

HEC-HMS Input Screens for Precipitation – 100-year, 6-hour and 100-year, 24-hour events

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File Edit View Components Parameters Compute Results Too

WBCA_EX_White_Paper

- Basin Models
- Meteorologic Models
 - 10_YR
 - 10_YR_6HR
 - 100_YR
 - 100_YR_6HR
 - Frequency Storm
 - PW1_I
 - PW1_P
 - PW10_P
 - PW10.1_P

Components Compute Results

Precipitation

Met Name: 100_YR_6HR

Probability: 1 Percent

Input Type: Partial Duration

Output Type: Annual Duration

Intensity Duration: 5 Minutes

Storm Duration: 6 Hours

Intensity Position: 25 Percent

Storm Area (MI2)

Curve: Uniform For All Subbasins

Duration	Partial-Duration Depth (IN)
5 Minutes	0.56200
15 Minutes	1.0600
1 Hour	1.7700
2 Hours	2.0200
3 Hours	2.1100
6 Hours	2.2700
12 Hours	
1 Day	
2 Days	
4 Days	
7 Days	
10 Days	

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File Edit View Components Parameters Compute Results Too

WBCA_EX_White_Paper

- Basin Models
- Meteorologic Models
 - 10_YR
 - 10_YR_6HR
 - 100_YR
 - Frequency Storm
 - PW1_I
 - PW1_P
 - PW10_P
 - PW10.1_P
 - PW10.2_P

Components Compute Results

Precipitation

Met Name: 100_YR

Probability: 1 Percent

Input Type: Partial Duration

Output Type: Annual Duration

Intensity Duration: 5 Minutes

Storm Duration: 1 Day

Intensity Position: 25 Percent

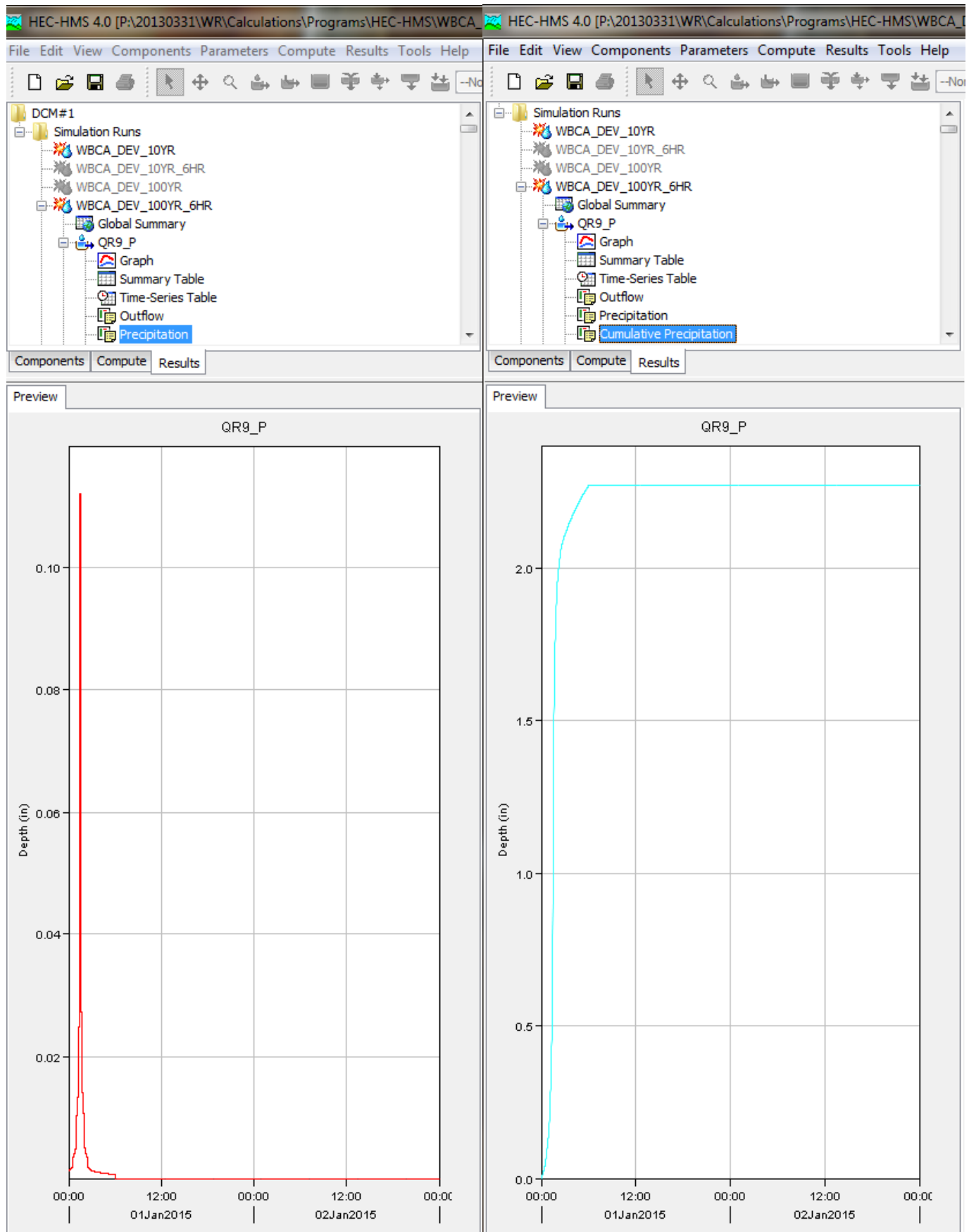
Storm Area (MI2)

