

Famed naval artist Tom Freeman executed this painting of USS *Ward* charging and firing upon a Japanese midget submarine entering Pearl Harbor.

ATTACK OF THE MIDGETS!

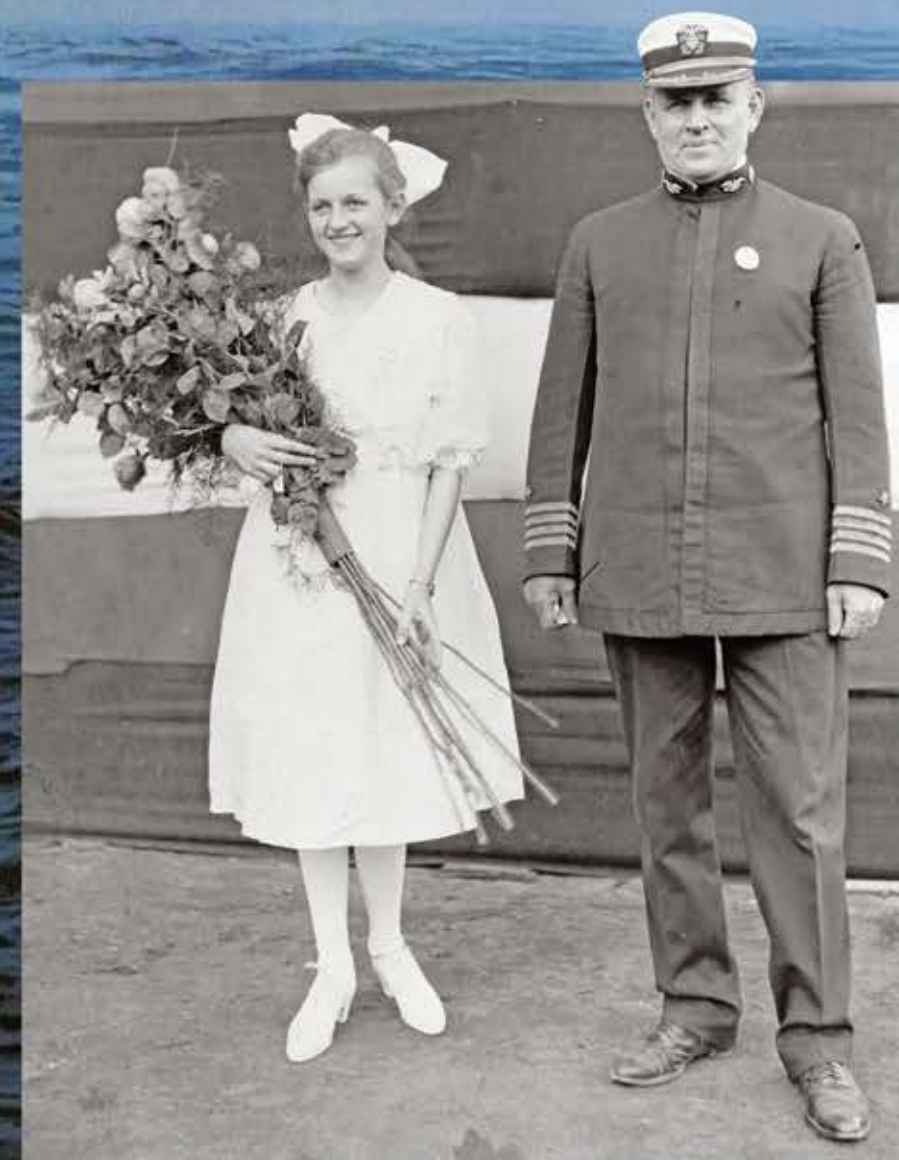
THE DEVASTATING JAPANESE SNEAK ATTACK ON PEARL HARBOR WAS PLANNED TO BE EVEN MORE HORRIFIC BY THE USE OF MIDGET SUBMARINES. HOWEVER, BRAVE AMERICAN SAILORS OFFERED THE ENEMY THEIR FIRST DEFEAT

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ILLUSTRATIONS COURTESY OF THE NAVAL HISTORY AND HERITAGE COMMAND

Operation *Shinkai* (Divine Turtle Operation No. 1) was the Japanese midget submarine component of the larger "Plan Z" surprise attack on Pearl Harbor. The midget submarine operation was a relatively late add-on to the plan, approved by the commander in chief of the Combined Fleet, Adm. Isoroku Yamamoto, during a planning conference on 11/13 October 1941 over the heated objections of the aviation planners, who believed the midget submarine operation risked blowing the element of surprise for little gain. The aviators were right — except the American command and control process at Pearl Harbor at the time could not react fast enough.

On 19 October 1941, the commander of Sixth Fleet (Japan's submarine force) issued orders to modify five Type C1 submarines to each piggyback one modified Type A midget submarine. The necessary modifications were complete by 10 November. The five Type C1 submarines (*I-16*, *I-18*, *I-20*, *I-22*, and *I-24*) were new, large, long-range diesel-electric submarines (3500 tons submerged, 358 feet long, range 14,000 miles at 16 knots, maximum speed 23.5 knots surfaced/8 knots submerged, eight 21-inch torpedo tubes all in the bow with 20 torpedoes, a 5.5-inch deck gun, and a crew of 101, all completed in 1940-41).



Photographed at Mare Island on 1 June 1918, the day of *Ward's* launching. At the left is Dorothy Ward, great grand-daughter of Cmdr. James Ward, first USN officer killed in the Civil War