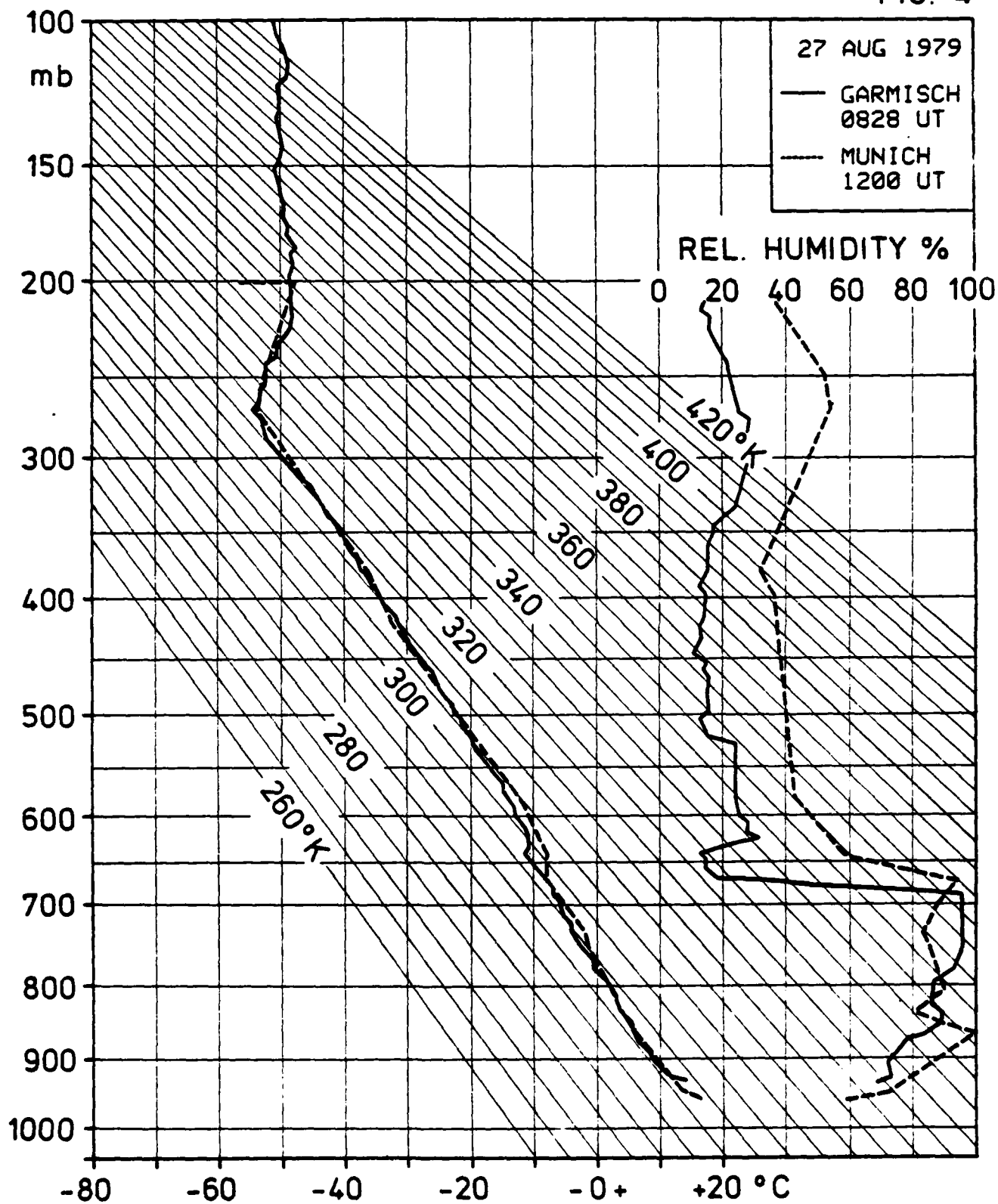


FIG. 5

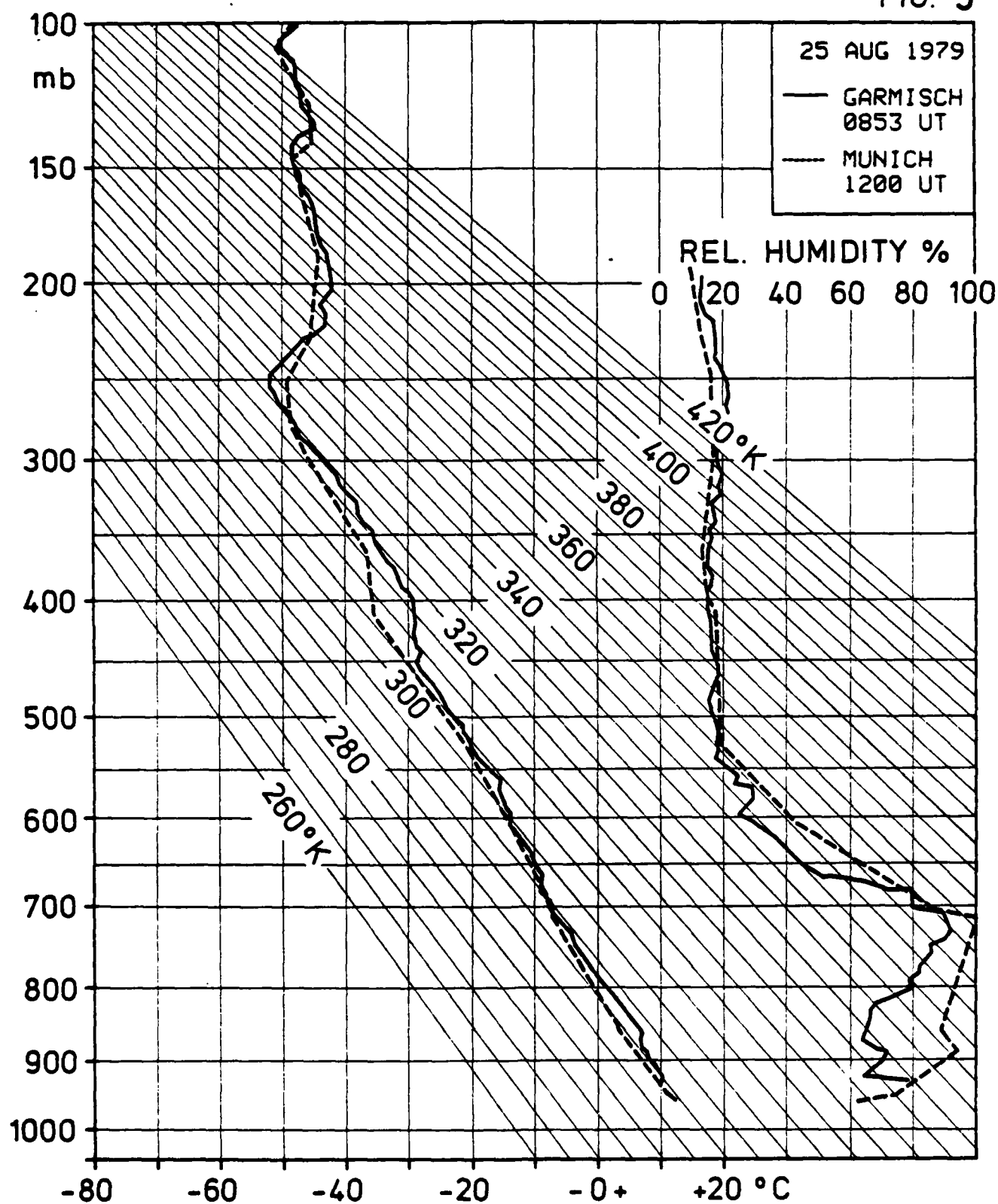


FIG. 6

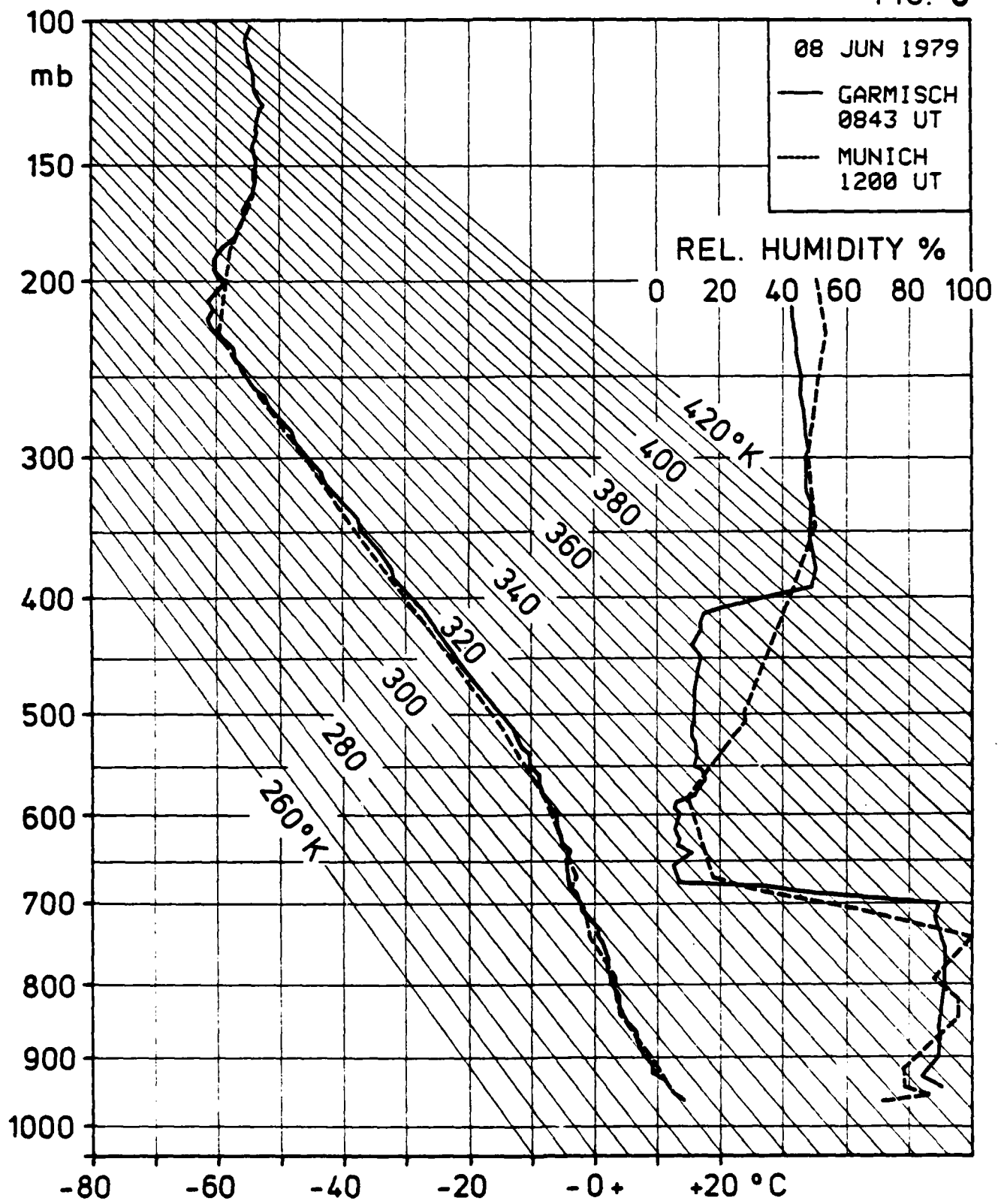


