

# THE NAVIGATOR

Inspiring professionalism in marine navigators

25  
ISSUES

## Looking ahead, looking astern

What 25 issues of *The Navigator* have taught us



A free publication by **The Nautical Institute** in association with the **Royal Institute of Navigation**

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## Silver celebrations!

Welcome to the 25th issue of *The Navigator*! Our first edition came out in 2012 and we've heard that some of you who started reading as cadets back then are now in command. *The Navigator* was originally conceived to ensure that every professional navigator recognised the importance of navigating (no, seriously!). So many accidents happen when navigators become distracted, lose situational awareness, feel fatigued, confused etc... there are so many opportunities to get things wrong. But there are also so many opportunities to learn and get things right.

The previous 24 issues are packed with good advice from practitioners around the world, and in this issue we take the opportunity to look back at some of the most important aspects of that advice. Over the years, we have promoted traditional skills at the same time as embracing new technology. And even though technology

**TODAY, IT'S NOT JUST NAVIGATORS OF ALL RANKS WHO READ IT, BUT WE KNOW THAT COMPANY DIRECTORS AND ENGINEERS HAVE ENJOYED IT TOO**

moves on, each issue is as relevant now as it was when it was published – the magazine was designed that way!

The magazine has grown beyond its original brief. Today, it's not just navigators of all ranks who read it, but we know that cadets, cooks, company directors and engineers have enjoyed it too. However, the real learning hasn't come from our words alone; it has come from the professional discussions that *Navigator* articles have sparked between officers, with pilots, at safety meetings and in classrooms.

As we come to our 25th issue, I would like to take the opportunity to thank our volunteer distributors, without whom we couldn't afford such an enterprise, nor enjoy the impact that we have done from getting so many copies onboard ships around the world. Huge thanks must also go to our primary sponsor: International Foundation for Aids to Navigation (IFAN) <https://www.ifan-maritime.org/>. You can find out more about them and what they do on page 10.

We look forward to the chance to explore many more aspects of safe navigation in future issues. However, the past 24 issues remain an industry resource for everyone to benefit from, regardless of what happens next. Please do look back over our past issues to refresh your memory about topics that we have covered, and of course share what you find with others!

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We welcome your news, comments and opinions on the topics covered in *The Navigator*

If you would like to get in touch with us, please contact the editor, Emma Ward at [navigator@nautinst.org](mailto:navigator@nautinst.org), or look out for the LinkedIn discussion. We look forward to hearing from you.

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We welcome your news, comments and opinions on the topics covered in *The Navigator*. We reserve the right to edit letters for space reasons if necessary. Views expressed by letter contributors do not necessarily reflect those held by The Nautical Institute

Welcome to a very special issue of *The Navigator*, as we celebrate our 25th issue. Since we launched back in 2012, we have been thrilled to receive letters from so many readers, both at sea and ashore. You have shared your insights, opinions, advice and recollections with us, and we have thoroughly enjoyed hearing from every single one of you.

We hope that you continue to enjoy our magazine and benefit from the various publications, training materials and online resources produced by The Nautical Institute. Thank you for reading, and for your invaluable support over the past 25 issues of *The Navigator*. We look forward to hearing all about your future voyages!

**Emma Ward**  
Editor

I just want to share this one. These publications are really a big help to me. How to use effectively radar effectively, optimizing your skills in position fixing and bridge resource management to mention just a few. I strongly recommend these to all aspiring merchant navy officers. I brought four editions onboard to share – so worth bringing it in my luggage!

**Joe Jurado**

Ever since I started my maritime profession, *The Navigator* has been a part of it, with very interesting articles and a lot of helpful tips. "We only stop growing if we stop learning".

**Rhenmar Diaz Montepio,**  
3rd officer,  
onboard M/V  
*Monterey Bay*



Technology is a really big help, not just in the maritime industry, but also in other fields. I think it is something that will make our jobs easier, better and safer and it's up to us seafarers to make ourselves competitively viable, available and highly determined to thrive in a fast-changing, technology-inclined maritime world. The only permanent thing in this world is change, and if you don't want to be left out, then

you must keep up and do something about it. I make sure I'm updated with my training and, of course, by reading maritime magazines to know what's new and what's already obsolete.

