

1998

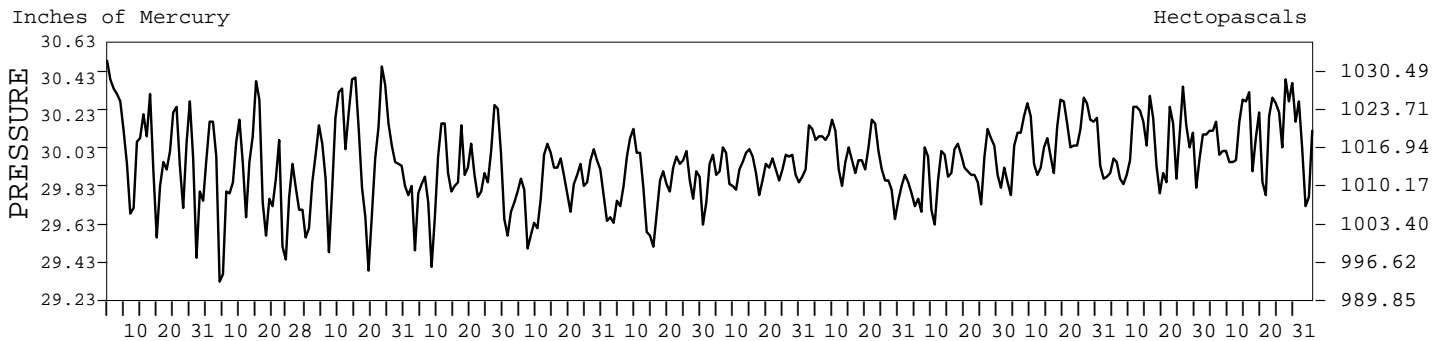
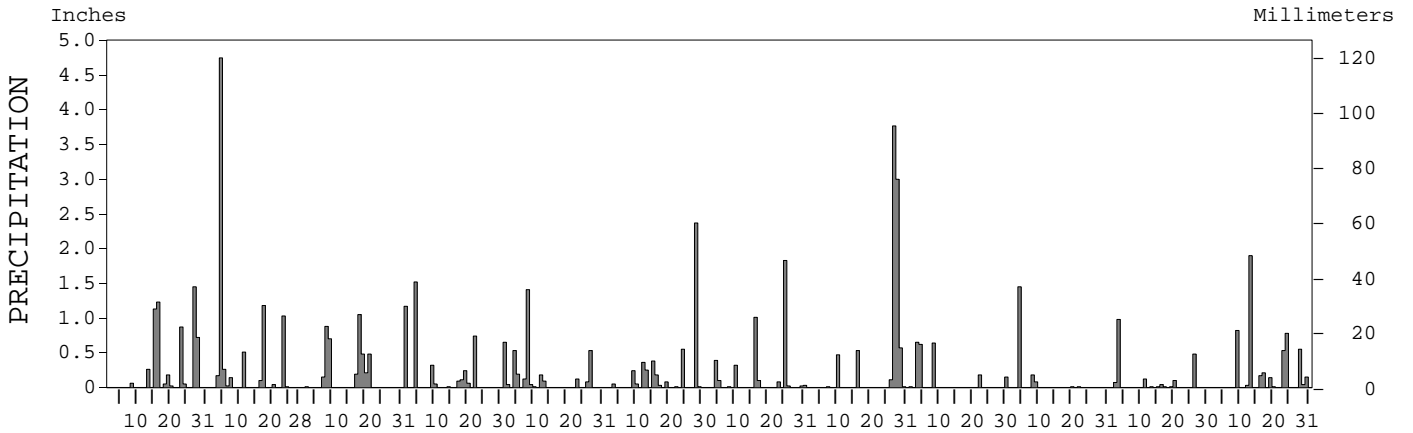
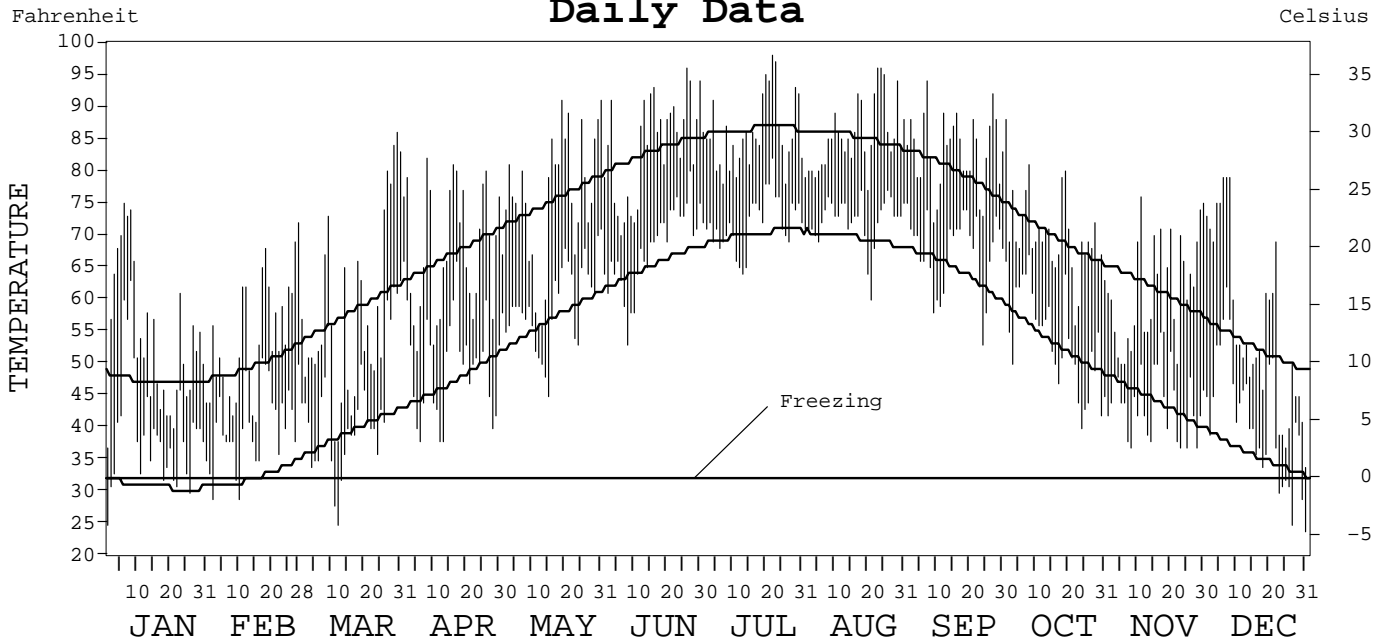
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-5353

NORFOLK,
VIRGINIA (ORF)

Daily Data



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Thomas R. Karl

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 NATIONAL ENVIRONMENTAL AND INFORMATION SERVICE
 NATIONAL ENVIRONMENTAL AND INFORMATION SERVICE
 NATIONAL CLIMATIC DATA CENTER
 NATIONAL CLIMATIC DATA CENTER
 DIRECTOR NATIONAL CLIMATIC DATA CENTER
 ASHEVILLE, NORTH CAROLINA

METEOROLOGICAL DATA FOR 1998

NORFOLK, VA (ORF)

