













STATION: 42019

1 - MONTHLY AND ANNUAL FREQUENCY AND CUMULATIVE PERCENT FREQUENCY (10THS)

ELEMENT: DOMINANT WAVE PERIOD (SECONDS) -- POR: (5/1990 - 12/2001) (79731 RECORDS, 94.6% HAVE ELEMENT)

|                          | JAN        |            | FEB        |            | MAR        |            | APR        |            | MAY        |            | JUN        |            | JUL        |     | AUG  |     | SEP  |     | OCT  |     | NOV  |     | DEC  |     | ANN   |     |  |
|--------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-------|-----|--|
|                          | F          | CPF        | F          | CPF        | F          | CPF        | F          | CPF        | F          | CPF        | F          | CPF        | F          | CPF | F    | CPF | F    | CPF | F    | CPF | F    | CPF | F    | CPF | F     | CPF |  |
| 25                       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | 1          | #          | -          | -   | 8    | #   | -    | -   | -    | -   | 6    | #   | -    | -   | 15    | #   |  |
| 24                       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -   | -    | -   | -    | -   | -    | -   | -    | -   | -    | -   | 0     | 999 |  |
| 23                       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -   | -    | -   | -    | -   | -    | -   | -    | -   | -    | -   | 0     | 999 |  |
| 22                       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -   | -    | -   | -    | -   | -    | -   | -    | -   | -    | -   | 0     | 999 |  |
| 21                       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -   | -    | -   | -    | -   | -    | -   | -    | -   | -    | -   | 0     | 999 |  |
| 20                       | -          | -          | -          | -          | 1          | #          | -          | -          | -          | -          | 5          | 999        | 4          | #   | 4    | 999 | -    | -   | -    | -   | 2    | 999 | -    | -   | 16    | 999 |  |
| 19                       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -   | -    | -   | -    | -   | -    | -   | -    | -   | -    | -   | 0     | 999 |  |
| 18                       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -   | -    | -   | -    | -   | -    | -   | -    | -   | -    | -   | 0     | 999 |  |
| 17                       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | 3          | 999        | 2          | 999 | 5    | 998 | 2    | #   | -    | -   | 2    | 999 | -    | -   | 14    | 999 |  |
| 16                       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -   | -    | -   | -    | -   | -    | -   | -    | -   | -    | -   | 0     | 999 |  |
| 15                       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -   | -    | -   | -    | -   | -    | -   | -    | -   | -    | -   | 0     | 999 |  |
| 14                       | -          | -          | -          | -          | 1          | 999        | -          | -          | -          | -          | 1          | 999        | 2          | 999 | 7    | 998 | 4    | 999 | 1    | #   | 1    | 999 | -    | -   | 17    | 999 |  |
| 13                       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | 1          | 998        | 1          | 999 | 4    | 997 | 5    | 999 | 11   | 999 | 6    | 999 | -    | -   | 28    | 999 |  |
| 12                       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -   | -    | -   | -    | -   | -    | -   | -    | -   | -    | -   | 0     | 999 |  |
| 11                       | -          | -          | 4          | #          | 9          | 999        | -          | -          | 6          | #          | -          | -          | 1          | 999 | 22   | 996 | 22   | 998 | 80   | 998 | 51   | 998 | 19   | #   | 214   | 999 |  |
| 10                       | 39         | #          | 111        | 999        | 126        | 998        | 27         | #          | 6          | 999        | 17         | 998        | 12         | 999 | 52   | 993 | 127  | 995 | 253  | 987 | 80   | 991 | 50   | 997 | 900   | 996 |  |
| 9                        | 118        | 992        | 174        | 981        | 324        | 979        | 201        | 996        | 66         | 998        | 96         | 995        | 55         | 997 | 87   | 986 | 97   | 977 | 415  | 953 | 301  | 981 | 182  | 990 | 2116  | 985 |  |
| 8                        | 805        | 968        | 914        | 951        | 1260       | 930        | 1483       | 964        | 627        | 987        | 624        | 980        | 355        | 989 | 396  | 975 | 595  | 963 | 1652 | 896 | 1550 | 943 | 976  | 965 | 11237 | 958 |  |
| 7                        | 1352       | 806        | 1490       | 797        | 1488       | 739        | 1746       | 733        | 1676       | 884        | 1295       | 877        | 1047       | 937 | 677  | 921 | 1312 | 878 | 1460 | 671 | 1998 | 748 | 1863 | 828 | 17404 | 817 |  |
| 6                        | 1508       | 535        | 1827       | 546        | 1671       | 514        | 1656       | 460        | 1900       | 607        | 2136       | 665        | 2218       | 785 | 2051 | 830 | 1964 | 691 | 1803 | 472 | 2089 | 496 | 2114 | 566 | 22937 | 599 |  |
| 5                        | 699        | 231        | 941        | 239        | 1076       | 260        | 855        | 201        | 1280       | 293        | 1263       | 315        | 2165       | 462 | 2289 | 553 | 1740 | 410 | 1072 | 226 | 1168 | 232 | 1222 | 269 | 15770 | 311 |  |
| 4                        | 370        | 91         | 326        | 80         | 484        | 97         | 359        | 68         | 420        | 82         | 530        | 108        | 849        | 148 | 1251 | 245 | 916  | 161 | 493  | 80  | 506  | 85  | 606  | 97  | 7110  | 114 |  |
| 3                        | 79         | 16         | 108        | 25         | 159        | 24         | 73         | 11         | 76         | 13         | 129        | 21         | 167        | 24  | 401  | 76  | 176  | 30  | 94   | 13  | 166  | 21  | 84   | 12  | 1712  | 24  |  |
| 2                        | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -   | -    | -   | -    | -   | -    | -   | 1    | *   | -    | -   | 1     | 3   |  |
| 1                        | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -   | -    | -   | -    | -   | -    | -   | -    | -   | -    | -   | 0     | 3   |  |
| 0                        | 1          | *          | 41         | 7          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -   | 163  | 22  | 33   | 5   | -    | -   | 1    | *   | 1    | *   | 240   | 3   |  |
| MEAN                     | 6.3        |            | 6.3        |            | 6.4        |            | 6.5        |            | 6.1        |            | 6.0        |            | 5.6        |     | 5.3  |     | 5.8  |     | 6.7  |     | 6.5  |     | 6.2  |     | 6.1   |     |  |
| S.D.                     | 1.3        |            | 1.5        |            | 1.5        |            | 1.3        |            | 1.2        |            | 1.3        |            | 1.2        |     | 1.8  |     | 1.5  |     | 1.6  |     | 1.6  |     | 1.3  |     | 1.5   |     |  |
| TOTAL                    | 4971       |            | 5936       |            | 6599       |            | 6400       |            | 6057       |            | 6101       |            | 6878       |     | 7417 |     | 6993 |     | 7334 |     | 7928 |     | 7117 |     | 79731 |     |  |
| MAX                      | 10.0       |            | 11.1       |            | 20.0       |            | 10.0       |            | 11.1       |            | 25.0       |            | 20.0       |     | 25.0 |     | 16.7 |     | 14.3 |     | 25.0 |     | 11.1 |     | 25.0  |     |  |
| DATE                     | 1997011611 | 1998022705 | 2001032120 | 1998041513 | 1991052319 | 2001062420 | 2000073021 | 2001082520 | 2001091919 | 2001102919 | 2001111322 | 1991122213 | 2001111322 |     |      |     |      |     |      |     |      |     |      |     |       |     |  |
| MIN                      | 0.0        |            | 0.0        |            | 2.5        |            | 2.5        |            | 2.6        |            | 2.5        |            | 2.5        |     | 0.0  |     | 0.0  |     | 2.5  |     | 0.0  |     | 0.0  |     | 0.0   |     |  |
| DATE                     | 1996011319 | 1998020811 | 2001032213 | 1994042405 | 1998052003 | 2001062318 | 2000070905 | 1999083105 | 1996091415 | 1990101409 | 2000110107 | 1997121820 | 2000110107 |     |      |     |      |     |      |     |      |     |      |     |       |     |  |
| (* < 0.05% , # = 100.0%) |            |            |            |            |            |            |            |            |            |            |            |            |            |     |      |     |      |     |      |     |      |     |      |     |       |     |  |

ELEMENT SUMMARY FOR STATION: 42019

(A) TOTAL STD MET RECORDS READ = 84253

(B) TOTAL C WIND RECORDS READ = 0

(C) TOTAL RECORDS USED IN STATS = 84253

|                               | AIR   | TMP   | SEA   | TMP   | AIR-SEA | DEWP  | SLP   | AVWS | PKGS-8M | PKGS-5S | SIGWHT | AVWVPD | DWVPD | VSBY |
|-------------------------------|-------|-------|-------|-------|---------|-------|-------|------|---------|---------|--------|--------|-------|------|
| (D) ELEMENT RECORDS AVAILABLE | 83797 | 75651 | 75639 | 23062 | 81894   | 79854 | 79814 | 0    | 79731   | 79731   | 79731  | 0      |       |      |
| (E) ELEMENT OUT OF RANGE      | 456   | 8602  | 8614  | 61191 | 2359    | 4399  | 4439  | 0    | 4522    | 4522    | 4522   | 84253  |       |      |

STATION: 42019 -- POR (5/1990 - 12/2001)

2 - MEANS & EXTREMES BASED ON HOURLY (GMT) OBSERVATIONS -- MONTHLY & ANNUAL BY YEAR

ELEMENT: AIR TEMPERATURE (DEGREES C)

| YEAR | ELEMENT | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC   | ANN  |
|------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 1990 | MEAN    | -     | -     | -     | -     | 27.1  | 28.3  | 28.1  | 28.8  | 27.6  | 24.2  | 21.9  | 18.8  | 25.4 |
|      | MAXIMUM | -     | -     | -     | -     | 29.1  | 31.2  | 30.0  | 30.2  | 30.4  | 30.0  | 25.9  | 24.2  | 31.2 |
|      | DAY-HR  | -     | -     | -     | -     | 28-22 | 24-22 | 29-22 | 25-21 | 15-23 | 04-21 | 04-18 | 03-09 | JUN  |
|      | MINIMUM | -     | -     | -     | -     | 25.9  | 23.0  | 24.2  | 26.8  | 22.6  | 16.8  | 13.3  | 4.9   | 4.9  |
|      | DAY-HR  | -     | -     | -     | -     | 26-09 | 10-14 | 16-21 | 27-22 | 01-12 | 10-16 | 05-13 | 24-09 | DEC  |
|      | # OBS   | -     | -     | -     | -     | 163   | 715   | 743   | 743   | 718   | 741   | 719   | 742   | 5284 |
| 1991 | MEAN    | 17.4  | 17.9  | 19.7  | 23.1  | 25.5  | 27.3  | -     | 28.5  | 27.4  | 25.3  | 19.5  | 19.6  | 22.3 |
|      | MAXIMUM | 23.0  | 22.2  | 23.0  | 26.6  | 27.8  | 29.7  | -     | 30.5  | 29.7  | 27.7  | 24.8  | 23.8  | 30.5 |
|      | DAY-HR  | 10-16 | 19-12 | 28-23 | 28-22 | 27-23 | 06-20 | -     | 22-17 | 01-15 | 05-05 | 19-22 | 02-09 | AUG  |
|      | MINIMUM | 10.0  | 12.1  | 12.0  | 15.7  | 21.1  | 23.7  | -     | 24.2  | 22.3  | 18.0  | 12.0  | 12.4  | 10.0 |
|      | DAY-HR  | 22-00 | 26-16 | 03-15 | 01-01 | 08-22 | 09-13 | -     | 27-16 | 25-20 | 31-23 | 09-11 | 02-18 | JAN  |
|      | # OBS   | 744   | 672   | 744   | 719   | 744   | 256   | -     | 411   | 714   | 741   | 717   | 744   | 7206 |
| 1992 | MEAN    | 16.7  | 18.2  | 19.1  | 21.0  | 23.7  | 27.5  | 28.6  | 27.9  | 27.8  | 25.2  | 20.1  | 20.5  | 23.0 |
|      | MAXIMUM | 22.6  | 22.0  | 21.9  | 25.0  | 26.3  | 30.1  | 29.6  | 29.8  | 29.4  | 27.3  | 26.7  | 24.0  | 30.1 |
|      | DAY-HR  | 08-17 | 23-20 | 09-18 | 24-21 | 29-04 | 26-23 | 22-21 | 01-15 | 03-23 | 16-18 | 01-16 | 04-17 | JUN  |

|      |         |       |       |       |       |       |       |       |       |       |       |       |       |          |
|------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
|      | MINIMUM | 9.0   | 10.7  | 11.0  | 13.8  | 18.7  | 22.6  | 24.5  | 22.6  | 23.6  | 20.7  | 9.2   | 12.2  | 9.0      |
|      | DAY-HR  | 16-19 | 26-18 | 10-18 | 03-06 | 08-12 | 02-16 | 03-23 | 23-18 | 23-11 | 08-19 | 27-17 | 15-16 | JAN      |
|      | # OBS   | 741   | 691   | 738   | 719   | 740   | 712   | 740   | 739   | 718   | 742   | 707   | 739   | 8726     |
| 1993 | MEAN    | 18.6  | 18.3  | 19.2  | 20.8  | 24.6  | 28.0  | 29.9  | 30.7  | 29.8  | 26.8  | 22.3  | 20.9  | 24.2     |
|      | MAXIMUM | 23.5  | 22.9  | 23.4  | 24.0  | 27.0  | 30.4  | 32.4  | 32.9  | 32.2  | 30.4  | 28.4  | 26.6  | 32.9     |
|      | DAY-HR  | 04-17 | 25-22 | 30-23 | 25-23 | 30-23 | 29-23 | 31-23 | 19-17 | 01-23 | 20-18 | 13-21 | 04-09 | AUG      |
|      | MINIMUM | 10.9  | 11.2  | 6.8   | 13.5  | 18.9  | 23.6  | 28.5  | 26.6  | 24.9  | 11.6  | 11.9  | 10.1  | 6.8      |
|      | DAY-HR  | 26-18 | 18-21 | 13-16 | 15-12 | 02-12 | 02-05 | 18-17 | 21-21 | 15-10 | 31-03 | 26-23 | 24-16 | MAR      |
|      | # OBS   | 739   | 672   | 727   | 718   | 732   | 719   | 744   | 743   | 718   | 744   | 716   | 741   | 8713     |
| 1994 | MEAN    | 18.7  | 17.3  | 18.8  | 21.1  | 24.8  | 27.5  | 28.5  | 28.2  | 27.4  | 25.1  | 23.6  | 21.5  | 23.7     |
|      | MAXIMUM | 24.3  | 21.9  | 22.7  | 24.5  | 28.1  | 29.2  | 30.9  | 30.7  | 30.7  | 29.2  | 26.6  | 25.1  | 30.9     |
|      | DAY-HR  | 06-22 | 22-23 | 27-17 | 28-20 | 31-22 | 25-19 | 18-22 | 06-17 | 05-20 | 03-17 | 09-18 | 09-20 | JUL      |
|      | MINIMUM | 10.2  | 6.4   | 9.3   | 12.5  | 19.9  | 22.9  | 24.3  | 25.0  | 21.9  | 19.9  | 18.2  | 12.6  | 6.4      |
|      | DAY-HR  | 30-21 | 10-16 | 10-03 | 06-20 | 14-05 | 02-13 | 31-14 | 02-13 | 23-13 | 27-23 | 23-22 | 11-15 | FEB      |
|      | # OBS   | 742   | 655   | 742   | 719   | 739   | 716   | 712   | 742   | 717   | 738   | 717   | 384   | 8323     |
| 1995 | MEAN    | -     | -     | -     | -     | -     | -     | 29.0  | 28.9  | 28.4  | 24.9  | 21.6  | 18.6  | 24.7     |
|      | MAXIMUM | -     | -     | -     | -     | -     | -     | 31.5  | 30.8  | 31.6  | 28.9  | 26.1  | 24.3  | 31.6     |
|      | DAY-HR  | -     | -     | -     | -     | -     | -     | 29-01 | 20-21 | 18-21 | 01-03 | 03-04 | 05-22 | SEP      |
|      | MINIMUM | -     | -     | -     | -     | -     | -     | 25.8  | 25.3  | 21.6  | 19.7  | 13.9  | 10.9  | 10.9     |
|      | DAY-HR  | -     | -     | -     | -     | -     | -     | 30-12 | 01-21 | 23-10 | 30-07 | 29-13 | 10-13 | DEC      |
|      | # OBS   | -     | -     | -     | -     | -     | -     | 269   | 725   | 707   | 742   | 713   | 744   | 3900     |
| 1996 | MEAN    | 16.7  | 17.0  | 16.8  | 20.1  | 24.6  | 27.3  | 28.7  | 28.3  | 27.6  | 24.9  | 21.7  | 19.0  | 22.8     |
|      | MAXIMUM | 22.7  | 22.0  | 21.4  | 23.0  | 27.4  | 29.2  | 30.3  | 30.2  | 30.8  | 27.6  | 26.6  | 23.5  | 30.8     |
|      | DAY-HR  | 01-20 | 26-20 | 16-19 | 28-22 | 30-22 | 17-22 | 06-17 | 16-17 | 09-23 | 02-16 | 01-21 | 12-21 | SEP      |
|      | MINIMUM | 4.8   | 3.9   | 6.7   | 11.0  | 18.3  | 24.2  | 26.6  | 23.0  | 21.9  | 16.7  | 9.8   | 5.2   | 3.9      |
|      | DAY-HR  | 07-15 | 04-20 | 08-18 | 06-17 | 01-02 | 21-21 | 26-14 | 30-16 | 28-21 | 22-19 | 25-14 | 19-11 | FEB      |
|      | # OBS   | 738   | 690   | 744   | 736   | 739   | 717   | 838   | 788   | 715   | 733   | 692   | 739   | 8869     |
| 1997 | MEAN    | 16.4  | 17.3  | 20.1  | 20.5  | -     | -     | -     | -     | -     | -     | 20.2  | 17.0  | 18.5     |
|      | MAXIMUM | 23.0  | 21.9  | 23.0  | 23.5  | -     | -     | -     | -     | -     | -     | 24.6  | 23.9  | 24.6     |
|      | DAY-HR  | 04-21 | 28-22 | 29-23 | 26-13 | -     | -     | -     | -     | -     | -     | 28-21 | 09-21 | NOV      |
|      | MINIMUM | 6.6   | 10.3  | 13.7  | 13.3  | -     | -     | -     | -     | -     | -     | 11.7  | 7.0   | 6.6      |
|      | DAY-HR  | 28-20 | 14-21 | 20-10 | 12-19 | -     | -     | -     | -     | -     | -     | 16-07 | 12-19 | JAN      |
|      | # OBS   | 736   | 633   | 740   | 688   | -     | -     | -     | -     | -     | -     | 521   | 689   | 4007     |
| 1998 | MEAN    | 17.5  | 17.7  | 17.9  | 20.4  | 24.3  | 27.8  | 28.8  | 28.8  | 27.9  | 26.0  | 22.9  | 19.8  | 23.8     |
|      | MAXIMUM | 22.0  | 22.1  | 22.2  | 25.0  | 27.7  | 29.8  | 31.5  | 30.1  | 30.0  | 29.0  | 26.6  | 24.6  | 31.5     |
|      | DAY-HR  | 22-05 | 10-20 | 30-20 | 16-22 | 30-19 | 27-21 | 16-23 | 14-21 | 04-00 | 05-22 | 01-22 | 07-20 | JUL      |
|      | MINIMUM | 11.4  | 11.4  | 9.0   | 16.8  | 19.9  | 25.3  | 24.4  | 23.8  | 23.7  | 20.7  | 16.3  | 10.5  | 9.0      |
|      | DAY-HR  | 23-14 | 06-19 | 09-16 | 04-20 | 01-01 | 06-15 | 03-14 | 15-17 | 06-01 | 23-09 | 05-12 | 24-03 | MAR      |
|      | # OBS   | 260   | 663   | 716   | 695   | 738   | 691   | 735   | 789   | 712   | 735   | 718   | 559   | 8011     |
| 1999 | MEAN    | -     | 18.9  | 19.3  | 22.5  | 25.1  | 27.6  | 28.0  | 28.8  | 27.4  | 24.3  | 22.0  | 19.9  | 24.3     |
|      | MAXIMUM | -     | 22.0  | 22.2  | 25.3  | 27.4  | 29.9  | 30.0  | 31.5  | 29.4  | 28.1  | 25.0  | 24.6  | 31.5     |
|      | DAY-HR  | -     | 11-18 | 28-23 | 27-17 | 31-23 | 16-00 | 27-17 | 06-16 | 02-17 | 08-19 | 22-22 | 04-17 | AUG      |
|      | MINIMUM | -     | 10.6  | 9.4   | 16.5  | 21.4  | 23.5  | 23.3  | 24.2  | 21.9  | 17.4  | 13.3  | 12.9  | 9.4      |
|      | DAY-HR  | -     | 12-17 | 14-17 | 15-17 | 12-15 | 16-16 | 09-19 | 31-17 | 29-21 | 19-20 | 25-19 | 05-18 | MAR      |
|      | # OBS   | -     | 602   | 718   | 705   | 742   | 719   | 740   | 740   | 704   | 738   | 711   | 316   | 7435     |
| 2000 | MEAN    | -     | -     | -     | -     | -     | 27.9  | 28.4  | 28.6  | 27.6  | 25.2  | 20.8  | 16.8  | 24.7     |
|      | MAXIMUM | -     | -     | -     | -     | -     | 28.9  | 30.7  | 31.0  | 31.2  | 29.2  | 26.7  | 23.7  | 31.2     |
|      | DAY-HR  | -     | -     | -     | -     | -     | 29-21 | 22-20 | 20-21 | 05-22 | 06-17 | 07-22 | 11-22 | SEP      |
|      | MINIMUM | -     | -     | -     | -     | -     | 27.3  | 24.2  | 24.6  | 19.9  | 13.0  | 12.5  | 7.8   | 7.8      |
|      | DAY-HR  | -     | -     | -     | -     | -     | 24-11 | 31-14 | 01-12 | 26-22 | 09-01 | 19-16 | 27-18 | DEC      |
|      | # OBS   | -     | -     | -     | -     | -     | 174   | 744   | 744   | 716   | 741   | 718   | 743   | 4580     |
| 2001 | MEAN    | 16.0  | 18.9  | 18.4  | 22.6  | 24.9  | 27.4  | 28.6  | 28.8  | 27.5  | 24.4  | 22.7  | 19.7  | 23.4     |
|      | MAXIMUM | 21.9  | 23.0  | 22.7  | 24.8  | 28.1  | 29.2  | 30.7  | 31.4  | 30.8  | 27.7  | 25.7  | 24.6  | 31.4     |
|      | DAY-HR  | 29-10 | 27-22 | 01-00 | 15-22 | 25-23 | 28-18 | 22-22 | 05-22 | 21-16 | 13-11 | 19-19 | 06-22 | AUG      |
|      | MINIMUM | 5.2   | 9.7   | 13.4  | 18.0  | 21.7  | 23.8  | 24.4  | 23.5  | 23.4  | 19.1  | 8.4   | 10.9  | 5.2      |
|      | DAY-HR  | 03-21 | 17-23 | 19-19 | 18-15 | 22-17 | 09-13 | 02-23 | 28-22 | 25-20 | 16-22 | 29-13 | 25-18 | JAN      |
|      | # OBS   | 742   | 672   | 741   | 716   | 743   | 718   | 744   | 744   | 717   | 744   | 719   | 743   | 8743     |
| POR  | MEAN    | 17.2  | 17.9  | 18.8  | 21.3  | 24.7  | 27.7  | 28.7  | 28.8  | 27.9  | 25.1  | 21.6  | 19.2  | 23.5     |
|      | MAXIMUM | 24.3  | 23.0  | 23.4  | 26.6  | 29.1  | 31.2  | 32.4  | 32.9  | 32.2  | 30.4  | 28.4  | 26.6  | 32.9     |
|      | YEAR    | 1994  | 2001  | 1993  | 1991  | 1990  | 1990  | 1993  | 1993  | 1993  | 1993  | 1993  | 1993  | AUG/1993 |
|      | MINIMUM | 4.8   | 3.9   | 6.7   | 11.0  | 18.3  | 22.6  | 23.3  | 22.6  | 19.9  | 11.6  | 8.4   | 4.9   | 3.9      |
|      | YEAR    | 1996  | 1996  | 1996  | 1996  | 1992  | 1992  | 1999  | 1992  | 2000  | 1993  | 2001  | 1990  | FEB/1996 |
|      | # OBS   | 5442  | 5950  | 6610  | 6415  | 6080  | 6137  | 7009  | 7908  | 7856  | 8139  | 8368  | 7883  | 83797    |

STATION: 42019 -- POR (5/1990 - 12/2001)

2 - MEANS & EXTREMES BASED ON HOURLY (GMT) OBSERVATIONS -- MONTHLY & ANNUAL BY YEAR

ELEMENT: SEA TEMPERATURE (DEGREES C)

| YEAR | ELEMENT | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANN |
|------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|



