

NOAA Atlas 14, Volume 7, Version 2 KETCHIKAN
INTL AP



Station ID: 50-4590
Location name: Ketchikan, Alaska, USA*
Latitude: 55.35°, Longitude: -131.7167°
Elevation:
Elevation (station metadata): 76 ft**



* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Douglas Kane, Sarah Dietz, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Svetlana Stuefer, Amy Tidwell, Carl Trypaluk, Dale Unruh, Michael Yekta, Erica Betts, Geoffrey Bonnin, Sarah Heim, Lillian Hiner, Elizabeth Lilly, Jayashree Narayanan, Fenglin Yan, Tan Zhao

NOAA, National Weather Service, Silver Spring, Maryland
and
University of Alaska Fairbanks, Water and Environmental Research Center

[PF_tabular](#) | [PF_graphical](#) | [Maps & aerals](#)

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	0.216 (0.174-0.280)	0.250 (0.199-0.328)	0.297 (0.232-0.398)	0.335 (0.258-0.456)	0.388 (0.293-0.540)	0.429 (0.319-0.607)	0.469 (0.343-0.675)	0.515 (0.371-0.753)	0.574 (0.406-0.857)	0.620 (0.432-0.941)
10-min	0.290 (0.234-0.376)	0.336 (0.268-0.441)	0.399 (0.312-0.535)	0.450 (0.347-0.613)	0.521 (0.393-0.725)	0.576 (0.428-0.815)	0.630 (0.461-0.907)	0.691 (0.498-1.01)	0.771 (0.545-1.15)	0.832 (0.579-1.26)
15-min	0.339 (0.273-0.440)	0.393 (0.313-0.516)	0.466 (0.365-0.624)	0.526 (0.405-0.716)	0.609 (0.460-0.848)	0.674 (0.501-0.954)	0.738 (0.540-1.06)	0.809 (0.583-1.18)	0.903 (0.638-1.35)	0.974 (0.678-1.48)
30-min	0.450 (0.363-0.584)	0.522 (0.416-0.686)	0.619 (0.484-0.830)	0.699 (0.539-0.952)	0.809 (0.611-1.13)	0.894 (0.665-1.27)	0.979 (0.717-1.41)	1.07 (0.773-1.57)	1.20 (0.847-1.79)	1.29 (0.900-1.96)
60-min	0.616 (0.497-0.799)	0.715 (0.570-0.939)	0.848 (0.664-1.14)	0.957 (0.738-1.30)	1.11 (0.836-1.54)	1.23 (0.911-1.73)	1.34 (0.982-1.93)	1.47 (1.06-2.15)	1.64 (1.16-2.45)	1.77 (1.23-2.69)
2-hr	0.996 (0.803-1.29)	1.16 (0.922-1.52)	1.37 (1.07-1.84)	1.55 (1.19-2.11)	1.79 (1.35-2.50)	1.98 (1.47-2.80)	2.17 (1.59-3.12)	2.38 (1.71-3.48)	2.65 (1.87-3.96)	2.86 (1.99-4.34)
3-hr	1.37 (1.11-1.78)	1.59 (1.27-2.09)	1.89 (1.48-2.53)	2.13 (1.64-2.90)	2.47 (1.86-3.44)	2.73 (2.03-3.86)	2.99 (2.19-4.30)	3.27 (2.36-4.79)	3.65 (2.58-5.45)	3.94 (2.74-5.98)
