

# In-Cloud Icing and Large-Drop Experiment (ICICLE) ASOS 5-Minute Data Set

## 1.0 Contacts

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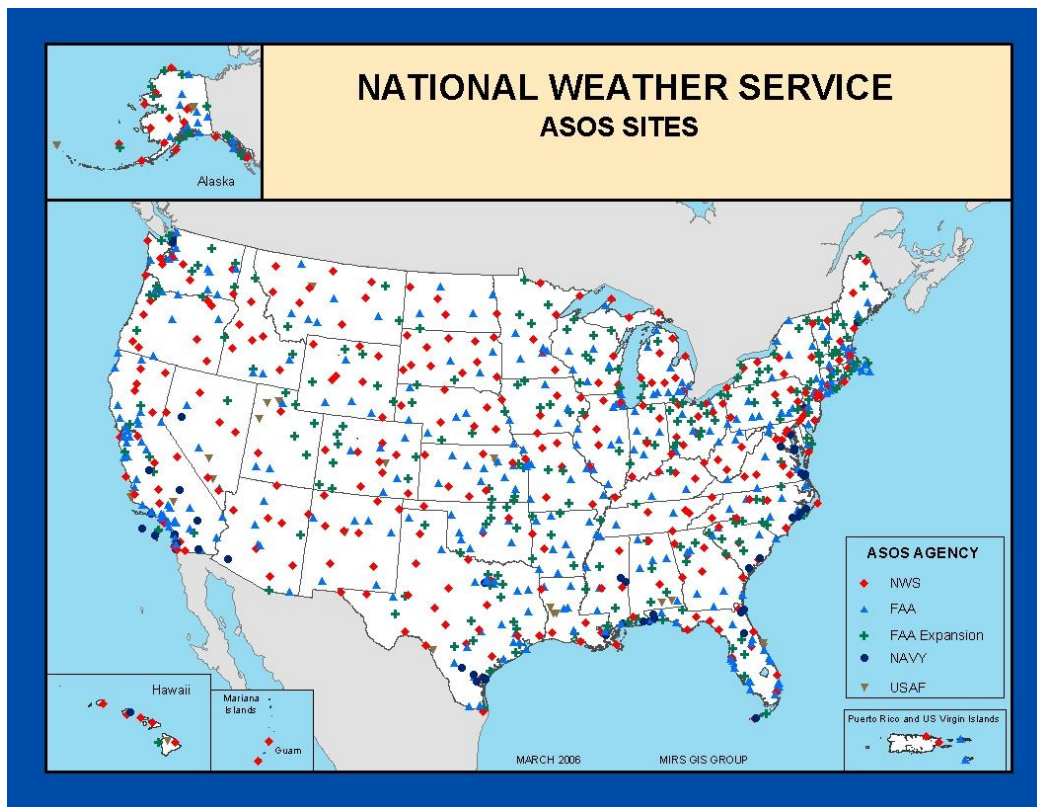
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## 2.0 Dataset Overview

This data set contains the 5-minute resolution observations from the Automated Surface Observing System (ASOS) network of ~860 stations (Fig. 1) in the contiguous United States. These data were collected and archived by the National Centers for Environmental Information (NCEI; formerly the National Climatic Data Center).



**Figure 1.** Map of ASOS locations (only those in the contiguous US are included in this data set).

### **3.0 Project Overview**

The **In-Cloud ICing and Large-drop Experiment (ICICLE)** is a field program where the FAA and other agencies worked with the National Research Council of Canada (NRC) to fly the NWC Convair-580 research aircraft into a broad spectrum of icing conditions (freezing drizzle, freezing rain, "small drop" icing, high liquid water contents, and mixed phase) with the goal of developing the methods for diagnosis and forecasting of aircraft icing at the surface and aloft to reduce the rate of aircraft icing related accidents and fatalities. to understand how environmental factors characteristic of the southeastern United States affect the formation, intensity, structure, and path of tornadoes in this region. Operations occurred from 18 January to 8 March 2019 based out of Rockford, Illinois. Further information on ICICLE is available at the VORTEX-SE web site at NCAR/EOL: [https://www.eol.ucar.edu/field\\_projects/icicle](https://www.eol.ucar.edu/field_projects/icicle) and information on the ICICLE deployments is available at the ICICLE Field Catalog: <http://catalog.eol.ucar.edu/icicle>.

### **4.0 Data Format Description**

The 5-minute ASOS data are in monthly tar.gz files follow the naming convention:

ASOS\_5min\_YYYYMM.tar.gz

6401 signifies 5-minute data

YYYYMM is the four digit year and two digit month

Each tar file contains a file for every station that follows the naming convention:

64010KWST201901.dat

6401 signifies 5-minute data

KWST is the call sign for the station

201901 is the four digit year and two digit month

The file format for the 5-minute ASOS data can be found in the td6401b.pdf file that is included with this data set. At the time this readme was created this document was available from NCEI at:

<http://www1.ncdc.noaa.gov/pub/data/documentlibrary/tddoc/td6401b.pdf>

### **5.0 Data Quality Control Procedures**

These data are provided as is, no quality control procedures were conducted by NCAR/EOL.

Information on the ASOS algorithms and sensor specifications is available in the ASOS\_Users\_Guide\_199803.pdf and ASOS\_Users\_Guide\_Appen.pdf files that are included with this data set. At the time this readme was created these documents were also available from the National Weather Service at: <http://www.nws.noaa.gov/asos/pdfs/aum-toc.pdf> and <http://www.nws.noaa.gov/asos/pdfs/appen.pdf>

## **6.0 References**