



The mariner's mariner

Captain David (Duke) Snider MM, BMS, FNI, FRGS
Senior Vice President, Nautical Institute

Photo courtesy D.Snider

...[Captain Snider's] long-time involvement in the Nautical Institute has demonstrated a commitment to sharing his knowledge and experience...

Captain Duke Snider has built a career at sea that spans over 35 years and includes naval, coast guard and commercial vessels. He is a noted and recognized expert in ice navigation and polar shipping and has helped develop operational guidelines for Arctic shipping that are generally accepted worldwide. As the Canadian Coast Guard's Regional Director Fleet — Western Region, he was responsible for overseeing approximately 600 personnel, vessels, aircraft and service delivery platforms for CCG's operations west of Manitoba, including the Yukon and Northwest Territories. And as if that's not enough to identify Captain Snider as one of Canada's most distinguished mariners, his long-time involvement in

the Nautical Institute has demonstrated a commitment to sharing his knowledge and experience with new sea-going generations and to improving practices at sea for the sake of safety. He is, quite frankly, the person mariners turn to when seeking advice on operations. Simply put, he is the mariner's mariner.

BCSN: *Duke, there are so many aspects to your career that I'd like to delve into but let's start by focusing on your involvement with the Nautical Institute (NI).*

DS: I've been a member of the NI since the early to mid-1980s when I joined up as a student doing my Watchkeeping Mate training at Camosun College. I was also part of the group that established the Nautical Institute BC Branch (NIBC) in 1989. With the exception

of a short absence while working in Ottawa, I've been a director of the BC Branch since its beginning.

I began on the NI's International Council in 2005 and, as a council member, represented the BC Branch at meetings. In 2012, I was elected to the Vice President position which I did for two years, and then elected to my current role as Senior Vice President.

Besides being active at the branch level with communications, assisting with our bi-annual conference and other seminars, on the International Council and as Vice President, I've sat on a number of committees and working groups, including the one that looked at the redesign of the governance of the NI as well as chairing the Ice Navigator Working Group (which led to my role as the recognized delegate at IMO for all matters related to ice navigation and the Polar Code).

BCSN: *I want to come back to the Polar Code (and your book) but let's continue with some background first.*

You've had an extensive career with the Canadian Coast Guard and currently operate a successful consulting practice (see "About Duke" on page 20). How has the NI benefitted your career?

DS: The NI is all about best practices — putting ships to sea and bringing them home safely. It's about ensuring those that perform their tasks at sea are trained to the highest standards and qualifications. It's a communication tool between practitioners of the marine arts and sciences and learning from fellow members as well as keeping abreast of best practices through the publications and programs offered. That strengthened my abilities as a Watchkeeping Officer and throughout my sea-going career, whether it was on board a naval, coast guard or commercial vessel.

One of the most relevant aspects of the NI is that the majority of the membership are sea-going personnel. We're not a shore-based organization. Our constitution requires that at least 50 per cent of our Council be sea-going members. Not only does the NI feed my experience at sea, but my experience at sea feeds the NI. It works both ways because I'm able to pass along my knowledge in addition to benefitting from the knowledge of others.

BCSN: *And you're still active at sea with your company Martech Polar Consulting.*

DS: That's right. I maintain my certificate of competency as an ice navigator and I operate at least eight weeks per year at sea. Last year, I was in the Arctic from the middle of July to the beginning of November on four different ships — a bulk carrier (the first bulk ore carrier going in and out of the Baffinland Mine at Milne Inlet in July); a research ship in the Western Arctic and two Finnish ice-breakers making a late season west-to-east trip through the Northwest Passage. Each one of those ships was quite a different operation and each built on my experience from the other.

The sea-time keeps me current and allows me to do the other side of Martech Polar which is the consulting part — for example, conducting feasibility studies,



Captain Snider received the Queen's Jubilee Medal from Governor General David Johnston at Government House, Victoria, in 2011.

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review of ship designs, or fitting out ships intended for polar operations. I've also taught courses on ice navigation and cold weather operations both here and in Singapore. And I'm able to do this because I'm current at sea and well aware of what's going on. Martech Polar also has a list of about 16 ice navigators who I can call upon when needed to supply shipping operators. Depending on the type of ship and where it's going, I'm able to provide the best suited ice navigator for the job.

