



**ForecastWatch**  
*Accuracy Defined*

# Three-Region Accuracy Overview

2010 through 2017

By ForecastWatch.com,  
a Service of Intellovations, LLC

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## Executive Summary

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Accurate forecasts form the core of every successful weather forecast provider. Being able to establish that accuracy and communicate it to the various public and private clients who rely on pinpoint forecasts is crucial. The better that consumers of weather information know your track record, the more reliance they can place in your ability to provide accurate forecasts in the future.

This analysis assessed the accuracy of forecasts from eleven weather forecast providers across three regions and three days-out groupings: one-to-three days, four-to-six days, and seven-to-nine days. Accuracy was measured as the average of the percentage of high temperature forecasts within three degrees, the percentage of low temperature forecasts within three degrees, and the percentage of precipitation and non-precipitation forecasts that were correct. The regions analysed were the United States, Asia-Pacific, and Europe. Forecasts for the United States were analysed for the full eight-year period while Asia-Pacific and Europe were analysed for the previous five years. More than 150 million forecasts were analysed.

Of the 54 region, year, and days-out groupings, The Weather Channel was the most accurate in 35 of them. Weather Underground was the most accurate in 12 periods and Foreca came in first 7 times (13% of all possible groups). Weather Underground and The Weather Channel are both owned by IBM. The Weather Channel acquired Weather Underground in 2012 and both have shown similar accuracy scores since late 2013.

## Results

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ForecastWatch calculated overall forecast accuracy for one-to-three days out, four-to-six days out, and seven-to-nine days out forecasts for Asia-Pacific, Europe, and the United States. The collection period was 2013 through 2017 for the Asia-Pacific and European regions, and 2010 through 2017 for the United States. As detailed in the individual tables, the analysis included eight providers for Asia-Pacific, nine providers for Europe, and ten providers for the United States. Two of the providers, The Weather Channel and Weather Underground, are owned by IBM. The Weather Channel acquired Weather Underground in 2012 and both have shown similar accuracy scores since late 2013.

ForecastWatch did not begin collecting forecasts from some providers until after the study period began, as indicated in the tables. For example, ForecastWatch began collecting forecasts from World Weather Online during 2010, Foreca and MeteoGroup in 2011, and Dark Sky in 2013. Thus the first full year of forecasts would be 2011 for World Weather Online, 2012 for Foreca and MeteoGroup, and 2014 for Dark Sky. Additionally, Weather Underground did not provide five-days out forecasts until 2011 and ten-days out forecasts until 2014.



Overall forecast accuracy was measured as the average of the percentage of high temperature forecasts within three degrees, the percentage of low temperature forecasts within three degrees, and the percentage of precipitation and non-precipitation forecasts that were correct. Total forecasts collected by region were over 6 million for the Asia-Pacific, over 20 million for Europe, and more than 132 million for the United States, for nearly 160 million forecasts.

The accuracy tables detailed for each group of forecasts is sorted by the number of times the provider had the highest accuracy. In the event of a tie, it is sorted on 2017 accuracy. The provider with the highest accuracy for each year is highlighted.

## One-to-Three Days Out

### Asia-Pacific

As shown in Table 1, The Weather Channel was the most accurate provider of one-to-three days out forecasts in the Asia-Pacific region for three of the five years analysed. In 2017, its accuracy was a mere 0.01% lower than Weather Underground, the most accurate provider. In 2014, MeteoGroup was the most accurate. The Weather Channel's 77.69% in 2017 score was its highest in the five years of tracking.