LATITUDE: 36° 54' 13" N LONGITUDE: 76° 11' 31" W ELEVATION (FT): GRND: 24 BARO: 44 TIME ZONE: EASTERN (UTC+ 5) WBAN: 13737

| | ELEMENT | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR | |
|----------------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-----------|----|
| TEMPERATURE °F | MEAN DAILY MAXIMUM | 53.7 | 53.9 | 58.3 | 67.9 | 75.7 | 83.9 | 86.0 | 85.5 | 83.1 | 70.0 | 61.5 | 56.1 | 69.6 | |
| | HIGHEST DAILY MAXIMUM | 75 | 72 | 86 | 82 | 91 | 96 | 98 | 96 | 94 | 88 | 76 | 79 | 98 | |
| | DATE OF OCCURRENCE | 06 | 28 | 30 | 08 | 31+ | 26 | 22 | 24+ | 07 | 01 | 11 | 08+ | JUL 22 | |
| | MEAN DAILY MINIMUM | 39.3 | 40.5 | 43.2 | 49.9 | 59.2 | 67.9 | 71.9 | 72.3 | 67.4 | 53.8 | 43.6 | 41.3 | 54.2 | |
| | LOWEST DAILY MINIMUM | 25 | 29 | 25 | 38 | 45 | 53 | 64 | 60 | 53 | 40 | 37 | 24 | 24 | |
| | DATE OF OCCURRENCE | 01 | 10+ | 12 | 13+ | 15 | 08 | 13 | 21 | 24 | 24 | 28+ | 31 | DEC 31 | |
| | AVERAGE DRY BULB | 46.5 | 47.2 | 50.8 | 58.9 | 67.5 | 75.9 | 79.0 | 78.9 | 75.3 | 61.9 | 52.6 | 48.7 | 61.9 | |
| | MEAN WET BULB | 43.7 | 43.9 | 46.4 | 53.5 | 62.4 | 69.2 | 72.1 | 72.7 | 68.7 | 57.2 | 49.4 | 45.7 | 57.1 | |
| | MEAN DEW POINT | 39.5 | 40.0 | 41.0 | 48.5 | 59.3 | 65.3 | 68.7 | 69.8 | 65.1 | 52.7 | 45.3 | 41.9 | 53.1 | |
| | NUMBER OF DAYS WITH: | | | | | | | | | | | | | | |
| | MAXIMUM ≥ 90° | 0 | 0 | 0 | 0 | 2 | 8 | 8 | 7 | 2 | 0 | 0 | 0 | 0 | 27 |
| | MAXIMUM ≤ 32° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | MINIMUM ≤ 32° | 6 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 19 | |
| MINIMUM ≤ 0° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| H/C | HEATING DEGREE DAYS | 573 | 492 | 466 | 211 | 60 | 0 | 0 | 0 | 2 | 127 | 367 | 513 | 2811 | |
| | COOLING DEGREE DAYS | 7 | 0 | 33 | 37 | 143 | 338 | 440 | 440 | 317 | 39 | 0 | 12 | 1806 | |
| RH | MEAN (PERCENT) | 77 | 78 | 73 | 72 | 78 | 72 | 73 | 76 | 74 | 72 | 76 | 78 | 75 | |
| | HOUR 01 LST | 80 | 83 | 80 | 80 | 85 | 82 | 84 | 83 | 82 | 81 | 83 | 83 | 82 | |
| | HOUR 07 LST | 84 | 85 | 79 | 80 | 85 | 80 | 81 | 83 | 84 | 80 | 85 | 83 | 82 | |
| | HOUR 13 LST | 69 | 70 | 64 | 60 | 67 | 59 | 60 | 65 | 61 | 59 | 62 | 69 | 64 | |
| | HOUR 19 LST | 77 | 76 | 69 | 67 | 76 | 68 | 67 | 77 | 70 | 74 | 78 | 79 | 73 | |
| S | PERCENT POSSIBLE SUNSHINE | | | | | | | | | | | | | | |
| W/O | NUMBER OF DAYS WITH: | | | | | | | | | | | | | | |
| | HEAVY FOG (VISBY ≤ 1/4 MI) | 0 | 1 | 4 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 10 | |
| | THUNDERSTORMS | 1 | 2 | 3 | 2 | 9 | 8 | 5 | 3 | 3 | 0 | 0 | 0 | 37 | |
| CLOUDINESS | SUNRISE-SUNSET: (OKTAS) | | | | | | | | | | | | | | |
| | CEILOMETER (≤ 12,000 FT.) | | | | | | | | | | | | | | |
| | SATELLITE (> 12,000 FT.) | | | | | | | | | | | | | | |
| | MIDNIGHT-MIDNIGHT: (OKTAS) | | | | | | | | | | | | | | |
| | CEILOMETER (≤ 12,000 FT.) | | | | | | | | | | | | | | |
| | SATELLITE (> 12,000 FT.) | | | | | | | | | | | | | | |
| NUMBER OF DAYS WITH: | | | | | | | | | | | | | | | |
| CLEAR | | | | | | | | | | | | | | | |
| PARTLY CLOUDY | | | | | | | | | | | | | | | |
| CLOUDY | | | | | | | | | | | | | | | |
| PR | MEAN STATION PRESS. (IN.) | 30.05 | 29.88 | 30.01 | 29.91 | 29.84 | 29.85 | 29.94 | 30.00 | 29.92 | 30.10 | 30.08 | 30.13 | 29.98 | |
| | MEAN SEA-LEVEL PRESS. (IN.) | 30.07 | 29.91 | 30.04 | 29.94 | 29.87 | 29.88 | 29.97 | 30.03 | 29.95 | 30.13 | 30.11 | 30.16 | 30.01 | |
| WINDS | RESULTANT SPEED (MPH) | 0.5 | 4.3 | 2.0 | 1.9 | 1.2 | 1.2 | 1.6 | 2.6 | 1.4 | 1.6 | 0.8 | 2.6 | 0.1 | |
| | RES. DIR. (TENS OF DEGS.) | 02 | 05 | 22 | 22 | 07 | 26 | 21 | 22 | 11 | 02 | 30 | 01 | 00 | |
| | MEAN SPEED (MPH) | 9.8 | 10.4 | 10.0 | 10.8 | 8.5 | 7.3 | 7.7 | 9.8 | 8.3 | 7.3 | 8.0 | 9.5 | 9.0 | |
| | PREVAIL. DIR. (TENS OF DEGS.) | 01 | 05 | 23 | 23 | 05 | 23 | 21 | 08 | 23 | 01 | 24 | 03 | 23 | |
| | MAXIMUM 2-MINUTE WIND: | | | | | | | | | | | | | | |
| | SPEED (MPH) | 41 | 41 | 38 | 36 | 30 | 36 | 32 | 46 | 29 | 26 | 31 | 30 | 46 | |
| | DIR. (TENS OF DEGS.) | 01 | 07 | 24 | 06 | 17 | 28 | 23 | 11 | 05 | 06 | 22 | 01 | 11 | |
| | DATE OF OCCURRENCE | 28 | 05 | 09 | 04 | 05 | 16 | 04 | 27 | 23+ | 22+ | 11 | 09 | AUG 27 | |
| | MAXIMUM 5-SECOND WIND: | | | | | | | | | | | | | | |
| | SPEED (MPH) | 54 | 48 | 46 | 44 | 39 | 58 | 38 | 64 | 39 | 34 | 38 | 38 | 64 | |
| DIR. (TENS OF DEGS.) | 02 | 06 | 23 | 02 | 16 | 29 | 23 | 09 | 01 | 04 | 24 | 01 | 09 | | |
| DATE OF OCCURRENCE | 28 | 05+ | 09 | 04 | 05 | 16 | 04 | 27 | 04 | 01 | 11 | 30+ | AUG 27 | | |
| PRECIPITATION | WATER EQUIVALENT: | | | | | | | | | | | | | | |
| | TOTAL (IN.) | 6.02 | 8.21 | 4.15 | 4.31 | 3.99 | 4.56 | 3.91 | 8.47 | 2.25 | 1.73 | 1.83 | 5.33 | 54.76 | |
| | GREATEST 24-HOUR (IN.) | 2.02 | 4.78 | 1.24 | 1.52 | 1.53 | 2.37 | 1.83 | 3.77 | 1.27 | 1.45 | 1.05 | 1.90 | 4.78 | |
| | DATE OF OCCURRENCE | 27-28 | 03-04 | 17-18 | 04 | 07-08 | 28 | 25-26 | 27 | 03-04 | 04 | 02-03 | 13 | FEB 03-04 | |
| | NUMBER OF DAYS WITH: | | | | | | | | | | | | | | |
| | PRECIPITATION ≥ 0.01 | 11 | 11 | 9 | 10 | 13 | 13 | 11 | 8 | 6 | 5 | 10 | 12 | 119 | |
| PRECIPITATION ≥ 0.10 | 7 | 8 | 8 | 6 | 8 | 7 | 6 | 6 | 5 | 2 | 4 | 9 | 76 | | |
| PRECIPITATION ≥ 1.00 | 3 | 3 | 1 | 2 | 1 | 1 | 2 | 2 | 0 | 1 | 0 | 1 | 17 | | |
| SNOWFALL | SNOW, ICE PELLETS, HAIL: | | | | | | | | | | | | | | |
| | TOTAL (IN.) | | | | | | | | | | | | | | |
| | GREATEST 24-HOUR (IN.) | | | | | | | | | | | | | | |
| | DATE OF OCCURRENCE | | | | | | | | | | | | | | |
| | MAXIMUM SNOW DEPTH (IN.) | | | | | | | | | | | | | | |
| | DATE OF OCCURRENCE | | | | | | | | | | | | | | |
| NUMBER OF DAYS WITH: | | | | | | | | | | | | | | | |
| SNOWFALL ≥ 1.0 | | | | | | | | | | | | | | | |