6-hr	2.31 (1.86-2.99)	2.68 (2.13-3.52)	3.17 (2.48-4.25)	3.58 (2.76-4.88)	4.15 (3.13-5.78)	4.58 (3.41-6.49)	5.02 (3.68-7.22)	5.50 (3.97-8.05)	6.14 (4.34-9.17)	6.62 (4.61-10.1)
12-hr	3.54 (2.85-4.59)	4.12 (3.28-5.41)	4.89 (3.83-6.56)	5.52 (4.25-7.51)	6.37 (4.81-8.87)	7.03 (5.23-9.96)	7.70 (5.64-11.1)	8.43 (6.08-12.3)	9.39 (6.64-14.0)	10.1 (7.04-15.4)
24-hr	5.16 (4.42-6.09)	5.99 (5.07-7.16)	7.14 (5.92-8.70)	8.04 (6.56-9.95)	9.27 (7.40-11.7)	10.2 (8.04-13.2)	11.2 (8.68-14.7)	12.3 (9.36-16.4)	13.7 (10.2-18.7)	14.8 (10.9-20.4)
2-day	7.00 (5.99-8.25)	8.04 (6.80-9.60)	9.53 (7.90-11.6)	10.7 (8.76-13.3)	12.5 (9.95-15.8)	13.9 (10.9-17.9)	15.4 (11.9-20.1)	17.2 (13.0-22.8)	19.5 (14.5-26.5)	21.3 (15.6-29.4)
3-day	8.26 (7.08-9.75)	9.43 (7.97-11.3)	11.1 (9.23-13.6)	12.5 (10.2-15.5)	14.6 (11.7-18.5)	16.4 (12.9-21.1)	18.3 (14.1-23.9)	20.7 (15.7-27.5)	23.8 (17.7-32.3)	26.1 (19.1-36.0)
4-day	9.31 (7.98-11.0)	10.6 (8.95-12.6)	12.4 (10.3-15.2)	14.0 (11.4-17.4)	16.4 (13.1-20.7)	18.3 (14.4-23.6)	20.5 (15.8-26.8)	23.2 (17.7-30.9)	26.8 (20.0-36.4)	29.5 (21.6-40.8)
7-day	12.0 (10.3-14.2)	13.6 (11.5-16.2)	15.8 (13.1-19.3)	17.8 (14.5-22.0)	20.6 (16.4-26.0)	22.9 (18.0-29.5)	25.5 (19.7-33.4)	28.7 (21.8-38.1)	32.9 (24.5-44.6)	36.0 (26.4-49.7)
10-day	14.2 (12.2-16.8)	16.0 (13.5-19.1)	18.6 (15.4-22.7)	20.7 (16.9-25.7)	23.9 (19.0-30.2)	26.4 (20.8-34.0)	29.2 (22.6-38.2)	32.6 (24.8-43.3)	37.0 (27.5-50.3)	40.4 (29.5-55.7)
20-day	21.3 (18.3-25.2)	23.9 (20.3-28.6)	27.6 (22.9-33.6)	30.4 (24.8-37.7)	34.4 (27.5-43.6)	37.6 (29.5-48.4)	41.0 (31.6-53.6)	44.7 (34.0-59.4)	49.7 (36.9-67.4)	53.4 (39.1-73.7)
30-day	28.1 (24.1-33.1)	31.5 (26.7-37.6)	36.1 (29.9-44.0)	39.6 (32.3-49.1)	44.4 (35.4-56.2)	48.1 (37.8-61.9)	51.9 (40.1-67.9)	56.0 (42.5-74.4)	61.4 (45.6-83.3)	65.4 (47.9-90.3)
45-day	37.2 (31.9-43.9)	41.8 (35.3-49.9)	47.6 (39.5-58.0)	51.9 (42.4-64.3)	57.5 (45.9-72.8)	61.7 (48.4-79.4)	65.8 (50.8-86.0)	69.9 (53.1-92.9)	75.4 (56.1-102)	79.5 (58.2-110)
60-day	44.6 (38.2-52.6)	50.2 (42.5-59.9)	57.0 (47.3-69.5)	61.7 (50.4-76.5)	67.5 (53.9-85.4)	71.5 (56.1-92.0)	75.2 (58.1-98.3)	78.5 (59.6-104)	82.9 (61.6-113)	86.2 (63.1-119)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