**Rodolfo Robles III, Second Officer,**  
*M/V Hokuetsu Century*

I try not to miss a single issue of your magazine on board, it perfectly motivates you to improve in our profession and allows you to stay abreast of the main

news of the maritime industry. Thank you for your work and motivation!

**Kostantyn Furman,**  
*MV Harvest Frost*

After a look into the future with *The Navigator*, we are back to the present day with inspection of rescue boat – training junior officers to perform a close inspection.

**Salvatore Muroli AFNI**

Catching up again today as I got finally internet connection after reaching Port Paradip, India. A change to read *The Navigator* 2020!

**Karan Sawhney, Third Officer**

Hi there from *MV Arsinoe*.

Our copy of your *Navigator* is just black and white – but it will suffice to learn something new about world maritime news!

**Nyier Serato, MV Arsinoe**

Find us on social media and let us know what you think **#NautInst**

THIS IS WHAT WE KNOW

★★ WHAT HAVE WE LEARNT? ★★

# 25 WAYS TO BE A BETTER NAVIGATOR

★★ LESSONS FROM A GLOBAL COMMUNITY ★★

A good navigator looks astern as well as ahead! In this 25th issue of *The Navigator*, we look back at the key points we've highlighted over the years. What was the most important to you – and is there anything here you'd like to take a closer look at?



## 01

**Navigating the World**

October 2012

The world relies on maritime trade – and that means the world relies on the professionalism of maritime navigators. All navigators must continually update themselves to keep up with new technologies while also ensuring that they maintain their traditional skills and always practice good seamanship.



## 02

**Avoiding Collisions**

February 2013

The Colregs require navigators to 'use all available means' to assess the risk of collision. There are already many more tools available to help avoid collisions than when this issue was written seven years ago, including a wide range of electronic sensors, augmented reality (AR), Artificial Intelligence (AI) – but those covered here are still vitally important to every navigator. Always remember the key components are the human eye, intuition, experience and teamwork.

## 03

**Passage planning**

June 2013

Passage planning is the best way of assessing risk and making a safe passage. Good passage planning is so much more than laying courses. It is about identifying potential risks and how they can be reduced or dealt with at the time. It should predict where extra manning may be needed and other contingencies.

## 04

**Positioning**

October 2013

The Golden Rule: Never rely on a single means of fixing the ship's position. This includes GPS and other GNSS, which should be considered a single source. Professional navigators must understand the strengths and weaknesses of position fixing, whether it be by GNSS, radar, visual, radio, sonar or inertial navigation, etc, and know how to cross-check... As with avoiding collision, use all available means to check your position.

**PROFESSIONAL NAVIGATORS MUST KEEP THEMSELVES UP TO DATE WITH NEW REGULATIONS, PRACTICES, TECHNOLOGY AND INFORMATION SOURCES**

## 05

**ECDIS**

February 2014

ECDIS is a fantastic tool for improving safety and increasing situational awareness – if used correctly! However, ECDIS is far more complex than using paper charts and needs considerable training and familiarisation to use correctly. All navigators must make the effort to be both competent and confident in the use of their ship's ECDIS. Lives and the environment depend on it.

## 06

**Radar**

June 2014

Perhaps the navigator's best friend in a world of connectivity and satellite (over-) dependency, the radar is second only to the human eye when it comes to a reliable ship-based system for navigation and collision avoidance. This is one of the most powerful tools we have to enable situational awareness in reduced visibility and at long range. Navigators should take the time to make the best of this essential tool.

## 07

**Bridge Resource Management**

October 2014

Teamwork is the best practice for improving safety! All humans make mistakes at some point, but effective teamwork on the bridge can reduce this significantly, and help highlight errors before they multiply. Regardless of rank, all navigators need to have a shared plan and question each other professionally if there are discrepancies.

