



U.S. Fast Ferries

By Wes Starratt, PE

The *MV Fairweather*, built by Derecktor for the Alaska Marine Highway System, was placed in service in June 2004. Photo courtesy of Derecktor.

Currently either in US shipyards or recently put into operation are Alaska-built fast ferries for New York commuters; New England-built ferries for service in the glacier-filled inlets of Alaska, the coral bays of Bermuda, New York harbor, and the islands off Cape Cod; Alabama-built super ferries for inter-island travel in Hawaii; and Washington-built ferries for San Francisco Bay and beyond ... as America continues to discover the ability of aluminum catamarans and other fast ferries to move people, cars, and cargo at high-speeds along coastal and island routes. But, without the ingenuity of metallurgical engineers who developed production techniques for welding that difficult-to-fabricate light metal, aluminum, and naval architects and marine engineers who looked outside of the box and expanded marine designs to dual-hulled boats powered by water jets, we might still be back in the era of slow ferries endlessly chugging to nowhere.

Relieving Bermuda Traffic

High-speed ferries are designed to solve many problems, but who would ever have thought that they would be used to relieve commuter traffic on the island of Bermuda? And, whoever thought that Bermuda had rush-hour traffic? Apparently it does, and Bridgeport, Connecticut-based Derecktor Shipyards "is just wrapping up the delivery of a high-speed ferry for the Government of Bermuda", according to Brook Streit, the firm's marketing manager. "The 124-foot Nigel Gee-designed aluminum catamaran will take up to 350 commuters at 33-knots on the 12-mile run from Hamilton to St. George ... a trip that can take an hour or so by car. During mid-day non-commute hours, the boat is expected to take tourists to various parts of the island." Four MTU 12V2000M70 diesel engines with ZF gearboxes power the boat, which is propelled by four Hamilton 512 water jets.

She is a bow loader with optional side loading. The hull has been treated with a non-toxic, silicon-based paint, and above the water level, a vinyl coating has been applied.

New England Service

Derecktor has launched the second of two 95-foot, 149-passenger, 29-knot catamarans for service between New Bedford, Massachusetts and the island of Martha's Vineyard. Designed by Crowther Design of Sydney, Australia, *M/V Martha's Vineyard Express* is powered by two Detroit Diesel 15V2000 engines turning 40-inch propellers. An active ride-control system from Maritime Dynamics provides a smooth, stable ride in the sometime rough water encountered on the route.

High-Speed Ro/Pax Cats

In Alaska, much of the highway transportation is by ferry. To fill that need, the state established the Alaska Marine Highway System (AMHS), which has been operating a fleet of nine mono-hull steel ferries with an average speed of only 15 knots.

That began to change as it became apparent that high-speed catamarans could drastically increase the carrying capacity of the system. AMHS went through the procurement process, and in 2002 placed a \$67.8 million order for two 235-foot long, high-speed, quad water-jet driven aluminum ferries with Derecktor Shipyard's Bridgeport yard. The vessels have a service speed of 36 knots, more than twice that of any other vessel in the AMHS fleet. Each can carry 250 passengers and 30 vehicles and were the first passenger-vehicle catamarans to be built in the United States. The first ferry to be completed was the *M/V Fairweather*, which was placed in service in June 2004, and the second catamaran was the *M/V Chenega*, which began service in August 2005. Both ferries were designed by Naval Architect Nigel Gee and powered by four German-built MTU 16V595 engines.