FIG. 7

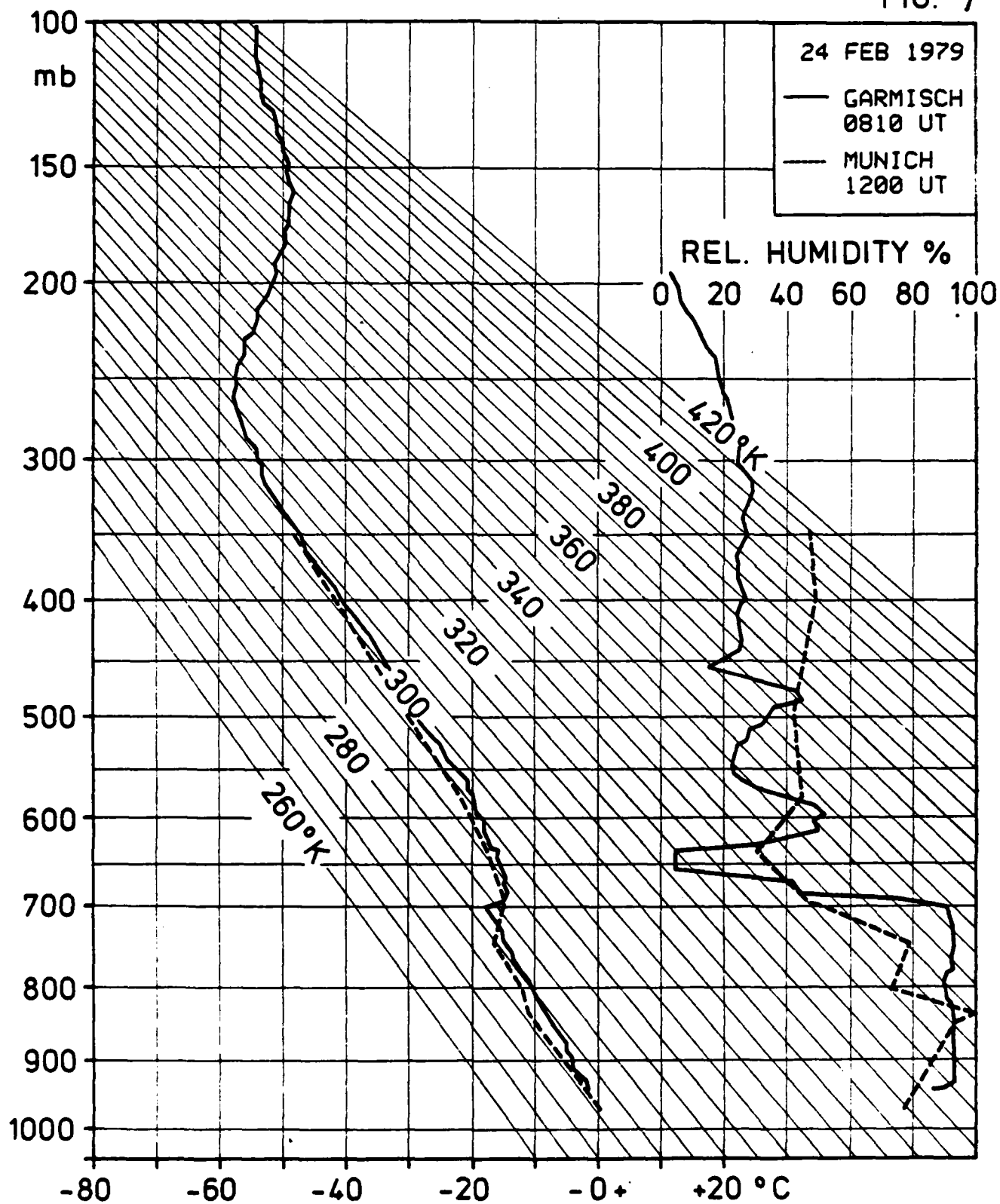


FIG. 8

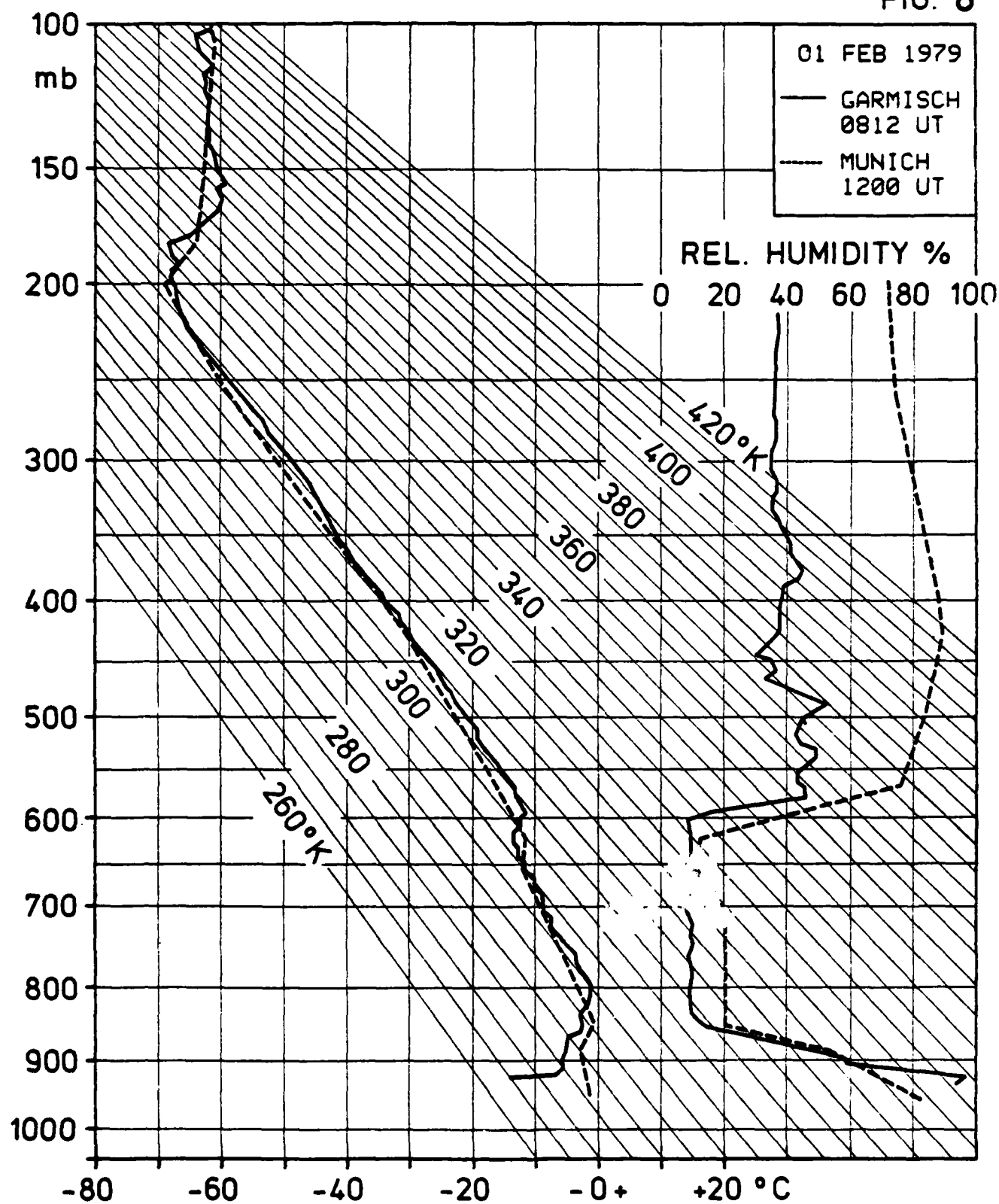


FIG. 9

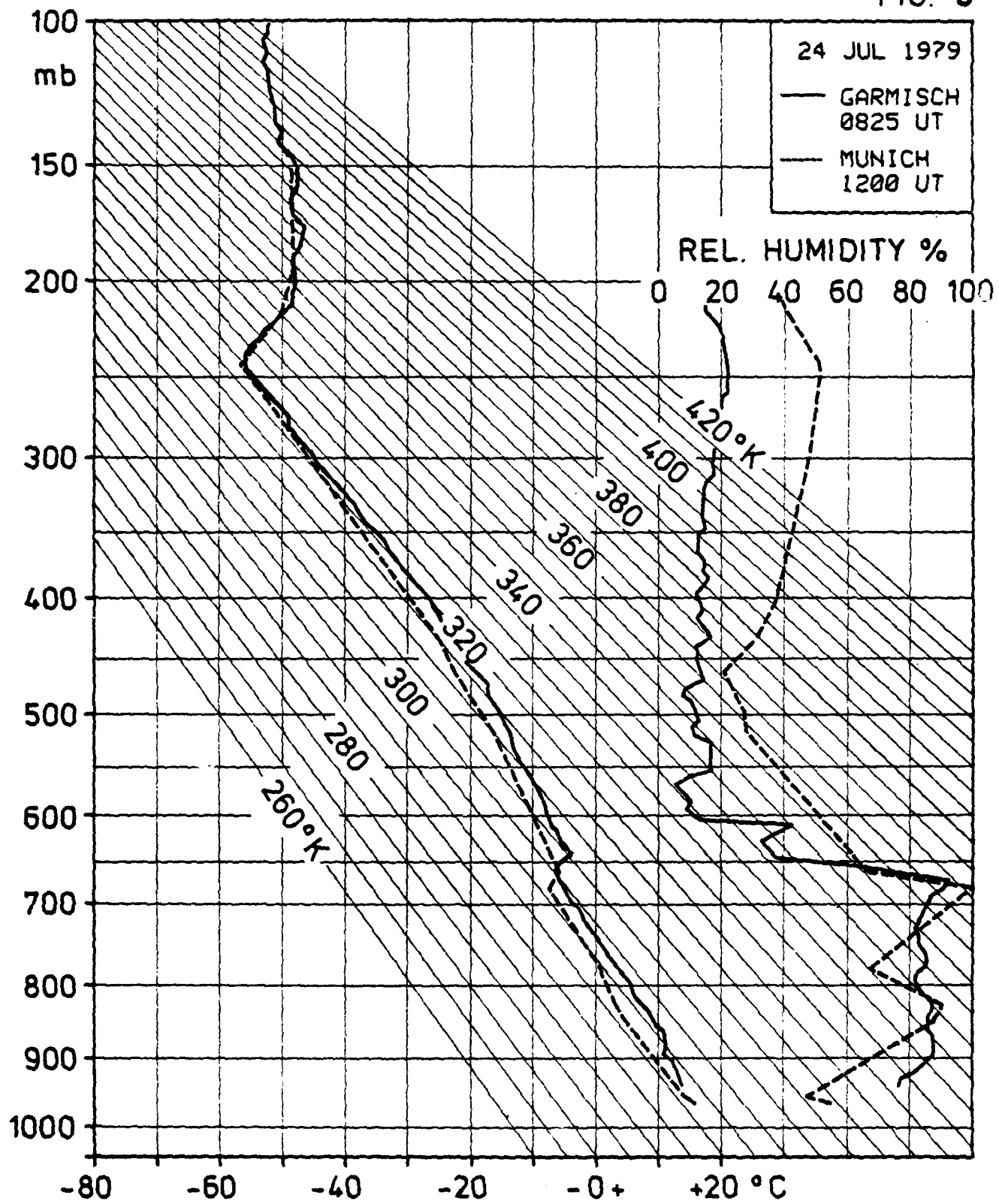


