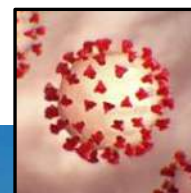# Spotlight on Ship Service (++)

Dear Members,

Despite Malta welcoming us with open arms and many preparations of a truly exciting nature – the doors were suddenly and quite rightly shut due to COVID-19, which has left us thinking about our colleagues and friends worldwide. We're very much hoping you are all well and stay well. Now, we are refunding, delaying, sorting and email writing and actually, everything has been made all the easier by a fantastic attitude from all around.   You've been so understanding and cooperative – and thank you to all our conference speakers who are committed to sticking with us and resuming their positions when we get to Malta in 2021 – which we definitely will.

Also, our thanks should go to Sperry Marine, Furuno, JRC, Alphatron, Danelec, Jotron, SIRM, Safebridge, YDDO & Tefin, plus our Media partners All About Shipping for their offers of sponsorship and with good luck and a fair wind, they will remain behind us for the next one, along with all the Malta-based companies who were going to be contributing too.

Here, in this edition of Spotlight on Ship Service, we have a good coverage of opinions from all over the globe, including some comment on COVID-19 and its effects on industry. Turkey, Nigeria, Cyprus, Italy and Australia are represented with contributions from YDDO, Multidigital Nigeria, Safebridge, SIRM and AMSA. Kutlay Ünlü has two companies, one in Turkey and one in Malta –steadily growing his businesses, he tells us how he started changing perceptions in training and service in his country and beyond. Elijah Agunbiade, who studied electronics engineering at degree level talks about the 'art' of delivering excellent customer service and Valentinos Steliou of Safebridge discusses training trends, including 'Blended Training'…. with a footnote from business owner Ralph Becker. Our own Director Claudio Aleandri has a few words from SIRM; and finally, whilst AMSA are not members of CIRM, they are a very reliable and important sister organization to ours. Respecting their contributions at the IMO, Nick Lemon is known to many of you and we are grateful for the time he took in writing especially for us, as we are for all of our contributors!

There for others, keeping up to date and company growth – YDDO looks to the future and explains how they are changing.

In following the heavy inspections from Turkish Authorities for the White Flag category at the beginning of 2000's, YDDO realised that there was a greater need in the Turkish maritime market for safety and particularly with ship electronics.

So to address those problems we humbly entered the maritime market to help and grow world and local maritime inquiries. Our goal was, and is to cover and strengthen

Turkey and Turkish maritime electronic needs, particularly the new builds through to the end of their life.

To achieve this, we started our story with introduction of one the most important navigation devices - the AIS Class B for the domestic market. With success, we prioritised a plan to offer a fast and quality service for maritime market needs and have achieved this with thousands of references over a short time period.

With our background from maritime education and around ten years of seafarer experience ocean-going Master Kutlay Ünlü realised the problems, struggles and the

needs of seafarers as a ship operator. To find a solution to problems of uncertainty at sea he made a daring step and switched himself to become a service supplier. With that strong step this company switched itself to be the only company with a fully maritime training background in Turkey.

Continued

As mentioned earlier YDDO Maritime can now supply all yachts and merchant ships with every electronic need; and this capability is not only focused on all over the Europe and Turkey but covers the world too. Of course this capability contains our services such as VDR, ECDIS, RADAR, AIS, EPIRB, SART …etc and all ship navigation system installations, programming and service needs as well as GMDSS Radio Survey inspections.

As a general maritime consultancy we provide support services and notice that not enough proper attention is paid to a SEEMP, MRV, IHM, POLARCODE regulated by IMO, ILO, ITU and particularly the MSC committee meeting in London.