	2013	2014	2015	2016	2017
<b>The Weather Channel</b>	75.38%	73.08%	76.25%	76.20%	77.69%
<b>Weather Underground</b>	70.98%	73.13%	76.18%	76.13%	77.70%
<b>MeteoGroup</b>	74.12%	74.10%	74.31%	73.11%	74.43%
<b>AccuWeather</b>	70.17%	70.52%	74.03%	74.95%	76.40%
<b>Foreca</b>	71.06%	71.92%	72.83%	72.93%	74.39%
<b>Intellicast</b>	71.40%	69.56%	71.71%	72.19%	73.40%
<b>Dark Sky</b>		69.75%	68.20%	68.40%	70.17%
<b>World Weather Online</b>	60.25%	58.49%	60.34%	60.68%	60.96%

Table 1: Asia-Pacific One-to-Three Days Out Overall Accuracy, 2013-2017

### Europe

For the fourth time in five years, The Weather Channel had the highest accuracy for one-to-three days out forecasts within Europe, with an accuracy percentage of 77.74% in 2017, as shown in Table 2. The Weather Channel was closely followed by Weather Underground at 77.62%. While the next four providers—Intellicast, AccuWeather, MeteoGroup and Foreca—were closely packed, three providers—BBC, Dark Sky and World Weather Online—lagged far behind.



	2013	2014	2015	2016	2017
<b>The Weather Channel</b>	73.39%	75.42%	76.33%	76.74%	77.74%
<b>Weather Underground</b>	69.07%	75.31%	76.27%	76.76%	77.62%
<b>Intellicast</b>	72.09%	74.07%	74.95%	75.81%	76.72%
<b>AccuWeather</b>	69.05%	72.11%	75.92%	75.98%	76.62%
<b>MeteoGroup</b>	73.21%	74.34%	74.63%	74.44%	75.44%
<b>Foreca</b>	70.83%	72.49%	74.24%	74.71%	74.98%
<b>BBC</b>	68.36%	69.26%	69.64%	69.42%	69.91%
<b>Dark Sky</b>		69.60%	69.10%	68.42%	69.73%
<b>World Weather Online</b>	61.87%	62.13%	63.78%	64.28%	63.17%

Table 2: Europe One-to-Three Days Out Overall Accuracy, 2013-2017

## United States

For the eight years of one-to-three days out forecasts for the United States (depicted in Table 3), The Weather Channel and Weather Underground were the top performers for all but one year. In 2012, MeteoGroup was the most accurate provider with an accuracy percentage of 74.48%. World Weather Online, at 59.3%, was the least accurate forecaster, and its accuracy percentage dropped more than 5% in the last year. There was a slight overall decrease in forecast accuracy from 2016 to 2017 among providers taken as a whole, even though The Weather Channel, Weather Underground, and the National Weather Service improved from 2016 to 2017.

	2010	2011	2012	2013	2014	2015	2016	2017
<b>The Weather Channel</b>	72.10%	71.54%	74.28%	75.02%	74.99%	76.63%	77.45%	77.47%
<b>Weather Underground</b>	69.87%	68.35%	69.45%	70.76%	75.25%	76.65%	77.38%	77.42%
<b>MeteoGroup</b>			74.48%	74.95%	75.21%	75.32%	75.54%	75.34%
<b>Intellicast</b>	71.77%	71.20%	73.59%	74.19%	74.26%	75.99%	76.69%	76.54%
<b>AccuWeather</b>	69.07%	68.15%	70.35%	71.28%	72.14%	75.28%	76.10%	75.88%
<b>Foreca</b>			70.40%	70.97%	71.92%	74.23%	72.87%	72.75%
<b>NWS Web</b>	69.43%	68.73%	70.06%	70.34%	70.27%	71.30%	70.55%	71.81%
<b>NWS NDFD</b>	68.55%	67.87%	69.36%	69.88%	69.41%	69.85%	70.43%	70.52%
<b>Dark Sky</b>					66.46%	68.33%	70.80%	68.84%
<b>World Weather Online</b>			61.45%	61.13%	63.99%	64.59%	64.62%	59.30%

Table 3: United States One-to-Three Days Out Overall Accuracy, 2010-2017



## Four-to-Six Days Out

### Asia-Pacific

As shown in Table 4, The Weather Channel’s overall accuracy of 72.45% in 2017 was essentially identical to Weather Underground’s, which was 72.46%. In 2014, the difference between The Weather Channel and Weather Underground was also 0.01%. In all five years, The Weather Channel and Weather Underground were the most accurate providers for four-to-six days out forecasts within Asia-Pacific.

