Lighthouse Engineering
Studies into wave loadings at rock towers

Support Vessel Service
Reporting on the tasks undertaken by our busy Fleet

Charitable Activities
How the Corporation benefits the seafarer
ANY THANKS TO EVERYONE WHO CONTRIBUTED to the pages of Flash, as we move forward and explore new channels for communicating with our various audiences and raising awareness about what we do and why we do it, I’m excited to report that our new website will carry over some of the fascinating content that we present in the pages of our magazine. The new website (www.trinityhouse.co.uk) – launched in April – has proved to be a flexible and easily accessible portal for stakeholders, customers and the wider public to engage with us and get the information or the function they require.

In the same issue that saw us conclude our trawl through historical station Order Books to present a selection of stories and snippets from our past, only a few pages away the reader can delve into the cutting-edge developments in store for the future of aids to navigation; this is just one example of the scope that this organisation tries to communicate, and we are confident you will continue to find it interesting.

We welcome contributions from anyone and we’re open to suggestions and feedback. Please get your submissions to me for the next edition of Flash by 9 September 2016.

Neil Jones, editor

Lighthouse Board at 9 June 2016

The Inspector of Seafarers

Commodore Rob Dorey RN (Executive Chairman)

Captain Nigel Palmer RN (Deputy Chairman)

Captain Roger Barker RN

Commodore Bob Dorey RN (Secretary)

Mrs Dawn Johnson

Professor Peter Matthews OBE

David King CBE

Tom Damen RN (Executive Director)

Jon Price RN (Secretary)

at 9 June 2016

Captain Ian McNaught RN (Group Chairman)

Captain Nigel Palmer RN (Group Deputy Chairman)

Finally, Lord Cobham, who is not a member of Trinity House, but played an integral part in our history, was sworn in as an Elder Brother and I wish him well in his new role as an Assistant with particular responsibilities as the Charities’ Business Trustee.

In March, Her Royal Highness The Princess Royal, our Master, visited Trinity House London to meet the staff to learn more about and discuss their individual roles. The Palace reported that:

“Her Royal Highness The Princess Royal was very pleased to meet so many people from every department, and to learn more of the history, and of the day to day workings of Trinity House.”

As with all of these occasions, it serves to highlight the fact that Trinity House has a great story to tell and we were pleased to present the Annual Awards in November to dedicated staff for long service, outstanding achievement and in gaining job-related professional qualifications. Additionally, we have been able to recognise contractors who have given exceptionally effective service to Trinity House. My congratulations again to all.

A busy year lies before us as we continue to move ahead with the Fleet Review. Led by the General Lighthouse Authorities, the Review is to explore and develop greater integrated planning and coordination, assess and test the viability of the commercial market to supplement the core fleet in support of operations, determine the level of commercial work achievable against the necessary level of reserve capacity and have the freedom to explore alternative delivery solutions as they emerge. Our day job of delivering a reliable, efficient and cost effective aids to navigation service must of course continue and remain our key focus.

Now to close I wish you all, ashore and afloat, the very best.

At the commencement of the Annual Court Simon Sherrard, Rental Warden to the Corporation, retired from the Corporate Board, and was thanked for his sound counsel and guidance in support of the Corporation’s Corporate and Maritime Charities. On Simon Sherrard’s retirement as Rental Warden to the Corporation his place was taken by Captain Nigel Palmer, formerly Nether Warden. The new Nether Warden is Rear-Admiral David Snelson.

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a review of the last ten months at TRINITY HOUSE

SEPTEMBER 2015

IMD presentation
At the London headquarters of the International Maritime Organization on 24 September the Deputy Master presented to the organization for long-term display the unique three-sided Second Order optic from Orfordness Lighthouse as a token of our respect for IMD. The then Secretary General Koji Sekimizu unveiled the optic as a feature of World Maritime Day, a day of presentations to young people from around the world about the wide variety of maritime careers available to them, supported in part by Trinity House.

Lord Mayor’s Show
14 November saw the 800th Lord Mayor’s Show proceed through the streets of the City of London. A vehicle float carried TV’s Liz Brotin, accompanied alongside and on board by staff, Trinity House Cadets and representatives from maritime charities assisted by the Corporation.

The previous day at Guildhall the new Lord Mayor, Alderman Lord Mountevans, a Younger Deputy Master and Commander Graham Hooley, the Secretary, with a Peter Kent print depicting Trinity House activities and showing the new Lord Mayor’s coat of arms, was re-elected Deputy Master.

NOVEMBER

Staff Awards 2015
The Trinity House Annual Staff Awards Ceremony took place at Tower Hill on 19 November recognising the achievements of several members of staff and some contractors in another busy and successful year.

Awards were made to 24 members of staff who had completed 20 years’ service or more. A further six were recognised for their outstanding individual achievements benefitting Trinity House while nine had achieved job-related professional qualifications in the year 2014/2015.

Finally, two contractors were recognised for their exceptionally effective service to Trinity House. See page 40 for more details.

In the words of Captain Ian McNaught, Executive Chairman: “It was a pleasure to be able to recognise and celebrate the many achievements this year. Many congratulations to all of the award winners.”

Visit of HRH The Master
On 3 March we were privileged to welcome HRH The Master to Trinity House on Tower Hill. During her two-hour stay she was introduced to every department, giving staff the opportunity to describe their work for either the General Lighthouse Authority or the Corporate department, which she thoroughly appreciated. Given as a token of appreciation on behalf of the staff, the Deputy Master presented her with a drawing of Trinity House by the artist Peter Kent, signed on the reverse by the head-quarters staff.

In Innovation in Maritime Navigation event
A conference with the theme of Innovation in Maritime Navigation was held at Trinity House London on 2 March, hosted by the General Lighthouse Authorities of the UK and Ireland, the Royal Institute of Navigation (RIN) and the Knowledge Transfer Network (KTN). Approximately 810 delegates attended from a cross section of the maritime community.

This event was opened by the Executive Chairman who pointed out that the art of navigation – exercising due care and caution – was as necessary to keep mariners and ships safe at sea today as it had been for centuries.

Rear-Admiral Nick Lambert, chairman of the day, invited delegates to keep in mind that the gathering was intended to address how new technology might be used to make global navigation satellite systems (GNSS) better and more reliable. Here the uniquely difficult maritime environment makes imperative the need for development in the provision of resilient systems. Sessions concerned the mariners’ perspective and that of the pilots, reliability of systems and chart information and more, including an industry view of developments and opportunities. To round off the day Rear-Admiral Lambert invited comments from the floor with a view to summarising what had been heard.

MARCH-APRIL 2016

Longstone Visitor Centre
At Longstone Lighthouse on 8 April the upgraded visitor centre was reopened, telling the story of Grace Darling and her father William, of the famous Forfarshire rescue and the family’s life at the lighthouse. The visitor centre also looks at the history of Trinity House and brings visitors up to date on what the maritime charity and General Lighthouse Authority are doing today to carry on the work we began in 1514.

In putting together the new and improved displays we have been assisted in part by the team at the RNLI Grace Darling Museum in Bamburgh, for this we are very grateful and it is expected that the two attractions will complement each other.

HM The Queen’s 90th birthday
To celebrate Her Majesty’s 90th birthday on 21 April over 1,000 beacons were lit throughout the United Kingdom, Channel Islands, Isle of Man and parts of the Commonwealth.

Beacons were lit outside eleven Trinity House lighthouses and at Trinity Pier, Harwich. Captain Ian McNaught reflected: “Trinity House has a long-standing relationship with, and an enormous amount of respect for the Royal Family, counting HRH the Princess Royal as our Master, and HRH The Duke of Edinburgh as our Immediate Past Master and their Royal Highnesses the Prince of Wales and the Duke of York as Elder Brethren of the Court; as such, we are very proud to be able to mark this momentous birthday by lighting beacons in some of the nation’s most beautiful locations.

We at Trinity House wish Her Majesty a very happy birthday!”

Chosen stations were: Longstone; Flamborough Head; North Foreland; Portland Bill; St. Catherine’s, Lizard; Lundy South; St. Ann’s Head; Bardsey; South Stack and St. Bees.

JUNE

Trinity Tide
The 502nd Trinity Tide Annual Court was held on 8 June when HRH The Princess Royal was re-elected Master of the Corporation for the ensuing year. Captain Ian McNaught was re-elected Deputy Master. Captain Nigel Palmer and Rear-Admiral David Stenelon were elected Rental Warden and Nether Warden respectively. At the conclusion of the Court HRH The Master with the Elder and Younger Brethren proceeded to St Clare’s Church, Hart Street in the City of London for the Annual Trinity Tide service where the preacher was the Rt Revd Martin Seeley, Bishop of St Edmundsbury and Ipswich.

Photos: © David Rees.

Image © C live Tooman.

Image © Barrie Turner.

Image © Hamish Beeston.

Image © Nichole Lambert-Kelly.
At the commencement of this year’s Annual Court Simon Sherrard stood down as Rental Warden of the Corporation and the Corporation a post he had held since 2014. He was sworn as an Elder Brother in 2001 and elected Warden in 2013. On relinquishing that position he has also retired as a member of the Corporate Board and Trustee of the Charities. He will remain an Elder Brother and member of the Court.

Commander Graham Hickley, Secretary to the Corporation paid this tribute: “Based on his many years’ experience in the worlds of finance, charities and business Simon Sherrard’s wise counsel and guidance has been most welcome to the Corporation in enabling it to pursue its chartered aims. In particular as the Business Trustee he has helped keep the Board focused on the central issues and the generation of its income through its properties and investments. He has also given great service as Chairman of the Corporate Pension Trustees’ Committee, the Remuneration Committee, and as a member of the Investment and Audit Committee.” His years as a Trustee saw the Corporation’s charitable expenditure increase appreciably and the Corporate Board oversaw many of the events and initiatives that marked the 500th anniversary of the incorporation by Royal Charter in 1514.

Simon Sherrard started his career at Samuel Montagu & Co Ltd, Merchant Bankers, and after seven years moved to Jardine Matheson & Co Ltd in the Far East. In 1985 he joined the Bibby Line Group Ltd in Liverpool as Managing Director and Commercial Director becoming Executive Chairman in 1997. Previous appointments include Chairmanship of the Port of London Authority, the A & P Group Limited and Abacab Syndicates, a Lloyd’s Underwriting Agency. He was a director of Lloyd’s Register for sixteen years, ending as Deputy Chairman. Simon was President of the UK Chamber of Shipping in 2000/2001 and Vice Chairman of the International Chamber of Shipping until retirement in May 2001 after eight years as UK representative. He was High Sheriff of Cheshire in 2004/2005. He is a former Trustee of the Council of the Mission to Seafarers, a Freeman of the Company of Watermen and Lightermen, a Trustee of the White Ensign Association, a Council Member of the RNLI and Chairman of the Trustees of the Cornwall Multiple Sclerosis Therapy Centre.

In 1994 he became a Life Governor of the Worshipful Company of Shipwrights, a Member of the Court in 2002, Warden in 2006 and Prime Warden in April 2010.

On the retirement of Simon Sherrard as Rental Warden to the Corporation at this year’s Annual Court his place was taken by Captain Nigel Palmer, previously Nether Warden. The new Nether Warden will be Rear-Admiral David Snelson CBE FNI.

