NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

# SEMIANNUAL OPERATING REPORT
# RADIOACTIVE EFFLUENTS

January 1, 1984, through June 30, 1984

USNRC Docket 50-298



IE25
1/1

Contents

# INTRODUCTION

This report summarizes meteorological data and doses from radioactive effluents for the Cooper Nuclear Station for the period January through June 1984. The data presented meet the reporting requirements of Regulatory Guide 1.21 of the U.S. Nuclear Regulatory Commission (Revision 1, June 1974).

The report is organized into three parts. Appendix A presents the effluent and waste disposal source term data. Appendix B presents a summary of onsite meteorological data for the report period, including atmospheric diffusion estimates and a description of the atmospheric diffusion model. Appendix C presents the doses from liquid and gaseous radioactive effluents. Also included in Appendix C are isopleth figures for atmospheric diffusion estimates and doses, and a description of the dose calculation models.

# APPENDIX A

## SOURCE TERMS

## EFFLUENT AND WASTE DISPOSAL REPORTS

# EFFLUENT AND WASTE DISPOSAL (January through June 1984)

Cooper Nuclear Station effluent and waste disposal data are presented below in the format prescribed by Regulatory Guide 1.21.

Facility: Cooper Nuclear Station License: DPR-46

1. Regulatory Limits

a. Fission and activation gases

Restrictions on gaseous activity release:

Maximum release rate of noble gases and tritium (except for halogens and particulates with half-lives greater than 8 days):

$$Qs\ (2.5E\gamma s + 1.25E\beta s) + Qv\ (7.3E\gamma v + 77E\beta v) \leq 0.16$$

when averaged over a calendar quarter.

$\gamma$ - gamma
$\beta$ - beta

Where Qs and Qv are the quarterly release rates in curies/second of radioisotopes from the stack; reactor building, turbine building, and augmented radwaste building vents. $E\gamma s$ and $E\gamma v$ are the average gamma energies per disintegration of stack and vent effluents; $E\beta s$ and $E\beta v$ are the average beta energies from stack and vent effluents.

b.&c. Iodines and particulates with half-lives of greater than 8 days. The release rates of I-131 and particulates with half-lives greater than 8 days released to the environs as part of airborne effluents shall not exceed:

$$\frac{Qs}{7.7E\text{-}06} + \frac{Qv}{2.1E\text{-}06} \leq 0.08$$

when averaged over a calendar quarter.

Where Qs and Qv are the quarterly release rates in curies per second of I-131 and particulates with half-lives greater than 8 days from the stack, reactor building, turbine, and augmented radwaste building vents.

d. Liquid Effluents

Maximum calendar quarter release rate of radioactive liquid effluents (excluding tritium and noble gases): 25 curies.

Maximum activity of discharged liquid radwaste tank (sample tank only): 10 curies.

Maximum radioactivity release concentration of discharge channel liquid effluents shall not exceed the values specified in 10 CFR 20, Appendix B, Table II, Column 2, for unrestricted areas.

2. Maximum Permissible Concentrations (MPC)

No MPC values are required specifically in Cooper Nuclear Station Environmental Technical Specifications for:

a. Fission and activiation gases,
b. Iodines, or
c. Particulates with half lives of greater than 8 days.

The equation presented in Section 1a. under Regulatory Limits provides a method to be used in summing the gaseous airborne effluents from the main stack and vents, which will assure that the release rate does not exceed 10 CFR Part 20 for unrestricted areas.

The equation presented in 1b. and 1c. under Regulatory Limits provides a method to be used in summing airborne halogens and particulates with half-lives greater than 8 days released from the stack and vents to assure that the release rate does not exceed 10 CFR Part 20, Appendix B, Table II, Column 1, for unrestricted areas.

d. Liquid Effluents

The maximum permissible concentrations (MPC) used to calculate permissible liquid release rates are from 10 CFR 20 Appendix B, Table II, Column 2, and applicable notes to Appendix B.

3. Average Energy

The average energy (E) of the radionuclide mixtures of fission and activation gases released is as follows:

| 1st Quarter | 2nd quarter |
|---|---|
| $\bar{E}\beta s$ = 0.22 Mev/disintegration | $\bar{E}\beta s$ = 0.24 Mev/disintegration |
| $\bar{E}\gamma s$ = 0.18 Mev/disintegration | $\bar{E}\gamma s$ = 0.20 Mev/disintegration |
| $\bar{E}\beta v(Rx)$ = 0.41 Mev/disintegration | $\bar{E}\beta v(Rx)$ = 0.45 Mev/disintegration |
| $\bar{E}\gamma v(Rx)$ = 0.78 Mev/disintegration | $\bar{E}\gamma v(Rx)$ = 0.83 Mev/disintegration |
| $\bar{E}\beta v(TG)$ = 0.38 Mev/disintegration | $\bar{E}\beta v(TG)$ = 0.41 Mev/disintegration |
| $\bar{E}\gamma v(TG)$ = 0.75 Mev/disintegration | $\bar{E}\gamma v(TG)$ = 0.80 Mev/disintegration |
| $\bar{E}\beta v(ARW)$ = 0.47 Mev/disintegration | $\bar{E}\beta v(ARW)$ = 0.50 Mev/disintegration |
| $\bar{E}\gamma v(ARW)$ = 0.81 Mev/disintegration | $\bar{E}\gamma v(ARW)$ = 0.84 Mev/disintegration |

4. Measurements and Approximations of Total Radioactivity

The methods used to measure or approximate the total radioactivity in effluents and to determine radionuclide composition are as follows:

a. Fission and activation gases

Radioactivity and radionuclide composition is determined by laboratory GeLi detector analysis in correlation with continuous gross radioactivity monitoring by a gaseous channel detector in the release pathway.

b. Iodines

Charcoal cartridges provide continuous sample collection. These cartridges are analyzed for radioactivity and radionuclide composition in the laboratory by a GeLi detector gamma spectrometer. Continuous radioactivity monitoring of the charcoal cartridge is also provided by a NaI detector in-line with the vent release pathways.

c. Particulates

Particulate filters provide continuous sample collection. These filters are analyzed for radioactivity and radionuclide composition in the laboratory by a GeLi detector gamma spectrometer. Continuous gross radioactivity monitoring the particulate filter is also provided by a NaI detector in-line with the vent release pathways.

d. Liquid effluents

Each batch of liquid effluent is analyzed for radioactivity and radionuclide composition in the laboratory by a GeLi detector gamma spectrometer. Each batch is also analyzed for gross radioactivity by both gross beta and gamma. In addition, each batch is monitored for gross radioactivity by a NaI detector in-line with the release pathway.

5. Batch Releases

The following information relates to batch releases of radioactive materials in liquid and gaseous effluents:

a. Liquid

1. Number of batch releases: 88
2. Total time period of batch releases: 2.40 E+04 minutes
3. Maximum time period of batch release: 6.72 E+02 minutes
4. Average time period of batch releases: 2.73 E+02 minutes
5. Minimum time period for a batch release: 1.30 E+02 minutes
6. Average stream flow during periods of release of effluent into a flowing stream: 1.15 E+08 liters/minute

b. Gaseous

1. Number of batch releases: None
2. Total time period for batch releases: N/A
3. Maximum time period for a batch release: N/A
4. Average time period for batch releases: N/A
5. Minimum time period for batch release: N/A

6. Abnormal Release

a. Liquid

1. Number of releases: 0
2. Total activity released: None

b. Gaseous

1. Number of releases: 0
2. Total activity released: None

Table 1A. Effluent and Waste Disposal Semiannual Report
Gaseous Effluents - Summation of All Releases

| | Unit | 1st/Quarter | 2nd/Quarter | Est. Total Error % |
|---|---|---|---|---|
| **Fission & activiation gases** | | | | |
| 1. Total release | Ci | 3.78 E+02 | 3.73 E+02 | 2.0 E+01 |
| 2. Average release rate for period | μCi/sec | 4.81 E+01 | 4.75 E+01 | |
| 3. Percent of Technical Specification limit | % | * | * | |
| **Iodines** | | | | |
| 1. Total Iodine-131 | Ci | ≤ 1.41 E-03 | ≤ 2.40 E-03 | 3.0 E+01 |
| 2. Average release rate for period | μCi/sec | ≤ 1.80 E-04 | ≤ 3.05 E-04 | |
| 3. Percent of Technical Specification limit | % | ** | ** | |
| **Particulates** | | | | |
| 1. Particulates with half-lives 8 days | Ci | ≤ 1.62 E-03 | ≤ 9.23 E-04 | 5.0 E+01 |
| 2. Average release rate for period | μCi/sec | ≤ 2.06 E-04 | ≤ 1.17 E-04 | |
| 3. Percent of Technical Specification limit | % | ** | ** | |
| 4. Gross alpha radio-activity | Ci | ≤ 3.01 E-06 | ≤ 3.55 E-06 | |
| **Tritium** | | | | |
| 1. Total release | Ci | 9.07 E-01 | 1.53 E+00 | 3.0 E+01 |
| 2. Average release rate for period | μCi/sec | 1.15 E-01 | 1.95 E-01 | |
| 3. Percent of Technical Specification limit | % | * | * | |

*The noble gases and tritium are combined in the Technical Specification discharge limit. The first quarter releases were 8.22 E-01% of the allowable limit, while the second quarter releases were 5.57 E-01% of the allowable limit.

**The Iodine-131 and particulates with half-lives longer than 8 days are combined into one Technical Specification. The first quarter releases were 1.67 E-01% of the allowable limit, while the second quarter releases were 1.63 E-01% of the allowable limit.

Table 1B. Effluent and Waste Disposal Semiannual Report
Gaseous Effluent - Elevated Release

| Nuclides Released | Unit | Continuous Mode 1st Quarter | Continuous Mode 2nd Quarter | Batch Mode* |
|---|---|---|---|---|
| Fission gases: | | | | |
| Krypton-85 | Ci | 2.64 E+00 | 1.80 E+00 | |
| Krypton-85m | Ci | 6.70 E+01 | 1.24 E+02 | |
| Krypton-87 | Ci | 1.70 E-02 | 4.00 E-02 | |
| Krypton-88 | Ci | 1.70 E+01 | 4.79 E+01 | |
| Xenon-133 | Ci | 2.02 E+01 | 2.66 E+01 | |
| Xenon-135 | Ci | --- | --- | |
| Xenon-135m | Ci | --- | --- | |
| Xenon-138 | Ci | --- | --- | |
| Krypton-89 | Ci | --- | --- | |
| Krypton-83m | Ci | 2.18 E-01 | 4.40 E-01 | |
| Xenon-137 | Ci | --- | --- | |
| Xenon-133m | Ci | 7.18 E-04 | 1.03 E-03 | |
| Xenon-131m | Ci | 6.81 E-01 | 8.30 E-01 | |
| Total for period | Ci | 1.08 E+02 | 2.02 E+02 | |
| Iodines: | | | | |
| Iodine-131 | Ci | 1.09 E-03 | 1.43 E-03 | |
| Iodine-133 | Ci | 7.79 E-03 | 2.87 E-03 | |
| Iodine-135 | Ci | 1.06 E-02 | 2.17 E-03 | |
| Total for period | Ci | 1.95 E-02 | 6.47 E-03 | |
| Particulates: | | | | |
| Strontium-89 | Ci | 2.53 E-07 | 9.39 E-06 | |
| Strontium-90 | Ci | 1.14 E-07 | 1.05 E-06 | |
| Cesium-134 | Ci | ≤ 5.27 E-07 | ≤ 8.55 E-07 | |
| Cesium-137 | Ci | ≤ 8.08 E-07 | ≤ 1.92 E-06 | |
| Barium-lanthanum-140 | Ci | ≤ 4.75 E-05 | ≤ 1.54 E-04 | |
| Iodine-131 | Ci | ≤ 1.29 E-06 | ≤ 4.56 E-06 | |
| Cobalt-58 | Ci | --- | 6.51 E-07 | |
| Cobalt-60 | Ci | 1.88 E-06 | 3.22 E-06 | |
| Manganese-54 | Ci | 2.81 E-07 | 9.77 E-06 | |
| Chromium -51 | Ci | --- | 1.08 E-06 | |
| Total for period | Ci | ≤ 5.27 E-05 | ≤ 1.78 E-04 | |

*No batch discharges were made.

Table 1C. Effluent and Waste Disposal Semiannual Report
Gaseous Effluents - Building Vent Releases

| Nuclides Released | Unit | 1st Quarter | 2nd Quarter |
|---|---|---|---|
| Fission gases: | | | |
| Krypton-85 | Ci | 1.74 E-02 | 3.86 E-03 |
| Krypton-85m | Ci | 1.72 E+01 | 1.03 E+01 |
| Krypton-87 | Ci | 3.81 E+01 | 2.61 E+01 |
| Krypton-88 | Ci | 5.28 E+01 | 3.33 E+01 |
| Xenon-133 | Ci | 2.55 E+01 | 1.10 E+01 |
| Xenon-135 | Ci | 6.88 E+01 | 3.84 E+01 |
| Xenon-135m | Ci | 8.60 E+00 | 6.82 E+00 |
| Xenon-138 | Ci | 4.58 E+01 | 3.64 E+01 |
| Krypton-89 | Ci | 1.19 E+00 | 6.30 E-01 |
| Krypton-83m | Ci | 8.36 E+00 | 5.49 E+00 |
| Xenon-137 | Ci | 3.00 E+00 | 1.75 E+00 |
| Xenon-133m | Ci | 9.95 E-01 | 4.60 E-01 |
| Xenon-131m | Ci | 4.55 E-02 | 2.00 E-02 |
| Total for period | Ci | 2.70 E+02 | 1.71 E+02 |
| Iodines: | | | |
| Iodine-131 | Ci | ≤ 3.22 E-04 | ≤ 9.66 E-04 |
| Iodine-133 | Ci | ≤ 1.86 E-03 | ≤ 1.95 E-03 |
| Iodine-135 | Ci | ≤ 9.20 E-03 | ≤ 4.38 E-03 |
| Total for period | Ci | ≤ 1.14 E-02 | ≤ 7.30 E-03 |
| Particulates: | | | |
| Strontium-89 | Ci | 1.16 E-05 | 9.90 E-06 |
| Strontium-90 | Ci | 6.33 E-06 | 4.53 E-06 |
| Cesium-134 | Ci | ≤ 3.34 E-05 | ≤ 4.12 E-05 |
| Cesium-137 | Ci | ≤ 8.98 E-04 | ≤ 5.04 E-05 |
| Barium-lanthanum-140 | Ci | ≤ 3.21 E-04 | ≤ 3.26 E-04 |
| Iodine-131 | Ci | ≤ 5.72 E-05 | ≤ 7.69 E-05 |
| Cobalt-58 | Ci | --- | --- |
| Cobalt-60 | Ci | 2.32 E-04 | 2.18 E-04 |
| Manganese-54 | Ci | 5.70 E-07 | |
| Chromium-54 | Ci | 8.76 E-06 | 1.81 E-05 |
| Total for period | Ci | ≤ 1.57 E-03 | ≤ 7.45 E-04 |

Table 2A. Effluent and Waste Disposal Semiannual Report
Liquid Effluents - Summation of All Releases

| | Unit | 1st Quarter | 2nd Quarter | Est. Total Error % |
|---|---|---|---|---|
| **Fission & activation products** | | | | |
| 1. Total release (not including tritium, gases, alpha) | Ci | ≤1.60 E+00 | ≤1.14 E+00 | 2.0 E+01 |
| 2. Average diluted concentration during period | μCi/ml | ≤1.19 E-07 | ≤4.85 E-08 | |
| 3. Percent of applicable limit | % | 6.40 E+00 | 4.56 E+00 | |
| **Tritium** | | | | |
| 1. Total release | Ci | ≤2.40 E+00 | ≤1.91 E+01 | 2.0 E+01 |
| 2. Average diluted concentration during period | μCi/ml | ≤1.79 E-07 | ≤8.27 E-08 | |
| 3. Percent of applicable limit | % | 5.97 E-03 | 2.76 E-03 | |
| **Dissolved and entrained gases** | | | | |
| 1. Total release | Ci | ≤8.61 E-03 | ≤1.12 E-02 | 5.0 E+01 |
| 2. Average diluted concentration during period | μCi/ml | ≤6.43 E-10 | ≤4.85 E-10 | |
| 3. Percent of applicable limit | % | NA | NA | |
| **Gross alpha radioactivity** | | | | |
| 1. Total release | Ci | ≤1.42 E-03 | ≤2.23 E-02 | 5.0 E+01 |
| Volume of waste released (prior to dilution) | liters | 2.38 E+06 | 3.41 E+06 | 1.0 E+01 |
| Volume of dilution water used during period | liters | 1.34 E+10 | 2.31 E+10 | 1.0 E+01 |

NA = None applicable

Table 2B. Effluent and Waste Disposal Semiannual Report
Liquid Effluents

| Nuclides Released | Unit | Continuous Mode* | Batch Mode 1st Quarter | Batch Mode 2nd Quarter |
|---|---|---|---|---|
| Strontium-89 | Ci | | 7.59 E-03 | 1.09 E-02 |
| Strontium-90 | Ci | | 2.52 E-04 | 5.90 E-04 |
| Cesium-134 | Ci | | 4.67 E-01 | ≤3.79 E-01 |
| Cesium-136 | Ci | | --- | 4.03 E-03 |
| Cesium-137 | Ci | | 5.71 E-01 | ≤5.01 E-01 |
| Iodine-131 | Ci | | ≤5.71 E-03 | ≤1.01 E-02 |
| Cobalt-58 | Ci | | ≤1.75 E-02 | ≤6.22 E-03 |
| Cobalt-60 | Ci | | ≤2.84 E-01 | ≤9.63 E-02 |
| Iron-59 | Ci | | ≤2.71 E-03 | ≤1.97 E-03 |
| Zinc-65 | Ci | | ≤7.79 E-03 | ≤4.62 E-03 |
| Manganese-54 | Ci | | ≤4.97 E-02 | ≤1.21 E-02 |
| Chromium-51 | Ci | | ≤1.18 E-01 | ≤3.25 E-02 |
| Zirconium-niobium-95 | Ci | | ≤6.70 E-03 | ≤4.93 E-03 |
| Molybdenum-99 | Ci | | ≤1.01 E-02 | ≤1.21 E-02 |
| Technetium-99m | Ci | | ≤6.44 E-03 | ≤3.50 E-03 |
| Barium-lanthanum-140 | Ci | | ≤7.42 E-03 | ≤1.04 E-02 |
| Cerium-141 | Ci | | ≤5.55 E-03 | ≤6.36 E-03 |
| Silver-110m | Ci | | ≤2.72 E-03 | ≤4.23 E-03 |
| Sodium-24 | Ci | | 7.48 E-03 | ≤1.48 E-03 |
| Unidentified | Ci | | ≤2.48 E-02 | ≤3.17 E-02 |
| Neptunium-239 | Ci | | 1.07 E-03 | |
| Total for period above | Ci | | 1.60 E+00 | 1.12 E+00 |
| Xenon-133 | Ci | | ≤5.00 E-03 | ≤7.44 E-03 |
| Xenon-135 | Ci | | ≤3.61 E-03 | ≤3.72 E-03 |

*No continuous mode discharges made.

Table 3. Effluent and Waste Disposal Semiannual Report
Solid Waste and Irradiated Fuel Shipments
Period January 1, 1984, to June 30, 1984

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (not irradiated fuel)

| 1. Type of waste | | Unit | 6-Month Period | Est. Total Error % |
|---|---|---|---|---|
| a. | Spent resins, filter sludges, evaporator bottoms, etc. | $m^3$ | 6.71 E+01 | 15 |
| | | Ci | 8.16 E+01 | |
| b. | Dry compressible waste, contaminated equipment, etc. | $m^3$ | 3.43 E+01 | 25 |
| | | Ci | 1.10 E-03 | |
| c. | Irradiated components, control rods, etc. | $m^3$ | None | |
| | | Ci | | |
| d. | Other | $m^3$ | None | |
| | | Ci | | |

2. Estimate of major nuclide composition (by type of waste), percent

| | | |
|---|---|---|
| a. | Chromium-51 | 5.27 E-01 |
| | Cobalt-60 | 3.81 E+01 |
| | Cobalt-58 | 1.04 E+00 |
| | Manganese-54 | 3.79 E+00 |
| | Zinc-65 | 8.43 E-01 |
| | Silver-110m | 2.89 E-01 |
| | Iodine-131 | 8.77 E-01 |
| | Cesium-137 | 2.59 E+01 |
| | Cesium-134 | 2.18 E+01 |
| | Barium-lanthanum-140 | 1.08 E+00 |
| | Carbon-14 | 6.26 E-04 |
| | Technetium-99 | 5.17 E-05 |
| | Iodine-129 | 1.30 E-03 |
| | Plutonium-241 | 2.07 E-01 |
| | Curium-242 | 7.77 E-03 |
| | Transuranics | 1.67 E-02 |
| | Tritium-3 | 3.69 E-02 |
| | Nickel-63 | 7.61 E-01 |
| | Strontium-90 | 4.66 E+00 |
| | Cerium-41 | 3.98 E-02 |

Table 3. Effluent and Waste Disposal Semiannual Report
Solid waste and Irradiated Fuel Shipments
Period January 1, 1984, to June 30, 1984
(Continued)

| | | |
|---|---|---|
| b. | Cobalt-60 | 4.82 E+01 |
| | Manganese-54 | 1.04 E+00 |
| | Cesium-137 | 2.03 E-01 |
| | Cesium-134 | 1.72 E-01 |
| | Iron-55 | 4.32 E+01 |
| | Technetium-99 | 2.32 E-05 |
| | Iodine-129 | 1.04 E-04 |
| | Plutonium-241 | 5.37 E-04 |
| | Curium-242 | 3.09 E-05 |
| | Transuranics | 3.61 E-05 |
| | Tritium-3 | 2.69 E-04 |
| | Nickel-63 | 7.09 E+00 |
| | Strontium-90 | 4.15 E-05 |
| | Antimony-125 | 4.28 E-01 |

3. Solid waste disposition

| Number of Shipments | Mode of Transportation | Destination |
|---|---|---|
| 24 | Exclusive Use | Beatty, Nevada |

B. IRRADIATED FUEL SHIPMENTS (Disposition)

| Number of Shipments | Mode of Transportation | Destination |
|---|---|---|
| None | --- | --- |

# APPENDIX B

# METEOROLOGY

CONTENTS

# METEOROLOGICAL DATA SUMMARIES

Meteorological data collected onsite for the period January 1, 1984, through June 30, 1984, were reduced, validated, summarized for analysis, and included in appropriate dose calculations. Hourly data summaries are provided for all collected parameters and for the joint frequency distributions (JFDs) of wind speed and wind direction by atmospheric stability class.

The Cooper Nuclear Station meterological monitoring system was upgraded during the report period. Data for January 1 through April 30, 1984, were collected from the old system, and data for May 1 through June 30, 1984 were collected from the new system. For consistency, references to measurement units and levels are based on the new system throughout. As an example, 35-foot winds from the old system are refered to as 10-meter winds since that is the measurement level for the new system. Table 1 provides of list of parameters from the old system and the corresponding parameter from the new system.

## First Quarter (January through March 1984)

Data Recovery: Data recovery statistics are provided in Table 2 for pertinent meteorological parameters. All 10-meter wind direction data were lost during the first quarter due to a faulty potentiometer. Significant data loss also occurred for 10-meter wind speed due to a severed transmission cable from the tower to the recorder, and unresolvable chart timing problems. Because of these large data losses, 100-meter wind speeds and directions were substituted for missing 10-meter wind speeds and directions for the entire period. The substituted 100-meter wind speeds were adjusted to the 10-meter level according to the standard power law adjustment employed by the Nuclear Regulatory Commission (see Reference 2 under Atmospheric Diffusion Model, p. B152). Data losses for other parameters were due to inking and/or timing problems.

Wind: Predominant wind directions at the 100 meter level were from the northwest through north sectors (36 percent) with smaller secondary peaks for winds from the southeast (8 percent) and west-southwest (7 percent). The quarterly mean wind speed at 100-meters was 14.4 miles per hour with 42 percent of the occurrences below 12.5 miles per hour. The maximum hourly average wind speed was 51 miles per hour on January 29.

Temperature: The mean hourly average temperature for the first quarter was -1.0°C with an average daily maximum of 3.0°C and an average daily minimum of -4.4°C. The maximum temperature was 18.3°C on February 22, and the minimum was -23.3°C for January 20.

Precipitation: Total precipitation for this quarter was 2.82 inches. The maximum daily precipitation total for the first quarter was 0.52 inches, which occurred on February 15. The maximum one-hour total precipitation was 0.20 inches on January 4. It is likely that these summarized precipitation totals are somewhat less than actual amounts received at the site due to periods of missing data. In some cases, precipitation data were missing at the site, due mainly to inking problems, during recorded precipitation events at the Lincoln, Nebraska National Weather Service (NWS) station. Therefore, data recovery statistics for precipitation of less than 100 percent can be misleading in drawing conclusions about the representativeness of the recovered precipitation data for the site.

Table 1

Cooper Nuclear Station Meteorological Parameters
for the Old and New Systems

| Old System January-April 1984 | New System* May-June 1984 |
|---|---|
| 318-foot wind speed (mph) | 100-meter wind speed (mph) |
| 318-foot wind direction (deg) | 10-meter wind direction (deg) |
| 35-foot wind speed (mph) | 10-meter wind speed (mph) |
| 35-foot wind direction (deg) | 10-meter wind direction (deg) |
| 318-foot temperature ($^{o}$F) | 100-meter temperature ($^{o}$C) |
| 155-foot temperature ($^{o}$F) | 60-meter temperature ($^{o}$C) |
| 35-foot temperature ($^{o}$F) | 10-meter temperature ($^{o}$C) |
| 318 ft-155 ft delta T($^{o}$F) | 100m-60m delta T ($^{o}$C) |
| 318ft-35ft delta T ($^{o}$F) | 100m-10m delta T ($^{o}$C) |
| Precipitation (inches) | Precipitation (inches) |

* The new system also includes measurements for 60-meter wind speed and wind direction, 60m-10m delta T, and 10-meter dew point temperature, which have no corresponding parameter from the old system.

Table 2. Meteorological Data Recovery

Data Recovery (% of total observations)

| | January-March 1984 | April-June 1984 | January-June 1984 |
|---|---|---|---|
| 100-m wind speed | 98 | 92 | 95 |
| 100-m wind direction | 98 | 95 | 96 |
| 10-m wind speed | 27 | 61 | 44 |
| 10-m wind direction | 0 | 62 | 31 |
| 10-m ambient temperature | 94 | 87 | 90 |
| 100m-10m delta T | 90 | 87 | 88 |
| Precipitation | 87 | 90 | 89 |
| 100-m JFD* | 87 | 84 | 86 |
| 10-m JFD* | 87** | 86** | 87** |

* Joint occurrence of wind speed and direction measured at the height indicated and atmospheric stability (based on 100m-10m delta T).

** Data recovery for the 10-m JFD includes substitution of 100-m wind speed and wind direction for missing 10-m data for the entire period.

Atmospheric Stability: Atmospheric stability is determined through the classification of differential temperature data between the 100-meter and 10-meter levels. During the quarter, unstable conditions (Classes A through C) occurred approximately 12 percent of the time, neutral conditions (Class D) approximately 50 percent of the time, and stable conditions (Classes E through G) approximately 38 percent of the time (based on the JFD of 100-meter wind and delta T (100m - 10m) stability data).

Second Quarter (April through June 1984)

Data Recovery: Data recovery statistics are provided in Table 2 for pertinent meteorological parameters. Larger than normal data losses occurred with the 10-meter winds due to a severed transmission cable from the tower to the recorder during April. Because of these large data losses, 100-m wind speed and direction data were substituted for missing 10-m wind speeds and directions for the entire period in preparing the 10-m JFD, as described for the first quarter data. Data losses for other parameters were due mainly to inking and/or timing problems for the old system in April, and to tape drive problems for the new system in May and June.

Wind: Predominant wind directions at the 10-meter level were from the southeast through south sectors (a total of 33 percent) and from the northwest through north (24 percent). The quarterly mean wind speed was 8.6 miles per hour with 46 percent of the observations having wind speeds of less than 7.5 miles per hour. The maximum hourly average wind speed was 27.5 miles per hour on June 7. The predominant wind directions at the 100-meter level were also from the southeast through south (a total of 33 percent) and northwest through north (a total of 23 percent). The quarterly mean wind speed was 14.5 miles per hour with 44 percent of the observations having wind speeds of less than 12.5 miles per hour. The maximum hourly average wind speed was 43 miles per hour on June 7.

Temperature: The mean hourly average temperature for the quarter was 16.3°C, with an average daily maximum of 20.2°C and an average daily minimum of 11.9°C. The maximum temperature was 31.6°C on June 26, and the minimum was 0.8°C on April 6.

Precipitation: Total precipitation for the second quarter was 9.84 inches. The maximum daily precipitation was 1.93 inches on April 29. The maximum hourly precipitation total was 0.90 inches on May 22. Refer to the discussion of first quarter precipitation for comments on data recovery.

Atmospheric Stability: During the quarter, unstable conditions (Classes A through C) occurred approximately 10 percent of the time, neutral conditions (Class D) approximately 57 percent of the time, and stable conditions (Classes E through G) approximately 33 percent of the time (based on the JFD of 100-meter wind and delta T (100m-10m) stability data).

First Semiannual Period (January through June 1984)

Data Recovery: Data recovery statistics are provided in Table 2 for pertinent meteorological parameters. Due to large losses of 10-m wind data during the period, 100-m wind speed and direction data were substituted for missing 10-m wind speeds and directions for the entire semiannual period in preparing the 10-meter JFD.

Wind: Predominant wind directions for the semiannual period were from the northwest through north (a total of 30 percent) and southeast through south (a total of 24 percent) at both the 10-meter and 100-meter levels. Mean wind speeds were 7.9 miles per hour at 10 meters and 14.8 miles per hour at 100 meters. The maximum hourly average speeds were 27.5 miles per hour and 51 miles per hour at the 10-meter and 100-meter levels, respectively.

Temperature: The mean hourly average temperature for the semiannual period was 7.3°C, with an average daily maximum of 11.6°C, and an average daily minimum of 3.7°C. The maximum temperature was 31.6°C, and the minimum was -23.3°C.

Precipitation: The total precipitation for January through June 1984 was 12.66 inches. The maximum daily total was 1.93 inches on April 29 and the maximum hourly total was 0.90 inches on May 22. Refer to the discussion of first quarter precipitation for comments on data recovery.

Atmospheric Stability: During the semiannual period unstable conditions (Classes A through C) occurred approximately 11 percent of the time, neutral conditions (Class D) approximately 54 percent of the time, and stable conditions (Classes E through G) approximately 36 percent of the time. These values are based on the JFD of 100-meter wind and delta T (100 m-10 m) data.

## MONTHLY SUMMARY TABLES OF HOURLY METEOROLOGICAL DATA

The tables presented in this section provide a summary of hourly averages of measured meteorological parameters. The tables provide summaries by month for the semiannual period January through June 1984. Summaries for the first quarter, second quarter, and first semiannual period, are also provided. The parameters provided are listed below.

- 35-foot ambient temperature (note that these tabular listings also include ambient humidity, which was not measured by the Cooper Nuclear Station old system, but is provided for May and June 1984 from the new system).
- Wind direction frequencies at 10 meters and 100 meters. Due to large losses of 10-m wind data during the period no tables are provided for January, February, March, April or first quarter for this parameter.
- Precipitation.

Any missing or non-measured data are indicated by a field of 9's.

10-Meter Ambient Temperature
and
10-Meter Dew Point Temperature

Note: 10-Meter Dew Point Temperature was measured only during May and June 1984.

PROGRAM: METTEMP
VERSION: 3P

NPPD-COOPER STATION 10-M TEMPERATURE SUMMARY JAN-MAR 1984

MONTHLY HOUR AVERAGES FOR THE PERIOD 1/ 1/84 TO 3/31/84

JANUARY

?J.0 METERS LEVEL

| | TEMPERATURE | | DEW POINT | | RELATIVE HUM | | ABSOLUTE HUM | | WET BULB | |
|---|---|---|---|---|---|---|---|---|---|---|
| HOUR | NUMBER OBS | (DEG C) | NUMBER OBS | (DEG C) | NUMBER OBS | (%) | NUMBER OBS | (GM/M3) | NUMBER OBS | (DEG C) |
| 1 | 31 | -5.7 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 2 | 31 | -5.8 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 3 | 31 | -5.9 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 4 | 31 | -6.1 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 5 | 31 | -6.4 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 6 | 31 | -6.6 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 7 | 31 | -6.7 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 8 | 31 | -6.7 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 9 | 30 | -6.3 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 10 | 30 | -5.2 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 11 | 31 | -3.7 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 12 | 31 | -2.8 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 13 | 31 | -2.1 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 14 | 30 | -1.6 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 15 | 30 | -1.9 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 16 | 31 | -1.6 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 17 | 31 | -2.2 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 18 | 31 | -3.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 19 | 31 | -3.7 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 20 | 31 | -4.2 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 21 | 30 | -4.8 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 22 | 30 | -5.3 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 23 | 30 | -5.5 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 24 | 30 | -5.5 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| HOURLY MEAN | | -4.6 | | -999.0 | | -999.0 | | -999.0 | | -999.0 |
| AVG DAILY MAX | | -1.0 | | -999.0 | | -999.0 | | -999.0 | | -999.0 |
| AVG DAILY MIN | | -8.4 | | 999.0 | | 999.0 | | 999.0 | | 999.0 |
| ABSOLUTE MAX | | 10.3 | | -999.0 | | -999.0 | | -999.0 | | -999.0 |
| ABSOLUTE MIN | | -23.3 | | 999.0 | | 999.0 | | 999.0 | | 999.0 |
| TOTAL OBS | 736 | | 0 | | 0 | | 0 | | 0 | |

PROGRAM: WETTEMP
VERSION: 3P

NPPD-COOPER STATION 10-M TEMPERATURE SUMMARY JAN-MAR 1984

MONTHLY HOUR AVERAGES FOR THE PERIOD 1/ 1/84 TO 3/31/84

FEBRUARY

10.0 METERS LEVEL

| | TEMPERATURE | | DEW POINT | | RELATIVE HUM | | ABSOLUTE HUM | | WET BULB | |
|---|---|---|---|---|---|---|---|---|---|---|
| HOUR | NUMBER OBS | (DEG C) | NUMBER OBS | (DEG C) | NUMBER OBS | (%) | NUMBER OBS | (GM/M3) | NUMBER OBS | (DEG C) |
| 1 | 25 | 0.6 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 2 | 26 | 0.1 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 3 | 26 | -0.3 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 4 | 26 | -0.7 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 5 | 26 | -0.9 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 6 | 26 | -1.1 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 7 | 26 | -1.2 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 8 | 26 | -1.1 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 9 | 26 | -0.1 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 10 | 25 | 1.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 11 | 26 | 2.5 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 12 | 26 | 3.9 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 13 | 26 | 5.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 14 | 26 | 5.5 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 15 | 25 | 5.9 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 16 | 25 | 6.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 17 | 25 | 5.5 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 18 | 24 | 4.6 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 19 | 24 | 3.5 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 20 | 23 | 2.8 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 21 | 24 | 2.1 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 22 | 25 | 1.8 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 23 | 25 | 1.5 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 24 | 25 | 1.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| HOURLY MEAN | | 2.0 | | -999.0 | | -999.0 | | -999.0 | | -999.0 |
| AVG DAILY MAX | | 7.1 | | -999.0 | | -999.0 | | -999.0 | | -999.0 |
| AVG DAILY MIN | | -1.7 | | 999.0 | | 999.0 | | 999.0 | | 999.0 |
| ABSOLUTE MAX | | 18.3 | | -999.0 | | -999.0 | | -999.0 | | -999.0 |
| ABSOLUTE MIN | | -16.7 | | 999.0 | | 999.0 | | 999.0 | | 999.0 |
| TOTAL OBS | 607 | | 0 | | 0 | | 0 | | 0 | |

PROGRAM: WETTEMP
VERSION: 3P

NPPD-COOPER STATION 10-M TEMPERATURE SUMMARY JAN-MAR 1984

MONTHLY HOUR AVERAGES FOR THE PERIOD 1/ 1/84 TO 3/31/84

MARCH

10.0 METERS LEVEL

| | TEMPERATURE | | DEW POINT | | RELATIVE HUM | | ABSOLUTE HUM | | WET BULB | |
|---|---|---|---|---|---|---|---|---|---|---|
| HOUR | NUMBER OBS | (DEG C) | NUMBER OBS | (DEG C) | NUMBER OBS | (%) | NUMBER OBS | (GM/M3) | NUMBER OBS | (DEG C) |
| 1 | 29 | -1.1 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 2 | 28 | -1.4 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 3 | 29 | -1.5 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 4 | 30 | -1.6 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 5 | 28 | -1.9 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 6 | 28 | -2.1 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 7 | 27 | -2.5 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 8 | 30 | -1.7 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 9 | 30 | -1.3 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 10 | 29 | -0.7 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 11 | 30 | 0.1 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 12 | 30 | 1.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 13 | 29 | 1.6 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 14 | 28 | 2.4 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 15 | 29 | 2.9 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 16 | 29 | 2.9 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 17 | 30 | 2.7 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 18 | 30 | 2.4 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 19 | 30 | 1.7 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 20 | 30 | 1.2 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 21 | 30 | 0.8 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 22 | 30 | 0.4 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 23 | 29 | 0.1 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 24 | 29 | -0.7 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| HOURLY MEAN | | 0.2 | | -999.0 | | -999.0 | | -999.0 | | -999.0 |
| AVG DAILY MAX | | 3.5 | | -999.0 | | -999.0 | | -999.0 | | -999.0 |
| AVG DAILY MIN | | -2.7 | | 999.0 | | 999.0 | | 999.0 | | 999.0 |
| ABSOLUTE MAX | | 12.2 | | -999.0 | | -999.0 | | -999.0 | | -999.0 |
| ABSOLUTE MIN | | -11.4 | | 999.0 | | 999.0 | | 999.0 | | 999.0 |
| TOTAL OBS | 701 | | 0 | | 0 | | 0 | | 0 | |

PROGRAM: METTEMP
VERSION: 3P

NPPD-COOPER STATION 10-M TEMPERATURE SUMMARY JAN-MAR 1984

HOUR AVERAGES FOR THE PERIOD 1/ 1/84 TO 3/31/84

10.0 METERS LEVEL

| HOUR | TEMPERATURE | | DEW POINT | | RELATIVE HUM | | ABSOLUTE HUM | | WET BULB | |
|---|---|---|---|---|---|---|---|---|---|---|
| | NUMBER OBS | (DEG C) | NUMBER OBS | (DEG C) | NUMBER OBS | (%) | NUMBER OBS | (GM/M3) | NUMBER OBS | (DEG C) |
| 1 | 85 | -2.3 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 2 | 85 | -2.5 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 3 | 86 | -2.7 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 4 | 87 | -2.9 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 5 | 85 | -3.2 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 6 | 85 | -3.4 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 7 | 84 | -3.6 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 8 | 87 | -3.3 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 9 | 86 | -2.7 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 10 | 84 | -1.8 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 11 | 87 | -0.6 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 12 | 87 | 0.5 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 13 | 86 | 1.3 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 14 | 84 | 1.9 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 15 | 84 | 2.1 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 16 | 85 | 2.2 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 17 | 86 | 1.8 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 18 | 85 | 1.1 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 19 | 85 | 0.2 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 20 | 84 | -0.4 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 21 | 84 | -0.8 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 22 | 85 | -1.2 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 23 | 84 | -1.5 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 24 | 84 | -1.9 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| HOURLY MEAN | | -1.0 | | -999.0 | | -999.0 | | -999.0 | | -999.0 |
| AVG DAILY MAX | | 3.0 | | -999.0 | | -999.0 | | -999.0 | | -999.0 |
| AVG DAILY MIN | | -4.4 | | 999.0 | | 999.0 | | 999.0 | | 999.0 |
| ABSOLUTE MAX | | 18.3 | | -999.0 | | -999.0 | | -999.0 | | -999.0 |
| ABSOLUTE MIN | | -23.3 | | 999.0 | | 999.0 | | 999.0 | | 999.0 |
| TOTAL OBS | 2044 | | 0 | | 0 | | 0 | | 0 | |

PROGRAM: METTEMP
VERSION: 3P

NPPD-COOPER STATION 10-M TEMPERATURE SUMMARY APR-JUN 1984

MONTHLY HOUR AVERAGES FOR THE PERIOD 4/ 1/84 TO 6/30/84

APRIL

10.0 METERS LEVEL

| | TEMPERATURE | | DEW POINT | | RELATIVE HUM | | ABSOLUTE HUM | | WET BULB | |
|---|---|---|---|---|---|---|---|---|---|---|
| HOUR | NUMBER OBS | (DEG C) | NUMBER OBS | (DEG C) | NUMBER OBS | (%) | NUMBER OBS | (GM/M3) | NUMBER OBS | (DEG C) |
| 1 | 24 | 7.7 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 2 | 25 | 7.1 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 3 | 25 | 6.8 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 4 | 25 | 6.5 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 5 | 25 | 6.4 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 6 | 26 | 6.3 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 7 | 25 | 6.7 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 8 | 24 | 7.5 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 9 | 26 | 8.4 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 10 | 25 | 9.2 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 11 | 25 | 10.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 12 | 25 | 10.8 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 13 | 23 | 11.6 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 14 | 23 | 12.1 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 15 | 22 | 12.4 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 16 | 23 | 11.8 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 17 | 22 | 12.1 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 18 | 22 | 11.5 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 19 | 22 | 10.7 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 20 | 24 | 9.9 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 21 | 26 | 9.5 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 22 | 23 | 9.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 23 | 26 | 8.3 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| 24 | 26 | 7.9 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 | 0 | -999.0 |
| HOURLY MEAN | | 9.1 | | -999.0 | | -999.0 | | -999.0 | | -999.0 |
| AVG DAILY MAX | | 12.5 | | -999.0 | | -999.0 | | -999.0 | | -999.0 |
| AVG DAILY MIN | | 5.0 | | 999.0 | | 999.0 | | 999.0 | | 999.0 |
| ABSOLUTE MAX | | 26.4 | | -999.0 | | -999.0 | | -999.0 | | -999.0 |
| ABSOLUTE MIN | | 0.8 | | 999.0 | | 999.0 | | 999.0 | | 999.0 |
| TOTAL OBS | 584 | | 0 | | 0 | | 0 | | 0 | |

PROGRAM: METTEMP
VERSION: 3P

NPPD-COOPER STATION 10-M TEMPERATURE SUMMARY APR-JUN 1984

MONTHLY HOUR AVERAGES FOR THE PERIOD 4/ 1/84 TO 6/30/84

MAY

10.0 METERS LEVEL

| | TEMPERATURE | | DEW POINT | | RELATIVE HUM | | ABSOLUTE HUM | | WET BULB | |
|---|---|---|---|---|---|---|---|---|---|---|
| HOUR | NUMBER OBS | (DEG C) | NUMBER OBS | (DEG C) | NUMBER OBS | (%) | NUMBER OBS | (GM/M3) | NUMBER OBS | (DEG C) |
| 1 | 26 | 13.7 | 26 | 8.3 | 26 | 70.6 | 26 | 8.6 | 26 | 10.9 |
| 2 | 25 | 13.0 | 25 | 8.0 | 25 | 72.5 | 25 | 8.4 | 25 | 10.4 |
| 3 | 26 | 12.5 | 26 | 7.8 | 26 | 73.5 | 26 | 8.3 | 26 | 10.1 |
| 4 | 26 | 12.2 | 26 | 7.6 | 26 | 74.3 | 26 | 8.2 | 26 | 9.9 |
| 5 | 26 | 12.0 | 26 | 7.5 | 26 | 74.3 | 26 | 8.1 | 26 | 9.7 |
| 6 | 26 | 12.0 | 26 | 7.4 | 26 | 73.9 | 26 | 8.1 | 26 | 9.7 |
| 7 | 27 | 12.6 | 27 | 7.6 | 27 | 72.2 | 27 | 8.1 | 27 | 10.0 |
| 8 | 29 | 13.5 | 29 | 7.8 | 29 | 69.4 | 29 | 8.2 | 29 | 10.6 |
| 9 | 30 | 14.6 | 30 | 7.9 | 30 | 65.7 | 30 | 8.2 | 30 | 11.1 |
| 10 | 28 | 16.3 | 28 | 8.0 | 28 | 59.3 | 28 | 8.3 | 28 | 11.9 |
| 11 | 29 | 17.3 | 29 | 7.8 | 29 | 56.1 | 29 | 8.2 | 29 | 12.3 |
| 12 | 29 | 18.1 | 29 | 8.3 | 29 | 54.6 | 29 | 8.4 | 29 | 12.8 |
| 13 | 29 | 18.5 | 29 | 8.5 | 29 | 54.1 | 29 | 8.6 | 29 | 13.1 |
| 14 | 30 | 19.0 | 30 | 8.3 | 30 | 52.4 | 30 | 8.5 | 30 | 13.2 |
| 15 | 30 | 19.2 | 30 | 8.2 | 30 | 51.6 | 30 | 8.4 | 30 | 13.3 |
| 16 | 29 | 19.1 | 29 | 8.1 | 29 | 51.6 | 29 | 8.4 | 29 | 13.1 |
| 17 | 29 | 19.4 | 29 | 8.1 | 29 | 50.6 | 29 | 8.4 | 29 | 13.3 |
| 18 | 29 | 19.2 | 29 | 8.1 | 29 | 51.1 | 29 | 8.4 | 29 | 13.2 |
| 19 | 29 | 18.7 | 29 | 8.1 | 29 | 52.4 | 29 | 8.4 | 29 | 13.0 |
| 20 | 29 | 17.5 | 29 | 8.5 | 29 | 57.2 | 29 | 8.6 | 29 | 12.7 |
| 21 | 29 | 16.4 | 29 | 8.7 | 29 | 62.0 | 29 | 8.7 | 29 | 12.3 |
| 22 | 29 | 15.6 | 29 | 8.9 | 29 | 65.4 | 29 | 8.9 | 29 | 12.0 |
| 23 | 29 | 15.1 | 29 | 8.8 | 29 | 67.0 | 29 | 8.8 | 29 | 11.7 |
| 24 | 30 | 14.7 | 30 | 8.9 | 30 | 69.3 | 30 | 8.9 | 30 | 11.6 |
| HOURLY MEAN | | 15.9 | | 8.1 | | 62.2 | | 8.4 | | 11.8 |
| AVG DAILY MAX | | 20.2 | | 11.0 | | 80.2 | | 10.1 | | 14.3 |
| AVG DAILY MIN | | 11.3 | | 5.4 | | 45.7 | | 7.0 | | 8.9 |
| ABSOLUTE MAX | | 28.5 | | 20.0 | | 97.9 | | 16.9 | | 22.3 |
| ABSOLUTE MIN | | 3.5 | | -4.5 | | 25.3 | | 3.3 | | 1.6 |
| TOTAL OBS | 678 | | 678 | | 678 | | 678 | | 678 | |

PROGRAM: WETTEMP
VERSION: 3P

NPPD-COOPER STATION 10-M TEMPERATURE SUMMARY APR-JUN 1984

MONTHLY HOUR AVERAGES FOR THE PERIOD 4/ 1/84 TO 6/30/84

JUNE

10.0 METERS LEVEL

| | TEMPERATURE | | DEW POINT | | RELATIVE HUM | | ABSOLUTE HUM | | WET BULB | |
|---|---|---|---|---|---|---|---|---|---|---|
| HOUR | NUMBER OBS | (DEG C) | NUMBER OBS | (DEG C) | NUMBER OBS | (%) | NUMBER OBS | (GM/M3) | NUMBER OBS | (DEG C) |
| 1 | 25 | 20.6 | 25 | 15.8 | 25 | 74.3 | 25 | 13.4 | 25 | 17.7 |
| 2 | 25 | 20.2 | 25 | 15.2 | 25 | 73.6 | 25 | 12.9 | 25 | 17.2 |
| 3 | 25 | 19.9 | 25 | 15.0 | 25 | 74.1 | 25 | 12.8 | 25 | 16.9 |
| 4 | 26 | 19.5 | 26 | 14.7 | 26 | 74.2 | 26 | 12.5 | 26 | 16.6 |
| 5 | 25 | 19.2 | 25 | 14.5 | 25 | 74.7 | 25 | 12.4 | 25 | 16.4 |
| 6 | 25 | 18.9 | 25 | 14.5 | 25 | 76.1 | 25 | 12.4 | 25 | 16.3 |
| 7 | 25 | 19.4 | 25 | 14.7 | 25 | 74.9 | 25 | 12.6 | 25 | 16.6 |
| 8 | 28 | 20.7 | 28 | 15.2 | 28 | 71.4 | 28 | 12.9 | 28 | 17.4 |
| 9 | 28 | 21.9 | 28 | 15.5 | 28 | 67.5 | 28 | 13.1 | 28 | 18.0 |
| 10 | 27 | 23.1 | 27 | 15.5 | 27 | 63.5 | 27 | 13.2 | 27 | 18.4 |
| 11 | 27 | 24.1 | 27 | 15.6 | 27 | 60.6 | 27 | 13.3 | 27 | 18.9 |
| 12 | 25 | 25.2 | 25 | 15.6 | 25 | 56.6 | 25 | 13.2 | 25 | 19.2 |
| 13 | 25 | 26.0 | 25 | 15.6 | 25 | 54.0 | 25 | 13.2 | 25 | 19.5 |
| 14 | 25 | 26.8 | 25 | 15.6 | 25 | 51.1 | 25 | 13.1 | 25 | 19.7 |
| 15 | 26 | 27.1 | 26 | 15.5 | 26 | 50.3 | 26 | 13.1 | 26 | 19.9 |
| 16 | 28 | 27.0 | 28 | 15.5 | 28 | 51.0 | 28 | 13.1 | 28 | 19.8 |
| 17 | 28 | 27.2 | 28 | 15.8 | 28 | 51.2 | 28 | 13.3 | 28 | 20.0 |
| 18 | 28 | 27.1 | 28 | 15.9 | 28 | 51.8 | 28 | 13.4 | 28 | 20.0 |
| 19 | 29 | 26.3 | 29 | 16.2 | 29 | 55.1 | 29 | 13.6 | 29 | 19.9 |
| 20 | 29 | 25.0 | 29 | 16.5 | 29 | 60.0 | 29 | 13.8 | 29 | 19.6 |
| 21 | 29 | 23.5 | 29 | 16.3 | 29 | 64.7 | 29 | 13.8 | 29 | 19.0 |
| 22 | 29 | 22.7 | 29 | 16.2 | 29 | 67.5 | 29 | 13.7 | 29 | 18.7 |
| 23 | 29 | 22.0 | 29 | 16.1 | 29 | 69.9 | 29 | 13.6 | 29 | 18.3 |
| 24 | 29 | 21.3 | 29 | 16.0 | 29 | 72.5 | 29 | 13.6 | 29 | 18.0 |
| HOURLY MEAN | | 23.2 | | 15.6 | | 64.1 | | 13.2 | | 18.5 |
| AVG DAILY MAX | | 27.5 | | 18.2 | | 80.2 | | 15.4 | | 20.7 |
| AVG DAILY MIN | | 18.8 | | 13.5 | | 49.7 | | 11.5 | | 16.2 |
| ABSOLUTE MAX | | 31.6 | | 23.1 | | 100.0 | | 20.3 | | 24.8 |
| ABSOLUTE MIN | | 10.0 | | 6.7 | | 29.3 | | 7.2 | | 9.1 |
| TOTAL OBS | 645 | | 645 | | 645 | | 645 | | 645 | |

PROGRAM: METTEMP
VERSION: 3P

NPPD-COOPER STATION 10-K TEMPERATURE SUMMARY APR-JUN 1984

HOUR AVERAGES FOR THE PERIOD 4/ 1/84 TO 6/30/84

10.0 METERS LEVEL

| | TEMPERATURE | | DEW POINT | | RELATIVE HUM | | ABSOLUTE HUM | | WET BULB | |
|---|---|---|---|---|---|---|---|---|---|---|
| HOUR | NUMBER OBS | (DEG C) | NUMBER OBS | (DEG C) | NUMBER OBS | (%) | NUMBER OBS | (GM/M3) | NUMBER OBS | (DEG C) |
| 1 | 75 | 14.1 | 51 | 11.9 | 51 | 72.4 | 51 | 10.9 | 51 | 14.2 |
| 2 | 75 | 13.4 | 50 | 11.6 | 50 | 73.1 | 50 | 10.7 | 50 | 13.8 |
| 3 | 76 | 13.1 | 51 | 11.3 | 51 | 73.8 | 51 | 10.5 | 51 | 13.4 |
| 4 | 77 | 12.8 | 52 | 11.1 | 52 | 74.3 | 52 | 10.4 | 52 | 13.2 |
| 5 | 76 | 12.5 | 51 | 10.9 | 51 | 74.5 | 51 | 10.2 | 51 | 13.0 |
| 6 | 77 | 12.3 | 51 | 10.9 | 51 | 75.0 | 51 | 10.2 | 51 | 12.9 |
| 7 | 77 | 12.9 | 52 | 11.0 | 52 | 73.5 | 52 | 10.3 | 52 | 13.2 |
| 8 | 81 | 14.2 | 57 | 11.5 | 57 | 70.4 | 57 | 10.5 | 57 | 13.9 |
| 9 | 84 | 15.1 | 58 | 11.5 | 58 | 66.5 | 58 | 10.6 | 58 | 14.4 |
| 10 | 80 | 16.4 | 55 | 11.7 | 55 | 61.4 | 55 | 10.7 | 55 | 15.1 |
| 11 | 81 | 17.3 | 56 | 11.6 | 56 | 58.3 | 56 | 10.6 | 56 | 15.4 |
| 12 | 79 | 18.0 | 54 | 11.7 | 54 | 55.5 | 54 | 10.7 | 54 | 15.8 |
| 13 | 77 | 18.9 | 54 | 11.8 | 54 | 54.1 | 54 | 10.7 | 54 | 16.1 |
| 14 | 78 | 19.5 | 55 | 11.6 | 55 | 51.8 | 55 | 10.6 | 55 | 16.2 |
| 15 | 78 | 19.9 | 56 | 11.6 | 56 | 51.0 | 56 | 10.6 | 56 | 16.3 |
| 16 | 80 | 19.8 | 57 | 11.7 | 57 | 51.3 | 57 | 10.7 | 57 | 16.4 |
| 17 | 79 | 20.1 | 57 | 11.9 | 57 | 50.9 | 57 | 10.8 | 57 | 16.6 |
| 18 | 79 | 19.8 | 57 | 12.0 | 57 | 51.4 | 57 | 10.9 | 57 | 16.6 |
| 19 | 80 | 19.2 | 58 | 12.2 | 58 | 53.7 | 58 | 11.0 | 58 | 16.5 |
| 20 | 82 | 17.9 | 58 | 12.5 | 58 | 58.6 | 58 | 11.2 | 58 | 16.1 |
| 21 | 84 | 16.7 | 58 | 12.5 | 58 | 63.3 | 58 | 11.3 | 58 | 15.7 |
| 22 | 83 | 16.1 | 58 | 12.6 | 58 | 66.5 | 58 | 11.3 | 58 | 15.4 |
| 23 | 84 | 15.4 | 58 | 12.4 | 58 | 68.5 | 58 | 11.2 | 58 | 15.0 |
| 24 | 85 | 14.9 | 59 | 12.4 | 59 | 70.8 | 59 | 11.2 | 59 | 14.8 |
| HOURLY MEAN | | 16.3 | | 11.8 | | 63.1 | | 10.8 | | 15.0 |
| AVG DAILY MAX | | 20.2 | | 14.6 | | 80.2 | | 12.8 | | 17.5 |
| AVG DAILY MIN | | 11.9 | | 9.5 | | 47.7 | | 9.3 | | 12.6 |
| ABSOLUTE MAX | | 31.6 | | 23.1 | | 100.0 | | 20.3 | | 24.8 |
| ABSOLUTE MIN | | 0.8 | | -4.5 | | 25.3 | | 3.3 | | 1.6 |
| TOTAL OBS | 1907 | | 1323 | | 1323 | | 1323 | | 1323 | |

PROGRAM: WETTEMP
VERSION: 3P

NPPD-COOPER STATION 10-M TEMPERATURE SUMMARY JAN-JUN 1984

HOUR AVERAGES FOR THE PERIOD 1/ 1/84 TO 6/30/84

10.0 METERS LEVEL

| HOUR | TEMPERATURE | | DEW POINT | | RELATIVE HUM | | ABSOLUTE HUM | | WET BULB | |
|---|---|---|---|---|---|---|---|---|---|---|
| | NUMBER OBS | (DEG C) | NUMBER OBS | (DEG C) | NUMBER OBS | (%) | NUMBER OBS | (GM/M3) | NUMBER OBS | (DEG C) |
| 1 | 160 | 5.4 | 51 | 11.9 | 51 | 72.4 | 51 | 10.9 | 51 | 14.2 |
| 2 | 160 | 5.0 | 50 | 11.6 | 50 | 73.1 | 50 | 10.7 | 50 | 13.8 |
| 3 | 162 | 4.7 | 51 | 11.3 | 51 | 73.8 | 51 | 10.5 | 51 | 13.4 |
| 4 | 164 | 4.5 | 52 | 11.1 | 52 | 74.3 | 52 | 10.4 | 52 | 13.2 |
| 5 | 161 | 4.2 | 51 | 10.9 | 51 | 74.5 | 51 | 10.2 | 51 | 13.0 |
| 6 | 162 | 4.1 | 51 | 10.9 | 51 | 75.0 | 51 | 10.2 | 51 | 12.9 |
| 7 | 161 | 4.3 | 52 | 11.0 | 52 | 73.5 | 52 | 10.3 | 52 | 13.2 |
| 8 | 168 | 5.1 | 57 | 11.5 | 57 | 70.4 | 57 | 10.5 | 57 | 13.9 |
| 9 | 170 | 6.1 | 58 | 11.5 | 58 | 66.5 | 58 | 10.6 | 58 | 14.4 |
| 10 | 164 | 7.1 | 55 | 11.7 | 55 | 61.4 | 55 | 10.7 | 55 | 15.1 |
| 11 | 168 | 8.0 | 56 | 11.6 | 56 | 58.3 | 56 | 10.6 | 56 | 15.4 |
| 12 | 166 | 8.8 | 54 | 11.7 | 54 | 55.5 | 54 | 10.7 | 54 | 15.8 |
| 13 | 163 | 9.6 | 54 | 11.8 | 54 | 54.1 | 54 | 10.7 | 54 | 16.1 |
| 14 | 162 | 10.4 | 55 | 11.6 | 55 | 51.8 | 55 | 10.6 | 55 | 16.2 |
| 15 | 162 | 10.7 | 56 | 11.6 | 56 | 51.0 | 56 | 10.6 | 56 | 16.3 |
| 16 | 165 | 10.7 | 57 | 11.7 | 57 | 51.3 | 57 | 10.7 | 57 | 16.4 |
| 17 | 165 | 10.6 | 57 | 11.9 | 57 | 50.9 | 57 | 10.8 | 57 | 16.6 |
| 18 | 164 | 10.1 | 57 | 12.0 | 57 | 51.4 | 57 | 10.9 | 57 | 16.6 |
| 19 | 165 | 9.5 | 58 | 12.2 | 58 | 53.7 | 58 | 11.0 | 58 | 16.5 |
| 20 | 166 | 8.7 | 58 | 12.5 | 58 | 58.6 | 58 | 11.2 | 58 | 16.1 |
| 21 | 168 | 7.9 | 58 | 12.5 | 58 | 63.3 | 58 | 11.3 | 58 | 15.7 |
| 22 | 168 | 7.4 | 58 | 12.6 | 58 | 66.5 | 58 | 11.3 | 58 | 15.4 |
| 23 | 168 | 7.0 | 58 | 12.4 | 58 | 68.5 | 58 | 11.2 | 58 | 15.0 |
| 24 | 169 | 6.5 | 59 | 12.4 | 59 | 70.8 | 59 | 11.2 | 59 | 14.8 |
| HOURLY MEAN | | 7.3 | | 11.8 | | 63.1 | | 10.8 | | 15.0 |
| AVG DAILY MAX | | 11.6 | | 14.6 | | 80.2 | | 12.8 | | 17.5 |
| AVG DAILY MIN | | 3.7 | | 9.5 | | 47.7 | | 9.3 | | 12.6 |
| ABSOLUTE MAX | | 31.6 | | 23.1 | | 100.0 | | 20.3 | | 24.8 |
| ABSOLUTE MIN | | -23.3 | | -4.5 | | 25.3 | | 3.3 | | 1.6 |
| TOTAL OBS | 3951 | | 1323 | | 1323 | | 1323 | | 1323 | |

Wind Direction Frequencies,
10-Meter Level

No 10-m wind direction summaries are provided
for the months of January, February, March, and April 1984
due to low data recovery.

NPPD-COOPER STATION 10-M WIND DIRECTION PERSISTENCE APR-JUN 1984

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

MAY

WIND DIRECTION

| HR. OF DAY | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.0 | 0.0 | 4.0 | 0.0 | 0.0 | 4.0 | 20.0 | 4.0 | 16.0 | 8.0 | 12.0 | 4.0 | 0.0 | 4.0 | 12.0 | 4.0 | 8.0 | 100. |
| 2 | 8.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.0 | 0.0 | 20.0 | 4.0 | 20.0 | 8.0 | 4.0 | 4.0 | 0.0 | 4.0 | 4.0 | 100. |
| 3 | 16.0 | 12.0 | 0.0 | 0.0 | 4.0 | 0.0 | 16.0 | 4.0 | 20.0 | 12.0 | 4.0 | 0.0 | 4.0 | 4.0 | 0.0 | 4.0 | 0.0 | 100. |
| 4 | 12.0 | 16.0 | 4.0 | 0.0 | 0.0 | 8.0 | 12.0 | 0.0 | 16.0 | 4.0 | 8.0 | 0.0 | 4.0 | 8.0 | 4.0 | 0.0 | 4.0 | 100. |
| 5 | 16.0 | 0.0 | 12.0 | 0.0 | 4.0 | 0.0 | 20.0 | 12.0 | 8.0 | 4.0 | 0.0 | 4.0 | 4.0 | 8.0 | 4.0 | 0.0 | 4.0 | 100. |
| 6 | 12.0 | 8.0 | 8.0 | 0.0 | 0.0 | 4.0 | 16.0 | 8.0 | 16.0 | 4.0 | 0.0 | 0.0 | 4.0 | 12.0 | 8.0 | 0.0 | 0.0 | 100. |
| 7 | 11.5 | 0.0 | 7.7 | 7.7 | 7.7 | 3.8 | 15.4 | 19.2 | 3.8 | 0.0 | 3.8 | 0.0 | 3.8 | 7.7 | 7.7 | 0.0 | 0.0 | 100. |
| 8 | 3.6 | 10.7 | 7.1 | 3.6 | 3.6 | 10.7 | 10.7 | 7.1 | 10.7 | 3.6 | 3.6 | 0.0 | 3.6 | 7.1 | 0.0 | 10.7 | 3.6 | 100. |
| 9 | 10.3 | 3.4 | 6.9 | 6.9 | 3.4 | 10.3 | 10.3 | 3.4 | 10.3 | 10.3 | 3.4 | 0.0 | 0.0 | 0.0 | 6.9 | 10.3 | 3.4 | 100. |
| 10 | 14.8 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 14.8 | 3.7 | 11.1 | 11.1 | 3.7 | 0.0 | 0.0 | 0.0 | 7.4 | 14.8 | 0.0 | 100. |
| 11 | 10.7 | 3.6 | 7.1 | 3.6 | 7.1 | 14.3 | 7.1 | 7.1 | 14.3 | 0.0 | 7.1 | 3.6 | 0.0 | 0.0 | 3.6 | 10.7 | 0.0 | 100. |
| 12 | 13.8 | 10.3 | 3.4 | 3.4 | 0.0 | 3.4 | 17.2 | 13.8 | 13.8 | 0.0 | 6.9 | 0.0 | 0.0 | 0.0 | 6.9 | 6.9 | 0.0 | 100. |
| 13 | 13.8 | 6.9 | 3.4 | 0.0 | 6.9 | 6.9 | 6.9 | 10.3 | 17.2 | 6.9 | 3.4 | 0.0 | 0.0 | 0.0 | 6.9 | 10.3 | 0.0 | 100. |
| 14 | 16.7 | 10.0 | 3.3 | 0.0 | 6.7 | 3.3 | 10.0 | 13.3 | 10.0 | 10.0 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 13.3 | 0.0 | 100. |
| 15 | 13.3 | 10.0 | 0.0 | 0.0 | 3.3 | 6.7 | 3.3 | 23.3 | 3.3 | 13.3 | 3.3 | 0.0 | 0.0 | 0.0 | 6.7 | 13.3 | 0.0 | 100. |
| 16 | 13.8 | 3.4 | 6.9 | 0.0 | 0.0 | 6.9 | 17.2 | 10.3 | 10.3 | 10.3 | 3.4 | 0.0 | 0.0 | 0.0 | 6.9 | 10.3 | 0.0 | 100. |
| 17 | 10.3 | 6.9 | 0.0 | 3.4 | 0.0 | 3.4 | 13.8 | 6.9 | 20.7 | 6.9 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 | 24.1 | 0.0 | 100. |
| 18 | 10.3 | 6.9 | 0.0 | 0.0 | 0.0 | 3.4 | 13.8 | 10.3 | 20.7 | 3.4 | 0.0 | 3.4 | 3.4 | 0.0 | 6.9 | 17.2 | 0.0 | 100. |
| 19 | 10.3 | 6.9 | 0.0 | 0.0 | 0.0 | 6.9 | 6.9 | 13.8 | 17.2 | 6.9 | 0.0 | 0.0 | 3.4 | 0.0 | 6.9 | 20.7 | 0.0 | 100. |
| 20 | 10.3 | 0.0 | 6.9 | 3.4 | 0.0 | 3.4 | 13.8 | 17.2 | 6.9 | 6.9 | 0.0 | 0.0 | 3.4 | 0.0 | 17.2 | 10.3 | 0.0 | 100. |
| 21 | 13.8 | 3.4 | 0.0 | 0.0 | 3.4 | 6.9 | 10.3 | 13.8 | 3.4 | 6.9 | 3.4 | 3.4 | 0.0 | 0.0 | 10.3 | 20.7 | 0.0 | 100. |
| 22 | 6.9 | 6.9 | 3.4 | 3.4 | 0.0 | 3.4 | 6.9 | 13.8 | 17.2 | 3.4 | 0.0 | 0.0 | 0.0 | 3.4 | 10.3 | 17.2 | 3.4 | 100. |
| 23 | 13.8 | 3.4 | 0.0 | 0.0 | 3.4 | 10.3 | 6.9 | 10.3 | 20.7 | 3.4 | 0.0 | 3.4 | 0.0 | 3.4 | 13.8 | 0.0 | 6.9 | 100. |
| 24 | 3.4 | 6.9 | 0.0 | 0.0 | 0.0 | 10.3 | 13.8 | 10.3 | 17.2 | 10.3 | 0.0 | 0.0 | 3.4 | 0.0 | 13.8 | 3.4 | 6.9 | 100. |
| ALL | 11.1 | 6.0 | 3.6 | 1.6 | 2.4 | 5.7 | 12.4 | 10.0 | 13.5 | 6.3 | 3.6 | 1.3 | 1.6 | 2.4 | 6.7 | 9.7 | 1.8 | 100. |

NUMBER OF OBS = 667

NPPD-COOPER STATION 10-M WIND DIRECTION PERSISTENCE APR-JUN 1984

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

JUNE

WIND DIRECTION

| HR. OF DAY | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.0 | 3.8 | 3.8 | 3.8 | 7.7 | 3.8 | 11.5 | 19.2 | 19.2 | 3.8 | 3.8 | 0.0 | 3.8 | 0.0 | 11.5 | 3.8 | 0.0 | 100. |
| 2 | 7.7 | 3.8 | 0.0 | 3.8 | 3.8 | 11.5 | 15.4 | 15.4 | 11.5 | 7.7 | 3.8 | 0.0 | 3.8 | 0.0 | 7.7 | 3.8 | 0.0 | 100. |
| 3 | 3.8 | 0.0 | 0.0 | 0.0 | 3.8 | 7.7 | 19.2 | 19.2 | 19.2 | 3.8 | 7.7 | 0.0 | 0.0 | 3.8 | 11.5 | 0.0 | 0.0 | 100. |
| 4 | 7.4 | 0.0 | 0.0 | 3.7 | 7.4 | 11.1 | 14.8 | 18.5 | 7.4 | 7.4 | 0.0 | 7.4 | 0.0 | 3.7 | 11.1 | 0.0 | 0.0 | 100. |
| 5 | 3.8 | 0.0 | 0.0 | 3.8 | 3.8 | 15.4 | 11.5 | 7.7 | 11.5 | 7.7 | 3.8 | 3.8 | 3.8 | 7.7 | 11.5 | 3.8 | 0.0 | 100. |
| 6 | 7.7 | 3.8 | 0.0 | 3.8 | 3.8 | 7.7 | 11.5 | 19.2 | 7.7 | 0.0 | 7.7 | 3.8 | 3.8 | 3.8 | 3.8 | 11.5 | 0.0 | 100. |
| 7 | 7.7 | 3.8 | 3.8 | 0.0 | 3.8 | 11.5 | 11.5 | 26.9 | 7.7 | 0.0 | 3.8 | 3.8 | 0.0 | 3.8 | 7.7 | 3.8 | 0.0 | 100. |
| 8 | 0.0 | 3.4 | 0.0 | 3.4 | 3.4 | 3.4 | 20.7 | 10.3 | 17.2 | 6.9 | 3.4 | 10.3 | 0.0 | 0.0 | 6.9 | 10.3 | 0.0 | 100. |
| 9 | 13.8 | 0.0 | 0.0 | 0.0 | 0.0 | 13.8 | 10.3 | 13.8 | 24.1 | 10.3 | 0.0 | 0.0 | 6.9 | 3.4 | 0.0 | 3.4 | 0.0 | 100. |
| 10 | 10.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.0 | 14.3 | 14.3 | 17.9 | 3.6 | 0.0 | 7.1 | 0.0 | 0.0 | 7.1 | 0.0 | 100. |
| 11 | 17.9 | 0.0 | 0.0 | 0.0 | 0.0 | 3.6 | 25.0 | 3.6 | 14.3 | 25.0 | 0.0 | 7.1 | 0.0 | 3.6 | 0.0 | 0.0 | 0.0 | 100. |
| 12 | 7.4 | 7.4 | 0.0 | 3.7 | 0.0 | 3.7 | 22.2 | 3.7 | 25.9 | 7.4 | 7.4 | 0.0 | 7.4 | 0.0 | 0.0 | 3.7 | 0.0 | 100. |
| 13 | 11.1 | 0.0 | 3.7 | 0.0 | 0.0 | 3.7 | 18.5 | 7.4 | 22.2 | 14.8 | 7.4 | 0.0 | 3.7 | 3.7 | 0.0 | 3.7 | 0.0 | 100. |
| 14 | 11.1 | 0.0 | 0.0 | 3.7 | 3.7 | 0.0 | 18.5 | 3.7 | 22.2 | 14.8 | 11.1 | 0.0 | 3.7 | 3.7 | 0.0 | 3.7 | 0.0 | 100. |
| 15 | 3.6 | 0.0 | 0.0 | 3.6 | 7.1 | 7.1 | 10.7 | 7.1 | 17.9 | 14.3 | 3.6 | 3.6 | 3.6 | 0.0 | 7.1 | 10.7 | 0.0 | 100. |
| 16 | 3.4 | 10.3 | 3.4 | 0.0 | 6.9 | 3.4 | 13.8 | 6.9 | 20.7 | 17.2 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 | 10.3 | 0.0 | 100. |
| 17 | 10.3 | 6.9 | 6.9 | 0.0 | 6.9 | 6.9 | 10.3 | 6.9 | 27.6 | 6.9 | 6.9 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 | 100. |
| 18 | 10.3 | 6.9 | 3.4 | 0.0 | 0.0 | 3.4 | 20.7 | 6.9 | 31.0 | 10.3 | 3.4 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 | 0.0 | 100. |
| 19 | 10.0 | 3.3 | 3.3 | 3.3 | 0.0 | 3.3 | 16.7 | 13.3 | 23.3 | 6.7 | 6.7 | 0.0 | 3.3 | 3.3 | 3.3 | 0.0 | 0.0 | 100. |
| 20 | 10.0 | 0.0 | 6.7 | 6.7 | 10.0 | 0.0 | 13.3 | 20.0 | 6.7 | 0.0 | 10.0 | 3.3 | 10.0 | 0.0 | 0.0 | 3.3 | 0.0 | 100. |
| 21 | 10.0 | 0.0 | 13.3 | 10.0 | 0.0 | 3.3 | 6.7 | 20.0 | 10.0 | 6.7 | 6.7 | 0.0 | 3.3 | 6.7 | 0.0 | 3.3 | 0.0 | 100. |
| 22 | 10.0 | 3.3 | 3.3 | 6.7 | 3.3 | 0.0 | 13.3 | 16.7 | 10.0 | 6.7 | 0.0 | 6.7 | 6.7 | 3.3 | 3.3 | 6.7 | 0.0 | 100. |
| 23 | 6.7 | 0.0 | 3.3 | 6.7 | 6.7 | 3.3 | 10.0 | 6.7 | 20.0 | 10.0 | 3.3 | 0.0 | 6.7 | 3.3 | 3.3 | 10.0 | 0.0 | 100. |
| 24 | 3.3 | 0.0 | 6.7 | 6.7 | 0.0 | 10.0 | 6.7 | 10.0 | 23.3 | 6.7 | 0.0 | 0.0 | 6.7 | 6.7 | 6.7 | 3.3 | 3.3 | 100. |
| ALL | 7.9 | 2.4 | 2.7 | 3.1 | 3.4 | 5.6 | 14.9 | 12.3 | 17.4 | 8.9 | 4.3 | 2.1 | 3.6 | 2.7 | 4.0 | 4.6 | 0.1 | 100. |

NUMBER OF OBS = 673

NPPD-COOPER STATION 10-M WIND DIRECTION PERSISTENCE APR-JUN 1984

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

| | WIND DIRECTION | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HR. OF DAY | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM | TOTAL |
| 1 | 0.0 | 2.0 | 3.9 | 2.0 | 3.9 | 3.9 | 15.7 | 11.8 | 17.6 | 5.9 | 7.8 | 2.0 | 2.0 | 2.0 | 11.8 | 3.9 | 3.9 | 100. |
| 2 | 7.8 | 3.9 | 0.0 | 2.0 | 2.0 | 5.9 | 17.6 | 7.8 | 15.7 | 5.9 | 11.8 | 3.9 | 3.9 | 2.0 | 3.9 | 3.9 | 2.0 | 100. |
| 3 | 9.8 | 5.9 | 0.0 | 0.0 | 3.9 | 3.9 | 17.6 | 11.8 | 19.6 | 7.8 | 5.9 | 0.0 | 2.0 | 3.9 | 5.9 | 2.0 | 0.0 | 100. |
| 4 | 9.6 | 7.7 | 1.9 | 1.9 | 3.8 | 9.6 | 13.5 | 9.6 | 11.5 | 5.8 | 3.3 | 3.8 | 1.9 | 5.8 | 7.7 | 0.0 | 1.9 | 100. |
| 5 | 9.8 | 0.0 | 5.9 | 2.0 | 3.9 | 7.8 | 15.7 | 9.8 | 9.8 | 5.9 | 2.0 | 3.9 | 3.9 | 7.8 | 7.8 | 2.0 | 2.0 | 100. |
| 6 | 9.8 | 5.9 | 3.9 | 2.0 | 2.0 | 5.9 | 13.7 | 13.7 | 11.8 | 2.0 | 3.9 | 2.0 | 3.9 | 7.8 | 5.9 | 5.9 | 0.0 | 100. |
| 7 | 9.6 | 1.9 | 5.8 | 3.8 | 5.8 | 7.7 | 13.5 | 23.1 | 5.8 | 0.0 | 3.8 | 1.9 | 1.9 | 5.8 | 7.7 | 1.9 | 0.0 | 100. |
| 8 | 1.8 | 7.0 | 3.5 | 3.5 | 3.5 | 7.0 | 15.8 | 8.8 | 14.0 | 5.3 | 3.5 | 5.3 | 1.8 | 3.5 | 3.5 | 10.5 | 1.8 | 100. |
| 9 | 12.1 | 1.7 | 3.4 | 3.4 | 1.7 | 12.1 | 10.3 | 8.6 | 17.2 | 10.3 | 1.7 | 0.0 | 3.4 | 1.7 | 3.4 | 6.9 | 1.7 | 100. |
| 10 | 12.7 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 20.0 | 9.1 | 12.7 | 14.5 | 3.6 | 0.0 | 3.6 | 0.0 | 3.6 | 10.9 | 0.0 | 100. |
| 11 | 14.3 | 1.8 | 3.6 | 1.8 | 3.6 | 8.9 | 16.1 | 5.4 | 14.3 | 12.5 | 3.6 | 5.4 | 0.0 | 1.8 | 1.8 | 5.4 | 0.0 | 100. |
| 12 | 10.7 | 8.9 | 1.8 | 3.6 | 0.0 | 3.6 | 19.6 | 8.9 | 19.6 | 3.6 | 7.1 | 0.0 | 3.6 | 0.0 | 3.6 | 5.4 | 0.0 | 100. |
| 13 | 12.5 | 3.6 | 3.6 | 0.0 | 3.6 | 5.4 | 12.5 | 8.9 | 19.6 | 10.7 | 5.4 | 0.0 | 1.8 | 1.8 | 3.6 | 7.1 | 0.0 | 100. |
| 14 | 14.0 | 5.3 | 1.8 | 1.8 | 5.3 | 1.8 | 14.0 | 8.8 | 15.8 | 12.3 | 7.0 | 0.0 | 1.8 | 1.8 | 0.0 | 8.8 | 0.0 | 100. |
| 15 | 8.6 | 5.2 | 0.0 | 1.7 | 5.2 | 6.9 | 6.9 | 15.5 | 10.3 | 13.8 | 3.4 | 1.7 | 1.7 | 0.0 | 6.9 | 12.1 | 0.0 | 100. |
| 16 | 8.6 | 6.9 | 5.2 | 0.0 | 3.4 | 5.2 | 15.5 | 8.6 | 1[illegible]5 | 13.8 | 1.7 | 0.0 | 0.0 | 1.7 | 3.4 | 10.3 | 0.0 | 100. |
| 17 | 10.3 | 6.9 | 3.4 | 1.7 | 3.4 | 5.2 | 12.1 | 6.9 | 24.1 | 6.9 | 3.4 | 1.7 | 0.0 | 0.0 | 0.0 | 13.8 | 0.0 | 100. |
| 18 | 10.3 | 6.9 | 1.7 | 0.0 | 0.0 | 3.4 | 17.2 | 8.6 | 25.9 | 6.9 | 1.7 | 1.7 | 1.7 | 0.0 | 5.2 | 8.6 | 0.0 | 100. |
| 19 | 10.2 | 5.1 | 1.7 | 1.7 | 0.0 | 5.1 | 11.9 | 13.6 | 20.3 | 6.8 | 3.4 | 0.0 | 3.4 | 1.7 | 5.1 | 10.2 | 0.0 | 100. |
| 20 | 10.2 | 0.0 | 6.8 | 5.1 | 5.1 | 1.7 | 13.6 | 18.6 | 6.8 | 3.4 | 5.1 | 1.7 | 6.8 | 0.0 | 8.5 | 6.8 | 0.0 | 100. |
| 21 | 11.9 | 1.7 | 6.8 | 5.1 | 1.7 | 5.1 | 8.5 | 16.9 | 6.8 | 6.8 | 5.1 | 1.7 | 1.7 | 3.4 | 5.1 | 11.9 | 0.0 | 100. |
| 22 | 8.5 | 5.1 | 3.4 | 5.1 | 1.7 | 1.7 | 10.2 | 15.3 | 13.6 | 5.1 | 0.0 | 3.4 | 3.4 | 3.4 | 6.8 | 11.9 | 1.7 | 100. |
| 23 | 10.2 | 1.7 | 1.7 | 3.4 | 5.1 | 6.8 | 8.5 | 8.5 | 20.3 | 6.8 | 1.7 | 1.7 | 3.4 | 3.4 | 8.5 | 5.1 | 3.4 | 100. |
| 24 | 3.4 | 3.4 | 3.4 | 3.4 | 0.0 | 10.2 | 10.2 | 10.2 | 20.3 | 8.5 | 0.0 | 0.0 | 5.1 | 3.4 | 10.2 | 3.4 | 5.1 | 100. |
| ALL | 9.5 | 4.2 | 3.1 | 2.4 | 2.9 | 5.7 | 13.7 | 11.2 | 15.4 | 7.6 | 4.0 | 1.7 | 2.6 | 2.5 | 5.4 | 7.2 | 1.0 | 100. |

NUMBER OF OBS = 1340

NPPD-COOPER STATION 10-M WIND DIRECTION PERSISTENCE JAN-JUN 1984

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

WIND DIRECTION

| HR. OF DAY | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.0 | 2.0 | 3.9 | 2.0 | 3.9 | 3.9 | 15.7 | 11.8 | 17.6 | 5.9 | 7.8 | 2.0 | 2.0 | 2.0 | 11.8 | 3.9 | 3.9 | 100. |
| 2 | 7.8 | 3.9 | 0.0 | 2.0 | 2.0 | 5.9 | 17.6 | 7.8 | 15.7 | 5.9 | 11.8 | 3.9 | 3.9 | 2.0 | 3.9 | 3.9 | 2.0 | 100. |
| 3 | 9.8 | 5.9 | 0.0 | 0.0 | 3.9 | 3.9 | 17.6 | 11.8 | 19.6 | 7.8 | 5.9 | 0.0 | 2.0 | 3.9 | 5.9 | 2.0 | 0.0 | 100. |
| 4 | 9.6 | 7.7 | 1.9 | 1.9 | 3.8 | 9.6 | 13.5 | 9.6 | 11.5 | 5.8 | 3.8 | 3.8 | 1.9 | 5.8 | 7.7 | 0.0 | 1.9 | 100. |
| 5 | 9.8 | 0.0 | 5.9 | 2.0 | 3.9 | 7.8 | 15.7 | 9.8 | 9.8 | 5.9 | 2.0 | 3.9 | 3.9 | 7.8 | 7.8 | 2.0 | 2.0 | 100. |
| 6 | 9.8 | 5.9 | 3.9 | 2.0 | 2.0 | 5.9 | 13.7 | 13.7 | 11.8 | 2.0 | 3.9 | 2.0 | 3.9 | 7.8 | 5.9 | 5.9 | 0.0 | 100. |
| 7 | 9.6 | 1.9 | 5.8 | 3.8 | 5.8 | 7.7 | 13.5 | 23.1 | 5.8 | 0.0 | 3.8 | 1.9 | 1.9 | 5.8 | 7.7 | 1.9 | 0.0 | 100. |
| 8 | 1.8 | 7.0 | 3.5 | 3.5 | 3.5 | 7.0 | 15.8 | 8.8 | 14.0 | 5.3 | 3.5 | 5.3 | 1.8 | 3.5 | 3.5 | 10.5 | 1.8 | 100. |
| 9 | 12.1 | 1.7 | 3.4 | 3.4 | 1.7 | 12.1 | 10.3 | 8.6 | 17.2 | 10.3 | 1.7 | 0.0 | 3.4 | 1.7 | 3.4 | 6.9 | 1.7 | 100. |
| 10 | 12.7 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 20.0 | 9.1 | 12.7 | 14.5 | 3.6 | 0.0 | 3.6 | 0.0 | 3.6 | 10.9 | 0.0 | 100. |
| 11 | 14.3 | 1.8 | 3.6 | 1.8 | 3.6 | 8.9 | 16.1 | 5.4 | 14.3 | 12.5 | 3.6 | 5.4 | 0.0 | 1.8 | 1.8 | 5.4 | 0.0 | 100. |
| 12 | 10.7 | 8.9 | 1.8 | 3.6 | 0.0 | 3.6 | 19.6 | 8.9 | 19.6 | 3.6 | 7.1 | 0.0 | 3.6 | 0.0 | 3.6 | 5.4 | 0.0 | 100. |
| 13 | 12.5 | 3.6 | 3.6 | 0.0 | 3.6 | 5.4 | 12.5 | 8.9 | 19.6 | 10.7 | 5.4 | 0.0 | 1.8 | 1.8 | 3.6 | 7.1 | 0.0 | 100. |
| 14 | 14.0 | 5.3 | 1.8 | 1.8 | 5.3 | 1.8 | 14.0 | 8.8 | 15.8 | 12.3 | 7.0 | 0.0 | 1.8 | 1.8 | 0.0 | 8.8 | 0.0 | 100. |
| 15 | 8.6 | 5.2 | 0.0 | 1.7 | 5.2 | 6.9 | 6.9 | 15.5 | 10.3 | 13.8 | 3.4 | 1.7 | 1.7 | 0.0 | 6.9 | 12.1 | 0.0 | 100. |
| 16 | 8.6 | 6.9 | 5.2 | 0.0 | 3.4 | 5.2 | 15.5 | 8.6 | 15.5 | 13.8 | 1.7 | 0.0 | 0.0 | 1.7 | 3.4 | 10.3 | 0.0 | 100. |
| 17 | 10.3 | 6.9 | 3.4 | 1.7 | 3.4 | 5.2 | 12.1 | 6.9 | 24.1 | 6.9 | 3.4 | 1.7 | 0.0 | 0.0 | 0.0 | 13.8 | 0.0 | 100. |
| 18 | 10.3 | 6.9 | 1.7 | 0.0 | 0.0 | 3.4 | 17.2 | 8.6 | 25.9 | 6.9 | 1.7 | 1.7 | 1.7 | 0.0 | 5.2 | 8.6 | 0.0 | 100. |
| 19 | 10.2 | 5.1 | 1.7 | 1.7 | 0.0 | 5.1 | 11.9 | 13.6 | 20.3 | 6.8 | 3.4 | 0.0 | 3.4 | 1.7 | 5.1 | 10.2 | 0.0 | 100. |
| 20 | 10.2 | 0.0 | 6.8 | 5.1 | 5.1 | 1.7 | 13.6 | 18.6 | 6.8 | 3.4 | 5.1 | 1.7 | 6.8 | 0.0 | 8.5 | 6.8 | 0.0 | 100. |
| 21 | 11.9 | 1.7 | 6.8 | 5.1 | 1.7 | 5.1 | 8.5 | 16.9 | 6.8 | 6.8 | 5.1 | 1.7 | 1.7 | 3.4 | 5.1 | 11.9 | 0.0 | 100. |
| 22 | 8.5 | 5.1 | 3.4 | 5.1 | 1.7 | 1.7 | 10.2 | 15.3 | 13.6 | 5.1 | 0.0 | 3.4 | 3.4 | 3.4 | 6.8 | 11.9 | 1.7 | 100. |
| 23 | 10.2 | 1.7 | 1.7 | 3.4 | 5.1 | 6.8 | 8.5 | 8.5 | 20.3 | 6.8 | 1.7 | 1.7 | 3.4 | 3.4 | 8.5 | 5.1 | 3.4 | 100. |
| 24 | 3.4 | 3.4 | 3.4 | 3.4 | 0.0 | 10.2 | 10.2 | 10.2 | 20.3 | 8.5 | 0.0 | 0.0 | 5.1 | 3.4 | 10.2 | 3.4 | 5.1 | 100. |
| ALL | 9.5 | 4.2 | 3.1 | 2.4 | 2.9 | 5.7 | 13.7 | 11.2 | 15.4 | 7.6 | 4.0 | 1.7 | 2.6 | 2.5 | 5.4 | 7.2 | 1.0 | 100. |

NUMBER OF OBS = 1340

Wind Direction Frequencies,
100-Meter Level

NPPD-COOPER STATION 100-M WIND DIRECTION PERSISTENCE JAN-MAR 1984

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

JANUARY

WIND DIRECTION

| HR. OF DAY | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 16.7 | 0.0 | 6.7 | 0.0 | 0.0 | 3.3 | 3.3 | 3.3 | 6.7 | 6.7 | 13.3 | 10.0 | 6.7 | 10.0 | 10.0 | 3.3 | 0.0 | 100. |
| 2 | 13.3 | 6.7 | 3.3 | 0.0 | 0.0 | 3.3 | 3.3 | 3.3 | 6.7 | 0.0 | 20.0 | 3.3 | 13.3 | 10.0 | 10.0 | 3.3 | 0.0 | 100. |
| 3 | 13.3 | 3.3 | 6.7 | 0.0 | 0.0 | 6.7 | 0.0 | 3.3 | 6.7 | 0.0 | 16.7 | 3.3 | 13.3 | 10.0 | 13.3 | 3.3 | 0.0 | 100. |
| 4 | 10.0 | 0.0 | 3.3 | 0.0 | 3.3 | 3.3 | 3.3 | 3.3 | 6.7 | 0.0 | 10.0 | 13.3 | 16.7 | 6.7 | 6.7 | 13.3 | 0.0 | 100. |
| 5 | 10.0 | 6.7 | 0.0 | 3.3 | 0.0 | 3.3 | 3.3 | 3.3 | 6.7 | 0.0 | 13.3 | 13.3 | 6.7 | 6.7 | 10.0 | 13.3 | 0.0 | 100. |
| 6 | 13.3 | 3.3 | 0.0 | 3.3 | 0.0 | 3.3 | 3.3 | 3.3 | 6.7 | 0.0 | 16.7 | 10.0 | 6.7 | 3.3 | 16.7 | 10.0 | 0.0 | 100. |
| 7 | 13.3 | 3.3 | 0.0 | 0.0 | 3.3 | 6.7 | 0.0 | 3.3 | 6.7 | 3.3 | 6.7 | 16.7 | 3.3 | 3.3 | 20.0 | 10.0 | 0.0 | 100. |
| 8 | 16.7 | 3.3 | 3.3 | 0.0 | 0.0 | 6.7 | 0.0 | 3.3 | 3.3 | 3.3 | 10.0 | 13.3 | 10.0 | 0.0 | 23.3 | 3.3 | 0.0 | 100. |
| 9 | 13.3 | 3.3 | 0.0 | 3.3 | 6.7 | 0.0 | 0.0 | 3.3 | 0.0 | 3.3 | 13.3 | 10.0 | 10.0 | 6.7 | 20.0 | 6.7 | 0.0 | 100. |
| 10 | 6.5 | 3.2 | 3.2 | 9.7 | 0.0 | 3.2 | 0.0 | 3.2 | 0.0 | 6.5 | 6.5 | 16.1 | 6.5 | 0.0 | 25.8 | 9.7 | 0.0 | 100. |
| 11 | 16.1 | 0.0 | 0.0 | 0.0 | 6.5 | 3.2 | 0.0 | 3.2 | 3.2 | 3.2 | 9.7 | 9.7 | 6.5 | 6.5 | 22.6 | 9.7 | 0.0 | 100. |
| 12 | 16.1 | 3.2 | 0.0 | 3.2 | 0.0 | 3.2 | 0.0 | 3.2 | 3.2 | 3.2 | 6.5 | 9.7 | 3.2 | 12.9 | 25.8 | 6.5 | 0.0 | 100. |
| 13 | 19.4 | 0.0 | 0.0 | 3.2 | 0.0 | 0.0 | 3.2 | 3.2 | 0.0 | 6.5 | 6.5 | 6.5 | 3.2 | 19.4 | 19.4 | 9.7 | 0.0 | 100. |
| 14 | 10.0 | 6.7 | 0.0 | 0.0 | 0.0 | 0.0 | 3.3 | 3.3 | 0.0 | 6.7 | 3.3 | 10.0 | 6.7 | 20.0 | 20.0 | 10.0 | 0.0 | 100. |
| 15 | 6.7 | 3.3 | 3.3 | 0.0 | 0.0 | 0.0 | 6.7 | 0.0 | 3.3 | 3.3 | 3.3 | 16.7 | 10.0 | 10.0 | 16.7 | 16.7 | 0.0 | 100. |
| 16 | 6.7 | 3.3 | 0.0 | 3.3 | 0.0 | 3.3 | 3.3 | 0.0 | 6.7 | 3.3 | 3.3 | 20.0 | 3.3 | 10.0 | 16.7 | 16.7 | 0.0 | 100. |
| 17 | 13.3 | 3.3 | 3.3 | 0.0 | 0.0 | 3.3 | 3.3 | 0.0 | 6.7 | 6.7 | 3.3 | 20.0 | 0.0 | 13.3 | 13.3 | 10.0 | 0.0 | 100. |
| 18 | 12.9 | 6.5 | 0.0 | 3.2 | 0.0 | 3.2 | 6.5 | 3.2 | 3.2 | 6.5 | 12.9 | 12.9 | 3.2 | 3.2 | 19.4 | 3.2 | 0.0 | 100. |
| 19 | 9.7 | 6.5 | 0.0 | 0.0 | 3.2 | 0.0 | 6.5 | 3.2 | 3.2 | 9.7 | 6.5 | 22.6 | 3.2 | 0.0 | 9.7 | 16.1 | 0.0 | 100. |
| 20 | 9.7 | 6.5 | 0.0 | 0.0 | 3.2 | 0.0 | 3.2 | 6.5 | 3.2 | 6.5 | 12.9 | 19.4 | 3.2 | 0.0 | 12.9 | 12.9 | 0.0 | 100. |
| 21 | 6.5 | 3.2 | 3.2 | 3.2 | 0.0 | 0.0 | 3.2 | 3.2 | 6.5 | 6.5 | 16.1 | 9.7 | 9.7 | 0.0 | 9.7 | 19.4 | 0.0 | 100. |
| 22 | 16.1 | 3.2 | 6.5 | 0.0 | 0.0 | 0.0 | 3.2 | 3.2 | 6.5 | 6.5 | 12.9 | 12.9 | 9.7 | 0.0 | 12.9 | 6.5 | 0.0 | 100. |
| 23 | 19.4 | 3.2 | 6.5 | 0.0 | 0.0 | 0.0 | 3.2 | 0.0 | 6.5 | 9.7 | 3.2 | 29.0 | 3.2 | 6.5 | 6.5 | 3.2 | 0.0 | 100. |
| 24 | 13.3 | 0.0 | 6.7 | 0.0 | 0.0 | 3.3 | 0.0 | 0.0 | 6.7 | 10.0 | 10.0 | 13.3 | 13.3 | 3.3 | 13.3 | 6.7 | 0.0 | 100. |
| ALL | 12.6 | 3.4 | 2.3 | 1.5 | 1.1 | 2.5 | 2.6 | 2.7 | 4.5 | 4.7 | 9.9 | 13.4 | 7.1 | 6.7 | 15.6 | 9.3 | 0.0 | 100. |

