

Coast Guard Focusing More Attention on the Arctic, Commandant Reports



The Coast Guard's one heavy icebreaker, *Polar Star*, is four decades old and due to be replaced, but not until a new polar cutter comes online sometime in 2024. Commandant Adm. Karl Schultz says the lack of capability makes the increasingly active Arctic challenging. U.S. Coast Guard/Fireman John Pelzel

NATIONAL HARBOR, Md. – The Coast Guard has faced a challenging year – and going forward the sea service will continue to emphasize the importance of increasing resources in the Arctic, said Commandant Adm. Karl Schultz said May 8 during Sea-Air-Space 2019 here.

The service released a new Arctic Strategic Outlook in April, which updated the same report from six years ago that highlighted the shortfalls the service faces in the ever-evolving region.

“We were trying to be honest with the report, ... be bold enough and frank and be candid enough with what the circumstances are,” Schultz said.

The service has a full-time presence, District 17 in Juneau, Alaska, but have never had a full-time base in the Arctic. Over the past decade-plus, the Coast Guard has upped the rhetoric on the need to increase funding for resources in the region. This is starting to come into fruition, as the Coast Guard has begun to recapitalize its dated icebreaking fleet.

“It’s an increasingly dynamic portion of the world. How do we innovate and adapt to the region?”

Coast Guard Commandant Adm. Karl Schultz

In April, the service awarded a \$745 million design and construction contract to Pascagoula, Mississippi-based VT Halter Marine Inc. to begin building the next heavy icebreaker for the service. The Coast Guard now only has one, *Polar Star*, that is more than four decades old and suffering from increased mechanical issues and missed time at sea due to it.

Schultz added that the new icebreakers will have unmanned systems and a helicopter on them. The current fleet does not have either of these capabilities.

The commandant said the lack of resources, such as icebreakers able to operate in the Arctic, keeps him up at night. But the new heavy icebreaker is expected to be ready by fiscal 2024, at the latest, though Schultz acknowledged there will be challenges in filling in the gap between that cutter coming online and keeping *Polar Star* operating.

“We are working on how we bridge this gap,” he said.

The service also has plans to build six new icebreakers – three heavy ones and three medium capability – over the next two decades.

Schultz said the Arctic is competitive economically as well as for national security. As sea lanes there open for longer

periods due to melting sea ice from climate change, cruise ship activity has increased, and commercial ships are able to traverse through the former icy waters more frequently.

“It’s an increasingly dynamic portion of the world. How do we innovate and adapt to the region?” the commandant said.

Schultz noted that the conversation is expanding regarding the Arctic. Congress is paying more attention, and the Defense Department conducted extensive exercises there earlier this year.

“How do we speak with a unified voice up there?” he said.

Part of the new Arctic Strategic Outlook states the Coast Guard will look to strengthen partnerships, address emerging demands in maritime law enforcement there and advance and modernize the Arctic’s marine transportation system.

Coast Guard MSRT Sees Expanding, Evolving Role



Maritime Security Response Team West members train on April 10 in Cordova, Alaska, with the FBI’s Joint Terrorism Task Force. U.S. Coast Guard/Chief Petty Officer Matthew Schofield
NATIONAL HARBOR, Md. – The U.S. Coast Guard’s maritime security response teams (MSRT) continue to evolve, as the service looks to make them more effective and expand their

capabilities.

The mission of the teams – one is based in San Diego, California, and another is in Chesapeake, Virginia – is tactical, as MSRT is a ready assault force, whose members are trained in maritime security, law enforcement boarding procedures, force protection and environmental hazards response within a tactical law enforcement operation. The teams also combat chemical, biological, radiological and nuclear threats posed to the United States.

Lt. Jake Tronaas, Direct Action 6 team leader, Maritime Security Response Team West, said his team is working on a more robust working relationship with U.S. Indo-Pacific Command and other Department of Defense agencies.

“In the last few years, our mission set has changed,” Tronaas said.

Once focused primarily on issues related to San Diego, his team now focuses on vast counter-terrorism responses and is responsible for an area from Alaska to Australia.

Tronaas said his unit recently completed three weeks of training in Alaska, in preparation for response potential incidents in the Arctic.

“We definitely need to work on being prepared to cover our operational area,” he said during the Navy League’s annual

Sea-Air-Space exposition.