Curve: Uniform For All Subbasins

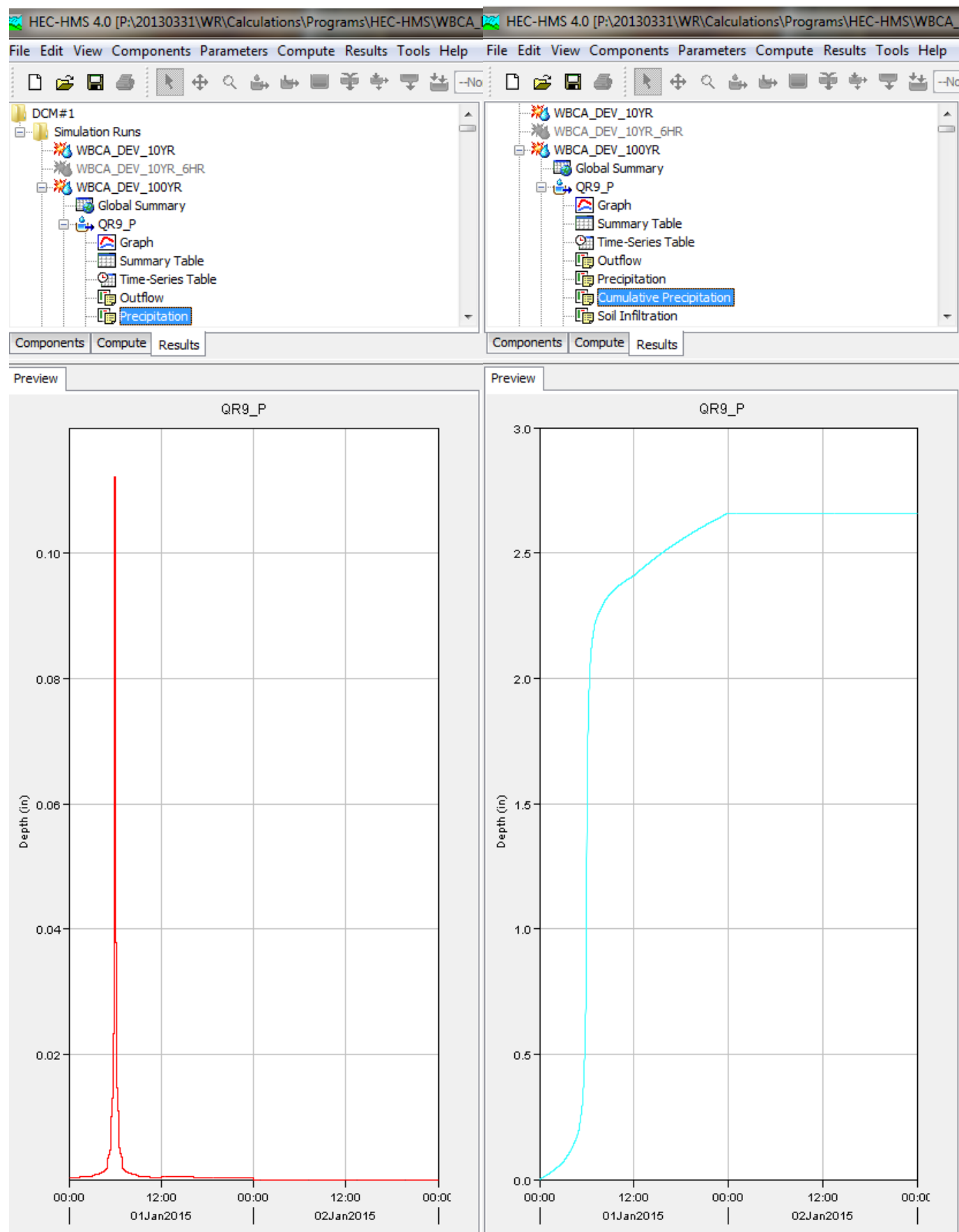
Duration	Partial-Duration Depth (IN)
5 Minutes	0.56200
15 Minutes	1.0600
1 Hour	1.7700
2 Hours	2.0200
3 Hours	2.1100
6 Hours	2.2700
12 Hours	2.4100
1 Day	2.6600
2 Days	
4 Days	
7 Days	
10 Days	

