Tutorial: How to Use the Hourly Weather Graph

The National Weather Service transitioned to digital forecasts in 2002, using a software package called the Interactive Forecast Preparedness System (IFPS). With this type of system, forecasters can manipulate grids of weather variables graphically, and then generate different formats of forecasts for thousands of points across the country in a matter of minutes.

One of these formats is called the Hourly Weather Graph, and it can be a valuable tool to evaluate the weather forecast for the upcoming week. In this document, we'll take you through a step-by-step process in order to understand how to use the Hourly Weather Graph.

**Step One**
Access the NWS Duluth home page – [http://www.weather.gov/duluth](http://www.weather.gov/duluth)
Step Two
Choose a forecast location

You achieve this by either clicking at any point on the map on the home page, or by typing in a city and state, or zip code, in the white input box in the upper left hand corner of the web page. Let’s assume for purposes of this tutorial that you typed “Hibbing, MN” into the box.

Step Three
Scroll down the forecast page

After you click the map or complete your search, the forecast page for the location you selected will come up. At the top, you will see the standard 7-day forecast. Scroll down the page.
Step Four
Click on Hourly Weather Graph Link

Monday Night: A chance of showers and thunderstorms. Mostly cloudy, with a low around 59.

Tuesday: A chance of showers and thunderstorms. Mostly cloudy, with a high near 73.

Tuesday Night: A chance of showers and thunderstorms. Mostly cloudy, with a low around 53.

Wednesday: A chance of showers and thunderstorms. Mostly cloudy, with a high near 70.

Wednesday Night: A chance of showers and thunderstorms. Mostly cloudy, with a low around 51.

Thursday: A slight chance of showers and thunderstorms. Partly cloudy, with a high near 69.

This will bring up the Hourly Weather Graph Page. You’ll also notice that right above that link box, there is an interactive Google map that you can use to fine-tune your location. Use the navigation tools to pan and/or zoom. You can even switch to a satellite view and find your building or house. If you find that your location is outside of the red box, you can click on the map, and it will change the forecast page to that location.
Above is a picture of what the Hourly Weather Graph page looks like. You can choose the weather elements that you’d like to view at the top, and change the 48-hour period that you’d like to view in the drop down menu. If you’d like to see the forecast at a specific time, simply mouse over the graph, and the text box at the bottom of the page will change as your mouse moves left or right on the graph. Thus, the Hourly Weather Graph allows you to view the forecast graphically, and get specific forecast information all on one web page.
Tutorial: How to Use the Activity Planner

Similar to the Hourly Weather Graph, the Activity Planner takes advantage of the Interactive Forecast Preparedness System (IFPS). It is simply another way of viewing the same digital forecast information.

Step One
Access the NWS Duluth home page – http://www.weather.gov/duluth
Click on the “Activity Planner” link on the left hand navigation menu.
Step Two
Enter in your personalized forecast criteria in the “Element” white boxes. For instance, if you are fishing on a large inland lake, and you don’t want the wind speeds to be any higher than 30 mph, you would enter a “30” in the “Max” box next to “Surface Wind Speed (mph)”. Or, perhaps you are looking for days with low precipitation chances. For this example we will enter a 30 into the “Max” box next to Precipitation Potential to find the times over the next 7 days where the precipitation chances are less than 30%. Click on the map, or enter the latitude and longitude of a point, in order to get the forecast information for the site that you want. We will select Hibbing again.
Step Three
Using the Activity Planner output

You can see that the Activity Planner produced a graph. The brown bar on the graph represents the times at which the precipitation probabilities are less than 30%. In this example, there is a long stretch of pretty dry weather from the current time through around 7pm on Monday.

If you want more specific information, you can mouse over the graph and it will provide the specific data point below the graph, as was the case in the Hourly Weather Graph. You can also click on the graphical output to get a tabular display of all the data at that particular point.

Finally, you can always fine tune your criteria in the gray box closer to the bottom. **It is important to note that you can use more than one criterion at a time.**
Summary

Both of these options are ways for the user to interact with the digital forecast database in order to get the specific forecast information that they need. The Hourly Weather Graph provides a graphical display of forecast trends, and an easy way to view specific forecast information at a specific time in the future. The Activity Planner is potentially useful for anyone planning an outdoor event as it will isolate the times in the forecast where the weather forecast is ideal for the user. If you have any additional questions or feedback, send us an email at:

w-dlh.webmaster@noaa.gov