FIG. 10

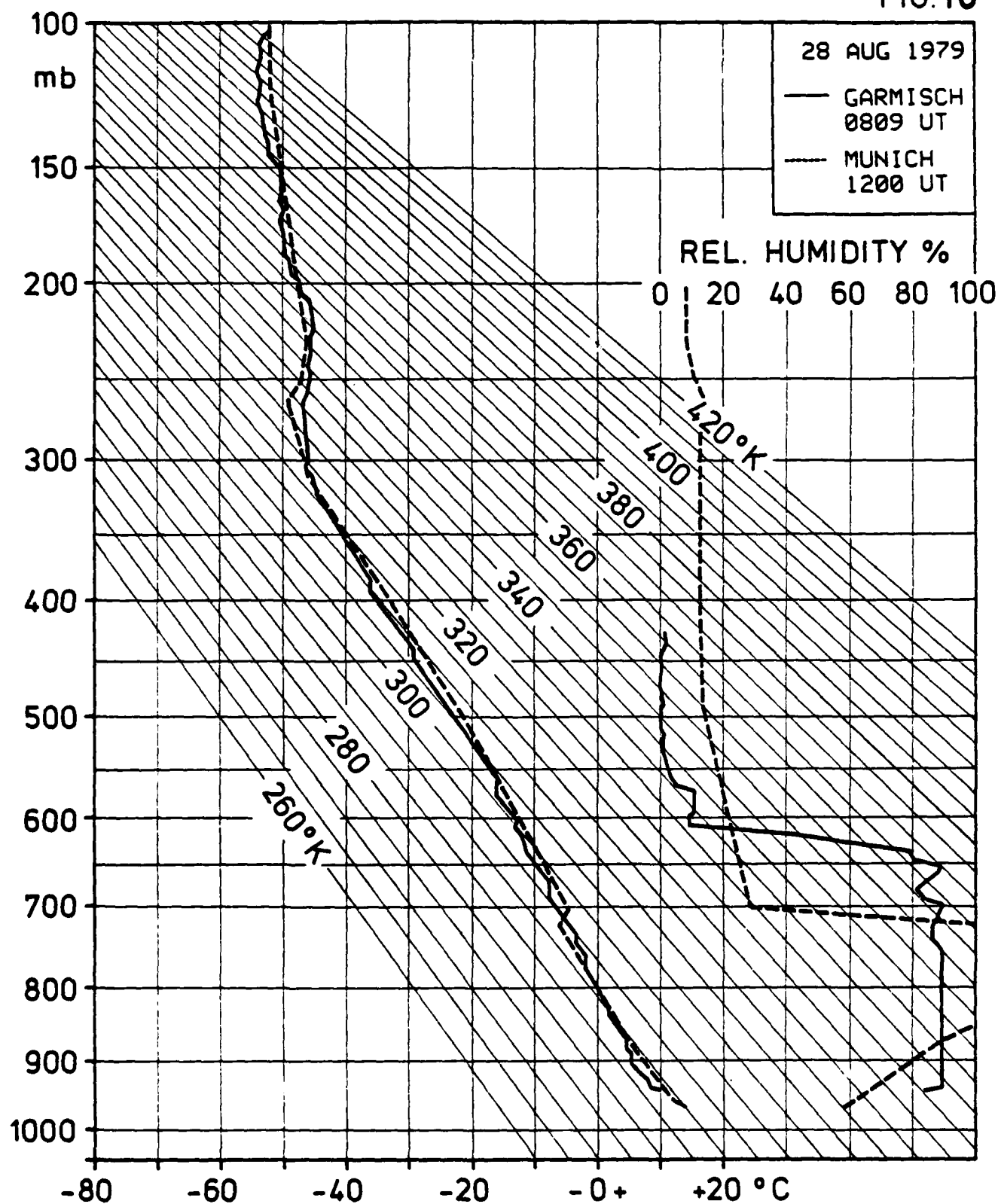


FIG. 11

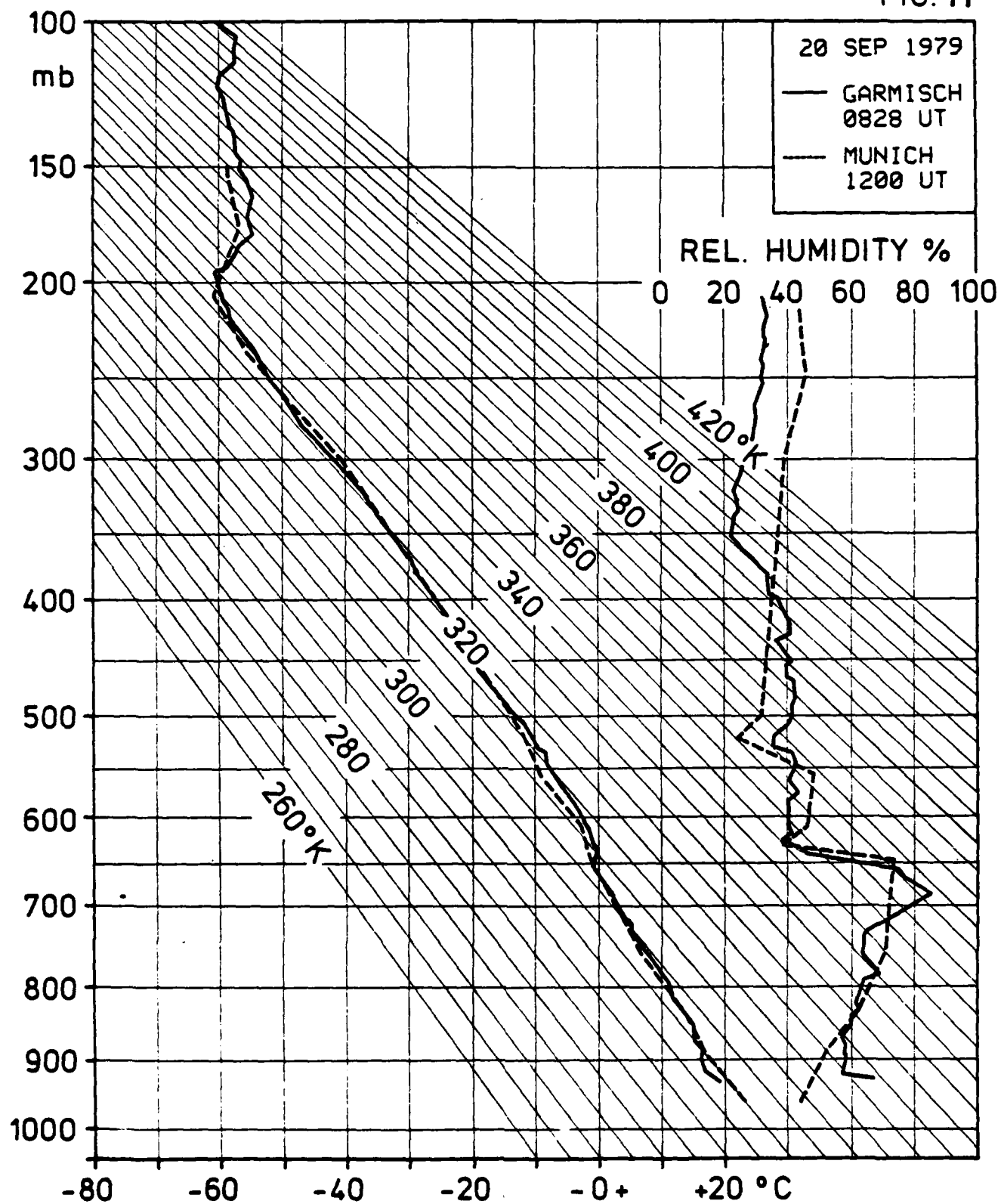


FIG. 12