BCSN: *Rumour has it that you are up for election as President of the Nautical Institute this coming June. Could you summarize the NI's priorities over the last five years and how those would shift if you do indeed become President?*

DS: It's not that the priorities would shift. We base our priorities on the needs of our members. For example, we're in the process of finalizing our next five-year plan which takes into consideration the responses from a survey conducted by our current president, Robert McCabe. We were very pleased

with a return of 1,500 responses out of a possible 7,000. So taking those responses into consideration, along with input from our 80 branches and the Council, we're able to determine our direction.

The coming five-year plan provides for a bit of a different focus from the last — for example, navigation safety is one of the leading issues coming up. We'll continue to look at the human elements and the challenges that seafarers face on a daily basis as well as the impact of new technology, a huge point of interest for members based on the survey responses. Technologically, things are changing so fast that as bridge officers, it's tough to keep up. It's important to maintain competency through continued proficiency endorsement systems and ensuring we're current on best practices and not propagating bad habits. Another priority is mentoring, which is especially important to new members.

The goal of the NI is to make things better for the seafarer. It's about

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Photo courtesy D. Snider

Captain Snider and Vija Poruks, then Assistant Commissioner, Canadian Coast Guard – Western Region, with representatives of the Hong Kong Marine Police during a tour of their facilities.

improving living conditions, ensuring that new equipment, as it's developed, is usable and transferable through a standard from one ship to another. It's also about fatigue which is a huge issue. We are currently fighting the two-officer bridge

watch configuration between master and an officer of the watch switching about 12 hours a day. There are coastal regulations that allow it still and we are fighting to have that done away with. We need meaningful regulations on hours of rest.

I like to think that our priorities over the next five years are all about the “people aspect” — understanding competency, understanding fatigue and having the right skills to master a vessel.

My pet project has been the Ice Navigator Project and we're currently considering whether we put in certification for ice navigators because the Polar Code doesn't address it and there are no international measures or standards. We need international regulations that are in line with one another and that's what the NI is all about.

BCSN: *Could you explain how the certification would work? Would NI deliver the courses or partner with other training institutes?*

DS: The present plan is two-fold. One, to put in place a training and recognition program based on a matrix that has been developed over the last few years which identifies the skills, knowledge and competency required for an ice navigator. It was originally going to be part of the Polar Code but didn't make it into the final version. We'd like to give recognition to training institutions that provide courses for ice navigation that comply with the matrix. If they meet that recognition, they are then authorized to issue a training certificate that would carry both the institution's crest as well as the NI crest.

A second level of training would require proof of sea time in ice for a certain amount of time and then the successful completion of an oral exam conducted by a NI-recognized ice navigator. The certificate issued would be that of a Senior Ice Navigator.

We feel that, while not mandatory, ship owners would find these certifications beneficial and a way to gauge the skill level of their ice navigator. Insurers are also seeing the benefits of qualifying ice navigators — they were the ones who came to us in the first place to suggest it.

The NI is well-suited for this kind of certification because of our past experience with establishing standards and training curricula. For example, we came up with the first standards for the training and certification of dynamic positioning operators. Following a number of very tragic accidents in the oil industry on the North Sea about 25 years ago, industry came to the NI and expressed a need for standards. So we held very focussed, in-depth conferences and workshops and came up with standards that included the first level of training which included time on a simulator with certified instructors, followed by sea-time, and then back to training to get a senior certificate. That has become the de facto industry standard today. A number of flag states actually include it in their regulations that to have a certificate of competency from that flag state, your dynamic positioning training must be through the NI certification process.

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BCSN: *While we're on the subject of ice navigation skills, could you provide an update on the status of the Polar Code.*

DS: The Polar Code becomes effective on January 1, 2017 and will be a mandatory code for all SOLAS ships operating within polar waters as defined within the Code and other various instruments like MARPOL, SOLAS, and STCW. The initial versions of the Code were guidelines for ships operating in Arctic ice-covered waters but it changed after a few years to specify Arctic and Antarctic.

If you look at the Polar Code in a macro sense, it really is a lowest-common-denominator document. It's the first mandatory instrument of the IMO and to get it passed and agreed to by a sufficient number of states, it had to be made palatable. So the Polar Code that's coming into effect was not what was submitted from the Polar Code Working Group several years ago. There were a number of pieces that were brought down in complexity, for example, some references to pollution prevention were taken out. But what we have is a first step for building more robust and meaningful standard regulations.