NUMBER OF OBS = 730

NPPD-COOPER STATION 100-M WIND DIRECTION PERSISTENCE JAN-MAR 1984

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

FEBRUARY

WIND DIRECTION

| HR. OF DAY | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.1 | 0.0 | 3.6 | 0.0 | 7.1 | 0.0 | 14.3 | 0.0 | 3.6 | 10.7 | 7.1 | 10.7 | 7.1 | 0.0 | 14.3 | 14.3 | 0.0 | 100. |
| 2 | 3.6 | 0.0 | 3.6 | 0.0 | 7.1 | 3.6 | 10.7 | 0.0 | 3.6 | 10.7 | 7.1 | 10.7 | 7.1 | 3.6 | 17.9 | 10.7 | 0.0 | 100. |
| 3 | 0.0 | 0.0 | 3.6 | 0.0 | 7.1 | 7.1 | 7.1 | 0.0 | 0.0 | 10.7 | 14.3 | 7.1 | 7.1 | 0.0 | 21.4 | 14.3 | 0.0 | 100. |
| 4 | 3.4 | 0.0 | 0.0 | 3.4 | 6.9 | 6.9 | 6.9 | 0.0 | 0.0 | 17.2 | 6.9 | 6.9 | 6.9 | 3.4 | 20.7 | 10.3 | 0.0 | 100. |
| 5 | 3.4 | 0.0 | 3.4 | 6.9 | 0.0 | 6.9 | 6.9 | 0.0 | 10.3 | 6.9 | 3.4 | 13.8 | 3.4 | 3.4 | 17.2 | 13.8 | 0.0 | 100. |
| 6 | 3.4 | 0.0 | 3.4 | 6.9 | 0.0 | 6.9 | 3.4 | 13.8 | 3.4 | 3.4 | 3.4 | 10.3 | 6.9 | 3.4 | 17.2 | 13.8 | 0.0 | 100. |
| 7 | 6.9 | 0.0 | 3.4 | 0.0 | 3.4 | 6.9 | 3.4 | 13.8 | 3.4 | 6.9 | 0.0 | 13.8 | 6.9 | 3.4 | 13.8 | 13.8 | 0.0 | 100. |
| 8 | 10.3 | 0.0 | 3.4 | 0.0 | 3.4 | 0.0 | 10.3 | 10.3 | 6.9 | 10.3 | 0.0 | 6.9 | 3.4 | 6.9 | 10.3 | 17.2 | 0.0 | 100. |
| 9 | 17.2 | 0.0 | 3.4 | 0.0 | 0.0 | 3.4 | 10.3 | 10.3 | 6.9 | 6.9 | 3.4 | 0.0 | 10.3 | 6.9 | 10.3 | 10.3 | 0.0 | 100. |
| 10 | 3.4 | 0.0 | 3.4 | 0.0 | 0.0 | 3.4 | 13.8 | 6.9 | 10.3 | 3.4 | 3.4 | 10.3 | 3.4 | 0.0 | 10.3 | 27.6 | 0.0 | 100. |
| 11 | 6.9 | 0.0 | 0.0 | 3.4 | 0.0 | 3.4 | 13.8 | 6.9 | 10.3 | 3.4 | 6.9 | 6.9 | 3.4 | 6.9 | 10.3 | 17.2 | 0.0 | 100. |
| 12 | 13.8 | 0.0 | 0.0 | 3.4 | 0.0 | 0.0 | 13.8 | 10.3 | 10.3 | 6.9 | 3.4 | 0.0 | 13.8 | 0.0 | 13.8 | 10.3 | 0.0 | 100. |
| 13 | 10.3 | 0.0 | 0.0 | 3.4 | 0.0 | 3.4 | 6.9 | 3.4 | 13.8 | 17.2 | 0.0 | 3.4 | 6.9 | 3.4 | 17.2 | 10.3 | 0.0 | 100. |
| 14 | 6.9 | 3.4 | 0.0 | 3.4 | 0.0 | 0.0 | 6.9 | 6.9 | 20.7 | 6.9 | 3.4 | 3.4 | 10.3 | 3.4 | 13.8 | 10.3 | 0.0 | 100. |
| 15 | 6.9 | 0.0 | 3.4 | 0.0 | 3.4 | 6.9 | 3.4 | 3.4 | 17.2 | 10.3 | 6.9 | 3.4 | 6.9 | 0.0 | 17.2 | 10.3 | 0.0 | 100. |
| 16 | 7.1 | 0.0 | 0.0 | 3.6 | 7.1 | 3.6 | 7.1 | 3.6 | 10.7 | 10.7 | 7.1 | 0.0 | 10.7 | 3.6 | 21.4 | 3.6 | 0.0 | 100. |
| 17 | 7.1 | 0.0 | 0.0 | 7.1 | 0.0 | 14.3 | 3.6 | 7.1 | 7.1 | 14.3 | 3.6 | 0.0 | 10.7 | 0.0 | 14.3 | 10.7 | 0.0 | 100. |
| 18 | 7.1 | 0.0 | 3.6 | 7.1 | 3.6 | 7.1 | 7.1 | 10.7 | 7.1 | 7.1 | 0.0 | 3.6 | 3.6 | 7.1 | 17.9 | 7.1 | 0.0 | 100. |
| 19 | 3.6 | 0.0 | 3.6 | 3.6 | 3.6 | 7.1 | 7.1 | 10.7 | 10.7 | 3.6 | 3.6 | 0.0 | 10.7 | 0.0 | 17.9 | 10.7 | 3.6 | 100. |
| 20 | 3.6 | 3.6 | 0.0 | 3.6 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 3.6 | 7.1 | 3.6 | 7.1 | 7.1 | 7.1 | 17.9 | 0.0 | 100. |
| 21 | 7.1 | 3.6 | 0.0 | 0.0 | 10.7 | 0.0 | 10.7 | 7.1 | 3.6 | 10.7 | 10.7 | 3.6 | 0.0 | 7.1 | 17.9 | 7.1 | 0.0 | 100. |
| 22 | 10.3 | 0.0 | 0.0 | 0.0 | 6.9 | 0.0 | 17.2 | 0.0 | 10.3 | 10.3 | 10.3 | 3.4 | 0.0 | 6.9 | 13.8 | 10.3 | 0.0 | 100. |
| 23 | 14.3 | 0.0 | 0.0 | 0.0 | 3.6 | 0.0 | 17.9 | 3.6 | 3.6 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 17.9 | 3.6 | 0.0 | 100. |
| 24 | 7.1 | 3.6 | 0.0 | 0.0 | 3.6 | 7.1 | 10.7 | 0.0 | 7.1 | 7.1 | 14.3 | 0.0 | 7.1 | 7.1 | 17.9 | 7.1 | 0.0 | 100. |
| ALL | 7.2 | 0.6 | 1.8 | 2.3 | 3.5 | 4.4 | 9.2 | 5.7 | 7.9 | 8.6 | 5.5 | 5.4 | 6.7 | 3.8 | 15.5 | 11.9 | 0.1 | 100. |

NUMBER OF OBS = 685

NPPD-COOPER STATION 100-M WIND DIRECTION PERSISTENCE JAN-MAR 1984

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

MARCH

WIND DIRECTION

| HR. OF DAY | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.9 | 13.8 | 6.9 | 13.8 | 10.3 | 6.9 | 6.9 | 3.4 | 6.9 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 10.3 | 10.3 | 0.0 | 100. |
| 2 | 10.3 | 3.4 | 20.7 | 0.0 | 6.9 | 10.3 | 13.8 | 0.0 | 6.9 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 | 10.3 | 13.8 | 0.0 | 100. |
| 3 | 6.9 | 10.3 | 10.3 | 3.4 | 3.4 | 6.9 | 24.1 | 3.4 | 0.0 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 | 6.9 | 20.7 | 0.0 | 100. |
| 4 | 10.3 | 10.3 | 13.8 | 3.4 | 6.9 | 3.4 | 17.2 | 3.4 | 3.4 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 | 17.2 | 6.9 | 0.0 | 100. |
| 5 | 10.3 | 10.3 | 13.8 | 6.9 | 0.0 | 6.9 | 13.8 | 3.4 | 3.4 | 0.0 | 3.4 | 3.4 | 0.0 | 0.0 | 13.8 | 10.3 | 0.0 | 100. |
| 6 | 17.2 | 10.3 | 6.9 | 6.9 | 3.4 | 6.9 | 13.8 | 0.0 | 6.9 | 0.0 | 0.0 | 3.4 | 0.0 | 3.4 | 6.9 | 13.8 | 0.0 | 100. |
| 7 | 13.8 | 3.4 | 13.8 | 6.9 | 0.0 | 10.3 | 10.3 | 3.4 | 6.9 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 | 3.4 | 24.1 | 0.0 | 100. |
| 8 | 13.8 | 3.4 | 13.8 | 3.4 | 3.4 | 10.3 | 13.8 | 3.4 | 3.4 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 13.8 | 13.8 | 0.0 | 100. |
| 9 | 10.3 | 6.9 | 6.9 | 10.3 | 6.9 | 6.9 | 13.8 | 3.4 | 0.0 | 0.0 | 6.9 | 0.0 | 0.0 | 0.0 | 13.8 | 13.8 | 0.0 | 100. |
| 10 | 17.2 | 6.9 | 0.0 | 10.3 | 6.9 | 13.8 | 6.9 | 3.4 | 3.4 | 0.0 | 3.4 | 0.0 | 3.4 | 0.0 | 17.2 | 6.9 | 0.0 | 100. |
| 11 | 16.7 | 10.0 | 0.0 | 6.7 | 13.3 | 6.7 | 10.0 | 3.3 | 3.3 | 0.0 | 3.3 | 0.0 | 0.0 | 0.0 | 13.3 | 13.3 | 0.0 | 100. |
| 12 | 13.3 | 10.0 | 3.3 | 0.0 | 6.7 | 16.7 | 6.7 | 6.7 | 6.7 | 0.0 | 3.3 | 0.0 | 0.0 | 0.0 | 10.0 | 16.7 | 0.0 | 100. |
| 13 | 9.7 | 12.9 | 3.2 | 3.2 | 3.2 | 16.1 | 12.9 | 0.0 | 6.5 | 3.2 | 3.2 | 0.0 | 3.2 | 0.0 | 12.9 | 9.7 | 0.0 | 100. |
| 14 | 9.7 | 3.2 | 3.2 | 3.2 | 12.9 | 9.7 | 9.7 | 3.2 | 3.2 | 3.2 | 0.0 | 3.2 | 3.2 | 3.2 | 12.9 | 16.1 | 0.0 | 100. |
| 15 | 9.7 | 3.2 | 12.9 | 0.0 | 9.7 | 12.9 | 9.7 | 0.0 | 3.2 | 0.0 | 3.2 | 0.0 | 0.0 | 6.5 | 9.7 | 19.4 | 0.0 | 100. |
| 16 | 12.9 | 3.2 | 9.7 | 6.5 | 6.5 | 12.9 | 9.7 | 0.0 | 3.2 | 0.0 | 0.0 | 0.0 | 3.2 | 3.2 | 16.1 | 12.9 | 0.0 | 100. |
| 17 | 9.7 | 6.5 | 6.5 | 6.5 | 6.5 | 19.4 | 6.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.1 | 22.6 | 0.0 | 100. |
| 18 | 9.7 | 3.2 | 12.9 | 6.5 | 6.5 | 22.6 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.7 | 25.8 | 0.0 | 100. |
| 19 | 19.4 | 0.0 | 19.4 | 3.2 | 3.2 | 22.6 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.5 | 22.6 | 0.0 | 100. |
| 20 | 9.7 | 9.7 | 9.7 | 3.2 | 3.2 | 16.1 | 9.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.5 | 29.0 | 3.2 | 100. |
| 21 | 22.6 | 3.2 | 12.9 | 3.2 | 3.2 | 16.1 | 12.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.2 | 6.5 | 16.1 | 0.0 | 100. |
| 22 | 13.3 | 3.3 | 13.3 | 6.7 | 3.3 | 13.3 | 13.3 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.3 | 16.7 | 0.0 | 100. |
| 23 | 10.0 | 6.7 | 10.0 | 13.3 | 0.0 | 13.3 | 13.3 | 3.3 | 0.0 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 6.7 | 20.0 | 0.0 | 100. |
| 24 | 16.7 | 3.3 | 13.3 | 13.3 | 6.7 | 10.0 | 10.0 | 0.0 | 3.3 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 10.0 | 0.0 | 100. |
| ALL | 12.5 | 6.5 | 9.9 | 5.8 | 5.6 | 12.2 | 11.0 | 1.9 | 2.9 | 0.8 | 1.7 | 0.4 | 0.6 | 0.8 | 11.0 | 16.1 | 0.1 | 100. |

NUMBER OF OBS = 719

NPPD-COOPER STATION 100-M WIND DIRECTION PERSISTENCE JAN-MAR 1984

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

WIND DIRECTION

| HR. OF DAY | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10.3 | 4.6 | 5.7 | 4.6 | 5.7 | 3.4 | 8.0 | 2.3 | 5.7 | 6.9 | 6.9 | 6.9 | 4.6 | 3.4 | 11.5 | 9.2 | 0.0 | 100. |
| 2 | 9.2 | 3.4 | 9.2 | 0.0 | 4.6 | 5.7 | 9.2 | 1.1 | 5.7 | 3.4 | 10.3 | 4.6 | 6.9 | 4.6 | 12.6 | 9.2 | 0.0 | 100. |
| 3 | 6.9 | 4.6 | 6.9 | 1.1 | 3.4 | 6.9 | 10.3 | 2.3 | 2.3 | 3.4 | 11.5 | 3.4 | 6.9 | 3.4 | 13.8 | 12.6 | 0.0 | 100. |
| 4 | 8.0 | 3.4 | 5.7 | 2.3 | 5.7 | 4.5 | 9.1 | 2.3 | 3.4 | 5.7 | 6.8 | 6.8 | 8.0 | 3.4 | 14.8 | 10.2 | 0.0 | 100. |
| 5 | 8.0 | 5.7 | 5.7 | 5.7 | 0.0 | 5.7 | 8.0 | 2.3 | 6.8 | 2.3 | 6.8 | 10.2 | 3.4 | 3.4 | 13.6 | 12.5 | 0.0 | 100. |
| 6 | 11.4 | 4.5 | 3.4 | 5.7 | 1.1 | 5.7 | 6.8 | 5.7 | 5.7 | 1.1 | 6.8 | 8.0 | 4.5 | 3.4 | 13.6 | 12.5 | 0.0 | 100. |
| 7 | 11.4 | 2.3 | 5.7 | 2.3 | 2.3 | 8.0 | 4.5 | 6.8 | 5.7 | 3.4 | 3.4 | 10.2 | 3.4 | 2.3 | 12.5 | 15.9 | 0.0 | 100. |
| 8 | 13.6 | 2.3 | 6.8 | 1.1 | 2.3 | 5.7 | 8.0 | 5.7 | 4.5 | 5.7 | 3.4 | 6.8 | 4.5 | 2.3 | 15.9 | 11.4 | 0.0 | 100. |
| 9 | 13.6 | 3.4 | 3.4 | 4.5 | 4.5 | 3.4 | 8.0 | 5.7 | 2.3 | 3.4 | 8.0 | 3.4 | 6.8 | 4.5 | 14.8 | 10.2 | 0.0 | 100. |
| 10 | 9.0 | 3.4 | 2.2 | 6.7 | 2.2 | 6.7 | 6.7 | 4.5 | 4.5 | 3.4 | 4.5 | 9.0 | 4.5 | 0.0 | 18.0 | 14.6 | 0.0 | 100. |
| 11 | 13.3 | 3.3 | 0.0 | 3.3 | 6.7 | 4.4 | 7.8 | 4.4 | 5.6 | 2.2 | 6.7 | 5.6 | 3.3 | 4.4 | 15.6 | 13.3 | 0.0 | 100. |
| 12 | 14.4 | 4.4 | 1.1 | 2.2 | 2.2 | 6.7 | 6.7 | 6.7 | 6.7 | 3.3 | 4.4 | 3.3 | 5.6 | 4.4 | 16.7 | 11.1 | 0.0 | 100. |
| 13 | 13.2 | 4.4 | 1.1 | 3.3 | 1.1 | 6.6 | 7.7 | 2.2 | 6.6 | 8.8 | 3.3 | 3.3 | 4.4 | 7.7 | 16.5 | 9.9 | 0.0 | 100. |
| 14 | 8.9 | 4.4 | 1.1 | 2.2 | 4.4 | 3.3 | 6.7 | 4.4 | 7.8 | 5.6 | 2.2 | 5.6 | 6.7 | 8.9 | 15.6 | 12.2 | 0.0 | 100. |
| 15 | 7.8 | 2.2 | 6.7 | 0.0 | 4.4 | 6.7 | 6.7 | 1.1 | 7.8 | 4.4 | 4.4 | 6.7 | 5.6 | 5.6 | 14.4 | 15.6 | 0.0 | 100. |
| 16 | 9.0 | 2.2 | 3.4 | 4.5 | 4.5 | 6.7 | 6.7 | 1.1 | 6.7 | 4.5 | 3.4 | 6.7 | 5.6 | 5.6 | 18.0 | 11.2 | 0.0 | 100. |
| 17 | 10.1 | 3.4 | 3.4 | 4.5 | 2.2 | 12.4 | 4.5 | 2.2 | 4.5 | 6.7 | 2.2 | 6.7 | 3.4 | 4.5 | 14.6 | 14.6 | 0.0 | 100. |
| 18 | 10.0 | 3.3 | 5.6 | 5.6 | 3.3 | 11.1 | 5.6 | 4.4 | 3.3 | 4.4 | 4.4 | 5.6 | 2.2 | 3.3 | 15.6 | 12.2 | 0.0 | 100. |
| 19 | 11.1 | 2.2 | 7.8 | 2.2 | 3.3 | 10.0 | 5.6 | 4.4 | 4.4 | 4.4 | 3.3 | 7.8 | 4.4 | 0.0 | 11.1 | 16.7 | 1.1 | 100. |
| 20 | 7.8 | 6.7 | 3.3 | 2.2 | 4.4 | 7.8 | 6.7 | 4.4 | 3.3 | 3.3 | 6.7 | 7.8 | 3.3 | 2.2 | 8.9 | 20.0 | 1.1 | 100. |
| 21 | 12.2 | 3.3 | 5.6 | 2.2 | 4.4 | 5.6 | 8.9 | 3.3 | 3.3 | 5.6 | 8.9 | 4.4 | 3.3 | 3.3 | 11.1 | 14.4 | 0.0 | 100. |
| 22 | 13.3 | 2.2 | 6.7 | 2.2 | 3.3 | 4.4 | 11.1 | 2.2 | 5.6 | 5.6 | 7.8 | 5.6 | 3.3 | 2.2 | 13.3 | 11.1 | 0.0 | 100. |
| 23 | 14.6 | 3.4 | 5.6 | 4.5 | 1.1 | 4.5 | 11.2 | 2.2 | 3.4 | 6.7 | 3.4 | 12.4 | 3.4 | 4.5 | 10.1 | 9.0 | 0.0 | 100. |
| 24 | 12.5 | 2.3 | 6.8 | 4.5 | 3.4 | 6.8 | 6.8 | 0.0 | 5.7 | 6.8 | 6.0 | 4.5 | 6.8 | 3.4 | 13.6 | 8.0 | 0.0 | 100. |
| ALL | 10.8 | 3.6 | 4.7 | 3.2 | 3.4 | 6.4 | 7.5 | 3.4 | 5.1 | 4.6 | 5.7 | 6.5 | 4.8 | 3.8 | 14.0 | 12.4 | 0.1 | 100. |

NUMBER OF OBS = 2134

NPPD-COOPER STATION 100-M WIND DIRECTION PERSISTENCE APR-JUN 1984

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

APRIL

WIND DIRECTION

| HR. OF DAY | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 13.3 | 6.7 | 3.3 | 6.7 | 16.7 | 3.3 | 13.3 | 0.0 | 3.3 | 3.3 | 6.7 | 0.0 | 6.7 | 3.3 | 10.0 | 3.3 | 0.0 | 100. |
| 2 | 6.9 | 6.9 | 3.4 | 6.9 | 10.3 | 17.2 | 3.4 | 0.0 | 0.0 | 3.4 | 3.4 | 3.4 | 6.9 | 6.9 | 10.3 | 10.3 | 0.0 | 100. |
| 3 | 3.4 | 13.8 | 3.4 | 6.9 | 13.8 | 13.8 | 0.0 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 6.9 | 3.4 | 6.9 | 10.3 | 0.0 | 100. |
| 4 | 10.3 | 6.9 | 3.4 | 6.9 | 17.2 | 10.3 | 6.9 | 0.0 | 0.0 | 3.4 | 0.0 | 3.4 | 10.3 | 3.4 | 10.3 | 6.9 | 0.0 | 100. |
| 5 | 3.4 | 3.4 | 3.4 | 6.9 | 13.8 | 10.3 | 6.9 | 0.0 | 3.4 | 3.4 | 3.4 | 0.0 | 10.3 | 3.4 | 13.8 | 13.8 | 0.0 | 100. |
| 6 | 7.4 | 3.7 | 3.7 | 7.4 | 25.9 | 3.7 | 3.7 | 0.0 | 0.0 | 3.7 | 7.4 | 3.7 | 7.4 | 0.0 | 11.1 | 11.1 | 0.0 | 100. |
| 7 | 7.4 | 7.4 | 0.0 | 3.7 | 22.2 | 11.1 | 3.7 | 0.0 | 0.0 | 3.7 | 7.4 | 0.0 | 11.1 | 0.0 | 3.7 | 18.5 | 0.0 | 100. |
| 8 | 3.4 | 3.4 | 6.9 | 10.3 | 13.8 | 10.3 | 3.4 | 0.0 | 3.4 | 3.4 | 3.4 | 0.0 | 10.3 | 3.4 | 3.4 | 20.7 | 0.0 | 100. |
| 9 | 6.9 | 0.0 | 3.4 | 10.3 | 17.2 | 10.3 | 3.4 | 0.0 | 3.4 | 3.4 | 0.0 | 6.9 | 3.4 | 3.4 | 6.9 | 20.7 | 0.0 | 100. |
| 10 | 10.3 | 0.0 | 6.9 | 3.4 | 20.7 | 10.3 | 3.4 | 0.0 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 6.9 | 17.2 | 0.0 | 100. |
| 11 | 16.7 | 3.3 | 3.3 | 6.7 | 6.7 | 20.0 | 6.7 | 3.3 | 0.0 | 3.3 | 3.3 | 3.3 | 3.3 | 0.0 | 10.0 | 10.0 | 0.0 | 100. |
| 12 | 20.0 | 0.0 | 3.3 | 6.7 | 6.7 | 13.3 | 13.3 | 0.0 | 3.3 | 0.0 | 3.3 | 3.3 | 3.3 | 6.7 | 3.3 | 13.3 | 0.0 | 100. |
| 13 | 16.7 | 0.0 | 6.7 | 3.3 | 10.0 | 10.0 | 10.0 | 3.3 | 3.3 | 3.3 | 0.0 | 3.3 | 3.3 | 6.7 | 6.7 | 13.3 | 0.0 | 100. |
| 14 | 16.7 | 3.3 | 3.3 | 3.3 | 6.7 | 13.3 | 13.3 | 0.0 | 3.3 | 3.3 | 0.0 | 3.3 | 3.3 | 3.3 | 10.0 | 13.3 | 0.0 | 100. |
| 15 | 13.3 | 3.3 | 6.7 | 3.3 | 6.7 | 10.0 | 13.3 | 3.3 | 3.3 | 3.3 | 0.0 | 3.3 | 3.3 | 3.3 | 6.7 | 16.7 | 0.0 | 100. |
| 16 | 13.3 | 6.7 | 3.3 | 3.3 | 10.0 | 6.7 | 16.7 | 0.0 | 6.7 | 0.0 | 0.0 | 3.3 | 0.0 | 10.0 | 3.3 | 16.7 | 0.0 | 100. |
| 17 | 20.0 | 0.0 | 3.3 | 3.3 | 10.0 | 10.0 | 13.3 | 3.3 | 6.7 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 6.7 | 13.3 | 0.0 | 100. |
| 18 | 16.7 | 3.3 | 0.0 | 6.7 | 3.3 | 16.7 | 13.3 | 0.0 | 6.7 | 0.0 | 3.3 | 0.0 | 3.3 | 3.3 | 6.7 | 16.7 | 0.0 | 100. |
| 19 | 10.0 | 3.3 | 3.3 | 6.7 | 10.0 | 6.7 | 16.7 | 6.7 | 0.0 | 3.3 | 0.0 | 0.0 | 0.0 | 6.7 | 10.0 | 16.7 | 0.0 | 100. |
| 20 | 6.7 | 3.3 | 10.0 | 3.3 | 13.3 | 6.7 | 13.3 | 3.3 | 6.7 | 0.0 | 0.0 | 0.0 | 0.0 | 6.7 | 10.0 | 16.7 | 0.0 | 100. |
| 21 | 6.7 | 0.0 | 10.0 | 10.0 | 10.0 | 6.7 | 10.0 | 6.7 | 3.3 | 0.0 | 0.0 | 0.0 | 3.3 | 6.7 | 10.0 | 16.7 | 0.0 | 100. |
| 22 | 10.3 | 3.4 | 3.4 | 10.3 | 13.8 | 6.9 | 10.3 | 3.4 | 3.4 | 0.0 | 0.0 | 3.4 | 3.4 | 10.3 | 10.3 | 6.9 | 0.0 | 100. |
| 23 | 10.0 | 6.7 | 10.0 | 3.3 | 13.3 | 6.7 | 13.3 | 0.0 | 6.7 | 0.0 | 0.0 | 0.0 | 6.7 | 6.7 | 10.0 | 6.7 | 0.0 | 100. |
| 24 | 13.3 | 3.3 | 10.0 | 3.3 | 16.7 | 3.3 | 13.3 | 0.0 | 3.3 | 0.0 | 6.7 | 3.3 | 3.3 | 3.3 | 10.0 | 6.7 | 0.0 | 100. |
| ALL | 11.0 | 3.8 | 4.8 | 5.9 | 12.7 | 9.9 | 9.5 | 1.6 | 3.3 | 2.1 | 2.3 | 2.1 | 5.1 | 4.4 | 8.2 | 13.2 | 0.0 | 100. |

NUMBER OF OBS = 706

NPPD-COOPER STATION 100-M WIND DIRECTION PERSISTENCE APR-JUN 1984

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

MAY

WIND DIRECTION

| HR. OF DAY | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.2 | 0.0 | 8.3 | 0.0 | 0.0 | 4.2 | 20.8 | 8.3 | 16.7 | 16.7 | 0.0 | 0.0 | 8.3 | 4.2 | 0.0 | 8.3 | 0.0 | 100. |
| 2 | 4.5 | 4.5 | 4.5 | 0.0 | 0.0 | 4.5 | 13.6 | 13.6 | 9.1 | 9.1 | 9.1 | 4.5 | 9.1 | 0.0 | 9.1 | 4.5 | 0.0 | 100. |
| 3 | 17.4 | 4.3 | 8.7 | 0.0 | 0.0 | 0.0 | 21.7 | 8.7 | 8.7 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 0.0 | 100. |
| 4 | 17.4 | 8.7 | 4.3 | 0.0 | 0.0 | 4.3 | 17.4 | 8.7 | 13.0 | 4.3 | 0.0 | 4.3 | 4.3 | 8.7 | 4.3 | 0.0 | 0.0 | 100. |
| 5 | 8.7 | 8.7 | 13.0 | 0.0 | 4.3 | 0.0 | 13.0 | 8.7 | 17.4 | 4.3 | 0.0 | 0.0 | 4.3 | 4.3 | 13.0 | 0.0 | 0.0 | 100. |
| 6 | 4.3 | 8.7 | 4.3 | 8.7 | 0.0 | 0.0 | 21.7 | 4.3 | 13.0 | 0.0 | 8.7 | 0.0 | 4.3 | 4.3 | 13.0 | 4.3 | 0.0 | 100. |
| 7 | 8.3 | 0.0 | 12.5 | 4.2 | 4.2 | 0.0 | 20.8 | 8.3 | 8.3 | 8.3 | 4.2 | 0.0 | 0.0 | 8.3 | 12.5 | 0.0 | 0.0 | 100. |
| 8 | 0.0 | 3.8 | 11.5 | 3.8 | 0.0 | 7.7 | 19.2 | 3.8 | 11.5 | 7.7 | 3.8 | 0.0 | 0.0 | 7.7 | 7.7 | 11.5 | 0.0 | 100. |
| 9 | 3.7 | 3.7 | 11.1 | 3.7 | 11.1 | 7.4 | 11.1 | 3.7 | 14.8 | 3.7 | 7.4 | 0.0 | 0.0 | 0.0 | 7.4 | 7.4 | 3.7 | 100. |
| 10 | 7.7 | 3.8 | 7.7 | 0.0 | 7.7 | 7.7 | 11.5 | 3.8 | 15.4 | 7.7 | 7.7 | 0.0 | 0.0 | 0.0 | 3.8 | 15.4 | 0.0 | 100. |
| 11 | 11.1 | 3.7 | 3.7 | 3.7 | 3.7 | 14.8 | 11.1 | 7.4 | 14.8 | 0.0 | 7.4 | 3.7 | 0.0 | 0.0 | 3.7 | 11.1 | 0.0 | 100. |
| 12 | 14.8 | 3.7 | 3.7 | 3.7 | 3.7 | 0.0 | 22.2 | 11.1 | 14.8 | 0.0 | 7.4 | 0.0 | 0.0 | 0.0 | 11.1 | 3.7 | 0.0 | 100. |
| 13 | 7.4 | 7.4 | 7.4 | 3.7 | 0.0 | 3.7 | 11.1 | 14.8 | 18.5 | 0.0 | 7.4 | 0.0 | 0.0 | 0.0 | 7.4 | 11.1 | 0.0 | 100. |
| 14 | 10.7 | 7.1 | 0.0 | 3.6 | 3.6 | 3.6 | 10.7 | 14.3 | 14.3 | 3.6 | 7.1 | 0.0 | 0.0 | 0.0 | 7.1 | 14.3 | 0.0 | 100. |
| 15 | 3.6 | 7.1 | 0.0 | 0.0 | 0.0 | 10.7 | 3.6 | 21.4 | 7.1 | 10.7 | 7.1 | 0.0 | 3.6 | 3.6 | 7.1 | 14.3 | 0.0 | 100. |
| 16 | 3.6 | 3.6 | 0.0 | 3.6 | 3.6 | 3.6 | 14.3 | 7.1 | 14.3 | 14.3 | 7.1 | 0.0 | 0.0 | 0.0 | 14.3 | 10.7 | 0.0 | 100. |
| 17 | 3.6 | 7.1 | 0.0 | 0.0 | 0.0 | 7.1 | 14.3 | 3.6 | 21.4 | 7.1 | 0.0 | 3.6 | 3.6 | 3.6 | 14.3 | 10.7 | 0.0 | 100. |
| 18 | 3.6 | 3.6 | 0.0 | 0.0 | 0.0 | 3.6 | 17.9 | 10.7 | 21.4 | 3.6 | 0.0 | 3.6 | 3.6 | 0.0 | 10.7 | 17.9 | 0.0 | 100. |
| 19 | 3.6 | 3.6 | 0.0 | 3.6 | 0.0 | 7.1 | 7.1 | 10.7 | 21.4 | 7.1 | 0.0 | 3.6 | 0.0 | 3.6 | 10.7 | 17.9 | 0.0 | 100. |
| 20 | 3.6 | 3.6 | 3.6 | 0.0 | 7.1 | 3.6 | 10.7 | 17.9 | 10.7 | 7.1 | 0.0 | 0.0 | 3.6 | 0.0 | 17.9 | 10.7 | 0.0 | 100. |
| 21 | 7.1 | 3.6 | 0.0 | 3.6 | 3.6 | 10.7 | 10.7 | 17.9 | 7.1 | 0.0 | 3.6 | 0.0 | 0.0 | 0.0 | 14.3 | 17.9 | 0.0 | 100. |
| 22 | 10.7 | 3.6 | 3.6 | 0.0 | 7.1 | 3.6 | 14.3 | 14.3 | 21.4 | 0.0 | 0.0 | 0.0 | 0.0 | 7.1 | 7.1 | 7.1 | 0.0 | 100. |
| 23 | 10.7 | 0.0 | 0.0 | 0.0 | 10.7 | 7.1 | 10.7 | 17.9 | 14.3 | 7.1 | 0.0 | 0.0 | 0.0 | 0.0 | 10.7 | 10.7 | 0.0 | 100. |
| 24 | 0.0 | 7.1 | 0.0 | 0.0 | 0.0 | 10.7 | 14.3 | 17.9 | 17.9 | 7.1 | 0.0 | 0.0 | 0.0 | 7.1 | 0.0 | 17.9 | 0.0 | 100. |
| ALL | 7.0 | 4.6 | 4.3 | 1.9 | 3.0 | 5.4 | 14.1 | 11.0 | 14.6 | 5.6 | 3.8 | 1.1 | 1.9 | 2.7 | 8.9 | 10.0 | 0.2 | 100. |

NUMBER OF OBS = 

NPPD-COOPER STATION 100-M WIND DIRECTION PERSISTENCE APR-JUN 1984

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

JUNE

WIND DIRECTION

| HR. OF DAY | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.7 | 0.0 | 0.0 | 3.8 | 7.7 | 11.5 | 11.5 | 15.4 | 19.2 | 7.7 | 3.8 | 0.0 | 0.0 | 3.8 | 0.0 | 7.7 | 0.0 | 100. |
| 2 | 7.7 | 0.0 | 3.8 | 0.0 | 7.7 | 19.2 | 11.5 | 19.2 | 3.8 | 15.4 | 3.8 | 0.0 | 3.8 | 0.0 | 0.0 | 3.8 | 0.0 | 100. |
| 3 | 3.8 | 0.0 | 0.0 | 0.0 | 0.0 | 15.4 | 19.2 | 23.1 | 7.7 | 3.8 | 11.5 | 3.8 | 0.0 | 3.8 | 3.8 | 3.8 | 0.0 | 100. |
| 4 | 7.4 | 0.0 | 0.0 | 0.0 | 0.0 | 18.5 | 22.2 | 11.1 | 7.4 | 3.7 | 7.4 | 11.1 | 3.7 | 3.7 | 0.0 | 3.7 | 0.0 | 100. |
| 5 | 3.8 | 0.0 | 0.0 | 0.0 | 0.0 | 19.2 | 19.2 | 11.5 | 7.7 | 0.0 | 15.4 | 0.0 | 7.7 | 3.8 | 3.8 | 7.7 | 0.0 | 100. |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 11.5 | 11.5 | 7.7 | 19.2 | 3.8 | 3.8 | 3.8 | 7.7 | 3.8 | 3.8 | 0.0 | 23.1 | 0.0 | 100. |
| 7 | 0.0 | 0.0 | 7.7 | 0.0 | 0.0 | 19.2 | 7.7 | 15.4 | 15.4 | 0.0 | 3.8 | 3.8 | 3.8 | 0.0 | 15.4 | 7.7 | 0.0 | 100. |
| 8 | 0.0 | 0.0 | 3.4 | 3.4 | 0.0 | 10.3 | 10.3 | 13.8 | 20.7 | 6.9 | 3.4 | 10.3 | 0.0 | 0.0 | 6.9 | 10.3 | 0.0 | 100. |
| 9 | 3.4 | 3.4 | 0.0 | 0.0 | 0.0 | 13.8 | 3.4 | 17.2 | 24.1 | 10.3 | 3.4 | 0.0 | 6.9 | 3.4 | 3.4 | 6.9 | 0.0 | 100. |
| 10 | 7.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.0 | 10.7 | 17.9 | 17.9 | 3.6 | 0.0 | 7.1 | 0.0 | 0.0 | 10.7 | 0.0 | 100. |
| 11 | 10.7 | 3.6 | 0.0 | 0.0 | 0.0 | 7.1 | 17.9 | 7.1 | 10.7 | 25.0 | 3.6 | 3.6 | 3.6 | 3.6 | 0.0 | 3.6 | 0.0 | 100. |
| 12 | 7.4 | 3.7 | 3.7 | 3.7 | 0.0 | 3.7 | 18.5 | 7.4 | 22.2 | 11.1 | 7.4 | 0.0 | 7.4 | 0.0 | 0.0 | 3.7 | 0.0 | 100. |
| 13 | 7.4 | 0.0 | 0.0 | 0.0 | 3.7 | 3.7 | 22.2 | 7.4 | 18.5 | 14.8 | 7.4 | 0.0 | 3.7 | 3.7 | 0.0 | 7.4 | 0.0 | 100. |
| 14 | 7.4 | 0.0 | 7.4 | 0.0 | 0.0 | 0.0 | 7.4 | 18.5 | 22.2 | 14.8 | 3.7 | 3.7 | 0.0 | 7.4 | 0.0 | 7.4 | 0.0 | 100. |
| 15 | 14.3 | 0.0 | 0.0 | 0.0 | 3.6 | 10.7 | 14.3 | 7.1 | 17.9 | 14.3 | 3.6 | 3.6 | 0.0 | 3.6 | 3.6 | 3.6 | 0.0 | 100. |
| 16 | 6.9 | 6.9 | 3.4 | 0.0 | 3.4 | 6.9 | 13.8 | 3.4 | 24.1 | 17.2 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 10.3 | 0.0 | 100. |
| 17 | 10.3 | 3.4 | 3.4 | 0.0 | 0.0 | 13.8 | 10.3 | 6.9 | 27.6 | 6.9 | 6.9 | 0.0 | 0.0 | 0.0 | 0.0 | 10.3 | 0.0 | 100. |
| 18 | 10.3 | 3.4 | 6.9 | 0.0 | 0.0 | 6.9 | 20.7 | 3.4 | 27.6 | 6.9 | 10.3 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 | 100. |
| 19 | 3.3 | 3.3 | 3.3 | 3.3 | 0.0 | 6.7 | 16.7 | 6.7 | 26.7 | 6.7 | 10.0 | 0.0 | 3.3 | 3.3 | 3.3 | 3.3 | 0.0 | 100. |
| 20 | 3.3 | 3.3 | 3.3 | 6.7 | 6.7 | 6.7 | 10.0 | 16.7 | 13.3 | 3.3 | 10.0 | 0.0 | 10.0 | 0.0 | 3.3 | 3.3 | 0.0 | 100. |
| 21 | 6.7 | 0.0 | 3.3 | 10.0 | 13.3 | 6.7 | 3.3 | 23.3 | 13.3 | 3.3 | 6.7 | 0.0 | 3.3 | 0.0 | 6.7 | 0.0 | 0.0 | 100. |
| 22 | 6.7 | 3.3 | 0.0 | 0.0 | 20.0 | 3.3 | 13.3 | 13.3 | 16.7 | 0.0 | 3.3 | 6.7 | 3.3 | 0.0 | 3.3 | 6.7 | 0.0 | 100. |
| 23 | 3.3 | 0.0 | 0.0 | 6.7 | 10.0 | 6.7 | 6.7 | 16.7 | 23.3 | 0.0 | 3.3 | 3.3 | 3.3 | 6.7 | 0.0 | 10.0 | 0.0 | 100. |
| 24 | 6.7 | 0.0 | 0.0 | 3.3 | 10.0 | 16.7 | 3.3 | 13.3 | 13.3 | 6.7 | 3.3 | 3.3 | 3.3 | 6.7 | 6.7 | 3.3 | 0.0 | 100 |
| ALL | 6.1 | 1.5 | 2.1 | 1.8 | 4.2 | 9.8 | 13.1 | 12.8 | 17.1 | 8.3 | 5.8 | 2.5 | 3.3 | 2.4 | 2.7 | 6.7 | 0.0 | 100. |

NUMBER OF OBS = 673

NPPD-COOPER STATION 100-M WIND DIRECTION PERSISTENCE APR-JUN 1984

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

WIND DIRECTION

| HR. OF DAY | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8.7 | 2.5 | 3.7 | 3.7 | 8.7 | 6.3 | 15.0 | 7.5 | 12.5 | 8.7 | 3.7 | 0.0 | 5.0 | 3.7 | 3.7 | 6.3 | 0.0 | 100. |
| 2 | 6.5 | 3.9 | 3.9 | 2.6 | 6.5 | 14.3 | 9.1 | 10.4 | 3.9 | 9.1 | 5.2 | 2.6 | 6.5 | 2.6 | 6.5 | 6.5 | 0.0 | 100. |
| 3 | 7.7 | 6.4 | 3.8 | 2.6 | 5.1 | 10.3 | 12.8 | 11.5 | 6.4 | 3.8 | 6.4 | 3.8 | 3.8 | 3.8 | 5.1 | 6.4 | 0.0 | 100. |
| 4 | 11.4 | 5.1 | 2.5 | 2.5 | 6.3 | 11.4 | 15.2 | 6.3 | 6.3 | 3.8 | 2.5 | 6.3 | 6.3 | 5.1 | 5.1 | 3.8 | 0.0 | 100. |
| 5 | 5.1 | 3.8 | 5.1 | 2.6 | 6.4 | 10.3 | 12.8 | 6.4 | 9.0 | 2.6 | 6.4 | 0.0 | 7.7 | 3.8 | 10.3 | 7.7 | 0.0 | 100. |
| 6 | 3.9 | 3.9 | 2.6 | 5.3 | 13.2 | 5.3 | 10.5 | 7.9 | 5.3 | 2.6 | 6.6 | 3.9 | 5.3 | 2.6 | 7.9 | 13.2 | 0.0 | 100. |
| 7 | 5.2 | 2.6 | 6.5 | 2.6 | 9.1 | 10.4 | 10.4 | 7.8 | 7.8 | 3.9 | 5.2 | 1.3 | 5.2 | 2.6 | 10.4 | 9.1 | 0.0 | 100. |
| 8 | 1.2 | 2.4 | 7.1 | 6.0 | 4.8 | 9.5 | 10.7 | 6.0 | 11.9 | 6.0 | 3.6 | 3.6 | 3.6 | 3.6 | 6.0 | 14.3 | 0.0 | 100. |
| 9 | 4.7 | 2.4 | 4.7 | 4.7 | 9.4 | 10.6 | 5.9 | 7.1 | 14.1 | 5.9 | 3.5 | 2.4 | 3.5 | 2.4 | 5.9 | 11.8 | 1.2 | 100. |
| 10 | 8.4 | 1.2 | 4.8 | 1.2 | 9.6 | 6.0 | 13.3 | 4.8 | 12.0 | 9.6 | 4.8 | 1.2 | 3.6 | 1.2 | 3.6 | 14.5 | 0.0 | 100. |
| 11 | 12.9 | 3.5 | 2.4 | 3.5 | 3.5 | 14.1 | 11.8 | 5.9 | 8.2 | 9.4 | 4.7 | 3.5 | 2.4 | 1.2 | 4.7 | 8.2 | 0.0 | 100. |
| 12 | 14.3 | 2.4 | 3.6 | 4.8 | 3.6 | 6.0 | 17.9 | 6.0 | 13.1 | 3.6 | 6.0 | 1.2 | 3.6 | 2.4 | 4.8 | 7.1 | 0.0 | 100. |
| 13 | 10.7 | 2.4 | 4.8 | 2.4 | 4.8 | 6.0 | 14.3 | 8.3 | 13.1 | 6.0 | 4.8 | 1.2 | 2.4 | 3.5 | 4.8 | 10.7 | 0.0 | 100. |
| 14 | 11.8 | 3.5 | 3.5 | 2.4 | 3.5 | 5.9 | 10.6 | 10.6 | 12.9 | 7.1 | 3.5 | 2.4 | 1.2 | 3.5 | 5.9 | 11.8 | 0.0 | 100. |
| 15 | 10.5 | 3.5 | 2.3 | 1.2 | 3.5 | 10.5 | 10.5 | 10.5 | 9.3 | 9.3 | 3.5 | 2.3 | 2.3 | 3.5 | 5.8 | 11.6 | 0.0 | 100. |
| 16 | 8.0 | 5.7 | 2.3 | 2.3 | 5.7 | 5.7 | 14.9 | 3.4 | 14.9 | 10.3 | 2.3 | 1.1 | 0.0 | 3.4 | 6.9 | 12.6 | 0.0 | 100. |
| 17 | 11.5 | 3.4 | 2.3 | 1.1 | 3.4 | 10.3 | 12.6 | 4.6 | 18.4 | 4.6 | 2.3 | 1.1 | 4.6 | 1.1 | 6.9 | 11.5 | 0.0 | 100. |
| 18 | 10.3 | 3.4 | 2.3 | 2.3 | 1.1 | 9.2 | 17.2 | 4.6 | 18.4 | 3.4 | 4.6 | 1.1 | 2.3 | 1.1 | 5.7 | 12.6 | 0.0 | 100. |
| 19 | 5.7 | 3.4 | 2.3 | 4.5 | 3.4 | 6.8 | 13.6 | 8.0 | 15.9 | 5.7 | 3.4 | 1.1 | 1.1 | 4.5 | 8.0 | 12.5 | 0.0 | 100. |
| 20 | 4.5 | 3.4 | 5.7 | 3.4 | 9.1 | 5.7 | 11.4 | 12.5 | 10.2 | 3.4 | 3.4 | 0.0 | 4.5 | 2.3 | 10.2 | 10.2 | 0.0 | 100. |
| 21 | 6.8 | 1.1 | 4.5 | 8.0 | 9.1 | 8.0 | 8.0 | 15.9 | 8.0 | 1.1 | 3.4 | 0.0 | 2.3 | 2.3 | 10.2 | 11.4 | 0.0 | 100. |
| 22 | 9.2 | 3.4 | 2.3 | 3.4 | 13.8 | 4.6 | 12.6 | 10.3 | 13.8 | 0.0 | 1.1 | 3.4 | 2.3 | 5.7 | 6.9 | 6.9 | 0.0 | 100. |
| 23 | 8.0 | 2.3 | 3.4 | 3.4 | 11.4 | 6.8 | 10.2 | 11.4 | 14.8 | 2.3 | 1.1 | 1.1 | 3.4 | 4.5 | 6.8 | 9.1 | 0.0 | 100. |
| 24 | 6.8 | 3.4 | 3.4 | 2.3 | 9.1 | 10.2 | 10.2 | 10.2 | 11.4 | 4.5 | 3.4 | 2.3 | 2.3 | 5.7 | 5.7 | 9.1 | 0.0 | 100. |
| ALL | 8.1 | 3.3 | 3.7 | 3.3 | 6.8 | 8.5 | 12.1 | 8.3 | 11.4 | 5.3 | 3.9 | 1.9 | 3.5 | 3.2 | 6.6 | 10.0 | 0.0 | 100. |

NUMBER OF OBS = 2009

NPPD-COOPER STATION 100-M WIND DIRECTION PERSISTENCE JAN-JUN 1984

PROGRAM: WINPER
VERSION: 2P

HOURLY WIND ROSES (PERCENT)

WIND DIRECTION

| HR. OF DAY | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.6 | 3.6 | 4.8 | 4.2 | 7.2 | 4.8 | 11.4 | 4.8 | 9.0 | 7.8 | 5.4 | 3.6 | 4.3 | 3.6 | 7.8 | 7.8 | 0.0 | 100. |
| 2 | 7.9 | 3.7 | 6.7 | 1.2 | 5.5 | 9.8 | 9.1 | 5.5 | 4.9 | 6.1 | 7.9 | 3.7 | 6.7 | 3.7 | 9.8 | 7.9 | 0.0 | 100. |
| 3 | 7.3 | 5.5 | 5.5 | 1.8 | 4.2 | 8.5 | 11.5 | 6.7 | 4.2 | 3.6 | 9.1 | 3.6 | 5.5 | 3.6 | 9.7 | 9.7 | 0.0 | 100. |
| 4 | 9.6 | 4.2 | 4.2 | 2.4 | 6.0 | 7.8 | 12.0 | 4.2 | 4.8 | 4.8 | 4.8 | 6.6 | 7.2 | 4.2 | 10.2 | 7.2 | 0.0 | 100. |
| 5 | 6.6 | 4.8 | 5.4 | 4.2 | 3.0 | 7.8 | 10.2 | 4.2 | 7.8 | 2.4 | 6.6 | 5.4 | 5.4 | 3.6 | 12.0 | 10.2 | 0.0 | 100. |
| 6 | 7.9 | 4.3 | 3.0 | 5.5 | 6.7 | 5.5 | 8.5 | 6.7 | 5.5 | 1.8 | 6.7 | 6.1 | 4.9 | 3.0 | 11.0 | 12.8 | 0.0 | 100. |
| 7 | 8.5 | 2.4 | 6.1 | 2.4 | 5.5 | 9.1 | 7.3 | 7.3 | 6.7 | 3.6 | 4.2 | 6.1 | 4.2 | 2.4 | 11.5 | 12.7 | 0.0 | 100. |
| 8 | 7.6 | 2.3 | 7.0 | 3.5 | 3.5 | 7.6 | 9.3 | 5.8 | 8.1 | 5.8 | 3.5 | 5.2 | 4.1 | 2.9 | 11.0 | 12.8 | 0.0 | 100. |
| 9 | 9.2 | 2.9 | 4.0 | 4.6 | 6.9 | 6.9 | 6.9 | 6.4 | 8.1 | 4.6 | 5.8 | 2.9 | 5.2 | 3.5 | 10.4 | 11.0 | 0.6 | 100. |
| 10 | 8.7 | 2.3 | 3.5 | 4.1 | 5.8 | 6.4 | 9.9 | 4.7 | 8.1 | 6.4 | 4.7 | 5.2 | 4.1 | 0.6 | 11.0 | 14.5 | 0.0 | 100. |
| 11 | 13.1 | 3.4 | 1.1 | 3.4 | 5.1 | 9.1 | 9.7 | 5.1 | 6.9 | 5.7 | 5.7 | 4.6 | 2.9 | 2.9 | 10.3 | 10.9 | 0.0 | 100. |
| 12 | 14.4 | 3.4 | 2.3 | 3.4 | 2.9 | 6.3 | 12.1 | 6.3 | 9.8 | 3.4 | 5.2 | 2.3 | 4.6 | 3.4 | 10.9 | 9.2 | 0.0 | 100. |
| 13 | 12.0 | 3.4 | 2.9 | 2.9 | 2.9 | 6.3 | 10.9 | 5.1 | 9.7 | 7.4 | 4.0 | 2.3 | 3.4 | 5.7 | 10.9 | 10.3 | 0.0 | 100. |
| 14 | 10.3 | 4.0 | 2.3 | 2.3 | 4.0 | 4.6 | 8.6 | 7.4 | 10.3 | 6.3 | 2.9 | 4.0 | 4.0 | 6.3 | 10.9 | 12.0 | 0.0 | 100. |
| 15 | 9.1 | 2.8 | 4.5 | 0.6 | 4.0 | 8.5 | 8.5 | 5.7 | 8.5 | 6.8 | 4.0 | 4.5 | 4.0 | 4.5 | 10.2 | 13.6 | 0.0 | 100. |
| 16 | 8.5 | 4.0 | 2.8 | 3.4 | 5.1 | 6.3 | 10.8 | 2.3 | 10.8 | 7.4 | 2.8 | 4.0 | 2.8 | 4.5 | 12.5 | 11.9 | 0.0 | 100. |
| 17 | 10.8 | 3.4 | 2.8 | 2.8 | 2.8 | 11.4 | 8.5 | 3.4 | 11.4 | 5.7 | 2.3 | 4.0 | 4.0 | 2.8 | 10.8 | 13.1 | 0.0 | 100. |
| 18 | 10.2 | 3.4 | 4.0 | 4.0 | 2.3 | 10.2 | 11.3 | 4.5 | 10.7 | 4.0 | 4.5 | 3.4 | 2.3 | 2.3 | 10.7 | 12.4 | 0.0 | 100. |
| 19 | 8.4 | 2.8 | 5.1 | 3.4 | 3.4 | 8.4 | 9.6 | 6.2 | 10.1 | 5.1 | 3.4 | 4.5 | 2.6 | 2.2 | 9.6 | 14.6 | 0.6 | 100. |
| 20 | 6.2 | 5.1 | 4.5 | 2.8 | 6.7 | 6.7 | 9.0 | 8.4 | 6.7 | 3.4 | 5.1 | 3.9 | 3.9 | 2.2 | 9.6 | 15.2 | 0.6 | 100. |
| 21 | 9.6 | 2.2 | 5.1 | 5.1 | 6.7 | 6.7 | 8.4 | 9.6 | 5.6 | 3.4 | 6.2 | 2.2 | 2.8 | 2.8 | 10.7 | 12.9 | 0.0 | 100. |
| 22 | 11.3 | 2.8 | 4.5 | 2.8 | 8.5 | 4.5 | 11.9 | 6.2 | 9.6 | 2.8 | 4.5 | 4.5 | 2.8 | 4.0 | 10.2 | 9.0 | 0.0 | 100. |
| 23 | 11.3 | 2.8 | 4.5 | 4.0 | 6.2 | 5.6 | 10.7 | 6.8 | 9.0 | 4.5 | 2.3 | 6.8 | 3.4 | 4.5 | 8.5 | 9.0 | 0.0 | 100. |
| 24 | 9.7 | 2.8 | 5.1 | 3.4 | 6.3 | 8.5 | 8.5 | 5.1 | 8.5 | 5.7 | 5.7 | 3.4 | 4.5 | 4.5 | 9.7 | 8.5 | 0.0 | 100. |
| ALL | 9.5 | 3.4 | 4.2 | 3.3 | 5.0 | 7.4 | 9.8 | 5.8 | 8.2 | 4.9 | 4.9 | 4.3 | 4.2 | 3.5 | 10.4 | 11.2 | 0.1 | 100. |

NUMBER OF OBS = 4143

Precipitation

NPPD - COOPER STATION PRECIPITATION DATA FOR JAN-MAR 1984 RAIN VERSION # 2P

| YR | MON | DAY | 1AM<br>1PM | 2AM<br>2PM | 3AM<br>3PM | 4AM<br>4PM | 5AM<br>5PM | 6AM<br>6PM | 7AM<br>7PM | 8AM<br>8PM | 9AM<br>9PM | 10AM<br>10PM | 11AM<br>11PM | 12N<br>12MDNT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | 1 | 1 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 |
| 84 | 1 | 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 |
| 84 | 1 | 5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 6 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 7 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 8 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 9 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.01 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 |
| 84 | 1 | 13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

NPPD - COOPER STATION PRECIPITATION DATA FOR JAN-MAR 1984 RAIN VERSION # 2P

| YR | MON | DAY | 1AM 1PM | 2AM 2PM | 3AM 3PM | 4AM 4PM | 5AM 5PM | 6AM 6PM | 7AM 7PM | 8AM 8PM | 9AM 9PM | 10AM 10PM | 11AM 11PM | 12N 12MDNT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | 1 | 18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.99 | 9.99 | |
| | | | 9.99 | 9.99 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 1 | 31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

NPPD - COOPER STATION PRECIPITATION DATA FOR JAN-MAR 1984 RAIN VERSION # 2P

MONTH OF JANUARY

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 744
NUMBER OF MISSING HOURS - 5
TOTAL HOURS OF PRECIPITATION - 5
TOTAL DAYS WITH PRECIPITATION - 3
TOTAL AMOUNT OF PRECIPITATION - 0.27 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.20 INCHES
MAXIMUM DAILY PRECIPITATION - 0.20 INCHES
1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 4 HOUR 11 - 0.20 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 4 HOUR 11 - 0.20 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 4 HOUR 11 - 0.20 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 4 HOUR 11 - 0.20 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 4 HOUR 11 - 0.20 INCHES

B36

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 736
NUMBER OF MISSING HOURS - 5
TOTAL HOURS OF PRECIPITATION - 5
TOTAL DAYS WITH PRECIPITATION - 3
TOTAL AMOUNT OF PRECIPITATION - 0.27 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.20 INCHES
MAXIMUM DAILY PRECIPITATION - 0.20 INCHES

NPPD - COOPER STATION PRECIPITATION DATA FOR JAN-MAR 1984 RAIN VERSION # 2P

MONTH OF JANUARY

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

| AMOUNT | DURATION (HOURS) | | | | |
|---|---|---|---|---|---|
| INCHES | 1 | 6 | 12 | 18 | 24 |
| 0.01 | 5 | 15 | 27 | 39 | 51 |
| 0.02 | 3 | 13 | 25 | 37 | 49 |
| 0.03 | 2 | 12 | 24 | 36 | 48 |
| 0.04 | 1 | 7 | 13 | 19 | 25 |
| 0.05 | 1 | 6 | 12 | 18 | 24 |
| 0.07 | 1 | 6 | 12 | 18 | 24 |
| 0.10 | 1 | 6 | 12 | 18 | 24 |
| 0.15 | 1 | 6 | 12 | 18 | 24 |
| 0.20 | 1 | 6 | 12 | 18 | 24 |
| 0.25 | 0 | 0 | 0 | 0 | 0 |
| 0.30 | 0 | 0 | 0 | 0 | 0 |
| 0.35 | 0 | 0 | 0 | 0 | 0 |
| 0.40 | 0 | 0 | 0 | 0 | 0 |
| 0.45 | 0 | 0 | 0 | 0 | 0 |
| 0.50 | 0 | 0 | 0 | 0 | 0 |
| 0.60 | 0 | 0 | 0 | 0 | 0 |
| 0.70 | 0 | 0 | 0 | 0 | 0 |
| 0.80 | 0 | 0 | 0 | 0 | 0 |
| 0.90 | 0 | 0 | 0 | 0 | 0 |
| 1.00 | 0 | 0 | 0 | 0 | 0 |
| 1.10 | 0 | 0 | 0 | 0 | 0 |
| 1.20 | 0 | 0 | 0 | 0 | 0 |
| 1.30 | 0 | 0 | 0 | 0 | 0 |
| 1.40 | 0 | 0 | 0 | 0 | 0 |
| 1.50 | 0 | 0 | 0 | 0 | 0 |
| 1.60 | 0 | 0 | 0 | 0 | 0 |
| 1.70 | 0 | 0 | 0 | 0 | 0 |
| 1.80 | 0 | 0 | 0 | 0 | 0 |
| 1.90 | 0 | 0 | 0 | 0 | 0 |
| 2.00 | 0 | 0 | 0 | 0 | 0 |

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

NPPD - COOPER STATION PRECIPITATION DATA FOR JAN-MAR 1984 RAIN VERSION # 2P

| YR | MON | DAY | 1AM<br>1PM | 2AM<br>2PM | 3AM<br>3PM | 4AM<br>4PM | 5AM<br>5PM | 6AM<br>6PM | 7AM<br>7PM | 8AM<br>8PM | 9AM<br>9PM | 10AM<br>10PM | 11AM<br>11PM | 12N<br>12MDNT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | 2 | 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 2 | 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 9.99 | 0.00 | 0.00 | 0.00 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 |
| 84 | 2 | 3 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 2 | 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.02 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 |
| 84 | 2 | 5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 2 | 6 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | |
| | | | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 |
| 84 | 2 | 7 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | |
| | | | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 2 | 8 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 2 | 9 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 |
| 84 | 2 | 10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 2 | 11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 2 | 12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 2 | 13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 2 | 14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 2 | 15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.13 | 0.09 | 0.12 | 0.10 | 0.52 |
| 84 | 2 | 16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 2 | 17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

NPPD - COOPER STATION PRECIPITATION DATA FOR JAN-MAR 1984 RAIN VERSION # 2P

| YR | MON | DAY | 1AM 1PM | 2AM 2PM | 3AM 3PM | 4AM 4PM | 5AM 5PM | 6AM 6PM | 7AM 7PM | 8AM 8PM | 9AM 9PM | 10AM 10PM | 11AM 11PM | 12N 12MDNT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | 2 | 18 | 0.00 | 0.00 | 0.00 | 0.01 | 0.02 | 0.04 | 0.02 | 0.02 | 0.03 | 0.01 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.25 |
| 84 | 2 | 19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 2 | 20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 2 | 21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 2 | 22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 2 | 23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.04 |
| 84 | 2 | 24 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | |
| | | | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 |
| 84 | 2 | 25 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | |
| | | | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 |
| 84 | 2 | 26 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | |
| | | | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 |
| 84 | 2 | 27 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | |
| | | | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 |
| 84 | 2 | 28 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | |
| | | | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 |
| 84 | 2 | 29 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | |
| | | | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 |

NPPD - COOPER STATION PRECIPITATION DATA FOR JAN-MAR 1984 RAIN VERSION # 2P

MONTH OF FEBRUARY

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 696
NUMBER OF MISSING HOURS - 201
TOTAL HOURS OF PRECIPITATION - 21
TOTAL DAYS WITH PRECIPITATION - 5
TOTAL AMOUNT OF PRECIPITATION - 0.87 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.13 INCHES
MAXIMUM DAILY PRECIPITATION - 0.52 INCHES
1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 15 HOUR 21 - 0.13 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 15 HOUR 20 - 0.49 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 15 HOUR 14 - 0.52 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 15 HOUR 14 - 0.52 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 15 HOUR 14 - 0.52 INCHES



FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 607
NUMBER OF MISSING HOURS - 201
TOTAL HOURS OF PRECIPITATION - 14
TOTAL DAYS WITH PRECIPITATION - 5
TOTAL AMOUNT OF PRECIPITATION - 0.35 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.10 INCHES
MAXIMUM DAILY PRECIPITATION - 0.29 INCHES

NPPD - COOPER STATION PRECIPITATION DATA FOR JAN-MAR 1984 RAIN VERSION # 2P

MONTH OF FEBRUARY

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

| AMOUNT | DURATION (HOURS) | | | | |
|---|---|---|---|---|---|
| INCHES | 1 | 6 | 12 | 18 | 24 |
| 0.01 | 21 | 55 | 85 | 115 | 145 |
| 0.02 | 15 | 50 | 81 | 111 | 141 |
| 0.03 | 9 | 47 | 78 | 108 | 138 |
| 0.04 | 7 | 30 | 49 | 67 | 85 |
| 0.05 | 6 | 24 | 38 | 50 | 62 |
| 0.07 | 5 | 22 | 38 | 50 | 62 |
| 0.10 | 4 | 19 | 35 | 47 | 59 |
| 0.15 | 0 | 8 | 24 | 36 | 48 |
| 0.20 | 0 | 7 | 16 | 28 | 40 |
| 0.25 | 0 | 6 | 12 | 24 | 36 |
| 0.30 | 0 | 5 | 12 | 18 | 24 |
| 0.35 | 0 | 4 | 10 | 16 | 22 |
| 0.40 | 0 | 3 | 10 | 16 | 22 |
| 0.45 | 0 | 2 | 8 | 14 | 20 |
| 0.50 | 0 | 0 | 3 | 9 | 15 |
| 0.60 | 0 | 0 | 0 | 0 | 0 |
| 0.70 | 0 | 0 | 0 | 0 | 0 |
| 0.80 | 0 | 0 | 0 | 0 | 0 |
| 0.90 | 0 | 0 | 0 | 0 | 0 |
| 1.00 | 0 | 0 | 0 | 0 | 0 |
| 1.10 | 0 | 0 | 0 | 0 | 0 |
| 1.20 | 0 | 0 | 0 | 0 | 0 |
| 1.30 | 0 | 0 | 0 | 0 | 0 |
| 1.40 | 0 | 0 | 0 | 0 | 0 |
| 1.50 | 0 | 0 | 0 | 0 | 0 |
| 1.60 | 0 | 0 | 0 | 0 | 0 |
| 1.70 | 0 | 0 | 0 | 0 | 0 |
| 1.80 | 0 | 0 | 0 | 0 | 0 |
| 1.90 | 0 | 0 | 0 | 0 | 0 |
| 2.00 | 0 | 0 | 0 | 0 | 0 |

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

NPPD - COOPER STATION PRECIPITATION DATA FOR JAN-MAR 1984 RAIN VERSION # 2P

| YR | MON | DAY | 1AM | 2AM | 3AM | 4AM | 5AM | 6AM | 7AM | 8AM | 9AM | 10AM | 11AM | 12N | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1PM | 2PM | 3PM | 4PM | 5PM | 6PM | 7PM | 8PM | 9PM | 10PM | 11PM | 12MDNT | |
| 84 | 3 | 1 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | |
| | | | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 |
| 84 | 3 | 2 | 0.00 | 0.00 | 0.00 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 |
| 84 | 3 | 3 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | |
| | | | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 |
| 84 | 3 | 4 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 3 | 5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 3 | 6 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 3 | 7 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.02 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.12 |
| 84 | 3 | 8 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 3 | 9 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.02 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.05 |
| 84 | 3 | 10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 3 | 11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 3 | 12 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |
| 84 | 3 | 13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 3 | 14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 3 | 15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 |
| 84 | 3 | 16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.05 | 0.08 | 0.06 | 0.22 |
| 84 | 3 | 17 | 0.07 | 0.08 | 0.05 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 |

NPPD - COOPER STATION PRECIPITATION DATA FOR JAN-MAR 1984 RAIN VERSION # 2P

| YR | MON | DAY | 1AM 1PM | 2AM 2PM | 3AM 3PM | 4AM 4PM | 5AM 5PM | 6AM 6PM | 7AM 7PM | 8AM 8PM | 9AM 9PM | 10AM 10PM | 11AM 11PM | 12N 12MDNT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | 3 | 18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.02 | 0.05 | 0.03 | 0.10 | 0.07 | 0.08 | 0.05 | 0.03 | 0.01 | 0.44 |
| 84 | 3 | 19 | 0.01 | 0.01 | 0.00 | 0.01 | 0.02 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | 0.01 | 0.06 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.17 |
| 84 | 3 | 20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |
| 84 | 3 | 21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 3 | 22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 3 | 23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 3 | 24 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 |
| 84 | 3 | 25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 3 | 26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.04 | 0.05 | 0.18 | 0.10 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.33 |
| 84 | 3 | 27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 3 | 28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 3 | 29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 3 | 30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 3 | 31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

NPPD - COOPER STATION PRECIPITATION DATA FOR JAN-MAR 1984 RAIN VERSION # 2P

MONTH OF MARCH

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 744
NUMBER OF MISSING HOURS - 68
TOTAL HOURS OF PRECIPITATION - 43
TOTAL DAYS WITH PRECIPITATION - 11
TOTAL AMOUNT OF PRECIPITATION - 1.68 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.18 INCHES
MAXIMUM DAILY PRECIPITATION - 0.44 INCHES
1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 26 HOUR 9 - 0.18 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 16 HOUR 22 - 0.39 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 18 HOUR 16 - 0.46 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 18 HOUR 16 - 0.53 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 18 HOUR 16 - 0.60 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 701
NUMBER OF MISSING HOURS - 64
TOTAL HOURS OF PRECIPITATION - 42
TOTAL DAYS WITH PRECIPITATION - 11
TOTAL AMOUNT OF PRECIPITATION - 1.64 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.18 INCHES
MAXIMUM DAILY PRECIPITATION - 0.44 INCHES

NPPD - COOPER STATION PRECIPITATION DATA FOR JAN-MAR 1984 RAIN VERSION # 2P

MONTH OF MARCH

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

| AMOUNT | DURATION (HOURS) | | | | |
|---|---|---|---|---|---|
| INCHES | 1 | 6 | 12 | 18 | 24 |
| 0.01 | 43 | 107 | 165 | 214 | 262 |
| 0.02 | 28 | 69 | 109 | 136 | 201 |
| 0.03 | 21 | 65 | 101 | 137 | 173 |
| 0.04 | 18 | 61 | 97 | 133 | 169 |
| 0.05 | 16 | 50 | 81 | 111 | 141 |
| 0.07 | 9 | 43 | 74 | 98 | 122 |
| 0.10 | 3 | 34 | 67 | 91 | 115 |
| 0.15 | 1 | 23 | 44 | 66 | 84 |
| 0.20 | 0 | 20 | 39 | 59 | 77 |
| 0.25 | 0 | 17 | 35 | 55 | 73 |
| 0.30 | 0 | 11 | 29 | 49 | 67 |
| 0.35 | 0 | 9 | 28 | 47 | 65 |
| 0.40 | 0 | 0 | 15 | 29 | 41 |
| 0.45 | 0 | 0 | 4 | 12 | 18 |
| 0.50 | 0 | 0 | 0 | 4 | 11 |
| 0.60 | 0 | 0 | 0 | 0 | 4 |
| 0.70 | 0 | 0 | 0 | 0 | 0 |
| 0.80 | 0 | 0 | 0 | 0 | 0 |
| 0.90 | 0 | 0 | 0 | 0 | 0 |
| 1.00 | 0 | 0 | 0 | 0 | 0 |
| 1.10 | 0 | 0 | 0 | 0 | 0 |
| 1.20 | 0 | 0 | 0 | 0 | 0 |
| 1.30 | 0 | 0 | 0 | 0 | 0 |
| 1.40 | 0 | 0 | 0 | 0 | 0 |
| 1.50 | 0 | 0 | 0 | 0 | 0 |
| 1.60 | 0 | 0 | 0 | 0 | 0 |
| 1.70 | 0 | 0 | 0 | 0 | 0 |
| 1.80 | 0 | 0 | 0 | 0 | 0 |
| 1.90 | 0 | 0 | 0 | 0 | 0 |
| 2.00 | 0 | 0 | 0 | 0 | 0 |

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

NPPD - COOPER STATION PRECIPITATION DATA FOR JAN-MAR 1984 RAIN VERSION # 2P

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 2184
NUMBER OF MISSING HOURS - 274
TOTAL HOURS OF PRECIPITATION - 69
TOTAL DAYS WITH PRECIPITATION - 19
TOTAL AMOUNT OF PRECIPITATION - 2.82 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.20 INCHES
MAXIMUM DAILY PRECIPITATION - 0.52 INCHES
1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 1 DAY 4 HOUR 11 - 0.20 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 2 DAY 15 HOUR 20 - 0.49 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 2 DAY 15 HOUR 14 - 0.52 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 3 DAY 18 HOUR 16 - 0.53 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 3 DAY 18 HOUR 16 - 0.60 INCHES



FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 2044
NUMBER OF MISSING HOURS - 270
TOTAL HOURS OF PRECIPITATION - 61
TOTAL DAYS WITH PRECIPITATION - 19
TOTAL AMOUNT OF PRECIPITATION - 2.26 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.20 INCHES
MAXIMUM DAILY PRECIPITATION - 0.44 INCHES

NPPD - COOPER STATION PRECIPITATION DATA FOR JAN-MAR 1984 RAIN VERSION # 2P

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

| AMOUNT | DURATION (HOURS) | | | | |
|---|---|---|---|---|---|
| INCHES | 1 | 6 | 12 | 18 | 24 |
| 0.01 | 69 | 177 | 277 | 368 | 458 |
| 0.02 | 46 | 132 | 215 | 304 | 391 |
| 0.03 | 32 | 124 | 203 | 281 | 359 |
| 0.04 | 26 | 98 | 159 | 219 | 279 |
| 0.05 | 23 | 80 | 131 | 179 | 227 |
| 0.07 | 15 | 71 | 124 | 166 | 208 |
| 0.10 | 8 | 59 | 114 | 156 | 198 |
| 0.15 | 2 | 37 | 80 | 120 | 156 |
| 0.20 | 1 | 33 | 67 | 105 | 141 |
| 0.25 | 0 | 23 | 47 | 79 | 109 |
| 0.30 | 0 | 16 | 41 | 67 | 91 |
| 0.35 | 0 | 13 | 38 | 63 | 87 |
| 0.40 | 0 | 3 | 25 | 45 | 63 |
| 0.45 | 0 | 2 | 12 | 26 | 38 |
| 0.50 | 0 | 0 | 3 | 13 | 26 |
| 0.60 | 0 | 0 | 0 | 0 | 4 |
| 0.70 | 0 | 0 | 0 | 0 | 0 |
| 0.80 | 0 | 0 | 0 | 0 | 0 |
| 0.90 | 0 | 0 | 0 | 0 | 0 |
| 1.00 | 0 | 0 | 0 | 0 | 0 |
| 1.10 | 0 | 0 | 0 | 0 | 0 |
| 1.20 | 0 | 0 | 0 | 0 | 0 |
| 1.30 | 0 | 0 | 0 | 0 | 0 |
| 1.40 | 0 | 0 | 0 | 0 | 0 |
| 1.50 | 0 | 0 | 0 | 0 | 0 |
| 1.60 | 0 | 0 | 0 | 0 | 0 |
| 1.70 | 0 | 0 | 0 | 0 | 0 |
| 1.80 | 0 | 0 | 0 | 0 | 0 |
| 1.90 | 0 | 0 | 0 | 0 | 0 |
| 2.00 | 0 | 0 | 0 | 0 | 0 |

NPPD - COOPER STATION PRECIPITATION DATA FOR APR-JUN 1984 RAIN VERSION # 2P

| YR | MON | DAY | 1AM<br>1PM | 2AM<br>2PM | 3AM<br>3PM | 4AM<br>4PM | 5AM<br>5PM | 6AM<br>6PM | 7AM<br>7PM | 8AM<br>8PM | 9AM<br>9PM | 10AM<br>10PM | 11AM<br>11PM | 12N<br>12MDNT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | 4 | 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.11 | 0.14 | 0.10 | 0.37 |
| 84 | 4 | 2 | 0.09 | 0.06 | 0.06 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.06 | 0.09 | 0.00 | |
| | | | 0.00 | 0.01 | 0.05 | 0.01 | 0.01 | 0.03 | 0.04 | 0.04 | 0.02 | 0.00 | 9.99 | 9.99 | 0.59 |
| 84 | 4 | 3 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.12 | 0.14 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.36 |
| 84 | 4 | 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 4 | 5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 4 | 6 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 4 | 7 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | 0.01 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 |
| 84 | 4 | 8 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 |
| 84 | 4 | 9 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 4 | 10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 4 | 11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.01 | 0.06 | 0.01 | 0.01 | 0.58 | 0.28 | 0.00 | 0.00 | 0.00 | 0.95 |
| 84 | 4 | 12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 4 | 13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 4 | 14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 4 | 15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.01 | 0.01 | 0.00 | 0.01 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 |
| 84 | 4 | 16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.99 | 9.99 | 9.99 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 4 | 17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

NPPD - COOPER STATION PRECIPITATION DATA FOR APR-JUN 1984 RAIN VERSION # 2P

| YR | MON | DAY | 1AM | 2AM | 3AM | 4AM | 5AM | 6AM | 7AM | 8AM | 9AM | 10AM | 11AM | 12N | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1PM | 2PM | 3PM | 4PM | 5PM | 6PM | 7PM | 8PM | 9PM | 10PM | 11PM | 12MDNT | |
| 84 | 4 | 18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 4 | 19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 4 | 20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.16 | 0.02 | 0.00 | 0.00 | 0.11 | 0.06 | 0.13 | 0.00 | 0.00 | 0.00 | 0.48 |
| 84 | 4 | 21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.09 | 0.10 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.19 |
| 84 | 4 | 22 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 4 | 23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 4 | 24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 4 | 25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 4 | 26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13 | 0.00 | 0.03 | 0.28 | 0.01 | 0.00 | 0.45 |
| 84 | 4 | 27 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 |
| 84 | 4 | 28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 4 | 29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.16 | 0.46 | 0.41 | |
| | | | 0.60 | 0.15 | 0.00 | 0.03 | 0.04 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.93 |
| 84 | 4 | 30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

NPPD - COOPER STATION PRECIPITATION DATA FOR APR-JUN 1984 RAIN VERSION # 2P

MONTH OF APRIL

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 720
NUMBER OF MISSING HOURS - 28
TOTAL HOURS OF PRECIPITATION - 58
TOTAL DAYS WITH PRECIPITATION - 12
TOTAL AMOUNT OF PRECIPITATION - 5.52 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.60 INCHES
MAXIMUM DAILY PRECIPITATION - 1.93 INCHES
1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 29 HOUR 13 - 0.60 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 29 HOUR 9 - 1.82 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 29 HOUR 9 - 1.93 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 29 HOUR 7 - 1.93 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 29 HOUR 9 - 1.93 INCHES

B50

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 584
NUMBER OF MISSING HOURS - 28
TOTAL HOURS OF PRECIPITATION - 50
TOTAL DAYS WITH PRECIPITATION - 12
TOTAL AMOUNT OF PRECIPITATION - 4.54 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.60 INCHES
MAXIMUM DAILY PRECIPITATION - 1.93 INCHES

NPPD - COOPER STATION PRECIPITATION DATA FOR APR-JUN 1984 RAIN VERSION # 2P

MONTH OF APRIL

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

| AMOUNT | DURATION (HOURS) | | | | |
|---|---|---|---|---|---|
| INCHES | 1 | 6 | 12 | 18 | 24 |
| 0.01 | 58 | 131 | 198 | 250 | 289 |
| 0.02 | 43 | 121 | 183 | 236 | 275 |
| 0.03 | 38 | 108 | 165 | 215 | 255 |
| 0.04 | 34 | 104 | 161 | 210 | 250 |
| 0.05 | 29 | 99 | 157 | 207 | 247 |
| 0.07 | 23 | 96 | 147 | 191 | 225 |
| 0.10 | 19 | 82 | 130 | 169 | 204 |
| 0.15 | 9 | 62 | 111 | 153 | 184 |
| 0.20 | 6 | 43 | 93 | 130 | 161 |
| 0.25 | 6 | 40 | 83 | 124 | 159 |
| 0.30 | 4 | 31 | 69 | 115 | 156 |
| 0.35 | 4 | 25 | 62 | 108 | 154 |
| 0.40 | 4 | 21 | 52 | 86 | 129 |
| 0.45 | 3 | 20 | 51 | 82 | 123 |
| 0.50 | 2 | 16 | 35 | 55 | 82 |
| 0.60 | 1 | 14 | 26 | 46 | 65 |
| 0.70 | 0 | 12 | 24 | 41 | 60 |
| 0.80 | 0 | 12 | 24 | 36 | 56 |
| 0.90 | 0 | 8 | 20 | 32 | 47 |
| 1.00 | 0 | 6 | 12 | 18 | 24 |
| 1.10 | 0 | 5 | 11 | 17 | 23 |
| 1.20 | 0 | 5 | 11 | 17 | 23 |
| 1.30 | 0 | 4 | 10 | 16 | 22 |
| 1.40 | 0 | 4 | 10 | 16 | 22 |
| 1.50 | 0 | 4 | 10 | 16 | 22 |
| 1.60 | 0 | 4 | 10 | 16 | 22 |
| 1.70 | 0 | 2 | 9 | 15 | 21 |
| 1.80 | 0 | 1 | 8 | 14 | 20 |
| 1.90 | 0 | 0 | 3 | 9 | 15 |
| 2.00 | 0 | 0 | 0 | 0 | 0 |

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

NPPD - COOPER STATION PRECIPITATION DATA FOR APR-JUN 1984

RAIN VERSION # 2P

| YR | MON | DAY | 1AM 1PM | 2AM 2PM | 3AM 3PM | 4AM 4PM | 5AM 5PM | 6AM 6PM | 7AM 7PM | 8AM 8PM | 9AM 9PM | 10AM 10PM | 11AM 11PM | 12N 12MDNT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | 5 | 1 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | |
| | | | 9.99 | 0.02 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.02 |
| 84 | 5 | 2 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | |
| | | | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.01 |
| 84 | 5 | 4 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | |
| | | | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 |
| 84 | 5 | 5 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | |
| | | | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 |
| 84 | 5 | 6 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 |
| 84 | 5 | 7 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 8 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 9 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 |
| 84 | 5 | 10 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | |
| | | | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 11 | 9.99 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 12 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.02 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 |
| 84 | 5 | 16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 |

NPPD - COOPER STATION PRECIPITATION DATA FOR APR-JUN 1984 RAIN VERSION # 2P

| YR | MON | DAY | 1AM 1PM | 2AM 2PM | 3AM 3PM | 4AM 4PM | 5AM 5PM | 6AM 6PM | 7AM 7PM | 8AM 8PM | 9AM 9PM | 10AM 10PM | 11AM 11PM | 12N 12MDNT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | 5 | 18 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 |
| 84 | 5 | 19 | 0.00 | 0.00 | 0.01 | 0.04 | 0.18 | 0.16 | 0.19 | 0.05 | 0.14 | 0.07 | 0.13 | 0.11 | |
| | | | 0.03 | 0.07 | 0.08 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.27 |
| 84 | 5 | 20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 22 | 0.00 | 0.09 | 0.00 | 0.90 | 0.19 | 0.03 | 0.10 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.35 |
| 84 | 5 | 23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 25 | 0.17 | 0.17 | 0.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.75 |
| 84 | 5 | 26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 |
| 84 | 5 | 28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 5 | 31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

NPPD - COOPER STATION PRECIPITATION DATA FOR APR-JUN 1984 RAIN VERSION # 2P

MONTH OF MAY

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 744
NUMBER OF MISSING HOURS - 157
TOTAL HOURS OF PRECIPITATION - 36
TOTAL DAYS WITH PRECIPITATION - 9
TOTAL AMOUNT OF PRECIPITATION - 3.53 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.90 INCHES
MAXIMUM DAILY PRECIPITATION - 1.35 INCHES
1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 22 HOUR 4 - 0.90 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 22 HOUR 2 - 1.31 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 22 HOUR 2 - 1.34 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 22 HOUR 2 - 1.35 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 22 HOUR 2 - 1.35 INCHES

B54

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 678
NUMBER OF MISSING HOURS - 108
TOTAL HOURS OF PRECIPITATION - 34
TOTAL DAYS WITH PRECIPITATION - 7
TOTAL AMOUNT OF PRECIPITATION - 3.50 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.90 INCHES
MAXIMUM DAILY PRECIPITATION - 1.35 INCHES

NPPD - COOPER STATION PRECIPITATION DATA FOR APR-JUN 1984 RAIN VERSION # 2P

MONTH OF MAY

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

| AMOUNT | DURATION (HOURS) | | | | |
|---|---|---|---|---|---|
| INCHES | 1 | 6 | 12 | 18 | 24 |
| 0.01 | 36 | 98 | 155 | 200 | 242 |
| 0.02 | 25 | 65 | 110 | 148 | 184 |
| 0.03 | 22 | 43 | 72 | 102 | 132 |
| 0.04 | 18 | 42 | 67 | 91 | 115 |
| 0.05 | 17 | 41 | 65 | 89 | 113 |
| 0.07 | 16 | 35 | 54 | 72 | 90 |
| 0.10 | 12 | 32 | 50 | 68 | 86 |
| 0.15 | 8 | 31 | 49 | 67 | 85 |
| 0.20 | 2 | 27 | 45 | 63 | 81 |
| 0.25 | 2 | 26 | 45 | 63 | 81 |
| 0.30 | 2 | 26 | 44 | 62 | 80 |
| 0.35 | 2 | 24 | 42 | 60 | 78 |
| 0.40 | 2 | 22 | 41 | 59 | 77 |
| 0.45 | 1 | 20 | 38 | 56 | 74 |
| 0.50 | 1 | 19 | 38 | 56 | 74 |
| 0.60 | 1 | 15 | 36 | 54 | 72 |
| 0.70 | 1 | 13 | 32 | 50 | 68 |
| 0.80 | 1 | 6 | 21 | 33 | 45 |
| 0.90 | 1 | 6 | 19 | 31 | 43 |
| 1.00 | 0 | 5 | 17 | 29 | 41 |
| 1.10 | 0 | 5 | 15 | 28 | 40 |
| 1.20 | 0 | 4 | 12 | 24 | 37 |
| 1.30 | 0 | 1 | 7 | 13 | 19 |
| 1.40 | 0 | 0 | 0 | 0 | 0 |
| 1.50 | 0 | 0 | 0 | 0 | 0 |
| 1.60 | 0 | 0 | 0 | 0 | 0 |
| 1.70 | 0 | 0 | 0 | 0 | 0 |
| 1.80 | 0 | 0 | 0 | 0 | 0 |
| 1.90 | 0 | 0 | 0 | 0 | 0 |
| 2.00 | 0 | 0 | 0 | 0 | 0 |

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

NPPD - COOPER STATION PRECIPITATION DATA FOR APR-JUN 1984

RAIN VERSION # 2P

| YR | MON | DAY | 1AM 1PM | 2AM 2PM | 3AM 3PM | 4AM 4PM | 5AM 5PM | 6AM 6PM | 7AM 7PM | 8AM 8PM | 9AM 9PM | 10AM 10PM | 11AM 11PM | 12N 12MDNT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | 6 | 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 6 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 7 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 8 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 9 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.47 | 0.12 | 0.61 |
| 84 | 6 | 13 | 0.17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.17 |
| 84 | 6 | 14 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

NPPD - COOPER STATION PRECIPITATION DATA FOR APR-JUN 1984 RAIN VERSION # 2P

| YR | MON | DAY | 1AM 1PM | 2AM 2PM | 3AM 3PM | 4AM 4PM | 5AM 5PM | 6AM 6PM | 7AM 7PM | 8AM 8PM | 9AM 9PM | 10AM 10PM | 11AM 11PM | 12N 12MDNT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | 6 | 18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.99 | |
| | | | 9.99 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 25 | 9.99 | 9.99 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |
| 84 | 6 | 26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.99 | 9.99 | 9.99 | |
| | | | 9.99 | 9.99 | 9.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 6 | 30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

NPPD - COOPER STATION PRECIPITATION DATA FOR APR-JUN 1984 RAIN VERSION # 2P

MONTH OF JUNE

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 720
NUMBER OF MISSING HOURS - 31
TOTAL HOURS OF PRECIPITATION - 4
TOTAL DAYS WITH PRECIPITATION - 3
TOTAL AMOUNT OF PRECIPITATION - 0.79 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.49 INCHES
MAXIMUM DAILY PRECIPITATION - 0.61 INCHES
1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 12 HOUR 23 - 0.49 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 12 HOUR 23 - 0.78 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 12 HOUR 23 - 0.78 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 12 HOUR 23 - 0.78 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 12 HOUR 23 - 0.78 INCHES

B58

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 545
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 4
TOTAL DAYS WITH PRECIPITATION - 3
TOTAL AMOUNT OF PRECIPITATION - 0.79 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.49 INCHES
MAXIMUM DAILY PRECIPITATION - 0.61 INCHES

NPPD - COOPER STATION PRECIPITATION DATA FOR APR-JUN 1984 RAIN VERSION 0 2P

MONTH OF JUNE

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

| AMOUNT | DURATION (HOURS) | | | | |
|---|---|---|---|---|---|
| INCHES | 1 | 6 | 12 | 18 | 24 |
| 0.01 | 4 | 14 | 26 | 38 | 50 |
| 0.02 | 3 | 8 | 14 | 20 | 26 |
| 0.03 | 3 | 8 | 14 | 20 | 26 |
| 0.04 | 3 | 8 | 14 | 20 | 26 |
| 0.05 | 3 | 8 | 14 | 20 | 26 |
| 0.07 | 3 | 8 | 14 | 20 | 26 |
| 0.10 | 3 | 8 | 14 | 20 | 26 |
| 0.15 | 2 | 8 | 14 | 20 | 26 |
| 0.20 | 1 | 7 | 13 | 19 | 25 |
| 0.25 | 1 | 7 | 13 | 19 | 25 |
| 0.30 | 1 | 6 | 12 | 18 | 24 |
| 0.35 | 1 | 6 | 12 | 18 | 24 |
| 0.40 | 1 | 6 | 12 | 18 | 24 |
| 0.45 | 1 | 6 | 12 | 18 | 24 |
| 0.50 | 0 | 5 | 11 | 17 | 23 |
| 0.60 | 0 | 5 | 11 | 17 | 23 |
| 0.70 | 0 | 4 | 10 | 16 | 22 |
| 0.80 | 0 | 0 | 0 | 0 | 0 |
| 0.90 | 0 | 0 | 0 | 0 | 0 |
| 1.00 | 0 | 0 | 0 | 0 | 0 |
| 1.10 | 0 | 0 | 0 | 0 | 0 |
| 1.20 | 0 | 0 | 0 | 0 | 0 |
| 1.30 | 0 | 0 | 0 | 0 | 0 |
| 1.40 | 0 | 0 | 0 | 0 | 0 |
| 1.50 | 0 | 0 | 0 | 0 | 0 |
| 1.60 | 0 | 0 | 0 | 0 | 0 |
| 1.70 | 0 | 0 | 0 | 0 | 0 |
| 1.80 | 0 | 0 | 0 | 0 | 0 |
| 1.90 | 0 | 0 | 0 | 0 | 0 |
| 2.00 | 0 | 0 | 0 | 0 | 0 |

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

NPPD - COOPER STATION PRECIPITATION DATA FOR APR-JUN 1984 RAIN VERSION # 2P

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 2184
NUMBER OF MISSING HOURS - 216
TOTAL HOURS OF PRECIPITATION - 98
TOTAL DAYS WITH PRECIPITATION - 24
TOTAL AMOUNT OF PRECIPITATION - 9.84 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.90 INCHES
MAXIMUM DAILY PRECIPITATION - 1.93 INCHES
1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 5 DAY 22 HOUR 4 - 0.90 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 29 HOUR 9 - 1.82 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 29 HOUR 9 - 1.93 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 29 HOUR 9 - 1.93 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 29 HOUR 9 - 1.93 INCHES

B60

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 1907
NUMBER OF MISSING HOURS - 136
TOTAL HOURS OF PRECIPITATION - 88
TOTAL DAYS WITH PRECIPITATION - 22
TOTAL AMOUNT OF PRECIPITATION - 8.83 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.90 INCHES
MAXIMUM DAILY PRECIPITATION - 1.93 INCHES

NPPD - COOPER STATION PRECIPITATION DATA FOR APR-JUN 1984 RAIN VERSION # 2P

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

| AMOUNT | DURATION (HOURS) | | | | |
|---|---|---|---|---|---|
| INCHES | 1 | 6 | 12 | 18 | 24 |
| 0.01 | 98 | 243 | 379 | 492 | 591 |
| 0.02 | 71 | 194 | 307 | 408 | 495 |
| 0.03 | 63 | 159 | 251 | 337 | 413 |
| 0.04 | 55 | 154 | 242 | 321 | 391 |
| 0.05 | 49 | 148 | 236 | 316 | 386 |
| 0.07 | 42 | 139 | 215 | 283 | 341 |
| 0.10 | 34 | 122 | 194 | 257 | 316 |
| 0.15 | 19 | 101 | 174 | 240 | 295 |
| 0.20 | 9 | 77 | 151 | 212 | 267 |
| 0.25 | 9 | 73 | 141 | 206 | 265 |
| 0.30 | 7 | 63 | 125 | 195 | 260 |
| 0.35 | 7 | 55 | 116 | 186 | 256 |
| 0.40 | 7 | 49 | 105 | 163 | 230 |
| 0.45 | 5 | 46 | 101 | 156 | 221 |
| 0.50 | 3 | 40 | 84 | 128 | 179 |
| 0.60 | 2 | 34 | 73 | 117 | 160 |
| 0.70 | 1 | 29 | 66 | 107 | 150 |
| 0.80 | 1 | 18 | 45 | 69 | 101 |
| 0.90 | 1 | 14 | 39 | 63 | 90 |
| 1.00 | 0 | 11 | 29 | 47 | 65 |
| 1.10 | 0 | 10 | 26 | 45 | 63 |
| 1.20 | 0 | 9 | 23 | 41 | 60 |
| 1.30 | 0 | 5 | 17 | 29 | 41 |
| 1.40 | 0 | 4 | 10 | 16 | 22 |
| 1.50 | 0 | 4 | 10 | 16 | 22 |
| 1.60 | 0 | 4 | 10 | 16 | 22 |
| 1.70 | 0 | 2 | 9 | 15 | 21 |
| 1.80 | 0 | 1 | 8 | 14 | 20 |
| 1.90 | 0 | 0 | 3 | 9 | 15 |
| 2.00 | 0 | 0 | 0 | 0 | 0 |

NPPD - COOPER STATION PRECIPITATION DATA FOR JAN-JUN 1984 RAIN VERSION # 2P

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 4368
NUMBER OF MISSING HOURS - 490
TOTAL HOURS OF PRECIPITATION - 167
TOTAL DAYS WITH PRECIPITATION - 43
TOTAL AMOUNT OF PRECIPITATION - 12.66 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.90 INCHES
MAXIMUM DAILY PRECIPITATION - 1.93 INCHES
1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 5 DAY 22 HOUR 4 - 0.90 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 29 HOUR 9 - 1.82 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 29 HOUR 9 - 1.93 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 29 HOUR 9 - 1.93 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 29 HOUR 9 - 1.93 INCHES



FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 3951
NUMBER OF MISSING HOURS - 406
TOTAL HOURS OF PRECIPITATION - 149
TOTAL DAYS WITH PRECIPITATION - 41
TOTAL AMOUNT OF PRECIPITATION - 11.09 INCHES
MAXIMUM 1-HOUR PRECIPITATION - 0.90 INCHES
MAXIMUM DAILY PRECIPITATION - 1.93 INCHES

NPPD - COOPER STATION PRECIPITATION DATA FOR JAN-JUN 1984 RAIN VERSION # 2P

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

| AMOUNT | DURATION (HOURS) | | | | |
|---|---|---|---|---|---|
| INCHES | 1 | 6 | 12 | 18 | 24 |
| 0.01 | 167 | 420 | 656 | 860 | 1052 |
| 0.02 | 117 | 326 | 522 | 712 | 889 |
| 0.03 | 95 | 283 | 454 | 618 | 774 |
| 0.04 | 81 | 252 | 401 | 540 | 672 |
| 0.05 | 72 | 228 | 367 | 495 | 615 |
| 0.07 | 57 | 210 | 339 | 449 | 551 |
| 0.10 | 42 | 181 | 308 | 413 | 516 |
| 0.15 | 21 | 138 | 254 | 360 | 452 |
| 0.20 | 10 | 110 | 218 | 317 | 409 |
| 0.25 | 9 | 96 | 188 | 285 | 375 |
| 0.30 | 7 | 79 | 166 | 262 | 351 |
| 0.35 | 7 | 68 | 154 | 249 | 343 |
| 0.40 | 7 | 52 | 130 | 208 | 293 |
| 0.45 | 5 | 48 | 113 | 182 | 259 |
| 0.50 | 3 | 40 | 87 | 141 | 205 |
| 0.60 | 2 | 34 | 73 | 117 | 164 |
| 0.70 | 1 | 29 | 66 | 107 | 150 |
| 0.80 | 1 | 18 | 45 | 69 | 101 |
| 0.90 | 1 | 14 | 39 | 63 | 90 |
| 1.00 | 0 | 11 | 29 | 47 | 65 |
| 1.10 | 0 | 10 | 26 | 45 | 63 |
| 1.20 | 0 | 9 | 23 | 41 | 60 |
| 1.30 | 0 | 5 | 17 | 29 | 41 |
| 1.40 | 0 | 4 | 10 | 16 | 22 |
| 1.50 | 0 | 4 | 10 | 16 | 22 |
| 1.60 | 0 | 4 | 10 | 16 | 22 |
| 1.70 | 0 | 2 | 9 | 15 | 21 |
| 1.80 | 0 | 1 | 8 | 14 | 20 |
| 1.90 | 0 | 0 | 3 | 9 | 15 |
| 2.00 | 0 | 0 | 0 | 0 | 0 |

## JOINT FREQUENCY DISTRIBUTION TABLES

The tables presented in this section are results obtained from processing of the hourly meteorological data collected at the Cooper Nuclear Station. The joint frequency distribution (JFD) tables represent the frequency of occurrence, in number of observations, that a particular wind speed, wind direction, and stability category occurred simultaneously. On a quarterly and semi-annual basis, the JFDs were produced for wind speed and wind direction by atmospheric stability corresponding to the seven Pasquill stability classes, and for wind speed and wind direction for all stability categories combined. Atmospheric stability was classified using the 100-meter to 10-meter temperature difference (delta T) per Regulatory Guide 1.23. The 10-m JFDs reflect the substitution of 100-m wind speed and direction data for missing 10-m wind speeds and directions for the entire period. The 10-m wind data were lost for January through April due to a faulty sensor and a severed transmission cable.

