

# 2023 AOC Convention Keynote: Rear Admiral Donald on STEM Skills are Critical for Navy Cyber

RDML Stephen Donald, USN, Deputy Commander, Joint Force Headquarters-Cyber (Navy) 10th Fleet, spoke at AOC 2023 about his organization's responsibilities and his talk focused on the three pillars of the 10th Fleet: assured command and control (C2), battlespace awareness and cyber and space effects.

Admiral Donald said he spends most of his time focusing on assured C2. "We operate a global network," he explained, "where the sun never sets, really, on 10th fleet. We provide all the communications across the globe for our fleet brethren, whether that's terrestrial satellite, ship-to-shore, ship-to-ship – all of that somehow, somewhere touches 10th Fleet in some way, shape or form. When we take a look at what it is that that we have to do there – we are under constant attack by our adversaries. They want into our networks – they want to get deep into our networks because what we have with our assured command and control is the ability to maneuver and navigate our forces at will at any time. And as soon as we lose that ability, a commander can no longer maneuver their force. Additionally, assured command and control underpins the other two pillars that we have. If I don't have assured command and control, there's no way I'm going to have battlespace awareness, and there's no way I'm going to be able to deliver cyber and space effects. So, assured command and control is the linchpin that we have to have and we have to get right, on a daily basis, in order to assure that we have the ability to maneuver our network and to maneuver our forces."

Next, Admiral Donald discussed the importance of battlespace awareness. "Whether it's kinetic or non kinetic [battlespace], you need to know exactly where it is your forces are, where the adversary is, and what environment effects may occur in that battle space that may change your decision making posture. We have a number of forces aligned specifically for battlespace awareness, taking all the sensor data that we get off of aircraft submarines, ships, unmanned and manned vehicles across the globe and synthesizing that with other intelligence feeds and with national databases to ensure that we provide the best fuse product that we can. And we've gotten really, really good at providing that fuse product in uncontested space."

In discussing the third pillar – cyber and space effects – Admiral Donald said US Fleet Cyber Command now describes these under the broad banner of non-kinetic effects. He explained, "Because of our unique command structure and organization, and the ability to bring all the authorities together, we have the ability to take cyber and space, electronic warfare and information warfare and deliver those effects to the fleet and the Joint warfighter. But, but the interesting thing is not to do these things for the sake of doing a cyber effect or a space effect. It's really how do you weave them together along with traditional kinetics, along with fleet maneuver to get the outcome that you want? How do you time and sequence these things? And so really, when we talk cyberspace effects, it's all about non-kinetic integrated effects with fleet dynamic maneuver and fleet kinetic effects."

Toward the end of his talk Admiral Donald discussed the importance of having the right people with the right skills. He said, "One of the things that keeps certainly me up at night is : 'I believe I will have the right technology, I believe I will have the right tactics. I believe I will have the right authorities at any given time. But do I have the right people to manage all this advanced capability?' And that

is a bit of a struggle.” Acknowledging the military recruitment is struggling and that it’s difficult for the Navy and other Services to get STEM graduates into the workforce. “I have to have the right people, because it’s people who are going to make the difference in all this. I’ve seen it time and time again, whether I was in Iraq working the counter-IED piece, whether I was at CYBERCOM working counter-cyberspace operations against ISIS. We had great technology, but it was the people who always brought it together to bear at the right place at the right time. And I have to have those right people. I am somewhat assured that the Navy made their numbers in in cyber warfare technicians this last year and likewise in space. So I do have what I think is a good influx or a good story, new story in in those in those areas. But we need to be working together with all of you within all of you in industry, with all of academia, with all of our allies and partners, to ensure that we build and bring together the right people, certainly the United States Navy.”