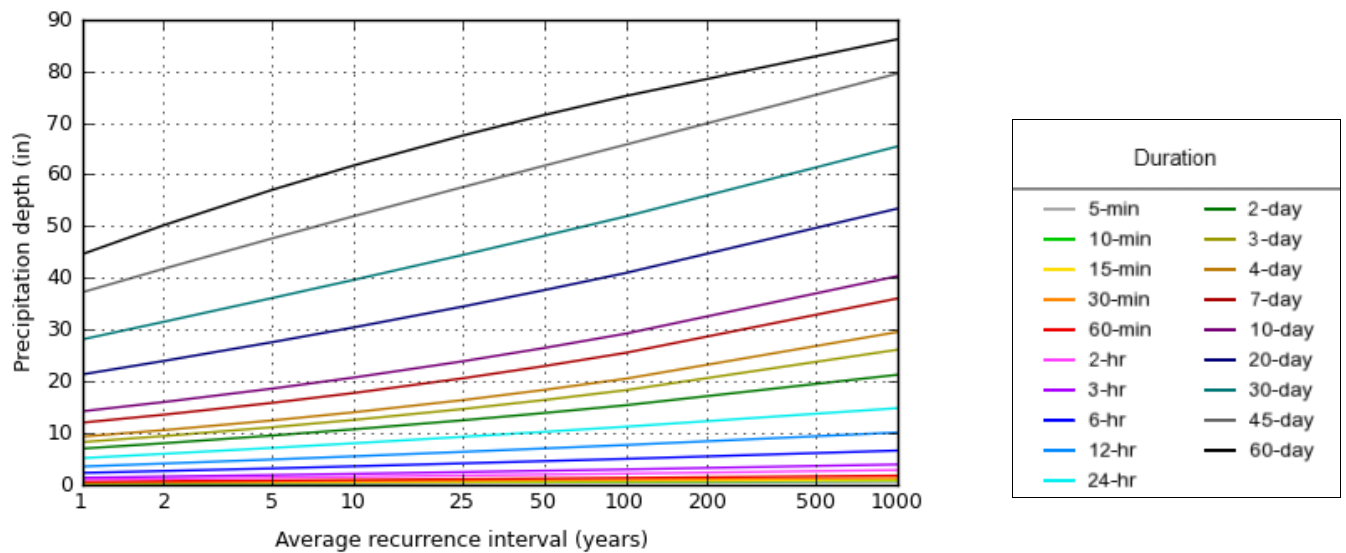
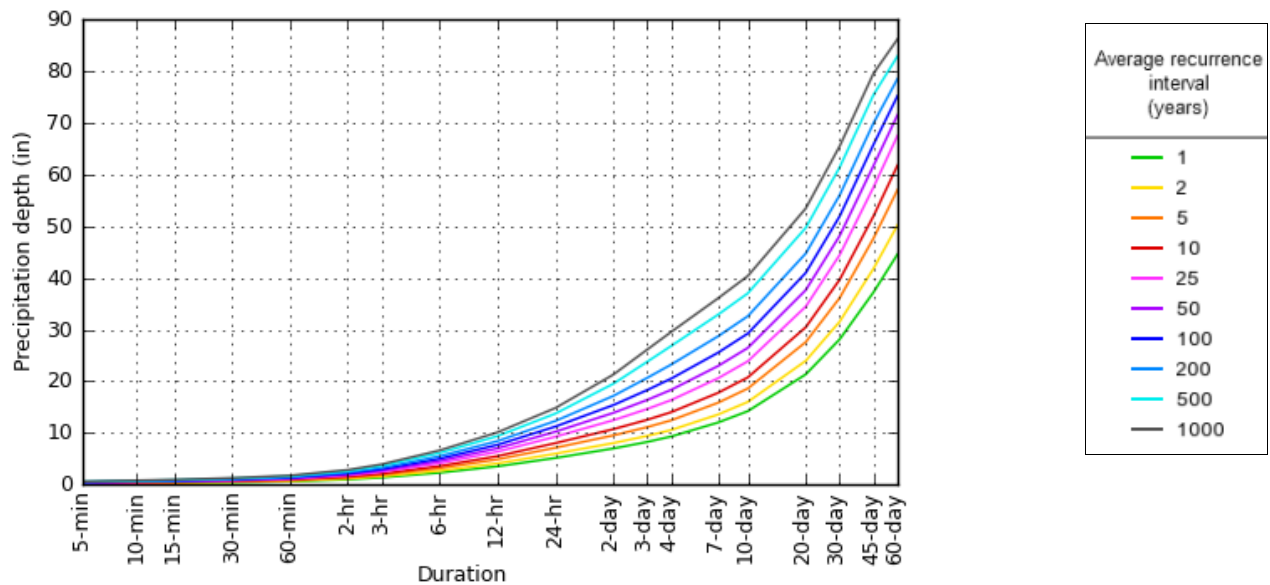
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper 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.