David Snelson served in the Royal Navy from 1969 to 2006 and his commands included HMS Ark Royal. He was Naval Commander for the invasion of Iraq in 2003. From 2006 to 2011 he served on the Board of the Port of London Authority as Chief Harbour Master. During the same period he was also a specialist advisor to the House of Commons.

Rear-Admiral David Snelson CBE FNI

David Snelson was appointed in 2005; 2014 he was appointed to the Board of Lloyd’s Register as a non-executive director and Chairman of the Remuneration Committee. He is currently a non-executive Director of the Maritime and Coastguard Agency and a Trustee of the RNLI. Between 2003 and 2007 he was a member of the London Array Offshore Wind Farm Advisory Board and a Trustee of the Maritime London Development Corporation. He is a past chairman of the Institute of Marine Engineering, Science and Technology, and a former member of its Industry Advisory Board. He is also a past Chairman of the Institute of Chartered Shipbrokers and Warden of the Register of Warden and is also an Examiner.

Sea Change

The Marine Society & Sea Cadets

Defence Committee.

From 2012 to 2015 he was a Trustee of the Marine Society & Sea Cadets. He is currently a non-Executive Director of the Maritime and Coastguard Agency and a Trustee of the RNLI. Between 2003 and 2007 he was a member of the London Array Offshore Wind Farm Advisory Board and a Trustee of the Maritime London Development Corporation. He is a past chairman of the Institute of Marine Engineering, Science and Technology, and a former member of its Industry Advisory Board. He is also a past Chairman of the Institute of Chartered Shipbrokers and Warden of the Register of Warden.

Richard Sadler was sworn in as an Elder Brother of the Corporation at the Court of 17 May 2016. He is now a member of the Trinity House Corporate Board. He was admitted as a Younger Brother in 2014. Born in 1957, he spent time in the Royal Navy as a midshipman before gaining a BSc (Hons) in Naval Architecture in 1979. After a series of posts in engineering he was appointed in 2004 as Director of Asset Management for the Royal Bank of Scotland (Shipping and Offshore Energy division). Here he enhanced the role by developing a risk system for asset, operator and market assessment of globally financed assets. At Lloyd’s Register

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Richard Sadler was appointed CEO of Lloyd’s Register Group, an organisation which grew in his tenure to a £1 billion turnover company with 13,500 staff providing compliance and consultancy services to 60,000 global clients in 78 countries. This growth was achieved through technical services in the marine, energy and other sectors including management system certification to mitigate company risks. The group is owned solely by the Lloyd’s Register Foundation that exists to protect life, property and the environment: and provide public benefit in the areas of research and education. He was instrumental in this governance change and establishing the Foundation as a major source of funding to education and research institutions around the world. During his eight years as CEO Lloyd’s Register he focused on technology, external representation and ensuring a valued contribution to its clients. In turn the Group established two global technical centres in Southampton and Singapore and reinforced the historic brand value to ensure sustained growth.

Background

In 2014 he joined the University College London – International Energy Advisory Panel to bring commercial project and market experience in energy production and energy shipping to the academic strategy of the centre. From 2010 to 2013 he was co-chair of the Government’s Marine Industries Council which led to the development of the maritime sector growth strategy, part of the Government’s key sector growth plans. At the request of the Singapore Government he joined the Singapore Energy and Maritime Institute – International Advisory Panel from 2012 to 2014 and assisted in developing the sector strategy and investment plan for Singapore.

He is a Fellow of the Royal Academy of Engineering and of the Institute of Marine Engineering, Science and Technology and a member of the Royal Institution of Naval Architects. In academia he has been visiting Professor of Dalian Maritime University, visiting Professor in Shipping at the University of Southampton and holds Honorary Doctorates from the Universities of Newcastle upon Tyne and Southampton. At Newcastle he was a member of the Graduate’s Industrial Advisory Board in the School of Marine Science and Technology. He was President of the Welding Institute from 2008 to 2011.

Current

Richard Sadler was appointed Chairman of Atkins Group in October 2015 to bring sector expertise and strategic skills to help the weather forecasting and risk management company. The same year he was appointed Consultant Advisor to the Foresight Group, a multi-sector shipping, drilling, hospitality and shoe manufacturing company in private ownership, in order to achieve new growth and strategic plans.

Personal life

Away from industry he is a Trustee of The Clorana Trust which is a lasting legacy of The Queen’s Diamond Jubilee in 2012. The Queen’s rowbarge Clorana is an inspiration for national pride, a showcase for traditional British boat-building and craftsmanship, and a means of encouraging people, especially young people, to engage with the River Thames and the sport of rowing.

New Elder Brother – Richard L Sadler FEng FIEEE FIMarEST WRNA

Richard Sadler

Sea Change
Resilient PNT – If not eLoran, then what?

By Dr Nick Ward C Eng FRINA FNAME C Eng FRINA AFI
GLA Research Director

I T IS GENERALLY AGREED THAT RESILIENT PNT (Positioning, Navigation & Timing) is essential for the maritime sector. E-navigation and newer developments, such as sea traffic management and autonomous ships will not be viable in the long-term, without totally dependable positioning and communications. However, there is little consensus on how to achieve resilience. eLoran has been demonstrated as an effective terrestrial complement to GNSS, but some European countries have switched off their Loran transmission stations, which are essential to the future provision of eLoran.

Need for resilience
Shipping, in common with other transport sectors and wider industry has become heavily dependent on positioning and timing on Global Navigation Satellite Systems, in particular GPS. By their nature these satellite systems provide an extremely weak signal at the Earth’s surface. These signals are vulnerable to disruption, by natural causes, such as space weather, accidental interference and deliberate jamming. Since all GNSS share the same frequency bands and low power, having and deliberate jamming. Since all GNSS share the same frequency bands and low power, having more than one system provides limited benefit. Resilience can only be achieved by providing complementary, but dissimilar systems.

Alternatives to GNSS
The options include high power terrestrial systems operating at lower frequencies, radar and non-radio systems. eLoran is the most advanced of the terrestrial alternatives. It has been shown to meet IMO requirements for the port and harbour approach phases, as well as coastal navigation. It relies on very high power, low frequency transmissions, with long ranges. Another option currently being explored is R-mode, ranging on existing transmitters, in particular medium frequency radio beacons and AIS (VHF). Radar positioning has been evaluated and shown to provide good accuracy, but only at limited ranges. Non-radio alternatives include inertial systems, which can also give good accuracy, but for limited periods, so they are useful for stabilising output from other systems and coping with brief outages, but do not provide long-term resilience.

eLoran status
Initial Operational Capability (IOC) of eLoran was established for seven major ports on the east coast of the UK in 2014. This gave positioning accuracies of 10 metres (95%) in the ports and their approaches, with accuracies in the region of 50 m along the coasts. This meets the requirements set out in IMO Resolution A.1046(27) for a World Wide Radio Navigation System. However, moving to Full Operational Capability (FOC) depends on the continuation of transmissions from the other European stations, in France, Norway, Germany and the Faeroes. Therefore the termination of transmissions from these stations puts the planned FOC for the UK in doubt. Meanwhile the US appears to be moving towards reversing its decision to close down Loran transmissions, in order to provide a backup to GPS, initially for timing, but eventually for positioning too.

Loran systems also exist in other parts of the world, notably the People’s Republic of China, the Republic of Korea, Russia (Chayka), India and Saudi Arabia. A contract has been awarded for development of eLoran in the Republic of Korea and proposals to modernise systems to provide eLoran are at different stages of development in other countries.

R-mode
Ranging mode has been demonstrated on an MF beacon in the Netherlands and test results are promising. However, considerable work is still needed on technical development, frequency and coverage planning and regulatory arrangements. The advantages of this option would be its world-wide applicability, although coverage would depend on station availability and geometry. Ranging on AIS transmissions has yet to be demonstrated and there may be fundamental limitations on accuracy and range. Given a suitable multi-system receiver, ranging signals from different sources could be combined, together with those from Loran, to provide a much more widespread service.

Future direction
It seems unlikely that a worldwide consensus can be reached on a single backup system for GNSS, however, agreement on the need for resilience seems to be growing stronger. One recent development is a new performance standard agreed in IMO for a multi-system receiver. This would use whatever positioning signals are available – multi GNSS, or terrestrial – to arrive at the best position, carrying out integrity checks to ensure that erroneous information does not degrade the solution. This could be the most practical approach to real resilience in positioning and timing.
Wave Loading on Rock Lighthouses

By Dr Alison Raby,
Associate Professor (Reader) in Coastal Engineering, School of Marine Science and Engineering, Faculty of Science and Engineering, Plymouth University.

HOW DO ROCK LIGHTHOUSES BEHAVE WHEN THEY ARE POUNDED by giant waves? Anecdotal evidence from the archives and contemporary observations by Trinity House staff suggest particular responses, but to date very few measurements have been made. All that changed in 2013/14 when the Eddystone Lighthouse was instrumented to record the wave runup and subsequent motion response.

The frustration of having no wave impact data on which to base lighthouse designs was expressed by Alan Stevenson in 1848: "No systematic or intelligible attempt has been made practically to measure the force of the wave, so as to furnish the Engineer with a constant to guide him in his attempts to oppose the inroads of the ocean."

In fact Alan’s brother Thomas invented an instrument – the Marine Dynamometer – to record impact pressures. It was deployed on both Bell Rock and Skerryvore lighthouses and provides rare measurements of impact pressures. But of the motion response of these towers, nothing is available. Anecdotal evidence includes a “loud booming noise”, “chinking of glasses in cupboards”, “occasionally similar to minor earthquake”.

But what is actually happening to the structure? A pilot project on the Eddystone Lighthouse, hoped to reveal some of the secrets. Trinity House teamed up with Plymouth University who have been at the forefront of field-based wave loading on structures since the 1980s, contributing to the BS6349 Part 7 Design Guidance for Breakwaters and leading the design of novel wave impact pressure-aeration units on Alderney Breakwater.

Eddystone Lighthouse, having line of sight to the university campus, was deemed to be a perfect candidate for such an investigation. There would be severe constraints to traditional monitoring methods due to its remote location, low power availability and the hostile environment. Rather than the standard methods of determining wave impacts by fixing pressure transducers to the outside, a pragmatic approach was devised comprising video cameras and geophones.

Four video cameras were fixed to the helipad support structure, arranged to provide views around the entire perimeter. Two of the cameras focused on the prevailing southwesterly wave direction – one near-field and one far-field. The cameras were remotely controlled via a wireless bridge to the university, enabling them to be activated when nearby buoys indicated significant wave activity. Furthermore, when waves were detected on the cylindrical base of the tower, the acquisition speed increased from 1 fps to 5 fps. Meanwhile, two geophone units were placed within the tower itself. More often used for seismic applications, they would provide motion response information. They were battery-powered, sending activity alerts via the GSM mobile phone network when the tower motions exceeded a certain threshold, controlled remotely.

Deployment was undertaken by university technicians in the summer of 2013. October 2013 storms came and went, with no alerts being sent from the geophone systems (causing a little concern about the effectiveness of the method). However, just before Christmas that year, the first of a system of twelve storms rolled in and around 3,000 individual motion events were recorded over a couple of months.