HEC-HMS Output Screens for Precipitation and Cumulative Precipitation

100-yr 6-hr

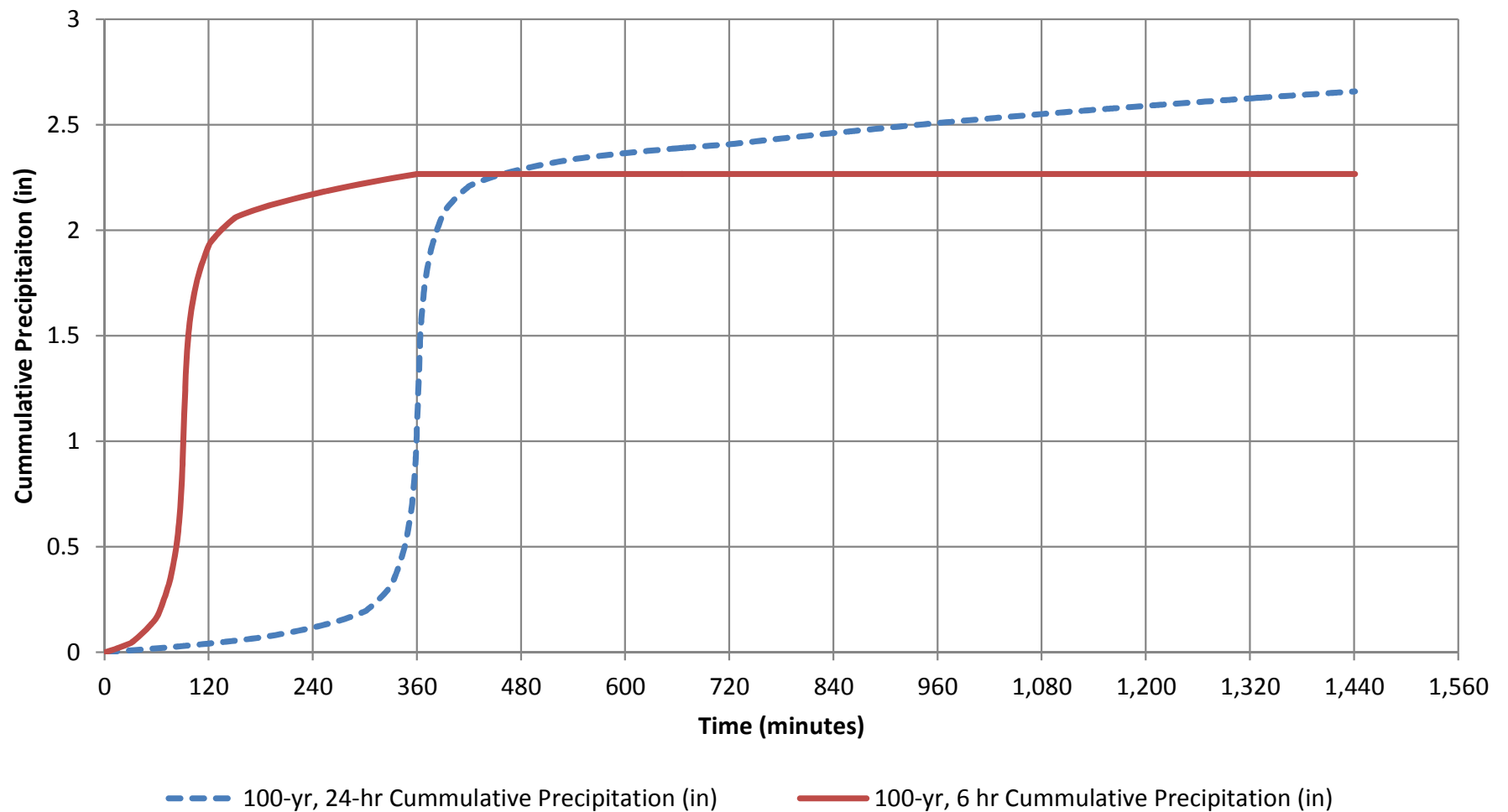


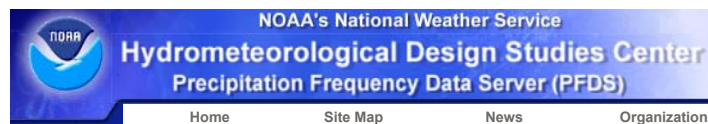
100-yr 24-hr



100-year, 6-hour verses 24-hour Rainfall Distribution

Using the AMAFCA White Paper Frequency Storm, 25% Intensity





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NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATES: NM

