



**NOAA Teacher at Sea
John Schneider
Onboard NOAA Ship *Fairweather*
July 7 – August 8, 2009**

NOAA Teacher at Sea: John E. Schneider

NOAA Ship *Fairweather* (S-220)

Mission: Hydrographic Survey

Geographical Area: Shumagin Islands

Date: July 12-13, 2009

Position

Anchored near Herendeen Island (55° 03.9N 159° 26.3W)

Weather Data from the Bridge

Weather System: Drizzle, overcast, fog

Barometer: 1019.2 and falling

Wind: out of 070° at up to 15 knots

Temperature: 13.0° C

Sea State: 1-2 foot swells

Science and Technology Log

Launches 1010 and 1018 were deployed on both days. They were tasked with offshore and nearshore bathymetry in separate areas about 10-15 miles away. These launch ops, as I mentioned earlier, are in areas too close to shore for the *Fairweather* to operate.

In the afternoon the “fast rescue” boat (another of the *Fairweather*’s inflatables) was deployed to train another crew member as a coxswain, and the Ambar was again deployed to check another tide station.

It’s important to realize that every position on board the *Fairweather* requires both experience and training. For example, to become a QMED (Qualified Member of the Engine Department) takes a minimum of two years training and apprenticeship. The chefs (as I mentioned earlier) are all graduates of culinary programs. As I continue to chat with crew and survey members, their educations and backgrounds are remarkably diverse, yet there is a common thread among them: they are immensely proud of the *Fairweather* and the work that’s done aboard her.

The history of coastal surveying dates back in the United States to the founding fathers. In 1807 Thomas Jefferson called for a survey of all the coastal waters of the United States. By the mid-1800’s United States Coast and Geodetic Survey personnel were surveying waters on both coasts of the United States.

An interesting – though tragic – footnote here is that in 1849 during the height of the California Gold Rush, there was a mutiny on board the *Ewing*, a hydrographic survey ship. Five mutineers were convicted and sentenced to hang. Ultimately three sentences were commuted to hard labor

and the other two were hanged from the yardarms of two ships, the *Ewing* and the *Savannah*, in San Francisco Bay on October 23, about 40 days after the mutiny.

Coast surveyors did a great deal of work during the Civil War in both land campaigns and blockades of southern ports. They became particular targets of snipers. In both World War I and World War II, Coast and geodetic Surveyors were transferred to the Army, Navy and Marines for their expertise in navigation, engineering, hydrography and vessel operations.

In 1970 under President Nixon, several fisheries agencies and the Environmental Science Services Administration (ESSA) were combined into one agency under the domain of the Department of Commerce. This was the “birth” of NOAA – the National Oceanic and Atmospheric Administration.

There are seven major branches within NOAA: the branch that oversees the *Fairweather* is the National Ocean Service and more specifically, the Office of Coast Survey.

I’ve had folks ask me why Hydrographic research should be under the Department of Commerce and not the Coast Guard or Navy. Consider the following data. The marine transportation system in the United States has

- **95,000 miles of U.S. coastline**
- **25,000 miles of navigable channels**
- **326 public/private ports**
- **3700 marine terminals**
- **Supports 13M jobs,**
- **78M recreational boaters**
- **110,000 commercial/recreational fishing vessels**
- **95% of U.S. foreign trade in/out by ship.**

All totaled, the marine industry represents a contribution of almost \$750 BILLION a year to America’s Gross Domestic Product. That’s $\frac{3}{4}$ of a TRILLION dollars. Sounds like Commerce to me!

All top level organizations have a means for their people to understand their place as a part of a greater whole. This is clearly described below.

Vision

- Customers have accurate and timely information to navigate and manage U.S. coastal waters.



Drawing of the Ewing mutiny from 1849

Mission

- Acquire, integrate, and manage the Nation's marine information for nautical charting and coastal applications.

Slogan

- Navigate with confidence.

Personal Log

I was not on the boats that went out today and due to the fog and the fact that *Fairweather's* size will not be needed until we move further south tomorrow. It gave me some time to reflect on the type of people with whom I am working. Tami Beduhn, a survey technician, gave me several powerpoint files related to the mission of the *Fairweather* from which I gleaned the brief history above.

I had a couple of chats today with personnel on board – one of the chefs, a member of the engine department, Tami and a few others. The overarching impression that is inescapable is that they are proud of what they do and of how well they do it.

After dinner this evening there was a 1½ hour presentation on the intricacies of the data acquisition programs and how our field work affects the software and vice versa. It was an open professional forum where questions were dealt with in a collegial fashion. Schools and educators are moving in the direction of professional learning communities (PLC's) as a means of improving. On the *Fairweather*, a professional learning community isn't a technique. It's a way of life.

Questions for You to Investigate

Does your school have a stated Mission, Vision and Slogan?

How, as a student, could the idea of working together help you be more successful?

Are you a member of a professional learning community where you work?