NORMALS, MEANS, AND EXTREMES

NORFOLK, VA (ORF)

LATITUDE: 36° 54' 13" N LONGITUDE: 76° 11' 31" W ELEVATION (FT): GRND: 24 BARO: 44 TIME ZONE: EASTERN (UTC+ 5) WBAN: 13737

| ELEMENT | | POR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR |
|-----------------------|-----------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----------|
| TEMPERATURE °F | NORMAL DAILY MAXIMUM | 30 | 47.3 | 49.7 | 57.9 | 66.9 | 75.3 | 82.9 | 86.4 | 85.1 | 79.6 | 69.5 | 61.2 | 52.2 | 67.8 |
| | MEAN DAILY MAXIMUM | 51 | 48.6 | 50.8 | 58.1 | 68.0 | 75.8 | 83.5 | 87.4 | 85.5 | 80.2 | 70.1 | 61.2 | 52.3 | 68.5 |
| | HIGHEST DAILY MAXIMUM | 50 | 78 | 82 | 88 | 97 | 100 | 101 | 103 | 104 | 99 | 95 | 86 | 80 | 104 |
| | YEAR OF OCCURRENCE | | 1970 | 1997 | 1990 | 1960 | 1991 | 1964 | 1993 | 1980 | 1983 | 1954 | 1974 | 1991 | AUG 1980 |
| | MEAN OF EXTREME MAXS. | 51 | 70.2 | 72.4 | 79.9 | 86.7 | 90.8 | 95.3 | 96.9 | 95.4 | 92.1 | 84.6 | 78.5 | 72.1 | 84.6 |
| | NORMAL DAILY MINIMUM | 30 | 30.9 | 32.3 | 39.3 | 47.1 | 56.8 | 65.2 | 70.0 | 69.4 | 64.2 | 52.9 | 43.8 | 35.4 | 50.6 |
| | MEAN DAILY MINIMUM | 51 | 32.2 | 33.4 | 39.7 | 48.0 | 57.2 | 65.7 | 70.8 | 69.8 | 64.3 | 53.1 | 43.4 | 35.5 | 51.1 |
| | LOWEST DAILY MINIMUM | 50 | -3 | 8 | 18 | 28 | 36 | 45 | 54 | 49 | 45 | 27 | 20 | 7 | -3 |
| | YEAR OF OCCURRENCE | | 1985 | 1965 | 1980 | 1982 | 1966 | 1967 | 1979 | 1982 | 1967 | 1976 | 1950 | 1983 | JAN 1985 |
| | MEAN OF EXTREME MINS. | 51 | 17.0 | 19.7 | 26.8 | 35.0 | 44.3 | 54.2 | 61.6 | 60.1 | 52.1 | 38.5 | 29.5 | 20.9 | 38.3 |
| | NORMAL DRY BULB | 30 | 39.1 | 41.0 | 48.6 | 57.0 | 66.1 | 74.1 | 78.2 | 77.2 | 71.9 | 61.2 | 52.5 | 43.8 | 59.2 |
| | MEAN DRY BULB | 51 | 40.4 | 42.1 | 48.9 | 58.0 | 66.5 | 74.6 | 79.1 | 77.6 | 72.2 | 61.6 | 52.4 | 43.9 | 59.8 |
| | MEAN WET BULB | 15 | 37.4 | 39.0 | 44.2 | 51.6 | 60.0 | 68.2 | 68.3 | 71.5 | 62.1 | 57.1 | 48.6 | 40.8 | 54.1 |
| | MEAN DEW POINT | 15 | 30.9 | 32.1 | 37.2 | 45.1 | 54.7 | 64.1 | 65.1 | 68.4 | 58.6 | 52.5 | 43.0 | 34.8 | 48.9 |
| | NORMAL NO. DAYS WITH: | | | | | | | | | | | | | | |
| MAXIMUM ≥ 90° | 30 | 0.0 | 0.0 | 0.0 | 0.4 | 1.5 | 5.9 | 10.9 | 8.6 | 2.8 | 0.1 | 0.0 | 0.0 | 30.2 | |
| MAXIMUM ≤ 32° | 30 | 3.3 | 1.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 5.7 | |
| MINIMUM ≤ 32° | 30 | 18.0 | 15.5 | 6.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 3.0 | 13.1 | 56.2 | |
| MINIMUM ≤ 0° | 30 | * | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| H/C | NORMAL HEATING DEG. DAYS | 30 | 803 | 672 | 508 | 249 | 51 | 0 | 0 | 0 | 11 | 164 | 380 | 657 | 3495 |
| | NORMAL COOLING DEG. DAYS | 30 | 0 | 0 | 0 | 9 | 85 | 277 | 409 | 378 | 218 | 46 | 0 | 0 | 1422 |
| RH | NORMAL (PERCENT) | 30 | 66 | 66 | 65 | 63 | 69 | 71 | 73 | 75 | 74 | 72 | 68 | 67 | 69 |
| | HOUR 01 LST | 30 | 71 | 71 | 71 | 72 | 80 | 82 | 84 | 85 | 84 | 81 | 75 | 72 | 77 |
| | HOUR 07 LST | 30 | 73 | 73 | 74 | 72 | 77 | 79 | 82 | 84 | 83 | 82 | 78 | 74 | 78 |
| | HOUR 13 LST | 30 | 58 | 56 | 54 | 50 | 55 | 56 | 59 | 61 | 61 | 58 | 56 | 58 | 57 |
| | HOUR 19 LST | 30 | 65 | 64 | 62 | 59 | 65 | 66 | 70 | 73 | 74 | 73 | 68 | 66 | 67 |
| S | PERCENT POSSIBLE SUNSHINE | 32 | 53 | 56 | 60 | 63 | 62 | 67 | 62 | 62 | 61 | 58 | 56 | 54 | 60 |
| W/O | MEAN NO. DAYS WITH: | | | | | | | | | | | | | | |
| | HEAVY FOG (VISBY ≤ 1/4 MI) | 50 | 2.1 | 2.5 | 1.9 | 1.4 | 1.8 | 1.0 | 0.5 | 1.0 | 1.2 | 2.1 | 1.8 | 2.1 | 19.4 |
| | THUNDERSTORMS | 50 | 0.4 | 0.6 | 1.9 | 2.7 | 4.9 | 5.7 | 8.2 | 6.4 | 2.6 | 1.3 | 0.5 | 0.4 | 35.6 |
| CLOUDINESS | MEAN: | | | | | | | | | | | | | | |
| | SUNRISE-SUNSET (OKTAS) | 48 | 5.0 | 5.0 | 4.9 | 4.6 | 4.9 | 4.7 | 4.7 | 4.6 | 4.5 | 4.2 | 4.4 | 4.8 | 4.7 |
| | MIDNIGHT-MIDNIGHT (OKTAS) | 32 | 4.7 | 4.7 | 4.4 | 4.2 | 4.6 | 4.4 | 4.5 | 4.4 | 4.2 | 4.0 | 4.1 | 4.4 | 4.4 |
