

# AWOS

## Automated Weather Observing System

### AWOS in Iowa

Automated Weather Observing Systems (AWOS) collect and disseminate weather data to various sources for the primary purpose of enhancing the safety of aircraft operations in Iowa's air transportation system.

A network of 43 AWOS systems is maintained by the Iowa Department of Transportation (Iowa DOT), and strategically located at airports around Iowa to provide both geographic and airport-specific coverage.

AWOS enhances aviation safety by providing critical airport weather information to pilots to be used for flight planning and in-flight decision making. The system provides real-time weather observations, including wind, visibility, current weather, sky conditions, temperature, dew point, altimeter setting, and remarks, such as density altitude and local airport conditions.

AWOS information can be accessed in a variety of ways, including:

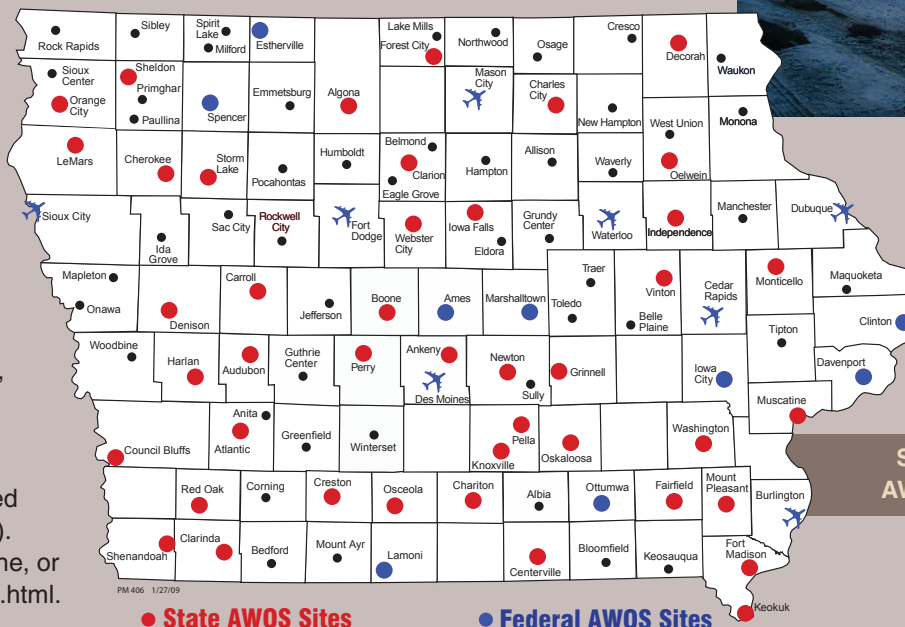
- Ground-to-air voice broadcasts over dedicated VHF radio frequencies.
- Voice broadcasts via dedicated local telephone lines.
- Computer terminals at airports with AWOS systems.
- On the Web at [www.dotweatherview.com](http://www.dotweatherview.com).

AWOS information is also disseminated nationwide through a system called the National Airspace Data Interchange Network (NADIN), making it available to air traffic control, flight service stations, the National Weather Service, and other weather reporting services.

The AWOS network maintained by the Iowa DOT is complemented by 17 additional systems around Iowa that are owned and maintained by the Federal Aviation Administration (FAA). Information from those systems is available via radio or phone, or on the Internet at [http://weather.noaa.gov/weather/IA\\_cc\\_us.html](http://weather.noaa.gov/weather/IA_cc_us.html).



Iowa Aviation Weather Reporting Sites



See the next page for  
AWOS locations in Iowa

## AWOS locations in Iowa

Airport	AWOS Voice	VHF Frequency
Algona - AXA	515-295-9634	118.475
Ames - AMW*	515-233-2611	132.025
Ankeny - IKV	515-965-5764	119.175
Atlantic - AIO	712-243-2748	127.825
Audubon - ADU	712-563-2101	118.075
Boone - BNW	515-432-9042	120.925
Burlington - BRL*	319-752-6246	118.025
Carroll - CIN	712-792-2306	118.025
Cedar Rapids - CID*	319-363-9021	124.150
Centerville - TVK	641-437-1213	123.775
Chariton - CNC	641-774-5645	125.525
Charles City - CCY	641-228-7069	125.525
Cherokee - CKP	712-225-1088	119.225
Clarinda - ICL	712-542-3345	132.025
Clarion - CAV	515-532-3515	126.575
Clinton - CWI*	563-243-8934	125.525
Council Bluffs - CBF	712-323-1542	126.575
Creston - CSQ	641-782-6286	124.750
Davenport - DVN*	563-388-2154	120.175
Decorah - DEH	563-382-2990	120.925
Denison - DNS	712-263-6558	119.950

