

Narrator: You are listening to the Quarterdeck, with your host Benjamin Strong.

Benjamin: Hi, it's Ben Strong from Amver.com and welcome to another edition of the Quarterdeck podcast. We're in New London, Connecticut at the International Ice Patrol Headquarters to talk a little bit about the Ice Patrol, and I'm happy to say that I'm joined by Commander Lisa Mack, who's the Commander of the Ice Patrol. How are you m'aam?

Commander Mack: Good, good morning Ben.

Benjamin: Thanks for joining us. And I've got Senior Chief John Luzader, who's the Tactical Commander. How are you, Senior Chief?

Senior Chief Luzader: I'm doing good.

Benjamin: And Petty Officer Megan Sanks, who's the Public Affairs Officer. Welcome.

Petty Officer Sanks: Thanks.

Benjamin: Glad that you both could join us, along with Commander Mack. And, Megan and John, you're both marine science technicians, correct?

Senior Chief Luzader: That's correct.

Benjamin: Maybe we'll talk a little bit about what that is as we go along. For the Amver community, for the commercial shipping community, the Ice Patrol is actually pretty important. Specifically folks that are sailing in the North Atlantic. Tell me a little bit about what does the Ice Patrol do.

Commander Mack: Well, we are a single mission unit. Our mission is to monitor iceberg danger near the grand banks of Newfoundland, which is the northwest Atlantic Ocean, and we provide an iceberg limit to the maritime community. So basically provide a line in the ocean that mariners can navigate around and avoid ice.

Benjamin: So you provide maps of ice?

Commander Mack: Essentially yes.

Benjamin: Icebergs and things like that. And why do we...why is there an Ice Patrol?

Commander Mack: Well, like Amver, we can trace our roots back to the Titanic disaster in 1912, that really galvanized the international community to provide an organized service to provide that information. Prior to Titanic, it was pretty ad hoc. Ships would get iceberg locations from other ships.

Benjamin: OK.

Commander Mack: So this really organized, in an international cooperative way, the ability to provide that information.

Benjamin: And who else does the U.S. cooperate with, who else is involved in this?

Commander Mack: Well, our main partner is the Canadian Ice Service, with Canada. They do...we have a partnership called the North American Ice Service. So we actually just recently have joined to provide one product between those services, but the International Ice Patrol was actually formed by the IMO (International Maritime Organization) under the Solis[SP?] Convention. So there's obviously several countries signatory to that Convention.

Benjamin: OK. But essentially it's Coastguard Aircraft, and we'll get into it a little bit about how that works, but it's the Coastguard. Well, let's just get into that. And Senior Chief, you've had two tours here...

Senior Chief Luzader: Yes.

Benjamin: So you're Mr. Ice. Mr. Freeze. [Laughs] But how do you guys do your job? How does this whole process work?

Senior Chief Luzader: Basically, we've kind of split the season, or the year, up between responsibilities between ourselves and the Canadian Ice Service. And during our portion of that responsibility between February and July, we deploy aircraft up to St. John's Newfoundland, where we base our operations, our flight operations. And from there we do sorties, find out where the ice breaks are, find out where they're not. And we relay that information back to our operations center here in New London and from that we create the products using a model, and a forecast drift and deterioration model, create our chart, create a text bulletin, and get that out to the mariner.

Benjamin: So, let me go back a little bit, there's a season? There's actually a season?

Senior Chief Luzader: Yeah, there's a...climatology tells us that between January-February we start to see ice coming down the Labrador Coast, in the Labrador current, and that persists until usually June. Each year can be very different as far as how much ice makes it to the Grand Banks of Newfoundland. So that is something we monitor each year.

Benjamin: So is it possible then that icebergs could be floating, or pieces of ice - when I think of an iceberg I think of "Iceberg, dead ahead!", the thing that sank Titanic. So you've got big giant pieces that you're tracking, you've got small pieces, and you're doing this visually, so there's a Coastguard C-130 and you're looking out the windows essentially.

Senior Chief Luzader: We do have visual observers, but our principal means of detection is actually radar.