Short-duration velocity-time histories obtained from the geophones could be integrated to obtain displacements of the tower (which were never more than a fraction of a millimetre) and differentiated to obtain accelerations (the largest of which were comparable to earthquake events). Comparisons with video images led to the identification of different wave impact types, governed by breaking distance from the tower.

Also, transforming the geophone data into the frequency domain enabled modal information on the tower response to be obtained. The response of the tower was found to be affected by the wave height and period and complicated by the instantaneous water level, a wave being unable to hit the tower in its most energetic unbroken form unless there is sufficient water on which to ride. The angle of the incoming wave was also a big factor at the Eddystone due to the specific bathymetry on which it is built. In parallel with the field monitoring, a Finite Element Model of the Eddystone Lighthouse was constructed. This would be validated by the geophone data and provide an insight into the structural behaviour at locations other than those where the geophone systems were located. Data for the lighthouse materials were obtained from archive sources and the De Lank quarry in north Cornwall from where much of the granite was sourced.

With the model successfully validated, agreeing with the fundamental frequency of the tower to within a few percent, an estimation of the stability of the Eddystone was undertaken. Wave loads were based upon methods provided in ISO 21650 Actions from wave and currents on coastal structures using wave buoy data and video images. Analysis suggests that, as expected, the Eddystone Lighthouse is stable for material failure, sliding and overturning. Even without a thorough knowledge of the wave load in their design, the great engineers of the 19th century built structures capable of withstanding these harsh conditions.

Next steps are to take methodologies and findings from this pilot study to more exposed lighthouses of the General Lighthouse Authorities (GLA). Funding for project STORMLAMP (Structural behaviour Of Rock Mounted Lighthouses At the Mercy of imPulse waves) has been secured from the UK Engineering and Physical Sciences Research Council and will commence this year (2016). It will further develop combined physical and numerical modelling for both wave loading and structural behaviour that will be validated by direct measurements of full-scale performance. The tools and extended full-scale observations will provide the means for the GLAs to manage lighthouse structural condition and safeguard their role.
The conference was opened by Executive Chairman Captain Ian McNaught, reading the extract above from Younger Brother Greeneville Callings’ Preface to his Great Britain’s Coasting Pilot, published in 1693 and dedicated to the Master, Wardens, and Assistants of Trinity House, he pointed out that the same art, care and circumspection – if not more so – were required to keep mariners and ships safe at sea today. After some opening remarks from Captain Peter Chapman-Andrews, Director of RHI and Mr. Bob Cockshott on behalf of the KTN, Rear-Admiral Nick Lambert invited President of the Nautical Institute, on the impact of modern systems on the conduct of ships. He described the manner’s requirement for systems as being compact, always available and reliable, and expressed a concern that ‘machine centred automation dulls situational awareness’.

**Mariners’ perspective**

Speaking first was Captain Robert McCabe, President of the Nautical Institute, on the impact of international consensus in the ongoing search for Maritime Resilient PNT; as an alternative to GNSS. He also looked at the various pros and cons of various radio frequencies used for PNT, including piggy-backing on existing safety-critical systems as well as television and DAB radio signals, concluding that there was no one perfect combination.

**Pilot’s perspective**

Nick Cutmore, Secretary General of the International Maritime Pilots’ Association, argued that the pilot continues to depend on the utilisation of a spectrum of technologies that includes aids to navigation, varied displays, Positioning, Navigation and Timing (PNT) resilience, Portable Plotting Units (PPU) and port terrestrial positioning systems.

**Trustworthiness of PNT and chart information**

Captain Roger Barker, Director of Navigational Requirements at Trinity House, presented examples of sharing ECDIS weaknesses, and the need for physical aids to navigation as vital as ever.

**Is inertial integration the answer?**

Professor Terry Moore of the University of Nottingham gave an overview of the range of primary Global Navigation Satellite Systems now operational (Global GPS, GLONASS, Galileo, BeiDou and Regional QZSS, IRNSS) together with the main Space Based Augmentation Systems (EGNOS, WAAS, MSAS, GACAN, SDCM). He also summarised the development of Inertial Navigation Systems, which are based on a set of three gyro, three accelerometers and three axes contained within an Inertial Measurement Unit (IMU).

**Diversity in integrated navigation**

Dr Paul Williams, speaking on behalf of the General Lighthouse Authorities, remarked upon the importance of international consensus in the ongoing search for Maritime Resilient PNT, as an alternative to ECDIS. He posited the concepts of R-Mode (on IALA DGPS and AIS) and Radar Absolute Positioning. R-Mode, using IALA MF DGPS radio beacons to provide PNT and data, may utilise the quite extensive background of ECDIS research and development already built up by the GLAs. He also briefly presented a roadmap, under development within IALA, on the technical and political development of R-Mode and highlighted the need to raise awareness at the level of decision makers in order to facilitate international consensus on the adoption of the system.

**Training of end users in GNSS reliability**

Mark Broster of ECDIS Ltd. played footage from a head-mounted camera of a bridge team member in a simulation of a technologically advanced marine environment (such as carriage requirements and passage planning) meant that the need for physical aids to navigation is as vital as ever.

**Opportunistic radio positioning**

Dr Ramsey Faragher of Focal Point Positioning introduced the concept of making use of radio signals that are not intended to be used for positioning. He looked at the various pros and cons of various radio frequencies used for PNT, including piggy-backing on existing safety-critical systems as well as television and DAB radio signals, concluding that there was no one perfect combination.

**Flexible Digital Navigation**

Dave Sanderson of Guidance Marine introduced the concept of making use of radio signals that are not intended to be used for positioning. He looked at the various pros and cons of various radio frequencies used for PNT, including piggy-backing on existing safety-critical systems as well as television and DAB radio signals, concluding that there was no one perfect combination.

Conclusion

To round off the day Rear-Admiral Lambert invited comments from the floor with a view to summarising what had been heard. The comments reiterated that there are many alternative navigation systems on the market, that awareness of GNSs vulnerability is growing, there are opportunities for cross-sector (especially aviation and maritime) exchange of lessons identified, as unmanned vessels look set to become a reality, what will the seafarer of the future need?
E-navigation – Where is it going?

By Dr Nick Ward CEng FRINA NV
GLA Research Director and
Dr Paul Williams CEng BSc(Hons)
FRAINA RINAV Principal Development Engineer.

E-navigation is an international maritime organization (IMO) initiative for future, digital navigation in the maritime sector. It was conceived about ten years ago following an input to IMO’s Maritime Safety Committee from several leading maritime nations. This highlighted a clear need to equip the master of a vessel, and those responsible for the safety of shipping ashore, with modern, proven tools to make marine navigation and communications more reliable and thereby reduce errors.

Key objectives of e-navigation include: safe and secure navigation of vessels, facilitating communications, including data exchange between vessels and shore, integration and presentation of information onboard and ashore to maximise navigation safety benefits and minimise risk of confusion, as demonstrated in projects such as Mona Lisa 2.0.

Progress in IMO

The IMO Maritime Safety Committee (MSC), has e-navigation Strategy Implementation Plan (SIP) to be implemented during 2015-19. Four work programmes are planned for this period covering:

- Revised performance standards for Integrated Navigation Systems relating to the harmonisation of bridge design and display of information;
- Guidelines for the harmonised display of navigation information received via communications equipment;
- Guidelines on standardised modes of operation (referred to as S-mode); and
- Revised general requirements for electronic navigational aids relating to ‘Built-In Integritesting’ for navigation equipment.

A further work item on Maritime Service Portfolios (MSP) was deferred until MSC 96 (May 2016). MSP has been identified as the means of providing electronic information in a harmonised way between shore and ships. This output proposes to harmonise the format, structure and communication channels, functional and physical links, and message formats used for exchange of that information. The input to MSC 96, supported by many national members and international organisations, should lead to an MSC Resolution providing general guidance to international organisations and service providers to develop MSP in a coordinated and harmonised manner.

In the long term and for complete harmonisation of MSP and their display on board, it may be necessary to revise the requirements contained in SGLAS Chapter IV and V and some of the supporting performance standards for the relevant equipment.

Progress in IALA

At the 17th and 18th Sessions of the IALA e-navigation Committee (ENAV) in October 2015 and March 2016 work continued on the development of standards, communication and navigation systems, Maritime Service Portfolios and product specifications for data exchange. In December 2015 IALA held a Seminar on Maritime Digital Infrastructure and Test Beds in Gothenburg. The conclusions were:

1. Adoption of e-navigation and use of digital infrastructure depends on sound business cases with clear tangible benefits.
2. IALA should consider establishing a collaboration forum across the maritime domain including other IGO, NGO and industry, to ensure harmonious implementation of e-navigation.
3. There is merit in local and regional implementation as a means to obtain global acceptance of e-navigation solutions.
4. A coordinated, decentralised approach could be used for information sharing and service interaction between different domains.
5. The Maritime Architecture Framework can be useful for visualising different perspectives of e-navigation and their inter-relationships in the maritime domain.
6. There is a compelling need for universal identification of actors and information objects etc to enable interoperability.
7. Cyber security issues need to be addressed.
8. IALA ENAV could consider hypothesis driven validation methodology when assessing test bed results.
9. Increased visibility of themes being addressed in test beds and establishment of Special Interest Groups may enhance collaboration.

A workshop is taking place in May 2016 in Lisbon on Ship-based Maritime Services from Theory to Practical Use (WHO I Will Do What When). This is expected to move the MSP development process forward.

Projects & Test Beds

A repository of test beds is maintained on e-navigation.net and IALA encourages those establishing new test beds to provide information about them on that site. As part of its contribution to the EU Horizon 2020 Project eEfficientsea 2, IALA is establishing links between that project and all other relevant test beds, particularly those developing e-navigation applications.

E-navigation communications

Two fundamental components are required for e-navigation to work: Resilient PNNT (Positioning, Navigation and Timing), but dependable communications are also essential. Automated reporting, route exchange, maritime safety information, virtual Aids to Navigation – almost every e-navigation solution relies on communications. A recent report produced by the General Lighthouse Authorities and provided as an input to IALA, showed that new systems such as the VHF Data Exchange System (VDES) and Navigation Data (NAVDAT) had important roles to play in many e-navigation applications. A few applications demand very high bandwidth and would benefit from broadband via satellite, but most requirements can be met by VDES and NAVDAT, which use available maritime VHF and MF channels, respectively. The use of satellite (VSAT) based broadband is expanding, with the current number of terminals deployed rising from 20,000 today to a projected 40,000 terminals by 2020. This expansion of use is being driven by the mariner’s requirement to be online all the time, particularly for information and social media applications.

Future Direction

It seems likely that the ground work for implementation of e-navigation will continue in IMO, while the development and definition of MSP is progressed in parallel by IALA. Applications and solutions will be tested and demonstrated in the various test bed projects and those that offer real benefits to mariners, pilots, ship operators, ports and other stakeholders will be adopted and standardised. So e-navigation will be realised by a process of user selection, rather than a top-down imposition.

*International Association of Marine Aids to Navigation and Lighthouse Authorities.
For the Trinity House fleet, 2015 was relatively routine in many respects, still managed to produce a number of interesting and unusual events.

