

History of the Marine Weather Services Program in the National Weather Service

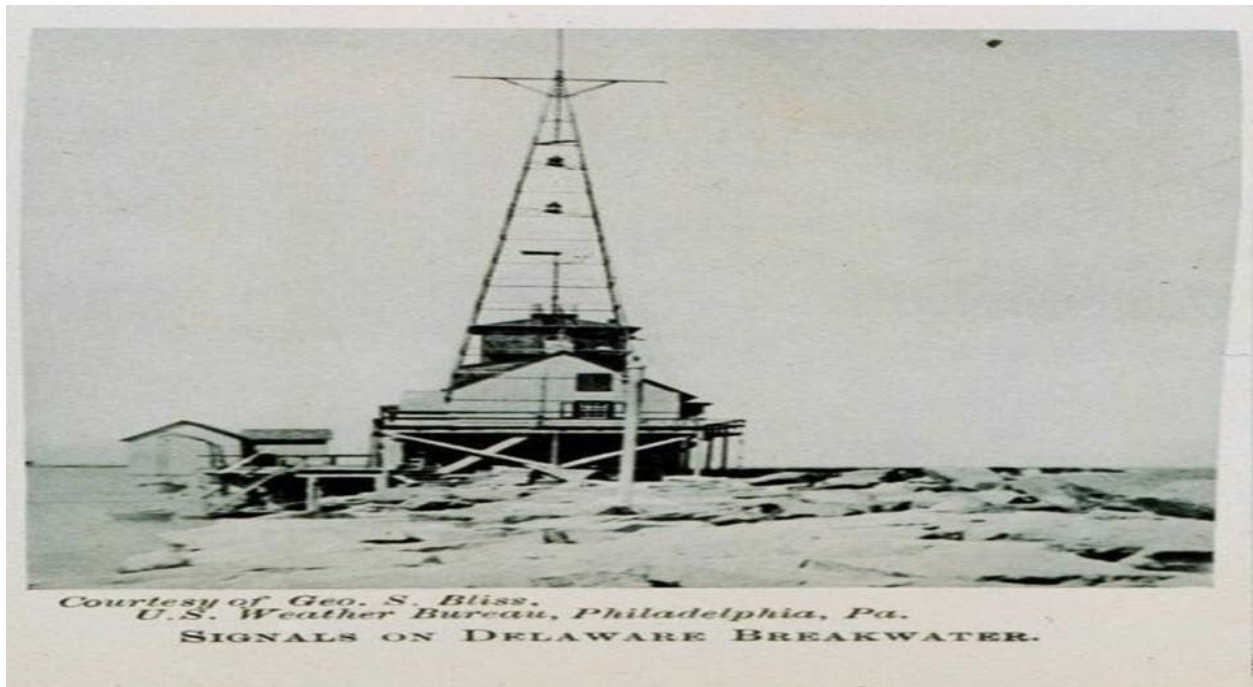
1873: A Marine weather program began on January 23, 1873 at the United States Army Signal Service's Division (US Army Signal Corps today) in New Orleans, Louisiana. On that day, the Signal Observer transcribed meteorological data from the ship logs of those arriving in port.

1901: Official three-day marine weather forecasts for the North Atlantic began in 1901 (from U.S. Navy).

1904: The responsibility of marine forecasting was transferred to the Weather Bureau in 1904.

1905: The SS New York transmits the first wireless weather report received on ship at sea.

1912: As a result of the Titanic disaster, an international ice patrol is established, conducted by the Coast Guard.