Our company also contributes in R&D for maritime software applications, research partnerships and of course, provide remote assistance and training for our seafarers. With the new implementations of ECDIS and ECDIS CHARTS we offer installation, maintenance and training for seafarers; self-improvement is obvious and we make sure that the latest information is delivered in a timely fashion whenever needed. There is one common goal, **Quality of service and product**. Our products are economical, ergonomic, have a long life working hours and are of European origin. YDDO follows all technological advances in our age, including software developments and mobile apps to improve our service with best quality and speed. As a maritime company, we are obliged to follow all developments in our age and we have to convert them to our business to bring maritime and maritime electronics to the highest point. İt's important to provide support or service at any time i.e. 7/24 anywhere around the world because the needs are always there. With CIRM, we are able to have the latest developments at our fingertips and we look at new age wonders and find solutions for our partners and customers to make their businesses better. Yes we do care about tradition but mix that with the new and have found this to work perfectly. Feedback tells us we're doing ok and this makes us even more ambitious and proud.

YDDO has expanded its horizon and is now an international company, with an offshoot ANNSHIP CO LTD. This company is our gateway to Europe. Belonging to the YDDO Group of Companies, ANNSHIP will also be a proud, but unique CIRM member, when it becomes the only one in Malta at the time of writing.

Both our companies follow all IMO rules, constantly focusing on customer relations and trying to find a corporate solutions for other maritime companies, shipowners and seafarers. To maintain those communications we hold events, meetings and yearly conventions to help/inform the market.

Capt. Kutlay Ünlü MD YDDO Maritime & Consulting www.yddo.com.tr

Reliability & maintainability – the art of delivering excellent marine electronics service for customer satisfaction

It came to me suddenly when we were offered the opportunity to contribute by writing an article for this edition of the CIRM in-house magazine. The name of this magazine is "Spotlight on Ship Service" and as Multidigital Nigeria Limited is a leading Pan-African marine electronics servicing and consultancy company, I thought it reasonable to project a spotlight on delivering excellent and reliable services that enhance customer satisfaction.

As ships sail across the world, they are fitted with marine electronics equipment for navigation and communication including equipment for Global Maritime Distress and Safety System (GMDSS). One of the major concerns for ship owners and ship managers is the access to quality and reliable service support for the equipment fitted on their managed vessels.

Continued

Elijah Agunbiade
**MD & CEO Multidigital Nigeria**
www.multidigitalng.com

Many ship owners and ship managers have raised a lot of concern about having prompt and reliable services when their ships sail across the world. Delivering reliable and excellent service is key to attracting committed customers and retaining them for a very long time. The Reliability and Maintainability of any product is a very important aspect of selecting a product to be deployed for a particular purpose. Every customer will always opt for a reliable product with a very good MTBF (Mean Time Between Failure). To have a very good MTBF, there is a need to proactively perform preventive maintenance and carry out a comprehensive health check on the equipment. This will significantly reduce the number of breakdowns on the equipment and keep the good order and reduce downtime and major repairs. When a piece of equipment breaks down, there is also a need for fast and reliable corrective maintenance. All these are very important to have a functional and reliable navigational and communication equipment onboard ships and therefore equipment in enhancing peace of mind for the vessel owners and managers.

More than two decades ago, when I was studying electronics engineering at the university, one of my core courses was Reliability and Maintainability.

A Multidigital engineer repairs a JRC radar on a vessel
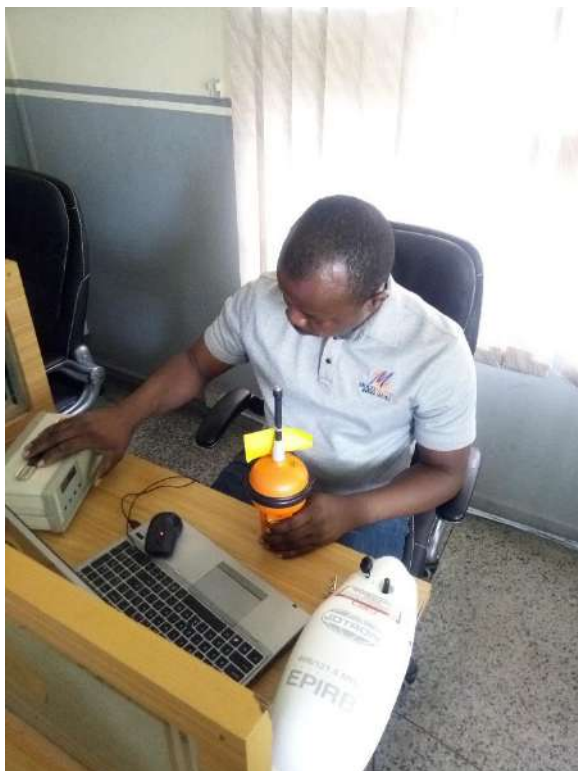
decoding an EPIRB

