Frequency of Portland's Wind Direction ${ }^{1}$ as compared to Weather Conditions
Using this chart: Each direction totals $\sim 100 \%$. Within that direction are the frequencies (\%) of weather (- indicates less than $1 \%$ ).
Example: In January, when wind is from the south (S), it rains $16 \%$ of the time, but has no weather occurring $66 \%$ of time.

|  |  | Calm | VRB | $\begin{array}{\|c\|} \hline \mathbf{N} \\ 3490 \\ \text { to } 110 \end{array}$ | $\begin{array}{\|c\|c\|} \hline \text { NNEE } \\ 110 \text { to } \\ 340 \\ \hline \end{array}$ | NE <br> 340 to <br> 560 | ENE 560 to 790 | $\begin{array}{\|c\|} \hline \mathbf{E} \\ 790 \text { to } \\ 1019 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline \text { ESE } \\ 1010- \\ 1240 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { SE } \\ 1240- \\ 1460 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { SSE } \\ 1460- \\ 1699^{2} \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \mathbf{S} \\ 1699_{-} \\ 1910 \\ \hline \end{array}$ | $\begin{gathered} \hline \text { SSW } \\ 1919- \\ 2140 \\ \hline 1020 \end{gathered}$ | $\begin{array}{\|c\|} \hline \text { SW } \\ 2140^{-} \\ 2360 \\ \hline \end{array}$ | $\begin{gathered} \text { WSW } \\ 2360- \\ 2590 \end{gathered}$ | $\begin{array}{\|c\|} \hline \mathbf{W} \\ 2599_{-} \\ 2810 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { WNW } \\ 281 \varrho \\ -3049 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { NW } \\ 3040^{2} \\ 3260 \\ \hline \end{array}$ | $\begin{gathered} \hline \text { NNW } \\ 3260- \\ 3490 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | RA | 17 | 16 | 3 | 3 | 7 | 3 | 14 | 21 | 19 | 15 | 16 | 15 | 14 | 21 | 21 | 17 | 12 | 11 |
| J | RW | 4 | 4 | 2 | 3 | 1 | 1 | 2 | 3 | 3 | 6 | 11 | 11 | 6 | 4 | 3 | 3 | 3 | 6 |
| A | DZ | 3 | 1 | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 |
| N | FZRA | 1 | - | - | - | - | - | 1 | 2 | 4 | - | - | 1 | 1 | 3 | 2 | 1 | - | - |
| U | SN | 2 | 1 | 3 | 1 | 1 | 5 | 5 | 8 | 9 | 5 | 2 | 4 | 3 | 4 | 2 | 2 | 3 | 3 |
| A | TS | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| R | FG | 23 | 12 | 27 | 23 | 24 | 11 | 10 | 9 | 9 | 8 | 6 | 5 | 10 | 13 | 14 | 18 | 22 | 16 |
| Y | MIFG | 11 | 1 | 1 | 3 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | - | 1 | - | 1 | 3 | 3 | 2 |
|  | None | 48 | 66 | 61 | 64 | 63 | 74 | 68 | 60 | 59 | 66 | 66 | 66 | 69 | 63 | 61 | 57 | 58 | 62 |
|  | RA | 11 | 21 | 4 | 6 | 4 | 3 | 15 | 23 | 23 | 19 | 19 | 21 | 16 | 23 | 21 | 15 | 10 | 16 |
| F | RW | 4 | 6 | 2 | 1 | 3 | 2 | 2 | 4 | 5 | 4 | 7 | 10 | 5 | 4 | 4 | 4 | 5 | 5 |
| E | DZ | 2 | 1 | 1 | 1 | - | - | 1 | 2 | 2 | 1 | 1 | - | 1 | 1 | 1 | - | - | 1 |
| B | FZRA | - | - | - | - | 1 | 1 | - | 2 | 2 | 1 | - | - | - | 1 | 1 | - | - | - |
| R | SN | 2 | 1 | 1 | 1 | - | - | 1 | 3 | 4 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 |