JFDs of 10-Meter Wind vs. Delta T,
January-March 1984

Note: See explanation on page B64.

PROGRAM: JFD VERSION: 3P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR JAN-MAR 1984
SITE IDENTIFIER: NPCS1
DATA PERIOD EXAMINED: 1/ 1/84 - 3/31/84

*** JAN-MAR 1984 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3.51- 7.50 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 5 | 19 |
| 7.51-12.50 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 12 | 22 |
| 12.51-18.50 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 7 | 13 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 25 | 55 |

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| 3.51- 7.50 | 4 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 6 | 3 | 20 |
| 7.51-12.50 | 5 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 10 | 10 | 30 |
| 12.51-18.50 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 8 | 22 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 16 | 7 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 25 | 23 | 76 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR JAN-MAR 1984
SITE IDENTIFIER: NPCS1
DATA PERIOD EXAMINED: 1/ 1/84 - 3/31/84

*** JAN-MAR 1984 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| 3.51- 7.50 | 7 | 4 | 1 | 0 | 2 | 7 | 1 | 0 | 2 | 1 | 1 | 0 | 4 | 1 | 6 | 4 | 41 |
| 7.51-12.50 | 16 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 7 | 7 | 38 |
| 12.51-18.50 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 6 | 1 | 13 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 28 | 7 | 1 | 0 | 2 | 7 | 2 | 0 | 3 | 1 | 2 | 0 | 6 | 4 | 19 | 13 | 95 |

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 100. AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 1 |
| 1.01- 3.50 | 7 | 8 | 11 | 12 | 10 | 4 | 8 | 4 | 5 | 4 | 4 | 6 | 8 | 9 | 10 | 10 | 120 |
| 3.51- 7.50 | 38 | 16 | 23 | 15 | 12 | 30 | 33 | 18 | 18 | 10 | 9 | 10 | 16 | 16 | 28 | 30 | 322 |
| 7.51-12.50 | 48 | 9 | 21 | 16 | 16 | 33 | 29 | 7 | 19 | 9 | 10 | 16 | 6 | 4 | 66 | 64 | 373 |
| 12.51-18.50 | 14 | 2 | 4 | 5 | 2 | 3 | 6 | 4 | 0 | 5 | 6 | 4 | 0 | 2 | 36 | 28 | 121 |
| 18.51-24.00 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 5 | 14 |
| >24.00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 7 |
| TOTAL | 110 | 35 | 59 | 48 | 41 | 70 | 76 | 33 | 42 | 28 | 29 | 36 | 30 | 31 | 146 | 143 | 958 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR JAN-MAR 1984
SITE IDENTIFIER: NPCS1
DATA PERIOD EXAMINED: 1/ 1/84 - 3/31/84

*** JAN-MAR 1984 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 8 |
| 1.01- 3.50 | 10 | 4 | 12 | 9 | 10 | 4 | 9 | 7 | 7 | 7 | 10 | 10 | 18 | 17 | 18 | 11 | 163 |
| 3.51- 7.50 | 2 | 10 | 10 | 2 | 6 | 27 | 49 | 11 | 19 | 30 | 24 | 46 | 28 | 13 | 35 | 9 | 321 |
| 7.51-12.50 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 1 | 3 | 10 | 9 | 3 | 3 | 6 | 1 | 40 |
| 12.51-18.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 1 | 0 | 0 | 0 | 7 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 12 | 14 | 22 | 11 | 16 | 31 | 62 | 18 | 27 | 40 | 50 | 65 | 50 | 33 | 59 | 21 | 539 |

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 12 |
| 1.01- 3.50 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 9 | 6 | 2 | 10 | 5 | 5 | 1 | 2 | 50 |
| 3.51- 7.50 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 8 | 16 | 19 | 17 | 6 | 2 | 5 | 0 | 78 |
| 7.51-12.50 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 2 | 1 | 0 | 3 | 2 | 0 | 0 | 1 | 0 | 15 |
| 12.51-18.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 3 | 0 | 0 | 0 | 0 | 0 | 7 | 13 | 18 | 22 | 25 | 29 | 11 | 7 | 7 | 2 | 156 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR JAN-MAR 1984
SITE IDENTIFIER: NPCS1
DATA PERIOD EXAMINED: 1/ 1/84 - 3/31/84

*** JAN-MAR 1984 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 3 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 11 |
| 3.51- 7.50 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 5 | 1 | 1 | 0 | 0 | 1 | 15 |
| 7.51-12.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12.51-18.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 6 | 3 | 3 | 1 | 2 | 2 | 29 |

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 24 |
| 1.01- 3.50 | 21 | 12 | 23 | 21 | 20 | 8 | 17 | 19 | 22 | 18 | 17 | 28 | 34 | 33 | 31 | 25 | 349 |
| 3.51- 7.50 | 63 | 33 | 35 | 17 | 21 | 64 | 84 | 32 | 50 | 60 | 58 | 74 | 56 | 33 | 84 | 52 | 816 |
| 7.51-12.50 | 70 | 16 | 21 | 16 | 16 | 33 | 40 | 9 | 22 | 12 | 23 | 27 | 11 | 9 | 99 | 94 | 518 |
| 12.51-18.50 | 28 | 2 | 4 | 5 | 2 | 3 | 6 | 4 | 0 | 5 | 14 | 4 | 1 | 2 | 53 | 44 | 177 |
| 18.51-24.00 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 8 | 17 |
| >24.00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 7 |
| TOTAL | 185 | 63 | 83 | 59 | 60 | 108 | 147 | 64 | 94 | 95 | 112 | 133 | 102 | 77 | 273 | 229 | 1908 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR JAN-MAR 1984
SITE IDENTIFIER: NPCS1
DATA PERIOD EXAMINED: 1/ 1/84 - 3/31/84

*** JAN-MAR 1984 ***

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2184

TOTAL NUMBER OF VALID OBSERVATIONS: 1908

TOTAL NUMBER OF MISSING OBSERVATIONS: 276

PERCENT DATA RECOVERY FOR THIS PERIOD: 87.4 %

MEAN WIND SPEED FOR THIS PERIOD: 7.1 MPH

NUMBER OF OBSERVATIONS WITH BACKUP WIND SPEED: 1343

NUMBER OF OBSERVATIONS WITH BACKUP WIND DIRECTION: 1907

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 1907



PERCENTAGE OCCURRENCE OF STABILITY CLASSES

| A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|
| 2.88 | 3.98 | 4.98 | 50.21 | 28.25 | 8.18 | 1.52 |

DISTRIBUTION OF WIND DIRECTION VS STABILITY

| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 25 | 0 |
| B | 16 | 7 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 25 | 23 | 0 |
| C | 28 | 7 | 1 | 0 | 2 | 7 | 2 | 0 | 3 | 1 | 2 | 0 | 6 | 4 | 19 | 13 | 0 |
| D | 110 | 35 | 59 | 48 | 41 | 70 | 76 | 33 | 42 | 28 | 29 | 36 | 30 | 31 | 146 | 143 | 1 |
| E | 12 | 14 | 22 | 11 | 16 | 31 | 62 | 18 | 27 | 40 | 50 | 65 | 30 | 33 | 59 | 21 | 8 |
| F | 3 | 0 | 0 | 0 | 0 | 0 | 7 | 13 | 18 | 22 | 25 | 29 | 11 | 7 | 7 | 2 | 12 |
| G | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 6 | 3 | 3 | 1 | 2 | 2 | 3 |
| TOTAL | 185 | 63 | 83 | 59 | 60 | 108 | 147 | 64 | 94 | 95 | 112 | 133 | 102 | 77 | 273 | 229 | 24 |

JFDs of 10-Meter Wind vs. Delta T,
April-June 1984

Note: See explanation on page B64.

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR APR-JUN 1984
SITE IDENTIFIER: NPC82
DATA PERIOD EXAMINED: 4/ 1/84 - 6/30/84

*** APR-JUN 1984 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3.51- 7.50 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 8 |
| 7.51-12.50 | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 7 | 27 |
| 12.51-18.50 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 3 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 9 | 12 | 38 |

B72

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3.51- 7.50 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 2 | 10 |
| 7.51-12.50 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 6 |
| 12.51-18.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 3 | 0 | 0 | 5 | 0 | 0 | 0 | 2 | 15 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 5 | 0 | 2 | 6 | 7 | 34 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR APR-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 4/ 1/84 - 6/30/84

*** APR-JUN 1984 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 3 |
| 3.51- 7.50 | 1 | 1 | 3 | 0 | 3 | 5 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 20 |
| 7.51-12.50 | 0 | 0 | 2 | 0 | 2 | 0 | 20 | 5 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 42 |
| 12.51-18.50 | 0 | 0 | 0 | 0 | 1 | 0 | 6 | 5 | 10 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 27 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 12 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| TOTAL | 1 | 1 | 5 | 0 | 6 | 5 | 29 | 12 | 31 | 3 | 1 | 1 | 0 | 1 | 1 | 9 | 106 |

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 7 | 5 | 4 | 5 | 2 | 4 | 5 | 3 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 5 | 48 |
| 3.51- 7.50 | 28 | 29 | 15 | 22 | 39 | 48 | 41 | 22 | 15 | 16 | 7 | 1 | 5 | 4 | 10 | 10 | 312 |
| 7.51-12.50 | 49 | 19 | 25 | 21 | 32 | 32 | 73 | 40 | 37 | 28 | 9 | 6 | 11 | 9 | 18 | 34 | 443 |
| 12.51-18.50 | 18 | 3 | 2 | 2 | 13 | 14 | 25 | 11 | 37 | 18 | 8 | 0 | 16 | 14 | 21 | 30 | 232 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 3 | 0 | 0 | 1 | 5 | 8 | 7 | 40 |
| >24.00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 |
| TOTAL | 103 | 56 | 46 | 50 | 86 | 98 | 144 | 76 | 107 | 65 | 26 | 9 | 34 | 33 | 60 | 86 | 1079 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR APR-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 4/ 1/84 - 6/30/84

*** APR-JUN 1984 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 10 |
| 1.01- 3.50 | 10 | 5 | 7 | 12 | 10 | 3 | 2 | 6 | 9 | 5 | 8 | 2 | 4 | 4 | 4 | 10 | 101 |
| 3.51- 7.50 | 21 | 5 | 12 | 9 | 19 | 19 | 31 | 19 | 21 | 7 | 11 | 7 | 11 | 10 | 15 | 14 | 231 |
| 7.51-12.50 | 5 | 2 | 1 | 0 | 1 | 8 | 17 | 30 | 32 | 9 | 3 | 4 | 10 | 2 | 3 | 3 | 130 |
| 12.51-18.50 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 14 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| TOTAL | 38 | 12 | 20 | 21 | 30 | 30 | 50 | 58 | 68 | 22 | 22 | 14 | 26 | 16 | 22 | 28 | 487 |

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 5 |
| 1.01- 3.50 | 7 | 3 | 4 | 0 | 3 | 0 | 0 | 1 | 6 | 4 | 5 | 3 | 2 | 2 | 9 | 12 | 61 |
| 3.51- 7.50 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 7 | 5 | 1 | 0 | 1 | 1 | 4 | 1 | 26 |
| 7.51-12.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12.51-18.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 9 | 3 | 4 | 0 | 4 | 0 | 1 | 3 | 13 | 9 | 7 | 3 | 3 | 3 | 13 | 13 | 93 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR APR-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 4/ 1/84 - 6/30/84

*** APR-JUN 1984 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 3 |
| 1.01- 3.50 | 2 | 4 | 1 | 0 | 0 | 0 | 1 | 2 | 3 | 2 | 3 | 1 | 1 | 1 | 4 | 3 | 28 |
| 3.51- 7.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7.51-12.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| 12.51-18.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 2 | 4 | 1 | 0 | 0 | 0 | 1 | 2 | 3 | 2 | 3 | 1 | 2 | 2 | 4 | 3 | 33 |

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 18 |
| 1.01- 3.50 | 26 | 17 | 16 | 17 | 15 | 7 | 8 | 12 | 18 | 12 | 18 | 8 | 8 | 9 | 19 | 31 | 241 |
| 3.51- 7.50 | 57 | 35 | 30 | 31 | 62 | 72 | 75 | 45 | 44 | 28 | 19 | 8 | 17 | 17 | 34 | 33 | 607 |
| 7.51-12.50 | 67 | 22 | 28 | 21 | 35 | 40 | 110 | 75 | 78 | 37 | 12 | 10 | 22 | 12 | 31 | 50 | 650 |
| 12.51-18.50 | 21 | 3 | 2 | 2 | 14 | 14 | 31 | 24 | 56 | 20 | 10 | 8 | 17 | 14 | 22 | 34 | 292 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 27 | 4 | 0 | 0 | 1 | 5 | 8 | 9 | 55 |
| >24.00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 7 |
| TOTAL | 172 | 77 | 76 | 71 | 126 | 133 | 225 | 156 | 227 | 101 | 59 | 34 | 65 | 57 | 115 | 158 | 1870 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR APR-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 4/ 1/84 - 6/30/84

*** APR-JUN 1984 ***

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2184

TOTAL NUMBER OF VALID OBSERVATIONS: 1870

TOTAL NUMBER OF MISSING OBSERVATIONS: 314

PERCENT DATA RECOVERY FOR THIS PERIOD: 85.6 %

MEAN WIND SPEED FOR THIS PERIOD: 8.6 MPH

NUMBER OF OBSERVATIONS WITH BACKUP WIND SPEED: 625

NUMBER OF OBSERVATIONS WITH BACKUP WIND DIRECTION: 625

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 625

B76

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

| A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|
| 2.03 | 1.82 | 5.67 | 57.70 | 26.04 | 4.97 | 1.76 |

DISTRIBUTION OF WIND DIRECTION VS STABILITY

| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 9 | 12 | 0 |
| B | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 5 | 0 | 2 | 6 | 7 | 0 |
| C | 1 | 1 | 5 | 0 | 6 | 5 | 29 | 12 | 31 | 3 | 1 | 1 | 0 | 1 | 1 | 9 | 0 |
| D | 103 | 56 | 46 | 50 | 36 | 98 | 144 | 76 | 107 | 65 | 26 | 9 | 34 | 33 | 60 | 86 | 0 |
| E | 38 | 12 | 20 | 21 | 30 | 30 | 50 | 58 | 68 | 22 | 22 | 14 | 26 | 16 | 22 | 28 | 10 |
| F | 9 | 3 | 4 | 0 | 4 | 0 | 1 | 3 | 13 | 9 | 7 | 3 | 3 | 3 | 13 | 13 | 5 |
| G | 2 | 4 | 1 | 0 | 0 | 0 | 1 | 2 | 3 | 2 | 3 | 1 | 2 | 2 | 4 | 3 | 3 |
| TOTAL | 172 | 77 | 76 | 71 | 126 | 133 | 225 | 156 | 227 | 101 | 59 | 34 | 65 | 57 | 115 | 158 | 18 |

JFDs of 10-Meter Wind vs. Delta T,
January-June 1984

Note: See explanation on page B64.

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

*** JAN-JUN 1984 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3.51- 7.50 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 9 | 27 |
| 7.51-12.50 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 19 | 49 |
| 12.51-18.50 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 8 | 16 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 30 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 24 | 37 | 93 |

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| 3.51- 7.50 | 6 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 10 | 5 | 30 |
| 7.51-12.50 | 7 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 12 | 12 | 36 |
| 12.51-18.50 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 3 | 0 | 0 | 5 | 0 | 0 | 9 | 10 | 37 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 20 | 7 | 1 | 0 | 1 | 0 | 0 | 5 | 5 | 0 | 0 | 5 | 2 | 3 | 31 | 30 | 110 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

*** JAN-JUN 1984 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 1 | 5 |
| 3.51- 7.50 | 8 | 5 | 4 | 0 | 5 | 12 | 3 | 2 | 3 | 1 | 1 | 0 | 4 | 1 | 6 | 6 | 61 |
| 7.51-12.50 | 16 | 3 | 2 | 0 | 2 | 0 | 21 | 5 | 10 | 0 | 0 | 0 | 1 | 2 | 7 | 11 | 80 |
| 12.51-18.50 | 5 | 0 | 0 | 0 | 1 | 0 | 6 | 5 | 10 | 1 | 2 | 1 | 0 | 0 | 7 | 2 | 40 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 13 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| TOTAL | 29 | 8 | 6 | 0 | 8 | 12 | 31 | 12 | 34 | 4 | 3 | 1 | 6 | 5 | 20 | 22 | 201 |

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 1 |
| 1.01- 3.50 | 14 | 13 | 15 | 17 | 12 | 8 | 13 | 7 | 5 | 4 | 6 | 8 | 9 | 10 | 12 | 15 | 168 |
| 3.51- 7.50 | 66 | 45 | 38 | 37 | 51 | 78 | 74 | 40 | 33 | 26 | 16 | 11 | 21 | 20 | 38 | 40 | 634 |
| 7.51-12.50 | 97 | 28 | 46 | 37 | 48 | 65 | 102 | 47 | 56 | 37 | 19 | 22 | 17 | 13 | 84 | 98 | 816 |
| 12.51-18.50 | 32 | 5 | 6 | 7 | 15 | 17 | 31 | 15 | 37 | 23 | 14 | 4 | 16 | 16 | 57 | 58 | 353 |
| 18.51-24.00 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 16 | 3 | 0 | 0 | 1 | 5 | 14 | 12 | 54 |
| >24.00 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 11 |
| TOTAL | 213 | 91 | 105 | 98 | 127 | 168 | 220 | 109 | 149 | 93 | 55 | 45 | 64 | 64 | 206 | 229 | 2037 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

*** JAN-JUN 1984 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 18 |
| 1.01- 3.50 | 20 | 9 | 19 | 21 | 20 | 7 | 11 | 13 | 16 | 12 | 18 | 12 | 22 | 21 | 22 | 21 | 264 |
| 3.51- 7.50 | 23 | 15 | 22 | 11 | 25 | 46 | 80 | 30 | 40 | 37 | 35 | 53 | 39 | 23 | 50 | 23 | 552 |
| 7.51-12.50 | 5 | 2 | 1 | 0 | 1 | 8 | 21 | 30 | 33 | 12 | 13 | 13 | 13 | 5 | 9 | 4 | 170 |
| 12.51-18.50 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 1 | 6 | 1 | 2 | 0 | 0 | 0 | 21 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| TOTAL | 50 | 26 | 42 | 32 | 46 | 61 | 112 | 76 | 95 | 62 | 72 | 79 | 76 | 49 | 81 | 49 | 1026 |

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 17 |
| 1.01- 3.50 | 9 | 3 | 4 | 0 | 3 | 0 | 0 | 9 | 15 | 10 | 7 | 13 | 7 | 7 | 10 | 14 | 111 |
| 3.51- 7.50 | 3 | 0 | 0 | 0 | 1 | 0 | 2 | 5 | 15 | 21 | 20 | 17 | 7 | 3 | 9 | 1 | 104 |
| 7.51-12.50 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 2 | 1 | 0 | 3 | 2 | 0 | 0 | 1 | 0 | 15 |
| 12.51-18.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 12 | 3 | 4 | 0 | 4 | 0 | 8 | 16 | 31 | 31 | 32 | 32 | 14 | 10 | 20 | 15 | 249 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

*** JAN-JUN 1984 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 6 |
| 1.01- 3.50 | 2 | 4 | 1 | 0 | 0 | 0 | 1 | 2 | 4 | 3 | 4 | 3 | 3 | 2 | 6 | 4 | 39 |
| 3.51- 7.50 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 5 | 1 | 1 | 0 | 0 | 1 | 15 |
| 7.51-12.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| 12.51-18.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 3 | 4 | 1 | 0 | 0 | 0 | 1 | 2 | 7 | 6 | 9 | 4 | 5 | 3 | 6 | 5 | 62 |

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 42 |
| 1.01- 3.50 | 47 | 29 | 39 | 38 | 35 | 15 | 25 | 31 | 40 | 30 | 35 | 36 | 42 | 42 | 50 | 56 | 590 |
| 3.51- 7.50 | 120 | 68 | 65 | 48 | 83 | 136 | 159 | 77 | 94 | 88 | 77 | 82 | 73 | 50 | 118 | 85 | 1423 |
| 7.51-12.50 | 137 | 38 | 49 | 37 | 51 | 73 | 150 | 84 | 100 | 49 | 35 | 37 | 33 | 21 | 130 | 144 | 1168 |
| 12.51-18.50 | 49 | 5 | 6 | 7 | 16 | 17 | 37 | 28 | 56 | 25 | 24 | 12 | 18 | 16 | 75 | 78 | 469 |
| 18.51-24.00 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 27 | 4 | 0 | 0 | 1 | 5 | 14 | 17 | 72 |
| >24.00 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 14 |
| TOTAL | 357 | 140 | 159 | 130 | 186 | 241 | 372 | 220 | 321 | 196 | 171 | 167 | 167 | 134 | 388 | 387 | 3778 |

PROGRAM: JFD VERSION: 5F

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

*** JAN-JUN 1984 ***

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 10.0 METERS
WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 4368

TOTAL NUMBER OF VALID OBSERVATIONS: 3778

TOTAL NUMBER OF MISSING OBSERVATIONS: 590

PERCENT DATA RECOVERY FOR THIS PERIOD: 86.5 %

MEAN WIND SPEED FOR THIS PERIOD: 7.9 MPH

NUMBER OF OBSERVATIONS WITH BACKUP WIND SPEED: 1968

NUMBER OF OBSERVATIONS WITH BACKUP WIND DIRECTION: 2532

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 2532



PERCENTAGE OCCURRENCE OF STABILITY CLASSES

| A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|
| 2.46 | 2.91 | 5.32 | 53.92 | 27.16 | 6.59 | 1.64 |

DISTRIBUTION OF WIND DIRECTION VS STABILITY

| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 30 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 24 | 37 | 0 |
| B | 20 | 7 | 1 | 0 | 1 | 0 | 0 | 5 | 5 | 0 | 0 | 5 | 2 | 3 | 31 | 30 | 0 |
| C | 29 | 8 | 6 | 0 | 8 | 12 | 31 | 12 | 34 | 4 | 3 | 1 | 6 | 5 | 20 | 22 | 0 |
| D | 213 | 91 | 105 | 98 | 127 | 168 | 220 | 109 | 149 | 93 | 55 | 45 | 64 | 64 | 206 | 229 | 1 |
| E | 50 | 26 | 42 | 32 | 46 | 61 | 112 | 76 | 95 | 62 | 72 | 79 | 76 | 49 | 81 | 49 | 18 |
| F | 12 | 3 | 4 | 0 | 4 | 0 | 8 | 16 | 31 | 31 | 32 | 32 | 14 | 10 | 20 | 15 | 17 |
| G | 3 | 4 | 1 | 0 | 0 | 0 | 1 | 2 | 7 | 6 | 9 | 4 | 5 | 3 | 6 | 5 | 6 |
| TOTAL | 357 | 140 | 159 | 130 | 186 | 241 | 372 | 220 | 321 | 196 | 171 | 167 | 167 | 134 | 388 | 387 | 42 |

Stability Classes by Hour of Day,
10-Meter Wind vs. Delta T,
January-June 1984

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS1
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES

| | | | HOURS | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YR | MN | DY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 84 | 1 | 1 | D | D | D | D | D | E | D | D | D | D | D | D | C | D | D | D | D | E | F | F | E | E | F | E |
| 84 | 1 | 2 | E | E | E | E | E | E | E | E | E | D | D | D | D | D | D | D | E | E | E | E | E | E | F | F |
| 84 | 1 | 3 | F | F | - | - | F | E | E | E | E | D | D | D | D | D | D | D | E | E | E | E | E | E | E | E |
| 84 | 1 | 4 | F | E | E | E | E | E | F | F | F | D | D | C | B | B | D | D | D | E | E | E | E | F | E | E |
| 84 | 1 | 5 | F | F | F | E | E | E | E | E | E | E | E | D | D | D | D | E | E | E | E | E | E | E | E | E |
| 84 | 1 | 6 | E | E | E | E | E | E | E | E | E | D | B | B | C | D | D | D | E | E | F | F | F | F | E | E |
| 84 | 1 | 7 | E | E | F | F | F | F | F | F | E | D | C | C | D | D | D | D | E | E | E | E | E | F | F | F |
| 84 | 1 | 8 | F | E | E | E | E | E | E | E | - | - | D | D | D | D | D | D | E | E | E | E | E | E | E | E |
| 84 | 1 | 9 | D | D | D | C | D | C | C | C | C | B | B | A | B | A | B | B | D | D | D | D | D | D | D | D |
| 84 | 1 | 10 | D | D | D | D | D | D | D | C | A | B | A | A | A | D | D | D | D | D | D | D | D | E | E | E |
| 84 | 1 | 11 | E | E | E | D | D | D | D | D | D | D | D | D | D | | D | D | D | D | D | E | E | E | E | E |
| 84 | 1 | 12 | E | E | E | E | D | D | D | D | D | D | D | D | D | C | C | C | D | D | D | D | D | D | D | D |
| 84 | 1 | 13 | D | D | D | D | D | D | D | D | D | B | A | A | A | A | A | B | D | D | D | E | D | E | D | D |
| 84 | 1 | 14 | D | D | D | D | D | C | D | D | D | D | C | B | A | B | B | C | D | D | D | D | D | D | D | D |
| 84 | 1 | 15 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | F | Q | Q | F | F |
| 84 | 1 | 16 | E | E | E | E | E | E | E | E | D | C | C | A | A | A | B | D | D | D | D | D | D | D | D | - |
| 84 | 1 | 17 | - | F | - | - | - | - | - | - | - | E | D | A | A | - | - | - | - | C | D | D | D | D | C | D |
| 84 | 1 | 18 | D | D | E | E | E | Q | Q | Q | F | E | D | D | C | D | D | D | D | E | F | E | E | E | E | E |
| 84 | 1 | 19 | E | E | E | E | E | E | E | E | E | D | D | C | B | A | B | B | D | D | D | D | D | D | E | E |
| 84 | 1 | 20 | E | E | E | E | E | E | E | F | E | A | C | D | D | D | D | D | E | E | E | E | F | E | E | E |
| 84 | 1 | 21 | E | E | E | E | E | E | D | E | D | D | D | C | D | D | D | D | E | E | F | E | F | F | E | E |
| 84 | 1 | 22 | F | F | F | F | F | E | E | E | E | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 1 | 23 | D | D | D | D | D | D | D | E | D | D | D | D | D | D | D | D | D | E | E | E | E | E | E | E |
| 84 | 1 | 24 | E | E | E | E | E | E | F | E | E | E | D | D | D | D | D | D | E | E | F | E | E | E | E | E |
| 84 | 1 | 25 | E | E | F | F | F | F | F | F | E | D | D | D | D | D | - | D | E | E | E | E | E | E | E | E |
| 84 | 1 | 26 | E | E | E | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 1 | 27 | D | D | D | D | D | D | D | E | E | D | D | D | D | D | D | D | E | E | E | E | E | D | E | E |
| 84 | 1 | 28 | E | E | E | E | E | E | E | E | E | D | D | B | B | B | B | C | D | E | E | E | F | F | F | F |
| 84 | 1 | 29 | F | F | Q | F | F | F | E | E | E | E | D | D | D | C | D | D | D | D | D | D | D | D | D | D |
| 84 | 1 | 30 | D | D | D | D | D | D | D | D | D | D | C | C | D | A | B | C | D | D | E | E | E | E | E | E |
| 84 | 1 | 31 | E | E | E | E | E | E | E | E | D | D | B | B | A | A | B | C | D | E | F | Q | Q | Q | F | F |
| 84 | 2 | 1 | F | F | F | Q | F | F | E | E | E | E | D | D | D | D | D | E | E | F | F | F | F | E | - | - |
| 84 | 2 | 2 | - | - | - | E | E | E | E | E | E | D | D | B | D | C | D | D | D | D | D | D | D | E | E | E |
| 84 | 2 | 3 | E | E | F | E | E | E | E | E | D | C | B | B | B | B | B | D | D | E | E | E | E | D | D | D |
| 84 | 2 | 4 | D | D | D | E | E | D | D | D | D | D | - | - | - | - | - | - | - | D | E | E | E | E | E | D |
| 84 | 2 | 5 | D | D | D | D | D | D | D | C | B | A | A | A | A | A | A | A | B | D | D | D | D | D | D | E |
| 84 | 2 | 6 | E | E | E | E | E | D | D | D | D | D | C | C | C | D | D | D | D | E | E | E | E | E | E | E |
| 84 | 2 | 7 | E | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | E | E | E | E | E | E | E | E |
| 84 | 2 | 8 | E | E | E | E | E | F | F | F | E | D | D | D | C | D | D | D | E | E | E | F | F | F | E | E |
| 84 | 2 | 9 | F | F | F | F | F | F | F | F | F | E | E | D | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 2 | 10 | E | E | E | E | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 2 | 11 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | F | F | F |
| 84 | 2 | 12 | F | F | E | F | E | E | E | E | D | D | D | D | D | D | D | D | D | D | E | E | F | F | E | E |
| 84 | 2 | 13 | F | F | F | E | E | E | E | D | D | D | C | C | B | B | C | D | D | E | Q | Q | Q | Q | Q | Q |
| 84 | 2 | 14 | F | Q | Q | Q | Q | Q | Q | Q | F | F | F | E | D | D | D | E | E | F | F | F | F | F | F | F |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS1
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES

| YR | MN | DY | HOURS 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | 2 | 15 | F | F | E | E | E | E | E | E | E | E | D | D | E | E | E | D | E | E | E | E | E | E | E | E |
| 84 | 2 | 16 | E | E | E | D | D | E | E | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 2 | 17 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 2 | 18 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | - | - | - | - | - | - | D | D | D |
| 84 | 2 | 19 | D | D | D | D | D | D | D | D | D | D | C | B | A | B | B | B | C | D | D | D | D | D | D | D |
| 84 | 2 | 20 | D | E | D | D | E | E | E | E | D | D | D | D | C | B | C | D | D | E | E | F | E | F | F | F |
| 84 | 2 | 21 | E | E | E | E | E | F | F | E | E | D | D | D | D | C | D | D | D | E | F | Q | F | Q | F | F |
| 84 | 2 | 22 | F | F | F | F | F | F | F | E | E | D | D | D | D | D | D | D | D | E | F | F | F | F | F | F |
| 84 | 2 | 23 | E | E | D | D | D | D | D | D | B | B | B | B | A | B | B | C | C | D | D | D | D | D | D | E |
| 84 | 2 | 24 | E | E | E | E | D | E | F | E | D | D | B | B | B | B | B | D | D | D | E | E | E | E | E | F |
| 84 | 2 | 25 | F | F | F | F | F | F | F | F | E | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 2 | 26 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | D | D | D | D |
| 84 | 2 | 27 | D | D | D | C | C | D | D | C | D | C | C | B | B | A | A | B | C | D | D | D | D | D | D | D |
| 84 | 2 | 28 | D | D | D | D | D | D | D | B | B | B | B | C | C | C | B | C | D | D | D | D | D | D | D | D |
| 84 | 2 | 29 | D | D | D | D | D | D | D | D | D | D | D | D | C | D | D | D | D | E | E | E | F | E | E | E |
| 84 | 3 | 1 | E | E | E | E | E | E | E | E | D | D | D | D | D | D | C | C | D | D | F | F | Q | Q | Q | Q |
| 84 | 3 | 2 | F | E | E | E | D | - | D | D | D | D | C | C | C | C | D | D | D | D | E | E | E | E | E | E |
| 84 | 3 | 3 | E | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | D | E | E | D | D | D | D | - |
| 84 | 3 | 4 | - | - | - | D | D | D | - | - | - | - | - | - | - | - | - | - | D | D | D | D | D | D | D | D |
| 84 | 3 | 5 | D | D | D | D | D | D | D | D | D | C | A | A | B | B | A | A | B | D | D | D | D | - | - | - |
| 84 | 3 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | C | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 3 | 7 | D | D | D | D | C | C | C | C | C | D | D | - | - | - | D | D | - | D | D | E | D | D | D | D |
| 84 | 3 | 8 | D | D | D | D | D | D | D | C | A | A | A | A | A | A | A | A | B | B | D | D | D | D | D | E |
| 84 | 3 | 9 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E |
| 84 | 3 | 10 | E | D | D | D | D | E | E | F | F | D | D | - | D | D | D | D | D | D | D | D | D | E | E | E |
| 84 | 3 | 11 | E | E | D | D | D | D | D | D | D | C | B | C | C | C | C | D | D | D | D | D | D | D | D | D |
| 84 | 3 | 12 | D | D | D | D | D | D | D | D | D | D | C | D | C | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 3 | 13 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 3 | 14 | E | E | E | E | E | E | E | E | E | E | E | E | D | C | D | D | D | E | E | E | E | - | - | - |
| 84 | 3 | 15 | E | E | E | E | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 3 | 16 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 3 | 17 | D | E | E | E | D | D | D | D | D | D | D | D | D | D | D | D | - | - | D | D | D | D | D | D |
| 84 | 3 | 18 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 3 | 19 | D | D | D | D | D | D | D | D | D | D | D | D | B | B | C | C | C | D | D | D | D | D | D | D |
| 84 | 3 | 20 | D | D | D | D | D | D | D | D | C | A | A | - | - | - | - | - | C | D | A | D | D | D | D | D |
| 84 | 3 | 21 | D | D | D | D | D | D | D | D | D | D | D | C | C | C | C | C | D | D | D | D | D | - | - | - |
| 84 | 3 | 22 | - | - | - | - | - | - | - | - | - | - | A | A | A | A | A | B | D | D | E | E | E | E | E | E |
| 84 | 3 | 23 | E | E | E | E | E | E | E | D | D | D | C | D | C | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 3 | 24 | D | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 3 | 25 | E | E | - | E | E | E | E | E | D | - | - | D | D | D | D | D | D | D | E | E | E | E | E | E |
| 84 | 3 | 26 | E | D | D | D | D | D | D | D | D | D | D | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 3 | 27 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 3 | 28 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 3 | 29 | D | D | D | D | D | D | D | E | - | - | - | - | - | - | - | - | - | D | D | D | D | D | D | D |
| 84 | 3 | 30 | E | E | D | D | D | D | D | C | B | A | B | B | B | A | B | C | D | D | E | E | F | E | E | E |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS1
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES

| | | | HOURS | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YR | MN | DY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 84 | 3 | 31 | E | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 4 | 1 | E | E | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | D | E | E | E | D | D | D |
| 84 | 4 | 2 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | - | - | - | D | D | D | - | - | - |
| 84 | 4 | 3 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 4 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | E | E | E | E | E |
| 84 | 4 | 5 | E | E | E | E | E | E | E | D | D | A | A | A | A | A | A | A | B | D | E | E | E | F | F | F |
| 84 | 4 | 6 | Q | Q | Q | Q | Q | Q | Q | F | D | D | D | D | D | D | D | D | D | D | E | F | E | E | E | E |
| 84 | 4 | 7 | E | E | E | E | E | - | - | D | D | E | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 4 | 8 | D | D | D | D | D | D | D | D | D | D | D | D | C | C | D | D | D | D | D | D | D | D | D | D |
| 84 | 4 | 9 | - | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 4 | 10 | D | D | D | D | D | D | E | E | E | E | D | D | D | D | D | D | D | D | D | D | E | E | E | D |
| 84 | 4 | 11 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | D | D | D | D | E | E | E | E |
| 84 | 4 | 12 | E | E | E | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | D | D | D | D | D | D |
| 84 | 4 | 13 | D | E | E | E | E | E | D | D | D | D | C | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 4 | 14 | D | D | D | D | D | D | - | - | D | - | D | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 4 | 15 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | D | D | D | D | D | D | D | D |
| 84 | 4 | 16 | D | D | D | D | D | D | D | - | - | - | - | - | - | - | - | - | - | D | D | D | E | D | D | D |
| 84 | 4 | 17 | D | D | D | F | F | F | E | D | D | C | C | A | A | A | A | A | A | C | D | E | E | E | E | E |
| 84 | 4 | 18 | F | Q | F | E | F | F | E | C | D | B | A | A | A | A | A | A | B | C | E | E | E | E | D | D |
| 84 | 4 | 19 | E | E | E | E | E | E | D | D | D | C | D | D | D | D | D | D | D | D | D | E | E | D | E | E |
| 84 | 4 | 20 | E | E | E | E | E | D | D | D | - | - | - | - | - | - | - | - | D | D | D | D | D | D | D | D |
| 84 | 4 | 21 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 4 | 22 | D | D | D | D | D | D | D | D | D | D | A | B | C | B | C | B | B | C | D | D | D | D | D | D |
| 84 | 4 | 23 | - | - | - | - | - | - | D | B | B | A | A | A | A | A | A | A | D | D | E | F | Q | Q | Q | Q |
| 84 | 4 | 24 | Q | - | - | - | - | - | - | C | B | B | A | A | A | A | A | A | B | D | D | F | F | F | F | F |
| 84 | 4 | 25 | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E | E | E | E |
| 84 | 4 | 26 | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | E | D | E | E | E | F | E | E | E |
| 84 | 4 | 27 | D | D | E | E | E | E | D | D | D | B | B | A | B | B | B | C | D | D | D | D | D | D | D | D |
| 84 | 4 | 28 | E | E | E | E | E | E | D | D | B | B | A | B | B | C | C | D | D | D | D | E | E | E | E | E |
| 84 | 4 | 29 | E | D | D | D | D | D | D | D | D | C | D | D | D | D | D | D | D | B | C | D | D | D | D | D |
| 84 | 4 | 30 | D | D | D | D | D | - | - | - | - | - | A | A | A | B | B | D | D | D | D | D | E | E | E | F |
| 84 | 5 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 5 | 2 | - | - | - | - | - | - | - | - | D | D | D | C | D | D | D | D | E | E | E | E | E | E | E | D |
| 84 | 5 | 3 | - | - | - | - | - | - | - | D | D | D | D | D | D | D | D | D | D | D | D | E | E | F | E | E |
| 84 | 5 | 4 | F | F | E | E | E | E | E | D | D | - | D | D | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 5 | 5 | E | E | E | E | E | F | Q | E | E | D | D | C | D | D | D | D | D | D | - | - | - | - | - | - |
| 84 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 5 | 7 | - | - | - | - | - | - | - | - | - | - | D | D | D | D | D | D | D | D | D | D | D | - | - | - |
| 84 | 5 | 8 | - | - | - | - | - | - | - | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E |
| 84 | 5 | 9 | - | - | - | - | - | - | - | D | D | D | D | C | D | D | C | D | D | D | D | E | E | E | - | - |
| 84 | 5 | 10 | - | - | - | - | - | - | - | - | D | D | D | D | D | D | D | D | D | D | E | E | F | Q | Q | Q |
| 84 | 5 | 11 | - | - | Q | F | E | D | D | D | D | D | C | C | C | D | D | D | D | D | D | E | E | F | F | Q |
| 84 | 5 | 12 | - | - | - | - | - | - | - | F | E | D | D | D | D | C | D | D | D | D | E | E | E | E | E | E |
| 84 | 5 | 13 | E | E | E | E | F | E | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 5 | 14 | D | D | D | E | D | E | D | D | D | C | C | C | C | C | C | D | D | D | D | D | E | E | E | E |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES

| | | | HOURS | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YR | MN | DY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 84 | 5 | 15 | D | D | D | D | D | D | D | D | C | C | C | C | D | D | E | E | D | D | D | E | E | E | E | E |
| 84 | 5 | 16 | E | E | E | E | E | E | D | D | D | D | B | B | B | B | B | C | C | D | D | E | E | E | E | E |
| 84 | 5 | 17 | E | E | E | E | E | E | D | D | D | D | D | C | D | C | D | - | - | - | - | - | - | - | - | - |
| 84 | 5 | 18 | - | - | - | - | - | - | - | - | - | - | - | - | - | D | D | D | E | D | D | D | D | D | D | E |
| 84 | 5 | 19 | D | D | - | - | E | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E |
| 84 | 5 | 20 | E | E | E | E | F | E | D | E | E | D | D | D | C | D | D | D | D | D | D | E | E | F | F | E |
| 84 | 5 | 21 | E | E | E | E | E | E | D | D | D | C | D | C | C | D | D | D | D | D | D | E | F | E | E | E |
| 84 | 5 | 22 | E | E | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | F | F | F | F |
| 84 | 5 | 23 | Q | F | Q | F | F | E | E | D | D | D | D | C | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 5 | 24 | E | - | - | - | - | - | D | D | D | D | D | D | C | D | D | D | D | D | D | E | D | E | E | E |
| 84 | 5 | 25 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | F | F | F | F |
| 84 | 5 | 26 | F | F | F | F | E | E | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E |
| 84 | 5 | 27 | E | E | E | E | D | D | D | D | D | - | - | D | D | D | D | D | D | D | D | D | - | D | D | D |
| 84 | 5 | 28 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | - | - | - | - | - | - | - | - | - |
| 84 | 5 | 29 | - | - | - | - | - | - | - | - | - | - | - | - | - | D | D | D | D | D | D | E | F | F | F | F |
| 84 | 5 | 30 | F | F | F | E | F | E | E | D | D | D | D | C | C | C | C | C | C | D | D | E | E | E | E | E |
| 84 | 5 | 31 | E | E | E | E | E | E | D | D | C | C | C | C | C | C | C | C | D | D | D | D | E | E | E | E |
| 84 | 6 | 1 | E | E | E | E | E | E | E | D | D | D | D | C | C | C | D | D | D | D | E | E | E | E | D | D |
| 84 | 6 | 2 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | F | F | Q | Q | Q |
| 84 | 6 | 3 | Q | Q | Q | Q | Q | Q | Q | E | D | C | C | C | C | C | C | C | D | D | D | D | E | E | E | D |
| 84 | 6 | 4 | D | D | D | E | E | D | D | D | D | C | C | D | D | C | C | D | D | D | D | D | D | D | D | D |
| 84 | 6 | 5 | D | E | E | E | E | D | D | D | D | C | B | B | B | B | B | C | D | D | D | D | D | D | D | D |
| 84 | 6 | 6 | - | - | - | - | - | - | - | D | D | D | C | C | D | D | D | D | D | D | D | E | E | D | D | D |
| 84 | 6 | 7 | D | D | D | D | D | D | D | D | D | D | D | D | C | C | D | D | D | D | E | E | D | E | E | E |
| 84 | 6 | 8 | - | - | - | - | - | - | - | E | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E | D |
| 84 | 6 | 9 | D | D | D | D | - | - | - | - | - | - | - | - | - | - | - | - | - | - | D | D | E | E | E | E |
| 84 | 6 | 10 | E | E | F | F | F | F | E | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E |
| 84 | 6 | 11 | E | E | E | D | E | D | D | D | D | D | D | C | C | C | D | D | D | D | D | E | E | E | E | E |
| 84 | 6 | 12 | E | E | E | E | E | D | E | E | D | D | D | C | C | C | D | D | D | D | D | E | E | E | E | D |
| 84 | 6 | 13 | - | - | E | E | E | E | E | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 6 | 14 | - | - | - | - | - | - | - | D | D | C | C | C | C | D | D | D | D | D | E | E | E | D | D | D |
| 84 | 6 | 15 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 6 | 16 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E | E | E |
| 84 | 6 | 17 | E | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 6 | 18 | E | E | E | E | E | E | D | D | D | D | D | D | D | D | E | D | E | E | E | E | F | F | F | F |
| 84 | 6 | 19 | F | F | F | F | F | F | E | D | D | D | D | C | C | C | D | D | D | D | D | E | E | E | E | E |
| 84 | 6 | 20 | E | E | E | E | E | E | D | D | D | D | D | - | - | - | D | D | D | D | D | D | D | D | D | D |
| 84 | 6 | 21 | D | D | D | D | D | D | D | D | D | D | D | C | C | C | C | C | D | D | D | D | D | D | D | D |
| 84 | 6 | 22 | D | D | D | E | D | E | D | D | D | D | D | C | D | D | D | E | E | E | D | E | E | E | E | E |
| 84 | 6 | 23 | E | E | E | E | E | E | D | E | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E |
| 84 | 6 | 24 | F | E | E | E | F | F | E | D | D | D | D | D | C | C | C | D | D | D | D | E | F | F | F | F |
| 84 | 6 | 25 | - | - | - | E | E | E | E | E | D | D | D | D | D | D | D | D | C | D | D | D | E | E | E | E |
| 84 | 6 | 26 | E | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | D | D | D | D | E | F | Q | Q |
| 84 | 6 | 27 | E | D | D | E | E | F | E | D | D | D | D | D | D | D | D | D | D | D | D | D | E | F | F | F |
| 84 | 6 | 28 | F | F | F | F | F | F | E | E | D | D | D | C | D | D | D | E | E | E | D | E | E | E | E | E |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 10-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES

| | | | HOURS | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YR | MN | DY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 84 | 6 | 29 | E | E | E | E | E | E | D | D | D | - | - | - | - | - | - | D | D | D | D | E | E | E | E | E |
| 84 | 6 | 30 | E | D | E | D | E | E | D | D | D | D | C | C | D | D | D | D | D | D | D | E | E | E | F | D |

JFDs of 100-Meter Wind vs. Delta T,
January-March 1984

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR JAN-MAR 1984
SITE IDENTIFIER: NPCS1
DATA PERIOD EXAMINED: 1/ 1/84 - 3/31/84

*** JAN-MAR 1984 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3.51- 7.50 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 7.51-12.50 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 17 |
| 12.51-18.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 8 | 17 |
| 18.51-24.00 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 10 |
| >24.00 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 9 |
| TOTAL | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 25 | 55 |

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3.51- 7.50 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 6 |
| 7.51-12.50 | 3 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 1 | 15 |
| 12.51-18.50 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 5 | 15 |
| 18.51-24.00 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 12 | 30 |
| >24.00 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 4 | 10 |
| TOTAL | 16 | 7 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 25 | 23 | 76 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR JAN-MAR 1984
SITE IDENTIFIER: NPCS1
DATA PERIOD EXAMINED: 1/ 1/84 - 3/31/84

*** JAN-MAR 1984 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3.51- 7.50 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 8 |
| 7.51-12.50 | 6 | 4 | 1 | 0 | 2 | 5 | 0 | 0 | 2 | 1 | 1 | 0 | 3 | 3 | 5 | 3 | 36 |
| 12.51-18.50 | 12 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 3 | 2 | 25 |
| 18.51-24.00 | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 5 | 17 |
| >24.00 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 9 |
| TOTAL | 28 | 7 | 1 | 0 | 2 | 7 | 2 | 0 | 3 | 1 | 2 | 0 | 6 | 4 | 19 | 13 | 95 |

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 1 |
| 1.01- 3.50 | 1 | 3 | 3 | 7 | 2 | 0 | 0 | 0 | 4 | 0 | 2 | 2 | 3 | 2 | 3 | 4 | 36 |
| 3.51- 7.50 | 16 | 7 | 11 | 6 | 15 | 6 | 16 | 7 | 3 | 6 | 4 | 8 | 12 | 11 | 9 | 6 | 143 |
| 7.51-12.50 | 23 | 7 | 19 | 14 | 5 | 22 | 21 | 12 | 13 | 8 | 8 | 11 | 7 | 11 | 21 | 16 | 218 |
| 12.51-18.50 | 36 | 9 | 13 | 9 | 13 | 30 | 19 | 13 | 18 | 4 | 8 | 10 | 5 | 4 | 44 | 59 | 294 |
| 18.51-24.00 | 25 | 8 | 13 | 10 | 4 | 10 | 17 | 1 | 4 | 10 | 5 | 5 | 3 | 2 | 41 | 30 | 188 |
| >24.00 | 9 | 1 | 0 | 2 | 2 | 2 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 28 | 28 | 78 |
| TOTAL | 110 | 35 | 59 | 48 | 41 | 70 | 76 | 33 | 42 | 28 | 29 | 36 | 30 | 31 | 146 | 143 | 958 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR JAN-MAR 1984
SITE IDENTIFIER: NPCS1
DATA PERIOD EXAMINED: 1/ 1/84 - 3/31/84

*** JAN-MAR 1984 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 7 |
| 3.51- 7.50 | 3 | 3 | 5 | 4 | 3 | 1 | 2 | 1 | 1 | 2 | 5 | 9 | 13 | 3 | 2 | 3 | 60 |
| 7.51-12.50 | 9 | 2 | 12 | 5 | 6 | 5 | 10 | 7 | 8 | 8 | 9 | 28 | 23 | 8 | 12 | 10 | 162 |
| 12.51-18.50 | 0 | 9 | 5 | 2 | 6 | 24 | 30 | 6 | 19 | 23 | 16 | 18 | 8 | 16 | 31 | 7 | 220 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 1 | 2 | 19 | 4 | 0 | 6 | 13 | 10 | 6 | 3 | 12 | 1 | 77 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 7 | 0 | 0 | 3 | 1 | 0 | 13 |
| TOTAL | 12 | 15 | 22 | 11 | 17 | 32 | 63 | 18 | 28 | 40 | 51 | 65 | 50 | 33 | 61 | 21 | 539 |

B92

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 1 |
| 1.01- 3.50 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 3.51- 7.50 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 2 | 0 | 2 | 0 | 9 |
| 7.51-12.50 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 4 | 8 | 2 | 15 | 3 | 8 | 4 | 2 | 58 |
| 12.51-18.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 10 | 6 | 17 | 12 | 6 | 1 | 2 | 0 | 57 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 8 | 6 | 0 | 0 | 0 | 2 | 0 | 23 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| TOTAL | 6 | 0 | 1 | 0 | 0 | 0 | 7 | 13 | 18 | 22 | 26 | 29 | 11 | 9 | 10 | 2 | 155 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR JAN-MAR 1984
SITE IDENTIFIER: NPCS1
DATA PERIOD EXAMINED: 1/ 1/84 - 3/31/84

*** JAN-MAR 1984 ***

STABILITY CLASS 9

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 3.51- 7.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 5 |
| 7.51-12.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 8 |
| 12.51-18.50 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 4 | 0 | 1 | 0 | 0 | 1 | 12 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 3 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 8 | 3 | 3 | 2 | 2 | 2 | 29 |

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 2 |
| 1.01- 3.50 | 1 | 4 | 4 | 7 | 3 | 0 | 1 | 0 | 4 | 0 | 3 | 2 | 3 | 3 | 6 | 4 | 45 |
| 3.51- 7.50 | 26 | 10 | 17 | 10 | 18 | 8 | 19 | 9 | 4 | 8 | 10 | 20 | 29 | 15 | 18 | 12 | 233 |
| 7.51-12.50 | 55 | 18 | 32 | 19 | 14 | 32 | 31 | 26 | 28 | 26 | 23 | 55 | 37 | 32 | 50 | 36 | 514 |
| 12.51-18.50 | 51 | 22 | 18 | 11 | 19 | 55 | 49 | 22 | 51 | 35 | 46 | 40 | 24 | 21 | 94 | 82 | 640 |
| 18.51-24.00 | 37 | 9 | 13 | 10 | 5 | 12 | 39 | 7 | 7 | 25 | 25 | 16 | 9 | 5 | 75 | 54 | 348 |
| >24.00 | 18 | 1 | 0 | 2 | 2 | 2 | 9 | 0 | 1 | 1 | 9 | 0 | 0 | 4 | 35 | 41 | 125 |
| TOTAL | 188 | 64 | 84 | 59 | 61 | 109 | 148 | 64 | 95 | 95 | 116 | 133 | 102 | 80 | 278 | 229 | 1907 |

B03

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR JAN-MAR 1984
SITE IDENTIFIER: NPCS1
DATA PERIOD EXAMINED: 1/ 1/84 - 3/31/84

*** JAN-MAR 1984 ***

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2184

TOTAL NUMBER OF VALID OBSERVATIONS: 1907

TOTAL NUMBER OF MISSING OBSERVATIONS: 277

PERCENT DATA RECOVERY FOR THIS PERIOD: 87.3 %

MEAN WIND SPEED FOR THIS PERIOD: 14.4 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

P01

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

| A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|
| 2.88 | 3.99 | 4.98 | 50.24 | 28.26 | 8.13 | 1.52 |

DISTRIBUTION OF WIND DIRECTION VS STABILITY

| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 25 | 0 |
| B | 16 | 7 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 25 | 23 | 0 | |
| C | 28 | 7 | 1 | 0 | 2 | 7 | 2 | 0 | 3 | 1 | 2 | 0 | 6 | 4 | 19 | 13 | 0 |
| D | 110 | 35 | 59 | 48 | 41 | 70 | 76 | 33 | 42 | 28 | 29 | 36 | 30 | 31 | 146 | 143 | 1 |
| E | 12 | 15 | 22 | 11 | 17 | 32 | 63 | 18 | 28 | 40 | 51 | 65 | 50 | 33 | 61 | 21 | 0 |
| F | 6 | 0 | 1 | 0 | 0 | 0 | 7 | 13 | 18 | 22 | 26 | 29 | 11 | 9 | 10 | 2 | 1 |
| G | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 8 | 3 | 3 | 2 | 2 | 2 | 0 |
| TOTAL | 188 | 64 | 84 | 59 | 61 | 109 | 148 | 64 | 95 | 95 | 116 | 133 | 102 | 80 | 278 | 229 | 2 |

JFDs of 100-Meter Wind vs. Delta T,
April-June 1984

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR APR-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 4/ 1/84 - 6/30/84

*** APR-JUN 1984 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3.51- 7.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7.51-12.50 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 4 |
| 12.51-18.50 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 8 | 26 |
| 18.51-24.00 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 7 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| TOTAL | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 9 | 12 | 38 |

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3.51- 7.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 7.51-12.50 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 2 | 8 |
| 12.51-18.50 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 5 |
| 18.51-24.00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 11 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 4 | 0 | 0 | 0 | 2 | 9 |
| TOTAL | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 5 | 0 | 2 | 6 | 7 | 34 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR APR-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 4/ 1/84 - 6/30/84

*** APR-JUN 1984 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 3.51- 7.50 | 0 | 0 | 1 | 0 | 1 | 3 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 9 |
| 7.51-12.50 | 1 | 0 | 4 | 0 | 1 | 3 | 15 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 33 |
| 12.51-18.50 | 0 | 0 | 1 | 0 | 2 | 0 | 7 | 8 | 10 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 32 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 3 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 16 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 15 |
| TOTAL | 1 | 0 | 6 | 0 | 5 | 6 | 24 | 16 | 32 | 1 | 3 | 1 | 0 | 1 | 1 | 9 | 106 |

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 5 | 2 | 2 | 2 | 1 | 3 | 2 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 23 |
| 3.51- 7.50 | 6 | 7 | 8 | 6 | 10 | 22 | 11 | 9 | 7 | 10 | 9 | 1 | 2 | 6 | 3 | 10 | 127 |
| 7.51-12.50 | 22 | 14 | 14 | 15 | 20 | 33 | 38 | 22 | 18 | 28 | 11 | 4 | 10 | 5 | 7 | 21 | 282 |
| 12.51-18.50 | 23 | 10 | 11 | 14 | 18 | 23 | 53 | 31 | 32 | 16 | 12 | 1 | 3 | 3 | 20 | 31 | 301 |
| 18.51-24.00 | 11 | 10 | 14 | 10 | 19 | 11 | 26 | 8 | 25 | 3 | 0 | 1 | 12 | 5 | 24 | 19 | 198 |
| >24.00 | 3 | 0 | 0 | 1 | 9 | 9 | 10 | 2 | 31 | 5 | 1 | 0 | 9 | 17 | 13 | 5 | 115 |
| TOTAL | 70 | 43 | 49 | 48 | 77 | 101 | 140 | 74 | 114 | 62 | 33 | 8 | 36 | 36 | 67 | 88 | 1046 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR APR-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 4/ 1/84 - 6/30/84

*** APR-JUN 1984 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 1 |
| 1.01- 3.50 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 7 |
| 3.51- 7.50 | 7 | 6 | 1 | 1 | 8 | 7 | 2 | 5 | 2 | 5 | 3 | 3 | 4 | 0 | 2 | 5 | 61 |
| 7.51-12.50 | 9 | 4 | 7 | 9 | 15 | 13 | 11 | 14 | 12 | 10 | 9 | 1 | 2 | 4 | 10 | 12 | 142 |
| 12.51-18.50 | 12 | 2 | 3 | 3 | 14 | 16 | 17 | 17 | 28 | 6 | 8 | 7 | 12 | 5 | 9 | 16 | 175 |
| 18.51-24.00 | 0 | 0 | 0 | 1 | 3 | 4 | 14 | 15 | 18 | 2 | 2 | 3 | 2 | 1 | 1 | 1 | 67 |
| >24.00 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 10 | 5 | 0 | 1 | 3 | 1 | 0 | 0 | 31 |
| TOTAL | 30 | 12 | 12 | 15 | 40 | 43 | 46 | 54 | 70 | 28 | 24 | 16 | 25 | 11 | 22 | 35 | 484 |

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 |
| 3.51- 7.50 | 3 | 1 | 4 | 0 | 3 | 6 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 6 | 30 |
| 7.51-12.50 | 3 | 1 | 2 | 1 | 6 | 2 | 3 | 2 | 3 | 3 | 7 | 2 | 0 | 0 | 4 | 8 | 47 |
| 12.51-18.50 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 1 | 8 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 4 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 8 | 2 | 7 | 1 | 9 | 9 | 6 | 5 | 4 | 3 | 11 | 2 | 1 | 1 | 8 | 16 | 93 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR APR-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 4/ 1/84 - 6/30/84

*** APR-JUN 1984 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 |
| 3.51- 7.50 | 2 | 4 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 19 |
| 7.51-12.50 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 7 |
| 12.51-18.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 2 | 5 | 1 | 1 | 0 | 0 | 6 | 5 | 0 | 0 | 1 | 2 | 2 | 3 | 2 | 3 | 33 |

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 1 |
| 1.01- 3.50 | 6 | 3 | 4 | 4 | 1 | 3 | 4 | 3 | 1 | 0 | 2 | 2 | 1 | 0 | 0 | 4 | 40 |
| 3.51- 7.50 | 18 | 18 | 14 | 7 | 22 | 38 | 17 | 21 | 10 | 15 | 13 | 5 | 8 | 9 | 8 | 24 | 247 |
| 7.51-12.50 | 38 | 19 | 28 | 25 | 42 | 51 | 67 | 42 | 37 | 41 | 28 | 7 | 12 | 12 | 26 | 48 | 523 |
| 12.51-18.50 | 49 | 13 | 15 | 17 | 34 | 39 | 79 | 56 | 70 | 22 | 24 | 8 | 15 | 8 | 39 | 59 | 547 |
| 18.51-24.00 | 14 | 10 | 14 | 11 | 23 | 15 | 43 | 32 | 52 | 5 | 4 | 6 | 14 | 7 | 28 | 27 | 305 |
| >24.00 | 5 | 0 | 0 | 1 | 9 | 11 | 12 | 5 | 55 | 11 | 1 | 7 | 14 | 10 | 14 | 8 | 171 |
| TOTAL | 130 | 63 | 75 | 65 | 131 | 159 | 222 | 159 | 225 | 94 | 72 | 35 | 64 | 54 | 115 | 170 | 1834 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR APR-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 4/ 1/84 - 6/30/84

*** APR-JUN 1984 ***

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2184

TOTAL NUMBER OF VALID OBSERVATIONS: 1834

TOTAL NUMBER OF MISSING OBSERVATIONS: 350

PERCENT DATA RECOVERY FOR THIS PERIOD: 84.0 %

MEAN WIND SPEED FOR THIS PERIOD: 14.5 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

B100

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

| A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|
| 2.07 | 1.85 | 5.78 | 57.03 | 26.39 | 5.07 | 1.80 |

DISTRIBUTION OF WIND DIRECTION VS STABILITY

| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 9 | 12 | 0 |
| B | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 5 | 0 | 2 | 6 | 7 | 0 |
| C | 1 | 0 | 6 | 0 | 5 | 6 | 24 | 16 | 32 | 1 | 3 | 1 | 0 | 1 | 1 | 9 | 0 |
| D | 70 | 43 | 49 | 48 | 77 | 101 | 140 | 74 | 114 | 62 | 33 | 8 | 36 | 36 | 67 | 88 | 0 |
| E | 30 | 12 | 12 | 15 | 40 | 43 | 46 | 54 | 70 | 28 | 24 | 16 | 25 | 11 | 22 | 35 | 1 |
| F | 8 | 2 | 7 | 1 | 9 | 9 | 6 | 5 | 4 | 3 | 11 | 2 | 1 | 1 | 8 | 16 | 0 |
| G | 2 | 5 | 1 | 1 | 0 | 0 | 6 | 5 | 0 | 0 | 1 | 2 | 2 | 3 | 2 | 3 | 0 |
| TOTAL | 130 | 63 | 75 | 65 | 131 | 159 | 222 | 159 | 225 | 94 | 72 | 35 | 64 | 54 | 115 | 170 | 1 |

JFDs of 100-Meter Wind vs. Delta T,
January-June 1984

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

*** JAN-JUN 1984 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3.51- 7.50 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 7.51-12.50 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 6 | 21 |
| 12.51-18.50 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 16 | 43 |
| 18.51-24.00 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 8 | 17 |
| >24.00 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 10 |
| TOTAL | 30 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 24 | 37 | 93 |

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3.51- 7.50 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 7 |
| 7.51-12.50 | 5 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 7 | 3 | 23 |
| 12.51-18.50 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 8 | 6 | 20 |
| 18.51-24.00 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 2 | 0 | 0 | 1 | 0 | 0 | 12 | 14 | 41 |
| >24.00 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 4 | 0 | 0 | 3 | 6 | 19 |
| TOTAL | 20 | 7 | 1 | 0 | 1 | 0 | 0 | 5 | 5 | 0 | 0 | 5 | 2 | 3 | 31 | 30 | 110 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

*** JAN-JUN 1984 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 3.51- 7.50 | 1 | 0 | 1 | 0 | 1 | 4 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 2 | 2 | 17 |
| 7.51-12.50 | 7 | 4 | 5 | 0 | 3 | 8 | 15 | 3 | 6 | 1 | 1 | 0 | 3 | 3 | 5 | 5 | 69 |
| 12.51-18.50 | 12 | 3 | 1 | 0 | 2 | 1 | 7 | 8 | 11 | 0 | 3 | 0 | 2 | 0 | 3 | 4 | 57 |
| 18.51-24.00 | 5 | 0 | 0 | 0 | 1 | 0 | 3 | 3 | 7 | 0 | 0 | 0 | 0 | 0 | 6 | 8 | 33 |
| >24.00 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 1 | 0 | 1 | 0 | 0 | 4 | 3 | 24 |
| TOTAL | 29 | 7 | 7 | 0 | 7 | 13 | 26 | 16 | 35 | 2 | 5 | 1 | 6 | 5 | 20 | 22 | 201 |

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 1 |
| 1.01- 3.50 | 6 | 5 | 5 | 9 | 3 | 3 | 2 | 2 | 5 | 0 | 2 | 3 | 3 | 2 | 3 | 6 | 59 |
| 3.51- 7.50 | 22 | 14 | 19 | 12 | 25 | 28 | 27 | 16 | 10 | 16 | 13 | 9 | 14 | 17 | 12 | 16 | 270 |
| 7.51-12.50 | 45 | 21 | 33 | 29 | 25 | 55 | 59 | 34 | 31 | 36 | 19 | 15 | 17 | 16 | 28 | 37 | 500 |
| 12.51-18.50 | 59 | 19 | 24 | 23 | 31 | 53 | 72 | 44 | 50 | 20 | 20 | 11 | 8 | 7 | 64 | 90 | 595 |
| 18.51-24.00 | 36 | 18 | 27 | 20 | 23 | 21 | 43 | 9 | 29 | 13 | 5 | 6 | 15 | 7 | 65 | 49 | 386 |
| >24.00 | 12 | 1 | 0 | 3 | 11 | 11 | 13 | 2 | 31 | 5 | 3 | 0 | 9 | 18 | 41 | 33 | 193 |
| TOTAL | 180 | 78 | 108 | 96 | 118 | 171 | 216 | 107 | 156 | 90 | 62 | 44 | 66 | 67 | 213 | 231 | 2004 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

*** JAN-JUN 1984 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 1 |
| 1.01- 3.50 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 3 | 1 | 14 |
| 3.51- 7.50 | 10 | 9 | 6 | 5 | 11 | 8 | 4 | 6 | 3 | 7 | 8 | 12 | 17 | 3 | 4 | 8 | 121 |
| 7.51-12.50 | 18 | 6 | 19 | 14 | 21 | 18 | 21 | 21 | 20 | 18 | 18 | 29 | 25 | 12 | 22 | 22 | 304 |
| 12.51-18.50 | 12 | 11 | 8 | 5 | 20 | 40 | 47 | 23 | 47 | 29 | 24 | 25 | 20 | 21 | 40 | 23 | 395 |
| 18.51-24.00 | 0 | 0 | 0 | 1 | 4 | 6 | 33 | 19 | 18 | 8 | 15 | 13 | 8 | 4 | 13 | 2 | 144 |
| >24.00 | 2 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 10 | 6 | 7 | 1 | 5 | 4 | 1 | 0 | 14 |
| TOTAL | 42 | 27 | 34 | 26 | 57 | 75 | 109 | 72 | 98 | 68 | 75 | 81 | 75 | 44 | 83 | 56 | 1023 |

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 1 |
| 1.01- 3.50 | 1 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 |
| 3.51- 7.50 | 4 | 1 | 4 | 0 | 3 | 6 | 0 | 3 | 1 | 0 | 1 | 2 | 3 | 1 | 4 | 6 | 39 |
| 7.51-12.50 | 8 | 1 | 2 | 1 | 6 | 2 | 3 | 9 | 7 | 11 | 9 | 17 | 3 | 8 | 8 | 10 | 105 |
| 12.51-18.50 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 10 | 6 | 19 | 12 | 6 | 1 | 4 | 1 | 65 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 8 | 8 | 0 | 0 | 0 | 2 | 0 | 27 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| TOTAL | 14 | 2 | 8 | 1 | 9 | 9 | 13 | 18 | 22 | 25 | 37 | 31 | 12 | 10 | 18 | 18 | 248 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

*** JAN-JUN 1984 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 0 |
| 1.01- 3.50 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 6 |
| 3.51- 7.50 | 2 | 4 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 2 | 2 | 0 | 3 | 3 | 24 |
| 7.51-12.50 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 4 | 1 | 1 | 3 | 1 | 1 | 15 |
| 12.51-18.50 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 4 | 0 | 1 | 0 | 0 | 1 | 12 |
| 18.51-24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 1 | 0 | 0 | 5 |
| >24.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 3 | 5 | 1 | 1 | 0 | 0 | 6 | 5 | 4 | 4 | 9 | 5 | 5 | 5 | 4 | 5 | 62 |

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT100.00 METERS

| SPEED (MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CALM | | | | | | | | | | | | | | | | | 3 |
| 1.01- 3.50 | 7 | 7 | 8 | 11 | 4 | 5 | 5 | 3 | 5 | 0 | 5 | 4 | 4 | 3 | 6 | 8 | 85 |
| 3.51- 7.50 | 44 | 28 | 31 | 17 | 40 | 46 | 36 | 30 | 14 | 23 | 23 | 25 | 37 | 24 | 26 | 36 | 480 |
| 7.51-12.50 | 93 | 37 | 60 | 44 | 56 | 83 | 98 | 68 | 65 | 67 | 51 | 62 | 49 | 44 | 76 | 84 | 1037 |
| 12.51-18.50 | 100 | 35 | 33 | 28 | 53 | 94 | 128 | 78 | 121 | 57 | 70 | 48 | 39 | 29 | 133 | 141 | 1187 |
| 18.51-24.00 | 51 | 19 | 27 | 21 | 28 | 27 | 82 | 39 | 59 | 30 | 29 | 22 | 23 | 12 | 103 | 81 | 653 |
| >24.00 | 23 | 1 | 0 | 3 | 11 | 13 | 21 | 5 | 36 | 12 | 10 | 7 | 14 | 22 | 49 | 49 | 296 |
| TOTAL | 318 | 127 | 159 | 124 | 192 | 268 | 370 | 223 | 320 | 189 | 188 | 168 | 166 | 134 | 393 | 399 | 3741 |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

*** JAN-JUN 1984 ***

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
WIND MEASURED AT: 100.0 METERS
WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 4368

TOTAL NUMBER OF VALID OBSERVATIONS: 3741

TOTAL NUMBER OF MISSING OBSERVATIONS: 627

PERCENT DATA RECOVERY FOR THIS PERIOD: 85.6 %

MEAN WIND SPEED FOR THIS PERIOD: 14.4 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

B106

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

| A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|
| 2.49 | 2.94 | 5.37 | 53.57 | 27.35 | 6.63 | 1.66 |

DISTRIBUTION OF WIND DIRECTION VS STABILITY

| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 30 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 24 | 37 | 0 |
| B | 20 | 7 | 1 | 0 | 1 | 0 | 0 | 5 | 5 | 0 | 0 | 5 | 2 | 3 | 31 | 30 | 0 |
| C | 29 | 7 | 7 | 0 | 7 | 13 | 26 | 16 | 35 | 2 | 5 | 1 | 6 | 5 | 20 | 22 | 0 |
| D | 180 | 78 | 108 | 96 | 118 | 171 | 216 | 107 | 136 | 90 | 62 | 44 | 66 | 67 | 213 | 231 | 1 |
| E | 42 | 27 | 34 | 26 | 57 | 75 | 109 | 72 | 98 | 68 | 75 | 81 | 75 | 44 | 83 | 56 | 1 |
| F | 14 | 2 | 8 | 1 | 9 | 9 | 13 | 18 | 22 | 25 | 37 | 31 | 12 | 10 | 18 | 18 | 1 |
| G | 3 | 5 | 1 | 1 | 0 | 0 | 6 | 5 | 4 | 4 | 9 | 5 | 5 | 5 | 4 | 5 | 0 |
| TOTAL | 318 | 127 | 159 | 124 | 192 | 268 | 370 | 223 | 320 | 189 | 188 | 168 | 166 | 134 | 393 | 399 | 3 |

Stability Classes by Hour of Day,
100-Meter Wind vs. Delta T,
January-June 1984

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS1
DATA PERIOD EXAMINED: 1/ 1/84 6/30/84

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES

| | | | HOURS | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YR | MN | DY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 84 | 1 | 1 | D | D | D | D | D | E | D | D | D | D | D | D | C | D | D | D | D | E | F | F | E | E | F | E |
| 84 | 1 | 2 | E | E | E | E | E | E | E | E | E | D | D | D | D | D | D | D | E | E | E | E | E | E | F | F |
| 84 | 1 | 3 | F | F | - | - | F | E | E | E | E | D | D | D | D | D | D | D | E | E | E | E | E | E | E | E |
| 84 | 1 | 4 | F | E | E | E | E | E | F | F | F | D | D | C | B | B | D | D | D | E | E | E | E | F | E | E |
| 84 | 1 | 5 | F | F | F | E | E | E | E | E | E | E | E | D | D | D | D | E | E | E | E | E | E | E | E | E |
| 84 | 1 | 6 | E | E | E | E | E | E | E | E | E | D | B | B | C | D | D | D | E | E | F | F | F | F | E | E |
| 84 | 1 | 7 | E | E | F | F | F | F | F | F | E | D | C | C | D | D | D | D | D | E | E | E | E | F | F | F |
| 84 | 1 | 8 | F | E | E | E | E | E | E | E | - | - | D | D | D | D | D | D | E | E | E | E | E | E | E | E |
| 84 | 1 | 9 | D | D | D | C | D | C | C | C | C | B | B | A | B | A | B | B | D | D | D | D | D | D | D | D |
| 84 | 1 | 10 | D | D | D | D | D | D | D | C | A | B | A | A | A | D | D | D | D | D | D | D | D | E | E | E |
| 84 | 1 | 11 | E | E | E | D | D | D | D | D | D | D | D | D | D | - | D | D | D | D | D | E | E | E | E | E |
| 84 | 1 | 12 | E | E | E | E | D | D | D | D | D | D | D | D | D | C | C | C | D | D | D | D | D | D | D | D |
| 84 | 1 | 13 | D | D | D | D | D | D | D | D | D | B | A | A | A | A | A | B | D | D | D | E | D | E | D | D |
| 84 | 1 | 14 | D | D | D | D | D | C | D | D | D | D | C | B | A | B | B | C | D | D | D | D | D | D | D | D |
| 84 | 1 | 15 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | F | Q | Q | F | F |
| 84 | 1 | 16 | E | E | E | E | E | E | E | E | D | C | C | A | A | A | B | D | D | D | D | D | D | D | D | - |
| 84 | 1 | 17 | - | - | - | - | - | - | - | - | - | E | D | A | A | - | - | - | - | C | D | D | D | D | C | D |
| 84 | 1 | 18 | D | D | E | E | E | Q | Q | Q | F | E | D | D | C | D | D | D | D | E | F | E | E | E | E | E |
| 84 | 1 | 19 | E | E | E | E | E | E | E | E | E | D | D | C | B | A | B | B | D | D | D | D | D | D | E | E |
| 84 | 1 | 20 | E | E | E | E | E | E | E | F | E | A | C | D | D | D | D | D | E | E | E | E | F | E | E | E |
| 84 | 1 | 21 | E | E | E | E | E | E | D | E | D | D | D | C | D | D | D | D | E | E | F | E | F | F | E | E |
| 84 | 1 | 22 | F | F | F | F | F | E | E | E | E | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 1 | 23 | D | D | D | D | D | D | D | E | D | D | D | D | D | D | D | D | D | E | E | E | E | E | E | E |
| 84 | 1 | 24 | E | E | E | E | E | E | F | E | E | E | D | D | D | D | D | D | E | E | F | E | E | E | E | E |
| 84 | 1 | 25 | E | E | F | F | F | F | F | F | E | D | D | D | D | D | - | D | E | E | E | E | E | E | E | E |
| 84 | 1 | 26 | E | E | E | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 1 | 27 | D | D | D | D | D | D | D | E | E | D | D | D | D | D | D | D | E | E | E | E | E | D | E | E |
| 84 | 1 | 28 | E | E | E | E | E | E | E | E | E | D | D | B | B | B | B | C | D | E | E | E | F | F | F | F |
| 84 | 1 | 29 | F | F | Q | F | F | F | E | E | E | D | D | D | D | C | D | D | D | D | D | D | D | D | D | D |
| 84 | 1 | 30 | D | D | D | D | D | D | D | D | D | D | C | C | B | A | B | C | D | D | E | E | E | E | E | E |
| 84 | 1 | 31 | E | E | E | E | E | E | E | E | D | D | B | B | A | A | B | C | D | E | F | Q | Q | Q | F | F |
| 84 | 2 | 1 | F | F | F | Q | F | F | E | E | E | E | D | D | D | D | D | E | E | F | F | F | F | E | - | - |
| 84 | 2 | 2 | - | - | - | E | E | E | E | E | E | D | D | B | D | C | D | D | D | D | D | D | D | E | E | E |
| 84 | 2 | 3 | E | E | F | E | E | E | E | E | D | C | B | B | B | B | B | D | D | E | E | E | E | D | D | D |
| 84 | 2 | 4 | D | D | D | E | E | D | D | D | D | D | - | - | - | - | - | - | - | D | E | E | E | E | E | D |
| 84 | 2 | 5 | D | D | D | D | D | D | D | C | B | A | A | A | A | A | A | A | B | D | D | D | D | D | D | E |
| 84 | 2 | 6 | E | E | E | E | E | D | D | D | D | D | C | C | C | D | D | D | D | E | E | E | E | E | E | E |
| 84 | 2 | 7 | E | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | E | E | E | E | E | E | E | E |
| 84 | 2 | 8 | E | E | E | E | E | F | F | F | E | D | D | D | C | D | D | D | E | E | E | F | F | F | E | E |
| 84 | 2 | 9 | F | F | F | F | F | F | F | F | F | E | E | D | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 2 | 10 | E | E | E | E | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 2 | 11 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | F | F | F |
| 84 | 2 | 12 | F | F | E | F | E | E | E | E | D | D | D | D | D | D | D | D | D | D | E | E | F | F | E | E |
| 84 | 2 | 13 | F | F | F | E | E | E | E | D | D | D | C | C | B | B | C | D | D | E | Q | Q | Q | Q | Q | Q |
| 84 | 2 | 14 | F | Q | Q | Q | Q | Q | Q | Q | F | F | F | E | D | D | D | E | E | F | F | F | F | F | F | F |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS1
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES

| | | | HOURS | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YR | MN | DY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 84 | 2 | 15 | F | F | E | E | E | E | E | E | E | E | D | D | E | E | E | D | E | E | E | E | E | E | E | E |
| 84 | 2 | 16 | E | E | E | D | D | E | E | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 2 | 17 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 2 | 18 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | - | - | - | - | - | - | D | D | D |
| 84 | 2 | 19 | D | D | D | D | D | D | D | D | D | D | C | B | A | B | B | B | C | D | D | D | D | D | D | D |
| 84 | 2 | 20 | D | E | D | D | E | E | E | E | D | D | D | D | C | B | C | D | D | E | E | F | E | F | F | F |
| 84 | 2 | 21 | E | E | E | E | E | F | F | E | E | D | D | D | D | C | D | D | D | E | F | Q | F | Q | F | F |
| 84 | 2 | 22 | F | F | F | F | F | F | F | E | E | D | D | D | D | D | D | D | E | F | F | F | F | F | F | F |
| 84 | 2 | 23 | E | E | D | D | D | D | D | D | B | B | B | B | A | B | B | C | C | D | D | D | D | D | D | E |
| 84 | 2 | 24 | E | E | E | E | D | E | F | E | D | D | B | B | B | B | B | D | D | D | E | E | E | E | E | F |
| 84 | 2 | 25 | F | F | F | F | F | F | F | F | E | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 2 | 26 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | D | D | D | D |
| 84 | 2 | 27 | D | D | D | C | C | D | D | C | D | C | C | B | B | A | A | B | C | D | D | D | D | D | D | D |
| 84 | 2 | 28 | D | D | D | D | D | D | D | D | B | B | B | C | C | C | B | C | D | D | D | D | D | D | D | D |
| 84 | 2 | 29 | D | D | D | D | D | D | D | D | D | D | D | D | C | D | D | D | D | E | E | E | F | E | E | E |
| 84 | 3 | 1 | E | E | E | E | E | E | E | E | D | D | D | D | D | D | C | C | D | D | F | F | Q | Q | Q | Q |
| 84 | 3 | 2 | F | E | E | E | D | - | D | D | D | D | C | C | C | C | D | D | D | D | E | E | E | E | E | E |
| 84 | 3 | 3 | E | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | D | E | E | D | D | D | D | - |
| 84 | 3 | 4 | - | - | - | D | D | D | - | - | - | - | - | - | - | - | - | - | D | D | D | D | D | D | D | D |
| 84 | 3 | 5 | D | D | D | D | D | D | D | D | D | C | A | A | B | B | A | A | B | D | D | D | D | - | - | - |
| 84 | 3 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | C | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 3 | 7 | D | D | D | D | C | C | C | C | C | D | D | - | - | - | D | D | - | D | D | E | D | D | D | D |
| 84 | 3 | 8 | D | D | D | D | D | D | D | C | A | A | A | A | A | A | A | A | B | B | D | D | D | D | D | E |
| 84 | 3 | 9 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E |
| 84 | 3 | 10 | E | D | D | D | D | E | E | F | F | D | D | - | D | D | D | D | D | D | D | D | D | E | E | E |
| 84 | 3 | 11 | E | E | D | D | D | D | D | D | D | C | B | C | C | C | C | D | D | D | D | D | D | D | D | D |
| 84 | 3 | 12 | D | D | D | D | D | D | D | D | D | D | C | D | C | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 3 | 13 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 3 | 14 | E | E | E | E | E | E | E | E | E | E | E | E | D | C | D | D | D | E | E | E | E | - | - | - |
| 84 | 3 | 15 | E | E | E | E | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 3 | 16 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 3 | 17 | D | E | E | E | D | D | D | D | D | D | D | D | D | D | D | - | - | D | D | D | D | D | D | D |
| 84 | 3 | 18 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 3 | 19 | D | D | D | D | D | D | D | D | D | D | D | D | B | B | C | C | C | D | D | D | D | D | D | D |
| 84 | 3 | 20 | D | D | D | D | D | D | D | D | C | A | A | - | - | - | - | - | C | D | A | D | D | D | D | D |
| 84 | 3 | 21 | D | D | D | D | D | D | D | D | D | D | D | C | C | C | C | C | D | D | D | D | D | - | - | - |
| 84 | 3 | 22 | - | - | - | - | - | - | - | - | - | - | A | A | A | A | A | B | D | D | E | E | E | E | E | E |
| 84 | 3 | 23 | E | E | E | E | E | E | E | D | D | D | C | D | C | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 3 | 24 | D | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 3 | 25 | E | E | - | E | E | E | E | E | D | - | - | D | D | D | D | D | D | D | E | E | E | E | E | E |
| 84 | 3 | 26 | E | D | D | D | D | D | D | D | D | D | D | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 3 | 27 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 3 | 28 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 3 | 29 | D | D | D | D | D | D | D | B | - | - | - | - | - | - | - | - | - | D | D | D | D | D | D | D |
| 84 | 3 | 30 | E | E | D | D | D | D | D | C | B | A | B | B | B | A | B | C | D | D | E | E | F | E | E | E |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS1
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES

| | | | HOURS | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YR | MN | DY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 84 | 3 | 31 | E | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 4 | 1 | E | E | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | D | E | E | E | D | D | D |
| 84 | 4 | 2 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | - | - | - | D | D | D | - | - | - |
| 84 | 4 | 3 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 4 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | E | E | E | E | E |
| 84 | 4 | 5 | E | E | E | E | E | E | E | D | D | A | A | A | A | A | A | A | B | D | E | E | E | F | F | F |
| 84 | 4 | 6 | Q | Q | Q | Q | Q | Q | Q | F | D | D | D | D | D | D | D | D | D | D | E | F | E | E | E | E |
| 84 | 4 | 7 | E | E | E | E | E | - | - | D | D | E | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 4 | 8 | D | D | D | D | D | D | D | D | D | D | D | D | C | C | D | D | D | D | D | D | D | D | D | D |
| 84 | 4 | 9 | - | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 4 | 10 | D | D | D | D | D | D | E | E | E | E | D | D | D | D | D | D | D | D | D | D | E | E | E | D |
| 84 | 4 | 11 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | D | D | D | D | E | E | E | E |
| 84 | 4 | 12 | E | E | E | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | D | D | D | D | D | D |
| 84 | 4 | 13 | D | E | E | E | E | E | D | D | D | D | C | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 4 | 14 | D | D | D | D | D | D | - | - | D | - | D | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 4 | 15 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | D | D | D | D | D | D | D | D |
| 84 | 4 | 16 | D | D | D | D | D | D | D | - | - | - | - | - | - | - | - | - | - | D | D | D | E | D | D | D |
| 84 | 4 | 17 | D | D | D | F | F | F | E | D | D | C | C | A | A | A | A | A | A | C | D | E | E | E | E | E |
| 84 | 4 | 18 | F | Q | F | E | F | F | E | C | D | B | A | A | A | A | A | A | B | C | E | E | E | E | D | D |
| 84 | 4 | 19 | E | E | E | E | E | E | D | D | D | C | D | D | D | D | D | D | D | D | D | E | E | D | E | E |
| 84 | 4 | 20 | E | E | E | E | E | D | D | D | - | - | - | - | - | - | - | - | D | D | D | D | D | D | D | D |
| 84 | 4 | 21 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 4 | 22 | D | D | D | D | D | D | D | D | D | D | A | B | C | B | C | B | B | C | D | D | D | D | D | D |
| 84 | 4 | 23 | - | - | - | - | - | - | D | B | B | A | A | A | A | A | A | A | D | D | E | F | Q | Q | Q | Q |
| 84 | 4 | 24 | Q | - | - | - | - | - | - | C | B | B | A | A | A | A | A | A | B | D | D | F | F | F | F | F |
| 84 | 4 | 25 | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E | E | E | E |
| 84 | 4 | 26 | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | E | D | E | E | E | F | E | E | E |
| 84 | 4 | 27 | D | D | E | E | E | E | D | D | D | B | B | A | B | B | B | C | D | D | D | D | D | D | D | D |
| 84 | 4 | 28 | E | E | E | E | E | E | D | D | B | B | A | B | B | C | C | D | D | D | D | E | E | E | E | E |
| 84 | 4 | 29 | E | D | D | D | D | D | D | D | D | C | D | D | D | D | D | D | D | B | C | D | D | D | D | D |
| 84 | 4 | 30 | D | D | D | D | D | - | - | - | - | - | A | A | A | B | B | D | D | D | D | D | E | E | E | F |
| 84 | 5 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 5 | 2 | - | - | - | - | - | - | - | - | D | D | D | C | D | D | D | D | E | E | E | E | E | E | E | D |
| 84 | 5 | 3 | - | - | - | - | - | - | - | D | D | D | D | D | D | D | D | D | D | D | D | E | E | F | E | E |
| 84 | 5 | 4 | F | F | E | E | E | E | E | D | D | - | D | D | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 5 | 5 | E | E | E | E | E | F | Q | E | E | D | D | C | D | D | D | D | D | D | - | - | - | - | - | - |
| 84 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 5 | 7 | - | - | - | - | - | - | - | - | - | - | D | D | D | D | D | D | D | D | D | D | - | - | - | - |
| 84 | 5 | 8 | - | - | - | - | - | - | - | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E |
| 84 | 5 | 9 | - | - | - | - | - | - | - | D | D | D | D | C | D | D | C | D | D | D | D | E | E | E | - | - |
| 84 | 5 | 10 | - | - | - | - | - | - | - | - | D | D | D | D | D | D | D | D | D | D | E | E | F | Q | Q | Q |
| 84 | 5 | 11 | - | - | Q | F | E | D | D | D | D | D | C | C | C | D | D | D | D | D | D | E | E | F | F | Q |
| 84 | 5 | 12 | - | - | - | - | - | - | - | F | E | D | D | D | D | C | D | D | D | D | E | E | E | E | E | E |
| 84 | 5 | 13 | E | E | E | E | F | E | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 5 | 14 | D | D | D | E | D | E | D | D | D | C | C | C | C | C | C | D | D | D | D | D | E | E | E | E |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES

| | | | HOURS | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YR | MN | DY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 84 | 5 | 15 | D | D | D | D | D | D | D | D | C | C | C | C | D | D | E | E | D | D | D | E | E | E | E | E |
| 84 | 5 | 16 | E | E | E | E | E | E | D | D | D | D | B | B | B | B | B | C | C | D | D | E | E | E | E | E |
| 84 | 5 | 17 | E | E | E | E | E | E | D | D | D | D | D | C | D | C | D | - | - | - | - | - | - | - | - | - |
| 84 | 5 | 18 | - | - | - | - | - | - | - | - | - | - | - | - | - | D | D | D | E | D | D | D | D | D | D | E |
| 84 | 5 | 19 | D | D | - | - | E | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E |
| 84 | 5 | 20 | E | E | E | E | F | E | D | E | E | D | D | D | C | D | D | D | D | D | D | E | E | F | F | E |
| 84 | 5 | 21 | E | E | E | E | E | E | D | D | D | C | D | C | C | D | D | D | D | D | D | E | F | E | E | E |
| 84 | 5 | 22 | E | E | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | F | F | F | F |
| 84 | 5 | 23 | Q | F | Q | F | F | E | E | D | D | D | D | C | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 5 | 24 | E | - | - | - | - | - | D | D | D | D | D | D | C | D | D | D | D | D | D | E | D | E | E | E |
| 84 | 5 | 25 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | F | F | F | F |
| 84 | 5 | 26 | F | F | F | F | E | E | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E |
| 84 | 5 | 27 | E | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 5 | 28 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 84 | 5 | 29 | - | - | - | - | - | - | - | - | - | - | - | - | - | D | D | D | D | D | D | E | F | F | F | F |
| 84 | 5 | 30 | F | F | F | E | F | E | E | D | D | D | D | C | C | C | C | C | C | D | D | E | E | E | E | E |
| 84 | 5 | 31 | E | E | E | E | E | E | D | D | C | C | C | C | C | C | C | C | D | D | D | D | E | E | E | E |
| 84 | 6 | 1 | E | E | E | E | E | E | E | D | D | D | D | C | C | C | D | D | D | D | E | E | E | E | D | D |
| 84 | 6 | 2 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | F | F | Q | Q | Q |
| 84 | 6 | 3 | Q | Q | Q | Q | Q | Q | Q | E | D | C | C | C | C | C | C | C | D | D | D | D | E | E | E | D |
| 84 | 6 | 4 | D | D | D | E | E | D | D | D | D | C | C | D | D | C | C | D | D | D | D | D | D | D | D | D |
| 84 | 6 | 5 | D | E | E | E | E | D | D | D | D | C | B | B | B | B | B | C | D | D | D | D | D | D | D | D |
| 84 | 6 | 6 | - | - | - | - | - | - | - | D | D | D | C | C | D | D | D | D | D | D | D | E | E | D | D | D |
| 84 | 6 | 7 | D | D | D | D | D | D | D | D | D | D | D | D | C | C | D | D | D | D | E | E | D | E | E | E |
| 84 | 6 | 8 | - | - | - | - | - | - | - | E | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E | D |
| 84 | 6 | 9 | D | D | D | D | - | - | - | - | - | - | - | D | - | - | - | - | - | - | D | D | E | E | E | E |
| 84 | 6 | 10 | E | E | F | F | F | F | E | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E |
| 84 | 6 | 11 | E | E | E | D | E | D | D | D | D | D | D | D | C | C | D | D | D | D | D | E | E | E | E | E |
| 84 | 6 | 12 | E | E | E | E | E | D | E | E | D | D | D | D | C | C | D | D | D | D | D | E | E | E | E | D |
| 84 | 6 | 13 | - | - | E | E | E | E | E | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 6 | 14 | - | - | - | - | - | - | - | D | D | C | C | C | C | D | D | D | D | D | E | E | E | D | D | D |
| 84 | 6 | 15 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 84 | 6 | 16 | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 6 | 17 | E | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E | E | E |
| 84 | 6 | 18 | E | E | E | E | E | E | D | D | D | D | D | D | D | D | E | D | E | E | E | E | F | F | F | F |
| 84 | 6 | 19 | F | F | F | F | F | F | E | D | D | D | D | C | C | C | D | D | D | D | D | E | E | E | E | E |
| 84 | 6 | 20 | E | E | E | E | E | E | D | D | D | D | D | - | - | - | D | D | D | D | D | D | D | D | D | D |
| 84 | 6 | 21 | D | D | D | D | D | D | D | D | D | D | D | C | C | C | C | C | D | D | D | D | D | D | D | D |
| 84 | 6 | 22 | D | D | D | E | D | E | D | D | D | D | D | C | D | D | D | E | E | E | D | E | E | E | E | E |
| 84 | 6 | 23 | E | E | E | E | E | E | D | E | D | D | D | D | D | D | D | D | D | D | D | D | D | E | E | E |
| 84 | 6 | 24 | F | E | E | E | F | F | E | D | D | D | D | D | C | C | C | D | D | D | D | E | F | F | F | F |
| 84 | 6 | 25 | - | - | - | E | E | E | E | E | D | D | D | D | D | D | D | C | D | D | D | E | E | E | E | E |
| 84 | 6 | 26 | E | E | E | E | E | E | E | D | D | D | D | D | D | D | D | D | D | D | D | E | F | Q | Q | E |
| 84 | 6 | 27 | E | D | D | E | E | F | E | D | D | D | D | D | D | D | D | D | D | D | D | E | F | F | F | F |
| 84 | 6 | 28 | F | F | F | F | F | F | E | E | D | D | D | C | D | D | D | E | E | E | D | E | E | E | E | E |

PROGRAM: JFD VERSION: 5P

NPPD-COOPER STATION JFD: 100-M WIND VS DELTA T (100M-10M) FOR JAN-JUN 1984
SITE IDENTIFIER: NPCS2
DATA PERIOD EXAMINED: 1/ 1/84 - 6/30/84

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES

| | | | HOURS | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YR | MN | DY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 84 | 6 | 29 | E | E | E | E | E | E | D | D | D | - | - | - | - | - | - | D | D | D | D | E | E | E | E | E |
| 84 | 6 | 30 | E | D | E | D | E | E | D | D | D | D | C | C | D | D | D | D | D | D | D | E | E | E | F | D |

R112

## ATMOSPHERIC DIFFUSION ESTIMATES

The tables of atmospheric diffusion estimates in this section were generated using the computer code XOQDOQ. Data are given for 22 distances and 16 compass points (directions from the site) centered on the Cooper Nuclear Station. Tables are presented for the ground-level (vent) and elevated (stack) release options separately, and for the following time periods: January-March, April-June, and January-June, 1984. Ground-level estimates are based on the 10-m JFDs that include a substitution of 100-m wind speed and direction data for missing 10-m wind speeds and directions for the entire period. The 10-m wind data were lost for January through April due to a faulty sensor and a severed transmission cable.