|      |         |       |       |       |       |       |       |       |       |       |       |       |       |      |
|------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 1990 | MEAN    | -     | -     | -     | -     | 27.1  | 29.0  | 28.8  | 29.5  | 29.1  | 27.3  | 24.3  | 22.5  | 27.2 |
|      | MAXIMUM | -     | -     | -     | -     | 29.3  | 33.7  | 31.3  | 31.5  | 30.8  | 30.0  | 25.8  | 24.0  | 33.7 |
|      | DAY-HR  | -     | -     | -     | -     | 28-22 | 24-21 | 29-20 | 29-21 | 15-23 | 04-21 | 02-01 | 01-00 | JUN  |
|      | MINIMUM | -     | -     | -     | -     | 26.1  | 27.4  | 27.7  | 28.7  | 28.4  | 25.3  | 23.5  | 21.1  | 21.1 |
|      | DAY-HR  | -     | -     | -     | -     | 25-15 | 10-14 | 25-16 | 02-11 | 30-14 | 31-16 | 26-13 | 27-10 | DEC  |
|      | # OBS   | -     | -     | -     | -     | 163   | 715   | 743   | 742   | 718   | 741   | 718   | 743   | 5283 |
| 1991 | MEAN    | 21.3  | 20.5  | 20.3  | 23.3  | 26.0  | 28.0  | -     | 29.6  | 28.9  | 26.8  | 24.1  | 22.4  | 24.2 |
|      | MAXIMUM | 22.2  | 21.4  | 22.0  | 25.8  | 29.6  | 31.3  | -     | 32.1  | 30.7  | 29.4  | 26.3  | 23.3  | 32.1 |
|      | DAY-HR  | 06-18 | 11-22 | 27-23 | 28-22 | 26-19 | 06-21 | -     | 20-22 | 02-22 | 03-21 | 01-04 | 01-21 | AUG  |
|      | MINIMUM | 20.4  | 19.9  | 19.1  | 21.2  | 24.3  | 26.7  | -     | 28.9  | 28.0  | 26.3  | 23.1  | 21.6  | 19.1 |
|      | DAY-HR  | 25-10 | 28-23 | 06-02 | 08-15 | 02-17 | 01-15 | -     | 31-19 | 27-17 | 27-13 | 30-16 | 31-23 | MAR  |
|      | # OBS   | 744   | 672   | 743   | 719   | 744   | 254   | -     | 411   | 714   | 741   | 716   | 744   | 7202 |
| 1992 | MEAN    | 20.7  | 20.0  | 20.1  | 21.9  | 24.4  | 28.0  | 28.8  | 29.0  | 28.9  | 26.9  | 24.4  | 22.7  | 24.7 |
|      | MAXIMUM | 21.6  | 21.9  | 21.8  | 24.6  | 28.6  | 31.6  | 30.8  | 31.1  | 30.4  | 28.1  | 26.4  | 23.6  | 31.6 |
|      | DAY-HR  | 01-19 | 23-22 | 07-21 | 24-22 | 24-20 | 27-00 | 22-22 | 10-20 | 26-22 | 01-02 | 01-14 | 29-18 | JUN  |
|      | MINIMUM | 20.0  | 18.7  | 19.1  | 19.0  | 22.4  | 25.2  | 27.8  | 28.0  | 27.9  | 26.1  | 22.9  | 21.1  | 18.7 |
|      | DAY-HR  | 31-14 | 08-17 | 03-12 | 07-15 | 09-14 | 01-13 | 13-15 | 24-15 | 29-15 | 31-23 | 29-11 | 17-15 | FEB  |
|      | # OBS   | 741   | 691   | 738   | 719   | 739   | 712   | 740   | 739   | 718   | 741   | 705   | 737   | 8720 |
| 1993 | MEAN    | 21.8  | 21.2  | 21.4  | 22.1  | 24.4  | 27.0  | 29.0  | 29.4  | 29.2  | 27.4  | 24.7  | 23.0  | 25.1 |
|      | MAXIMUM | 23.3  | 22.4  | 23.3  | 24.4  | 27.7  | 29.0  | 31.2  | 32.0  | 30.6  | 28.7  | 25.5  | 24.2  | 32.0 |
|      | DAY-HR  | 03-10 | 24-03 | 30-23 | 25-23 | 30-23 | 27-00 | 29-19 | 19-00 | 02-22 | 04-21 | 19-23 | 11-21 | AUG  |
|      | MINIMUM | 20.4  | 20.4  | 17.9  | 19.9  | 22.0  | 24.9  | 28.1  | 28.2  | 28.0  | 24.9  | 24.0  | 21.2  | 17.9 |
|      | DAY-HR  | 27-14 | 21-16 | 16-16 | 03-19 | 07-10 | 01-08 | 31-10 | 23-14 | 30-16 | 31-23 | 09-09 | 30-05 | MAR  |
|      | # OBS   | 739   | 672   | 727   | 718   | 733   | 719   | 744   | 743   | 718   | 744   | 716   | 741   | 8714 |
| 1994 | MEAN    | 21.1  | 20.1  | 20.4  | 21.7  | 25.3  | 28.1  | 29.0  | 29.0  | 28.9  | 26.8  | 25.5  | 24.0  | 25.1 |
|      | MAXIMUM | 24.6  | 21.2  | 21.9  | 23.8  | 28.2  | 29.9  | 30.5  | 30.5  | 31.2  | 28.8  | 26.1  | 24.6  | 31.2 |
|      | DAY-HR  | 25-18 | 25-23 | 24-23 | 30-23 | 31-21 | 20-23 | 02-22 | 17-02 | 04-20 | 03-20 | 15-13 | 01-00 | SEP  |
|      | MINIMUM | 18.0  | 19.1  | 19.6  | 19.7  | 22.2  | 26.6  | 28.4  | 28.3  | 27.6  | 25.8  | 24.3  | 23.5  | 18.0 |
|      | DAY-HR  | 07-16 | 13-13 | 31-15 | 01-08 | 02-07 | 05-10 | 31-20 | 01-12 | 28-09 | 31-15 | 30-18 | 16-16 | JAN  |
|      | # OBS   | 741   | 655   | 742   | 719   | 739   | 713   | 704   | 742   | 717   | 738   | 717   | 384   | 8311 |
| 1995 | MEAN    | -     | -     | -     | -     | -     | -     | 29.8  | 29.7  | 29.7  | 26.7  | 24.3  | 22.6  | 26.8 |
|      | MAXIMUM | -     | -     | -     | -     | -     | -     | 32.4  | 32.3  | 32.3  | 29.0  | 25.8  | 24.2  | 32.4 |
|      | DAY-HR  | -     | -     | -     | -     | -     | -     | 27-23 | 04-21 | 18-22 | 05-22 | 03-06 | 06-19 | JUL  |
|      | MINIMUM | -     | -     | -     | -     | -     | -     | 29.2  | 28.5  | 28.5  | 25.1  | 23.0  | 21.4  | 21.4 |
|      | DAY-HR  | -     | -     | -     | -     | -     | -     | 27-10 | 14-11 | 30-15 | 31-15 | 29-17 | 28-14 | DEC  |
|      | # OBS   | -     | -     | -     | -     | -     | -     | 261   | 722   | 705   | 742   | 711   | 744   | 3885 |
| 1996 | MEAN    | 20.4  | 20.0  | 20.1  | 21.1  | 24.2  | -     | -     | -     | -     | -     | -     | -     | 21.1 |
|      | MAXIMUM | 21.9  | 21.3  | 21.3  | 22.9  | 26.7  | -     | -     | -     | -     | -     | -     | -     | 26.7 |
|      | DAY-HR  | 02-00 | 28-00 | 21-22 | 27-19 | 27-20 | -     | -     | -     | -     | -     | -     | -     | MAY  |
|      | MINIMUM | 19.6  | 19.1  | 18.8  | 19.8  | 21.5  | -     | -     | -     | -     | -     | -     | -     | 18.8 |
|      | DAY-HR  | 29-00 | 16-12 | 08-11 | 02-16 | 02-16 | -     | -     | -     | -     | -     | -     | -     | MAR  |
|      | # OBS   | 738   | 690   | 744   | 736   | 652   | -     | -     | -     | -     | -     | -     | -     | 3560 |
| 1997 | MEAN    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 23.9  | 21.2  | 22.3 |
|      | MAXIMUM | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 25.0  | 23.8  | 25.0 |
|      | DAY-HR  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 09-02 | 01-23 | NOV  |
|      | MINIMUM | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 22.7  | 18.2  | 18.2 |
|      | DAY-HR  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 25-16 | 25-10 | DEC  |
|      | # OBS   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 521   | 687   | 1208 |
| 1998 | MEAN    | 20.5  | 20.4  | 19.4  | 20.7  | 24.3  | 28.0  | 29.3  | 29.8  | 28.8  | 27.6  | 25.2  | 22.9  | 25.1 |
|      | MAXIMUM | 21.4  | 21.5  | 21.5  | 25.2  | 28.9  | 29.9  | 32.1  | 32.0  | 30.5  | 29.7  | 26.6  | 24.6  | 32.1 |
|      | DAY-HR  | 31-23 | 20-21 | 05-22 | 16-21 | 29-22 | 27-22 | 16-22 | 11-21 | 20-21 | 01-21 | 02-22 | 01-15 | JUL  |
|      | MINIMUM | 19.1  | 18.1  | 17.5  | 18.7  | 21.1  | 26.6  | 28.4  | 28.4  | 27.6  | 26.6  | 24.2  | 21.4  | 17.5 |
|      | DAY-HR  | 27-17 | 28-23 | 03-11 | 04-14 | 02-13 | 01-10 | 12-13 | 23-08 | 12-07 | 31-23 | 28-14 | 24-06 | MAR  |
|      | # OBS   | 261   | 663   | 716   | 694   | 738   | 691   | 735   | 789   | 712   | 735   | 718   | 559   | 8011 |
| 1999 | MEAN    | -     | 19.8  | 19.9  | 22.5  | 25.4  | 28.0  | 29.0  | 29.5  | 28.7  | 26.8  | 24.7  | 23.1  | 25.4 |
|      | MAXIMUM | -     | 21.9  | 21.5  | 25.4  | 27.7  | 30.0  | 31.5  | 31.7  | 31.5  | 28.9  | 25.8  | 23.8  | 31.7 |
|      | DAY-HR  | -     | 15-20 | 15-22 | 27-19 | 31-23 | 15-23 | 23-23 | 26-21 | 02-20 | 07-21 | 01-22 | 01-21 | AUG  |
|      | MINIMUM | -     | 18.8  | 18.8  | 19.6  | 23.6  | 26.8  | 28.1  | 28.5  | 27.6  | 25.3  | 23.5  | 22.4  | 18.8 |
|      | DAY-HR  | -     | 20-16 | 06-11 | 01-14 | 02-14 | 26-19 | 15-14 | 28-11 | 29-12 | 29-15 | 28-17 | 14-05 | MAR  |
|      | # OBS   | -     | 602   | 719   | 705   | 742   | 719   | 740   | 740   | 704   | 738   | 711   | 316   | 7436 |
| 2000 | MEAN    | -     | -     | -     | -     | -     | 28.5  | 29.0  | 29.0  | 29.0  | 27.1  | 24.6  | 22.1  | 26.8 |
|      | MAXIMUM | -     | -     | -     | -     | -     | 29.7  | 31.6  | 31.6  | 30.8  | 29.7  | 26.8  | 23.7  | 31.6 |
|      | DAY-HR  | -     | -     | -     | -     | -     | 28-21 | 25-22 | 16-22 | 05-21 | 06-22 | 01-02 | 11-01 | AUG  |
|      | MINIMUM | -     | -     | -     | -     | -     | 27.7  | 27.6  | 27.4  | 27.7  | 25.0  | 20.7  | 19.5  | 19.5 |
|      | DAY-HR  | -     | -     | -     | -     | -     | 25-14 | 29-15 | 01-14 | 30-23 | 28-15 | 29-23 | 29-16 | DEC  |
|      | # OBS   | -     | -     | -     | -     | -     | 174   | 743   | 744   | 717   | 741   | 718   | 744   | 4581 |
| 2001 | MEAN    | 19.9  | 20.5  | 20.5  | 22.8  | 25.4  | 27.8  | 29.2  | 29.5  | 28.8  | 26.5  | 24.7  | 23.2  | 24.9 |
|      | MAXIMUM | 21.4  | 22.0  | 22.2  | 24.6  | 28.4  | 30.3  | 31.9  | 30.7  | 30.9  | 27.6  | 25.8  | 24.3  | 31.9 |
|      | DAY-HR  | 01-11 | 28-20 | 01-09 | 16-22 | 25-22 | 01-20 | 22-22 | 05-23 | 20-21 | 03-20 | 04-12 | 06-23 | JUL  |
|      | MINIMUM | 18.0  | 18.8  | 18.8  | 20.6  | 23.0  | 26.6  | 28.2  | 28.9  | 27.6  | 25.3  | 23.7  | 21.5  | 18.0 |
|      | DAY-HR  | 22-15 | 18-04 | 21-16 | 01-13 | 01-15 | 01-09 | 02-10 | 28-23 | 30-16 | 31-17 | 30-16 | 29-03 | JAN  |
|      | # OBS   | 742   | 672   | 741   | 716   | 743   | 718   | 744   | 744   | 714   | 744   | 719   | 743   | 8740 |



|      | # OBS   | 741    | 691    | 738    | 719    | 740    | 712    | 740    | 739    | 718    | 741    | 707    | 740    | 8726     |
|------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
| 1993 | MEAN    | 1018.8 | 1017.9 | 1016.4 | 1013.3 | 1012.7 | 1013.4 | 1015.9 | 1015.8 | 1015.0 | 1015.5 | 1018.9 | 1018.8 | 1016.0   |
|      | MAXIMUM | 1031.7 | 1031.3 | 1029.2 | 1024.3 | 1018.5 | 1017.7 | 1019.1 | 1020.8 | 1022.0 | 1028.0 | 1026.4 | 1028.9 | 1031.7   |
|      | DAY-HR  | 30-17  | 18-16  | 14-17  | 22-17  | 11-05  | 26-06  | 20-16  | 04-17  | 28-16  | 31-17  | 10-16  | 30-17  | JAN      |
|      | MINIMUM | 1007.0 | 1005.7 | 1003.5 | 995.5  | 1003.6 | 1007.0 | 1011.8 | 1010.8 | 1009.6 | 1001.1 | 1007.9 | 1002.5 | 995.5    |
|      | DAY-HR  | 09-21  | 15-22  | 12-15  | 14-19  | 19-02  | 20-00  | 04-09  | 31-01  | 14-01  | 29-22  | 13-21  | 13-09  | APR      |
|      | # OBS   | 739    | 672    | 727    | 718    | 733    | 719    | 744    | 743    | 718    | 744    | 716    | 741    | 8714     |
| 1994 | MEAN    | 1020.0 | 1018.9 | 1015.9 | 1014.8 | 1013.6 | 1013.2 | 1015.4 | 1015.2 | 1014.9 | 1012.9 | 1016.3 | 1018.2 | 1015.7   |
|      | MAXIMUM | 1031.1 | 1031.5 | 1029.0 | 1025.2 | 1020.5 | 1018.1 | 1021.0 | 1020.3 | 1020.9 | 1020.6 | 1029.1 | 1027.7 | 1031.5   |
|      | DAY-HR  | 21-17  | 14-04  | 30-17  | 01-16  | 23-17  | 16-18  | 17-18  | 24-17  | 03-16  | 27-04  | 23-17  | 11-15  | FEB      |
|      | MINIMUM | 1004.7 | 1005.5 | 997.7  | 1004.8 | 1006.4 | 1007.1 | 1010.2 | 1011.0 | 1009.1 | 1002.5 | 1005.6 | 1010.3 | 997.7    |
|      | DAY-HR  | 27-21  | 22-23  | 27-11  | 06-00  | 26-12  | 24-01  | 02-23  | 21-02  | 30-22  | 02-10  | 27-22  | 03-22  | MAR      |
|      | # OBS   | 741    | 655    | 742    | 720    | 739    | 712    | 713    | 742    | 717    | 740    | 716    | 384    | 8321     |
| 1995 | MEAN    | -      | -      | -      | -      | -      | -      | 1012.8 | 1012.0 | 1014.1 | -      | 1021.0 | 1018.6 | 1014.9   |
|      | MAXIMUM | -      | -      | -      | -      | -      | -      | 1017.2 | 1016.5 | 1017.9 | -      | 1022.6 | 1035.2 | 1035.2   |
|      | DAY-HR  | -      | -      | -      | -      | -      | -      | 21-19  | 20-17  | 11-16  | -      | 30-17  | 10-16  | DEC      |
|      | MINIMUM | -      | -      | -      | -      | -      | -      | 1004.6 | 1008.2 | 1010.9 | -      | 1018.9 | 1003.3 | 1003.3   |
|      | DAY-HR  | -      | -      | -      | -      | -      | -      | 30-22  | 10-23  | 07-23  | -      | 30-23  | 31-23  | DEC      |
|      | # OBS   | -      | -      | -      | -      | -      | -      | 266    | 722    | 268    | -      | 23     | 744    | 2023     |
| 1996 | MEAN    | 1017.7 | 1017.9 | 1017.0 | 1014.5 | 1014.1 | 1014.4 | 1015.1 | 1015.9 | 1012.5 | 1014.7 | 1018.7 | 1018.6 | 1015.9   |
|      | MAXIMUM | 1034.0 | 1042.7 | 1035.6 | 1025.2 | 1020.4 | 1020.3 | 1021.2 | 1020.4 | 1019.6 | 1022.8 | 1030.5 | 1032.7 | 1042.7   |
|      | DAY-HR  | 08-16  | 04-17  | 08-17  | 16-17  | 12-16  | 02-18  | 28-17  | 14-17  | 29-17  | 11-17  | 27-17  | 19-16  | FEB      |
|      | MINIMUM | 996.6  | 1002.9 | 1002.5 | 1006.2 | 1007.3 | 1009.4 | 1009.4 | 1008.8 | 1004.1 | 1005.7 | 1007.1 | 1007.8 | 996.6    |
|      | DAY-HR  | 01-21  | 19-10  | 18-09  | 26-07  | 27-11  | 21-00  | 08-10  | 31-23  | 16-00  | 25-23  | 24-20  | 06-23  | JAN      |
|      | # OBS   | 738    | 689    | 744    | 736    | 739    | 717    | 838    | 788    | 715    | 733    | 692    | 739    | 8868     |
| 1997 | MEAN    | 1019.0 | 1018.7 | 1016.3 | 1012.8 | -      | -      | -      | -      | -      | -      | 1015.5 | 1015.9 | 1016.4   |
|      | MAXIMUM | 1033.4 | 1033.0 | 1027.4 | 1023.1 | -      | -      | -      | -      | -      | -      | 1029.8 | 1026.2 | 1033.4   |
|      | DAY-HR  | 18-17  | 16-18  | 06-17  | 15-17  | -      | -      | -      | -      | -      | -      | 16-17  | 12-18  | JAN      |
|      | MINIMUM | 1007.3 | 1003.3 | 1006.6 | 1000.5 | -      | -      | -      | -      | -      | -      | 1002.2 | 1003.0 | 1000.5   |
|      | DAY-HR  | 04-23  | 12-22  | 01-00  | 05-02  | -      | -      | -      | -      | -      | -      | 13-14  | 23-22  | APR      |
|      | # OBS   | 736    | 633    | 740    | 688    | -      | -      | -      | -      | -      | -      | 521    | 687    | 4005     |
| 1998 | MEAN    | 1015.6 | 1011.1 | 1015.2 | 1013.1 | 1011.8 | 1012.2 | 1015.4 | 1014.3 | 1008.3 | 1015.8 | 1016.3 | 1019.4 | 1013.9   |
|      | MAXIMUM | 1048.1 | 1020.9 | 1032.6 | 1025.0 | 1021.1 | 1018.9 | 1019.6 | 1021.0 | 1015.3 | 1025.8 | 1025.0 | 1028.6 | 1048.1   |
|      | DAY-HR  | 20-00  | 20-16  | 11-16  | 11-17  | 17-16  | 07-16  | 31-15  | 01-15  | 06-01  | 23-16  | 11-16  | 15-17  | JAN      |
|      | MINIMUM | 1005.4 | 997.2  | 995.5  | 1001.0 | 1000.7 | 1003.2 | 1007.9 | 1007.1 | 995.1  | 1008.7 | 1007.0 | 1008.0 | 995.1    |
|      | DAY-HR  | 22-00  | 26-10  | 07-22  | 16-11  | 09-08  | 16-00  | 14-00  | 22-03  | 11-01  | 06-10  | 01-22  | 18-22  | SEP      |
|      | # OBS   | 240    | 663    | 716    | 695    | 738    | 691    | 735    | 789    | 712    | 735    | 718    | 559    | 7991     |
| 1999 | MEAN    | -      | 1018.5 | 1015.0 | 1012.9 | 1012.3 | 1013.2 | 1016.0 | 1013.2 | 1012.8 | 1016.4 | 1020.1 | 1017.6 | 1015.1   |
|      | MAXIMUM | -      | 1035.1 | 1023.6 | 1028.2 | 1018.8 | 1017.3 | 1022.6 | 1018.1 | 1020.6 | 1024.9 | 1032.7 | 1029.8 | 1035.1   |
|      | DAY-HR  | -      | 13-17  | 15-17  | 18-16  | 22-17  | 03-18  | 22-17  | 17-18  | 29-18  | 20-16  | 30-16  | 01-05  | FEB      |
|      | MINIMUM | -      | 1009.4 | 1000.8 | 1001.6 | 998.1  | 1008.6 | 1008.8 | 1007.4 | 1007.2 | 1007.0 | 1008.6 | 1004.4 | 998.1    |
|      | DAY-HR  | -      | 18-20  | 13-09  | 14-22  | 05-11  | 26-11  | 01-01  | 22-22  | 25-23  | 08-10  | 22-00  | 12-11  | MAY      |
|      | # OBS   | -      | 602    | 718    | 704    | 742    | 719    | 740    | 740    | 704    | 738    | 711    | 316    | 7434     |
| 2000 | MEAN    | -      | -      | -      | -      | -      | 1015.8 | 1015.4 | 1016.2 | 1012.7 | 1018.5 | 1016.1 | 1021.8 | 1016.8   |
|      | MAXIMUM | -      | -      | -      | -      | -      | 1018.4 | 1019.4 | 1023.0 | 1021.3 | 1030.2 | 1033.4 | 1032.2 | 1033.4   |
|      | DAY-HR  | -      | -      | -      | -      | -      | 23-18  | 19-18  | 16-17  | 26-16  | 09-17  | 21-17  | 17-16  | NOV      |
|      | MINIMUM | -      | -      | -      | -      | -      | 1014.0 | 1011.0 | 1010.9 | 1006.4 | 1010.2 | 999.5  | 1012.6 | 999.5    |
|      | DAY-HR  | -      | -      | -      | -      | -      | 26-02  | 16-10  | 14-00  | 21-21  | 05-09  | 06-09  | 21-00  | NOV      |
|      | # OBS   | -      | -      | -      | -      | -      | 174    | 743    | 744    | 717    | 741    | 718    | 743    | 4580     |
| 2001 | MEAN    | 1020.6 | 1019.4 | 1015.1 | 1016.5 | 1014.6 | 1013.9 | 1015.2 | 1015.8 | 1014.2 | 1017.9 | 1018.1 | 1018.1 | 1016.6   |
|      | MAXIMUM | 1036.2 | 1031.9 | 1028.7 | 1028.1 | 1022.7 | 1023.5 | 1021.2 | 1020.4 | 1020.5 | 1030.2 | 1028.2 | 1028.8 | 1036.2   |
|      | DAY-HR  | 03-16  | 17-17  | 05-16  | 18-17  | 13-18  | 27-17  | 04-16  | 01-16  | 30-18  | 29-16  | 09-17  | 20-16  | JAN      |
|      | MINIMUM | 1008.9 | 1007.1 | 1001.3 | 1005.5 | 1005.5 | 1005.1 | 1009.4 | 1009.4 | 1007.6 | 1000.6 | 1000.7 | 1007.7 | 1000.6   |
|      | DAY-HR  | 29-09  | 24-13  | 03-10  | 11-12  | 21-08  | 05-23  | 25-01  | 31-23  | 08-08  | 13-11  | 23-23  | 13-20  | OCT      |
|      | # OBS   | 742    | 672    | 741    | 716    | 743    | 718    | 744    | 744    | 717    | 744    | 719    | 743    | 8743     |
| POR  | MEAN    | 1018.9 | 1017.5 | 1015.5 | 1013.8 | 1013.2 | 1013.3 | 1015.6 | 1015.1 | 1013.7 | 1016.0 | 1017.9 | 1018.8 | 1015.8   |
|      | MAXIMUM | 1048.1 | 1042.7 | 1035.6 | 1029.3 | 1024.7 | 1023.5 | 1022.6 | 1023.0 | 1022.1 | 1030.2 | 1033.6 | 1035.2 | 1048.1   |
|      | YEAR    | 1998   | 1996   | 1996   | 1991   | 1992   | 2001   | 1999   | 2000   | 1990   | 2001   | 1990   | 1995   | JAN/1998 |
|      | MINIMUM | 996.6  | 997.2  | 995.5  | 995.5  | 998.1  | 1003.2 | 1004.6 | 1007.1 | 995.1  | 1000.6 | 999.5  | 1002.5 | 995.1    |
|      | YEAR    | 1996   | 1998   | 1998   | 1993   | 1999   | 1998   | 1995   | 1998   | 1998   | 2001   | 2000   | 1993   | SEP/1998 |
|      | # OBS   | 5421   | 5949   | 6609   | 6415   | 6081   | 6133   | 7006   | 7905   | 7418   | 7398   | 7676   | 7883   | 81894    |

STATION: 42019 -- POR (5/1990 - 12/2001)

2 - MEANS & EXTREMES BASED ON HOURLY (GMT) OBSERVATIONS -- MONTHLY & ANNUAL BY YEAR

ELEMENT: AVERAGE WIND SPEED (KNOTS)

| YEAR | ELEMENT | JAN | FEB | MAR | APR | MAY  | JUN  | JUL | AUG | SEP | OCT  | NOV  | DEC  | ANN  |
|------|---------|-----|-----|-----|-----|------|------|-----|-----|-----|------|------|------|------|
| 1990 | MEAN    | -   | -   | -   | -   | 11.4 | 10.0 | 8.5 | 7.8 | 7.9 | 10.5 | 12.7 | 12.6 | 10.0 |

|      |         |       |       |       |       |       |       |       |       |       |       |       |       |      |
|------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
|      | MAXIMUM | -     | -     | -     | -     | 17.9  | 23.7  | 24.1  | 15.2  | 21.0  | 28.0  | 29.4  | 28.4  | 29.4 |
|      | DAY-HR  | -     | -     | -     | -     | 30-13 | 02-08 | 07-00 | 07-13 | 23-16 | 10-03 | 29-14 | 03-14 | NOV  |
|      | MINIMUM | -     | -     | -     | -     | 0.2   | 0.2   | 0.2   | 0.2   | 0.4   | 0.4   | 1.6   | 1.2   | 0.2  |
|      | DAY-HR  | -     | -     | -     | -     | 29-06 | 19-14 | 31-13 | 01-20 | 25-19 | 13-23 | 24-12 | 19-08 | AUG  |
|      | # OBS   | -     | -     | -     | -     | 163   | 715   | 743   | 743   | 718   | 741   | 720   | 743   | 5286 |
| 1991 | MEAN    | 13.9  | 12.6  | 12.8  | 11.6  | 12.4  | 10.1  | -     | 8.2   | 11.4  | 11.7  | 15.3  | 13.7  | 12.4 |
|      | MAXIMUM | 28.2  | 26.0  | 27.6  | 25.7  | 36.2  | 23.5  | -     | 27.2  | 25.9  | 27.6  | 30.7  | 21.4  | 36.2 |
|      | DAY-HR  | 15-01 | 20-11 | 29-07 | 13-18 | 02-11 | 08-07 | -     | 31-15 | 20-04 | 31-23 | 08-06 | 03-21 | MAY  |
|      | MINIMUM | 1.2   | 0.2   | 0.4   | 0.6   | 0.2   | 0.4   | -     | 0.2   | 0.6   | 0.6   | 1.9   | 1.9   | 0.2  |
|      | DAY-HR  | 25-17 | 11-23 | 23-00 | 06-17 | 20-09 | 06-18 | -     | 17-21 | 01-15 | 16-03 | 10-12 | 09-21 | AUG  |
|      | # OBS   | 744   | 672   | 744   | 719   | 744   | 256   | -     | 411   | 714   | 741   | 717   | 281   | 6743 |
| 1992 | MEAN    | 14.7  | 12.9  | 11.9  | 10.1  | -     | 8.4   | 10.4  | 7.8   | 11.8  | 12.0  | 14.0  | 13.9  | 11.4 |
|      | MAXIMUM | 29.9  | 33.2  | 28.6  | 26.2  | -     | 23.5  | 22.0  | 26.0  | 25.5  | 23.7  | 26.6  | 32.9  | 33.2 |
|      | DAY-HR  | 13-21 | 25-01 | 10-16 | 18-07 | -     | 06-22 | 01-05 | 23-17 | 29-07 | 08-14 | 22-01 | 13-19 | FEB  |
|      | MINIMUM | 1.2   | 0.6   | 0.4   | 0.4   | -     | 0.2   | 0.0   | 0.4   | 0.4   | 0.4   | 1.2   | 1.2   | 0.0  |
|      | DAY-HR  | 09-03 | 18-00 | 30-01 | 27-06 | -     | 28-03 | 26-16 | 10-13 | 17-18 | 04-07 | 24-06 | 24-00 | JUL  |
|      | # OBS   | 567   | 691   | 738   | 686   | -     | 647   | 740   | 739   | 718   | 379   | 262   | 740   | 6907 |
| 1993 | MEAN    | 13.9  | 13.8  | 13.3  | 14.7  | 11.7  | 12.8  | 10.7  | 7.7   | 10.4  | 12.7  | 13.9  | 14.5  | 12.5 |
|      | MAXIMUM | 34.4  | 27.2  | 41.2  | 33.0  | 30.3  | 27.2  | 21.0  | 15.9  | 26.6  | 29.5  | 27.6  | 29.4  | 41.2 |
|      | DAY-HR  | 24-13 | 16-09 | 12-16 | 08-13 | 06-03 | 19-09 | 05-06 | 23-12 | 14-07 | 30-05 | 20-05 | 14-06 | MAR  |
|      | MINIMUM | 0.8   | 0.2   | 0.4   | 1.6   | 0.0   | 0.4   | 0.0   | 0.0   | 0.2   | 1.0   | 0.6   | 1.2   | 0.0  |
|      | DAY-HR  | 21-18 | 02-07 | 03-17 | 26-06 | 30-17 | 15-08 | 31-23 | 19-17 | 01-23 | 15-17 | 03-22 | 06-09 | AUG  |
|      | # OBS   | 738   | 672   | 727   | 718   | 733   | 719   | 744   | 743   | 718   | 744   | 716   | 741   | 8713 |
| 1994 | MEAN    | 15.7  | 12.4  | 11.8  | 12.2  | 10.2  | 9.9   | 10.6  | 9.2   | 8.9   | 11.8  | 14.2  | 13.0  | 11.7 |
|      | MAXIMUM | 32.5  | 30.3  | 33.6  | 31.3  | 26.8  | 20.4  | 24.1  | 24.3  | 21.2  | 24.1  | 27.6  | 27.8  | 33.6 |
|      | DAY-HR  | 03-10 | 23-15 | 09-12 | 16-11 | 14-08 | 27-10 | 31-13 | 03-18 | 23-12 | 17-02 | 27-12 | 10-18 | MAR  |
|      | MINIMUM | 0.6   | 0.0   | 0.4   | 1.6   | 0.2   | 0.4   | 2.5   | 0.0   | 0.0   | 0.4   | 3.1   | 2.1   | 0.0  |
|      | DAY-HR  | 15-01 | 11-18 | 04-01 | 22-18 | 16-20 | 19-08 | 31-21 | 21-23 | 06-18 | 23-13 | 10-05 | 12-04 | SEP  |
|      | # OBS   | 738   | 655   | 742   | 720   | 739   | 631   | 82    | 742   | 717   | 741   | 717   | 384   | 7608 |
| 1995 | MEAN    | -     | -     | -     | -     | -     | -     | 10.0  | 8.0   | 8.6   | 14.6  | 14.1  | 13.7  | 11.7 |
|      | MAXIMUM | -     | -     | -     | -     | -     | -     | 20.8  | 22.6  | 29.2  | 30.7  | 32.3  | 29.0  | 32.3 |
|      | DAY-HR  | -     | -     | -     | -     | -     | -     | 29-17 | 11-19 | 22-16 | 14-22 | 11-14 | 18-15 | NOV  |
|      | MINIMUM | -     | -     | -     | -     | -     | -     | 0.0   | 0.0   | 0.0   | 0.0   | 0.4   | 0.2   | 0.0  |
|      | DAY-HR  | -     | -     | -     | -     | -     | -     | 29-01 | 27-09 | 09-08 | 28-08 | 28-11 | 07-15 | OCT  |
|      | # OBS   | -     | -     | -     | -     | -     | -     | 252   | 715   | 700   | 742   | 713   | 744   | 3866 |
| 1996 | MEAN    | 15.6  | 14.0  | 13.7  | 13.0  | 12.2  | 9.4   | 8.0   | 9.9   | 8.8   | 14.8  | 14.5  | 13.7  | 12.2 |
|      | MAXIMUM | 33.8  | 28.8  | 32.1  | 30.5  | 19.2  | 26.0  | 18.5  | 28.2  | 25.9  | 33.4  | 29.7  | 27.0  | 33.8 |
|      | DAY-HR  | 19-07 | 28-23 | 07-12 | 06-13 | 30-05 | 23-06 | 08-12 | 13-13 | 28-10 | 05-19 | 24-20 | 18-12 | JAN  |
|      | MINIMUM | 0.2   | 0.0   | 0.6   | 0.0   | 1.0   | 0.0   | 0.4   | 0.2   | 0.0   | 1.7   | 0.0   | 0.4   | 0.0  |
|      | DAY-HR  | 13-13 | 13-18 | 21-20 | 16-03 | 11-11 | 17-16 | 07-13 | 16-17 | 14-12 | 01-23 | 19-15 | 13-00 | NOV  |
|      | # OBS   | 738   | 690   | 744   | 736   | 739   | 717   | 838   | 788   | 714   | 733   | 692   | 739   | 8868 |
| 1997 | MEAN    | 14.7  | 14.8  | 11.9  | 14.1  | -     | -     | -     | -     | -     | -     | 14.4  | 14.4  | 14.0 |
|      | MAXIMUM | 29.0  | 28.6  | 31.9  | 29.9  | -     | -     | -     | -     | -     | -     | 27.0  | 30.1  | 31.9 |
|      | DAY-HR  | 09-19 | 07-21 | 17-19 | 05-03 | -     | -     | -     | -     | -     | -     | 15-19 | 26-20 | MAR  |
|      | MINIMUM | 0.2   | 1.0   | 0.0   | 0.0   | -     | -     | -     | -     | -     | -     | 1.7   | 0.6   | 0.0  |
|      | DAY-HR  | 25-04 | 16-09 | 23-04 | 21-00 | -     | -     | -     | -     | -     | -     | 14-22 | 15-16 | APR  |
|      | # OBS   | 736   | 633   | 740   | 688   | -     | -     | -     | -     | -     | -     | 521   | 688   | 4006 |
| 1998 | MEAN    | 12.3  | 14.0  | 13.8  | 11.2  | 9.4   | 13.5  | -     | 9.1   | 12.1  | 13.9  | 13.7  | 13.8  | 12.4 |
|      | MAXIMUM | 24.1  | 32.3  | 32.3  | 26.8  | 20.0  | 24.5  | -     | 29.7  | 34.0  | 26.2  | 26.0  | 28.2  | 34.0 |
|      | DAY-HR  | 22-23 | 15-05 | 08-18 | 17-14 | 15-02 | 11-08 | -     | 22-03 | 09-18 | 06-17 | 05-11 | 22-10 | SEP  |
|      | MINIMUM | 2.7   | 0.6   | 0.0   | 0.0   | 0.0   | 0.2   | -     | 0.0   | 0.6   | 1.6   | 0.4   | 0.4   | 0.0  |
|      | DAY-HR  | 28-01 | 27-15 | 22-23 | 11-09 | 28-13 | 26-08 | -     | 28-13 | 14-17 | 07-00 | 26-14 | 02-15 | AUG  |
|      | # OBS   | 261   | 663   | 716   | 695   | 738   | 690   | -     | 622   | 712   | 735   | 718   | 553   | 7103 |
| 1999 | MEAN    | -     | 10.8  | 12.2  | 12.4  | 11.9  | 11.3  | 8.9   | 7.8   | 9.8   | 11.6  | 10.8  | 16.8  | 11.0 |
|      | MAXIMUM | -     | 34.2  | 29.0  | 29.4  | 25.3  | 20.6  | 20.8  | 24.7  | 28.8  | 25.5  | 27.6  | 29.4  | 34.2 |
|      | DAY-HR  | -     | 21-05 | 14-04 | 03-19 | 18-08 | 25-09 | 21-12 | 22-16 | 29-14 | 31-01 | 25-10 | 03-07 | FEB  |
|      | MINIMUM | -     | 0.6   | 0.0   | 0.2   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 4.9   | 0.0  |
|      | DAY-HR  | -     | 10-00 | 16-00 | 11-01 | 06-09 | 16-05 | 17-15 | 31-02 | 20-07 | 07-15 | 21-01 | 07-18 | NOV  |
|      | # OBS   | -     | 600   | 718   | 705   | 740   | 719   | 741   | 740   | 704   | 738   | 711   | 316   | 7432 |
| 2000 | MEAN    | -     | -     | -     | -     | -     | 9.8   | 9.0   | 8.2   | 11.7  | 13.6  | 15.2  | 15.7  | 12.1 |
|      | MAXIMUM | -     | -     | -     | -     | -     | 15.7  | 18.1  | 20.2  | 23.5  | 29.2  | 29.5  | 30.7  | 30.7 |
|      | DAY-HR  | -     | -     | -     | -     | -     | 24-08 | 24-03 | 14-21 | 25-12 | 08-01 | 18-22 | 19-01 | DEC  |
|      | MINIMUM | -     | -     | -     | -     | -     | 3.9   | 0.2   | 0.4   | 0.2   | 1.2   | 0.0   | 0.4   | 0.0  |
|      | DAY-HR  | -     | -     | -     | -     | -     | 29-21 | 25-21 | 20-20 | 19-13 | 17-19 | 27-06 | 09-01 | NOV  |
|      | # OBS   | -     | -     | -     | -     | -     | 174   | 744   | 744   | 717   | 741   | 715   | 744   | 4579 |
| 2001 | MEAN    | 14.2  | 12.6  | 12.6  | 13.3  | 11.8  | 10.3  | 8.6   | 10.5  | 11.7  | 12.5  | 12.7  | 14.0  | 12.1 |
|      | MAXIMUM | 30.1  | 26.2  | 26.2  | 28.6  | 25.3  | 29.2  | 23.9  | 22.6  | 23.1  | 27.4  | 24.3  | 28.0  | 30.1 |
|      | DAY-HR  | 01-09 | 09-20 | 28-00 | 17-18 | 22-12 | 09-10 | 02-22 | 29-17 | 09-21 | 16-15 | 29-10 | 08-22 | JAN  |
|      | MINIMUM | 1.7   | 0.6   | 0.4   | 0.2   | 1.0   | 0.0   | 1.0   | 0.0   | 0.0   | 1.6   | 0.2   | 0.4   | 0.0  |
|      | DAY-HR  | 17-16 | 25-08 | 31-13 | 24-12 | 25-23 | 16-23 | 25-16 | 05-22 | 23-13 | 25-09 | 19-19 | 28-22 | SEP  |
|      | # OBS   | 742   | 672   | 741   | 716   | 743   | 718   | 744   | 744   | 717   | 744   | 719   | 743   | 8743 |
| POR  | MEAN    | 14.6  | 13.1  | 12.7  | 12.5  | 11.4  | 10.7  | 9.2   | 8.6   | 10.3  | 12.7  | 13.8  | 14.1  | 12.0 |

