A Touch of History - Lake Pontchartrain and the Higgins Boat

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The ability to conduct amphibious operations has been and continues to be an essential military capability used by many nations. Amphibious planners have many complex factors to consider and a major challenge involves the determination of waves, tides, and shallow-water processes that impact ride quality, seakeeping, and surf zone breaching for amphibious craft.

Prior to World War II, no landing craft other than small boats were utilized by military forces. Technologies that supported amphibious operations played a major role for the United States’ successes during World War II. For example, the Navy and the United Stated Marine Corps favorably experimented with the Higgins Industries’ Eureka Boat during Fleet Landing Exercises during 1939. The Eureka boat was originally developed to support oil drilling operations along the Gulf coast. As an amphibious craft it needed a better method for Marines to debark. Based on feedback about Japanese landing craft (Fig. 1) following these amphibious exercises, Andrew Jackson Higgins (1886–1952) modified the Eureka boat by adding a bow ramp to support the debarkation of Marines and their equipment. The ramp-bow Eureka boat was demonstrated in Lake Pontchartrain and spawned development of the Landing Craft, Vehicle, Personnel (LCVP), also known as the “Higgins Boat.” At the close of World War II, Higgins Industries had delivered more than 20,000 boats. Mr. Higgins is credited with approximately 30 patents pertinent to amphibious landing craft and vehicles.

Following the attack on Pearl Harbor on December 7, 1941, the Navy Hydrographic Office ramped up to support amphibious operations, which are especially challenged by coastal features such as coral reefs, surf zones, and tidal fluctuations. Data collected by ships such as the USS SUMNER were instrumental in updating tide predictions for many of the Pacific Islands. The Hydrographic Office was re-designated the U.S. Naval Oceanographic Office in 1962, and in 1976 the Office was relocated to what is now known as the John C. Stennis Space Center. Today, the Stennis Space Center is the location where scientists apply meteorological and oceanographic observations and numerical model data to provide information that supports the Navy’s mission of deterring aggression and maintaining freedom of the seas.

It is for these kinds of reasons that the Ocean Waves Workshop is being conducted at University of New Orleans with a focus on sharing cutting-edge information to support operations.

References