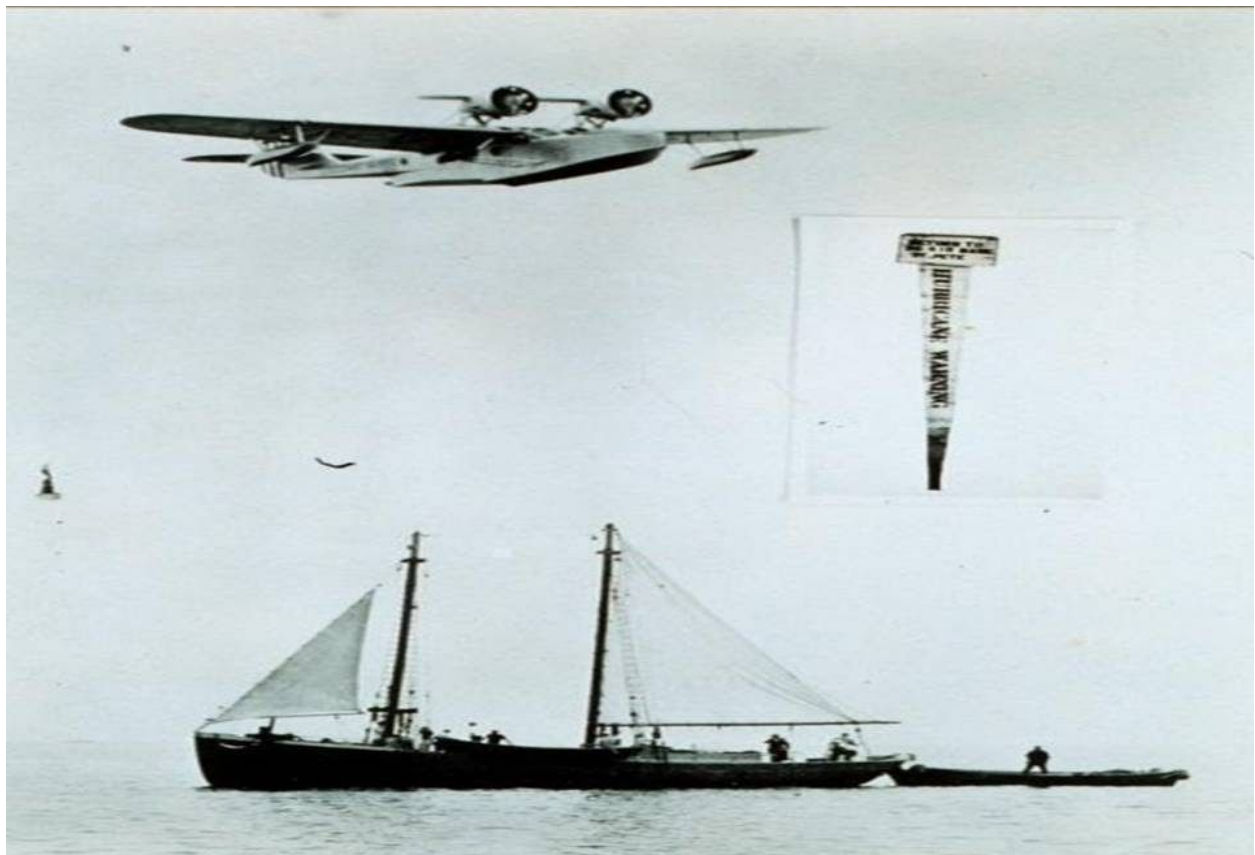
Picture 1 - Signal Tower for Storm Warning Flags used by day, lanterns by night. Used to warn mariners In: "The Boy and the U.S. Weather Men", 1917, p.236. Photo Courtesy of U.S. Weather Bureau circa 1910.

1914: In response to the Titanic disaster, The Safety of Life at Sea (SOLAS) Convention was established. The SOLAS Convention, generally regarded as the most important of all international treaties concerning the safety of merchant ships, required nations with established meteorological services to issue and broadcast meteorological forecasts and warnings for all of the world's open oceans.

1926: Weatherfax/Radiifax weather charts began being broadcast. The earliest broadcasts of weather maps via radiofacsimile appear to have been made in 1926 by American inventor Charles Francis Jenkins in a demonstration to the NAVY. Jenkins is often credited with the invention of the motion picture and later established the first U.S. TV station, W3XK in Washington D.C. and later, Wheaton, MD. RCA and the U.S. Weather Bureau conducted further tests and began cooperative efforts in 1930. Even in today's digital world, Radiifax weather maps remain a popular method for mariners to receive weather information; especially in the offshore and high seas areas.

1929: Second version of the SOLAS Convention was created.

1935: A hurricane warning service was established.



Picture 2 - Coast Guard aircraft used to drop hurricane warnings to sponge fishermen off the west coast of Florida. Photo Courtesy of the National Weather Service circa 1938.

During this decade, the NWS began creating gridded marine forecasts and making them available to mariners. These products are stored in the National Digital Forecast Database (NDFD) and allow mariners to see marine forecasts in a digital and graphical representation.

The Nearshore Wave Prediction System (NWPS) is developed and provides on-demand, high-resolution nearshore wave model guidance to U.S. coastal WFOs, triggered in real time by forecast wind grids prepared and submitted by the individual offices.

<https://polar.ncep.noaa.gov/nwps/>

The Coastal Hazards: Total Water Level Viewer tool is developed and it displays experimental total water level and coastal change model guidance for select regions of the U.S. coastline using NWPS output and local beach characteristics

2020: A New satellite system (developed by Iridium), SafetyCast, will become operational. The system is similar to InMarsat's SafetyNet and will give mariners over the high seas another option for receiving Maritime Safety Information and improve the ability to receive MSI in the Arctic and Antarctic regions.

For more about Marine Weather Forecasting in the National Weather Service, see this article in the December 2014 edition of the Mariners Weather Log:

Marine Weather Forecasting in the NWS

<https://www.vos.noaa.gov/MWL/201412/forecasting.shtml>