

# NOAA Ship OSCAR DYSON



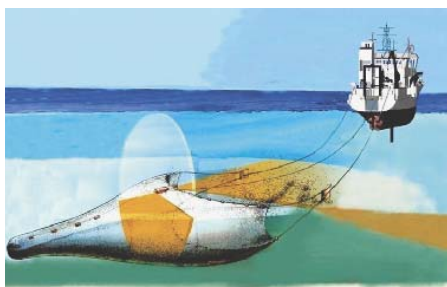
The ship is named after the Alaskan, Oscar Dyson, and will be homeported in his home town of Kodiak beginning in Winter 2005. Oscar Dyson worked in Alaska's fishing industry for a half-century before his death in October 1995. He pioneered the expansion of the commercial fishing of crab, shrimp, and pollock. Dyson also was a founding partner of All Alaskan Seafoods, which became the first company controlled by fishermen who owned both the vessels and the processing plants. He was a well-known fishing activist in Alaska and an industry advisor to government. He also served on the North Pacific Fisheries Management Council for nine years from the mid-1980s to the early 1990s. Dyson was dedicated to managing and improving the industry for the many Alaskans who make their living at sea.

NOAA Ship *Oscar Dyson* is the first of four new fisheries survey ships to be built by VT Halter Marine, Inc in Moss Point Mississippi. *Oscar Dyson* is a state-of-the-art research ship capable of conducting a wide variety of fisheries and oceanographic research. Foremost among these capabilities is acoustic quieting technology, which will enable NOAA scientists to monitor fish populations without altering their behavior. *Oscar Dyson* will support NOAA's mission to protect, restore, and manage the use of living marine, coastal, and ocean resources and will conduct projects for NOAA's Alaska Fisheries Science Center and the Pacific Marine Environmental Laboratory. *Oscar Dyson's* primary objective will be to study and monitor Alaskan pollock and other fisheries in the Bering Sea and Gulf of Alaska. The ship will also observe weather, conduct oceanographic research, habitat assessments and survey marine mammal and bird populations. The *Oscar Dyson's* capability to conduct both fishing and oceanographic research is a unique among research vessels and a value to its users.

*Oscar Dyson* is a stern trawler that has been designed for a wide range of fisheries and oceanographic research. Fishing operations and capabilities match those of the commercial trawler fleet. The ship is capable of conducting trawling operations to depths of 1,800 meters. Smaller sampling nets and towed fishing gear can be deployed from various winches over the stern or starboard sampling station a-frames. Longlining and trap fishing can also be accomplished from these

two locations. Modern fisheries management relies heavily on sonar systems. The most critical such system on *Oscar Dyson* is the Scientific Sonar System, which can accurately measure the biomass of fish in the survey area. The Scientific Sonar System and various oceanographic hydrophones are located on a retractable centerboard (drop keel) so that critical scientific transducers can be lowered away from the ship out of the region of hull-generated flow noise. This feature enables the ship to move these hydrophones away from the ship's hull which enhances the quality of the data collected and the scientific products based on the data.

*Oscar Dyson* is capable of conducting multi-disciplinary oceanographic operations in support of biological, chemical and physical process studies. The ship can complete oceanographic research consisting of deployment/recovering of floating and bottom-moored sensors arrays. The ship has a traction-type oceanographic winch that can deploy up to 5,000 meters of 17mm wire rope or other cable types in conjunction with the large stern a-frame. Two hydrographic winches serve the side sampling station via the side a-frame. Each hydrographic winch can deploy 3,500 meters of 9.5 mm electro-mechanical wire so that two scientific packages can be rigged and ready for sequential operations. Water temperature, conductivity, and fluorescence can be measured as a function of depth using the hydrographic winches and a CTD system. In addition, capabilities are available for handling specialized gear such as MOCNESS frames, towed vehicles, dredges and bottom corers. Surface currents are measured with an Acoustic Doppler Current Profiler, while a multibeam sonar system provides information on the content of the water column and on the type and topography of the seafloor while underway.



The net is equipped with sensors that are used to ensure the net is fully open

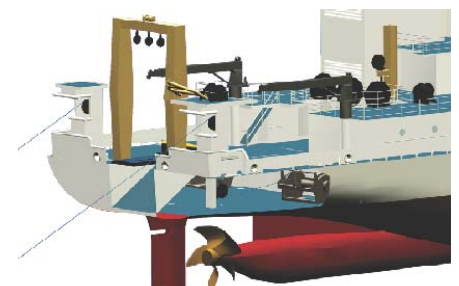


Illustration showing stern trawl arrangement

## Ship Specifications

Length (LOA): 208.6 ft  
Breadth: 49.2 ft  
Draft:  
Centerboard Retracted - 20.1 ft  
Centerboard Extended - 30.3 ft  
Full Load Displacement: 2479 mt  
Lightship Displacement: 1840 mt  
Speed, Sustained: 14.0 kts  
Speed, Hydroacoustic Survey: 0 - 11 kts  
Range: 12,000 nm @ 12 kts  
Endurance: 40 days  
Hull Number: R 224  
Call Letters: To be determined  
Commissioned Officers: 4  
Licensed Engineers: 3  
Crew: 19  
Scientists: 19  
Launched: October 17, 2003  
Delivered: August 1, 2004  
Commissioned: September 25, 2004  
Builder: VT Halter Marine, Inc., Moss Point, Mississippi

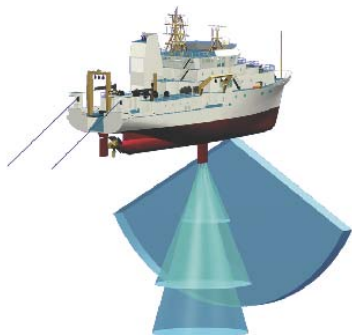


Illustration of beam patterns from the ship's various scientific sonars



The ship's 14-foot propeller is designed for ultra-quiet operation and minimum cavitation

## 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/od/](http://www.moc.noaa.gov/od/)  
For more information, contact NMAO at 301-713-1045  
or visit our web site at [www.nmao.noaa.gov](http://www.nmao.noaa.gov)

