

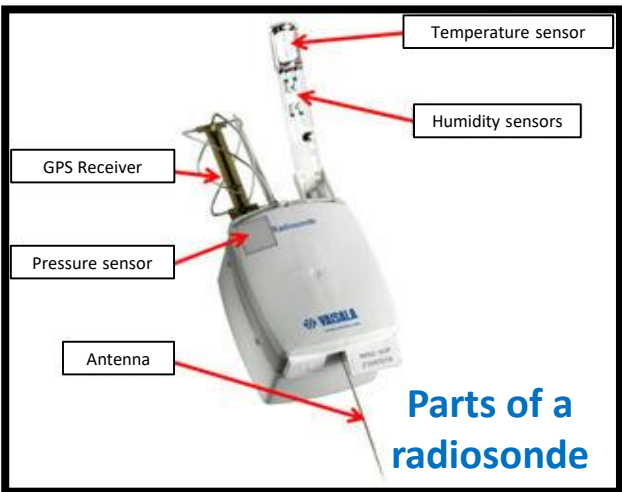
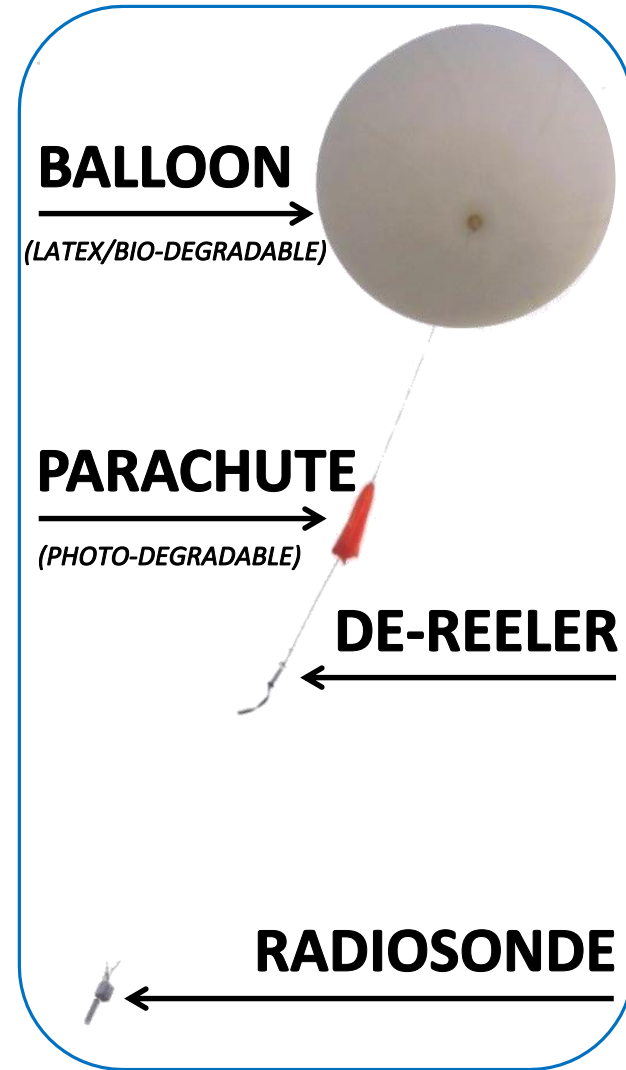


↑ Balloon ready to be launched after being filled with Helium.

Released twice a day, at:  
 11Z (6 AM EST / 7 AM EDT)  
 23Z (6 PM EST / 7 PM EDT)



Releasing the balloon slowly (above) from the roof of the NWS Key West building (below).



The National Weather Service (NWS)

Upper-Air Observations Program is

managed by the Office of

Observations (OBS), which is part of

NWS Headquarters located in Silver

Spring, Maryland. Upper-Air

Program staff oversee the operation

of 92 radiosonde stations in North

America and the Pacific Islands. It

also supports the operation of 10

stations in the Caribbean.

Radiosondes provide upper-air data

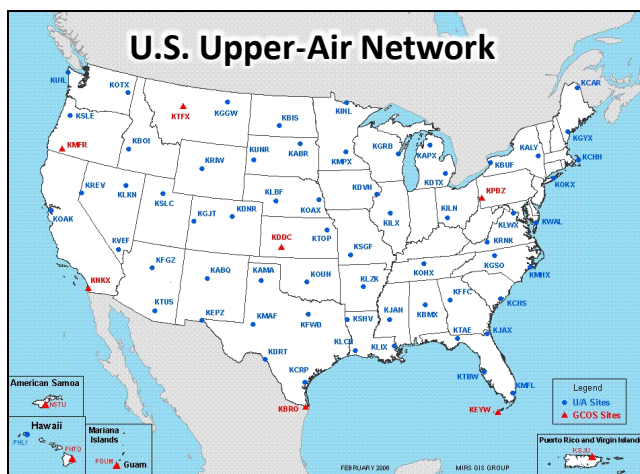
that are essential for weather

forecasts and research. OBS staff are

also involved in the development,

testing, and implementation of new

radiosonde ground systems.



## Frequently Asked Questions

**1) What is a radiosonde and how are the data it provides used?**

NWS has been using balloon-borne radiosonde instruments since the late 1930s. The data they provide are critical for local weather forecasting, computer models, and research.

**2) What kind of data does it provide?**

Radiosondes provide pressure, temperature, and relative humidity data. Tracking it from a ground station allows wind data to be calculated based off of its GPS position.

**3) How fast and how high do the balloons go?**

The balloons ascend around 1,000 feet per minute, to routine heights of around 100,000 feet! By the time the balloon bursts, it has grown from 5 feet in diameter at the time of release to around 20-25 feet wide, the size of a small house!

**4) I found a radiosonde. Does the National Weather Service want it back?**

If you found a radiosonde, please follow the instructions on the mailing bag that can be found inside of the plastic antenna. Some can be refurbished, saving on the cost of a new one!

**5) How are radiosonde data checked for quality?**

Quality control of radiosonde data is done at the upper-air station and national centers such as the NOAA National Centers for Environmental Prediction (NCEP) and at the National Centers for Environmental Information (NCEI).

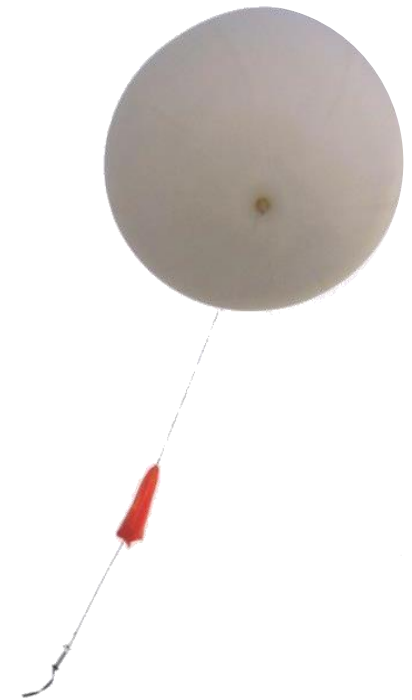
**6) Why does NWS still use radiosondes? Isn't there another observing system available that can provide the same data?**

No single observing system (e.g., satellites, aircraft, or ground-based sensors) can match the vertical data resolution (about 5 meters) and height coverage obtained with radiosondes.

**7) How much does a radiosonde release cost?**

Each release costs approximately \$200.

# Weather Balloons!



**National Weather Service  
Key West**



[weather.gov/key](http://weather.gov/key)