Atmospheric Diffusion Estimates
Ground-Level Releases
January-March 1984

Note: See explanation on page B113.

VENTS GROUND LEVEL RELEASES - JAN-MAR 1984
NO DECAY. UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) — DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.193E-05 | 1.103E-05 | 5.893E-06 | 2.921E-06 | 1.127E-06 | 5.933E-07 | 3.680E-07 | 2.523E-07 | 1.852E-07 | 1.426E-07 | 1.138E-07 |
| SSW | 1.388E-05 | 5.022E-06 | 2.700E-06 | 1.336E-06 | 5.121E-07 | 2.682E-07 | 1.656E-07 | 1.131E-07 | 8.273E-08 | 6.352E-08 | 5.057E-08 |
| SW | 2.226E-05 | 8.215E-06 | 4.479E-06 | 2.234E-06 | 8.653E-07 | 4.564E-07 | 2.834E-07 | 1.944E-07 | 1.427E-07 | 1.099E-07 | 8.772E-08 |
| WSW | 1.676E-05 | 6.194E-06 | 3.367E-06 | 1.677E-06 | 6.480E-07 | 3.411E-07 | 2.114E-07 | 1.449E-07 | 1.062E-07 | 8.166E-08 | 6.511E-08 |
| W | 1.708E-05 | 6.291E-06 | 3.429E-06 | 1.709E-06 | 6.619E-07 | 3.490E-07 | 2.167E-07 | 1.487E-07 | 1.091E-07 | 8.403E-08 | 6.708E-08 |
| WNW | 2.059E-05 | 7.552E-06 | 4.098E-06 | 2.037E-06 | 7.862E-07 | 4.135E-07 | 2.562E-07 | 1.755E-07 | 1.286E-07 | 9.894E-08 | 7.890E-08 |
| NW | 3.243E-05 | 1.189E-05 | 6.530E-06 | 3.273E-06 | 1.277E-06 | 6.775E-07 | 4.225E-07 | 2.910E-07 | 2.142E-07 | 1.654E-07 | 1.324E-07 |
| NNW | 2.939E-05 | 9.648E-06 | 5.381E-06 | 2.763E-06 | 1.114E-06 | 6.042E-07 | 3.832E-07 | 2.676E-07 | 1.993E-07 | 1.554E-07 | 1.255E-07 |
| N | 4.131E-05 | 1.338E-05 | 7.342E-06 | 3.748E-06 | 1.521E-06 | 8.289E-07 | 5.277E-07 | 3.697E-07 | 2.761E-07 | 2.158E-07 | 1.746E-07 |
| NNE | 3.843E-05 | 1.256E-05 | 6.908E-06 | 3.527E-06 | 1.433E-06 | 7.816E-07 | 4.981E-07 | 3.491E-07 | 2.609E-07 | 2.041E-07 | 1.652E-07 |
| NE | 3.611E-05 | 1.203E-05 | 6.573E-06 | 3.335E-06 | 1.350E-06 | 7.347E-07 | 4.674E-07 | 3.272E-07 | 2.443E-07 | 1.910E-07 | 1.545E-07 |
| ENE | 5.626E-05 | 1.840E-05 | 1.014E-05 | 5.184E-06 | 2.108E-06 | 1.150E-06 | 7.331E-07 | 5.139E-07 | 3.841E-07 | 3.005E-07 | 2.433E-07 |
| E | 4.530E-05 | 1.529E-05 | 8.337E-06 | 4.212E-06 | 1.692E-06 | 9.166E-07 | 5.811E-07 | 4.057E-07 | 3.022E-07 | 2.357E-07 | 1.903E-07 |
| ESE | 3.606E-05 | 1.230E-05 | 6.749E-06 | 3.415E-06 | 1.365E-06 | 7.360E-07 | 4.650E-07 | 3.238E-07 | 2.406E-07 | 1.873E-07 | 1.510E-07 |
| SE | 5.321E-05 | 1.855E-05 | 9.960E-06 | 4.960E-06 | 1.948E-06 | 1.039E-06 | 6.507E-07 | 4.500E-07 | 3.325E-07 | 2.576E-07 | 2.068E-07 |
| SSE | 3.876E-05 | 1.339E-05 | 7.135E-06 | 3.541E-06 | 1.382E-06 | 7.331E-07 | 4.575E-07 | 3.153E-07 | 2.323E-07 | 1.796E-07 | 1.438E-07 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) — DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 9.349E-08 | 4.672E-08 | 2.968E-08 | 1.659E-08 | 1.106E-08 | 8.092E-09 | 6.279E-09 | 5.071E-09 | 4.218E-09 | 3.587E-09 | 3.104E-09 |
| SSW | 4.143E-08 | 2.048E-08 | 1.291E-08 | 7.118E-09 | 4.693E-09 | 3.403E-09 | 2.620E-09 | 2.102E-09 | 1.737E-09 | 1.470E-09 | 1.266E-09 |
| SW | 7.201E-08 | 3.581E-08 | 2.265E-08 | 1.254E-08 | 8.266E-09 | 5.993E-09 | 4.613E-09 | 3.699E-09 | 3.057E-09 | 2.584E-09 | 2.224E-09 |
| WSW | 5.339E-08 | 2.643E-08 | 1.666E-08 | 9.175E-09 | 6.025E-09 | 4.354E-09 | 3.342E-09 | 2.674E-09 | 2.205E-09 | 1.861E-09 | 1.599E-09 |
| W | 5.507E-08 | 2.739E-08 | 1.733E-08 | 9.601E-09 | 6.337E-09 | 4.598E-09 | 3.541E-09 | 2.842E-09 | 2.349E-09 | 1.987E-09 | 1.711E-09 |
| WNW | 6.470E-08 | 3.206E-08 | 2.023E-08 | 1.117E-08 | 7.366E-09 | 5.341E-09 | 4.112E-09 | 3.298E-09 | 2.726E-09 | 2.305E-09 | 1.985E-09 |
| NW | 1.089E-07 | 5.464E-08 | 3.478E-08 | 1.943E-08 | 1.290E-08 | 9.402E-09 | 7.268E-09 | 5.851E-09 | 4.851E-09 | 4.113E-09 | 3.549E-09 |
| NNW | 1.041E-07 | 5.381E-08 | 3.501E-08 | 2.017E-08 | 1.369E-08 | 1.015E-08 | 7.959E-09 | 6.484E-09 | 5.432E-09 | 4.649E-09 | 4.046E-09 |
| N | 1.451E-07 | 7.558E-08 | 4.945E-08 | 2.873E-08 | 1.962E-08 | 1.462E-08 | 1.151E-08 | 9.410E-09 | 7.908E-09 | 6.787E-09 | 5.921E-09 |
| NNE | 1.373E-07 | 7.162E-08 | 4.690E-08 | 2.728E-08 | 1.864E-08 | 1.389E-08 | 1.094E-08 | 8.948E-09 | 7.521E-09 | 6.456E-09 | 5.633E-09 |
| NE | 1.283E-07 | 6.681E-08 | 4.369E-08 | 2.537E-08 | 1.731E-08 | 1.290E-08 | 1.015E-08 | 8.299E-09 | 6.973E-09 | 5.983E-09 | 5.219E-09 |
| ENE | 2.022E-07 | 1.056E-07 | 6.914E-08 | 4.022E-08 | 2.748E-08 | 2.048E-08 | 1.613E-08 | 1.319E-08 | 1.109E-08 | 9.517E-09 | 8.303E-09 |
| E | 1.579E-07 | 8.178E-08 | 5.329E-08 | 3.080E-08 | 2.097E-08 | 1.559E-08 | 1.225E-08 | 1.000E-08 | 8.396E-09 | 7.197E-09 | 6.273E-09 |
| ESE | 1.250E-07 | 6.434E-08 | 4.173E-08 | 2.396E-08 | 1.623E-08 | 1.202E-08 | 9.415E-09 | 7.665E-09 | 6.418E-09 | 5.490E-09 | 4.776E-09 |
| SE | 1.706E-07 | 8.677E-08 | 5.582E-08 | 3.171E-08 | 2.134E-08 | 1.573E-08 | 1.227E-08 | 9.963E-09 | 8.321E-09 | 7.102E-09 | 6.167E-09 |
| SSE | 1.185E-07 | 5.984E-08 | 3.831E-08 | 2.162E-08 | 1.448E-08 | 1.064E-08 | 8.282E-09 | 6.708E-09 | 5.592E-09 | 4.766E-09 | 4.133E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT — SEGMENT BOUNDARIES IN MILES

| DIRECTION FROM SITE | .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.714E-06 | 1.288E-06 | 3.818E-07 | 1.881E-07 | 1.148E-07 | 4.954E-08 | 1.704E-08 | 8.158E-09 | 5.091E-09 | 3.595E-09 |
| SSW | 2.610E-06 | 5.867E-07 | 1.720E-07 | 8.410E-08 | 5.102E-08 | 2.177E-08 | 7.326E-09 | 3.433E-09 | 2.111E-09 | 1.473E-09 |
| SW | 4.311E-06 | 9.877E-07 | 2.939E-07 | 1.450E-07 | 8.847E-08 | 3.800E-08 | 1.289E-08 | 6.047E-09 | 3.715E-09 | 2.591E-09 |
| WSW | 3.244E-06 | 7.402E-07 | 2.194E-07 | 1.079E-07 | 6.567E-08 | 2.808E-08 | 9.439E-09 | 4.394E-09 | 2.686E-09 | 1.866E-09 |
| W | 3.301E-06 | 7.556E-07 | 2.248E-07 | 1.109E-07 | 6.765E-08 | 2.907E-08 | 9.869E-09 | 4.639E-09 | 2.854E-09 | 1.992E-09 |
| WNW | 3.950E-06 | 8.986E-07 | 2.659E-07 | 1.307E-07 | 7.958E-08 | 3.405E-08 | 1.149E-08 | 5.389E-09 | 3.313E-09 | 2.311E-09 |
| NW | 6.273E-06 | 1.454E-06 | 4.379E-07 | 2.176E-07 | 1.335E-07 | 5.788E-08 | 1.994E-08 | 9.481E-09 | 5.875E-09 | 4.123E-09 |
| NNW | 5.166E-06 | 1.254E-06 | 3.959E-07 | 2.021E-07 | 1.264E-07 | 5.662E-08 | 2.059E-08 | 1.022E-08 | 6.505E-09 | 4.658E-09 |
| N | 7.086E-06 | 1.708E-06 | 5.448E-07 | 2.799E-07 | 1.759E-07 | 7.941E-08 | 2.928E-08 | 1.471E-08 | 9.437E-09 | 6.798E-09 |
| NNE | 6.660E-06 | 1.609E-06 | 5.141E-07 | 2.644E-07 | 1.664E-07 | 7.523E-08 | 2.780E-08 | 1.398E-08 | 8.974E-09 | 6.467E-09 |
| NE | 6.346E-06 | 1.518E-06 | 4.826E-07 | 2.477E-07 | 1.556E-07 | 7.020E-08 | 2.586E-08 | 1.298E-08 | 8.324E-09 | 5.994E-09 |
| ENE | 9.774E-06 | 2.366E-06 | 7.566E-07 | 3.894E-07 | 2.450E-07 | 1.109E-07 | 4.098E-08 | 2.061E-08 | 1.323E-08 | 9.533E-09 |
| E | 8.049E-06 | 1.907E-06 | 6.004E-07 | 3.064E-07 | 1.918E-07 | 8.603E-08 | 3.143E-08 | 1.569E-08 | 1.003E-08 | 7.210E-09 |
| ESE | 6.501E-06 | 1.541E-06 | 4.808E-07 | 2.440E-07 | 1.521E-07 | 6.777E-08 | 2.447E-08 | 1.210E-08 | 7.690E-09 | 5.501E-09 |
| SE | 9.646E-06 | 2.213E-06 | 6.739E-07 | 3.375E-07 | 2.084E-07 | 9.165E-08 | 3.246E-08 | 1.584E-08 | 9.998E-09 | 7.117E-09 |
| SSE | 6.928E-06 | 1.573E-06 | 4.741E-07 | 2.360E-07 | 1.450E-07 | 6.330E-08 | 2.216E-08 | 1.072E-08 | 6.733E-09 | 4.777E-09 |

VENTS GROUND LEVEL RELEASES - JAN-MAR 1984
2.260 DAY DECAY. UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.189E-05 | 1.100E-05 | 5.868E-06 | 2.904E-06 | 1.117E-06 | 5.863E-07 | 3.625E-07 | 2.478E-07 | 1.812E-07 | 1.391E-07 | 1.107E-07 |
| SSW | 1.387E-05 | 5.010E-06 | 2.691E-06 | 1.330E-06 | 5.084E-07 | 2.656E-07 | 1.636E-07 | 1.115E-07 | 8.133E-08 | 6.229E-08 | 4.947E-08 |
| SW | 2.223E-05 | 8.192E-06 | 4.460E-06 | 2.221E-06 | 8.576E-07 | 4.511E-07 | 2.793E-07 | 1.911E-07 | 1.398E-07 | 1.073E-07 | 8.544E-08 |
| WSW | 1.674E-05 | 6.176E-06 | 3.351E-06 | 1.666E-06 | 6.420E-07 | 3.369E-07 | 2.082E-07 | 1.422E-07 | 1.039E-07 | 7.964E-08 | 6.330E-08 |
| W | 1.705E-05 | 6.272E-06 | 3.413E-06 | 1.699E-06 | 6.557E-07 | 3.447E-07 | 2.133E-07 | 1.459E-07 | 1.068E-07 | 8.195E-08 | 6.521E-08 |
| WNW | 2.057E-05 | 7.539E-06 | 4.087E-06 | 2.030E-06 | 7.821E-07 | 4.106E-07 | 2.540E-07 | 1.737E-07 | 1.271E-07 | 9.755E-08 | 7.765E-08 |
| NW | 3.240E-05 | 1.186E-05 | 6.511E-06 | 3.260E-06 | 1.270E-06 | 6.722E-07 | 4.183E-07 | 2.875E-07 | 2.113E-07 | 1.628E-07 | 1.301E-07 |
| NNW | 2.931E-05 | 9.600E-06 | 5.341E-06 | 2.735E-06 | 1.097E-06 | 5.918E-07 | 3.734E-07 | 2.593E-07 | 1.921E-07 | 1.490E-07 | 1.197E-07 |
| N | 4.121E-05 | 1.332E-05 | 7.291E-06 | 3.713E-06 | 1.499E-06 | 8.130E-07 | 5.150E-07 | 3.589E-07 | 2.667E-07 | 2.075E-07 | 1.670E-07 |
| NNE | 3.835E-05 | 1.251E-05 | 6.867E-06 | 3.499E-06 | 1.416E-06 | 7.690E-07 | 4.879E-07 | 3.406E-07 | 2.534E-07 | 1.974E-07 | 1.591E-07 |
| NE | 3.606E-05 | 1.199E-05 | 6.543E-06 | 3.315E-06 | 1.338E-06 | 7.257E-07 | 4.602E-07 | 3.212E-07 | 2.390E-07 | 1.863E-07 | 1.502E-07 |
| ENE | 5.613E-05 | 1.832E-05 | 1.008E-05 | 5.139E-06 | 2.080E-06 | 1.130E-06 | 7.167E-07 | 5.001E-07 | 3.721E-07 | 2.897E-07 | 2.335E-07 |
| E | 4.520E-05 | 1.523E-05 | 8.282E-06 | 4.175E-06 | 1.670E-06 | 9.002E-07 | 5.680E-07 | 3.947E-07 | 2.926E-07 | 2.272E-07 | 1.826E-07 |
| ESE | 3.597E-05 | 1.225E-05 | 6.702E-06 | 3.384E-06 | 1.345E-06 | 7.220E-07 | 4.540E-07 | 3.145E-07 | 2.325E-07 | 1.801E-07 | 1.445E-07 |
| SE | 5.313E-05 | 1.849E-05 | 9.917E-06 | 4.931E-06 | 1.931E-06 | 1.026E-06 | 6.407E-07 | 4.416E-07 | 3.252E-07 | 2.511E-07 | 2.009E-07 |
| SSE | 3.870E-05 | 1.335E-05 | 7.103E-06 | 3.519E-06 | 1.369E-06 | 7.237E-07 | 4.501E-07 | 3.091E-07 | 2.270E-07 | 1.748E-07 | 1.395E-07 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 9.062E-08 | 4.455E-08 | 2.785E-08 | 1.508E-08 | 9.748E-09 | 6.923E-09 | 5.219E-09 | 4.099E-09 | 3.318E-09 | 2.748E-09 | 2.319E-09 |
| SSW | 4.043E-08 | 1.975E-08 | 1.229E-08 | 6.619E-09 | 4.263E-09 | 3.022E-09 | 2.275E-09 | 1.786E-09 | 1.446E-09 | 1.197E-09 | 1.010E-09 |
| SW | 6.993E-08 | 3.426E-08 | 2.136E-08 | 1.149E-08 | 7.362E-09 | 5.191E-09 | 3.889E-09 | 3.037E-09 | 2.445E-09 | 2.015E-09 | 1.691E-09 |
| WSW | 5.174E-08 | 2.521E-08 | 1.565E-08 | 8.352E-09 | 5.319E-09 | 3.730E-09 | 2.780E-09 | 2.160E-09 | 1.732E-09 | 1.421E-09 | 1.188E-09 |
| W | 5.336E-08 | 2.613E-08 | 1.628E-08 | 8.743E-09 | 5.599E-09 | 3.944E-09 | 2.951E-09 | 2.302E-09 | 1.851E-09 | 1.524E-09 | 1.278E-09 |
| WNW | 6.357E-08 | 3.122E-08 | 1.952E-08 | 1.059E-08 | 6.868E-09 | 4.897E-09 | 3.708E-09 | 2.926E-09 | 2.379E-09 | 1.980E-09 | 1.678E-09 |
| NW | 1.068E-07 | 5.305E-08 | 3.345E-08 | 1.833E-08 | 1.195E-08 | 8.551E-09 | 6.494E-09 | 5.137E-09 | 4.186E-09 | 3.490E-09 | 2.962E-09 |
| NNW | 9.871E-08 | 4.970E-08 | 3.150E-08 | 1.724E-08 | 1.112E-08 | 7.861E-09 | 5.884E-09 | 4.584E-09 | 3.678E-09 | 3.019E-09 | 2.524E-09 |
| N | 1.381E-07 | 7.017E-08 | 4.479E-08 | 2.480E-08 | 1.617E-08 | 1.153E-08 | 8.697E-09 | 6.826E-09 | 5.515E-09 | 4.558E-09 | 3.834E-09 |
| NNE | 1.317E-07 | 6.730E-08 | 4.318E-08 | 2.413E-08 | 1.587E-08 | 1.140E-08 | 8.668E-09 | 6.852E-09 | 5.575E-09 | 4.638E-09 | 3.927E-09 |
| NE | 1.244E-07 | 6.376E-08 | 4.107E-08 | 2.314E-08 | 1.535E-08 | 1.112E-08 | 8.526E-09 | 6.793E-09 | 5.568E-09 | 4.665E-09 | 3.977E-09 |
| ENE | 1.931E-07 | 9.852E-08 | 6.307E-08 | 3.509E-08 | 2.297E-08 | 1.643E-08 | 1.243E-08 | 9.786E-09 | 7.930E-09 | 6.570E-09 | 5.541E-09 |
| E | 1.507E-07 | 7.626E-08 | 4.855E-08 | 2.681E-08 | 1.746E-08 | 1.244E-08 | 9.378E-09 | 7.357E-09 | 5.941E-09 | 4.907E-09 | 4.125E-09 |
| ESE | 1.190E-07 | 5.974E-08 | 3.780E-08 | 2.067E-08 | 1.336E-08 | 9.448E-09 | 7.080E-09 | 5.522E-09 | 4.435E-09 | 3.644E-09 | 3.049E-09 |
| SE | 1.652E-07 | 8.260E-08 | 5.225E-08 | 2.870E-08 | 1.869E-08 | 1.335E-08 | 1.010E-08 | 7.956E-09 | 6.435E-09 | 5.357E-09 | 4.526E-09 |
| SSE | 1.145E-07 | 5.679E-08 | 3.571E-08 | 1.945E-08 | 1.258E-08 | 8.934E-09 | 6.729E-09 | 5.279E-09 | 4.268E-09 | 3.530E-09 | 2.974E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| DIRECTION FROM SITE | .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| | SEGMENT BOUNDARIES IN MILES | | | | | | | | | |
| S | 3.692E-06 | 1.278E-06 | 3.763E-07 | 1.842E-07 | 1.117E-07 | 4.737E-08 | 1.555E-08 | 6.995E-09 | 4.121E-09 | 2.758E-09 |
| SSW | 2.601E-06 | 5.829E-07 | 1.699E-07 | 8.269E-08 | 4.992E-08 | 2.103E-08 | 6.833E-09 | 3.035E-09 | 1.796E-09 | 1.202E-09 |
| SW | 4.294E-06 | 9.800E-07 | 2.898E-07 | 1.421E-07 | 8.618E-08 | 3.645E-08 | 1.185E-08 | 5.249E-09 | 3.055E-09 | 2.022E-09 |
| WSW | 3.230E-06 | 7.340E-07 | 2.161E-07 | 1.056E-07 | 6.386E-08 | 2.686E-08 | 8.625E-09 | 3.774E-09 | 2.174E-09 | 1.427E-09 |
| W | 3.286E-06 | 7.493E-07 | 2.214E-07 | 1.085E-07 | 6.578E-08 | 2.780E-08 | 9.020E-09 | 3.988E-09 | 2.316E-09 | 1.530E-09 |
| WNW | 3.940E-06 | 8.944E-07 | 2.636E-07 | 1.291E-07 | 7.833E-08 | 3.321E-08 | 1.092E-08 | 4.947E-09 | 2.941E-09 | 1.987E-09 |
| NW | 6.235E-06 | 1.446E-06 | 4.337E-07 | 2.146E-07 | 1.312E-07 | 5.628E-08 | 1.885E-08 | 8.633E-09 | 5.162E-09 | 3.501E-09 |
| NNW | 5.130E-06 | 1.237E-06 | 3.860E-07 | 1.949E-07 | 1.206E-07 | 5.250E-08 | 1.769E-08 | 7.940E-09 | 4.610E-09 | 3.031E-09 |
| N | 7.040E-06 | 1.686E-06 | 5.320E-07 | 2.705E-07 | 1.683E-07 | 7.398E-08 | 2.541E-08 | 1.163E-08 | 6.861E-09 | 4.573E-09 |
| NNE | 6.623E-06 | 1.591E-06 | 5.039E-07 | 2.570E-07 | 1.603E-07 | 7.089E-08 | 2.469E-08 | 1.150E-08 | 6.885E-09 | 4.652E-09 |
| NE | 6.319E-06 | 1.505E-06 | 4.754E-07 | 2.424E-07 | 1.513E-07 | 6.714E-08 | 2.366E-08 | 1.121E-08 | 6.821E-09 | 4.678E-09 |
| ENE | 9.714E-06 | 2.337E-06 | 7.402E-07 | 3.773E-07 | 2.352E-07 | 1.038E-07 | 3.592E-08 | 1.657E-08 | 9.835E-09 | 6.592E-09 |
| E | 8.000E-06 | 1.884E-06 | 5.873E-07 | 2.969E-07 | 1.840E-07 | 8.049E-08 | 2.749E-08 | 1.255E-08 | 7.395E-09 | 4.924E-09 |
| ESE | 6.459E-06 | 1.521E-06 | 4.697E-07 | 2.360E-07 | 1.456E-07 | 6.317E-08 | 2.123E-08 | 9.543E-09 | 5.553E-09 | 3.658E-09 |
| SE | 9.606E-06 | 2.195E-06 | 6.638E-07 | 3.302E-07 | 2.025E-07 | 8.747E-08 | 2.948E-08 | 1.347E-08 | 7.997E-09 | 5.375E-09 |
| SSE | 6.878E-06 | 1.560E-06 | 4.667E-07 | 2.306E-07 | 1.407E-07 | 6.024E-08 | 2.001E-08 | 9.025E-09 | 5.308E-09 | 3.543E-09 |

VENTS GROUND LEVEL RELEASES - JAN-MAR 1984
8.000 DAY DECAY, DEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.021E-05 | 1.007E-05 | 5.245E-06 | 2.552E-06 | 9.548E-07 | 4.896E-07 | 2.968E-07 | 1.994E-07 | 1.436E-07 | 1.087E-07 | 8.537E-08 |
| SSW | 1.314E-05 | 4.583E-06 | 2.404E-06 | 1.168E-06 | 4.340E-07 | 2.214E-07 | 1.337E-07 | 8.949E-08 | 6.424E-08 | 4.849E-08 | 3.799E-08 |
| SW | 2.106E-05 | 7.496E-06 | 3.987E-06 | 1.952E-06 | 7.331E-07 | 3.767E-07 | 2.286E-07 | 1.537E-07 | 1.107E-07 | 8.380E-08 | 6.583E-08 |
| WSW | 1.586E-05 | 5.652E-06 | 2.996E-06 | 1.465E-06 | 5.489E-07 | 2.815E-07 | 1.705E-07 | 1.145E-07 | 8.233E-08 | 6.224E-08 | 4.884E-08 |
| W | 1.616E-05 | 5.740E-06 | 3.051E-06 | 1.494E-06 | 5.606E-07 | 2.880E-07 | 1.748E-07 | 1.175E-07 | 8.462E-08 | 6.405E-08 | 5.031E-08 |
| WNW | 1.948E-05 | 6.893E-06 | 3.649E-06 | 1.782E-06 | 6.667E-07 | 3.417E-07 | 2.070E-07 | 1.390E-07 | 1.000E-07 | 7.564E-08 | 5.938E-08 |
| NW | 3.069E-05 | 1.085E-05 | 5.814E-06 | 2.862E-06 | 1.083E-06 | 5.597E-07 | 3.413E-07 | 2.304E-07 | 1.665E-07 | 1.264E-07 | 9.960E-08 |
| NNW | 2.779E-05 | 8.798E-06 | 4.785E-06 | 2.412E-06 | 9.420E-07 | 4.973E-07 | 3.081E-07 | 2.106E-07 | 1.539E-07 | 1.179E-07 | 9.360E-08 |
| N | 3.907E-05 | 1.220E-05 | 6.530E-06 | 3.272E-06 | 1.287E-06 | 6.826E-07 | 4.245E-07 | 2.912E-07 | 2.133E-07 | 1.638E-07 | 1.304E-07 |
| NNE | 3.635E-05 | 1.145E-05 | 6.146E-06 | 3.080E-06 | 1.213E-06 | 6.442E-07 | 4.011E-07 | 2.753E-07 | 2.019E-07 | 1.552E-07 | 1.235E-07 |
| NE | 3.416E-05 | 1.098E-05 | 5.850E-06 | 2.914E-06 | 1.143E-06 | 6.062E-07 | 3.770E-07 | 2.586E-07 | 1.895E-07 | 1.455E-07 | 1.158E-07 |
| ENE | 5.321E-05 | 1.678E-05 | 9.022E-06 | 4.526E-06 | 1.783E-06 | 9.475E-07 | 5.900E-07 | 4.051E-07 | 2.970E-07 | 2.283E-07 | 1.818E-07 |
| E | 4.285E-05 | 1.395E-05 | 7.415E-06 | 3.677E-06 | 1.432E-06 | 7.551E-07 | 4.677E-07 | 3.197E-07 | 2.336E-07 | 1.790E-07 | 1.422E-07 |
| ESE | 3.410E-05 | 1.122E-05 | 6.002E-06 | 2.982E-06 | 1.154E-06 | 6.061E-07 | 3.741E-07 | 2.550E-07 | 1.859E-07 | 1.422E-07 | 1.127E-07 |
| SE | 5.034E-05 | 1.692E-05 | 8.865E-06 | 4.334E-06 | 1.650E-06 | 8.572E-07 | 5.248E-07 | 3.555E-07 | 2.578E-07 | 1.963E-07 | 1.550E-07 |
| SSE | 3.667E-05 | 1.222E-05 | 6.350E-06 | 3.094E-06 | 1.170E-06 | 6.049E-07 | 3.689E-07 | 2.490E-07 | 1.801E-07 | 1.368E-07 | 1.078E-07 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 6.907E-08 | 3.248E-08 | 1.958E-08 | 1.003E-08 | 6.218E-09 | 4.270E-09 | 3.128E-09 | 2.395E-09 | 1.896E-09 | 1.538E-09 | 1.273E-09 |
| SSW | 3.067E-08 | 1.429E-08 | 8.551E-09 | 4.334E-09 | 2.665E-09 | 1.818E-09 | 1.325E-09 | 1.011E-09 | 7.971E-10 | 6.449E-10 | 5.324E-10 |
| SW | 5.323E-08 | 2.493E-08 | 1.496E-08 | 7.600E-09 | 4.666E-09 | 3.178E-09 | 2.311E-09 | 1.759E-09 | 1.385E-09 | 1.118E-09 | 9.208E-10 |
| WSW | 3.944E-08 | 1.838E-08 | 1.099E-08 | 5.551E-09 | 3.392E-09 | 2.301E-09 | 1.668E-09 | 1.266E-09 | 9.934E-10 | 8.000E-10 | 6.574E-10 |
| W | 4.068E-08 | 1.905E-08 | 1.144E-08 | 5.810E-09 | 3.568E-09 | 2.431E-09 | 1.768E-09 | 1.346E-09 | 1.059E-09 | 8.553E-10 | 7.045E-10 |
| WNW | 4.799E-08 | 2.243E-08 | 1.345E-08 | 6.840E-09 | 4.215E-09 | 2.881E-09 | 2.103E-09 | 1.607E-09 | 1.269E-09 | 1.028E-09 | 8.502E-10 |
| NW | 8.074E-08 | 3.819E-08 | 2.311E-08 | 1.188E-08 | 7.366E-09 | 5.059E-09 | 3.707E-09 | 2.841E-09 | 2.250E-09 | 1.827E-09 | 1.514E-09 |
| NNW | 7.640E-08 | 3.707E-08 | 2.281E-08 | 1.197E-08 | 7.511E-09 | 5.195E-09 | 3.823E-09 | 2.936E-09 | 2.326E-09 | 1.888E-09 | 1.562E-09 |
| N | 1.066E-07 | 5.215E-08 | 3.228E-08 | 1.710E-08 | 1.081E-08 | 7.521E-09 | 5.563E-09 | 4.292E-09 | 3.416E-09 | 2.784E-09 | 2.311E-09 |
| NNE | 1.011E-07 | 4.959E-08 | 3.076E-08 | 1.636E-08 | 1.037E-08 | 7.234E-09 | 5.366E-09 | 4.151E-09 | 3.312E-09 | 2.706E-09 | 2.252E-09 |
| NE | 9.479E-08 | 4.646E-08 | 2.883E-08 | 1.535E-08 | 9.751E-09 | 6.821E-09 | 5.072E-09 | 3.934E-09 | 3.147E-09 | 2.578E-09 | 2.151E-09 |
| ENE | 1.488E-07 | 7.294E-08 | 4.522E-08 | 2.402E-08 | 1.520E-08 | 1.059E-08 | 7.844E-09 | 6.059E-09 | 4.826E-09 | 3.937E-09 | 3.272E-09 |
| E | 1.161E-07 | 5.650E-08 | 3.484E-08 | 1.838E-08 | 1.159E-08 | 8.053E-09 | 5.949E-09 | 4.586E-09 | 3.647E-09 | 2.970E-09 | 2.465E-09 |
| ESE | 9.188E-08 | 4.439E-08 | 2.724E-08 | 1.426E-08 | 8.941E-09 | 6.182E-09 | 4.549E-09 | 3.494E-09 | 2.769E-09 | 2.249E-09 | 1.861E-09 |
| SE | 1.260E-07 | 6.030E-08 | 3.679E-08 | 1.914E-08 | 1.197E-08 | 8.277E-09 | 6.093E-09 | 4.686E-09 | 3.721E-09 | 3.027E-09 | 2.511E-09 |
| SSE | 8.745E-08 | 4.155E-08 | 2.522E-08 | 1.303E-08 | 8.107E-09 | 5.581E-09 | 4.095E-09 | 3.140E-09 | 2.487E-09 | 2.019E-09 | 1.671E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| DIRECTION FROM SITE | SEGMENT BOUNDARIES IN MILES .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| S | 5.120E-06 | 1.103E-06 | 3.093E-07 | 1.462E-07 | 8.623E-08 | 3.488E-08 | 1.046E-08 | 4.333E-09 | 2.414E-09 | 1.546E-09 |
| SSW | 2.339E-06 | 5.026E-07 | 1.394E-07 | 6.546E-08 | 3.839E-08 | 1.538E-08 | 4.529E-09 | 1.847E-09 | 1.019E-09 | 6.483E-10 |
| SW | 3.862E-06 | 8.456E-07 | 2.381E-07 | 1.127E-07 | 6.648E-08 | 2.679E-08 | 7.932E-09 | 3.228E-09 | 1.774E-09 | 1.124E-09 |
| WSW | 2.906E-06 | 6.336E-07 | 1.777E-07 | 8.385E-08 | 4.933E-08 | 1.978E-08 | 5.801E-09 | 2.339E-09 | 1.277E-09 | 8.045E-10 |
| W | 2.957E-06 | 6.468E-07 | 1.820E-07 | 8.617E-08 | 5.081E-08 | 2.047E-08 | 6.064E-09 | 2.469E-09 | 1.358E-09 | 8.599E-10 |
| WNW | 3.540E-06 | 7.701E-07 | 2.157E-07 | 1.019E-07 | 5.998E-08 | 2.412E-08 | 7.143E-09 | 2.926E-09 | 1.620E-09 | 1.034E-09 |
| NW | 5.621E-06 | 1.246E-06 | 3.552E-07 | 1.695E-07 | 1.006E-07 | 4.094E-08 | 1.237E-08 | 5.133E-09 | 2.863E-09 | 1.836E-09 |
| NNW | 4.622E-06 | 1.071E-06 | 3.196E-07 | 1.564E-07 | 9.443E-08 | 3.947E-08 | 1.240E-08 | 5.264E-09 | 2.957E-09 | 1.897E-09 |
| N | 6.342E-06 | 1.459E-06 | 4.400E-07 | 2.167E-07 | 1.315E-07 | 5.542E-08 | 1.768E-08 | 7.614E-09 | 4.321E-09 | 2.796E-09 |
| NNE | 5.963E-06 | 1.375E-06 | 4.156E-07 | 2.051E-07 | 1.246E-07 | 5.267E-08 | 1.689E-08 | 7.322E-09 | 4.178E-09 | 2.717E-09 |
| NE | 5.684E-06 | 1.298E-06 | 3.907E-07 | 1.925E-07 | 1.168E-07 | 4.936E-08 | 1.586E-08 | 6.903E-09 | 3.939E-09 | 2.588E-09 |
| ENE | 8.749E-06 | 2.021E-06 | 6.113E-07 | 3.017E-07 | 1.833E-07 | 7.747E-08 | 2.481E-08 | 1.072E-08 | 6.099E-09 | 3.954E-09 |
| E | 7.206E-06 | 1.630E-06 | 4.851E-07 | 2.374E-07 | 1.435E-07 | 6.013E-08 | 1.902E-08 | 8.155E-09 | 4.618E-09 | 2.984E-09 |
| ESE | 5.819E-06 | 1.317E-06 | 3.884E-07 | 1.890E-07 | 1.137E-07 | 4.732E-08 | 1.478E-08 | 6.261E-09 | 3.519E-09 | 2.259E-09 |
| SE | 8.642E-06 | 1.894E-06 | 5.457E-07 | 2.623E-07 | 1.565E-07 | 6.445E-08 | 1.988E-08 | 8.389E-09 | 4.720E-09 | 3.041E-09 |
| SSE | 6.207E-06 | 1.347E-06 | 3.839E-07 | 1.833E-07 | 1.088E-07 | 4.449E-08 | 1.355E-08 | 5.660E-09 | 3.164E-09 | 2.029E-09 |

VENTS GROUND LEVEL RELEASES - JAN-MAR 1984
CORRECTED FOR OPEN TERRAIN RECIRCULATION

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS **********

| DIRECTION FROM SITE | DISTANCES IN MILES 0.25 | 0.50 | 0.75 | 1.00 | 1.50 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00 | 4.50 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 2.258E-07 | 7.636E-08 | 3.921E-08 | 1.864E-08 | 6.695E-09 | 3.320E-09 | 1.955E-09 | 1.280E-09 | 9.008E-10 | 6.676E-10 | 5.144E-10 |
| SSW | 7.679E-08 | 2.597E-08 | 1.333E-08 | 6.339E-09 | 2.277E-09 | 1.129E-09 | 6.649E-10 | 4.354E-10 | 3.063E-10 | 2.270E-10 | 1.749E-10 |
| SW | 1.016E-07 | 3.435E-08 | 1.764E-08 | 8.385E-09 | 3.012E-09 | 1.494E-09 | 8.795E-10 | 5.759E-10 | 4.052E-10 | 3.003E-10 | 2.314E-10 |
| WSW | 7.227E-08 | 2.444E-08 | 1.255E-08 | 5.966E-09 | 2.143E-09 | 1.063E-09 | 6.258E-10 | 4.097E-10 | 2.883E-10 | 2.137E-10 | 1.647E-10 |
| W | 7.353E-08 | 2.486E-08 | 1.277E-08 | 6.069E-09 | 2.180E-09 | 1.081E-09 | 6.366E-10 | 4.168E-10 | 2.933E-10 | 2.174E-10 | 1.675E-10 |
| WNW | 1.314E-07 | 4.443E-08 | 2.281E-08 | 1.084E-08 | 3.895E-09 | 1.932E-09 | 1.137E-09 | 7.448E-10 | 5.241E-10 | 3.884E-10 | 2.993E-10 |
| NW | 1.791E-07 | 6.055E-08 | 3.109E-08 | 1.478E-08 | 5.309E-09 | 2.633E-09 | 1.550E-09 | 1.015E-09 | 7.143E-10 | 5.293E-10 | 4.079E-10 |
| NNW | 8.047E-08 | 2.721E-08 | 1.397E-08 | 6.643E-09 | 2.386E-09 | 1.183E-09 | 6.968E-10 | 4.562E-10 | 3.210E-10 | 2.379E-10 | 1.833E-10 |
| N | 1.175E-07 | 3.974E-08 | 2.040E-08 | 9.701E-09 | 3.485E-09 | 1.728E-09 | 1.018E-09 | 6.663E-10 | 4.688E-10 | 3.474E-10 | 2.677E-10 |
| NNE | 1.179E-07 | 3.985E-08 | 2.046E-08 | 9.728E-09 | 3.494E-09 | 1.733E-09 | 1.020E-09 | 6.681E-10 | 4.701E-10 | 3.484E-10 | 2.685E-10 |
| NE | 1.375E-07 | 4.650E-08 | 2.387E-08 | 1.135E-08 | 4.077E-09 | 2.022E-09 | 1.190E-09 | 7.795E-10 | 5.485E-10 | 4.065E-10 | 3.133E-10 |
| ENE | 1.657E-07 | 5.602E-08 | 2.877E-08 | 1.368E-08 | 4.912E-09 | 2.436E-09 | 1.434E-09 | 9.392E-10 | 6.609E-10 | 4.898E-10 | 3.774E-10 |
| E | 1.271E-07 | 4.297E-08 | 2.207E-08 | 1.049E-08 | 3.768E-09 | 1.869E-09 | 1.100E-09 | 7.205E-10 | 5.070E-10 | 3.757E-10 | 2.895E-10 |
| ESE | 9.636E-08 | 3.258E-08 | 1.673E-08 | 7.954E-09 | 2.857E-09 | 1.417E-09 | 8.343E-10 | 5.463E-10 | 3.844E-10 | 2.849E-10 | 2.195E-10 |
| SE | 3.335E-07 | 1.128E-07 | 5.791E-08 | 2.753E-08 | 9.889E-09 | 4.904E-09 | 2.888E-09 | 1.891E-09 | 1.330E-09 | 9.860E-10 | 7.598E-10 |
| SSE | 2.796E-07 | 9.456E-08 | 4.855E-08 | 2.308E-08 | 8.291E-09 | 4.112E-09 | 2.421E-09 | 1.585E-09 | 1.116E-09 | 8.267E-10 | 6.371E-10 |

| DIRECTION FROM SITE | DISTANCES IN MILES 5.00 | 7.50 | 10.00 | 15.00 | 20.00 | 25.00 | 30.00 | 35.00 | 40.00 | 45.00 | 50.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 4.087E-10 | 1.816E-10 | 1.100E-10 | 5.559E-11 | 3.365E-11 | 2.256E-11 | 1.616E-11 | 1.214E-11 | 9.437E-12 | 7.539E-12 | 6.193E-12 |
| SSW | 1.390E-10 | 6.174E-11 | 3.740E-11 | 1.890E-11 | 1.144E-11 | 7.671E-12 | 5.497E-12 | 4.128E-12 | 3.209E-12 | 2.564E-12 | 2.093E-12 |
| SW | 1.838E-10 | 8.167E-11 | 4.947E-11 | 2.501E-11 | 1.513E-11 | 1.015E-11 | 7.271E-12 | 5.460E-12 | 4.245E-12 | 3.391E-12 | 2.768E-12 |
| WSW | 1.308E-10 | 5.811E-11 | 3.520E-11 | 1.779E-11 | 1.077E-11 | 7.220E-12 | 5.174E-12 | 3.885E-12 | 3.021E-12 | 2.413E-12 | 1.969E-12 |
| W | 1.331E-10 | 5.912E-11 | 3.581E-11 | 1.810E-11 | 1.096E-11 | 7.345E-12 | 5.263E-12 | 3.952E-12 | 3.073E-12 | 2.455E-12 | 2.004E-12 |
| WNW | 2.378E-10 | 1.056E-10 | 6.398E-11 | 3.234E-11 | 1.957E-11 | 1.312E-11 | 9.404E-12 | 7.062E-12 | 5.491E-12 | 4.386E-12 | 3.580E-12 |
| NW | 3.241E-10 | 1.440E-10 | 8.721E-11 | 4.408E-11 | 2.668E-11 | 1.789E-11 | 1.282E-11 | 9.624E-12 | 7.483E-12 | 5.978E-12 | 4.879E-12 |
| NNW | 1.457E-10 | 6.470E-11 | 3.919E-11 | 1.981E-11 | 1.199E-11 | 8.039E-12 | 5.761E-12 | 4.326E-12 | 3.363E-12 | 2.687E-12 | 2.193E-12 |
| N | 2.127E-10 | 9.449E-11 | 5.724E-11 | 2.893E-11 | 1.751E-11 | 1.174E-11 | 8.413E-12 | 6.317E-12 | 4.912E-12 | 3.923E-12 | 3.202E-12 |
| NNE | 2.133E-10 | 9.476E-11 | 5.740E-11 | 2.901E-11 | 1.756E-11 | 1.177E-11 | 8.436E-12 | 6.335E-12 | 4.925E-12 | 3.934E-12 | 3.211E-12 |
| NE | 2.489E-10 | 1.106E-10 | 6.697E-11 | 3.385E-11 | 2.049E-11 | 1.374E-11 | 9.843E-12 | 7.391E-12 | 5.747E-12 | 4.590E-12 | 3.747E-12 |
| ENE | 2.999E-10 | 1.332E-10 | 8.069E-11 | 4.078E-11 | 2.468E-11 | 1.655E-11 | 1.186E-11 | 8.905E-12 | 6.924E-12 | 5.531E-12 | 4.514E-12 |
| E | 2.300E-10 | 1.022E-10 | 6.190E-11 | 3.129E-11 | 1.894E-11 | 1.270E-11 | 9.097E-12 | 6.831E-12 | 5.311E-12 | 4.243E-12 | 3.463E-12 |
| ESE | 1.744E-10 | 7.747E-11 | 4.693E-11 | 2.372E-11 | 1.436E-11 | 9.626E-12 | 6.898E-12 | 5.179E-12 | 4.027E-12 | 3.217E-12 | 2.626E-12 |
| SE | 6.036E-10 | 2.681E-10 | 1.624E-10 | 8.210E-11 | 4.969E-11 | 3.332E-11 | 2.387E-11 | 1.793E-11 | 1.394E-11 | 1.113E-11 | 9.088E-12 |
| SSE | 5.061E-10 | 2.248E-10 | 1.362E-10 | 6.884E-11 | 4.167E-11 | 2.794E-11 | 2.002E-11 | 1.503E-11 | 1.169E-11 | 9.336E-12 | 7.620E-12 |

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS **********

| DIRECTION FROM SITE | SEGMENT BOUNDARIES IN MILES .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.832E-08 | 7.850E-09 | 2.049E-09 | 9.203E-10 | 5.207E-10 | 2.002E-10 | 5.792E-11 | 2.296E-11 | 1.226E-11 | 7.588E-12 |
| SSW | 1.303E-08 | 2.669E-09 | 6.969E-10 | 3.130E-10 | 1.771E-10 | 6.809E-11 | 1.970E-11 | 7.807E-12 | 4.169E-12 | 2.580E-12 |
| SW | 1.724E-08 | 3.531E-09 | 9.218E-10 | 4.140E-10 | 2.342E-10 | 9.006E-11 | 2.606E-11 | 1.033E-11 | 5.515E-12 | 3.413E-12 |
| WSW | 1.227E-08 | 2.512E-09 | 6.559E-10 | 2.946E-10 | 1.666E-10 | 6.408E-11 | 1.854E-11 | 7.348E-12 | 3.924E-12 | 2.429E-12 |
| W | 1.248E-08 | 2.556E-09 | 6.673E-10 | 2.997E-10 | 1.695E-10 | 6.519E-11 | 1.886E-11 | 7.475E-12 | 3.992E-12 | 2.471E-12 |
| WNW | 2.230E-08 | 4.567E-09 | 1.192E-09 | 5.354E-10 | 3.029E-10 | 1.165E-10 | 3.370E-11 | 1.336E-11 | 7.132E-12 | 4.415E-12 |
| NW | 3.039E-08 | 6.224E-09 | 1.625E-09 | 7.298E-10 | 4.128E-10 | 1.588E-10 | 4.593E-11 | 1.820E-11 | 9.721E-12 | 6.017E-12 |
| NNW | 1.366E-08 | 2.797E-09 | 7.303E-10 | 3.280E-10 | 1.855E-10 | 7.135E-11 | 2.064E-11 | 8.181E-12 | 4.369E-12 | 2.704E-12 |
| N | 1.994E-08 | 4.083E-09 | 1.066E-09 | 4.790E-10 | 2.710E-10 | 1.042E-10 | 3.015E-11 | 1.195E-11 | 6.380E-12 | 3.949E-12 |
| NNE | 2.000E-08 | 4.097E-09 | 1.069E-09 | 4.803E-10 | 2.717E-10 | 1.045E-10 | 3.023E-11 | 1.198E-11 | 6.398E-12 | 3.960E-12 |
| NE | 2.334E-08 | 4.780E-09 | 1.248E-09 | 5.604E-10 | 3.170E-10 | 1.219E-10 | 3.527E-11 | 1.398E-11 | 7.465E-12 | 4.621E-12 |
| ENE | 2.812E-08 | 5.759E-09 | 1.503E-09 | 6.752E-10 | 3.820E-10 | 1.469E-10 | 4.250E-11 | 1.684E-11 | 8.994E-12 | 5.567E-12 |
| E | 2.157E-08 | 4.418E-09 | 1.153E-09 | 5.180E-10 | 2.930E-10 | 1.127E-10 | 3.260E-11 | 1.292E-11 | 6.899E-12 | 4.270E-12 |
| ESE | 1.635E-08 | 3.350E-09 | 8.744E-10 | 3.927E-10 | 2.222E-10 | 8.544E-11 | 2.472E-11 | 9.796E-12 | 5.231E-12 | 3.238E-12 |
| SE | 5.660E-08 | 1.159E-08 | 3.027E-09 | 1.359E-09 | 7.690E-10 | 2.957E-10 | 8.555E-11 | 3.391E-11 | 1.811E-11 | 1.121E-11 |
| SSE | 4.746E-08 | 9.721E-09 | 2.538E-09 | 1.140E-09 | 6.448E-10 | 2.479E-10 | 7.173E-11 | 2.843E-11 | 1.518E-11 | 9.397E-12 |

VENTS GROUND LEVEL RELEASES - JAN-MAR 1984
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

| RELEASE ID | TYPE OF LOCATION | DIRECTION | DISTANCE (MILES) | DISTANCE (METERS) | X/Q (SEC/CUB METER) NO DECAY UNDEPLETED | X/Q (SEC/CUB METER) 2.260 DAY DECAY UNDEPLETED | X/Q (SEC/CUB METER) 8.000 DAY DECAY DEPLETED | D/Q (PER SQ. METER) |
|---|---|---|---|---|---|---|---|---|
| A | SITE BOUNDARY | S | 0.89 | 1430. | 3.893E-06 | 3.874E-06 | 3.429E-06 | 2.530E-08 |
| A | SITE BOUNDARY | SSW | 0.92 | 1480. | 1.639E-06 | 1.631E-06 | 1.440E-06 | 7.868E-09 |
| A | SITE BOUNDARY | SW | 1.09 | 1750. | 1.827E-06 | 1.816E-06 | 1.588E-06 | 6.759E-09 |
| A | SITE BOUNDARY | WSW | 0.94 | 1510. | 1.955E-06 | 1.944E-06 | 1.716E-06 | 7.030E-09 |
| A | SITE BOUNDARY | W | 0.93 | 1500. | 2.025E-06 | 2.013E-06 | 1.778E-06 | 7.276E-09 |
| A | SITE BOUNDARY | WNW | 0.96 | 1540. | 2.266E-06 | 2.258E-06 | 1.987E-06 | 1.214E-08 |
| A | SITE BOUNDARY | NW | 0.72 | 1160. | 6.931E-06 | 6.911E-06 | 6.183E-06 | 3.323E-08 |
| A | SITE BOUNDARY | NNW | 0.62 | 1000. | 7.022E-06 | 6.979E-06 | 6.310E-06 | 1.916E-08 |
| A | SITE BOUNDARY | N | 0.65 | 1050. | 8.986E-06 | 8.932E-06 | 8.056E-06 | 2.579E-08 |
| A | SITE BOUNDARY | NNE | 0.63 | 1010. | 8.948E-06 | 8.903E-06 | 8.040E-06 | 2.760E-08 |
| A | SITE BOUNDARY | NE | 0.64 | 1030. | 8.311E-06 | 8.279E-06 | 7.462E-06 | 3.116E-08 |
| A | SITE BOUNDARY | ENE | 0.62 | 1000. | 1.332E-05 | 1.325E-05 | 1.197E-05 | 3.945E-08 |
| A | SITE BOUNDARY | E | 0.61 | 980. | 1.137E-05 | 1.131E-05 | 1.024E-05 | 3.113E-08 |
| A | SITE BOUNDARY | ESE | 0.61 | 980. | 9.173E-06 | 9.122E-06 | 8.259E-06 | 2.360E-08 |
| A | SITE BOUNDARY | SE | 1.06 | 1700. | 4.355E-06 | 4.328E-06 | 3.791E-06 | 2.390E-08 |
| A | SITE BOUNDARY | SSE | 0.91 | 1460. | 4.481E-06 | 4.456E-06 | 3.941E-06 | 2.968E-08 |
| A | NEAR. RESIDENCE | SSW | 1.30 | 2092. | 7.136E-07 | 7.092E-07 | 6.119E-07 | 3.251E-09 |
| A | NEAR. RESIDENCE | SW | 1.30 | 2092. | 1.202E-06 | 1.193E-06 | 1.030E-06 | 4.301E-09 |
| A | NEAR. RESIDENCE | W | 1.00 | 1609. | 1.709E-06 | 1.699E-06 | 1.494E-06 | 6.069E-09 |
| A | NEAR. RESIDENCE | NW | 0.90 | 1448. | 4.216E-06 | 4.201E-06 | 3.712E-06 | 1.942E-08 |
| A | NEAR. RESIDENCE | NNW | 1.90 | 3058. | 6.725E-07 | 6.594E-07 | 5.564E-07 | 1.339E-09 |
| A | NEAREST COW | W | 2.30 | 3702. | 2.584E-07 | 2.547E-07 | 2.102E-07 | 7.746E-10 |
| A | NEAREST COW | NNW | 3.50 | 5633. | 1.993E-07 | 1.921E-07 | 1.539E-07 | 3.210E-10 |
| A | NEAREST GARDEN | SSW | 1.30 | 2092. | 7.136E-07 | 7.092E-07 | 6.119E-07 | 3.251E-09 |
| A | NEAREST GARDEN | SW | 1.30 | 2092. | 1.202E-06 | 1.193E-06 | 1.030E-06 | 4.301E-09 |
| A | NEAREST GARDEN | W | 1.00 | 1609. | 1.709E-06 | 1.699E-06 | 1.494E-06 | 6.069E-09 |
| A | NEAREST GARDEN | NW | 2.70 | 4345. | 3.605E-07 | 3.567E-07 | 2.888E-07 | 1.295E-09 |
| A | NEAREST GARDEN | NNW | 1.90 | 3058. | 6.725E-07 | 6.594E-07 | 5.564E-07 | 1.339E-09 |

Atmospheric Diffusion Estimates
Ground-Level Releases
April-June 1984

Note: See explanation on page B113.

VENTS GROUND LEVEL RELEASES - APR-JUN 1984
NO DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 4.279E-05 | 1.465E-05 | 7.955E-06 | 4.002E-06 | 1.590E-06 | 8.544E-07 | 5.382E-07 | 3.738E-07 | 2.772E-07 | 2.134E-07 | 1.733E-07 |
| SSW | 2.759E-05 | 9.209E-06 | 4.861E-06 | 2.423E-06 | 9.756E-07 | 5.290E-07 | 3.356E-07 | 2.345E-07 | 1.747E-07 | 1.364E-07 | 1.102E-07 |
| SW | 2.349E-05 | 8.109E-06 | 4.417E-06 | 2.223E-06 | 8.817E-07 | 4.731E-07 | 2.977E-07 | 2.066E-07 | 1.531E-07 | 1.189E-07 | 9.565E-08 |
| WSW | 2.052E-05 | 7.105E-06 | 4.176E-06 | 2.090E-06 | 8.136E-07 | 4.309E-07 | 2.684E-07 | 1.846E-07 | 1.358E-07 | 1.048E-07 | 8.380E-08 |
| W | 2.964E-05 | 1.062E-05 | 5.820E-06 | 2.922E-06 | 1.143E-06 | 6.069E-07 | 3.788E-07 | 2.611E-07 | 1.924E-07 | 1.487E-07 | 1.190E-07 |
| WNW | 2.351E-05 | 8.637E-06 | 4.668E-06 | 2.318E-06 | 8.919E-07 | 4.680E-07 | 2.894E-07 | 1.979E-07 | 1.448E-07 | 1.112E-07 | 8.856E-08 |
| NW | 3.459E-05 | 1.244E-05 | 6.669E-06 | 3.304E-06 | 1.277E-06 | 6.729E-07 | 4.174E-07 | 2.863E-07 | 2.100E-07 | 1.617E-07 | 1.291E-07 |
| NNW | 3.086E-05 | 1.085E-05 | 5.854E-06 | 2.922E-06 | 1.153E-06 | 6.163E-07 | 3.869E-07 | 2.680E-07 | 1.982E-07 | 1.538E-07 | 1.235E-07 |
| N | 4.469E-05 | 1.514E-05 | 8.212E-06 | 4.132E-06 | 1.650E-06 | 8.900E-07 | 5.624E-07 | 3.916E-07 | 2.911E-07 | 2.266E-07 | 1.827E-07 |
| NNE | 2.547E-05 | 8.536E-06 | 4.614E-06 | 2.325E-06 | 9.325E-07 | 5.043E-07 | 3.192E-07 | 2.226E-07 | 1.657E-07 | 1.291E-07 | 1.042E-07 |
| NE | 2.610E-05 | 8.644E-06 | 4.671E-06 | 2.360E-06 | 9.592E-07 | 5.236E-07 | 3.339E-07 | 2.342E-07 | 1.751E-07 | 1.370E-07 | 1.110E-07 |
| ENE | 1.157E-05 | 3.805E-06 | 2.066E-06 | 1.046E-06 | 4.236E-07 | 2.306E-07 | 1.468E-07 | 1.028E-07 | 7.677E-08 | 6.003E-08 | 4.857E-08 |
| E | 1.601E-05 | 5.521E-06 | 3.007E-06 | 1.515E-06 | 6.065E-07 | 3.276E-07 | 2.072E-07 | 1.444E-07 | 1.074E-07 | 8.364E-08 | 6.746E-08 |
| ESE | 1.489E-05 | 5.056E-06 | 2.734E-06 | 1.374E-06 | 5.490E-07 | 2.962E-07 | 1.873E-07 | 1.305E-07 | 9.700E-08 | 7.555E-08 | 6.093E-08 |
| SE | 3.522E-05 | 1.128E-05 | 6.056E-06 | 3.063E-06 | 1.249E-06 | 6.831E-07 | 4.363E-07 | 3.064E-07 | 2.293E-07 | 1.797E-07 | 1.456E-07 |
| SSE | 4.487E-05 | 1.475E-05 | 7.998E-06 | 4.044E-06 | 1.627E-06 | 8.820E-07 | 5.594E-07 | 3.907E-07 | 2.911E-07 | 2.271E-07 | 1.835E-07 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.433E-07 | 7.336E-08 | 4.741E-08 | 2.707E-08 | 1.827E-08 | 1.349E-08 | 1.054E-08 | 8.566E-09 | 7.162E-09 | 6.118E-09 | 5.316E-09 |
| SSW | 9.141E-08 | 4.742E-08 | 3.094E-08 | 1.793E-08 | 1.222E-08 | 9.103E-09 | 7.166E-09 | 5.859E-09 | 4.924E-09 | 4.227E-09 | 3.689E-09 |
| SW | 7.906E-08 | 4.039E-08 | 2.606E-08 | 1.486E-08 | 1.002E-08 | 7.398E-09 | 5.780E-09 | 4.695E-09 | 3.924E-09 | 3.351E-09 | 2.911E-09 |
| WSW | 6.890E-08 | 3.447E-08 | 2.190E-08 | 1.220E-08 | 8.075E-09 | 5.873E-09 | 4.532E-09 | 3.642E-09 | 3.016E-09 | 2.554E-09 | 2.202E-09 |
| W | 9.799E-08 | 4.926E-08 | 3.141E-08 | 1.760E-08 | 1.172E-08 | 8.562E-09 | 6.632E-09 | 5.348E-09 | 4.441E-09 | 3.771E-09 | 3.259E-09 |
| WNW | 7.253E-08 | 3.575E-08 | 2.247E-08 | 1.233E-08 | 8.086E-09 | 5.838E-09 | 4.478E-09 | 3.581E-09 | 2.952E-09 | 2.490E-09 | 2.139E-09 |
| NW | 1.059E-07 | 5.267E-08 | 3.333E-08 | 1.850E-08 | 1.226E-08 | 8.932E-09 | 6.902E-09 | 5.555E-09 | 4.605E-09 | 3.905E-09 | 3.371E-09 |
| NNW | 1.020E-07 | 5.194E-08 | 3.345E-08 | 1.902E-08 | 1.281E-08 | 9.441E-09 | 7.370E-09 | 5.983E-09 | 4.997E-09 | 4.266E-09 | 3.704E-09 |
| N | 1.514E-07 | 7.799E-08 | 5.064E-08 | 2.915E-08 | 1.980E-08 | 1.469E-08 | 1.153E-08 | 9.404E-09 | 7.886E-09 | 6.755E-09 | 5.883E-09 |
| NNE | 8.634E-08 | 4.459E-08 | 2.900E-08 | 1.672E-08 | 1.136E-08 | 8.436E-09 | 6.623E-09 | 5.403E-09 | 4.532E-09 | 3.883E-09 | 3.383E-09 |
| NE | 9.229E-08 | 4.826E-08 | 3.166E-08 | 1.846E-08 | 1.264E-08 | 9.439E-09 | 7.444E-09 | 6.096E-09 | 5.130E-09 | 4.408E-09 | 3.850E-09 |
| ENE | 4.036E-08 | 2.106E-08 | 1.380E-08 | 8.031E-09 | 5.490E-09 | 4.096E-09 | 3.228E-09 | 2.641E-09 | 2.221E-09 | 1.907E-09 | 1.665E-09 |
| E | 5.589E-08 | 2.881E-08 | 1.871E-08 | 1.076E-08 | 7.292E-09 | 5.403E-09 | 4.234E-09 | 3.449E-09 | 2.889E-09 | 2.472E-09 | 2.151E-09 |
| ESE | 5.049E-08 | 2.606E-08 | 1.694E-08 | 9.763E-09 | 6.634E-09 | 4.926E-09 | 3.867E-09 | 3.154E-09 | 2.646E-09 | 2.267E-09 | 1.975E-09 |
| SE | 1.212E-07 | 6.360E-08 | 4.183E-08 | 2.449E-08 | 1.681E-08 | 1.258E-08 | 9.942E-09 | 8.154E-09 | 6.872E-09 | 5.912E-09 | 5.169E-09 |
| SSE | 1.522E-07 | 7.894E-08 | 5.149E-08 | 2.981E-08 | 2.032E-08 | 1.513E-08 | 1.190E-08 | 9.722E-09 | 8.166E-09 | 7.003E-09 | 6.110E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| DIRECTION FROM SITE | SEGMENT BOUNDARIES IN MILES 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| S | 7.686E-06 | 1.799E-06 | 5.568E-07 | 2.812E-07 | 1.747E-07 | 7.737E-08 | 2.768E-08 | 1.358E-08 | 8.595E-09 | 6.130E-09 |
| SSW | 4.744E-06 | 1.099E-06 | 3.467E-07 | 1.772E-07 | 1.110E-07 | 4.987E-08 | 1.829E-08 | 9.160E-09 | 5.876E-09 | 4.235E-09 |
| SW | 4.262E-06 | 9.981E-07 | 3.081E-07 | 1.554E-07 | 9.640E-08 | 4.262E-08 | 1.520E-08 | 7.451E-09 | 4.711E-09 | 3.358E-09 |
| WSW | 4.011E-06 | 9.272E-07 | 2.782E-07 | 1.379E-07 | 8.450E-08 | 3.653E-08 | 1.252E-08 | 5.924E-09 | 3.658E-09 | 2.560E-09 |
| W | 5.599E-06 | 1.300E-06 | 3.926E-07 | 1.954E-07 | 1.200E-07 | 5.216E-08 | 1.806E-08 | 8.632E-09 | 5.370E-09 | 3.780E-09 |
| WNW | 4.506E-06 | 1.020E-06 | 3.004E-07 | 1.472E-07 | 8.933E-08 | 3.802E-08 | 1.270E-08 | 5.893E-09 | 3.598E-09 | 2.497E-09 |
| NW | 6.455E-06 | 1.459E-06 | 4.331E-07 | 2.134E-07 | 1.302E-07 | 5.591E-08 | 1.903E-08 | 9.009E-09 | 5.578E-09 | 3.915E-09 |
| NNW | 5.662E-06 | 1.307E-06 | 4.005E-07 | 2.012E-07 | 1.245E-07 | 5.485E-08 | 1.946E-08 | 9.510E-09 | 6.003E-09 | 4.274E-09 |
| N | 7.939E-06 | 1.864E-06 | 5.815E-07 | 2.953E-07 | 1.841E-07 | 8.214E-08 | 2.977E-08 | 1.479E-08 | 9.434E-09 | 6.767E-09 |
| NNE | 4.468E-06 | 1.052E-06 | 3.299E-07 | 1.680E-07 | 1.050E-07 | 4.694E-08 | 1.707E-08 | 8.491E-09 | 5.420E-09 | 3.890E-09 |
| NE | 4.527E-06 | 1.077E-06 | 3.446E-07 | 1.775E-07 | 1.118E-07 | 5.067E-08 | 1.881E-08 | 9.494E-09 | 6.113E-09 | 4.415E-09 |
| ENE | 1.999E-06 | 4.762E-07 | 1.516E-07 | 7.783E-08 | 4.892E-08 | 2.212E-08 | 8.183E-09 | 4.120E-09 | 2.649E-09 | 1.911E-09 |
| E | 2.903E-06 | 6.845E-07 | 2.142E-07 | 1.089E-07 | 6.797E-08 | 3.034E-08 | 1.099E-08 | 5.439E-09 | 3.460E-09 | 2.477E-09 |
| ESE | 2.643E-06 | 6.199E-07 | 1.936E-07 | 9.839E-08 | 6.139E-08 | 2.744E-08 | 9.968E-09 | 4.958E-09 | 3.164E-09 | 2.271E-09 |
| SE | 5.886E-06 | 1.401E-06 | 4.501E-07 | 2.324E-07 | 1.466E-07 | 6.672E-08 | 2.493E-08 | 1.265E-08 | 8.176E-09 | 5.921E-09 |
| SSE | 7.742E-06 | 1.833E-06 | 5.779E-07 | 2.952E-07 | 1.848E-07 | 8.302E-08 | 3.041E-08 | 1.522E-08 | 9.751E-09 | 7.018E-09 |

VENTS GROUND LEVEL RELEASES - APR-JUN 1984
2.26D DAY DECAY. UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)

| | DISTANCE IN MILES | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
| S | 4.271E-05 | 1.460E-05 | 7.915E-06 | 3.975E-06 | 1.574E-06 | 8.426E-07 | 5.289E-07 | 3.660E-07 | 2.704E-07 | 2.093E-07 | 1.678E-07 |
| SSW | 2.753E-05 | 9.174E-06 | 4.833E-06 | 2.405E-06 | 9.642E-07 | 5.206E-07 | 3.289E-07 | 2.288E-07 | 1.698E-07 | 1.320E-07 | 1.061E-07 |
| SW | 2.344E-05 | 8.080E-06 | 4.393E-06 | 2.207E-06 | 8.719E-07 | 4.660E-07 | 2.922E-07 | 2.019E-07 | 1.491E-07 | 1.153E-07 | 9.239E-08 |
| WSW | 2.048E-05 | 7.578E-06 | 4.153E-06 | 2.075E-06 | 8.049E-07 | 4.246E-07 | 2.635E-07 | 1.806E-07 | 1.324E-07 | 1.017E-07 | 8.106E-08 |
| W | 2.959E-05 | 1.059E-05 | 5.795E-06 | 2.904E-06 | 1.132E-06 | 5.995E-07 | 3.730E-07 | 2.563E-07 | 1.882E-07 | 1.450E-07 | 1.157E-07 |
| WNW | 2.350E-05 | 8.623E-06 | 4.657E-06 | 2.310E-06 | 8.873E-07 | 4.648E-07 | 2.869E-07 | 1.959E-07 | 1.431E-07 | 1.097E-07 | 8.719E-08 |
| NW | 3.457E-05 | 1.242E-05 | 6.653E-06 | 3.294E-06 | 1.271E-06 | 6.686E-07 | 4.141E-07 | 2.835E-07 | 2.076E-07 | 1.596E-07 | 1.272E-07 |
| NNW | 3.082E-05 | 1.083E-05 | 5.832E-06 | 2.907E-06 | 1.144E-06 | 6.099E-07 | 3.818E-07 | 2.637E-07 | 1.945E-07 | 1.504E-07 | 1.205E-07 |
| N | 4.462E-05 | 1.510E-05 | 8.175E-06 | 4.108E-06 | 1.635E-06 | 8.789E-07 | 5.535E-07 | 3.841E-07 | 2.845E-07 | 2.208E-07 | 1.774E-07 |
| NNE | 2.543E-05 | 8.507E-06 | 4.591E-06 | 2.309E-06 | 9.231E-07 | 4.974E-07 | 3.138E-07 | 2.180E-07 | 1.616E-07 | 1.255E-07 | 1.009E-07 |
| NE | 2.604E-05 | 8.606E-06 | 4.641E-06 | 2.339E-06 | 9.464E-07 | 5.142E-07 | 3.264E-07 | 2.279E-07 | 1.696E-07 | 1.321E-07 | 1.065E-07 |
| ENE | 1.154E-05 | 3.790E-06 | 2.054E-06 | 1.038E-06 | 4.185E-07 | 2.269E-07 | 1.438E-07 | 1.003E-07 | 7.456E-08 | 5.805E-08 | 4.677E-08 |
| E | 1.599E-05 | 5.503E-06 | 2.993E-06 | 1.506E-06 | 6.007E-07 | 3.233E-07 | 2.038E-07 | 1.415E-07 | 1.049E-07 | 8.143E-08 | 6.545E-08 |
| ESE | 1.486E-05 | 5.038E-06 | 2.720E-06 | 1.364E-06 | 5.432E-07 | 2.920E-07 | 1.839E-07 | 1.276E-07 | 9.455E-08 | 7.337E-08 | 5.895E-08 |
| SE | 3.515E-05 | 1.124E-05 | 6.020E-06 | 3.039E-06 | 1.234E-06 | 6.721E-07 | 4.274E-07 | 2.989E-07 | 2.228E-07 | 1.738E-07 | 1.402E-07 |
| SSE | 4.477E-05 | 1.469E-05 | 7.950E-06 | 4.011E-06 | 1.607E-06 | 8.674E-07 | 5.478E-07 | 3.809E-07 | 2.826E-07 | 2.193E-07 | 1.765E-07 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)

| | DISTANCE IN MILES | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
| S | 1.383E-07 | 6.949E-08 | 4.409E-08 | 2.429E-08 | 1.583E-08 | 1.129E-08 | 8.540E-09 | 6.721E-09 | 5.446E-09 | 4.514E-09 | 3.808E-09 |
| SSW | 8.769E-08 | 4.451E-08 | 2.843E-08 | 1.578E-08 | 1.032E-08 | 7.377E-09 | 5.580E-09 | 4.390E-09 | 3.554E-09 | 2.941E-09 | 2.477E-09 |
| SW | 7.606E-08 | 3.810E-08 | 2.411E-08 | 1.322E-08 | 8.588E-09 | 6.112E-09 | 4.608E-09 | 3.617E-09 | 2.923E-09 | 2.416E-09 | 2.034E-09 |
| WSW | 6.639E-08 | 3.260E-08 | 2.034E-08 | 1.092E-08 | 6.982E-09 | 4.908E-09 | 3.664E-09 | 2.852E-09 | 2.289E-09 | 1.881E-09 | 1.574E-09 |
| W | 9.496E-08 | 4.698E-08 | 2.948E-08 | 1.601E-08 | 1.034E-08 | 7.336E-09 | 5.522E-09 | 4.331E-09 | 3.500E-09 | 2.895E-09 | 2.439E-09 |
| WNW | 7.129E-08 | 3.483E-08 | 2.170E-08 | 1.170E-08 | 7.548E-09 | 5.360E-09 | 4.045E-09 | 3.184E-09 | 2.584E-09 | 2.146E-09 | 1.816E-09 |
| NW | 1.042E-07 | 5.135E-08 | 3.221E-08 | 1.757E-08 | 1.144E-08 | 8.191E-09 | 6.223E-09 | 4.926E-09 | 4.018E-09 | 3.353E-09 | 2.849E-09 |
| NNW | 9.924E-08 | 4.982E-08 | 3.162E-08 | 1.748E-08 | 1.145E-08 | 8.219E-09 | 6.251E-09 | 4.948E-09 | 4.032E-09 | 3.361E-09 | 2.852E-09 |
| N | 1.465E-07 | 7.420E-08 | 4.738E-08 | 2.638E-08 | 1.735E-08 | 1.249E-08 | 9.511E-09 | 7.534E-09 | 6.143E-09 | 5.120E-09 | 4.343E-09 |
| NNE | 8.333E-08 | 4.225E-08 | 2.698E-08 | 1.500E-08 | 9.845E-09 | 7.066E-09 | 5.368E-09 | 4.241E-09 | 3.449E-09 | 2.868E-09 | 2.426E-09 |
| NE | 8.817E-08 | 4.506E-08 | 2.890E-08 | 1.612E-08 | 1.057E-08 | 7.571E-09 | 5.735E-09 | 4.516E-09 | 3.659E-09 | 3.030E-09 | 2.553E-09 |
| ENE | 3.870E-08 | 1.977E-08 | 1.268E-08 | 7.085E-09 | 4.654E-09 | 3.340E-09 | 2.535E-09 | 2.000E-09 | 1.624E-09 | 1.348E-09 | 1.138E-09 |
| E | 5.403E-08 | 2.738E-08 | 1.748E-08 | 9.723E-09 | 6.379E-09 | 4.581E-09 | 3.483E-09 | 2.754E-09 | 2.242E-09 | 1.866E-09 | 1.581E-09 |
| ESE | 4.867E-08 | 2.466E-08 | 1.574E-08 | 8.746E-09 | 5.730E-09 | 4.118E-09 | 3.128E-09 | 2.472E-09 | 2.010E-09 | 1.672E-09 | 1.415E-09 |
| SE | 1.162E-07 | 5.972E-08 | 3.846E-08 | 2.160E-08 | 1.425E-08 | 1.026E-08 | 7.803E-09 | 6.170E-09 | 5.018E-09 | 4.171E-09 | 3.527E-09 |
| SSE | 1.458E-07 | 7.400E-08 | 4.724E-08 | 2.621E-08 | 1.715E-08 | 1.227E-08 | 9.285E-09 | 7.309E-09 | 5.921E-09 | 4.903E-09 | 4.133E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| | SEGMENT BOUNDARIES IN MILES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DIRECTION FROM SITE | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
| S | 7.630E-06 | 1.783E-06 | 5.474E-07 | 2.744E-07 | 1.692E-07 | 7.349E-08 | 2.493E-08 | 1.140E-08 | 6.755E-09 | 4.529E-09 |
| SSW | 4.718E-06 | 1.087E-06 | 3.400E-07 | 1.722E-07 | 1.070E-07 | 4.696E-08 | 1.616E-08 | 7.443E-09 | 4.411E-09 | 2.950E-09 |
| SW | 4.241E-06 | 9.881E-07 | 3.024E-07 | 1.513E-07 | 9.313E-08 | 4.031E-08 | 1.358E-08 | 6.171E-09 | 3.636E-09 | 2.425E-09 |
| WSW | 3.991E-06 | 9.181E-07 | 2.733E-07 | 1.345E-07 | 8.176E-08 | 3.466E-08 | 1.126E-08 | 4.964E-09 | 2.870E-09 | 1.888E-09 |
| W | 5.575E-06 | 1.289E-06 | 3.867E-07 | 1.912E-07 | 1.167E-07 | 4.986E-08 | 1.649E-08 | 7.412E-09 | 4.355E-09 | 2.906E-09 |
| WNW | 4.495E-06 | 1.016E-06 | 2.979E-07 | 1.454E-07 | 8.796E-08 | 3.710E-08 | 1.208E-08 | 5.417E-09 | 3.201E-09 | 2.134E-09 |
| NW | 6.441E-06 | 1.453E-06 | 4.297E-07 | 2.110E-07 | 1.283E-07 | 5.458E-08 | 1.810E-08 | 8.271E-09 | 4.974E-09 | 3.363E-09 |
| NNW | 5.642E-06 | 1.298E-06 | 3.954E-07 | 1.973E-07 | 1.215E-07 | 5.271E-08 | 1.794E-08 | 8.293E-09 | 4.971E-09 | 3.371E-09 |
| N | 7.906E-06 | 1.848E-06 | 5.729E-07 | 2.887E-07 | 1.788E-07 | 7.834E-08 | 2.704E-08 | 1.259E-08 | 7.569E-09 | 5.135E-09 |
| NNE | 4.447E-06 | 1.042E-06 | 3.244E-07 | 1.640E-07 | 1.017E-07 | 4.457E-08 | 1.537E-08 | 7.128E-09 | 4.262E-09 | 2.877E-09 |
| NE | 4.499E-06 | 1.064E-06 | 3.371E-07 | 1.720E-07 | 1.073E-07 | 4.746E-08 | 1.649E-08 | 7.637E-09 | 4.538E-09 | 3.040E-09 |
| ENE | 1.988E-06 | 4.710E-07 | 1.485E-07 | 7.562E-08 | 4.712E-08 | 2.083E-08 | 7.248E-09 | 3.369E-09 | 2.010E-09 | 1.352E-09 |
| E | 2.890E-06 | 6.785E-07 | 2.108E-07 | 1.064E-07 | 6.595E-08 | 2.891E-08 | 9.961E-09 | 4.621E-09 | 2.767E-09 | 1.872E-09 |
| ESE | 2.632E-06 | 6.140E-07 | 1.902E-07 | 9.594E-08 | 5.942E-08 | 2.603E-08 | 8.962E-09 | 4.154E-09 | 2.484E-09 | 1.677E-09 |
| SE | 5.854E-06 | 1.385E-06 | 4.413E-07 | 2.259E-07 | 1.412E-07 | 6.283E-08 | 2.208E-08 | 1.034E-08 | 6.198E-09 | 4.184E-09 |
| SSE | 7.698E-06 | 1.813E-06 | 5.662E-07 | 2.865E-07 | 1.779E-07 | 7.807E-08 | 2.686E-08 | 1.238E-08 | 7.345E-09 | 4.919E-09 |

VENTS GROUND LEVEL RELEASES - APR-JUN 1984
8.000 DAY DECAY. DEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.300 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 4.047E-05 | 1.337E-05 | 7.079E-06 | 3.497E-06 | 1.347E-06 | 7.047E-07 | 4.338E-07 | 2.931E-07 | 2.147E-07 | 1.640E-07 | 1.298E-07 |
| SSW | 2.610E-05 | 8.400E-06 | 4.324E-06 | 2.116E-06 | 8.258E-07 | 4.361E-07 | 2.703E-07 | 1.850E-07 | 1.352E-07 | 1.037E-07 | 8.242E-08 |
| SW | 2.222E-05 | 7.398E-06 | 3.930E-06 | 1.942E-06 | 7.465E-07 | 3.901E-07 | 2.399E-07 | 1.631E-07 | 1.186E-07 | 9.049E-08 | 7.161E-08 |
| WSW | 1.941E-05 | 6.938E-06 | 3.716E-06 | 1.826E-06 | 6.890E-07 | 3.553E-07 | 2.163E-07 | 1.457E-07 | 1.052E-07 | 7.977E-08 | 6.276E-08 |
| W | 2.804E-05 | 9.690E-06 | 5.180E-06 | 2.553E-06 | 9.679E-07 | 5.008E-07 | 3.055E-07 | 2.063E-07 | 1.492E-07 | 1.133E-07 | 8.928E-08 |
| WNW | 2.225E-05 | 7.884E-06 | 4.157E-06 | 2.027E-06 | 7.563E-07 | 3.868E-07 | 2.338E-07 | 1.567E-07 | 1.126E-07 | 8.503E-08 | 6.666E-08 |
| NW | 3.273E-05 | 1.135E-05 | 5.939E-06 | 2.889E-06 | 1.083E-06 | 5.562E-07 | 3.374E-07 | 2.268E-07 | 1.634E-07 | 1.237E-07 | 9.717E-08 |
| NNW | 2.920E-05 | 9.904E-06 | 5.211E-06 | 2.554E-06 | 9.768E-07 | 5.088E-07 | 3.122E-07 | 2.119E-07 | 1.539E-07 | 1.173E-07 | 9.275E-08 |
| N | 4.227E-05 | 1.382E-05 | 7.309E-06 | 3.611E-06 | 1.398E-06 | 7.343E-07 | 4.535E-07 | 3.094E-07 | 2.257E-07 | 1.727E-07 | 1.370E-07 |
| NNE | 2.410E-05 | 7.787E-06 | 4.105E-06 | 2.031E-06 | 7.897E-07 | 4.159E-07 | 2.573E-07 | 1.758E-07 | 1.284E-07 | 9.831E-08 | 7.805E-08 |
| NE | 2.469E-05 | 7.884E-06 | 4.155E-06 | 2.060E-06 | 8.115E-07 | 4.313E-07 | 2.687E-07 | 1.846E-07 | 1.354E-07 | 1.041E-07 | 8.294E-08 |
| ENE | 1.094E-05 | 3.471E-06 | 1.838E-06 | 9.137E-07 | 3.585E-07 | 1.901E-07 | 1.182E-07 | 8.108E-08 | 5.941E-08 | 4.564E-08 | 3.633E-08 |
| E | 1.515E-05 | 5.037E-06 | 2.676E-06 | 1.324E-06 | 5.137E-07 | 2.702E-07 | 1.671E-07 | 1.140E-07 | 8.323E-08 | 6.372E-08 | 5.056E-08 |
| ESE | 1.408E-05 | 4.612E-06 | 2.433E-06 | 1.200E-06 | 4.648E-07 | 2.443E-07 | 1.509E-07 | 1.030E-07 | 7.514E-08 | 5.751E-08 | 4.563E-08 |
| SE | 3.331E-05 | 1.029E-05 | 5.387E-06 | 2.675E-06 | 1.057E-06 | 5.631E-07 | 3.513E-07 | 2.417E-07 | 1.775E-07 | 1.366E-07 | 1.089E-07 |
| SSE | 4.244E-05 | 1.346E-05 | 7.115E-06 | 3.532E-06 | 1.377E-06 | 7.269E-07 | 4.504E-07 | 3.081E-07 | 2.252E-07 | 1.727E-07 | 1.372E-07 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.057E-07 | 5.091E-08 | 3.118E-08 | 1.630E-08 | 1.022E-08 | 7.071E-09 | 5.210E-09 | 4.010E-09 | 3.185E-09 | 2.592E-09 | 2.151E-09 |
| SSW | 6.733E-08 | 3.282E-08 | 2.028E-08 | 1.074E-08 | 6.786E-09 | 4.726E-09 | 3.500E-09 | 2.704E-09 | 2.155E-09 | 1.759E-09 | 1.462E-09 |
| SW | 5.828E-08 | 2.800E-08 | 1.712E-08 | 8.928E-09 | 5.589E-09 | 3.863E-09 | 2.843E-09 | 2.186E-09 | 1.734E-09 | 1.410E-09 | 1.169E-09 |
| WSW | 5.082E-08 | 2.391E-08 | 1.440E-08 | 7.341E-09 | 4.515E-09 | 3.077E-09 | 2.239E-09 | 1.704E-09 | 1.341E-09 | 1.082E-09 | 8.904E-10 |
| W | 7.239E-08 | 3.425E-08 | 2.072E-08 | 1.064E-08 | 6.592E-09 | 4.520E-09 | 3.306E-09 | 2.528E-09 | 1.997E-09 | 1.618E-09 | 1.337E-09 |
| WNW | 5.380E-08 | 2.501E-08 | 1.494E-08 | 7.551E-09 | 4.627E-09 | 3.149E-09 | 2.291E-09 | 1.745E-09 | 1.377E-09 | 1.111E-09 | 9.164E-10 |
| NW | 7.859E-08 | 3.686E-08 | 2.217E-08 | 1.133E-08 | 7.017E-09 | 4.816E-09 | 3.528E-09 | 2.703E-09 | 2.141E-09 | 1.739E-09 | 1.441E-09 |
| NNW | 7.544E-08 | 3.618E-08 | 2.211E-08 | 1.153E-08 | 7.231E-09 | 5.007E-09 | 3.693E-09 | 2.845E-09 | 2.263E-09 | 1.844E-09 | 1.532E-09 |
| N | 1.118E-07 | 5.419E-08 | 3.337E-08 | 1.760E-08 | 1.111E-08 | 7.736E-09 | 5.729E-09 | 4.428E-09 | 3.531E-09 | 2.884E-09 | 2.400E-09 |
| NNE | 6.371E-08 | 3.095E-08 | 1.908E-08 | 1.007E-08 | 6.355E-09 | 4.422E-09 | 3.273E-09 | 2.528E-09 | 2.015E-09 | 1.645E-09 | 1.368E-09 |
| NE | 6.790E-08 | 3.335E-08 | 2.071E-08 | 1.103E-08 | 6.997E-09 | 4.885E-09 | 3.624E-09 | 2.804E-09 | 2.237E-09 | 1.827E-09 | 1.520E-09 |
| ENE | 2.972E-08 | 1.458E-08 | 9.045E-09 | 4.812E-09 | 3.052E-09 | 2.130E-09 | 1.581E-09 | 1.223E-09 | 9.760E-10 | 7.975E-10 | 6.638E-10 |
| E | 4.126E-08 | 2.001E-08 | 1.232E-08 | 6.492E-09 | 4.090E-09 | 2.843E-09 | 2.102E-09 | 1.622E-09 | 1.292E-09 | 1.054E-09 | 8.768E-10 |
| ESE | 3.724E-08 | 1.808E-08 | 1.114E-08 | 5.876E-09 | 3.709E-09 | 2.581E-09 | 1.910E-09 | 1.475E-09 | 1.176E-09 | 9.598E-10 | 7.984E-10 |
| SE | 8.926E-08 | 4.403E-08 | 2.743E-08 | 1.467E-08 | 9.343E-09 | 6.543E-09 | 4.867E-09 | 3.774E-09 | 3.018E-09 | 2.470E-09 | 2.059E-09 |
| SSE | 1.121E-07 | 5.462E-08 | 3.374E-08 | 1.785E-08 | 1.128E-08 | 7.855E-09 | 5.813E-09 | 4.492E-09 | 3.579E-09 | 2.920E-09 | 2.427E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| DIRECTION FROM SITE | SEGMENT BOUNDARIES IN MILES .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| S | 6.884E-06 | 1.539E-06 | 4.506E-07 | 2.184E-07 | 1.310E-07 | 5.433E-08 | 1.691E-08 | 7.166E-09 | 4.039E-09 | 2.604E-09 |
| SSW | 4.249E-06 | 9.394E-07 | 2.804E-07 | 1.374E-07 | 8.314E-08 | 3.492E-08 | 1.110E-08 | 4.785E-09 | 2.722E-09 | 1.766E-09 |
| SW | 3.817E-06 | 8.537E-07 | 2.492E-07 | 1.206E-07 | 7.226E-08 | 2.989E-08 | 9.264E-09 | 3.915E-09 | 2.202E-09 | 1.417E-09 |
| WSW | 3.592E-06 | 7.933E-07 | 2.251E-07 | 1.071E-07 | 6.338E-08 | 2.566E-08 | 7.653E-09 | 3.125E-09 | 1.719E-09 | 1.088E-09 |
| W | 5.015E-06 | 1.113E-06 | 3.179E-07 | 1.518E-07 | 9.014E-08 | 3.671E-08 | 1.108E-08 | 4.587E-09 | 2.548E-09 | 1.626E-09 |
| WNW | 4.039E-06 | 8.744E-07 | 2.438E-07 | 1.147E-07 | 6.734E-08 | 2.694E-08 | 7.894E-09 | 3.200E-09 | 1.760E-09 | 1.117E-09 |
| NW | 5.786E-06 | 1.250E-06 | 3.515E-07 | 1.664E-07 | 9.814E-08 | 3.960E-08 | 1.182E-08 | 4.888E-09 | 2.725E-09 | 1.748E-09 |
| NNW | 5.073E-06 | 1.119E-06 | 3.245E-07 | 1.565E-07 | 9.361E-08 | 3.865E-08 | 1.197E-08 | 5.075E-09 | 2.866E-09 | 1.853E-09 |
| N | 7.112E-06 | 1.595E-06 | 4.707E-07 | 2.294E-07 | 1.382E-07 | 5.773E-08 | 1.822E-08 | 7.833E-09 | 4.458E-09 | 2.897E-09 |
| NNE | 4.002E-06 | 8.994E-07 | 2.670E-07 | 1.305E-07 | 7.874E-08 | 3.295E-08 | 1.042E-08 | 4.478E-09 | 2.546E-09 | 1.652E-09 |
| NE | 4.053E-06 | 9.201E-07 | 2.784E-07 | 1.375E-07 | 8.364E-08 | 3.541E-08 | 1.139E-08 | 4.944E-09 | 2.822E-09 | 1.835E-09 |
| ENE | 1.790E-06 | 4.070E-07 | 1.225E-07 | 6.035E-08 | 3.664E-08 | 1.549E-08 | 4.971E-09 | 2.156E-09 | 1.231E-09 | 8.009E-10 |
| E | 2.600E-06 | 5.835E-07 | 1.734E-07 | 8.460E-08 | 5.101E-08 | 2.132E-08 | 6.721E-09 | 2.875E-09 | 1.634E-09 | 1.059E-09 |
| ESE | 2.369E-06 | 5.302E-07 | 1.566E-07 | 7.638E-08 | 4.604E-08 | 1.925E-08 | 6.083E-09 | 2.613E-09 | 1.486E-09 | 9.641E-10 |
| SE | 5.271E-06 | 1.197E-06 | 3.639E-07 | 1.802E-07 | 1.098E-07 | 4.670E-08 | 1.514E-08 | 6.619E-09 | 3.798E-09 | 2.480E-09 |
| SSE | 6.932E-06 | 1.567E-06 | 4.672E-07 | 2.289E-07 | 1.384E-07 | 5.811E-08 | 1.846E-08 | 7.932E-09 | 4.522E-09 | 2.933E-09 |

