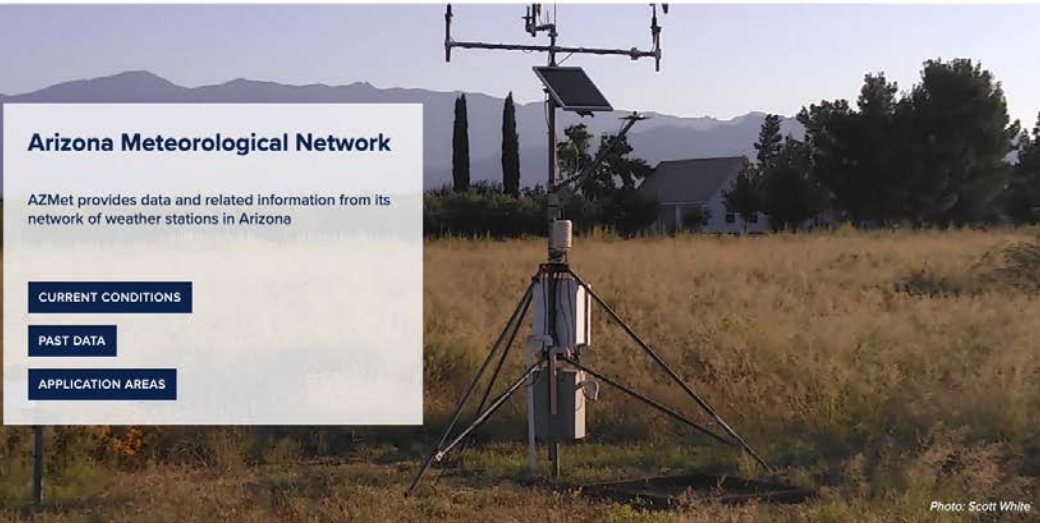




An Overview of the Arizona Meteorological Network

Jeremy Weiss, PhD AZMet Program Manager jlweiss@arizona.edu



Network Status

Ongoing: Occasional false non-zero precipitation amounts at Phoenix Encanto and Phoenix Greenway due to golf course irrigation
April 8, 2024: Maintenance at Phoenix Greenway
April 15, 2024: Maintenance at Roll, Sahuarita

Network Updates

March 6, 2024: Launch of the new AZMet website at azmet.arizona.edu
February 16, 2024: New data tool to [calculate cumulative values of heat variables](#)
February 15, 2024: New data tool to [calculate cumulative values of chill variables](#)
February 1, 2024: New location for the [Tucson station](#) at the Campus Agricultural Center

[Sign up for emails](#) about the latest AZMet progress, including details on new stations, website features, and data tools.

Highlights from April 17, 2024

Temperature

Precipitation

Wind

Humidity

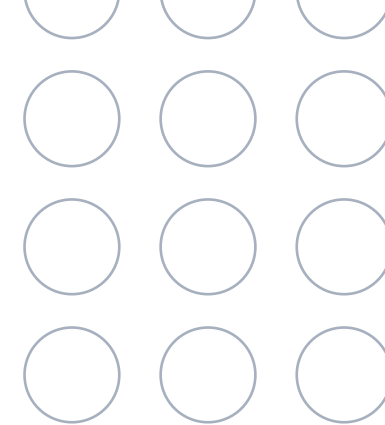
Dewpoint

Evapotranspiration

Highest	Lowest
Ft Mohave CA 96.6 °F	San Simon 42.4 °F
Yuma South 95.7 °F	Safford 40.3 °F
Roll 94.8 °F	Willcox Bench 39.9 °F
Mohave-2 93.6 °F	Bonita 38.8 °F
Yuma N.Gila 93.4 °F	Payson 37.4 °F

Click or tap on station names to view station-level summaries. Values are based on provisional data.

NETWORK-WIDE SUMMARY OF YESTERDAY



New AZMet website

azmet.arizona.edu



Arizona Meteorological Network

AZMet at Present

Resources, part 1

- 30 active stations across western, central, and southern Arizona
- Measurements of air and soil temperature, humidity, wind direction and speed, precipitation, and solar radiation
- Calculations of chill hours, cotton heat stress, dewpoint, evapotranspiration, heat units, and vapor pressure
- Information on cotton growth stages, crop and turf water use, wine grape ripening conditions*

Station reliability

- Quarterly sensor calibration and additional clean-and-inspect visits
- Preventative replacement and upgrades of sensors and equipment



Resources, part 2

- Real-time observations updated every 15 minutes
- Database of hourly and daily values of both measured and calculated variables, with daily and monthly summaries and reports
- Real-time observations, past data, and summaries available on the new AZMet website: azmet.arizona.edu

Data quality and access

- Manual and automated checks for data validity, station communications and power, and faulty sensors
- A new, secure data system for collection, processing, storage, backup, and access (API, or application programming interface)

AZMet at Present

Recent highlights, part 1

- Developed an R package for programmatic access to the AZMet API:
uace-azmet.github.io/azmetr
- Increased frequency of data collection from stations, which helped AZMet join the National Mesonet Program
- Added new automated quality checks of data coming in from the stations and into the database



Current and upcoming activities

- Finish standardization of stations
- Modernize real-time data system and online resources
- Build new tools for checks on data quality and station communications and power
- Develop new online resources for station-level data, tools, and information



Recent highlights, part 2

- Improved station communications with cellular signal and tower surveys and antenna upgrades
- Began measurements of two-minute sustained wind speeds at all network stations
- Began preventative replacement program for rain gauges

Who we are

- Jeremy Weiss, AZMet Program Manager
- Scott White, AZMet Research Professional
- Craig Boesewetter, CCT Senior Web Designer
- Matt Harmon, CCT Senior Web Developer
- Eric Scott, CCT Scientific Programmer



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