[Music] Narrator: You're listening to the Quarterdeck with Benjamin Strong and Coast Guard Admiral Jim Watson.

Benjamin Strong: Hi, it's Ben Strong from Amver.com and I'd like to welcome you to the July episode of the Quarterdeck. Admiral Jim Watson won't be joining us this month. He's just completing his move from Virginia back up to Washington D.C and he'll be joining us again in August, where we'll have another good discussion on current Maritime issues—Maritime safety issues and new policy items that may be creeping up in the Coast Guard effecting mariners around the world. I am happy, however, to announce our guest this month, Julian Longson from Pole Star Space Applications. Is that correct, Julian?

Julian: That is correct, Ben. Yes.

Benjamin: And Pole Star is a company that Amver has had a long relationship with going back probably close to 10 years, if not longer now. Polestar—well, I'm not going to describe what Pole Star does. Julian, I'm going to let you just quickly describe what Polestar does and what you do with them.

Julian: Thank you, Ben. Yes, indeed. Pole Star—we basically provide vessel telematics solutions to the whole of the maritime industry. As you mentioned, our relationship with Amver goes back many, many years now, and it pretty much formed after the formation of Pole Star itself, which was in 1998. I think, if my memory serves me, I've met with the Amver folks one year later in '99. From there, our relationship certainly has blossomed to the extent that we're now involved in the tracking of many thousands of vessels, and that is what we do day-to-day. We provide both discretionary tracking that we call fleet management and also regulated tracking to meet the requirements of the SOLAS convention.

Benjamin: Thank you, Julian. You're right. What's interesting, and many of our listeners may be wondering, what on earth is Amver doing interviewing or having a conversation with a commercial vessel tracker? And as Julian alluded to, back in the 90s Amver—we're always looking for ways to improve how ships can communicate with us. As technology evolves the Amver team and we here in the Coast Guard feel we have a responsibility to continue to improve the way that our participants report to us. So originally, Julian, the idea was to do a proof of concept study to see if ships could report automatically to the Amver system without any kind of bridge intervention. I won't necessarily get into all the details. You're a whole lot smarter than I am on the [denids] and the technical aspect of it, but it's just a way to keep the bridge team, or the captain, or radio officer from having to type out an email, or a telex, or send a morse code message. But how many vessels? I want to say it was about 10 vessels started out in the proof of concept study. Does that number sound about right?

Julian: Yes, Ben, indeed. It was. Ten vessels is the exact number, and we're very pleased with the specific shipping companies that participated in that trial. Something that really does permeate through our relationship with Amver—you mentioned the fact that we are

a commercial organization, but the Maritime industries are—it's a brotherhood when it comes to saving lives at sea and participating in the Amver program. Shipping companies and masters really have no second thoughts at all. It's something that they all feel they want to do. Yeah.

Benjamin: Exactly. The foundation of the relationship was that (a.) we wanted to see if this type of automatic reporting was possible and (b.) we wanted –since there was now a market for people purchasing fleet management and communications capabilities, we thought that is was important to offer a way for the ships that were subscribing to your service or other services. We'll talk a little bit about that as well, I suppose, but we didn't want these vessels to be excluded or have to have an additional burden of both manually reporting to Amver and having this automatic reporting scheme going on in the background. But what started as 10 ships 10 plus years ago has now blossomed into what just recently became 1,000 ships reporting to Amver through the Pole Star System. But I think, Julian, you hit the nail on the head as to why Pole Star wanted to supported to Amver and why Amver is interested in a relationship with Pole Star. It's that going to sea is a brotherhood and it is this fraternal organization. Really, if I'm a sailor, I don't care if the ship that's coming to save me has sent Amver a morse code message, or a telex, or a fax, or reported via Pole Star, or what's now blossoming into several other vessel-reporting schemes and commercial enterprises. I just want to know that ship is coming. You guys recognize that first, and that's what got us together. It helped this relationship and this program grow. Isn't it?

Julian: Yes. It is certainly. What is really pleasing for me—and, of course, your having 1000 vessels reporting to the Amver system is fantastic, and every vessel that will get reporting further into the system will be of a great benefit to you. It only takes one vessel, of course, to save a life. That's how crucial all of this is really and why we support it whole-heartedly. From a technical point of view for your listeners, certainly it was a relatively straight-forward thing for us to do. Of course, position reports from ships back in 1998 were a relatively new thing. We were, if you like, in a marketing sense, trying to dislodge what was the manual new day report. In an Amver context, your incoming position reports were also manual in many respects. We were sitting on a very good technical solution where we were receiving automated position reports on our bridge every 6 hours. So four times a day, and he's seen the most logical thing in the world was to reroute those positions into the Amver system from our participating ships. That's currently exactly where we still stand.