While my intention here is not to provide a detailed theoretical overview of the subject of Reliability and Maintainability as I was taught in the university, I would like to present these as an art of delivering excellent customer service. Permit me to just define Reliability and Maintainability for clarity sake:

Reliability is defined as the probability that a product, system or service will perform its intended function adequately for a specified period or will operate in a defined environment without failure. While Maintainability is defined as the probability of performing a successful repair action within a given time. In other words, maintainability measures the ease and speed with which a system can be restored to operational status after a failure occurs.

The main objectives of reliability and maintainability are to apply engineering knowledge and specialist techniques to prevent or to reduce the likelihood or frequency of failures, and to identify and correct the causes of failures that occur despite the efforts to prevent them. This is very important in delivering excellent services. From experience as a dedicated marine electronics service provider in Africa, the following steps will enhance excellent and reliable service delivery that will definitely promote customer satisfaction:

Quick response to service enquiry – This is the first step to get the attention of a customer and probably getting the customer's commitment to entrust the services of his equipment to a service company. There is a need to respond to the customer's enquiry for service as soon as you receive his e-mail. The service coordinator must always be on top of his or her e-mails to respond to enquiries as quickly as possible. Every service enquiry for marine electronics equipment needs urgent attention because these equipment are used for ship navigation and SOLAS (Safety of Life at Sea). Delaying in service response is prolonging the downtime of the equipment and therefore reducing its availability for use. Customers are always very happy with service providers that respond quickly to service enquiries and they prefer getting committed to that service provider for a very long time. When a customer sends an enquiry to a service provider and the service provider does not acknowledge the enquiry on time, the customer will urgently look for another service provider due to the urgency of the service and they may not contact again the service provider that fails to respond to the enquiry on time. There is a need for the service coordinator to quickly review the enquiry, discuss with the technical team and revert with the next possible action as quickly as possible. This first line of action is of great importance in providing reliable services for customer satisfaction.

Another key point is to deploy **trained and competent personnel** for services. Maritime electronics equipment are sophisticated and specialized equipment that require trained and competent engineers/technicians to maintain.

Training of service engineers is requisite to providing reliable services. A service company must ensure that its engineers are trained by the manufacturer of the equipment. This training must be continuous as the manufacturer releases new equipment from time to time. Definitely, engineers with good knowledge of the equipment will spend less time troubleshooting and repairing the faulty equipment and therefore restoring the system to full operation. This goes a very long way in building the trust of the customer and get them committed to the service provider.

Complement to deploying trained and competent personnel for services is the **availability of relevant spare parts.** There cannot be effective corrective maintenance of an equipment if relevant spares are not available. This is very imperative for 99.9% repair success rate of any equipment. For maritime electronics repair, a one-time fix is very important to the customer. Most of the bridge equipment on the ship are used for navigation and communication and most ships would not be able to sail if these equipment are not functional. First time/one-time fix is very crucial, and this is absolutely dependent on the availability of relevant spares and competence of the service engineer. This will reduce the cost of re-attendance and unnecessary delay of the vessel at the port. Every business is aimed at cutting down irrelevant cost and maximize profit. Therefore, ship owners and managers are always very happy when faults on bridge equipment are resolved at service engineer's first attendance and this enhances customer's satisfaction and their commitment to the service company.