Benjamin: Oh, OK.

Senior Chief Luzader: So we use a radar system that allows us to see through the clouds, pick the icebergs out, and identify them, size, and then get that information back to our command center here.

Benjamin: Do you give them names, or do they get identifying numbers? I know that sounds naive, but...

Senior Chief Luzader: Usually we reserve that for seeing them visually, but yes we can describe them as a pinnacle, drydock, tabular, and so on.

Benjamin: OK. How far south...what's the furthest south you've had an iceberg?

Commander Mack: Actually I was just looking at a few annual reports, and they actually had an icerberg at 39 North, which is actually south of the latitude of Cape Cod.

Benjamin: Wow.

Commander Mack: So the Labrador current is what gets them that far south, and the Titanic was about 41 30 North.

Benjamin: So the Labrador current must stay rather cold then, in order to keep these from melting.

Commander Mack: Right, because it comes from the east coast of Labrador and it basically follows the contour of the Grand Banks. And essentially directly south on the Grand Banks, so that's how we get icebergs in that area.

Benjamin: Wow, and so you use radar, imagery, and you use visual tracking, and as you mentioned, that information comes back here. And I'm sure it's laid over like through GIS and you produce a product. So, along with...and you actually fly an aircraft - I'm looking at the benefit of the folks who are listening - you guys all have wings on, so you guys fly around in the aircraft as well.

Senior Chief Luzader: Yes, and the reason we wear the wings is there's a qualification process that we go through - Aviation Mission Specialist - and that qualification process allows us to wear the wings.

Benjamin: So not only are you producing products here and doing day-to-day office work, but you're heading up to St. John's and doing tours of duty on the aircraft as well.

Senior Chief Luzader: That's correct.

Commander Mack: Yeah, really all the active duty personel split their time between St. John's and the operations center. So everybody does everything.

Benjamin: How many are there here? How many people do you have?

Commander Mack: We have 16 total. We have two civilians who are our technical specialists and provide some long-term continuity. We have an oceanographer who's been here for almost three decades. [Laughs] So he's our long-term guy. And then we have an IT specialist, she's been here for about 5 years. And then the military obviously, the rotaters.

Benjamin: So January to about June is kind of the ice season?

Senior Chief Luzader: Right. Typically February is the line we draw between the Canadians and us. January we're definitely gearing up for it, as far as training and all that. But February through...

Benjamin: And so I guess it would be the fall, say October-November to the February cutoff is when Canada has kind of got the lead as far as tracking?

Commander Mack: I think the distinction there is that February to July is when icebergs can be on the Grand Banks. Generally other times of the year they're restricted to Canadian domestic waters.

Benjamin: Right.

Commander Mack: So that's why we have that split in responsibilities.

Benjamin: So it becomes a lot more critical then in the spring timeframe when you guys have more responsibility.

Commander Mack: Right, more critical for the transatlantic waters.

Benjamin: Right. And what kind of...take Megan. So you're here in the office for a week or two and then you deploy up to St. John's?

Petty Officer Sanks: Well it really depends on the severity of the season.

Benjamin: Right.

Petty Officer Sanks: We can send them anywhere from once a month to twice a month, or possibly more often if it was a really severe season. And we get supplemental information that we get people, that we'll report it just by ship, or there's another provincial airlines flies up there a lot that'll send their information up to us. But, yeah, it's technically about 8 days that you usually have a window for when you're up there, and you try to get 3-4 flights at least while you're up there so you can get a good idea of what the population is and where your limit setters are. And the rest of the time we're back here, and it really is a fairly seamless operation since everybody does everything. It's never like one person doesn't have a good understanding of what's going on and the other have...

Benjamin: Right. Now how long is a typical mission? Because everyone's going to say, oh you're flying, it sounds glamorous, and you know people think it's like the airforce, you're back at the club [Laughs] after a mission. But I suspect it's probably not that romantic.

Senior Chief Luzader: The flights can be long. We plan for 1700 miles.

Benjamin: Wow.

Senior Chief Luzader: And that puts us at about 7 hours, 7 plus hours.

