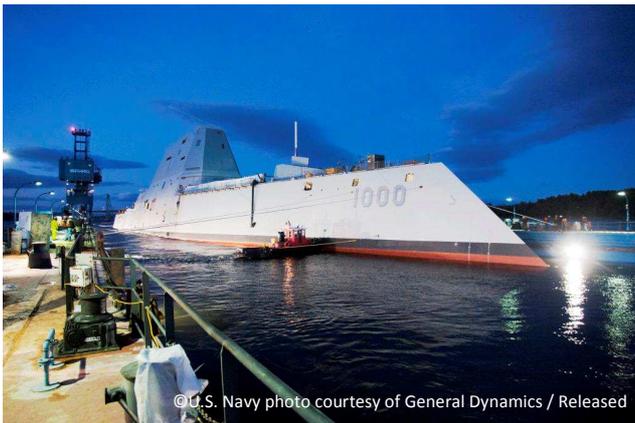


ZUMWALT

When *DDG 1000 Zumwalt* was baptized April 12, 2014, the ship made a difference with its impressive size and futuristic design. The latest addition to the American fleet does not leave its audience indifferent: engineer's delirium at exorbitant cost or equipment of the navy of the future?



A DESTROYER WITH FORMS IMPOSED BY TECHNOLOGY

Reversed hull bow, stealth design to the extreme, integrated electric propulsion... All those elements surprise with their originality. *Zumwalt* is the result of a design process spread over more than twenty years, integrating the latest technological advances in the fields of naval architecture and equipment.

First *DDG 1000* type ship, *Zumwalt* benefits from the latest ship design progress. With a displacement of 16,000 tons, it is the greatest destroyer of the American fleet. It also has unprecedented firepower with eighty vertical launch cells that can accommodate different types of missiles and two last generation 155 mm guns... Adding the carrying capacity of more than 1,000 shells reveals the obvious intention: *Zumwalt* was designed for the action on the ground.

A RETURN TO THE STRATEGY OF NAVAL SUPPORT FIRE

With the disarmament of *Iowa* class battleships, the U.S. Navy had no longer ships capable of carrying fire into the depth of field land battle. Distant heir to the *striker* concept of French engineer René Loire (1995), *DDG 1000* is characterized by its ability to intensively bombard enemy territory far from shore.

But to ensure it can fulfil its primary mission, *Zumwalt* remains dependent on other units for its protection and security: the *Arleigh Burke* class *DDG* for area air defence and fight under the sea, and the future *Littoral Combat Ship* for operations in coastal areas.

AN AMBITIOUS PROGRAM... MAYBE TOO AMBITIOUS?

Yet *DDG 1000* is more than just a destroyer. It is above all a test bench for its modern hardware. This is shown by the ship design, optimized for a small crew of 149 sailors. The gateway has no external openings. Instead, screens show what the ship video cameras can see, while microphones installed on the hull make it possible for sailors to analyse all audio information.

The structure of *Zumwalt* gives the possibility of integrating a large number of future technologies (sensors, weapons...), once they have been tested. Thus, the electrical capabilities will be able to accommodate the directed energy weapons developed by the U.S. Navy. *Zumwalt* will be able to test in combat new lasers, microwave weapons, pulsed energy projectiles and other revolutionary equipment. It is a real laboratory that goes with the evolution of the Navy of the future.

However, these innovations have a price: while 32 units were originally planned, only three vessels are likely to be built eventually. Strongly criticized for its cost, *Zumwalt* is also attacked on its very specificity: picking as many new technologies with as little a crew leads its critics to fear the worst and to prefer the multi-mission *Arleigh Burke* destroyers, cheaper and suitable for modern conflicts.

Zumwalt is presented as a concentrate of technologies capable of discharging a hail of fire. But the small number of vessels in its class does not allow making it the backbone of the U.S. Navy, as was the original aim. This vessel must thus be regarded primarily as a milestone: it is the symbol of a new navy it prepares for the future.