	2013	2014	2015	2016	2017
<b>The Weather Channel</b>	69.97%	67.73%	70.54%	71.10%	72.45%
<b>Weather Underground</b>	65.55%	67.74%	70.25%	70.75%	72.46%
<b>AccuWeather</b>	64.69%	65.05%	67.60%	69.17%	70.22%
<b>Intellicast</b>	66.86%	64.77%	66.67%	67.48%	68.98%
<b>Foreca</b>	65.99%	66.13%	67.05%	67.37%	68.69%
<b>Dark Sky</b>		65.02%	62.75%	62.12%	64.71%
<b>World Weather Online</b>	56.73%	55.33%	57.18%	57.39%	58.08%

Table 4: Asia-Pacific Four-to-Six Days Out Accuracy, 2013-2017

### Europe

As detailed in Table 5, The Weather Channel had the highest accuracy in 2017 of any of the seven providers for four-to-six days out forecasts for Europe. Weather Underground was second, 0.10% lower than The Weather Channel. Intellicast and AccuWeather followed very closely behind The Weather Channel and Weather Underground in third and fourth place, respectively. Weather Underground’s performance has improved the most over the 5-year period, with an increase in overall accuracy of 7.71% over the period. World Weather Online’s overall accuracy has decreased by 6.89% over the period. During the period of data collection, Weather Underground was the most accurate provider between 2014 and 2016, while The Weather Channel was the most accurate in 2013 and 2017.



	2013	2014	2015	2016	2017
<b>Weather Underground</b>	59.42%	65.77%	66.59%	66.86%	67.13%
<b>The Weather Channel</b>	63.75%	65.70%	66.58%	66.84%	67.23%
<b>Intellicast</b>	62.89%	64.71%	65.63%	66.16%	66.58%
<b>AccuWeather</b>	59.37%	62.53%	65.59%	66.17%	66.10%
<b>Foreca</b>	61.93%	62.42%	63.81%	65.61%	65.39%
<b>Dark Sky</b>		60.80%	60.76%	59.68%	60.32%
<b>World Weather Online</b>	55.21%	55.93%	57.78%	57.81%	56.96%

Table 5: Europe Four-to-Six Days Out Accuracy, 2013-2017

## United States

As reflected in Table 6, The Weather Channel was the top performer for four-to-six day out forecasts for the U.S. for the sixth time in eight years. In 2015, it achieved a tie for first with Weather Underground. The 66.70% average for 2017 represents an increase of just more than 5% since 2010. This represents the largest accuracy increase of any provider in the eight-year period. All providers suffered a slight decrease in accuracy for 2017.

	2010	2011	2012	2013	2014	2015	2016	2017
<b>The Weather Channel</b>	61.62%	61.55%	63.83%	64.75%	64.51%	66.50%	67.38%	66.70%
<b>Weather Underground</b>			60.47%	61.43%	64.71%	66.50%	67.35%	66.64%
<b>Intellicast</b>	61.47%	61.36%	63.47%	64.30%	64.11%	65.98%	66.82%	66.15%
<b>Foreca</b>			62.08%	62.32%	62.59%	64.47%	66.14%	65.67%
<b>AccuWeather</b>	59.92%	59.61%	60.60%	61.46%	61.80%	64.52%	65.70%	64.20%
<b>NWS NDFD</b>	58.89%	58.75%	59.54%	60.28%	59.26%	60.11%	60.73%	60.35%
<b>Dark Sky</b>					59.92%	59.75%	60.93%	60.08%
<b>World Weather Online</b>			54.67%	54.34%	57.82%	58.74%	59.00%	55.19%

Table 6: United States Four-to-Six Days Out Accuracy, 2010-2017

## Seven-to-Nine Days Out

### Asia-Pacific

As detailed in Table 7, The Weather Channel has been the most accurate weather provider for seven-to-nine days out forecasts for the Asia-Pacific region for each year during the five-year period. AccuWeather displayed the most forecast improvement from 2013 to 2017, with an accuracy percentage rising from 58.93% to 64.23%. World Weather Online had the lowest accuracy percentage of 53.19%.



