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It's time for the Ship report show about all things maritime. I'm Joanne Rideout. Tuesday, August 20th, 2024.

So I came across a very interesting news item yesterday regarding the Coast Guard and the work they do in Arctic waters to the north of us. Now, I've reported to you here on the show in past years about U.S. Coast Guard icebreakers. There are three of them currently, the Polar Star, the Healy and the Polar Sea. Now, the Polar Sea, which is evidently very well loved by people who have served aboard her, I've heard from some of them when I've talked about her, is no longer operational right now. But these ships, when they are not at sea, are homeported in Seattle.

Polar Sea has been out of service since June of 2010 because of engine issues. And when they examined the engines, then it showed excessive wear with some pistons even welded to their sleeves. So she's just not going to be back in service any time soon. But I think she may still be sitting in a berth up in Seattle. So those two ships, Polar Sea and its twin ship, the Polar Star, they're very similar, entered service in 1976 and 1978 and are both well past their original 30 year service life.

So just an aside here, 30 years is about the limit for many ships in terms of a lifespan for a ship. That's a good lifetime for a vessel. And ships are considered ready to retire around that time. But some wellbuilt ships go way beyond that with proper maintenance and the Polar Star is one of those. She's been maintained and is still being maintained and still operates very well.

So the U.S. Coast Guard operational polar fleet currently includes one 399 foot heavy icebreaker. That's the Coast Guard cutter Polar Star commissioned in 1976 and one 420 foot medium icebreaker Coast Guard Cutter Healy commissioned in 2000. These cutters are designed for open water, ice breaking and feature reinforced hulls and specially angled boughs. Now the heavy icebreaker Polar Star can smash through ice. She can run up on top of the ice and use her weight to break through. And that's how when she goes to Antarctica. Part of how she creates a path through the pack ice to allow supply ships to come. We'll talk about that in just a minute. The Healy is a medium icebreaker, not quite as intensely fortified. As the Polar Star, but still a formidable ship.

The Polar Star recently underwent a three year reactivation and returned to operations in late 2013. And since then, she's completed annual Operation Deep Freeze Deployments, which is the name of this standing Coast Guard mission to resupply McMurdo and Antarctica. That's a research station there. So this ship heads south every year to break a path in the Antarctic ice to make it possible for supply ships to reach that research station there. So very important for bringing food supplies, people to this place that is quite isolated during the Southern Hemisphere winter.

So this spring, the Polar Star went into a shipyard in Vallejo, California, to have her systems overhauled and maintained. So that she can continue service. And this service period that she's undergoing right now is part of a multiyear plan to keep the polar star in top shape. But as I said earlier, it's a pretty old ship. And there's been a lot of discussion in recent years about how the U.S. Coast Guard fleet needs more icebreakers. But funding for a new icebreaker has not happened so far. And I haven't seen anything more about this topic until the news till this news item that I just saw yesterday. And this press release, I'm going to read a little bit of it to you is about the fact that the Coast Guard is about to get a new icebreaker. Well, new to the Coast Guard. The agency has purchased a commercial icebreaker and will be adding this ship to its northern fleet. Now, this is good news since it adds to the Polar Coast Guard fleet of vessels.

Here's a bit from the U.S. Coast Guard press release about it:

The Coast Guard announced last week that it will homeport a commercially procured icebreaker in Juneau, Alaska. The Coast Guard is acquiring the Aiviq, a U.S. registered ship originally built to serve as an Arctic oil exploration support vessel, which has an icebreaking capability sufficient to serve as a Coast Guard medium Polar icebreaker so similar to the Healy. Following modification, the Coast Guard was appropriated \$125 million in this fiscal year to purchase a commercially available icebreaker.

Currently, the Aiviq is the only U.S. built commercial vessel meeting necessary icebreaking standards. The service anticipates the vessel will reach initial operational capability in two years. And so that is going to be a new addition to the Coast Guard fleet in those northern waters.

So there we are, an additional icebreaker added to the Coast Guard fleet. She'll be considered medium instead of heavy, which makes her less hardy than the Polar Star. But basically, icebreakers have reinforced hulls generally round or hull shapes and are designed to push broken up ice away and behind the ship.

So very heavy icebreakers, as I was talking about, the Polar Star have the capability and design to run up on the ice and use their weight to crush the ice. That's part of how they create a path of open water in places like Antarctica.

And I've talked to people who have served on board Coast Guard icebreakers, and they say that the noise is just incredible when you're breaking through the ice. You can hear this crunching sound throughout the whole vessel because it echoes through the metal hull. And they say that the they're pretty roly at sea because they have round bottom. So it can be kind of a a seasick making event for some people on board. But, boy, they really are in their element in the ice.

A little bit more about the Aiviq - this is from Wikipedia: The Aiviq is an American icebreaking anchor handling tug supply vessel. She was built in 2012 in Louisiana. She was initially chartered by Royal Dutch Shell to support oil exploration and drilling in the Chukchi Sea and off Alaska, where the primary task of this vessel was towing and laying anchors for drilling rigs and oil spill response.

And the Aiviq has been called the world's most powerful, privately owned icebreaker.

Sounds like a very capable addition to the Coast Guard fleet.

So icebreakers, an interesting class of ships that is getting a little attention in the news right now with the melting of polar ice and commercial cargo ships going across the top of the world in places that were previously ice bound. It's become clear that more resources are needed there, both to police and to protect the area and for rescue operations.

So much of the Arctic region has been ice bound historically and is uncharted as a result and very far from any resources that could get to them if they were in need of rescues. And that is an issue for ships traversing those waters. Help could be far away and slow in coming. Russia has a sizable fleet of

icebreaker ships in Arctic waters, but even so, getting through ice is slow work. So rescue for people who are in that part of the world remains a serious issue, even with melting ice.

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