Benjamin: So it's essentially like flying transatlantic, but this is an aircraft that may perhaps have the ramp down.

Senior Chief Luzader: No, it's pressurized. And the only time we have the ramp down is if we're doing some type of oceanographic operation, dropping one of our drifter buoys out of the back, and then we're down at 400 feet or so to do that.

Benjamin: Wow. So it can get kind of dicey to do that? It can be...challenging?

Senior Chief Luzader: I don't know if I'd use the word dicey. [Laughs] It's definitely...there's lots of procedures we stick to to make it a safe operation.

Benjamin: So one of the additional features that you'll do is that you can put out a data buoy or a tracking buoy. Does it use AIS, or send a satellite signal up?

Senior Chief Luzader: It uses satellites to send a signal back to a central server and we get the information from that.

Benjamin: And that's just for drift modeling, or can you actually...like you'd harpoon an elephant, can you harpoon an iceberg and track it that way?

Commander Mack: That's a good question. We actually have both. We use the drifter buoys for currents and then we have - we don't do it very often - but we have compact air launch ice beacons called CALIBS that we throw on an iceberg.

Senior Chief Luzader: I'm glad Commander remembered that acronym. [Laughs]

Benjamin: Now how often do you do that?

Commander Mack: Not very often, primarily because most of the targets are fairly small. Like a small iceberg is about 15 meters long. It's pretty hard to hit that. But last year we had an ice island that came down the Labrador coast which was very large, and we managed to get it on the iceberg, but it didn't transmit because it fell in some water. But it is a good tool to have, particularly for the larger targets.

Benjamin: Right. So you've got a pretty big tool box as far as tracking ice and ensuring the accuracy of this for the Commercial Maritime sector. So do I have to pay for this? Is there a website that I can go to? This is the kind of thing that we can put in our show notes, that folks can go back - does this cost money if I'm a fisherman?

Commander Mack: It does not cost money. It's basically an international service. We have our own website, but our products are distributed primarily through Nav-Area 4[Sp?] warnings. And that was a recent change for us. We used to do that independently, now we're a part of the Nav-Area 4 system. So in the Nav-Ara 4 broadcast window you'll see our product, and that's a text product. We also do a graphical product that's put out by HF facsimile. And all those things are available in various sources on the web.

Benjamin: Now you mentioned, Megan, you mentioned before that ships and aircraft can report ice "things" that they see, icebergs, and I've heard folks call them growlers, and bits, and there are all kinds of salty terms for them. And at the risk of minimizing the danger of these things, they are pretty dangerous, I mean a ship that gets holed. And a good example of that was the cruise ship Explorer that sank in the Antarctica, they got holed by a bergy bit. And ice can cause more problems than just holing a ship or sinking a ship, they create a lot of fog, there can be a host of different navigational challenges when it comes to navigating through waters that have pieces of ice in them. So, Amver participants send messages to us, either through email, or facsimile, or HF, or through the Imarsat[Sp?] system. If I'm sailing along and I see that there's an iceberg somewhere and I've got my position, can I send that message in to you guys, is there a mechanism to do that?

Commander Mack: Yes, there is. And we've actually modified this a little bit recently. There is an Imarsat code 42 where people can report through that system. That will come to us. It also goes to the marine communications traffic service in St. John's. If they get a report of an iceberg outside the limit they send a notice to shipping, and then that automatically triggers a Nav-Area 4 warning.

Benjamin: OK.

Commander Mack: And ships can also report directly to any Canadian Marine Communications and Traffic service. Those are the primary methods.

Benjamin: OK great. So there's really, besides you guys who are in aircraft and other aircraft that are reporting in ships, it's a pretty comprehensive method of tracking the ice. I would be remiss if I didn't say that there's a lot of people saying the ice is receding, and while you guys aren't responsible for tracking say the northern sea route in Russia or the Northwest Passage itself, which is a lot further north than the area that you're covering. Do you find that there are more bits and pieces now, or does that vary season to season? Do you see that there's maybe been an affect by the climate?