DATA DESCRIPTION

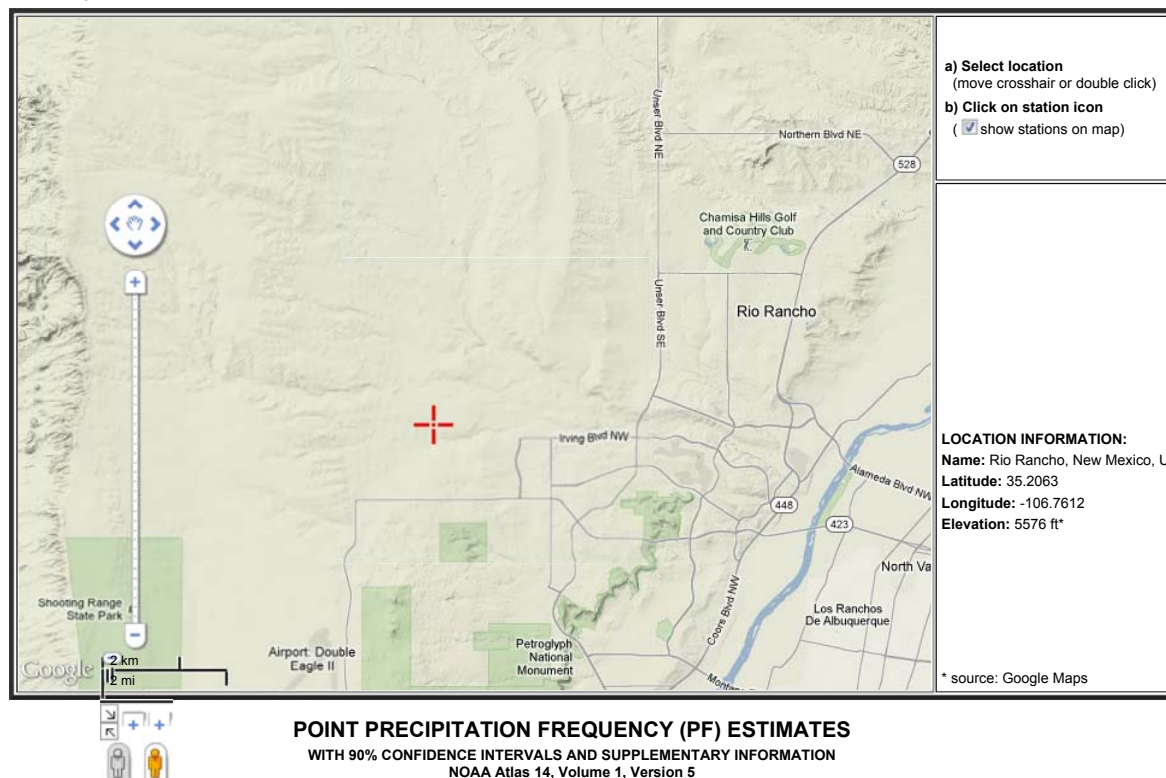
Data type: precipitation depth Units: english Time series type: partial duration

SELECT LOCATION

1. Manually:

- a) Enter location (decimal degrees, use "-" for S and W): latitude: longitude: submit
- b) Select station (click here for a list of stations used in frequency analysis for NM): select station

2. Use map:



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PF tabular

PF graphical

Supplementary information

PDS-based 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	0.168 (0.145-0.197)	0.218 (0.187-0.255)	0.293 (0.250-0.343)	0.352 (0.300-0.410)	0.433 (0.366-0.504)	0.495 (0.418-0.576)	0.562 (0.470-0.652)	0.632 (0.525-0.734)	0.727 (0.599-0.845)	0.803 (0.657-0.934)
10-min	0.256 (0.220-0.299)	0.332 (0.284-0.388)	0.446 (0.381-0.523)	0.536 (0.457-0.625)	0.659 (0.558-0.767)	0.754 (0.636-0.877)	0.855 (0.716-0.993)	0.962 (0.800-1.12)	1.11 (0.911-1.29)	1.22 (1.00-1.42)
15-min	0.318 (0.273-0.371)	0.411 (0.352-0.481)	0.553 (0.472-0.648)	0.665 (0.567-0.775)	0.816 (0.691-0.951)	0.935 (0.789-1.09)	1.06 (0.888-1.23)	1.19 (0.992-1.39)	1.37 (1.13-1.60)	1.52 (1.24-1.76)
