



## *United States Navy*

### **The U. S. Naval Torpedo Station, Newport RI**

**By Ruth Myers**

#### **Military Corner**

In 1869, the U.S. Naval Torpedo Station was established on Goat Island, located in the harbor of Newport, Rhode Island. Over the next 100 years, they researched, tested, and produced underwater weaponry at this location. The station's long history is marked by accomplishment and tinged with scandal.

To wit, a valuable formula for smokeless gunpowder was developed at the station lab by chemistry professor Charles Munroe in the 1890's. Navy officer John Bernadou later continued his work. The use of smokeless powder in place of black powder revolutionized warfare. It was three times as powerful as black powder, extending the range of weapons and allowing the use of smaller caliber ammo. Soldiers could carry more rounds and need not worry about smoke revealing their positions. Smokeless powder paved the way for development of modern semi and fully automatic firearms and lighter breeches and barrels for artillery.

The Navy began to manufacture powder for its own artillery, as did the United States Army, which adopted the Navy formulation in 1908. Although patents were obtained for formulas developed by the government, the DuPont Company ended up with the patents and licenses for manufacture. The company was accused of selling the powder to foreign governments, thereby revealing the formula to German manufacturers and committing a criminal offense. It's a hazy history that also suggests that Bernadou obtained and sold his own patents for profit, and that the government was involved in actions that benefited DuPont.



In 1907, a factory was built on Goat island to manufacture steam torpedoes. The station went on to produce many torpedoes used by the Navy through WWI and WWII. During the 1920's, the station designed the Mark VI magnetic influence torpedo fuse. Production of the fuse for the newly designed Mark 14 torpedo, occurred in great secrecy. Financial constraints imposed by the Great Depression limited production and prevented adequate testing of both fuse and torpedo. By WWII, the factory was unable to manufacture enough torpedoes and was reluctant to use these scarce weapons in tests.

Unknowingly, the Navy had produced a defective design. In effect, these weapons were being tested in the battlefield, instead of at the Naval Station. Full acknowledgement and correction of all malfunctions did not occur until 1943. By the end of World War II, the Mark 14 torpedo was a reliable weapon which remained in service for almost 40 years in the U.S. Navy.

Beginning in the 1950's, the Torpedo Station was reorganized and renamed at least twice, but continued its' work in concert with other naval facilities to develop underwater tactical weapons. Today, the Naval Undersea Warfare Center (NUWC), is still headquartered in Newport, but not on Goat Island.

The site now sports a modern luxury hotel, residences, and restaurants.