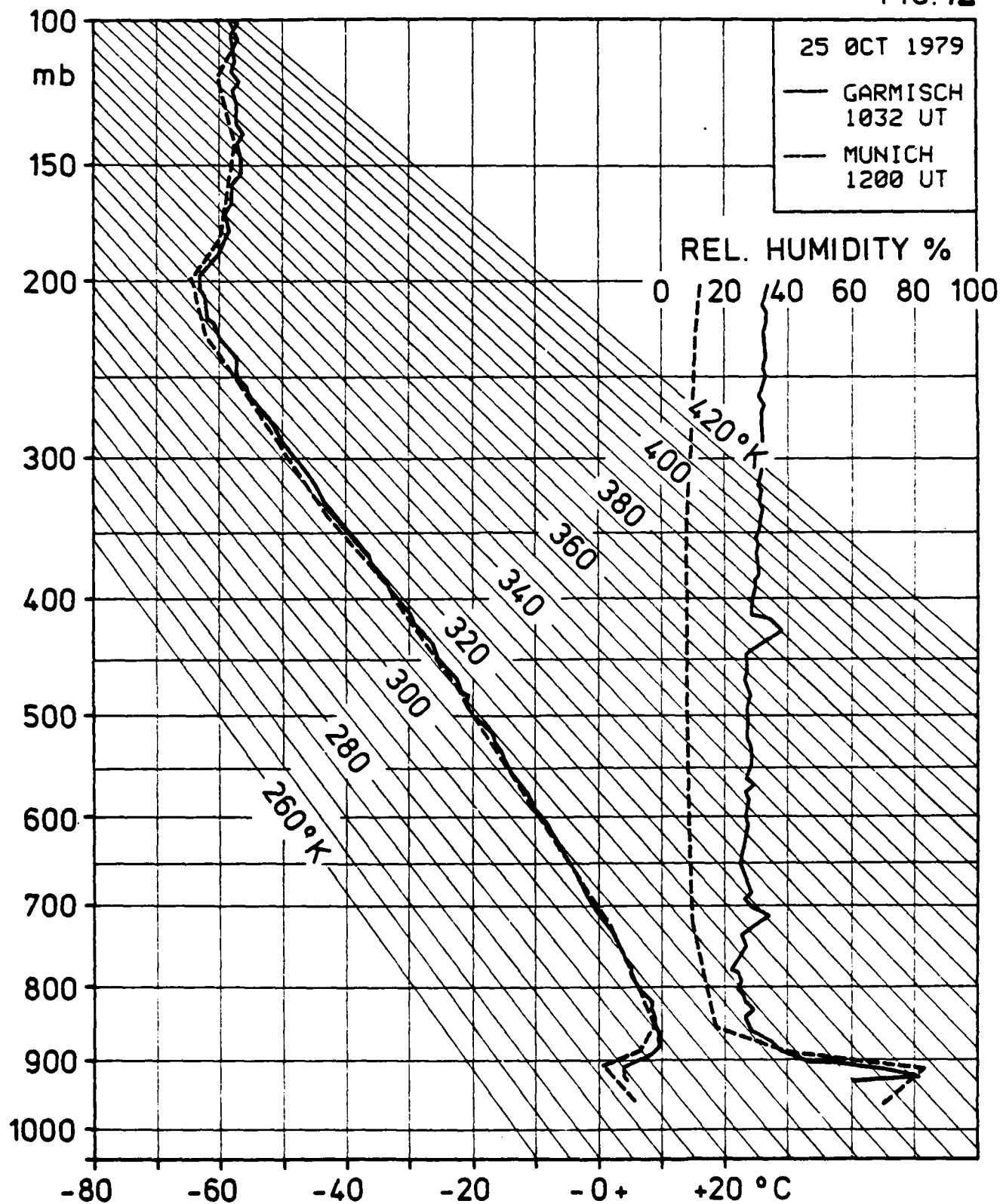


FIG.13

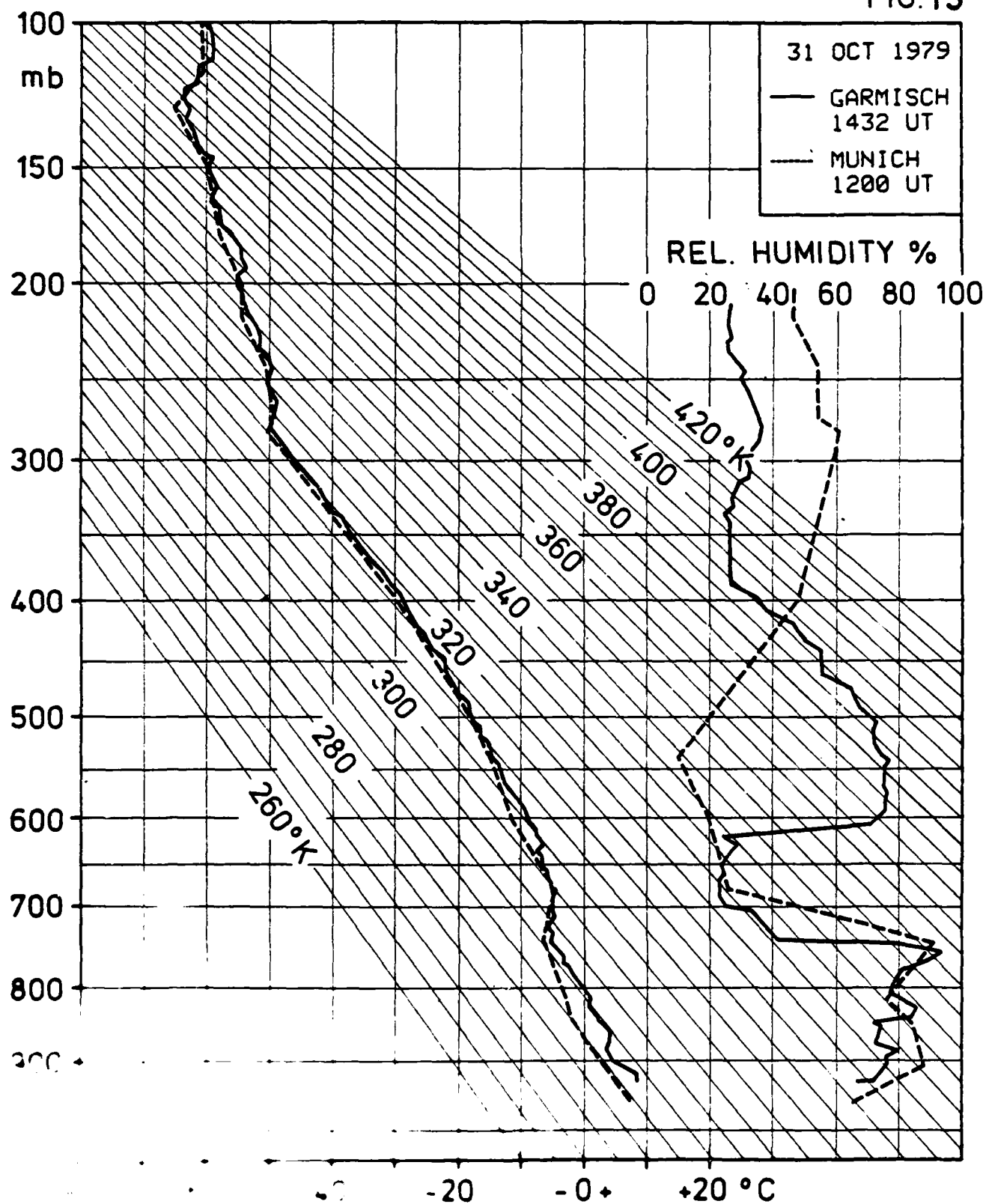


FIG. 14

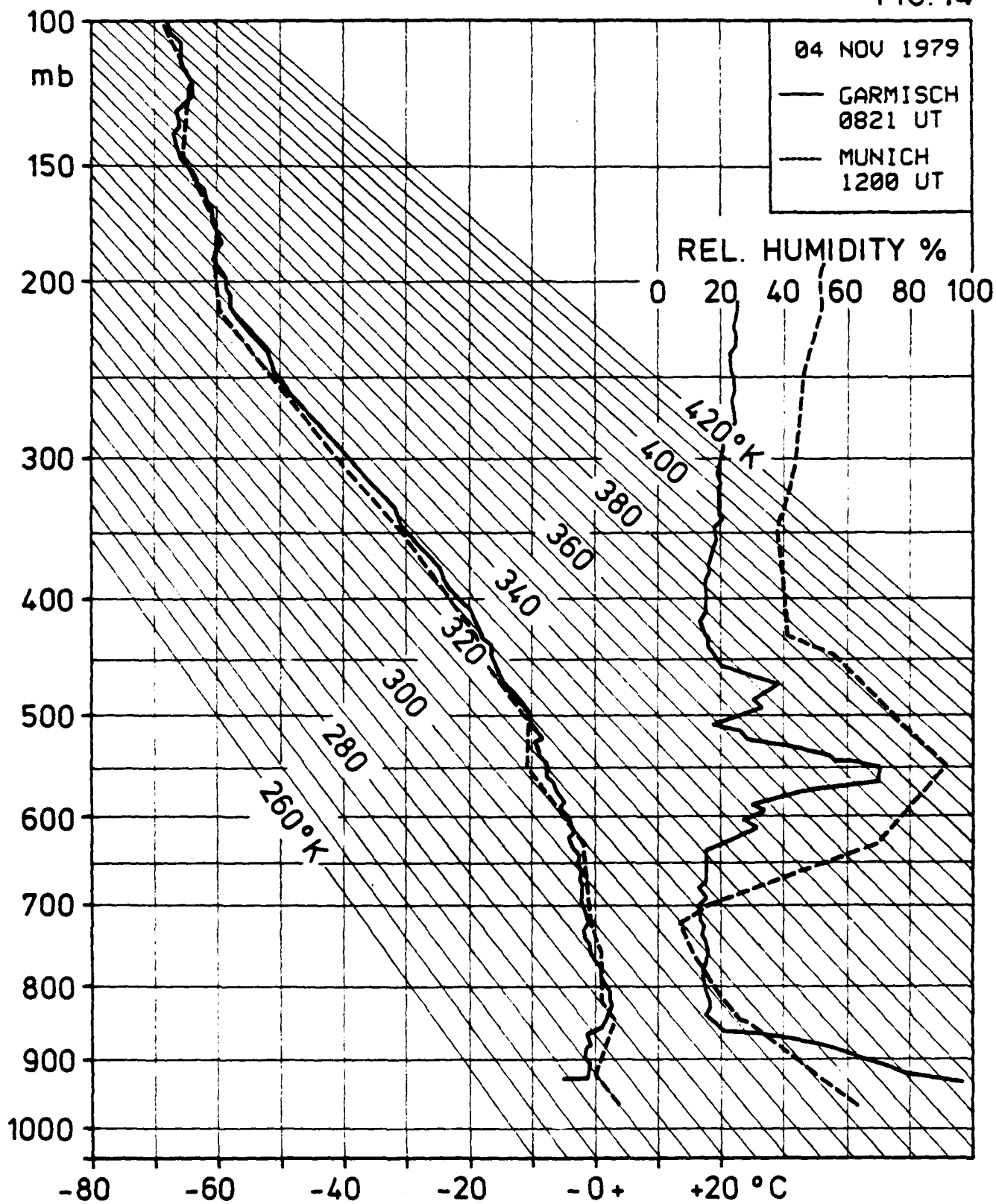


FIG.15