8123

VENTS GROUND LEVEL RELEASES - APR-JUN 1984
CORRECTED FOR OPEN TERRAIN RECIRCULATION

**********  RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS  **********

| DIRECTION FROM SITE | DISTANCES IN MILES 0.25 | 0.50 | 0.75 | 1.00 | 1.50 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00 | 4.50 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 2.152E-07 | 7.278E-08 | 3.737E-08 | 1.777E-08 | 6.382E-09 | 3.165E-09 | 1.863E-09 | 1.220E-09 | 8.586E-10 | 6.363E-10 | 4.903E-10 |
| SSW | 9.681E-08 | 3.274E-08 | 1.681E-08 | 7.992E-09 | 2.871E-09 | 1.424E-09 | 8.382E-10 | 5.489E-10 | 3.862E-10 | 2.862E-10 | 2.206E-10 |
| SW | 9.552E-08 | 3.230E-08 | 1.659E-08 | 7.885E-09 | 2.832E-09 | 1.405E-09 | 8.271E-10 | 5.416E-10 | 3.811E-10 | 2.824E-10 | 2.176E-10 |
| WSW | 8.941E-08 | 3.023E-08 | 1.552E-08 | 7.380E-09 | 2.651E-09 | 1.315E-09 | 7.741E-10 | [illegible]9E-10 | 3.567E-10 | 2.643E-10 | 2.037E-10 |
| W | 1.576E-07 | 5.329E-08 | 2.736E-08 | 1.301E-08 | 4.672E-09 | 2.317E-09 | 1.364E-09 | [illegible]4E-10 | 6.286E-10 | 4.659E-10 | 3.590E-10 |
| WNW | 1.651E-07 | 5.583E-08 | 2.866E-08 | 1.363E-08 | 4.895E-09 | 2.428E-09 | 1.429E-09 | 9.359E-10 | 6.586E-10 | 4.881E-10 | 3.761E-10 |
| NW | 2.790E-07 | 9.436E-08 | 4.845E-08 | 2.303E-08 | 8.274E-09 | 4.103E-09 | 2.416E-09 | 1.582E-09 | 1.113E-09 | 8.249E-10 | 6.357E-10 |
| NNW | 1.943E-07 | 6.571E-08 | 3.374E-08 | 1.604E-08 | 5.761E-09 | 2.857E-09 | 1.682E-09 | 1.102E-09 | 7.751E-10 | 5.744E-10 | 4.427E-10 |
| N | 2.833E-07 | 9.578E-08 | 4.918E-08 | 2.338E-08 | 8.399E-09 | 4.165E-09 | 2.452E-09 | 1.606E-09 | 1.130E-09 | 8.374E-10 | 6.453E-10 |
| NNE | 1.264E-07 | 4.273E-08 | 2.194E-08 | 1.043E-08 | 3.747E-09 | 1.858E-09 | 1.094E-09 | 7.164E-10 | 5.041E-10 | 3.736E-10 | 2.879E-10 |
| NE | 7.496E-08 | 2.535E-08 | 1.301E-08 | 6.187E-09 | 2.223E-09 | 1.102E-09 | 6.490E-10 | 4.250E-10 | 2.990E-10 | 2.216E-10 | 1.708E-10 |
| ENE | 4.279E-08 | 1.447E-08 | 7.430E-09 | 3.532E-09 | 1.269E-09 | 6.292E-10 | 3.705E-10 | 2.426E-10 | 1.707E-10 | 1.265E-10 | 9.749E-11 |
| E | 8.133E-08 | 2.750E-08 | 1.412E-08 | 6.713E-09 | 2.411E-09 | 1.196E-09 | 7.042E-10 | 4.611E-10 | 3.244E-10 | 2.404E-10 | 1.853E-10 |
| ESE | 7.142E-08 | 2.415E-08 | 1.240E-08 | 5.893E-09 | 2.118E-09 | 1.050E-09 | 6.184E-10 | 4.049E-10 | 2.849E-10 | 2.111E-10 | 1.627E-10 |
| SE | 1.444E-07 | 4.882E-08 | 2.507E-08 | 1.192E-08 | 4.280E-09 | 2.123E-09 | 1.250E-09 | 8.184E-10 | 5.759E-10 | 4.268E-10 | 3.289E-10 |
| SSE | 1.985E-07 | 6.713E-08 | 3.447E-08 | 1.639E-08 | 5.886E-09 | 2.919E-09 | 1.719E-09 | 1.126E-09 | 7.920E-10 | 5.869E-10 | 4.523E-10 |

| DIRECTION FROM SITE | DISTANCES IN MILES 5.00 | 7.50 | 10.00 | 15.00 | 20.00 | 25.00 | 30.00 | 35.00 | 40.00 | 45.00 | 50.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.895E-10 | 1.730E-10 | 1.048E-10 | 5.298E-11 | 3.207E-11 | 2.150E-11 | 1.541E-11 | 1.157E-11 | 8.993E-12 | 7.185E-12 | 5.865E-12 |
| SSW | 1.752E-10 | 7.784E-11 | 4.715E-11 | 2.383E-11 | 1.443E-11 | 9.672E-12 | 6.930E-12 | 5.204E-12 | 4.046E-12 | 3.232E-12 | 2.638E-12 |
| SW | 1.729E-10 | 7.680E-11 | 4.652E-11 | 2.352E-11 | 1.424E-11 | 9.543E-12 | 6.838E-12 | 5.135E-12 | 3.992E-12 | 3.189E-12 | 2.603E-12 |
| WSW | 1.618E-10 | 7.188E-11 | 4.354E-11 | 2.201E-11 | [illegible]E-11 | 8.932E-12 | 6.400E-12 | 4.806E-12 | 3.737E-12 | 2.985E-12 | 2.436E-12 |
| W | 2.852E-10 | 1.267E-10 | 7.675E-11 | 3.879E-[illegible] | 2.348E-11 | 1.574E-11 | 1.128E-11 | 8.470E-12 | 6.586E-12 | 5.261E-12 | 4.294E-12 |
| WNW | 2.988E-10 | 1.327E-10 | 8.041E-11 | 4.064E-11 | 2.460E-11 | 1.649E-11 | 1.182E-11 | 8.874E-12 | 6.900E-12 | 5.511E-12 | 4.499E-12 |
| NW | 5.050E-10 | 2.244E-10 | 1.359E-10 | 6.869E-11 | 4.158E-11 | 2.788E-11 | 1.997E-11 | 1.500E-11 | 1.166E-11 | 9.316E-12 | 7.604E-12 |
| NNW | 3.517E-10 | 1.562E-10 | 9.464E-11 | 4.783E-11 | 2.895E-11 | 1.941E-11 | 1.391E-11 | 1.044E-11 | 8.121E-12 | 6.487E-12 | 5.295E-12 |
| N | 5.127E-10 | 2.277E-10 | 1.380E-10 | 6.973E-11 | 4.220E-11 | 2.829E-11 | 2.028E-11 | 1.523E-11 | 1.184E-11 | 9.456E-12 | 7.718E-12 |
| NNE | 2.287E-10 | 1.016E-10 | 6.155E-11 | 3.111E-11 | 1.883E-11 | 1.262E-11 | 9.046E-12 | 6.793E-12 | 5.282E-12 | 4.219E-12 | 3.444E-12 |
| NE | 1.357E-10 | 6.027E-11 | 3.651E-11 | 1.845E-11 | 1.117E-11 | 7.488E-12 | 5.366E-12 | 4.029E-12 | 3.133E-12 | 2.502E-12 | 2.043E-12 |
| ENE | 7.745E-11 | 3.441E-11 | 2.084E-11 | 1.053E-11 | 6.376E-12 | 4.275E-12 | 3.063E-12 | 2.300E-12 | 1.788E-12 | 1.429E-12 | 1.166E-12 |
| E | 1.472E-10 | 6.539E-11 | 3.961E-11 | 2.002E-11 | 1.212E-11 | 8.125E-12 | 5.822E-12 | 4.372E-12 | 3.399E-12 | 2.715E-12 | 2.216E-12 |
| ESE | 1.293E-10 | 5.742E-11 | 3.479E-11 | 1.758E-11 | 1.064E-11 | 7.135E-12 | 5.113E-12 | 3.839E-12 | 2.985E-12 | 2.384E-12 | 1.946E-12 |
| SE | 2.613E-10 | 1.161E-10 | 7.031E-11 | 3.554E-11 | 2.151E-11 | 1.442E-11 | 1.033E-11 | 7.760E-12 | 6.033E-12 | 4.820E-12 | 3.934E-12 |
| SSE | 3.593E-10 | 1.596E-10 | 9.669E-11 | 4.887E-11 | 2.958E-11 | 1.983E-11 | 1.421E-11 | 1.067E-11 | 8.297E-12 | 6.628E-12 | 5.410E-12 |

**********  RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS  **********

| DIRECTION FROM SITE | SEGMENT BOUNDARIES IN MILES .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.653E-08 | 7.482E-09 | 1.953E-09 | 8.772E-10 | 4.962E-10 | 1.908E-10 | 5.521E-11 | 2.188E-11 | 1.168E-11 | 7.232E-12 |
| SSW | 1.643E-08 | 3.365E-09 | 8.786E-10 | 3.946E-10 | 2.232E-10 | 8.584E-11 | 2.483E-11 | 9.843E-12 | 5.256E-12 | 3.253E-12 |
| SW | 1.621E-08 | 3.321E-09 | 8.669E-10 | 3.893E-10 | 2.202E-10 | 8.470E-11 | 2.450E-11 | 9.712E-12 | 5.186E-12 | 3.210E-12 |
| WSW | 1.517E-08 | 3.108E-09 | 8.113E-10 | 3.644E-10 | 2.061E-10 | 7.927E-11 | 2.293E-11 | 9.090E-12 | 4.854E-12 | 3.004E-12 |
| W | 2.674E-08 | 5.478E-09 | 1.430E-09 | 6.423E-10 | 3.633E-10 | 1.397E-10 | 4.042E-11 | 1.602E-11 | 8.555E-12 | 5.295E-12 |
| WNW | 2.802E-08 | 5.739E-09 | 1.498E-09 | 6.729E-10 | 3.806E-10 | 1.464E-10 | 4.235E-11 | 1.678E-11 | 8.963E-12 | 5.548E-12 |
| NW | 4.736E-08 | 9.700E-09 | 2.532E-09 | 1.137E-09 | 6.434E-10 | 2.474E-10 | 7.158E-11 | 2.837E-11 | 1.515E-11 | 9.377E-12 |
| NNW | 3.298E-08 | 6.755E-09 | 1.763E-09 | 7.920E-10 | 4.480E-10 | 1.723E-10 | 4.984E-11 | 1.975E-11 | 1.055E-11 | 6.530E-12 |
| N | 4.807E-08 | 9.846E-09 | 2.570E-09 | 1.154E-09 | 6.531E-10 | 2.512E-10 | 7.266E-11 | 2.880E-11 | 1.538E-11 | 9.518E-12 |
| NNE | 2.145E-08 | 4.393E-09 | 1.147E-09 | 5.151E-10 | 2.914E-10 | 1.121E-10 | 3.242E-11 | 1.285E-11 | 6.861E-12 | 4.247E-12 |
| NE | 1.272E-08 | 2.606E-09 | 6.802E-10 | 3.055E-10 | 1.728E-10 | 6.646E-11 | 1.923E-11 | 7.621E-12 | 4.070E-12 | 2.519E-12 |
| ENE | 7.262E-09 | 1.488E-09 | 3.883E-10 | 1.744E-10 | 9.867E-11 | 3.794E-11 | 1.098E-11 | 4.350E-12 | 2.323E-12 | 1.438E-12 |
| E | 1.380E-08 | 2.827E-09 | 7.381E-10 | 3.315E-10 | 1.875E-10 | 7.211E-11 | 2.086E-11 | 8.268E-12 | 4.415E-12 | 2.733E-12 |
| ESE | 1.212E-08 | 2.483E-09 | 6.481E-10 | 2.911E-10 | 1.647E-10 | 6.333E-11 | 1.832E-11 | 7.261E-12 | 3.878E-12 | 2.400E-12 |
| SE | 2.450E-08 | 5.018E-09 | 1.310E-09 | 5.884E-10 | 3.329E-10 | 1.280E-10 | 3.703E-11 | 1.468E-11 | 7.838E-12 | 4.851E-12 |
| SSE | 3.369E-08 | 6.901E-09 | 1.802E-09 | 8.091E-10 | 4.577E-10 | 1.760E-10 | 5.092E-11 | 2.018E-11 | 1.078E-11 | 6.671E-12 |

VENTS GROUND LEVEL RELEASES - APR-JUN 1984
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

| RELEASE ID | TYPE OF LOCATION | DIRECTION | DISTANCE (MILES) | DISTANCE (METERS) | X/Q (SEC/CUB METER) NO DECAY UNDEPLETED | X/Q (SEC/CUB METER) 2.260 DAY DECAY UNDEPLETED | X/Q (SEC/CUB METER) 8.000 DAY DECAY DEPLETED | D/Q (PER SQ METER) |
|---|---|---|---|---|---|---|---|---|
| A | SITE BOUNDARY | S | 0.89 | 1430. | 5.300E-06 | 5.269E-06 | 4.667E-06 | 2.412E-08 |
| A | SITE BOUNDARY | SSW | 0.92 | 1480. | 2.957E-06 | 2.936E-06 | 2.598E-06 | 9.920E-09 |
| A | SITE BOUNDARY | SW | 1.09 | 1750. | 1.827E-06 | 1.813E-06 | 1.587E-06 | 6.356E-09 |
| A | SITE BOUNDARY | WSW | 0.94 | 1510. | 2.434E-06 | 2.418E-06 | 2.135E-06 | 8.696E-09 |
| A | SITE BOUNDARY | W | 0.93 | 1500. | 3.456E-06 | 3.436E-06 | 3.034E-06 | 1.559E-08 |
| A | SITE BOUNDARY | WNW | 0.96 | 1540. | 2.578E-06 | 2.569E-06 | 2.261E-06 | 1.526E-08 |
| A | SITE BOUNDARY | NW | 0.72 | 1160. | 7.090E-06 | 7.075E-06 | 6.329E-06 | 5.178E-08 |
| A | SITE BOUNDARY | NNW | 0.62 | 1000. | 7.811E-06 | 7.787E-06 | 7.026E-06 | 4.627E-08 |
| A | SITE BOUNDARY | N | 0.65 | 1050. | 1.013E-05 | 1.009E-05 | 9.084E-06 | 6.215E-08 |
| A | SITE BOUNDARY | NNE | 0.63 | 1010. | 6.031E-06 | 6.006E-06 | 5.420E-06 | 2.959E-08 |
| A | SITE BOUNDARY | NE | 0.64 | 1030. | 5.929E-06 | 5.896E-06 | 5.321E-06 | 1.699E-08 |
| A | SITE BOUNDARY | ENE | 0.62 | 1000. | 2.735E-06 | 2.721E-06 | 2.458E-06 | 1.019E-08 |
| A | SITE BOUNDARY | E | 0.61 | 980. | 4.109E-06 | 4.093E-06 | 3.701E-06 | 1.992E-08 |
| A | SITE BOUNDARY | ESE | 0.61 | 980. | 3.748E-06 | 3.732E-06 | 3.376E-06 | 1.749E-08 |
| A | SITE BOUNDARY | SE | 1.06 | 1700. | 2.704E-06 | 2.681E-06 | 2.352E-06 | 1.035E-08 |
| A | SITE BOUNDARY | SSE | 0.91 | 1460. | 5.084E-06 | 5.047E-06 | 4.469E-06 | 2.107E-08 |
| A | NEAR. RESIDENCE | SSW | 1.30 | 2092. | 1.336E-06 | 1.323E-06 | 1.145E-06 | 4.099E-09 |
| A | NEAR. RESIDENCE | SW | 1.30 | 2092. | 1.214E-06 | 1.202E-06 | 1.040E-06 | 4.045E-09 |
| A | NEAR. RESIDENCE | W | 1.00 | 1609. | 2.922E-06 | 2.904E-06 | 2.553E-06 | 1.301E-08 |
| A | NEAR. RESIDENCE | NW | 0.90 | 1448. | 4.272E-06 | 4.260E-06 | 3.762E-06 | 3.026E-08 |
| A | NEAR. RESIDENCE | NNW | 1.90 | 3058. | 6.877E-07 | 6.809E-07 | 5.705E-07 | 3.233E-09 |
| A | NEAREST COW | W | 2.30 | 3702. | 4.508E-07 | 4.444E-07 | 3.668E-07 | 1.660E-09 |
| A | NEAREST COW | NNW | 3.50 | 5633. | 1.982E-07 | 1.945E-07 | 1.538E-07 | 7.750E-10 |
| A | NEAREST GARDEN | SSW | 1.30 | 2092. | 1.336E-06 | 1.323E-06 | 1.145E-06 | 4.099E-09 |
| A | NEAREST GARDEN | SW | 1.30 | 2092. | 1.214E-06 | 1.202E-06 | 1.040E-06 | 4.045E-09 |
| A | NEAREST GARDEN | W | 1.00 | 1609. | 2.922E-06 | 2.904E-06 | 2.553E-06 | 1.301E-08 |
| A | NEAREST GARDEN | NW | 2.70 | 4345. | 3.555E-07 | 3.525E-07 | 2.850E-07 | 2.019E-09 |
| A | NEAREST GARDEN | NNW | 1.90 | 3058. | 6.877E-07 | 6.809E-07 | 5.705E-07 | 3.233E-09 |

Atmospheric Diffusion Estimates
Ground-Level Releases
January-June 1984

Note: See explanation on page B113.

VENTS GROUND LEVEL RELEASES - JAN-JUN 1984
NO DECAY. UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.813E-05 | 1.305E-05 | 7.036E-06 | 3.519E-06 | 1.384E-06 | 7.379E-07 | 4.622E-07 | 3.196E-07 | 2.361E-07 | 1.829E-07 | 1.468E-07 |
| SSW | 2.160E-05 | 7.357E-06 | 3.903E-06 | 1.942E-06 | 7.708E-07 | 4.139E-07 | 2.607E-07 | 1.811E-07 | 1.343E-07 | 1.044E-07 | 8.399E-08 |
| SW | 2.360E-05 | 8.377E-06 | 4.566E-06 | 2.290E-06 | 8.992E-07 | 4.790E-07 | 2.998E-07 | 2.071E-07 | 1.528E-07 | 1.183E-07 | 9.485E-08 |
| WSW | 1.837E-05 | 6.800E-06 | 3.715E-06 | 1.855E-06 | 7.197E-07 | 3.800E-07 | 2.361E-07 | 1.621E-07 | 1.190E-07 | 9.172E-08 | 7.324E-08 |
| W | 2.356E-05 | 8.499E-06 | 4.650E-06 | 2.330E-06 | 9.088E-07 | 4.818E-07 | 3.003E-07 | 2.067E-07 | 1.522E-07 | 1.175E-07 | 9.399E-08 |
| WNW | 2.203E-05 | 8.087E-06 | 4.379E-06 | 2.175E-06 | 8.382E-07 | 4.403E-07 | 2.725E-07 | 1.865E-07 | 1.366E-07 | 1.050E-07 | 8.364E-08 |
| NW | 3.380E-05 | 1.226E-05 | 6.650E-06 | 3.314E-06 | 1.288E-06 | 6.810E-07 | 4.237E-07 | 2.913E-07 | 2.141E-07 | 1.652E-07 | 1.320E-07 |
| NNW | 2.911E-05 | 9.944E-06 | 5.437E-06 | 2.746E-06 | 1.094E-06 | 5.887E-07 | 3.713E-07 | 2.581E-07 | 1.915E-07 | 1.489E-07 | 1.199E-07 |
| N | 4.215E-05 | 1.399E-05 | 7.624E-06 | 3.861E-06 | 1.553E-06 | 8.416E-07 | 5.337E-07 | 3.727E-07 | 2.776E-07 | 2.166E-07 | 1.749E-07 |
| NNE | 3.143E-05 | 1.039E-05 | 5.675E-06 | 2.881E-06 | 1.164E-06 | 6.327E-07 | 4.020E-07 | 2.812E-07 | 2.097E-07 | 1.638E-07 | 1.324E-07 |
| NE | 3.152E-05 | 1.045E-05 | 5.688E-06 | 2.881E-06 | 1.169E-06 | 6.372E-07 | 4.059E-07 | 2.844E-07 | 2.125E-07 | 1.662E-07 | 1.345E-07 |
| ENE | 3.239E-05 | 1.068E-05 | 5.878E-06 | 2.998E-06 | 1.215E-06 | 6.618E-07 | 4.213E-07 | 2.950E-07 | 2.203E-07 | 1.722E-07 | 1.393E-07 |
| E | 2.988E-05 | 1.021E-05 | 5.574E-06 | 2.813E-06 | 1.127E-06 | 6.089E-07 | 3.854E-07 | 2.687E-07 | 1.999E-07 | 1.557E-07 | 1.257E-07 |
| ESE | 2.501E-05 | 8.567E-06 | 4.683E-06 | 2.364E-06 | 9.428E-07 | 5.080E-07 | 3.208E-07 | 2.232E-07 | 1.658E-07 | 1.290E-07 | 1.040E-07 |
| SE | 4.551E-05 | 1.533E-05 | 8.245E-06 | 4.135E-06 | 1.649E-06 | 8.884E-07 | 5.610E-07 | 3.904E-07 | 2.901E-07 | 2.258E-07 | 1.820E-07 |
| SSE | 4.309E-05 | 1.444E-05 | 7.773E-06 | 3.901E-06 | 1.550E-06 | 8.329E-07 | 5.248E-07 | 3.646E-07 | 2.704E-07 | 2.102E-07 | 1.692E-07 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.211E-07 | 6.150E-08 | 3.953E-08 | 2.242E-08 | 1.508E-08 | 1.111E-08 | 8.662E-09 | 7.028E-09 | 5.867E-09 | 5.006E-09 | 4.346E-09 |
| SSW | 6.947E-08 | 3.562E-08 | 2.306E-08 | 1.321E-08 | 8.943E-09 | 6.623E-09 | 5.190E-09 | 4.227E-09 | 3.541E-09 | 3.031E-09 | 2.639E-09 |
| SW | 7.818E-08 | 3.951E-08 | 2.529E-08 | 1.426E-08 | 9.529E-09 | 6.985E-09 | 5.426E-09 | 4.386E-09 | 3.650E-09 | 3.106E-09 | 2.689E-09 |
| WSW | 6.014E-08 | 2.994E-08 | 1.895E-08 | 1.050E-08 | 6.923E-09 | 5.020E-09 | 3.864E-09 | 3.099E-09 | 2.561E-09 | 2.165E-09 | 1.864E-09 |
| W | 7.731E-08 | 3.876E-08 | 2.467E-08 | 1.378E-08 | 9.154E-09 | 6.677E-09 | 5.164E-09 | 4.159E-09 | 3.450E-09 | 2.927E-09 | 2.527E-09 |
| WNW | 6.854E-08 | 3.387E-08 | 2.132E-08 | 1.174E-08 | 7.717E-09 | 5.583E-09 | 4.290E-09 | 3.436E-09 | 2.836E-09 | 2.395E-09 | 2.060E-09 |
| NW | 1.085E-07 | 5.423E-08 | 3.444E-08 | 1.919E-08 | 1.274E-08 | 9.285E-09 | 7.179E-09 | 5.780E-09 | 4.793E-09 | 4.065E-09 | 3.509E-09 |
| NNW | 9.923E-08 | 5.089E-08 | 3.293E-08 | 1.884E-08 | 1.273E-08 | 9.413E-09 | 7.364E-09 | 5.988E-09 | 5.009E-09 | 4.281E-09 | 3.721E-09 |
| N | 1.451E-07 | 7.515E-08 | 4.897E-08 | 2.831E-08 | 1.928E-08 | 1.434E-08 | 1.127E-08 | 9.203E-09 | 7.726E-09 | 6.624E-09 | 5.774E-09 |
| NNE | 1.099E-07 | 5.710E-08 | 3.728E-08 | 2.160E-08 | 1.472E-08 | 1.096E-08 | 8.619E-09 | 7.041E-09 | 5.913E-09 | 5.071E-09 | 4.422E-09 |
| NE | 1.118E-07 | 5.834E-08 | 3.821E-08 | 2.224E-08 | 1.520E-08 | 1.134E-08 | 8.932E-09 | 7.308E-09 | 6.145E-09 | 5.276E-09 | 4.605E-09 |
| ENE | 1.158E-07 | 6.030E-08 | 3.945E-08 | 2.291E-08 | 1.563E-08 | 1.164E-08 | 9.161E-09 | 7.487E-09 | 6.290E-09 | 5.396E-09 | 4.706E-09 |
| E | 1.041E-07 | 5.376E-08 | 3.495E-08 | 2.013E-08 | 1.367E-08 | 1.014E-08 | 7.958E-09 | 6.488E-09 | 5.439E-09 | 4.657E-09 | 4.055E-09 |
| ESE | 8.607E-08 | 4.426E-08 | 2.870E-08 | 1.647E-08 | 1.115E-08 | 8.260E-09 | 6.470E-09 | 5.267E-09 | 4.410E-09 | 3.773E-09 | 3.282E-09 |
| SE | 1.507E-07 | 7.768E-08 | 5.046E-08 | 2.905E-08 | 1.972E-08 | 1.463E-08 | 1.148E-08 | 9.365E-09 | 7.853E-09 | 6.727E-09 | 5.860E-09 |
| SSE | 1.400E-07 | 7.187E-08 | 4.655E-08 | 2.669E-08 | 1.808E-08 | 1.339E-08 | 1.049E-08 | 8.545E-09 | 7.158E-09 | 6.126E-09 | 5.332E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| DIRECTION FROM SITE | SEGMENT BOUNDARIES IN MILES .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| S | 6.811E-06 | 1.571E-06 | 4.787E-07 | 2.397E-07 | 1.480E-07 | 6.498E-08 | 2.296E-08 | 1.119E-08 | 7.052E-09 | 5.017E-09 |
| SSW | 3.799E-06 | 8.724E-07 | 2.697E-07 | 1.362E-07 | 8.465E-08 | 3.756E-08 | 1.350E-08 | 6.668E-09 | 4.241E-09 | 3.037E-09 |
| SW | 4.401E-06 | 1.021E-06 | 3.105E-07 | 1.552E-07 | 9.562E-08 | 4.178E-08 | 1.461E-08 | 7.040E-09 | 4.403E-09 | 3.113E-09 |
| WSW | 3.574E-06 | 8.210E-07 | 2.449E-07 | 1.209E-07 | 7.386E-08 | 3.177E-08 | 1.079E-08 | 5.065E-09 | 3.113E-09 | 2.171E-09 |
| W | 4.474E-06 | 1.035E-06 | 3.113E-07 | 1.545E-07 | 9.477E-08 | 4.106E-08 | 1.414E-08 | 6.732E-09 | 4.176E-09 | 2.934E-09 |
| WNW | 4.224E-06 | 9.585E-07 | 2.829E-07 | 1.388E-07 | 8.436E-08 | 3.600E-08 | 1.208E-08 | 5.635E-09 | 3.451E-09 | 2.401E-09 |
| NW | 6.413E-06 | 1.468E-06 | 4.394E-07 | 2.175E-07 | 1.331E-07 | 5.749E-08 | 1.971E-08 | 9.363E-09 | 5.803E-09 | 4.075E-09 |
| NNW | 5.243E-06 | 1.237E-06 | 3.840E-07 | 1.943E-07 | 1.209E-07 | 5.365E-08 | 1.926E-08 | 9.479E-09 | 6.008E-09 | 4.290E-09 |
| N | 7.367E-06 | 1.750E-06 | 5.514E-07 | 2.815E-07 | 1.762E-07 | 7.906E-08 | 2.889E-08 | 1.443E-08 | 9.231E-09 | 6.636E-09 |
| NNE | 5.482E-06 | 1.310E-06 | 4.152E-07 | 2.126E-07 | 1.334E-07 | 6.003E-08 | 2.203E-08 | 1.103E-08 | 7.062E-09 | 5.080E-09 |
| NE | 5.500E-06 | 1.313E-06 | 4.190E-07 | 2.154E-07 | 1.355E-07 | 6.128E-08 | 2.266E-08 | 1.141E-08 | 7.329E-09 | 5.285E-09 |
| ENE | 5.665E-06 | 1.365E-06 | 4.349E-07 | 2.233E-07 | 1.403E-07 | 6.335E-08 | 2.335E-08 | 1.171E-08 | 7.509E-09 | 5.405E-09 |
| E | 5.377E-06 | 1.271E-06 | 3.983E-07 | 2.027E-07 | 1.266E-07 | 5.660E-08 | 2.055E-08 | 1.021E-08 | 6.508E-09 | 4.666E-09 |
| ESE | 4.515E-06 | 1.065E-06 | 3.317E-07 | 1.682E-07 | 1.048E-07 | 4.664E-08 | 1.682E-08 | 8.315E-09 | 5.284E-09 | 3.780E-09 |
| SE | 7.992E-06 | 1.863E-06 | 5.801E-07 | 2.942E-07 | 1.834E-07 | 8.181E-08 | 2.966E-08 | 1.473E-08 | 9.394E-09 | 6.740E-09 |
| SSE | 7.533E-06 | 1.754E-06 | 5.429E-07 | 2.744E-07 | 1.706E-07 | 7.576E-08 | 2.728E-08 | 1.348E-08 | 8.573E-09 | 6.138E-09 |

B127

VENTS GROUND LEVEL RELEASES - JAN-JUN 1984
2.260 DAY DECAY. UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.806E-05 | 1.301E-05 | 7.001E-06 | 3.496E-06 | 1.370E-06 | 7.277E-07 | 4.542E-07 | 3.129E-07 | 2.303E-07 | 1.777E-07 | 1.421E-07 |
| SSW | 2.156E-05 | 7.331E-06 | 3.882E-06 | 1.928E-06 | 7.622E-07 | 4.077E-07 | 2.557E-07 | 1.769E-07 | 1.306E-07 | 1.011E-07 | 8.101E-08 |
| SW | 2.356E-05 | 8.348E-06 | 4.543E-06 | 2.274E-06 | 8.896E-07 | 4.722E-07 | 2.944E-07 | 2.026E-07 | 1.489E-07 | 1.148E-07 | 9.173E-08 |
| WSW | 1.835E-05 | 6.779E-06 | 3.697E-06 | 1.843E-06 | 7.127E-07 | 3.750E-07 | 2.323E-07 | 1.589E-07 | 1.163E-07 | 8.932E-08 | 7.109E-08 |
| W | 2.353E-05 | 8.474E-06 | 4.629E-06 | 2.316E-06 | 9.003E-07 | 4.737E-07 | 2.955E-07 | 2.028E-07 | 1.488E-07 | 1.145E-07 | 9.128E-08 |
| WNW | 2.201E-05 | 8.073E-06 | 4.368E-06 | 2.168E-06 | 8.339E-07 | 4.373E-07 | 2.702E-07 | 1.846E-07 | 1.349E-07 | 1.035E-07 | 8.234E-08 |
| NW | 3.377E-05 | 1.223E-05 | 6.632E-06 | 3.302E-06 | 1.281E-06 | 6.759E-07 | 4.198E-07 | 2.880E-07 | 2.113E-07 | 1.626E-07 | 1.298E-07 |
| NNW | 2.906E-05 | 9.910E-06 | 5.409E-06 | 2.727E-06 | 1.082E-06 | 5.803E-07 | 3.646E-07 | 2.525E-07 | 1.867E-07 | 1.446E-07 | 1.160E-07 |
| N | 4.207E-05 | 1.394E-05 | 7.582E-06 | 3.832E-06 | 1.536E-06 | 8.290E-07 | 5.236E-07 | 3.641E-07 | 2.702E-07 | 2.099E-07 | 1.689E-07 |
| NNE | 3.137E-05 | 1.035E-05 | 5.645E-06 | 2.861E-06 | 1.132E-06 | 6.234E-07 | 3.946E-07 | 2.750E-07 | 2.043E-07 | 1.590E-07 | 1.280E-07 |
| NE | 3.146E-05 | 1.042E-05 | 5.656E-06 | 2.860E-06 | 1.136E-06 | 6.277E-07 | 3.983E-07 | 2.780E-07 | 2.069E-07 | 1.612E-07 | 1.300E-07 |
| ENE | 3.232E-05 | 1.064E-05 | 5.844E-06 | 2.974E-06 | 1.201E-06 | 6.513E-07 | 4.128E-07 | 2.879E-07 | 2.141E-07 | 1.667E-07 | 1.343E-07 |
| E | 2.982E-05 | 1.017E-05 | 5.542E-06 | 2.792E-06 | 1.114E-06 | 5.994E-07 | 3.778E-07 | 2.623E-07 | 1.943E-07 | 1.508E-07 | 1.212E-07 |
| ESE | 2.495E-05 | 8.532E-06 | 4.654E-06 | 2.344E-06 | 9.309E-07 | 4.994E-07 | 3.139E-07 | 2.175E-07 | 1.608E-07 | 1.246E-07 | 9.996E-08 |
| SE | 4.543E-05 | 1.527E-05 | 8.201E-06 | 4.106E-06 | 1.631E-06 | 8.753E-07 | 5.505E-07 | 3.816E-07 | 2.824E-07 | 2.189E-07 | 1.757E-07 |
| SSE | 4.300E-05 | 1.438E-05 | 7.729E-06 | 3.871E-06 | 1.532E-06 | 8.196E-07 | 5.142E-07 | 3.557E-07 | 2.627E-07 | 2.033E-07 | 1.630E-07 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.168E-07 | 5.822E-08 | 3.672E-08 | 2.008E-08 | 1.303E-08 | 9.268E-09 | 6.990E-09 | 5.489E-09 | 4.441E-09 | 3.675E-09 | 3.097E-09 |
| SSW | 6.673E-08 | 3.349E-08 | 2.122E-08 | 1.166E-08 | 7.574E-09 | 5.388E-09 | 4.060E-09 | 3.184E-09 | 2.570E-09 | 2.123E-09 | 1.784E-09 |
| SW | 7.532E-08 | 3.734E-08 | 2.346E-08 | 1.273E-08 | 8.205E-09 | 5.804E-09 | 4.354E-09 | 3.403E-09 | 2.741E-09 | 2.256E-09 | 1.895E-09 |
| WSW | 5.818E-08 | 2.848E-08 | 1.773E-08 | 9.506E-09 | 6.072E-09 | 4.268E-09 | 3.187E-09 | 2.481E-09 | 1.991E-09 | 1.637E-09 | 1.370E-09 |
| W | 7.483E-08 | 3.690E-08 | 2.310E-08 | 1.249E-08 | 8.038E-09 | 5.684E-09 | 4.267E-09 | 3.338E-09 | 2.691E-09 | 2.221E-09 | 1.866E-09 |
| WNW | 6.736E-08 | 3.299E-08 | 2.059E-08 | 1.114E-08 | 7.201E-09 | 5.124E-09 | 3.873E-09 | 3.052E-09 | 2.480E-09 | 2.062E-09 | 1.746E-09 |
| NW | 1.064E-07 | 5.267E-08 | 3.312E-08 | 1.811E-08 | 1.179E-08 | 8.434E-09 | 6.402E-09 | 5.063E-09 | 4.126E-09 | 3.439E-09 | 2.920E-09 |
| NNW | 9.561E-08 | 4.811E-08 | 3.054E-08 | 1.684E-08 | 1.097E-08 | 7.834E-09 | 5.924E-09 | 4.662E-09 | 3.779E-09 | 3.132E-09 | 2.643E-09 |
| N | 1.395E-07 | 7.082E-08 | 4.525E-08 | 2.516E-08 | 1.650E-08 | 1.184E-08 | 8.984E-09 | 7.093E-09 | 5.764E-09 | 4.789E-09 | 4.050E-09 |
| NNE | 1.059E-07 | 5.395E-08 | 3.457E-08 | 1.931E-08 | 1.270E-08 | 9.132E-09 | 6.948E-09 | 5.497E-09 | 4.477E-09 | 3.727E-09 | 3.157E-09 |
| NE | 1.076E-07 | 5.510E-08 | 3.541E-08 | 1.986E-08 | 1.310E-08 | 9.445E-09 | 7.200E-09 | 5.706E-09 | 4.653E-09 | 3.879E-09 | 3.290E-09 |
| ENE | 1.111E-07 | 5.671E-08 | 3.635E-08 | 2.029E-08 | 1.332E-08 | 9.564E-09 | 7.263E-09 | 5.735E-09 | 4.661E-09 | 3.873E-09 | 3.275E-09 |
| E | 1.000E-07 | 5.058E-08 | 3.223E-08 | 1.784E-08 | 1.166E-08 | 8.335E-09 | 6.309E-09 | 4.968E-09 | 4.027E-09 | 3.338E-09 | 2.816E-09 |
| ESE | 8.239E-08 | 4.145E-08 | 2.629E-08 | 1.445E-08 | 9.390E-09 | 6.679E-09 | 5.032E-09 | 3.944E-09 | 3.134E-09 | 2.629E-09 | 2.210E-09 |
| SE | 1.450E-07 | 7.324E-08 | 4.663E-08 | 2.581E-08 | 1.686E-08 | 1.206E-08 | 9.132E-09 | 7.194E-09 | 5.834E-09 | 4.838E-09 | 4.084E-09 |
| SSE | 1.343E-07 | 6.744E-08 | 4.274E-08 | 2.349E-08 | 1.526E-08 | 1.086E-08 | 8.190E-09 | 6.423E-09 | 5.191E-09 | 4.290E-09 | 3.609E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| DIRECTION FROM SITE | .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| | SEGMENT BOUNDARIES IN MILES | | | | | | | | | |
| S | 6.779E-06 | 1.557E-06 | 4.706E-07 | 2.339E-07 | 1.433E-07 | 6.168E-08 | 2.064E-08 | 9.359E-09 | 5.519E-09 | 3.688E-09 |
| SSW | 3.780E-06 | 8.636E-07 | 2.647E-07 | 1.326E-07 | 8.167E-08 | 3.543E-08 | 1.197E-08 | 5.440E-09 | 3.200E-09 | 2.130E-09 |
| SW | 4.380E-06 | 1.012E-06 | 3.031E-07 | 1.513E-07 | 9.250E-08 | 3.961E-08 | 1.310E-08 | 5.864E-09 | 3.423E-09 | 2.267E-09 |
| WSW | 3.358E-06 | 8.138E-07 | 2.410E-07 | 1.182E-07 | 7.171E-08 | 3.030E-08 | 9.808E-09 | 4.316E-09 | 2.496E-09 | 1.643E-09 |
| W | 4.455E-06 | 1.026E-06 | 3.063E-07 | 1.511E-07 | 9.206E-08 | 3.919E-08 | 1.287E-08 | 5.745E-09 | 3.357E-09 | 2.229E-09 |
| WNW | 4.214E-06 | 9.541E-07 | 2.805E-07 | 1.371E-07 | 8.306E-08 | 3.512E-08 | 1.149E-08 | 5.178E-09 | 3.069E-09 | 2.069E-09 |
| NW | 6.397E-06 | 1.461E-06 | 4.354E-07 | 2.147E-07 | 1.309E-07 | 5.593E-08 | 1.864E-08 | 8.516E-09 | 5.089E-09 | 3.450E-09 |
| NNW | 5.218E-06 | 1.225E-06 | 3.773E-07 | 1.895E-07 | 1.169E-07 | 5.086E-08 | 1.728E-08 | 7.908E-09 | 4.686E-09 | 3.143E-09 |
| N | 7.329E-06 | 1.732E-06 | 5.412E-07 | 2.741E-07 | 1.702E-07 | 7.472E-08 | 2.578E-08 | 1.194E-08 | 7.127E-09 | 4.805E-09 |
| NNE | 5.454E-06 | 1.297E-06 | 4.078E-07 | 2.072E-07 | 1.290E-07 | 5.687E-08 | 1.976E-08 | 9.210E-09 | 5.523E-09 | 3.738E-09 |
| NE | 5.471E-06 | 1.300E-06 | 4.113E-07 | 2.098E-07 | 1.310E-07 | 5.802E-08 | 2.031E-08 | 9.523E-09 | 5.732E-09 | 3.890E-09 |
| ENE | 5.633E-06 | 1.351E-06 | 4.265E-07 | 2.171E-07 | 1.353E-07 | 5.975E-08 | 2.076E-08 | 9.646E-09 | 5.763E-09 | 3.885E-09 |
| E | 5.348E-06 | 1.258E-06 | 3.907E-07 | 1.972E-07 | 1.221E-07 | 5.340E-08 | 1.829E-08 | 8.410E-09 | 4.992E-09 | 3.349E-09 |
| ESE | 4.489E-06 | 1.053E-06 | 3.248E-07 | 1.632E-07 | 1.008E-07 | 4.381E-08 | 1.483E-08 | 6.743E-09 | 3.965E-09 | 2.638E-09 |
| SE | 7.952E-06 | 1.845E-06 | 5.696E-07 | 2.866E-07 | 1.771E-07 | 7.735E-08 | 2.646E-08 | 1.217E-08 | 7.229E-09 | 4.854E-09 |
| SSE | 7.493E-06 | 1.735E-06 | 5.322E-07 | 2.667E-07 | 1.643E-07 | 7.131E-08 | 2.411E-08 | 1.097E-08 | 6.459E-09 | 4.305E-09 |

VENTS GROUND LEVEL RELEASES - JAN-JUN 1984
8.000 DAY DECAY, DEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.607E-05 | 1.191E-05 | 6.261E-06 | 3.075E-06 | 1.172E-06 | 6.086E-07 | 3.726E-07 | 2.523E-07 | 1.829E-07 | 1.393E-07 | 1.100E-07 |
| SSW | 2.043E-05 | 6.712E-06 | 3.473E-06 | 1.696E-06 | 6.525E-07 | 3.413E-07 | 2.100E-07 | 1.429E-07 | 1.039E-07 | 7.938E-08 | 6.285E-08 |
| SW | 2.232E-05 | 7.643E-06 | 4.063E-06 | 2.000E-06 | 7.613E-07 | 3.950E-07 | 2.416E-07 | 1.634E-07 | 1.184E-07 | 9.004E-08 | 7.103E-08 |
| WSW | 1.738E-05 | 6.204E-06 | 3.306E-06 | 1.621E-06 | 6.095E-07 | 3.135E-07 | 1.904E-07 | 1.281E-07 | 9.228E-08 | 6.988E-08 | 5.491E-08 |
| W | 2.229E-05 | 7.755E-06 | 4.139E-06 | 2.036E-06 | 7.698E-07 | 3.975E-07 | 2.421E-07 | 1.633E-07 | 1.180E-07 | 8.951E-08 | 7.047E-08 |
| WNW | 2.085E-05 | 7.382E-06 | 3.899E-06 | 1.902E-06 | 7.108E-07 | 3.639E-07 | 2.202E-07 | 1.477E-07 | 1.062E-07 | 8.025E-08 | 6.295E-08 |
| NW | 3.198E-05 | 1.119E-05 | 5.921E-06 | 2.898E-06 | 1.092E-06 | 5.627E-07 | 3.423E-07 | 2.306E-07 | 1.665E-07 | 1.262E-07 | 9.933E-08 |
| NNW | 2.754E-05 | 9.072E-06 | 4.838E-06 | 2.399E-06 | 9.263E-07 | 4.855E-07 | 2.992E-07 | 2.037E-07 | 1.484E-07 | 1.134E-07 | 8.982E-08 |
| N | 3.987E-05 | 1.277E-05 | 6.783E-06 | 3.372E-06 | 1.315E-06 | 6.939E-07 | 4.300E-07 | 2.941E-07 | 2.149E-07 | 1.648E-07 | 1.309E-07 |
| NNE | 2.973E-05 | 9.480E-06 | 5.050E-06 | 2.517E-06 | 9.857E-07 | 5.217E-07 | 3.239E-07 | 2.219E-07 | 1.624E-07 | 1.247E-07 | 9.914E-08 |
| NE | 2.982E-05 | 9.537E-06 | 5.060E-06 | 2.517E-06 | 9.896E-07 | 5.234E-07 | 3.270E-07 | 2.245E-07 | 1.646E-07 | 1.265E-07 | 1.007E-07 |
| ENE | 3.063E-05 | 9.740E-06 | 5.230E-06 | 2.618E-06 | 1.029E-06 | 5.455E-07 | 3.393E-07 | 2.327E-07 | 1.705E-07 | 1.310E-07 | 1.042E-07 |
| E | 2.826E-05 | 9.314E-06 | 4.959E-06 | 2.457E-06 | 9.539E-07 | 5.020E-07 | 3.104E-07 | 2.119E-07 | 1.547E-07 | 1.185E-07 | 9.402E-08 |
| ESE | 2.365E-05 | 7.814E-06 | 4.166E-06 | 2.064E-06 | 7.978E-07 | 4.186E-07 | 2.582E-07 | 1.760E-07 | 1.282E-07 | 9.806E-08 | 7.773E-08 |
| SE | 4.305E-05 | 1.398E-05 | 7.336E-06 | 3.612E-06 | 1.396E-06 | 7.325E-07 | 4.520E-07 | 3.081E-07 | 2.246E-07 | 1.718E-07 | 1.362E-07 |
| SSE | 4.076E-05 | 1.317E-05 | 6.916E-06 | 3.408E-06 | 1.312E-06 | 6.865E-07 | 4.226E-07 | 2.876E-07 | 2.093E-07 | 1.598E-07 | 1.266E-07 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 8.934E-08 | 4.267E-08 | 2.599E-08 | 1.350E-08 | 8.426E-09 | 5.815E-09 | 4.275E-09 | 3.283E-09 | 2.604E-09 | 2.116E-09 | 1.753E-09 |
| SSW | 5.119E-08 | 2.467E-08 | 1.512E-08 | 7.916E-09 | 4.969E-09 | 3.442E-09 | 2.537E-09 | 1.953E-09 | 1.551E-09 | 1.262E-09 | 1.047E-09 |
| SW | 5.766E-08 | 2.740E-08 | 1.662E-08 | 8.574E-09 | 5.321E-09 | 3.654E-09 | 2.675E-09 | 2.047E-09 | 1.617E-09 | 1.310E-09 | 1.083E-09 |
| WSW | 4.441E-08 | 2.080E-08 | 1.249E-08 | 6.340E-09 | 3.889E-09 | 2.646E-09 | 1.922E-09 | 1.462E-09 | 1.149E-09 | 9.265E-10 | 7.623E-10 |
| W | 5.709E-08 | 2.694E-08 | 1.626E-08 | 8.325E-09 | 5.142E-09 | 3.519E-09 | 2.569E-09 | 1.961E-09 | 1.547E-09 | 1.252E-09 | 1.033E-09 |
| WNW | 5.084E-08 | 2.370E-08 | 1.418E-08 | 7.188E-09 | 4.416E-09 | 3.012E-09 | 2.195E-09 | 1.674E-09 | 1.321E-09 | 1.069E-09 | 8.825E-10 |
| NW | 8.044E-08 | 3.791E-08 | 2.288E-08 | 1.173E-08 | 7.271E-09 | 4.992E-09 | 3.657E-09 | 2.802E-09 | 2.219E-09 | 1.802E-09 | 1.493E-09 |
| NNW | 7.318E-08 | 3.530E-08 | 2.164E-08 | 1.133E-08 | 7.110E-09 | 4.924E-09 | 3.630E-09 | 2.794E-09 | 2.220E-09 | 1.806E-09 | 1.499E-09 |
| N | 1.069E-07 | 5.207E-08 | 3.215E-08 | 1.700E-08 | 1.074E-08 | 7.481E-09 | 5.539E-09 | 4.279E-09 | 3.411E-09 | 2.784E-09 | 2.315E-09 |
| NNE | 8.105E-08 | 3.960E-08 | 2.450E-08 | 1.299E-08 | 8.223E-09 | 5.734E-09 | 4.251E-09 | 3.288E-09 | 2.623E-09 | 2.143E-09 | 1.784E-09 |
| NE | 8.244E-08 | 4.045E-08 | 2.511E-08 | 1.337E-08 | 8.489E-09 | 5.933E-09 | 4.406E-09 | 3.413E-09 | 2.727E-09 | 2.231E-09 | 1.859E-09 |
| ENE | 8.527E-08 | 4.176E-08 | 2.588E-08 | 1.374E-08 | 8.699E-09 | 6.066E-09 | 4.496E-09 | 3.476E-09 | 2.772E-09 | 2.263E-09 | 1.883E-09 |
| E | 7.673E-08 | 3.724E-08 | 2.293E-08 | 1.208E-08 | 7.610E-09 | 5.287E-09 | 3.907E-09 | 3.013E-09 | 2.397E-09 | 1.954E-09 | 1.623E-09 |
| ESE | 6.336E-08 | 3.062E-08 | 1.879E-08 | 9.854E-09 | 6.186E-09 | 4.285E-09 | 3.158E-09 | 2.430E-09 | 1.930E-09 | 1.569E-09 | 1.301E-09 |
| SE | 1.111E-07 | 5.384E-08 | 3.313E-08 | 1.744E-08 | 1.099E-08 | 7.632E-09 | 5.641E-09 | 4.351E-09 | 3.463E-09 | 2.824E-09 | 2.346E-09 |
| SSE | 1.031E-07 | 4.974E-08 | 3.051E-08 | 1.598E-08 | 1.003E-08 | 6.951E-09 | 5.125E-09 | 3.945E-09 | 3.134E-09 | 2.550E-09 | 2.115E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| DIRECTION FROM SITE | .5-1 | 1-2 | 2-3 | SEGMENT BOUNDARIES IN MILES 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| S | 6.100E-06 | 1.344E-06 | 3.874E-07 | 1.861E-07 | 1.110E-07 | 4.563E-08 | 1.402E-08 | 5.895E-09 | 3.308E-09 | 2.126E-09 |
| SSW | 3.403E-06 | 7.461E-07 | 2.182E-07 | 1.057E-07 | 6.343E-08 | 2.632E-08 | 8.207E-09 | 3.487E-09 | 1.967E-09 | 1.268E-09 |
| SW | 3.942E-06 | 8.739E-07 | 2.512E-07 | 1.205E-07 | 7.171E-08 | 2.934E-08 | 8.918E-09 | 3.707E-09 | 2.063E-09 | 1.317E-09 |
| WSW | 3.201E-06 | 7.026E-07 | 1.983E-07 | 9.397E-08 | 5.545E-08 | 2.235E-08 | 6.617E-09 | 2.688E-09 | 1.474E-09 | 9.316E-10 |
| W | 4.008E-06 | 8.857E-07 | 2.520E-07 | 1.201E-07 | 7.116E-08 | 2.889E-08 | 8.673E-09 | 3.572E-09 | 1.977E-09 | 1.258E-09 |
| WNW | 3.786E-06 | 8.214E-07 | 2.295E-07 | 1.082E-07 | 6.359E-08 | 2.550E-08 | 7.510E-09 | 3.060E-09 | 1.688E-09 | 1.074E-09 |
| NW | 5.748E-06 | 1.258E-06 | 3.564E-07 | 1.693E-07 | 1.003E-07 | 4.068E-08 | 1.223E-08 | 5.066E-09 | 2.824E-09 | 1.811E-09 |
| NNW | 4.695E-06 | 1.058E-06 | 3.107E-07 | 1.509E-07 | 9.064E-08 | 3.765E-08 | 1.175E-08 | 4.989E-09 | 2.814E-09 | 1.815E-09 |
| N | 6.597E-06 | 1.496E-06 | 4.460E-07 | 2.184E-07 | 1.321E-07 | 5.541E-08 | 1.739E-08 | 7.574E-09 | 4.308E-09 | 2.796E-09 |
| NNE | 4.909E-06 | 1.120E-06 | 3.339E-07 | 1.650E-07 | 1.000E-07 | 4.210E-08 | 1.343E-08 | 5.805E-09 | 3.310E-09 | 2.152E-09 |
| NE | 4.925E-06 | 1.123E-06 | 3.389E-07 | 1.672E-07 | 1.016E-07 | 4.296E-08 | 1.381E-08 | 6.004E-09 | 3.436E-09 | 2.240E-09 |
| ENE | 5.071E-06 | 1.167E-06 | 3.517E-07 | 1.732E-07 | 1.051E-07 | 4.437E-08 | 1.420E-08 | 6.140E-09 | 3.499E-09 | 2.273E-09 |
| E | 4.815E-06 | 1.087E-06 | 3.221E-07 | 1.572E-07 | 9.486E-08 | 3.765E-08 | 1.230E-08 | 5.354E-09 | 3.034E-09 | 1.963E-09 |
| ESE | 4.043E-06 | 9.107E-07 | 2.681E-07 | 1.304E-07 | 7.843E-08 | 3.264E-08 | 1.021E-08 | 4.341E-09 | 2.447E-09 | 1.577E-09 |
| SE | 7.158E-06 | 1.594E-06 | 4.693E-07 | 2.283E-07 | 1.375E-07 | 5.736E-08 | 1.806E-08 | 7.730E-09 | 4.382E-09 | 2.836E-09 |
| SSE | 6.747E-06 | 1.500E-06 | 4.390E-07 | 2.128E-07 | 1.277E-07 | 5.305E-08 | 1.656E-08 | 7.042E-09 | 3.973E-09 | 2.562E-09 |

VENTS GROUND LEVEL RELEASES - JAN-JUN 1984
CORRECTED FOR OPEN TERRAIN RECIRCULATION

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS **********

| DIRECTION FROM SITE | DISTANCES IN MILES 0.25 | 0.50 | 0.75 | 1.00 | 1.50 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00 | 4.50 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 2.208E-07 | 7.466E-08 | 3.833E-08 | 1.822E-08 | 6.546E-09 | 3.246E-09 | 1.911E-09 | 1.252E-09 | 8.807E-10 | 6.527E-10 | 5.030E-10 |
| SSW | 8.691E-08 | 2.939E-08 | 1.509E-08 | 7.174E-09 | 2.577E-09 | 1.278E-09 | 7.524E-10 | 4.927E-10 | 3.467E-10 | 2.569E-10 | 1.980E-10 |
| SW | 9.879E-08 | 3.341E-08 | 1.715E-08 | 8.155E-09 | 2.929E-09 | 1.453E-09 | 8.553E-10 | 5.601E-10 | 3.941E-10 | 2.921E-10 | 2.251E-10 |
| WSW | 8.063E-08 | 2.727E-08 | 1.400E-08 | 6.656E-09 | 2.391E-09 | 1.186E-09 | 6.981E-10 | 4.571E-10 | 3.217E-10 | 2.384E-10 | 1.837E-10 |
| W | 1.152E-07 | 3.895E-08 | 2.000E-08 | 9.508E-09 | 3.415E-09 | 1.694E-09 | 9.973E-10 | 6.530E-10 | 4.595E-10 | 3.405E-10 | 2.624E-10 |
| WNW | 1.481E-07 | 5.007E-08 | 2.571E-08 | 1.222E-08 | 4.390E-09 | 2.177E-09 | 1.282E-09 | 8.394E-10 | 5.906E-10 | 4.377E-10 | 3.373E-10 |
| NW | 2.286E-07 | 7.732E-08 | 3.970E-08 | 1.887E-08 | 6.779E-09 | 3.362E-09 | 1.980E-09 | 1.296E-09 | 9.121E-10 | 6.760E-10 | 5.209E-10 |
| NNW | 1.365E-07 | 4.615E-08 | 2.369E-08 | 1.126E-08 | 4.046E-09 | 2.007E-09 | 1.182E-09 | 7.737E-10 | 5.444E-10 | 4.034E-10 | 3.109E-10 |
| N | 1.993E-07 | 6.738E-08 | 3.460E-08 | 1.645E-08 | 5.908E-09 | 2.930E-09 | 1.725E-09 | 1.130E-09 | 7.949E-10 | 5.891E-10 | 4.539E-10 |
| NNE | 1.219E-07 | 4.122E-08 | 2.116E-08 | 1.006E-08 | 3.614E-09 | 1.792E-09 | 1.055E-09 | 6.910E-10 | 4.862E-10 | 3.604E-10 | 2.777E-10 |
| NE | 1.066E-07 | 3.606E-08 | 1.851E-08 | 8.802E-09 | 3.162E-09 | 1.568E-09 | 9.233E-10 | 6.046E-10 | 4.254E-10 | 3.153E-10 | 2.429E-10 |
| ENE | 1.044E-07 | 3.531E-08 | 1.813E-08 | 8.618E-09 | 3.096E-09 | 1.535E-09 | 9.040E-10 | 5.919E-10 | 4.165E-10 | 3.087E-10 | 2.379E-10 |
| E | 1.043E-07 | 3.526E-08 | 1.810E-08 | 8.607E-09 | 3.092E-09 | 1.533E-09 | 9.028E-10 | 5.911E-10 | 4.159E-10 | 3.083E-10 | 2.375E-10 |
| ESE | 8.391E-08 | 2.837E-08 | 1.457E-08 | 6.926E-09 | 2.488E-09 | 1.234E-09 | 7.265E-10 | 4.757E-10 | 3.347E-10 | 2.481E-10 | 1.912E-10 |
| SE | 2.403E-07 | 8.127E-08 | 4.173E-08 | 1.984E-08 | 7.126E-09 | 3.534E-09 | 2.081E-09 | 1.362E-09 | 9.587E-10 | 7.105E-10 | 5.475E-10 |
| SSE | 2.399E-07 | 8.111E-08 | 4.165E-08 | 1.980E-08 | 7.112E-09 | 3.527E-09 | 2.077E-09 | 1.360E-09 | 9.569E-10 | 7.091E-10 | 5.465E-10 |

| DIRECTION FROM SITE | DISTANCES IN MILES 5.00 | 7.50 | 10.00 | 15.00 | 20.00 | 25.00 | 30.00 | 35.00 | 40.00 | 45.00 | 50.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.996E-10 | 1.775E-10 | 1.075E-10 | 5.435E-11 | 3.289E-11 | 2.205E-11 | 1.580E-11 | 1.187E-11 | 9.227E-12 | 7.370E-12 | 6.016E-12 |
| SSW | 1.573E-10 | 6.987E-11 | 4.233E-11 | 2.139E-11 | 1.295E-11 | 8.682E-12 | 6.221E-12 | 4.671E-12 | 3.632E-12 | 2.901E-12 | 2.368E-12 |
| SW | 1.788E-10 | 7.943E-11 | 4.811E-11 | 2.432E-11 | 1.472E-11 | 9.869E-12 | 7.072E-12 | 5.310E-12 | 4.129E-12 | 3.298E-12 | 2.692E-12 |
| WSW | 1.459E-10 | 6.483E-11 | 3.927E-11 | 1.985E-11 | 1.201E-11 | 8.055E-12 | 5.772E-12 | 4.334E-12 | 3.370E-12 | 2.692E-12 | 2.197E-12 |
| W | 2.085E-10 | 9.261E-11 | 5.610E-11 | 2.836E-11 | 1.716E-11 | 1.151E-11 | 8.245E-12 | 6.191E-12 | 4.814E-12 | 3.845E-12 | 3.139E-12 |
| WNW | 2.680E-10 | 1.190E-10 | 7.211E-11 | 3.645E-11 | 2.206E-11 | 1.479E-11 | 1.060E-11 | 7.958E-12 | 6.188E-12 | 4.943E-12 | 4.035E-12 |
| NW | 4.138E-10 | 1.838E-10 | 1.114E-10 | 5.629E-11 | 3.407E-11 | 2.284E-11 | 1.637E-11 | 1.229E-11 | 9.556E-12 | 7.633E-12 | 6.230E-12 |
| NNW | 2.470E-10 | 1.097E-10 | 6.647E-11 | 3.360E-11 | 2.033E-11 | 1.363E-11 | 9.769E-12 | 7.335E-12 | 5.703E-12 | 4.556E-12 | 3.719E-12 |
| N | 3.606E-10 | 1.602E-10 | 9.705E-11 | 4.905E-11 | 2.969E-11 | 1.991E-11 | 1.426E-11 | 1.071E-11 | 8.327E-12 | 6.652E-12 | 5.430E-12 |
| NNE | 2.206E-10 | 9.800E-11 | 5.937E-11 | 3.001E-11 | 1.816E-11 | 1.218E-11 | 8.725E-12 | 6.552E-12 | 5.094E-12 | 4.069E-12 | 3.321E-12 |
| NE | 1.930E-10 | 8.574E-11 | 5.194E-11 | 2.625E-11 | 1.589E-11 | 1.065E-11 | 7.633E-12 | 5.732E-12 | 4.457E-12 | 3.560E-12 | 2.906E-12 |
| ENE | 1.890E-10 | 8.395E-11 | 5.085E-11 | 2.570E-11 | 1.556E-11 | 1.043E-11 | 7.474E-12 | 5.612E-12 | 4.364E-12 | 3.486E-12 | 2.845E-12 |
| E | 1.887E-10 | 8.383E-11 | 5.078E-11 | 2.567E-11 | 1.554E-11 | 1.042E-11 | 7.464E-12 | 5.605E-12 | 4.358E-12 | 3.481E-12 | 2.841E-12 |
| ESE | 1.519E-10 | 6.745E-11 | 4.087E-11 | 2.066E-11 | 1.250E-11 | 8.382E-12 | 6.006E-12 | 4.510E-12 | 3.507E-12 | 2.801E-12 | 2.286E-12 |
| SE | 4.350E-10 | 1.932E-10 | 1.170E-10 | 5.916E-11 | 3.581E-11 | 2.401E-11 | 1.720E-11 | 1.292E-11 | 1.004E-11 | 8.023E-12 | 6.549E-12 |
| SSE | 4.341E-10 | 1.929E-10 | 1.168E-10 | 5.905E-11 | 3.574E-11 | 2.396E-11 | 1.717E-11 | 1.289E-11 | 1.002E-11 | 8.008E-12 | 6.536E-12 |

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS **********

| DIRECTION FROM SITE | SEGMENT BOUNDARIES IN MILES .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.747E-08 | 7.674E-09 | 2.003E-09 | 8.998E-10 | 5.090E-10 | 1.958E-10 | 5.663E-11 | 2.244E-11 | 1.199E-11 | 7.419E-12 |
| SSW | 1.475E-08 | 3.021E-09 | 7.887E-10 | 3.542E-10 | 2.004E-10 | 7.706E-11 | 2.229E-11 | 8.835E-12 | 4.718E-12 | 2.920E-12 |
| SW | 1.677E-08 | 3.434E-09 | 8.965E-10 | 4.026E-10 | 2.278E-10 | 8.759E-11 | 2.534E-11 | 1.004E-11 | 5.363E-12 | 3.320E-12 |
| WSW | 1.368E-08 | 2.803E-09 | 7.317E-10 | 3.286E-10 | 1.859E-10 | 7.150E-11 | 2.068E-11 | 8.198E-12 | 4.378E-12 | 2.710E-12 |
| W | 1.955E-08 | 4.004E-09 | 1.045E-09 | 4.695E-10 | 2.656E-10 | 1.021E-10 | 2.955E-11 | 1.171E-11 | 6.253E-12 | 3.871E-12 |
| WNW | 2.513E-08 | 5.147E-09 | 1.344E-09 | 6.035E-10 | 3.414E-10 | 1.313E-10 | 3.798E-11 | 1.505E-11 | 8.038E-12 | 4.975E-12 |
| NW | 3.880E-08 | 7.948E-09 | 2.075E-09 | 9.319E-10 | 5.272E-10 | 2.027E-10 | 5.865E-11 | 2.325E-11 | 1.241E-11 | 7.683E-12 |
| NNW | 2.316E-08 | 4.744E-09 | 1.238E-09 | 5.562E-10 | 3.147E-10 | 1.210E-10 | 3.501E-11 | 1.387E-11 | 7.409E-12 | 4.586E-12 |
| N | 3.382E-08 | 6.926E-09 | 1.808E-09 | 8.121E-10 | 4.594E-10 | 1.767E-10 | 5.111E-11 | 2.026E-11 | 1.082E-11 | 6.696E-12 |
| NNE | 2.069E-08 | 4.237E-09 | 1.106E-09 | 4.968E-10 | 2.810E-10 | 1.081E-10 | 3.127E-11 | 1.239E-11 | 6.618E-12 | 4.096E-12 |
| NE | 1.810E-08 | 3.707E-09 | 9.677E-10 | 4.346E-10 | 2.459E-10 | 9.455E-11 | 2.735E-11 | 1.084E-11 | 5.789E-12 | 3.583E-12 |
| ENE | 1.772E-08 | 3.629E-09 | 9.475E-10 | 4.255E-10 | 2.407E-10 | 9.258E-11 | 2.678E-11 | 1.061E-11 | 5.668E-12 | 3.509E-12 |
| E | 1.770E-08 | 3.625E-09 | 9.462E-10 | 4.250E-10 | 2.404E-10 | 9.245E-11 | 2.675E-11 | 1.060E-11 | 5.661E-12 | 3.504E-12 |
| ESE | 1.424E-08 | 2.917E-09 | 7.614E-10 | 3.420E-10 | 1.935E-10 | 7.440E-11 | 2.152E-11 | 8.530E-12 | 4.555E-12 | 2.820E-12 |
| SE | 4.078E-08 | 8.354E-09 | 2.181E-09 | 9.795E-10 | 5.541E-10 | 2.131E-10 | 6.165E-11 | 2.443E-11 | 1.305E-11 | 8.076E-12 |
| SSE | 4.071E-08 | 8.338E-09 | 2.177E-09 | 9.776E-10 | 5.531E-10 | 2.127E-10 | 6.153E-11 | 2.439E-11 | 1.302E-11 | 8.060E-12 |

VENTS GROUND LEVEL RELEASES - JAN-JUN 1984
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

| RELEASE ID | TYPE OF LOCATION | DIRECTION | DISTANCE (MILES) | DISTANCE (METERS) | X/Q (SEC/CUB. METER) NO DECAY UNDEPLETED | X/Q (SEC/CUB. METER) 2.260 DAY DECAY UNDEPLETED | X/Q (SEC/CUB. METER) 8.000 DAY DECAY DEPLETED | D/Q (PER SQ. METER) |
|---|---|---|---|---|---|---|---|---|
| A | SITE BOUNDARY | S | 0.89 | 1430. | 4.673E-06 | 4.645E-06 | 4.115E-06 | 2.474E-08 |
| A | SITE BOUNDARY | SSW | 0.92 | 1480. | 2.373E-06 | 2.357E-06 | 2.085E-06 | 8.905E-09 |
| A | SITE BOUNDARY | SW | 1.09 | 1750. | 1.878E-06 | 1.864E-06 | 1.631E-06 | 6.574E-09 |
| A | SITE BOUNDARY | WSW | 0.94 | 1510. | 2.162E-06 | 2.148E-06 | 1.897E-06 | 7.843E-09 |
| A | SITE BOUNDARY | W | 0.93 | 1500. | 2.757E-06 | 2.741E-06 | 2.420E-06 | 1.140E-08 |
| A | SITE BOUNDARY | WNW | 0.96 | 1540. | 2.419E-06 | 2.411E-06 | 2.122E-06 | 1.369E-08 |
| A | SITE BOUNDARY | NW | 0.72 | 1160. | 7.064E-06 | 7.046E-06 | 6.305E-06 | 2.243E-08 |
| A | SITE BOUNDARY | NNW | 0.62 | 1000. | 7.188E-06 | 7.158E-06 | 6.463E-06 | 3.249E-08 |
| A | SITE BOUNDARY | N | 0.65 | 1050. | 9.372E-06 | 9.328E-06 | 8.405E-06 | 4.372E-08 |
| A | SITE BOUNDARY | NNE | 0.63 | 1010. | 7.380E-06 | 7.347E-06 | 6.632E-06 | 2.854E-08 |
| A | SITE BOUNDARY | NE | 0.64 | 1030. | 7.201E-06 | 7.167E-06 | 6.464E-06 | 2.416E-08 |
| A | SITE BOUNDARY | ENE | 0.62 | 1000. | 7.730E-06 | 7.693E-06 | 6.949E-06 | 2.486E-08 |
| A | SITE BOUNDARY | E | 0.61 | 980. | 7.603E-06 | 7.567E-06 | 6.847E-06 | 2.554E-08 |
| A | SITE BOUNDARY | ESE | 0.61 | 980. | 6.381E-06 | 6.349E-06 | 5.746E-06 | 2.055E-08 |
| A | SITE BOUNDARY | SE | 1.06 | 1700. | 3.639E-06 | 3.611E-06 | 3.166E-06 | 1.722E-08 |
| A | SITE BOUNDARY | SSE | 0.91 | 1460. | 4.917E-06 | 4.883E-06 | 4.323E-06 | 2.546E-08 |
| A | NEAR. RESIDENCE | SSW | 1.30 | 2092. | 1.061E-06 | 1.051E-06 | 9.089E-07 | 3.680E-09 |
| A | NEAR. RESIDENCE | SW | 1.30 | 2092. | 1.243E-06 | 1.231E-06 | 1.065E-06 | 4.183E-09 |
| A | NEAR. RESIDENCE | W | 1.00 | 1609. | 2.330E-06 | 2.316E-06 | 2.036E-06 | 9.508E-09 |
| A | NEAR. RESIDENCE | NW | 0.90 | 1448. | 4.277E-06 | 4.263E-06 | 3.766E-06 | 2.480E-08 |
| A | NEAR. RESIDENCE | NNW | 1.90 | 3058. | 6.561E-07 | 6.473E-07 | 5.438E-07 | 2.271E-09 |
| A | NEAREST COW | W | 2.30 | 3702. | 3.575E-07 | 3.523E-07 | 2.908E-07 | 1.214E-09 |
| A | NEAREST COW | NNW | 3.50 | 5633. | 1.913E-07 | 1.867E-07 | 1.483E-07 | 5.443E-10 |
| A | NEAREST GARDEN | SSW | 1.30 | 2092. | 1.061E-06 | 1.051E-06 | 9.089E-07 | 3.680E-09 |
| A | NEAREST GARDEN | SW | 1.30 | 2092. | 1.243E-06 | 1.231E-06 | 1.065E-06 | 4.183E-09 |
| A | NEAREST GARDEN | W | 1.00 | 1609. | 2.330E-06 | 2.316E-06 | 2.036E-06 | 9.508E-09 |
| A | NEAREST GARDEN | NW | 2.70 | 4345. | 3.613E-07 | 3.576E-07 | 2.894E-07 | 1.654E-09 |
| A | NEAREST GARDEN | NNW | 1.90 | 3058. | 6.561E-07 | 6.473E-07 | 5.438E-07 | 2.271E-09 |

Atmospheric Diffusion Estimates
Elevated Releases
January-March 1984

ERP ELEVATED STACK RELEASE - JAN-MAR 1984
NO DECAY. UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.692E-07 | 1.854E-07 | 1.758E-07 | 1.402E-07 | 1.034E-07 | 7.781E-08 | 5.991E-08 | 4.738E-08 | 3.845E-08 | 3.992E-08 | 3.976E-08 |
| SSW | 1.386E-08 | 5.723E-08 | 5.936E-08 | 4.886E-08 | 3.929E-08 | 3.192E-08 | 2.596E-08 | 2.704E-08 | 2.648E-08 | 2.257E-08 | 1.946E-08 |
| SW | 3.002E-09 | 1.494E-08 | 5.194E-08 | 1.109E-07 | 1.688E-07 | 1.132E-07 | 8.142E-08 | 6.182E-08 | 4.892E-08 | 3.996E-08 | 3.347E-08 |
| WSW | 7.927E-16 | 7.528E-10 | 3.876E-08 | 1.140E-07 | 1.813E-07 | 1.118E-07 | 7.570E-08 | 5.484E-08 | 4.176E-08 | 3.302E-08 | 2.688E-08 |
| W | 5.755E-09 | 5.592E-08 | 1.831E-07 | 2.205E-07 | 1.852E-07 | 1.113E-07 | 7.430E-08 | 5.335E-08 | 4.039E-08 | 3.180E-08 | 2.581E-08 |
| WNW | 7.442E-10 | 4.237E-08 | 1.666E-07 | 2.459E-07 | 2.455E-07 | 1.413E-07 | 9.198E-08 | 6.661E-08 | 5.066E-08 | 3.934E-08 | 3.160E-08 |
| NW | 6.464E-11 | 6.801E-09 | 8.941E-08 | 2.451E-07 | 3.925E-07 | 2.250E-07 | 1.464E-07 | 1.049E-07 | 7.933E-08 | 6.186E-08 | 4.987E-08 |
| NNW | 5.694E-16 | 6.077E-10 | 1.819E-08 | 4.384E-08 | 6.715E-08 | 6.456E-08 | 5.868E-08 | 5.106E-08 | 4.392E-08 | 3.439E-08 | 2.783E-08 |
| N | 1.119E-10 | 7.863E-09 | 2.189E-08 | 3.090E-08 | 3.616E-08 | 3.382E-08 | 2.947E-08 | 2.485E-08 | 2.112E-08 | 1.818E-08 | 1.583E-08 |
| NNE | 3.922E-11 | 3.136E-09 | 1.180E-08 | 1.878E-08 | 2.377E-08 | 2.257E-08 | 1.993E-08 | 1.734E-08 | 1.512E-08 | 1.329E-08 | 1.180E-08 |
| NE | 7.269E-11 | 4.985E-09 | 1.447E-08 | 2.148E-08 | 2.767E-08 | 2.708E-08 | 2.444E-08 | 2.158E-08 | 1.902E-08 | 1.684E-08 | 1.503E-08 |
| ENE | 5.904E-16 | 6.137E-10 | 1.087E-08 | 2.330E-08 | 3.528E-08 | 3.596E-08 | 3.302E-08 | 2.944E-08 | 2.610E-08 | 2.322E-08 | 2.079E-08 |
| E | 3.365E-09 | 2.491E-08 | 3.852E-08 | 4.062E-08 | 4.235E-08 | 3.916E-08 | 3.446E-08 | 2.996E-08 | 2.609E-08 | 2.289E-08 | 2.025E-08 |
| ESE | 2.317E-09 | 1.910E-08 | 3.232E-08 | 3.599E-08 | 3.685E-08 | 3.253E-08 | 2.757E-08 | 2.328E-08 | 1.983E-08 | 1.709E-08 | 1.491E-08 |
| SE | 1.465E-07 | 1.796E-07 | 1.691E-07 | 1.409E-07 | 1.136E-07 | 9.109E-08 | 7.339E-08 | 6.008E-08 | 5.007E-08 | 4.245E-08 | 3.634E-08 |
| SSE | 1.807E-07 | 1.605E-07 | 1.404E-07 | 1.201E-07 | 9.950E-08 | 7.907E-08 | 6.270E-08 | 5.051E-08 | 4.151E-08 | 4.965E-08 | 5.200E-08 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.440E-08 | 2.003E-08 | 1.271E-08 | 7.073E-09 | 4.766E-09 | 3.503E-09 | 2.707E-09 | 2.179E-09 | 1.811E-09 | 1.539E-09 | 1.329E-09 |
| SSW | 1.730E-08 | 1.041E-08 | 6.581E-09 | 3.637E-09 | 2.422E-09 | 1.759E-09 | 1.352E-09 | 1.083E-09 | 8.944E-10 | 7.562E-10 | 6.506E-10 |
| SW | 3.062E-08 | 2.194E-08 | 1.435E-08 | 8.276E-09 | 5.766E-09 | 4.336E-09 | 3.438E-09 | 2.789E-09 | 2.330E-09 | 1.982E-09 | 1.715E-09 |
| WSW | 2.282E-08 | 1.236E-08 | 7.953E-09 | 4.405E-09 | 2.864E-09 | 2.053E-09 | 1.566E-09 | 1.245E-09 | 1.022E-09 | 8.587E-10 | 7.346E-10 |
| W | 2.147E-08 | 1.107E-08 | 7.264E-09 | 4.144E-09 | 2.764E-09 | 1.995E-09 | 1.529E-09 | 1.221E-09 | 1.006E-09 | 8.478E-10 | 7.278E-10 |
| WNW | 2.617E-08 | 1.331E-08 | 8.473E-09 | 4.704E-09 | 3.096E-09 | 2.240E-09 | 1.720E-09 | 1.376E-09 | 1.135E-09 | 9.576E-10 | 8.228E-10 |
| NW | 4.187E-08 | 2.144E-08 | 1.382E-08 | 7.783E-09 | 5.136E-09 | 3.727E-09 | 2.877E-09 | 2.311E-09 | 1.911E-09 | 1.616E-09 | 1.392E-09 |
| NNW | 2.342E-08 | 1.258E-08 | 8.070E-09 | 4.559E-09 | 3.050E-09 | 2.237E-09 | 1.742E-09 | 1.410E-09 | 1.175E-09 | 1.007E-09 | 8.715E-10 |
| N | 1.396E-08 | 8.696E-09 | 7.036E-09 | 5.396E-09 | 4.333E-09 | 3.461E-09 | 2.701E-09 | 2.189E-09 | 1.824E-09 | 1.554E-09 | 1.346E-09 |
| NNE | 1.355E-08 | 1.876E-08 | 1.213E-08 | 6.943E-09 | 4.691E-09 | 3.469E-09 | 2.714E-09 | 2.207E-09 | 1.846E-09 | 1.578E-09 | 1.372E-09 |
| NE | 1.741E-08 | 2.543E-08 | 1.650E-08 | 9.479E-09 | 6.423E-09 | 4.760E-09 | 3.754E-09 | 3.071E-09 | 2.579E-09 | 2.210E-09 | 1.922E-09 |
| ENE | 2.346E-08 | 3.092E-08 | 2.022E-08 | 1.169E-08 | 7.935E-09 | 5.883E-09 | 4.638E-09 | 3.847E-09 | 3.242E-09 | 2.771E-09 | 2.406E-09 |
| E | 2.193E-08 | 2.458E-08 | 1.596E-08 | 9.144E-09 | 6.177E-09 | 4.562E-09 | 3.564E-09 | 2.894E-09 | 2.418E-09 | 2.117E-09 | 1.836E-09 |
| ESE | 1.528E-08 | 1.622E-08 | 1.068E-08 | 6.229E-09 | 4.256E-09 | 3.169E-09 | 2.492E-09 | 2.035E-09 | 1.708E-09 | 1.464E-09 | 1.275E-09 |
| SE | 3.191E-08 | 1.924E-08 | 1.444E-08 | 9.783E-09 | 6.967E-09 | 5.349E-09 | 4.269E-09 | 3.530E-09 | 2.995E-09 | 2.559E-09 | 2.221E-09 |
| SSE | 4.356E-08 | 2.302E-08 | 1.453E-08 | 8.039E-09 | 5.311E-09 | 3.859E-09 | 2.977E-09 | 2.392E-09 | 1.981E-09 | 1.679E-09 | 1.448E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| DIRECTION FROM SITE | SEGMENT BOUNDARIES IN MILES 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.621E-07 | 1.002E-07 | 5.967E-08 | 4.156E-08 | 3.782E-08 | 1.997E-08 | 7.299E-09 | 3.521E-09 | 2.190E-09 | 1.542E-09 |
| SSW | 5.422E-08 | 3.814E-08 | 2.798E-09 | 2.515E-08 | 1.958E-08 | 1.024E-08 | 3.751E-09 | 1.773E-09 | 1.088E-09 | 7.580E-10 |
| SW | 6.992E-08 | 1.313E-07 | 8.207E-08 | 4.920E-08 | 3.434E-08 | 2.049E-08 | 8.510E-09 | 4.358E-09 | 2.803E-09 | 1.986E-09 |
| WSW | 6.376E-08 | 1.355E-07 | 7.699E-08 | 4.217E-08 | 2.720E-08 | 1.273E-08 | 4.509E-09 | 2.074E-09 | 1.252E-09 | 8.610E-10 |
| W | 1.715E-07 | 1.602E-07 | 7.979E-08 | 4.082E-08 | 2.598E-08 | 1.169E-08 | 4.224E-09 | 2.014E-09 | 1.227E-09 | 8.501E-10 |
| WNW | 1.743E-07 | 1.993E-07 | 9.499E-08 | 5.091E-08 | 3.188E-08 | 1.402E-08 | 4.827E-09 | 2.260E-09 | 1.383E-09 | 9.602E-10 |
| NW | 1.403E-07 | 2.853E-07 | 1.507E-07 | 7.998E-08 | 5.031E-08 | 2.251E-08 | 7.947E-09 | 3.763E-09 | 2.320E-09 | 1.620E-09 |
| NNW | 2.568E-08 | 6.082E-08 | 5.720E-08 | 4.233E-08 | 2.814E-08 | 1.298E-08 | 4.668E-09 | 2.255E-09 | 1.416E-09 | 1.007E-09 |
| N | 2.278E-08 | 3.395E-08 | 2.878E-08 | 2.106E-08 | 1.582E-08 | 9.129E-09 | 5.288E-09 | 3.390E-09 | 2.196E-09 | 1.537E-09 |
| NNE | 1.298E-08 | 2.213E-08 | 1.960E-08 | 1.506E-08 | 1.289E-08 | 1.466E-08 | 7.096E-09 | 3.493E-09 | 2.214E-09 | 1.581E-09 |
| NE | 1.548E-08 | 2.603E-08 | 2.400E-08 | 1.892E-08 | 1.645E-08 | 1.968E-08 | 9.681E-09 | 4.801E-09 | 3.079E-09 | 2.212E-09 |
| ENE | 1.412E-08 | 3.292E-08 | 3.237E-08 | 2.595E-08 | 2.250E-08 | 2.450E-08 | 1.191E-08 | 5.948E-09 | 3.854E-09 | 2.775E-09 |
| E | 3.643E-08 | 4.055E-08 | 3.391E-08 | 2.598E-08 | 2.165E-08 | 2.016E-08 | 9.340E-09 | 4.593E-09 | 2.904E-09 | 2.102E-09 |
| ESE | 3.101E-08 | 3.474E-08 | 2.718E-08 | 1.977E-08 | 1.589E-08 | 1.355E-08 | 6.342E-09 | 3.188E-09 | 2.041E-09 | 1.466E-09 |
| SE | 1.589E-07 | 1.096E-07 | 7.279E-08 | 5.003E-08 | 3.650E-08 | 1.992E-08 | 9.566E-09 | 5.348E-09 | 3.537E-09 | 2.563E-09 |
| SSE | 1.358E-07 | 9.499E-08 | 6.219E-08 | 4.718E-08 | 4.818E-08 | 2.381E-08 | 8.270E-09 | 3.893E-09 | 2.403E-09 | 1.683E-09 |

8133

ERP ELEVATED STACK RELEASE - JAN-MAR 1984
2.260 DAY DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.691E-07 | 1.853E-07 | 1.736E-07 | 1.401E-07 | 1.032E-07 | 7.759E-08 | 5.969E-08 | 4.717E-08 | 3.825E-08 | 3.167E-08 | 3.947E-08 |
| SSW | 1.385E-08 | 5.720E-08 | 5.930E-08 | 4.879E-08 | 3.918E-08 | 3.178E-08 | 2.581E-08 | 2.683E-08 | 2.624E-08 | 2.232E-08 | 1.922E-08 |
| SW | 3.001E-09 | 1.492E-08 | 5.188E-08 | 1.107E-07 | 1.683E-07 | 1.126E-07 | 8.078E-08 | 6.116E-08 | 4.825E-08 | 3.928E-08 | 3.278E-08 |
| WSW | 7.925E-16 | 7.523E-10 | 3.870E-08 | 1.137E-07 | 1.806E-07 | 1.111E-07 | 7.511E-08 | 5.432E-08 | 4.129E-08 | 3.250E-08 | 2.648E-08 |
| W | 5.753E-09 | 5.588E-08 | 1.829E-07 | 2.201E-07 | 1.846E-07 | 1.108E-07 | 7.385E-08 | 5.296E-08 | 4.004E-08 | 3.149E-08 | 2.552E-08 |
| WNW | 7.439E-10 | 4.234E-08 | 1.665E-07 | 2.457E-07 | 2.450E-07 | 1.410E-07 | 9.171E-08 | 6.638E-08 | 5.045E-08 | 3.916E-08 | 3.143E-08 |
| NW | 6.462E-11 | 6.795E-09 | 8.932E-08 | 2.448E-07 | 3.917E-07 | 2.244E-07 | 1.458E-07 | 1.044E-07 | 7.893E-08 | 6.151E-08 | 4.955E-08 |
| NNW | 5.692E-16 | 6.073E-10 | 1.817E-08 | 4.378E-08 | 6.700E-08 | 6.438E-08 | 5.847E-08 | 5.085E-08 | 4.371E-08 | 3.420E-08 | 2.766E-08 |
| N | 1.119E-10 | 7.858E-09 | 2.187E-08 | 3.085E-08 | 3.605E-08 | 3.367E-08 | 2.931E-08 | 2.468E-08 | 2.095E-08 | 1.801E-08 | 1.566E-08 |
| NNE | 3.921E-11 | 3.134E-09 | 1.178E-08 | 1.876E-08 | 2.372E-08 | 2.251E-08 | 1.987E-08 | 1.727E-08 | 1.505E-08 | 1.322E-08 | 1.173E-08 |
| NE | 7.267E-11 | 4.982E-09 | 1.445E-08 | 2.145E-08 | 2.759E-08 | 2.697E-08 | 2.431E-08 | 2.145E-08 | 1.888E-08 | 1.670E-08 | 1.489E-08 |
| ENE | 5.902E-16 | 6.133E-10 | 1.086E-08 | 2.326E-08 | 3.518E-08 | 3.582E-08 | 3.286E-08 | 2.927E-08 | 2.593E-08 | 2.304E-08 | 2.061E-08 |
| E | 3.364E-09 | 2.489E-08 | 3.847E-08 | 4.054E-08 | 4.221E-08 | 3.898E-08 | 3.427E-08 | 2.975E-08 | 2.588E-08 | 2.267E-08 | 2.004E-08 |
| ESE | 2.316E-09 | 1.908E-08 | 3.228E-08 | 3.593E-08 | 3.673E-08 | 3.239E-08 | 2.742E-08 | 2.313E-08 | 1.969E-08 | 1.695E-08 | 1.477E-08 |
| SE | 1.464E-07 | 1.795E-07 | 1.690E-07 | 1.407E-07 | 1.133E-07 | 9.082E-08 | 7.312E-08 | 5.979E-08 | 4.979E-08 | 4.217E-08 | 3.626E-08 |
| SSE | 1.807E-07 | 1.604E-07 | 1.403E-07 | 1.199E-07 | 9.930E-08 | 7.885E-08 | 6.247E-08 | 5.027E-08 | 4.127E-08 | 4.931E-08 | 5.198E-08 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.412E-08 | 1.979E-08 | 1.250E-08 | 6.904E-09 | 4.619E-09 | 3.366E-09 | 2.581E-09 | 2.062E-09 | 1.701E-09 | 1.434E-09 | 1.229E-09 |
| SSW | 1.705E-08 | 1.018E-08 | 6.388E-09 | 3.479E-09 | 2.284E-09 | 1.636E-09 | 1.240E-09 | 9.805E-10 | 7.991E-10 | 6.669E-10 | 5.666E-10 |
| SW | 2.982E-08 | 2.062E-08 | 1.317E-08 | 7.252E-09 | 4.804E-09 | 3.441E-09 | 2.600E-09 | 2.026E-09 | 1.620E-09 | 1.327E-09 | 1.108E-09 |
| WSW | 2.243E-08 | 1.204E-08 | 7.673E-09 | 4.174E-09 | 2.668E-09 | 1.881E-09 | 1.411E-09 | 1.105E-09 | 8.926E-10 | 7.388E-10 | 6.229E-10 |
| W | 2.120E-08 | 1.086E-08 | 7.078E-09 | 3.985E-09 | 2.624E-09 | 1.870E-09 | 1.415E-09 | 1.116E-09 | 9.084E-10 | 7.562E-10 | 6.419E-10 |
| WNW | 2.601E-08 | 1.320E-08 | 8.374E-09 | 4.623E-09 | 3.025E-09 | 2.176E-09 | 1.661E-09 | 1.322E-09 | 1.084E-09 | 9.093E-10 | 7.769E-10 |
| NW | 4.118E-08 | 2.121E-08 | 1.363E-08 | 7.619E-09 | 4.993E-09 | 3.598E-09 | 2.758E-09 | 2.200E-09 | 1.807E-09 | 1.518E-09 | 1.298E-09 |
| NNW | 2.326E-08 | 1.245E-08 | 7.961E-09 | 4.467E-09 | 2.968E-09 | 2.162E-09 | 1.673E-09 | 1.346E-09 | 1.114E-09 | 9.482E-10 | 8.157E-10 |
| N | 1.380E-08 | 8.543E-09 | 6.880E-09 | 5.236E-09 | 4.176E-09 | 3.312E-09 | 2.565E-09 | 2.063E-09 | 1.707E-09 | 1.443E-09 | 1.242E-09 |
| NNE | 1.347E-08 | 1.860E-08 | 1.200E-08 | 6.826E-09 | 4.587E-09 | 3.373E-09 | 2.625E-09 | 2.123E-09 | 1.767E-09 | 1.502E-09 | 1.299E-09 |
| NE | 1.723E-08 | 2.512E-08 | 1.623E-08 | 9.254E-09 | 6.224E-09 | 4.578E-09 | 3.586E-09 | 2.912E-09 | 2.429E-09 | 2.067E-09 | 1.785E-09 |
| ENE | 2.325E-08 | 3.054E-08 | 1.989E-08 | 1.141E-08 | 7.683E-09 | 5.652E-09 | 4.460E-09 | 3.641E-09 | 3.045E-09 | 2.582E-09 | 2.226E-09 |
| E | 2.168E-08 | 2.420E-08 | 1.563E-08 | 8.867E-09 | 5.931E-09 | 4.339E-09 | 3.358E-09 | 2.702E-09 | 2.236E-09 | 1.941E-09 | 1.668E-09 |
| ESE | 1.512E-08 | 1.397E-08 | 1.045E-08 | 6.023E-09 | 4.068E-09 | 2.995E-09 | 2.328E-09 | 1.879E-09 | 1.559E-09 | 1.321E-09 | 1.139E-09 |
| SE | 3.164E-08 | 1.898E-08 | 1.417E-08 | 9.509E-09 | 6.707E-09 | 5.101E-09 | 4.033E-09 | 3.305E-09 | 2.778E-09 | 2.353E-09 | 2.023E-09 |
| SSE | 4.317E-08 | 2.270E-08 | 1.426E-08 | 7.818E-09 | 5.119E-09 | 3.687E-09 | 2.820E-09 | 2.248E-09 | 1.846E-09 | 1.552E-09 | 1.328E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| DIRECTION FROM SITE | .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| | SEGMENT BOUNDARIES IN MILES | | | | | | | | | |
| S | 1.620E-07 | 1.000E-07 | 5.946E-08 | 4.134E-08 | 3.755E-08 | 1.974E-08 | 7.131E-09 | 3.385E-09 | 2.073E-09 | 1.437E-09 |
| SSW | 5.416E-08 | 3.802E-08 | 2.781E-08 | 2.492E-08 | 1.934E-08 | 1.002E-08 | 3.594E-09 | 1.650E-09 | 9.856E-10 | 6.689E-10 |
| SW | 6.981E-08 | 1.308E-07 | 8.143E-08 | 4.852E-08 | 3.361E-08 | 1.936E-08 | 7.480E-09 | 3.468E-09 | 2.035E-09 | 1.333E-09 |
| WSW | 6.361E-08 | 1.349E-07 | 7.640E-08 | 4.169E-08 | 2.679E-08 | 1.241E-08 | 4.282E-09 | 1.903E-09 | 1.112E-09 | 7.414E-10 |
| W | 1.712E-07 | 1.597E-07 | 7.535E-08 | 4.047E-08 | 2.569E-08 | 1.147E-08 | 4.067E-09 | 1.889E-09 | 1.122E-09 | 7.591E-10 |
| WNW | 1.741E-07 | 1.989E-07 | 9.472E-08 | 5.070E-08 | 3.171E-08 | 1.390E-08 | 4.746E-09 | 2.196E-09 | 1.328E-09 | 9.119E-10 |
| NW | 1.401E-07 | 2.847E-07 | 1.502E-07 | 7.958E-08 | 4.999E-08 | 2.228E-08 | 7.786E-09 | 3.634E-09 | 2.210E-09 | 1.522E-09 |
| NNW | 2.565E-08 | 6.067E-08 | 5.700E-08 | 4.213E-08 | 2.797E-08 | 1.286E-08 | 4.577E-09 | 2.131E-09 | 1.351E-09 | 9.481E-10 |
| N | 2.275E-08 | 3.384E-08 | 2.862E-08 | 2.089E-08 | 1.567E-08 | 8.972E-09 | 3.130E-09 | 3.244E-09 | 2.071E-09 | 1.447E-09 |
| NNE | 1.296E-08 | 2.208E-08 | 1.953E-08 | 1.499E-08 | 1.281E-08 | 1.452E-08 | 6.980E-09 | 3.397E-09 | 2.131E-09 | 1.505E-09 |
| NE | 1.546E-08 | 2.595E-08 | 2.388E-08 | 1.879E-08 | 1.630E-08 | 1.942E-08 | 9.458E-09 | 4.620E-09 | 2.920E-09 | 2.070E-09 |
| ENE | 1.409E-08 | 3.282E-08 | 3.222E-08 | 2.578E-08 | 2.231E-08 | 2.418E-08 | 1.164E-08 | 5.717E-09 | 3.648E-09 | 2.587E-09 |
| E | 3.637E-08 | 4.041E-08 | 3.372E-08 | 2.577E-08 | 2.143E-08 | 1.963E-08 | 9.063E-09 | 4.371E-09 | 2.712E-09 | 1.927E-09 |
| ESE | 3.097E-08 | 3.462E-08 | 2.703E-08 | 1.963E-08 | 1.554E-08 | 1.333E-08 | 6.138E-09 | 3.014E-09 | 1.886E-09 | 1.324E-09 |
| SE | 1.588E-07 | 1.094E-07 | 7.251E-08 | 4.974E-08 | 3.630E-08 | 1.965E-08 | 9.300E-09 | 5.102E-09 | 3.312E-09 | 2.357E-09 |
| SSE | 1.357E-07 | 9.479E-08 | 6.196E-08 | 4.691E-08 | 4.779E-08 | 2.350E-08 | 8.051E-09 | 3.722E-09 | 2.258E-09 | 1.556E-09 |