| | MEAN NO. DAYS WITH: | | | | | | | | | | | | | | |
| | CLEAR | 48 | 8.8 | 8.1 | 8.9 | 8.8 | 7.7 | 7.5 | 7.4 | 7.9 | 9.1 | 11.6 | 10.3 | 9.4 | 105.5 |
| PARTLY CLOUDY | 48 | 6.5 | 6.2 | 7.6 | 9.3 | 10.0 | 11.7 | 12.0 | 11.9 | 9.5 | 7.2 | 7.9 | 6.8 | 106.6 | |
| CLOUDY | 48 | 15.7 | 13.9 | 14.5 | 11.9 | 13.3 | 10.8 | 11.6 | 11.3 | 11.5 | 12.2 | 11.7 | 14.8 | 153.2 | |
| PR | MEAN STATION PRESSURE (IN) | 26 | 30.10 | 30.09 | 30.00 | 30.00 | 29.99 | 29.99 | 28.88 | 30.00 | 28.88 | 30.10 | 30.09 | 30.09 | 29.85 |
| | MEAN SEA-LEVEL PRES. (IN) | 15 | 30.11 | 30.09 | 30.06 | 29.99 | 30.01 | 29.99 | 28.01 | 30.04 | 28.07 | 30.11 | 30.13 | 30.12 | 29.73 |
| WINDS | MEAN SPEED (MPH) | 46 | 11.4 | 11.9 | 12.3 | 11.8 | 10.3 | 9.6 | 9.0 | 8.8 | 9.7 | 10.2 | 10.5 | 10.9 | 10.5 |
| | PREVAIL. DIR (TENS OF DEGS) | 30 | 36 | 36 | 04 | 22 | 22 | 23 | 22 | 22 | 05 | 04 | 23 | 36 | 22 |
| | MAXIMUM 2-MINUTE: | | | | | | | | | | | | | | |
| | SPEED (MPH) | 2 | 41 | 41 | 38 | 36 | 32 | 36 | 36 | 46 | 33 | 29 | 31 | 30 | 46 |
| | DIR. (TENS OF DEGS) | | 01 | 07 | 24 | 06 | 25 | 28 | 03 | 11 | 03 | 03 | 22 | 01 | 11 |
| | YEAR OF OCCURRENCE | | 1998 | 1998 | 1998 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1997 | 1998 | 1998 | AUG 1998 |
| | MAXIMUM 5-SECOND: | | | | | | | | | | | | | | |
| SPEED (MPH) | 2 | 54 | 48 | 46 | 44 | 40 | 58 | 51 | 64 | 41 | 37 | 38 | 38 | 64 | |
| DIR. (TENS OF DEGS) | | 02 | 06 | 23 | 02 | 25 | 29 | 04 | 09 | 04 | 03 | 24 | 01 | 09 | |
| YEAR OF OCCURRENCE | | 1998 | 1998 | 1998 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1997 | 1998 | 1998 | AUG 1998 | |
| PRECIPITATION | NORMAL (IN) | 30 | 3.78 | 3.47 | 3.70 | 3.06 | 3.81 | 3.82 | 5.06 | 4.81 | 3.90 | 3.15 | 2.85 | 3.23 | 44.64 |
| | MAXIMUM MONTHLY (IN) | 50 | 9.93 | 8.21 | 10.36 | 7.25 | 10.12 | 9.72 | 14.37 | 14.32 | 13.80 | 10.12 | 7.01 | 6.10 | 14.37 |
| | YEAR OF OCCURRENCE | | 1987 | 1998 | 1994 | 1984 | 1979 | 1963 | 1994 | 1992 | 1979 | 1971 | 1951 | 1983 | JUL 1994 |
| | MINIMUM MONTHLY (IN) | 50 | 1.05 | 0.84 | 0.75 | 0.43 | 0.64 | 0.37 | 0.36 | 0.74 | 0.26 | 0.57 | 0.49 | 0.67 | 0.26 |
| | YEAR OF OCCURRENCE | | 1981 | 1991 | 1986 | 1985 | 1991 | 1954 | 1993 | 1975 | 1986 | 1984 | 1965 | 1988 | SEP 1986 |
| | MAXIMUM IN 24 HOURS (IN) | 50 | 3.80 | 4.78 | 4.02 | 5.90 | 3.41 | 6.85 | 5.64 | 11.40 | 6.79 | 4.38 | 3.35 | 2.76 | 11.40 |
| | YEAR OF OCCURRENCE | | 1967 | 1998 | 1994 | 1991 | 1980 | 1963 | 1969 | 1964 | 1959 | 1971 | 1952 | 1983 | AUG 1964 |
| | NORMAL NO. DAYS WITH: | | | | | | | | | | | | | | |
| PRECIPITATION ≥ 0.01 | 30 | 10.7 | 10.3 | 10.4 | 9.8 | 9.9 | 9.7 | 11.1 | 10.1 | 7.7 | 7.4 | 7.7 | 9.5 | 114.3 | |
| PRECIPITATION ≥ 1.00 | 30 | 0.8 | 0.7 | 0.7 | 0.8 | 0.9 | 1.1 | 1.5 | 1.3 | 1.2 | 0.8 | 0.5 | 0.6 | 10.9 | |
| SNOWFALL | NORMAL (IN) | 30 | 3.1 | 3.9 | 1.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.* | 0.5 | 8.8 |
| | MAXIMUM MONTHLY (IN) | 48 | 14.2 | 24.4 | 13.7 | 1.2 | T | T | 0.0 | T | 0.0 | 0.0 | 0.6 | 14.7 | 24.4 |
| | YEAR OF OCCURRENCE | | 1966 | 1989 | 1980 | 1964 | 1994 | 1990 | | 1991 | | | 1950 | 1958 | FEB 1989 |
| | MAXIMUM IN 24 HOURS (IN) | 48 | 9.1 | 14.2 | 9.9 | 1.2 | T | T | 0.0 | T | 0.0 | 0.0 | 0.6 | 11.4 | 14.2 |
| | YEAR OF OCCURRENCE | | 1973 | 1989 | 1980 | 1964 | 1994 | 1990 | | 1991 | | | 1950 | 1958 | FEB 1989 |
| | MAXIMUM SNOW DEPTH (IN) | 48 | 9 | 14 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 14 |
| | YEAR OF OCCURRENCE | | 1966 | 1980 | 1980 | | | | | | | | | 1958 | MAR 1980 |
| NORMAL NO. DAYS WITH: | | | | | | | | | | | | | | | |
| SNOWFALL ≥ 1.0 | 30 | 0.9 | 0.8 | 0.2 | 0.* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 2.1 | |

PRECIPITATION (inches) 1998 NORFOLK, VA (ORF)