The basic operational output figures do not make exciting reading:
- Routine servicing of 445 buoys
- 25 maintenance visits to beacons
- 55 hydrographic surveys
- 85 casualty rectification visits to various aids to navigation
- 663 local light inspections
- In addition the ships carried out work on a commercial basis for other authorities on 241 occasions including 1,764 buoy maintenance operations.
- In progressing all the above, our three ships – Patricia, Galatea and Alert – steamed a total of 44,594 nautical miles, burning around 2,304 tonnes of marine gas oil in the process.
- These statistics do not tell the whole story.

Over the course of any year our ships tend to become involved in various other events and operations. A quick trawl through the respective log books has unearthed some that took place in 2015 and are set out below:

**THV Patricia**
- In March 2015 Patricia underwent her routine dry docking in Hull – this was her seventh five-year special docking – the statutory certificates were all renewed and she is certified through to 2020.
- Support was provided to the Northern Lighthouse Board (NLB) to enable NLB Phaethon to carry out lucrative commercial work to the south of Ireland. This was a positive step in its commercialisation enabling the most suitable vessel to be released for commercial work while ensuring that core business continued.
- During the summer, following work in the Channel Isles, Patricia assisted by a sympathetic tidal stream managed 18.1 knots through the Alderney Race – believed to be her best.
- Carrying out local light inspections from ship’s boat at Teignmouth some difficulty was experienced in finding one of the light structures – it was finally located in the garden of the Jolly Sailor pub – unfortunately the time of day (early morning) prevented a more thorough inspection of the site being undertaken.

**THV Galatea**
- The year started with a requirement to place wreck marking buoys close west of the car carrier Hoegh Chuka which stranded on the Bramble Bank off her way out of Southampton.
- A BBC film crew joined Galatea in March 2015 to film series two of the Channel Patrol documentary – this was shown on weekday mornings later in the year.
- In June the same year Galatea, with HRH The Master and HRH The Immediate Past Master embarked, represented the Corporation at the 200th anniversary celebrations of the Royal Yacht Squadron at Cowes.
- In August Galatea also provided support to the NLB when their vessel Phaethon was forced to undergo emergency repairs. This involved working at a number of NLB lighthouses in conjunction with the NLB service helicopter, and a transit around the north of Scotland before returning Trinity House work at Longstone Lighthouse – this is certainly the first time in recent memory that a Trinity
House vessel has circumnavigated the British Isles.

• Longstone Lighthouse figured a number of times in Galatea’s programme for 2015 – a major modernisation of the station was undertaken. Galatea was involved in the mobilisation and demobil phases – this was high intensity work with more than 200 underslung loads being transferred from ship to lighthouse via helicopter in less than two days on each occasion. On completion of the works the Examiners’ Viewing Trials to confirm the effectiveness of the new light were conducted from Galatea, after which the ship removed the lightvessel which had provided a temporary light while the upgrade was being carried out. The low back to Harwich was hampered by bad weather and at one point Galatea was making a pedestrian 2 knots with the engines at full ahead.

• Seventeen Type 2 buoys were loaded on to Galatea in support of commercial operations at Duddon Sands – this is a record for the ship and therefore for Trinity House.

THV Alert

• The year started with a requirement to search for the potentially dangerous wreck of the lost fishing vessel Morgenster in the Dover Strait.

• A second ECDIS (electronic chart system) was fitted with the intention of Alert becoming the first Trinity House vessel (or indeed of any GLA vessel) to abandon paper charts and navigate purely electronically. This is expected to be achieved in 2016 with Alert becoming the trailblazer for other GLA ships in this respect.

• In April 2015 HRH The Master was embarked in Dover and taken to sea to view the revised arrangements for marking the Varne Bank in the Dover Strait.

• In June the same year Alert was tasked with searching for the wreck of a houseboat off Beachy Head. Although the boat had sunk, and was later located using Alert’s multibeam echo-sounder, one piece of ship’s equipment had stayed afloat – a wooden hot-tub which Alert managed to recover at the request of Dover Coastguard.

It should also be mentioned that 2015 was also a sad year for the SVS. The tragic loss of Captain John Mallett, who died on the bridge of Galatea while engineering works were taking place, was referred to in an earlier edition of this publication; but John’s funeral was only one of a seeming endless procession of funerals of serving and retired SVS staff in 2015. As well as John, Captain Ray Prais, Second Engineer Officer Don Gaytheroe, Chief Engineer Ken Curtis and Captain John Barnes, were among the 15 who crossed the bar last year. With the exception of John Mallett all of them had enjoyed a period of retirement, however, one of the sadder moments of the year was the loss of Commander Roger Swaney, who lost his battle against cancer in November, less than a year after being forced to retire through ill health.

2016 promises to be at least as eventful as 2015, having already started with some of the worst weather that we have seen in years.
To achieve this task, I find myself engaging with a wonderfully wide and diverse range of people, embarking on all forms of transport to visit aids to navigation, finding myself in extremely odd places and on more than one occasion raising the suspicions of the long arm of the law. Have I finished my year’s programme – the data collected and collated by the Navigation Directorate, the annual report written – then I begin planning my next year’s travel. With my diary programmed and the previous year’s report on the Director of Navigational Requirements’ desk, come February I am on the road again.

I have collected together a few of the interesting and unusual things that occur during my travels to highlight the diverse, the unusual and the odd with which the Inspector of Seamarks finds himself dealing.

Firefighting on the River Dart

Following an early breakfast I am down on the jetty in front of the Dart Harbour Commissioners Office at Oyster, ready to catch the rising tide for the day’s inspection of the River Dart. With my inspection papers at the ready, we set off and begin the process reviewing and commenting on the navigation marks in the river. As we arrive up inTotnes some two hours later, I quickly reflect that we will be back in Dartmouth in good time for me to get the ferry and drive to Brixham for my next meeting that day. But as we set off on the return journey, clouds of smoke are seen following from the quay ahead of us, a small boat has just landed, only for his engine to burst into flames; suddenly our trip is turned into an emergency response as the Harbour Master shifts into an increased role, coordinating support for the fire brigade as we help move the rapidly sinking boat to a safe jetty. Needless to say my timetable is now hours squashed, I phone Brixham to make my apologies. With that evening’s lights inspection to follow it proved to be another very long day, eventually getting back to my hotel long after dark.

Permain and a brush with the law

Early evening, dusk is falling. I am waiting for the lights to come on across the river at Saltash Town Quay, having found a perfect vantage point under the Tamar Bridge. I can also see what will be the navigation lights on the bridge buttresses, and the most important ones, I see: the lights marking each end of the Tamar Royal Naval Armaments Depot loading jetty for the Devonport Naval Base. As I find myself an site a little early waiting for darkness to fall, looking out with my binoculars wishing those lights to come on. It is at this time that the Military Police arrive, asking me what I am doing looking so intently at the armaments jetty, asking for proof to corroborate my reasons for looking so suspicious. I suggest they call the Devonport Harbour control, or Trinity House Planning Centre at Harwich, any of whom will verify my credentials, an hour or more passes before they are satisfied that I am genuine, by which time the lights were flashing brightly; albeit without, I might say, those of the armaments jetty, which were subsequently reported as extinguished, at least justifying my time spent with the Police.

Getting out to the inspections

As you might imagine, navigation marks can be notoriously difficult to access. In addition to ships and the usual pilot and survey boats – not forgetting many long muddy walks along clifftops and river banks – I have travelled on an odd variety of transport to get to my inspection: a fish farm tractor, a Second World War landing craft, yachts, speed boats and a 4x4 sand buggy I am still waiting. However, for a Harbour Master to offer me a ride on a hovercraft or helicopter is certainly an acquired taste. Many would not relish the miles on the road, the long unsociable hours, nor the numerous nights in franchise hotels complete with evening meal cloned from one town to the next. Nevertheless, the diversity of the role makes it so interesting and dynamic, with no two days the same.

So there it is

The Inspector of Seamarks is a quirky and unique role, and – like Marmite – very much an acquired taste. Many would not relish the miles on the road, the long unsociable hours, nor the numerous nights in franchise hotels complete with evening meal cloned from one town to the next. Nevertheless, the diversity of the role makes it so interesting and dynamic, with no two days the same.
Harbour Masters – Knowledge and understanding assured

By Peter Moth FNA
Executive Officer UK Harbour Masters’ Association, Younger Brother

Many years later the role of the harbour master gained full legal credibility when many of its functions were incorporated into national legislation, most notably in the definitive Harbours Docks and Piers Clauses Act of 1847. Under this statute – which, with amendments, remains valid today – a harbour master gained the powers of ‘direction’ – essentially the legal authority to regulate the time and manner of ships’ entry to, departure from, and movement within a harbour, its approaches and in any related waters. The new authority also extended the right to remove unseaworthy vessels and any other obstructions to safe navigation within the harbour.

The Act also empowers a statutory harbour authority to appoint (or dismiss) a harbour master who shall be entrusted to ensure not only the safe operation of navigation but also the myriad of other marine activities within the harbour’s geographical limits. Surprisingly, given the comprehensive nature of these powers, there are no specific qualifications required of the harbour master; it being left to his employer, the harbour authority, to satisfy itself that he/she is suitably competent and experienced to take on these responsibilities.

More recently and by common practice, the Harbour Master is normally qualified at least to a level equivalent to that of a Master of the largest vessel to visit the port. For most large commercial ports, a Master Mariner Class 1 Certificate of Competency (STCW), or Royal Naval equivalent, has served the test of time as the standard qualification, but in recent years these certificates have become far less prevalent and alternative endorsements or an appropriate level of experience against the benchmark set out in the NOS is often required to identify, gather and present evidence relating to the undertaking of particular responsibilities. As such, the Harbour Master is suitably competent to carry out their responsibilities under the terms of the industry-standard Port Marine Safety Code (PMSC).

The Harbour Master Certificate (HMC) is a comprehensive and rigorous examination of a harbour master’s knowledge, understanding and experience against the benchmark set out in the NOS. In practice, the HMC Certificate assessment process takes place over a prescribed twelve-month period during which a candidate is required to identify, gather and present evidence related to the seventeen units of NOS for appraisal by two independent and remote assessors nominated by the HM Certificate Management Group, a sub-group of the UKHMA. On successful completion of the assessment process, the candidate is invited to attend a face-to-face oral interview meeting, conducted by two different assessors, where the full scope of NOS is explored. The overall appraisal is overseen and uniquely endorsed by the Maritime and Coastguard Agency. Once issued, the Certificate has a validity of five years, with revalidation based on a prescribed level of Continuing Professional Development (CPD) activity.

To date, over 70 Harbour Masters have embarked on the assessment process and, by mid-2016, management of the scheme will transfer to Liverpool John Moores University where further associated training will be developed and opportunities opened for those without a sea-ringing background to progress along a Harbour Master career path.

Alternative qualification routes are also open to both aspiring and in-post Harbour Masters including those officers emanating from outside the UK or those with alternative career qualifications such as a UKHMA’s Nautical Institute Certificate. A twelve-month distance learning International Diploma for Harbour Masters is offered by Lloyd’s Maritime Academy that combines port marine safety with management skills applicable to harbour masters and port captains from throughout the world, and potentially leads to accreditation towards further academic qualification such as a degree.