BCSN: *You wrote a book about polar operations a few years ago — Polar Ship Operations (published by the Nautical Institute). Does the information line up with the Code as it is being implemented?*

DS: Yes, my book still stands as a very relevant document. It's the practical way of operating vessels within the polar regions and goes into everything from geography, meteorology, weather, state of infrastructure and how to operate generally in ice. We looked at whether it was time to do another edition given the upcoming mandatory code but the decision was made that it remains relevant the way it is. We'll have to see what changes come out of the Polar Code when flag and coastal states amend their regulations to comply.

BCSN: *What about Canada?*

DS: Canadian and Russian regulations, in many ways, are very similar in that they're reasonably strict and

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well laid out. They have approached some ways of looking at things a little differently — for example, some of the design components required and defence requirements but the intent and the focus of fairly stringent regulations well supported by national law is already there. What may happen is that Canada and Russia maintain a higher level of regulation than what

is required by the Polar Code. Under the UN's *Convention of the Law of the Sea* (UNCLOS, Section 234), coastal nations where shipping is affected by ice can put in regulations more stringent than may otherwise be required.

My understanding, listening to Transport Canada, is that may very well be the direction we go. We don't want to remove some of the provisions

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for pollution prevention that are above what the Polar Code says. Manning is another issue where both Canada and Russia have some fairly rigorous requirements for specific ice navigation skills and the Polar Code opted to steer away from that. The Code talks about “polar waters operation training” which doesn’t require time in ice but rather just some minimal time within polar waters. Operators of ships plying their trade within the constructs of the Polar Code don’t have to have ice navigation experience whatsoever, however, under Canadian and Russian laws, there is a very clear requirement for ice navigation experience.

BCSN: *As someone extensively involved in polar shipping operations, are you seeing an increase in Arctic shipping?*

DS: Throughout the Arctic region, there tends to be a fairly steady domestic operation — both in the Northern Sea route and the Northwest Passage — for the resupply of communities and ongoing exports. In the last decade, because of (I believe exaggerated) climate change, there is more interest but there has also been new resource development initiatives. In Russia, for example, oil and gas exploration and development has been very big.

In the very near future, the biggest change we’ll see will be the export of natural gas on a large scale from the Russian Yamal Peninsula. There will be 16 170,000-cubic-metre Arctic Class 7 LNG vessels operating 12 months of the year out of Yamal. Each one of those ships will need officers experienced in ice navigation and cold weather operations.

Another development closer to home is the Baffinland Mine in Milne Inlet — last year was the first commercial export from the facility which saw a number of Supramax and Panamax, light ice-class vessels operating from July to October. I had the opportunity to guide in the first ship. In that sense, 2015 saw a 1,000 per cent increase in bulk shipping in the Canadian Arctic. We went from no bulk exports to 10 ships in and out and that will grow

gradually through the coming years that the mine is in operation.

BCSN: *What about cruise ships?*

DS: Yes, absolutely. The eastern Arctic has been busy. There’s been a slow increase in the smaller expedition-type ships. Some have been coming to the Arctic for a number of years — the *Hanseatic*, the *MV Explorer* for example. Those ships tend to operate in the eastern Arctic around Greenland and in toward Resolute. In 2016, we’ll see the *Crystal Serenity* visit the Arctic. This will be the first “major” cruise ship with about 1,000 passengers (noting that the *MV World* went through a number of years ago but technically, she’s a ship of apartments, not a cruise ship).

Extensive planning has been going on for the *Serenity’s* voyage this summer. There will be two experienced ice navigators onboard and a support ship which has been chartered under Tactical Marine Solutions — a Canadian company based here in Victoria. The support ship will be the *British Antarctic Survey Ernest Shackleton*. The BAS ship will come from the U.K., travel east to west through the Northwest Passage to meet the *Serenity* and then provide support during its two-week voyage from west to east.

BCSN: *I’d like to focus now on some trends in areas where the NI is active — starting with technology.*

DS: One of our priorities is e-navigation. We have a very focused group led by our Director of Projects, David Patraiko, who is working to ensure that technology-driven advancements in e-navigation are done in a usable and workable way for the people actually driving the ship. Sometimes, you’ll get techies and policy makers together and they’ll come up with some significant developments but their solutions will be incredibly unfriendly for users. So the NI is there to ensure that the systems that are evolving do so in a user-friendly way.

Technologies like AIS (Automatic Identification System) and ECDIS (Electronic Charting Display Information System) are very important tools

but, using ECDIS as an example, not all systems are created equal. We're in the process of rolling out an ECDIS certification to make sure that people are trained properly in their use and create a standard across the industry so that you can go from one ship to another and be able to understand the system in front of you. We work with both the manufacturer and the mariner as well as trainers, simulator manufacturers, etc. Our approach is pan-industry — back and forth between the designers, the builders and the users.