| A | TS | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| R | FG | 14 | 4 | 15 | 18 | 13 | 9 | 7 | 8 | 7 | 7 | 4 | 4 | 6 | 8 | 9 | 9 | 10 | 10 |
| Y | MIFG | 8 | - | 4 | 1 | 3 | 2 | 3 | 1 | 2 | 1 | - | - | 1 | 1 | 1 | 4 | 3 | 1 |
|  | None | 56 | 65 | 69 | 69 | 65 | 79 | 70 | 63 | 59 | 65 | 69 | 64 | 72 | 67 | 67 | 66 | 69 | 60 |
|  | RA | 13 | 22 | 8 | 6 | 6 | 8 | 13 | 27 | 23 | 20 | 18 | 19 | 18 | 22 | 21 | 12 | 9 | 16 |
|  | RW | 5 | 9 | 3 | 3 | 4 | 3 | 2 | 3 | 4 | 7 | 9 | 15 | 8 | 6 | 5 | 5 | 6 | 4 |
|  | DZ | 1 | 1 | - | - | 1 | 1 | - | 1 | 1 | - | 1 | - | 1 | 1 | - | 1 | 1 | 1 |
| R | SN | 1 | - | 1 | - | - | 1 | 4 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 |
|  | TS | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| H | FG | 10 | 4 | 8 | 5 | 7 | 5 | 4 | 5 | 5 | 3 | 3 | 2 | 4 | 6 | 7 | 8 | 7 | 6 |
|  | MIFG | 6 | - | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | - | - | - | 1 | 1 | 1 | 1 | 1 |
|  | None | 62 | 65 | 75 | 79 | 79 | 77 | 76 | 66 | 67 | 70 | 69 | 63 | 69 | 67 | 65 | 73 | 74 | 71 |
|  | RA | 12 | 24 | 4 | 5 | 7 | 6 | 11 | 20 | 17 | 18 | 19 | 17 | 13 | 15 | 14 | 6 | 6 | 8 |
|  | RW | 6 | 7 | 3 | 4 | 2 | 3 | 4 | 4 | 5 | 8 | 10 | 12 | 9 | 6 | 6 | 4 | 4 | 4 |
| R | DZ | 1 | 1 | - | - | - | 1 | 2 | 1 | 1 | - | 1 | 1 | 1 | 1 | - | - | 1 | 1 |
|  | TS | 0 | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - |
| L | FG | 3 | 4 | 4 | 5 | 3 | 2 | 3 | 5 | 3 | 2 | 3 | 2 | 3 | 5 | 4 | 2 | 2 | 2 |
|  | None | 73 | 68 | 84 | 84 | 87 | 88 | 82 | 72 | 74 | 71 | 68 | 70 | 75 | 74 | 76 | 85 | 84 | 84 |
|  | RA | 10 | 20 | 2 | 2 | 4 | 5 | 11 | 17 | 11 | 15 | 16 | 12 | 14 | 19 | 13 | 4 | 4 | 4 |
|  | RW | 5 | 9 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 8 | 11 | 11 | 9 | 8 | 6 | 4 | 4 | 3 |
| M | DZ | 1 | 2 | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | - | - | - |
|  | TS | - | - | - | - | - | - | - | - | 1 | - | 1 | - | - | - | - | - | - | - |
|  | FG | 4 | 1 | 2 | 1 | 1 | 1 | 2 | 4 | 1 | 3 | 2 | 2 | 2 | 4 | 3 | 1 | 1 | 1 |
|  | None | 79 | 70 | 91 | 91 | 90 | 88 | 80 | 76 | 81 | 75 | 72 | 75 | 75 | 72 | 78 | 89 | 89 | 91 |
|  | RA | 8 | 14 | 2 | 2 | 4 | 5 | 6 | 10 | 10 | 9 | 18 | 15 | 11 | 17 | 11 | 3 | 2 | 2 |
| J | RW | 3 | 10 | 1 | 2 | 3 | 3 | 3 | 4 | 5 | 6 | 10 | 10 | 10 | 7 | 5 | 3 | 2 | 3 |
| U | DZ | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 3 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 |
| N | TS | - | 1 | - | - | - | - | - | - | - | 1 | - | - | 1 | - | - | - | - | - |
| E | FG | 3 | 4 | 1 | 1 | 1 | 2 | 1 | 5 | 3 | 3 | 3 | 2 | 3 | 6 | 3 | 1 | 1 | 1 |
|  | None | 83 | 75 | 93 | 94 | 91 | 90 | 87 | 81 | 83 | 80 | 69 | 72 | 77 | 74 | 80 | 93 | 94 | 94 |

Example: In December, best threat of snow occurs with a southwesterly to westerly wind (snow averages $3 \%$ of all weather observations). A similar trend exists in November, but snow accounts for much less of the observations.