|         |      |      |      |      |      |      |      |      |      |      |      |      |          |
|---------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| MAXIMUM | 34.4 | 34.2 | 41.2 | 33.0 | 36.2 | 29.2 | 24.1 | 29.7 | 34.0 | 33.4 | 32.3 | 32.9 | 41.2     |
| YEAR    | 1993 | 1999 | 1993 | 1993 | 1991 | 2001 | 1994 | 1998 | 1998 | 1996 | 1995 | 1992 | MAR/1993 |
| MINIMUM | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.2  | 0.0      |
| YEAR    | 1997 | 1996 | 1999 | 1998 | 1999 | 2001 | 1999 | 2001 | 2001 | 1999 | 2000 | 1995 | SEP/2001 |
| # OBS   | 5264 | 5948 | 6610 | 6383 | 5339 | 5986 | 5628 | 7731 | 7849 | 7779 | 7921 | 7416 | 79854    |

STATION: 42019 -- POR (5/1990 - 12/2001)

2 - HIGHEST 5-SECOND AVERAGE DURING 2 OR 8-MINUTE PERIOD PRIOR TO OBSERVATION TIME -- MONTHLY & ANNUAL BY YEAR

ELEMENT: PEAK WIND GUST (KNOTS)

| YEAR | ELEMENT | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC   | ANN      |
|------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1990 | MEAN    | -     | -     | -     | -     | 13.8  | 12.3  | 10.6  | 9.7   | 10.2  | 13.5  | 16.0  | 16.1  | 12.7     |
|      | MAXIMUM | -     | -     | -     | -     | 22.4  | 28.6  | 28.6  | 18.5  | 26.2  | 33.8  | 36.7  | 36.2  | 36.7     |
|      | DAY-HR  | -     | -     | -     | -     | 30-13 | 02-13 | 18-10 | 27-21 | 23-16 | 10-00 | 29-14 | 03-14 | NOV      |
|      | # OBS   | -     | -     | -     | -     | 163   | 715   | 743   | 742   | 718   | 741   | 718   | 743   | 5283     |
| 1991 | MEAN    | 17.5  | 15.8  | 15.7  | 14.3  | 15.2  | 12.5  | -     | 10.1  | 13.9  | 14.3  | 19.4  | 16.9  | 15.4     |
|      | MAXIMUM | 35.8  | 32.7  | 35.8  | 31.7  | 44.3  | 28.6  | -     | 33.8  | 31.1  | 33.4  | 37.9  | 28.2  | 44.3     |
|      | DAY-HR  | 15-04 | 17-09 | 29-07 | 13-18 | 02-11 | 08-07 | -     | 31-15 | 20-04 | 06-17 | 08-06 | 03-23 | MAY      |
|      | # OBS   | 744   | 672   | 743   | 718   | 744   | 253   | -     | 411   | 714   | 741   | 716   | 281   | 6737     |
| 1992 | MEAN    | 18.6  | 15.7  | 14.6  | 12.3  | -     | 10.0  | 12.5  | 9.7   | 14.3  | 14.9  | 17.9  | 17.1  | 14.0     |
|      | MAXIMUM | 37.7  | 44.7  | 35.6  | 31.7  | -     | 29.5  | 29.4  | 31.7  | 30.5  | 28.8  | 32.7  | 39.9  | 44.7     |
|      | DAY-HR  | 13-22 | 25-01 | 10-15 | 18-07 | -     | 06-22 | 15-19 | 23-17 | 29-21 | 08-14 | 22-01 | 13-20 | FEB      |
|      | # OBS   | 567   | 691   | 738   | 686   | -     | 647   | 740   | 739   | 718   | 379   | 260   | 737   | 6902     |
| 1993 | MEAN    | 17.2  | 16.9  | 16.4  | 17.9  | 14.3  | 15.4  | 12.9  | 9.7   | 12.9  | 15.9  | 17.7  | 18.2  | 15.4     |
|      | MAXIMUM | 40.8  | 33.2  | 49.6  | 41.6  | 37.1  | 37.3  | 25.1  | 20.2  | 32.7  | 37.5  | 35.2  | 36.5  | 49.6     |
|      | DAY-HR  | 24-13 | 16-09 | 12-16 | 08-13 | 06-03 | 20-16 | 05-06 | 29-21 | 14-07 | 30-04 | 09-05 | 13-09 | MAR      |
|      | # OBS   | 738   | 671   | 727   | 718   | 733   | 719   | 744   | 743   | 718   | 744   | 716   | 741   | 8712     |
| 1994 | MEAN    | 19.5  | 15.5  | 14.5  | 14.7  | 12.4  | 12.0  | 13.0  | 11.2  | 11.3  | 14.6  | 17.3  | 16.1  | 14.4     |
|      | MAXIMUM | 43.0  | 38.3  | 42.6  | 39.3  | 32.9  | 24.9  | 29.4  | 29.4  | 26.4  | 29.4  | 34.6  | 35.8  | 43.0     |
|      | DAY-HR  | 03-07 | 23-15 | 09-12 | 16-11 | 14-08 | 02-17 | 31-13 | 03-18 | 23-11 | 09-10 | 27-12 | 11-02 | JAN      |
|      | # OBS   | 738   | 654   | 742   | 720   | 738   | 625   | 81    | 741   | 717   | 738   | 717   | 384   | 7595     |
| 1995 | MEAN    | -     | -     | -     | -     | -     | -     | 12.3  | 10.1  | 10.8  | 18.1  | 17.7  | 17.2  | 14.7     |
|      | MAXIMUM | -     | -     | -     | -     | -     | -     | 24.3  | 28.2  | 35.6  | 37.5  | 39.1  | 42.0  | 42.0     |
|      | DAY-HR  | -     | -     | -     | -     | -     | -     | 29-17 | 11-19 | 22-17 | 14-22 | 11-12 | 18-15 | DEC      |
|      | # OBS   | -     | -     | -     | -     | -     | -     | 252   | 714   | 700   | 742   | 713   | 744   | 3865     |
| 1996 | MEAN    | 19.4  | 17.3  | 17.1  | 16.0  | 14.5  | 11.5  | 9.9   | 12.1  | 11.0  | 18.3  | 18.2  | 17.1  | 15.1     |
|      | MAXIMUM | 41.6  | 35.4  | 39.5  | 37.1  | 24.1  | 32.9  | 21.6  | 35.2  | 31.7  | 44.5  | 36.4  | 37.3  | 44.5     |
|      | DAY-HR  | 19-07 | 28-23 | 07-14 | 06-13 | 30-05 | 23-06 | 08-12 | 13-13 | 28-10 | 06-01 | 25-01 | 26-16 | OCT      |
|      | # OBS   | 738   | 690   | 744   | 736   | 739   | 717   | 838   | 788   | 714   | 733   | 692   | 739   | 8868     |
| 1997 | MEAN    | 18.5  | 18.4  | 14.5  | 17.3  | -     | -     | -     | -     | -     | -     | 17.7  | 18.0  | 17.3     |
|      | MAXIMUM | 36.9  | 48.0  | 40.8  | 37.9  | -     | -     | -     | -     | -     | -     | 33.6  | 37.5  | 48.0     |
|      | DAY-HR  | 09-19 | 12-23 | 17-19 | 05-03 | -     | -     | -     | -     | -     | -     | 15-20 | 26-20 | FEB      |
|      | # OBS   | 736   | 633   | 740   | 687   | -     | -     | -     | -     | -     | -     | 521   | 686   | 4003     |
| 1998 | MEAN    | 15.2  | 17.3  | 17.2  | 13.5  | 11.2  | 16.1  | -     | 11.2  | 14.7  | 17.0  | 16.8  | 17.1  | 15.2     |
|      | MAXIMUM | 28.2  | 39.1  | 39.1  | 32.3  | 24.1  | 29.0  | -     | 36.2  | 42.6  | 36.9  | 32.5  | 35.6  | 42.6     |
|      | DAY-HR  | 22-23 | 15-05 | 08-18 | 17-14 | 15-02 | 11-08 | -     | 22-03 | 09-18 | 06-15 | 10-07 | 22-15 | SEP      |
|      | # OBS   | 261   | 663   | 716   | 695   | 738   | 690   | -     | 622   | 712   | 735   | 718   | 552   | 7102     |
| 1999 | MEAN    | -     | 13.1  | 14.9  | 15.1  | 14.2  | 13.5  | 11.0  | 9.6   | 12.1  | 14.5  | 13.7  | 21.1  | 13.5     |
|      | MAXIMUM | -     | 41.6  | 36.0  | 36.5  | 30.7  | 24.5  | 31.7  | 37.5  | 33.4  | 30.9  | 34.4  | 38.3  | 41.6     |
|      | DAY-HR  | -     | 21-05 | 13-17 | 03-19 | 18-08 | 25-09 | 03-03 | 22-16 | 29-14 | 31-01 | 25-10 | 03-07 | FEB      |
|      | # OBS   | -     | 600   | 717   | 705   | 740   | 719   | 740   | 740   | 704   | 738   | 711   | 316   | 7430     |
| 2000 | MEAN    | -     | -     | -     | -     | -     | 11.7  | 10.8  | 10.0  | 14.4  | 16.6  | 19.1  | 19.7  | 14.9     |
|      | MAXIMUM | -     | -     | -     | -     | -     | 19.1  | 32.1  | 24.5  | 29.0  | 36.2  | 36.4  | 38.1  | 38.1     |
|      | DAY-HR  | -     | -     | -     | -     | -     | 24-09 | 24-03 | 14-21 | 25-13 | 08-14 | 24-07 | 19-01 | DEC      |
|      | # OBS   | -     | -     | -     | -     | -     | 174   | 744   | 744   | 717   | 741   | 714   | 743   | 4577     |
| 2001 | MEAN    | 17.6  | 15.4  | 15.4  | 16.0  | 14.2  | 12.4  | 10.4  | 12.7  | 14.3  | 15.6  | 15.7  | 17.5  | 14.8     |
|      | MAXIMUM | 35.8  | 31.3  | 32.3  | 34.2  | 29.9  | 36.9  | 28.6  | 26.6  | 28.2  | 33.8  | 30.1  | 34.6  | 36.9     |
|      | DAY-HR  | 01-09 | 09-20 | 28-00 | 17-18 | 22-12 | 09-10 | 02-22 | 29-17 | 02-11 | 13-14 | 29-11 | 08-21 | JUN      |
|      | # OBS   | 742   | 672   | 741   | 716   | 743   | 718   | 744   | 744   | 714   | 744   | 719   | 743   | 8740     |
| POR  | MEAN    | 18.2  | 16.2  | 15.6  | 15.2  | 13.7  | 12.9  | 11.2  | 10.6  | 12.7  | 15.8  | 17.2  | 17.6  | 14.7     |
|      | MAXIMUM | 43.0  | 48.0  | 49.6  | 41.6  | 44.3  | 37.3  | 32.1  | 37.5  | 42.6  | 44.5  | 39.1  | 42.0  | 49.6     |
|      | YEAR    | 1994  | 1997  | 1993  | 1993  | 1991  | 1993  | 1999  | 1999  | 1998  | 1996  | 1995  | 1992  | MAR/1993 |
|      | # OBS   | 5264  | 5946  | 6608  | 6381  | 5338  | 5977  | 5626  | 7728  | 7846  | 7776  | 7915  | 7409  | 79814    |

STATION: 42019 -- POR (5/1990 - 12/2001)

## 2 - MEANS &amp; EXTREMES BASED ON HOURLY (GMT) OBSERVATIONS -- MONTHLY &amp; ANNUAL BY YEAR

ELEMENT: SIGNIFICANT WAVE HEIGHT (METERS)

| YEAR | ELEMENT | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC   | ANN      |
|------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1990 | MEAN    | -     | -     | -     | -     | 1.0   | 1.0   | 0.8   | 0.6   | 0.7   | 1.0   | 1.4   | 1.5   | 1.0      |
|      | MAXIMUM | -     | -     | -     | -     | 1.6   | 2.8   | 2.3   | 2.3   | 2.6   | 4.2   | 4.8   | 3.9   | 4.8      |
|      | DAY-HR  | -     | -     | -     | -     | 31-20 | 02-13 | 17-10 | 08-21 | 23-19 | 10-04 | 29-20 | 24-07 | NOV      |
|      | # OBS   | -     | -     | -     | -     | 163   | 713   | 743   | 741   | 718   | 741   | 717   | 742   | 5278     |
| 1991 | MEAN    | 1.5   | 1.3   | 1.7   | 1.5   | 1.5   | 1.3   | -     | 0.6   | 1.1   | 1.3   | 1.5   | 1.6   | 1.4      |
|      | MAXIMUM | 4.5   | 3.6   | 3.9   | 3.8   | 3.1   | 3.0   | -     | 1.2   | 2.8   | 4.2   | 4.5   | 4.5   | 4.5      |
|      | DAY-HR  | 15-05 | 17-10 | 16-12 | 13-22 | 02-11 | 08-11 | -     | 28-18 | 21-03 | 06-22 | 08-10 | 20-13 | DEC      |
|      | # OBS   | 744   | 671   | 743   | 718   | 744   | 247   | -     | 411   | 714   | 740   | 715   | 744   | 7191     |
| 1992 | MEAN    | 1.5   | 1.2   | 1.2   | 1.1   | 1.0   | 0.8   | 1.1   | 0.6   | 1.1   | 1.4   | 1.7   | 1.5   | 1.2      |
|      | MAXIMUM | 3.8   | 4.4   | 3.5   | 3.1   | 2.2   | 1.9   | 2.5   | 1.7   | 3.9   | 3.8   | 4.4   | 4.3   | 4.4      |
|      | DAY-HR  | 19-07 | 05-15 | 10-16 | 29-22 | 11-02 | 30-23 | 02-14 | 26-14 | 29-21 | 22-21 | 04-16 | 14-03 | NOV      |
|      | # OBS   | 741   | 691   | 738   | 719   | 738   | 712   | 740   | 738   | 718   | 739   | 702   | 736   | 8712     |
| 1993 | MEAN    | 1.5   | 1.6   | 1.5   | 1.6   | 1.2   | 1.4   | 1.0   | 0.8   | 1.1   | 1.5   | 1.6   | -     | 1.3      |
|      | MAXIMUM | 4.4   | 4.0   | 5.8   | 3.7   | 3.1   | 4.3   | 2.2   | 1.7   | 3.7   | 3.9   | 3.7   | -     | 5.8      |
|      | DAY-HR  | 24-16 | 15-22 | 12-20 | 24-12 | 06-04 | 19-16 | 06-09 | 23-16 | 14-08 | 30-16 | 09-14 | -     | MAR      |
|      | # OBS   | 738   | 671   | 727   | 716   | 731   | 718   | 743   | 740   | 718   | 744   | 715   | -     | 7961     |
| 1994 | MEAN    | 1.7   | 1.4   | 1.2   | 1.2   | 1.0   | 1.1   | 1.0   | 0.5   | -     | -     | 1.7   | 1.3   | 1.2      |
|      | MAXIMUM | 3.2   | 3.2   | 3.3   | 3.3   | 2.2   | 2.1   | 2.0   | 1.7   | -     | -     | 3.5   | 3.0   | 3.5      |
|      | DAY-HR  | 21-16 | 13-18 | 02-11 | 06-13 | 15-03 | 15-07 | 14-12 | 02-14 | -     | -     | 27-20 | 11-08 | NOV      |
|      | # OBS   | 285   | 652   | 740   | 720   | 730   | 705   | 661   | 304   | -     | -     | 314   | 383   | 5494     |
| 1995 | MEAN    | -     | -     | -     | -     | -     | -     | 1.0   | 0.8   | 0.8   | 1.8   | 1.6   | 1.4   | 1.3      |
|      | MAXIMUM | -     | -     | -     | -     | -     | -     | 2.2   | 2.4   | 3.8   | 4.5   | 4.0   | 3.5   | 4.5      |
|      | DAY-HR  | -     | -     | -     | -     | -     | -     | 30-19 | 12-12 | 22-18 | 30-23 | 11-16 | 09-16 | OCT      |
|      | # OBS   | -     | -     | -     | -     | -     | -     | 246   | 707   | 694   | 740   | 713   | 744   | 3844     |
| 1996 | MEAN    | 1.7   | 1.5   | 1.5   | 1.4   | 1.1   | 0.9   | 0.8   | 0.9   | 0.8   | 1.6   | 1.7   | 1.4   | 1.3      |
|      | MAXIMUM | 5.2   | 3.6   | 4.7   | 3.5   | 2.0   | 2.6   | 1.9   | 2.5   | 3.0   | 5.5   | 4.0   | 3.5   | 5.5      |
|      | DAY-HR  | 19-02 | 29-18 | 07-15 | 06-07 | 27-11 | 25-01 | 08-20 | 24-09 | 28-08 | 06-12 | 17-01 | 22-13 | OCT      |
|      | # OBS   | 738   | 690   | 744   | 736   | 736   | 717   | 838   | 788   | 714   | 733   | 692   | 739   | 8865     |
| 1997 | MEAN    | 1.6   | 1.6   | 1.2   | 1.6   | -     | -     | -     | -     | -     | -     | 1.4   | 1.4   | 1.5      |
|      | MAXIMUM | 4.0   | 3.7   | 3.3   | 4.2   | -     | -     | -     | -     | -     | -     | 3.0   | 3.8   | 4.2      |
|      | DAY-HR  | 13-18 | 24-04 | 06-15 | 05-08 | -     | -     | -     | -     | -     | -     | 10-17 | 08-04 | APR      |
|      | # OBS   | 736   | 632   | 740   | 685   | -     | -     | -     | -     | -     | -     | 509   | 682   | 3984     |
| 1998 | MEAN    | 1.0   | 1.6   | 1.8   | 1.4   | 0.9   | 1.4   | 0.9   | 0.7   | 1.5   | 1.5   | 1.3   | 1.5   | 1.3      |
|      | MAXIMUM | 2.2   | 4.5   | 4.5   | 3.0   | 1.9   | 2.4   | 2.8   | 4.4   | 5.4   | 3.4   | 3.4   | 3.9   | 5.4      |
|      | DAY-HR  | 31-23 | 15-07 | 16-06 | 29-20 | 10-05 | 09-10 | 03-19 | 22-05 | 10-07 | 22-21 | 10-14 | 19-00 | SEP      |
|      | # OBS   | 259   | 658   | 711   | 687   | 735   | 685   | 729   | 789   | 682   | 733   | 716   | 558   | 7942     |
| 1999 | MEAN    | -     | 1.2   | 1.5   | 1.4   | 1.2   | 1.1   | 0.9   | 0.7   | 1.0   | 1.2   | 1.0   | 1.9   | 1.2      |
|      | MAXIMUM | -     | 3.9   | 3.5   | 2.9   | 2.9   | 2.2   | 2.6   | 4.8   | 2.4   | 2.8   | 3.1   | 4.3   | 4.8      |
|      | DAY-HR  | -     | 12-10 | 14-07 | 22-05 | 06-15 | 25-09 | 03-12 | 23-00 | 29-16 | 05-17 | 25-12 | 04-12 | AUG      |
|      | # OBS   | -     | 601   | 717   | 705   | 738   | 718   | 735   | 734   | 704   | 737   | 711   | 316   | 7416     |
| 2000 | MEAN    | -     | -     | -     | -     | -     | 0.8   | 0.7   | 0.8   | 1.1   | 1.5   | 1.7   | 1.7   | 1.2      |
|      | MAXIMUM | -     | -     | -     | -     | -     | 1.1   | 1.4   | 2.6   | 2.7   | 3.9   | 4.3   | 3.6   | 4.3      |
|      | DAY-HR  | -     | -     | -     | -     | -     | 26-21 | 24-04 | 15-15 | 20-21 | 08-17 | 24-08 | 12-15 | NOV      |
|      | # OBS   | -     | -     | -     | -     | -     | 174   | 724   | 726   | 626   | 710   | 713   | 736   | 4409     |
| 2001 | MEAN    | 1.5   | 1.4   | 1.3   | 1.6   | 1.1   | 1.1   | 0.8   | 0.9   | 1.1   | 1.3   | 1.3   | 1.4   | 1.2      |
|      | MAXIMUM | 3.8   | 3.6   | 3.4   | 3.3   | 2.9   | 3.2   | 1.7   | 2.4   | 2.5   | 3.7   | 3.0   | 3.2   | 3.8      |
|      | DAY-HR  | 02-22 | 24-16 | 17-19 | 17-21 | 22-14 | 05-16 | 27-16 | 31-16 | 25-15 | 16-17 | 29-04 | 09-02 | JAN      |
|      | # OBS   | 730   | 670   | 739   | 714   | 742   | 712   | 719   | 739   | 705   | 717   | 711   | 737   | 8635     |
| POR  | MEAN    | 1.5   | 1.4   | 1.4   | 1.4   | 1.1   | 1.1   | 0.9   | 0.8   | 1.0   | 1.4   | 1.5   | 1.5   | 1.3      |
|      | MAXIMUM | 5.2   | 4.5   | 5.8   | 4.2   | 3.1   | 4.3   | 2.8   | 4.8   | 5.4   | 5.5   | 4.8   | 4.5   | 5.8      |
|      | YEAR    | 1996  | 1998  | 1993  | 1997  | 1993  | 1993  | 1998  | 1999  | 1998  | 1996  | 1990  | 1991  | MAR/1993 |
|      | # OBS   | 4971  | 5936  | 6599  | 6400  | 6057  | 6101  | 6878  | 7417  | 6993  | 7334  | 7928  | 7117  | 79731    |

STATION: 42019

## 3 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS AVERAGE WIND DIRECTION(TENS OF DEGREES)

Month: JAN

| WIND SPEED |     | CALM | WIND DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|------------|-----|------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |     |      | 35-01          | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| 0          |     | 0.0  | -              | -     | -     | *     | -     | -     | *     | *     | -     | *     | -     | 0.1   | 5     |       |
| 1          | - 3 |      | *              | 0.2   | 0.2   | 0.3   | 0.2   | 0.2   | 0.3   | 0.2   | 0.1   | 0.1   | 0.1   | 0.2   | 2.2   | 114   |

|             |     |      |      |      |     |     |      |     |     |     |     |     |      |       |
|-------------|-----|------|------|------|-----|-----|------|-----|-----|-----|-----|-----|------|-------|
| 4 - 6       | 0.4 | 0.6  | 0.5  | 0.6  | 0.5 | 0.4 | 0.6  | 0.6 | 0.1 | 0.3 | 0.3 | 0.4 | 5.2  | 274   |
| 7 - 10      | 1.3 | 2.8  | 2.2  | 1.4  | 1.6 | 3.3 | 2.1  | 1.3 | 0.6 | 0.3 | 0.7 | 1.2 | 18.7 | 985   |
| 11 - 15     | 3.1 | 3.9  | 4.0  | 2.1  | 2.9 | 6.3 | 3.0  | 1.0 | 0.6 | 0.5 | 0.7 | 1.6 | 29.5 | 1555  |
| 16 - 20     | 4.1 | 5.4  | 3.0  | 2.8  | 2.6 | 5.0 | 2.5  | 0.3 | 0.2 | 0.4 | 0.9 | 2.2 | 29.3 | 1540  |
| 21 - 24     | 2.1 | 3.2  | 0.6  | 0.4  | 0.9 | 1.0 | 0.7  | *   | 0.1 | *   | 0.6 | 1.2 | 10.7 | 565   |
| 25 - 33     | 1.0 | 1.2  | 0.1  | *    | 0.2 | 0.4 | 0.1  | -   | -   | *   | 0.3 | 0.9 | 4.3  | 224   |
| 34 - 47     | *   | -    | -    | -    | -   | -   | -    | -   | -   | -   | -   | -   | 0.0  | 2     |
| > 48        | -   | -    | -    | -    | -   | -   | -    | -   | -   | -   | -   | -   | 0.0  | 0     |
| TOTAL %     | 0.0 | 12.1 | 17.3 | 10.6 | 7.6 | 8.8 | 16.5 | 9.4 | 3.3 | 1.6 | 1.7 | 3.5 | 7.5  | 100.0 |
| TOTAL N     | 0   | 635  | 912  | 557  | 401 | 463 | 870  | 493 | 176 | 85  | 90  | 185 | 397  | 5264  |
| (* < 0.05%) |     |      |      |      |     |     |      |     |     |     |     |     |      |       |

STATION: 42019

3 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS AVERAGE WIND DIRECTION(TENS OF DEGREES)

Month: FEB

| WIND SPEED  |     | WIND DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|-----|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             |     | CALM           | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 |       |       |
| 0           | 0.1 | -              | *     | -     | *     | *     | *     | -     | -     | -     | -     | *     | -     | 0.2   | 13    |
| 1 - 3       |     | 0.3            | 0.4   | 0.5   | 0.4   | 0.4   | 0.3   | 0.3   | 0.3   | 0.2   | 0.3   | 0.4   | 0.2   | 4.1   | 245   |
| 4 - 6       |     | 0.8            | 1.0   | 0.8   | 1.3   | 1.4   | 1.4   | 0.9   | 0.6   | 0.5   | 0.4   | 0.4   | 0.5   | 10.0  | 596   |
| 7 - 10      |     | 1.5            | 1.4   | 2.0   | 2.4   | 2.8   | 4.4   | 2.4   | 0.8   | 0.4   | 0.7   | 0.4   | 1.1   | 20.2  | 1200  |
| 11 - 15     |     | 1.8            | 3.6   | 3.3   | 4.1   | 4.7   | 6.5   | 3.5   | 0.9   | 0.4   | 0.5   | 0.8   | 1.3   | 31.3  | 1864  |
| 16 - 20     |     | 3.3            | 4.0   | 1.9   | 1.5   | 3.1   | 4.7   | 1.9   | 0.3   | 0.1   | 0.4   | 0.7   | 0.9   | 22.8  | 1356  |
| 21 - 24     |     | 2.6            | 1.6   | 0.5   | 0.2   | 0.7   | 2.0   | 0.4   | *     | *     | 0.1   | 0.2   | 0.5   | 8.7   | 518   |
| 25 - 33     |     | 1.2            | 0.4   | 0.1   | 0.1   | 0.1   | 0.1   | 0.1   | -     | *     | -     | 0.1   | 0.5   | 2.6   | 155   |
| 34 - 47     |     | *              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 1     |
| > 48        |     | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| TOTAL %     |     | 0.1            | 11.5  | 12.5  | 9.0   | 9.9   | 13.1  | 19.5  | 9.5   | 3.0   | 1.6   | 2.3   | 3.0   | 100.0 |       |
| TOTAL N     |     | 8              | 684   | 741   | 536   | 590   | 777   | 1157  | 567   | 179   | 94    | 137   | 179   |       | 5948  |
| (* < 0.05%) |     |                |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