The U.S. Department of Homeland Security agency team stays consistent in terms of operations throughout the year, but sees a slight uptick in the summer months, as more events, such as United Nations meetings along with presidential and Coast Guard commandant missions, occur.

The team also recently transitioned to a maritime security response team from the maritime safety and security team, allowing them to focus on additional legacy anti-terrorism missions that predate the Sept. 11, 2001, terrorist attacks.

“This is a consolidation and will make us and the Coast Guard more efficient,” Tronaas said.

Coast Guard Working Toward Recapitalizing WCC Fleet

NATIONAL HARBOR, Md. – The Coast Guard plans to release its fifth request for information (RFI) to industry in the coming months, as they continue to gather information on how best to recapitalize their dated waterways commerce cutter (WCC) fleet.

“This aging fleet, it is extremely important to our nation’s

economy,” Aileen Sedmak, manager of the WCC program, said during a floor presentation at the Navy League’s Sea-Air-Space exposition May 7.

The 35-ship fleet consists of three cutter types, an inland construction tender, a river buoy tender and an inland buoy tender. They primarily operate along the Mississippi River and Great Lakes region. The ships average 50 years of age and are responsible to making sure \$4.6 trillion for the nation’s economy per year is able to move freely in the inland waters.

In February, the service released an RFI asking for industry to gather information about the state of the market and current industrial capabilities to support pile-driving systems for the WCC program.

Sedmark said the recapitalization program is currently in the analyze-select phase, which includes collaborating with the Navy’s Naval Sea Systems Command to analyze needs and requirements.

“We are doing our due diligence,” she said.

The acquisition program will cost over \$1 billion, and the exact number of cutters needed remains uncertain. Sedmark said they would like to have initial operational capability in fiscal 2024 and full operational capability by fiscal 2030.

“This is a very critical mission right now,” she said.

Issues with the cutters currently include additional maintenance requirements and lost operational time because of

it.

Industry representatives at the presentation asked a series of questions on production timelines, how many cutters may be in the fleet and additional requirements that may be needed on the cutters.

Sedmark said she was uncertain when a request for proposal would be issued or how many exact ships would be requested.

Orolia Working on GPS Jamming and Spoofing Solutions for DoD

NATIONAL HARBOR, Md. – As international incidents increase, and the U.S. military begins an uptick in training exercises on global positioning service (GPS) jamming, military leaders are looking more toward industry for answers on how to combat the growing issue.

Paul Zweers, vice president of the global Aerospace, Defense and Government business units for Orolia, said a few recent occurrences are putting a spotlight on the issue – including an incident last February, where Finland and Norway suspected and accused Russia of GPS signal jamming during a NATO-led drill.

“Operating in [a] Global Navigation Satellite System-denied environment and GPS jamming and spoofing are the buzzwords

everybody is talking about," he said.

GPS jamming occurs when radio frequency transmitters are used to intentionally block or interfere with communication devices, such as a GPS, cell phones and Wi-Fi networks. GPS spoofing involves the practice of using fake GPS signals to trick equipment and send false location signals.

"We have more proof, beside incidental jamming, that there's active spoofing and jamming going on in certain parts of the world. Everybody is painfully aware this exists, and they are asking how we can we overcome this and what are the solutions," Zweers said during an interview on the show floor of the Navy League's annual Sea-Air-Space exposition.

Orovia currently provides support for cybersecurity and interoperability for the Department of Defense, and it is working on expanding its SecureSync platform, which combines multi-GNSS signal synchronization options BroadShield GPS anti-jamming/spoofing protection and superior low phase noise capability for military systems.

"We have quite a broad portfolio, and in the coming years we will be looking to expand our PNT [position navigation time] mission set," he said.

Coast Guard Outlines Process for Filling Mission Gaps

NATIONAL HARBOR, Md. – The Coast Guard has a four-step process for setting and making requirements on missions to prevent and mitigate mission gaps.

“We look at a problem and find the best way to solve it,” Capt. Michael MacMillan, chief of the office of requirements and analysis, said during a floor presentation here at Navy League’s Sea-Air-Space 2019.

The service accomplishes this by publishing four different types of documents. The first is a capability and analysis report. The second, which marks the beginning stages of the acquisition process, is drawing up a mission needs statement. From there the service will put together a concept of operations document, the primary purpose of which is coming up with ideas for filling in capability. The final document produced is the operational requirements document, which outlines specific requirements, such as how fast a ship needs to go or how long an aircraft needs to stay airborne.