|  |  | Calm | VRB | $\begin{array}{\|c\|} \hline \mathbf{N} \\ 3490 \\ \text { to } 110 \end{array}$ | $\begin{gathered} \text { NNE } \\ 110 \text { to } \\ 340^{2} \end{gathered}$ | $\begin{gathered} \hline \text { NE } \\ 344^{\circ} \text { to } \\ 560 \end{gathered}$ | $\begin{array}{\|c\|} \hline \text { ENE } \\ 560.0 \\ 790 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { E } \\ 790.0 \\ 1019 \end{array}$ | $\begin{array}{\|c\|} \hline \text { ESE } \\ 1010^{\circ}- \\ 1249^{\circ} \\ \hline \end{array}$ | $\begin{array}{c\|} \hline \text { SE } \\ 1249^{-} \\ 1460 \end{array}$ | $\begin{gathered} \hline \text { SSE } \\ 1460- \\ 1699 \end{gathered}$ | $\begin{array}{\|c\|} \hline \mathbf{S} \\ 1690-- \\ 1910 \end{array}$ | $\begin{gathered} \hline \text { SSW } \\ 1919 . \\ 2140 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { SW } \\ 2140^{-} \\ 2360 \end{gathered}$ | $\begin{gathered} \text { WSW } \\ 2360- \\ 2590 \end{gathered}$ | $\left.\begin{gathered} \mathbf{W} \\ 2590_{-} \\ 2810 \end{gathered} \right\rvert\,$ | $\begin{gathered} \text { WNW } \\ 2819 \\ -3049 \end{gathered}$ | $\begin{array}{\|c\|} \hline \text { NW } \\ 3049^{-} \\ 3260 \end{array}$ | $\begin{gathered} \hline \text { NNW } \\ 3260^{-} \\ 3490 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | RA | 4 | 11 | 1 | 1 | 2 | 2 | 2 | 7 | 3 | 5 | 5 | 8 | 6 | 6 | 3 | 1 | 1 | 1 |
| J | RW | 3 | 7 | 1 | - | 2 | 3 | 4 | 3 | 4 | 8 | 6 | 6 | 8 | 4 | 2 | 1 | 1 | 1 |
| U | DZ | 1 | 2 | 1 | - | 1 | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | - | - | - |
| L | TS | - | 1 | - | - | - | - | - | - | - | - | 1 | 1 | 1 | 1 | - | - | - | - |
| Y | FG | 2 | 5 | 2 | 3 | 2 | 3 | 2 | 3 | 1 | - | 1 | 2 | 1 | 3 | 1 | 1 | 1 | 1 |
|  | None | 90 | 80 | 95 | 93 | 93 | 92 | 90 | 88 | 89 | 86 | 88 | 85 | 84 | 87 | 94 | 97 | 97 | 97 |
| A | RA | 4 | 7 | 1 | - | 1 | 2 | 4 | 7 | 5 | 8 | 7 | 6 | 6 | 9 | 6 | 2 | 1 | 1 |
| U | RW | 3 | 3 | 1 | 2 | 1 | 4 | 2 | 5 | 6 | 7 | 9 | 10 | 5 | 5 | 3 | 1 | 1 | 1 |
| G | TS | - | 1 | - | - | - | - | 1 | 1 | - | - | 1 | - | - | - | - | - | - | - |
| U | FG | 3 | 4 | 4 | 3 | 6 | 6 | 4 | 3 | 4 | 2 | 2 | 3 | 3 | 6 | 1 | 1 | 1 | 2 |
| T | None | 85 | 86 | 90 | 90 | 86 | 85 | 84 | 84 | 84 | 81 | 80 | 81 | 85 | 80 | 85 | 94 | 94 | 93 |
|  | RA | 3 | 9 | 2 | 3 | 2 | 3 | 4 | 10 | 9 | 9 | 9 | 12 | 9 | 11 | 7 | 3 | 2 | 3 |
| S | RW | 2 | 5 | 1 | 12 | 2 | 2 | 1 | 3 | 2 | 3 | 5 | 7 | 4 | 5 | 2 | 2 | 1 | 3 |
| E | DZ | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | - | 1 | 2 | 1 | 1 | - | - | - |
| P | TS | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - |
| T | FG | 8 | 7 | 9 | 9 | 8 | 7 | 6 | 7 | 7 | 8 | 5 | 6 | 6 | 6 | 5 | 4 | 4 | 5 |