I must not forget to mention that **carrying out services with integrity** is also very crucial to customer satisfaction. Integrity is the quality of being honest and having strong moral principles. A service company that really wants to retain its customers and attract new customers must be determined to provide reliable services with a high level of integrity. There is a need to be open and transparent to the customer from the onset of the service enquiry to the final stage of resolving the issues and close out the service. I have seen it in the past where some vessels were issued with fake VDR certificates of compliance from unauthorized service technicians and companies. The customer thought Annual Performance Test has been carried out on their VDR until we had contact with them and discovered the COC that was issued to them was fake and was not issued by the manufacturer of the VDR. The service technician just went on board, pretended to have carried out the APT and issued a fake COC to the customer. When the customer discovered this, they resolved not to have anything to do with them again for life. There is a local proverb in my native language that says, "Truth shreds a lie of 20 years in one day". When a customer discovers that a service provider has integrity and always keep to its word, they get more committed to the service provider.

Our company, Multidigital Nigeria Limited has been strongly positioned in Sub-Sarahan Africa to provide reliable maritime electronics services to the ships trading in this region. Africa is the second largest and the second most populous continent in the world. There is a very high traffic of vessels in and out of African ports as the continent relies heavily on ships and ports to service its intercontinental trade. The Oil and Gas operations in major countries in Africa have also increased inflow of different kinds of vessels ranging from commercial vessels to customized offshore support vessels.

Although Covid 19 is a global calamity, each company will be exposed to it and react to it in a different way. Therefore, Safebridge is just one example out of thousands which all have their own issues and ways forward. It makes a difference, whether you are "analogue" or "digital", meaning whether your people have to work physically on site or purely work on a PC. We at Safebridge "luckily" are almost completely digital and even more – we are cloud. That allows as to enable around 30 percent of our staff to work from home, with only a skeleton staff manning in the office.
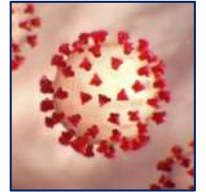
It's common sense to have our first priority as the health of our staff and their families. However, this is followed by our obligation to look at the economic impact on each of our employees. With offices in Germany and Cyprus, we see different support from the authorities, whether it is for those who have to stay home to look after their children, to care for other dependent persons, or falling under quarantine. But living expense goes on, despite the virus, and for all those breadwinners it is essential that they keep their jobs. That's the next priority for our Safebridge "family".

Whereas in Germany the government is quite inaccessible for small or medium size companies, and on top of that the federalist system creates a jumble of options, Cyprus has proved to be straight and close to the base i.e. in the shipping sector. I'm sure each of the CIRM members will be exposed to very specific measures and CIRM can be a forum to bundle our view on things. **Capt. Ralph Becker-Heins, MD**   **www.safebridge.net**

Valentinos Steliou
Product Manager
SafeLearn at Safebridge

The Evolution of e-Learning in the Maritime Industry

A step back in time

In visiting history, we find out that the term 'e-learning', being education via online means, has been in existence since 1999. By looking more closely, it is interesting to know that long before the Internet practically took over our lives, long distant courses were being offered as early as the 1849s. This was when Isaac Pitman, the teacher of the English language who developed the widely known system of shorthand, applied correspondence for his teaching method with his pupils.

Training methodologies, of course, progressed considerably through the years. In the beginning, there was the development of the first testing machine in 1924, the teaching machine in 1954 and then in 1960 the first computer-based training program, which was introduced in Illinois.

In the 1980s, the first Mac changed the mentality of owning a computer at home for personal and professional use,

revolutionising the convenience and ease of developing skill sets at one's own space faster, and less costly

What followed, was a widespread success of the 2000s' education methodologies through the e-learning concept as it stands today; enriching knowledge faster and cost-effectively for individuals and businesses who adopted the concept of online training for their employees, recognising the valuable advantages for their business's performance.