	2013	2014	2015	2016	2017
<b>The Weather Channel</b>	64.83%	62.42%	65.52%	65.82%	66.83%
<b>Weather Underground</b>			65.33%	65.41%	66.76%
<b>AccuWeather</b>	58.93%	59.12%	60.99%	62.52%	64.23%
<b>Intellicast</b>	62.38%	60.08%	62.48%	62.81%	64.07%
<b>Foreca</b>	61.90%	60.50%	61.46%	62.44%	63.75%
<b>World Weather Online</b>	54.55%	53.93%	52.30%	52.64%	53.19%

Table 7: Asia-Pacific Seven-to-Nine Days Out Accuracy, 2013-2017

## Europe

The Weather Channel was the top performer for three of the five years analyzed with Weather Underground and Foreca having the best forecasts in 2016 and 2013, respectively. The difference in accuracy score for the first four providers was only 0.66%. MeteoGroup, Dark Sky, and BBC are not included in the analysis due to either not providing forecasts or ForecastWatch not collecting forecasts out to nine days.

	2013	2014	2015	2016	2017
<b>The Weather Channel</b>	50.44%	56.85%	57.81%	57.70%	57.77%
<b>Weather Underground</b>			57.78%	57.73%	57.70%
<b>Foreca</b>	55.24%	55.35%	56.06%	57.56%	57.11%
<b>Intellicast</b>	54.55%	56.18%	57.08%	57.21%	57.33%
<b>AccuWeather</b>	48.43%	52.25%	55.48%	56.34%	56.10%
<b>World Weather Online</b>	49.51%	49.89%	51.11%	51.21%	49.71%

Table 8: Europe Seven-to-Nine Days Out Accuracy, 2013-2017

## United States

The Weather Channel and Foreca shared top billing for most accurate forecaster for the seven-to-nine days out period for the United States. The Weather Channel was the top performer in 2010, 2011, 2015, and 2017, while Foreca had the most accurate forecasts in 2012, 2013, 2014, and 2016. For 2017, Weather Underground was just 0.01% less than The Weather Channel for a very close second place finish. AccuWeather's accuracy was in the middle of the pack while World Weather Online lagged far behind as indicated in Table 9.



	2010	2011	2012	2013	2014	2015	2016	2017
<b>The Weather Channel</b>	52.66%	52.88%	54.86%	56.02%	55.66%	57.07%	58.44%	57.36%
<b>Foreca</b>			56.55%	56.19%	56.25%	57.01%	58.52%	57.09%
<b>Weather Underground</b>				53.36%	55.25%	57.06%	58.44%	57.35%
<b>Intellicast</b>	52.53%	52.72%	54.66%	55.83%	55.39%	56.69%	58.05%	57.02%
<b>AccuWeather</b>	50.93%	49.98%	49.84%	51.17%	51.63%	53.43%	55.94%	53.55%
<b>World Weather Online</b>			47.74%	47.67%	49.85%	52.08%	52.41%	49.62%

Table 9: United States Seven-to-Nine Days Out Accuracy, 2010-2017

## Data Collection

Tables 10 through 18 show the total number of forecasts collected for this report across all three world regions and all three days-out categories. An empty field in the table indicates that the data was unavailable, either because ForecastWatch did not collect forecasts for that provider for the entire period, or because the provider did not provide forecasts for the entire days-out range for the period. Overall, over 158 million forecasts were analysed.

## One-to-Three Days Out

Tables 10, 11, and 12 on the following two pages show the number of forecasts collected, matched to an observation, and determined to be valid for each provider for one-to-three days out forecasts for each year and region. Over 2.4 million forecasts were collected for Asia-Pacific for all providers and years, over 7.9 million forecasts for Europe, and over 56 million forecasts for the United States. A total of over 66 million one-to-three days out forecasts were collected from 2010 through 2017.