## 08

**Communication**

February 2015

Good communications are essential for safe navigation, whether it be on the bridge, between ships, or ship to shore. Communications rely on technology, language and cultural understanding. Never assume that a message sent has been received and understood. Always seek confirmation. This can come via message and/or body language – but make sure that you understand the confirmation.

## 09

**Professional Development**

June 2015

It is essential for navigators to keep learning. This has been true for hundreds of years and is more essential than ever in modern times. Professional navigators must keep themselves up-to-date with new regulations, practices, technology and information sources. Fortunately, there are many ways to keep informed and many of them are low cost.

## 10

**Aids to Navigation**

October 2015

Aids to Navigation (AtoN) are an essential tool for navigators to proceed safely. They have been evolving for thousands of years, from a cliff-top fire to state-of-the-art lights and digital technology today. Navigators must keep abreast of these developments and how they can be used intelligently and practically. Regardless of technology, never underestimate the benefits of visual confirmation.

## 11

### Building on Competence

February 2016

An STCW Certificate of Competency is a great achievement. But it is also just the start of another voyage, that of becoming proficient through continuous learning and experience. There is a lot to know out there and the world continues to evolve and develop. Keeping up with change takes effort, and professional navigators need 'lifelong learning' or continuous professional development (CPD). It is useful to set goals, record progress and reassess regularly.

## 12

### Cyber Security

June 2016

Good cyber security is essential for both safety and commercial effectiveness. Everyone onboard has a role to play in ensuring it – it is not just a matter for 'IT'. It is important to have a plan for both managing security and what to do when something goes wrong, because no system is totally safe. Mobile phones are a breeding ground for malware and viruses; never integrate personal devices into ship systems – not even 'just to charge them'.

**TAKE THE TIME TO REFLECT ON EACH MANOEUVRE AND WHAT COULD BE IMPROVED. IF YOU HAVE THE CHANCE, DISCUSS IT WITH MASTERS AND PILOTS**

## 13

### Error management

October 2016

Everyone makes mistakes. To avoid an incident, mistakes should be caught and averted as early as possible, but this takes good management. One of the key ways of catching a mistake is to work in teams. This is why it is important to call the Master if you are in doubt and also why you need good teamwork with your lookout. Technology can also be used to catch errors. Effective use of alarms, echo sounder and multiple position methods can save the day.

## 14

### Familiarisation

February 2017

Navigation equipment comes with many (too many...) interface options. Mariners need to ensure they are 'familiar' with all onboard systems to ensure they make good decisions. Just because you have been trained with and sailed on a ship with one type of ECDIS (for example), don't assume that you will instinctively understand the nuances when you join a new ship. The NI has worked with the industry and IMO to increase the level of standardisation (S-Mode), but this will never replace the need to know your system.

## 15

### Mentoring

June 2017

Ships are complex places to work and live. No amount of classroom training can ensure proficiency; 'on the job' training is absolutely essential. Always seek to learn from others – and to help others understand. If you reflect on how you learned and who mentored you, you might



**EVERYONE MAKES MISTAKES. TO AVOID AN INCIDENT, MISTAKES SHOULD BE CAUGHT AND AVERTED AS EARLY AS POSSIBLE**

consider sparing as little as 10 minutes now and then to help your fellow navigators improve their understanding.

## 16

### Piloting

October 2017

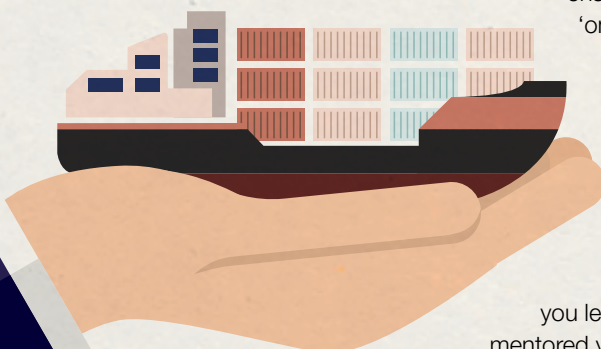
It is essential that the Pilot and bridge team work together to support each other in a two-way relationship. As an OOW you must be engaged with the Pilot and not let yourself be distracted by non-navigation tasks. If you are unsure of a Pilot's intentions – ask! Good pilot relationships improve safety and create an opportunity for learning. Always remember that Pilots trust their lives to ship's crew preparing a safe pilot ladder and boarding procedure!