3 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS AVERAGE WIND DIRECTION(TENS OF DEGREES)

Month: MAR

| WIND SPEED  |  | WIND DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |       |
|-------------|--|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             |  | CALM           | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 |       |       | 32-34 |
| 0           |  | 0.1            | *     | *     | *     | *     | *     | *     | -     | *     | 0.1   | *     | *     | *     | 0.4   | 28    |
| 1 - 3       |  |                | 0.3   | 0.4   | 0.5   | 0.7   | 0.6   | 0.6   | 0.4   | 0.2   | 0.3   | 0.3   | 0.4   | 0.3   | 5.0   | 331   |
| 4 - 6       |  |                | 0.8   | 0.9   | 0.9   | 1.5   | 1.9   | 1.2   | 1.0   | 0.5   | 0.3   | 0.2   | 0.4   | 0.7   | 10.3  | 683   |
| 7 - 10      |  |                | 1.4   | 1.7   | 1.8   | 2.3   | 3.7   | 4.9   | 2.5   | 0.8   | 0.6   | 0.3   | 0.5   | 1.1   | 21.7  | 1431  |
| 11 - 15     |  |                | 2.4   | 2.6   | 3.1   | 3.3   | 5.9   | 7.1   | 3.0   | 1.2   | 0.5   | 0.3   | 0.6   | 1.8   | 31.7  | 2095  |
| 16 - 20     |  |                | 2.6   | 2.3   | 1.9   | 1.9   | 3.1   | 5.2   | 1.9   | 0.3   | 0.1   | 0.1   | 0.4   | 1.9   | 21.8  | 1438  |
| 21 - 24     |  |                | 1.0   | 0.5   | 0.7   | 0.5   | 0.8   | 1.1   | 0.2   | *     | -     | *     | 0.2   | 1.2   | 6.3   | 416   |
| 25 - 33     |  |                | 0.5   | 0.2   | 0.1   | 0.1   | 0.2   | 0.2   | *     | -     | -     | *     | 0.2   | 1.1   | 2.6   | 174   |
| 34 - 47     |  |                | 0.1   | *     | -     | -     | *     | *     | -     | -     | -     | -     | -     | *     | 0.2   | 13    |
| > 48        |  |                | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| TOTAL %     |  | 0.1            | 9.2   | 8.7   | 9.1   | 10.2  | 16.2  | 20.3  | 9.0   | 3.1   | 1.9   | 1.4   | 2.7   | 8.1   | 100.0 |       |
| TOTAL N     |  | 9              | 607   | 578   | 599   | 674   | 1071  | 1341  | 592   | 207   | 123   | 91    | 180   | 537   |       | 6609  |
| (* < 0.05%) |  |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

3 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS AVERAGE WIND DIRECTION(TENS OF DEGREES)

Month: APR

| WIND SPEED  |     | WIND DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|-----|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             |     | CALM           | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| 0           | 0.1 | -              | *     | 0.1   | -     | *     | -     | *     | *     | -     | -     | *     | *     | 0.3   | 18    |       |
| 1 - 3       |     | 0.4            | 0.4   | 0.5   | 0.7   | 0.4   | 0.5   | 0.4   | 0.4   | 0.3   | 0.3   | 0.2   | 0.3   | 4.7   | 298   |       |
| 4 - 6       |     | 0.5            | 0.6   | 1.0   | 1.7   | 2.0   | 1.3   | 0.8   | 0.3   | 0.3   | 0.4   | 0.4   | 0.3   | 9.5   | 605   |       |
| 7 - 10      |     | 0.8            | 1.6   | 2.8   | 3.9   | 5.6   | 5.0   | 1.3   | 0.7   | 0.2   | 0.3   | 0.4   | 0.4   | 22.9  | 1464  |       |
| 11 - 15     |     | 1.6            | 2.4   | 4.2   | 3.7   | 7.5   | 9.7   | 2.9   | 0.3   | 0.1   | 0.2   | *     | 0.3   | 32.9  | 2101  |       |
| 16 - 20     |     | 1.7            | 2.4   | 1.8   | 1.6   | 3.9   | 8.2   | 1.9   | *     | -     | 0.1   | 0.3   | 0.6   | 22.5  | 1437  |       |
| 21 - 24     |     | 0.8            | 1.5   | 0.5   | 0.2   | 0.6   | 1.2   | 0.4   | -     | -     | 0.1   | 0.2   | 0.4   | 5.9   | 379   |       |
| 25 - 33     |     | 0.3            | 0.3   | *     | 0.1   | 0.2   | 0.2   | 0.1   | -     | -     | -     | *     | 0.1   | 1.3   | 81    |       |
| 34 - 47     |     | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |       |
| > 48        |     | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |       |
| TOTAL %     |     | 0.1            | 6.1   | 9.1   | 10.9  | 11.8  | 20.1  | 26.2  | 7.8   | 1.8   | 0.9   | 1.3   | 1.5   | 100.0 |       |       |
| TOTAL N     |     | 6              | 391   | 581   | 698   | 751   | 1284  | 1675  | 498   | 112   | 57    | 86    | 98    |       | 6383  |       |
| (* < 0.05%) |     |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

3 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS AVERAGE WIND DIRECTION(TENS OF DEGREES)

Month: MAY

| WIND SPEED | CALM | WIND DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|------------|------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |      | 35-01          | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| 0          | 0.1  | -              | -     | -     | *     | *     | *     | *     | -     | -     | *     | -     | *     | 0.2   | 9     |
| 1 - 3      |      | 0.3            | 0.1   | 0.3   | 0.5   | 0.5   | 0.6   | 0.5   | 0.4   | 0.4   | 0.3   | 0.2   | 0.1   | 4.1   | 220   |
| 4 - 6      |      | 0.2            | 0.5   | 0.9   | 2.0   | 2.2   | 2.1   | 1.6   | 0.7   | 0.4   | 0.2   | *     | 0.1   | 10.8  | 578   |
| 7 - 10     |      | 0.5            | 0.8   | 2.1   | 4.4   | 7.6   | 7.5   | 2.4   | 0.5   | 0.1   | 0.2   | 0.2   | 0.3   | 26.6  | 1421  |
| 11 - 15    |      | 0.3            | 1.5   | 2.8   | 3.7   | 14.0  | 14.4  | 3.1   | 0.1   | 0.2   | 0.2   | 0.2   | 0.3   | 41.0  | 2187  |
| 16 - 20    |      | 0.3            | 1.0   | 0.9   | 0.9   | 5.2   | 6.2   | 0.9   | *     | *     | *     | 0.1   | 0.1   | 15.7  | 838   |
| 21 - 24    |      | 0.2            | 0.3   | 0.1   | 0.1   | 0.2   | 0.3   | *     | -     | *     | -     | *     | *     | 1.3   | 69    |
| 25 - 33    |      | *              | *     | *     | *     | 0.1   | *     | -     | -     | -     | -     | *     | -     | 0.3   | 15    |
| 34 - 47    |      | -              | -     | -     | *     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 1     |
| > 48       |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |

TOTAL % 0.1 1.8 4.3 7.1 11.7 29.9 31.1 8.5 1.7 1.1 1.0 0.8 1.0 100.0  
 TOTAL N 3 98 230 381 625 1594 1660 453 92 58 51 42 51 5338  
 (\* < 0.05%)

STATION: 42019

3 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS AVERAGE WIND DIRECTION(TENS OF DEGREES)

Month: JUN

| WIND SPEED | CALM | WIND DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|------------|------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |      | 35-01          | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| 0          | 0.1  | 0.1            | *     | *     | *     | *     | *     | 0.1   | -     | *     | *     | 0.1   | 0.1   | 0.4   | 26    |
| 1 - 3      |      | 0.3            | 0.4   | 0.5   | 0.4   | 0.7   | 1.0   | 0.7   | 0.8   | 0.4   | 0.4   | 0.4   | 0.3   | 6.3   | 376   |
| 4 - 6      |      | 0.5            | 0.4   | 0.7   | 1.4   | 2.3   | 2.7   | 2.2   | 1.5   | 0.8   | 0.7   | 0.4   | 0.3   | 13.7  | 823   |
| 7 - 10     |      | 0.4            | 0.4   | 1.0   | 2.1   | 7.2   | 8.9   | 5.2   | 2.2   | 0.7   | 0.4   | 0.1   | 0.2   | 28.7  | 1720  |
| 11 - 15    |      | 0.2            | 0.3   | 0.9   | 2.1   | 8.1   | 15.9  | 5.6   | 1.3   | 0.3   | 0.3   | 0.3   | 0.3   | 35.6  | 2131  |
| 16 - 20    |      | 0.2            | 0.1   | 0.4   | 1.1   | 2.2   | 6.8   | 2.2   | 0.4   | 0.2   | 0.1   | *     | *     | 13.7  | 821   |
| 21 - 24    |      | *              | -     | 0.2   | 0.1   | 0.3   | 0.7   | 0.1   | *     | *     | *     | -     | -     | 1.4   | 81    |
| 25 - 33    |      | -              | *     | -     | 0.1   | *     | -     | -     | *     | -     | -     | -     | -     | 0.1   | 8     |
| 34 - 47    |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| > 48       |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |

TOTAL % 0.1 1.5 1.6 3.6 7.3 20.8 36.0 16.0 6.3 2.5 1.8 1.2 1.1 100.0  
 TOTAL N 5 91 98 216 435 1247 2157 960 378 152 109 71 67 5986  
 (\* < 0.05%)

STATION: 42019

3 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS AVERAGE WIND DIRECTION(TENS OF DEGREES)

Month: JUL

| WIND SPEED | CALM | WIND DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|------------|------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |      | 35-01          | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| 0          | 0.1  | -              | *     | 0.1   | *     | *     | -     | *     | 0.1   | *     | *     | *     | -     | 0.4   | 25    |
| 1 - 3      |      | 0.5            | 0.5   | 0.7   | 0.8   | 1.2   | 1.6   | 1.1   | 1.1   | 0.5   | 0.5   | 0.3   | 0.3   | 9.2   | 515   |
| 4 - 6      |      | 0.2            | 0.4   | 1.0   | 1.4   | 3.0   | 3.8   | 3.1   | 1.4   | 0.8   | 0.5   | 0.3   | 0.4   | 16.3  | 916   |
| 7 - 10     |      | 0.2            | 0.2   | 1.1   | 2.8   | 6.0   | 11.6  | 10.9  | 2.8   | 0.7   | 0.2   | 0.1   | 0.3   | 36.9  | 2076  |
| 11 - 15    |      | 0.3            | 0.2   | 0.3   | 1.2   | 4.1   | 11.3  | 11.3  | 1.7   | 0.3   | 0.1   | 0.1   | 0.1   | 31.1  | 1751  |
| 16 - 20    |      | 0.2            | 0.1   | 0.2   | 0.2   | 0.9   | 2.0   | 2.1   | 0.1   | *     | *     | *     | *     | 5.9   | 330   |
| 21 - 24    |      | *              | -     | -     | *     | -     | 0.1   | *     | *     | *     | -     | -     | -     | 0.2   | 13    |
| 25 - 33    |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 34 - 47    |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| > 48       |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |

TOTAL % 0.1 1.5 1.5 3.3 6.5 15.3 30.4 28.5 7.2 2.5 1.3 0.8 1.1 100.0  
 TOTAL N 7 82 82 186 367 861 1708 1604 405 140 75 46 63 5626  
 (\* < 0.05%)

STATION: 42019

3 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS AVERAGE WIND DIRECTION(TENS OF DEGREES)

Month: AUG

| WIND SPEED | CALM | WIND DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|------------|------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |      | 35-01          | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| 0          | 0.2  | *              | 0.1   | *     | 0.1   | *     | *     | *     | 0.1   | *     | *     | -     | -     | 0.5   | 41    |
| 1 - 3      |      | 0.5            | 0.6   | 1.0   | 1.4   | 1.3   | 1.3   | 1.1   | 1.1   | 0.7   | 0.6   | 0.5   | 0.4   | 10.4  | 803   |
| 4 - 6      |      | 0.8            | 0.8   | 1.8   | 2.8   | 3.1   | 3.6   | 3.3   | 1.8   | 1.1   | 1.0   | 0.8   | 0.7   | 21.5  | 1664  |
| 7 - 10     |      | 0.5            | 1.1   | 2.8   | 5.1   | 7.4   | 8.9   | 6.2   | 2.7   | 0.9   | 0.6   | 0.5   | 0.5   | 37.1  | 2867  |
| 11 - 15    |      | *              | 0.8   | 2.1   | 3.7   | 5.0   | 6.0   | 6.1   | 1.2   | 0.3   | 0.3   | 0.2   | 0.1   | 25.7  | 1990  |
| 16 - 20    |      | 0.1            | 0.1   | 0.3   | 1.2   | 0.7   | 0.8   | 0.6   | 0.2   | *     | -     | *     | -     | 4.2   | 322   |
| 21 - 24    |      | *              | *     | 0.1   | *     | 0.1   | 0.1   | *     | -     | -     | -     | -     | -     | 0.4   | 31    |
| 25 - 33    |      | *              | -     | 0.1   | *     | *     | -     | -     | -     | -     | -     | -     | *     | 0.2   | 13    |
| 34 - 47    |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| > 48       |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |

TOTAL % 0.2 1.8 3.4 8.4 14.4 17.6 20.7 17.4 7.0 3.0 2.5 2.0 1.6 100.0  
 TOTAL N 12 143 264 646 1111 1364 1601 1345 541 231 190 156 127 7731  
 (\* < 0.05%)



STATION: 42019

## 3 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS AVERAGE WIND DIRECTION(TENS OF DEGREES)

Month: SEP

| WIND SPEED | CALM | WIND DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|------------|------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |      | 35-01          | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| 0          | 0.2  | *              | 0.1   | 0.1   | 0.1   | *     | *     | *     | *     | *     | *     | -     | *     | 0.6   | 45    |
| 1 - 3      |      | 0.6            | 0.7   | 0.8   | 0.8   | 1.1   | 1.1   | 1.0   | 0.6   | 0.4   | 0.3   | 0.4   | 0.4   | 8.2   | 646   |
| 4 - 6      |      | 0.9            | 1.1   | 1.6   | 1.9   | 2.3   | 2.7   | 2.0   | 0.6   | 0.6   | 0.5   | 0.4   | 0.7   | 15.2  | 1195  |
| 7 - 10     |      | 1.1            | 2.2   | 3.6   | 5.6   | 6.0   | 5.9   | 2.9   | 1.0   | 0.7   | 0.4   | 0.5   | 0.5   | 30.4  | 2388  |
| 11 - 15    |      | 1.0            | 4.5   | 5.6   | 5.2   | 4.0   | 5.2   | 3.4   | 1.1   | 0.3   | 0.2   | 0.1   | 0.4   | 31.1  | 2441  |
| 16 - 20    |      | 0.9            | 3.2   | 2.1   | 1.0   | 0.5   | 1.1   | 1.5   | 0.3   | 0.1   | *     | -     | 0.1   | 10.8  | 845   |
| 21 - 24    |      | 0.4            | 1.0   | 0.3   | 0.2   | 0.1   | 0.2   | 0.4   | 0.1   | -     | -     | -     | *     | 2.8   | 218   |
| 25 - 33    |      | 0.1            | 0.2   | 0.3   | 0.1   | *     | 0.1   | *     | 0.1   | -     | -     | -     | -     | 0.9   | 69    |
| 34 - 47    |      | -              | -     | *     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 2     |
| > 48       |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| TOTAL %    | 0.2  | 5.0            | 12.9  | 14.4  | 14.9  | 14.2  | 16.3  | 11.1  | 4.0   | 2.1   | 1.5   | 1.4   | 2.1   | 100.0 |       |
| TOTAL N    | 15   | 391            | 1015  | 1130  | 1167  | 1111  | 1280  | 873   | 315   | 163   | 115   | 106   | 168   |       | 7849  |

(\* &lt; 0.05%)

STATION: 42019

## 3 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS AVERAGE WIND DIRECTION(TENS OF DEGREES)

Month: OCT

| WIND SPEED | CALM | WIND DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|------------|------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |      | 35-01          | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| 0          | 0.0  | -              | -     | *     | *     | *     | *     | -     | -     | *     | *     | -     | -     | 0.1   | 10    |
| 1 - 3      |      | 0.1            | 0.4   | 0.4   | 0.4   | 0.3   | 0.2   | 0.1   | 0.1   | 0.1   | 0.1   | 0.2   | 0.1   | 2.6   | 204   |
| 4 - 6      |      | 0.4            | 0.6   | 1.1   | 1.7   | 1.1   | 0.8   | 0.6   | 0.4   | 0.3   | 0.1   | 0.2   | 0.4   | 7.7   | 598   |
| 7 - 10     |      | 1.4            | 2.5   | 4.3   | 4.6   | 5.2   | 3.8   | 2.5   | 0.9   | 0.4   | 0.1   | 0.4   | 0.7   | 26.6  | 2072  |
| 11 - 15    |      | 2.0            | 4.1   | 6.8   | 4.3   | 6.0   | 7.8   | 2.6   | 0.5   | 0.3   | 0.1   | 0.2   | 0.3   | 35.0  | 2720  |
| 16 - 20    |      | 2.2            | 3.8   | 3.2   | 1.7   | 2.2   | 4.8   | 1.5   | 0.1   | 0.1   | 0.1   | 0.1   | 0.3   | 20.2  | 1573  |
| 21 - 24    |      | 1.1            | 1.8   | 1.1   | 0.3   | 0.3   | 0.3   | 0.1   | *     | -     | -     | -     | 0.2   | 5.2   | 402   |
| 25 - 33    |      | 0.7            | 0.9   | 0.6   | 0.1   | *     | -     | -     | -     | -     | -     | *     | 0.3   | 2.6   | 200   |
| 34 - 47    |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| > 48       |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| TOTAL %    | 0.0  | 7.9            | 14.0  | 17.5  | 13.1  | 15.2  | 17.6  | 7.5   | 2.1   | 1.2   | 0.6   | 1.1   | 2.3   | 100.0 |       |
| TOTAL N    | 2    | 613            | 1092  | 1358  | 1020  | 1181  | 1368  | 580   | 161   | 93    | 43    | 87    | 181   |       | 7779  |

(\* &lt; 0.05%)

STATION: 42019

## 3 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS AVERAGE WIND DIRECTION(TENS OF DEGREES)

Month: NOV

| WIND SPEED | CALM | WIND DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|------------|------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |      | 35-01          | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| 0          | 0.1  | *              | -     | *     | -     | *     | *     | *     | -     | 0.1   | *     | -     | *     | 0.2   | 15    |
| 1 - 3      |      | 0.2            | 0.2   | 0.2   | 0.5   | 0.4   | 0.3   | 0.2   | 0.2   | 0.2   | 0.1   | 0.1   | 0.2   | 2.8   | 219   |
| 4 - 6      |      | 0.5            | 0.6   | 0.9   | 1.2   | 1.2   | 1.0   | 0.8   | 0.4   | 0.1   | 0.2   | 0.2   | 0.4   | 7.4   | 587   |
| 7 - 10     |      | 1.1            | 1.7   | 3.0   | 3.9   | 3.2   | 2.7   | 1.5   | 0.7   | 0.4   | 0.2   | 0.6   | 0.7   | 19.5  | 1547  |
| 11 - 15    |      | 2.0            | 3.5   | 3.5   | 4.1   | 4.7   | 6.8   | 3.1   | 1.0   | 0.2   | 0.1   | 0.6   | 0.8   | 30.4  | 2407  |
| 16 - 20    |      | 3.2            | 4.3   | 2.6   | 1.6   | 4.0   | 7.7   | 2.4   | 0.5   | *     | 0.1   | 0.4   | 1.2   | 28.2  | 2230  |
| 21 - 24    |      | 2.0            | 1.7   | 0.6   | 0.2   | 0.4   | 2.0   | 0.7   | 0.1   | *     | *     | 0.6   | 0.9   | 9.2   | 727   |
| 25 - 33    |      | 0.7            | 0.8   | 0.1   | -     | *     | 0.2   | 0.2   | -     | -     | *     | 0.3   | 0.2   | 2.4   | 189   |
| 34 - 47    |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| > 48       |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| TOTAL %    | 0.1  | 9.7            | 12.8  | 10.9  | 11.5  | 13.9  | 20.7  | 8.8   | 2.9   | 0.9   | 0.7   | 2.8   | 4.5   | 100.0 |       |
| TOTAL N    | 4    | 766            | 1010  | 865   | 912   | 1099  | 1638  | 701   | 227   | 72    | 52    | 220   | 355   |       | 7921  |

(\* &lt; 0.05%)

STATION: 42019

## 3 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS AVERAGE WIND DIRECTION(TENS OF DEGREES)

Month: DEC

| WIND SPEED | CALM | WIND DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|------------|------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |      | 35-01          | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| 0          | 0.0  | *              | *     | -     | *     | *     | -     | -     | *     | -     | -     | -     | -     | 0.1   | 6     |
| 1 - 3      |      | 0.2            | 0.3   | 0.3   | 0.3   | 0.2   | 0.3   | 0.2   | 0.2   | 0.2   | 0.1   | 0.1   | 0.2   | 2.6   | 196   |
| 4 - 6      |      | 0.5            | 0.5   | 0.8   | 0.6   | 0.6   | 1.2   | 0.7   | 0.4   | 0.4   | 0.2   | 0.2   | 0.5   | 6.6   | 488   |
| 7 - 10     |      | 1.3            | 1.6   | 1.9   | 1.7   | 2.6   | 3.6   | 2.5   | 0.9   | 0.4   | 0.3   | 0.4   | 1.0   | 18.1  | 1344  |
| 11 - 15    |      | 2.3            | 3.4   | 3.0   | 2.3   | 5.1   | 8.1   | 4.7   | 1.0   | 0.4   | 0.4   | 0.6   | 1.6   | 32.7  | 2428  |
| 16 - 20    |      | 3.1            | 3.4   | 2.1   | 1.2   | 3.6   | 5.7   | 2.3   | 0.1   | 0.2   | 0.3   | 1.4   | 3.1   | 26.6  | 1969  |
| 21 - 24    |      | 2.3            | 1.8   | 0.6   | 0.1   | 0.5   | 1.6   | 0.8   | *     | *     | 0.1   | 0.6   | 1.8   | 10.3  | 767   |
| 25 - 33    |      | 1.0            | 0.4   | *     | -     | -     | 0.6   | 0.2   | *     | -     | -     | 0.2   | 0.6   | 2.9   | 217   |
| 34 - 47    |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| > 48       |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| TOTAL %    | 0.0  | 10.7           | 11.4  | 8.7   | 6.2   | 12.6  | 21.0  | 11.4  | 2.6   | 1.6   | 1.3   | 3.5   | 8.9   | 100.0 |       |

[illegible]

STATION: 42019

3 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS AVERAGE WIND DIRECTION(TENS OF DEGREES)

All Months: Annual

| WIND SPEED |     | CALM | WIND DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|------------|-----|------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |     |      | 35-01          | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| 0          | 0.1 | *    | *              | *     | *     | *     | *     | *     | *     | *     | *     | *     | *     | *     | 0.3   | 241   |
| 1 - 3      |     | 0.3  | 0.4            | 0.5   | 0.6   | 0.6   | 0.7   | 0.5   | 0.5   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 5.2   | 4167  |
| 4 - 6      |     | 0.6  | 0.7            | 1.0   | 1.5   | 1.8   | 1.9   | 1.4   | 0.8   | 0.5   | 0.4   | 0.4   | 0.4   | 0.4   | 11.3  | 9007  |
| 7 - 10     |     | 1.0  | 1.5            | 2.5   | 3.5   | 4.9   | 5.8   | 3.4   | 1.3   | 0.5   | 0.3   | 0.4   | 0.7   | 0.7   | 25.7  | 20515 |
| 11 - 15    |     | 1.4  | 2.7            | 3.4   | 3.4   | 5.9   | 8.5   | 4.3   | 1.0   | 0.3   | 0.3   | 0.4   | 0.7   | 0.7   | 32.1  | 25670 |
| 16 - 20    |     | 1.8  | 2.6            | 1.7   | 1.4   | 2.6   | 4.8   | 1.8   | 0.2   | 0.1   | 0.1   | 0.4   | 0.9   | 0.9   | 18.4  | 14699 |
| 21 - 24    |     | 1.1  | 1.1            | 0.5   | 0.2   | 0.4   | 0.9   | 0.3   | *     | *     | *     | 0.2   | 0.5   | 0.5   | 5.2   | 4186  |
| 25 - 33    |     | 0.5  | 0.4            | 0.1   | *     | 0.1   | 0.2   | 0.1   | *     | *     | *     | 0.1   | 0.3   | 0.3   | 1.7   | 1345  |
| 34 - 47    |     | *    | *              | *     | *     | *     | *     | *     | *     | *     | *     | *     | *     | *     | 0.0   | 19    |
| > 48       |     | -    | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| TOTAL %    | 0.1 | 6.6  | 9.3            | 9.8   | 10.7  | 16.3  | 22.6  | 11.9  | 3.7   | 1.7   | 1.4   | 2.0   | 3.8   | 3.8   | 100.0 |       |
| TOTAL N    | 71  | 5295 | 7448           | 7820  | 8513  | 12984 | 18015 | 9512  | 2989  | 1389  | 1132  | 1630  | 3051  | 3051  |       | 79849 |

STATION: 42019

3 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS AVERAGE WIND DIRECTION(TENS OF DEGREES)

Months: DEC, JAN, FEB (Winter)

| WIND SPEED  | CALM | WIND DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             |      | 35-01          | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |       |
| 0           | 0.0  | *              | *     | -     | *     | *     | *     | *     | *     | *     | *     | *     | *     | 0.1   | 24    |       |
| 1 - 3       |      | 0.2            | 0.3   | 0.3   | 0.3   | 0.3   | 0.2   | 0.3   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 3.0   | 555   |       |
| 4 - 6       |      | 0.6            | 0.7   | 0.7   | 0.8   | 0.8   | 1.1   | 0.7   | 0.5   | 0.3   | 0.3   | 0.3   | 0.5   | 7.3   | 1358  |       |
| 7 - 10      |      | 1.4            | 1.9   | 2.0   | 1.9   | 2.4   | 3.8   | 2.3   | 1.0   | 0.5   | 0.4   | 0.5   | 1.1   | 18.9  | 3529  |       |
| 11 - 15     |      | 2.3            | 3.6   | 3.3   | 2.8   | 4.3   | 7.1   | 3.9   | 1.0   | 0.4   | 0.4   | 0.7   | 1.5   | 31.4  | 5847  |       |
| 16 - 20     |      | 3.5            | 4.2   | 2.3   | 1.7   | 3.2   | 5.2   | 2.2   | 0.2   | 0.2   | 0.3   | 1.0   | 2.1   | 26.1  | 4865  |       |
| 21 - 24     |      | 2.3            | 2.2   | 0.6   | 0.2   | 0.7   | 1.5   | 0.6   | *     | *     | 0.1   | 0.5   | 1.2   | 9.9   | 1850  |       |
| 25 - 33     |      | 1.0            | 0.6   | 0.1   | *     | 0.1   | 0.4   | 0.2   | *     | *     | *     | 0.2   | 0.6   | 3.2   | 596   |       |
| 34 - 47     |      | *              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 3     |       |
| > 48        |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |       |
| TOTAL %     | 0.0  | 11.3           | 13.4  | 9.3   | 7.8   | 11.7  | 19.3  | 10.2  | 3.0   | 1.6   | 1.7   | 3.3   | 7.3   | 100.0 |       |       |
| TOTAL N     | 8    | 2113           | 2498  | 1741  | 1451  | 2172  | 3587  | 1906  | 551   | 300   | 320   | 624   | 1356  |       | 18627 |       |
| (* < 0.05%) |      |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

3 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS AVERAGE WIND DIRECTION(TENS OF DEGREES)

Months: MAR, APR, MAY (Spring)

| WIND SPEED  | CALM | WIND DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             |      | 35-01          | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| 0           | 0.1  | *              | *     | *     | *     | *     | *     | *     | *     | *     | *     | *     | *     | 0.3   | 55    |
| 1 - 3       |      | 0.3            | 0.3   | 0.4   | 0.6   | 0.5   | 0.6   | 0.4   | 0.3   | 0.3   | 0.3   | 0.2   | 0.3   | 4.6   | 849   |
| 4 - 6       |      | 0.5            | 0.7   | 1.0   | 1.7   | 2.0   | 1.5   | 1.1   | 0.5   | 0.3   | 0.3   | 0.3   | 0.4   | 10.2  | 1866  |
| 7 - 10      |      | 0.9            | 1.4   | 2.2   | 3.5   | 5.5   | 5.7   | 2.0   | 0.7   | 0.3   | 0.3   | 0.4   | 0.6   | 23.5  | 4316  |
| 11 - 15     |      | 1.5            | 2.2   | 3.4   | 3.5   | 8.8   | 10.1  | 3.0   | 0.6   | 0.3   | 0.2   | 0.3   | 0.8   | 34.8  | 6383  |
| 16 - 20     |      | 1.6            | 2.0   | 1.6   | 1.5   | 4.0   | 6.6   | 1.6   | 0.1   | *     | 0.1   | 0.3   | 0.9   | 20.3  | 3713  |
| 21 - 24     |      | 0.7            | 0.8   | 0.5   | 0.3   | 0.5   | 0.9   | 0.2   | *     | *     | *     | 0.2   | 0.6   | 4.7   | 864   |
| 25 - 33     |      | 0.3            | 0.2   | *     | 0.1   | 0.2   | 0.2   | *     | -     | -     | *     | 0.1   | 0.4   | 1.5   | 270   |
| 34 - 47     |      | *              | *     | -     | *     | *     | *     | -     | -     | -     | -     | -     | *     | 0.1   | 14    |
| > 48        |      | -              | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| TOTAL %     | 0.1  | 6.0            | 7.6   | 9.2   | 11.2  | 21.5  | 25.5  | 8.4   | 2.2   | 1.3   | 1.2   | 1.7   | 4.0   | 100.0 |       |
| TOTAL N     | 18   | 1096           | 1389  | 1678  | 2050  | 3949  | 4676  | 1543  | 411   | 238   | 228   | 320   | 734   |       | 18330 |
| (* < 0.05%) |      |                |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