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|-----------------|------|------|-------|------|-------|------|-------|-------|-------|-------|------|------|--------|
| 1969 | 2.26 | 2.16 | 4.88 | 2.07 | 2.05 | 4.13 | 12.70 | 5.28 | 2.72 | 3.18 | 2.97 | 3.93 | 48.33 |
| 1970 | 2.27 | 3.97 | 3.37 | 3.19 | 2.58 | 4.10 | 5.33 | 2.04 | 1.72 | 1.30 | 2.34 | 3.01 | 35.22 |
| 1971 | 4.03 | 3.59 | 3.88 | 2.18 | 4.46 | 2.16 | 4.81 | 4.63 | 5.46 | 10.12 | 0.97 | 1.44 | 47.73 |
| 1972 | 2.94 | 3.50 | 2.55 | 2.15 | 3.35 | 4.93 | 4.65 | 1.60 | 6.91 | 4.09 | 5.44 | 4.12 | 46.23 |
| 1973 | 2.54 | 3.21 | 4.69 | 3.44 | 3.62 | 5.93 | 4.19 | 7.92 | 0.86 | 1.37 | 1.90 | 5.83 | 45.50 |
| 1974 | 3.52 | 2.98 | 5.16 | 3.34 | 3.74 | 4.76 | 5.47 | 8.33 | 4.40 | 1.23 | 1.22 | 3.81 | 47.96 |
| 1975 | 4.18 | 4.18 | 5.72 | 4.19 | 3.37 | 1.16 | 13.73 | 0.74 | 4.82 | 3.19 | 1.63 | 3.62 | 50.53 |
| 1976 | 2.51 | 1.50 | 2.21 | 0.99 | 3.74 | 1.59 | 5.19 | 2.62 | 3.51 | 2.90 | 2.38 | 3.22 | 32.36 |
| 1977 | 3.33 | 2.23 | 4.05 | 2.20 | 3.86 | 2.41 | 2.70 | 4.57 | 3.00 | 6.09 | 5.41 | 3.92 | 43.77 |
| 1978 | 6.32 | 1.91 | 7.80 | 2.90 | 5.64 | 7.84 | 4.19 | 1.66 | 1.17 | 1.50 | 4.40 | 2.31 | 47.64 |
| 1979 | 6.47 | 5.01 | 5.13 | 7.00 | 10.12 | 2.97 | 4.69 | 1.79 | 13.80 | 1.74 | 5.26 | 0.98 | 64.96 |
| 1980 | 4.54 | 2.91 | 4.40 | 3.25 | 5.17 | 1.39 | 1.85 | 4.54 | 1.47 | 4.21 | 2.01 | 2.64 | 38.38 |
| 1981 | 1.05 | 2.26 | 1.88 | 2.26 | 2.75 | 5.00 | 5.10 | 6.87 | 3.18 | 3.28 | 1.78 | 5.77 | 41.18 |
| 1982 | 3.35 | 5.81 | 3.04 | 1.71 | 3.07 | 4.22 | 5.83 | 6.51 | 3.63 | 4.25 | 3.43 | 4.30 | 49.15 |
| 1983 | 2.21 | 6.23 | 4.55 | 6.13 | 3.52 | 3.84 | 0.77 | 3.07 | 4.52 | 5.29 | 3.24 | 6.10 | 49.47 |
| 1984 | 2.77 | 4.66 | 5.09 | 7.25 | 6.23 | 1.50 | 7.66 | 2.25 | 1.94 | 0.57 | 2.68 | 2.22 | 44.82 |
| 1985 | 3.98 | 3.53 | 2.02 | 0.43 | 3.23 | 6.81 | 6.14 | 1.89 | 6.36 | 3.92 | 5.71 | 0.79 | 44.81 |
| 1986 | 2.52 | 2.71 | 0.75 | 3.31 | 1.41 | 1.51 | 2.59 | 4.80 | 0.26 | 1.67 | 1.21 | 3.74 | 26.48 |
| 1987 | 9.93 | 3.11 | 2.30 | 3.83 | 2.65 | 2.98 | 3.20 | 2.04 | 7.00 | 1.81 | 3.51 | 2.33 | 44.69 |
| 1988 | 3.12 | 2.70 | 2.11 | 3.53 | 5.49 | 3.83 | 2.93 | 5.69 | 1.74 | 2.85 | 4.02 | 0.67 | 38.68 |
| 1989 | 2.70 | 5.80 | 8.50 | 3.62 | 2.97 | 5.10 | 4.86 | 7.49 | 5.10 | 2.94 | 3.69 | 3.86 | 56.63 |
| 1990 | 3.26 | 2.93 | 3.49 | 3.55 | 3.79 | 3.51 | 4.06 | 11.85 | 1.00 | 3.73 | 1.68 | 2.67 | 45.52 |
| 1991 | 4.74 | 0.84 | 4.70 | 6.39 | 0.64 | 4.54 | 6.46 | 3.77 | 2.04 | 4.65 | 1.72 | 2.43 | 42.92 |
| 1992 | 4.48 | 2.07 | 2.63 | 1.26 | 3.46 | 2.22 | 4.52 | 14.32 | 2.06 | 2.85 | 4.26 | 3.15 | 47.28 |
| 1993 | 4.89 | 2.36 | 5.91 | 3.59 | 2.88 | 2.79 | 0.36 | 1.45 | 4.14 | 3.40 | 0.97 | 3.29 | 36.03 |
| 1994 | 4.06 | 3.64 | 10.36 | 0.56 | 3.52 | 1.27 | 14.37 | 3.65 | 2.02 | 2.50 | 5.25 | 1.20 | 52.40 |
| 1995 | 2.40 | 2.80 | 2.95 | 2.76 | 2.42 | 4.54 | 1.78 | 1.50 | 5.05 | 4.82 | 2.94 | 1.86 | 35.82 |
| 1996 | 5.49 | 3.04 | 3.46 | 4.94 | 3.59 | 6.60 | 7.46 | 5.19 | 2.72 | 4.71 | 2.87 | 3.86 | 53.93 |
| 1997 | 2.09 | 2.94 | 3.21 | 3.01 | 1.66 | 1.10 | 7.85 | 1.76 | 1.97 | 4.31 | 4.94 | 2.64 | 37.48 |
| 1998 | 6.02 | 8.21 | 4.15 | 4.31 | 3.99 | 4.56 | 3.91 | 8.47 | 2.25 | 1.73 | 1.83 | 5.33 | 54.76 |
| POR= 128 YRS | 3.39 | 3.38 | 3.80 | 3.24 | 3.65 | 3.96 | 5.53 | 5.29 | 3.77 | 3.11 | 2.61 | 3.13 | 44.86 |

WBAN : 13737

AVERAGE TEMPERATURE (°F) 1998 NORFOLK, VA (ORF)