## 17

### Shiphandling

February 2018

This is one of the most demanding skills for a navigator, and can be hugely satisfying. Take the time to reflect on each manoeuvre and what could be improved. If you have the chance, discuss it with Masters and Pilots. If you don't have the opportunity yet, watch others and reflect on what they are doing, and when appropriate ask questions. Recording these manoeuvres and reflections can improve your performance and help identify your areas for development.



# 18

## VTS

June 2019

Vessel Traffic Services (VTS) are designed to support the navigator by providing a more strategic approach to navigating in high traffic areas and highlighting some perhaps unforeseen risks. Clear communication between ships and VTS is important, so keep your messages concise and where possible make good use of the Standard Maritime Communication Phrases (SMCPs). The development of VTS is on the increase and offers interesting employment opportunities for navigators.

# 19

## Lookout

October 2018

Keeping a good lookout 'by all available means' is vital to the safety of your ship, your fellow crew members and the planet. There are many tools to help you (radar, AIS, etc.), but 80% of information comes through the eyes. Recognise the importance of night vision (it takes 30-45 min to adjust) and the need to look behind you as well as ahead. Lookout can also include other senses, such as feeling vibration (shallow water), smells (from land), or hearing. Being constantly alert is critical. Don't get distracted by non-navigational tasks.



# 20

## Navigational Assessments

February 2019

Good navigation assessments are usually conducted by a senior officer who is not a member of the crew but is riding aboard as an observer. This is very different to an audit, which usually takes place over a few hours in port. If you are lucky enough to have a navigation

assessor aboard it can be a great learning experience! Assessments are not like exams. They are not about pass or fail but about continuous improvement of people, procedures and even design.

# 21

## Weather

June 2019

In a climate controlled bridge with built-in bridge wings it can be easy to forget the weather – but if the vessel rolls when engineers are doing maintenance, or you take spray on deck when you have a deck crew out, it can cause trouble. There are many modern high-tech weather services available, but it is always good to read the sky, watch the sea and predict what will come next and how it will impact operations.

# 22

## Accidents

October 2019

Many similar accidents happen time and again. If you don't want to be part of one it is best to learn from others *before* anything happens! There are many opportunities for learning from others, including the NI's MARS scheme, P&I Club reports, accident investigation reports, company reports, etc. Some of the leading causes of accidents include poor lookout, complacency at anchor, distractions and fatigue.

**MANY SIMILAR ACCIDENTS HAPPEN TIME AND AGAIN. IF YOU DON'T WANT TO BE PART OF ONE LEARN FROM OTHERS BEFORE ANYTHING HAPPENS!**



# 23

## Situational Awareness

February 2020

Situational awareness is not just 'knowing what is going on'. It is awareness of the environment, understanding what you are aware of and then being able to act correctly on that information. Such awareness requires using 'all available means', including technology and senses (not forgetting the all-important sixth sense). It is not limited to navigation, but can save the day all over the ship. Many accident reports still cite 'loss of situational awareness' as a main cause – it is a skill that needs to be learned and maintained!

# 24

## New Technology

June 2020

All technology has strengths and weakness and navigators need to be familiar with both. Some of this technology will have quality standards and some may not, some will be good quality and some not – and of course all tech can be hacked. Learn how to tell the difference, and report the results. Technology will transform the task of navigation and navigators will have new opportunities for working both onboard and ashore.

# 25

## Look Astern

October 2020

Another golden rule for navigators is always to look astern (on some ships more than others...) In this 25th issue of *The Navigator*, it is worth looking back on the significant body of knowledge in the backlog of issues covering all of these subjects. All these issues are available free online and through the app. Feel free to use this resource to help teach and mentor others, as well as yourself – and let us know how you get on.