Petty Officer Sanks: We actually have a lot of variability in our seasons anyway. And I think the caveat to understand when you're trying to look at climate change along with what we see in our area is that the icebergs that come to us have a 1-3 year journey that they go on before we even

see them in our op area. And on that 1-3 year journey there's so many place that they can stop, get lost, get grounded, stay in a bay. So the amount that we see in our op area doesn't really correlate to any kind of change that we see in the climate. So, generally speaking, we don't really say that we see anything.

Benjamin: And you're not climatologists, your focus is to keep the shipping lanes safe and alert people to where these pieces are.

Senior Officer Luzader: Absolutely.

Benjamin: And now I would also be remiss if I didn't mention that, we talked about the history a little bit, it was because of Titanic and IMO and the need to have a clearer understanding of where these ice pieces are. And the genesis being Titanic, this is the 100th anniversary of Titanic. Is the Ice Patrol involved in any kind of any activities surrounding Titanic?

Commander Mack: We are. Every year we have done a memorial wreath drop. I actually went back and looked at the annual reports - the first incident of that was in 1923.

Benjamin: Wow.

Commander Mack: So, a long history of recognizing our roots that way. The Titanic historical society has actually provided a wreath for that drop since the early 1970's. So we have a good relationship with them. We're actually doing something special this year that they organized with a couple of Titanic museums, that visitors that went through the museum carried a rose petal with them and at the end they collected the rose petals, so we're going to be dropping all of those rose petals. And it was a way for individuals to kind of comemorate the sinking. So that is in addition to the few wreaths that we'll drop. And that will be over the Titanic site.

Benjamin: Wow. And I know that there are be some cruises that probably will be in the area, and this is garnering some pretty significant media attention, more so now probably after the Casta Concordia, which was not holed by an icerberg and it was in the Meditteranean, but a lot of people are finding parallels between Titanic and the fact that there are incidents of cruise ship sinkings that occur today. Certainly from the Amver side, we see ships, there's probably a ship a week that sinks, again not related to being holed by icebergs. And as the ice is receding there's more emphasis and more focus on vessel traffic in what was once ice-covered waters, your product probably becomes more important than ever. Is there an effort to expand ice patrolling? Are you aware of similar missions that maybe the Russians are doing, or that the Europeans are doing, or that may be occuring north through the northern sea route, or are you guys pretty much it around the world?

Commander Mack: There's certainly is interest particularly north of Labrador, as Canada has some expansion of shipping up there. And that was part of the impetus for the North American Ice Service. And our move to Nav-Area 4 warnings, so that we're covering more of that area with those warnings. And I think the vision of the future is eventually that the North American Ice Service will cooperate with the Danish, look at icerbergs around Greenland, that we would have one comprehensive product for the North Atlantic.

Benjamin: Interesting. I'm sure that this will become a more important topic as shipping increases in the northern latitudes. I recall a comment once I heard from a gentleman who works for Fed-Nav, which is a big Canadian shipping company: Tom Patterson. We've done an interview with him, I'll include a link back to that interview. Ice-free waters doesn't necessarily mean no ice. And there is a lot of attention on folks who think that they may shorten the route between Asia and Europe, and one end of the Pacific to the Atlantic. And just because it may not be frozen over where you need an ice breaker doesn't mean that you won't have fog and bergy bits, and you have to have additional people on your bridge, and you've got to really slow steam, because you may get holed. And I think that the need for the shipping community to access your product will probably increase as the years go on. I just want to say thanks again for taking some time to sit down with us. I think that your product is probably more important than ever. I wish you a lot of luck in the 100th anniversary of Titanic, as you memorialize what occurred on April 15th. And we'll have links to all of your products so that the shipping community can access that through our website, and we'll make sure that they'll be able to get ahold of your website. So, Commander, Petty Officers Sanks and Luzader, thank you very much for joining us. I'm Ben Strong from Amver.com.

Narrator: You have been listening to the Quarterdeck. Learn more about the Amver program at Amver.com. The Quarterdeck theme song is called [inaudible], available at MusicAlley.com, or follow the link in [inaudible].