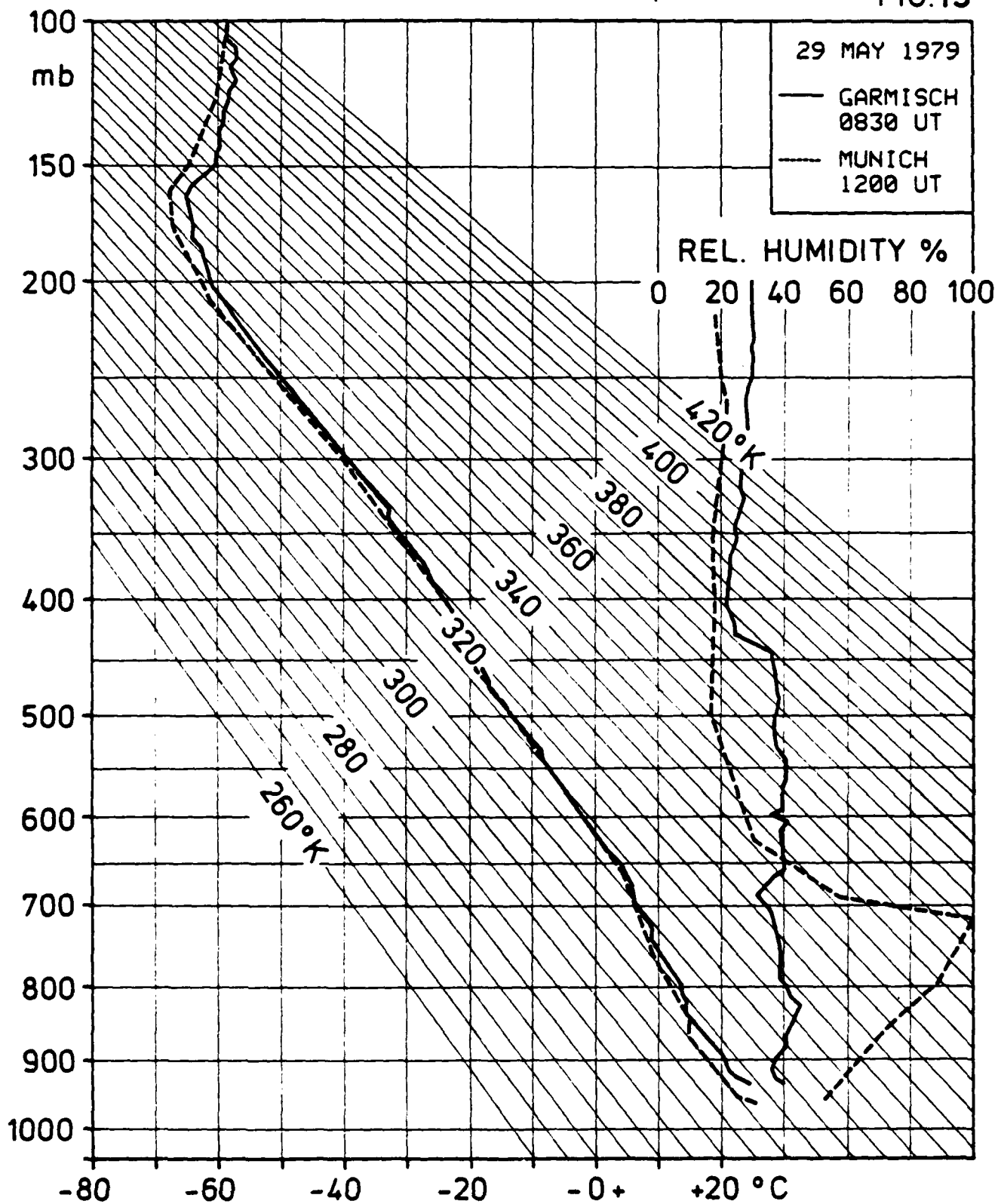


FIG. 16

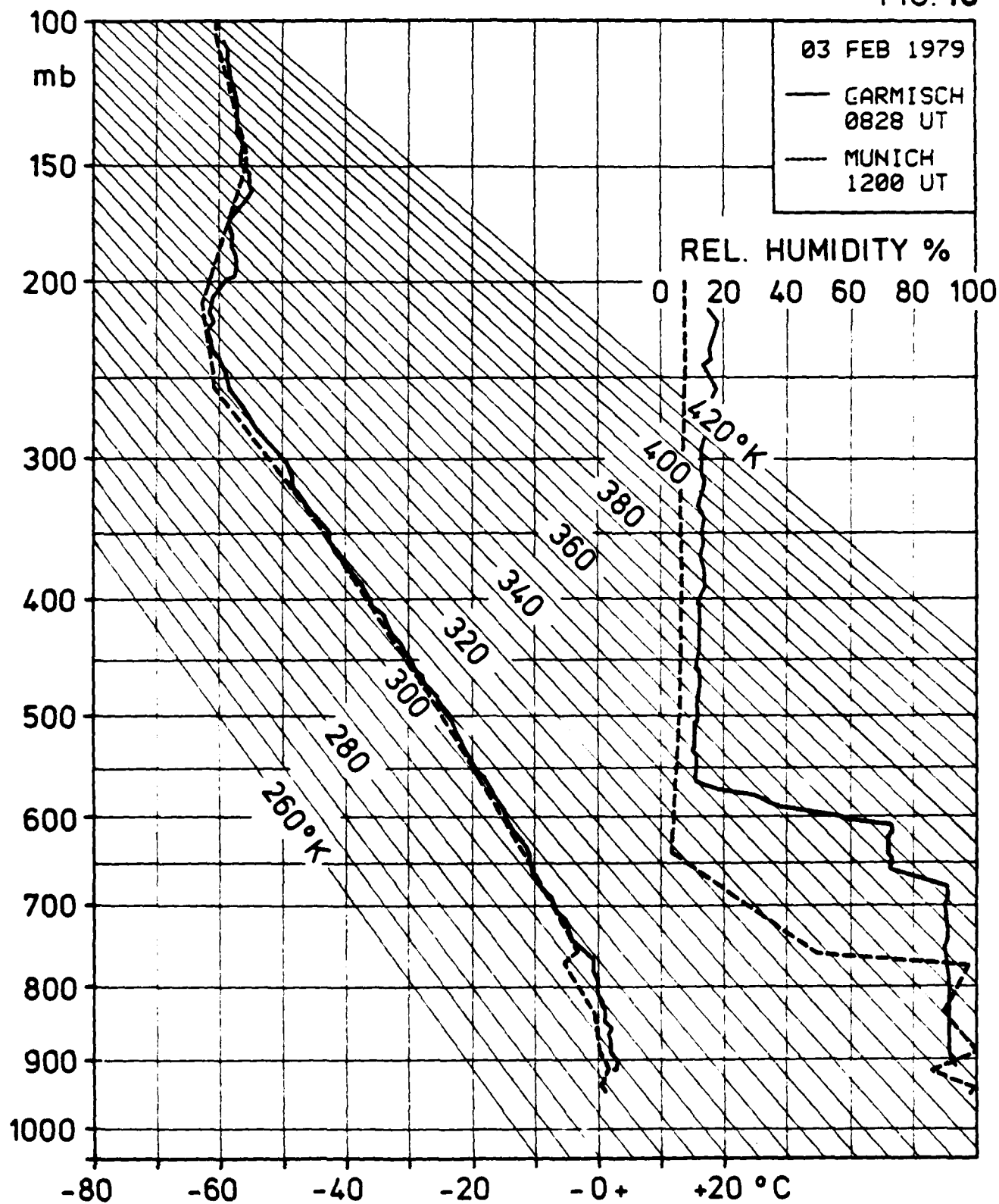


FIG.17

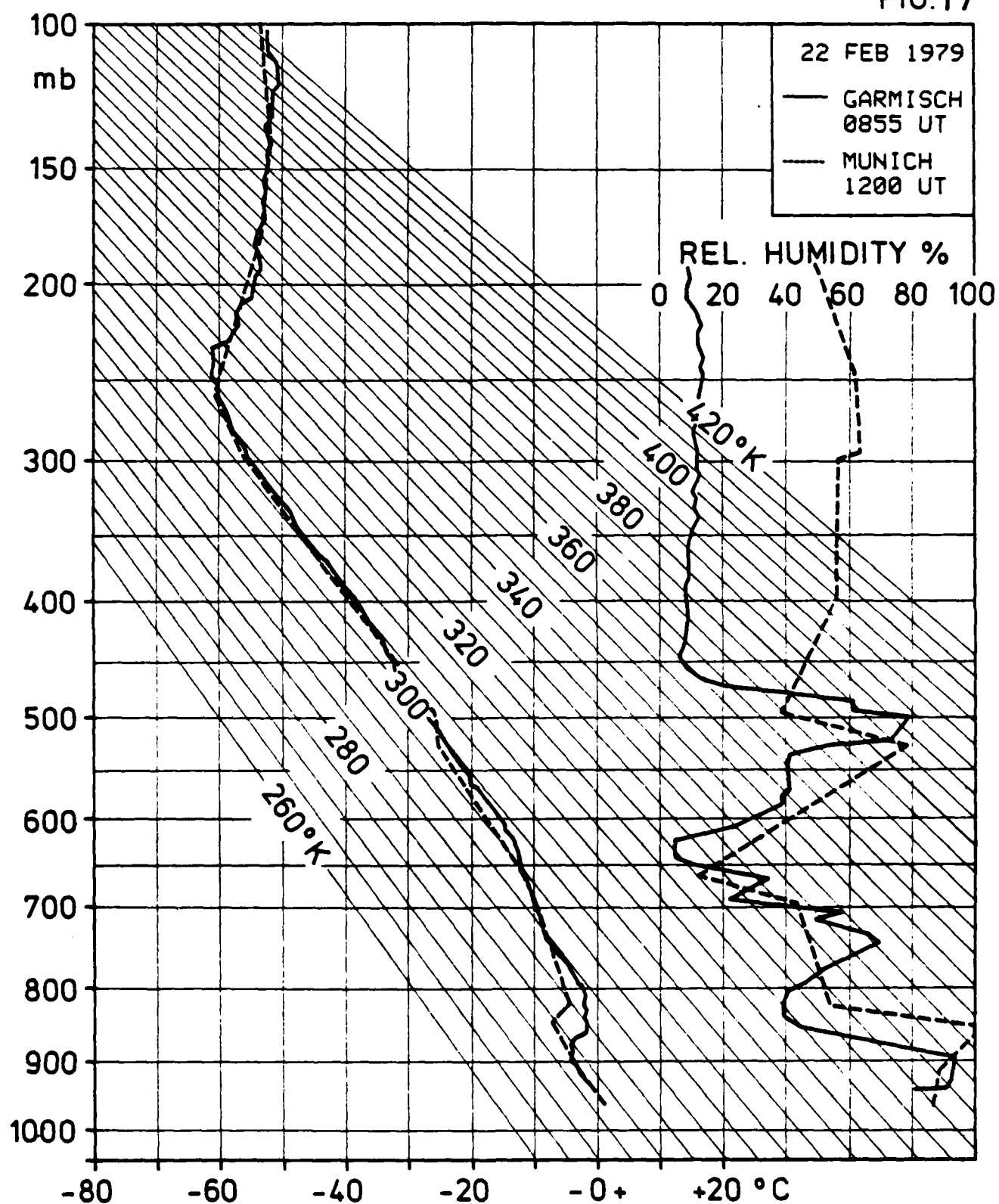