# Sharing knowledge, developing the future

**Captain Andre L. LeGoubin** (pictured below) is a Mooring Master, Senior Vice President of The Nautical Institute, and a keen distributor of *The Navigator*. We asked him why he does it



## Tell us a bit about your job?

I have the most exciting job in the merchant navy! I am a Mooring Master, which is similar in many ways to a Pilot – we load and unload very large tankers that are too big to come into port. They stay offshore, we put fenders alongside, then we bring a smaller tanker that is capable of coming into port and carry out a ship to ship transfer (STS) – and we do that underway. The receiving vessel is usually an Aframax, so at about 250 metres LOA it's not that small! We steam the two vessels together at about five knots, with no tugs involved. The fenders are 3.5 metres wide, so we are stopping very, very close to the other vessel. The interaction between the two ships as you get closer is quite intense – it's Bernoulli's Principle on steroids. To train for this, you have to love shiphandling. It's raw, it's intense, and it's exciting.

## How did you learn the skills for this role?

I was a Thames Pilot and I learnt a lot of shiphandling there, but this is quite different. You learn by carrying out jobs with another Mooring Master – firstly by watching, then with input from them, then

with them watching while you carry out the manoeuvre completely by yourself.

I regularly go on ships that have never done this manoeuvre before, and it can be really scary for the Captain – you're doing things that look so totally wrong. However, before things get really exciting, you've got at least an hour and a half on the bridge, with the other vessel getting closer, to explain what's going on. I did have one cadet who was very worried because the instruments said we were going to have a collision – and I agreed with them, we were!

If something goes wrong, I don't mind who tells me, it could be anybody. I use the CUS words to encourage people to speak up. This is a concept developed by the airline industry. If anything is causing you to feel Concern, Uncomfortable or unSafe, don't hesitate to speak up. This is particularly great if you have language issues on board.

## What do you enjoy most about the role?

Apart from the shiphandling, another thing I love about this job is the personal interaction, working with other nationalities, and bringing together totally different people to get the best from the team. I was a very

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WORLD-CHANGING; IT'S JUST A WAY OF  
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SOWING SEEDS OF CHANGE**



# SPREADING THE WORD – THE NAVIGATOR AROUND THE WORLD



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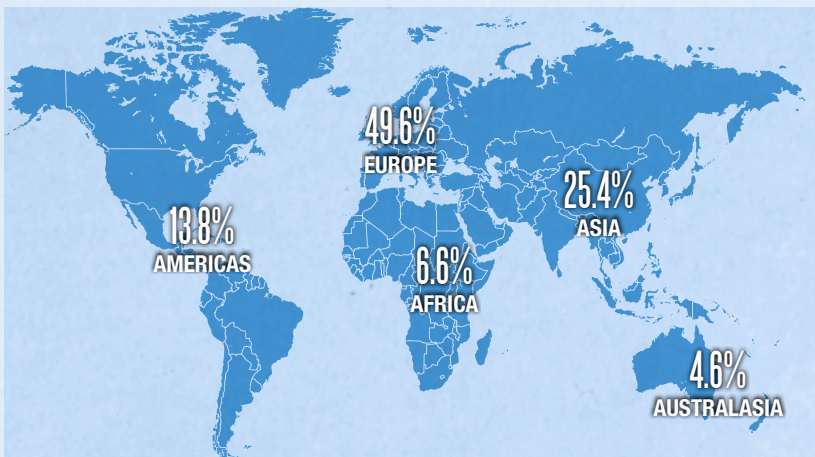


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## Where is *The Navigator*?

*The Navigator* is read all over the world – as your photos show, once it goes on board, it can get anywhere! But this is where it goes up the gangplank.



## How does it get there?

We are tremendously grateful to everybody who shares and distributes *The Navigator* – and to all the seafarers who share it on board.



young Master and I learnt early on that you cannot do this job on your own. You have to develop a team, and that means developing and sharing knowledge, and making sure everybody has a voice.

