

The following is an annual, 12-month, climate average product for the Fort Berthold Indian Reservation. The averages are based on historical weather data collected over the past 10 years from 2014-Present. Information was obtained from weatherwx.com

Fort Berthold Indian Reservation Monthly Climate Averages					
	<div> <div>12 Month Climate Scroll</div> <div>12 Month Climate Scroll</div> </div>				
Month	January	February	March	April	May
Avg. Temperatures	Hi 21°F Lo 6°F	Hi 22°F Lo 6°F	Hi 36°F Lo 20°F	Hi 49°F Lo 31°F	Hi 64°F Lo 45°F
Avg. Wind Speed	10 mph	10 mph	10 mph	11 mph	10 mph
Avg. Precipitation	0.5 in	0.5 in	0.8 in	1.8 in	3.1 in
Average Humidity	89%	87%	80%	67%	60%
Avg. Cloud Cover	60%	62%	58%	49%	40%
Pressure Average	30.1 in	30.2 in	30.1 in	30.0 in	29.9 in
Average Dry Days	22	21	23	22	25
Avg. Precip. Days	6	5	5	6	6
Avg. Snow Days	3	2	3	2	0
Average Fog Days	1	1	1	0	0
Average UV Index	1	1	2	3	4
Avg. Hours of Sun	112	86	114	146	202
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Averages are based on historical weather data from the past 10 years. Click and drag this table... Click and drag this table...					

Fort Berthold Indian Reservation Monthly Climate Averages					
	<div> <div>12 Month Climate Scroll</div> <div>12 Month Climate Scroll</div> </div>				
	°F				
Month	June	July	August	September	October
Avg. Temperatures	Hi 75°F Lo 55°F	Hi 82°F Lo 60°F	Hi 81°F Lo 59°F	Hi 72°F Lo 52°F	Hi 54°F Lo 38°F
Avg. Wind Speed	9 mph	9 mph	9 mph	10 mph	11 mph
Avg. Precipitation	3 in	2.8 in	2.1 in	2.7 in	1.5 in
Average Humidity	63%	57%	52%	52%	61%
Avg. Cloud Cover	33%	25%	25%	26%	38%
Pressure Average	29.8 in	29.9 in	29.9 in	29.9 in	30.0 in
Average Dry Days	23	26	25	26	26
Avg. Precip. Days	7	5	6	4	4
Avg. Snow Days	0	0	0	0	1
Average Fog Days	0	0	0	0	0
Average UV Index	5	6	5	4	2
Avg. Hours of Sun	226	276	274	258	206
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Averages are based on historical weather data from the past 10 years. Click and drag this table... Click and drag this table...					

Month	November	December
Avg. Temperatures	Hi 38°F Lo 24°F	Hi 23°F Lo 10°F
Avg. Wind Speed	10 mph	10 mph
Avg. Precipitation	0.6 in	0.8 in
Average Humidity	73%	86%
Avg. Cloud Cover	45%	58%
Pressure Average	30.0 in	30.1 in
Average Dry Days	23	22
Avg. Precip. Days	4	6
Avg. Snow Days	2	3
Average Fog Days	1	0
Average UV Index	1	1
Avg. Hours of Sun	175	119

The below meteorological data was obtained by a published Tribal Renewable Energy Technical Report collected and analyzed by Disgen, contracted with Western EcoSystems Technology Inc, during an on-site monitoring program that captured daily average wind speed, wind shear, meteorological hazards, turbulence intensity and local climatology that will be useful in the planning and risk mitigation/management during the prototype demonstration of the MHA grant. The full report can be reviewed at, [Three Affiliated Tribes Renewable Energy Feasibility Study, https://www.energy.gov/sites/default/files/2016/02/f29/3tribes06final.pdf](https://www.energy.gov/sites/default/files/2016/02/f29/3tribes06final.pdf).

Table 2 - Mean Hourly Wind Speed at 30 Meters (Ch 1)