30-min	0.428 (0.368-0.500)	0.554 (0.475-0.648)	0.745 (0.637-0.873)	0.895 (0.763-1.04)	1.10 (0.930-1.28)	1.26 (1.06-1.47)	1.43 (1.20-1.66)	1.61 (1.34-1.86)	1.85 (1.52-2.15)	2.04 (1.67-2.37)
60-min	0.530 (0.455-0.619)	0.686 (0.588-0.802)	0.922 (0.788-1.08)	1.11 (0.944-1.29)	1.36 (1.15-1.59)	1.56 (1.32-1.81)	1.77 (1.48-2.05)	1.99 (1.65-2.31)	2.29 (1.88-2.66)	2.53 (2.07-2.94)
2-hr	0.618 (0.529-0.730)	0.792 (0.676-0.935)	1.05 (0.893-1.24)	1.26 (1.07-1.47)	1.54 (1.30-1.80)	1.78 (1.49-2.07)	2.02 (1.68-2.36)	2.28 (1.88-2.65)	2.65 (2.16-3.08)	2.94 (2.37-3.42)
3-hr	0.668 (0.580-0.786)	0.851 (0.735-0.999)	1.12 (0.965-1.31)	1.33 (1.14-1.55)	1.62 (1.38-1.89)	1.86 (1.58-2.16)	2.11 (1.78-2.45)	2.38 (1.99-2.76)	2.75 (2.27-3.19)	3.06 (2.50-3.55)
6-hr	0.766 (0.668-0.890)	0.968 (0.848-1.13)	1.25 (1.09-1.45)	1.47 (1.28-1.70)	1.78 (1.54-2.05)	2.02 (1.74-2.32)	2.27 (1.94-2.61)	2.53 (2.15-2.91)	2.89 (2.43-3.33)	3.19 (2.66-3.68)
12-hr	0.859 (0.756-0.979)	1.08 (0.955-1.24)	1.38 (1.21-1.57)	1.61 (1.41-1.83)	1.92 (1.67-2.17)	2.16 (1.87-2.45)	2.41 (2.08-2.73)	2.67 (2.29-3.02)	3.02 (2.56-3.43)	3.30 (2.78-3.76)
24-hr	0.979 (0.865-1.12)	1.23 (1.09-1.40)	1.54 (1.36-1.75)	1.79 (1.58-2.03)	2.13 (1.87-2.41)	2.39 (2.09-2.70)	2.66 (2.32-3.01)	2.94 (2.55-3.31)	3.31 (2.85-3.73)	3.60 (3.09-4.06)
2-day	1.05	1.32	1.66	1.92	2.28	2.56	2.85	3.14	3.54	3.85