|  | MIFG | 8 | - | 1 | 1 | 2 | 1 | 1 | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 |
|  | None | 67 | 79 | 76 | 77 | 77 | 84 | 81 | 74 | 74 | 77 | 75 | 71 | 76 | 75 | 77 | 83 | 80 | 80 |
|  | RA | 6 | 15 | 2 | 4 | 1 | 3 | 8 | 18 | 15 | 11 | 16 | 16 | 14 | 18 | 14 | 7 | 7 | 9 |
| C | RW | 3 | 5 | 1 | 2 | 3 | 1 | 2 | 3 | 3 | 6 | 9 | 8 | 5 | 3 | 3 | 3 | 3 | 3 |
| T | DZ | 1 | 2 | 1 | 1 | - | 1 | 1 | 1 | 1 | 1 | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | TS | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| B | FG | 19 | 11 | 22 | 27 | 15 | 19 | 10 | 10 | 9 | 9 | 9 | 6 | 10 | 10 | 11 | 9 | 11 | 12 |
|  | MIFG | 11 | 1 | 2 | 1 | 3 | 1 | 3 | 2 | 3 | 3 | 2 | 1 | 2 | 2 | 4 | 3 | 3 | 2 |
|  | None | 48 | 66 | 61 | 57 | 62 | 67 | 66 | 64 | 64 | 64 | 63 | 67 | 65 | 67 | 64 | 65 | 64 | 66 |
|  | RA | 10 | 20 | 7 | 10 | 8 | 5 | 12 | 22 | 23 | 18 | 20 | 24 | 17 | 25 | 22 | 14 | 12 | 14 |
| N | RW | 5 | 9 | 1 | 2 | 1 | 4 | 1 | 2 | 3 | 5 | 9 | 10 | 5 | 4 | 4 | 5 | 3 | 5 |
| 0 | DZ | 2 | 1 | 2 | - | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 |
| V | FZRA | - | - | - | - | - | - | 1 | 1 | 1 | - | - | - | - | 1 | 1 | - | - | - |
| M | SN | - | - | - | - | - | - | - | 1 | - | - | 1 | 1 | 1 | 1 | 1 | 1 | - | - |
| B | TS | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| E | FG | 21 | 12 | 29 | 33 | 25 | 20 | 11 | 9 | 13 | 12 | 7 | 7 | 11 | 12 | 14 | 15 | 19 | 18 |
| R | MIFG | 8 | - | 5 | 3 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | - | 1 | 1 | 2 | 4 | 3 | 2 |
|  | None | 50 | 62 | 53 | 51 | 61 | 69 | 71 | 64 | 60 | 63 | 62 | 61 | 68 | 62 | 59 | 60 | 59 | 59 |
|  | RA | 11 | 16 | 5 | 5 | 3 | 4 | 11 | 22 | 24 | 19 | 18 | 20 | 17 | 26 | 22 | 19 | 12 | 12 |
| D | RW | 5 | 6 | 3 | 5 | 3 | 2 | 1 | 2 | 4 | 5 | 9 | 11 | 8 | 4 | 4 | 4 | 5 | 5 |
| E | DZ | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 4 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 2 | 2 |
| C | FZRA | - | - | - | - | - | - | - | 1 | 1 | - | - | 1 | 1 | 1 | - | - | - | - |
| M | SN | 1 | 1 | 1 | - | 1 | - | 1 | 2 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 1 | 1 | - |
| B | TS | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| E | FG | 22 | 19 | 32 | 25 | 25 | 16 | 9 | 10 | 15 | 11 | 8 | 5 | 10 | 12 | 13 | 18 | 25 | 22 |
| R | MIFG | 9 | - | 4 | 1 | 2 | 3 | 1 | 1 | 2 | 2 | 1 | - | 1 | 1 | 1 | 2 | 3 | 1 |
|  | None | 48 | 61 | 52 | 61 | 65 | 74 | 76 | 64 | 56 | 62 | 62 | 62 | 63 | 59 | 62 | 56 | 56 | 58 |

[^0]
[^0]:    ${ }^{1}$ VRB is variable (less than 3 mph ). A - (dash) is value that is near zero. Based on 1948-1995 observational (non-ASOS) data.
    Numbers total may not equal 100\%, as not all weather was included (such as blowing snow, hail, dust, smoke and haze).