FIG. 18

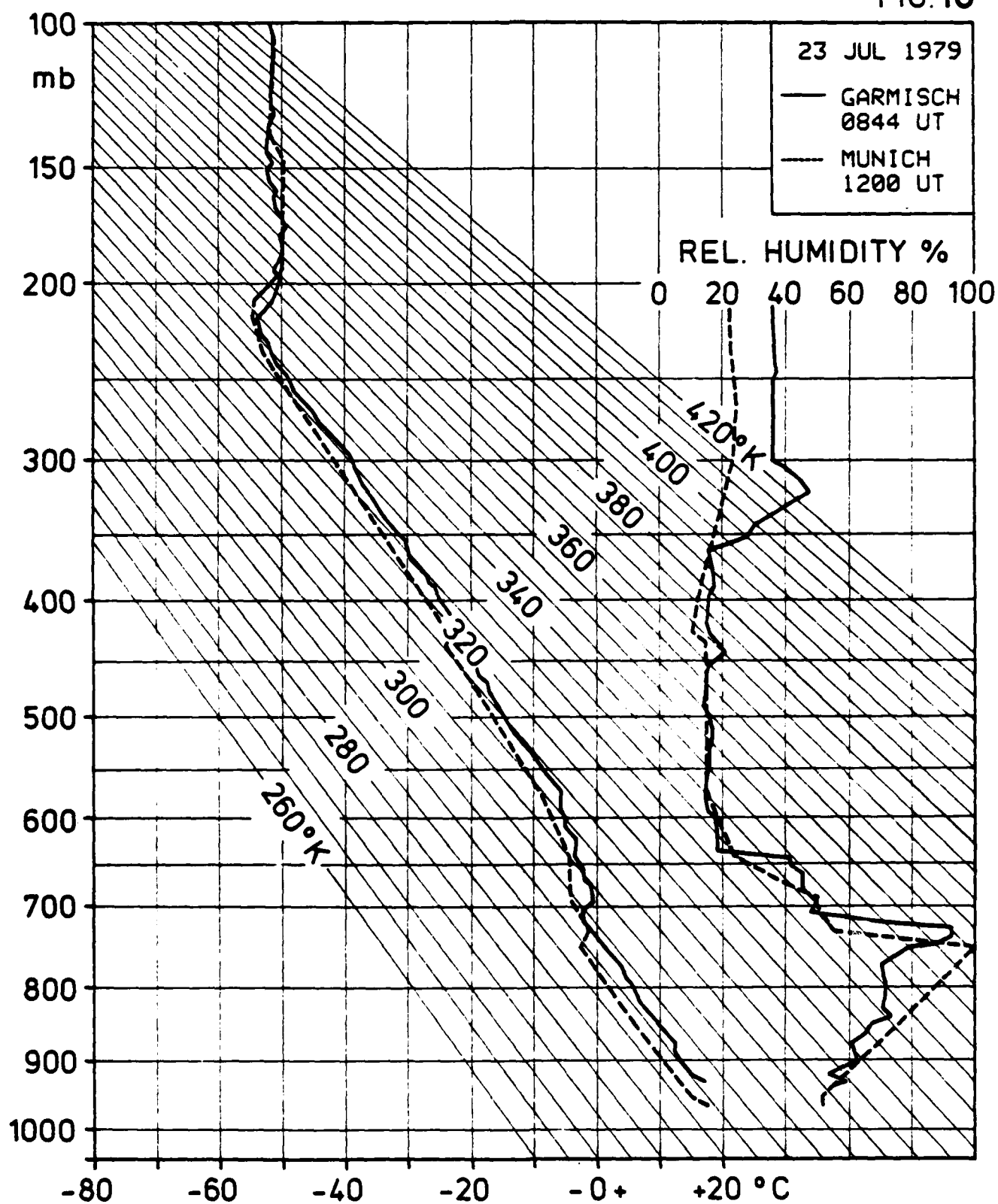


FIG. 19

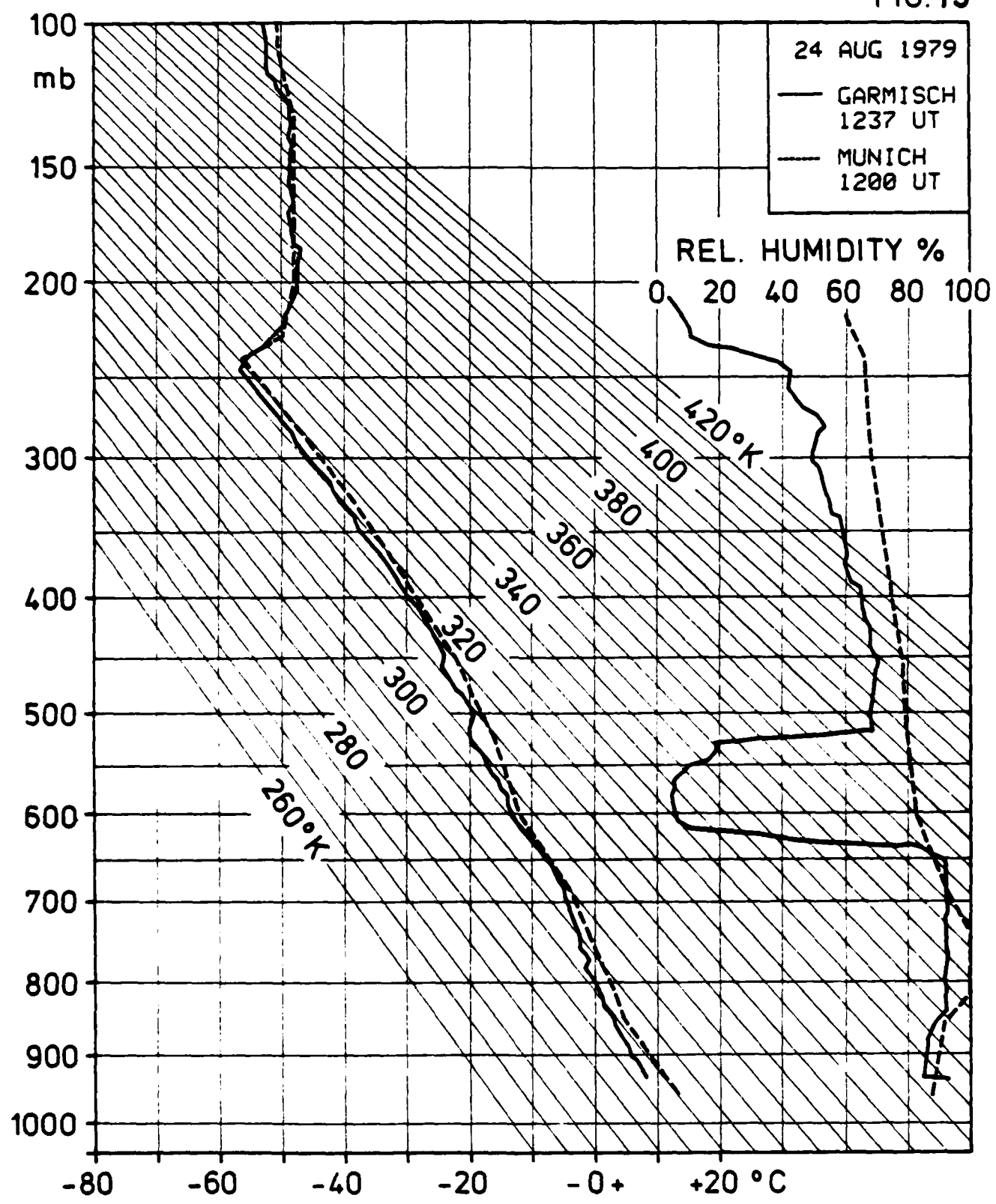


FIG.20