Airport	AWOS Voice	VHF Frequency
Des Moines - DSM*	515-287-1012	119.550
Dubuque - DBQ*	563-557-2579	127.250
Estherville - EST*	712-362-7250	121.425
Fairfield - FFL	641-472-4548	132.025
Forest City - FXY	641-581-2347	123.925
Fort Dodge- FOD*	515-955-5490	118.775
Fort Madison - FSW	319-372-5147	120.925
Grinnell - GGI	641-236-9720	120.725
Harlan - HNR	712-744-4400	118.325
Independence - IIB	319-334-3879	118.275
Iowa City - IOW*	319-339-9491	128.075
Iowa Falls - IFA	641-648-2469	120.425
Keokuk - EOK	319-524-7884	118.375
Knoxville - OXV	641-828-8406	119.775
Lamoni - LWD*	641-784-8122	120.000
Le Mars - LRJ	712-546-8439	125.525
Marshalltown - MIW*	641-752-2339	128.325
Mason City - MCW*	641-357-8490	120.300
Monticello - MXO	319-465-6155	119.275
Mount Pleasant - MPZ	319-385-4926	119.325
Muscatine - MUT	563-263-0902	119.775

Airport	AWOS Voice	VHF Frequency
Newton - TNU	641-791-3302	132.275
Oelwein - OLZ	319-283-3518	119.675
Orange City - ORC	712-737-3193	127.825
Osceola - I75	641-342-1422	120.975
Oskaloosa - OOA	641-933-4312	118.625
Ottumwa - OTM*	641-684-9164	124.175
Pella - PEA	641-628-3459	118.875
Perry - PRO	515-465-2269	118.000
Red Oak - RDK	712-623-3220	119.775
Sheldon - SHL	712-324-5159	119.775
Shenandoah - SDA	712-246-4021	125.525
Sioux City- SUX*	712-255-6474	119.450
Spencer - SPW*	712-262-8885	126.625
Storm Lake - SLB	712-732-2301	118.525
Vinton - VTI	319-472-3122	120.075
Washington - AWG	319-653-4149	127.825
Waterloo - ALO*	319-233-8984	120.650
Webster City - EBS	515-832-2794	127.825

\* AWOS system owned and maintained by the FAA.

For state AWOS information, visit  
[www.dotweatherview.com](http://www.dotweatherview.com).

## What every pilot should know about AWOS

### Wind

- Readings are taken every second and a running 2-minute average is updated every 5 seconds.
- Wind speeds of less than 3 knots are reported as calm.
- If the difference between the highest 5-second average and 2-minute average exceeds 5 knots, gusts are reported.
- Wind direction is reported from the nearest degree magnetic heading.

### Visibility

- Readings are taken every 15 seconds and averaged over a 10-minute period.

### Present weather

- A precipitation sensor samples every 15 seconds.
- Temperature and visibility measurements are used to determine precipitation type.

### Sky condition

- Readings are taken every 30 seconds and averaged over a 30-minute period.
- Ceiling measurements (above ground level or AGL) are rounded as follows.  
Nearest 100' up to 5,000' AGL  
Nearest 500' from 5,000' to 10,000' AGL  
Nearest 1,000' above 10,000' AGL

### Temperature and dew point

- Four, 1-minute averages are used to determine the temperature.

### Altimeter (barometric pressure)

- Pressure sensors take readings every 10 seconds; and a 1-minute average is calculated.

### Remarks

- A calculated density altitude report is provided, if density altitude is greater than 1,000' above the airport's field elevation.
- Occasionally, airport managers will provide recorded remarks regarding Notice to Airmen (NOTAM) or local airport conditions.

Reporting stations are calibrated on a regular basis to ensure reliability and accuracy. As with any electronic device, care must be used when interpreting data. By knowing how AWOS data is collected, a pilot can better understand the information they are receiving.

Any questions regarding AWOS systems in Iowa may be directed to the Iowa DOT's Office of Aviation at 515-239-1468.

For information or comments contact:



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Office of Aviation  
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Ames, IA 50010  
515-239-1468  
FAX: 515-233-7983  
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