	(0.932-1.18)	(1.17-1.48)	(1.47-1.86)	(1.70-2.16)	(2.02-2.56)	(2.25-2.87)	(2.50-3.19)	(2.74-3.53)	(3.07-3.98)	(3.32-4.34)
3-day	1.20 (1.09-1.33)	1.50 (1.36-1.67)	1.87 (1.68-2.07)	2.15 (1.94-2.38)	2.54 (2.28-2.81)	2.84 (2.54-3.14)	3.15 (2.81-3.48)	3.45 (3.07-3.82)	3.87 (3.42-4.29)	4.19 (3.68-4.65)
4-day	1.36 (1.24-1.49)	1.69 (1.54-1.85)	2.08 (1.90-2.28)	2.39 (2.18-2.61)	2.80 (2.55-3.07)	3.12 (2.83-3.42)	3.44 (3.12-3.77)	3.77 (3.40-4.12)	4.20 (3.77-4.60)	4.52 (4.04-4.96)
7-day	1.57 (1.43-1.71)	1.95 (1.78-2.12)	2.38 (2.18-2.60)	2.72 (2.49-2.96)	3.17 (2.89-3.45)	3.50 (3.19-3.82)	3.84 (3.49-4.19)	4.17 (3.78-4.55)	4.61 (4.16-5.03)	4.93 (4.43-5.39)
10-day	1.74 (1.60-1.90)	2.16 (1.98-2.36)	2.66 (2.44-2.89)	3.05 (2.79-3.32)	3.57 (3.26-3.87)	3.96 (3.61-4.30)	4.35 (3.96-4.72)	4.75 (4.30-5.15)	5.26 (4.74-5.72)	5.64 (5.07-6.15)
20-day	2.21 (2.03-2.41)	2.75 (2.52-3.00)	3.35 (3.07-3.65)	3.80 (3.48-4.14)	4.38 (4.01-4.77)	4.81 (4.39-5.23)	5.22 (4.75-5.67)	5.61 (5.10-6.10)	6.11 (5.54-6.65)	6.47 (5.85-7.05)
30-day	2.67 (2.45-2.89)	3.32 (3.04-3.60)	4.01 (3.67-4.34)	4.52 (4.14-4.89)	5.16 (4.72-5.58)	5.63 (5.14-6.08)	6.07 (5.54-6.56)	6.49 (5.91-7.01)	7.01 (6.36-7.57)	7.37 (6.68-7.98)
45-day	3.26 (3.00-3.53)	4.04 (3.72-4.38)	4.83 (4.45-5.23)	5.40 (4.97-5.84)	6.10 (5.61-6.60)	6.59 (6.05-7.12)	7.03 (6.45-7.60)	7.44 (6.82-8.05)	7.93 (7.25-8.58)	8.25 (7.54-8.93)
60-day	3.76 (3.46-4.07)	4.66 (4.29-5.05)	5.57 (5.14-6.04)	6.23 (5.74-6.74)	7.02 (6.47-7.60)	7.57 (6.97-8.19)	8.08 (7.43-8.75)	8.55 (7.85-9.26)	9.10 (8.35-9.87)	9.46 (8.68-10.3)
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.										
 Estimates from the table in csv format: precipitation frequency estimates Submit										