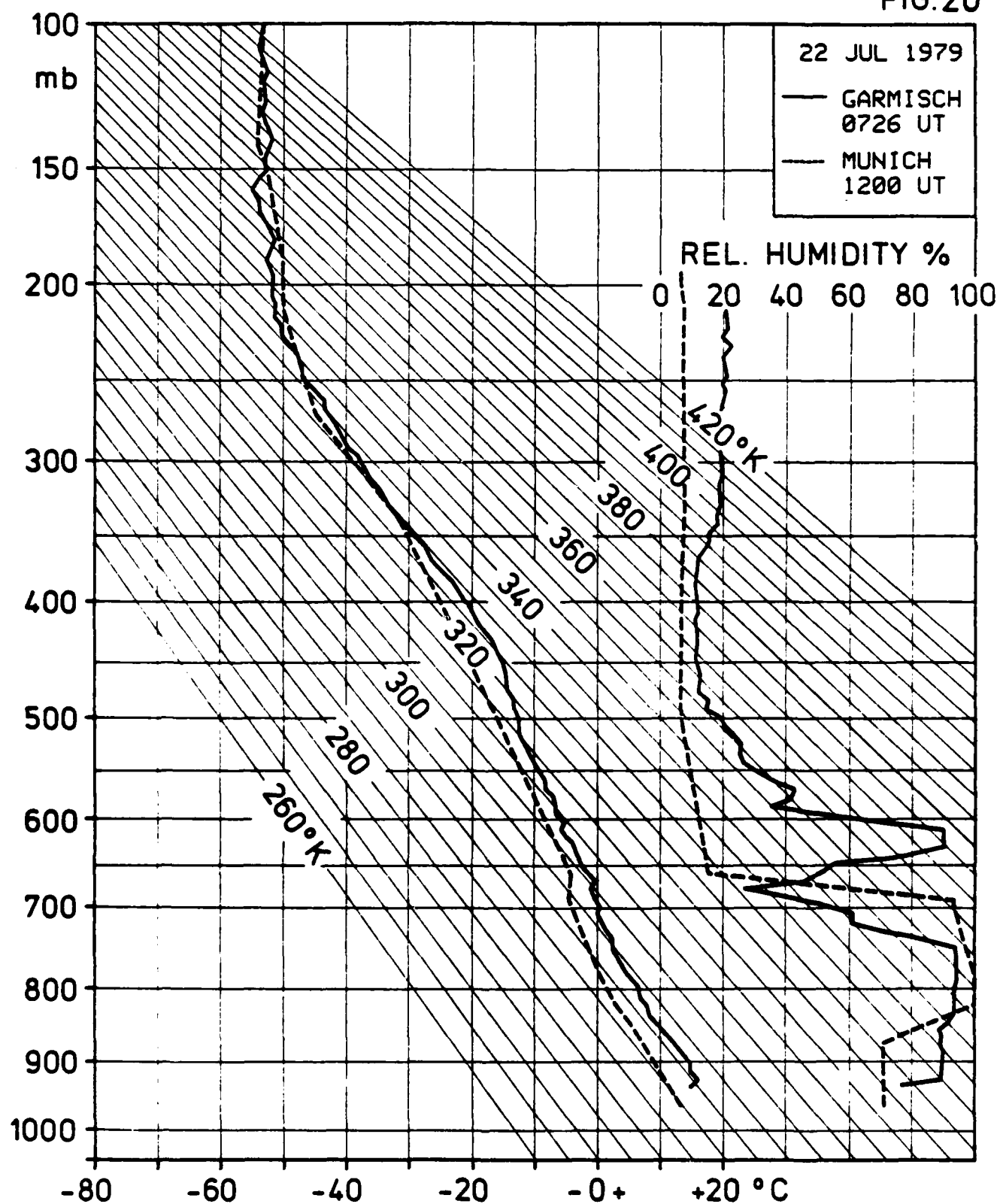


FIG. 21

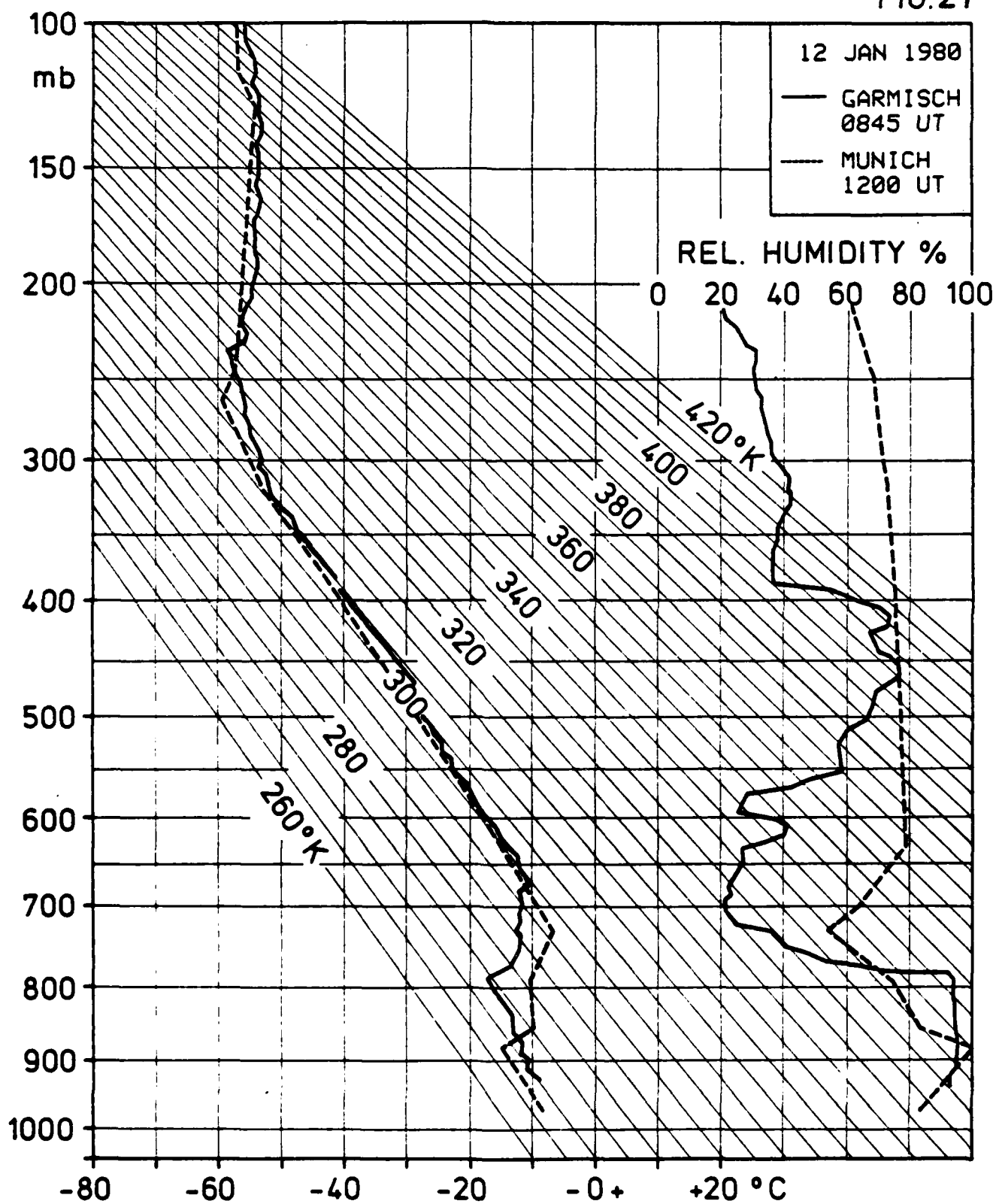


FIG.22

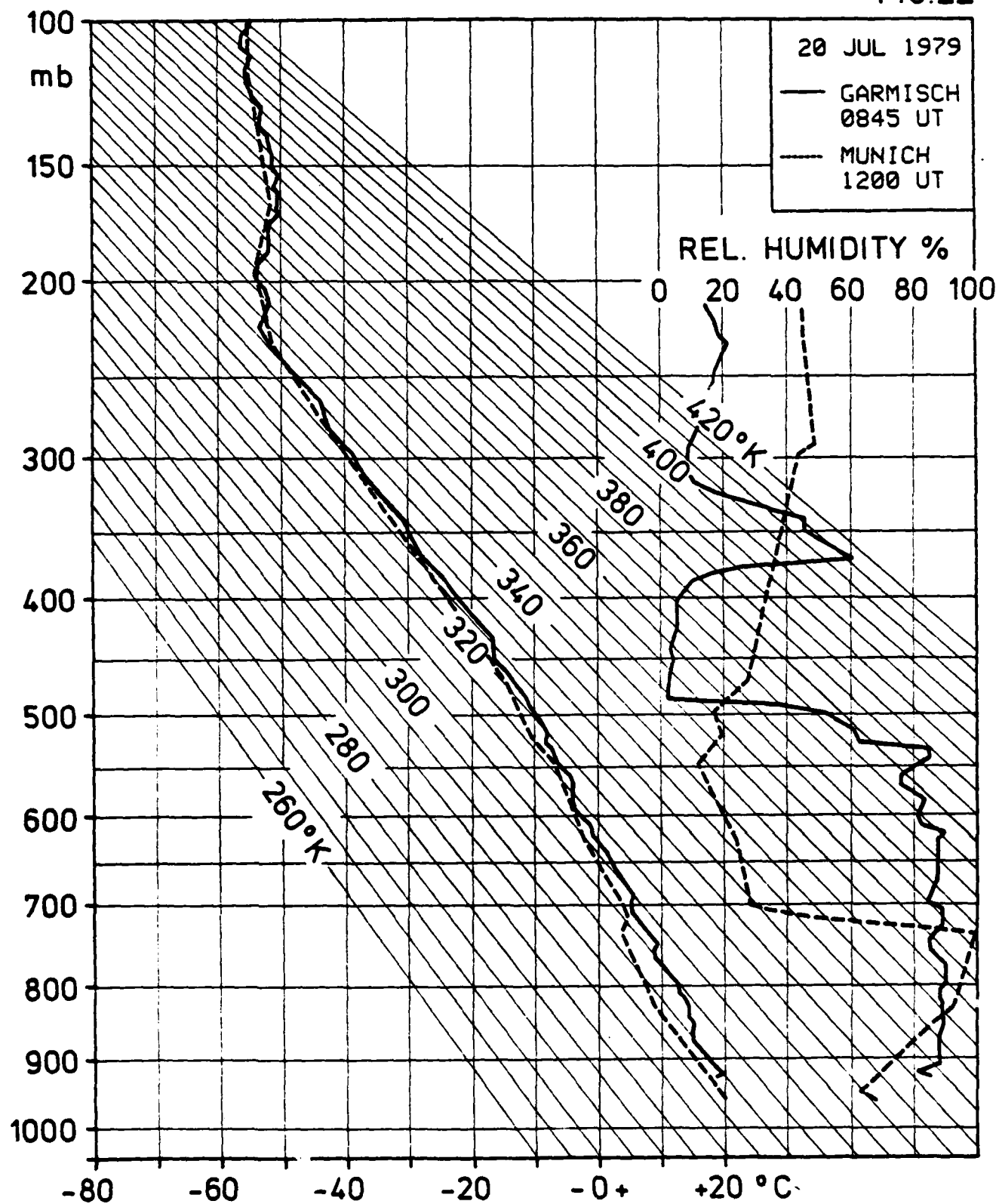


FIG.23