Online e-learning in the maritime industry

The maritime industry is not resisting the new educational concepts. Although traditional classroom and simulation training is still dominant in the industry, it is a noticeable observation that almost 90% of maritime businesses have applied e-learning for at least 15% of their general and specialist educational needs. 65% of these companies are collaborating with e-learning providers for their crew and employees or are in the process of digitalising at least one of their internal training processes.

Without underrating the cost efficiency associated with e-learning, the three most important key factors that are surrounding the digital education landscape are the need for accurate data to be gathered, the greater control and management of training activities and the bridge of the communication gap to the current generation.

As a real cost-effective alternative to traditional classroom-based training, online education is offered through centralised management systems, ensuring easy administration of the crew's competency status, anytime, anywhere and from any device.

Recognising the need for easy access to training and flexible learning models with limitless reach, maritime organisations are already marching towards new and emerging training methodologies.

Changing the educational scene – The training methodologies of tomorrow

Blended Learning

One of the most popular trends in training transformation within the maritime industry is 'Blended Training', where online courseware is combined with face-to-face and simulator training. When it comes to the practical aspects of training, this methodology provides the best skill training outcomes. It is worth noting that organisations are still exploring ways to benefit from the all-time accessible online training through simulators.

Learning Management Systems

As the echo of Content Management Systems (CMSs,), Learning Management Systems (LMSs) are the most powerful data generators with regards to crew training, skill and competence cultivation.

Our industry, as one of the most highly regulated industries, is in need of advanced data and control over the management of activities and results. This is where LMSs are enabling the development, documentation and administration of training courses, curriculums and training capacities. They assist organisations to gather actionable data to properly evaluate the effectiveness of training which plays a key role in the effectiveness of Learning & Development.

Artificial Intelligence

Within the fast emergence of Learning Management Systems, AI is offering valuable guidance to students through courses, provides important information such as predicting the progress of the training, thus, offering valuable input in personalising the content according to the trainee's needs. Overall, as the "teacher" AI adjusts the teaching material based on the trainee's capacity and competency.

As our industry is approaching the concept to benefit from its limitless potential, the enhancement of smart data is also on the horizon relating to the competence analysis, smart skill evaluation and sophisticated 'business goals vs crew results' reporting. Numbers are encouraging in terms of how AI is conceived in the industry. A survey conducted by Navis concluded that 83% of respondents are expected to increase their investments in AI technologies within 3 years' time.

Continued

Augmented Reality

Like any other cutting-edge technology, augmented reality is already empowering shipping companies to "think" more intelligently, while at the same time improving the working performance of the crew. While AR is not orchestrating a new virtual universe, what it does is enhancing the present environment by adding holograms into our field of vision, thus

merging the real learning experience with the digital. For a seafarer this translates into the ability to interact with life-like 3D modeling of the ship's equipment rather than merely looking at images. Moreover, communication can be achieved with virtual meetings via holoportation; high-quality 3D models of people can be reconstructed, compressed and transmitted anywhere in the world further breaking the barriers of distance as in the traditional learning. Although all these are in very early stages in regards to the maritime industry, AR is anticipated to transform the daily operations of the on-board life of the seafarer, as close as within the next few years.

As e-learning is still considered one of the alternative educational options, we should not conceive it as a concept in need of consideration; rather as a process in progress to be applied in today's global maritime scene. The benefits are much greater in moving the otherwise considered traditional and conservative industry towards the digital future.


SafeLearn powered by Safebridge recognises the values new and emerging technologies have to offer, and is fully devoted to developing and delivering training solutions that will disrupt the maritime industry and push it towards more efficient and effective training methodologies. **www.safelearn.com**

Servicing ships amidst the pandemic … CIRM Director Claudio Aleandri

Covid-19, a new global crisis, unforeseeable and of unthinkable consequences, especially for a slowing economy like Italy.
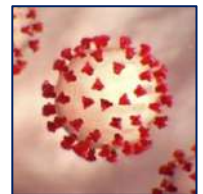
The role of a service company such as SIRM, is to ensure the efficient functionality of the on-board equipment and systems and the overall efficiency of the ship. A typically "people intensive" business model is in place, because, in order to ensure assistance and maintenance services, it is necessary to use specialized technicians who carry out assistance, repair and maintenance activities on board ships entering Italian ports.