BSCN: *Do you think there is too much reliance on technology to the point it is taking away from a mariner's capabilities to operate without it?*

DS: Definitely technology can fail. There's an expectation that there will be seamless communications but electronics fail and you have to have back up. You have to train people to step in — for example, when the auto pilot fails, anyone remember how to

Photo courtesy D. Snider



Captain Snider receives a thank you gift from the Master of the Russian Sail Training Ship Pallada in Victoria in 2011, celebrating the 50th Anniversary of Yuri Gagarin space flight.

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steer a ship? You better know because someone is going to have to get on the wheel. Same with the sextant. You have to keep some of these old bits and pieces out there because we haven't got infallibility.

BCSN: *Are we doing that though? I hear stories from senior mariners and pilots for example, that the younger generation spends more time looking at the computer screen than out the window.*

DS: That's why organizations like the

NI are so important. We work to ensure best practices which include looking out the window. What we need to be aware of, and what the NI is doing, is making sure we don't get caught in a technological safety net that becomes unravelled.

BCSN: *How does NI approach environmental stewardship?*

DS: Safety at sea is about ensuring ships get from A to B safely so that the people on board and the cargo aren't

damaged or hurt. Part and parcel with that is ensuring that the environment isn't impacted. It all comes together. If we're ensuring the safety of the people and the safety of the cargo, then we're ensuring the safety of the environment.

Recently, the NI had a campaign for environmental awareness and reminding our members that as operators at sea, we are stewards of the environment. We published awareness posters on various issues, for example, the sensitivity of the Sargasso Sea.

Another project we undertook resulted in developing guidelines and standards for branches to participate in discussions of stewardship of the marine environment at the local level. For example, say someone wants to put a wind farm in the Strait of Juan de Fuca. We'll participate in that process to ensure planners are aware of the shipping activity in the area and that it's taken into account before going through any approval process.

BCSN: *Given that there are now over 80 branches of the NI worldwide, what sort of trends are you seeing in the demographics of the industry/membership?*

DS: I am absolutely over-the-moon proud of the demographics of the NI. When you go to a council meeting with 60-70 councillors in attendance, the accents, colours, gender, age differences, etc. are amazing. Remember that, for years, the shipping industry was based on an attitude of '500 years of tradition unfettered by change' — we are now seeing that move ahead and we have an organization that is quite broad-based.

The NI originated with a group of master mariners based solely in the U.K. Then it became masters and chief officers; and then it started to grow outside of the U.K. In thinking of the last meeting in December, countries represented included Ukraine, Sri Lanka, South Africa, India, Britain, Russia, U.S., and Canada of course. We're now truly international and it's one of the things that gives us a strength of character as a professional organization.

One of the things I would like to focus on if I am elected President is increasing membership in Asia. We've

About Captain David (Duke) Snider MM, BMS, FNI, FRGS

Captain David (Duke) Snider is the CEO and Principal Consultant of Martech Polar Consulting Ltd, a privately owned company providing global ice navigation services and support for polar shipping, ice navigation, polar research, expedition logistics support and ice-related consulting services.

He is a Master Mariner with 29 years at sea, operating many vessels in a broad variety of ice regimes in polar regions, the Baltic, Great Lakes and Eastern North American waters. He has served on board naval, commercial and coast guard vessels. As an Ice Navigator he has been the author of and contributed to many ice regime shipping feasibility studies. He retired from Canadian Coast Guard service as Regional Director Fleet Western Region in 2012.

Captain Snider is author of the book *Polar Ship Operations* published by the Nautical Institute in 2012, as well as many other papers on ice navigation. As a globally recognized expert in ice navigation, Captain Snider is often invited to speak on ice navigation, most recently at University of Turku's Ice Day Conference, Finland; Busan International Port Conference, Korea; and the Arctic Shipping Forums in both Helsinki, Finland and St. John's, Canada.

He holds a Bachelor of Maritime Studies degree granted by Memorial University of Newfoundland in 2006 and is a Fellow of the Royal Geographical Society. He was awarded the Queen's Diamond Jubilee medal in 2011 for his many years as a member of the Nautical Institute dedicated to improving safety at sea, with particular focus on improving standards of ice navigation. He has also received the Canadian Coast Guard Exemplary Service Medal awarded for many years in command in "hazardous duty," as well as the Commissioner's Commendation for his part in the successful conclusion of two Arctic rescue missions in 1988.