MEAN HOURLY WIND SPEEDS													
FORT BERTHOLD INDIAN RESERVATION 30M WIND SPEED (MPH)													
10/01/04 - 01/31/06													
Hour	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
01	13.1	13.4	16.7	17.6	16.5	16.8	15.3	15.5	14.4	14.7	16.0	15.7	15.5
02	14.0	13.2	16.5	17.9	16.7	17.1	15.3	15.3	14.2	14.5	15.7	15.2	15.4
03	13.7	13.3	16.2	17.7	16.3	16.0	15.3	15.6	13.7	14.2	15.0	15.6	15.2
04	14.1	12.4	16.0	16.2	15.6	15.8	13.7	15.2	13.5	15.2	15.7	15.8	15.0
05	13.0	12.1	15.8	15.8	16.4	14.6	14.6	15.4	13.4	14.3	15.3	15.3	14.7
06	12.7	11.4	15.9	17.4	16.4	14.2	14.5	14.6	13.0	15.0	15.1	16.0	14.8
07	13.5	11.2	14.9	17.4	15.7	13.6	14.1	14.5	13.4	14.8	15.5	15.2	14.6
08	13.6	11.4	16.4	17.9	14.6	13.3	13.3	14.7	14.3	14.8	14.7	15.0	14.6
09	13.6	12.3	17.0	17.4	15.1	13.4	12.4	13.8	13.1	14.4	14.6	14.4	14.3
10	13.3	12.9	16.9	16.9	17.6	16.6	13.1	13.0	13.6	12.2	14.9	14.2	14.3
11	14.1	12.8	17.0	18.9	18.0	12.9	13.4	14.8	12.6	14.6	14.9	13.7	14.4
12	13.8	13.5	16.6	20.0	18.6	13.3	14.4	15.7	14.4	14.9	14.7	14.0	15.2
13	12.9	14.1	18.4	20.2	19.5	14.3	14.4	15.7	14.4	15.5	16.1	14.8	15.3
14	13.6	14.3	18.9	20.9	19.8	14.3	14.1	16.3	15.3	16.8	16.3	15.2	16.2
15	13.9	15.8	18.9	20.7	19.8	14.5	15.4	16.5	15.7	17.3	17.2	15.5	16.7
16	14.1	16.8	18.6	21.7	19.9	14.1	15.2	16.9	15.7	16.9	17.2	15.4	16.8
17	14.0	16.8	18.1	21.5	19.4	15.1	14.7	16.2	15.8	17.1	17.0	16.0	16.7
18	12.9	16.4	17.8	21.3	20.4	15.4	14.3	16.8	15.1	16.7	15.6	15.7	16.4
19	13.8	15.8	17.0	20.9	19.5	16.5	14.4	16.7	15.5	15.7	15.4	15.9	16.3
20	15.4	14.5	16.3	20.0	19.5	15.3	14.4	15.3	15.2	14.7	15.7	15.7	15.9
21	15.0	14.1	15.7	19.4	17.5	14.9	14.0	14.9	14.4	15.8	16.4	15.4	15.7
22	14.2	13.6	15.5	20.3	16.6	14.1	15.8	15.0	15.5	15.9	16.5	15.1	15.7
23	14.2	13.4	16.5	19.9	16.1	15.5	17.1	15.7	14.8	15.6	16.3	16.0	15.9
24	13.9	13.6	16.3	19.2	16.3	16.3	16.3	16.4	14.8	15.2	16.7	15.8	15.9
Mean	13.8	13.7	16.8	19.1	17.5	14.8	14.6	15.5	14.4	15.4	15.7	15.3	15.5
Good Hours	949	672	744	720	744	720	744	744	720	1115	1435	1449	
Missing Hours	539		0	0	0	0	0	0	0	373	5	39	
10.756 Hours of Good Data 956 Hours Missing 91.8% Data Recovered													

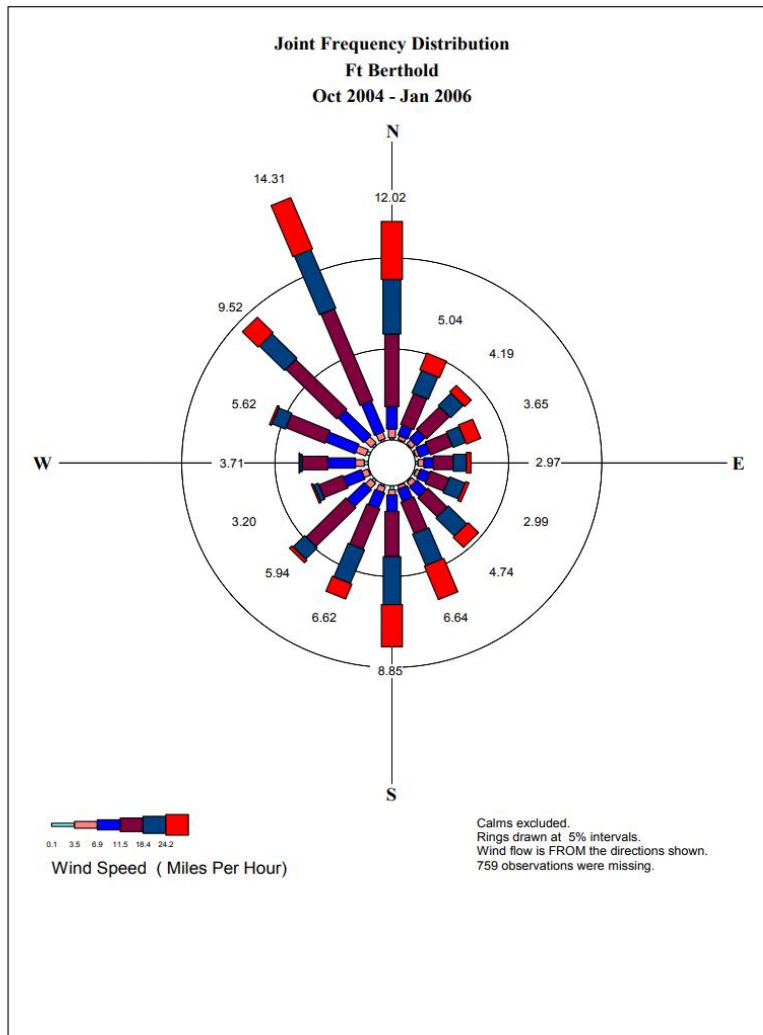
Table 3 - Mean Hourly Wind Speed at 40 Meters (Ch3)