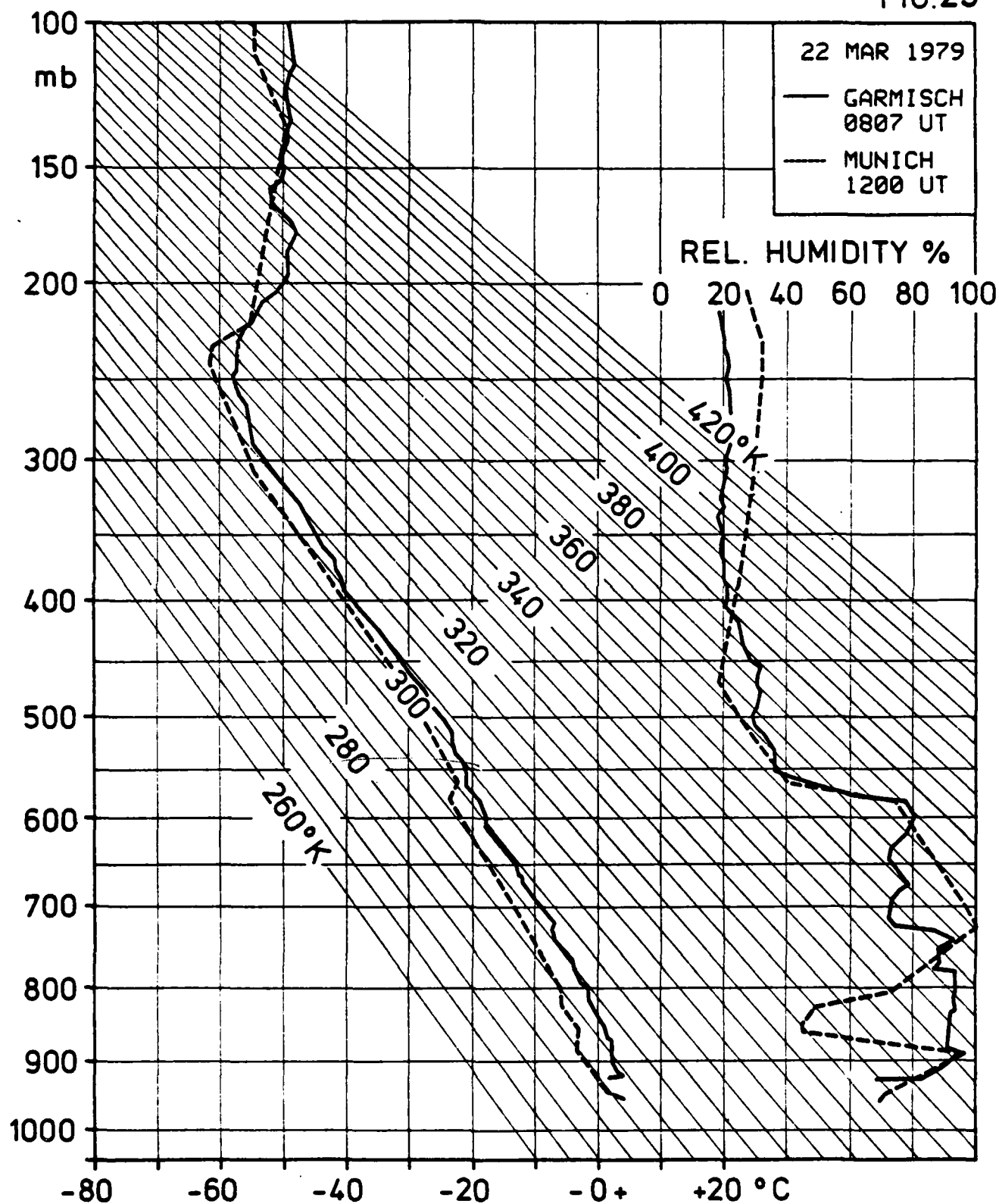
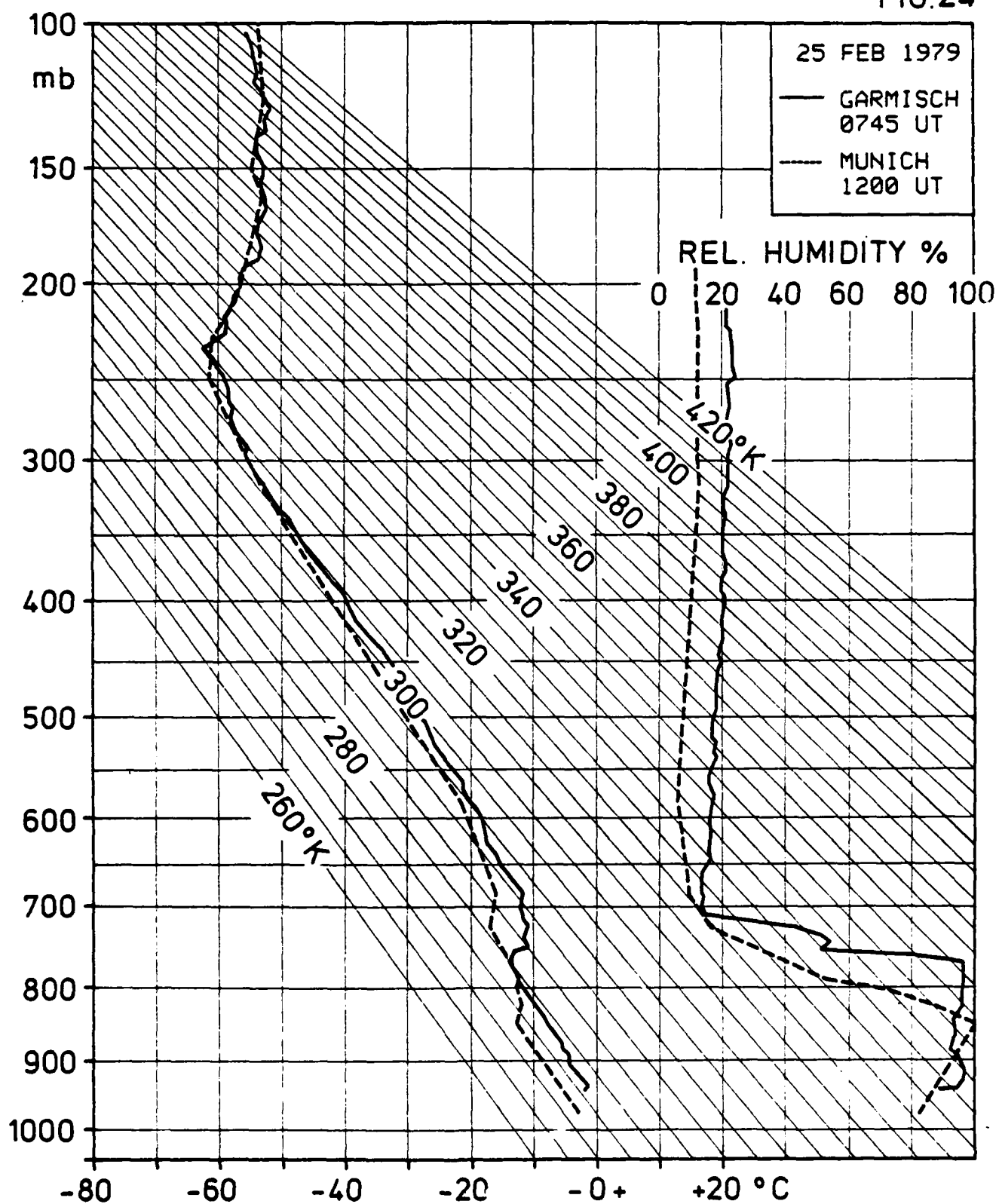


FIG.24



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