The Nautical Institute has also re-launched its Harbour Master Certificate scheme, based on its publication The Work of the Harbour Master.

As ships get larger and sea lanes become more crowded, it is easy to see how those entrusted with the safety of navigation through our ports and harbours continue to be qualified to some of the highest standards in the maritime world and that the traditional role of the Harbour Master continues to evolve to meet modern-day challenges.

Author’s note:
The UK Harbour Masters’ Association (UKHMA) is a professional association of harbour masters formed in 1993, and now boasting a membership that covers most ports and commercial harbours in the United Kingdom. Membership consists of harbour masters from ports large and small, publicly and privately owned, and represents a unique source of operational, hands-on experience in a range of port and maritime operations. The principal harbour master, or any person who in the normal course of their duties is required to deputise for the principal harbour master, of any statutory port or harbour in the UK, Channel Islands and the Isle of Man is eligible to become a Full Member of the UKHMA, while further categories of membership accommodate other port marine officers such as VTS, Yacht Club Masters and so forth and those providing commercial products or services to ports.

Widely acknowledged as a competent partner in the shipping and port industry throughout the British Isles, the UKHMA’s wealth of experience is sought after and highly appreciated in many inter-industry forums, working groups and consultations, including those initiated by the MCA, DfT, MAB, Marine Scotland and others. The UKHMA maintains a permanent seat on the MCA’s Port Marine Safety Codes Steering Group.

Further information:
www.ukhmar.org.uk/supporting/3547/3547-flash/flashnewsletter/harbour-masters-distance-learning-course
www.mca.co.uk/accreditation/schemes/ukhmas-port-marine-safety-codes
Changeover day for the Sandettie Lightvessel

Ryan Palmer, Second Officer on THV Alert (Starboard watch), captured this scene as THV Galatea and THV Alert made preparations to tow the Sandettie Lightvessel.

If you have any photos of Trinity House that you’d like to share, please go to www.trinityhouse.co.uk/send-in-your-photos
**Flash**

**A spring digest of Service news**

**Southwold, Orfordness, & Longstone Lighthouses, Trinity House, Harwich**

**Southwold Lighthouse**

Early in January work commenced here on replacing the existing main light which had proved to be unreliable under certain conditions. The new light is a rotating white LED unit comprising six sides of eight white LEDs. Each LED is housed in its own optic arrangement to maximise the output from the light source. This provides a 24 nautical mile range using only 160W of power and highlights the efficiency of LEDs over other light sources. In order to contain the heavier unit a new aluminium pedestal was created above the existing drum lens with the original lens being used as an emergency light in the event of the new light failing. The new light was first exhibited on 15 January.

**Orfordness Lighthouse**

This station was decommissioned and sold to a private buyer in 2013 as the sea was eroding the shoreline of Orford Ness and threatened the long term viability of the lighthouse. The local community knew that the lighthouse had a limited future and it was understood that the new owner has been successful in encouraging visitors to the Ness to see the lighthouse which was built in 1792. By March 2016 the shoreline was then in the region of one metre from the lighthouse base and it is expected that the next severe storm will probably expose the tower's foundations potentially rendering the building unstable. The owner is planning to remove the lantern room and rebuild it further inland using as much of the original material as possible.

**Visit from the High Sheriff of Essex**

On 9 March the then High Sheriff of Essex Mr Vincent Thompson visited Trinity House Harwich in order to understand the many roles of Trinity House and to recognise the position which Trinity House holds within the local community. Wide ranging conversations took place on all aspects of Trinity House as a Lighthouse Authority and as a Corporation for the benefit of seafarers past, present and future. He toured the depot at Harwich, met staff and heard much of the role of Operations and Planning as well as buoy yard operations and technology development within R&RNAV.

At the time THV Calaera was alongside for essential maintenance and an opportunity was taken for a ship visit with Marine Operations Manager Tony Wright and Captain Simon Robinson.

**Longstone Lighthouse**

Following the successful re-engineering of Longstone Lighthouse, the visitor centre was reopened to the public with improved displays and interactive units for all the family early in April. The lighthouse is famous as the scene of one of Britain’s most courageous rescues, when light-house keeper’s daughter Grace Darling rowed out with her father into storm conditions to save nine victims of the foundering steamer Forfarshire in 1838.

Much of the design of the upgraded visitor centre areas are given over to telling the story of Grace and her father William, of the rescue and their life at the lighthouse; the Darling family were the first to live in the lighthouse after it was built by Trinity House in 1826.

The visitor centre also considers the history of Trinity House and brings visitors of all ages up to date on what the maritime charity and General Lighthouse Authority is doing today to carry on the work it began in 1514.

Visitors can view Grace’s tiny bedroom from where she spotted nine survivors desperately clinging to the rocks. Despite a raging storm, the Darlings launched the lighthouse boat and rescued the survivors, caring for them in the lighthouse for two days until the storm subsided. In putting together the new and improved displays, Trinity House was assisted in part by the team at the RNLI Grace Darling Museum in nearby Bamburgh, to whom Trinity House is most grateful, it is hoped that the two attractions will be the perfect complement to each other.

**The Longstone Tour**

Longstone Lighthouse, or Outer Fame as it was first called, is situated on Longstone Rock, one of the Outer Staple islands of the Fame group. Visitors may take the Longstone tour which lasts approximately 30 minutes inside the lighthouse, a cruise around the Fame Islands to view the seabirds and the famous Grey Seal colony, with full commentary en route. The whole trip lasts in the region of two hours.

Landing at, and opening of, the lighthouse is at the boatman’s discretion in line with Health and Safety Regulations. Opening of the lighthouse is, of course, subject to weather and the operational requirements of Trinity House.

Tours of Longstone Lighthouse are organised by Golden Gate Boats under licence from the Corporation of Trinity House.

**Longstone admission prices**

- **Adult**: £2.00
- **Family ticket** (2 adults and up to 2 children) £4.00
- **Additional child up to 15 years**: £1.00
- **Concession**, general admission: £1.00

Please note the minimum height restriction of 1.1 metres tall to climb the tower. 

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**Longstone Lighthouse**

Much of the design of the upgraded visitor centre at Longstone are devoted to telling the story of Grace Darling and her father William. The visitor centre at Longstone was reopened to the public with improved displays and interactive units.

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**Southwold Lighthouse**

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The work of the Marine Society

By Mark Windsor
Director of Lifelong Learning, Marine Society & Sea Cadets.

There is an acknowledged global shortage of seafarers as we know and so it is in the best interests of employers to maintain a well-trained and reliable workforce to crew their ships. By providing advantages and opportunities for development to their seafarers there is a strong possibility that the workforce will remain stable and continue within the company that is enabling them to develop and learn.

By maintaining this established workforce and by encouraging an increasing professional ability within it, the operation of their vessels will become more efficient, safety at sea will be increased and costly accidents and incidents potentially reduced. Marine Society is developing to meet the specific needs of the modern seafarer. In late 2015 the charity conducted a major survey of seafarers’ lifelong learning needs with nearly 1000 responses received.

Key findings include:
• What we do, we do well, but expansion and improvements in services need to be made.
• The name of Marine Society is known and respected in the industry but the exact function is not so well known. The charity needs to raise sector awareness further.
• Social media engagement needs to be increased.
• A wider range of subjects needs to be offered in more bite size pieces to take into account time available for learning on board, possibly using electronic delivery means.
• Information, advice and guidance is well received but could be increased.

Left: The seadog sundial is on the outer wall of the building and was unveiled by HRH The Queen.
Lower Left: The entrance to Marine Society HQ, 222 Lambeth Road.
Below: The Council Chamber.

Marine Society is a member of the Maritime Skills Alliance and other networks such as Maritime London, so ensuring it is kept fully up to speed with industry needs. Marine Society is also working with partners Trinity House, Maritime London, Nauticus International and the Merchant Navy Training Board on project Ulysses. The aim of this project is to better understand the needs of the maritime sector in terms of those coming ashore, so that working together we can better equip seafarers to meet the needs of the industry as a whole, not just the wet end at sea.

As a result of these initiatives, Marine Society is in the process of re-tuning its learning offer to best meet the needs of seafarers well into the 21st century. The offer includes its Matrix standard externally accredited impartial information, advice and guidance service through which seafarers are helped to find the most appropriate lifelong learning to suit their needs be that via Marine Society itself or other quality learning provider.

The Marine Society aims to provide seafarers with a wide ranging programme of student-centred and employment-focused distance learning and support that promotes and sustains a culture of continuous learning, professional and personal development thereby serving to maximise opportunities for enhancing individual performance, growth and employability.

Marine Society enables distance learning via programmes ranging from the popular @Sea courses, through GCSE and A-Level courses delivered in partnership with Oxford Open Learning and the National Extension College, up to Open University degrees and Work Based Learning opportunities culminating in an Honours degree. This recognises the considerable operational experience developed when progressing to a Class 1 Certificate of Competency. Entrance administration will be undertaken and examinations can be arranged at sea or in the UK and if needed at overseas locations to reflect the working patterns of the seafarers.

The @Sea programmes are maritime contextualised and recognise the need for up-skilling in maths and writing at sea.

In the Council Chamber the painting on the left is of Jonas Hanway, founder, and that on the right, by Gainsborough, is of John Thornton, the Society’s Treasurer in the early years.
The Worcester Scholarship is available to maritime professionals who wish to undertake continuing learning and professional development. The difficulties that officers face when applying for study leave and financing periods at college are widely recognised. Marine Society assists companies in fulfilling the Maritime Labour Convention (MLC) 2006 guideline that adequately stocked libraries are changed at reasonable intervals and provided on board ships.

Marine Society Library Services have well stocked shelves with a wide variety of topics available in hardback or paperback. Exchange libraries can be arranged and despatched to all parts of the world. One-off paperback libraries can also be provided.

Marine Society is also the major UK distributor of all International Maritime Organization publications and operates an online book shop as well as a walk-in shop at the head office in Lambeth, south east London. E-book readers, pre-loaded with books of choice, are also available. As well as supporting education for seafarers Marine Society representatives also sit on industry committees and support major institutions, such as Trinity House.

Marine Society remains true to its core commitment of lifelong learning for seafarers, something it has been doing for nearly three centuries and intends to do for many years to come, helping to give seafarers the best possible lifelong learning opportunities tailored to their individual needs. Captain Nigel Palmer, Elder Brother of Trinity House is Chairman of Marine Society & Sea Cadets and down the years many members of the Fraternity have served as Trustees.

The work of the Marine Society

The programmes and apps have received high praise from the learners who have used them as a refresher or as an educational tool prior to taking examinations.

Maths@Sea is used by some schools and colleges in their standard courses and is also used as a pre-filter for prospective cadets prior to employment by a major shipping company. These programmes have also been recognised by the Nautical Institute and IMarEST as providing a valuable contribution towards Continuing Professional Development (CPD). The @Sea programmes have been shortlisted for the 2016 Seatrade Awards.

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In days of budget restraints and personnel shortages Marine Society is also able to provide bursaries and interest free loans. The John William Slater Scholarship is available to Merchant Navy ratings, Electro-technical officers and yacht crew who wish to increase their employability prospects by studying for their first professional certificate. The fund, currently up to £17,500 per scholarship, is managed by Nautilus International and administered by Marine Society.