3 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS AVERAGE WIND DIRECTION(TENS OF DEGREES)

Months: JUN, JUL, AUG (Summer)

[illegible]



|             |   |    |     |      |      |     |     |     |     |     |     |     |     |     |     |     |       |      |
|-------------|---|----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|------|
| 11          | - | 15 | 0.3 | 22.0 | 8.6  | 0.7 | *   | *   | -   | -   | -   | -   | -   | -   | -   | -   | 31.7  | 2093 |
| 16          | - | 20 | *   | 6.1  | 13.2 | 2.2 | 0.1 | *   | -   | -   | -   | -   | -   | -   | -   | -   | 21.7  | 1433 |
| 21          | - | 24 | -   | 0.3  | 2.8  | 2.7 | 0.5 | *   | -   | -   | -   | -   | -   | -   | -   | -   | 6.3   | 416  |
| 25          | - | 33 | -   | 0.1  | 0.5  | 1.5 | 0.4 | 0.2 | *   | -   | -   | -   | -   | -   | -   | -   | 2.6   | 174  |
| 34          | - | 47 | -   | -    | *    | -   | *   | 0.1 | *   | -   | -   | -   | -   | -   | -   | -   | 0.2   | 13   |
| > 48        |   |    | -   | *    | -    | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 0.0   | 2    |
| TOTAL %     |   |    | 3.7 | 55.3 | 31.5 | 7.8 | 1.2 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 |      |
| TOTAL N     |   |    | 247 | 3650 | 2078 | 517 | 81  | 22  | 4   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 6599  |      |
| (* < 0.05%) |   |    |     |      |      |     |     |     |     |     |     |     |     |     |     |     |       |      |

STATION: 42019

4 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS SIGNIFICANT WAVE HEIGHT(METERS)

Month: APR

|             |   |    | WAVE HEIGHT |      |      |      |      |      |      |      |      |      |      |       |       |       | TOT % | TOT N |
|-------------|---|----|-------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
|             |   |    | 0.0-        | 0.5- | 1.5- | 2.5- | 3.5- | 4.5- | 5.5- | 6.5- | 7.5- | 8.5- | 9.5- | 10.5- | 11.5- | 12.5- |       |       |
| WIND SPEED  |   |    | 0.4         | 1.4  | 2.4  | 3.4  | 4.4  | 5.4  | 6.4  | 7.4  | 8.4  | 9.4  | 10.4 | 11.4  | 12.4  | 13.4  | >13.4 |       |
| 0           |   |    | *           | 0.2  | 0.1  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.3   |
| 1           | - | 3  | 0.5         | 3.1  | 1.0  | 0.1  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 4.7   |
| 4           | - | 6  | 1.0         | 6.6  | 1.7  | 0.2  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 9.4   |
| 7           | - | 10 | 1.3         | 16.8 | 4.5  | 0.3  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 22.8  |
| 11          | - | 15 | 0.2         | 20.5 | 11.6 | 0.5  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 32.8  |
| 16          | - | 20 | -           | 5.4  | 15.0 | 1.9  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 22.3  |
| 21          | - | 24 | -           | 0.4  | 3.7  | 1.8  | *    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 5.9   |
| 25          | - | 33 | -           | *    | 0.4  | 0.6  | 0.2  | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 1.3   |
| 34          | - | 47 | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   |
| > 48        |   |    | -           | 0.1  | 0.2  | 0.2  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.5   |
| TOTAL %     |   |    | 3.1         | 53.0 | 38.2 | 5.5  | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 100.0 |       |
| TOTAL N     |   |    | 198         | 3393 | 2442 | 354  | 13   | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 6400  |       |
| (* < 0.05%) |   |    |             |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |

STATION: 42019

4 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS SIGNIFICANT WAVE HEIGHT(METERS)

Month: MAY

|             |   |    | WAVE HEIGHT |      |      |      |      |      |      |      |      |      |      |       |       |       | TOT % | TOT N |
|-------------|---|----|-------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
|             |   |    | 0.0-        | 0.5- | 1.5- | 2.5- | 3.5- | 4.5- | 5.5- | 6.5- | 7.5- | 8.5- | 9.5- | 10.5- | 11.5- | 12.5- |       |       |
| WIND SPEED  |   |    | 0.4         | 1.4  | 2.4  | 3.4  | 4.4  | 5.4  | 6.4  | 7.4  | 8.4  | 9.4  | 10.4 | 11.4  | 12.4  | 13.4  | >13.4 |       |
| 0           |   |    | -           | 0.1  | *    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.1   |
| 1           | - | 3  | 0.2         | 2.7  | 0.6  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 3.6   |
| 4           | - | 6  | 0.8         | 8.0  | 0.7  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 9.5   |
| 7           | - | 10 | 1.1         | 20.1 | 2.3  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 23.4  |
| 11          | - | 15 | 0.1         | 28.4 | 7.4  | *    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 35.9  |
| 16          | - | 20 | *           | 4.7  | 8.8  | 0.3  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 13.8  |
| 21          | - | 24 | -           | 0.1  | 0.9  | 0.1  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 1.1   |
| 25          | - | 33 | -           | *    | 0.1  | 0.1  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.2   |
| 34          | - | 47 | -           | -    | -    | *    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   |
| > 48        |   |    | 0.8         | 10.1 | 1.3  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 12.2  |
| TOTAL %     |   |    | 3.1         | 74.2 | 22.0 | 0.6  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 100.0 |       |
| TOTAL N     |   |    | 189         | 4496 | 1335 | 37   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 6057  |       |
| (* < 0.05%) |   |    |             |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |

STATION: 42019

4 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS SIGNIFICANT WAVE HEIGHT(METERS)

Month: JUN

|             |   |    | WAVE HEIGHT |      |      |      |      |      |      |      |      |      |      |       |       |       | TOT % | TOT N |
|-------------|---|----|-------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
|             |   |    | 0.0-        | 0.5- | 1.5- | 2.5- | 3.5- | 4.5- | 5.5- | 6.5- | 7.5- | 8.5- | 9.5- | 10.5- | 11.5- | 12.5- |       |       |
| WIND SPEED  |   |    | 0.4         | 1.4  | 2.4  | 3.4  | 4.4  | 5.4  | 6.4  | 7.4  | 8.4  | 9.4  | 10.4 | 11.4  | 12.4  | 13.4  | >13.4 |       |
| 0           |   |    | 0.1         | 0.3  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.4   |
| 1           | - | 3  | 1.4         | 4.6  | 0.2  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 6.2   |
| 4           | - | 6  | 2.4         | 10.6 | 0.5  | *    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 13.5  |
| 7           | - | 10 | 2.4         | 23.8 | 1.6  | 0.1  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 28.0  |
| 11          | - | 15 | 0.3         | 24.7 | 9.4  | 0.3  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 34.7  |
| 16          | - | 20 | *           | 4.5  | 8.3  | 0.5  | *    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 13.3  |
| 21          | - | 24 | -           | 0.1  | 0.6  | 0.4  | 0.2  | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 1.3   |
| 25          | - | 33 | -           | -    | 0.1  | 0.1  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.1   |
| 34          | - | 47 | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   |
| > 48        |   |    | -           | 2.1  | 0.4  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 2.4   |
| TOTAL %     |   |    | 6.6         | 70.7 | 21.1 | 1.4  | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 100.0 |       |
| TOTAL N     |   |    | 405         | 4311 | 1286 | 86   | 13   | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 6101  |       |
| (* < 0.05%) |   |    |             |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |

STATION: 42019

4 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS SIGNIFICANT WAVE HEIGHT(METERS)

[illegible]

4 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS SIGNIFICANT WAVE HEIGHT(METERS)

|            |      | WAVE HEIGHT |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
|------------|------|-------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
|            |      | 0.0-        | 0.5- | 1.5- | 2.5- | 3.5- | 4.5- | 5.5- | 6.5- | 7.5- | 8.5- | 9.5- | 10.5- | 11.5- | 12.5- | >13.4 | TOT % | TOT N |
| WIND SPEED |      | 0.4         | 1.4  | 2.4  | 3.4  | 4.4  | 5.4  | 6.4  | 7.4  | 8.4  | 9.4  | 10.4 | 11.4  | 12.4  | 13.4  |       |       |       |
|            | 0    | 0.3         | 0.2  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.5   | 40    |
| 1          | - 3  | 5.2         | 4.9  | 0.1  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 10.3  | 761   |
| 4          | - 6  | 8.1         | 12.7 | 0.3  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 21.0  | 1561  |
| 7          | - 10 | 7.5         | 27.9 | 0.9  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 36.3  | 2690  |
| 11         | - 15 | 1.4         | 20.3 | 3.0  | 0.1  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 24.8  | 1842  |
| 16         | - 20 | 0.1         | 1.7  | 2.0  | 0.3  | 0.1  | *    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 4.2   | 313   |
| 21         | - 24 | *           | *    | 0.2  | *    | 0.1  | *    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.4   | 29    |
| 25         | - 33 | *           | *    | -    | 0.1  | *    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.2   | 13    |
| 34         | - 47 | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
|            | > 48 | 0.4         | 1.8  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 2.3   | 168   |
| TOTAL %    |      | 23.1        | 69.7 | 6.5  | 0.4  | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 100.0 |       |
| TOTAL N    |      | 1711        | 5171 | 481  | 33   | 18   | 3    | 0    | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 0     |       | 7417  |

(\* < 0.05%)

4 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS SIGNIFICANT WAVE HEIGHT(METERS)

|             |      | WAVE HEIGHT |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |  |
|-------------|------|-------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|--|
|             |      | 0.0-        | 0.5- | 1.5- | 2.5- | 3.5- | 4.5- | 5.5- | 6.5- | 7.5- | 8.5- | 9.5- | 10.5- | 11.5- | 12.5- | >13.4 | TOT % | TOT N |  |
| WIND SPEED  |      | 0.4         | 1.4  | 2.4  | 3.4  | 4.4  | 5.4  | 6.4  | 7.4  | 8.4  | 9.4  | 10.4 | 11.4  | 12.4  | 13.4  |       |       |       |  |
| 0           | -    | 0.3         | 0.2  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.5   | 33    |  |
| 1           | - 3  | 3.7         | 4.1  | 0.2  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 8.0   | 561   |  |
| 4           | - 6  | 4.9         | 9.8  | 0.5  | -    | *    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 15.3  | 1069  |  |
| 7           | - 10 | 4.2         | 24.6 | 1.4  | *    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 30.3  | 2117  |  |
| 11          | - 15 | 0.4         | 23.3 | 7.1  | 0.1  | *    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 31.0  | 2171  |  |
| 16          | - 20 | *           | 3.3  | 6.7  | 0.9  | 0.1  | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 11.1  | 773   |  |
| 21          | - 24 | -           | 0.1  | 1.2  | 1.3  | 0.2  | *    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 2.9   | 202   |  |
| 25          | - 33 | -           | *    | 0.1  | 0.3  | 0.3  | 0.1  | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.9   | 64    |  |
| 34          | - 47 | -           | -    | -    | -    | *    | *    | -    | -    | -    | -    | -    | -     | *     | -     | -     | 0.0   | 2     |  |
| > 48        |      | *           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 1     |  |
| TOTAL %     |      | 13.6        | 65.4 | 17.5 | 2.6  | 0.7  | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 100.0 |       |  |
| TOTAL N     |      | 953         | 4575 | 1221 | 182  | 49   | 13   | 0    | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 0     | 6993  |       |  |
| (* < 0.05%) |      |             |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |  |

4 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS SIGNIFICANT WAVE HEIGHT(METERS)

[illegible]



|             |   |    |     |      |      |      |     |     |     |     |     |     |     |     |     |     |       |       |
|-------------|---|----|-----|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|
| 7           | - | 10 | 1.3 | 15.0 | 2.2  | 0.1  | *   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 18.7  | 3362  |
| 11          | - | 15 | 0.2 | 20.7 | 8.7  | 0.4  | *   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 30.0  | 5412  |
| 16          | - | 20 | *   | 6.7  | 15.7 | 2.5  | 0.1 | *   | -   | -   | -   | -   | -   | -   | -   | -   | 25.0  | 4510  |
| 21          | - | 24 | -   | 0.4  | 4.5  | 4.0  | 0.5 | -   | -   | -   | -   | -   | -   | -   | -   | -   | 9.4   | 1690  |
| 25          | - | 33 | -   | *    | 0.6  | 1.8  | 0.6 | *   | -   | -   | -   | -   | -   | -   | -   | -   | 3.1   | 557   |
| 34          | - | 47 | -   | -    | *    | -    | *   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 0.0   | 3     |
| > 48        |   |    | 0.2 | 1.7  | 1.1  | 0.4  | 0.2 | *   | -   | -   | -   | -   | -   | -   | -   | -   | 3.6   | 649   |
| TOTAL %     |   |    | 3.4 | 52.2 | 33.6 | 9.4  | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 |       |
| TOTAL N     |   |    | 607 | 9401 | 6057 | 1689 | 264 | 6   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |       | 18024 |
| (* < 0.05%) |   |    |     |      |      |      |     |     |     |     |     |     |     |     |     |     |       |       |

STATION: 42019

4 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS SIGNIFICANT WAVE HEIGHT(METERS)

Months: MAR, APR, MAY (Spring)

|             |   |    | WAVE HEIGHT |       |      |      |      |      |      |      |      |      |      |       |       |       | TOT % | TOT N     |
|-------------|---|----|-------------|-------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-----------|
|             |   |    | 0.0-        | 0.5-  | 1.5- | 2.5- | 3.5- | 4.5- | 5.5- | 6.5- | 7.5- | 8.5- | 9.5- | 10.5- | 11.5- | 12.5- |       |           |
| WIND SPEED  |   |    | 0.4         | 1.4   | 2.4  | 3.4  | 4.4  | 5.4  | 6.4  | 7.4  | 8.4  | 9.4  | 10.4 | 11.4  | 12.4  | 13.4  | >13.4 |           |
| 0           |   |    | *           | 0.2   | 0.1  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.3 54    |
| 1           | - | 3  | 0.5         | 3.0   | 0.9  | 0.1  | *    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 4.4 845   |
| 4           | - | 6  | 1.0         | 7.4   | 1.3  | 0.1  | *    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 9.8 1862  |
| 7           | - | 10 | 1.4         | 17.5  | 3.5  | 0.2  | *    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 22.6 4310 |
| 11          | - | 15 | 0.2         | 23.5  | 9.2  | 0.4  | *    | *    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 33.4 6366 |
| 16          | - | 20 | *           | 5.4   | 12.4 | 1.5  | *    | *    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 19.4 3698 |
| 21          | - | 24 | -           | 0.3   | 2.5  | 1.6  | 0.2  | *    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 4.5 862   |
| 25          | - | 33 | -           | *     | 0.4  | 0.8  | 0.2  | 0.1  | *    | -    | -    | -    | -    | -     | -     | -     | -     | 1.4 270   |
| 34          | - | 47 | -           | -     | *    | *    | *    | *    | *    | -    | -    | -    | -    | -     | -     | -     | -     | 0.1 14    |
| > 48        |   |    | 0.3         | 3.3   | 0.5  | 0.1  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 4.1 775   |
| TOTAL %     |   |    | 3.3         | 60.6  | 30.7 | 4.8  | 0.5  | 0.1  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 100.0 |           |
| TOTAL N     |   |    | 634         | 11539 | 5855 | 908  | 94   | 22   | 4    | 0    | 0    | 0    | 0    | 0     | 0     | 0     |       | 19056     |
| (* < 0.05%) |   |    |             |       |      |      |      |      |      |      |      |      |      |       |       |       |       |           |

STATION: 42019

4 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS SIGNIFICANT WAVE HEIGHT(METERS)

Months: JUN, JUL, AUG (Summer)

|             |   |    | WAVE HEIGHT |       |      |      |      |      |      |      |      |      |      |       |       |       | TOT % | TOT N     |
|-------------|---|----|-------------|-------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-----------|
|             |   |    | 0.0-        | 0.5-  | 1.5- | 2.5- | 3.5- | 4.5- | 5.5- | 6.5- | 7.5- | 8.5- | 9.5- | 10.5- | 11.5- | 12.5- |       |           |
| WIND SPEED  |   |    | 0.4         | 1.4   | 2.4  | 3.4  | 4.4  | 5.4  | 6.4  | 7.4  | 8.4  | 9.4  | 10.4 | 11.4  | 12.4  | 13.4  | >13.4 |           |
| 0           |   |    | 0.2         | 0.2   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.4 91    |
| 1           | - | 3  | 3.3         | 4.7   | 0.1  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 8.1 1644  |
| 4           | - | 6  | 4.7         | 11.0  | 0.4  | *    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 16.1 3276 |
| 7           | - | 10 | 4.5         | 26.0  | 1.1  | *    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 31.7 6457 |
| 11          | - | 15 | 0.8         | 21.9  | 5.2  | 0.1  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 28.0 5703 |
| 16          | - | 20 | 0.1         | 2.5   | 4.2  | 0.3  | 0.1  | *    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 7.1 1452  |
| 21          | - | 24 | *           | 0.1   | 0.3  | 0.1  | 0.1  | *    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.6 123   |
| 25          | - | 33 | *           | *     | *    | 0.1  | *    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.1 21    |
| 34          | - | 47 | -           | -     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0 0     |
| > 48        |   |    | 0.3         | 7.0   | 0.6  | *    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 8.0 1629  |
| TOTAL %     |   |    | 13.8        | 73.5  | 11.8 | 0.7  | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 100.0 |           |
| TOTAL N     |   |    | 2809        | 14999 | 2416 | 138  | 31   | 3    | 0    | 0    | 0    | 0    | 0    | 0     | 0     | 0     |       | 20396     |
| (* < 0.05%) |   |    |             |       |      |      |      |      |      |      |      |      |      |       |       |       |       |           |

STATION: 42019

4 - PERCENT FREQUENCY OF AVERAGE WIND SPEED(KNOTS) VS SIGNIFICANT WAVE HEIGHT(METERS)

Months: SEP, OCT, NOV (Autumn)

|             |   |    | WAVE HEIGHT |       |      |      |      |      |      |      |      |      |      |       |       |       | TOT % | TOT N     |
|-------------|---|----|-------------|-------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-----------|
|             |   |    | 0.0-        | 0.5-  | 1.5- | 2.5- | 3.5- | 4.5- | 5.5- | 6.5- | 7.5- | 8.5- | 9.5- | 10.5- | 11.5- | 12.5- |       |           |
| WIND SPEED  |   |    | 0.4         | 1.4   | 2.4  | 3.4  | 4.4  | 5.4  | 6.4  | 7.4  | 8.4  | 9.4  | 10.4 | 11.4  | 12.4  | 13.4  | >13.4 |           |
| 0           |   |    | 0.1         | 0.1   | *    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.2 53    |
| 1           | - | 3  | 1.6         | 2.5   | 0.2  | *    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 4.3 952   |
| 4           | - | 6  | 2.5         | 6.6   | 0.4  | 0.1  | *    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 9.6 2145  |
| 7           | - | 10 | 2.6         | 19.9  | 1.5  | 0.1  | *    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 24.2 5386 |
| 11          | - | 15 | 0.2         | 21.0  | 9.2  | 0.5  | *    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 31.0 6896 |
| 16          | - | 20 | *           | 4.2   | 12.8 | 2.0  | 0.1  | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 19.2 4267 |
| 21          | - | 24 | -           | 0.2   | 2.6  | 2.7  | 0.3  | *    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 5.8 1296  |
| 25          | - | 33 | -           | *     | 0.2  | 1.0  | 0.6  | 0.1  | *    | -    | -    | -    | -    | -     | -     | -     | -     | 2.0 453   |
| 34          | - | 47 | -           | -     | -    | -    | *    | *    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0 2     |
| > 48        |   |    | 0.1         | 1.5   | 1.5  | 0.4  | 0.1  | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 3.6 805   |
| TOTAL %     |   |    | 7.1         | 56.1  | 28.5 | 6.9  | 1.2  | 0.1  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 100.0 |           |
| TOTAL N     |   |    | 1588        | 12477 | 6352 | 1534 | 270  | 33   | 1    | 0    | 0    | 0    | 0    | 0     | 0     | 0     |       | 22255     |
| (* < 0.05%) |   |    |             |       |      |      |      |      |      |      |      |      |      |       |       |       |       |           |

STATION: 42019

5 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS DOMINANT WAVE PERIOD(SECONDS)

Month: JAN

WAVE HEIGHT

|             | 0.0-<br>0.4 | 0.5-<br>1.4 | 1.5-<br>2.4 | 2.5-<br>3.4 | 3.5-<br>4.4 | 4.5-<br>5.4 | 5.5-<br>6.4 | 6.5-<br>7.4 | 7.5-<br>8.4 | 8.5-<br>9.4 | 9.5-<br>10.4 | 10.5-<br>11.4 | 11.5-<br>12.4 | 12.5-<br>13.4 | >13.4 | TOT % | TOT N |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|---------------|---------------|-------|-------|-------|
| WAVE PERIOD | 0.4         | 1.4         | 2.4         | 3.4         | 4.4         | 5.4         | 6.4         | 7.4         | 8.4         | 9.4         | 10.4         | 11.4          | 12.4          | 13.4          | >13.4 |       |       |
| < 0.5       | *           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 1     |
| 0.5 - 1.4   | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 1.5 - 2.4   | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 2.5 - 3.4   | 0.7         | 0.9         | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 1.6   | 79    |
| 3.5 - 4.4   | 1.0         | 6.4         | *           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 7.4   | 370   |
| 4.5 - 5.4   | 0.4         | 11.7        | 2.0         | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 14.1  | 699   |
| 5.5 - 6.4   | 0.7         | 14.4        | 14.9        | 0.3         | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 30.3  | 1508  |
| 6.5 - 7.4   | 0.3         | 10.3        | 13.3        | 3.1         | 0.2         | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 27.2  | 1352  |
| 7.5 - 8.4   | 0.2         | 4.3         | 5.7         | 4.8         | 1.1         | 0.1         | -           | -           | -           | -           | -            | -             | -             | -             | -     | 16.2  | 805   |
| 8.5 - 9.4   | -           | 0.3         | 0.9         | 0.8         | 0.4         | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 2.4   | 118   |
| 9.5 - 10.4  | -           | 0.2         | 0.1         | 0.3         | 0.2         | *           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.8   | 39    |
| TOTAL %     | 3.3         | 48.5        | 36.9        | 9.3         | 1.9         | 0.1         | 0.0         | 0.0         | 0.0         | 0.0         | 0.0          | 0.0           | 0.0           | 0.0           | 0.0   | 100.0 |       |
| TOTAL N     | 162         | 2413        | 1836        | 463         | 93          | 4           | 0           | 0           | 0           | 0           | 0            | 0             | 0             | 0             | 0     |       | 4971  |
| (* < 0.05%) |             |             |             |             |             |             |             |             |             |             |              |               |               |               |       |       |       |

STATION: 42019

5 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS DOMINANT WAVE PERIOD(SECONDS)

Month: FEB

|             | WAVE HEIGHT |             |             |             |             |             |             |             |             |             |              |               |               |               |       |       |       |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|---------------|---------------|-------|-------|-------|
|             | 0.0-<br>0.4 | 0.5-<br>1.4 | 1.5-<br>2.4 | 2.5-<br>3.4 | 3.5-<br>4.4 | 4.5-<br>5.4 | 5.5-<br>6.4 | 6.5-<br>7.4 | 7.5-<br>8.4 | 8.5-<br>9.4 | 9.5-<br>10.4 | 10.5-<br>11.4 | 11.5-<br>12.4 | 12.5-<br>13.4 | >13.4 | TOT % | TOT N |
| WAVE PERIOD | 0.4         | 1.4         | 2.4         | 3.4         | 4.4         | 5.4         | 6.4         | 7.4         | 8.4         | 9.4         | 10.4         | 11.4          | 12.4          | 13.4          | >13.4 |       |       |
| < 0.5       | 0.7         | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.7   | 41    |
| 0.5 - 1.4   | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 1.5 - 2.4   | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 2.5 - 3.4   | 1.3         | 0.6         | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 1.8   | 108   |
| 3.5 - 4.4   | 0.3         | 5.1         | 0.1         | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 5.5   | 326   |
| 4.5 - 5.4   | 0.4         | 13.6        | 1.8         | *           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 15.9  | 941   |
| 5.5 - 6.4   | 0.3         | 17.9        | 12.2        | 0.3         | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 30.8  | 1827  |
| 6.5 - 7.4   | 0.7         | 10.8        | 10.5        | 3.1         | *           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 25.1  | 1490  |
| 7.5 - 8.4   | 0.3         | 5.7         | 5.3         | 3.5         | 0.6         | *           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 15.4  | 914   |
| 8.5 - 9.4   | *           | 0.8         | 0.7         | 1.1         | 0.2         | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 2.9   | 174   |
| 9.5 - 10.4  | -           | 0.8         | 0.6         | 0.4         | 0.1         | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 1.9   | 111   |
| 10.5 - 11.4 | -           | *           | 0.1         | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.1   | 4     |
| TOTAL %     | 4.0         | 55.1        | 31.4        | 8.4         | 1.0         | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         | 0.0          | 0.0           | 0.0           | 0.0           | 0.0   | 100.0 |       |
| TOTAL N     | 239         | 3273        | 1864        | 500         | 59          | 1           | 0           | 0           | 0           | 0           | 0            | 0             | 0             | 0             | 0     |       | 5936  |
| (* < 0.05%) |             |             |             |             |             |             |             |             |             |             |              |               |               |               |       |       |       |

STATION: 42019

5 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS DOMINANT WAVE PERIOD(SECONDS)

Month: MAR

|             | WAVE HEIGHT |             |             |             |             |             |             |             |             |             |              |               |               |               |       |       |       |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|---------------|---------------|-------|-------|-------|
|             | 0.0-<br>0.4 | 0.5-<br>1.4 | 1.5-<br>2.4 | 2.5-<br>3.4 | 3.5-<br>4.4 | 4.5-<br>5.4 | 5.5-<br>6.4 | 6.5-<br>7.4 | 7.5-<br>8.4 | 8.5-<br>9.4 | 9.5-<br>10.4 | 10.5-<br>11.4 | 11.5-<br>12.4 | 12.5-<br>13.4 | >13.4 | TOT % | TOT N |
| WAVE PERIOD | 0.4         | 1.4         | 2.4         | 3.4         | 4.4         | 5.4         | 6.4         | 7.4         | 8.4         | 9.4         | 10.4         | 11.4          | 12.4          | 13.4          | >13.4 |       |       |
| < 0.5       | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 0.5 - 1.4   | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 1.5 - 2.4   | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 2.5 - 3.4   | 1.5         | 1.0         | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 2.4   | 159   |
| 3.5 - 4.4   | 0.8         | 6.5         | *           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 7.3   | 484   |
| 4.5 - 5.4   | 0.7         | 14.1        | 1.5         | *           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 16.3  | 1076  |
| 5.5 - 6.4   | 0.1         | 16.3        | 8.5         | 0.4         | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 25.3  | 1671  |
| 6.5 - 7.4   | 0.2         | 9.3         | 10.0        | 3.0         | 0.1         | *           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 22.5  | 1488  |
| 7.5 - 8.4   | 0.4         | 7.0         | 8.0         | 3.1         | 0.4         | 0.1         | *           | -           | -           | -           | -            | -             | -             | -             | -     | 19.1  | 1260  |
| 8.5 - 9.4   | 0.1         | 1.1         | 2.3         | 0.9         | 0.3         | 0.2         | *           | -           | -           | -           | -            | -             | -             | -             | -     | 4.9   | 324   |
| 9.5 - 10.4  | -           | *           | 1.0         | 0.4         | 0.4         | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 1.9   | 126   |
| 10.5 - 11.4 | -           | *           | *           | 0.1         | *           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.1   | 9     |
| 11.5 - 12.4 | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 12.5 - 13.4 | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 13.5 - 14.4 | *           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 1     |
| 14.5 - 15.4 | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 15.5 - 16.4 | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 16.5 - 17.4 | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 17.5 - 18.4 | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 18.5 - 19.4 | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 19.5 - 20.4 | -           | *           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 1     |
| TOTAL %     | 3.7         | 55.3        | 31.5        | 7.8         | 1.2         | 0.3         | 0.1         | 0.0         | 0.0         | 0.0         | 0.0          | 0.0           | 0.0           | 0.0           | 0.0   | 100.0 |       |
| TOTAL N     | 247         | 3650        | 2078        | 517         | 81          | 22          | 4           | 0           | 0           | 0           | 0            | 0             | 0             | 0             | 0     |       | 6599  |
| (* < 0.05%) |             |             |             |             |             |             |             |             |             |             |              |               |               |               |       |       |       |

STATION: 42019

5 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS DOMINANT WAVE PERIOD(SECONDS)