Captain Snider has been an active Director in the Nautical Institute British Columbia Branch since its founding and filled the role of Communications Director in that Branch for many years. Captain Snider was elected Senior Vice President of the Nautical Institute in 2014 after having served seven years on the International Council of the Institute, the preceding two years as Vice President. He is Chair of the Ice Navigator Working Group that is tasked with moving forward the Nautical Institute's goal of putting in place a global standard for Ice Navigators and contributing to safe navigation in ice-covered waters in all regions. He is presently a member of the NI IMO delegation in ongoing discussions focused on developing a mandatory Polar Code.



had a president from India (Captain Sivaraman Krishnamurthi who, incidentally, at the age of 47, was also the youngest president we've had) but, given that I've done a lot of work in Singapore, Hong Kong, Russia, etc., I'd like to spend some time developing a stronger membership base in those areas as well.

BCSN: *Last two questions: From your experience, what are the skills you've learned through the NI that have advanced your career and what advice would you give to younger mariners that they could apply to their own careers?*

DS: The whole function of going to sea continually is evolving. The basics — that is, the science of navigation — will always stay the same but I think one of the most important pieces I've realized is that you must keep learning. Changes in methodologies, changes in equipment, regulations, etc. You have to be open-minded and flexible.

You must also be able to make decisions. That's the piece that often gets missed — leadership of the team. We all went to school and passed exams on how to do the basics but very little has been done on how to deal with people. One of the things that makes the NI so important to mariners is that we're out there providing the venue for discussion amongst peers to learn best practices.

When I think of the skills I've learned? Yes, I've learned how to navigate a ship, how to load cargo and deal with regulations, etc., but the real value of the NI was the mentorship I gained from members who were masters and senior officers.

When you're at sea, you're it. It's you and the ship's crew and it's you between them and whatever superior being they believe in. You're responsible for their lives and you've got millions of dollars' worth of cargo under your care so you better be the best you can be. Always keep learning. Continued proficiency is very important. And remember that everyone around you is just as important in getting the ship from A to B. Don't be afraid to call for help when you need it. When you need the master, call him.

I remember thinking, when I received the Queens Jubilee Medal, that I was getting that award for doing what I love. I love working with this organization. It has enabled me to improve and grow as a mariner. As I look back on 35 years of

bouncing around the ocean — starting as a midshipman in the 1970s and now as an ice navigator — wow, what a ride! And the NI has been the grease on the gears. It's opened up doorways and allowed me to fulfill my potential. **BCSN**

About the Nautical Institute

The Nautical Institute is a non-governmental organization (NGO) with consultative status at the IMO. Their aim is to represent seafarers' and practical maritime professionals' views at the highest level.

As a representative body, the Institute fulfills its role in many different ways. Membership by proven qualifications and experience helps to set standards. The technical committees ensure that professional opinion and advice is fed back to the industry's decision-making bodies.

Publications written by practitioners for practitioners provide the best operational guidance available and the branches encourage professional development in local areas.

The aims and objectives of the Nautical Institute are:

- To provide the strongest possible professional focus, dedicated to improving standards of those involved in control of sea-going craft, while maintaining the Institute as an international centre of nautical excellence.
- To represent the professional views of its members to and within the international, national and local bodies considering the safety and efficiency of shipping operations.
- To promote and co-ordinate in the public interest the development of nautical studies in all its branches by:
 - Encouraging and promoting a high standard of qualification, competence and knowledge among those in control of sea-going craft including non-displacement craft.
 - Facilitating the exchange and publication of information and ideas on nautical science, encouraging research and publishing its results.
 - Establishing and maintaining appropriate educational and professional standards of membership.
 - Co-operating with government departments and other bodies concerned with statutory and other qualifications, and with universities and other educational institutes and authorities in the furtherance of education and training in nautical science and practice.
 - Encouraging the formation of branches and professional groups in different areas worldwide.

About the Nautical Institute BC Branch

The British Columbia Branch of the Nautical Institute has a membership of approximately 200 professional mariners based in Western Canada and in the U.S.

In addition to professional development seminars and meetings held in Vancouver and Victoria, B.C., the NIBC organizes a bi-annual conference which provides a forum for stakeholders to discuss issues relevant to the shipping industry in British Columbia.

All qualified sea-going officers are eligible to join as are pilots, harbourmasters, VTS personnel, Designated Persons and other shore-based managers, professional yacht masters, marine surveyors, maritime lawyers, and maritime health and welfare professionals.

For information about the
Nautical Institute, including how to join,
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