



**NOAA Atlas 14, Volume 1, Version 5**  
**Location name: Huntsville, Utah, US\***  
**Latitude: 41.2625°, Longitude: -111.7287°**  
**Elevation: 5007 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

[PF\\_tabular](#) | [PF\\_graphical](#) | [Maps & aeriels](#)

**PF tabular**

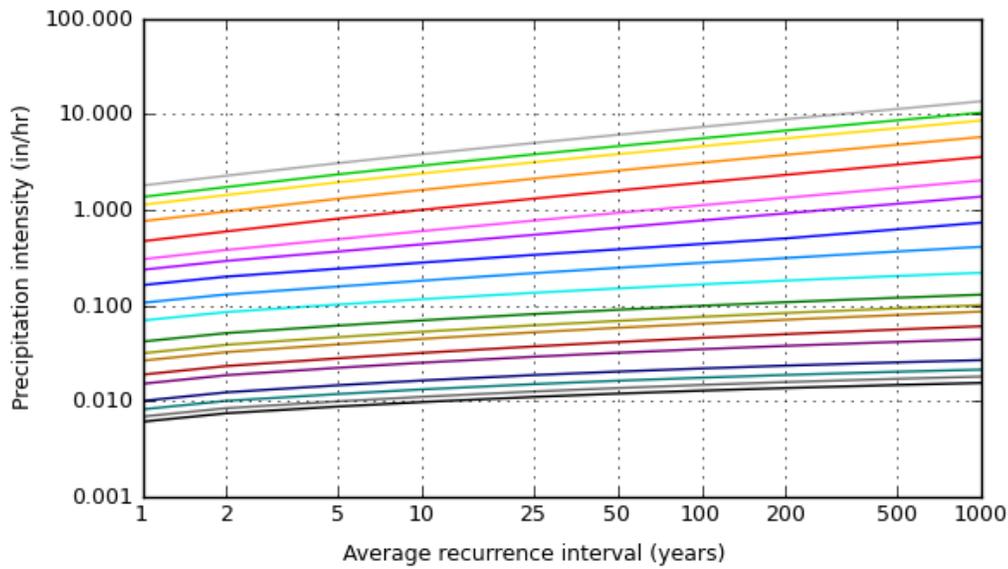
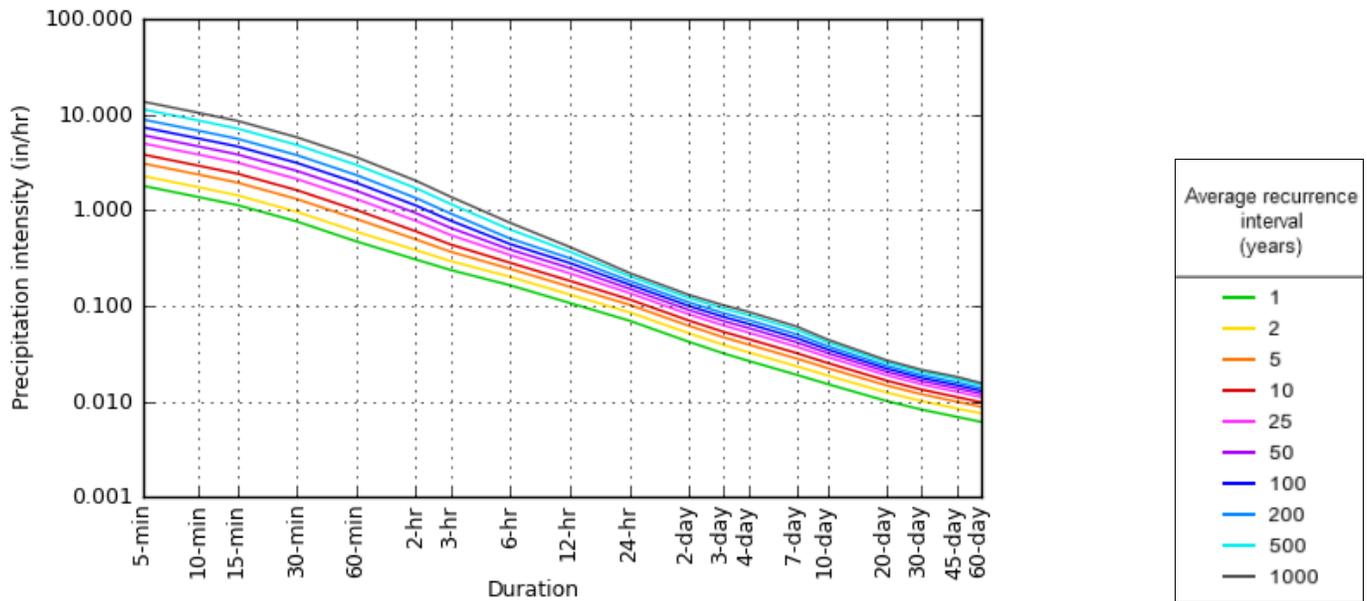
| <b>PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)<sup>1</sup></b> |                                     |                               |                               |                               |                               |                               |                               |                               |                               |                               |
|---|-------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Duration  | Average recurrence interval (years) |                               |                               |                               |                               |                               |                               |                               |                               |                               |
|   | 1                                   | 2                             | 5                             | 10                            | 25                            | 50                            | 100                           | 200                           | 500                           | 1000                          |
| 5-min   | <b>1.80</b><br>(1.57-2.08)          | <b>2.28</b><br>(2.02-2.63)    | <b>3.08</b><br>(2.71-3.56)    | <b>3.83</b><br>(3.32-4.42)    | <b>5.00</b><br>(4.25-5.82)    | <b>6.10</b><br>(5.03-7.15)    | <b>7.37</b><br>(5.88-8.76)    | <b>8.88</b><br>(6.84-10.8)    | <b>11.4</b><br>(8.24-14.2)    | <b>13.7</b><br>(9.46-17.5)    |
| 10-min  | <b>1.37</b><br>(1.19-1.57)          | <b>1.73</b><br>(1.53-2.00)    | <b>2.35</b><br>(2.06-2.71)    | <b>2.91</b><br>(2.53-3.37)    | <b>3.80</b><br>(3.23-4.43)    | <b>4.63</b><br>(3.82-5.44)    | <b>5.60</b><br>(4.48-6.67)    | <b>6.76</b><br>(5.21-8.19)    | <b>8.64</b><br>(6.28-10.8)    | <b>10.4</b><br>(7.19-13.3)    |