The Worcester Scholarship is available in hardback or paperback. Exchange libraries can be arranged and despatched to all parts of the world. One-off paperback libraries can also be provided.

Marine Society is also the major UK distributor of all International Maritime Organization publications and operates an online book shop as well as a walk-in shop at the head office in Lambeth, south east London. E-book readers, pre-loaded with books of choice, are also available. As well as supporting education for seafarers Marine Society representatives also sit on industry committees and support major institutions, such as Trinity House.

Marine Society remains true to its core commitment of lifelong learning for seafarers, something it has been doing for nearly three centuries and intends to do for many years to come, helping to give seafarers the best possible lifelong learning opportunities tailored to their individual needs. Captain Nigel Palmer, Elder Brother of Trinity House is Chairman of Marine Society & Sea Cadets and down the years many members of the Fraternity have served as Trustees.

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The Chilean Maritime Authority and its Aids to Navigation Service

The Directorate General of Maritime Territory and Merchant Marine (DIRECTEMAR) is a Chilean Navy body created in 1836 through which the State oversees the compliance of laws and international agreements currently in force and related to the Chilean maritime territory, in order to protect life at sea, the marine environment and natural resources, and control the activities carried out within the maritime field under its jurisdiction, thus contributing to the maritime development of Chile.

DIRECTEMAR, as National Maritime Authority, has the purpose of being a Maritime Public Service of Excellence. This guides the daily tasks for this Directorate General, its subordinate Technical Directorates, the 16 Maritime Governors’ Offices, the 64 Captains of the Port Offices, and the 201 Sea Mayors’ Offices, along the national territory.

Three concepts guide the actions of the Maritime Authority, which are executed by each of the subordinate Technical Directorates, according to IMO interests:

1. Directorate of Maritime Safety, Security and Operations (DIRMAR), delivering safe and secure seas;
2. Directorate of Maritime Interests and Aquatic Environment (DIRINMAR), providing clean seas;
3. Hydrographic and Oceanographic Service of the Navy (SHOAN), providing information on known seas.

All the actions executed by DIRECTEMAR are concentrated in these three scopes.

Some examples of these actions are:

- Vessels inspections.
- Control of water sports.
- Inspection and control of maritime personnel.
- Management of the national aids to navigation network.
- Control of activities related to maritime terminals and ports, with the aim of contributing to the country’s maritime power.

At the same time, DIRECTEMAR is also in charge of the control of the actions which aim is to preserve hydrobiological resources located in Chilean jurisdiction waters, and it shares the management of the coastline and maritime concessions with the Chilean State, enforcing the marine environment protection treaties to which Chile has subscribed. Likewise, DIRECTEMAR through the SHOAN provides the technical elements...
The Chilean Maritime Authority and its Aids to Navigation Service

The information and technical assistance to ensure the safety of navigation in the authorized routes, through the elaboration of navigation charts, as well as the operation of the national tsunami warning system. Tasks of the Maritime Authority are huge considering the area for which it is responsible. As an example, the territory of the Exclusive Economic Zone is five times larger than the continental surface of the country. If we add the area where the Chilean Navy is responsible for Maritime Search and Rescue (SAR) tasks, which is 35 times larger than the land surface, we could say that we are more sea than land.

The Chilean SAR area of responsibility is the fourth biggest in the world, after Australia, New Zealand and South Africa, and we share with Argentina the SAR area of Drake Passage (between Cape Horn and the South Shetland Islands of Antarctica) and the waters of the Antarctic continent. In this way, the Chilean Navy, through the Maritime National Authority, performs its role of guaranteeing the vital and strategic maritime interests for a nation that has a maritime vocation and which projects to the strategic maritime interests for a nation that has a maritime vocation and which projects to the Pacific basin and to the world on safe, secure, clean and known seas.

Aids to navigation in Chile

The Chilean Aids to Navigation Service was created in 1837 with the aim of managing and developing the maritime signalling system in the country, in accordance with national and international regulations signed by the Republic of Chile. This ensures a degree of operability that allows the safe and clear navigation of ships through domestic routes.

In order to achieve this, the Service has a long network, consisting of 1,143 devices distributed from Arica in the northernmost part of Chile to the national Antarctic territory, totalling 960 lighthouses and beacons, 132 buoys and 57 electronic devices (such as radar beacons or racors, AIS, and fog signals). It must be considered that Chile still has 19 manned lighthouses, which are operated by light-house specialists who, sometimes, live there with their families, developing activities as sovereignty, radio medical support, meteorological observations, pilots’ support and maritime traffic control.

Maintenance and operation of these aids to navigation are performed by five zonal maritime signalling centres distributed in the cities of Iquique, Valparaíso, Talcahuano, Puerto Montt and Punta Arenas. The last two centres concentrate 76% of the nation’s marine aids to navigation.

Tasks developed by Zonal Centres are monitored by the Head of the Chilean Aids to Navigation Service, based in the city of Valparaíso. He is a Coast Guard Commander with a sub-specialization in aids to navigation. At the Service’s headquarters, the decisions that will govern present and future aids to navigation in the country are taken.

The Aids to the Service has five divisions:

1. Planning, which generates long-term planning and analyses deep impact situations that affect and could potentially affect the aids to navigation system;
2. IALA, in which its members analyze and study the scope of the IALA recommendations and their impact on national interests;
3. Operational Logistics, in which its members organize and implement device acquisition programmes and arrange their distribution throughout the national territory;
4. Aids to navigation, which analyses operational problems and studies the requirements associated to new routes and;
5. Research and development, where its members test new aids to navigation available in the market, in laboratories developed for this kind of requirements.

Currently, the Aids to Navigation Service is focused on the development and execution of a plan for the recovery of the network capabilities, known as Fénix, which considers an approximate investment of US$40 million, to renew 80% of the devices for state-of-the-art equipment that allows keeping the operational and reliability standards recommended by the IALA.

Likewise, the Aids to Navigation Service is working in the project Pilar, which is oriented to the improvement of the maritime rescue capability and the maintenance of articulated buoys. At the same time, the Service is monitoring the construction of a lighthouse of 22 metres high, the tallest built in the last 121 years, in the central-southern area of our country.

DIRECTEMAR gives meaning to the Chilean State and the sea. It encourages each of its Officers, Ratings, and Civilians, to improve their processes for the benefit of the protection of the human life at sea and the maritime interests of the nation.
PLANNING PERMISSION HAS BEEN GRANTED FOR 64 APARTMENTS and a commercial unit on Harper Road and Swan Street in the quiet enclave of Trinity Village behind Borough High Street, London SE1. This development is a joint venture on an estate endowed to the Corporation of Trinity House in 1660. Today this estate generates income that funds the vast majority of causes supported by the Trinity House Maritime Charity.

**History of the Estate**

Formerly known as the Newington (Trust) Estate this consisted of meadows and market gardens and for £1669 was conveyed to the Corporation in 1660 by Christopher Merrick, a Merchant of London: “...for relieving comfortless and maintaining of the poor aged sick married week and decayed Seamen and Manners of this Kingdom their wives children and widows where most need was or should be conceived in the judgement... said Trinity House Brotherhood.”

Centre piece of the Estate is Holy Trinity Church constructed by Francis Bedford and consecrated in 1824. This is now a rehearsal hall for London orchestras. It is now known as the Henry Wood Hall. Under the Pastoral Measures Act of 1968 Holy Trinity was the first church to be declared redundant and it has been declared a Building of Architectural Merit and is protected as a Grade II listed building.

The Estate also comprises a mixture of houses and flats, in two squares, Acorn Square and Trinity Church Square. The area round about saw rapid development from 1825. He was a self-taught architect who introduced the concept of commercial development within an area of housing. Each of the two squares has a complimentary garden as a centre of attraction. There were losses during the Blitz but sympathetic repairs were carried out by the Corporation. Many of Chadwick’s features, particularly the classical designed cornices, original wallpaper to a pattern of 1810 and trompe l'oeil effects where paintwork was made to resemble plasterwork on the wallpaper, are held in Guildhall Library records.

**The charities: Seafarer Support**

It was reported in recent weeks that the Seafarer Support website – aided by the Corporation of Trinity House as a member of the Maritime Charities Group – has responded to over 50,000 searches from mariners in need from Merchant Navy, Royal Navy, Royal Marines and the Fishing Fleet communities. Furthermore, its free helpline has received over 4,000 calls from people seeking help or advice on welfare issues, including not only calls from within the maritime sector but also from non-maritime organisations such as Social Services. Seafarer Support is managed on behalf of the sector by the Merchant Navy Welfare Board (MNVB), who also part fund it in partnership with Trinity House, Seafarers UK and the Royal Navy & Royal Marines Charity. Commander Graham Hockley, Secretary to the Corporation of Trinity House commented: “Trinity House is delighted to contribute to this programme, bringing vital information to the seafarer in need.”

**Charitable grants**

In the financial year to March 2016 the Trinity House Maritime Charity made grants totalling £1.7 million to other maritime charities. These included the charities listed here:

- **Seafarers UK** will be celebrating its centenary in 2017. Following the foundation of King George V’s Fund for Sailors during the First Battle of the Atlantic in 1917 the centenary theme will be Service to Seafarers Past, Present and Future, and inspiration for the “past” was taken from the highly successful Trinity House quincentennial Fund for Sailors during the first Battle of the Atlantic in 1917.

- **The Whitby and District Fishing Industry Training School** was established in 2002 and is ideally located in the Mission to Seafarers’ Centre adjacent to Whitby’s fish quay. It is mainly funded via the Skills Funding Agency and the Sea Fish Industry Authority.

- **Combat Stress** is the UK’s leading mental health charity for veterans, providing free specialist clinical treatment and welfare support to ex-servicemen and women across the UK with mental health conditions. There are 6,000 veterans registered with the charity.

- **The Tynemouth Training School** provides accommodation and support payments to seafarers in need. The Tyne Mariners’ Homes, a Grade II listed building, are located on Tynemouth Road, North Shields. The Institution also provides monthly payments to seafarers and currently supports more than 1,300 people in need.

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The mysteries of the Order Book – PART 3

By Paul Ridgway.

We conclude our anthology of excerpts from the Order Books, highlighting Trinity House activities from past years.

From her builders

Taking a look at the Order Book of THV Siren we note that on 29 February 1960 Captain R Dunn, ‘Duly-appointed representative of the Corporation of Trinity House of Pyefleet Island [in] vicinity as far as Weymouth, Dorset, accept delivery from’ Samuel White & Company Limited of Cowes, Isle of Wight, Tender Siren as fully satisfactory and entirely in accordance with contract requirements.

Commissioning

She was commissioned the same day for East Cowes District and carried the Official Number 299.

Many tasks undertaken

Siren and all her sisters and the remainder of the Fleet which in 1960 included Patricia,Ready, Triton and Alert were very busy elements of the then Steam Vessel Service undertaking a breadth of operations in our sea area from Bembridge, fired to the Solway Firth including the waters of the Channel Islands. The Siren was established at 0001 on 1 July to meet changes in the IMO Routing Schemes for the Southern North Sea and Strait of Dover.

