

Probabilistic Precipitation Forecasts

Probabilistic precipitation forecasts are the probability or chance a location receives liquid equivalent (rain and/or melted snow) amounts equal to or exceeding a given value. Each of the five probabilistic precipitation forecast values cover 12 hour time blocks, from 4am-4pm and 4pm to 4am local time.

The probabilistic precipitation forecast values for liquid equivalent are:

- Chance of 0.01 inches or more
- Chance of 0.10 inches or more
- Chance of 0.25 inches or more
- Chance of 0.50 inches or more
- Chance of 1.00 inches or more

The chance of 0.01 inches or more, frequently appears in our other forecast products as Probability of Precipitation. The chance of 0.10 inches or more appears in our Fire Weather Planning Forecast as the Chance of Wetting Rain.

These forecasts are provided in graphical and text format. The graphical representations are a quick way to view the probabilities over the entire NWS Reno forecast area. Text output highlights all the probabilities for specific locations, similar to the existing Point Forecast Matrices (PFM) product.

How to interpret the forecasts

Below is an example of the text output for the probabilistic precipitation forecasts of liquid equivalent at South Lake Tahoe Airport.

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CAZ072-XXXXX-  
SOUTH LAKE TAHOE AIRPORT-EL DORADO CA  
38.90N 119.99W  
XXX PM PST WED NOV XX 20XX
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	TONIGHT	THU	THU NIGHT	FRI	FRI NIGHT
CHANCE > 0.01 IN	0	35	63	91	100
CHANCE > 0.10 IN	0	5	25	55	100
CHANCE > 0.25 IN	0	0	8	14	90
CHANCE > 0.50 IN	0	0	1	5	75
CHANCE > 1.00 IN	0	0	0	0	30

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No chance of precipitation is forecast for the Tonight period, since all the probabilities are zero. From Thursday through Friday night the probabilities increase, from this you can infer there is a storm moving into the region with increasing chances for heavy precipitation amounts on Friday Night. Initially on Thursday the probabilities are low,

especially for values greater than 0.10 inches, which implies if rain or snow occurs it will be light.

During the Friday period the chance of 0.01 or more is 91%, which means there is very high confidence rainfall amounts will be at least 0.01 inches. The chance for 0.10 and 0.25 inches or more are at 55% and 14% respectively indicating there is potential liquid amounts could be greater than 0.10 or 0.25 inches. However the most likely outcome is total rainfall amounts from 4am to 4 pm Friday will range between 0.01 and 0.10 inches.

Finally on Friday Night the values for chance of 0.01 and 0.10 or more are 100% and the chance of 0.25 inches or more is 90%. This shows liquid amounts of at least 0.25 inches is nearly certain. The chance for 0.50 inches or more is 75% and the chance for 1.00 inch or more is 30%. From these forecast values there is a good potential for liquid amounts to exceed 0.50 and a low chance for amounts to approach 1.00 inch.