| 15-min  | <b>1.13</b><br>(0.988-1.30)         | <b>1.43</b><br>(1.26-1.66)    | <b>1.94</b><br>(1.70-2.24)    | <b>2.41</b><br>(2.09-2.78)    | <b>3.14</b><br>(2.67-3.66)    | <b>3.83</b><br>(3.16-4.50)    | <b>4.64</b><br>(3.70-5.51)    | <b>5.59</b><br>(4.30-6.77)    | <b>7.14</b><br>(5.19-8.91)    | <b>8.60</b><br>(5.94-11.0)    |
| 30-min  | <b>0.762</b><br>(0.666-0.876)       | <b>0.962</b><br>(0.850-1.11)  | <b>1.31</b><br>(1.15-1.51)    | <b>1.62</b><br>(1.41-1.87)    | <b>2.12</b><br>(1.80-2.46)    | <b>2.58</b><br>(2.13-3.03)    | <b>3.12</b><br>(2.49-3.71)    | <b>3.76</b><br>(2.90-4.56)    | <b>4.81</b><br>(3.49-6.00)    | <b>5.79</b><br>(4.00-7.41)    |
| 60-min  | <b>0.471</b><br>(0.412-0.543)       | <b>0.596</b><br>(0.526-0.689) | <b>0.810</b><br>(0.710-0.933) | <b>1.00</b><br>(0.871-1.16)   | <b>1.31</b><br>(1.11-1.52)    | <b>1.60</b><br>(1.32-1.87)    | <b>1.93</b><br>(1.54-2.29)    | <b>2.33</b><br>(1.79-2.82)    | <b>2.97</b><br>(2.16-3.71)    | <b>3.58</b><br>(2.48-4.59)    |
| 2-hr  | <b>0.305</b><br>(0.272-0.347)       | <b>0.382</b><br>(0.340-0.434) | <b>0.494</b><br>(0.438-0.562) | <b>0.600</b><br>(0.526-0.684) | <b>0.773</b><br>(0.662-0.887) | <b>0.931</b><br>(0.779-1.08)  | <b>1.12</b><br>(0.907-1.31)   | <b>1.34</b><br>(1.05-1.61)    | <b>1.70</b><br>(1.25-2.10)    | <b>2.03</b><br>(1.43-2.57)    |
| 3-hr  | <b>0.237</b><br>(0.214-0.265)       | <b>0.293</b><br>(0.265-0.329) | <b>0.367</b><br>(0.329-0.412) | <b>0.437</b><br>(0.389-0.491) | <b>0.549</b><br>(0.479-0.621) | <b>0.652</b><br>(0.557-0.745) | <b>0.776</b><br>(0.645-0.899) | <b>0.921</b><br>(0.742-1.09)  | <b>1.16</b><br>(0.888-1.41)   | <b>1.38</b><br>(1.01-1.72)    |
| 6-hr  | <b>0.164</b><br>(0.150-0.180)       | <b>0.201</b><br>(0.184-0.221) | <b>0.243</b><br>(0.222-0.268) | <b>0.281</b><br>(0.255-0.311) | <b>0.339</b><br>(0.302-0.376) | <b>0.387</b><br>(0.340-0.433) | <b>0.441</b><br>(0.382-0.500) | <b>0.504</b><br>(0.427-0.579) | <b>0.626</b><br>(0.513-0.734) | <b>0.736</b><br>(0.586-0.882) |