Benjamin: Well, this was very cutting-edge for the time. This predates long-range identification and tracking. I don't know the actuality on this. I may be incorrect, but this may even—does this predate AIS?

Julian: Yes, it does predate AIS. AIS, of course, as most things are when they are disgustedly IMO and setting motion, probably dates back to the mid-90s, but it was certainly long after 2000 before the AIS systems were installed on vessels and became operational.

Benjamin: So we can be proud to say that the Amver and Pole Star relationship was cutting-edge for its time. That's a good place to be, isn't it?

Julian: It's a very good place, and, of course, now more and more vessels are providing positions reports into automated tracking systems. We, Pole Star, are, of course, not the only commercial organization doing this. There are several others now. I'd like to think, of course, that we were the world's and are the world's leading provider of this type of solution. I'm sure as we go through the conversation, Ben, we'll go on to where Pole Star are heading and what we think in the industry is happening at this vessel-tracking level. But it is all very exciting, of course, and it's interesting. You mentioned leading edge—it certainly was back in '98. Even now, I'm mesmerized when I see the positions of vessels on maps on our systems, and I can see there in the middle of the Pacific there's still something that makes a little boy out of you, that fascinates you with that type of thing.

Benjamin: I agree with you. It's interesting; we're changing the way we display our identity plot information, and I'm fascinated to look at a map and see where vessels are. I'm also quite proud when I look at a map and see where just our Amver vessels are reporting. It's evident and it's obvious—our survivors can certainly speak for this. But there isn't anywhere in the world, with the exception of perhaps the north and south polar regions, where we can't get a commercial ship to rescue you usually within about 24 hours. The days of being adrift at sea for 6, 7, 8 days—provided, of course, that the survivor is properly equipped with EPIRB and various rescue equipment. But the days of being adrift at sea for a crew or a well-supplied sailor are essentially over now.

Julian: That's right and, of course, I think we know perhaps as well what the future holds. You mentioned this Arctic and Antarctic areas, and with exploration and with the potential opening of the sea lanes up there with [Inaudible at 9:59], perhaps the effects of global warming. Perhaps not. But those areas are hostile. Certainly, the Amver system and participation of vessels is crucial when you are in a distressed situation in those areas.

Benjamin: No, you're absolutely right. That's one of the areas that we're starting to put more emphasis on—the arctic sea lanes that are opening up. Dealing with our Arctic nations, the Arctic Council just recently signed a search and rescue agreement amongst the various Arctic nations. So the world is focusing on search and rescue, but I want to talk a little bit about vessels—how many ships. Amver, right now, has about 22,000, depending on new builds and what may be going to the breakers or into the yards. We have about 22,000 ships that are enrolled in Amver. I'm very proud to say that we've just over 5,000 ships reporting in a 24 hour period. How many ships total? We know we've got over—and it's probably higher now. There are at least 1,000 ships reporting through Pole Star, but how many vessels do you guys manage or track all together?

Julian: In total, Ben, I guess we are tracking around 15,000 unique ships at any one moment. However, in total, we were probably tracking close to 25,000 ships because some of those ships are being tracked more than once. Let me give you an example: you may have a ship operator tracking a ship and the same ship may be tracked by the charger. I'm sure that with the regulatory environment now, of course, all flag

administrations have to provide long-range identification and tracking data centers to track their own ships too.

Benjamin: Mmm-hmm.

Julian: So it's going back to, again, the leading edge. A point you made very early on: Twelve to thirteen years ago, very, very few ships were being tracked, and today ships are being tracked by many different entities at the same time.

Benjamin: Well, it's certainly a testimony to safety at sea, and I would add—so as not to exclude or to not give the air of showing favoritism—the relationship that we have with Pole Star helped, I think, spur similar relationships we have now with Transas, that also provides vessel tracking. They have a relationship with us—Marine Tracker in the U.K as well. So to our shipmates at sea, if your vessel reports to Pole Star and you're not taking advantage of this opportunity, we'll have a link to Pole Star in the show notes, so that you can email them and talk to a sales-representative and say, how can I get involved in this relationship? But I would also encourage Transas customers and any—I would encourage a customer of any vessel-tracking program to ask their supplier, why aren't we reporting to Amver? Julian, it was the relationship that we have that proved it could be done. It worked on the premise that it would be cost-neutral at best. If there was any cost, it's certainly not born by the ship owner, and I think the coding on both our end and your end was minimal at most. Correct?