Month: APR

| WAVE HEIGHT |      |      |      |      |      |      |      |      |      |      |       |       |       |
|-------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| 0.0-        | 0.5- | 1.5- | 2.5- | 3.5- | 4.5- | 5.5- | 6.5- | 7.5- | 8.5- | 9.5- | 10.5- | 11.5- | 12.5- |



| WAVE PERIOD | 0.4 | 1.4  | 2.4  | 3.4 | 4.4 | 5.4 | 6.4 | 7.4 | 8.4 | 9.4 | 10.4 | 11.4 | 12.4 | 13.4 | >13.4 | TOT % | TOT N |
|-------------|-----|------|------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|-------|-------|-------|
| < 0.5       | -   | -    | -    | -   | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | -     | 0.0   | 0     |
| 0.5 - 1.4   | -   | -    | -    | -   | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | -     | 0.0   | 0     |
| 1.5 - 2.4   | -   | -    | -    | -   | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | -     | 0.0   | 0     |
| 2.5 - 3.4   | 0.5 | 0.7  | -    | -   | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | -     | 1.1   | 73    |
| 3.5 - 4.4   | 0.5 | 5.1  | *    | -   | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | -     | 5.6   | 359   |
| 4.5 - 5.4   | 0.6 | 11.5 | 1.3  | -   | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | -     | 13.4  | 855   |
| 5.5 - 6.4   | 1.3 | 16.6 | 7.8  | 0.2 | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | -     | 25.9  | 1656  |
| 6.5 - 7.4   | 0.2 | 12.0 | 13.7 | 1.4 | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | -     | 27.3  | 1746  |
| 7.5 - 8.4   | *   | 6.7  | 13.0 | 3.3 | 0.1 | -   | -   | -   | -   | -   | -    | -    | -    | -    | -     | 23.2  | 1483  |
| 8.5 - 9.4   | -   | 0.4  | 2.1  | 0.5 | 0.1 | -   | -   | -   | -   | -   | -    | -    | -    | -    | -     | 3.1   | 201   |
| 9.5 - 10.4  | -   | *    | 0.2  | 0.1 | -   | -   | -   | -   | -   | -   | -    | -    | -    | -    | -     | 0.4   | 27    |

|             |     |      |      |     |     |     |     |     |     |     |     |     |     |     |     |       |      |
|-------------|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|------|
| TOTAL %     | 3.1 | 53.0 | 38.2 | 5.5 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 |      |
| TOTAL N     | 198 | 3393 | 2442 | 354 | 13  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |       | 6400 |
| (* < 0.05%) |     |      |      |     |     |     |     |     |     |     |     |     |     |     |     |       |      |

STATION: 42019

5 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS DOMINANT WAVE PERIOD(SECONDS)

Month: MAY

| WAVE PERIOD | WAVE HEIGHT |      |      |      |      |      |      |      |      |      |      |       |       |       |       | TOT % | TOT N |
|-------------|-------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
|             | 0.0-        | 0.5- | 1.5- | 2.5- | 3.5- | 4.5- | 5.5- | 6.5- | 7.5- | 8.5- | 9.5- | 10.5- | 11.5- | 12.5- | >13.4 |       |       |
| < 0.5       | 0.4         | 1.4  | 2.4  | 3.4  | 4.4  | 5.4  | 6.4  | 7.4  | 8.4  | 9.4  | 10.4 | 11.4  | 12.4  | 13.4  |       | 0.0   | 0     |
| 0.5 - 1.4   | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 1.5 - 2.4   | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 2.5 - 3.4   | 0.2         | 1.1  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 1.3   | 76    |
| 3.5 - 4.4   | 0.6         | 6.3  | *    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 6.9   | 420   |
| 4.5 - 5.4   | 1.2         | 19.2 | 0.8  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 21.1  | 1280  |
| 5.5 - 6.4   | 0.8         | 24.8 | 5.7  | 0.1  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 31.4  | 1900  |
| 6.5 - 7.4   | 0.3         | 16.6 | 10.5 | 0.2  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 27.7  | 1676  |
| 7.5 - 8.4   | *           | 5.7  | 4.5  | 0.1  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 10.4  | 627   |
| 8.5 - 9.4   | -           | 0.6  | 0.4  | 0.1  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 1.1   | 66    |
| 9.5 - 10.4  | -           | -    | 0.1  | *    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.1   | 6     |
| 10.5 - 11.4 | -           | -    | *    | 0.1  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.1   | 6     |
| TOTAL %     | 3.1         | 74.2 | 22.0 | 0.6  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 100.0 |       |
| TOTAL N     | 189         | 4496 | 1335 | 37   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 0     |       | 6057  |
| (* < 0.05%) |             |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |

STATION: 42019

5 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS DOMINANT WAVE PERIOD(SECONDS)

Month: JUN

| WAVE PERIOD | WAVE HEIGHT |      |      |      |      |      |      |      |      |      |      |       |       |       |       | TOT % | TOT N |
|-------------|-------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
|             | 0.0-        | 0.5- | 1.5- | 2.5- | 3.5- | 4.5- | 5.5- | 6.5- | 7.5- | 8.5- | 9.5- | 10.5- | 11.5- | 12.5- | >13.4 |       |       |
| < 0.5       | 0.4         | 1.4  | 2.4  | 3.4  | 4.4  | 5.4  | 6.4  | 7.4  | 8.4  | 9.4  | 10.4 | 11.4  | 12.4  | 13.4  |       | 0.0   | 0     |
| 0.5 - 1.4   | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 1.5 - 2.4   | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 2.5 - 3.4   | 0.8         | 1.3  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 2.1   | 129   |
| 3.5 - 4.4   | 1.9         | 6.8  | *    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 8.7   | 530   |
| 4.5 - 5.4   | 1.4         | 18.7 | 0.6  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 20.7  | 1263  |
| 5.5 - 6.4   | 1.6         | 29.4 | 3.9  | *    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 35.0  | 2136  |
| 6.5 - 7.4   | 0.1         | 11.4 | 9.7  | *    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 21.2  | 1295  |
| 7.5 - 8.4   | 0.4         | 2.6  | 6.4  | 0.8  | *    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 10.2  | 624   |
| 8.5 - 9.4   | 0.4         | 0.3  | 0.4  | 0.4  | 0.1  | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 1.6   | 96    |
| 9.5 - 10.4  | -           | -    | 0.1  | 0.1  | 0.1  | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.3   | 17    |
| 10.5 - 11.4 | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 11.5 - 12.4 | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 12.5 - 13.4 | -           | *    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 1     |
| 13.5 - 14.4 | -           | *    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 1     |
| 14.5 - 15.4 | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 15.5 - 16.4 | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 16.5 - 17.4 | -           | *    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 3     |
| 17.5 - 18.4 | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 18.5 - 19.4 | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 19.5 - 20.4 | -           | 0.1  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.1   | 5     |
| 20.5 - 21.4 | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 21.5 - 22.4 | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 22.5 - 23.4 | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 23.5 - 24.4 | -           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 24.5 - 25.4 | -           | *    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 1     |
| TOTAL %     | 6.6         | 70.7 | 21.1 | 1.4  | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 100.0 |       |
| TOTAL N     | 405         | 4311 | 1286 | 86   | 13   | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 0     |       | 6101  |
| (* < 0.05%) |             |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |

STATION: 42019

## Month: JUL

[illegible]

STATION: 42019

Month: AUG

[illegible]

STATION: 42019

## Month: SEP

[illegible]



5 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS DOMINANT WAVE PERIOD(SECONDS)

[illegible]

5 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS DOMINANT WAVE PERIOD(SECONDS)

[illegible]

5 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS DOMINANT WAVE PERIOD(SECONDS)

[illegible]



[illegible]

6 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS AVERAGE WAVE PERIOD(SECONDS)

[illegible]

6 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS AVERAGE WAVE PERIOD(SECONDS)

[illegible]

6 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS AVERAGE WAVE PERIOD(SECONDS)

[illegible]

|             |     |      |      |     |     |     |     |     |     |     |     |     |     |     |     |       |      |
|-------------|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|------|
| 0.5 - 1.4   | -   | -    | -    | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 0.0   | 0    |
| 1.5 - 2.4   | -   | -    | -    | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 0.0   | 0    |
| 2.5 - 3.4   | 1.2 | 0.9  | -    | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 2.1   | 138  |
| 3.5 - 4.4   | 2.2 | 22.7 | 0.3  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 25.2  | 1662 |
| 4.5 - 5.4   | 0.4 | 25.5 | 17.9 | 0.5 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 44.2  | 2919 |
| 5.5 - 6.4   | -   | 6.0  | 11.2 | 6.5 | 0.2 | *   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 23.9  | 1578 |
| 6.5 - 7.4   | -   | 0.1  | 1.8  | 0.6 | 0.9 | 0.3 | 0.1 | -   | -   | -   | -   | -   | -   | -   | -   | 3.8   | 251  |
| 7.5 - 8.4   | -   | -    | 0.3  | 0.3 | 0.1 | *   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 0.8   | 51   |
| TOTAL %     | 3.7 | 55.3 | 31.5 | 7.8 | 1.2 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 |      |
| TOTAL N     | 247 | 3650 | 2078 | 517 | 81  | 22  | 4   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |       | 6599 |
| (* < 0.05%) |     |      |      |     |     |     |     |     |     |     |     |     |     |     |     |       |      |

STATION: 42019

6 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS AVERAGE WAVE PERIOD(SECONDS)

Month: APR

| WAVE HEIGHT |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
|-------------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
|             | 0.0- | 0.5- | 1.5- | 2.5- | 3.5- | 4.5- | 5.5- | 6.5- | 7.5- | 8.5- | 9.5- | 10.5- | 11.5- | 12.5- |       | TOT % | TOT N |
| WAVE PERIOD | 0.4  | 1.4  | 2.4  | 3.4  | 4.4  | 5.4  | 6.4  | 7.4  | 8.4  | 9.4  | 10.4 | 11.4  | 12.4  | 13.4  | >13.4 |       |       |
| < 0.5       | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 0.5 - 1.4   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 1.5 - 2.4   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 2.5 - 3.4   | 0.4  | 0.3  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.7   | 46    |
| 3.5 - 4.4   | 1.7  | 20.3 | 0.3  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 22.3  | 1425  |
| 4.5 - 5.4   | 1.0  | 28.5 | 22.0 | 0.2  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 51.6  | 3304  |
| 5.5 - 6.4   | -    | 3.5  | 14.4 | 4.7  | 0.1  | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 22.7  | 1450  |
| 6.5 - 7.4   | -    | 0.5  | 1.5  | 0.7  | 0.1  | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 2.7   | 173   |
| 7.5 - 8.4   | -    | -    | *    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 2     |
| TOTAL %     | 3.1  | 53.0 | 38.2 | 5.5  | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 100.0 |       |
| TOTAL N     | 198  | 3393 | 2442 | 354  | 13   | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 0     |       | 6400  |
| (* < 0.05%) |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |

STATION: 42019

6 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS AVERAGE WAVE PERIOD(SECONDS)

Month: MAY

| WAVE HEIGHT |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
|-------------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
|             | 0.0- | 0.5- | 1.5- | 2.5- | 3.5- | 4.5- | 5.5- | 6.5- | 7.5- | 8.5- | 9.5- | 10.5- | 11.5- | 12.5- |       | TOT % | TOT N |
| WAVE PERIOD | 0.4  | 1.4  | 2.4  | 3.4  | 4.4  | 5.4  | 6.4  | 7.4  | 8.4  | 9.4  | 10.4 | 11.4  | 12.4  | 13.4  | >13.4 |       |       |
| < 0.5       | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 0.5 - 1.4   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 1.5 - 2.4   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 2.5 - 3.4   | 0.2  | 1.1  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 1.3   | 81    |
| 3.5 - 4.4   | 2.1  | 32.5 | 0.6  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 35.2  | 2133  |
| 4.5 - 5.4   | 0.8  | 37.4 | 16.4 | 0.2  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 54.7  | 3316  |
| 5.5 - 6.4   | -    | 2.9  | 4.8  | 0.4  | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 8.1   | 489   |
| 6.5 - 7.4   | -    | 0.4  | 0.2  | *    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.6   | 38    |
| TOTAL %     | 3.1  | 74.2 | 22.0 | 0.6  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 100.0 |       |
| TOTAL N     | 189  | 4496 | 1335 | 37   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 0     |       | 6057  |
| (* < 0.05%) |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |

STATION: 42019

6 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS AVERAGE WAVE PERIOD(SECONDS)

Month: JUN

| WAVE HEIGHT |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
|-------------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
|             | 0.0- | 0.5- | 1.5- | 2.5- | 3.5- | 4.5- | 5.5- | 6.5- | 7.5- | 8.5- | 9.5- | 10.5- | 11.5- | 12.5- |       | TOT % | TOT N |
| WAVE PERIOD | 0.4  | 1.4  | 2.4  | 3.4  | 4.4  | 5.4  | 6.4  | 7.4  | 8.4  | 9.4  | 10.4 | 11.4  | 12.4  | 13.4  | >13.4 |       |       |
| < 0.5       | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 0.5 - 1.4   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 1.5 - 2.4   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 0     |
| 2.5 - 3.4   | 0.4  | 1.0  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 1.4   | 87    |
| 3.5 - 4.4   | 4.7  | 35.7 | 0.9  | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 41.3  | 2517  |
| 4.5 - 5.4   | 1.5  | 30.8 | 14.4 | *    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 46.7  | 2852  |
| 5.5 - 6.4   | -    | 2.9  | 5.5  | 1.2  | 0.1  | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 9.7   | 590   |
| 6.5 - 7.4   | -    | 0.2  | 0.4  | 0.2  | 0.1  | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.9   | 54    |
| 7.5 - 8.4   | *    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 0.0   | 1     |
| TOTAL %     | 6.6  | 70.7 | 21.1 | 1.4  | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 100.0 |       |
| TOTAL N     | 405  | 4311 | 1286 | 86   | 13   | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 0     |       | 6101  |
| (* < 0.05%) |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |

STATION: 42019

6 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS AVERAGE WAVE PERIOD(SECONDS)

Month: JUL

WAVE HEIGHT





|         |     |      |      |     |     |     |     |     |     |     |     |     |     |     |     |       |      |
|---------|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|------|
| TOTAL % | 3.0 | 57.3 | 29.9 | 7.9 | 1.7 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 |      |
| TOTAL N | 219 | 4200 | 2191 | 581 | 126 | 16  | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |       | 7334 |

(\* < 0.05%)

STATION: 42019

6 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS AVERAGE WAVE PERIOD(SECONDS)

Month: NOV

| WAVE PERIOD | WAVE HEIGHT |             |             |             |             |             |             |             |             |             |              |               |               |               |       | TOT % | TOT N |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|---------------|---------------|-------|-------|-------|
|             | 0.0-<br>0.4 | 0.5-<br>1.4 | 1.5-<br>2.4 | 2.5-<br>3.4 | 3.5-<br>4.4 | 4.5-<br>5.4 | 5.5-<br>6.4 | 6.5-<br>7.4 | 7.5-<br>8.4 | 8.5-<br>9.4 | 9.5-<br>10.4 | 10.5-<br>11.4 | 11.5-<br>12.4 | 12.5-<br>13.4 | >13.4 |       |       |
| < 0.5       | *           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 1     |
| 0.5 - 1.4   | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 1.5 - 2.4   | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 2.5 - 3.4   | 1.1         | 0.6         | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 1.7   | 133   |
| 3.5 - 4.4   | 3.0         | 21.7        | 0.6         | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 25.3  | 2007  |
| 4.5 - 5.4   | 1.1         | 21.7        | 28.2        | 0.9         | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 51.9  | 4114  |
| 5.5 - 6.4   | *           | 1.9         | 7.7         | 7.8         | 0.5         | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 18.0  | 1426  |
| 6.5 - 7.4   | 0.1         | 0.7         | 0.5         | 0.7         | 0.5         | 0.1         | -           | -           | -           | -           | -            | -             | -             | -             | -     | 2.5   | 196   |
| 7.5 - 8.4   | -           | 0.1         | 0.1         | 0.3         | 0.2         | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.6   | 50    |
| 8.5 - 9.4   | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 9.5 - 10.4  | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 10.5 - 11.4 | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 11.5 - 12.4 | -           | -           | *           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 1     |
| TOTAL %     | 5.2         | 46.7        | 37.1        | 9.7         | 1.2         | 0.1         | 0.0         | 0.0         | 0.0         | 0.0         | 0.0          | 0.0           | 0.0           | 0.0           | 0.0   | 100.0 |       |
| TOTAL N     | 416         | 3702        | 2940        | 771         | 95          | 4           | 0           | 0           | 0           | 0           | 0            | 0             | 0             | 0             | 0     |       | 7928  |

(\* < 0.05%)

STATION: 42019

6 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS AVERAGE WAVE PERIOD(SECONDS)

Month: DEC

| WAVE PERIOD | WAVE HEIGHT |             |             |             |             |             |             |             |             |             |              |               |               |               |       | TOT % | TOT N |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|---------------|---------------|-------|-------|-------|
|             | 0.0-<br>0.4 | 0.5-<br>1.4 | 1.5-<br>2.4 | 2.5-<br>3.4 | 3.5-<br>4.4 | 4.5-<br>5.4 | 5.5-<br>6.4 | 6.5-<br>7.4 | 7.5-<br>8.4 | 8.5-<br>9.4 | 9.5-<br>10.4 | 10.5-<br>11.4 | 11.5-<br>12.4 | 12.5-<br>13.4 | >13.4 |       |       |
| < 0.5       | *           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 1     |
| 0.5 - 1.4   | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 1.5 - 2.4   | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 2.5 - 3.4   | 0.4         | 0.4         | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.8   | 56    |
| 3.5 - 4.4   | 1.9         | 24.4        | 0.5         | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 26.8  | 1905  |
| 4.5 - 5.4   | 0.5         | 24.2        | 25.8        | 0.5         | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 51.0  | 3630  |
| 5.5 - 6.4   | -           | 2.7         | 6.6         | 8.7         | 0.4         | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 18.4  | 1311  |
| 6.5 - 7.4   | -           | 0.6         | 0.3         | 0.8         | 1.2         | *           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 2.9   | 204   |
| 7.5 - 8.4   | -           | -           | -           | 0.1         | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.1   | 10    |
| TOTAL %     | 2.9         | 52.2        | 33.1        | 10.2        | 1.6         | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         | 0.0          | 0.0           | 0.0           | 0.0           | 0.0   | 100.0 |       |
| TOTAL N     | 206         | 3715        | 2357        | 726         | 112         | 1           | 0           | 0           | 0           | 0           | 0            | 0             | 0             | 0             | 0     |       | 7117  |

(\* < 0.05%)

STATION: 42019

6 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS AVERAGE WAVE PERIOD(SECONDS)

All Months: Annual

| WAVE PERIOD | WAVE HEIGHT |             |             |             |             |             |             |             |             |             |              |               |               |               |       | TOT % | TOT N |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|---------------|---------------|-------|-------|-------|
|             | 0.0-<br>0.4 | 0.5-<br>1.4 | 1.5-<br>2.4 | 2.5-<br>3.4 | 3.5-<br>4.4 | 4.5-<br>5.4 | 5.5-<br>6.4 | 6.5-<br>7.4 | 7.5-<br>8.4 | 8.5-<br>9.4 | 9.5-<br>10.4 | 10.5-<br>11.4 | 11.5-<br>12.4 | 12.5-<br>13.4 | >13.4 |       |       |
| < 0.5       | 0.3         | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.3   | 240   |
| 0.5 - 1.4   | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 1.5 - 2.4   | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 2.5 - 3.4   | 1.1         | 0.8         | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 1.9   | 1530  |
| 3.5 - 4.4   | 4.6         | 29.5        | 0.4         | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 34.5  | 27512 |
| 4.5 - 5.4   | 1.0         | 27.0        | 17.7        | 0.3         | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 46.0  | 36699 |
| 5.5 - 6.4   | *           | 3.1         | 7.1         | 4.4         | 0.3         | *           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 14.9  | 11898 |
| 6.5 - 7.4   | *           | 0.3         | 0.6         | 0.5         | 0.5         | 0.1         | *           | -           | -           | -           | -            | -             | -             | -             | -     | 2.0   | 1632  |
| 7.5 - 8.4   | *           | *           | 0.1         | 0.1         | *           | *           | *           | -           | -           | -           | -            | -             | -             | -             | -     | 0.3   | 215   |
| 8.5 - 9.4   | -           | -           | *           | *           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 3     |
| 9.5 - 10.4  | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 10.5 - 11.4 | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 11.5 - 12.4 | -           | -           | *           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 1     |
| 12.5 - 13.4 | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 0     |
| 13.5 - 14.4 | -           | *           | -           | -           | -           | -           | -           | -           | -           | -           | -            | -             | -             | -             | -     | 0.0   | 1     |
| TOTAL %     | 7.1         | 60.7        | 25.9        | 5.4         | 0.8         | 0.1         | 0.0         | 0.0         | 0.0         | 0.0         | 0.0          | 0.0           | 0.0           | 0.0           | 0.0   | 100.0 |       |
| TOTAL N     | 5638        | 48416       | 20680       | 4269        | 659         | 64          | 5           | 0           | 0           | 0           | 0            | 0             | 0             | 0             | 0     |       | 79731 |

(\* < 0.05%)

STATION: 42019

6 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS AVERAGE WAVE PERIOD(SECONDS)

[illegible][illegible][illegible][illegible]

|             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|
| 9.5 - 10.4  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | 0 |
| 10.5 - 11.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | 0 |
| 11.5 - 12.4 | - | - | * | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | 1 |

|             |      |       |      |      |     |     |     |     |     |     |     |     |     |     |     |     |       |       |
|-------------|------|-------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|
| TOTAL %     | 7.1  | 56.1  | 28.5 | 6.9  | 1.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 |       |
| TOTAL N     | 1588 | 12477 | 6352 | 1534 | 270 | 33  | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |       | 22255 |
| (* < 0.05%) |      |       |      |      |     |     |     |     |     |     |     |     |     |     |     |     |       |       |

STATION: 42019

7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: JAN

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| WAVE PERIOD         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 | TOT % | TOT N |  |
| < 0.5               | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |  |
| 0.5 - 1.4           | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |  |
| 1.5 - 2.4           | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |  |
| 2.5 - 3.4           | -     | -     | 0.3   | 0.3   | 0.1   | 0.1   | -     | 0.1   | -     | 0.1   | -     | -     | 1.0   | 10    |  |
| 3.5 - 4.4           | -     | 1.1   | 3.2   | 1.3   | 1.3   | 1.1   | 0.7   | 0.3   | 0.8   | 0.5   | 0.2   | 0.1   | 10.7  | 106   |  |
| 4.5 - 5.4           | 1.4   | 3.3   | 3.0   | 3.5   | 3.2   | 1.9   | 2.3   | -     | 0.8   | 0.3   | 0.2   | 1.7   | 21.8  | 216   |  |
| 5.5 - 6.4           | 1.4   | 3.7   | 4.3   | 5.9   | 4.8   | 6.6   | 2.9   | 0.2   | -     | -     | 0.3   | 1.2   | 31.3  | 310   |  |
| 6.5 - 7.4           | 0.1   | 0.6   | 3.7   | 1.9   | 4.4   | 2.3   | 2.2   | 0.2   | -     | -     | 0.2   | 0.9   | 16.7  | 165   |  |
| 7.5 - 8.4           | -     | -     | 0.4   | 5.8   | 7.2   | 2.0   | 1.1   | -     | -     | -     | -     | -     | 16.5  | 163   |  |
| 8.5 - 9.4           | -     | -     | -     | 0.4   | 1.3   | 0.1   | 0.1   | -     | -     | -     | -     | -     | 1.9   | 19    |  |
| TOTAL %             | 2.9   | 8.8   | 15.1  | 19.1  | 22.3  | 14.2  | 9.4   | 0.8   | 1.6   | 0.9   | 0.9   | 3.9   | 100.0 |       |  |
| TOTAL N             | 29    | 87    | 149   | 189   | 221   | 140   | 93    | 8     | 16    | 9     | 9     | 39    |       | 989   |  |
| (* < 0.05%)         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |

STATION: 42019

7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: FEB

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| WAVE PERIOD         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 | TOT % | TOT N |  |
| < 0.5               | 0.1   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.1   | 1     |  |
| 0.5 - 1.4           | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |  |
| 1.5 - 2.4           | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |  |
| 2.5 - 3.4           | 0.1   | -     | -     | 0.1   | 0.1   | 0.1   | -     | 0.1   | 0.1   | -     | -     | -     | 0.5   | 9     |  |
| 3.5 - 4.4           | 0.8   | 0.6   | 0.9   | 0.6   | 0.5   | 1.3   | 0.5   | 0.3   | -     | -     | 0.1   | 0.1   | 5.7   | 109   |  |
| 4.5 - 5.4           | 1.5   | 1.5   | 2.6   | 1.9   | 2.9   | 6.0   | 1.7   | -     | -     | 0.3   | 0.3   | 0.3   | 18.9  | 365   |  |
| 5.5 - 6.4           | 0.3   | 2.0   | 4.4   | 3.2   | 3.9   | 6.8   | 4.3   | 0.8   | 0.2   | 0.3   | 0.3   | 0.6   | 27.1  | 522   |  |
| 6.5 - 7.4           | 0.3   | 1.0   | 2.4   | 4.8   | 3.8   | 4.1   | 1.8   | -     | -     | -     | -     | -     | 18.3  | 353   |  |
| 7.5 - 8.4           | 0.1   | 1.0   | 0.5   | 5.0   | 7.9   | 2.6   | 2.3   | -     | -     | -     | -     | -     | 19.4  | 374   |  |
| 8.5 - 9.4           | -     | -     | 0.1   | 1.2   | 1.9   | 1.1   | 0.1   | -     | -     | -     | -     | -     | 4.5   | 86    |  |
| 9.5 - 10.4          | -     | -     | -     | 1.9   | 3.0   | 0.6   | -     | -     | -     | -     | -     | -     | 5.5   | 106   |  |
| 10.5 - 11.4         | -     | -     | -     | 0.1   | 0.2   | -     | -     | -     | -     | -     | -     | -     | 0.2   | 4     |  |
| TOTAL %             | 3.1   | 6.1   | 10.8  | 18.8  | 24.2  | 22.7  | 10.7  | 1.2   | 0.2   | 0.5   | 0.7   | 1.0   | 100.0 |       |  |
| TOTAL N             | 60    | 117   | 209   | 362   | 467   | 438   | 207   | 23    | 4     | 10    | 13    | 19    |       | 1929  |  |
| (* < 0.05%)         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |

STATION: 42019

7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: MAR

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| WAVE PERIOD         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 | TOT % | TOT N |  |
| < 0.5               | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |  |
| 0.5 - 1.4           | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |  |
| 1.5 - 2.4           | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |  |
| 2.5 - 3.4           | 0.1   | 0.4   | 0.6   | 0.2   | 0.6   | 0.1   | 0.5   | 0.1   | 0.2   | -     | *     | 0.4   | 3.1   | 67    |  |
| 3.5 - 4.4           | 0.8   | 1.0   | 1.1   | 0.6   | 0.7   | 0.2   | 0.7   | 0.2   | -     | 0.2   | 0.1   | 1.2   | 6.9   | 150   |  |
| 4.5 - 5.4           | 2.1   | 3.2   | 2.9   | 0.7   | 1.2   | 1.6   | 1.3   | *     | -     | 0.4   | -     | 1.2   | 14.7  | 318   |  |
| 5.5 - 6.4           | 2.3   | 2.4   | 3.3   | 2.1   | 3.4   | 3.4   | 3.6   | 0.1   | -     | 0.3   | 0.2   | 1.6   | 22.8  | 493   |  |
| 6.5 - 7.4           | 0.2   | 0.5   | 1.3   | 3.4   | 7.3   | 4.9   | 2.2   | *     | -     | -     | 0.7   | 1.3   | 21.8  | 472   |  |
| 7.5 - 8.4           | *     | 0.2   | 0.2   | 3.9   | 10.5  | 6.3   | 0.6   | -     | -     | -     | *     | 0.1   | 22.0  | 477   |  |
| 8.5 - 9.4           | -     | -     | -     | 2.7   | 3.5   | 0.1   | *     | -     | -     | -     | -     | -     | 6.4   | 138   |  |
| 9.5 - 10.4          | -     | -     | -     | 0.8   | 1.3   | -     | -     | -     | -     | -     | -     | -     | 2.2   | 47    |  |
| 10.5 - 11.4         | -     | -     | -     | 0.1   | -     | -     | -     | -     | -     | -     | -     | -     | 0.1   | 2     |  |
| 11.5 - 12.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |  |
| 12.5 - 13.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |  |
| 13.5 - 14.4         | -     | -     | -     | -     | -     | -     | -     | -     | *     | -     | -     | -     | 0.0   | 1     |  |
| 14.5 - 15.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |  |
| 15.5 - 16.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |  |
| 16.5 - 17.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |  |
| 17.5 - 18.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |  |
| 18.5 - 19.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |  |
| 19.5 - 20.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | *     | -     | -     | 0.0   | 1     |  |
| TOTAL %             | 5.6   | 7.7   | 9.3   | 14.5  | 28.5  | 16.6  | 9.0   | 0.5   | 0.2   | 1.0   | 1.1   | 5.9   | 100.0 |       |  |

|             |     |     |     |     |     |     |     |    |   |    |    |     |  |      |
|-------------|-----|-----|-----|-----|-----|-----|-----|----|---|----|----|-----|--|------|
| TOTAL N     | 121 | 167 | 202 | 315 | 618 | 359 | 196 | 11 | 5 | 21 | 24 | 127 |  | 2166 |
| (* < 0.05%) |     |     |     |     |     |     |     |    |   |    |    |     |  |      |

