

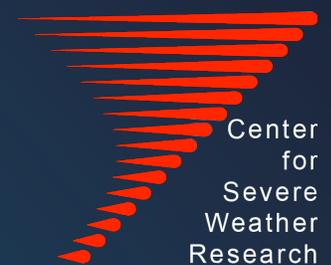
## CSWR Weather Pods

The Center for Severe Weather Research (CSWR) operates a large array of ruggedized quickly deployable weather stations called Weather Pods. The pods can be deployed inside, around, or ahead of almost any meteorological or man-made phenomena including, supercells, mesoscale boundaries, hurricanes, lake effect snow bands, rainbands, microbursts and wildfires in order to observe thermodynamic, wind, and other parameters. The Weather Pods can be deployed where manned deployments are unwise due to remoteness and/or hazardous conditions, inside tornadoes, and on seawalls which might be flooded.

The CSWR Weather Pod array comprises ~20 individual pods, outfitted with instrumentation masts which extend to 1 or 2 m above ground level with data loggers and batteries enclosed above ground level. The pods weigh 40-50 kg and the wide steel bases provide stability even in extreme winds. This weight also permits quick deployment by two-person crews. Typical measurements include temperature, relative humidity, wind, pressure, and GPS location. Instrumentation can be customized for each mission. For example, some Pod stations host Parseval Disdrometers. About 5 pods can be deployed by each CSWR Mobile Mesonet.



REQUESTABLE  
FACILITY



Center  
for  
Severe  
Weather  
Research



## WEATHER PODS SCIENCE AND RESEARCH

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The Weather Pod network provides an adaptable array of quickly deployable weather stations capable of targeted high-density observations in a variety of phenomena. The pods are ruggedized and suitable for deployment to harsh and or potentially hazardous locations unsuitable for manned deployments. Standard meteorological instrumentation is provided and can be customized. PI provided instrumentation such as Disdrometers, and other sensors, can often be hosted at the Pod deployments.

## TYPICAL RESEARCH APPLICATIONS

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Weather Pods can be deployed ahead of hazardous weather, such as tornadoes, derechos, microbursts, and hurricane eyewalls at sites where manned observation is impractical. Pods can be deployed in regions where flooding or other hazards are not likely, but are possible, exceeding the probability limits considered safe for manned instrumentation. Pods can augment existing instrumentation to extend the aerial extent or increase the density of observations. They can provide near-ground boundary conditions for radar-based analyses. CSWR Mobile Mesonets can carry five CSWR pods each. One or two pods can be carried on the back of DOW during ferrying. Weather Pods can host PI supplied or other CSWR instrumentation such as disdrometers.

## WEAHTER POD SPECIFICATIONS

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- » 1-2 m AGL masts
- » RM Young 5103 and Gill ultrasonic anemometers
- » T and RH sensors with heat shielding, passive aspiration
- » customized instrumentation, disdrometers, etc.
- » Campbell 1000X data loggers
- » GoPro and/or waterproof Sanyo video cameras

## REQUEST PODS FOR HANDS-ON EXPERIENTIAL EDUCATION

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Weather Pods can be requested to aid in any level of education. A pod or multiple pods can be deployed on location for several weeks in support of a class with students designing experiments, operating the mesonet, and analyzing the collected data. Often a Weather Pod or two is requested along with a DOW for educational deployments. For more information on requesting facilities for educational deployments: <http://www.eol.ucar.edu/ed-requests>

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### + ON THE WEB

<http://www.eol.ucar.edu/requestfacilities>



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