

Florence W. Van Straten Biography

Florence W. Van Straten

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Biography

Florence Van Straten made significant contributions to the collection of meteorological information.

The daughter of Dutch immigrants, Van Straten received a Ph.D. in physical chemistry at the Massachusetts Institute of Technology in 1933. During World War II, she enlisted in the United States Navy where she became a weather forecaster. She helped develop methods of using weather phenomena, such as storms, in the planning of ship maneuvers and carrier-based airplane flights.

In 1946, she became a civilian adviser to the Chief of Naval Operations. During the decade that followed, she went on to make the contributions for which she is known.

She was instrumental in the development of the rocketsonde, which launched a data-collecting package, called a sonde, into the upper atmosphere, which was then parachuted back to earth. It was at her suggestion that meteorological data be used in planning the trajectory of rocket launchings.

She also developed the constant-altitude balloon. The deflated weather balloon was carried aloft with its sonde by a bubble of helium. The balloon inflated as the atmosphere became thinner until it was full, at which point its altitude remained constant.

Also to her credit was the floating weather station, called NOMAD, the National Oceanographic Meteorological Automatic Device, which could be anchored to 3,667 yd (3,337 m)

She invented the weather instrument shelter, that protects sensitive instruments from the elements, and the tipping bucket rain gauge which tipped with every 1/100 inch of precipitation and automatically recorded the action at the station.

Florence Van Straten was responsible for bringing the weather station to its modern day standard.