	2013	2014		2015	2016	2017
<b>AccuWeather</b>	59,636	61,404		63,214	63,693	62,868
<b>Dark Sky</b>		64,518		63,522	63,934	62,791
<b>Foreca</b>	61,425	63,692		63,448	63,824	62,277
<b>Intellicast</b>	61,667	64,444		63,439	63,852	62,894
<b>MeteoGroup</b>	61,669	63,493		62,426	62,720	61,987
<b>The Weather Channel</b>	61,692	64,348		63,517	63,934	62,965
<b>Weather Underground</b>	61,700	64,191		63,258	63,479	62,223
<b>World Wide Weather</b>	61,182	63,060		63,159	63,310	62,553

Table 10: Asia-Pacific One-to-Three Days Out Forecast Counts, 2013-2017





	2013	2014	2015	2016	2017
<b>AccuWeather</b>	168,550	166,343	188,418	189,530	193,143
<b>BBC</b>	135,086	137,692	142,846	142,732	145,583
<b>Dark Sky</b>		186,167	190,254	189,850	194,041
<b>Foreca</b>	176,166	183,984	190,355	189,578	191,140
<b>Intellicast</b>	177,604	186,522	190,606	189,891	193,981
<b>MeteoGroup</b>	175,836	182,714	188,398	187,879	192,400
<b>The Weather Channel</b>	174,322	185,048	190,610	189,909	194,000
<b>Weather Underground</b>	176,711	178,538	186,389	187,058	179,790
<b>World Wide Weather</b>	176,393	182,061	188,645	189,025	191,648

Table 11: Europe One-to-Three Days Out Forecast Counts, 2013-2017

	2010	2011	2012	2013	2014	2015	2016	2017
<b>AccuWeather</b>	838,810	780,123	806,935	804,956	817,375	814,343	810,324	813,596
<b>Dark Sky</b>					818,082	817,699	808,674	815,128
<b>Foreca</b>			804,376	801,553	810,830	812,716	809,022	805,491
<b>Intellicast</b>	842,621	815,138	807,766	806,303	818,806	817,911	811,534	815,206
<b>MeteoGroup</b>			781,167	779,074	792,202	790,505	784,365	794,414
<b>NWS Web</b>	778,545	746,761	773,951	781,800	791,917	789,267	788,238	790,487
<b>NWS NDFD</b>	828,909	783,562	779,748	767,934	809,123	803,679	804,696	779,730
<b>The Weather Channel</b>	841,679	812,824	806,194	805,610	814,078	817,912	811,517	815,081
<b>Weather Underground</b>	831,500	810,088	807,495	805,266	813,876	816,285	805,289	813,695
<b>World Weather Online</b>			801,676	800,828	805,824	805,655	804,499	807,999

Table 12: United States One-to-Three Days Out Forecast Counts, 2010-2017

## Four-to-Six Days Out

Tables 13, 14, and 15 on the following page show the number of forecasts collected, matched to an observation, and determined to be valid for each provider for four-to-six days out forecasts for each year and region. Over 2.1 million forecasts were collected for Asia-Pacific for all providers and years, nearly 6.3 million forecasts for Europe, and over 43 million forecasts for the United States. A total of over 51 million four-to-six days out forecasts were collected from 2010 through 2017.



	2013	2014	2015	2016	2017
AccuWeather	59,646	61,401	63,139	63,633	62,863
Dark Sky		64,508	63,451	63,873	62,788
Foreca	61,438	63,735	63,366	63,761	62,277
Intellicast	61,655	64,448	63,371	63,790	62,889
The Weather Channel	61,685	64,350	63,445	63,873	62,962
Weather Underground	61,696	64,169	63,205	63,602	62,246
World Weather Online	61,263	63,048	63,077	63,197	62,560

Table 13: Asia-Pacific Four-to-Six Days Out Forecast Counts, 2013-2017

	2013	2014	2015	2016	2017
AccuWeather	168,572	166,327	188,109	189,413	192,697
Dark Sky		185,677	189,836	189,716	193,615
Foreca	176,132	183,929	190,044	189,470	190,694
Intellicast	177,504	186,489	190,297	189,778	193,574
The Weather Channel	174,224	185,011	190,303	189,794	193,590
Weather Underground	176,702	178,482	186,051	186,989	179,513
World Weather Online	176,280	192,061	188,304	188,884	191,209