David Smith took up the record: ‘After carrying out a viewing trial by day and night which confirmed that the LANBY station was meeting fully its operational role, and that other buoyage in the vicinity was satisfactory the ship proceeded to Dover anchoring off the breakwater at 1145, 3 August. It was particularly noted that F5, F2, Falls lightvessel and this buoy C4 fully justify their respective roles in the revised scheme.’

THV Siren was clean and smart, her Officers helpful and competent, the crew willing and cheerful – all duties were performed well.’

A major wreck marked

Assistance to the Greek vessel Aeolian Sky under the tow of the French tug Abele Languedoc was recorded in November 1979. Captain David Smith had joined Siren at Cowes on 3rd November with Commander Faiplay in command and the tender sailed to rendezvous with Aeolion Sky under the tow of Abele Languedoc following collision.

Dover Strait marking

On 2 August 1982 Captain Smith, Elder Brother, embarked in Siren at Harwich under command of Commander Gibbs. The ship proceeded at 1630 for the new F3 LANBY station, which was established at 0001 on 1 July to meet changes in the IMO Routing Schemes for the Southern North Sea and Strait of Dover.

David Smith took up the record: ‘The rendezvous was effected at 2000 on position 25° 10’ (Catherine) Light 7 miles by which time progress towards the Nab had been halted due to the ports of Portsmouth and Southampton being closed to the casualty.

The tug master was given approval to anchor in Weymouth Bay and he altered course for that destination against a deteriorating weather situation. Force 7 to 8 worsening.’

By 0300 the tow was 200° St Albans’ Head S/S. Throughout the tow the casualty had been to stern first and was down by the bows with No 1 and No 2 hatches flooded. She now began to list heavily to port. Her upper deck lighting had provided illumination during this period. At 0405 Siren considered the forecastle of the tow to be aground on the seaward extension of St Albans’ Ledge, drawing 16 metres plus. At 0544 the upper deck lighting began to fail and shortly after 0600 the lights were completely extinguished. At 0600 shortly before midnight the radar echo of Aeolian Sky disappeared. The vessel sank in position 50° 30’ 36” N 02° 08 ’ E W. The tug returned to base.

“Siren remained in company as Wreck Marking Vessel for the period that followed. Very poor weather; Wind Force 8, sometimes Force 10; making life generally uncomfortable. As the only vessel present Siren efficiently acted as Datum Vessel for Helicopter from the RNLI hovercrafts and tugs for the wreck. On Monday 5th at least one vessel was saved from certain disaster and possibly one other. Early am 6th November Siren was relieved temporarily by THV Patricia who had joined with three additional tugs – and thus Siren was able to land Captain Smith at Weymouth before returning to stand by the wreck and await better weather. Throughout the operation THV Siren under Commander Faiplay’s command met all her operational commitments most commendably.’

Scarweather

Turning now to a lightvessel we read 15th–16th November 1944: THV Siren towed from Swansea and laid at Scarweather Station: No 92 LV removed and towed to Swansea. No 91 LV Radnor Transponder Gear.

October 25th 1944: By Mr J Morris, Master 1st THV Impacted No 91 LV at Scarweather LV: vessel clean & in good order. Light restored to full brilliance at 24th in accordance with Instructions to Superintendents: One consistantly good reports for this hull. ‘Vessel clean and in good order’, ‘good working order throughout’, ‘vessel clean and well maintained’, ‘the ship was in excellent order and very well kept’.

No 91 Lightvessel dated from 1937 and was largely stationed in the Bristol Channel after the Second World War. She concluded her service at the Helwick station and was handed over to the City of Swansea Maritime and Industrial Museum for preservation in 1977 where it is understood she remains in fine condition and faithfully records the layout of the steel vessel as it was designed in the late thirties.

Captain H W T Owen, Superintendent, boarded on 18 April 1956 and wrote in the Order Book: ‘Visited from THV Alert on minor relief’, ‘Television receiver presented by Portmawr Rotary Club has been fitted and is working satisfactorily.’

Superintendents and Commanding Officers of District tenders made frequent observations that they had inspected stores, drugs, Lsks (life-saving Appliances) and explosives (log signals) in addition a note was made that ‘Crew exercised at fire and boat stations… tested and fired Schermuly Rocket.’
Carol Marlow writes: ‘Trinity House’s Ambassadors’ Group was set up in early 2015. Our aim is for our Younger Brethren members to help raise awareness of the general public in matters maritime, through building an understanding of Trinity House’s Lighthouse Authority responsibilities, including development of aids to navigation, and of our charitable and Patriarchy activities, including the cadet bursary schemes and deep sea pilotage activities. We do this through an entertaining thirty minute talk, which includes a little on where we come from, what we do now, and what the future may hold, with some great photos and a short film, covering our activities. Our target, set in March last year, was to address 300 members of the public per annum through these presentations to clubs and societies, such as Rotary Clubs, U3A and Probus Groups. However, I am delighted to report that 12 months on, we had presented to 1350 people, and by the beginning of May this year, that had increased to over 2000.

The Ambassadors’ broad maritime experience also contributes to Trinity House’s social media presence, making the public aware of our various charitable and operational activities via Twitter. As a result our Trinity House followers have increased from 1000 to 5600. We hold regular briefing meetings for Ambassadors and potential new Ambassadors at Trinity House in London, and were delighted to welcome 20 new Younger Brethren in March. With over 25 more presentation fixtures in the diary already for 2016 and 2017, and more coming in, it is great to have new members from different parts of the country, so we can broaden our coverage. We started giving presentations in Essex last year but are now accepting presentation requests as far afield as Lincolnshire, Hampshire, west Wales and Dorset as well as the Home Counties. ‘As the group’s activities grow, so does the administration behind it, and it is vital for the reputation of Trinity House that the outside world experiences an efficient and effective group. For that I must thank Freddie Sterritt, who does an excellent job, keeping our expanding group moving forward smoothly and our customers well informed. And of course, without interested groups requesting presentations we cannot succeed, so do contact us at Ambassadors@thls.org if you would like us to come and present Trinity House to your group.’

**StARTERS – PROMOTIONS – LEAVERS**

**STARTERS**

We welcome the following new members of staff who have joined us between September 2015 and April this year:

**PERMANENT**

**SVS**

Joseph Rüby – Captain THV Patricia (P) – commenced 4 January 2016

Tristan Burgess – Permanent Second Officer – Auxiliary commenced 3 February 2016

Kevin O’Kane – Permanent Second Officer – Auxiliary commenced 10 February 2016

Evain Grant – Permanent Third Engineer – commenced 27 April 2016

**HAnwich**

Matthew Munson – Lighthouse Technician (Harwich) – commenced 12 October 2015

Robert Moodle – Operations Officer – commenced 19 October 2015

Clive Bond – Project Engineer – commenced 6 April 2016

Natall Carncih Mull – Buyer – commenced 19 April 2016

**St Just**

Simon Eade – Lighthouse Technician (St Just) – commenced 13 April 2016

**London**

James Bygate – Navigation Department Administrator – commenced 1 February 2016

**FIXED TERM**

**SVS**

Lewis Wood – Trainee Deck Rating THV Patricia (P) – commenced 30 September 2015

Ronald Dodge-Forder – Trainee Deck Rating THV Galatea (S) – commenced 21 October 2015

Samuel Whiffold – Trainee Catering Rating THV Galatea (S) – commenced 21 October 2015

Nathan Durrans – Trainee Deck Rating THV Patricia (P) – commenced 11 November 2015

**PROMOTIONS**

**SVS**

Steven Banks – Seaman – commenced 30 September 2015

Livis Skrunsnienis – Petty Officer Deck – commenced 6 April 2016

Paul Davis – Petty Officer Deck – commenced 27 April 2016

**London**

Karen Tomalin – Personal Assistant to Executive Chairman – commenced 26 October 2015

Rosemary Walsh – Personal Assistant to Director of Navigational Requirements & Legal and Risk Manager – commenced 21 December 2015

**LEAVERS**

**Harwich**

Alvyn Williams – RUPNAV Principal Development Engineer – commenced 1 January 2016

Beth Davis – Senior Buyer – commenced 8 February 2016

Johannahse – Trainee Buyer – commenced 1 March 2016

Trevor Robinson – Project Engineer – commenced 4 April 2016

**SECONDMENT**

James Charles – Senior Planner transferred from Second Officer THV Galatea – commenced 16 November 2015

**LEAVERS**

Georgina Button – last day of service 8 September 2015

Robert Vanston – last day of service 30 September 2015

Paul Truclove – last day of service 9 October 2015

Daniel Adams – last day of service 21 October 2015

Stuart Ramsden – last day of service 10 December 2015

Julian Cole – last day of service 13 December 2015

Nathan Jones – last day of service 30 December 2015

Dianne Foulkes – last day of service 31 December 2015

Matthew Summers – last day of service 31 December 2015

Jason Kay – last day of service 31 January 2016

Malcolm Nicholson – last day of service 12 February 2016

Neil Sandquest – last day of service 2 March 2016

Ray Siggers – last day of service 13 March 2016

Kim Webb – last day of service 27 April 2016

Captain Dave Cooper – last day of service 27 April 2016

Paul Walton – last day of service 4 May 2016

Michael Marchetti – last day of service 18 May 2016

Daniel Pritchard – last day of service 18 May 2016

**THInkTHIngs**

~THInk~
New Year Honours List 2016
We send our congratulations to the following who were recorded in HM The Queen’s New Year Honours List this year:
Peter Matthews Lighthouse Board Non-executive Director, appointed CBE
Terry Bravin (CTM), former Senior Busy-Hard Team Member Swansea Depot, retired in 2011 with 27 years’ service, appointed MBE for voluntary and charitable services to young people in South West Wales. (He served as a Warrant Officer with 215 Squadron, (City of Swansea) Air Training Corp).

The 2015 Trinity House Annual Awards
The Trinity House Annual Awards Ceremony took place at Tower Hill on 19 November, recognising the achievements of several members of staff and some contractors in another busy and successful year, as well as those members of staff who have completed 20 years’ service or more as at the 30th September 2015.

Long Service Awards
Mike Yealey Paul Westwood
Steve Aston Lynn Yealey
Lee Carter Russell Dunham
Kevin Dace Karina Deba
Paul Rands Rebecca Roberts
Guy Evans Mark Howard
Gary Murphy Paul Kerr
Lesley Wiles Susan Coleman
Chris Johnson Carrie Fumess
Nichole Lambert-Kelly Neil Prowse
Jamie Campbell Edgar King
Steve Page Sally Stacey

Outstanding individual achievement benefiting Trinity House
Russell Dunham, for his work on the review of procedures in connection with the evacuation of the Corporation’s Treasures.
Nick Jones and Nichole Lambert-Kelly for the 500th Anniversary Scrapbook.
Mick Campbell - making the Admiralty House Cabinet
Barry Messenger and Beth Davis for their work on the Fleet Review Procurement Project.