ERP ELEVATED STACK RELEASE - JAN-MAR 1984
8.000 DAY DECAY, DEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.692E-07 | 1.837E-07 | 1.722E-07 | 1.371E-07 | 1.007E-07 | 7.531E-08 | 5.756E-08 | 4.518E-08 | 3.640E-08 | 3.768E-08 | 3.744E-08 |
| SSW | 1.386E-08 | 5.671E-08 | 5.813E-08 | 4.779E-08 | 3.636E-08 | 3.101E-08 | 2.507E-08 | 2.603E-08 | 2.540E-08 | 2.153E-08 | 1.848E-08 |
| SW | 3.002E-09 | 1.481E-08 | 3.161E-08 | 1.106E-07 | 1.667E-07 | 1.107E-07 | 7.892E-08 | 5.951E-08 | 4.681E-08 | 3.803E-08 | 3.169E-08 |
| WSW | 7.926E-16 | 7.527E-10 | 3.074E-08 | 1.138E-07 | 1.787E-07 | 1.088E-07 | 7.288E-08 | 5.230E-08 | 3.949E-08 | 3.098E-08 | 2.503E-08 |
| W | 5.755E-09 | 5.534E-08 | 1.815E-07 | 2.173E-07 | 1.806E-07 | 1.075E-07 | 7.111E-08 | 5.068E-08 | 3.810E-08 | 2.982E-08 | 2.406E-08 |
| WNW | 7.441E-10 | 4.206E-08 | 1.653E-07 | 2.428E-07 | 2.400E-07 | 1.365E-07 | 8.802E-08 | 6.325E-08 | 4.778E-08 | 3.683E-08 | 2.936E-08 |
| NW | 6.463E-11 | 6.750E-09 | 8.911E-08 | 2.438E-07 | 3.872E-07 | 2.198E-07 | 1.419E-07 | 1.010E-07 | 7.602E-08 | 5.892E-08 | 4.719E-08 |
| NNW | 5.693E-16 | 6.076E-10 | 1.819E-08 | 4.382E-08 | 6.651E-08 | 6.339E-08 | 5.736E-08 | 4.270E-08 | 3.325E-08 | 2.675E-08 | |
| N | 1.119E-10 | 7.797E-09 | 2.163E-08 | 3.063E-08 | 3.567E-08 | 3.313E-08 | 2.867E-08 | 2.401E-08 | 2.030E-08 | 1.737E-08 | 1.505E-08 |
| NNE | 3.921E-11 | 3.111E-09 | 1.170E-08 | 1.868E-08 | 2.352E-08 | 2.220E-08 | 1.951E-08 | 1.691E-08 | 1.469E-08 | 1.287E-08 | 1.139E-08 |
| NE | 7.268E-11 | 4.943E-09 | 1.431E-08 | 2.131E-08 | 2.735E-08 | 2.663E-08 | 2.392E-08 | 2.104E-08 | 1.848E-08 | 1.632E-08 | 1.452E-08 |
| ENE | 5.903E-16 | 6.136E-10 | 1.087E-08 | 2.329E-08 | 3.500E-08 | 3.546E-08 | 3.240E-08 | 2.877E-08 | 2.542E-08 | 2.255E-08 | 2.014E-08 |
| E | 3.365E-09 | 2.468E-08 | 3.781E-08 | 3.991E-08 | 4.159E-08 | 3.832E-08 | 3.359E-08 | 2.909E-08 | 2.525E-08 | 2.207E-08 | 1.947E-08 |
| ESE | 2.317E-09 | 1.892E-08 | 3.177E-08 | 3.544E-08 | 3.620E-08 | 3.179E-08 | 2.678E-08 | 2.249E-08 | 1.906E-08 | 1.635E-08 | 1.420E-08 |
| SE | 1.465E-07 | 1.780E-07 | 1.658E-07 | 1.380E-07 | 1.110E-07 | 8.861E-08 | 7.098E-08 | 5.777E-08 | 4.789E-08 | 4.039E-08 | 3.460E-08 |
| SSE | 1.807E-07 | 1.590E-07 | 1.378E-07 | 1.179E-07 | 9.742E-08 | 7.691E-08 | 6.053E-08 | 4.838E-08 | 3.946E-08 | 4.711E-08 | 4.924E-08 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.222E-08 | 1.828E-08 | 1.124E-08 | 5.902E-09 | 3.751E-09 | 2.622E-09 | 1.947E-09 | 1.511E-09 | 1.216E-09 | 1.003E-09 | 8.425E-10 |
| SSW | 1.635E-08 | 9.578E-09 | 5.856E-09 | 3.040E-09 | 1.903E-09 | 1.324E-09 | 9.801E-10 | 7.589E-10 | 6.072E-10 | 4.982E-10 | 4.167E-10 |
| SW | 2.891E-08 | 2.030E-08 | 1.278E-08 | 6.826E-09 | 4.366E-09 | 3.046E-09 | 2.270E-09 | 1.761E-09 | 1.402E-09 | 1.144E-09 | 9.508E-10 |
| WSW | 2.112E-08 | 1.105E-08 | 6.876E-09 | 3.602E-09 | 2.233E-09 | 1.537E-09 | 1.129E-09 | 8.672E-10 | 6.888E-10 | 5.617E-10 | 4.671E-10 |
| W | 1.991E-08 | 1.003E-08 | 6.437E-09 | 3.466E-09 | 2.185E-09 | 1.513E-09 | 1.117E-09 | 8.628E-10 | 6.889E-10 | 5.643E-10 | 4.715E-10 |
| WNW | 2.415E-08 | 1.186E-08 | 7.309E-09 | 3.815E-09 | 2.358E-09 | 1.633E-09 | 1.208E-09 | 9.347E-10 | 7.472E-10 | 6.125E-10 | 5.123E-10 |
| NW | 3.900E-08 | 1.949E-08 | 1.215E-08 | 6.446E-09 | 4.047E-09 | 2.814E-09 | 2.093E-09 | 1.627E-09 | 1.306E-09 | 1.074E-09 | 9.013E-10 |
| NNW | 2.238E-08 | 1.163E-08 | 7.215E-09 | 3.805E-09 | 2.358E-09 | 1.621E-09 | 1.194E-09 | 9.226E-10 | 7.392E-10 | 6.136E-10 | 5.156E-10 |
| N | 1.322E-08 | 8.093E-09 | 6.508E-09 | 4.976E-09 | 3.905E-09 | 2.985E-09 | 2.260E-09 | 1.782E-09 | 1.449E-09 | 1.205E-09 | 1.022E-09 |
| NNE | 1.312E-08 | 1.811E-08 | 1.132E-08 | 6.130E-09 | 3.957E-09 | 2.815E-09 | 2.129E-09 | 1.679E-09 | 1.366E-09 | 1.138E-09 | 9.659E-10 |
| NE | 1.686E-08 | 2.456E-08 | 1.540E-08 | 8.345E-09 | 5.374E-09 | 3.815E-09 | 2.899E-09 | 2.298E-09 | 1.877E-09 | 1.567E-09 | 1.330E-09 |
| ENE | 2.276E-08 | 2.995E-08 | 1.892E-08 | 1.018E-08 | 6.364E-09 | 4.402E-09 | 3.294E-09 | 2.566E-09 | 2.079E-09 | 1.724E-09 | 1.456E-09 |
| E | 2.111E-08 | 2.360E-08 | 1.481E-08 | 7.910E-09 | 4.935E-09 | 3.408E-09 | 2.510E-09 | 1.934E-09 | 1.539E-09 | 1.289E-09 | 1.080E-09 |
| ESE | 1.455E-08 | 1.545E-08 | 9.846E-09 | 5.370E-09 | 3.403E-09 | 2.376E-09 | 1.766E-09 | 1.369E-09 | 1.096E-09 | 8.992E-10 | 7.518E-10 |
| SE | 3.008E-08 | 1.780E-08 | 1.322E-08 | 8.830E-09 | 6.203E-09 | 4.712E-09 | 3.725E-09 | 3.050E-09 | 2.550E-09 | 2.131E-09 | 1.809E-09 |
| SSE | 4.096E-08 | 2.089E-08 | 1.272E-08 | 6.622E-09 | 4.148E-09 | 2.880E-09 | 2.134E-09 | 1.654E-09 | 1.324E-09 | 1.088E-09 | 9.111E-10 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| DIRECTION FROM SITE | SEGMENT BOUNDARIES IN MILES .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.591E-07 | 9.749E-08 | 5.734E-08 | 3.940E-08 | 3.358E-08 | 1.825E-08 | 6.132E-09 | 2.653E-09 | 1.523E-09 | 1.007E-09 |
| SSW | 5.322E-08 | 3.719E-08 | 2.704E-08 | 2.411E-08 | 1.859E-08 | 9.429E-09 | 3.160E-09 | 1.341E-09 | 7.643E-10 | 5.003E-10 |
| SW | 6.964E-08 | 1.293E-07 | 7.963E-08 | 4.709E-08 | 3.254E-08 | 1.887E-08 | 7.056E-09 | 3.087E-09 | 1.770E-09 | 1.149E-09 |
| WSW | 6.365E-08 | 1.332E-07 | 7.423E-08 | 3.991E-08 | 2.534E-08 | 1.143E-08 | 3.721E-09 | 1.559E-09 | 8.741E-10 | 5.643E-10 |
| W | 1.694E-07 | 1.563E-07 | 7.264E-08 | 3.854E-08 | 2.423E-08 | 1.063E-08 | 3.557E-09 | 1.534E-09 | 8.692E-10 | 5.668E-10 |
| WNW | 1.723E-07 | 1.946E-07 | 9.105E-08 | 4.803E-08 | 2.964E-08 | 1.257E-08 | 3.944E-09 | 1.656E-09 | 9.414E-10 | 6.153E-10 |
| NW | 1.396E-07 | 2.809E-07 | 1.463E-07 | 7.666E-08 | 4.763E-08 | 2.056E-08 | 6.648E-09 | 2.855E-09 | 1.638E-09 | 1.079E-09 |
| NNW | 2.567E-08 | 6.008E-08 | 5.593E-08 | 4.112E-08 | 2.706E-08 | 1.206E-08 | 3.920E-09 | 1.647E-09 | 9.302E-10 | 6.145E-10 |
| N | 2.256E-08 | 3.342E-08 | 2.800E-08 | 2.024E-08 | 1.506E-08 | 8.527E-09 | 4.841E-09 | 2.940E-09 | 1.792E-09 | 1.210E-09 |
| NNE | 1.289E-08 | 2.186E-08 | 1.919E-08 | 1.463E-08 | 1.247E-08 | 1.399E-08 | 6.318E-09 | 2.045E-09 | 1.688E-09 | 1.142E-09 |
| NE | 1.534E-08 | 2.569E-08 | 2.349E-08 | 1.839E-08 | 1.592E-08 | 1.878E-08 | 8.592E-09 | 3.864E-09 | 2.309E-09 | 1.571E-09 |
| ENE | 1.411E-08 | 3.260E-08 | 3.176E-08 | 2.528E-08 | 2.182E-08 | 2.345E-08 | 1.043E-08 | 4.482E-09 | 2.589E-09 | 1.730E-09 |
| E | 3.583E-08 | 3.977E-08 | 3.305E-08 | 2.513E-08 | 2.065E-08 | 1.914E-08 | 8.120E-09 | 3.456E-09 | 1.948E-09 | 1.285E-09 |
| ESE | 3.055E-08 | 3.407E-08 | 2.640E-08 | 1.901E-08 | 1.497E-08 | 1.276E-08 | 5.490E-09 | 2.406E-09 | 1.379E-09 | 9.030E-10 |
| SE | 1.562E-07 | 1.071E-07 | 7.040E-08 | 4.785E-08 | 3.464E-08 | 1.849E-08 | 8.638E-09 | 4.714E-09 | 3.052E-09 | 2.136E-09 |
| SSE | 1.337E-07 | 9.285E-08 | 6.004E-08 | 4.492E-08 | 4.554E-08 | 2.172E-08 | 6.878E-09 | 2.920E-09 | 1.666E-09 | 1.092E-09 |

8135

ERP ELEVATED STACK RELEASE - JAN-MAR 1984
CORRECTED FOR OPEN TERRAIN RECIRCULATION

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS **********

| DIRECTION FROM SITE | DISTANCES IN MILES 0.25 | 0.50 | 0.75 | 1.00 | 1.50 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00 | 4.50 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.752E-08 | 1.343E-08 | 1.019E-08 | 6.329E-09 | 2.805E-09 | 1.649E-09 | 1.089E-09 | 7.726E-10 | 5.749E-10 | 4.473E-10 | 3.573E-10 |
| SSW | 4.171E-09 | 3.267E-09 | 2.591E-09 | 1.682E-09 | 7.780E-10 | 4.667E-10 | 3.117E-10 | 2.225E-10 | 1.679E-10 | 1.298E-10 | 1.173E-10 |
| SW | 6.779E-10 | 9.58[illegible]E-10 | 1.418E-09 | 1.325E-09 | 1.486E-09 | 8.116E-10 | 5.039E-10 | 3.426E-10 | 2.478E-10 | 1.875E-10 | 1.467E-10 |
| WSW | 7.310E-11 | 4.38[illegible]E-10 | 9.338E-10 | 2.115E-09 | 1.195E-09 | 6.506E-10 | 4.026E-10 | 2.730E-10 | 1.971E-10 | 1.490E-10 | 1.166E-10 |
| W | 9.448E-10 | 4.16[illegible]E-09 | 3.641E-09 | 2.351E-09 | 1.143E-09 | 6.090E-10 | 3.726E-10 | 2.507E-10 | 1.800E-10 | 1.355E-10 | 1.059E-10 |
| WNW | 2.165E-09 | 2.11[illegible]E-09 | 6.354E-09 | 4.162E-09 | 2.562E-09 | 1.279E-09 | 7.542E-10 | 4.958E-10 | 3.559E-10 | 2.683E-10 | 2.129E-10 |
| NW | 7.036E-10 | 1.113E-09 | 1.745E-09 | 4.149E-09 | 2.717E-09 | 1.352E-09 | 7.988E-10 | 5.309E-10 | 3.853E-10 | 2.995E-10 | 2.464E-10 |
| NNW | 5.005E-11 | 3.003E-10 | 6.394E-10 | 6.623E-10 | 8.260E-10 | 4.493E-10 | 2.779E-10 | 2.310E-10 | 1.677E-10 | 1.304E-10 | 1.074E-10 |
| N | 9.464E-10 | 1.015E-09 | 1.225E-09 | 1.055E-09 | 6.004E-10 | 3.908E-10 | 2.722E-10 | 1.985E-10 | 1.499E-10 | 1.161E-10 | 9.197E-11 |
| NNE | 3.366E-10 | 4.654E-10 | 6.790E-10 | 6.318E-10 | 3.751E-10 | 2.476E-10 | 1.736E-10 | 1.271E-10 | 9.607E-11 | 7.451E-11 | 5.901E-11 |
| NE | 6.324E-10 | 6.855E-10 | 8.359E-10 | 7.228E-10 | 4.125E-10 | 2.688E-10 | 1.873E-10 | 1.366E-10 | 1.031E-10 | 7.995E-11 | 6.331E-11 |
| ENE | 5.468E-11 | 3.281E-10 | 6.986E-10 | 7.236E-10 | 4.520E-10 | 3.031E-10 | 2.141E-10 | 1.572E-10 | 1.191E-10 | 9.244E-11 | 7.320E-11 |
| E | 2.399E-09 | 1.958E-09 | 1.675E-09 | 1.163E-09 | 5.704E-10 | 3.510E-10 | 2.377E-10 | 1.709E-10 | 1.280E-10 | 9.894E-11 | 7.834E-11 |
| ESE | 1.518E-09 | 1.335E-09 | 1.284E-09 | 9.725E-10 | 5.101E-10 | 3.224E-10 | 2.213E-10 | 1.603E-10 | 1.205E-10 | 9.326E-11 | 7.384E-11 |
| SE | 1.758E-08 | 1.375E-08 | 1.088E-08 | 7.053E-09 | 3.257E-09 | 1.952E-09 | 1.303E-09 | 9.299E-10 | 6.940E-10 | 5.354E-10 | 4.239E-10 |
| SSE | 1.816E-08 | 1.415E-08 | 1.110E-08 | 7.133E-09 | 3.268E-09 | 1.951E-09 | 1.300E-09 | 9.268E-10 | 6.914E-10 | 6.281E-10 | 5.278E-10 |

| DIRECTION FROM SITE | DISTANCES IN MILES 5.00 | 7.50 | 10.00 | 15.00 | 20.00 | 25.00 | 30.00 | 35.00 | 40.00 | 45.00 | 50.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.280E-10 | 1.666E-10 | 1.037E-10 | 5.983E-11 | 3.566E-11 | 2.930E-11 | 2.105E-11 | 1.585E-11 | 1.258E-11 | 1.005E-11 | 8.202E-12 |
| SSW | 9.555E-11 | 5.716E-11 | 3.752E-11 | 2.116E-11 | 1.449E-11 | 1.037E-11 | 7.219E-12 | 5.423E-12 | 4.219E-12 | 3.438E-12 | 2.806E-12 |
| SW | 1.191E-10 | 7.570E-11 | 5.014E-11 | 2.823E-11 | 1.771E-11 | 1.339E-11 | 9.775E-12 | 7.413E-12 | 5.764E-12 | 4.604E-12 | 3.758E-12 |
| WSW | 9.447E-11 | 5.207E-11 | 3.302E-11 | 2.183E-11 | 1.321E-11 | 8.859E-12 | 6.669E-12 | 5.008E-12 | 3.894E-12 | 3.111E-12 | 2.539E-12 |
| W | 8.520E-11 | 3.857E-11 | 3.496E-11 | 2.037E-11 | 1.437E-11 | 9.755E-12 | 6.990E-12 | 5.249E-12 | 4.081E-12 | 3.260E-12 | 2.661E-12 |
| WNW | 1.771E-10 | 9.412E-11 | 6.288E-11 | 3.576E-11 | 2.346E-11 | 1.673E-11 | 1.220E-11 | 9.164E-12 | 7.125E-12 | 5.691E-12 | 4.643E-12 |
| NW | 2.132E-10 | 1.296E-10 | 9.281E-11 | 5.619E-11 | 3.409E-11 | 2.287E-11 | 1.699E-11 | 1.272E-11 | 9.893E-12 | 7.903E-12 | 6.450E-12 |
| NNW | 9.298E-11 | 5.670E-11 | 4.068E-11 | 2.451E-11 | 1.538E-11 | 1.032E-11 | 7.031E-12 | 5.351E-12 | 4.144E-12 | 3.431E-12 | 2.800E-12 |
| N | 7.413E-11 | 3.518E-11 | 2.149E-11 | 1.136E-11 | 2.838E-11 | 1.707E-11 | 1.224E-11 | 9.193E-12 | 7.151E-12 | 5.714E-12 | 4.666E-12 |
| NNE | 4.754E-11 | 1.228E-10 | 7.475E-11 | 3.801E-11 | 2.305E-11 | 1.545E-11 | 1.106E-11 | 8.302E-12 | 6.453E-12 | 5.154E-12 | 4.206E-12 |
| NE | 5.103E-11 | 1.490E-10 | 9.178E-11 | 4.732E-11 | 2.882E-11 | 1.929E-11 | 1.374E-11 | 1.028E-11 | 7.970E-12 | 6.413E-12 | 5.234E-12 |
| ENE | 5.896E-11 | 1.228E-10 | 9.642E-11 | 6.210E-11 | 4.007E-11 | 2.644E-11 | 1.844E-11 | 1.262E-11 | 8.907E-12 | 6.956E-12 | 5.682E-12 |
| E | 6.326E-11 | 9.361E-11 | 7.122E-11 | 4.501E-11 | 2.907E-11 | 1.934E-11 | 1.362E-11 | 1.001E-11 | 7.632E-12 | 5.994E-12 | 4.887E-12 |
| ESE | 5.957E-11 | 7.337E-11 | 5.420E-11 | 3.349E-11 | 2.151E-11 | 1.432E-11 | 1.010E-11 | 7.434E-12 | 5.682E-12 | 4.480E-12 | 3.616E-12 |
| SE | 3.426E-10 | 1.637E-10 | 1.008E-10 | 5.443E-11 | 3.431E-11 | 2.422E-11 | 1.842E-11 | 1.468E-11 | 1.840E-11 | 1.653E-11 | 1.360E-11 |
| SSE | 4.271E-10 | 2.729E-10 | 1.660E-10 | 8.444E-11 | 5.125E-11 | 3.438E-11 | 2.464E-11 | 1.851E-11 | 1.439E-11 | 1.150E-11 | 9.394E-12 |

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS **********

| DIRECTION FROM SITE | SEGMENT BOUNDARIES IN MILES .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| S | 9.191E-09 | 3.074E-09 | 1.112E-09 | 5.904E-10 | 3.957E-10 | 1.745E-10 | 5.750E-11 | 2.769E-11 | 1.609E-11 | 1.011E-11 |
| SSW | 2.337E-09 | 8.405E-10 | 3.174E-10 | 1.866E-10 | 1.189E-10 | 5.696E-11 | 2.183E-11 | 1.011E-11 | 5.477E-12 | 3.435E-12 |
| SW | 1.275E-09 | 1.151E-09 | 5.214E-10 | 2.519E-10 | 1.486E-10 | 7.398E-11 | 2.842E-11 | 1.310E-11 | 7.460E-12 | 4.635E-12 |
| WSW | 1.349E-09 | 1.158E-09 | 4.169E-10 | 2.005E-10 | 1.180E-10 | 5.303E-11 | 2.049E-11 | 9.142E-12 | 5.058E-12 | 3.131E-12 |
| W | 3.183E-09 | 1.174E-09 | 3.869E-10 | 1.833E-10 | 1.070E-10 | 4.733E-11 | 2.094E-11 | 9.879E-12 | 5.301E-12 | 3.281E-12 |
| WNW | 4.437E-09 | 2.347E-09 | 7.908E-10 | 3.625E-10 | 2.161E-10 | 9.867E-11 | 3.632E-11 | 1.671E-11 | 9.255E-12 | 5.729E-12 |
| NW | 2.673E-09 | 2.428E-09 | 8.390E-10 | 3.942E-10 | 2.498E-10 | 1.318E-10 | 5.451E-11 | 2.351E-11 | 1.286E-11 | 7.954E-12 |
| NNW | 5.742E-10 | 6.222E-10 | 3.049E-10 | 1.716E-10 | 1.089E-10 | 5.764E-11 | 2.413E-11 | 1.041E-11 | 5.371E-12 | 3.409E-12 |
| N | 1.103E-09 | 6.082E-10 | 2.743E-10 | 1.509E-10 | 9.253E-11 | 3.775E-11 | 2.118E-11 | 1.816E-11 | 9.285E-12 | 5.752E-12 |
| NNE | 6.105E-10 | 3.753E-10 | 1.747E-10 | 9.672E-11 | 5.936E-11 | 8.474E-11 | 3.952E-11 | 1.572E-11 | 8.387E-12 | 5.188E-12 |
| NE | 7.522E-10 | 4.176E-10 | 1.888E-10 | 1.039E-10 | 6.369E-11 | 1.018E-10 | 4.898E-11 | 1.961E-11 | 1.039E-11 | 6.437E-12 |
| ENE | 6.274E-10 | 4.461E-10 | 2.151E-10 | 1.198E-10 | 7.363E-11 | 9.688E-11 | 5.993E-11 | 2.687E-11 | 1.287E-11 | 7.062E-12 |
| E | 1.510E-09 | 6.045E-10 | 2.412E-10 | 1.292E-10 | 7.886E-11 | 7.691E-11 | 4.375E-11 | 1.965E-11 | 1.013E-11 | 5.684E-12 |
| ESE | 1.157E-09 | 5.294E-10 | 2.238E-10 | 1.215E-10 | 7.431E-11 | 6.178E-11 | 3.277E-11 | 1.455E-11 | 7.528E-12 | 4.516E-12 |
| SE | 9.819E-09 | 3.520E-09 | 1.327E-09 | 7.010E-10 | 4.268E-10 | 1.755E-10 | 5.580E-11 | 2.459E-11 | 1.716E-11 | 1.600E-11 |
| SSE | 1.001E-08 | 3.542E-09 | 1.325E-09 | 7.345E-10 | 5.202E-10 | 2.597E-10 | 8.782E-11 | 3.498E-11 | 1.869E-11 | 1.158E-11 |

ERP ELEVATED STACK RELEASE - JAN-MAR 1984
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

| RELEASE ID | TYPE OF LOCATION | DIRECTION | DISTANCE (MILES) | DISTANCE (METERS) | X/Q (SEC/CUB METER) NO DECAY UNDEPLETED | X/Q (SEC/CUB METER) 2.260 DAY DECAY UNDEPLETED | X/Q (SEC/CUB METER) 8.000 DAY DECAY DEPLETED | D/Q (PER SQ METER) |
|---|---|---|---|---|---|---|---|---|
| A | SITE BOUNDARY | S | 0.84 | 1350. | 1.598E-07 | 1.597E-07 | 1.563E-07 | 8.572E-09 |
| A | SITE BOUNDARY | SSW | 0.85 | 1370. | 5.408E-08 | 5.402E-08 | 5.289E-08 | 2.176E-09 |
| A | SITE BOUNDARY | SW | 1.01 | 1620. | 1.124E-07 | 1.122E-07 | 1.120E-07 | 1.315E-09 |
| A | SITE BOUNDARY | WSW | 1.00 | 1610. | 1.142E-07 | 1.139E-07 | 1.140E-07 | 2.113E-09 |
| A | SITE BOUNDARY | W | 0.99 | 1590. | 2.202E-07 | 2.197E-07 | 2.170E-07 | 2.333E-09 |
| A | SITE BOUNDARY | WNW | 1.01 | 1620. | 2.472E-07 | 2.469E-07 | 2.440E-07 | 4.111E-09 |
| A | SITE BOUNDARY | NW | 0.80 | 1290. | 1.200E-07 | 1.198E-07 | 1.196E-07 | 1.782E-09 |
| A | SITE BOUNDARY | NNW | 0.70 | 1130. | 1.256E-08 | 1.255E-08 | 1.256E-08 | 5.740E-10 |
| A | SITE BOUNDARY | N | 0.70 | 1130. | 1.870E-08 | 1.868E-08 | 1.847E-08 | 1.177E-09 |
| A | SITE BOUNDARY | NNE | 0.65 | 1050. | 7.630E-09 | 7.624E-09 | 7.559E-09 | 5.904E-10 |
| A | SITE BOUNDARY | NE | 0.64 | 1030. | 9.635E-09 | 9.628E-09 | 9.522E-09 | 7.602E-10 |
| A | SITE BOUNDARY | ENE | 0.58 | 930. | 2.273E-09 | 2.271E-09 | 2.272E-09 | 4.406E-10 |
| A | SITE BOUNDARY | E | 0.54 | 870. | 2.749E-08 | 2.747E-08 | 2.718E-08 | 1.893E-09 |
| A | SITE BOUNDARY | ESE | 0.55 | 880. | 2.166E-08 | 2.164E-08 | 2.141E-08 | 1.311E-09 |
| A | SITE BOUNDARY | SE | 1.03 | 1660. | 1.388E-07 | 1.386E-07 | 1.360E-07 | 6.653E-09 |
| A | SITE BOUNDARY | SSE | 0.85 | 1370. | 1.289E-07 | 1.287E-07 | 1.264E-07 | 9.278E-09 |
| A | NEAR. RESIDENCE | SSW | 1.30 | 2092. | 4.261E-08 | 4.251E-08 | 4.165E-08 | 1.024E-09 |
| A | NEAR. RESIDENCE | SW | 1.30 | 2092. | 1.576E-07 | 1.572E-07 | 1.562E-07 | 1.972E-09 |
| A | NEAR. RESIDENCE | W | 1.00 | 1609. | 2.205E-07 | 2.201E-07 | 2.173E-07 | 2.351E-09 |
| A | NEAR. RESIDENCE | NW | 0.90 | 1448. | 1.819E-07 | 1.817E-07 | 1.814E-07 | 4.286E-09 |
| A | NEAR. RESIDENCE | NNW | 1.90 | 3058. | 6.554E-08 | 6.537E-08 | 6.445E-08 | 5.022E-10 |
| A | NEAREST COW | W | 2.30 | 3702. | 8.644E-08 | 8.597E-08 | 8.301E-08 | 4.473E-10 |
| A | NEAREST COW | NNW | 3.50 | 5633. | 4.392E-08 | 4.370E-08 | 4.269E-08 | 1.677E-10 |
| A | NEAREST GARDEN | SSW | 1.30 | 2092. | 4.261E-08 | 4.251E-08 | 4.165E-08 | 1.024E-09 |
| A | NEAREST GARDEN | SW | 1.30 | 2092. | 1.576E-07 | 1.572E-07 | 1.562E-07 | 1.972E-09 |
| A | NEAREST GARDEN | W | 1.00 | 1609. | 2.205E-07 | 2.201E-07 | 2.173E-07 | 2.351E-09 |
| A | NEAREST GARDEN | NW | 2.70 | 4345. | 1.271E-07 | 1.266E-07 | 1.229E-07 | 6.705E-10 |
| A | NEAREST GARDEN | NNW | 1.90 | 3058. | 6.554E-08 | 6.537E-08 | 6.445E-08 | 5.022E-10 |

Atmospheric Diffusion Estimates
Elevated Releases
April-June 1984

ERP ELEVATED BLACK RELEASE - APR-JUN 1984
NO DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.102E-07 | 5.647E-08 | 4.781E-08 | 5.338E-08 | 5.869E-08 | 5.234E-08 | 4.424E-08 | 3.718E-08 | 3.151E-08 | 3.676E-08 | 4.068E-08 |
| SSW | 6.856E-09 | 2.816E-09 | 1.334E-08 | 2.555E-08 | 3.318E-08 | 3.031E-08 | 2.574E-08 | 2.771E-08 | 2.771E-08 | 2.393E-08 | 2.102E-08 |
| SW | 2.361E-10 | 1.810E-08 | 6.326E-08 | 1.052E-07 | 1.409E-07 | 9.334E-08 | 6.657E-08 | 5.021E-08 | 3.950E-08 | 3.208E-08 | 2.673E-08 |
| WSW | 9.405E-16 | 8.570E-10 | 3.945E-08 | 1.084E-07 | 1.710E-07 | 1.053E-07 | 7.150E-08 | 5.202E-08 | 3.981E-08 | 3.165E-08 | 2.591E-08 |
| W | 1.360E-09 | 9.120E-08 | 2.988E-07 | 3.563E-07 | 3.129E-07 | 1.914E-07 | 1.296E-07 | 9.420E-08 | 7.205E-08 | 5.724E-08 | 4.683E-08 |
| WNW | 6.738E-10 | 5.005E-08 | 2.543E-07 | 4.166E-07 | 4.782E-07 | 2.873E-07 | 1.923E-07 | 1.441E-07 | 1.127E-07 | 8.859E-08 | 7.189E-08 |
| NW | 9.133E-10 | 6.087E-08 | 2.455E-07 | 4.409E-07 | 5.426E-07 | 3.091E-07 | 2.014E-07 | 1.458E-07 | 1.118E-07 | 8.779E-08 | 7.125E-08 |
| NNW | 6.851E-09 | 5.580E-08 | 1.173E-07 | 1.496E-07 | 1.780E-07 | 1.585E-07 | 1.342E-07 | 1.122E-07 | 9.632E-08 | 7.540E-08 | 6.102E-08 |
| N | 6.595E-09 | 7.003E-08 | 1.107E-07 | 1.963E-07 | 9.023E-08 | 7.469E-08 | 6.125E-08 | 4.984E-08 | 4.133E-08 | 3.489E-08 | 2.993E-08 |
| NNE | 2.473E-11 | 2.331E-09 | 2.057E-08 | 3.805E-08 | 4.752E-08 | 4.273E-08 | 3.597E-08 | 3.005E-08 | 2.532E-08 | 2.160E-08 | 1.866E-08 |
| NE | 1.077E-10 | 8.646E-09 | 2.265E-08 | 2.980E-08 | 3.301E-08 | 2.989E-08 | 2.579E-08 | 2.211E-08 | 1.908E-08 | 1.662E-08 | 1.464E-08 |
| ENE | 9.418E-09 | 1.647E-06 | 1.345E-08 | 1.120E-08 | 1.112E-08 | 1.062E-08 | 9.623E-09 | 8.552E-09 | 7.573E-09 | 6.727E-09 | 6.013E-09 |
| E | 8.336E-16 | 5.846E-10 | 8.800E-09 | 1.678E-08 | 2.158E-08 | 1.994E-08 | 1.717E-08 | 1.461E-08 | 1.249E-08 | 1.078E-08 | 9.412E-09 |
| ESE | 5.368E-09 | 2.324E-08 | 2.779E-08 | 2.748E-08 | 2.501E-08 | 2.055E-08 | 1.658E-08 | 1.350E-08 | 1.118E-08 | 9.409E-09 | 8.049E-09 |
| SE | 7.149E-08 | 5.438E-08 | 4.516E-08 | 4.294E-08 | 4.039E-08 | 3.393E-08 | 2.785E-08 | 2.301E-08 | 1.930E-08 | 1.644E-08 | 1.421E-08 |
| BSE | 9.666E-08 | 7.673E-08 | 7.962E-08 | 7.875E-08 | 7.410E-08 | 6.258E-08 | 5.169E-08 | 4.296E-08 | 3.624E-08 | 5.238E-08 | 6.915E-08 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.641E-08 | 2.427E-08 | 1.576E-08 | 9.020E-09 | 6.266E-09 | 4.706E-09 | 3.661E-09 | 2.963E-09 | 2.485E-09 | 2.126E-09 | 1.842E-09 |
| SSW | 1.936E-08 | 1.728E-08 | 1.135E-08 | 6.651E-09 | 4.970E-09 | 3.820E-09 | 2.995E-09 | 2.442E-09 | 2.047E-09 | 1.756E-09 | 1.529E-09 |
| SW | 2.427E-08 | 1.677E-08 | 1.087E-08 | 6.205E-09 | 4.293E-09 | 3.212E-09 | 2.530E-09 | 2.048E-09 | 1.704E-09 | 1.450E-09 | 1.255E-09 |
| WSW | 2.236E-08 | 1.345E-08 | 7.306E-09 | 5.643E-09 | 3.764E-09 | 2.756E-09 | 2.141E-09 | 1.729E-09 | 1.438E-09 | 1.223E-09 | 1.058E-09 |
| W | 3.922E-08 | 2.076E-08 | 1.411E-08 | 8.428E-09 | 5.789E-09 | 4.225E-09 | 3.267E-09 | 2.631E-09 | 2.182E-09 | 1.851E-09 | 1.597E-09 |
| WNW | 6.026E-08 | 3.203E-08 | 2.094E-08 | 1.203E-08 | 8.045E-09 | 5.892E-09 | 4.569E-09 | 3.684E-09 | 3.056E-09 | 2.594E-09 | 2.238E-09 |
| NW | 5.999E-08 | 3.292E-08 | 2.237E-08 | 1.366E-08 | 9.209E-09 | 6.799E-09 | 5.416E-09 | 4.452E-09 | 3.738E-09 | 3.193E-09 | 2.774E-09 |
| NNW | 5.156E-08 | 2.839E-08 | 1.827E-08 | 1.039E-08 | 7.003E-09 | 5.168E-09 | 4.056E-09 | 3.308E-09 | 2.774E-09 | 2.419E-09 | 2.099E-09 |
| N | 2.606E-08 | 1.551E-08 | 1.180E-08 | 7.954E-09 | 5.719E-09 | 4.286E-09 | 3.311E-09 | 2.663E-09 | 2.206E-09 | 1.869E-09 | 1.612E-09 |
| NNE | 1.926E-08 | 1.620E-08 | 1.022E-08 | 5.641E-09 | 3.711E-09 | 2.687E-09 | 2.065E-09 | 1.655E-09 | 1.366E-09 | 1.154E-09 | 9.930E-10 |
| NE | 1.620E-08 | 1.830E-08 | 1.173E-08 | 6.630E-09 | 4.441E-09 | 3.260E-09 | 2.545E-09 | 2.065E-09 | 1.722E-09 | 1.468E-09 | 1.272E-09 |
| ENE | 6.661E-09 | 8.201E-09 | 5.377E-09 | 3.121E-09 | 2.125E-09 | 1.579E-09 | 1.264E-09 | 1.046E-09 | 8.861E-10 | 7.582E-10 | 6.592E-10 |
| E | 9.816E-09 | 1.153E-08 | 7.596E-09 | 4.442E-09 | 3.041E-09 | 2.270E-09 | 1.789E-09 | 1.464E-09 | 1.231E-09 | 1.126E-09 | 9.809E-10 |
| ESE | 7.855E-09 | 7.146E-09 | 4.652E-09 | 2.674E-09 | 1.811E-09 | 1.340E-09 | 1.048E-09 | 8.525E-10 | 7.131E-10 | 6.095E-10 | 5.298E-10 |
| SE | 1.245E-08 | 7.613E-09 | 5.861E-09 | 4.191E-09 | 3.069E-09 | 2.416E-09 | 1.962E-09 | 1.647E-09 | 1.417E-09 | 1.217E-09 | 1.060E-09 |
| BSE | 5.947E-08 | 3.413E-08 | 2.199E-08 | 1.250E-08 | 8.417E-09 | 6.205E-09 | 4.843E-09 | 3.931E-09 | 3.284E-09 | 2.803E-09 | 2.434E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| DIRECTION FROM SITE | SEGMENT BOUNDARIES IN MILES .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| S | 5.221E-08 | 5.469E-08 | 4.357E-08 | 3.513E-08 | 3.794E-08 | 2.318E-08 | 9.293E-09 | 4.704E-09 | 2.980E-09 | 2.127E-09 |
| SSW | 1.643E-08 | 3.021E-08 | 2.775E-08 | 2.627E-08 | 2.127E-08 | 1.509E-08 | 6.949E-09 | 3.796E-09 | 2.449E-09 | 1.758E-09 |
| SW | 7.188E-09 | 1.118E-07 | 6.717E-08 | 3.973E-08 | 2.741E-08 | 1.581E-08 | 6.391E-09 | 3.228E-09 | 2.055E-09 | 1.453E-09 |
| WSW | 6.151E-08 | 1.279E-07 | 7.273E-08 | 4.019E-08 | 2.630E-08 | 1.359E-08 | 5.622E-09 | 2.779E-09 | 1.736E-09 | 1.226E-09 |
| W | 2.782E-07 | 2.685E-07 | 1.319E-07 | 7.274E-08 | 4.710E-08 | 2.190E-08 | 8.517E-09 | 4.259E-09 | 2.642E-09 | 1.856E-09 |
| WNW | 2.810E-07 | 3.796E-07 | 1.984E-07 | 1.125E-07 | 7.253E-08 | 3.337E-08 | 1.224E-08 | 5.937E-09 | 3.698E-09 | 2.600E-09 |
| NW | 2.913E-07 | 4.162E-07 | 2.079E-07 | 1.124E-07 | 7.198E-08 | 3.425E-08 | 1.362E-08 | 6.889E-09 | 4.456E-09 | 3.199E-09 |
| NNW | 1.180E-07 | 1.630E-07 | 1.319E-07 | 9.289E-08 | 6.178E-08 | 2.904E-08 | 1.063E-08 | 5.212E-09 | 3.318E-09 | 2.406E-09 |
| N | 9.971E-08 | 8.690E-08 | 6.027E-08 | 4.131E-08 | 2.996E-08 | 1.621E-08 | 7.816E-09 | 4.278E-09 | 2.674E-09 | 1.874E-09 |
| NNE | 2.429E-08 | 4.329E-08 | 3.541E-08 | 2.525E-08 | 1.975E-08 | 1.422E-08 | 5.801E-09 | 2.711E-09 | 1.662E-09 | 1.137E-09 |
| NE | 2.272E-08 | 3.091E-08 | 2.541E-08 | 1.901E-08 | 1.581E-08 | 1.492E-08 | 6.791E-09 | 3.289E-09 | 2.071E-09 | 1.471E-09 |
| ENE | 1.312E-08 | 1.092E-08 | 9.461E-09 | 7.531E-09 | 6.465E-09 | 6.604E-09 | 3.180E-09 | 1.599E-09 | 1.048E-09 | 7.594E-10 |
| E | 1.052E-08 | 1.978E-08 | 1.688E-08 | 1.244E-08 | 9.967E-09 | 9.400E-09 | 4.520E-09 | 2.283E-09 | 1.468E-09 | 1.103E-09 |
| ESE | 2.664E-08 | 2.358E-08 | 1.641E-08 | 1.117E-08 | 8.380E-09 | 6.195E-09 | 2.730E-09 | 1.349E-09 | 8.553E-10 | 6.107E-10 |
| SE | 4.622E-08 | 3.809E-08 | 2.754E-08 | 1.927E-08 | 1.422E-08 | 7.910E-09 | 4.063E-09 | 2.409E-09 | 1.649E-09 | 1.218E-09 |
| BSE | 7.859E-08 | 7.001E-08 | 5.110E-08 | 4.431E-08 | 6.060E-08 | 3.437E-08 | 1.280E-08 | 6.250E-09 | 3.945E-09 | 2.809E-09 |

ERP ELEVATED STACK RELEASE - APR-JUN 1984
2.260 DAY DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.102E-07 | 5.644E-08 | 4.777E-08 | 5.329E-08 | 5.853E-08 | 5.212E-08 | 4.401E-08 | 3.694E-08 | 3.127E-08 | 3.645E-08 | 4.028E-08 |
| SSW | 6.854E-09 | 2.815E-09 | 1.332E-08 | 2.551E-08 | 3.309E-08 | 3.019E-08 | 2.561E-08 | 2.754E-08 | 2.750E-08 | 2.373E-08 | 2.082E-08 |
| SW | 2.360E-10 | 1.809E-08 | 6.319E-08 | 1.051E-07 | 1.404E-07 | 9.285E-08 | 6.612E-08 | 4.978E-08 | 3.909E-08 | 3.170E-08 | 2.637E-08 |
| WSW | 9.403E-16 | 8.565E-10 | 3.941E-08 | 1.082E-07 | 1.704E-07 | 1.048E-07 | 7.099E-08 | 5.156E-08 | 3.939E-08 | 3.126E-08 | 2.555E-08 |
| W | 1.359E-09 | 9.114E-08 | 2.985E-07 | 3.557E-07 | 3.121E-07 | 1.908E-07 | 1.291E-07 | 9.376E-08 | 7.165E-08 | 5.688E-08 | 4.650E-08 |
| WNW | 6.739E-10 | 5.001E-08 | 2.340E-07 | 4.158E-07 | 4.766E-07 | 2.860E-07 | 1.914E-07 | 1.431E-07 | 1.117E-07 | 8.771E-08 | 7.109E-08 |
| NW | 9.132E-10 | 6.083E-08 | 2.453E-07 | 4.404E-07 | 5.415E-07 | 3.082E-07 | 2.007E-07 | 1.451E-07 | 1.112E-07 | 8.722E-08 | 7.072E-08 |
| NNW | 6.850E-09 | 5.577E-08 | 1.171E-07 | 1.494E-07 | 1.775E-07 | 1.579E-07 | 1.336E-07 | 1.117E-07 | 9.576E-08 | 7.490E-08 | 6.056E-08 |
| N | 6.594E-09 | 7.000E-08 | 1.106E-07 | 1.062E-07 | 9.009E-08 | 7.452E-08 | 6.108E-08 | 4.967E-08 | 4.117E-08 | 3.473E-08 | 2.977E-08 |
| NNE | 2.472E-11 | 2.330E-09 | 2.055E-08 | 3.800E-08 | 4.742E-08 | 4.261E-08 | 3.584E-08 | 2.992E-08 | 2.519E-08 | 2.147E-08 | 1.854E-08 |
| NE | 1.077E-10 | 8.639E-09 | 2.263E-08 | 2.975E-08 | 3.292E-08 | 2.976E-08 | 2.364E-08 | 2.194E-08 | 1.887E-08 | 1.643E-08 | 1.445E-08 |
| ENE | 9.417E-09 | 1.646E-08 | 1.344E-08 | 1.119E-08 | 1.108E-08 | 1.056E-08 | 9.546E-09 | 8.464E-09 | 7.477E-09 | 6.627E-09 | 5.910E-09 |
| E | 8.335E-16 | 5.843E-10 | 8.794E-09 | 1.676E-08 | 2.154E-08 | 1.990E-08 | 1.712E-08 | 1.455E-08 | 1.244E-08 | 1.073E-08 | 9.361E-09 |
| ESE | 5.365E-09 | 2.322E-08 | 2.775E-08 | 2.744E-08 | 2.496E-08 | 2.050E-08 | 1.652E-08 | 1.344E-08 | 1.112E-08 | 9.358E-09 | 8.000E-09 |
| SE | 7.148E-08 | 5.435E-08 | 4.512E-08 | 4.290E-08 | 4.033E-08 | 3.386E-08 | 2.778E-08 | 2.294E-08 | 1.923E-08 | 1.637E-08 | 1.414E-08 |
| SSE | 9.654E-08 | 7.671E-08 | 7.955E-08 | 7.864E-08 | 7.393E-08 | 6.237E-08 | 5.146E-08 | 4.272E-08 | 3.600E-08 | 5.192E-08 | 6.840E-08 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.600E-08 | 2.385E-08 | 1.540E-08 | 8.712E-09 | 5.982E-09 | 4.441E-09 | 3.416E-09 | 2.733E-09 | 2.267E-09 | 1.918E-09 | 1.643E-09 |
| SSW | 1.913E-08 | 1.689E-08 | 1.106E-08 | 6.392E-09 | 4.704E-09 | 3.562E-09 | 2.754E-09 | 2.213E-09 | 1.830E-09 | 1.547E-09 | 1.329E-09 |
| SW | 2.389E-08 | 1.636E-08 | 1.051E-08 | 5.904E-09 | 4.019E-09 | 2.960E-09 | 2.296E-09 | 1.831E-09 | 1.501E-09 | 1.258E-09 | 1.074E-09 |
| WSW | 2.200E-08 | 1.310E-08 | 8.964E-09 | 5.322E-09 | 3.482E-09 | 2.501E-09 | 1.906E-09 | 1.511E-09 | 1.234E-09 | 1.030E-09 | 8.756E-10 |
| W | 3.891E-08 | 2.051E-08 | 1.388E-08 | 8.227E-09 | 5.604E-09 | 4.058E-09 | 3.112E-09 | 2.486E-09 | 2.046E-09 | 1.722E-09 | 1.475E-09 |
| WNW | 5.951E-08 | 3.141E-08 | 2.040E-08 | 1.156E-08 | 7.635E-09 | 5.521E-09 | 4.227E-09 | 3.367E-09 | 2.760E-09 | 2.313E-09 | 1.973E-09 |
| NW | 5.948E-08 | 3.246E-08 | 2.193E-08 | 1.322E-08 | 8.809E-09 | 6.427E-09 | 5.055E-09 | 4.102E-09 | 3.401E-09 | 2.870E-09 | 2.463E-09 |
| NNW | 5.113E-08 | 2.803E-08 | 1.796E-08 | 1.012E-08 | 6.767E-09 | 4.952E-09 | 3.853E-09 | 3.115E-09 | 2.590E-09 | 2.238E-09 | 1.926E-09 |
| N | 2.590E-08 | 1.538E-08 | 1.166E-08 | 7.814E-09 | 5.585E-09 | 4.161E-09 | 3.196E-09 | 2.556E-09 | 2.105E-09 | 1.773E-09 | 1.521E-09 |
| NNE | 1.912E-08 | 1.602E-08 | 1.007E-08 | 5.518E-09 | 3.604E-09 | 2.590E-09 | 1.977E-09 | 1.572E-09 | 1.289E-09 | 1.081E-09 | 9.233E-10 |
| NE | 1.594E-08 | 1.781E-08 | 1.133E-08 | 6.293E-09 | 4.148E-09 | 3.000E-09 | 2.308E-09 | 1.846E-09 | 1.520E-09 | 1.279E-09 | 1.094E-09 |
| ENE | 6.527E-09 | 7.955E-09 | 5.165E-09 | 2.943E-09 | 1.969E-09 | 1.439E-09 | 1.135E-09 | 9.251E-10 | 7.724E-10 | 6.518E-10 | 5.590E-10 |
| E | 9.756E-09 | 1.135E-08 | 7.433E-09 | 4.293E-09 | 2.902E-09 | 2.138E-09 | 1.663E-09 | 1.343E-09 | 1.115E-09 | 1.001E-09 | 8.603E-10 |
| ESE | 7.802E-09 | 9.073E-09 | 5.889E-09 | 2.620E-09 | 1.762E-09 | 1.295E-09 | 1.006E-09 | 8.129E-10 | 6.754E-10 | 5.734E-10 | 4.950E-10 |
| SE | 1.238E-08 | 7.552E-09 | 5.794E-09 | 4.115E-09 | 2.993E-09 | 2.340E-09 | 1.886E-09 | 1.572E-09 | 1.343E-09 | 1.145E-09 | 9.904E-10 |
| SSE | 5.875E-08 | 3.352E-08 | 2.145E-08 | 1.205E-08 | 8.014E-09 | 5.839E-09 | 4.505E-09 | 3.616E-09 | 2.986E-09 | 2.521E-09 | 2.165E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| DIRECTION FROM SITE | SEGMENT BOUNDARIES IN MILES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
| S | 5.215E-08 | 5.452E-08 | 4.335E-08 | 3.486E-08 | 3.756E-08 | 2.279E-08 | 8.984E-09 | 4.442E-09 | 2.751E-09 | 1.919E-09 |
| SSW | 1.640E-08 | 3.012E-08 | 2.760E-08 | 2.608E-08 | 2.106E-08 | 1.480E-08 | 6.680E-09 | 3.543E-09 | 2.222E-09 | 1.550E-09 |
| SW | 7.177E-08 | 1.114E-07 | 6.671E-08 | 3.933E-08 | 2.703E-08 | 1.543E-08 | 6.090E-09 | 2.977E-09 | 1.838E-09 | 1.262E-09 |
| WSW | 6.141E-08 | 1.274E-07 | 7.222E-08 | 3.977E-08 | 2.593E-08 | 1.324E-08 | 5.314E-09 | 2.525E-09 | 1.518E-09 | 1.033E-09 |
| W | 2.778E-07 | 2.679E-07 | 1.314E-07 | 7.234E-08 | 4.676E-08 | 2.165E-08 | 8.318E-09 | 4.092E-09 | 2.497E-09 | 1.727E-09 |
| WNW | 2.806E-07 | 3.784E-07 | 1.973E-07 | 1.115E-07 | 7.172E-08 | 3.276E-08 | 1.178E-08 | 5.567E-09 | 3.381E-09 | 2.319E-09 |
| NW | 2.910E-07 | 4.153E-07 | 2.071E-07 | 1.117E-07 | 7.145E-08 | 3.378E-08 | 1.319E-08 | 6.513E-09 | 4.107E-09 | 2.877E-09 |
| NNW | 1.178E-07 | 1.626E-07 | 1.313E-07 | 9.236E-08 | 6.132E-08 | 2.869E-08 | 1.037E-08 | 4.996E-09 | 3.126E-09 | 2.227E-09 |
| N | 9.963E-08 | 8.676E-08 | 6.010E-08 | 4.114E-08 | 2.981E-08 | 1.607E-08 | 7.679E-09 | 4.155E-09 | 2.567E-09 | 1.778E-09 |
| NNE | 2.426E-08 | 4.319E-08 | 3.528E-08 | 2.513E-08 | 1.962E-08 | 1.407E-08 | 5.680E-09 | 2.615E-09 | 1.580E-09 | 1.084E-09 |
| NE | 2.269E-08 | 3.081E-08 | 2.526E-08 | 1.883E-08 | 1.559E-08 | 1.451E-08 | 6.458E-09 | 3.029E-09 | 1.854E-09 | 1.282E-09 |
| ENE | 1.311E-08 | 1.087E-08 | 9.383E-09 | 7.435E-09 | 6.351E-09 | 6.398E-09 | 3.004E-09 | 1.458E-09 | 9.268E-10 | 6.532E-10 |
| E | 1.051E-08 | 1.975E-08 | 1.683E-08 | 1.239E-08 | 9.913E-09 | 9.254E-09 | 4.373E-09 | 2.152E-09 | 1.348E-09 | 9.826E-10 |
| ESE | 2.660E-08 | 2.353E-08 | 1.635E-08 | 1.111E-08 | 8.329E-09 | 6.131E-09 | 2.676E-09 | 1.304E-09 | 8.158E-10 | 5.746E-10 |
| SE | 4.619E-08 | 3.803E-08 | 2.747E-08 | 1.920E-08 | 1.415E-08 | 7.844E-09 | 3.989E-09 | 2.333E-09 | 1.575E-09 | 1.146E-09 |
| SSE | 7.852E-08 | 6.984E-08 | 5.087E-08 | 4.398E-08 | 5.994E-08 | 3.376E-08 | 1.235E-08 | 5.886E-09 | 3.630E-09 | 2.527E-09 |

ERP ELEVATED STACK RELEASE - APR-JUN 1984
8.000 DAY DECAY, DEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.102E-07 | 5.596E-08 | 4.712E-08 | 5.285E-08 | 5.787E-08 | 5.122E-08 | 4.297E-08 | 3.586E-08 | 3.020E-08 | 3.520E-08 | 2.898E-08 |
| SSW | 6.855E-09 | 2.797E-09 | 1.332E-08 | 2.553E-08 | 3.285E-08 | 2.974E-08 | 2.504E-08 | 2.680E-08 | 2.668E-08 | 2.292E-08 | 2.004E-08 |
| SW | 2.360E-10 | 1.794E-08 | 6.248E-08 | 1.044E-07 | 1.387E-07 | 9.099E-08 | 6.439E-08 | 4.825E-08 | 3.774E-08 | 3.050E-08 | 2.530E-08 |
| WSW | 9.404E-16 | 8.569E-10 | 3.944E-08 | 1.082E-07 | 1.686E-07 | 1.028E-07 | 6.918E-08 | 4.997E-08 | 3.799E-08 | 3.003E-08 | 2.446E-08 |
| W | 1.359E-09 | 9.037E-08 | 2.960E-07 | 3.511E-07 | 3.061E-07 | 1.858E-07 | 1.251E-07 | 9.044E-08 | 6.886E-08 | 5.448E-08 | 4.441E-08 |
| WNW | 6.737E-10 | 4.971E-08 | 2.527E-07 | 4.120E-07 | 4.688E-07 | 2.789E-07 | 1.854E-07 | 1.380E-07 | 1.073E-07 | 8.388E-08 | 6.764E-08 |
| NW | 9.134E-10 | 6.033E-08 | 2.428E-07 | 4.362E-07 | 5.319E-07 | 2.993E-07 | 1.932E-07 | 1.388E-07 | 1.058E-07 | 8.258E-08 | 6.658E-08 |
| NNW | 6.851E-09 | 5.530E-08 | 1.153E-07 | 1.476E-07 | 1.752E-07 | 1.350E-07 | 1.307E-07 | 1.089E-07 | 9.326E-08 | 7.261E-08 | 5.841E-08 |
| N | 6.595E-09 | 6.960E-08 | 1.086E-07 | 1.043E-07 | 8.827E-08 | 7.273E-08 | 5.934E-08 | 4.803E-08 | 3.963E-08 | 3.330E-08 | 2.844E-08 |
| NNE | 2.473E-11 | 2.321E-09 | 2.053E-08 | 3.800E-08 | 4.706E-08 | 4.195E-08 | 3.504E-08 | 2.907E-08 | 2.433E-08 | 2.063E-08 | 1.774E-08 |
| NE | 1.077E-10 | 8.572E-09 | 2.235E-08 | 2.948E-08 | 3.253E-08 | 2.928E-08 | 2.515E-08 | 2.143E-08 | 1.841E-08 | 1.598E-08 | 1.402E-08 |
| ENE | 9.418E-09 | 1.632E-08 | 1.318E-08 | 1.099E-08 | 1.093E-08 | 1.041E-08 | 9.405E-09 | 8.331E-09 | 7.354E-09 | 6.514E-09 | 5.808E-09 |
| E | 8.336E-16 | 5.845E-10 | 8.799E-09 | 1.677E-08 | 2.139E-08 | 1.962E-08 | 1.678E-08 | 1.420E-08 | 1.208E-08 | 1.038E-08 | 9.028E-09 |
| ESE | 5.367E-09 | 2.303E-08 | 2.731E-08 | 2.707E-08 | 2.457E-08 | 2.006E-08 | 1.606E-08 | 1.299E-08 | 1.068E-08 | 8.939E-09 | 7.603E-09 |
| SE | 7.149E-08 | 5.389E-08 | 4.443E-08 | 4.240E-08 | 3.977E-08 | 3.319E-08 | 2.706E-08 | 2.222E-08 | 1.853E-08 | 1.570E-08 | 1.350E-08 |
| SSE | 9.666E-08 | 7.606E-08 | 7.825E-08 | 7.755E-08 | 7.277E-08 | 6.108E-08 | 5.011E-08 | 4.140E-08 | 3.472E-08 | 5.044E-08 | 6.694E-08 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.478E-08 | 2.273E-08 | 1.628E-08 | 7.654E-09 | 4.947E-09 | 3.496E-09 | 2.589E-09 | 2.004E-09 | 1.618E-09 | 1.342E-09 | 1.129E-09 |
| SSW | 1.841E-08 | 1.623E-08 | 1.015E-08 | 5.666E-09 | 3.930E-09 | 2.894E-09 | 2.185E-09 | 1.721E-09 | 1.398E-09 | 1.164E-09 | 9.856E-10 |
| SW | 2.293E-08 | 1.561E-08 | 9.782E-09 | 5.223E-09 | 3.356E-09 | 2.357E-09 | 1.776E-09 | 1.386E-09 | 1.115E-09 | 9.188E-10 | 7.721E-10 |
| WSW | 2.103E-08 | 1.235E-08 | 8.283E-09 | 4.749E-09 | 3.012E-09 | 2.114E-09 | 1.582E-09 | 1.234E-09 | 9.933E-10 | 8.195E-10 | 6.893E-10 |
| W | 3.707E-08 | 1.935E-08 | 1.291E-08 | 7.256E-09 | 4.696E-09 | 3.295E-09 | 2.461E-09 | 1.920E-09 | 1.547E-09 | 1.278E-09 | 1.076E-09 |
| WNW | 5.634E-08 | 2.898E-08 | 1.833E-08 | 9.849E-09 | 6.127E-09 | 4.238E-09 | 3.145E-09 | 2.444E-09 | 1.961E-09 | 1.612E-09 | 1.350E-09 |
| NW | 5.572E-08 | 2.967E-08 | 1.955E-08 | 1.123E-08 | 7.097E-09 | 4.938E-09 | 3.773E-09 | 2.991E-09 | 2.429E-09 | 2.012E-09 | 1.697E-09 |
| NNW | 4.908E-08 | 2.619E-08 | 1.629E-08 | 8.648E-09 | 5.399E-09 | 3.732E-09 | 2.768E-09 | 2.150E-09 | 1.727E-09 | 1.454E-09 | 1.225E-09 |
| N | 2.466E-08 | 1.445E-08 | 1.091E-08 | 7.269E-09 | 5.074E-09 | 3.635E-09 | 2.722E-09 | 2.128E-09 | 1.718E-09 | 1.421E-09 | 1.198E-09 |
| NNE | 1.827E-08 | 1.514E-08 | 9.225E-09 | 4.802E-09 | 3.001E-09 | 2.080E-09 | 1.539E-09 | 1.191E-09 | 9.531E-10 | 7.823E-10 | 6.548E-10 |
| NE | 1.553E-08 | 1.744E-08 | 1.079E-08 | 5.721E-09 | 3.612E-09 | 2.523E-09 | 1.885E-09 | 1.473E-09 | 1.189E-09 | 9.838E-10 | 8.287E-10 |
| ENE | 6.439E-09 | 7.900E-09 | 4.995E-09 | 2.690E-09 | 1.681E-09 | 1.162E-09 | 8.734E-10 | 6.830E-10 | 5.527E-10 | 4.561E-10 | 3.834E-10 |
| E | 9.411E-09 | 1.104E-08 | 7.033E-09 | 3.837E-09 | 2.427E-09 | 1.694E-09 | 1.258E-09 | 9.759E-10 | 7.812E-10 | 6.808E-10 | 5.696E-10 |
| ESE | 7.397E-09 | 6.696E-09 | 4.226E-09 | 2.286E-09 | 1.449E-09 | 1.013E-09 | 7.535E-10 | 5.855E-10 | 4.696E-10 | 3.860E-10 | 3.234E-10 |
| SE | 1.178E-08 | 7.082E-09 | 5.406E-09 | 3.835E-09 | 2.786E-09 | 2.180E-09 | 1.761E-09 | 1.470E-09 | 1.252E-09 | 1.052E-09 | 8.975E-10 |
| SSE | 5.725E-08 | 3.184E-08 | 1.977E-08 | 1.052E-08 | 6.629E-09 | 4.621E-09 | 3.433E-09 | 2.666E-09 | 2.138E-09 | 1.757E-09 | 1.472E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| DIRECTION FROM SITE | SEGMENT BOUNDARIES IN MILES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
| S | 5.163E-08 | 5.380E-08 | 4.233E-08 | 3.372E-08 | 3.631E-08 | 2.165E-08 | 7.924E-09 | 3.520E-09 | 2.024E-09 | 1.345E-09 |
| SSW | 1.641E-08 | 2.984E-08 | 2.700E-08 | 2.528E-08 | 2.029E-08 | 1.410E-08 | 5.936E-09 | 2.887E-09 | 1.731E-09 | 1.167E-09 |
| SW | 7.121E-08 | 1.099E-07 | 6.503E-08 | 3.798E-08 | 2.596E-08 | 1.465E-08 | 5.406E-09 | 2.391E-09 | 1.394E-09 | 9.225E-10 |
| WSW | 6.141E-08 | 1.259E-07 | 7.045E-08 | 3.838E-08 | 2.484E-08 | 1.247E-08 | 4.762E-09 | 2.141E-09 | 1.241E-09 | 8.228E-10 |
| W | 2.748E-07 | 2.627E-07 | 1.274E-07 | 6.935E-08 | 4.468E-08 | 2.042E-08 | 7.374E-09 | 3.335E-09 | 1.933E-09 | 1.283E-09 |
| WNW | 2.784E-07 | 3.718E-07 | 1.914E-07 | 1.072E-07 | 6.827E-08 | 3.033E-08 | 1.008E-08 | 4.304E-09 | 2.460E-09 | 1.618E-09 |
| NW | 2.882E-07 | 4.073E-07 | 1.998E-07 | 1.064E-07 | 6.730E-08 | 3.096E-08 | 1.124E-08 | 5.054E-09 | 3.000E-09 | 2.019E-09 |
| NNW | 1.163E-07 | 1.601E-07 | 1.285E-07 | 8.986E-08 | 5.916E-08 | 2.688E-08 | 8.903E-09 | 3.791E-09 | 2.165E-09 | 1.450E-09 |
| N | 9.798E-08 | 8.493E-08 | 5.838E-08 | 3.962E-08 | 2.848E-08 | 1.515E-08 | 7.102E-09 | 3.654E-09 | 2.141E-09 | 1.426E-09 |
| NNE | 2.425E-08 | 4.278E-08 | 3.450E-08 | 2.428E-08 | 1.879E-08 | 1.321E-08 | 4.984E-09 | 2.109E-09 | 1.200E-09 | 7.856E-10 |
| NE | 2.246E-08 | 3.041E-08 | 2.476E-08 | 1.835E-08 | 1.516E-08 | 1.406E-08 | 5.910E-09 | 2.558E-09 | 1.482E-09 | 9.871E-10 |
| ENE | 1.291E-08 | 1.071E-08 | 9.244E-09 | 7.313E-09 | 6.251E-09 | 6.284E-09 | 2.754E-09 | 1.185E-09 | 6.878E-10 | 4.578E-10 |
| E | 1.052E-08 | 1.958E-08 | 1.651E-08 | 1.204E-08 | 9.571E-09 | 8.897E-09 | 3.921E-09 | 1.715E-09 | 9.824E-10 | 6.694E-10 |
| ESE | 2.625E-08 | 2.312E-08 | 1.590E-08 | 1.068E-08 | 7.922E-09 | 5.754E-09 | 2.345E-09 | 1.025E-09 | 5.894E-10 | 3.876E-10 |
| SE | 4.563E-08 | 3.743E-08 | 2.676E-08 | 1.851E-08 | 1.352E-08 | 7.382E-09 | 3.718E-09 | 2.174E-09 | 1.470E-09 | 1.054E-09 |
| SSE | 7.745E-08 | 6.863E-08 | 4.955E-08 | 4.262E-08 | 3.846E-08 | 3.212E-08 | 1.085E-08 | 4.681E-09 | 2.684E-09 | 1.764E-09 |

B141

ERP ELEVATED STACK RELEASE - APR-JUN 1984
CORRECTED FOR OPEN TERRAIN RECIRCULATION

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS **********

| DIRECTION FROM SITE | DISTANCES IN MILES 0.25 | 0.50 | 0.75 | 1.00 | 1.50 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00 | 4.50 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 6.228E-09 | 5.042E-09 | 4.249E-09 | 2.913E-09 | 1.415E-09 | 8.670E-10 | 5.858E-10 | 4.206E-10 | 3.150E-10 | 2.527E-10 | 2.279E-10 |
| SSW | 3.737E-10 | 6.258E-10 | 1.008E-09 | 9.699E-10 | 5.856E-10 | 3.886E-10 | 2.731E-10 | 2.002E-10 | 1.893E-10 | 1.432E-10 | 1.121E-10 |
| SW | 1.913E-09 | 1.777E-09 | 1.839E-09 | 1.458E-09 | 1.405E-09 | 7.624E-10 | 4.719E-10 | 3.203E-10 | 2.315E-10 | 1.751E-10 | 1.370E-10 |
| WSW | 7.570E-11 | 4.542E-10 | 9.670E-10 | 2.366E-09 | 1.239E-09 | 6.742E-10 | 4.170E-10 | 2.828E-10 | 2.041E-10 | 1.543E-10 | 1.207E-10 |
| W | 1.651E-09 | 8.145E-09 | 7.188E-09 | 4.540E-09 | 2.390E-09 | 1.246E-09 | 7.520E-10 | 5.004E-10 | 3.962E-10 | 2.663E-10 | 2.070E-10 |
| WNW | 1.995E-09 | 2.269E-09 | 7.821E-09 | 5.846E-09 | 3.558E-09 | 1.797E-09 | 1.067E-09 | 7.070E-10 | 5.205E-10 | 3.941E-10 | 3.142E-10 |
| NW | 7.562E-09 | 6.580E-09 | 6.227E-09 | 9.368E-09 | 5.742E-09 | 2.852E-09 | 1.676E-09 | 1.098E-09 | 7.778E-10 | 5.852E-10 | 4.625E-10 |
| NNW | 6.540E-09 | 5.298E-09 | 4.471E-09 | 3.069E-09 | 2.461E-09 | 1.324E-09 | 8.220E-10 | 6.504E-10 | 4.697E-10 | 3.624E-10 | 2.949E-10 |
| N | 1.150E-08 | 9.180E-09 | 7.348E-09 | 5.066E-09 | 2.415E-09 | 1.468E-09 | 9.880E-10 | 7.079E-10 | 5.294E-10 | 4.088E-10 | 3.237E-10 |
| NNE | 4.036E-10 | 8.056E-10 | 1.391E-09 | 1.366E-09 | 8.332E-10 | 5.546E-10 | 3.904E-10 | 2.863E-10 | 2.167E-10 | 1.681E-10 | 1.331E-10 |
| NE | 9.697E-10 | 9.691E-10 | 1.091E-09 | 9.065E-10 | 5.055E-10 | 3.267E-10 | 2.268E-10 | 1.651E-10 | 1.245E-10 | 9.648E-11 | 7.640E-11 |
| ENE | 2.154E-09 | 1.608E-09 | 1.155E-09 | 6.753E-10 | 2.801E-10 | 1.592E-10 | 1.032E-10 | 7.239E-11 | 5.357E-11 | 4.118E-11 | 3.259E-11 |
| E | 5.677E-11 | 3.406E-10 | 7.253E-10 | 7.512E-10 | 4.692E-10 | 3.146E-10 | 2.222E-10 | 1.633E-10 | 1.236E-10 | 9.597E-11 | 7.600E-11 |
| ESE | 9.744E-10 | 9.975E-10 | 1.151E-09 | 9.691E-10 | 5.446E-10 | 3.529E-10 | 2.453E-10 | 1.787E-10 | 1.348E-10 | 1.045E-10 | 8.273E-11 |
| SE | 5.000E-09 | 4.137E-09 | 3.621E-09 | 2.560E-09 | 1.275E-09 | 7.897E-10 | 5.365E-10 | 3.864E-10 | 2.898E-10 | 2.240E-10 | 1.773E-10 |
| SSE | 8.703E-09 | 6.964E-09 | 5.747E-09 | 3.870E-09 | 1.850E-09 | 1.126E-09 | 7.584E-10 | 5.435E-10 | 4.066E-10 | 3.132E-10 | 3.461E-10 |

| DIRECTION FROM SITE | DISTANCES IN MILES 5.00 | 7.50 | 10.00 | 15.00 | 20.00 | 25.00 | 30.00 | 35.00 | 40.00 | 45.00 | 50.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.834E-10 | 1.213E-10 | 8.179E-11 | 4.709E-11 | 3.005E-11 | 2.211E-11 | 1.578E-11 | 1.179E-11 | 9.029E-12 | 7.197E-12 | 5.877E-12 |
| SSW | 9.085E-11 | 5.904E-11 | 3.936E-11 | 2.229E-11 | 1.515E-11 | 1.053E-11 | 7.543E-12 | 5.667E-12 | 4.408E-12 | 3.568E-12 | 2.912E-12 |
| SW | 1.110E-10 | 6.938E-11 | 4.585E-11 | 2.583E-11 | 1.629E-11 | 1.246E-11 | 8.927E-12 | 6.773E-12 | 5.266E-12 | 4.207E-12 | 3.434E-12 |
| WSW | 9.866E-11 | 5.966E-11 | 3.924E-11 | 2.599E-11 | 1.573E-11 | 1.054E-11 | 7.645E-12 | 5.741E-12 | 4.463E-12 | 3.565E-12 | 2.910E-12 |
| W | 1.664E-10 | 7.542E-11 | 8.402E-11 | 4.933E-11 | 3.258E-11 | 2.191E-11 | 1.570E-11 | 1.179E-11 | 9.166E-12 | 7.322E-12 | 5.976E-12 |
| WNW | 2.637E-10 | 1.434E-10 | 9.706E-11 | 5.577E-11 | 3.660E-11 | 2.547E-11 | 1.853E-11 | 1.388E-11 | 1.079E-11 | 8.690E-12 | 7.093E-12 |
| NW | 3.829E-10 | 1.995E-10 | 1.317E-10 | 8.726E-11 | 5.301E-11 | 3.551E-11 | 2.554E-11 | 1.918E-11 | 1.491E-11 | 1.196E-11 | 9.762E-12 |
| NNW | 2.515E-10 | 1.457E-10 | 1.020E-10 | 6.064E-11 | 3.884E-11 | 2.613E-11 | 1.811E-11 | 1.392E-11 | 1.095E-11 | 8.740E-12 | 7.137E-12 |
| N | 2.615E-10 | 1.248E-10 | 7.674E-11 | 4.119E-11 | 5.893E-11 | 4.064E-11 | 2.912E-11 | 2.187E-11 | 1.700E-11 | 1.358E-11 | 1.109E-11 |
| NNE | 1.072E-10 | 1.190E-10 | 7.305E-11 | 3.756E-11 | 2.286E-11 | 1.531E-11 | 1.095E-11 | 8.203E-12 | 6.369E-12 | 5.082E-12 | 4.145E-12 |
| NE | 6.159E-11 | 9.162E-11 | 5.639E-11 | 2.932E-11 | 1.791E-11 | 1.200E-11 | 8.590E-12 | 6.447E-12 | 5.115E-12 | 4.080E-12 | 3.330E-12 |
| ENE | 2.640E-11 | 3.331E-11 | 2.503E-11 | 1.575E-11 | 1.026E-11 | 6.902E-12 | 4.918E-12 | 3.182E-12 | 2.473E-12 | 1.917E-12 | 1.564E-12 |
| E | 6.121E-11 | 6.068E-11 | 4.275E-11 | 2.538E-11 | 1.608E-11 | 1.066E-11 | 7.510E-12 | 5.527E-12 | 4.230E-12 | 3.279E-12 | 3.074E-12 |
| ESE | 6.669E-11 | 5.085E-11 | 3.367E-11 | 1.898E-11 | 1.193E-11 | 7.998E-12 | 5.709E-12 | 4.265E-12 | 3.306E-12 | 2.640E-12 | 2.157E-12 |
| SE | 1.432E-10 | 6.822E-11 | 4.187E-11 | 2.241E-11 | 1.396E-11 | 9.760E-12 | 7.367E-12 | 5.847E-12 | 6.477E-12 | 6.843E-12 | 5.614E-12 |
| SSE | 2.899E-10 | 2.093E-10 | 1.301E-10 | 6.786E-11 | 4.148E-11 | 2.776E-11 | 1.983E-11 | 1.484E-11 | 1.150E-11 | 9.163E-12 | 7.464E-12 |

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS **********

| DIRECTION FROM SITE | SEGMENT BOUNDARIES IN MILES .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.831E-09 | 1.504E-09 | 5.947E-10 | 3.214E-10 | 2.188E-10 | 1.175E-10 | 4.723E-11 | 2.169E-11 | 1.188E-11 | 7.251E-12 |
| SSW | 9.062E-10 | 5.834E-10 | 2.747E-10 | 1.748E-10 | 1.134E-10 | 5.737E-11 | 2.291E-11 | 1.057E-11 | 5.724E-12 | 3.574E-12 |
| SW | 1.656E-09 | 1.131E-09 | 4.887E-10 | 2.354E-10 | 1.387E-10 | 6.816E-11 | 2.604E-11 | 1.207E-11 | 6.814E-12 | 4.234E-12 |
| WSW | 1.475E-09 | 1.238E-09 | 4.319E-10 | 2.076E-10 | 1.225E-10 | 5.925E-11 | 2.437E-11 | 1.076E-11 | 5.798E-12 | 3.589E-12 |
| W | 6.223E-09 | 2.359E-09 | 7.831E-10 | 3.632E-10 | 2.095E-10 | 9.945E-11 | 4.960E-11 | 2.227E-11 | 1.191E-11 | 7.370E-12 |
| WNW | 5.709E-09 | 3.284E-09 | 1.118E-09 | 5.256E-10 | 3.191E-10 | 1.495E-10 | 5.645E-11 | 2.566E-11 | 1.403E-11 | 8.722E-12 |
| NW | 7.701E-09 | 5.263E-09 | 1.758E-09 | 7.959E-10 | 4.694E-10 | 2.101E-10 | 8.194E-11 | 3.619E-11 | 1.937E-11 | 1.202E-11 |
| NNW | 4.032E-09 | 2.091E-09 | 8.871E-10 | 4.805E-10 | 2.989E-10 | 1.498E-10 | 6.013E-11 | 2.631E-11 | 1.399E-11 | 8.801E-12 |
| N | 6.808E-09 | 2.584E-09 | 1.004E-09 | 5.345E-10 | 3.259E-10 | 1.338E-10 | 5.697E-11 | 4.091E-11 | 2.209E-11 | 1.367E-11 |
| NNE | 1.250E-09 | 8.279E-10 | 3.926E-10 | 2.181E-10 | 1.339E-10 | 9.596E-11 | 3.891E-11 | 1.558E-11 | 8.288E-12 | 5.116E-12 |
| NE | 9.818E-10 | 5.151E-10 | 2.288E-10 | 1.254E-10 | 7.686E-11 | 6.938E-11 | 3.031E-11 | 1.221E-11 | 6.618E-12 | 4.109E-12 |
| ENE | 1.042E-09 | 3.142E-10 | 1.058E-10 | 5.423E-11 | 3.284E-11 | 2.810E-11 | 1.537E-11 | 7.003E-12 | 3.408E-12 | 1.951E-12 |
| E | 6.513E-10 | 4.632E-10 | 2.233E-10 | 1.244E-10 | 7.644E-11 | 5.283E-11 | 2.510E-11 | 1.084E-11 | 5.599E-12 | 3.651E-12 |
| ESE | 1.036E-09 | 5.537E-10 | 2.474E-10 | 1.358E-10 | 8.323E-11 | 4.673E-11 | 1.911E-11 | 8.132E-12 | 4.312E-12 | 2.659E-12 |
| SE | 3.264E-09 | 1.345E-09 | 5.440E-10 | 2.923E-10 | 1.785E-10 | 7.316E-11 | 2.298E-11 | 9.923E-12 | 6.521E-12 | 6.280E-12 |
| SSE | 5.183E-09 | 1.977E-09 | 7.706E-10 | 4.330E-10 | 3.333E-10 | 1.920E-10 | 6.997E-11 | 2.825E-11 | 1.499E-11 | 9.226E-12 |

ERP ELEVATED STACK RELEASE - APR-JUN 1984
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

| RELEASE ID | TYPE OF LOCATION | DIRECTION | DISTANCE (MILES) | DISTANCE (METERS) | X/Q (SEC/CUB. METER) NO DECAY UNDEPLETED | X/Q (SEC/CUB. METER) 2.260 DAY DECAY UNDEPLETED | X/Q (SEC/CUB. METER) 8.000 DAY DECAY DEPLETED | D/Q (PER SQ. METER) |
|---|---|---|---|---|---|---|---|---|
| A | SITE BOUNDARY | S | 0.64 | 1350. | 4.865E-08 | 4.859E-08 | 4.803E-08 | 3.730E-09 |
| A | SITE BOUNDARY | SSW | 0.85 | 1370. | 1.890E-08 | 1.888E-08 | 1.889E-08 | 1.046E-09 |
| A | SITE BOUNDARY | SW | 1.01 | 1620. | 1.062E-07 | 1.060E-07 | 1.054E-07 | 1.444E-09 |
| A | SITE BOUNDARY | WSW | 1.00 | 1610. | 1.085E-07 | 1.083E-07 | 1.083E-07 | 2.363E-09 |
| A | SITE BOUNDARY | W | 0.99 | 1590. | 3.555E-07 | 3.550E-07 | 3.505E-07 | 4.600E-09 |
| A | SITE BOUNDARY | WNW | 1.01 | 1620. | 4.195E-07 | 4.188E-07 | 4.149E-07 | 5.777E-09 |
| A | SITE BOUNDARY | NW | 0.80 | 1290. | 2.894E-07 | 2.891E-07 | 2.864E-07 | 5.910E-09 |
| A | SITE BOUNDARY | NNW | 0.70 | 1130. | 1.044E-07 | 1.043E-07 | 1.027E-07 | 4.574E-09 |
| A | SITE BOUNDARY | N | 0.70 | 1130. | 1.045E-07 | 1.044E-07 | 1.026E-07 | 7.763E-09 |
| A | SITE BOUNDARY | NNE | 0.65 | 1050. | 1.101E-08 | 1.100E-08 | 1.098E-08 | 1.155E-09 |
| A | SITE BOUNDARY | NE | 0.64 | 1030. | 1.598E-08 | 1.597E-08 | 1.577E-08 | 1.023E-09 |
| A | SITE BOUNDARY | ENE | 0.58 | 930. | 1.519E-08 | 1.519E-08 | 1.498E-08 | 1.441E-09 |
| A | SITE BOUNDARY | E | 0.54 | 870. | 1.196E-09 | 1.195E-09 | 1.196E-09 | 4.008E-10 |
| A | SITE BOUNDARY | ESE | 0.55 | 880. | 2.390E-08 | 2.387E-08 | 2.361E-08 | 1.016E-09 |
| A | SITE BOUNDARY | SE | 1.03 | 1660. | 4.300E-08 | 4.296E-08 | 4.248E-08 | 2.429E-09 |
| A | SITE BOUNDARY | SSE | 0.85 | 1370. | 7.832E-08 | 7.824E-08 | 7.701E-08 | 4.915E-09 |
| A | NEAR. RESIDENCE | SSW | 1.30 | 2092. | 3.228E-08 | 3.220E-08 | 3.208E-08 | 7.069E-10 |
| A | NEAR. RESIDENCE | SW | 1.30 | 2092. | 1.347E-07 | 1.343E-07 | 1.330E-07 | 1.876E-09 |
| A | NEAR. RESIDENCE | W | 1.00 | 1609. | 3.563E-07 | 3.557E-07 | 3.511E-07 | 4.540E-09 |
| A | NEAR. RESIDENCE | NW | 0.90 | 1448. | 3.691E-07 | 3.687E-07 | 3.656E-07 | 1.080E-08 |
| A | NEAR. RESIDENCE | NNW | 1.90 | 3058. | 1.633E-07 | 1.628E-07 | 1.599E-07 | 1.481E-09 |
| A | NEAREST COW | W | 2.30 | 3702. | 1.500E-07 | 1.494E-07 | 1.451E-07 | 9.072E-10 |
| A | NEAREST COW | NNW | 3.50 | 5633. | 9.630E-08 | 9.574E-08 | 9.324E-08 | 4.696E-10 |
| A | NEAREST GARDEN | SSW | 1.30 | 2092. | 3.228E-08 | 3.220E-08 | 3.208E-08 | 7.069E-10 |
| A | NEAREST GARDEN | SW | 1.30 | 2092. | 1.347E-07 | 1.343E-07 | 1.330E-07 | 1.876E-09 |
| A | NEAREST GARDEN | W | 1.00 | 1609. | 3.563E-07 | 3.557E-07 | 3.511E-07 | 4.540E-09 |
| A | NEAREST GARDEN | NW | 2.70 | 4345. | 1.756E-07 | 1.749E-07 | 1.679E-07 | 1.400E-09 |
| A | NEAREST GARDEN | NNW | 1.90 | 3058. | 1.633E-07 | 1.628E-07 | 1.599E-07 | 1.481E-09 |

Atmospheric Diffusion Estimates
Elevated Releases
January-June 1984

ERP ELEVATED STACK RELEASE - JAN-JUN 1984
NO DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.403E-07 | 1.222E-07 | 1.130E-07 | 9.765E-08 | 8.148E-08 | 6.534E-08 | 5.226E-08 | 4.243E-08 | 3.511E-08 | 3.856E-08 | 4.070E-08 |
| SSW | 1.043E-08 | 3.055E-08 | 3.680E-08 | 3.744E-08 | 3.633E-08 | 3.119E-08 | 2.593E-08 | 2.752E-08 | 2.730E-08 | 2.345E-08 | 2.043E-08 |
| SW | 1.646E-09 | 1.649E-08 | 5.749E-08 | 1.081E-07 | 1.541E-07 | 1.021E-07 | 7.265E-08 | 5.465E-08 | 4.287E-08 | 3.475E-08 | 2.890E-08 |
| WSW | 8.652E-16 | 8.039E-10 | 3.910E-08 | 1.112E-07 | 1.753E-07 | 1.078E-07 | 7.298E-08 | 5.292E-08 | 4.036E-08 | 3.197E-08 | 2.608E-08 |
| W | 3.600E-09 | 7.322E-08 | 2.399E-07 | 2.875E-07 | 2.489E-07 | 1.514E-07 | 1.020E-07 | 7.386E-08 | 5.630E-08 | 4.459E-08 | 3.639E-08 |
| WNW | 7.097E-10 | 4.614E-08 | 2.096E-07 | 3.293E-07 | 3.596E-07 | 2.134E-07 | 1.419E-07 | 1.054E-07 | 8.189E-08 | 6.423E-08 | 5.201E-08 |
| NW | 4.808E-10 | 3.331E-08 | 1.660E-07 | 3.413E-07 | 4.678E-07 | 2.674E-07 | 1.742E-07 | 1.256E-07 | 9.579E-08 | 7.502E-08 | 6.073E-08 |
| NNW | 3.359E-09 | 2.767E-08 | 6.676E-08 | 9.571E-08 | 1.215E-07 | 1.106E-07 | 9.575E-08 | 8.112E-08 | 6.969E-08 | 5.456E-08 | 4.416E-08 |
| N | 3.290E-09 | 3.834E-08 | 6.541E-08 | 6.788E-08 | 6.267E-08 | 5.385E-08 | 4.504E-08 | 3.709E-08 | 3.102E-08 | 2.635E-08 | 2.272E-08 |
| NNE | 3.211E-11 | 2.741E-09 | 1.610E-08 | 2.823E-08 | 3.542E-08 | 3.245E-08 | 2.780E-08 | 2.357E-08 | 2.012E-08 | 1.736E-08 | 1.516E-08 |
| NE | 6.987E-11 | 6.780E-09 | 1.848E-08 | 2.556E-08 | 3.025E-08 | 2.839E-08 | 2.501E-08 | 2.174E-08 | 1.894E-08 | 1.663E-08 | 1.474E-08 |
| ENE | 4.617E-09 | 8.386E-09 | 1.213E-08 | 1.736E-08 | 2.341E-08 | 2.347E-08 | 2.146E-08 | 1.910E-08 | 1.692E-08 | 1.504E-08 | 1.346E-08 |
| E | 1.715E-09 | 1.298E-08 | 2.395E-08 | 2.893E-08 | 3.217E-08 | 2.973E-08 | 2.597E-08 | 2.242E-08 | 1.940E-08 | 1.693E-08 | 1.492E-08 |
| ESE | 3.813E-09 | 2.113E-08 | 3.010E-08 | 3.182E-08 | 3.104E-08 | 2.665E-08 | 2.217E-08 | 1.848E-08 | 1.558E-08 | 1.331E-08 | 1.153E-08 |
| SE | 1.097E-07 | 1.182E-07 | 1.084E-07 | 9.288E-08 | 7.779E-08 | 6.325E-08 | 5.130E-08 | 4.216E-08 | 3.525E-08 | 2.995E-08 | 2.584E-08 |
| SSE | 1.395E-07 | 1.194E-07 | 1.106E-07 | 9.980E-08 | 8.701E-08 | 7.093E-08 | 5.722E-08 | 4.673E-08 | 3.865E-08 | 3.103E-08 | 6.112E-08 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.593E-08 | 2.276E-08 | 1.466E-08 | 8.313E-09 | 5.715E-09 | 4.262E-09 | 3.308E-09 | 2.673E-09 | 2.236E-09 | 1.909E-09 | 1.652E-09 |
| SSW | 1.851E-08 | 1.391E-08 | 9.027E-09 | 5.176E-09 | 3.713E-09 | 2.801E-09 | 2.182E-09 | 1.769E-09 | 1.476E-09 | 1.260E-09 | 1.094E-09 |
| SW | 2.605E-08 | 1.749E-08 | 1.131E-08 | 6.431E-09 | 4.419E-09 | 3.291E-09 | 2.585E-09 | 2.091E-09 | 1.736E-09 | 1.475E-09 | 1.274E-09 |
| WSW | 2.231E-08 | 1.271E-08 | 8.483E-09 | 4.931E-09 | 3.251E-09 | 2.358E-09 | 1.817E-09 | 1.458E-09 | 1.205E-09 | 1.020E-09 | 8.782E-10 |
| W | 3.040E-08 | 1.595E-08 | 1.071E-08 | 6.303E-09 | 4.288E-09 | 3.119E-09 | 2.405E-09 | 1.931E-09 | 1.599E-09 | 1.353E-09 | 1.167E-09 |
| WNW | 4.350E-08 | 2.294E-08 | 1.493E-08 | 8.533E-09 | 5.696E-09 | 4.165E-09 | 3.225E-09 | 2.599E-09 | 2.155E-09 | 1.828E-09 | 1.576E-09 |
| NW | 5.087E-08 | 2.725E-08 | 1.814E-08 | 1.074E-08 | 7.184E-09 | 5.270E-09 | 4.151E-09 | 3.384E-09 | 2.827E-09 | 2.406E-09 | 2.084E-09 |
| NNW | 3.727E-08 | 2.036E-08 | 1.309E-08 | 7.430E-09 | 4.997E-09 | 3.680E-09 | 2.881E-09 | 2.345E-09 | 1.962E-09 | 1.702E-09 | 1.476E-09 |
| N | 1.987E-08 | 1.202E-08 | 9.360E-09 | 6.641E-09 | 5.006E-09 | 3.860E-09 | 2.996E-09 | 2.418E-09 | 2.009E-09 | 1.706E-09 | 1.475E-09 |
| NNE | 1.635E-08 | 1.750E-08 | 1.120E-08 | 6.304E-09 | 4.211E-09 | 3.085E-09 | 2.396E-09 | 1.936E-09 | 1.611E-09 | 1.370E-09 | 1.186E-09 |
| NE | 1.868E-08 | 2.174E-08 | 1.404E-08 | 8.012E-09 | 5.404E-09 | 3.989E-09 | 3.134E-09 | 2.555E-09 | 2.140E-09 | 1.830E-09 | 1.589E-09 |
| ENE | 1.511E-08 | 1.962E-08 | 1.283E-08 | 7.426E-09 | 5.045E-09 | 3.742E-09 | 2.980E-09 | 2.454E-09 | 2.070E-09 | 1.770E-09 | 1.537E-09 |
| E | 1.597E-08 | 1.815E-08 | 1.184E-08 | 6.826E-09 | 4.631E-09 | 3.432E-09 | 2.689E-09 | 2.189E-09 | 1.833E-09 | 1.629E-09 | 1.415E-09 |
| ESE | 1.162E-08 | 1.176E-08 | 7.713E-09 | 4.478E-09 | 3.052E-09 | 2.268E-09 | 1.781E-09 | 1.453E-09 | 1.218E-09 | 1.043E-09 | 9.083E-10 |
| SE | 2.260E-08 | 1.372E-08 | 1.039E-08 | 7.170E-09 | 5.152E-09 | 3.987E-09 | 3.199E-09 | 2.658E-09 | 2.265E-09 | 1.938E-09 | 1.684E-09 |
| SSE | 5.205E-08 | 2.903E-08 | 1.856E-08 | 1.046E-08 | 6.994E-09 | 5.131E-09 | 3.989E-09 | 3.227E-09 | 2.688E-09 | 2.289E-09 | 1.983E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| DIRECTION FROM SITE | SEGMENT BOUNDARIES IN MILES .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.082E-07 | 7.790E-08 | 5.182E-08 | 3.852E-08 | 3.830E-08 | 2.209E-08 | 8.569E-09 | 4.268E-09 | 2.688E-09 | 1.910E-09 |
| SSW | 3.569E-08 | 3.429E-08 | 2.797E-08 | 2.590E-08 | 2.062E-08 | 1.276E-08 | 5.382E-09 | 2.797E-09 | 1.776E-09 | 1.263E-09 |
| SW | 7.086E-08 | 1.208E-07 | 7.331E-08 | 4.314E-08 | 2.957E-08 | 1.664E-08 | 6.621E-09 | 3.310E-09 | 2.097E-09 | 1.478E-09 |
| WSW | 6.261E-08 | 1.310E-07 | 7.425E-08 | 4.076E-08 | 2.643E-08 | 1.296E-08 | 4.974E-09 | 2.380E-09 | 1.464E-09 | 1.022E-09 |
| W | 2.240E-07 | 2.141E-07 | 1.039E-07 | 5.686E-08 | 3.660E-08 | 1.683E-08 | 6.387E-09 | 3.145E-09 | 1.940E-09 | 1.357E-09 |
| WNW | 2.263E-07 | 2.879E-07 | 1.463E-07 | 8.187E-08 | 5.248E-08 | 2.395E-08 | 8.694E-09 | 4.197E-09 | 2.609E-09 | 1.831E-09 |
| NW | 2.144E-07 | 3.506E-07 | 1.796E-07 | 9.640E-08 | 6.131E-08 | 2.845E-08 | 1.080E-08 | 5.333E-09 | 3.391E-09 | 2.411E-09 |
| NNW | 7.094E-08 | 1.109E-07 | 9.386E-08 | 6.719E-08 | 4.469E-08 | 2.089E-08 | 7.607E-09 | 3.712E-09 | 2.352E-09 | 1.695E-09 |
| N | 6.049E-08 | 5.991E-08 | 4.421E-08 | 3.097E-08 | 2.274E-08 | 1.258E-08 | 6.518E-09 | 3.820E-09 | 2.427E-09 | 1.710E-09 |
| NNE | 1.852E-08 | 3.250E-08 | 2.735E-08 | 2.006E-08 | 1.626E-08 | 1.444E-08 | 6.461E-09 | 3.110E-09 | 1.944E-09 | 1.374E-09 |
| NE | 1.903E-08 | 2.838E-08 | 2.460E-08 | 1.886E-08 | 1.602E-08 | 1.720E-08 | 8.192E-09 | 4.024E-09 | 2.563E-09 | 1.833E-09 |
| ENE | 1.363E-08 | 2.209E-08 | 2.106E-08 | 1.683E-08 | 1.454E-08 | 1.560E-08 | 7.569E-09 | 3.785E-09 | 2.458E-09 | 1.773E-09 |
| E | 2.373E-08 | 3.036E-08 | 2.555E-08 | 1.932E-08 | 1.590E-08 | 1.486E-08 | 6.964E-09 | 3.455E-09 | 2.196E-09 | 1.610E-09 |
| ESE | 2.887E-08 | 2.927E-08 | 2.189E-08 | 1.554E-08 | 1.209E-08 | 9.930E-09 | 4.563E-09 | 2.282E-09 | 1.457E-09 | 1.045E-09 |
| SE | 1.037E-07 | 7.468E-08 | 5.083E-08 | 3.521E-08 | 2.586E-08 | 1.421E-08 | 6.990E-09 | 3.982E-09 | 2.663E-09 | 1.941E-09 |
| SSE | 1.078E-07 | 8.271E-08 | 5.668E-08 | 4.574E-08 | 5.477E-08 | 2.949E-08 | 1.072E-08 | 5.171E-09 | 3.240E-09 | 2.294E-09 |