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NOAA Atlas 14, Volume 1, Version 5
 Location name: Albuquerque, New Mexico, US*
 Latitude: 35.2063°, Longitude: -106.7612°
 Elevation: 5576 ft*
 * source: Google Maps



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

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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	0.168 (0.145–0.197)	0.218 (0.187–0.255)	0.293 (0.250–0.343)	0.352 (0.300–0.410)	0.433 (0.366–0.504)	0.495 (0.418–0.576)	0.562 (0.470–0.652)	0.632 (0.525–0.734)	0.727 (0.599–0.845)	0.803 (0.657–0.934)
10-min	0.256 (0.220–0.299)	0.332 (0.284–0.388)	0.446 (0.381–0.523)	0.536 (0.457–0.625)	0.659 (0.558–0.767)	0.754 (0.636–0.877)	0.855 (0.716–0.993)	0.962 (0.800–1.12)	1.11 (0.911–1.29)	1.22 (1.00–1.42)
15-min	0.318 (0.273–0.371)	0.411 (0.352–0.481)	0.553 (0.472–0.648)	0.665 (0.567–0.775)	0.816 (0.691–0.951)	0.935 (0.789–1.09)	1.06 (0.888–1.23)	1.19 (0.992–1.39)	1.37 (1.13–1.60)	1.52 (1.24–1.76)
30-min	0.428 (0.368–0.500)	0.554 (0.475–0.648)	0.745 (0.637–0.873)	0.895 (0.763–1.04)	1.10 (0.930–1.28)	1.26 (1.06–1.47)	1.43 (1.20–1.66)	1.61 (1.34–1.86)	1.85 (1.52–2.15)	2.04 (1.67–2.37)
60-min	0.530 (0.455–0.619)	0.686 (0.588–0.802)	0.922 (0.788–1.08)	1.11 (0.944–1.29)	1.36 (1.15–1.59)	1.56 (1.32–1.81)	1.77 (1.48–2.05)	1.99 (1.65–2.31)	2.29 (1.88–2.66)	2.53 (2.07–2.94)
2-hr	0.618 (0.529–0.730)	0.792 (0.676–0.935)	1.05 (0.893–1.24)	1.26 (1.07–1.47)	1.54 (1.30–1.80)	1.78 (1.49–2.07)	2.02 (1.68–2.36)	2.28 (1.88–2.65)	2.65 (2.16–3.08)	2.94 (2.37–3.42)
3-hr	0.668 (0.580–0.786)	0.851 (0.735–0.999)	1.12 (0.965–1.31)	1.33 (1.14–1.55)	1.62 (1.38–1.89)	1.86 (1.58–2.16)	2.11 (1.78–2.45)	2.38 (1.99–2.76)	2.75 (2.27–3.19)	3.06 (2.50–3.55)
6-hr	0.766 (0.668–0.890)	0.968 (0.848–1.13)	1.25 (1.09–1.45)	1.47 (1.28–1.70)	1.78 (1.54–2.05)	2.02 (1.74–2.32)	2.27 (1.94–2.61)	2.53 (2.15–2.91)	2.89 (2.43–3.33)	3.19 (2.66–3.68)