### How do you go about sharing *The Navigator*?

On average, I do about nine or ten STS operations a month, so I always take enough of the most recent edition for every ship, and sometimes the previous one as well. The app is great, and it can take months for *The Navigator* to get to me, never mind on board, but I love being able to hand over a physical copy. I always hand it to the Captain out of respect, and they can pass it on to the crew – but most of them read it first! I hand it out in the company offices, and it's very popular there, too.

### ONE OF THE THINGS I LIKE ABOUT THE NAVIGATOR IS THAT ANYONE CAN CONTRIBUTE, ON THE LETTERS PAGE, IN THE INTERVIEW, IN THE PHOTOS

I've been doing this job for eight years now, and some seafarers remember me as "The Mooring Master that brings *The Navigator*!" It's fantastic to go onboard, and see people who you first met as a cadet, and now they're third mate, or second, and they're gaining knowledge all the time.

One of the things I like about *The Navigator* is that anyone can contribute, on the letters page, in the interview, in the photos. I think it's wonderful to hear from people at the very start of their careers

because they are our future. How we train the next generation designates the future of the merchant marine.

### Does *The Navigator* make a difference to the way people work on board?

*The Navigator* isn't necessarily world-changing; it's just a way of sharing knowledge, but sharing knowledge is so important. It's sowing seeds of change. I think back to the radar edition, which had a lot of good advice, and one third mate said there was something they didn't understand, and the team just got round the radar and talked about it. It started a conversation, and that's what I want to see – people start questioning things, they think and they reflect. Does it make a difference? I'm positive it does. And every time we can make a difference to just one young seafarer on board, that makes it all worth it.



# WAYPOINT

Dr Andy Norris FRIN FNI

## Articles of note

Dr Andy Norris, an active Fellow of The Nautical Institute and the Royal Institute of Navigation, looks back on 24 issues of *The Navigator* and recalls some key topics

My articles for *The Navigator* are written on behalf of the Royal Institute of Navigation, with whom I have had long professional connections. They relay my views on the safe use of marine navigational equipment, based on my extensive technical involvement with their development – and the related international standards and legislation.

My interests – and those of the RIN – are not restricted to maritime navigation. For the first quarter of my career I was highly involved in technology to aid navigation in the air, and in my first-ever article for *The Navigator*, I drew parallels between marine and air navigation and explained some of the differences. I also pointed out that many air pilots today consider that they are ‘just monitoring navigators’ – largely dependent on air traffic controllers to guide them safely in terms of their height and track. This is certainly not the case in today’s maritime world!

Of particular importance to mariners, my article in the third issue of *The Navigator* concentrated on how far individual information sources can be trusted. This includes real-time data from sensors, such as radar and GNSS, as well as recorded data, e.g. charts and meteorological data. My article highlighted four essential questions navigators should ask about the data they are using: its validity; its plausibility; the need for comparison; and the time it takes for the data to be stored and/or retrieved, in other words, its *latency*.

### The ‘eyes’ have it

In issue 19, I stressed the continuing importance of the optical scene, or what can be seen and processed by a human (or mechanical) eye. This is



**QUALIFIED MARITIME NAVIGATORS STILL HAVE LONG AND INTERESTING CAREERS IN FRONT OF THEM, EITHER AT SEA OR WITH EVER-INCREASING OPPORTUNITIES TO CONTROL VESSELS FROM THE LAND**

equally relevant to both conventional and autonomous vessels, since the optical scene benefits from being independent from all other available information. It is always fully up-to-date and can often offer a high level of detail.

Absolute positioning is undoubtedly very useful to safe navigation – but there are many problems involved in determining whether data is fully reliable and accurate. I looked at some of these problems in issues 4 and 23. However, readers were reminded in issue 23 that real-time hazard avoidance

is fundamentally based on relative position – not absolute position.

### Tools of the trade

Jumping back to issue 5, my focus here was on the huge benefits of ECDIS when operated by well-trained users. The detailed nature of maritime charts needs an appropriately sized display with good resolution in order to fully assist the navigator. Modern affordable technology allows much larger displays to be provided than those that minimally meet current ECDIS standards.

