



Navy Ready To Unleash Killer Robot Ships On World's Oceans

War-minded Technocrats within DARPA have one answer for wiping out the enemy: autonomous machines. When DARPA first released Sea-Hunter, there were pledges that it was only for surveillance and not killing. The flip-flop was anticipated. □ TN Editor

The world's largest navy has spent the last few years feeling like it was being put in check.

[China and Russia](#) have heavily invested in anti-access technologies aimed at holding its main force-projection assets — aircraft carriers — at risk. Now the U.S. Navy and the upper ranks of the military are preparing to take back control of the game board, and it's [looking to unmanned technologies](#) to help.

The [U.S. surface fleet](#) has for the past few years sought to flip the script on actors such as China. The fleet aimed to move from a role of simply defending the carrier to going on the offensive.

The goal was to spread out over a wide area to strain Chinese

intelligence and reconnaissance assets and thereby exercise a degree of sea control in places such as the South and East China seas that China seeks to deny with long-range, anti-ship missiles and an ever-growing fleet.

Initially, the push was to add big surface combatants to hold down the Navy's hefty commitments for peacetime presence while maintaining enough firepower to both defend themselves and project power in an anti-access environment.

But that's changing.

The Navy plans to spend this year taking the first few steps into a markedly different future, which, if it comes to pass, will upend how the fleet has fought since the Cold War. And it all starts with something that might seem counterintuitive: It's looking to get smaller.

"Today, I have a requirement for 104 large surface combatants in the force structure assessment; I have 52 small surface combatants," said [Surface Warfare Director Rear Adm. Ronald Boxall](#). "That's a little upside down. Should I push out here and have more small platforms? I think the future fleet architecture study has intimated 'yes,' and our war gaming shows there is value in that."

Enter: the rise of the machines.

The paradigm shift is moving the fleet away from platforms like the Arleigh Burke-class destroyers — enormous, tightly packed ships bristling with capabilities, weapons and sensors, but enormously expensive to build, maintain and upgrade.

"It's a shift in mindset that says, instead of putting as much stuff on the ship for as much money as I have, you start thinking in a different way," Boxall said in a December interview. "You start saying: 'How small can my platform be to get everything I need to be on it?'"

"We want everything to be only as big as it needs to be. You make it smaller and more distributable, given all dollars being about equal. And when I look at the force, I think: 'Where can we use unmanned so that I

can push it to a smaller platform?’ ”

The Navy is getting ready to find out.

Inside Boxall’s OPNAV N96 shop, officials are preparing a request for information from industry for two new classes of manned or optionally manned warships: a medium sensor platform along the lines of the [Defense Advanced Research Projects Agency’s Sea Hunter](#), and a large unmanned surface combatant able to carry sensors and weapons — an unmanned ship on a scale never yet attempted.

The RFI is the first step in the process toward creating a program to design and build the ships.

The idea

The unmanned surface combatants are part of an overall fleet structure that has been approved by the Joint Staff, Boxall said, and includes both the [Navy’s next-generation frigate](#) and the [large surface combatant](#) that will ultimately replace both the cruisers and the destroyers.

In this construct, the manned combatants will act as command and control for the unmanned sensors and shooters, keeping humans firmly in the loop.

For the medium unmanned surface combatant, the fleet is looking at a forward sensor platform that can connect back to manned surface combatants that can process and act on the data.

“Should we put a sensor forward on a medium unmanned platform [to detect air targets]? Should we look at [anti-submarine warfare] with the sensors out ahead of the force or on a prescreen? Those are the types of things we are looking at when you talk about the medium unmanned — mostly you are talking about sensors and communicating them in some ways,” Boxall said. “Sensing, communicating and maybe a little bit of command and control.”

In regard to the large unmanned surface combatant, Boxall and his team are researching what’s needed to get a big sensor like a solid-state phased array radar onboard, along with missiles to make it a no-b.s.

killer.

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