| 12-hr   | <b>0.107</b><br>(0.098-0.117)       | <b>0.131</b><br>(0.120-0.144) | <b>0.158</b><br>(0.144-0.174) | <b>0.182</b><br>(0.165-0.201) | <b>0.218</b><br>(0.195-0.243) | <b>0.248</b><br>(0.219-0.278) | <b>0.280</b><br>(0.242-0.318) | <b>0.314</b><br>(0.267-0.362) | <b>0.368</b><br>(0.303-0.433) | <b>0.412</b><br>(0.330-0.494) |
| 24-hr   | <b>0.070</b><br>(0.063-0.078)       | <b>0.086</b><br>(0.078-0.095) | <b>0.103</b><br>(0.093-0.114) | <b>0.117</b><br>(0.105-0.129) | <b>0.136</b><br>(0.122-0.151) | <b>0.151</b><br>(0.136-0.168) | <b>0.167</b><br>(0.149-0.185) | <b>0.183</b><br>(0.162-0.203) | <b>0.204</b><br>(0.180-0.227) | <b>0.221</b><br>(0.193-0.251) |
| 2-day   | <b>0.042</b><br>(0.038-0.046)       | <b>0.052</b><br>(0.047-0.057) | <b>0.062</b><br>(0.056-0.068) | <b>0.070</b><br>(0.063-0.077) | <b>0.082</b><br>(0.074-0.090) | <b>0.090</b><br>(0.081-0.100) | <b>0.100</b><br>(0.089-0.110) | <b>0.109</b><br>(0.097-0.120) | <b>0.121</b><br>(0.107-0.134) | <b>0.130</b><br>(0.114-0.145) |
| 3-day   | <b>0.032</b><br>(0.029-0.035)       | <b>0.039</b><br>(0.035-0.043) | <b>0.047</b><br>(0.042-0.052) | <b>0.053</b><br>(0.048-0.059) | <b>0.062</b><br>(0.056-0.069) | <b>0.069</b><br>(0.062-0.076) | <b>0.076</b><br>(0.068-0.085) | <b>0.084</b><br>(0.074-0.093) | <b>0.093</b><br>(0.082-0.104) | <b>0.101</b><br>(0.088-0.113) |
| 4-day   | <b>0.027</b><br>(0.024-0.029)       | <b>0.033</b><br>(0.030-0.036) | <b>0.039</b><br>(0.036-0.043) | <b>0.045</b><br>(0.041-0.050) | <b>0.053</b><br>(0.047-0.058) | <b>0.059</b><br>(0.053-0.065) | <b>0.065</b><br>(0.058-0.072) | <b>0.071</b><br>(0.063-0.079) | <b>0.080</b><br>(0.070-0.089) | <b>0.087</b><br>(0.076-0.096) |
| 7-day   | <b>0.019</b><br>(0.017-0.021)       | <b>0.023</b><br>(0.021-0.026) | <b>0.028</b><br>(0.025-0.031) | <b>0.032</b><br>(0.029-0.036) | <b>0.037</b><br>(0.033-0.042) | <b>0.042</b><br>(0.037-0.047) | <b>0.046</b><br>(0.041-0.051) | <b>0.050</b><br>(0.044-0.057) | <b>0.056</b><br>(0.049-0.064) | <b>0.061</b><br>(0.053-0.069) |
| 10-day  | <b>0.015</b><br>(0.014-0.017)       | <b>0.019</b><br>(0.017-0.021) | <b>0.022</b><br>(0.020-0.025) | <b>0.025</b><br>(0.023-0.028) | <b>0.029</b><br>(0.026-0.033) | <b>0.032</b><br>(0.029-0.036) | <b>0.035</b><br>(0.031-0.039) | <b>0.038</b><br>(0.034-0.043) | <b>0.042</b><br>(0.037-0.047) | <b>0.045</b><br>(0.039-0.050) |
