

NOAA Ship FAIRWEATHER



The NOAA Ship *Fairweather* is named after Mt. Fairweather, the tallest peak in the Fairweather Range at 15,300 feet above sea level, located in Alaska's Glacier Bay National Park and Preserve along the US-Canada border. Mt Fairweather was named by Captain Cook in 1778 presumably due to the good weather encountered at the time of his visit.

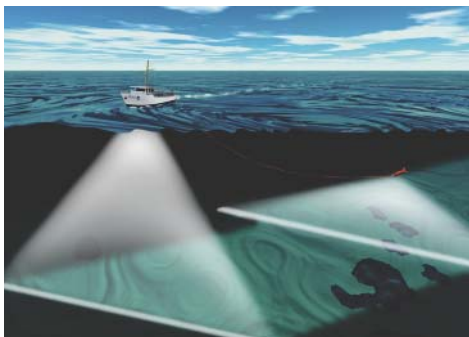
NOAA Ship *Fairweather* is one of the most modern survey vessels in the world, having undergone a complete refitting in 2004. The ship is designed and outfitted for conducting coastal hydrographic surveys in support of NOAA's nautical charting program. In addition, the ship can support high precision on-shore surveys and fisheries and oceanographic research. *Fairweather* primarily operates in Alaskan coastal waters and is homeported in Ketchikan, Alaska.

Fairweather is equipped with precision echo sounders, data acquisition and processing computers, Differential Global Positioning System (DGPS) receivers, high speed and high resolution side scan sonars, bottom samplers, tide gauges and saltwater sound velocity profilers. *Fairweather* uses multibeam echo sounders and side scan sonars to

map the ocean bottom, determine bottom characteristics and identify areas of interest to navigators, biologists and geologists. These units allow for 100% bottom search in project areas.

Fairweather is designed to carry four hydrographic survey launches, two small work boats and a fast rescue boat. These boats provide the capability to survey in shallow water, support shore stations, tend scuba divers and meet all SOLAS and USCG regulations.

The concurrent use of several multibeam systems provides the ability to cover larger survey areas quickly and efficiently. High-speed, large capacity computers aboard *Fairweather* process the massive amounts of data collected by the launches and the ship. On-board production of high-resolution three dimensional terrain models of the ocean floor allow hydrographers to quickly analyze the bottom and determine hazards to navigation or other areas of interest.



Use of multibeam echo sounder and side scan sonar provides for complete bottom search



Survey technicians processing bathymetric data collected by the launches and ship

Ship Specifications

Length (LOA): 231 ft.
Breadth: 42 ft.
Draft: 15.5 ft.
Hull: Welded steel/Ice strengthened
Displacement: 1,800 tons
Gross tonnage: 1,591 tons
Cruising Speed: 12 knots
Range: 6,000 nm
Endurance: 22 days
Hull Number: S 220
Call Letters: WTEB
Commissioned Officers: 8
Licensed Engineers: 4
Crew: 23
Scientists: 23
Launched: March 1967
Delivered: January 1968
Commissioned: October 1968
Builder: Aerojet-General Shipyards, Jacksonville, Florida
Designer: Maritime Administration



Shore party establishes a Differential GPS station in Yakutat Bay, Alaska



Diver assists with the installation of a tide gauge in Tracy Arm, Alaska

NOAA Marine and Aviation Operations

Since NOAA's beginning, NOAA ships and aircraft have played a critical role in the collection of its oceanographic, atmospheric, hydrographic, fisheries and coastal data. This fleet of platforms is managed and operated by NOAA Marine and Aviation Operations (NMAO), an office made up of civilians and officers of the NOAA Commissioned Corps, the Nation's seventh service. In addition to research and monitoring activities critical to NOAA's mission, NOAA ships and aircraft provide immediate response capabilities for unpredictable events. Most recently, NOAA aircraft provided support to the World Trade Center and Pentagon recovery and clean-up efforts by mapping the wreckage using remote-sensing technology. NOAA survey ships found the wreckage of EgyptAir Flight 990, TWA Flight 800 and John F. Kennedy Jr.'s aircraft. Our ships, aircraft and personnel have also conducted damage assessments after hurricanes and major oil spills such as the *Exxon Valdez*, Persian Gulf War and *New Carissa*.

NOAA's fleet of research and survey ships is the largest fleet of federal research ships in the Nation. The fleet ranges from large oceanographic research vessels capable of exploring the world's deepest ocean, to smaller ships responsible for charting the shallow bays and inlets of the United States. The fleet supports a wide range of marine activities, including fisheries research, nautical charting and mapping, and ocean and climate studies. Many of NOAA's research vessels are unique in their ability to conduct scientific research.

NOAA's fleet of fixed-wing aircraft and helicopters operate throughout the world, providing a wide range of capabilities, including hurricane prediction research, marine mammal and fisheries assessment, and coastal mapping. NOAA aircraft are modified to carry scientists and specialized instrument packages to conduct research for NOAA's missions.

NOAA Commissioned Officer Corps

The NOAA Corps is one of the seven uniformed services of the United States, composed of commissioned officers who provide NOAA with an important blend of operational, management, and technical skills that support the agency's science and surveying programs at sea, in the air, and ashore. NOAA Corps officers, in addition to managing and operating ships and aircraft, are also scientists and engineers. Corps officers serve in NOAA's research laboratories and program offices throughout the Nation and in remote locations around the world; for example, an officer serves as station chief at the South Pole, Antarctica.

About NOAA

NOAA conducts research and gathers data about the global oceans, atmosphere, space, and sun, and applies this knowledge to science and service that touch the lives of all Americans.

NOAA warns of dangerous weather, charts our seas and skies, guides our use and protection of ocean and coastal resources, and conducts research to improve our understanding and stewardship of the environment which sustains us all.

A Commerce Department agency, NOAA provides these services through five major divisions: the National Weather Service, the National Ocean Service, the National Marine Fisheries Service, the National Environmental Satellite, Data and Information Service, and Office of Oceanic and Atmospheric Research; and numerous special program offices. More information about NOAA can be found at <http://www.noaa.gov>

Visit the ship's web site at www.moc.noaa.gov/fa/
For more information, contact NMAO at 301-713-1045
or visit our web site at www.nmao.noaa.gov