“We don’t get to make our own missions, but we make requirements on the ones we have,” MacMillan said.

The Department of Homeland Security agency has 13 core missions, with a bulk of those coming from search-and-rescue missions and drug interdiction.

The

captain said that its important industry representatives understand the process to help themselves and the Coast Guard.

Rescue Swimmer Program Starts After Tragedy at Sea

NATIONAL HARBOR, Md. – The Coast Guard rescue swimmer program was born after a deadly ship sinking in 1983 off the coast of Virginia that claimed the lives of 31 people.

During a stormy February night, the 605-foot SS Marine Electric, a bulk carrying ship, capsized about 30 miles off the coast of Chincoteague, Virginia.

The service sent a helicopter to assist in the rescue mission. At that time the Coast Guard did not have any rescue swimmers, and when they would respond to a distress call, they'd lower the basket and the person in the water would have to swim toward it to then be raised up inside the helicopter.

“Unfortunately, it didn't always work the best,” Aviation Survival Technician Chief Petty Officer Eric Biehn said during a floor presentation.

The service spent two hours trying to rescue the 34 people in the water after the ship capsized, but with the weather

conditions, and freezing water, was unable to lift anyone up. The Navy came, as they had rescues swimmers at the time, and was able to save three lives with their rescue swimmer.

The following year, the Coast Guard put funding in start a rescue swimmer program in the Coast Guard Authorization Act of 1984.

“That maritime disaster was enough to wake up Congress and the United States,” Biehn said.

By 1985, the first team of rescue swimmers was deployed to a base in Elizabeth City, North Carolina, and by 1991 the program was fully deployed in 23 bases.

Services Continue to Examine Challenges, Obstacles of Operating in Arctic



Panelists at a Sea-Air-Space discussion May 6 on the operational and logistical challenges for agencies that operate in the Arctic region. Lisa Nipp NATIONAL HARBOR, Md. – The Arctic continues to present operational and logistical challenges for the agencies that operate there, but studies are providing a clearer picture of how they should be adjusting to climate change, service leaders said during a panel presentation at the Navy League’s

annual Sea-Air-Space exposition here.

“We are working on how to better understand the Arctic,” said Rear Adm. John Okon, commander, Naval Meteorology and Oceanography Command, and oceanographer and navigator of the Navy.

Noting that climate change is happening – and there are undeniable changes in sea ice over the last decade– Okon said the use of unmanned systems could be a force multiplier for missions in the Arctic.

“We know we are going to have to operate [in the Arctic] and protect the homeland,” he said.

Vice Adm. Daniel Abel, the U.S. Coast Guard’s deputy commandant for operations, said the risks presented in the polar region are growing each year.

“It is undeniable conditions are changing up there ... the change has happened, and the change is happening,” Abel said.

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Panelists at “Arctic: Strategies for the Frozen Domain.” Lisa Nipp

The Coast Guard’s annual Operation Arctic Shield will once again take place this summer. Arctic Shield’s goal is to increase knowledge of operating in the region, as the service sends additional personnel and resources to the area to see how they react.

The Coast Guard has no full-time base in the Arctic, as the service operates there seasonally. Over the last several years, as sea ice has

melted sooner and shipping lanes have been opened for longer periods of time as a result, the requirements for the Department of Homeland Security agency have been more plentiful in the polar region.

Communicating with the Defense Department and allied nations through automatic identification systems and other means has presented unique challenges for the Coast Guard, given the harsh climate conditions.

“We are making sure that our requirements work with U.S. Northern Command, and we have the abilities to communicate at the highest latitudes,” Abel said.

“We are working on how to better understand the Arctic.”

Rear Adm. John Okon, commander, Naval Meteorology and Oceanography Command, oceanographer and navigator of the Navy

Jeffrey Hutchinson, commissioner of the Canadian coast guard, said he hopes the service continues to work closely with its counterpart agency in the United States.

“We want to strengthen our partnership role,” he said.

Echoing comments from fellow panelist, Hutchinson said climate change is an issue for the Arctic, and Canada needs to communicate to get support from allies along with improving its relationship with other nations that have a stake in the region.

U.S. Air Force Gen. Terrence O’Shaughnessy, commander, U.S. Northern Command, said the department is working on a unified approach among

all agencies that operate in the polar region.

Noting that they all face common challenges, he said new technology is important in the Arctic and that continuing to better study the region will be a focal point going forward.

“The [Arctic] is a critically important topic,” he said.