

Automatic Weather Station



The Automatic Weather Station is a self contained, data logging system for measuring atmospheric pressure, wind speed, wind direction, air temperature, relative humidity and amount of rainfall.

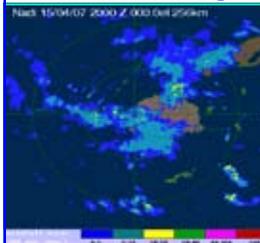
Radar



In Meteorology, radars serve a dual role:

1. Weather watch.
2. Wind find.

Nadi Radar Image



Wind Find

In this mode the radar is used in to track an aluminum target tethered beneath a balloon as it ascends through the atmosphere.



At designated time intervals, the balloons location in space are recorded and then simple trigonometric calculations are made to determine the average wind through that level of atmosphere

Weather Watch

The power returning to the radar is processed and displayed to indicate target " reflectivity". Thus, a weather radar system estimates the efficiency with which targets in the atmosphere return the energy transmitted by radar. The intensity of returned echoes, hence precipitation, is displayed on the Ropic system as areas of different colors.

Weather Satellite

Satellite Receiver

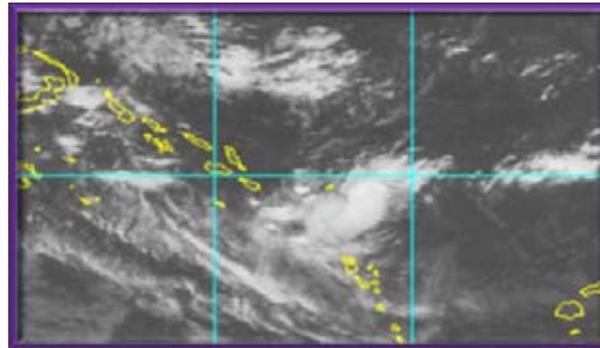


Satellite



A weather satellite is a type of satellite that is primarily used to monitor the weather and climate of the Earth. Satellites can be either polar orbiting, seeing the same swath of the Earth every 12 hours, or geostationary, hovering over the same spot on Earth by orbiting over the equator while moving at the speed of the Earth's rotation.

Satellite Image



Striving to meet your daily weather information needs monitoring the climate around you...

Weather Services	Climate Services
<ul style="list-style-type: none"> • Public Weather Forecast Info • Marine Weather Forecast • Aviation Weather Forecast • Tropical Cyclone Warning • Other Severe Weather Warning • Weather for Search and Rescue 	<ul style="list-style-type: none"> • Climate Data and Info • Seasonal Rainfall Forecast • Advise on Climate Change and Variability (El Nino & La Nina) • Drought Prediction & Monitoring • Information on Sea Level Change

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FIJI METEOROLOGICAL SERVICE



The Fiji Meteorological Service (FMS) functions as a Department under the Government of Fiji and has the responsibility to provide essential weather, climate and, hydrological service to the country. It also serves on a regional scale providing weather forecasting and tropical cyclone warning services to many other countries and a vast area of the tropical South-West Pacific.

Weather Stations around Fiji

Fiji Meteorological Service has Synoptic, Climatological, Rainfall and Automatic Weather Stations (AWS) which provide weather observations.

1. **Synoptic station** reports are compiled every three hours in an international numerical code by staff of the Fiji Meteorological Service. The weather stations are vastly networked, and are distributed over the main islands of the Fiji group as well as other remote islands.
2. **Climatological Stations** provide more detailed information on elements like temperatures (air/soil), humidity, rainfall, radiation, sunshine hour and wind. The stations are run by staff of the Fiji Meteorological Service and others are staff of other government departments, or other organizations.
3. **The Automatic Weather Station (AWS)** is defined as a station which automatically transmits or records observations obtained by measuring instruments. The data derived from AWS includes the date, time of observation, station indicators, wind speed, direction, temperature, relative humidity, MSL pressure and rainfall data.
4. **Rainfall Stations** provide rainfall data that are measured every day at 9.00am. These stations are manned by workers of either corporate organizations, or other government de-

Instruments Used at Fiji Meteorological Service

Stevenson Screen



Stevenson screen is an enclosure to shield meteorological instruments against precipitation and direct heat radiation from outside sources, allowing air to circulate freely around. It holds instruments like thermometers, hygrometers, and thermographs.

Earth Thermometers



This thermometer is used to measure temperature readings at various depths below the surface. Standards depths are 5cm, 10cm, 20cm, 30 cm and 50cm.

Grass Minimum Thermometer



The grass minimum thermometer is used to record the lowest temperature when exposed just above a grass surface. Black shield is fitted over the outer sheath to prevent spirit in the tube vaporizing.

Rain Gauge



Rain gauge is a type of instrument used to gather and measure the amount of liquid precipitation over a set period of time. This standard manual rain gauge has a funnel, diameter of 5 inches.

Tilting Siphon Rain gauge



The tilting siphon recording rain gauge has been the standard type of recording rain gauges used by Fiji Meteorological service in the climate network to determine the duration and intensity of rainfall.

Evaporation Meter



Measures evaporation from free standing water, and in millimeters. Water is either added or removed from the pan through the use of a measuring can till the tip of the fixed point coincides with the surface of the water in the pan

Barometer



A barometer is a meteorological instrument used to measure atmospheric pressure. It can measure the pressure exerted by the atmosphere by using water, air, or mercury.

Sunshine Recorder



This instrument records duration of sunshine by a trace scorched on a special card by the burning action of the sun rays focused on the card by a glass sphere. The cards fit into grooves in the metal bowl of the sunshine recorder.

Weather Balloon



A weather balloon filled with hydrogen gas is released every day at 11am and 11pm. It carries a radiosonde which sends back information on atmospheric pressure, temperature, and humidity.

Barograph



A barograph is a recording aneroid barometer. It produces a paper or foil chart called a barogram that records the barometric pressure over time.

Anemometer and wind vane



Anemometer measures the wind speed.

Wind vane measures the wind direction.

Radiosonde



The standard method of obtaining values of temperature, pressure and humidity at different levels in the atmosphere is by the use of a balloon carrying a small radio transmitter known as a radiosonde.