### Spoofing and speculation

My article in issue 12 looked at spoofing, or the act of making it appear that you are located somewhere that you are not, or that something is occurring when it is not, in fact, the case. Fortunately, it is very difficult for spoofers to create a totally consistent picture. The vast majority of such attacks should be readily detectable as long as you maintain good navigational practice. Make sure you are fully aware of the possible causes of any inconsistencies that may crop up, and the necessary reactions.

In the future, increasing maritime autonomy *may* take away some of the present skills needed by bridge staff. However, when reviewing this topic in issue 24, I emphasised that qualified maritime navigators still appear to have long and interesting careers in front of them, either at sea or with ever-increasing opportunities to control vessels from the land.

I and The Royal Institute of Navigation have been proud of our association with *The Navigator* over the past 25 issues and look forward to continuing to work together in the future.

# Supporting *The Navigator*

We have been able to share *The Navigator* message so widely thanks to the generous support of the International Foundation for Aids to Navigation (IFAN), which allows us to print and distribute 100,000 copies of every issue around the world. We asked **John Hughes**, one of IFAN's directors, to tell us more about what IFAN does and why they support *The Navigator's* mission.

**THERE IS NOTHING  
ELSE QUITE LIKE  
THE NAVIGATOR  
- LONG MAY IT  
CONTINUE!**

**IFAN's core business is providing navigational aids and information** in the Persian Gulf, including buoys, lights and DGPS. On top of that, it is a charitable organisation that supports a number of projects. They're all related to safety and safety at sea and they're all international.

**It's important to spread what funding we have as widely as possible**, which is why it's great that *The Navigator* gets to so many ships all round the world.

**It fits very well with our objective of safety at sea to be sponsoring something that makes a real tangible difference** to how seafarers of today's generation look at navigation and safety. There isn't another publication anywhere in the world that deals with navigation issues and seamanship issues in the way in which *The Navigator* does.

**Attitudes to safety have changed since I went to sea in the early 1960s.** People's understanding of how things go wrong has improved; the way they behave has changed – I don't think we even knew what safety shoes were, back then! I guess the change has been subtle because it takes place over such a long time, but the generation at sea today are much more aware of the risks than I was.

**Somebody rightly said you never actually fix safety.** With each generation new issues become important, and different things matter. Even for those who are qualified as master mariners right now, it's probably some time since they themselves were at college and technology moves on. One of the great things about *The Navigator* is that it picks up on current trends and current changes in a way which is understandable and makes good sense. That really makes a difference.



# NAVSNAP

Navigators across the world

## AND THE WINNER THIS ISSUE IS...

Our Navsnap winner for this issue is Augusto Cueto Vasquez, who sends us this photo from onboard *Stena Conquest*. Congratulations!

We choose our NavSnap champion using a random number generator so everybody has a fair chance – but we absolutely love the funny, creative and beautiful photos you send in. Here are just a few of our favourites over the years (we're sorry we don't have space for more!)



↑ Should have read *The Navigator*? But there's a time and a place! Tolga Cetin's entries are always a favourite.



← Navigators on the water and in the water... Iain Bunce is catching up on his reading, but Niels Borja (below) has a captive audience.



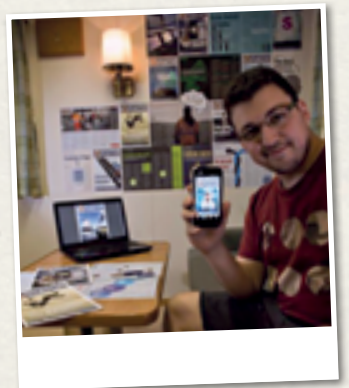
↑ Whether you're relaxing at home or at sea, there's always time for a quick catch up, as Sueuo Oueno and Samrinho show

→ The 'eyes' have it... Dimitri Marushak sums up some of the best advice we can give!

↓ Navigators know how to stay on their toes. Well, most of them do, anyway!



→ Classic ship; classic advice! Piotr Brauer was on a world tour with tall ship *Dar Młodzieży*



↑ Is Charly Mauer *The Navigator's* greatest fan?