Julian: Yes, that's correct. It was minimally. The interfaces we have between our two servers is very straight-forward. Again, I know we're waxing [lyrical] on this, Ben, but it is a—and has been—a pleasure working with Amver, and I'm certain that the other commercial companies that you've mentioned, Marine Tracker and Transas, would say the same thing. It's nice when you sit in the commercial side of the industry, as we are, to do some good. I do believe we are doing good with Amver and our [affiliates], both Pole Star and the other two companies I've mentioned, I'm absolutely certain charge nothing for this. This is a free-of-charge service provided to the shipping companies to allow them to route their position reports through to you guys, and it is all about saving lives. That means an awful to everybody concerned.

Benjamin: If people want hard and fast examples of, "Great, I'm sending my reports to Amver via Pole Star or any number of tracking schemes. Does it really work?" You and I know that it works because we've had that case in December that was specifically a Pole Star case, where a group of German adventurers were rescued by a Greek ship in the Mediterranean. In fact, it was an interesting case, and I think it really demonstrates the international flavor and cooperation and nature of Amver in that the Germans were in distress in the water, their EPIRB was picked up by MRCC Rabat. The rescue personnel at Rabat notified the U.S. Coast Guard using a process we have online to request Amver information. Any rescue coordination center in the world can request all this data. It would be criminal for us—it would be a shame if we kept all that information to ourselves. So it is available to rescue coordination centers around the world. So Rabat requests Amver data from the U.S. Coast Guard using Pole Star as a mechanism of

sending the report. So we've got a U.K. company tracking a Greek ship and we ended up rescuing two people. So if anybody asks, "Well, does it really work?" a couple of German sailors will be happy to probably share a beer and discuss, yeah, the system really does work.

Julian: Yes, that's right. It was a fascinating example of a multinational approach to safety at sea, without a doubt.

Benjamin: Well, I'm very, very pleased with the cooperation that we have—speaking strictly from proving more vessels on plot. The more ships that we have available and willing to divert, the better for everybody at sea. Pole Star recognized that. Helped us establish this great means of automatically sending in position reports. What's new for Pole Star? What's next for you guys? What can people expect in the future?

Julian: Well, interestingly, the big debate in the industry, as you've probably picked up over the last few weeks, with the conclusion of the IMO International Maritime Organization MEPC meeting. It's all relating to the environment. We know the environment's important, and the shipping industry knows it's important too. There's a lot of movement with regard to increasing vessel efficiencies. There's a lot of movement within the industry with regard to operational [NDCs] and design NDCS for vessels. And, of course, that's with the combination of the fact that our bunkers and fuel costs are rising to incredible levels. It means that the shipping industry is desperately searching for major improvements in efficiencies from a cost savings point of views, but also from an environmental emissions point of view as well. Now, we at Pole Star have been putting a lot of research into developments into this area, and we're pretty comfortable with the fact that by providing extensions to our vessel-tracking services, both our discretionary and our regulated tracking services, we can actually contribute to that equation. You'll probably see that there's been a lot of discussion in the industry journals and magazines about improving ship efficiencies through the monitoring of voyage operations and routing of vessels. Of course, the position of the ship is crucial in that calculation. That is what we're dealing with at this moment in time.

Benjamin: Julian, that's an interesting point you bring up about the efficiencies and the economics of shipping, whether it be on an environmental side or more on the saving money—getting the efficiencies. I've seen some business models popping up that are using vessel-tracking and applying it almost to the economics of shipping to figure out, is the spot price of crude going to go up based on, perhaps, the number of vessels heading into a port, or coming out of a port, or particular types of vessels? I think when people think of vessel-tracking they think of safety, search and rescue, and security, but do you see a market emerging from the economic standpoint? Can I got to Barons or can I go to the Wall Street Journal and perhaps one day analysts will be using vessel-tracking data as a means of speculating on commodities?