MEAN HOURLY WIND SPEEDS													
FORT BERTHOUD INDIAN RESERVATION													
40M WIND SPEED (CH3) (MPH)													
10/01/04 - 01/31/06													
Hour	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
01	13.7	13.9	17.6	18.7	17.4	17.9	16.6	16.6	15.5	15.5	16.8	16.5	16.3
02	14.5	14.1	17.4	18.8	17.5	18.3	16.6	16.2	15.3	15.2	16.7	16.0	16.3
03	14.3	14.2	17.1	18.6	17.2	16.9	16.6	16.7	14.8	14.8	15.9	16.4	16.0
04	14.7	13.1	17.0	17.2	16.5	16.7	14.8	16.1	14.5	15.9	16.4	16.6	15.9
05	13.5	13.0	16.7	17.0	17.4	15.5	15.7	16.4	14.4	15.2	15.9	16.1	15.6
06	13.3	12.1	16.8	18.3	17.3	15.0	15.6	15.8	13.9	15.9	16.7	16.7	15.6
07	14.3	11.8	15.6	18.4	16.5	14.4	15.1	15.4	14.4	15.5	16.4	16.0	15.4
08	14.3	12.0	17.3	18.9	15.3	14.1	14.2	15.8	15.2	15.6	15.3	15.7	15.3
09	14.1	13.1	17.7	18.4	15.6	14.1	13.3	14.8	13.9	15.2	15.3	15.1	15.1
10	13.8	13.6	17.6	18.3	17.0	13.5	13.5	14.0	12.9	15.6	15.0	14.9	15.0
11	14.6	13.2	17.5	19.2	18.4	13.1	13.7	14.9	12.9	15.1	15.6	14.3	15.2
12	14.3	13.8	17.0	20.3	18.8	13.4	14.7	15.7	14.6	15.2	15.1	14.5	15.5
13	13.8	14.2	18.6	20.5	18.8	14.5	14.5	16.5	15.6	15.8	16.3	15.1	16.1
14	13.6	14.5	19.1	21.2	20.1	14.5	14.3	16.4	15.5	17.1	16.5	15.4	16.4
15	13.9	16.0	19.1	21.0	20.1	14.7	15.7	16.7	15.9	17.6	17.3	15.7	16.9
16	14.1	17.1	18.9	22.1	20.2	14.3	15.5	17.0	15.9	17.2	17.4	15.7	17.0
17	14.3	17.1	18.5	21.9	19.7	15.4	15.0	16.2	15.9	17.1	17.3	16.4	17.0
18	13.4	16.8	18.3	21.7	20.8	15.6	14.7	16.9	15.2	16.9	16.0	16.3	16.7
19	14.5	16.4	17.5	21.4	19.9	16.8	14.9	17.0	15.8	16.0	16.2	16.4	16.7
20	15.9	15.3	17.0	20.7	19.4	16.2	15.0	15.6	15.8	15.3	16.6	16.4	16.5
21	15.8	15.0	16.5	20.2	18.1	15.6	14.4	15.5	15.4	16.3	17.2	16.0	16.4
22	15.1	14.5	16.4	21.3	17.4	14.8	17.0	15.9	16.5	16.6	17.4	15.7	16.5
23	14.9	14.2	17.3	21.1	16.9	16.2	18.4	16.6	15.7	16.3	17.3	16.7	16.8
24	14.6	14.3	17.0	20.4	17.2	17.3	17.7	17.4	16.0	16.1	17.7	16.5	16.8
Mean	14.3	14.3	17.5	19.8	18.1	15.4	15.3	16.1	15.1	16.0	16.4	15.9	16.1
Good Hours													
	975	672	744	720	744	720	744	744	720	1115	1439	1449	
Missing Hours													
	513	0		0	0	0	0	0	0	373	1	39	
10,786 Hours of Good Data													
926 Hours Missing													
92.1% Data Recovery													

Table 5 – Mean Hourly Wind Speed at 50-Meters (Ch 1)

[illegible]

Figure 2- Wind Rose for the 50-Meter Level, Ft. Berthold, Three Affiliated Tribes



Other information, such as turbulence and meteorological hazards can be referenced from this report.