

Sources of weather data.



Ships-usually have a weather station attached to them. They record and send data in the same way as buoys.



Satellites- there are two types-

Geostationary- these are in a fixed position in the atmosphere and move at the same speed as the Earth.

Polar- these travel around the Earth about 14 times a day, therefore they can collect global data from different places on a daily basis.

Radiometers collect colour images of clouds, **scatterometers** use microwaves to detect the speed and direction of the wind.



Land Based Weather Stations-record temperature, precipitation, pressure, wind direction and speed, and cloud cover every synoptic hour (every three hours).



Weather Buoys-stationed in mid-ocean locations, they transmit weather data via satellite for use in weather forecasting and climate studies. They can be moored (fixed position) or drifting, allowed to move in the ocean currents.



Weather Balloons-allowed to rise up into the atmosphere they collect temperature, pressure and wind speed data via a digital recorder, the data is sent back to a computer on the ground.

Image sources- all creative commons

Weather balloon	http://en.wikipedia.org/wiki/File:NWS_weather_balloon_station,_Riverton_WY.jpg
Stevenson Screen	http://en.wikipedia.org/wiki/File:Stevenson_screen_exterior.JPG
Weather buoy	http://en.wikipedia.org/wiki/File:NOAA-NDBC-discus-buoy.jpg
Weather ship	http://en.wikipedia.org/wiki/File:Polarfront.jpg
Weather satellite	http://en.wikipedia.org/wiki/File:GOES_8_Space0255.jpg