12-hr	0.859 (0.756–0.979)	1.08 (0.955–1.24)	1.38 (1.21–1.57)	1.61 (1.41–1.83)	1.92 (1.67–2.17)	2.16 (1.87–2.45)	2.41 (2.08–2.73)	2.67 (2.29–3.02)	3.02 (2.56–3.43)	3.30 (2.78–3.76)
24-hr	0.979 (0.865–1.12)	1.23 (1.09–1.40)	1.54 (1.36–1.75)	1.79 (1.58–2.03)	2.13 (1.87–2.41)	2.39 (2.09–2.70)	2.66 (2.32–3.01)	2.94 (2.55–3.31)	3.31 (2.85–3.73)	3.60 (3.09–4.06)
2-day	1.05 (0.932–1.18)	1.32 (1.17–1.48)	1.66 (1.47–1.86)	1.92 (1.70–2.16)	2.28 (2.02–2.56)	2.56 (2.25–2.87)	2.85 (2.50–3.19)	3.14 (2.74–3.53)	3.54 (3.07–3.98)	3.85 (3.32–4.34)
3-day	1.20 (1.09–1.33)	1.50 (1.36–1.67)	1.87 (1.68–2.07)	2.15 (1.94–2.38)	2.54 (2.28–2.81)	2.84 (2.54–3.14)	3.15 (2.81–3.48)	3.45 (3.07–3.82)	3.87 (3.42–4.29)	4.19 (3.68–4.65)
4-day	1.36 (1.24–1.49)	1.69 (1.54–1.85)	2.08 (1.90–2.28)	2.39 (2.18–2.61)	2.80 (2.55–3.07)	3.12 (2.83–3.42)	3.44 (3.12–3.77)	3.77 (3.40–4.12)	4.20 (3.77–4.60)	4.52 (4.04–4.96)
7-day	1.57 (1.43–1.71)	1.95 (1.78–2.12)	2.38 (2.18–2.60)	2.72 (2.49–2.96)	3.17 (2.89–3.45)	3.50 (3.19–3.82)	3.84 (3.49–4.19)	4.17 (3.78–4.55)	4.61 (4.16–5.03)	4.93 (4.43–5.39)
10-day	1.74 (1.60–1.90)	2.16 (1.98–2.36)	2.66 (2.44–2.89)	3.05 (2.79–3.32)	3.57 (3.26–3.87)	3.96 (3.61–4.30)	4.35 (3.96–4.72)	4.75 (4.30–5.15)	5.26 (4.74–5.72)	5.64 (5.07–6.15)
20-day	2.21 (2.03–2.41)	2.75 (2.52–3.00)	3.35 (3.07–3.65)	3.80 (3.48–4.14)	4.38 (4.01–4.77)	4.81 (4.39–5.23)	5.22 (4.75–5.67)	5.61 (5.10–6.10)	6.11 (5.54–6.65)	6.47 (5.85–7.05)
30-day	2.67 (2.45–2.89)	3.32 (3.04–3.60)	4.01 (3.67–4.34)	4.52 (4.14–4.89)	5.16 (4.72–5.58)	5.63 (5.14–6.08)	6.07 (5.54–6.56)	6.49 (5.91–7.01)	7.01 (6.36–7.57)	7.37 (6.68–7.98)
45-day	3.26 (3.00–3.53)	4.04 (3.72–4.38)	4.83 (4.45–5.23)	5.40 (4.97–5.84)	6.10 (5.61–6.60)	6.59 (6.05–7.12)	7.03 (6.45–7.60)	7.44 (6.82–8.05)	7.93 (7.25–8.58)	8.25 (7.54–8.93)
60-day	3.76 (3.46–4.07)	4.66 (4.29–5.05)	5.57 (5.14–6.04)	6.23 (5.74–6.74)	7.02 (6.47–7.60)	7.57 (6.97–8.19)	8.08 (7.43–8.75)	8.55 (7.85–9.26)	9.10 (8.35–9.87)	9.46 (8.68–10.3)

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