STATION: 42019

7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: APR

| WAVE PERIOD | MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             | 35-01               | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| < 0.5       | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 0.5 - 1.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 1.5 - 2.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 2.5 - 3.4   | *                   | 0.1   | *     | *     | 0.1   | -     | 0.4   | 0.6   | -     | -     | -     | -     | 1.4   | 30    |
| 3.5 - 4.4   | 0.6                 | 0.9   | 0.4   | 1.0   | 0.4   | 0.3   | 0.2   | 0.9   | 0.2   | -     | -     | *     | 4.9   | 104   |
| 4.5 - 5.4   | 0.4                 | 1.0   | 1.3   | 1.0   | 1.2   | 1.3   | 0.4   | 0.5   | -     | -     | -     | *     | 7.1   | 149   |
| 5.5 - 6.4   | 0.7                 | 0.8   | 1.6   | 2.6   | 4.3   | 7.5   | 1.5   | 1.5   | -     | -     | -     | 0.4   | 20.8  | 439   |
| 6.5 - 7.4   | -                   | 0.6   | 3.0   | 3.0   | 10.7  | 14.3  | 1.8   | 0.7   | *     | -     | -     | -     | 34.3  | 722   |
| 7.5 - 8.4   | -                   | 0.1   | 0.6   | 1.8   | 14.4  | 11.1  | 0.6   | -     | -     | -     | -     | -     | 28.6  | 602   |
| 8.5 - 9.4   | -                   | -     | -     | 0.1   | 1.9   | 0.8   | -     | -     | -     | -     | -     | -     | 2.7   | 57    |
| 9.5 - 10.4  | -                   | -     | -     | -     | 0.1   | -     | -     | -     | -     | -     | -     | -     | 0.1   | 3     |
| TOTAL %     | 1.7                 | 3.4   | 7.0   | 9.5   | 33.1  | 35.3  | 5.0   | 4.2   | 0.3   | 0.0   | 0.0   | 0.5   | 100.0 |       |
| TOTAL N     | 36                  | 72    | 148   | 200   | 697   | 744   | 105   | 88    | 6     | 0     | 0     | 10    |       | 2106  |
| (* < 0.05%) |                     |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: MAY

| WAVE PERIOD | MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             | 35-01               | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| < 0.5       | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 0.5 - 1.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 1.5 - 2.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 2.5 - 3.4   | -                   | -     | -     | -     | 0.2   | 0.5   | 0.5   | *     | -     | -     | -     | -     | 1.2   | 27    |
| 3.5 - 4.4   | 0.1                 | -     | *     | 0.1   | 0.9   | 1.8   | 2.9   | 1.0   | -     | -     | -     | -     | 7.0   | 155   |
| 4.5 - 5.4   | *                   | -     | 0.6   | 0.8   | 3.1   | 8.0   | 5.0   | 2.0   | -     | -     | -     | 0.1   | 19.5  | 433   |
| 5.5 - 6.4   | *                   | 0.2   | 0.7   | 1.1   | 11.8  | 12.8  | 6.1   | 1.0   | *     | *     | -     | -     | 33.9  | 750   |
| 6.5 - 7.4   | -                   | 0.3   | 0.6   | 2.8   | 13.7  | 9.6   | 0.9   | 0.1   | -     | -     | -     | -     | 28.0  | 621   |
| 7.5 - 8.4   | -                   | -     | -     | 2.3   | 5.1   | 1.5   | -     | -     | -     | -     | -     | -     | 8.8   | 196   |
| 8.5 - 9.4   | -                   | -     | -     | 1.0   | 0.4   | -     | -     | -     | -     | -     | -     | -     | 1.4   | 32    |
| 9.5 - 10.4  | -                   | -     | -     | -     | *     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 1     |
| TOTAL %     | 0.2                 | 0.5   | 2.0   | 8.1   | 35.3  | 34.2  | 15.4  | 4.2   | 0.0   | 0.0   | 0.0   | 0.1   | 100.0 |       |
| TOTAL N     | 4                   | 12    | 44    | 179   | 781   | 758   | 341   | 92    | 1     | 1     | 0     | 2     |       | 2215  |
| (* < 0.05%) |                     |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: JUN

| WAVE PERIOD | MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             | 35-01               | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| < 0.5       | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 0.5 - 1.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 1.5 - 2.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 2.5 - 3.4   | -                   | 0.3   | 0.3   | 0.1   | 0.1   | 0.5   | 0.1   | 0.1   | -     | -     | -     | *     | 1.6   | 36    |
| 3.5 - 4.4   | 0.1                 | 0.1   | 0.4   | 0.7   | 0.6   | 2.4   | 3.4   | 0.8   | *     | *     | *     | *     | 8.7   | 198   |
| 4.5 - 5.4   | -                   | 0.3   | 0.4   | 0.3   | 1.6   | 10.4  | 5.1   | 0.1   | -     | -     | -     | -     | 18.3  | 418   |
| 5.5 - 6.4   | -                   | 0.7   | 0.9   | 2.1   | 3.9   | 19.0  | 8.4   | 0.1   | -     | -     | -     | -     | 35.1  | 804   |
| 6.5 - 7.4   | -                   | -     | 0.1   | 0.7   | 6.5   | 13.5  | 2.3   | 0.1   | -     | -     | -     | -     | 23.2  | 531   |
| 7.5 - 8.4   | -                   | -     | -     | 0.8   | 4.2   | 5.4   | 0.4   | -     | -     | -     | -     | -     | 10.9  | 249   |
| 8.5 - 9.4   | -                   | -     | -     | 0.4   | 1.0   | 0.1   | -     | -     | -     | -     | -     | -     | 1.6   | 36    |
| 9.5 - 10.4  | -                   | -     | -     | -     | 0.2   | *     | -     | -     | -     | -     | -     | -     | 0.3   | 6     |
| 10.5 - 11.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 11.5 - 12.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 12.5 - 13.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | *     | 0.0   | 1     |
| 13.5 - 14.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | *     | -     | -     | 0.0   | 1     |
| 14.5 - 15.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 15.5 - 16.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 16.5 - 17.4 | -                   | -     | -     | *     | -     | -     | -     | -     | -     | *     | *     | -     | 0.1   | 3     |
| 17.5 - 18.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 18.5 - 19.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 19.5 - 20.4 | -                   | -     | -     | *     | -     | -     | -     | -     | -     | 0.1   | 0.1   | -     | 0.2   | 5     |
| 20.5 - 21.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 21.5 - 22.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 22.5 - 23.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 23.5 - 24.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 24.5 - 25.4 | -                   | -     | -     | *     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 1     |
| TOTAL %     | 0.1                 | 1.4   | 2.1   | 5.2   | 18.1  | 51.4  | 19.8  | 1.3   | 0.0   | 0.2   | 0.2   | 0.1   | 100.0 |       |

[illegible]

STATION: 42019

7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: JUL

[illegible]

STATION: 42019

7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: AUG

[illegible]

STATION: 42019

7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: SEP

[illegible]

|             |     |     |     |     |     |     |     |     |     |     |     |     |      |     |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|
| 2.5 - 3.4   | -   | 0.1 | 0.2 | -   | 0.2 | 0.3 | 0.2 | -   | 0.1 | 0.1 | -   | -   | 1.2  | 32  |
| 3.5 - 4.4   | 0.1 | 0.4 | 1.2 | 1.3 | 1.0 | 0.8 | 0.7 | 2.0 | 1.0 | 0.4 | 0.2 | *   | 9.2  | 249 |
| 4.5 - 5.4   | 0.4 | 0.6 | 3.8 | 3.2 | 1.9 | 3.8 | 2.1 | 0.3 | 1.2 | *   | 0.1 | 0.2 | 17.5 | 476 |
| 5.5 - 6.4   | 0.4 | 1.3 | 4.4 | 7.8 | 4.0 | 9.2 | 1.8 | -   | -   | -   | -   | 0.1 | 29.0 | 787 |
| 6.5 - 7.4   | *   | 1.0 | 1.8 | 8.4 | 5.6 | 3.2 | 2.2 | 0.2 | -   | -   | -   | -   | 22.5 | 611 |
| 7.5 - 8.4   | -   | -   | 0.4 | 5.7 | 3.9 | 0.9 | 1.0 | 0.3 | -   | -   | -   | -   | 12.3 | 334 |
| 8.5 - 9.4   | -   | -   | *   | 2.2 | 0.7 | 0.1 | *   | -   | -   | -   | -   | -   | 3.1  | 85  |
| 9.5 - 10.4  | -   | -   | -   | 3.0 | 1.1 | 0.2 | -   | -   | -   | -   | -   | -   | 4.2  | 115 |
| 10.5 - 11.4 | -   | -   | -   | 0.6 | *   | -   | -   | -   | -   | -   | -   | -   | 0.6  | 17  |
| 11.5 - 12.4 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 0.0  | 0   |
| 12.5 - 13.4 | -   | -   | -   | 0.1 | *   | -   | -   | -   | -   | -   | -   | -   | 0.2  | 5   |
| 13.5 - 14.4 | *   | -   | -   | *   | 0.1 | -   | -   | -   | -   | -   | -   | -   | 0.1  | 4   |
| 14.5 - 15.4 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 0.0  | 0   |
| 15.5 - 16.4 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 0.0  | 0   |
| 16.5 - 17.4 | -   | -   | -   | *   | *   | -   | -   | -   | -   | -   | -   | -   | 0.1  | 2   |

|         |     |     |      |      |      |      |     |     |     |     |     |     |       |      |
|---------|-----|-----|------|------|------|------|-----|-----|-----|-----|-----|-----|-------|------|
| TOTAL % | 1.0 | 3.4 | 11.9 | 32.3 | 18.5 | 18.5 | 8.1 | 2.9 | 2.3 | 0.6 | 0.3 | 0.3 | 100.0 |      |
| TOTAL N | 26  | 93  | 323  | 877  | 503  | 504  | 219 | 78  | 62  | 16  | 7   | 9   |       | 2717 |

(\* < 0.05%)

STATION: 42019

7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: OCT

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| WAVE PERIOD         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |       |
| < 0.5               | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 0.5 - 1.4           | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 1.5 - 2.4           | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 2.5 - 3.4           | -     | -     | -     | 0.1   | 0.6   | 0.3   | *     | -     | *     | 0.1   | -     | -     | -     | 1.1   | 31    |
| 3.5 - 4.4           | 0.1   | 0.2   | 0.4   | 0.6   | 0.9   | 0.6   | *     | 0.1   | 0.1   | 0.1   | 0.2   | -     | -     | 3.3   | 96    |
| 4.5 - 5.4           | 0.3   | 0.8   | 1.7   | 3.3   | 3.2   | 1.8   | 0.8   | 0.1   | -     | 0.3   | 0.1   | 0.1   | -     | 12.6  | 366   |
| 5.5 - 6.4           | 0.7   | 2.1   | 2.9   | 8.7   | 6.7   | 2.0   | 1.6   | 0.1   | -     | -     | -     | 0.3   | -     | 25.0  | 725   |
| 6.5 - 7.4           | -     | 1.1   | 2.7   | 7.2   | 7.6   | 0.7   | 0.3   | -     | -     | -     | -     | *     | -     | 19.6  | 569   |
| 7.5 - 8.4           | -     | *     | 1.0   | 13.0  | 10.2  | 2.0   | 0.2   | -     | -     | -     | -     | -     | -     | 26.4  | 765   |
| 8.5 - 9.4           | -     | -     | -     | 3.5   | 3.5   | 0.1   | 0.1   | -     | -     | -     | -     | -     | -     | 7.3   | 210   |
| 9.5 - 10.4          | -     | -     | -     | 1.3   | 2.3   | 0.1   | 0.2   | -     | -     | -     | *     | -     | -     | 4.0   | 117   |
| 10.5 - 11.4         | -     | -     | -     | *     | 0.3   | -     | 0.2   | -     | -     | -     | -     | -     | -     | 0.5   | 14    |
| 11.5 - 12.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 12.5 - 13.4         | -     | -     | -     | -     | -     | -     | 0.1   | -     | -     | -     | -     | -     | -     | 0.1   | 2     |
| 13.5 - 14.4         | -     | *     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 1     |
| TOTAL %             | 1.1   | 4.4   | 8.7   | 37.8  | 35.3  | 7.7   | 3.5   | 0.2   | 0.1   | 0.4   | 0.3   | 0.5   | 100.0 |       |       |
| TOTAL N             | 33    | 126   | 251   | 1094  | 1021  | 223   | 100   | 7     | 4     | 13    | 10    | 14    |       | 2896  |       |

(\* < 0.05%)

STATION: 42019

7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: NOV

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| WAVE PERIOD         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |       |
| < 0.5               | *     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 1     |
| 0.5 - 1.4           | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 1.5 - 2.4           | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 2.5 - 3.4           | 0.1   | 0.1   | 0.1   | 0.3   | 0.4   | 0.2   | 0.5   | 0.3   | -     | -     | -     | *     | -     | 2.1   | 70    |
| 3.5 - 4.4           | 0.2   | 0.3   | 0.6   | 0.9   | 1.5   | 1.6   | 1.1   | 0.3   | -     | 0.1   | 0.4   | 0.3   | -     | 7.3   | 244   |
| 4.5 - 5.4           | 0.7   | 1.0   | 2.1   | 1.0   | 4.2   | 2.8   | 1.2   | 0.6   | 0.1   | 0.5   | 0.7   | 0.5   | -     | 15.4  | 516   |
| 5.5 - 6.4           | 0.3   | 1.5   | 3.3   | 3.5   | 6.6   | 5.3   | 1.6   | 1.0   | *     | 0.3   | 0.6   | 0.3   | -     | 24.2  | 812   |
| 6.5 - 7.4           | 0.3   | 1.8   | 3.2   | 7.3   | 6.5   | 3.2   | 2.2   | -     | -     | 0.1   | 0.4   | 0.3   | -     | 25.2  | 847   |
| 7.5 - 8.4           | -     | 0.4   | 1.4   | 7.4   | 7.0   | 1.9   | 1.5   | *     | -     | -     | -     | -     | -     | 19.6  | 659   |
| 8.5 - 9.4           | -     | -     | -     | 1.8   | 2.9   | 0.2   | 0.2   | *     | -     | -     | -     | -     | -     | 5.2   | 173   |
| 9.5 - 10.4          | -     | -     | -     | 0.1   | 0.5   | -     | -     | -     | -     | -     | -     | -     | -     | 0.7   | 22    |
| 10.5 - 11.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 11.5 - 12.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 12.5 - 13.4         | -     | -     | -     | *     | -     | -     | -     | -     | *     | -     | -     | -     | -     | 0.1   | 2     |
| 13.5 - 14.4         | -     | -     | -     | -     | *     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 1     |
| 14.5 - 15.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 15.5 - 16.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 16.5 - 17.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.1   | -     | -     | -     | 0.1   | 2     |
| 17.5 - 18.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 18.5 - 19.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 19.5 - 20.4         | -     | -     | -     | *     | -     | -     | -     | -     | -     | *     | -     | -     | -     | 0.1   | 2     |
| 20.5 - 21.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 21.5 - 22.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 22.5 - 23.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 23.5 - 24.4         | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 24.5 - 25.4         | -     | -     | -     | 0.1   | -     | -     | -     | -     | -     | 0.1   | -     | -     | -     | 0.2   | 6     |
| TOTAL %             | 1.6   | 5.1   | 10.7  | 22.4  | 29.6  | 15.3  | 8.3   | 2.2   | 0.2   | 1.1   | 2.1   | 1.5   | 100.0 |       |       |
| TOTAL N             | 55    | 171   | 360   | 753   | 994   | 512   | 278   | 73    | 6     | 37    | 69    | 49    |       | 3357  |       |

(\* < 0.05%)

STATION: 42019

## 7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: DEC

| WAVE PERIOD | MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             | 35-01               | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| < 0.5       | *                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 1     |
| 0.5 - 1.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 1.5 - 2.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 2.5 - 3.4   | 0.1                 | *     | 0.1   | 0.1   | 0.1   | 0.2   | 0.2   | -     | 0.1   | *     | 0.1   | 0.1   | 1.2   | 37    |
| 3.5 - 4.4   | 1.2                 | 1.9   | 1.6   | 0.6   | 1.5   | 0.6   | 0.9   | 0.1   | -     | 0.2   | 0.5   | 1.1   | 10.1  | 306   |
| 4.5 - 5.4   | 2.2                 | 2.8   | 2.0   | 1.2   | 2.3   | 1.6   | 0.4   | 0.5   | 0.1   | 0.1   | 1.7   | 1.9   | 16.7  | 506   |
| 5.5 - 6.4   | 1.8                 | 3.2   | 3.7   | 2.8   | 3.9   | 5.8   | 1.6   | 0.1   | -     | 0.4   | 2.1   | 2.2   | 27.6  | 835   |
| 6.5 - 7.4   | 0.9                 | 2.7   | 4.1   | 4.0   | 5.7   | 7.2   | 2.4   | 0.3   | -     | -     | 0.2   | 0.5   | 28.0  | 846   |
| 7.5 - 8.4   | 0.1                 | 0.9   | 1.4   | 2.4   | 3.3   | 2.9   | 1.8   | 0.5   | 0.1   | -     | -     | -     | 13.3  | 402   |
| 8.5 - 9.4   | -                   | -     | -     | 0.5   | 0.5   | 1.3   | 0.4   | 0.1   | -     | -     | -     | -     | 2.7   | 82    |
| 9.5 - 10.4  | -                   | -     | -     | -     | -     | 0.1   | 0.2   | -     | -     | -     | -     | -     | 0.4   | 11    |
| TOTAL %     | 6.3                 | 11.6  | 12.9  | 11.5  | 17.3  | 19.7  | 7.8   | 1.5   | 0.2   | 0.7   | 4.7   | 5.8   | 100.0 |       |
| TOTAL N     | 192                 | 350   | 390   | 347   | 523   | 595   | 235   | 46    | 7     | 22    | 142   | 177   |       | 3026  |

(\* &lt; 0.05%)

STATION: 42019

## 7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

All Months: Annual

| WAVE PERIOD | MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             | 35-01               | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| < 0.5       | 0.1                 | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.1   | 21    |
| 0.5 - 1.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 1.5 - 2.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 2.5 - 3.4   | *                   | 0.1   | 0.1   | 0.1   | 0.3   | 0.3   | 0.4   | 0.2   | 0.1   | 0.1   | 0.1   | 0.1   | 2.0   | 590   |
| 3.5 - 4.4   | 0.4                 | 0.5   | 0.8   | 0.8   | 1.3   | 1.2   | 1.9   | 1.1   | 0.3   | 0.1   | 0.2   | 0.3   | 9.0   | 2651  |
| 4.5 - 5.4   | 0.7                 | 1.1   | 1.7   | 1.5   | 2.8   | 5.0   | 4.0   | 1.3   | 0.3   | 0.2   | 0.3   | 0.5   | 19.3  | 5720  |
| 5.5 - 6.4   | 0.6                 | 1.4   | 2.4   | 3.7   | 5.2   | 9.1   | 3.7   | 0.5   | *     | 0.1   | 0.3   | 0.5   | 27.5  | 8145  |
| 6.5 - 7.4   | 0.2                 | 0.9   | 1.9   | 4.0   | 6.4   | 6.0   | 1.7   | 0.1   | *     | *     | 0.1   | 0.2   | 21.5  | 6369  |
| 7.5 - 8.4   | *                   | 0.2   | 0.5   | 4.3   | 6.1   | 3.2   | 0.9   | 0.1   | *     | -     | *     | *     | 15.3  | 4526  |
| 8.5 - 9.4   | -                   | -     | *     | 1.3   | 1.5   | 0.4   | 0.1   | *     | -     | -     | -     | -     | 3.3   | 976   |
| 9.5 - 10.4  | -                   | -     | *     | 0.6   | 0.7   | 0.1   | 0.1   | *     | -     | -     | *     | -     | 1.6   | 461   |
| 10.5 - 11.4 | -                   | -     | -     | 0.1   | 0.1   | *     | *     | -     | -     | -     | *     | -     | 0.2   | 56    |
| 11.5 - 12.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 12.5 - 13.4 | -                   | *     | -     | *     | *     | -     | *     | -     | *     | -     | -     | *     | 0.0   | 12    |
| 13.5 - 14.4 | *                   | *     | -     | *     | *     | *     | -     | -     | *     | *     | -     | -     | 0.0   | 13    |
| 14.5 - 15.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 15.5 - 16.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 16.5 - 17.4 | -                   | -     | *     | *     | *     | -     | -     | -     | *     | *     | *     | -     | 0.0   | 13    |
| 17.5 - 18.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 18.5 - 19.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 19.5 - 20.4 | -                   | -     | -     | *     | *     | -     | -     | -     | -     | *     | *     | -     | 0.1   | 16    |
| 20.5 - 21.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 21.5 - 22.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 22.5 - 23.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 23.5 - 24.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 24.5 - 25.4 | -                   | -     | -     | *     | -     | -     | -     | -     | -     | *     | -     | -     | 0.1   | 15    |
| TOTAL %     | 2.0                 | 4.2   | 7.5   | 16.5  | 24.5  | 25.4  | 12.7  | 3.4   | 0.6   | 0.5   | 1.0   | 1.6   | 100.0 |       |
| TOTAL N     | 582                 | 1250  | 2233  | 4895  | 7234  | 7505  | 3769  | 994   | 187   | 159   | 299   | 477   |       | 29584 |

(\* &lt; 0.05%)

STATION: 42019

## 7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Months: DEC, JAN, FEB (Winter)

| WAVE PERIOD | MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             | 35-01               | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| < 0.5       | *                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 2     |
| 0.5 - 1.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 1.5 - 2.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 2.5 - 3.4   | 0.1                 | *     | 0.1   | 0.1   | 0.1   | 0.2   | 0.1   | 0.1   | 0.1   | *     | 0.1   | 0.1   | 0.9   | 56    |
| 3.5 - 4.4   | 0.9                 | 1.3   | 1.6   | 0.7   | 1.1   | 0.9   | 0.7   | 0.2   | 0.1   | 0.2   | 0.3   | 0.6   | 8.8   | 521   |
| 4.5 - 5.4   | 1.8                 | 2.5   | 2.4   | 1.8   | 2.6   | 3.1   | 1.1   | 0.2   | 0.2   | 0.2   | 1.0   | 1.4   | 18.3  | 1087  |
| 5.5 - 6.4   | 1.2                 | 2.9   | 4.0   | 3.4   | 4.1   | 6.3   | 2.7   | 0.4   | 0.1   | 0.3   | 1.2   | 1.5   | 28.0  | 1667  |
| 6.5 - 7.4   | 0.6                 | 1.8   | 3.5   | 3.9   | 4.9   | 5.4   | 2.2   | 0.2   | -     | -     | 0.2   | 0.4   | 22.9  | 1364  |
| 7.5 - 8.4   | 0.1                 | 0.8   | 0.9   | 3.8   | 5.4   | 2.7   | 1.8   | 0.3   | 0.1   | -     | -     | -     | 15.8  | 939   |
| 8.5 - 9.4   | -                   | -     | *     | 0.7   | 1.1   | 1.0   | 0.2   | *     | -     | -     | -     | -     | 3.1   | 187   |
| 9.5 - 10.4  | -                   | -     | -     | 0.6   | 1.0   | 0.3   | 0.1   | -     | -     | -     | -     | -     | 2.0   | 117   |
| 10.5 - 11.4 | -                   | -     | -     | *     | 0.1   | -     | -     | -     | -     | -     | -     | -     | 0.1   | 4     |
| TOTAL %     | 4.7                 | 9.3   | 12.6  | 15.1  | 20.4  | 19.7  | 9.0   | 1.3   | 0.5   | 0.7   | 2.8   | 4.0   | 100.0 |       |
| TOTAL N     | 281                 | 554   | 748   | 898   | 1211  | 1173  | 535   | 77    | 27    | 41    | 164   | 235   |       | 5944  |

(\* < 0.05%)

STATION: 42019

7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Months: MAR, APR, MAY (Spring)

| WAVE PERIOD | MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             | 35-01               | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| < 0.5       | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 0.5 - 1.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 1.5 - 2.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 2.5 - 3.4   | *                   | 0.2   | 0.2   | 0.1   | 0.3   | 0.2   | 0.5   | 0.2   | 0.1   | -     | *     | 0.1   | 1.9   | 124   |
| 3.5 - 4.4   | 0.5                 | 0.6   | 0.5   | 0.6   | 0.7   | 0.8   | 1.3   | 0.7   | 0.1   | 0.1   | *     | 0.4   | 6.3   | 409   |
| 4.5 - 5.4   | 0.8                 | 1.4   | 1.6   | 0.8   | 1.8   | 3.7   | 2.3   | 0.8   | -     | 0.1   | -     | 0.5   | 13.9  | 900   |
| 5.5 - 6.4   | 1.0                 | 1.1   | 1.9   | 1.9   | 6.6   | 7.9   | 3.8   | 0.9   | *     | 0.1   | 0.1   | 0.7   | 25.9  | 1682  |
| 6.5 - 7.4   | 0.1                 | 0.5   | 1.6   | 3.1   | 10.6  | 9.6   | 1.6   | 0.3   | *     | -     | 0.2   | 0.4   | 28.0  | 1815  |
| 7.5 - 8.4   | *                   | 0.1   | 0.3   | 2.7   | 9.9   | 6.2   | 0.4   | -     | -     | -     | *     | *     | 19.7  | 1275  |
| 8.5 - 9.4   | -                   | -     | -     | 1.3   | 1.9   | 0.3   | *     | -     | -     | -     | -     | -     | 3.5   | 227   |
| 9.5 - 10.4  | -                   | -     | -     | 0.3   | 0.5   | -     | -     | -     | -     | -     | -     | -     | 0.8   | 51    |
| 10.5 - 11.4 | -                   | -     | -     | *     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 2     |
| 11.5 - 12.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 12.5 - 13.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 13.5 - 14.4 | -                   | -     | -     | -     | -     | -     | -     | -     | *     | -     | -     | -     | 0.0   | 1     |
| 14.5 - 15.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 15.5 - 16.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 16.5 - 17.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 17.5 - 18.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 18.5 - 19.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 19.5 - 20.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | *     | -     | -     | 0.0   | 1     |
| TOTAL %     | 2.5                 | 3.9   | 6.1   | 10.7  | 32.3  | 28.7  | 9.9   | 2.9   | 0.2   | 0.3   | 0.4   | 2.1   | 100.0 |       |
| TOTAL N     | 161                 | 251   | 394   | 694   | 2096  | 1861  | 642   | 191   | 12    | 22    | 24    | 139   |       | 6487  |

(\* < 0.05%)

STATION: 42019

7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Months: JUN, JUL, AUG (Summer)

| WAVE PERIOD | MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             | 35-01               | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| < 0.5       | 0.2                 | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.2   | 18    |
| 0.5 - 1.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 1.5 - 2.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 2.5 - 3.4   | -                   | 0.1   | 0.2   | 0.2   | 0.3   | 0.7   | 0.8   | 0.3   | 0.1   | 0.1   | 0.2   | 0.3   | 3.4   | 277   |
| 3.5 - 4.4   | 0.1                 | 0.1   | 0.6   | 1.1   | 2.2   | 2.0   | 4.7   | 2.5   | 0.5   | 0.1   | *     | *     | 13.8  | 1132  |
| 4.5 - 5.4   | -                   | 0.2   | 0.6   | 1.0   | 3.1   | 10.0  | 10.3  | 3.5   | 0.3   | *     | -     | *     | 29.0  | 2375  |
| 5.5 - 6.4   | -                   | 0.2   | 0.5   | 2.1   | 4.4   | 16.0  | 6.5   | 0.6   | -     | -     | -     | -     | 30.2  | 2472  |
| 6.5 - 7.4   | -                   | -     | *     | 1.0   | 4.1   | 7.6   | 1.5   | *     | -     | -     | -     | -     | 14.2  | 1163  |
| 7.5 - 8.4   | -                   | -     | -     | 1.0   | 2.4   | 2.9   | 0.4   | *     | -     | -     | -     | -     | 6.8   | 554   |
| 8.5 - 9.4   | -                   | -     | -     | 0.4   | 0.5   | 0.2   | 0.1   | *     | -     | -     | -     | -     | 1.1   | 94    |
| 9.5 - 10.4  | -                   | -     | *     | *     | 0.1   | 0.1   | 0.2   | *     | -     | -     | -     | -     | 0.5   | 39    |
| 10.5 - 11.4 | -                   | -     | -     | *     | 0.1   | 0.1   | 0.1   | -     | -     | -     | *     | -     | 0.2   | 19    |
| 11.5 - 12.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 12.5 - 13.4 | -                   | *     | -     | *     | -     | -     | -     | -     | -     | -     | -     | *     | 0.0   | 3     |
| 13.5 - 14.4 | -                   | -     | -     | *     | -     | *     | -     | -     | -     | *     | -     | -     | 0.1   | 6     |
| 14.5 - 15.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 15.5 - 16.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 16.5 - 17.4 | -                   | -     | *     | *     | *     | -     | -     | -     | *     | *     | *     | -     | 0.1   | 9     |
| 17.5 - 18.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 18.5 - 19.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 19.5 - 20.4 | -                   | -     | -     | 0.1   | *     | -     | -     | -     | -     | *     | *     | -     | 0.2   | 13    |
| 20.5 - 21.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 21.5 - 22.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 22.5 - 23.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 23.5 - 24.4 | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 24.5 - 25.4 | -                   | -     | -     | *     | -     | -     | -     | -     | -     | 0.1   | -     | -     | 0.1   | 9     |
| TOTAL %     | 0.3                 | 0.7   | 1.9   | 7.1   | 17.2  | 39.5  | 24.4  | 6.9   | 0.9   | 0.4   | 0.3   | 0.4   | 100.0 |       |
| TOTAL N     | 26                  | 55    | 157   | 579   | 1409  | 3232  | 1995  | 568   | 76    | 30    | 25    | 31    |       | 8183  |

(\* < 0.05%)