EKP ELEVATED STACK RELEASE - JAN-JUN 1984
2.260 DAY DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.402E-07 | 1.221E-07 | 1.129E-07 | 9.752E-08 | 8.130E-08 | 6.512E-08 | 5.203E-08 | 4.220E-08 | 3.489E-08 | 3.826E-08 | 4.031E-08 |
| SSW | 1.042E-08 | 3.054E-08 | 3.676E-08 | 3.738E-08 | 3.622E-08 | 3.106E-08 | 2.579E-08 | 2.732E-08 | 2.706E-08 | 2.321E-08 | 2.019E-08 |
| SW | 1.645E-09 | 1.647E-08 | 5.742E-08 | 1.079E-07 | 1.536E-07 | 1.016E-07 | 7.219E-08 | 5.421E-08 | 4.245E-08 | 3.434E-08 | 2.850E-08 |
| WSW | 8.650E-16 | 8.034E-10 | 3.905E-08 | 1.109E-07 | 1.746E-07 | 1.072E-07 | 7.247E-08 | 5.247E-08 | 3.995E-08 | 3.159E-08 | 2.573E-08 |
| W | 3.599E-09 | 7.317E-08 | 2.396E-07 | 2.870E-07 | 2.482E-07 | 1.508E-07 | 1.015E-07 | 7.341E-08 | 5.589E-08 | 4.422E-08 | 3.605E-08 |
| WNW | 7.094E-10 | 4.610E-08 | 2.093E-07 | 3.288E-07 | 3.586E-07 | 2.125E-07 | 1.411E-07 | 1.047E-07 | 8.123E-08 | 6.363E-08 | 5.146E-08 |
| NW | 4.806E-10 | 3.329E-08 | 1.658E-07 | 3.408E-07 | 4.667E-07 | 2.666E-07 | 1.735E-07 | 1.250E-07 | 9.523E-08 | 7.452E-08 | 6.026E-08 |
| NNW | 3.358E-09 | 2.765E-08 | 6.667E-08 | 9.555E-08 | 1.212E-07 | 1.103E-07 | 9.538E-08 | 8.074E-08 | 6.930E-08 | 5.422E-08 | 4.384E-08 |
| N | 3.290E-09 | 3.832E-08 | 6.536E-08 | 6.781E-08 | 6.254E-08 | 5.369E-08 | 4.487E-08 | 3.692E-08 | 3.085E-08 | 2.619E-08 | 2.256E-08 |
| NNE | 3.211E-11 | 2.740E-09 | 1.608E-08 | 2.819E-08 | 3.534E-08 | 3.236E-08 | 2.770E-08 | 2.348E-08 | 2.002E-08 | 1.727E-08 | 1.507E-08 |
| NE | 8.985E-11 | 6.775E-09 | 1.846E-08 | 2.551E-08 | 3.017E-08 | 2.827E-08 | 2.488E-08 | 2.159E-08 | 1.879E-08 | 1.648E-08 | 1.458E-08 |
| ENE | 4.617E-09 | 8.384E-09 | 1.212E-08 | 1.734E-08 | 2.334E-08 | 2.338E-08 | 2.135E-08 | 1.898E-08 | 1.680E-08 | 1.491E-08 | 1.333E-08 |
| E | 1.715E-09 | 1.298E-08 | 2.392E-08 | 2.888E-08 | 3.208E-08 | 2.962E-08 | 2.585E-08 | 2.229E-08 | 1.927E-08 | 1.680E-08 | 1.479E-08 |
| ESE | 3.811E-09 | 2.111E-08 | 3.006E-08 | 3.177E-08 | 3.095E-08 | 2.656E-08 | 2.207E-08 | 1.837E-08 | 1.548E-08 | 1.321E-08 | 1.144E-08 |
| SE | 1.097E-07 | 1.182E-07 | 1.083E-07 | 9.278E-08 | 7.764E-08 | 6.308E-08 | 5.111E-08 | 4.196E-08 | 3.504E-08 | 2.975E-08 | 2.563E-08 |
| SSE | 1.395E-07 | 1.194E-07 | 1.105E-07 | 9.968E-08 | 8.683E-08 | 7.071E-08 | 5.699E-08 | 4.650E-08 | 3.861E-08 | 5.062E-08 | 6.046E-08 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.553E-08 | 2.232E-08 | 1.428E-08 | 7.985E-09 | 5.414E-09 | 3.982E-09 | 3.052E-09 | 2.436E-09 | 2.012E-09 | 1.697E-09 | 1.452E-09 |
| SSW | 1.826E-08 | 1.360E-08 | 8.762E-09 | 4.949E-09 | 3.496E-09 | 2.597E-09 | 1.994E-09 | 1.593E-09 | 1.310E-09 | 1.103E-09 | 9.436E-10 |
| SW | 2.563E-08 | 1.695E-08 | 1.083E-08 | 6.026E-09 | 4.045E-09 | 2.944E-09 | 2.261E-09 | 1.791E-09 | 1.459E-09 | 1.215E-09 | 1.032E-09 |
| WSW | 2.197E-08 | 1.240E-08 | 8.202E-09 | 4.682E-09 | 3.034E-09 | 2.164E-09 | 1.639E-09 | 1.294E-09 | 1.052E-09 | 8.760E-10 | 7.425E-10 |
| W | 3.008E-08 | 1.570E-08 | 1.049E-08 | 6.104E-09 | 4.110E-09 | 2.959E-09 | 2.258E-09 | 1.796E-09 | 1.472E-09 | 1.234E-09 | 1.054E-09 |
| WNW | 4.298E-08 | 2.250E-08 | 1.454E-08 | 8.188E-09 | 5.389E-09 | 3.887E-09 | 2.970E-09 | 2.361E-09 | 1.933E-09 | 1.619E-09 | 1.380E-09 |
| NW | 5.043E-08 | 2.688E-08 | 1.779E-08 | 1.042E-08 | 6.894E-09 | 5.004E-09 | 3.898E-09 | 3.142E-09 | 2.596E-09 | 2.186E-09 | 1.873E-09 |
| NNW | 3.697E-08 | 2.011E-08 | 1.288E-08 | 7.250E-09 | 4.836E-09 | 3.533E-09 | 2.744E-09 | 2.215E-09 | 1.839E-09 | 1.581E-09 | 1.360E-09 |
| N | 1.972E-08 | 1.188E-08 | 9.215E-09 | 6.494E-09 | 4.863E-09 | 3.726E-09 | 2.872E-09 | 2.303E-09 | 1.901E-09 | 1.604E-09 | 1.378E-09 |
| NNE | 1.624E-08 | 1.733E-08 | 1.105E-08 | 6.185E-09 | 4.105E-09 | 2.989E-09 | 2.307E-09 | 1.853E-09 | 1.532E-09 | 1.296E-09 | 1.115E-09 |
| NE | 1.648E-08 | 2.138E-08 | 1.373E-08 | 7.754E-09 | 5.178E-09 | 3.786E-09 | 2.947E-09 | 2.381E-09 | 1.976E-09 | 1.676E-09 | 1.443E-09 |
| ENE | 1.495E-08 | 1.934E-08 | 1.259E-08 | 7.214E-09 | 4.857E-09 | 3.570E-09 | 2.818E-09 | 2.301E-09 | 1.925E-09 | 1.631E-09 | 1.405E-09 |
| E | 1.581E-08 | 1.788E-08 | 1.160E-08 | 6.616E-09 | 4.441E-09 | 3.257E-09 | 2.525E-09 | 2.034E-09 | 1.695E-09 | 1.479E-09 | 1.271E-09 |
| ESE | 1.152E-08 | 1.159E-08 | 7.566E-09 | 4.349E-09 | 2.934E-09 | 2.159E-09 | 1.679E-09 | 1.356E-09 | 1.125E-09 | 9.542E-10 | 8.227E-10 |
| SE | 2.240E-08 | 1.352E-08 | 1.019E-08 | 6.952E-09 | 4.944E-09 | 3.787E-09 | 3.009E-09 | 2.476E-09 | 2.090E-09 | 1.773E-09 | 1.526E-09 |
| SSE | 3.141E-08 | 2.846E-08 | 1.808E-08 | 1.005E-08 | 6.635E-09 | 4.806E-09 | 3.691E-09 | 2.951E-09 | 2.430E-09 | 2.046E-09 | 1.753E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| DIRECTION FROM SITE | .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| | SEGMENT BOUNDARIES IN MILES | | | | | | | | | |
| S | 1.081E-07 | 7.771E-08 | 5.159E-08 | 3.826E-08 | 3.793E-08 | 2.168E-08 | 8.241E-09 | 3.992E-09 | 2.451E-09 | 1.700E-09 |
| SSW | 3.565E-08 | 3.419E-08 | 2.781E-08 | 2.567E-08 | 2.037E-08 | 1.249E-08 | 5.150E-09 | 2.595E-09 | 1.600E-09 | 1.105E-09 |
| SW | 7.075E-08 | 1.203E-07 | 7.285E-08 | 4.272E-08 | 2.917E-08 | 1.616E-08 | 6.214E-09 | 2.965E-09 | 1.799E-09 | 1.219E-09 |
| WSW | 6.249E-08 | 1.305E-07 | 7.374E-08 | 4.034E-08 | 2.608E-08 | 1.266E-08 | 4.732E-09 | 2.186E-09 | 1.301E-09 | 8.788E-10 |
| W | 2.237E-07 | 2.135E-07 | 1.034E-07 | 5.645E-08 | 3.626E-08 | 1.658E-08 | 6.191E-09 | 2.985E-09 | 1.805E-09 | 1.238E-09 |
| WNW | 2.262E-07 | 2.871E-07 | 1.456E-07 | 8.123E-08 | 5.192E-08 | 2.351E-08 | 8.355E-09 | 3.921E-09 | 2.372E-09 | 1.623E-09 |
| NW | 2.142E-07 | 3.498E-07 | 1.789E-07 | 9.585E-08 | 6.085E-08 | 2.808E-08 | 1.049E-08 | 5.066E-09 | 3.150E-09 | 2.192E-09 |
| NNW | 7.084E-08 | 1.106E-07 | 9.350E-08 | 6.682E-08 | 4.437E-08 | 2.065E-08 | 7.429E-09 | 3.565E-09 | 2.223E-09 | 1.576E-09 |
| N | 6.044E-08 | 5.978E-08 | 4.404E-08 | 3.081E-08 | 2.258E-08 | 1.244E-08 | 6.374E-09 | 3.688E-09 | 2.313E-09 | 1.609E-09 |
| NNE | 1.850E-08 | 3.243E-08 | 2.725E-08 | 1.996E-08 | 1.615E-08 | 1.430E-08 | 6.343E-09 | 3.014E-09 | 1.861E-09 | 1.299E-09 |
| NE | 1.900E-08 | 2.829E-08 | 2.447E-08 | 1.871E-08 | 1.585E-08 | 1.689E-08 | 7.938E-09 | 3.821E-09 | 2.388E-09 | 1.678E-09 |
| ENE | 1.361E-08 | 2.202E-08 | 2.094E-08 | 1.670E-08 | 1.440E-08 | 1.536E-08 | 7.360E-09 | 3.613E-09 | 2.306E-09 | 1.635E-09 |
| E | 2.369E-08 | 3.028E-08 | 2.543E-08 | 1.919E-08 | 1.576E-08 | 1.463E-08 | 6.756E-09 | 3.280E-09 | 2.041E-09 | 1.463E-09 |
| ESE | 2.883E-08 | 2.918E-08 | 2.179E-08 | 1.544E-08 | 1.197E-08 | 9.786E-09 | 4.435E-09 | 2.174E-09 | 1.360E-09 | 9.562E-10 |
| SE | 1.036E-07 | 7.453E-08 | 5.064E-08 | 3.500E-08 | 2.566E-08 | 1.401E-08 | 6.779E-09 | 3.785E-09 | 2.481E-09 | 1.775E-09 |
| SSE | 1.077E-07 | 8.252E-08 | 5.645E-08 | 4.544E-08 | 5.420E-08 | 2.895E-08 | 1.032E-08 | 4.848E-09 | 2.964E-09 | 2.051E-09 |

ERF ELEVATED STACK RELEASE - JAN-JUN 1984
8.000 DAY DECAY, DEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| SECTOR | 0.250 | 0.500 | 0.750 | 1.000 | 1.500 | 2.000 | 2.500 | 3.000 | 3.500 | 4.000 | 4.500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.402E-07 | 1.211E-07 | 1.109E-07 | 9.578E-08 | 7.970E-08 | 6.852E-08 | 5.044E-08 | 4.066E-08 | 3.342E-08 | 3.665E-08 | 3.866E-08 |
| SSW | 1.042E-08 | 3.028E-08 | 3.616E-08 | 3.688E-08 | 3.569E-08 | 3.045E-08 | 2.514E-08 | 2.656E-08 | 2.624E-08 | 2.242E-08 | 1.944E-08 |
| SW | 1.646E-09 | 1.634E-08 | 5.694E-08 | 1.075E-07 | 1.519E-07 | 9.967E-08 | 7.034E-08 | 5.254E-08 | 4.097E-08 | 3.302E-08 | 2.733E-08 |
| WSW | 8.651E-16 | 8.038E-10 | 3.908E-08 | 1.109E-07 | 1.727E-07 | 1.050E-07 | 7.042E-08 | 5.063E-08 | 3.832E-08 | 3.015E-08 | 2.444E-08 |
| W | 3.600E-09 | 7.251E-08 | 2.377E-07 | 2.833E-07 | 2.432E-07 | 1.467E-07 | 9.818E-08 | 7.064E-08 | 5.356E-08 | 4.222E-08 | 3.430E-08 |
| WNW | 7.096E-10 | 4.581E-08 | 2.081E-07 | 3.255E-07 | 3.522E-07 | 2.068E-07 | 1.364E-07 | 1.007E-07 | 7.778E-08 | 6.061E-08 | 4.877E-08 |
| NW | 4.807E-10 | 3.302E-08 | 1.644E-07 | 3.383E-07 | 4.598E-07 | 2.599E-07 | 1.679E-07 | 1.202E-07 | 9.116E-08 | 7.095E-08 | 5.706E-08 |
| NNW | 3.358E-09 | 2.742E-08 | 6.580E-08 | 9.469E-08 | 1.198E-07 | 1.083E-07 | 9.336E-08 | 7.883E-08 | 6.756E-08 | 5.261E-08 | 4.233E-08 |
| N | 3.290E-09 | 3.800E-08 | 6.427E-08 | 6.675E-08 | 6.146E-08 | 5.254E-08 | 4.369E-08 | 3.577E-08 | 2.976E-08 | 2.516E-08 | 2.160E-08 |
| NNE | 3.211E-11 | 2.724E-09 | 1.603E-08 | 2.815E-08 | 3.506E-08 | 3.188E-08 | 2.713E-08 | 2.287E-08 | 1.942E-08 | 1.668E-08 | 1.450E-08 |
| NE | 8.987E-11 | 6.722E-09 | 1.825E-08 | 2.531E-08 | 2.985E-08 | 2.786E-08 | 2.442E-08 | 2.113E-08 | 1.834E-08 | 1.605E-08 | 1.418E-08 |
| ENE | 4.617E-09 | 8.314E-09 | 1.200E-08 | 1.726E-08 | 2.317E-08 | 2.312E-08 | 2.104E-08 | 1.866E-08 | 1.647E-08 | 1.460E-08 | 1.303E-08 |
| E | 1.715E-09 | 1.287E-08 | 2.359E-08 | 2.857E-08 | 3.169E-08 | 2.915E-08 | 2.534E-08 | 2.177E-08 | 1.877E-08 | 1.632E-08 | 1.433E-08 |
| ESE | 3.812E-09 | 2.094E-08 | 2.958E-08 | 3.134E-08 | 3.050E-08 | 2.603E-08 | 2.152E-08 | 1.782E-08 | 1.494E-08 | 1.270E-08 | 1.095E-08 |
| SE | 1.097E-07 | 1.172E-07 | 1.063E-07 | 9.117E-08 | 7.620E-08 | 6.163E-08 | 4.968E-08 | 4.059E-08 | 3.375E-08 | 2.853E-08 | 2.449E-08 |
| SSE | 1.395E-07 | 1.183E-07 | 1.086E-07 | 9.811E-08 | 8.530E-08 | 6.909E-08 | 5.534E-08 | 4.488E-08 | 3.706E-08 | 4.878E-08 | 5.861E-08 |

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

| BEARING | 5.000 | 7.500 | 10.000 | 15.000 | 20.000 | 25.000 | 30.000 | 35.000 | 40.000 | 45.000 | 50.000 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 3.400E-08 | 2.108E-08 | 1.314E-08 | 6.988E-09 | 4.489E-09 | 3.157E-09 | 2.338E-09 | 1.811E-09 | 1.459E-09 | 1.206E-09 | 1.012E-09 |
| SSW | 1.756E-08 | 1.299E-08 | 8.154E-09 | 4.376E-09 | 2.927E-09 | 2.113E-09 | 1.585E-09 | 1.242E-09 | 1.004E-09 | 8.313E-10 | 7.012E-10 |
| SW | 2.457E-08 | 1.620E-08 | 1.012E-08 | 5.375E-09 | 3.429E-09 | 2.395E-09 | 1.794E-09 | 1.395E-09 | 1.118E-09 | 9.175E-10 | 7.680E-10 |
| WSW | 2.080E-08 | 1.151E-08 | 7.448E-09 | 4.100E-09 | 2.577E-09 | 1.794E-09 | 1.332E-09 | 1.032E-09 | 8.269E-10 | 6.791E-10 | 5.687E-10 |
| W | 2.854E-08 | 1.472E-08 | 9.696E-09 | 5.375E-09 | 3.448E-09 | 2.409E-09 | 1.792E-09 | 1.393E-09 | 1.119E-09 | 9.219E-10 | 7.742E-10 |
| WNW | 4.052E-08 | 2.068E-08 | 1.302E-08 | 6.964E-09 | 4.328E-09 | 2.996E-09 | 2.220E-09 | 1.722E-09 | 1.380E-09 | 1.133E-09 | 9.484E-10 |
| NW | 4.751E-08 | 2.465E-08 | 1.589E-08 | 8.849E-09 | 5.578E-09 | 3.889E-09 | 2.934E-09 | 2.308E-09 | 1.866E-09 | 1.542E-09 | 1.298E-09 |
| NNW | 3.552E-08 | 1.880E-08 | 1.168E-08 | 6.190E-09 | 3.855E-09 | 2.660E-09 | 1.969E-09 | 1.527E-09 | 1.225E-09 | 1.027E-09 | 8.644E-10 |
| N | 1.881E-08 | 1.120E-08 | 8.655E-09 | 6.093E-09 | 4.474E-09 | 3.300E-09 | 2.484E-09 | 1.950E-09 | 1.579E-09 | 1.310E-09 | 1.107E-09 |
| NNE | 1.565E-08 | 1.665E-08 | 1.029E-08 | 5.479E-09 | 3.488E-09 | 2.454E-09 | 1.840E-09 | 1.440E-09 | 1.164E-09 | 9.636E-10 | 8.134E-10 |
| NE | 1.608E-08 | 2.089E-08 | 1.303E-08 | 7.003E-09 | 4.477E-09 | 3.159E-09 | 2.387E-09 | 1.882E-09 | 1.530E-09 | 1.274E-09 | 1.078E-09 |
| ENE | 1.465E-08 | 1.899E-08 | 1.200E-08 | 6.458E-09 | 4.038E-09 | 2.794E-09 | 2.093E-09 | 1.632E-09 | 1.323E-09 | 1.096E-09 | 9.249E-10 |
| E | 1.535E-08 | 1.741E-08 | 1.098E-08 | 5.904E-09 | 3.700E-09 | 2.564E-09 | 1.894E-09 | 1.462E-09 | 1.166E-09 | 9.893E-10 | 8.285E-10 |
| ESE | 1.103E-08 | 1.114E-08 | 7.080E-09 | 3.852E-09 | 2.441E-09 | 1.705E-09 | 1.268E-09 | 9.837E-10 | 7.880E-10 | 6.467E-10 | 5.411E-10 |
| SE | 2.133E-08 | 1.272E-08 | 9.541E-09 | 6.499E-09 | 4.612E-09 | 3.335E-09 | 2.812E-09 | 2.316E-09 | 1.946E-09 | 1.629E-09 | 1.385E-09 |
| SSE | 4.961E-08 | 2.676E-08 | 1.650E-08 | 8.709E-09 | 5.473E-09 | 3.807E-09 | 2.824E-09 | 2.190E-09 | 1.754E-09 | 1.440E-09 | 1.206E-09 |

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

| DIRECTION FROM SITE | .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| | SEGMENT BOUNDARIES IN MILES | | | | | | | | | |
| S | 1.064E-07 | 7.608E-08 | 5.001E-08 | 3.672E-08 | 3.634E-08 | 2.042E-08 | 7.244E-09 | 3.185E-09 | 1.827E-09 | 1.209E-09 |
| SSW | 3.517E-08 | 3.363E-08 | 2.713E-08 | 2.488E-08 | 1.963E-08 | 1.186E-08 | 4.572E-09 | 2.119E-09 | 1.249E-09 | 8.342E-10 |
| SW | 7.038E-08 | 1.188E-07 | 7.104E-08 | 4.125E-08 | 2.799E-08 | 1.535E-08 | 5.564E-09 | 2.430E-09 | 1.403E-09 | 9.214E-10 |
| WSW | 6.250E-08 | 1.289E-07 | 7.174E-08 | 3.873E-08 | 2.478E-08 | 1.177E-08 | 4.167E-09 | 1.818E-09 | 1.040E-09 | 6.820E-10 |
| W | 2.213E-07 | 2.092E-07 | 1.001E-07 | 5.412E-08 | 3.451E-08 | 1.556E-08 | 5.479E-09 | 2.439E-09 | 1.403E-09 | 9.257E-10 |
| WNW | 2.242E-07 | 2.817E-07 | 1.409E-07 | 7.777E-08 | 4.922E-08 | 2.168E-08 | 7.138E-09 | 3.041E-09 | 1.734E-09 | 1.138E-09 |
| NW | 2.125E-07 | 3.440E-07 | 1.734E-07 | 9.177E-08 | 5.764E-08 | 2.584E-08 | 8.960E-09 | 3.957E-09 | 2.319E-09 | 1.547E-09 |
| NNW | 7.011E-08 | 1.091E-07 | 9.154E-08 | 6.508E-08 | 4.285E-08 | 1.935E-08 | 6.373E-09 | 2.702E-09 | 1.538E-09 | 1.026E-09 |
| N | 5.934E-08 | 5.867E-08 | 4.288E-08 | 2.973E-08 | 2.162E-08 | 1.176E-08 | 5.943E-09 | 3.287E-09 | 1.961E-09 | 1.315E-09 |
| NNE | 1.846E-08 | 3.211E-08 | 2.669E-08 | 1.936E-08 | 1.557E-08 | 1.360E-08 | 5.664E-09 | 2.484E-09 | 1.449E-09 | 9.673E-10 |
| NE | 1.883E-08 | 2.796E-08 | 2.402E-08 | 1.827E-08 | 1.544E-08 | 1.633E-08 | 7.219E-09 | 3.201E-09 | 1.892E-09 | 1.277E-09 |
| ENE | 1.352E-08 | 2.183E-08 | 2.064E-08 | 1.638E-08 | 1.409E-08 | 1.492E-08 | 6.614E-09 | 2.845E-09 | 1.646E-09 | 1.100E-09 |
| E | 2.342E-08 | 2.987E-08 | 2.493E-08 | 1.870E-08 | 1.530E-08 | 1.410E-08 | 6.052E-09 | 2.599E-09 | 1.472E-09 | 9.820E-10 |
| ESE | 2.844E-08 | 2.870E-08 | 2.124E-08 | 1.491E-08 | 1.150E-08 | 9.311E-09 | 3.942E-09 | 1.726E-09 | 9.902E-10 | 6.494E-10 |
| SE | 1.020E-07 | 7.305E-08 | 4.923E-08 | 3.372E-08 | 2.452E-08 | 1.322E-08 | 6.336E-09 | 3.533E-09 | 2.317E-09 | 1.633E-09 |
| SSE | 1.061E-07 | 8.094E-08 | 5.482E-08 | 4.376E-08 | 5.236E-08 | 2.728E-08 | 9.003E-09 | 3.858E-09 | 2.205E-09 | 1.447E-09 |

ERP ELEVATED STACK RELEASE - JAN-JUN 1984
CORRECTED FOR OPEN TERRAIN RECIRCULATION

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS **********

| DIRECTION FROM SITE | DISTANCES IN MILES 0.25 | 0.50 | 0.75 | 1.00 | 1.50 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00 | 4.50 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1.199E-08 | 9.316E-09 | 7.276E-09 | 4.655E-09 | 2.124E-09 | 1.266E-09 | 8.426E-10 | 6.002E-10 | 4.476E-10 | 3.622E-10 | 3.195E-10 |
| SSW | 2.310E-09 | 1.972E-09 | 1.815E-09 | 1.333E-09 | 6.837E-10 | 4.284E-10 | 2.928E-10 | 2.115E-10 | 1.937E-10 | 1.465E-10 | 1.148E-10 |
| SW | 1.283E-09 | 1.360E-09 | 1.624E-09 | 1.391E-09 | 1.446E-09 | 7.875E-10 | 4.882E-10 | 3.317E-10 | 2.398E-10 | 1.814E-10 | 1.420E-10 |
| WSW | 7.434E-11 | 4.460E-10 | 9.496E-10 | 2.238E-09 | 1.217E-09 | 6.620E-10 | 4.095E-10 | 2.777E-10 | 2.005E-10 | 1.515E-10 | 1.185E-10 |
| W | 1.291E-09 | 6.113E-09 | 5.380E-09 | 3.424E-09 | 1.754E-09 | 9.213E-10 | 5.586E-10 | 3.731E-10 | 2.664E-10 | 1.996E-10 | 1.554E-10 |
| WNW | 2.082E-09 | 2.189E-09 | 7.074E-09 | 4.988E-09 | 3.050E-09 | 1.533E-09 | 9.077E-10 | 5.994E-10 | 4.367E-10 | 3.301E-10 | 2.626E-10 |
| NW | 4.066E-09 | 3.793E-09 | 3.943E-09 | 6.708E-09 | 4.200E-09 | 2.087E-09 | 1.229E-09 | 8.090E-10 | 5.778E-10 | 4.396E-10 | 3.524E-10 |
| NNW | 3.232E-09 | 2.751E-09 | 2.518E-09 | 1.843E-09 | 1.628E-09 | 8.781E-10 | 5.448E-10 | 4.367E-10 | 3.158E-10 | 2.442E-10 | 1.994E-10 |
| N | 6.119E-09 | 5.018E-09 | 4.325E-09 | 3.021E-09 | 1.490E-09 | 9.190E-10 | 6.230E-10 | 4.482E-10 | 3.359E-10 | 2.596E-10 | 2.055E-10 |
| NNE | 3.695E-10 | 6.321E-10 | 1.028E-09 | 9.919E-10 | 5.997E-10 | 3.981E-10 | 2.799E-10 | 2.051E-10 | 1.552E-10 | 1.204E-10 | 9.535E-11 |
| NE | 7.977E-10 | 8.245E-10 | 9.606E-10 | 8.126E-10 | 4.580E-10 | 2.971E-10 | 2.066E-10 | 1.506E-10 | 1.136E-10 | 8.802E-11 | 6.970E-11 |
| ENE | 1.084E-09 | 9.557E-10 | 9.221E-10 | 6.999E-10 | 3.677E-10 | 2.325E-10 | 1.597E-10 | 1.156E-10 | 8.696E-11 | 6.730E-11 | 5.329E-11 |
| E | 1.251E-09 | 1.165E-09 | 1.209E-09 | 9.606E-10 | 5.206E-10 | 3.330E-10 | 2.300E-10 | 1.671E-10 | 1.258E-10 | 9.744E-11 | 7.716E-11 |
| ESE | 1.251E-09 | 1.170E-09 | 1.219E-09 | 9.706E-10 | 5.269E-10 | 3.373E-10 | 2.330E-10 | 1.693E-10 | 1.275E-10 | 9.873E-11 | 7.818E-11 |
| SE | 1.141E-08 | 9.039E-09 | 7.323E-09 | 4.850E-09 | 2.285E-09 | 1.382E-09 | 9.273E-10 | 6.634E-10 | 4.958E-10 | 3.827E-10 | 3.030E-10 |
| SSE | 1.352E-08 | 1.063E-08 | 8.475E-09 | 5.533E-09 | 2.573E-09 | 1.547E-09 | 1.035E-09 | 7.389E-10 | 5.517E-10 | 5.031E-10 | 4.387E-10 |

| DIRECTION FROM SITE | DISTANCES IN MILES 5.00 | 7.50 | 10.00 | 15.00 | 20.00 | 25.00 | 30.00 | 35.00 | 40.00 | 45.00 | 50.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 2.572E-10 | 1.445E-10 | 9.305E-11 | 5.161E-11 | 3.295E-11 | 2.280E-11 | 1.648E-11 | 1.387E-11 | 1.085E-11 | 8.659E-12 | 7.069E-12 |
| SSW | 9.325E-11 | 5.812E-11 | 3.845E-11 | 2.173E-11 | 1.483E-11 | 1.030E-11 | 7.383E-12 | 5.546E-12 | 4.314E-12 | 3.504E-12 | 2.860E-12 |
| SW | 1.151E-10 | 7.228E-11 | 4.776E-11 | 2.687E-11 | 1.689E-11 | 1.285E-11 | 9.303E-12 | 7.070E-12 | 5.497E-12 | 4.391E-12 | 3.584E-12 |
| WSW | 9.649E-11 | 5.577E-11 | 3.603E-11 | 2.384E-11 | 1.443E-11 | 9.673E-12 | 7.141E-12 | 5.363E-12 | 4.170E-12 | 3.331E-12 | 2.719E-12 |
| W | 1.250E-10 | 5.663E-11 | 5.901E-11 | 3.459E-11 | 2.331E-11 | 1.572E-11 | 1.126E-11 | 8.458E-12 | 6.577E-12 | 5.253E-12 | 4.288E-12 |
| WNW | 2.196E-10 | 1.183E-10 | 7.970E-11 | 4.561E-11 | 2.993E-11 | 2.103E-11 | 1.532E-11 | 1.149E-11 | 8.929E-12 | 7.166E-12 | 5.849E-12 |
| NW | 2.964E-10 | 1.639E-10 | 1.119E-10 | 7.145E-11 | 4.338E-11 | 2.908E-11 | 2.119E-11 | 1.589E-11 | 1.236E-11 | 9.894E-12 | 8.076E-12 |
| NNW | 1.707E-10 | 1.003E-10 | 7.076E-11 | 4.222E-11 | 2.698E-11 | 1.807E-11 | 1.247E-11 | 9.355E-12 | 7.482E-12 | 6.034E-12 | 4.927E-12 |
| N | 1.660E-10 | 7.910E-11 | 4.857E-11 | 2.598E-11 | 4.335E-11 | 2.862E-11 | 2.051E-11 | 1.541E-11 | 1.198E-11 | 9.571E-12 | 7.813E-12 |
| NNE | 7.681E-11 | 1.209E-10 | 7.391E-11 | 3.779E-11 | 2.296E-11 | 1.538E-11 | 1.101E-11 | 8.254E-12 | 6.412E-12 | 5.118E-12 | 4.176E-12 |
| NE | 5.619E-11 | 1.208E-10 | 7.450E-11 | 3.848E-11 | 2.345E-11 | 1.571E-11 | 1.121E-11 | 8.494E-12 | 6.566E-12 | 5.267E-12 | 4.299E-12 |
| ENE | 4.299E-11 | 7.888E-11 | 6.139E-11 | 3.936E-11 | 2.544E-11 | 1.685E-11 | 1.180E-11 | 7.989E-12 | 5.749E-12 | 4.483E-12 | 3.661E-12 |
| E | 6.223E-11 | 7.745E-11 | 5.726E-11 | 3.538E-11 | 2.270E-11 | 1.509E-11 | 1.062E-11 | 7.810E-12 | 5.963E-12 | 4.602E-12 | 3.743E-12 |
| ESE | 6.305E-11 | 6.232E-11 | 4.413E-11 | 2.638E-11 | 1.682E-11 | 1.122E-11 | 7.945E-12 | 5.880E-12 | 4.517E-12 | 3.578E-12 | 2.900E-12 |
| SE | 2.448E-10 | 1.169E-10 | 7.193E-11 | 3.873E-11 | 2.433E-11 | 1.713E-11 | 1.300E-11 | 1.035E-11 | 1.255E-11 | 1.178E-11 | 9.684E-12 |
| SSE | 3.599E-10 | 2.418E-10 | 1.485E-10 | 7.634E-11 | 4.648E-11 | 3.115E-11 | 2.229E-11 | 1.672E-11 | 1.298E-11 | 1.036E-11 | 8.451E-12 |

********** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS **********

| DIRECTION FROM SITE | SEGMENT BOUNDARIES IN MILES .5-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| S | 6.564E-09 | 2.305E-09 | 8.385E-10 | 4.587E-10 | 3.091E-10 | 1.467E-10 | 5.253E-11 | 2.478E-11 | 1.404E-11 | 8.719E-12 |
| SSW | 1.636E-09 | 7.145E-10 | 2.965E-10 | 1.808E-10 | 1.162E-10 | 5.718E-11 | 2.238E-11 | 1.034E-11 | 5.601E-12 | 3.505E-12 |
| SW | 1.462E-09 | 1.141E-09 | 5.054E-10 | 2.438E-10 | 1.437E-10 | 7.090E-11 | 2.708E-11 | 1.251E-11 | 7.109E-12 | 4.420E-12 |
| WSW | 1.410E-09 | 1.197E-09 | 4.241E-10 | 2.039E-10 | 1.201E-10 | 5.605E-11 | 2.237E-11 | 9.928E-12 | 5.416E-12 | 3.353E-12 |
| W | 4.673E-09 | 1.755E-09 | 5.811E-10 | 2.714E-10 | 1.572E-10 | 7.288E-11 | 3.500E-11 | 1.596E-11 | 8.543E-12 | 5.288E-12 |
| WNW | 5.061E-09 | 2.807E-09 | 9.513E-10 | 4.426E-10 | 2.666E-10 | 1.236E-10 | 4.622E-11 | 2.112E-11 | 1.161E-11 | 7.200E-12 |
| NW | 5.139E-09 | 3.818E-09 | 1.290E-09 | 5.912E-10 | 3.575E-10 | 1.702E-10 | 6.797E-11 | 2.974E-11 | 1.606E-11 | 9.951E-12 |
| NNW | 2.270E-09 | 1.342E-09 | 5.904E-10 | 3.231E-10 | 2.020E-10 | 1.028E-10 | 4.179E-11 | 1.821E-11 | 9.597E-12 | 6.053E-12 |
| N | 3.899E-09 | 1.576E-09 | 6.320E-10 | 3.389E-10 | 2.069E-10 | 8.483E-11 | 3.872E-11 | 2.931E-11 | 1.556E-11 | 9.634E-12 |
| NNE | 9.240E-10 | 5.973E-10 | 2.815E-10 | 1.562E-10 | 9.591E-11 | 9.024E-11 | 3.922E-11 | 1.565E-11 | 8.338E-12 | 5.153E-12 |
| NE | 8.646E-10 | 4.653E-10 | 2.083E-10 | 1.144E-10 | 7.013E-11 | 8.588E-11 | 3.980E-11 | 1.598E-11 | 8.536E-12 | 5.293E-12 |
| ENE | 8.308E-10 | 3.814E-10 | 1.615E-10 | 8.767E-11 | 5.363E-11 | 6.313E-11 | 3.807E-11 | 1.712E-11 | 8.226E-12 | 4.554E-12 |
| E | 1.089E-09 | 5.350E-10 | 2.323E-10 | 1.268E-10 | 7.764E-11 | 6.509E-11 | 3.461E-11 | 1.533E-11 | 7.910E-12 | 4.687E-12 |
| ESE | 1.098E-09 | 5.412E-10 | 2.353E-10 | 1.285E-10 | 7.866E-11 | 5.440E-11 | 2.607E-11 | 1.140E-11 | 5.951E-12 | 3.605E-12 |
| SE | 6.605E-09 | 2.454E-09 | 9.430E-10 | 5.006E-10 | 3.050E-10 | 1.253E-10 | 3.971E-11 | 1.740E-11 | 1.195E-11 | 1.123E-11 |
| SSE | 7.645E-09 | 2.775E-09 | 1.053E-09 | 5.867E-10 | 4.286E-10 | 2.266E-10 | 7.910E-11 | 3.170E-11 | 1.689E-11 | 1.043E-11 |

ERP ELEVATED STACK RELEASE - JAN-JUN 1984
CORRECTED FOR OPEN TERRAIN RECIRCULATION
SPECIFIC POINTS OF INTEREST

| RELEASE ID | TYPE OF LOCATION | DIRECTION | DISTANCE (MILES) | DISTANCE (METERS) | X/Q (SEC/CUB METER) NO DECAY UNDEPLETED | X/Q (SEC/CUB METER) 2.260 DAY DECAY UNDEPLETED | X/Q (SEC/CUB METER) 8.000 DAY DECAY DEPLETED | D/Q (PER SQ. METER) |
|---|---|---|---|---|---|---|---|---|
| A | SITE BOUNDARY | S | 0.84 | 1350. | 1.053E-07 | 1.052E-07 | 1.032E-07 | 6.199E-09 |
| A | SITE BOUNDARY | SSW | 0.85 | 1370. | 3.684E-08 | 3.679E-08 | 3.622E-08 | 1.622E-09 |
| A | SITE BOUNDARY | SW | 1.01 | 1620. | 1.093E-07 | 1.091E-07 | 1.087E-07 | 1.378E-09 |
| A | SITE BOUNDARY | WSW | 1.00 | 1610. | 1.113E-07 | 1.111E-07 | 1.111E-07 | 2.235E-09 |
| A | SITE BOUNDARY | W | 0.99 | 1590. | 2.870E-07 | 2.865E-07 | 2.829E-07 | 3.444E-09 |
| A | SITE BOUNDARY | WNW | 1.01 | 1620. | 3.314E-07 | 3.309E-07 | 3.275E-07 | 4.928E-09 |
| A | SITE BOUNDARY | NW | 0.80 | 1290. | 2.030E-07 | 2.028E-07 | 2.014E-07 | 3.806E-09 |
| A | SITE BOUNDARY | NNW | 0.70 | 1130. | 5.758E-08 | 5.751E-08 | 5.674E-08 | 2.535E-09 |
| A | SITE BOUNDARY | N | 0.70 | 1130. | 6.074E-08 | 6.070E-08 | 5.972E-08 | 4.406E-09 |
| A | SITE BOUNDARY | NNE | 0.65 | 1050. | 9.289E-09 | 9.281E-09 | 9.237E-09 | 8.674E-10 |
| A | SITE BOUNDARY | NE | 0.64 | 1030. | 1.275E-08 | 1.274E-08 | 1.259E-08 | 8.887E-10 |
| A | SITE BOUNDARY | ENE | 0.58 | 930. | 8.606E-09 | 8.603E-09 | 8.503E-09 | 9.311E-10 |
| A | SITE BOUNDARY | E | 0.54 | 870. | 1.460E-08 | 1.459E-08 | 1.444E-08 | 1.161E-09 |
| A | SITE BOUNDARY | ESE | 0.55 | 880. | 2.276E-08 | 2.274E-08 | 2.249E-08 | 1.167E-09 |
| A | SITE BOUNDARY | SE | 1.03 | 1660. | 9.183E-08 | 9.173E-08 | 9.017E-08 | 4.582E-09 |
| A | SITE BOUNDARY | SSE | 0.85 | 1370. | 1.041E-07 | 1.040E-07 | 1.022E-07 | 7.139E-09 |
| A | NEAR. RESIDENCE | SSW | 1.30 | 2092. | 3.756E-08 | 3.747E-08 | 3.697E-08 | 8.688E-10 |
| A | NEAR. RESIDENCE | SW | 1.30 | 2092. | 1.460E-07 | 1.456E-07 | 1.444E-07 | 1.925E-09 |
| A | NEAR. RESIDENCE | W | 1.00 | 1609. | 2.875E-07 | 2.870E-07 | 2.833E-07 | 3.424E-09 |
| A | NEAR. RESIDENCE | NW | 0.90 | 1448. | 2.738E-07 | 2.734E-07 | 2.718E-07 | 7.519E-09 |
| A | NEAR. RESIDENCE | NNW | 1.90 | 3058. | 1.135E-07 | 1.132E-07 | 1.113E-07 | 9.821E-10 |
| A | NEAREST COW | W | 2.30 | 3702. | 1.183E-07 | 1.177E-07 | 1.141E-07 | 6.728E-10 |
| A | NEAREST COW | NNW | 3.50 | 5633. | 6.968E-09 | 6.929E-08 | 6.754E-08 | 3.158E-10 |
| A | NEAREST GARDEN | SSW | 1.30 | 2092. | 3.756E-08 | 3.747E-08 | 3.697E-08 | 8.688E-10 |
| A | NEAREST GARDEN | SW | 1.30 | 2092. | 1.460E-07 | 1.456E-07 | 1.444E-07 | 1.925E-09 |
| A | NEAREST GARDEN | W | 1.00 | 1609. | 2.875E-07 | 2.870E-07 | 2.833E-07 | 3.424E-09 |
| A | NEAREST GARDEN | NW | 2.70 | 4345. | 1.517E-07 | 1.510E-07 | 1.457E-07 | 1.028E-09 |
| A | NEAREST GARDEN | NNW | 1.90 | 3058. | 1.135E-07 | 1.132E-07 | 1.113E-07 | 9.821E-10 |

## ATMOSPHERIC DIFFUSION MODEL

Onsite meteorological data for the period January 1, 1984, through June 30, 1984, were used to determine long-term (routine) diffusion estimates for evaluating normal atmospheric releases from the Cooper Nuclear Station. Atmospheric dispersion parameters (X/Q values) were determined for the site boundary distances from each release point, the standard population distances, and special locations for nearest residence, cow, and garden using the methodology presented in U.S. NRC Regulatory Guide 1.111 (Ref. 1) and the computer code XOQDOQ (Ref. 2). Two release modes were analyzed. Releases from the 99-meter free-standing stack were considered 100 percent elevated, while releases from the reactor building, turbine-generator building, radwaste building, and augmented radwaste building vents were considered as a 100-percent ground-level release (one combined source term was assumed to apply for these vents).

Winds were obtained from measurements at the 10-meter level (for ground-level releases) and 100-meter level (for elevated releases), and the stability class was based on the vertical temperature gradient between 100 meters and 10 meters. In accordance with Regulatory Guide 1.111, calm periods were distributed directionally in proportion to the directional distribution within a stability class of the lowest wind speed group. For the calculations, calm periods were assigned a speed of one-half the threshold wind speed of the wind vane or anemometer, whichever is higher. For the purposes of these calculations, 100-m wind speed and direction data were substituted for missing 10-m wind speeds and directions for the entire period due to low 10-m data recovery. The substituted 10-m wind speeds were adjusted to the 10-m level by the power law relationship with a value of the exponent of 0.25 for stability classes A, B, C, and D are 0.50 for stability classes E, F, and G (Ref. 2).

The Gaussian straight-line trajectory model, which assumes that the air flow transports and diffuses effluents along a straight line through the entire region of interest in the airflow direction at the release point, was modified to account for various modes of effluent releases. In the case of an elevated release, plume rise due to momentum effects was incorporated into the calculation. For ground-level releases, building wake effects were considered.

The mathematical equation used in the Gaussian straight-line trajectory model is:

$$(x/Q)_i = 2.032 \sum_{jk} \frac{f_{ijk}}{x u_{jk} \Sigma_{zk}} \exp\left[\frac{-\frac{1}{2}h_e^2}{\sigma_{zk}^2}\right] \qquad \text{(Eq. 1)}$$

and

$$\Sigma_{zk} = (\sigma_{zk}^2 + 0.5\, D_z^2/\pi)^{\frac{1}{2}} \leq \sqrt{3}\,\sigma_{zk} \qquad \text{(Eq. 2)}$$

where $i$ = index identifying downwind direction sector;

$j$ = index identifying wind speed class;

$k$ = index identifying atmospheric stability class;

$\frac{X}{Q}$ = average effluent concentration normalized by source strength at the specific downwind distance;

$f$ = joint frequency distribution of wind direction, wind speed class, and atmospheric stability class;

$x$ = distance from the release point to a receptor;

$u$ = wind speed;

$\Sigma_z$ = vertical plume spread with a volumetric building wake correction for a release within the building wake cavity;

$\sigma_z$ = vertical plume spread without volumetric building wake correction;

$D_z$ = maximum adjacent building height either up or downwind of the release point (44.5 m for ground-level releases); and

$h_e$ = effective plume height.

The term $\Sigma_{zk}$ given in Equations 1 and 2 is used for ground-level release ($h_e = 0$) within the building wake cavity. For an elevated release, no volumetric building wake correction needs to be considered, i.e., $\Sigma_{zk} = \sigma_{zk}$. For all building wake determinations, the reactor building was considered to be the dominating structure in the modification of air flows within the building complex.

Since this model does not directly consider the effects of spatial and temporal variation in airflow due to terrain, appropriate adjustments were made to the calculated X/Q values, using the default values of Regulatory Guide 1.111, Rev. 0 (Ref. 3).

## References


1. U.S. Nuclear Regulatory Commission, Regulatory Guide 1.111, "Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases form Light-Water-Cooled Reactors," Rev. 1, 1977.

2. U.S. Nuclear Regulatory Commission, NUREG/CR-2919, "XOQDOQ: Computer Program for the Meteorological Evaluation of Routine Effluent Releases at Nuclear Power Stations," 1982.

3. U.S. Nuclear Regulatory Commission, Regulatory Guide 1.111, Revision 0, 1976.

# APPENDIX C

# DOSE CALCULATIONS

CONTENTS

## LIQUID EFFLUENT DOSE CALCULATIONS

Doses to the maximum individual and 0- to 50-mile population resulting from the release of radioactive material in liquid effluents from Cooper Nuclear Station were calculated using the LADTAP II computer program. The LADTAP II program implements the radiological dose models of Regulatory Guide 1.109 for determining the radiation exposure to man from three principal exposure pathways in the aquatic environment: potable water, aquatic foods, and recreational water use. Doses to both the maximum individual and 0 to 50-mile population are calculated as a function of age group and pathway for significant body organs, and are presented in Tables 1 and 2, respectively, for the first semiannual period.

Assumptions and data sources used for input to the LADTAP II code are described in a separate section of this appendix (see page C17).

Table 1. Doses to Individual at the Site Boundary, Resulting From Exposure to Radioactivity Discharged in Liquid Effluents, January-June 1984, Cooper Nuclear Station

| Period and Pathway | Dose to Individual, mrem[a] | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Skin | Bone | Liver | Total Body | Thyroid | Kidney | Lung | GI-LLI |
| 1st Quarter | | | | | | | | |
| Drinking Water | | 1.90E-02 | 3.20E-02 | 2.40E-02 | 2.63E-03 | 1.06E-02 | 3.55E-03 | 4.18E-03 |
| Shoreline | 1.82E-03 | 1.56E-03 | 1.56E-03 | 1.56E-03 | 1.56E-03 | 1.56E-03 | 1.56E-03 | 1.56E-03 |
| Totals | 1.82E-03 | 2.06E-02 | 3.36E-02 | 2.56E-02 | 4.19E-03 | 1.22E-02 | 5.11E-03 | 5.74E-03 |
| 2nd Quarter | | | | | | | | |
| Eating Fish | | 4.88E-01 | 8.52E-01 | 6.28E-01 | 1.04E-03 | 2.82E-01 | 9.37E-02 | 2.90E-02 |
| Drinking Water | | 1.43E-02 | 2.23E-02 | 1.68E-02 | 3.83E-03 | 7.45E-03 | 2.48E-03 | 1.84E-03 |
| Shoreline | 9.75E-04 | 8.35E-04 | 8.35E-04 | 8.35E-04 | 8.35E-04 | 8.35E-04 | 8.35E-04 | 8.35E-04 |
| Totals | 9.75E-04 | 5.03E-01 | 8.75E-01 | 6.46E-01 | 5.71E-03 | 2.90E-01 | 9.70E-02 | 3.17E-02 |
| Totals for 1st and 2nd Quarters | 2.80E-03 | 5.24E-01 | 9.09E-01 | 6.72E-01 | 9.90E-03 | 3.02E-01 | 1.02E-01 | 3.74E-02 |

[a]Calculated doses are based on the following periods of exposures:
Fishing: from April through November
Drinking water and shoreline: from January through December.

Table 2. Doses to Population Within a 50-Mile Radius, Resulting From Exposure to Radioactivity Discharged in Liquid Effluents, January-June 1984, Cooper Nuclear Station

| Period and Pathway | Dose to Population, manrem[a] | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Skin | Bone | Liver | Total Body | Thyroid | Kidney | Lung | GI-LLI |
| 1st Quarter | | | | | | | | |
| Drinking Water[b] | | 1.80E-02 | 2.68E-02 | 1.48E-02 | 1.97E-03 | 8.73E-03 | 3.03E-03 | 2.60E-03 |
| Shoreline | 1.79E-03 | 1.53E-03 | 1.53E-03 | 1.53E-03 | 1.53E-03 | 1.53E-03 | 1.53E-03 | 1.53E-03 |
| Totals | 1.79E-03 | 1.95E-02 | 2.83E-02 | 1.63E-02 | 3.50E-03 | 1.03E-02 | 4.56E-03 | 4.13E-03 |
| 2nd Quarter | | | | | | | | |
| Eating Fish | | 4.90E-04 | 7.93E-04 | 4.23E-04 | 2.47E-07 | 2.60E-04 | 8.93E-05 | 2.05E-05 |
| Drinking Water[b] | | 6.98E-03 | 9.65E-03 | 5.35E-03 | 1.48E-03 | 3.18E-03 | 1.10E-03 | 5.83E-04 |
| Shoreline | 4.98E-04 | 4.25E-04 | 4.25E-04 | 4.25E-04 | 4.25E-04 | 4.25E-04 | 4.25E-04 | 4.25E-04 |
| Swimming | | 8.33E-07 | 8.33E-07 | 8.33E-07 | 8.33E-07 | 8.33E-07 | 8.33E-07 | 8.33E-07 |
| Boating | | 9.70E-06 | 9.70E-06 | 9.70E-06 | 9.70E-06 | 9.70E-06 | 9.70E-06 | 9.70E-06 |
| Totals | 4.98E-04 | 7.91E-03 | 1.09E-02 | 6.21E-03 | 1.92E-03 | 3.88E-03 | 1.62E-03 | 1.04E-03 |
| Totals for 1st and 2nd Quarter | 2.29E-03 | 2.74E-02 | 3.92E-02 | 2.25E-02 | 5.42E-03 | 1.42E-02 | 6.18E-03 | 5.17E-03 |

[a]Calculated doses are based on the following periods of exposures:
Fishing and boating: from April through November
Drinking water and shoreline: from January through December
Swimming: from June through September.

[b]Exposure from drinking water is calculated for the city of St. Joseph, Missouri, nearest public water intake from the Missouri River, 84 river miles down the river.

## GASEOUS EFFLUENT DOSE CALCULATIONS

Doses to the maximum individual and 0- to 50-mile population resulting from the release of radioactive material in gaseous effluents from the Cooper Nuclear Station were calculated using the GASPAR computer program. Four sites were selected for individual dose calculations: the site boundary, the nearest residence, the nearest garden and the nearest cow. GASPAR implements the radiological dose models of Regulatory Guide 1.109 for determining the radiation exposure to man from four principal atmospheric exposure pathways: plume, ground, inhalation, and ingestion. The ingestion pathways considered were cow milk, meat, and vegetables. Doses to the maximum individual and the population are calculated as a function of age group and pathway for significant body organs.

Tables 3 and 4 present maximum individual doses for the first and second quarters; population doses for the same period are given in Tables 5 and 6. Individual and population doses for the first semiannual period are contained in Tables 7 and 8, respectively. In addition, 0- to 50-mile distributions of gamma and beta air doses are presented in Tables 9, 10, and 11 for the first and second quarters and for the first semiannual period, respectively.

Because of differences in the amount of valid meteorological data recovered, dose contributions from the first and second quarters of 1984 cannot be summed to provide semiannual doses.

Assumptions and data sources used for input to the GASPAR code are described in a separate section of this appendix (see page C17).

TABLE 3. DOSES TO MAXIMUM INDIVIDUAL, JANUARY-MARCH, 1984

COOPER NUCLEAR STATION JANUARY-MARCH, 1984
SPECIAL LOCATION # 1 SITE BOUNDARY
AT 0.58 MILES ENE

| PATHWAY | T. BODY | GI-TRACT | BONE | LIVER | KIDNEY | THYROID | LUNG | SKIN |
|---|---|---|---|---|---|---|---|---|
| ADULT | 3.74E-01 | 3.63E-01 | 3.79E-01 | 3.79E-01 | 3.67E-01 | 3.86E-01 | 3.67E-01 | 6.81E-01 |
| TEEN | 3.73E-01 | 3.63E-01 | 3.89E-01 | 3.90E-01 | 3.71E-01 | 3.96E-01 | 3.69E-01 | 6.61E-01 |
| CHILD | 3.72E-01 | 3.62E-01 | 4.23E-01 | 4.10E-01 | 3.77E-01 | 4.25E-01 | 3.71E-01 | 6.81E-01 |
| INFANT | 3.64E-01 | 3.61E-01 | 3.96E-01 | 4.01E-01 | 3.72E-01 | 4.89E-01 | 3.69E-01 | 6.81E-01 |

COOPER NUCLEAR STATION JANUARY-MARCH, 1984
SPECIAL LOCATION # 2 NEAREST RES
AT 0.90 MILES NW

| PATHWAY | T. BODY | GI-TRACT | BONE | LIVER | KIDNEY | THYROID | LUNG | SKIN |
|---|---|---|---|---|---|---|---|---|
| ADULT | 1.34E-01 | 1.29E-01 | 1.37E-01 | 1.37E-01 | 1.31E-01 | 1.46E-01 | 1.30E-01 | 2.40E-01 |
| TEEN | 1.34E-01 | 1.29E-01 | 1.42E-01 | 1.42E-01 | 1.33E-01 | 1.53E-01 | 1.31E-01 | 2.40E-01 |
| CHILD | 1.33E-01 | 1.29E-01 | 1.58E-01 | 1.52E-01 | 1.36E-01 | 1.75E-01 | 1.32E-01 | 2.40E-01 |
| INFANT | 1.30E-01 | 1.28E-01 | 1.45E-01 | 1.48E-01 | 1.34E-01 | 2.26E-01 | 1.31E-01 | 2.40E-01 |

TABLE 3. DOSES TO MAXIMUM INDIVIDUAL, JANUARY-MARCH, 1984, (Cont.)

COOPER NUCLEAR STATION JANUARY-MARCH, 1984
SPECIAL LOCATION # 3 NEAREST COW
AT 2.30 MILES W

| PATHWAY | T. BODY | GI-TRACT | BONE | LIVER | KIDNEY | THYROID | LUNG | SKIN |
|---|---|---|---|---|---|---|---|---|
| ADULT | 6.17E-03 | 5.94E-03 | 6.27E-03 | 6.26E-03 | 6.03E-03 | 7.13E-03 | 6.01E-03 | 1.09E-02 |
| TEEN | 6.15E-03 | 5.95E-03 | 6.47E-03 | 6.49E-03 | 6.11E-03 | 7.59E-03 | 6.05E-03 | 1.09E-02 |
| CHILD | 6.12E-03 | 5.93E-03 | 7.14E-03 | 6.87E-03 | 6.23E-03 | 9.02E-03 | 6.09E-03 | 1.09E-02 |
| INFANT | 5.98E-03 | 5.91E-03 | 6.60E-03 | 6.71E-03 | 6.14E-03 | 1.23E-02 | 6.05E-03 | 1.09E-02 |

COOPER NUCLEAR STATION JANUARY-MARCH, 1984
SPECIAL LOCATION # 4 NEAREST GARDEN
AT 1.00 MILES W

| PATHWAY | T. BODY | GI-TRACT | BONE | LIVER | KIDNEY | THYROID | LUNG | SKIN |
|---|---|---|---|---|---|---|---|---|
| ADULT | 4.92E-02 | 4.75E-02 | 5.00E-02 | 4.99E-02 | 4.82E-02 | 5.46E-02 | 4.80E-02 | 8.85E-02 |
| TEEN | 4.91E-02 | 4.75E-02 | 5.16E-02 | 5.16E-02 | 4.88E-02 | 5.75E-02 | 4.83E-02 | 8.85E-02 |
| CHILD | 4.89E-02 | 4.74E-02 | 5.68E-02 | 5.47E-02 | 4.97E-02 | 6.63E-02 | 4.86E-02 | 8.85E-02 |
| INFANT | 4.77E-02 | 4.72E-02 | 5.26E-02 | 5.34E-02 | 4.90E-02 | 8.67E-02 | 4.83E-02 | 8.85E-02 |

TABLE 4. DOSES TO MAXIMUM INDIVIDUAL, APRIL-JUNE, 1984

COOPER NUCLEAR STATION APRIL-JUNE, 1984
SPECIAL LOCATION # 1 SITE BOUNDARY
AT 0.70 MILES N

| PATHWAY | T. BODY | GI-TRACT | BONE | LIVER | KIDNEY | THYROID | LUNG | SKIN |
|---|---|---|---|---|---|---|---|---|
| ADULT | 1.98E-01 | 1.96E-01 | 2.02E-01 | 1.97E-01 | 1.95E-01 | 3.03E-01 | 1.97E-01 | 3.67E-01 |
| TEEN | 1.98E-01 | 1.96E-01 | 2.05E-01 | 1.99E-01 | 1.96E-01 | 3.46E-01 | 1.97E-01 | 3.67E-01 |
| CHILD | 2.00E-01 | 1.95E-01 | 2.15E-01 | 2.03E-01 | 1.98E-01 | 4.79E-01 | 1.97E-01 | 3.67E-01 |
| INFANT | 1.95E-01 | 1.94E-01 | 2.01E-01 | 2.02E-01 | 1.98E-01 | 7.91E-01 | 1.97E-01 | 3.67E-01 |

COOPER NUCLEAR STATION APRIL-JUNE, 1984
SPECIAL LOCATION # 2 NEAREST RES
AT 0.90 MILESNW

| PATHWAY | T. BODY | GI-TRACT | BONE | LIVER | KIDNEY | THYROID | LUNG | SKIN |
|---|---|---|---|---|---|---|---|---|
| ADULT | 9.63E-02 | 9.53E-02 | 9.85E-02 | 9.59E-02 | 9.51E-02 | 1.61E-01 | 9.55E-02 | 1.76E-01 |
| TEEN | 9.65E-02 | 9.53E-02 | 1.00E-01 | 9.69E-02 | 9.56E-02 | 1.87E-01 | 9.57E-02 | 1.76E-01 |
| CHILD | 9.72E-02 | 9.50E-02 | 1.05E-01 | 9.87E-02 | 9.63E-02 | 2.70E-01 | 9.58E-02 | 1.76E-01 |
| INFANT | 9.51E-02 | 9.43E-02 | 9.78E-02 | 9.85E-02 | 9.64E-02 | 4.63E-01 | 9.57E-02 | 1.76E-01 |

TABLE 4. DOSES TO MAXIMUM INDIVIDUAL, APRIL-JUNE, 1984, (Cont.)

COOPER NUCLEAR STATION APRIL-JUNE, 1984
SPECIAL LOCATION # 3 NEAREST COW
AT 2.30 MILES W

| PATHWAY | T. BODY | GI-TRACT | BONE | LIVER | KIDNEY | THYROID | LUNG | SKIN |
|---|---|---|---|---|---|---|---|---|
| ADULT | 8.54E-03 | 8.49E-03 | 8.67E-03 | 8.52E-03 | 8.48E-03 | 1.29E-02 | 8.53E-03 | 1.51E-02 |
| TEEN | 8.55E-03 | 8.49E-03 | 8.76E-03 | 8.58E-03 | 8.51E-03 | 1.46E-02 | 8.54E-03 | 1.51E-02 |
| CHILD | 8.60E-03 | 8.47E-03 | 9.06E-03 | 8.68E-03 | 8.55E-03 | 2.00E-02 | 8.55E-03 | 1.51E-02 |
| INFANT | 8.48E-03 | 8.43E-03 | 8.64E-03 | 8.67E-03 | 8.56E-03 | 3.25E-02 | 8.53E-03 | 1.51E-02 |

COOPER NUCLEAR STATION APRIL-JUNE 1984
SPECIAL LOCATION # 4 NEAREST GARDEN
AT 1.00 MILES W

| PATHWAY | T. BODY | GI-TRACT | BONE | LIVER | KIDNEY | THYROID | LUNG | SKIN |
|---|---|---|---|---|---|---|---|---|
| ADULT | 5.64E-02 | 5.60E-02 | 5.74E-02 | 5.62E-02 | 5.59E-02 | 8.48E-02 | 5.62E-02 | 1.04E-01 |
| TEEN | 5.65E-02 | 5.60E-02 | 5.80E-02 | 5.67E-02 | 5.61E-02 | 9.60E-02 | 5.63E-02 | 1.04E-01 |
| CHILD | 5.68E-02 | 5.58E-02 | 6.02E-02 | 5.74E-02 | 5.64E-02 | 1.31E-01 | 5.64E-02 | 1.04E-01 |
| INFANT | 5.59E-02 | 5.55E-02 | 5.70E-02 | 5.73E-02 | 5.64E-02 | 2.14E-01 | 5.63E-02 | 1.04E-01 |

TABLE 5. DOSES TO POPULATION WITHIN 50 MILES, JANUARY-MARCH, 1984

COOPER NUCLEAR STATION JANUARY-MARCH, 1984
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

| PATHWAY | T. BODY | GI-TRACT | BONE | LIVER | KIDNEY | THYROID | LUNG | SKIN |
|---|---|---|---|---|---|---|---|---|
| PLUME | 9.68E-03 | 9.68E-03 | 9.68E-03 | 9.68E-03 | 9.68E-03 | 9.68E-03 | 9.84E-03 | 2.19E-02 |
| GROUND | 1.17E-03 | 1.17E-03 | 1.17E-03 | 1.17E-03 | 1.17E-03 | 1.17E-03 | 1.17E-03 | 1.37E-03 |
| INHAL | 1.96E-05 | 7.87E-06 | 5.76E-05 | 3.38E-05 | 1.77E-05 | 9.67E-04 | 9.86E-05 | 0.00E-01 |
| VEGET | 8.93E-04 | 1.75E-04 | 2.13E-03 | 1.62E-03 | 5.69E-04 | 7.21E-03 | 1.86E-04 | 0.00E-01 |
| COW MILK | 9.61E-04 | 5.10E-05 | 2.16E-03 | 2.43E-03 | 8.50E-04 | 1.02E-02 | 2.81E-04 | 0.00E-01 |
| MEAT | 8.63E-05 | 3.88E-05 | 1.27E-04 | 1.50E-04 | 5.07E-05 | 2.24E-04 | 1.70E-05 | 0.00E-01 |
| *TOTAL* | 1.28E-02 | 1.11E-02 | 1.53E-02 | 1.51E-02 | 1.23E-02 | 2.94E-02 | 1.16E-02 | 2.33E-02 |

TABLE 6. DOSES TO POPULATION WITHIN 50 MILES, APRIL-JUNE, 1984

COOPER NUCLEAR STATION APRIL-JUNE, 1984
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

| PATHWAY | T. BODY | GI-TRACT | BONE | LIVER | KIDNEY | THYROID | LUNG | SKIN |
|---|---|---|---|---|---|---|---|---|
| PLUME | 8.99E-03 | 8.99E-03 | 8.99E-03 | 8.99E-03 | 8.99E-03 | 8.99E-03 | 9.11E-03 | 1.89E-02 |
| GROUND | 4.87E-04 | 4.87E-04 | 4.87E-04 | 4.87E-04 | 4.87E-04 | 4.87E-04 | 4.87E-04 | 5.72E-04 |
| INHAL | 5.24E-06 | 6.51E-06 | 2.43E-05 | 7.70E-06 | 9.47E-06 | 1.31E-03 | 7.42E-05 | 0.00E-01 |
| VEGET | 2.67E-04 | 1.57E-04 | 7.98E-04 | 2.20E-04 | 1.27E-04 | 1.38E-02 | 1.94E-05 | 0.00E-01 |
| COW MILK | 1.64E-04 | 2.86E-05 | 2.90E-04 | 3.19E-04 | 1.88E-04 | 1.99E-02 | 2.94E-05 | 0.00E-01 |
| MEAT | 1.71E-05 | 3.51E-05 | 2.07E-05 | 1.93E-05 | 7.54E-06 | 4.43E-04 | 1.79E-06 | 0.00E-01 |
| *TOTAL* | 9.93E-03 | 9.70E-03 | 1.06E-02 | 1.00E-02 | 9.81E-03 | 4.49E-02 | 9.72E-03 | 1.95E-02 |

TABLE 7. DOSES TO MAXIMUM INDIVIDUAL, JANUARY-JUNE, 1984

COOPER NUCLEAR STATION JANUARY-JUNE, 1984
SPECIAL LOCATION # 1 SITE BOUNDARY
AT 0.70 MILES N

| PATHWAY | T. BODY | GI-TRACT | BONE | LIVER | KIDNEY | THYROID | LUNG | SKIN |
|---|---|---|---|---|---|---|---|---|
| ADULT | 4.55E-01 | 4.41E-01 | 4.64E-01 | 4.60E-01 | 4.46E-01 | 5.47E-01 | 4.45E-01 | 8.22E-01 |
| TEEN | 4.54E-01 | 4.41E-01 | 4.77E-01 | 4.73E-01 | 4.51E-01 | 5.88E-01 | 4.48E-01 | 8.22E-01 |
| CHILD | 4.54E-01 | 4.40E-01 | 5.22E-01 | 4.98E-01 | 4.56E-01 | 7.20E-01 | 4.50E-01 | 8.22E-01 |
| INFANT | 4.42E-01 | 4.38E-01 | 4.81E-01 | 4.88E-01 | 4.53E-01 | 1.02E+00 | 4.48E-01 | 8.22E-01 |

COOPER NUCLEAR STATION JANUARY-JUNE, 1984
SPECIAL LOCATION # 2 NEAREST RES
AT 0.90 MILESNW

| PATHWAY | T. BODY | GI-TRACT | BONE | LIVER | KIDNEY | THYROID | LUNG | SKIN |
|---|---|---|---|---|---|---|---|---|
| ADULT | 2.34E-01 | 2.26E-01 | 2.39E-01 | 2.36E-01 | 2.28E-01 | 3.03E-01 | 2.28E-01 | 4.18E-01 |
| TEEN | 2.33E-01 | 2.26E-01 | 2.46E-01 | 2.44E-01 | 2.31E-01 | 3.34E-01 | 2.29E-01 | 4.18E-01 |
| CHILD | 2.33E-01 | 2.25E-01 | 2.72E-01 | 2.58E-01 | 2.36E-01 | 4.31E-01 | 2.30E-01 | 4.18E-01 |
| INFANT | 2.27E-01 | 2.24E-01 | 2.48E-01 | 2.52E-01 | 2.33E-01 | 6.57E-01 | 2.29E-01 | 4.18E-01 |

TABLE 7. DOSES TO MAXIMUM INDIVIDUAL, JANUARY-JUNE, 1984, (Cont.)

COOPER NUCLEAR STATION JANUARY-JUNE, 1984
SPECIAL LOCATION # 3 NEAREST COW
AT 2.30 MILES W

| PATHWAY | T. BODY | GI-TRACT | BONE | LIVER | KIDNEY | THYROID | LUNG | SKIN |
|---|---|---|---|---|---|---|---|---|
| ADULT | 1.53E-02 | 1.49E-02 | 1.55E-02 | 1.54E-02 | 1.50E-02 | 2.00E-02 | 1.50E-02 | 2.69E-02 |
| TEEN | 1.52E-02 | 1.49E-02 | 1.59E-02 | 1.58E-02 | 1.52E-02 | 2.20E-02 | 1.51E-02 | 2.69E-02 |
| CHILD | 1.52E-02 | 1.48E-02 | 1.72E-02 | 1.65E-02 | 1.54E-02 | 2.82E-02 | 1.51E-02 | 2.69E-02 |
| INFANT | 1.49E-02 | 1.48E-02 | 1.60E-02 | 1.62E-02 | 1.52E-02 | 4.25E-02 | 1.51E-02 | 2.69E-02 |

012

COOPER NUCLEAR STATION JANUARY-JUNE, 1984
SPECIAL LOCATION # 4 NEAREST GARDEN
AT 1.00 MILES W

| PATHWAY | T. BODY | GI-TRACT | BONE | LIVER | KIDNEY | THYROID | LUNG | SKIN |
|---|---|---|---|---|---|---|---|---|
| ADULT | 1.13E-01 | 1.10E-01 | 1.15E-01 | 1.14E-01 | 1.11E-01 | 1.42E-01 | 1.11E-01 | 2.03E-01 |
| TEEN | 1.13E-01 | 1.10E-01 | 1.18E-01 | 1.17E-01 | 1.12E-01 | 1.55E-01 | 1.11E-01 | 2.03E-01 |
| CHILD | 1.13E-01 | 1.10E-01 | 1.28E-01 | 1.22E-01 | 1.14E-01 | 1.95E-01 | 1.12E-01 | 2.03E-01 |
| INFANT | 1.10E-01 | 1.09E-01 | 1.19E-01 | 1.20E-01 | 1.13E-01 | 2.87E-01 | 1.11E-01 | 2.03E-01 |

TABLE 8. DOSES TO POPULATION WITHIN 50 MILES, JANUARY-JUNE, 1984

COOPER NUCLEAR STATION JANUARY-JUNE, 1984
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

| PATHWAY | T. BODY | GI-TRACT | BONE | LIVER | KIDNEY | THYROID | LUNG | SKIN |
|---|---|---|---|---|---|---|---|---|
| PLUME | 1.82E-02 | 1.82E-02 | 1.82E-02 | 1.82E-02 | 1.82E-02 | 1.82E-02 | 1.85E-02 | 3.98E-02 |
| GROUND | 1.68E-03 | 1.68E-03 | 1.68E-03 | 1.68E-03 | 1.68E-03 | 1.68E-03 | 1.68E-03 | 1.97E-03 |
| INHAL | 2.35E-05 | 1.48E-05 | 7.87E-05 | 3.96E-05 | 2.83E-05 | 2.51E-03 | 1.70E-04 | 0.00E-01 |
| VEGET | 1.16E-03 | 3.32E-04 | 2.93E-03 | 1.84E-03 | 6.97E-04 | 2.10E-02 | 2.05E-04 | 0.00E-01 |
| COW MILK | 1.12E-03 | 7.97E-05 | 2.45E-03 | 2.75E-03 | 1.04E-03 | 3.02E-02 | 3.11E-04 | 0.00E-01 |
| MEAT | 1.03E-04 | 7.40E-05 | 1.48E-04 | 1.69E-04 | 5.82E-05 | 6.68E-04 | 1.88E-05 | 0.0 E-01 |
| *TOTAL* | 2.23E-02 | 2.04E-02 | 2.55E-02 | 2.47E-02 | 2.17E-02 | 7.43E-02 | 2.09E-02 | 4.18E-02 |

TABLE 9. GAMMA AND BETA AIR DOSES, JANUARY-MARCH, 1984

COOPER NUCLEAR STATION JANUARY-MARCH, 1984

INDIVIDUAL ANNUAL GAMMA AIR DOSE (MILLIRADS)

DISTANCE IN MILES

| DIR | 0.0-1. | 1.-2 | 2.-3 | 3.-4 | 4.-5 | 5.-10 | 10.-20. | 20.-30. | 30.-40. | 40.-50. |
|---|---|---|---|---|---|---|---|---|---|---|
| N | 5.306E-01 | 4.370E-02 | 1.248E-02 | 5.443E-03 | 2.919E-03 | 8.054E-04 | 1.413E-04 | 4.151E-05 | 1.787E-05 | 9.501E-06 |
| NNE | 5.107E-01 | 4.390E-02 | 1.260E-02 | 5.640E-03 | 3.086E-03 | 1.022E-03 | 1.917E-04 | 5.442E-05 | 2.426E-05 | 1.340E-05 |
| NE | 5.065E-01 | 4.522E-02 | 1.326E-02 | 6.107E-03 | 3.449E-03 | 1.249E-03 | 2.588E-04 | 7.392E-05 | 3.182E-05 | 1.682E-05 |
| ENE | 7.344E-01 | 6.221E-02 | 1.786E-02 | 7.951E-03 | 4.302E-03 | 1.384E-03 | 2.528E-04 | 7.029E-05 | 3.103E-05 | 1.655E-05 |
| E | 6.237E-01 | 5.044E-02 | 1.419E-02 | 6.242E-03 | 3.387E-03 | 1.059E-03 | 1.847E-04 | 4.890E-05 | 2.043E-05 | 1.069E-05 |
| ESE | 4.981E-01 | 3.909E-02 | 1.110E-02 | 4.793E-03 | 2.560E-03 | 7.622E-04 | 1.264E-04 | 3.230E-05 | 1.302E-05 | 6.503E-06 |
| SE | 7.869E-01 | 6.638E-02 | 1.890E-02 | 8.519E-03 | 4.721E-03 | 1.437E-03 | 2.787E-04 | 7.468E-05 | 3.053E-05 | 1.551E-05 |
| SSE | 5.763E-01 | 4.630E-02 | 1.316E-02 | 5.917E-03 | 3.456E-03 | 1.031E-03 | 1.883E-04 | 4.894E-05 | 1.992E-05 | 1.012E-05 |
| S | 4.828E-01 | 3.863E-02 | 1.098E-02 | 4.887E-03 | 2.853E-03 | 8.836E-04 | 1.696E-04 | 4.669E-05 | 1.938E-05 | 9.949E-06 |
| SSW | 2.239E-01 | 1.848E-02 | 5.274E-03 | 2.474E-03 | 1.398E-03 | 4.557E-04 | 8.997E-05 | 2.350E-05 | 8.888E-06 | 4.167E-06 |
| SW | 3.565E-01 | 3.078E-02 | 8.857E-03 | 3.988E-03 | 2.208E-03 | 6.580E-04 | 1.114E-04 | 2.488E-05 | 8.920E-06 | 4.213E-06 |
| WSW | 2.670E-01 | 2.318E-02 | 6.655E-03 | 2.957E-03 | 1.623E-03 | 4.876E-04 | 8.630E-05 | 2.013E-05 | 7.197E-06 | 3.297E-06 |
| W | 2.701E-01 | 2.363E-02 | 6.733E-03 | 3.063E-03 | 1.670E-03 | 5.041E-04 | 9.364E-05 | 2.327E-05 | 8.700E-06 | 4.118E-06 |
| WNW | 3.511E-01 | 3.274E-02 | 9.578E-03 | 4.459E-03 | 2.493E-03 | 8.366E-04 | 1.910E-04 | 5.811E-05 | 2.462E-05 | 1.247E-05 |
| NW | 5.245E-01 | 5.253E-02 | 1.511E-02 | 7.046E-03 | 4.017E-03 | 1.338E-03 | 3.038E-04 | 9.000E-05 | 3.746E-05 | 1.884E-05 |
| NNW | 3.737E-01 | 3.184E-02 | 9.191E-03 | 4.082E-03 | 2.175E-03 | 5.993E-04 | 1.020E-04 | 2.807E-05 | 1.250E-05 | 6.750E-06 |

INDIVIDUAL ANNUAL BETA AIR DOSE (MILLIRADS)

DISTANCE IN MILES

| DIR | 0.0-1. | 1.-2 | 2.-3 | 3.-4 | 4.-5 | 5.-10 | 10.-20. | 20.-30. | 30.-40. | 40.-50. |
|---|---|---|---|---|---|---|---|---|---|---|
| N | 3.285E-01 | 2.672E-02 | 7.507E-03 | 3.263E-03 | 1.769E-03 | 5.351E-04 | 1.273E-04 | 4.610E-05 | 2.238E-05 | 1.304E-05 |
| NNE | 3.161E-01 | 2.699E-02 | 7.614E-03 | 3.380E-03 | 1.852E-03 | 6.463E-04 | 1.521E-04 | 5.364E-05 | 2.675E-05 | 1.586E-05 |
| NE | 3.135E-01 | 2.794E-02 | 8.094E-03 | 3.687E-03 | 2.071E-03 | 7.647E-04 | 1.841E-04 | 6.550E-05 | 3.295E-05 | 1.949E-05 |
| ENE | 4.547E-01 | 3.813E-02 | 1.076E-02 | 4.763E-03 | 2.593E-03 | 8.978E-04 | 2.115E-04 | 7.340E-05 | 3.634E-05 | 2.126E-05 |
| E | 3.861E-01 | 3.094E-02 | 8.551E-03 | 3.741E-03 | 2.043E-03 | 6.905E-04 | 1.578E-04 | 5.334E-05 | 2.562E-05 | 1.488E-05 |
| ESE | 3.084E-01 | 2.389E-02 | 6.682E-03 | 2.873E-03 | 1.550E-03 | 5.048E-04 | 1.127E-04 | 3.722E-05 | 1.753E-05 | 9.948E-06 |
| SE | 4.869E-01 | 4.101E-02 | 1.153E-02 | 5.143E-03 | 2.836E-03 | 8.824E-04 | 2.060E-04 | 7.097E-05 | 3.447E-05 | 1.983E-05 |
| SSE | 3.566E-01 | 2.857E-02 | 8.020E-03 | 3.569E-03 | 2.081E-03 | 6.392E-04 | 1.418E-04 | 4.720E-05 | 2.254E-05 | 1.285E-05 |
| S | 2.987E-01 | 2.386E-02 | 6.708E-03 | 2.953E-03 | 1.718E-03 | 5.424E-04 | 1.219E-04 | 4.180E-05 | 2.025E-05 | 1.164E-05 |
| SSW | 1.386E-01 | 1.143E-02 | 3.242E-03 | 1.510E-03 | 8.493E-04 | 2.785E-04 | 6.118E-05 | 1.991E-05 | 9.288E-06 | 5.187E-06 |
| SW | 2.206E-01 | 1.901E-02 | 5.425E-03 | 2.426E-03 | 1.341E-03 | 4.171E-04 | 8.537E-05 | 2.640E-05 | 1.231E-05 | 6.998E-06 |
| WSW | 1.653E-01 | 1.431E-02 | 4.073E-03 | 1.795E-03 | 9.842E-04 | 3.029E-04 | 6.437E-05 | 2.004E-05 | 9.044E-06 | 4.936E-06 |
| W | 1.671E-01 | 1.457E-02 | 4.113E-03 | 1.858E-03 | 1.009E-03 | 3.108E-04 | 6.843E-05 | 2.210E-05 | 1.018E-05 | 5.634E-06 |
| WNW | 2.176E-01 | 2.024E-02 | 5.912E-03 | 2.741E-03 | 1.522E-03 | 5.050E-04 | 1.192E-04 | 4.082E-05 | 1.987E-05 | 1.145E-05 |
| NW | 3.246E-01 | 3.248E-02 | 9.314E-03 | 4.319E-03 | 2.447E-03 | 8.077E-04 | 1.925E-04 | 6.576E-05 | 3.198E-05 | 1.847E-05 |
| NNW | 2.314E-01 | 1.943E-02 | 5.523E-03 | 2.453E-03 | 1.324E-03 | 4.024E-04 | 9.125E-05 | 3.068E-05 | 1.493E-05 | 8.710E-06 |

TABLE 10. GAMMA AND BETA AIR DOSES, APRIL-JUNE, 1984

COOPER NUCLEAR STATION APRIL-JUNE, 1984

INDIVIDUAL ANNUAL GAMMA AIR DOSE (MILLIRADS)

DISTANCE IN MILES

| DIR | 0.0-1. | 1.-2. | 2.-3. | 3.-4. | 4.-5. | 5.-10. | 10.-20. | 20.-30. | 30.-40. | 40.-50. |
|---|---|---|---|---|---|---|---|---|---|---|
| N | 4.342E-01 | 3.722E-02 | 1.138E-02 | 5.400E-03 | 3.141E-03 | 1.070E-03 | 2.802E-04 | 9.816E-05 | 4.601E-05 | 2.544E-05 |
| NNE | 2.348E-01 | 2.027E-02 | 6.331E-03 | 3.001E-03 | 1.752E-03 | 7.441E-04 | 1.668E-04 | 5.262E-05 | 2.358E-05 | 1.262E-05 |
| NE | 2.244E-01 | 1.859E-02 | 5.623E-03 | 2.618E-03 | 1.477E-03 | 6.317E-04 | 1.207E-04 | 3.149E-05 | 1.213E-05 | 5.798E-06 |
| ENE | 1.017E-01 | 8.405E-03 | 2.518E-03 | 1.172E-03 | 6.628E-04 | 2.841E-04 | 5.420E-05 | 1.385E-05 | 5.439E-06 | 2.578E-06 |
| E | 1.531E-01 | 1.315E-02 | 3.995E-03 | 1.898E-03 | 1.103E-03 | 4.976E-04 | 1.108E-04 | 3.197E-05 | 1.271E-05 | 5.916E-06 |
| ESE | 1.383E-01 | 1.168E-02 | 3.505E-03 | 1.647E-03 | 9.417E-04 | 3.789E-04 | 8.632E-05 | 2.810E-05 | 1.311E-05 | 7.193E-06 |
| SE | 3.089E-01 | 2.505E-02 | 7.540E-03 | 3.528E-03 | 1.978E-03 | 6.363E-04 | 1.540E-04 | 5.359E-05 | 2.585E-05 | 1.442E-05 |
| SSE | 3.918E-01 | 3.293E-02 | 9.987E-03 | 4.675E-03 | 3.598E-03 | 1.238E-03 | 2.653E-04 | 7.763E-05 | 3.235E-05 | 1.588E-05 |
| S | 4.040E-01 | 3.395E-02 | 1.013E-02 | 4.723E-03 | 3.094E-03 | 1.107E-03 | 2.338E-04 | 6.877E-05 | 2.796E-05 | 1.373E-05 |
| SSW | 2.472E-01 | 1.977E-02 | 5.936E-03 | 2.997E-03 | 1.717E-03 | 6.794E-04 | 1.423E-04 | 4.214E-05 | 1.635E-05 | 7.561E-06 |
| SW | 2.210E-01 | 2.109E-02 | 6.503E-03 | 3.036E-03 | 1.716E-03 | 6.154E-04 | 1.200E-04 | 3.196E-05 | 1.208E-05 | 5.456E-06 |
| WSW | 2.072E-01 | 2.065E-02 | 6.161E-03 | 2.845E-03 | 1.582E-03 | 5.147E-04 | 9.904E-05 | 2.350E-05 | 8.134E-06 | 3.504E-06 |
| W | 3.055E-01 | 3.206E-02 | 1.005E-02 | 4.744E-03 | 2.752E-03 | 9.301E-04 | 2.311E-04 | 7.554E-05 | 3.352E-05 | 1.766E-05 |
| WNW | 2.699E-01 | 3.493E-02 | 1.110E-02 | 5.514E-03 | 3.211E-03 | 1.137E-03 | 2.735E-04 | 8.261E-05 | 3.333E-05 | 1.571E-05 |
| NW | 3.808E-01 | 4.734E-02 | 1.453E-02 | 6.963E-03 | 4.059E-03 | 1.466E-03 | 3.763E-04 | 1.153E-04 | 4.731E-05 | 2.250E-05 |
| NNW | 3.332E-01 | 3.026E-02 | 1.067E-02 | 5.658E-03 | 3.274E-03 | 1.174E-03 | 2.799E-04 | 9.140E-05 | 4.081E-05 | 2.153E-05 |

INDIVIDUAL ANNUAL BETA AIR DOSE (MILLIRADS)

DISTANCE IN MILES

| DIR | 0.0-1. | 1.-2. | 2.-3. | 3.-4. | 4.-5. | 5.-10. | 10.-20. | 20.-30. | 30.-40. | 40.-50. |
|---|---|---|---|---|---|---|---|---|---|---|
| N | 2.694E-01 | 2.247E-02 | 6.640E-03 | 3.064E-03 | 1.751E-03 | 5.872E-04 | 1.642E-04 | 6.369E-05 | 3.216E-05 | 1.890E-05 |
| NNE | 1.442E-01 | 1.222E-02 | 3.681E-03 | 1.693E-03 | 9.712E-04 | 4.008E-04 | 9.866E-05 | 3.519E-05 | 1.725E-05 | 9.934E-06 |
| NE | 1.379E-01 | 1.116E-02 | 3.250E-03 | 1.479E-03 | 8.272E-04 | 3.588E-04 | 8.292E-05 | 2.699E-05 | 1.239E-05 | 6.863E-06 |
| ENE | 6.245E-02 | 5.079E-03 | 1.470E-03 | 6.682E-04 | 3.742E-04 | 1.616E-04 | 3.740E-05 | 1.220E-05 | 5.752E-06 | 3.208E-06 |
| E | 9.406E-02 | 7.972E-03 | 2.343E-03 | 1.082E-03 | 6.177E-04 | 2.700E-04 | 6.702E-05 | 2.309E-05 | 1.081E-05 | 5.986E-06 |
| ESE | 8.487E-02 | 7.044E-03 | 2.042E-03 | 9.359E-04 | 5.262E-04 | 2.063E-04 | 5.176E-05 | 1.897E-05 | 9.556E-06 | 5.602E-06 |
| SE | 1.895E-01 | 1.510E-02 | 4.389E-03 | 2.004E-03 | 1.108E-03 | 3.605E-04 | 9.823E-05 | 3.798E-05 | 1.955E-05 | 1.159E-05 |
| SSE | 2.405E-01 | 1.977E-02 | 5.771E-03 | 2.632E-03 | 1.940E-03 | 6.798E-04 | 1.671E-04 | 5.748E-05 | 2.725E-05 | 1.516E-05 |
| S | 2.480E-01 | 2.056E-02 | 5.935E-03 | 2.696E-03 | 1.708E-03 | 6.084E-04 | 1.453E-04 | 5.068E-05 | 2.377E-05 | 1.324E-05 |
| SSW | 1.519E-01 | 1.193E-02 | 3.453E-03 | 1.681E-03 | 9.482E-04 | 3.762E-04 | 9.167E-05 | 3.271E-05 | 1.499E-05 | 8.145E-06 |
| SW | 1.357E-01 | 1.237E-02 | 3.692E-03 | 1.689E-03 | 9.449E-04 | 3.427E-04 | 7.864E-05 | 2.606E-05 | 1.187E-05 | 6.386E-06 |
| WSW | 1.273E-01 | 1.200E-02 | 3.478E-03 | 1.580E-03 | 8.702E-04 | 2.878E-04 | 6.594E-05 | 2.024E-05 | 8.829E-06 | 4.673E-06 |
| W | 1.872E-01 | 1.847E-02 | 5.631E-03 | 2.601E-03 | 1.489E-03 | 4.988E-04 | 1.324E-04 | 4.847E-05 | 2.372E-05 | 1.360E-05 |
| WNW | 1.656E-01 | 1.971E-02 | 6.157E-03 | 3.026E-03 | 1.749E-03 | 6.169E-04 | 1.554E-04 | 5.278E-05 | 2.455E-05 | 1.344E-05 |
| NW | 2.386E-01 | 2.702E-02 | 8.185E-03 | 3.872E-03 | 2.240E-03 | 7.956E-04 | 2.102E-04 | 7.195E-05 | 3.412E-05 | 1.885E-05 |
| NNW | 2.044E-01 | 1.792E-02 | 6.023E-03 | 3.091E-03 | 1.768E-03 | 6.256E-04 | 1.588E-04 | 5.823E-05 | 2.896E-05 | 1.687E-05 |

TABLE II. GAMMA AND BETA AIR DOSES, JANUARY-JUNE, 1984

COOPER NUCLEAR STATION JANUARY-JUNE, 1984

INDIVIDUAL ANNUAL GAMMA AIR DOSE (MILLIRADS)

DISTANCE IN MILES

| DIR | 0.0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| N | 9.629E-01 | 8.162E-02 | 2.396E-02 | 1.097E-02 | 6.132E-03 | 1.877E-03 | 4.119E-04 | 1.342E-04 | 6.011E-05 | 3.259E-05 |
| NNE | 7.032E-01 | 6.189E-02 | 1.602E-02 | 8.312E-03 | 4.667E-03 | 1.764E-03 | 3.717E-04 | 1.134E-04 | 5.170E-05 | 2.852E-05 |
| NE | 7.488E-01 | 6.048E-02 | 1.793E-02 | 8.243E-03 | 4.656E-03 | 1.840E-03 | 3.752E-04 | 1.085E-04 | 4.675E-05 | 2.439E-05 |
| ENE | 7.273E-01 | 6.184E-02 | 1.790E-02 | 8.183E-03 | 4.574E-03 | 1.757E-03 | 3.582E-04 | 1.056E-04 | 4.692E-05 | 2.464E-05 |
| E | 6.869E-01 | 5.773E-02 | 1.676E-02 | 7.588E-03 | 4.234E-03 | 1.587E-03 | 3.170E-04 | 9.006E-05 | 3.748E-05 | 1.883E-05 |
| ESE | 5.732E-01 | 4.704E-02 | 1.348E-02 | 6.040E-03 | 3.308E-03 | 1.151E-03 | 2.219E-04 | 6.296E-05 | 2.660E-05 | 1.349E-05 |
| SE | 1.036E+00 | 8.717E-02 | 2.544E-02 | 1.158E-02 | 6.407E-03 | 1.972E-03 | 4.052E-04 | 1.169E-04 | 5.014E-05 | 2.610E-05 |
| SSE | 9.660E-01 | 8.087E-02 | 2.342E-02 | 1.063E-02 | 6.927E-03 | 2.136E-03 | 4.012E-04 | 1.071E-04 | 4.305E-05 | 2.115E-05 |
| S | 9.285E-01 | 7.551E-02 | 2.193E-02 | 9.987E-03 | 6.040E-03 | 1.954E-03 | 3.692E-04 | 9.697E-05 | 3.798E-05 | 1.828E-05 |
| SSW | 5.079E-01 | 4.04 E-02 | 1.176E-02 | 5.605E-03 | 3.161E-03 | 1.049E-03 | 1.941E-04 | 5.136E-05 | 1.956E-05 | 9.183E-06 |
| SW | 5.800E-01 | 5.197E-02 | 1.534E-02 | 6.971E-03 | 3.868E-03 | 1.221E-03 | 2.087E-04 | 4.712E-05 | 1.631E-05 | 7.375E-06 |
| WSW | 4.807E-01 | 4.455E-02 | 1.306E-02 | 5.912E-03 | 3.274E-03 | 1.022E-03 | 1.917E-04 | 4.617E-05 | 1.649E-05 | 7.385E-06 |
| W | 6.090E-01 | 5.805E-02 | 1.710E-02 | 7.854E-03 | 4.409E-03 | 1.391E-03 | 2.917E-04 | 8.255E-05 | 3.378E-05 | 1.671E-05 |
| WNW | 6.262E-01 | 6.657E-02 | 2.012E-02 | 9.469E-03 | 5.473E-03 | 1.862E-03 | 4.260E-04 | 1.232E-04 | 4.859E-05 | 2.307E-05 |
| NW | 9.032E-01 | 9.810E-02 | 2.921E-02 | 1.368E-02 | 7.886E-03 | 2.689E-03 | 6.395E-04 | 1.890E-04 | 7.744E-05 | 3.763E-05 |
| NNW | 6.905E-01 | 6.035E-02 | 1.934E-02 | 9.507E-03 | 5.319E-03 | 1.710E-03 | 3.594E-04 | 1.083E-04 | 4.793E-05 | 2.544E-05 |

INDIVIDUAL ANNUAL BETA AIR DOSE (MILLIRADS)

DISTANCE IN MILES

| DIR | 0.0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|---|---|---|---|---|---|---|---|---|---|---|
| N | 5.940E-01 | 4.984E-02 | 1.428E-02 | 6.431E-03 | 3.570E-03 | 1.122E-03 | 2.892E-04 | 1.092E-04 | 5.392E-05 | 3.146E-05 |
| NNE | 4.340E-01 | 3.789E-02 | 1.077E-02 | 4.886E-03 | 2.720E-03 | 1.028E-03 | 2.500E-04 | 8.935E-05 | 4.466E-05 | 2.633E-05 |
| NE | 4.618E-01 | 3.699E-02 | 1.073E-02 | 4.852E-03 | 2.723E-03 | 1.082E-03 | 2.600E-04 | 9.131E-05 | 4.489E-05 | 2.601E-05 |
| ENE | 4.487E-01 | 3.781E-02 | 1.063E-02 | 4.811E-03 | 2.676E-03 | 1.039E-03 | 2.517E-04 | 8.887E-05 | 4.417E-05 | 2.559E-05 |
| E | 4.251E-01 | 3.526E-02 | 9.998E-03 | 4.451E-03 | 2.470E-03 | 9.384E-04 | 2.233E-04 | 7.713E-05 | 3.693E-05 | 2.108E-05 |
| ESE | 3.537E-01 | 2.865E-02 | 8.066E-03 | 3.536E-03 | 1.931E-03 | 6.907E-04 | 1.618E-04 | 5.550E-05 | 2.658E-05 | 1.507E-05 |
| SE | 6.404E-01 | 5.320E-02 | 1.516E-02 | 6.784E-03 | 3.728E-03 | 1.180E-03 | 2.908E-04 | 1.027E-04 | 5.020E-05 | 2.897E-05 |
| SSE | 5.957E-01 | 4.922E-02 | 1.358E-02 | 6.202E-03 | 3.975E-03 | 1.274E-03 | 2.919E-04 | 9.700E-05 | 4.556E-05 | 2.557E-05 |
| S | 5.722E-01 | 4.610E-02 | 1.309E-02 | 5.856E-03 | 3.486E-03 | 1.151E-03 | 2.595E-04 | 8.634E-05 | 4.031E-05 | 2.248E-05 |
| SSW | 3.133E-01 | 2.467E-02 | 6.959E-03 | 3.263E-03 | 1.831E-03 | 6.278E-04 | 1.428E-04 | 4.808E-05 | 2.209E-05 | 1.219E-05 |
| SW | 3.578E-01 | 3.134E-02 | 9.042E-03 | 4.052E-03 | 2.239E-03 | 7.342E-04 | 1.568E-04 | 4.869E-05 | 2.175E-05 | 1.190E-05 |
| WSW | 2.965E-01 | 2.676E-02 | 7.702E-03 | 3.442E-03 | 1.894E-03 | 6.021E-04 | 1.336E-04 | 4.179E-05 | 1.868E-05 | 1.007E-05 |
| W | 3.753E-01 | 3.477E-02 | 1.004E-02 | 4.549E-03 | 2.533E-03 | 8.068E-04 | 1.923E-04 | 6.556E-05 | 3.104E-05 | 1.736E-05 |
| WNW | 3.865E-01 | 3.969E-02 | 1.191E-02 | 5.548E-03 | 3.192E-03 | 1.079E-03 | 2.586E-04 | 8.548E-05 | 3.973E-05 | 2.214E-05 |
| NW | 5.570E-01 | 5.871E-02 | 1.734E-02 | 8.047E-03 | 4.604E-03 | 1.547E-03 | 3.835E-04 | 1.299E-04 | 6.225E-05 | 3.513E-05 |
| NNW | 4.259E-01 | 3.657E-02 | 1.125E-02 | 5.468E-03 | 3.039E-03 | 9.933E-04 | 2.401E-04 | 8.497E-05 | 4.188E-05 | 2.435E-05 |

## DOSE CALCULATION MODELS

To evaluate the radiological consequences of the routine release of liquid and gaseous effluents from the Cooper Nuclear Station, two computer codes were used: LADTAP II for liquid doses and GASPAR for gaseous doses (Ref. 1 and 2). Both of these computer codes implemented the dose calculational methodologies of U.S. NRC Regulatory Guide 1.109, Revision 1 (Ref. 1).