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| 1969 | 38.5 | 39.8 | 44.7 | 59.8 | 67.4 | 77.1 | 79.2 | 76.2 | 71.1 | 62.2 | 49.1 | 40.9 | 58.8 |
| 1970 | 33.9 | 39.3 | 44.7 | 56.7 | 67.5 | 74.9 | 76.9 | 78.0 | 74.7 | 63.7 | 51.7 | 47.0 | 59.1 |
| 1971 | 38.6 | 44.7 | 46.9 | 55.9 | 65.0 | 76.0 | 77.2 | 75.7 | 73.2 | 66.7 | 52.4 | 52.3 | 60.4 |
| 1972 | 46.4 | 43.2 | 49.0 | 56.4 | 63.5 | 70.5 | 77.6 | 75.8 | 71.9 | 59.2 | 51.6 | 49.2 | 59.5 |
| 1973 | 40.5 | 39.7 | 52.3 | 58.5 | 66.9 | 76.9 | 78.3 | 78.5 | 75.0 | 64.2 | 53.5 | 46.2 | 60.9 |
| 1974 | 48.6 | 43.4 | 53.1 | 60.8 | 66.8 | 72.8 | 78.3 | 77.4 | 71.4 | 58.7 | 53.5 | 46.0 | 60.9 |
| 1975 | 46.0 | 45.4 | 47.4 | 52.7 | 68.3 | 77.0 | 78.6 | 79.6 | 72.3 | 63.4 | 55.7 | 43.2 | 60.8 |
| 1976 | 38.9 | 49.9 | 53.4 | 61.9 | 66.3 | 75.9 | 78.2 | 75.9 | 71.1 | 57.7 | 45.9 | 41.4 | 59.7 |
| 1977 | 29.2 | 41.5 | 54.7 | 61.9 | 68.2 | 74.3 | 81.4 | 81.0 | 76.3 | 60.5 | 54.8 | 43.5 | 60.6 |
| 1978 | 37.0 | 32.6 | 46.1 | 57.2 | 65.6 | 74.1 | 76.1 | 80.5 | 73.2 | 60.8 | 56.0 | 45.3 | 58.7 |
| 1979 | 39.4 | 33.3 | 49.1 | 58.1 | 66.7 | 70.4 | 77.1 | 78.5 | 72.8 | 60.4 | 56.4 | 44.9 | 58.9 |
| 1980 | 40.3 | 34.7 | 46.5 | 58.6 | 67.8 | 73.9 | 80.9 | 80.9 | 76.1 | 60.4 | 49.9 | 42.3 | 59.4 |
| 1981 | 32.7 | 43.1 | 45.4 | 61.2 | 65.1 | 78.3 | 79.8 | 75.1 | 70.7 | 59.6 | 50.7 | 41.0 | 58.6 |
| 1982 | 35.4 | 42.0 | 48.8 | 55.0 | 69.4 | 73.4 | 78.6 | 75.3 | 70.0 | 60.2 | 54.4 | 48.8 | 59.3 |
| 1983 | 40.2 | 40.8 | 51.0 | 55.7 | 65.8 | 73.0 | 80.3 | 79.0 | 72.8 | 62.7 | 52.6 | 41.6 | 59.6 |
| 1984 | 35.5 | 46.7 | 45.4 | 55.6 | 67.8 | 76.2 | 76.7 | 78.4 | 70.5 | 66.9 | 49.9 | 50.9 | 60.0 |
| 1985 | 34.9 | 40.4 | 51.8 | 62.0 | 68.8 | 74.2 | 78.2 | 77.2 | 73.4 | 65.9 | 60.3 | 41.2 | 60.7 |
| 1986 | 39.3 | 42.1 | 49.9 | 57.3 | 67.6 | 76.1 | 82.1 | 76.6 | 72.4 | 65.4 | 54.9 | 44.8 | 60.7 |
| 1987 | 39.6 | 38.7 | 47.5 | 54.6 | 68.3 | 77.0 | 82.4 | 79.6 | 74.3 | 56.6 | 54.3 | 46.0 | 59.9 |
| 1988 | 37.3 | 42.5 | 49.5 | 56.5 | 65.8 | 73.6 | 80.1 | 80.8 | 70.5 | 56.9 | 54.2 | 42.4 | 59.2 |
| 1989 | 45.3 | 43.6 | 50.1 | 56.5 | 65.6 | 78.5 | 79.2 | 77.7 | 73.9 | 62.7 | 53.3 | 34.8 | 60.1 |
| 1990 | 47.3 | 50.2 | 53.2 | 58.7 | 66.6 | 75.5 | 80.6 | 78.0 | 71.6 | 65.9 | 55.0 | 50.5 | 62.8 |
| 1991 | 43.5 | 46.0 | 52.7 | 61.6 | 72.8 | 76.2 | 82.0 | 79.5 | 72.3 | 61.9 | 52.7 | 47.6 | 62.4 |
| 1992 | 42.7 | 45.0 | 48.8 | 58.2 | 62.4 | 72.0 | 81.8 | 75.6 | 73.5 | 59.7 | 53.8 | 44.6 | 59.8 |
| 1993 | 44.2 | 39.1 | 46.8 | 57.3 | 68.5 | 76.1 | 83.4 | 78.9 | 74.6 | 61.3 | 53.5 | 41.5 | 60.4 |
| 1994 | 36.5 | 43.4 | 51.7 | 64.7 | 64.9 | 79.6 | 83.0 | 77.6 | 72.4 | 62.0 | 57.5 | 50.1 | 62.0 |
| 1995 | 45.1 | 41.5 | 51.7 | 60.4 | 67.9 | 75.8 | 83.3 | 80.1 | 72.2 | 65.5 | 48.4 | 40.0 | 61.0 |
| 1996 | 38.7 | 41.3 | 45.0 | 58.8 | 65.2 | 75.2 | 77.7 | 74.9 | 72.4 | 61.8 | 46.5 | 46.7 | 58.7 |
| 1997 | 41.3 | 46.0 | 51.5 | 54.6 | 64.0 | 72.0 | 79.1 | 76.4 | 72.0 | 62.1 | 50.3 | 43.5 | 59.4 |
| 1998 | 46.5 | 47.2 | 50.8 | 58.9 | 67.5 | 75.9 | 79.0 | 78.9 | 75.3 | 61.9 | 52.6 | 48.7 | 61.9 |
| POR= 124 YRS | 41.1 | 42.2 | 48.9 | 57.5 | 66.7 | 74.7 | 78.8 | 77.6 | 72.4 | 62.1 | 52.3 | 43.7 | 59.8 |

HEATING DEGREE DAYS (base 65°F) 1998 NORFOLK, VA (ORF)

| YEAR | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | TOTAL |
|---------|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-------|
| 1969-70 | 0 | 0 | 8 | 131 | 469 | 741 | 960 | 714 | 622 | 263 | 57 | 0 | 3965 |
| 1970-71 | 0 | 0 | 16 | 93 | 393 | 552 | 812 | 567 | 555 | 269 | 69 | 0 | 3326 |
| 1971-72 | 0 | 0 | 3 | 27 | 391 | 390 | 572 | 628 | 494 | 272 | 81 | 11 | 2869 |
| 1972-73 | 0 | 0 | 4 | 197 | 406 | 486 | 752 | 703 | 403 | 217 | 47 | 0 | 3215 |
| 1973-74 | 0 | 0 | 0 | 83 | 353 | 575 | 504 | 599 | 377 | 183 | 63 | 0 | 2737 |
| 1974-75 | 0 | 0 | 16 | 213 | 371 | 584 | 584 | 547 | 541 | 382 | 47 | 0 | 3285 |
| 1975-76 | 0 | 0 | 6 | 98 | 290 | 671 | 804 | 443 | 362 | 186 | 62 | 6 | 2928 |
| 1976-77 | 0 | 0 | 0 | 245 | 566 | 726 | 1104 | 657 | 330 | 150 | 40 | 1 | 3819 |
| 1977-78 | 0 | 0 | 0 | 158 | 321 | 661 | 860 | 902 | 580 | 235 | 72 | 3 | 3792 |
| 1978-79 | 0 | 0 | 3 | 162 | 268 | 614 | 787 | 879 | 499 | 213 | 52 | 5 | 3482 |
| 1979-80 | 0 | 0 | 0 | 190 | 272 | 616 | 759 | 872 | 564 | 196 | 58 | 2 | 3529 |
| 1980-81 | 0 | 0 | 11 | 181 | 449 | 699 | 994 | 610 | 605 | 159 | 96 | 0 | 3804 |
| 1981-82 | 0 | 0 | 12 | 189 | 423 | 739 | 907 | 636 | 495 | 303 | 21 | 0 | 3725 |
| 1982-83 | 0 | 4 | 6 | 177 | 334 | 498 | 762 | 674 | 426 | 295 | 85 | 3 | 3264 |
| 1983-84 | 0 | 0 | 27 | 126 | 370 | 718 | 908 | 522 | 601 | 281 | 54 | 3 | 3610 |
| 1984-85 | 0 | 0 | 16 | 37 | 450 | 432 | 928 | 686 | 421 | 172 | 21 | 0 | 3163 |
| 1985-86 | 0 | 0 | 6 | 61 | 162 | 731 | 790 | 637 | 465 | 228 | 69 | 1 | 3150 |
| 1986-87 | 0 | 1 | 8 | 88 | 311 | 620 | 779 | 730 | 538 | 306 | 58 | 0 | 3439 |
| 1987-88 | 0 | 0 | 0 | 252 | 320 | 582 | 851 | 646 | 474 | 266 | 86 | 15 | 3492 |
| 1988-89 | 0 | 0 | 2 | 265 | 324 | 692 | 602 | 601 | 486 | 282 | 80 | 0 | 3334 |
| 1989-90 | 0 | 0 | 12 | 134 | 356 | 928 | 541 | 417 | 410 | 234 | 39 | 3 | 3074 |
| 1990-91 | 0 | 0 | 13 | 102 | 301 | 444 | 657 | 527 | 386 | 166 | 19 | 2 | 2617 |
| 1991-92 | 0 | 0 | 22 | 132 | 377 | 542 | 686 | 575 | 496 | 262 | 125 | 1 | 3218 |
| 1992-93 | 0 | 0 | 9 | 179 | 337 | 623 | 638 | 722 | 555 | 246 | 22 | 5 | 3336 |
| 1993-94 | 0 | 0 | 10 | 140 | 353 | 726 | 877 | 599 | 414 | 111 | 89 | 0 | 3319 |
| 1994-95 | 0 | 0 | 0 | 113 | 239 | 463 | 614 | 651 | 411 | 190 | 45 | 0 | 2726 |
| 1995-96 | 0 | 0 | 4 | 80 | 497 | 769 | 810 | 681 | 614 | 237 | 99 | 7 | 3798 |
| 1996-97 | 0 | 0 | 1 | 123 | 559 | 561 | 728 | 532 | 418 | 314 | 82 | 44 | 3362 |
| 1997-98 | 0 | 0 | 1 | 148 | 434 | 663 | 573 | 492 | 466 | 211 | 60 | 0 | 3048 |
| 1998- | 0 | 0 | 2 | 127 | 367 | 513 | | | | | | | |