STATION: 42019

7 - PERCENT FREQUENCY OF DOMINANT WAVE PERIOD(SECONDS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Months: SEP, OCT, NOV (Autumn)

| WAVE PERIOD | MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             | 35-01               | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| < 0.5       | *                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 1     |
| 0.5 - 1.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 1.5 - 2.4   | -                   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 0     |
| 2.5 - 3.4   | *                   | 0.1   | 0.1   | 0.1   | 0.4   | 0.3   | 0.3   | 0.1   | *     | 0.1   | -     | *     | 1.5   | 133   |
| 3.5 - 4.4   | 0.1                 | 0.3   | 0.7   | 0.9   | 1.1   | 1.1   | 0.6   | 0.7   | 0.3   | 0.2   | 0.3   | 0.1   | 6.6   | 589   |
| 4.5 - 5.4   | 0.5                 | 0.8   | 2.5   | 2.4   | 3.2   | 2.8   | 1.3   | 0.4   | 0.4   | 0.3   | 0.3   | 0.3   | 15.1  | 1358  |
| 5.5 - 6.4   | 0.5                 | 1.6   | 3.5   | 6.5   | 5.8   | 5.4   | 1.6   | 0.4   | *     | 0.1   | 0.2   | 0.3   | 25.9  | 2324  |



|             |     |     |      |      |      |      |     |     |     |     |     |     |       |      |
|-------------|-----|-----|------|------|------|------|-----|-----|-----|-----|-----|-----|-------|------|
| 6.5 - 7.4   | 0.1 | 1.4 | 2.6  | 7.6  | 6.6  | 2.4  | 1.6 | 0.1 | -   | *   | 0.1 | 0.1 | 22.6  | 2027 |
| 7.5 - 8.4   | -   | 0.1 | 1.0  | 8.7  | 7.1  | 1.6  | 0.9 | 0.1 | -   | -   | -   | -   | 19.6  | 1758 |
| 8.5 - 9.4   | -   | -   | *    | 2.5  | 2.4  | 0.2  | 0.1 | *   | -   | -   | -   | -   | 5.2   | 468  |
| 9.5 - 10.4  | -   | -   | -    | 1.4  | 1.3  | 0.1  | 0.1 | -   | -   | -   | *   | -   | 2.8   | 254  |
| 10.5 - 11.4 | -   | -   | -    | 0.2  | 0.1  | -    | 0.1 | -   | -   | -   | -   | -   | 0.3   | 31   |
| 11.5 - 12.4 | -   | -   | -    | -    | -    | -    | -   | -   | -   | -   | -   | -   | 0.0   | 0    |
| 12.5 - 13.4 | -   | -   | -    | 0.1  | *    | -    | *   | -   | *   | -   | -   | -   | 0.1   | 9    |
| 13.5 - 14.4 | *   | *   | -    | *    | *    | -    | -   | -   | -   | -   | -   | -   | 0.1   | 6    |
| 14.5 - 15.4 | -   | -   | -    | -    | -    | -    | -   | -   | -   | -   | -   | -   | 0.0   | 0    |
| 15.5 - 16.4 | -   | -   | -    | -    | -    | -    | -   | -   | -   | -   | -   | -   | 0.0   | 0    |
| 16.5 - 17.4 | -   | -   | -    | *    | *    | -    | -   | -   | -   | *   | -   | -   | 0.0   | 4    |
| 17.5 - 18.4 | -   | -   | -    | -    | -    | -    | -   | -   | -   | -   | -   | -   | 0.0   | 0    |
| 18.5 - 19.4 | -   | -   | -    | -    | -    | -    | -   | -   | -   | -   | -   | -   | 0.0   | 0    |
| 19.5 - 20.4 | -   | -   | -    | *    | -    | -    | -   | -   | -   | *   | -   | -   | 0.0   | 2    |
| 20.5 - 21.4 | -   | -   | -    | -    | -    | -    | -   | -   | -   | -   | -   | -   | 0.0   | 0    |
| 21.5 - 22.4 | -   | -   | -    | -    | -    | -    | -   | -   | -   | -   | -   | -   | 0.0   | 0    |
| 22.5 - 23.4 | -   | -   | -    | -    | -    | -    | -   | -   | -   | -   | -   | -   | 0.0   | 0    |
| 23.5 - 24.4 | -   | -   | -    | -    | -    | -    | -   | -   | -   | -   | -   | -   | 0.0   | 0    |
| 24.5 - 25.4 | -   | -   | -    | *    | -    | -    | -   | -   | -   | *   | -   | -   | 0.1   | 6    |
| TOTAL %     | 1.3 | 4.3 | 10.4 | 30.4 | 28.1 | 13.8 | 6.7 | 1.8 | 0.8 | 0.7 | 1.0 | 0.8 | 100.0 |      |
| TOTAL N     | 114 | 390 | 934  | 2724 | 2518 | 1239 | 597 | 158 | 72  | 66  | 86  | 72  |       | 8970 |
| (* < 0.05%) |     |     |      |      |      |      |     |     |     |     |     |     |       |      |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: JAN

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| WAVE HEIGHT         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 | TOT % | TOT N |
| < 0.5               | -     | 0.4   | 1.6   | 0.8   | 0.7   | 0.5   | 0.1   | 0.2   | 0.2   | -     | -     | -     | 4.6   | 45    |
| 0.5 - 1.4           | 0.8   | 5.7   | 8.6   | 11.4  | 13.1  | 7.9   | 5.2   | 0.4   | 1.4   | 0.9   | 0.2   | 1.2   | 56.8  | 562   |
| 1.5 - 2.4           | 2.0   | 2.5   | 3.6   | 3.3   | 6.8   | 5.1   | 3.6   | 0.2   | -     | -     | 0.4   | 2.1   | 29.7  | 294   |
| 2.5 - 3.4           | 0.1   | 0.2   | 1.1   | 3.0   | 1.4   | 0.7   | 0.5   | -     | -     | -     | 0.3   | 0.6   | 8.0   | 79    |
| 3.5 - 4.4           | -     | -     | 0.1   | 0.5   | 0.3   | -     | -     | -     | -     | -     | -     | -     | 0.9   | 9     |
| TOTAL %             | 2.9   | 8.8   | 15.1  | 19.1  | 22.3  | 14.2  | 9.4   | 0.8   | 1.6   | 0.9   | 0.9   | 3.9   | 100.0 |       |
| TOTAL N             | 29    | 87    | 149   | 189   | 221   | 140   | 93    | 8     | 16    | 9     | 9     | 39    |       | 989   |
| (* < 0.05%)         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: FEB

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| WAVE HEIGHT         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 | TOT % | TOT N |
| < 0.5               | 0.1   | 0.3   | 0.1   | 0.1   | 0.5   | 0.2   | -     | 0.1   | 0.1   | -     | -     | -     | 1.2   | 24    |
| 0.5 - 1.4           | 1.8   | 2.4   | 6.9   | 11.1  | 17.0  | 13.8  | 6.2   | 0.8   | 0.1   | 0.1   | 0.3   | 0.3   | 60.9  | 1174  |
| 1.5 - 2.4           | 0.8   | 1.7   | 2.9   | 6.4   | 5.6   | 5.3   | 4.0   | 0.3   | 0.1   | 0.5   | 0.4   | 0.6   | 28.4  | 548   |
| 2.5 - 3.4           | 0.4   | 1.5   | 1.0   | 0.8   | 1.0   | 2.9   | 0.5   | -     | -     | -     | 0.1   | 0.1   | 8.1   | 157   |
| 3.5 - 4.4           | 0.1   | 0.3   | -     | 0.3   | 0.1   | 0.6   | 0.1   | -     | -     | -     | -     | -     | 1.3   | 25    |
| 4.5 - 5.4           | -     | -     | -     | 0.1   | -     | -     | -     | -     | -     | -     | -     | -     | 0.1   | 1     |
| TOTAL %             | 3.1   | 6.1   | 10.8  | 18.8  | 24.2  | 22.7  | 10.7  | 1.2   | 0.2   | 0.5   | 0.7   | 1.0   | 100.0 |       |
| TOTAL N             | 60    | 117   | 209   | 362   | 467   | 438   | 207   | 23    | 4     | 10    | 13    | 19    |       | 1929  |
| (* < 0.05%)         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: MAR

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| WAVE HEIGHT         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 | TOT % | TOT N |
| < 0.5               | 0.1   | 0.8   | 1.7   | 0.6   | 2.1   | -     | 0.4   | 0.1   | 0.2   | -     | -     | 0.3   | 6.2   | 135   |
| 0.5 - 1.4           | 2.7   | 5.4   | 4.6   | 4.1   | 13.8  | 6.0   | 5.1   | 0.4   | -     | 0.6   | 0.2   | 2.0   | 44.7  | 969   |
| 1.5 - 2.4           | 2.5   | 1.4   | 2.7   | 7.5   | 9.1   | 7.3   | 3.4   | *     | -     | 0.4   | 0.4   | 2.0   | 36.8  | 798   |
| 2.5 - 3.4           | 0.2   | 0.2   | 0.3   | 2.4   | 2.5   | 3.1   | 0.2   | -     | -     | -     | 0.5   | 1.4   | 10.9  | 237   |
| 3.5 - 4.4           | -     | -     | -     | -     | 0.9   | 0.2   | -     | -     | -     | -     | *     | *     | 1.2   | 26    |
| 4.5 - 5.4           | -     | -     | -     | -     | *     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 1     |
| TOTAL %             | 5.6   | 7.7   | 9.3   | 14.5  | 28.5  | 16.6  | 9.0   | 0.5   | 0.2   | 1.0   | 1.1   | 5.9   | 100.0 |       |
| TOTAL N             | 121   | 167   | 202   | 315   | 618   | 359   | 196   | 11    | 5     | 21    | 24    | 127   |       | 2166  |
| (* < 0.05%)         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: APR

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| WAVE HEIGHT         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 | TOT % | TOT N |

|             |     |     |     |     |      |      |     |     |     |     |     |     |       |      |
|-------------|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-------|------|
| < 0.5       | -   | -   | 0.6 | -   | 0.7  | -    | 0.3 | 1.2 | 0.2 | -   | -   | -   | 3.0   | 64   |
| 0.5 - 1.4   | 1.0 | 2.4 | 2.1 | 7.0 | 19.1 | 15.0 | 1.5 | 1.8 | *   | -   | -   | *   | 50.0  | 1052 |
| 1.5 - 2.4   | 0.7 | 0.7 | 3.3 | 2.2 | 12.4 | 18.8 | 2.8 | 1.1 | -   | -   | -   | 0.4 | 42.4  | 892  |
| 2.5 - 3.4   | -   | 0.4 | 1.1 | 0.3 | 0.9  | 1.6  | 0.4 | -   | -   | -   | -   | -   | 4.7   | 98   |
| TOTAL %     | 1.7 | 3.4 | 7.0 | 9.5 | 33.1 | 35.3 | 5.0 | 4.2 | 0.3 | 0.0 | 0.0 | 0.5 | 100.0 |      |
| TOTAL N     | 36  | 72  | 148 | 200 | 697  | 744  | 105 | 88  | 6   | 0   | 0   | 10  |       | 2106 |
| (* < 0.05%) |     |     |     |     |      |      |     |     |     |     |     |     |       |      |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: MAY

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| WAVE HEIGHT         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 | TOT % | TOT N |
| < 0.5               | -     | -     | -     | -     | 1.3   | 1.4   | 1.3   | 0.7   | -     | -     | -     | -     | 4.7   | 103   |
| 0.5 - 1.4           | 0.1   | *     | 0.9   | 6.0   | 25.1  | 26.3  | 12.2  | 3.1   | -     | -     | -     | *     | 73.9  | 1637  |
| 1.5 - 2.4           | 0.1   | 0.2   | 1.0   | 2.1   | 8.8   | 6.5   | 1.9   | 0.3   | *     | *     | -     | *     | 21.0  | 466   |
| 2.5 - 3.4           | -     | 0.3   | *     | -     | 0.1   | -     | -     | -     | -     | -     | -     | -     | 0.4   | 9     |
| TOTAL %             | 0.2   | 0.5   | 2.0   | 8.1   | 35.3  | 34.2  | 15.4  | 4.2   | 0.0   | 0.0   | 0.0   | 0.1   | 100.0 |       |
| TOTAL N             | 4     | 12    | 44    | 179   | 781   | 758   | 341   | 92    | 1     | 1     | 0     | 2     |       | 2215  |
| (* < 0.05%)         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: JUN

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| WAVE HEIGHT         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 | TOT % | TOT N |
| < 0.5               | *     | 0.2   | 0.3   | 0.3   | 1.6   | 2.8   | 0.4   | 0.2   | -     | -     | -     | -     | 5.8   | 133   |
| 0.5 - 1.4           | *     | 1.1   | 1.1   | 3.3   | 8.7   | 33.6  | 16.8  | 0.9   | *     | 0.2   | 0.2   | 0.1   | 66.1  | 1512  |
| 1.5 - 2.4           | -     | 0.1   | 0.6   | 1.5   | 7.0   | 14.6  | 2.5   | 0.2   | -     | -     | -     | -     | 26.6  | 608   |
| 2.5 - 3.4           | -     | -     | 0.1   | 0.1   | 0.9   | 0.5   | *     | -     | -     | -     | -     | -     | 1.6   | 36    |
| TOTAL %             | 0.1   | 1.4   | 2.1   | 5.2   | 18.1  | 51.4  | 19.8  | 1.3   | 0.0   | 0.2   | 0.2   | 0.1   | 100.0 |       |
| TOTAL N             | 2     | 33    | 48    | 120   | 415   | 1176  | 453   | 29    | 1     | 5     | 4     | 3     |       | 2289  |
| (* < 0.05%)         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: JUL

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| WAVE HEIGHT         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 | TOT % | TOT N |
| < 0.5               | *     | *     | 0.3   | 0.6   | 1.4   | 2.8   | 3.1   | 1.6   | 0.5   | 0.2   | *     | -     | 10.5  | 304   |
| 0.5 - 1.4           | 0.2   | 0.2   | 0.2   | 1.5   | 9.5   | 32.9  | 27.0  | 10.4  | 1.4   | 0.1   | 0.1   | 0.1   | 83.6  | 2430  |
| 1.5 - 2.4           | -     | -     | -     | -     | 2.0   | 3.2   | 0.2   | -     | -     | -     | -     | -     | 5.4   | 157   |
| 2.5 - 3.4           | -     | -     | -     | -     | 0.3   | 0.2   | -     | -     | -     | -     | -     | -     | 0.6   | 16    |
| TOTAL %             | 0.2   | 0.2   | 0.5   | 2.1   | 13.2  | 39.1  | 30.3  | 12.0  | 1.9   | 0.3   | 0.1   | 0.1   | 100.0 |       |
| TOTAL N             | 6     | 7     | 15    | 60    | 384   | 1136  | 880   | 349   | 56    | 8     | 3     | 3     |       | 2907  |
| (* < 0.05%)         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: AUG

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| WAVE HEIGHT         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 | TOT % | TOT N |
| < 0.5               | 0.6   | 0.2   | 0.9   | 1.7   | 3.4   | 6.7   | 3.3   | 0.7   | 0.2   | 0.3   | 0.5   | 0.8   | 19.5  | 582   |
| 0.5 - 1.4           | -     | 0.3   | 2.3   | 10.2  | 15.7  | 21.3  | 16.8  | 5.4   | 0.5   | 0.2   | 0.1   | -     | 72.7  | 2172  |
| 1.5 - 2.4           | -     | -     | -     | 0.8   | 1.2   | 2.7   | 1.2   | 0.1   | -     | *     | -     | -     | 6.1   | 183   |
| 2.5 - 3.4           | -     | -     | -     | 0.4   | -     | 0.1   | 0.4   | 0.1   | -     | -     | -     | -     | 1.0   | 29    |
| 3.5 - 4.4           | -     | -     | -     | 0.1   | 0.1   | 0.1   | 0.3   | -     | -     | -     | -     | -     | 0.6   | 18    |
| 4.5 - 5.4           | -     | -     | -     | -     | -     | -     | 0.1   | *     | -     | -     | -     | -     | 0.1   | 3     |
| TOTAL %             | 0.6   | 0.5   | 3.1   | 13.4  | 20.4  | 30.8  | 22.2  | 6.4   | 0.6   | 0.6   | 0.6   | 0.8   | 100.0 |       |
| TOTAL N             | 18    | 15    | 94    | 399   | 610   | 920   | 662   | 190   | 19    | 17    | 18    | 25    |       | 2987  |
| (* < 0.05%)         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: SEP

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| WAVE HEIGHT         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 | TOT % | TOT N |
| < 0.5               | -     | -     | 0.3   | 1.2   | 1.1   | 0.7   | 0.4   | 0.7   | 0.6   | 0.3   | -     | *     | 5.3   | 143   |
| 0.5 - 1.4           | 0.4   | 1.3   | 8.4   | 21.4  | 10.6  | 14.5  | 6.3   | 1.6   | 1.7   | 0.3   | 0.3   | 0.2   | 67.0  | 1821  |

|             |     |     |      |      |      |      |     |     |     |     |     |     |       |      |
|-------------|-----|-----|------|------|------|------|-----|-----|-----|-----|-----|-----|-------|------|
| 1.5 - 2.4   | 0.5 | 2.1 | 3.0  | 8.0  | 5.2  | 3.2  | 1.1 | *   | -   | -   | -   | 0.1 | 23.3  | 633  |
| 2.5 - 3.4   | -   | *   | 0.2  | 0.5  | 1.0  | 0.1  | 0.1 | 0.4 | -   | -   | -   | -   | 2.4   | 66   |
| 3.5 - 4.4   | -   | -   | -    | 0.7  | 0.6  | *    | 0.1 | *   | -   | -   | -   | -   | 1.5   | 41   |
| 4.5 - 5.4   | -   | -   | *    | 0.4  | -    | -    | -   | -   | -   | -   | -   | -   | 0.5   | 13   |
| TOTAL %     | 1.0 | 3.4 | 11.9 | 32.3 | 18.5 | 18.5 | 8.1 | 2.9 | 2.3 | 0.6 | 0.3 | 0.3 | 100.0 |      |
| TOTAL N     | 26  | 93  | 323  | 877  | 503  | 504  | 219 | 78  | 62  | 16  | 7   | 9   |       | 2717 |
| (* < 0.05%) |     |     |      |      |      |      |     |     |     |     |     |     |       |      |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: OCT

| WAVE HEIGHT | MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             | 35-01               | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| < 0.5       | -                   | -     | -     | 1.5   | 0.5   | 0.1   | *     | *     | 0.1   | -     | -     | -     | 2.3   | 66    |
| 0.5 - 1.4   | 0.3                 | 1.5   | 5.2   | 20.2  | 22.7  | 3.7   | 2.2   | 0.2   | -     | 0.3   | 0.3   | -     | 56.7  | 1642  |
| 1.5 - 2.4   | 0.8                 | 2.6   | 2.1   | 13.3  | 11.0  | 3.3   | 1.0   | -     | -     | 0.1   | *     | 0.4   | 34.6  | 1002  |
| 2.5 - 3.4   | *                   | 0.3   | 1.1   | 2.6   | 1.1   | 0.6   | 0.2   | -     | -     | -     | -     | *     | 5.9   | 170   |
| 3.5 - 4.4   | -                   | -     | 0.3   | 0.2   | -     | -     | -     | -     | -     | -     | -     | -     | 0.6   | 16    |
| TOTAL %     | 1.1                 | 4.4   | 8.7   | 37.8  | 35.3  | 7.7   | 3.5   | 0.2   | 0.1   | 0.4   | 0.3   | 0.5   | 100.0 |       |
| TOTAL N     | 33                  | 126   | 251   | 1094  | 1021  | 223   | 100   | 7     | 4     | 13    | 10    | 14    |       | 2896  |
| (* < 0.05%) |                     |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: NOV

| WAVE HEIGHT | MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             | 35-01               | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| < 0.5       | 0.1                 | 0.1   | 0.5   | 1.5   | 1.7   | 0.2   | 1.0   | 0.4   | *     | -     | -     | -     | 5.5   | 186   |
| 0.5 - 1.4   | 0.8                 | 1.3   | 4.1   | 14.1  | 18.9  | 6.8   | 3.0   | 1.6   | 0.1   | 0.7   | 1.1   | 0.7   | 53.2  | 1787  |
| 1.5 - 2.4   | 0.5                 | 3.0   | 4.6   | 6.1   | 8.7   | 6.9   | 3.4   | 0.1   | -     | 0.3   | 0.6   | 0.3   | 34.4  | 1156  |
| 2.5 - 3.4   | 0.3                 | 0.7   | 1.3   | 0.5   | 0.3   | 1.2   | 0.8   | *     | -     | 0.1   | 0.4   | 0.4   | 6.0   | 203   |
| 3.5 - 4.4   | -                   | *     | 0.2   | 0.2   | -     | 0.2   | 0.1   | *     | -     | -     | -     | -     | 0.7   | 25    |
| TOTAL %     | 1.6                 | 5.1   | 10.7  | 22.4  | 29.6  | 15.3  | 8.3   | 2.2   | 0.2   | 1.1   | 2.1   | 1.5   | 100.0 |       |
| TOTAL N     | 55                  | 171   | 360   | 753   | 994   | 512   | 278   | 73    | 6     | 37    | 69    | 49    |       | 3357  |
| (* < 0.05%) |                     |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Month: DEC

| WAVE HEIGHT | MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             | 35-01               | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| < 0.5       | 0.1                 | 0.4   | 1.2   | 0.7   | 0.5   | 0.4   | 0.9   | -     | *     | -     | *     | 0.1   | 4.2   | 127   |
| 0.5 - 1.4   | 3.2                 | 5.0   | 5.4   | 6.6   | 12.3  | 6.2   | 2.0   | 0.6   | *     | 0.2   | 1.8   | 2.4   | 45.8  | 1385  |
| 1.5 - 2.4   | 2.2                 | 4.3   | 4.9   | 2.8   | 3.7   | 10.2  | 3.7   | 0.4   | 0.1   | 0.5   | 2.5   | 2.7   | 37.9  | 1148  |
| 2.5 - 3.4   | 0.9                 | 1.8   | 1.5   | 1.2   | 0.8   | 1.8   | 0.9   | 0.6   | 0.1   | -     | 0.3   | 0.7   | 10.5  | 318   |
| 3.5 - 4.4   | -                   | *     | *     | *     | *     | 1.1   | 0.4   | -     | -     | -     | -     | -     | 1.6   | 48    |
| TOTAL %     | 6.3                 | 11.6  | 12.9  | 11.5  | 17.3  | 19.7  | 7.8   | 1.5   | 0.2   | 0.7   | 4.7   | 5.8   | 100.0 |       |
| TOTAL N     | 192                 | 350   | 390   | 347   | 523   | 595   | 235   | 46    | 7     | 22    | 142   | 177   |       | 3026  |
| (* < 0.05%) |                     |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

All Months: Annual

| WAVE HEIGHT | MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       | TOT % | TOT N |
|-------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             | 35-01               | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 |       |       |
| < 0.5       | 0.1                 | 0.2   | 0.6   | 0.8   | 1.3   | 1.4   | 1.1   | 0.5   | 0.2   | 0.1   | 0.1   | 0.1   | 6.5   | 1912  |
| 0.5 - 1.4   | 0.9                 | 2.0   | 3.9   | 10.0  | 15.6  | 15.7  | 9.0   | 2.5   | 0.4   | 0.3   | 0.4   | 0.6   | 61.3  | 18143 |
| 1.5 - 2.4   | 0.8                 | 1.6   | 2.4   | 4.6   | 6.6   | 7.0   | 2.3   | 0.2   | *     | 0.2   | 0.4   | 0.7   | 26.7  | 7885  |
| 2.5 - 3.4   | 0.2                 | 0.5   | 0.6   | 0.9   | 0.8   | 1.0   | 0.3   | 0.1   | *     | *     | 0.1   | 0.3   | 4.8   | 1418  |
| 3.5 - 4.4   | *                   | *     | 0.1   | 0.2   | 0.2   | 0.2   | 0.1   | *     | -     | -     | *     | *     | 0.7   | 208   |
| 4.5 - 5.4   | -                   | -     | *     | *     | *     | -     | *     | *     | -     | -     | -     | -     | 0.1   | 18    |
| TOTAL %     | 2.0                 | 4.2   | 7.5   | 16.5  | 24.5  | 25.4  | 12.7  | 3.4   | 0.6   | 0.5   | 1.0   | 1.6   | 100.0 |       |
| TOTAL N     | 582                 | 1250  | 2233  | 4895  | 7234  | 7505  | 3769  | 994   | 187   | 159   | 299   | 477   |       | 29584 |
| (* < 0.05%) |                     |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Months: DEC, JAN, FEB (Winter)

MEAN WAVE DIRECTION

| WAVE HEIGHT | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 | TOT % | TOT N |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| < 0.5       | 0.1   | 0.4   | 0.9   | 0.5   | 0.5   | 0.3   | 0.5   | 0.1   | 0.1   | -     | *     | *     | 3.3   | 196   |
| 0.5 - 1.4   | 2.4   | 4.3   | 6.4   | 8.9   | 13.9  | 8.9   | 3.9   | 0.6   | 0.3   | 0.3   | 1.0   | 1.5   | 52.5  | 3121  |
| 1.5 - 2.4   | 1.7   | 3.2   | 4.0   | 4.1   | 4.8   | 7.8   | 3.8   | 0.3   | 0.1   | 0.4   | 1.5   | 1.9   | 33.5  | 1990  |
| 2.5 - 3.4   | 0.6   | 1.4   | 1.2   | 1.4   | 1.0   | 2.0   | 0.7   | 0.3   | 0.1   | -     | 0.2   | 0.5   | 9.3   | 554   |
| 3.5 - 4.4   | *     | 0.1   | *     | 0.2   | 0.1   | 0.7   | 0.2   | -     | -     | -     | -     | -     | 1.4   | 82    |
| 4.5 - 5.4   | -     | -     | -     | *     | -     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 1     |
| TOTAL %     | 4.7   | 9.3   | 12.6  | 15.1  | 20.4  | 19.7  | 9.0   | 1.3   | 0.5   | 0.7   | 2.8   | 4.0   | 100.0 |       |
| TOTAL N     | 281   | 554   | 748   | 898   | 1211  | 1173  | 535   | 77    | 27    | 41    | 164   | 235   |       | 5944  |
| (* < 0.05%) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Months: MAR, APR, MAY (Spring)

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| WAVE HEIGHT         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 | TOT % | TOT N |
| < 0.5               | *     | 0.3   | 0.8   | 0.2   | 1.3   | 0.5   | 0.7   | 0.7   | 0.2   | -     | -     | 0.1   | 4.7   | 302   |
| 0.5 - 1.4           | 1.3   | 2.6   | 2.5   | 5.7   | 19.4  | 15.8  | 6.4   | 1.8   | *     | 0.2   | 0.1   | 0.7   | 56.4  | 3658  |
| 1.5 - 2.4           | 1.1   | 0.8   | 2.3   | 3.9   | 10.1  | 10.8  | 2.7   | 0.5   | *     | 0.2   | 0.1   | 0.8   | 33.2  | 2156  |
| 2.5 - 3.4           | 0.1   | 0.3   | 0.5   | 0.9   | 1.2   | 1.5   | 0.2   | -     | -     | -     | 0.2   | 0.5   | 5.3   | 344   |
| 3.5 - 4.4           | -     | -     | -     | -     | 0.3   | 0.1   | -     | -     | -     | -     | *     | *     | 0.4   | 26    |
| 4.5 - 5.4           | -     | -     | -     | -     | *     | -     | -     | -     | -     | -     | -     | -     | 0.0   | 1     |
| TOTAL %             | 2.5   | 3.9   | 6.1   | 10.7  | 32.3  | 28.7  | 9.9   | 2.9   | 0.2   | 0.3   | 0.4   | 2.1   | 100.0 |       |
| TOTAL N             | 161   | 251   | 394   | 694   | 2096  | 1861  | 642   | 191   | 12    | 22    | 24    | 139   |       | 6487  |
| (* < 0.05%)         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Months: JUN, JUL, AUG (Summer)

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| WAVE HEIGHT         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 | TOT % | TOT N |
| < 0.5               | 0.2   | 0.2   | 0.5   | 0.9   | 2.2   | 4.2   | 2.4   | 0.9   | 0.2   | 0.2   | 0.2   | 0.3   | 12.5  | 1019  |
| 0.5 - 1.4           | 0.1   | 0.5   | 1.2   | 5.2   | 11.5  | 28.8  | 20.4  | 5.9   | 0.7   | 0.2   | 0.1   | 0.1   | 74.7  | 6114  |
| 1.5 - 2.4           | -     | *     | 0.2   | 0.7   | 3.1   | 6.2   | 1.2   | 0.1   | -     | *     | -     | -     | 11.6  | 948   |
| 2.5 - 3.4           | -     | -     | *     | 0.2   | 0.4   | 0.2   | 0.2   | *     | -     | -     | -     | -     | 1.0   | 81    |
| 3.5 - 4.4           | -     | -     | -     | *     | *     | *     | 0.1   | -     | -     | -     | -     | -     | 0.2   | 18    |
| 4.5 - 5.4           | -     | -     | -     | -     | -     | -     | *     | *     | -     | -     | -     | -     | 0.0   | 3     |
| TOTAL %             | 0.3   | 0.7   | 1.9   | 7.1   | 17.2  | 39.5  | 24.4  | 6.9   | 0.9   | 0.4   | 0.3   | 0.4   | 100.0 |       |
| TOTAL N             | 26    | 55    | 157   | 579   | 1409  | 3232  | 1995  | 568   | 76    | 30    | 25    | 31    |       | 8183  |
| (* < 0.05%)         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

STATION: 42019

8 - PERCENT FREQUENCY OF SIGNIFICANT WAVE HEIGHT(METERS) VS MEAN WAVE DIRECTION(TENS OF DEGREES)

Months: SEP, OCT, NOV (Autumn)

| MEAN WAVE DIRECTION |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| WAVE HEIGHT         | 35-01 | 02-04 | 05-07 | 08-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 | 26-28 | 29-31 | 32-34 | TOT % | TOT N |
| < 0.5               | *     | *     | 0.3   | 1.4   | 1.1   | 0.3   | 0.5   | 0.4   | 0.2   | 0.1   | -     | *     | 4.4   | 395   |
| 0.5 - 1.4           | 0.5   | 1.3   | 5.8   | 18.3  | 17.6  | 8.1   | 3.8   | 1.2   | 0.6   | 0.5   | 0.6   | 0.3   | 58.5  | 5250  |
| 1.5 - 2.4           | 0.6   | 2.6   | 3.3   | 9.0   | 8.4   | 4.6   | 1.9   | *     | -     | 0.1   | 0.2   | 0.3   | 31.1  | 2791  |
| 2.5 - 3.4           | 0.1   | 0.4   | 0.9   | 1.2   | 0.8   | 0.7   | 0.4   | 0.1   | -     | *     | 0.1   | 0.2   | 4.9   | 439   |
| 3.5 - 4.4           | -     | *     | 0.2   | 0.4   | 0.2   | 0.1   | 0.1   | *     | -     | -     | -     | -     | 0.9   | 82    |
| 4.5 - 5.4           | -     | -     | *     | 0.1   | -     | -     | -     | -     | -     | -     | -     | -     | 0.1   | 13    |
| TOTAL %             | 1.3   | 4.3   | 10.4  | 30.4  | 28.1  | 13.8  | 6.7   | 1.8   | 0.8   | 0.7   | 1.0   | 0.8   | 100.0 |       |
| TOTAL N             | 114   | 390   | 934   | 2724  | 2518  | 1239  | 597   | 158   | 72    | 66    | 86    | 72    |       | 8970  |
| (* < 0.05%)         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

Summary complete: 09-Sep-2003 01:58:18