Source terms for each quarter and for the semiannual period are combined with station-specific demographic data and either hydrological dilution factors, for liquid dose calculations, or atmospheric diffusion estimates, for gaseous dose calculations.

For liquid dose calculations, the hydrological dilution factors used for input to LADTAP II, as well as other input parameters, are listed in Table 12. Other inputs not specifically listed in this table are taken from Regulatory Guide 1.109, Revision 1.

For gaseous dose calculations, atmospheric diffusion estimates are obtained from the reduction and processing of onsite meteorological data, as described in Appendix B. Additional input to GASPAR includes the following station-supplied data:

- 0- to 50-mile population distribution
- 0- to 50-mile meat, milk, and vegetable production distributions
- Absolute humidity at the Cooper Nuclear Station (14.61 $g/m^3$)
- The fraction of the year that vegetables are grown (0.5)
- The fraction of the daily feed intake derived from pasture for milk and meat animals (0.5).

Other values used for input to GASPAR are default values from Regulatory Guide 1.109, Rev. 1.

Table 12. Values of Parameters Used to Make Dose Estimates Resulting from Liquid Discharges January - June 1984, Cooper Nuclear Station

| Parameter | Values Assigned | | Reference Source |
|---|---|---|---|
| | Individual | Population | |
| Cooling flow rate[a] (cfs) | 848; 1023 | 848; 1023 | Station data |
| Dilution factor | 1 | 53.93; 104.07 | Station data |
| Holding time: | | | |
| Fish | 24 hr[c] | 168 hr[c] | |
| Drinking water | 12 hr[c] | 22.4 hr[b] | |
| Shoreline exposure | 0 hr[c] | 22.4 hr[b] | |
| Swimming | 0 hr[c] | 22.4 hr[b] | |
| Boating | 0 hr[c] | 22.4 hr[b] | |

[a] First and second quarters for 1984, respectively.
[b] Based on an average Missouri River water flow of 5.5 ft/sec, 84 miles down the river.
[c] Values from Regulatory Guide 1.109, Revision 1.

References

1. U.S. Nuclear Regulatory Commission, NUREG-0597, "User's Guide to GASPAR Code," June 1980.

2. U.S. Nuclear Regulatory Commission, NUREG/CR-1276, "User's Manual for LADTAP II: A Computer Code for Calculating Radiation Exposure to Man from Routine Release of Nuclear Reactor Liquid Effluents," 1980.

3. U.S. Nuclear Regulatory Commission, Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Release of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR 50, Appendix I," Revision 1, 1977.

## ISOPLETH FIGURES

The average atmospheric diffusion estimate isopleths presented in this section were generated from output of the computer code XOQDOQ. These figures present relative concentrations for undepleted and undecayed atmospheric releases. Isopleth fields are presented for both a 0- to 5-mile area and a 0- to 50-mile area centered on the Cooper Nuclear Station. The periods covered by the isopleths are January through March, April through June, and January through June 1984. Separate figures are given for the ground-level (vent) and elevated (stack) release points. Atmospheric diffusion estimates for ground-level releases are based on the 10-m JFDs, which include a substitution of 100-m wind speed and direction data for missing 10-m wind speeds and directions for the entire period. The isopleths of gamma radiation dose were generated from output of the GASPAR computer code. The isopleths are for a combined ground-level (vent) and elevated (stack) release, and cover the same area and time periods given for the atmospheric diffusion estimates. These figures are presented for purposes of displaying general data trends only. Due to the inaccuracies introduced by smoothing of the gridded data fields by the plotting routines, these plots should not be used to extract absolute values of the parameters for given distances and directions. Exact values of these parameters can be obtained from the tables of atmospheric diffusion estimates provided in Appendix B and doses provided in Appendix C.

List of Figures

List of Figures (Continued)

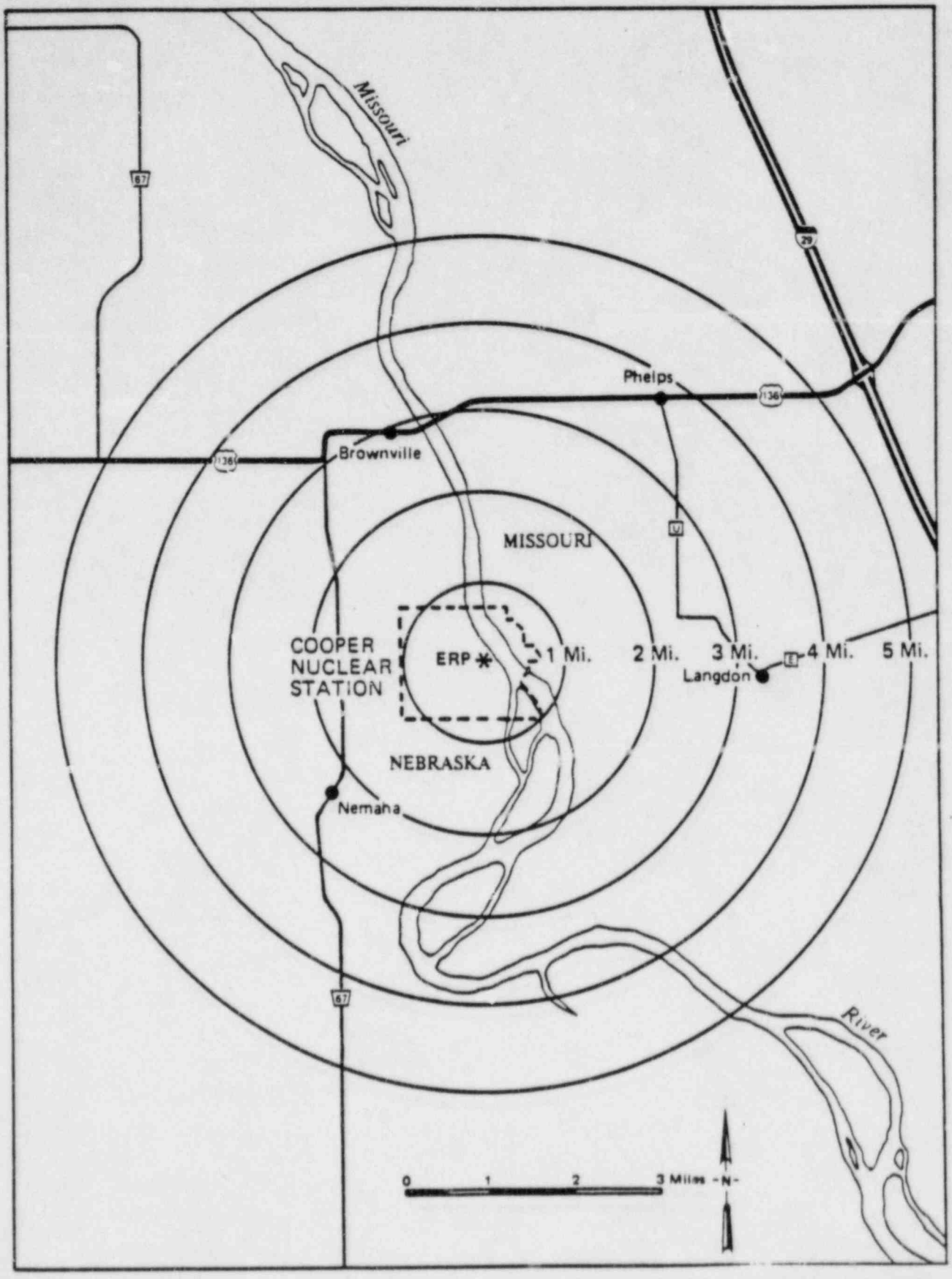


Figure 1. Cooper Nuclear Station and Surrounding Area from 0-5 Miles

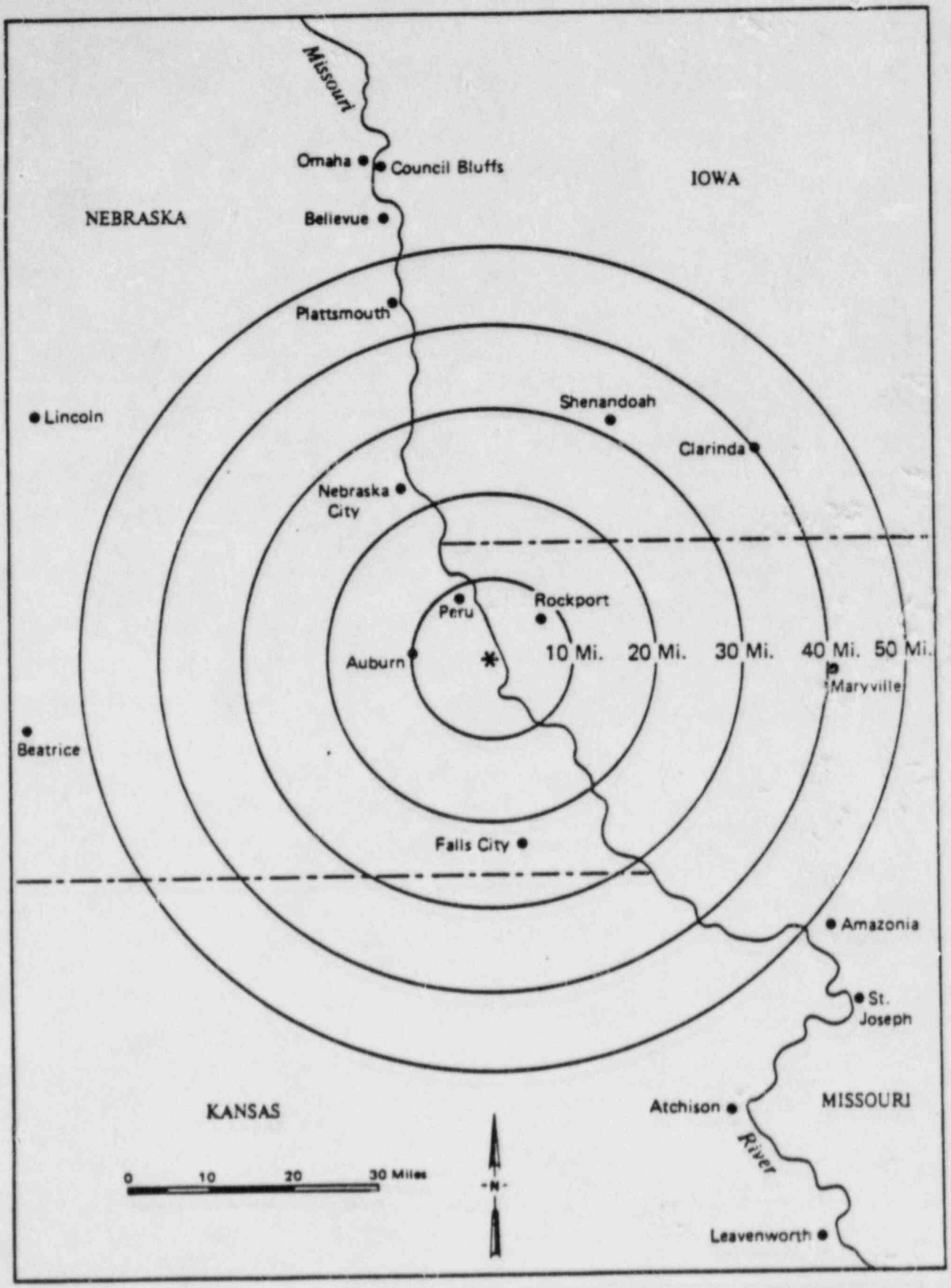


Figure 2. Cooper Nuclear Station and Surrounding Area from 0-50 Miles

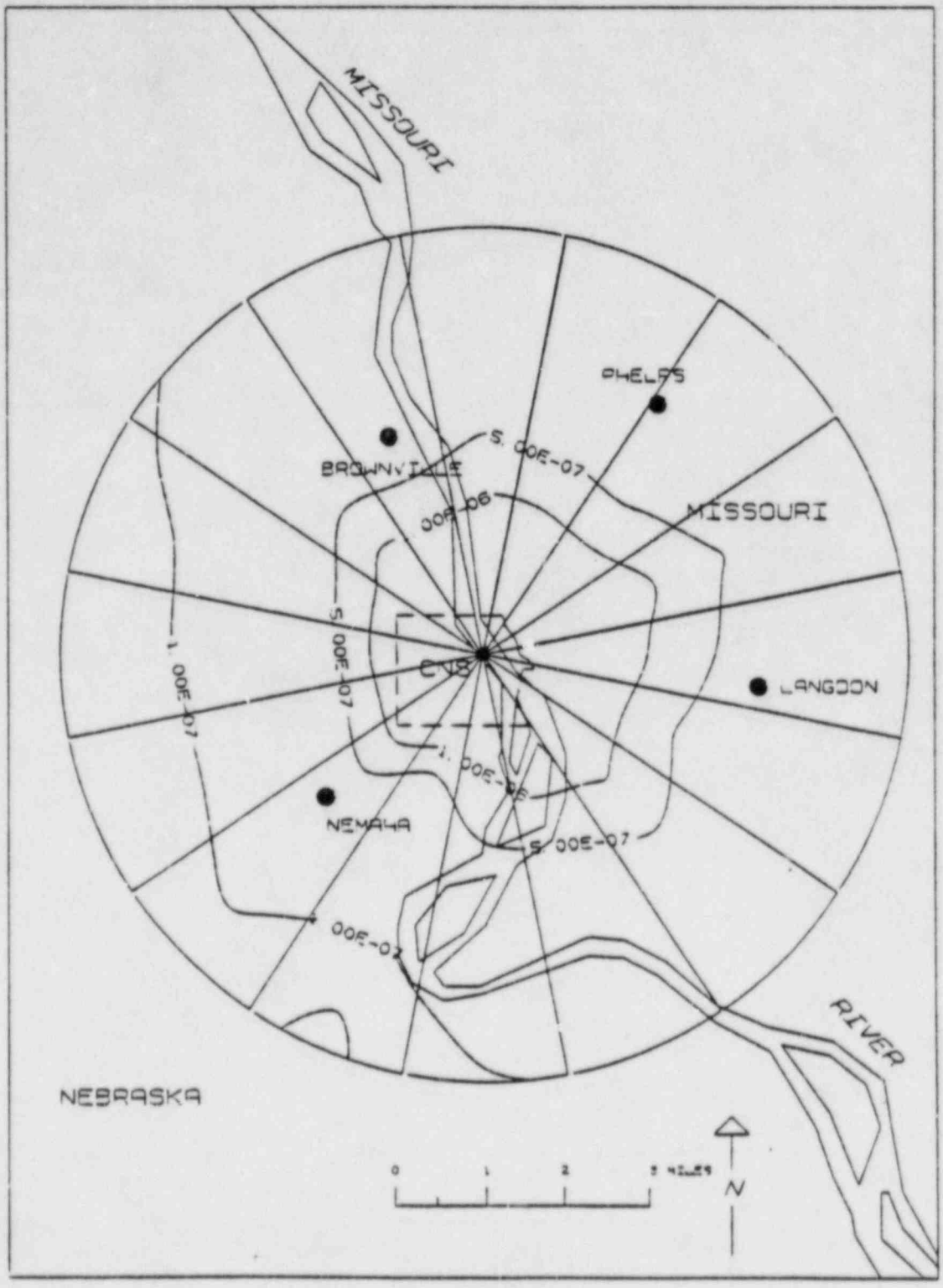


Figure 3. Atmospheric Diffusion Estimate Isopleths, 0-5 Miles, Ground-Level Releases, January-March 1984 ($sec/m^3$)

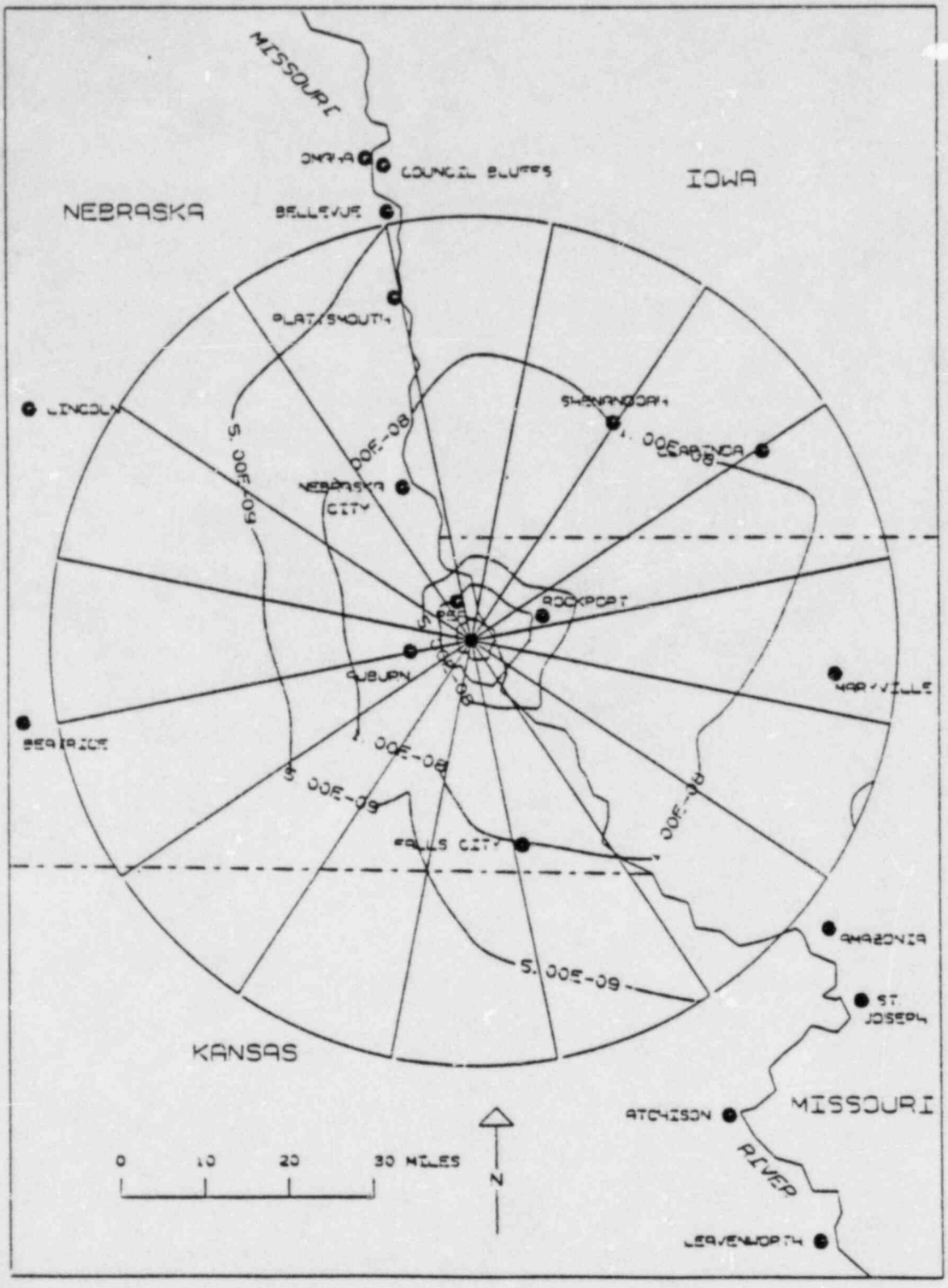


Figure 4. Atmospheric Diffusion Estimate Isopleths, 0-50 Miles, Ground-Level Releases, January-March 1984 ($sec/m^3$)

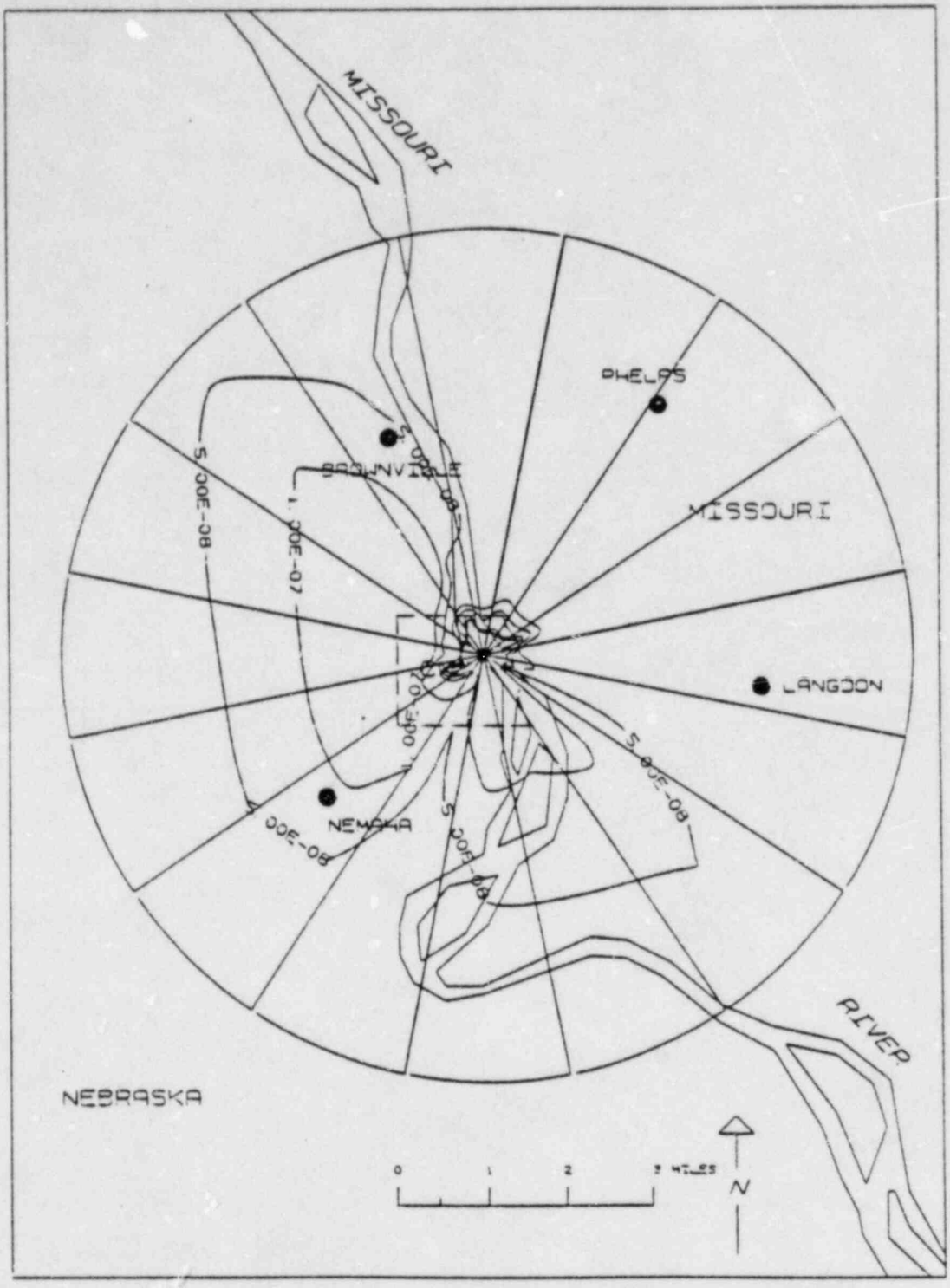


Figure 5. Atmospheric Diffusion Estimate Isopleths, 0-5 Miles, Elevated Releases, January-March 1984 ($sec/m^3$)

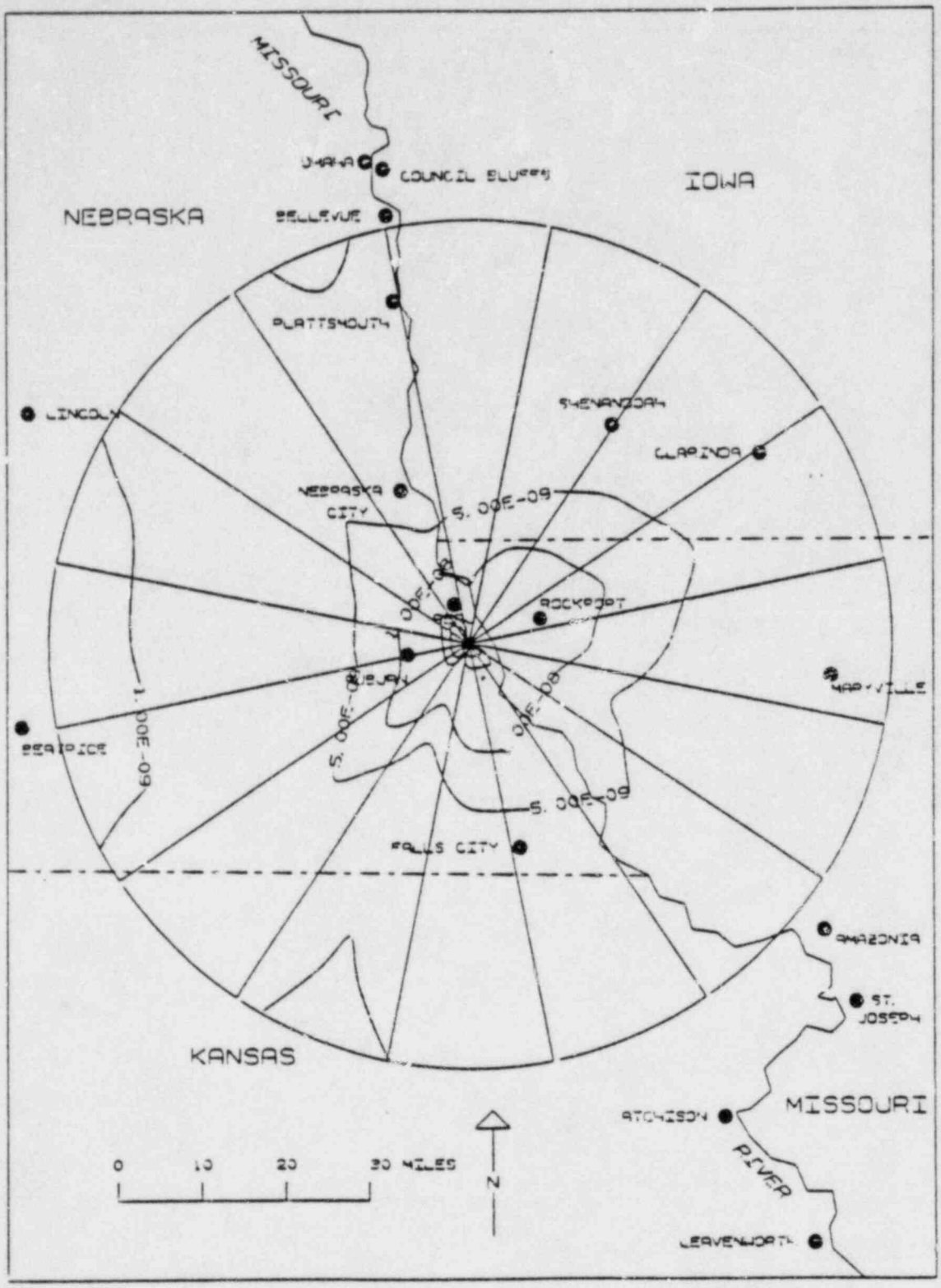


Figure 6. Atmospheric Diffusion Estimate Isopleths, 0-50 Miles, Elevated Releases, January-March 1984 ($sec/m^3$)

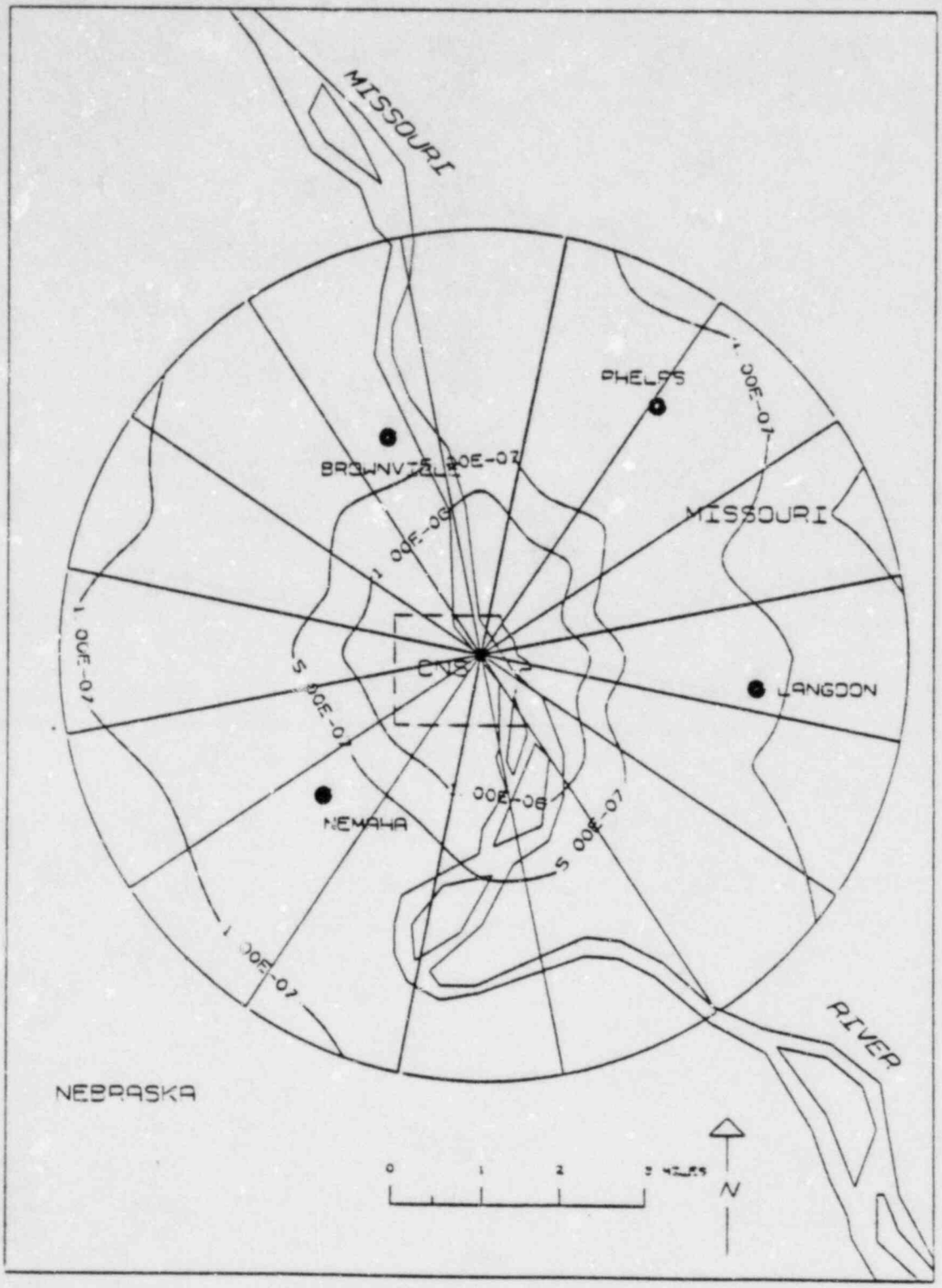


Figure 7. Atmospheric Diffusion Estimate Isopleths, 0-5 Miles, Ground-Level Releases, April-June 1984 ($sec/m^3$)

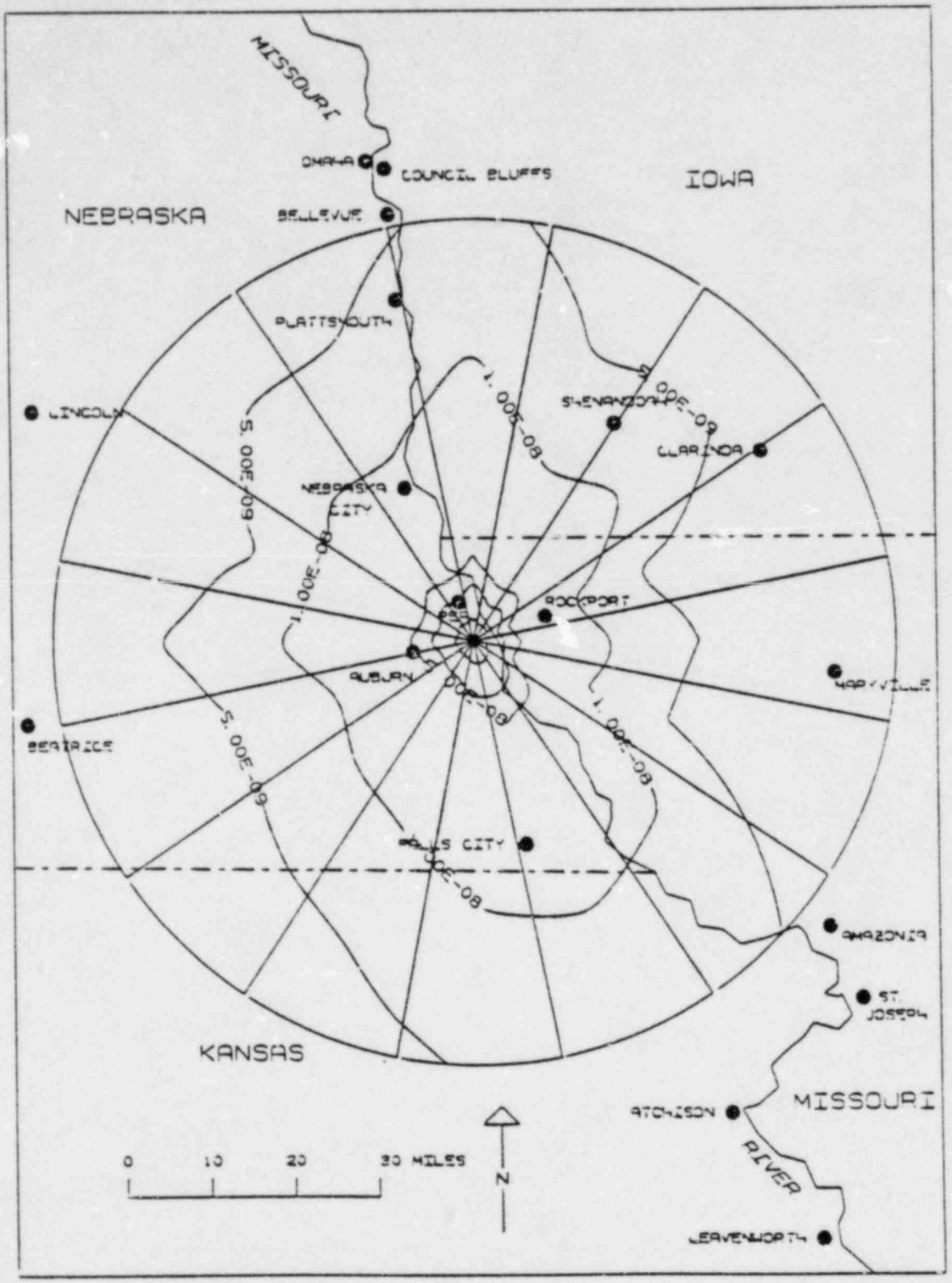


Figure 8. Atmospheric Diffusion Estimate Isopleths, 0-50 Miles, Ground-Level Releases, April-June 1984 ($sec/m^3$)

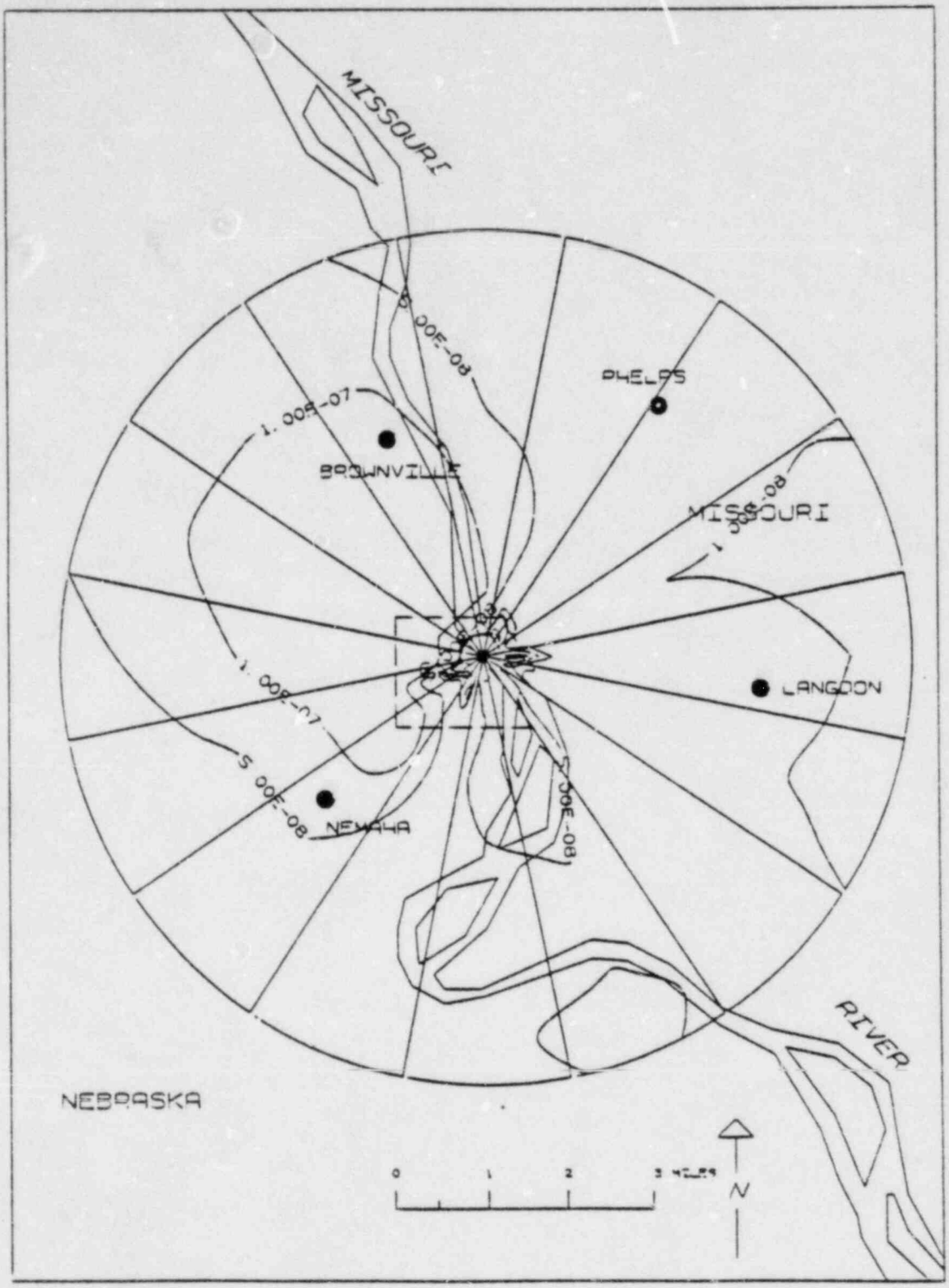


Figure 9. Atmospheric Diffusion Estimate Isopleths, 0-5 Miles, Elevated Releases, April-June 1984 ($sec/m^3$)

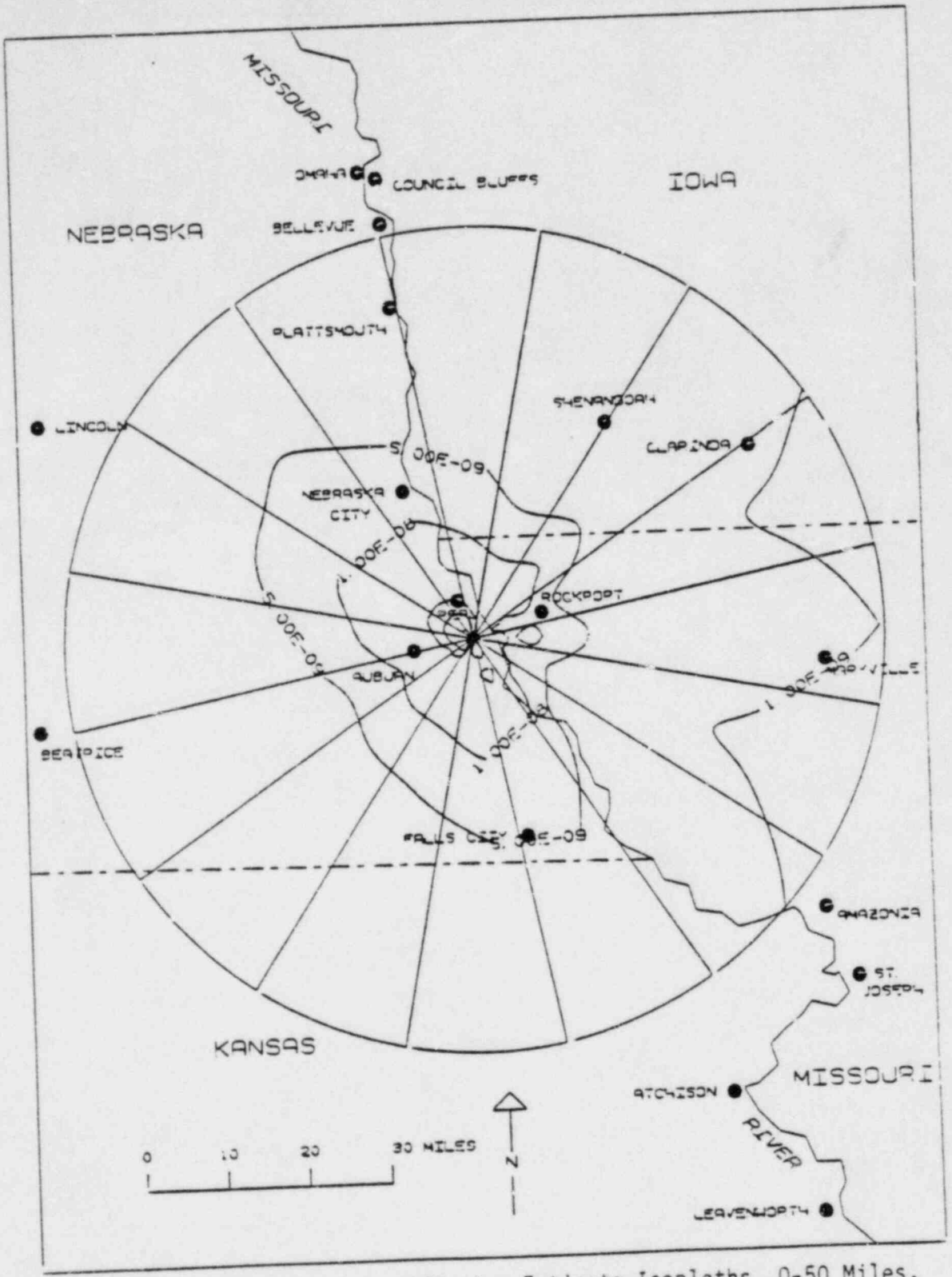


Figure 10. Atmospheric Diffusion Estimate Isopleths, 0-50 Miles. Elevated Releases, April-June 1984 ($sec/m^3$)

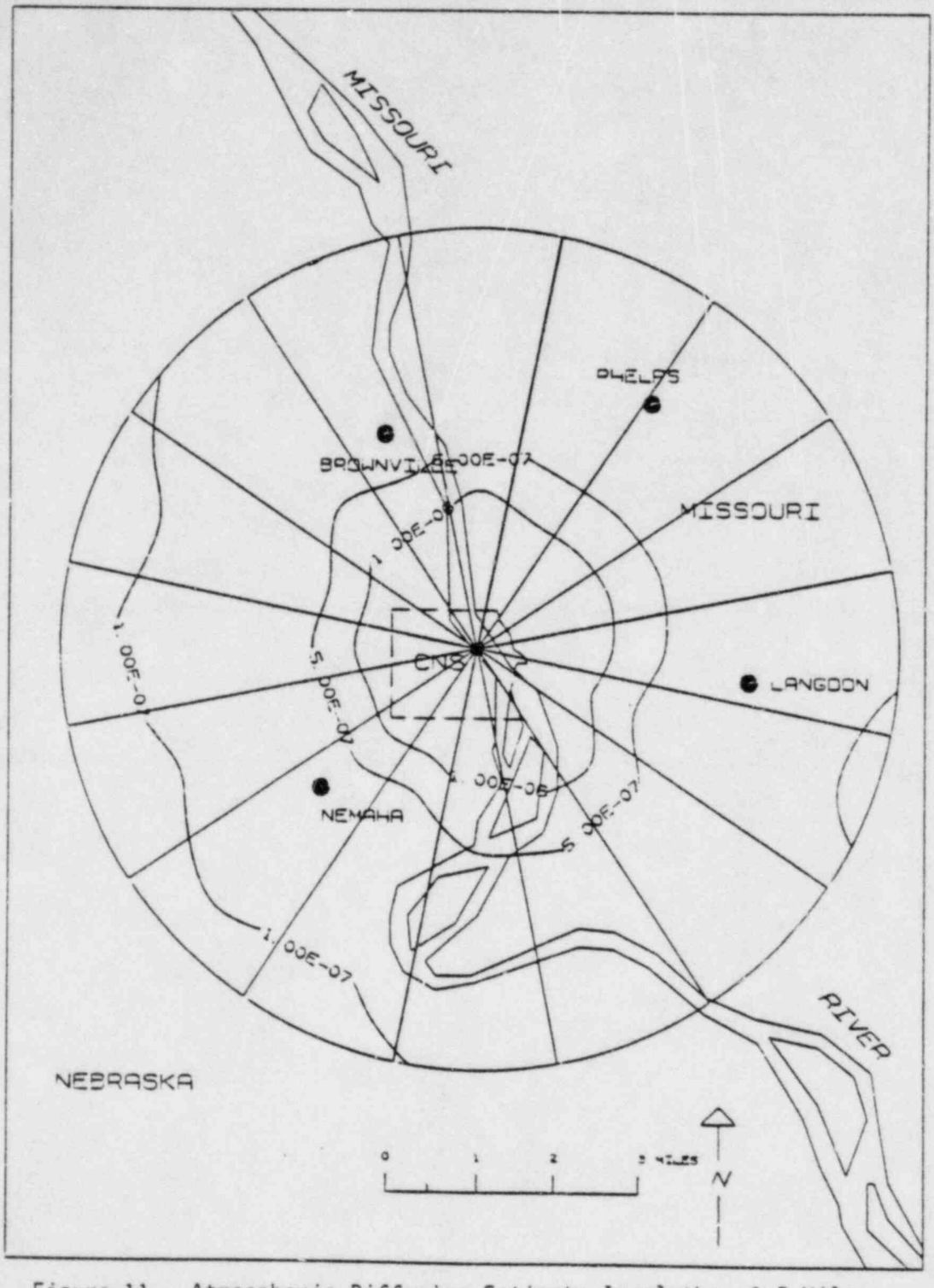


Figure 11. Atmospheric Diffusion Estimate Isopleths, 0-5 Miles, Ground-Level Releases, January-June 1984 ($sec/m^3$)

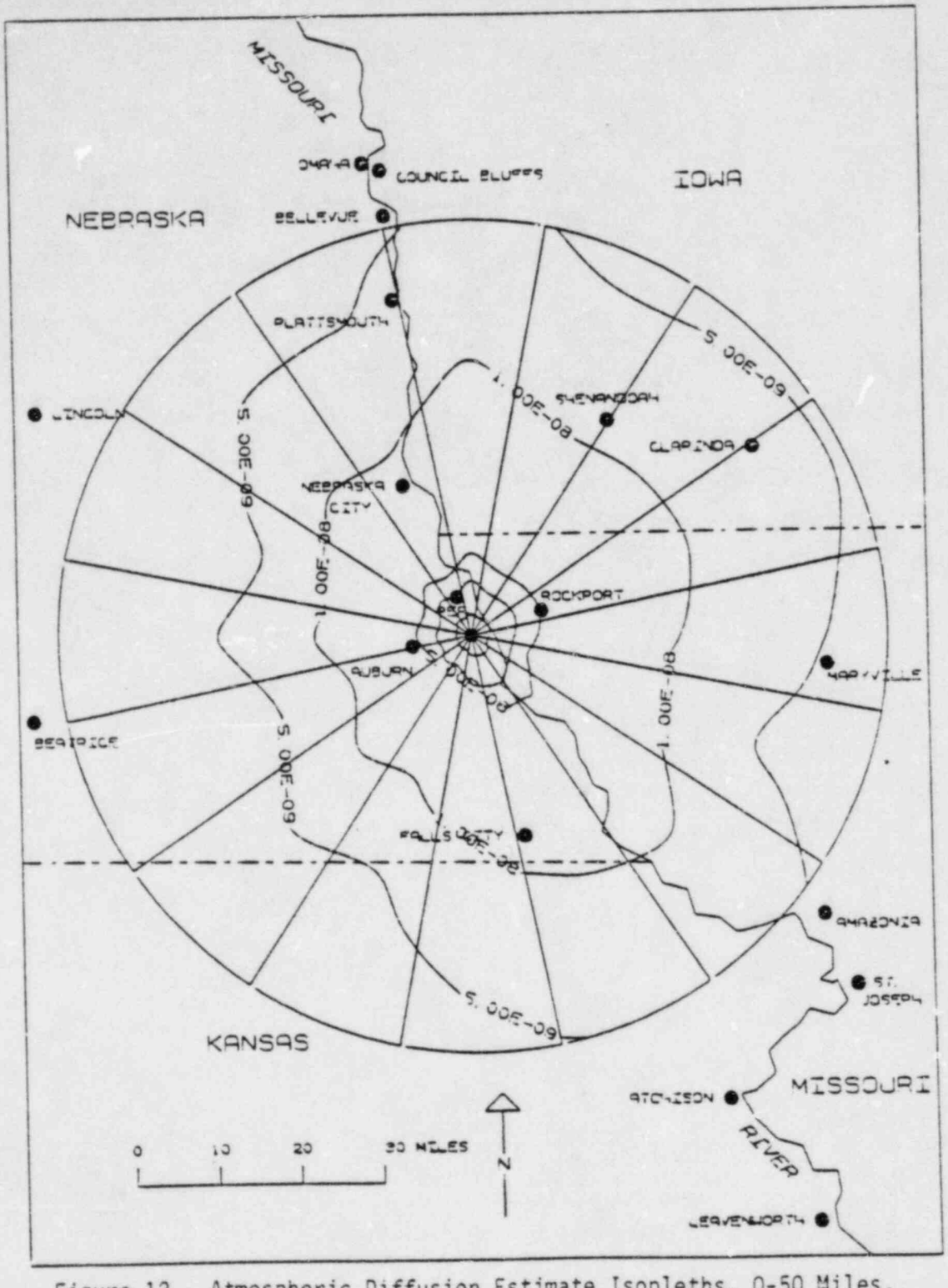


Figure 12. Atmospheric Diffusion Estimate Isopleths, 0-50 Miles, Ground-Level Releases, January-June 1984 ($sec/m^3$)

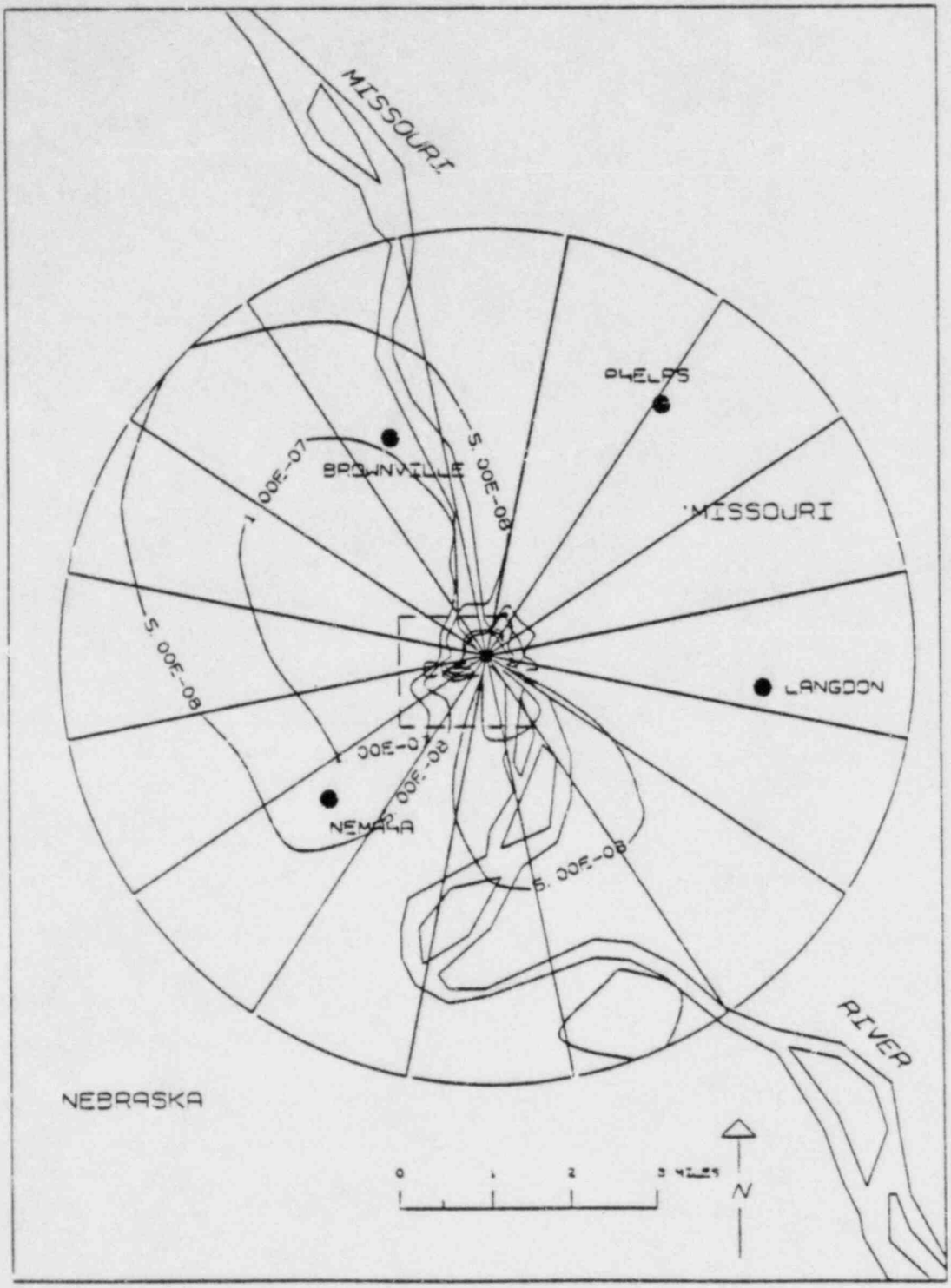


Figure 13. Atmospheric Diffusion Estimate Isopleths, $O_3$ 5 Miles, Elevated Releases, January-June 1984 ($sec/m^3$)

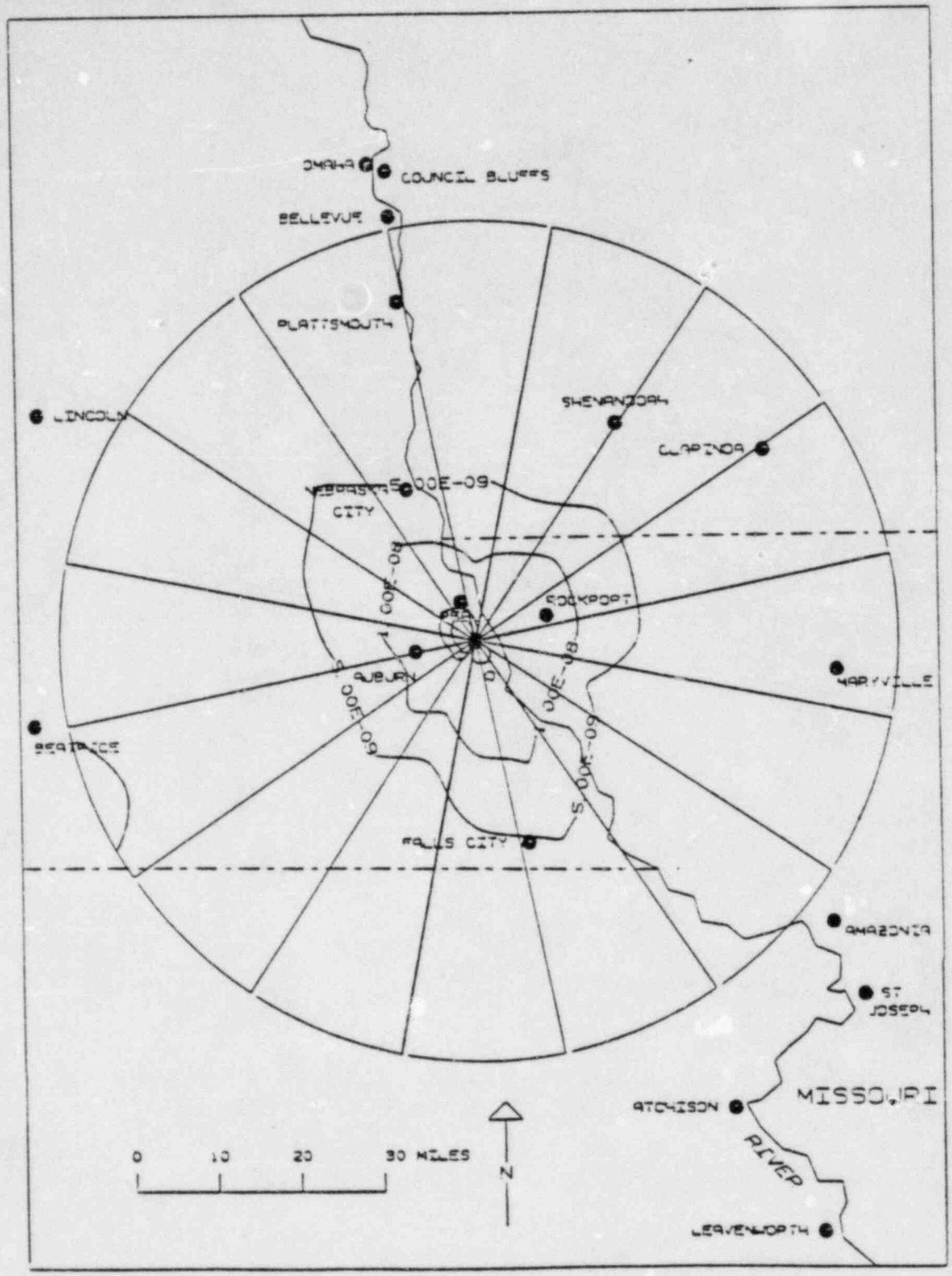


Figure 14. Atmospheric Diffusion Estimate Isopleths, $0_3$ 50 Miles, Elevated Releases, January-June 1984 ($sec/m^3$)

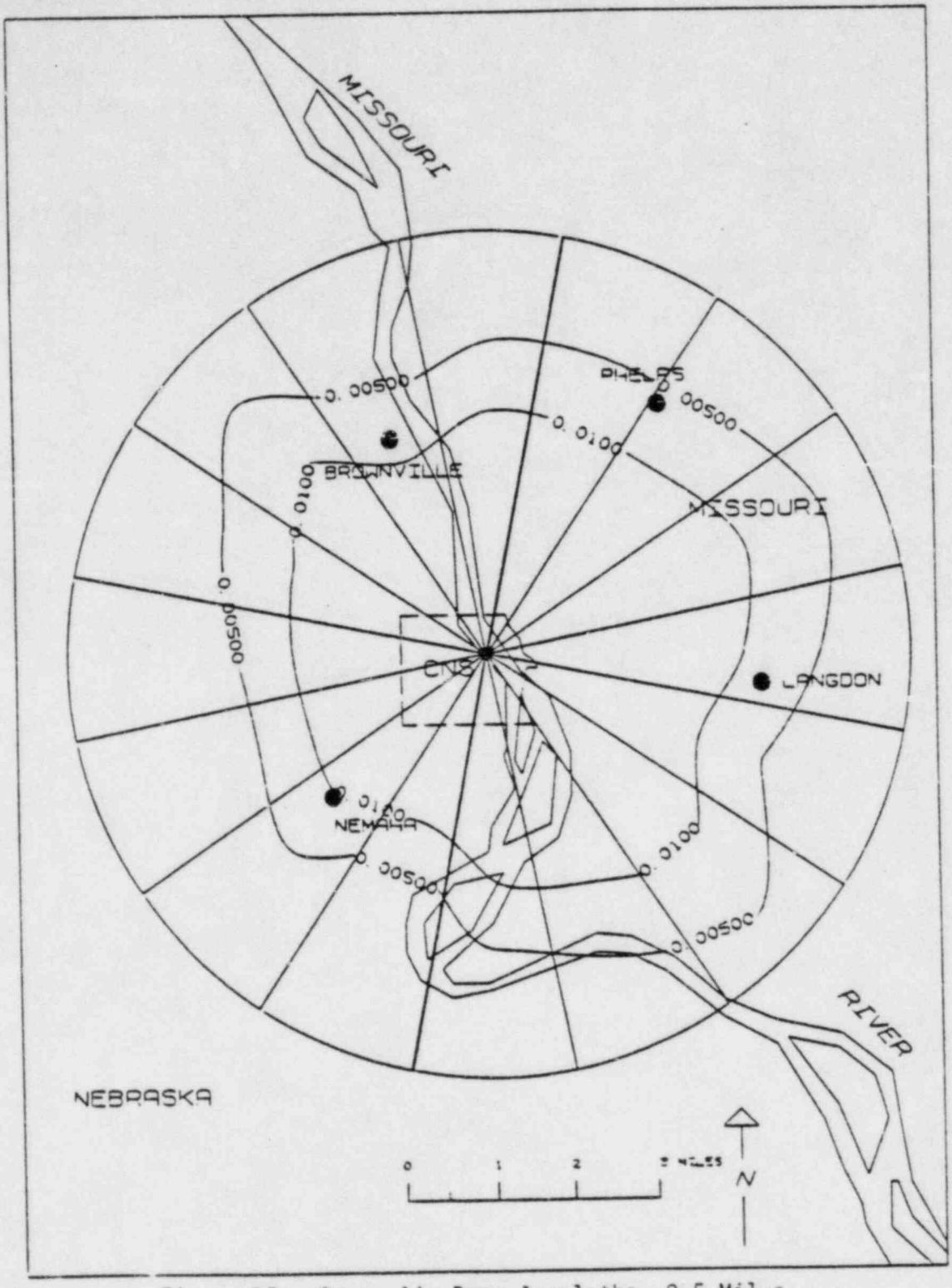


Figure 15. Gamma Air Dose Isopleths, 0-5 Miles, January-March 1984 (millirad)

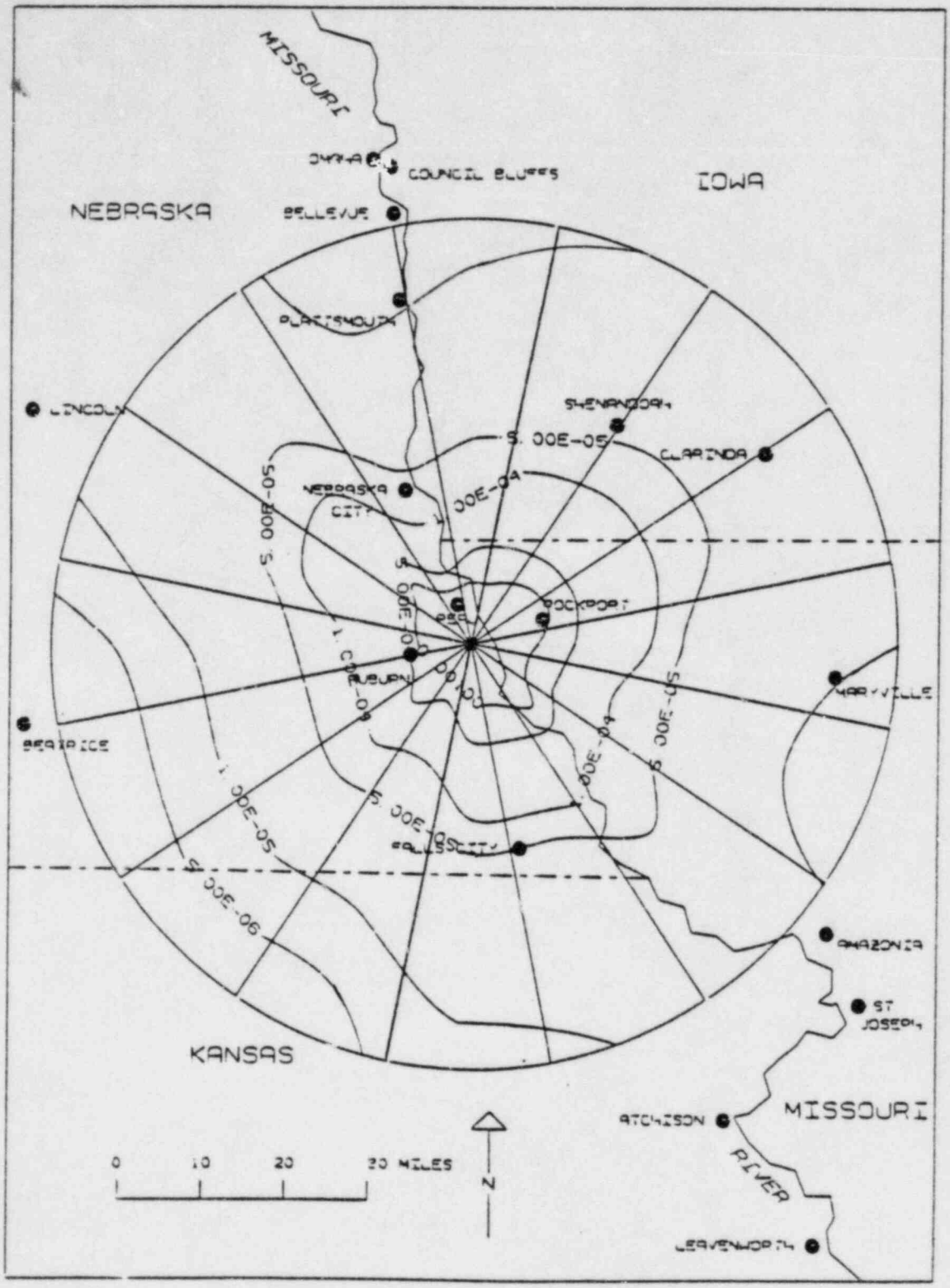


Figure 16. Gamma Air Dose Isopleths, 0-50 Miles, January-March 1984 (millirad)

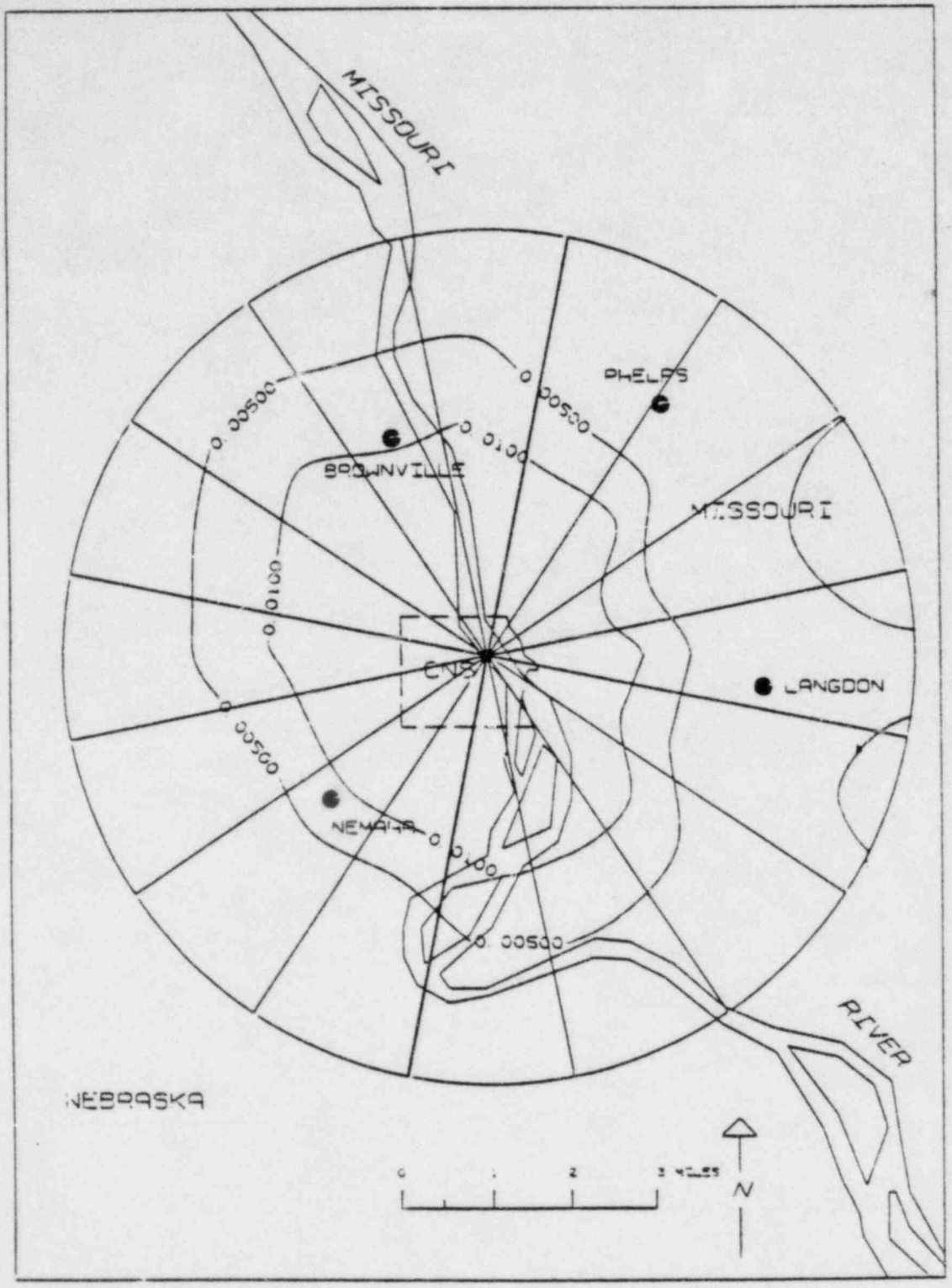


Figure 17. Gamma Air Dose Isopleths, 0-5 Miles, April-June 1984 (millirad)

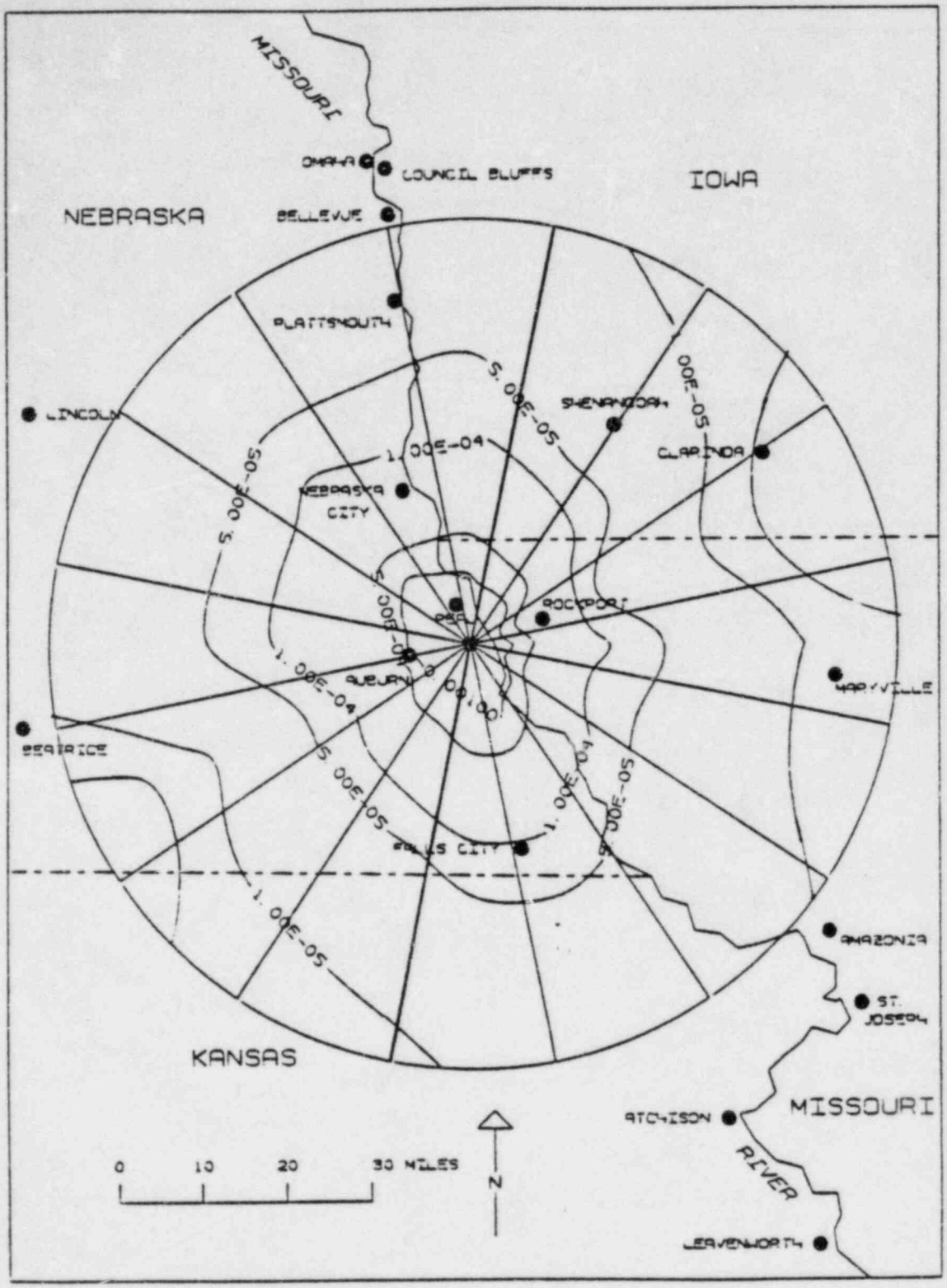


Figure 18. Gamma Air Dose Isopleths, 0-50 Miles, April-June 1984 (millirad)

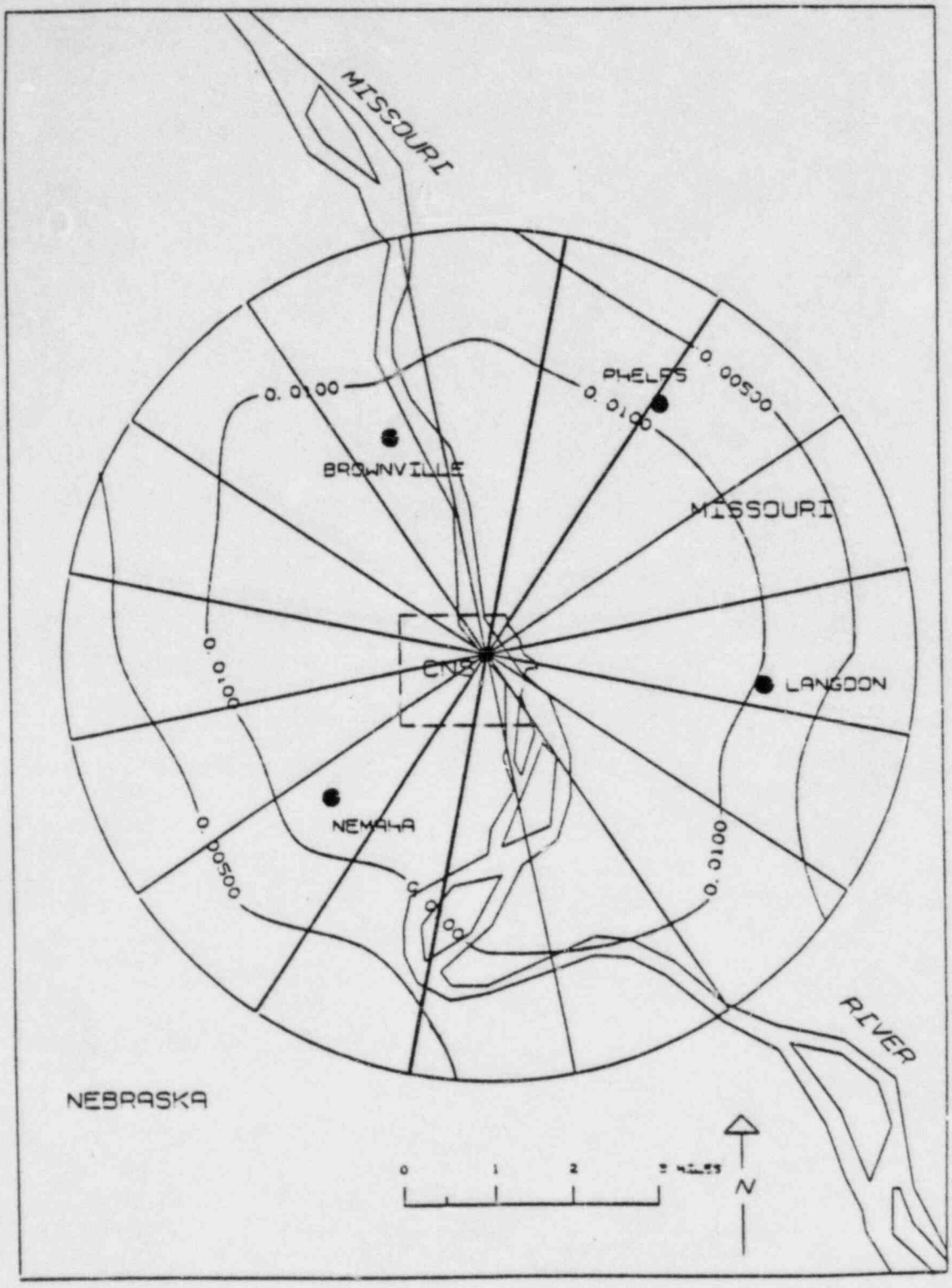


Figure 19. Gamma Air Dose Isopleths, 0-5 Miles, January-June 1984 (millirad)

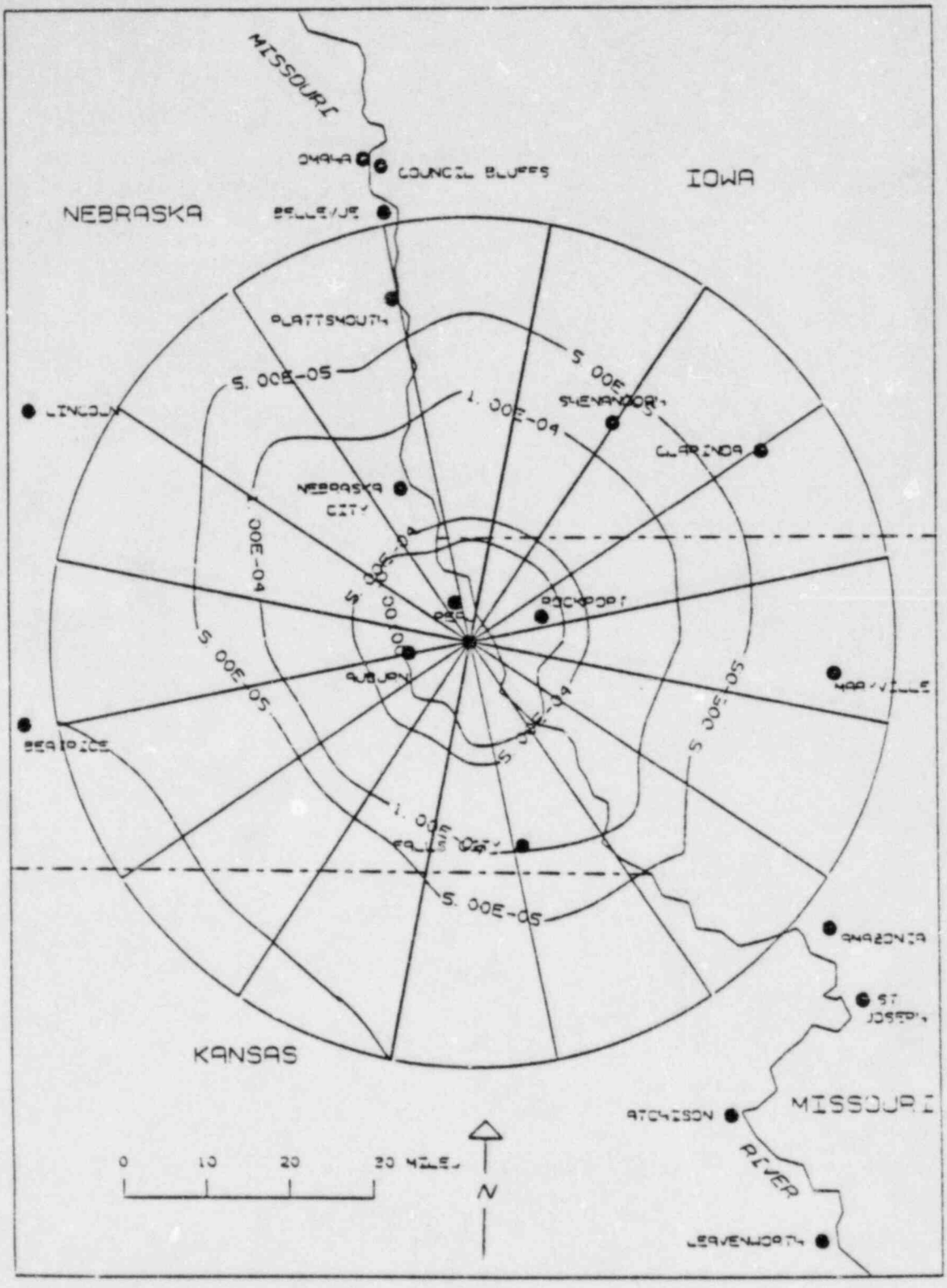


Figure 20. Gamma Air Dose Isopleths, 0-50 Miles, January-June 1984 (millirad)

**Nebraska Public Power District**

GENERAL OFFICE
P.O. BOX 499, COLUMBUS, NEBRASKA 68601-0499
TELEPHONE (402) 564-8561

October 1, 1984



Mr. John T. Collins
Regional Administrator
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive
Suite 1000
Arlington, Texas 76011

Subject: Semi-Annual Operating Report - Radioactive Effluents
Cooper Nuclear Station
January 1, 1984 through June 30, 1984
NRC Docket No. 50-298, DPR-46

Dear Mr. Collins:

In accordance with Paragraph 5.4.1.b of the Cooper Nuclear Station Environmental Technical Specifications, the Nebraska Public Power District submits the Cooper Nuclear Station Semi-Annual Operating Report - Radioactive Effluents for the period January 1, 1984 through June 30, 1984.

In accordance with Reg Guide 10.1, Revision 4, we are enclosing one signed original of the report for your use and one copy to the Document Control desk.

Should you have any questions or comments regarding this report, please contact my office.

Sincerely,

Jay M. Pilant
Technical Staff Manager
Nuclear Power Group

WRL/cl

Enclosure

cc: Document Control Desk w/1 copy
U.S. Nuclear Regulatory Commission
Washington, DC 20555

IE25
1/1