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COOLING DEGREE DAYS (base 65°F) 1998 NORFOLK, VA (ORF)

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|
| 1969 | 0 | 0 | 0 | 42 | 125 | 369 | 446 | 357 | 199 | 49 | 0 | 0 | 1587 |
| 1970 | 1 | 0 | 0 | 19 | 140 | 303 | 374 | 412 | 311 | 60 | 0 | 0 | 1620 |
| 1971 | 0 | 3 | 0 | 3 | 76 | 336 | 383 | 343 | 259 | 87 | 23 | 5 | 1518 |
| 1972 | 0 | 0 | 8 | 20 | 40 | 183 | 398 | 343 | 217 | 22 | 10 | 2 | 1243 |
| 1973 | 0 | 0 | 16 | 27 | 112 | 363 | 420 | 424 | 307 | 64 | 17 | 1 | 1751 |
| 1974 | 3 | 0 | 16 | 64 | 124 | 244 | 419 | 390 | 213 | 26 | 32 | 0 | 1531 |
| 1975 | 2 | 3 | 0 | 22 | 157 | 366 | 429 | 460 | 233 | 55 | 17 | 0 | 1744 |
| 1976 | 1 | 13 | 11 | 102 | 110 | 337 | 417 | 347 | 193 | 27 | 0 | 0 | 1558 |
| 1977 | 0 | 4 | 16 | 66 | 145 | 289 | 515 | 502 | 347 | 24 | 22 | 0 | 1930 |
| 1978 | 0 | 0 | 0 | 9 | 96 | 286 | 352 | 487 | 257 | 36 | 3 | 9 | 1535 |
| 1979 | 0 | 0 | 11 | 13 | 112 | 171 | 385 | 426 | 239 | 54 | 22 | 0 | 1433 |
| 1980 | 0 | 0 | 0 | 11 | 153 | 274 | 499 | 497 | 351 | 45 | 1 | 1 | 1832 |
| 1981 | 0 | 0 | 0 | 51 | 103 | 407 | 468 | 320 | 189 | 29 | 0 | 0 | 1567 |
| 1982 | 0 | 0 | 1 | 8 | 166 | 257 | 428 | 331 | 164 | 39 | 21 | 4 | 1419 |
| 1983 | 0 | 0 | 0 | 21 | 115 | 250 | 481 | 440 | 265 | 62 | 4 | 0 | 1638 |
| 1984 | 0 | 0 | 0 | 5 | 146 | 345 | 368 | 426 | 188 | 102 | 5 | 2 | 1587 |
| 1985 | 0 | 5 | 20 | 91 | 146 | 284 | 419 | 382 | 267 | 97 | 28 | 0 | 1739 |
| 1986 | 0 | 0 | 2 | 2 | 153 | 343 | 537 | 367 | 237 | 109 | 15 | 0 | 1765 |
| 1987 | 0 | 0 | 0 | 2 | 168 | 364 | 544 | 461 | 285 | 0 | 7 | 0 | 1831 |
| 1988 | 0 | 0 | 1 | 18 | 118 | 280 | 477 | 498 | 173 | 17 | 10 | 0 | 1592 |
| 1989 | 0 | 9 | 30 | 31 | 106 | 412 | 447 | 399 | 286 | 69 | 10 | 0 | 1799 |
| 1990 | 0 | 8 | 52 | 51 | 98 | 324 | 489 | 407 | 218 | 137 | 8 | 5 | 1797 |
| 1991 | 0 | 0 | 13 | 71 | 269 | 347 | 534 | 456 | 248 | 43 | 18 | 11 | 2010 |
| 1992 | 0 | 0 | 0 | 63 | 51 | 220 | 527 | 336 | 270 | 23 | 9 | 0 | 1499 |
| 1993 | 0 | 0 | 0 | 23 | 136 | 345 | 579 | 438 | 305 | 31 | 18 | 0 | 1875 |
| 1994 | 0 | 0 | 11 | 111 | 94 | 447 | 562 | 400 | 229 | 30 | 20 | 8 | 1912 |
| 1995 | 2 | 0 | 4 | 59 | 143 | 330 | 574 | 475 | 226 | 102 | 6 | 0 | 1921 |
| 1996 | 0 | 0 | 1 | 55 | 116 | 320 | 401 | 312 | 227 | 31 | 10 | 0 | 1473 |
| 1997 | 0 | 7 | 7 | 7 | 59 | 262 | 443 | 360 | 218 | 63 | 0 | 0 | 1426 |
| 1998 | 7 | 0 | 33 | 37 | 143 | 338 | 440 | 440 | 317 | 39 | 0 | 12 | 1806 |

SNOWFALL (inches) 1998 NORFOLK, VA (ORF)