[Back to Top](#)

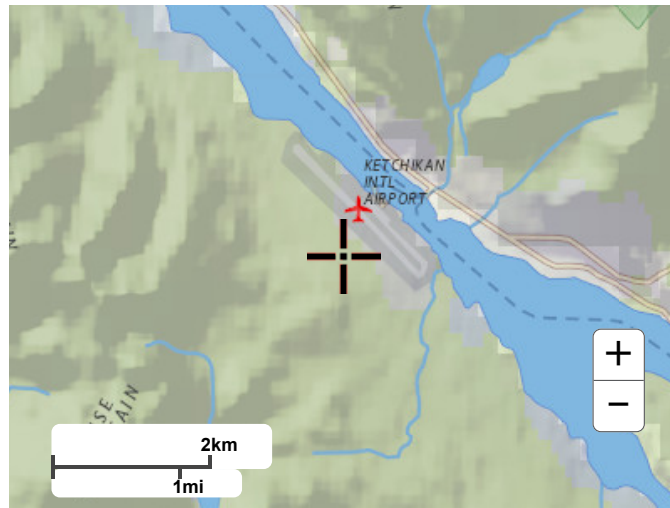
PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 55.3500°, Longitude: -131.7167°



Maps & aerals

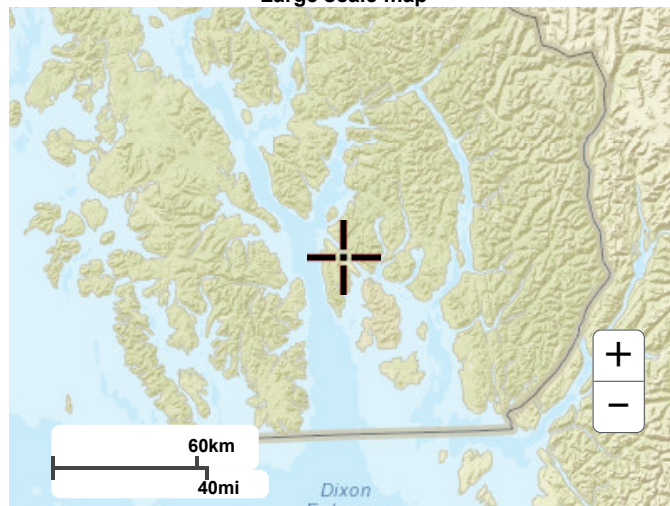
Small scale terrain



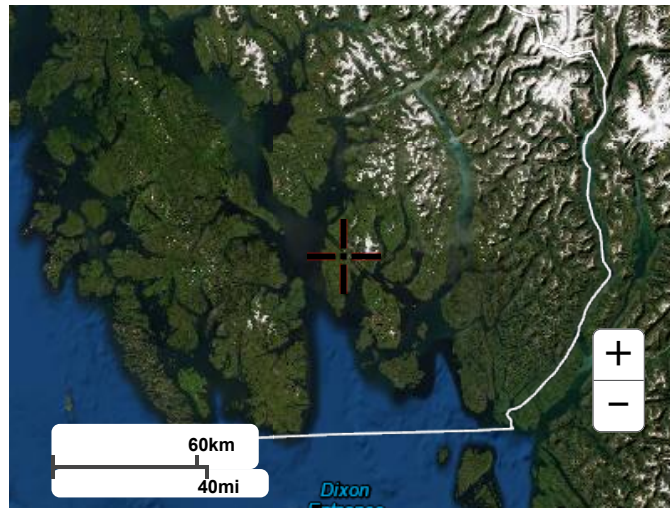
Large scale terrain



Large scale map



Large scale aerial



[Back to Top](#)

[US Department of Commerce](#)
[National Oceanic and Atmospheric Administration](#)
[National Weather Service](#)
[National Water Center](#)
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

[Disclaimer](#)