Julian: Yes. Well, it literally is a million dollar question, Ben. We could talk for hours on just this very one issue because it's potentially going to be available—that type of analysis—in the industry. Well, of course, there's a lot of angst and concern over that. It

may be easier for me to explain it in context that the type of position reporting that we, Pole Star, provide through to Amver is all based around the Inmarsat type of [GMDSS at sea] systems, where you can derive positions from the GPS and then transmit that position over--either the Inmarsat point-to-point networks or the Iridium networks as communication service providers. Now, what that allows is a very secure network to be developed where the position reports and the position of the vessel is secure in that it simply goes from one system into another. It's not broadcast anywhere. Therefore, when shipping companies track their own vessels, it's done in a secure way and in a very confidential way. Now, of course, the question you raise regarding commodities, and futures, and all that type of economic [NDCs] is valid, because, of course, just over the horizon we are looking at the advents of satellite AIS. Now Satellite AIS is an extremely interesting service that is coming on to the market, and it will provide position reports on vessels all around the world, but in an unrestricted way. So far, any company that wanted to offer value—added services into the commodities arena—could do so to good effect. Now, there's good and bad attached to that type of offering into the markets, because at the end of the day what you guys at Amver and we are particularly concerned about here is safety of life at sea. Now, if the shipping companies and the trading houses believe that 3rd parties are obtaining information on their ships, it may come to a point where the AIS system is actually switched off or deliberately falsified to indicate that the ship is under[ballast], as opposed to being loaded etcetera with crude oil, for example. Now switch equipment often in the Maritime world is not the greatest thing to do at all, but I think other people will understand that that's maybe a commercial necessity in some cases. That would be a dangerous point for us to reach, and so the next 18 months or so are going to be really quite crucial in how that part of the market place develops.

Benjamin: It is going to be an interesting evolution of technology tracking and exactly who is a customer of vessel position information. But I would want to reiterate a point that you made—and I think it's an important point, so as not to scare of any Amver participants—the relationship that we have with Pole Star, and with other vessel-tracking companies, and some actual in-house shipping vessel-tracking schemes—the relationship we have is confidential, it's secure, and it's only used for search and rescue purposes. The Wall Street barons aren't getting a hold of any Amver data. Insurance companies, [P&I] clubs…Amver data is used strictly for search and rescue purposes and we only share it with rescue coordination centers during an actual emergency. But there's one last thing I want to touch on, Julian, and that's communications in the Polar Regions. Is that still proving to be somewhat of a challenge? Or is the technology evolving now where there's essentially coverage around the world?

Julian: Technology exists, Ben, and has [been] now for a couple of years. We've touched on the long-range identification and tracking regulation a few moments ago, and, in fact, a major performance requirement of that regulated system is that tracking had to be available in what we call Area A4, which is a high latitude, of course. Inmarsat, which is the dominant provider of communication services in the Maritime world, can operate up to around 72 degrees north and south. So above that, there were communications problems; however, there are excellent services such as Iridium that [were there lowered] for orbit satellite's provider, a [Inaudible at 24:29-24:30] bridge of 100% of their service.

So there are products in the market place that provide tracking information using the Iridium services, the comms platform, to cover those areas.

Benjamin: Well, that's good news for people who are curious, or concerned, or interested in reporting to Amver; they're going to be sailing the Arctic. The Cruise Ship Explorer incident down at Antarctica several years ago certainly demonstrates that catastrophic incidents still occur, whether they be in the north or the south, and it's that collaboration of shipping communications companies and Amver that will be best suited to save lives at sea. Julian, I'm proud to be partnered. I know that Amver and our participants are proud to be partnered with Pole Star. We're very excited to have eclipsed 1,000 ships, and that number continues to grow. Pole Star's contribution—and yours too because you've been around essentially since the beginning—but Pole Star's contribution to safety at sea is certainly unmatched and has contributed to that 5,000 vessels on plot number. On behalf of those of us here at Amver, I want to say thank you. Again, I said I'm going to include links in our show notes, so if people have questions about how their ships they can—if they already subscribed to a Pole Star product—can partner with Amver. Your sales people are standing by, as we say in the United States. Right?

Julian: Indeed, they are. They're over there ready and waiting, Ben.

Benjamin: So we'll have links to all of the various schemes that we have. Scheme in the United States sometimes takes on a bad connotation, but I know in the rest of the world a scheme can be a very good thing, and the relationship we have with these various tracking schemes is good. But Julian, I want to thank you for taking a few moments out of your day to share the Amver/Pole Star story and how that has helped spur and better communications and safety at sea around the world. I look forward to 2,000 Pole Star vessels reporting to Amver in the coming future. Thank you so much, Julian.

Julian: Thank you very much been, and may I just say, it is an honor and it's a privilege working with you guys over there. You are doing a fantastic job and long may it continue.

Narrator: You have been listening to the Quarterdeck. Learn more about the Amver program at amver.com. The Quarterdeck theme song is called Botany Bay by the Blaggards, available at Musicalley .com. or follow the link in our show notes. [Music]