| YEAR | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | TOTAL |
|----------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-------|
| 1969-70 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T | 3.0 | 2.8 | T | 0.0 | 0.0 | 0.0 | 5.8 |
| 1970-71 | 0.0 | 0.0 | 0.0 | 0.0 | T | T | T | 2.4 | 4.2 | T | 0.0 | 0.0 | 6.6 |
| 1971-72 | 0.0 | 0.0 | 0.0 | 0.0 | T | T | 0.0 | 1.8 | T | T | 0.0 | 0.0 | 1.8 |
| 1972-73 | 0.0 | 0.0 | 0.0 | 0.0 | T | 0.0 | 9.1 | 4.7 | T | 0.0 | 0.0 | 0.0 | 13.8 |
| 1973-74 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | T | 0.9 | 7.5 | 0.0 | 0.0 | 0.0 | 9.8 |
| 1974-75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T | 0.3 | T | 0.8 | T | 0.0 | 0.0 | 1.1 |
| 1975-76 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T | T | T | 0.0 | 0.0 | 0.0 | 0.0 | T |
| 1976-77 | 0.0 | 0.0 | 0.0 | 0.0 | T | 1.0 | 4.7 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 7.1 |
| 1977-78 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T | 1.3 | 9.2 | 2.3 | 0.0 | 0.0 | 0.0 | 12.8 |
| 1978-79 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 12.7 | T | 0.0 | 0.0 | 0.0 | 13.7 |
| 1979-80 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.3 | 18.9 | 13.7 | 0.0 | 0.0 | 0.0 | 41.9 |
| 1980-81 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T | T | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.3 |
| 1981-82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 4.2 | 0.1 | T | T | 0.0 | 0.0 | 6.1 |
| 1982-83 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | T | 3.0 | T | T | 0.0 | 0.0 | 3.4 |
| 1983-84 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T | T | 5.2 | T | 0.0 | 0.0 | 0.0 | 5.2 |
| 1984-85 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T | 4.3 | 0.0 | T | 0.0 | 0.0 | 0.0 | 4.3 |
| 1985-86 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T | 3.6 | 1.1 | T | T | 0.0 | 0.0 | 4.7 |
| 1986-87 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T | 1.6 | 1.0 | 1.2 | T | 0.0 | 0.0 | 3.8 |
| 1987-88 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | T | 4.4 | T | T | 0.0 | 0.0 | 0.0 | 4.7 |
| 1988-89 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T | T | 24.4 | T | 0.5 | 0.0 | 0.0 | 24.9 |
| 1989-90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | T | 0.0 | 0.0 | T | 0.5 |
| 1990-91 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T | 0.0 | T | T | 0.0 | 0.0 | 0.0 | T |
| 1991-92 | 0.0 | T | 0.0 | 0.0 | 0.0 | T | T | 0.0 | T | T | 0.0 | 0.0 | T |
| 1992-93 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 1.9 | 1.7 | 0.0 | 0.0 | 0.0 | 3.9 |
| 1993-94 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.9 | 7.4 | 1.2 | 0.3 | 0.0 | T | 0.0 | 12.8 |
| 1994-95 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T | 0.3 | T | 0.0 | 0.0 | 0.0 | 0.3 |
| 1995-96 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T | 6.2 | 11.0 | | | | | |
| 1996-97 | | | | | | | | | | | | | |
| 1997-98 | | | | | | | | | | | | | |
| 1998- | | | | | | | | | | | | | |
| POR= 47 YRS | 0.0 | T | 0.0 | 0.0 | 0.0 | 0.9 | 2.7 | 2.9 | 1.0 | 0.0 | T | T | 7.5 |

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REFERENCE NOTES:

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| <p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1961 - 1990). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD.</p> | <p>GENERAL CONTINUED: CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED. WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65° F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.</p> <p>ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTHS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p> |
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1998
NORFOLK,
VIRGINIA (ORF)

The city of Norfolk, Virginia, is located near the coast and the southern border of the state. It is almost surrounded by water, with the Chesapeake Bay immediately to the north, Hampton Roads to the west, and the Atlantic Ocean only 18 miles to the east. It is traversed by numerous rivers and waterways and its average elevation above sea level is 13 feet. There are no nearby hilly areas and the land is low and level throughout the city. The climate is generally marine. The geographic location of the city with respect to the principal storm tracks, is especially favorable, being south of the average path of storms originating in the higher latitudes and north of the usual tracks of hurricanes and other tropical storms.

The winters are usually mild, while the autumn and spring seasons usually are delightful. Summers, though warm and long, frequently are tempered by cool periods, often associated with northeasterly winds off the Atlantic. Temperatures of 100 degrees or higher occur infrequently. Extreme cold waves seldom penetrate the area and temperatures of zero or below are almost nonexistent. Winters pass, on occasion, without a measurable amount of snowfall. Most of the snowfall in Norfolk is light and generally melts within 24 hours.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is November 17 and the average last occurrence in the spring is March 23.

STATION LOCATION

NORFOLK, VIRGINIA

| LOCATION | OCCUPIED FROM | OCCUPIED TO | AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION | LATITUDE NORTH | LONGITUDE WEST | ELEVATION ABOVE | | | | | | | | | | AUTOMATED | * Type | REMARKS |
|-------------------------------------------------------------------------------------------------|---------------|-------------|---------------------------------------------------------|----------------|----------------|-----------------|--------------------------|------|------|------|------|------|------|----------------|------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | | | SEA LEVEL | GROUND | | | | | | | | | | | |
| | | | | | | | WIND | WIND | WIND | WIND | WIND | WIND | WIND | WIND | WIND | | | |
| CITY - - NOTE: For period January 1, 1871 through January 31, 1888, refer to previous editions. | | | | | | | | | | | | | | | | | | |
| Dodson Building (5th Floor) 53-55 Main Street | 2/01/88 | 1/23/90 | 500 ft. W | 36° 51' | 76° 18' | 10 | 85 | 82 | 82 | | | | | | | | | |
| Dodson Building (2nd Floor) 53-55 Main Street | 1/24/90 | 5/18/92 | Same Bldg. | 36° 51' | 76° 18' | 10 | 93 | 82 | 82 | | | | | | | | | |
| Dodson Building (3rd Floor) 53-55 Main Street | 5/19/92 | 12/31/98 | Same Bldg. | 36° 51' | 76° 18' | 10 | 93 | 82 | 82 | | | 80 | | 80 | | | | Tipping bucket gage installed about 1897. |
| Citizens Bank Building 191-195 Main Street | 1/01/99 | 12/31/12 | 200 ft. E | 36° 51' | 76° 18' | 10 | 111 | 98 | 98 | | | | | 96 | | | | |
| Royster Building 201-203 Granby Street | 1/01/13 | 2/22/17 | 500 ft. N | 36° 51' | 76° 18' | 9 | 205 | 170 | 170 | | | | | 163 | | | | |
| Royster Building 201-203 Granby Street | 2/23/17 | 11/30/34 | Same Bldg. | 36° 51' | 76° 18' | 9 | 205 | 170 | 170 | | | | | 178 | | | | One story added to part of building. Rain gages relocated. |
| U.S. Post Office and Fed. Court Building 600 Granby Street | 12/01/34 | 7/31/53 | 1000 ft. N | 36° 51' | 76° 17' | 11 | 125 | 80 | 80 | | | | | 73 | | | | WBO Norfolk was combined with WBAS at the Norfolk Municipal Airport on 8/1/53. |
| COOPERATIVE Virginia Electric Gas Plant, Starr and Monticello Streets | 8/01/53 | 1965 | 0.3 mi. N | 36° 52' | 76° 17' | 11 | | 5 | | | | | | | | | | |
| AIRPORT Norfolk Municipal AP 5.4 Airline Miles ENE of Post Office | 7/08/38 | 5/01/40 | NA | 36° 53' | 76° 12' | 25 | 25 | | 5 | | | | | | | | | |
| Norfolk Municipal AP | 5/01/40 | 3/05/52 | 900 ft. WNW | 36° 53' | 76° 12' | 25 | 55 | 6 | 6 | | | | | | | | | |
| Norfolk Municipal AP+ | 3/05/52 | Present | 0.25 mi. N | 36° 54' | 76° 12' | c24 | a34 b78 e20 h33 | 6 | 6 | %64 | 3 | NA | 3 | #4 f4 g4 | NA | | | # - Telepsychrometer (4') 3/5/52 to 8/31/59. Hygro comm. 470' SE of office 8/31/59. a - Direct reading sensor on field. b - Autographic record sensor. c - 26 ft. to 8/31/59 and 22 ft. to 12/8/59. d - Data source to 8/31/59. e - Relocated 8/24/73. f - Moved 1210 ft. Se on 5/18/78. g - Commissioned 8/2/53. h - Type change 1/22/80. i - Moved 80 ft. NW 3/5/82. S - ASOS Commissioned 03/01/96 |

SUBSCRIPTION: Price and ordering information available through: National Climatic Data Center, Federal Building, Asheville, North Carolina 28801. INQUIRIES/COMMENTS CALL: (828) 271-4800

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NOAA Permit No. G - 19