The Old Coast Guard Station:
The New Rutgers University Marine Field Station

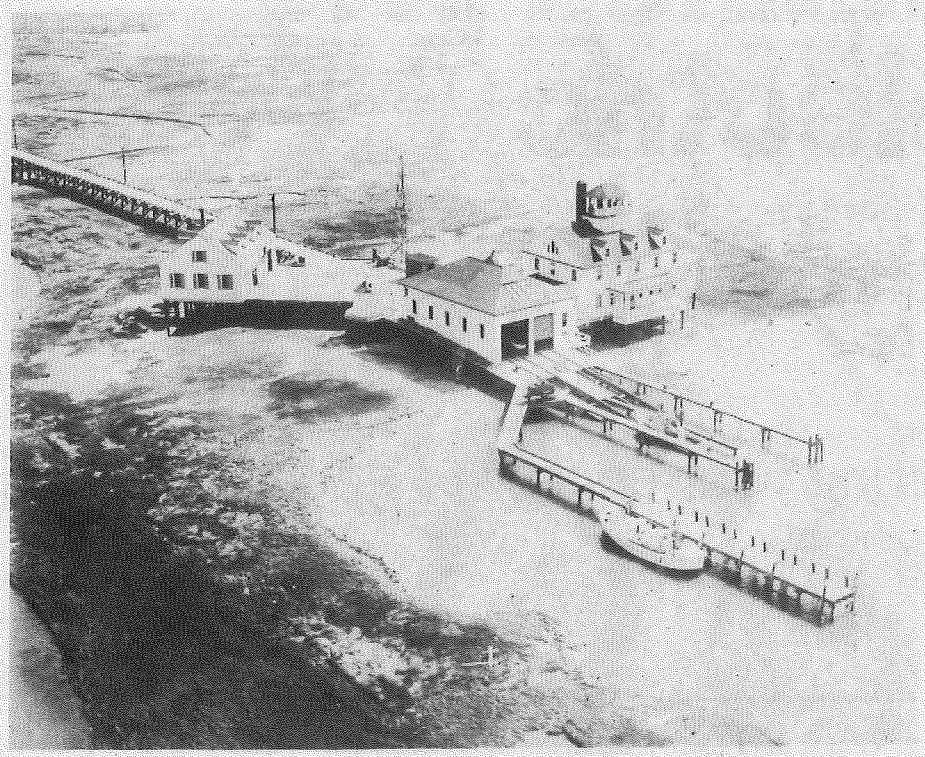

Fig. A – Functioning Coast Guard Station, often referred to as Roosevelt Stations because he was president at the time that many of these were constructed.

Compliments of Kenneth W. Able

The Rutgers University Marine Field Station (RUMFS) has a long and varied history. In the late 1930s (now U. S. Coast Guard) established a station at the eastern end of the Tuckerton Meadows in Little Egg Harbor Township near Little Egg Inlet. Subsequently, a road (Seven Bridges Road, now Great Bay Boulevard) was constructed through the meadows in anticipation of an eventual connection to Atlantic City. The additional bridges were never constructed, but this road now provides access to RUMFS. The U.S. Coast Guard maintained the buildings (Fig. A) in keeping with their mission until it was abandoned in the mid-1960s. Subsequently, several fires occurred in the facility with the most devastating occurring in 1968. This fire destroyed the roof of the building and subsequently the interior suffered damage throughout due to exposure to the elements (Fig. B). In 1972, Rutgers leased the station from the federal government to be used for marine research and education, and this has continued to the present. Some of the initial research conducted out of RUMFS in the 1970s included an environmental impact study of a proposed, but never constructed, floating nuclear power plant in the ocean outside Little Egg Inlet near Beach Haven Ridge. During this time, the exteriors of the buildings were extensively rebuilt largely based on the original construction plans, thus they still resemble the old Coast Guard buildings. Later, with New Jersey's recognition of the advantages of an expanded marine program and the development of the Institute of Marine Sciences at Rutgers University, the facilities were extensively renovated and expanded during 1992-1995. At the same time, a new dormitory and warehouse were constructed at Tucker's Creek in Tuckerton. With the addition of the new facilities came the increased realization of the unique characteristics of the Mullica River – Great Bay estuary and its recognition as one of the cleanest estuaries in the northeastern U. S. by its addition to the National Estuarine Research Reserve System and the addition of adjacent Little Egg Harbor to the Barnegat Bay National Estuary Program. In 1996, directional drilling from RUMFS provided a fiber optic link from the ocean at Beach Haven Ridge to RUMFS and the rest of the world.

Fig. B – After the fire with roof burnt off.

Today, the RUMFS complex includes dry and running seawater laboratories, instrument rooms, office, workshop and a large boathouse (Fig. C). The seawater system includes a laboratory with water heating and cooling capability, and supplies water to six laboratories, additional holding tanks, and outside experimental tanks. Renovations of the interior are continuing to upgrade and update the laboratory facilities. Small boats conduct research in the adjacent waters. In addition, the R/V Caleta (30 ft.) and the R/V Arabella (48 ft.) vessels and an experienced dive team provide the capability for research in the Atlantic Ocean all along the coast of New Jersey and into New York Harbor and Delaware Bay.

In order to take advantage of this exceptional and unique facility, researchers at the station (Rutgers faculty from all three campuses [New Brunswick, Newark and Camden], postdoctoral fellows, graduate and undergraduate students, summer interns, and visiting scientists and volunteers) are focusing on nearby estuarine populations, habitats, and ecosystems. Emphasis is on 1) the early life history and habitat ecology of estuarine and marine fishes such as summer flounder, black sea bass, striped bass, weakfish, winter flounder, tautog and others; 2) invertebrates such as bay scallops and horseshoe crabs; 3) habitat restoration in salt marshes and other estuarine habitats; 4) the impacts of human disturbance on New Jersey estuaries, including impacted systems such as New York Harbor, Delaware Bay and Barnegat Bay. In addition, the most comprehensive activity is monitoring the effect of long-term change (including fishing management and climate change) on larval, juvenile and adult fishes.

Fig. C – Rutgers University Marine Field Station in the 1990s after extensive renovation to the exterior and interior for teaching and research.