To ensure continuity of service, companies operating in the service sector have reinforced protection measures, integrating Personal Protective Equipment with new equipment (protective masks FFP2/FFP3, glasses, gloves, etc.) and new procedures (minimize contact, maintain safety distances, etc.), but this is often not enough, as the risk is never totally neutralized, especially in tight environments such as ships.

Service activity cannot, just as ships, be stopped

There is great uncertainty about how long it will take to get out of this pandemic. Companies like ours need to accelerate the change in business model, making the best use of available technology to support ships from remote service centers, thus minimizing any visit on board. The use of available technologies and platforms (WebEx, Teams, Zoom, WhatsApp, Skype, videoconferencing, remote analysis of system logs) could be the first step towards a new and more efficient way of working, focusing on quick response and preventive and proactive detection of critical failures.

As in any revolution, all this could lead to the birth of new companies and new integrated technological platforms dedicated to the shipping sector. We now need to make the most of what is available and lay the foundations for the future in order to be ready at the end of this crisis period. We must comply as closely as possible with the measures put in place by national governments to respond to this pandemic and minimise the risk of contagion.

The Italian government reacted promptly to the rapid, and violent, spread of the virus. In addition to the drastic measures of social distancing and strong mobility limitation that culminated in the lockdown of the entire country, the government has decided to adopt a substantial package of measures to support the economy, businesses and families.

Today in Italy we live in a surreal atmosphere, the cities have emptied and silence has taken the place of urban noise, there are no more complaints about traffic and pollution and the population seems to have found a unity lost for too many years. However, hope never abandons us and we firmly believe that sharing the two hashtags **#Imstayingathome** and **#itwillbeallright**, it's the only thing we can do right now.   **www.sirmitalia.it**

Australian Government
Australian Maritime Safety Authority

Navigating in the future

The Australian Maritime Safety Authority (AMSA) provides the major aids to navigation (AtoN) around Australia's 60,000 km coastline. We have about 480 AtoN at 390 sites, including 62 lighthouses that have heritage significance. There are, of course, many other AtoN in Australia which are provided by state and territory governments and port authorities.

A wide variety of AtoN provide spatial awareness and aid ships to navigate safely through our coastal waters, all of which are environmentally sensitive and some have world heritage significance. These include visual and electronic aids, fixed and floating aids and increasingly, services such as Vessel Traffic Services (VTS) and Under Keel Clearance Management systems.

AMSA plays a leading role working alongside other providers of AtoN so that Australia's AtoN are harmonized and maintained in accordance with the latest international guidance provided by the France-based International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA). AMSA, as Australia's representative at IALA, carries our collective views and inputs to influence the work IALA does to provide up-to-date and contemporary guidance. Through national working groups, we facilitate the flow of information from IALA back to Australia's AtoN providers

In order to make long-term strategic and financial plans, AMSA officers draw together the latest information, research and thinking in an effort to forecast how we need to manage our AtoN networks in the years ahead. We also do focused annual reviews of our AtoN. This year, we intend to take a deep dive into the use of the Automatic Identification System (AIS), both as a way to provide information, such as virtual AtoN, but also the collection and use of ship position information to provide AMSA with domain awareness.

Back in 2010, we developed our first forward-looking strategy for our AtoN network - "Navigation Services in Australian Waters 2010-25".

Nine years on, and given the pace of change in the way ships will receive, transmit, analyse, integrate, display and exchange navigation information, we reviewed and updated the strategy in 2019. The result is "Navigation Services in Australian Waters—outlook to 2030" [link]. It provides an insight to the provision of navigation services, not just AtoN, in the coming years. We aim to identify emerging trends and drivers in navigation technology and communications. We have also tried to describe the anticipated impacts these will have on the maritime industry, and we consider what AMSA's policy responses should be.

