

# Guide to Understanding the Forecast

The Antigua and Barbuda Meteorological Service issues forecasts for sky condition, precipitation probability, precipitation accumulation, wind, seas and temperature. Because the weather is always changing, the terminology used in these forecasts are also quite variable. Listed below are descriptions of regularly used weather terms that should give you a better understanding of each forecast.

## Probability of precipitation or chance of precipitation

The probability of precipitation (POP) or chance of precipitation (COP) is defined as the likelihood, in percent (%), that measurable precipitation of at least 0.25 mm (0.01 in) will fall on “any random point of the forecast region” during the forecast area.

A forecast of, for example: “40 percent chance of showers” for Antigua for today, means that there is a 40% likelihood that rainfall of at least 0.25 mm will fall on any random point of Antigua today.

Please note:

- This does not mean that there is a 40% probability of it showering for the whole of today (the forecast period), only the probability that at least 0.25 mm will fall on any random point of Antigua (the forecast area) today (during the forecast period).
- This does not mean that it will be showering for 40% of the time, only the probability that at least 0.25 mm will fall on any random point of Antigua (the forecast area) today (during the forecast period).
- This does not mean it will be showering over 40 percent of Antigua (the forecast area) today (during the forecast period), only the probability that at least 0.25 mm will fall on any random point of Antigua (the forecast area) today (during the forecast period).
- If there is a 40% chance of showers, there is a 60% chance of none.

Whenever the POP/COP is expected to be between 10 and 90% inclusive, it is indicated in the forecast, 0 and 100% will not be included in the forecast. The POP/COP values are stated in increments of 10 per cent, as indicated in the following table.

Chance of precipitation (COP) or thunderstorms	Terminology
0%	Not mention in the forecast
10%, 20%	10 percent or a slight chance of... 20 percent or a slight chance of...
30%	30 percent or a low chance of...
40%, 50%, 60%	40 percent or a moderate chance of... 50 percent or a moderate chance of... 60 percent or a moderate chance of...
70%	70 percent or a high chance of...
80%, 90%	80 percent or a very high chance of... 90 percent or a very high chance of...
100%	Not mention in the forecast

The 24-hour forecast will include both quantitative and qualitative probabilities or chances of showers. For example:

**Weather today:** Partly sunny with a 20 percent or a slight chance of showers.

**Weather tonight:** Mostly cloudy with a 70 percent or a high chance of showers.

If the forecast for showers is 0 or 100 percent, the forecast will be stated deterministically i.e. without probabilities. For example:

**Weather today:** Partly sunny.

**Weather tonight:** Mostly cloudy with showers.

## Quantitative precipitation forecasting

Rainfall amounts will be reported in the following products when the given thresholds totals are possible:

- For the 24-hour issued twice daily: more than 5 mm (0.20 in) and a probability (chance) of precipitation greater than 30%
- For the forecast discussion: more than 5 mm (0.20 in)
- For the four-day forecast discussion: 25 mm (1 in) or more

The language that will be used to state this information, as the last line of the synopsis, is: **“Possible rainfall total for the forecast period is xx mm or xx in”** For example:

**Synopsis:** A trough system will cause unsettled weather across the area. Possible rainfall total for the forecast period is 5 to 10 mm or 0.20 to 0.40 in.

The lower total (5 mm) has about a 50% chance of occurring and the higher total (10 mm) has about a 25% chance of falling.

## Appendix I: Forecast Format and Content

<b>Synopsis:</b>	<The lead of the forecast – consisting of the most notable forecast item(s) along with the system expected to affect the area and the possible rainfall total for the forecast period, if it will possibly exceed 5 mm>
<b>Weather today:</b>	<The weather forecast for today – cloud coverage and qualitative and quantitative chance/probability of precipitation (rain/showers) and thunderstorms>
<b>Weather tonight:</b>	<The weather forecast for today – cloud coverage and qualitative and quantitative chance/probability of precipitation (rain/showers) and thunderstorms>
<b>Wind:</b>	<The wind direction and speed (in km/h and knots), including gusts when applicable. Wind advisories and warnings when required. A standalone wind statement will be issued to complement advisories and warnings.>
<b>Seas:</b>	<The sea state as it relates to wave height, steepness and period along with the height of wind waves and or swells. Cautions, advisories and warnings will be included when required or certain thresholds are met. Standalone marine statements will be issued to complement the advisories and warnings.>
<b>Rainfall (today/last night):</b>	<Coming soon - The max rainfall total for last night across Antigua and Barbuda>
<b>Rainfall (month):</b>	<The rainfall total for the month at the Airport>
<b>Temperature:</b>	<Forecasting and reporting of maximum (high) and minimum (low) temperatures across Antigua and Barbuda. Also, forecasting and reporting of the heat index (feel-like temperature will be added soon with suitable advisories and warnings.>
<b>Sunrise:</b>	<The sun rise time for tomorrow>
<b>Sunset:</b>	<The sunset time today or tomorrow>