| 20-day  | <b>0.010</b><br>(0.009-0.011)       | <b>0.012</b><br>(0.011-0.014) | <b>0.015</b><br>(0.013-0.016) | <b>0.016</b><br>(0.015-0.018) | <b>0.019</b><br>(0.017-0.021) | <b>0.020</b><br>(0.018-0.023) | <b>0.022</b><br>(0.020-0.024) | <b>0.024</b><br>(0.021-0.026) | <b>0.026</b><br>(0.023-0.028) | <b>0.027</b><br>(0.024-0.030) |
| 30-day  | <b>0.008</b><br>(0.007-0.009)       | <b>0.010</b><br>(0.009-0.011) | <b>0.012</b><br>(0.011-0.013) | <b>0.013</b><br>(0.012-0.015) | <b>0.015</b><br>(0.014-0.017) | <b>0.016</b><br>(0.015-0.018) | <b>0.018</b><br>(0.016-0.020) | <b>0.019</b><br>(0.017-0.021) | <b>0.020</b><br>(0.018-0.023) | <b>0.021</b><br>(0.019-0.024) |
| 45-day  | <b>0.007</b><br>(0.006-0.008)       | <b>0.008</b><br>(0.008-0.009) | <b>0.010</b><br>(0.009-0.011) | <b>0.011</b><br>(0.010-0.012) | <b>0.013</b><br>(0.011-0.014) | <b>0.014</b><br>(0.012-0.015) | <b>0.015</b><br>(0.013-0.016) | <b>0.016</b><br>(0.014-0.018) | <b>0.017</b><br>(0.015-0.019) | <b>0.018</b><br>(0.016-0.020) |
| 60-day  | <b>0.006</b><br>(0.006-0.007)       | <b>0.007</b><br>(0.007-0.008) | <b>0.009</b><br>(0.008-0.010) | <b>0.010</b><br>(0.009-0.011) | <b>0.011</b><br>(0.010-0.012) | <b>0.012</b><br>(0.011-0.013) | <b>0.013</b><br>(0.012-0.014) | <b>0.014</b><br>(0.012-0.015) | <b>0.015</b><br>(0.013-0.016) | <b>0.016</b><br>(0.014-0.017) |

<sup>1</sup> 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 intensity-duration-frequency (IDF) curves  
 Latitude: 41.2625°, Longitude: -111.7287°



| Duration |        |
|----------|--------|
| 5-min    | 2-day  |
| 10-min   | 3-day  |
| 15-min   | 4-day  |
| 30-min   | 7-day  |
| 60-min   | 10-day |
| 2-hr     | 20-day |
| 3-hr     | 30-day |
| 6-hr     | 45-day |
| 12-hr    | 60-day |
| 24-hr    |        |

[Back to Top](#)

### Maps & aerials

#### 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](#)  
[Office of Hydrologic Development](#)  
1325 East West Highway  
Silver Spring, MD 20910  
Questions?: [HDSC.Questions@noaa.gov](mailto:HDSC.Questions@noaa.gov)

[Disclaimer](#)