

**NOAA Atlas 14, Volume 2, Version 3ROANOKE
WSO AIRPORT**



Station ID: 44-7285
Location name: Roanoke, Virginia, US*
Latitude: 37.3169°, Longitude: -79.9742°
Elevation:
Elevation (station metadata): 1175ft*
* source: Google Maps



POINT PRECIPITATION FREQUENCY ESTIMATES

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PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.311 (0.283-0.344)	0.372 (0.339-0.411)	0.451 (0.408-0.498)	0.507 (0.458-0.560)	0.576 (0.516-0.636)	0.625 (0.556-0.692)	0.674 (0.593-0.746)	0.719 (0.626-0.799)	0.775 (0.665-0.869)	0.818 (0.693-0.926)
10-min	0.497 (0.453-0.549)	0.595 (0.542-0.657)	0.722 (0.653-0.798)	0.811 (0.732-0.895)	0.918 (0.822-1.01)	0.996 (0.886-1.10)	1.07 (0.942-1.19)	1.14 (0.992-1.27)	1.23 (1.05-1.38)	1.29 (1.09-1.46)
15-min	0.621 (0.566-0.687)	0.748 (0.681-0.826)	0.914 (0.826-1.01)	1.03 (0.926-1.13)	1.16 (1.04-1.28)	1.26 (1.12-1.40)	1.35 (1.19-1.50)	1.44 (1.25-1.60)	1.54 (1.32-1.73)	1.62 (1.37-1.83)
30-min	0.852 (0.776-0.942)	1.03 (0.941-1.14)	1.30 (1.17-1.43)	1.49 (1.34-1.64)	1.72 (1.54-1.90)	1.90 (1.69-2.10)	2.07 (1.82-2.30)	2.24 (1.95-2.49)	2.46 (2.11-2.76)	2.62 (2.22-2.97)
60-min	1.06 (0.967-1.17)	1.30 (1.18-1.43)	1.66 (1.51-1.84)	1.94 (1.75-2.14)	2.30 (2.06-2.53)	2.57 (2.29-2.85)	2.85 (2.51-3.16)	3.14 (2.73-3.49)	3.52 (3.02-3.95)	3.82 (3.24-4.33)
2-hr	1.25 (1.14-1.38)	1.53 (1.39-1.69)	1.98 (1.79-2.18)	2.31 (2.09-2.55)	2.77 (2.49-3.06)	3.13 (2.80-3.46)	3.50 (3.10-3.88)	3.88 (3.40-4.33)	4.39 (3.78-4.94)	4.79 (4.07-5.45)
3-hr	1.35 (1.23-1.49)	1.65 (1.51-1.83)	2.12 (1.93-2.34)	2.48 (2.25-2.74)	2.97 (2.68-3.28)	3.36 (3.00-3.72)	3.77 (3.33-4.18)	4.18 (3.66-4.66)	4.76 (4.09-5.36)	5.21 (4.42-5.93)
6-hr	1.69 (1.55-1.86)	2.05 (1.89-2.27)	2.60 (2.39-2.87)	3.05 (2.78-3.36)	3.67 (3.31-4.05)	4.19 (3.74-4.62)	4.73 (4.18-5.24)	5.31 (4.62-5.90)	6.14 (5.22-6.89)	6.82 (5.68-7.74)
12-hr	2.07 (1.91-2.29)	2.51 (2.31-2.76)	3.18 (2.92-3.49)	3.73 (3.41-4.10)	4.55 (4.10-4.99)	5.24 (4.66-5.76)	6.00 (5.25-6.62)	6.82 (5.86-7.58)	8.04 (6.71-9.04)	9.07 (7.39-10.3)
24-hr	2.60 (2.39-2.84)	3.14 (2.89-3.44)	4.00 (3.67-4.37)	4.70 (4.30-5.12)	5.72 (5.20-6.22)	6.57 (5.94-7.15)	7.50 (6.73-8.14)	8.50 (7.56-9.22)	9.96 (8.75-10.8)	11.2 (9.72-12.2)
2-day	3.07 (2.83-3.34)	3.71 (3.42-4.04)	4.69 (4.33-5.10)	5.49 (5.04-5.96)	6.63 (6.06-7.18)	7.57 (6.89-8.20)	8.58 (7.75-9.29)	9.65 (8.65-10.5)	11.2 (9.91-12.2)	12.5 (10.9-13.6)
3-day	3.26 (3.01-3.55)	3.94 (3.64-4.29)	4.97 (4.59-5.41)	5.81 (5.34-6.30)	7.00 (6.40-7.58)	7.98 (7.27-8.65)	9.02 (8.16-9.78)	10.1 (9.09-11.0)	11.7 (10.4-12.8)	13.0 (11.5-14.2)
4-day	3.46 (3.19-3.76)	4.18 (3.86-4.54)	5.26 (4.85-5.71)	6.13 (5.64-6.65)	7.37 (6.74-7.99)	8.39 (7.64-9.09)	9.46 (8.57-10.3)	10.6 (9.54-11.5)	12.2 (10.9-13.4)	13.6 (12.0-14.9)
7-day	3.98 (3.71-4.30)	4.80 (4.46-5.18)	5.98 (5.55-6.44)	6.91 (6.40-7.44)	8.21 (7.57-8.83)	9.27 (8.51-9.97)	10.4 (9.45-11.2)	11.5 (10.4-12.4)	13.1 (11.8-14.2)	14.4 (12.8-15.6)
10-day	4.55 (4.24-4.87)	5.46 (5.09-5.85)	6.69 (6.25-7.17)	7.63 (7.12-8.17)	8.92 (8.29-9.55)	9.93 (9.18-10.6)	11.0 (10.1-11.7)	12.0 (11.0-12.9)	13.4 (12.2-14.5)	14.6 (13.2-15.7)
20-day	6.11 (5.74-6.48)	7.27 (6.83-7.72)	8.72 (8.18-9.27)	9.85 (9.23-10.5)	11.4 (10.6-12.1)	12.6 (11.7-13.3)	13.7 (12.7-14.6)	14.9 (13.8-15.9)	16.6 (15.1-17.7)	17.8 (16.2-19.1)
30-day	7.53 (7.11-7.96)	8.91 (8.42-9.41)	10.5 (9.90-11.1)	11.7 (11.0-12.3)	13.2 (12.4-14.0)	14.4 (13.5-15.2)	15.5 (14.5-16.5)	16.7 (15.5-17.7)	18.1 (16.8-19.3)	19.2 (17.7-20.5)
45-day	9.50 (9.02-9.99)	11.2 (10.6-11.8)	13.0 (12.3-13.6)	14.3 (13.5-15.0)	16.0 (15.1-16.8)	17.2 (16.2-18.1)	18.4 (17.3-19.4)	19.5 (18.3-20.6)	21.0 (19.6-22.2)	22.0 (20.5-23.4)
60-day	11.3 (10.8-11.9)	13.3 (12.7-14.0)	15.2 (14.5-15.9)	16.6 (15.8-17.4)	18.3 (17.4-19.2)	19.6 (18.6-20.6)	20.7 (19.7-21.8)	21.8 (20.6-23.0)	23.1 (21.8-24.4)	24.0 (22.6-25.4)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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PF graphical