Table 14: Europe Four-to-Six Days Out Forecast Counts, 2013-2017

	2010	2011	2012	2013	2014	2015	2016	2017
AccuWeather	838,742	780,608	806,860	804,898	817,330	814,329	810,247	813,565
Dark Sky					817,716	817,728	808,584	815,123
Foreca			804,286	801,814	810,596	812,664	808,952	805,446
Intellicast	842,627	815,318	807,708	806,259	818,766	817,938	811,452	815,197
NWS NDFD	731,571	758,588	694,922	716,481	753,568	742,825	647,197	682,567
The Weather Channel	841,698	813,102	806,011	805,555	814,136	817,937	811,446	815,082
Weather Underground			772,093	805,248	813,742	816,309	805,058	813,148
World Weather Online			801,594	801,062	805,601	805,350	804,432	807,957

Table 15: United States Four-to-Six Days Out Forecast Counts, 2013-2017



## Seven-to-Nine Days Out

Tables 16, 17, and 18 below, show the number of forecasts collected, matched to an observation, and determined to be valid for each provider for seven-to-nine days out forecasts for each year and region. Over 1.7 million forecasts were collected for Asia-Pacific for all providers and years, over 5.1 million forecasts for Europe, and over 33.2 million forecasts for the United States. A total of over 40 million seven-to-nine days out forecasts were collected from 2010 through 2017.

	2013	2014	2015	2016	2017
<b>AccuWeather</b>	59,500	61,401	63,083	63,635	62,864
<b>Foreca</b>	61,289	63,650	63,309	63,769	62,267
<b>Intellicast</b>	61,476	64,442	63,310	63,762	62,889
<b>The Weather Channel</b>	61,505	64,352	63,387	63,873	62,963
<b>Weather Underground</b>			63,100	63,397	62,243
<b>World Weather Online</b>	61,039	63,035	63,032	63,192	62,553

Table 16: Asia-Pacific Seven-to-Nine Days Out Forecast Counts, 2013-2017

	2013	2014	2015	2016	2017
<b>AccuWeather</b>	168,466	166,303	188,098	189,564	192,563
<b>Foreca</b>	175,870	183,850	190,030	189,617	190,556
<b>Intellicast</b>	177,204	186,463	190,293	189,908	193,442
<b>The Weather Channel</b>	173,928	184,978	190,299	189,927	193,457
<b>Weather Underground</b>			185,987	187,122	179,276
<b>World Weather Online</b>	176,108	182,011	188,287	189,046	191,072

Table 17: Europe Seven-to-Nine Days Out Forecast Counts, 2013-2017

	2010	2011	2012	2013	2014	2015	2016	2017
<b>AccuWeather</b>	838,598	780,536	806,980	804,985	804,985	813,510	810,107	813,595
<b>Foreca</b>			804,445	802,256	812,260	811,760	808,786	805,432
<b>Intellicast</b>	841,923	815,146	807,833	806,338	820,736	817,135	811,323	815,230
<b>The Weather Channel</b>	841,698	812,886	805,970	805,591	816,029	817,136	811,307	815,118
<b>Weather Underground</b>				804,641	814,239	815,112	803,470	812,086
<b>World Weather Online</b>			801,745	801,312	807,526	804,808	804,288	807,970

Table 18: United States Seven-to-Nine Days Out Forecast Counts, 2010-2017



## Methodology

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### Accuracy

Total forecast accuracy was determined by four components that were equally weighted to arrive at the final percentage presented in the tables:

- Percentage of high temperature forecasts within three degrees Fahrenheit.
- Percentage of low temperature forecasts within three degrees Fahrenheit.
- Percent correct of icon precipitation/non-precipitation forecasts.
- Percent correct of text precipitation/non-precipitation forecasts.

