

CASE STUDY

Engine Visibility at Sea: IVC Displays and NOAA Ship Fairweather

Client	NOAA Ship Fairweather — hydrographic survey vessel, NOAA Office of Marine and Aviation Operations
Industry	Maritime / federal hydrographic survey operations
Engagement	Industrial touch screen computer supplier for shipboard engine control and monitoring
Application	Engine monitoring integrated into the ship's engine control system, including a dedicated display in the captain's cabin

BACKGROUND

NOAA Ship Fairweather is a hydrographic survey vessel homeported in Ketchikan, Alaska, that maps the seafloor to support safe navigation, marine ecosystem studies, and coastal charting throughout Alaska's coastal and glacial waters. Missions can keep the ship at sea for up to 30 days at a stretch, operating in some of the most demanding maritime conditions in U.S. waters.

IVC Displays supplies the rugged industrial touch screen computers integrated into Fairweather's engine control and monitoring system, giving the crew — including the ship's captain — real-time visibility into engine performance.

THE CHALLENGE

Shipboard electronics face a uniquely punishing combination of conditions: saltwater exposure and corrosion, constant vibration from the ship's engines, humidity, temperature swings, and the continuous motion of a vessel underway. On a hydrographic survey ship operating far from port for weeks at a time in Alaskan waters, a failure in engine monitoring equipment is not a minor inconvenience — it can put both the mission and the safety of the crew at risk.

Fairweather needed touch screen computers rugged enough to operate reliably in this marine environment for the duration of extended missions, while giving engineering crew — and the ship's captain — dependable, real-time insight into engine status without having to be physically present in the engine room.

THE SOLUTION

IVC Displays supplied rugged, industrial-grade touch screen computers integrated into Fairweather's engine control and monitoring system. These displays give the ship's engineering crew clear, real-time visibility into engine performance, and a dedicated touch screen installed in the captain's cabin extends that same monitoring capability to the ship's captain — allowing engine status to be checked from the cabin as well as the engine room.

Built to withstand the vibration, humidity, and corrosive conditions of continuous shipboard operation, IVC's touch screen computers keep Fairweather's crew connected to critical engine data throughout extended survey missions in Alaska's coastal and glacial waters.

RESULTS

Through this partnership, Fairweather's crew has been able to rely on continuous, dependable engine monitoring throughout demanding missions at sea, supported by touch screen hardware built for the maritime environment. The relationship has delivered:

Rugged, reliable operation — industrial touch screen computers built to withstand the vibration, humidity, and corrosion of continuous shipboard duty.

Expanded command visibility — a dedicated display in the captain's cabin extends real-time engine monitoring beyond the engine room.

Dependable performance on extended missions — hardware suited to the demands of multi-week survey operations in Alaska's coastal and glacial waters.

LOOKING AHEAD

IVC Displays continues to supply the rugged touch screen computing hardware behind Fairweather's engine monitoring system, helping keep the ship's crew informed and its engines running reliably through the demanding conditions of hydrographic survey work at sea.