The pace of change is great and we need to be agile and innovative in response to ensure we remain an effective maritime safety regulator. Hence, in 2017, AMSA published "Looking Ahead – AMSA's operating environment 2017 – 2027". We are now in the midst of a significant review and rewrite of this document. A new version of Looking Ahead will be published later this year. The new version will explore the key challenges and changes likely to impact us, as well as provide us with opportunities to improve the way we work as a maritime safety regulator and response agency.

Continuing with 'future thinking', we are keen to see industry improve its approach to the way navigation is taught and conducted. Some have already modernized and train people to navigate starting with the principles of electronic navigation, and then melding in how navigators should use manually sourced information, such as visual bearings and radar information, to confirm and verify positioning during navigation. However, there are some that still start training with traditional paper chart techniques and then 'bolt on' training in the use of ECDIS, and this we believe needs to be phased out. To navigate safely with ECDIS requires a ground-up approach, firmly rooted in electronic navigation techniques.

This then raises the question about what should be used as a backup for ECDIS. Paper chart navigation is a very different form of navigation. It is becoming unreasonable to expect ship's officers to be able to switch from ECDIS to using paper charts quickly and safely. An ECDIS failure in difficult circumstances, such as at night, in bad weather or in a busy and challenging waterway when paper charts are the backup would be difficult to manage at best and could result in a serious accident at worst. It is far preferable that an independent, ready-to-go ECDIS is available that does not require the navigator to do vastly different things in order to continue navigating safely. Some may have concerns about this quantum change, but the facts are that as the level of digitalization on board, technical automation and complexity increases, operations adapt to take up the efficiencies that can be gained. The outworking of this means that reverting to manual navigation techniques is increasingly neither feasible nor realistic.

So, what are some key messages for the marine electronics industry?
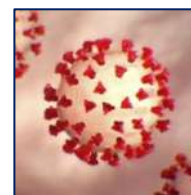
a. Operators of AtoN networks are looking for smarter and more efficient AtoN as they strive to ensure their AtoN networks are meeting the needs of seafarers for spatial awareness and position verification.

b. Shipboard navigation equipment needs to be reliable and resilient. If failure occurs (it is not realistic to expect it won't), systems should be designed so that their performance degrades in ways that are clear to the operator.

c. Duplication, or very similar electronic systems, should be the only form of backup arrangement.

d. Manufacturers should use Software Quality Assurance and Human Centred Design as described in the IMO's guidance document Software Quality Assurance and Human-Centre Design (MSC.1/Circ.1512) as they balance the user's need for standardization with innovations such as the greater integration of equipment and navigation systems as a service.

https://www.amsa.gov.au/safety-navigation/navigation-systems/navigation-services-australian-waters-outlook-2030

Nick Lemon

Manager Systems Safety Standards

www.amsa.gov.au

Regarding COVID-19, AMSA takes the safety of its staff and seafarers working on ships in Australian ports very seriously. We are following the latest official guidance to inform a measured response so we can continue to deliver vital services. We have modified the way we are working, such as postponing international travel and non-essential meetings. Important business is progressing using other means such as tele-conferencing. Our arrangements will be continually reviewed in line with the Australian Government's approach. More information is available at:

https://www.homeaffairs.gov.au/news-media/current-alerts/novel-coronavirus
https://www.health.gov.au/news/health-alerts/novel-coronavirus-2019-ncov...
https://www.amsa.gov.au/news-community/news-and-media-releases/informati...

A bumper issue – as mentioned earlier – *thank you to all our contributors!* If you managed to get here and have any comments or would like to contribute to the next issue in the summer – please get in touch with Frances, working at home but still on fb@cirm.org and with phones redirected. (daughter Alex is getting better at last, having fallen victim to the virus in London); Richard is at his home in Belfast with Darja and son Jack and Phil in Kent with Anna. Kim is home in Henley with Hillary, Jane is at home in Southfields and Colleen and David are living the high life in their house in Eze, a stone's throw from Monaco! Keep well everyone and send us your stories!

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