Parameters for this report, both forecast and observed, were defined as follows:

- High temperature: The highest temperature that occurred between 7 a.m. and 7 p.m.
- Low Temperature: The lowest temperature that occurred between 7 p.m. and 8 a.m.

Precipitation: Measured or observed precipitation for the full 24-hour day, local time, midnight to midnight was considered a precipitation observation. Otherwise, it was considered a non-precipitation observation. A precipitation forecast icon showed precipitation, and a precipitation text forecast mentioned precipitation, however likely. If precipitation was not shown or mentioned, it was considered a non-precipitation forecast. In the event a provider did not provide icons, the text forecast was substituted as the icon forecast and weighted twice.

### Validity

Forecasts were considered **valid** if they contained a high and low temperature forecast, icon forecast, and text forecast, and if they passed both manual and automated audits. These audits checked for out-of-bounds values and other indicators that suggested the forecast should be marked as invalid. Forecasts that were simply **bad** (inaccurate or wrong) were not considered invalid. However, forecasts issues caused by system bugs or delivery problems (such as a -32768 degree high temperature) were declared invalid.

### Providers

Forecasts were collected from the following providers as discussed:

- **AccuWeather** <http://api.accuweather.com>. Forecasts were collected using the using the AccuWeather API at <http://api.accuweather.com>.



- **BBC** <http://www.bbc.co.uk/weather/>. Not all cities collected in Europe are provided.
- **Dark Sky** <http://api.darksky.net>. Latitude and longitude of the observation station were used to retrieve specific forecasts.
- **Foreca** <http://www.foreca.com>. 10-day forecast page. Location parameter used was the city and state of the observation location.
- **Intellicast** <http://intellicast.com>. Extended forecast page. Location parameter was a site-specific code for the location.
- **MeteoGroup** <http://www.weathercast.co.uk/> Forecast taken from the first page graph.
- **NWS NDFD** <http://graphical.weather.gov/xml/>. Forecast collected from the National Digital Forecast Database using the SOAP interface.
- **NWS Web** <http://www.weather.gov>. Forecast taken from the Extended Forecast.
- **The Weather Channel** <http://www.weather.com>. 10-day forecast page. Latitude and longitude of the observation site were used to retrieve specific forecasts.
- **Weather Underground** <http://www.wunderground.com/api>. Location parameter used to retrieve specific forecasts was the International Civil Aviation Organization (ICAO) code or surface synoptic observations (SYNOP) of the observation station.
- **World Weather Online** <https://www.worldweatheronline.com/>. Latitude and longitude of the observation site were used to retrieve specific forecasts.

Forecasts were collected from each of the three regions at specific times during the day. For each location, forecasts were requested at the exact same time from each provider.

Region	Collection Time	Station Count (as of 2016)
United States	22:00 UTC	806
Europe	16:00 UTC	188
Asia-Pacific	08:00 UTC	63

Table 19: Forecast collection times and regions.



## Observation Data

Observation data was collected from the primary Automated Surface Observing System (ASOS) network in the United States as well as international equivalents. United States data was quality controlled by the National Climatic Data Center (NCDC) prior to delivery to ForecastWatch via the Quality-Controlled Local Climatic Data (QCLCD) product data set. International data came from the Integrated Surface Database product. Both products consisted of hourly and daily observation parameters.

## About ForecastWatch.com

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ForecastWatch, a service of Intellovations, LLC, has been the world's premier weather forecast monitoring and assessment company since 2003, when it released the largest public weather forecast accuracy study at the time. ForecastWatch compiles weather forecasts and observations from more than 1,200 locations around the world, including the United States, Canada, Europe, South America, Central America, Africa and the Asian Pacific. ForecastWatch maintains a historical database of more than 800 million weather forecasts from a number of providers and provides unbiased reporting.

Meteorologists, utilities and energy companies depend on ForecastWatch's accurate data and analysis. Agriculture, futures traders and other companies whose business depends on being right about the weather put their trust in ForecastWatch to help them achieve success. The data meets the highest standard of scientific inquiry and has been used in several peer-reviewed studies.

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