Achievement of job-related professional qualifications 2014/2015
Daren Day Degree in Engineering
Phil Hawtin HNC in Electronic Engineering
Dave Cooper Masters Certificate of Competency
John Childers MSc in Environmental Management
Sophie Platten Masters Ciris
Joel Small Chief Engineer Certificate of Competency
Sarah Harman ACCA Accountancy Qualification – Intermediate Apprenticeship – Improving Operational Performance and BTEC Level 3 Diploma in Engineering
Jan Safat PhD Electrical Engineering and Information Technology

The Merchant Navy Medal
At a ceremony held in Trinity House on 23 November 2015 Commodore Ian Gibb, MBE (Elder Brother) was presented with the Merchant Navy Medal for services to the cruise line sector and to the Royal Alfred Seafarers’ Society and the Mission to Seafarers.

Jerry Wedge
Jerry Wedge, Director of Finance and Support Services, retired at the end of March this year. Executive Chairman Captain McNaught thanked Jerry for his hard work over the last 13 years. Jerry made a significant contribution to the service, notably as our main point of contact with the Department for Transport. He also initiated many internal reviews of systems, processes and structure and worked hard to create a culture that facilitated his department working well together as a united team, resulting in more efficient, effective and modernised ways of working. Jerry has been a knowledgeable, strong and reliable member of the Executive team and his contribution will be missed greatly.
We wish Jerry a long and happy retirement.

Julia King
Julia King, Personal Assistant to the Deputy Master retired on 31 October 2015 after eleven years’ service during which time she served Rear-Admiral Sir Jeremy de Halpert and Captain Ian McNaught. She joined Trinity House in 2005 after many years spent in similar posts in the charitable and arts sectors in London. As PA Julia will be remembered for the seamless way in which she conducted administrative support of the Executive Chairman, Directors and the Fraternity of Trinity House. She was a lynchpin in the smooth running of each year’s Trinitytide and quarterly meetings of the Corporation’s Court and Board. In addition she was the conduit between Trinity House and the Master’s Private Office. On retirement she moved to Macduff in Banffshire where she has rapidly hoisted in the Caledonian idyl with partner Mike.

Lizzy Firmin
Lizzy Firmin, HR and Planning Manager, left the service in May to take up the position of Head of HR at the Port of Felixstowe. Lizzy has been a highly valued member of the Senior Management Team for over 10 years, completing a number of organisational wide projects including the modernisation of various terms and conditions and departmental restructures. In more recent times she has worked hard with the Planning Team to develop an open and collaborative approach to the way we coordinate operational delivery. Executive Chairman Captain McNaught remarked that her list of achievements is substantial and thanked her on behalf of the Executive for her contribution to Trinity House.
We wish Lizzy all the best for the future.

Maintenance Painting Systems Limited (MPS), for their successful completion of six different stations to a very high standard.
Mediteráneo Señales Marítimas (MM), for the provision of a range of different lighthouse and lighthouse lanterns. Trinity House has a longstanding relationship with MSM who are very well respected, both technically and commercially.

Little, MBE, Hall, and Technical Director, Mr. Ignacio Rodríguez received an Award from Captain Ian McNaught in recognition of their exceptionally effective service in relation to the provision of different lighthouses and lighthouse lanterns.

It was a pleasure to be able to recognise and celebrate the many achievements this year.
Many congratulations to all of the Award Winners.” Captain Ian McNaught, Executive Chairman.

Contractors giving exceptionally effective service to Trinity House

AWARDS

RETIRES – LEAVERS

WEDDINGS AND BIRTHS

Page 41

Around the Service

Abelyn Idrís Williams, Principal Development Engineer in R&RNAV married Cristina Jordan Royo in Puerto de la Cruz, Tenerife, Spain on 27 February 2016. The ceremony was conducted in both Spanish and English in Cristina’s home town of Puerto de la Cruz, followed by a party that went on well into the early hours, it was reported.

Ian Corvin, Field Operations Senior Technician married Julia Nolan at Lands End on 14 May 2016 with the back drop of Longships Lighthouse.

To Andy Jackson, 2nd Officer Support Vessel Service and partner Katie, on 13 January 2016, Alfie Noah weighing 8lb 7oz.

To Jeff Blakewitch, Field Operations Lighthouse Technician and his partner Kelly, their second daughter, Lucia Jacqueline, at Bridgend Hospital on 30 December 2015, weighing 4lb 1½ oz.
On departure he undertook a consultancy for the Middle East Navigation Aid Service, bringing his experience in the establishment of a quality management system to that organisation.

Captain Richard Woodman writes: ‘John Barnes was highly regarded by all his colleagues in the SVS. A fine seaman and an imperturbable character, he exuded a quiet, easy-going confidence that was rarely rattled by events. In a long acquisition of knowledge dates back to 1967 and includes several periods when we served together on the same vessel, I only saw him angry once, and then it was fully justified.’

Colin Wortlay, District Maintenance Manager died on 13 April 2015, aged 79. He served 52 years.

Colin began his extraordinary long service at Trinity House when he joined our Thames-side Blackwall workshops in 1952. There are far too many anecdotes and reminiscences covering his time at Blackwall to relate here; suffice it to say that he was well-remembered and popular for his wide-ranging expertise and his humour, not to mention his ever-present cheerfulness. Around the time that Blackwall closed in the late 1980s, Colin and his family moved to Penzance, where he picked up where he left off, overseeing light-house maintenance in the south west, eventually he became District Maintenance Manager, the position he held until retirement. When that post became the Trinity House National Lighthouse Centre, Colin stayed on to help the smooth running of the museum until his retirement in 2005. He continued on this vein when he worked closely with the National Maritime Museum to bring his wealth of technical expertise to the launch of their highly successful exhibition about Trinity House in 2009. Colin was appointed MBE in 1994 for services to Trinity House. He is survived by his widow Pat and their children.

Obituaries

Captain Sir Miles Wingate, KCVO, FNI, died on 2 May 2016, aged 92.

He was Deputy Master and Chairman of the Board of Trinity House London from 1976 to 1988 and was a former Treasurer of IALA.

He was born in Wallasey, Cheshire, and educated at Twyford Grammar School, Southampton and Prior Park College, Somerset. Always keen on making a career at sea he joined the Royal Mail Lines Limited as an apprentice in June 1939 and served with that company until he was elected to the Board of Trinity House in 1968.

He first went to sea in June 1939 in Sirius (torehoffed 1942) and subsequently with moves with the company were in Sabor (torehoffed 1943), Nebraska (torehoffed 1944), Empire Confidence and Highland Monarch throughout the war sailing to South America, the West Indies, the US, India and Australia. In the Mediterranean theatre he took part in the Allied landings in North Africa, Sicily and Salerno. He subsequently served in the Far East theatre of operations until the end of the war.

After obtaining his Master’s Certificate in 1949 he was promoted to Chief Officer in 1950. In peacetime in Highland Monarch and later in Tweed Lochmorn and later in Tweed Lochmor (wrecked 1948), Magdalina (wrecked 1949), Anders, Fardo, Elmo and Dam he rose through the Royal Mail Lines ranks trading principally to South America, the West Indies and the US. His first command was in 1957 (Pardis) and subsequently he was Master of Araby, Escalante, Locti Galt, Anders (the company’s flagship), Jero and Overoads, all of Royal Mail Lines. During his sea time he also had a year’s experience in aggregate in a shipyard standing by new tonnage.

COMMANDER ROGER PATRICK SWINNEY, FORMER OFFICER-IN-CHARGE TH ALERT, DIED ON 7 NOVEMBER 2015, AGED 80.

Roger then joined Trinity House in 1985 as 2nd Officer, having already attained his Master Mariner Certificate in a deep sea career which included time with P & O, Dravo division and Middle East Navigation Aid Service (MENAS).

It was generally agreed that Roger could be summed up in two short statements: “what a good practical seaman” and “just as importantly) “what a genuinely nice man.”

Roger’s practical seamanship, bolstered by his love of sailing, was of the highest order, particularly in the realm of smaller vessels, and having spent time as Commanding Officer in TH Alert, Roger was the natural choice to lead Commander during the final stages of the build, and then delivery into service of TH Alert and to take on the role of Sir John’s Senior Master during Alert’s early years in the Trinity House fleet. As such Roger was responsible for developing many of the working regimes and practices which now remain in place in Alert ten years down the line.

While Roger is rightly remembered for his association with the smaller Trinity House vessels, he also sailed in the multi-function tenders, most notably Patricia and Mermaid, as 2nd Officer, Chief Engineer and briefly as Captain – something of which he was justly proud.

Roger was popular with his colleagues and his wide circle of friends. He was unfailingly friendly and considerate, he had a very distinctive self-deprecating sense of humour and was unaffectedly witty. A testament to the way in which Roger was regarded is the fact that around 100 people travelled to Cowes for his funeral, some of whom had not seen him in many years. The Island Sailing Club, of which he was a long-term member has since established a racing mark in his memory and bearing his name – a rare honour indeed. Roger loved his yachts, if to whom “feast sure we would all give our sincere condolences.’

Barry William Watson, Chief Engineer SVSO on 9 January 2016, aged 91. He served 20 years.

Edmund Lancaster, Chief Engineer SVSO on 9 January 2016, aged 91. He served 15 years.

Donald Cockayne, Fitter, Blackwall, on 5 January 2016, aged 87. He served 30 years.

Kevin James Hetherington, Lightman LVSO on 18 June 2015, aged 69. He served 9 years.

Micheal Seager Hardy, River Lights Attendant LHS on 7 October 2015, aged 74. He served 44 years.

Standing James Barker, Master LVSO on 15 February 2016, aged 95. He served 29 years.

Peter Gerald Brown, Watchman, Holyhead on 15 February 2016, aged 79. He served 8 years.

Leonard James Hawkins, Fitter, Blackwall on 27 February 2016, aged 83. He served 40 years.

Michael (Eddie) Matthews, PK LVSO on 4 March 2016, aged 78. He served 40 years.

Barrie Turner, Blackwall on 15 February 2016, aged 83. He served 13 years.

Barry William Trall, Lightman LVSO on 30 April 2016, aged 91. He served 30 years.
People often ask me, And I will set this voyage underway.

I’ll take you back to 2001,
Where you meet a Yorkshire lad,
Six weeks of study shortly followed,
For my first trip out at sea,
In the winterly sleet and snow.

We set sail off into the sunset
It was hardly far from antic.

From Shetland Isles to Nova Scotia,
On a 300 m block of steel,
This was not training this was real.

A feeling that is simply the best,
I was paying off – time to see the family,
From the highest latitudes to the tropics –
This was the career for me.

And my career was well underway.
I applied for jobs in every sector,
From containerships to tug,
But no one wanted a young officer –
Until I came across an advert,
And I thought I would give it a shot,
We sailed around the Mediterranean,
Installing windfarm vessels in the middle of the harsh North Sea.

So here I stood on a little jacked-up –
Installing windmills in the middle of the harsh North Sea.

I seem to have missed an important part –
I called it caution.
I passed my Masters on the second attempt –
A very expensive education.

This is however not the end,
With more experience and knowledge to gain,
I remain a student of the sea –
As long as there’s fuel in the tank.

Every career has its ups and downs,
I take this as another step forward –
I am not a quitter.

I am never going to give up on life, I am a fighter.
But if you choose to come to sea,
You will be challenged to the limit –
And you will be tested.

I am never going to give up on life, I am a fighter.
But if you choose to come to sea,
You will be challenged to the limit –
And you will be tested.

Scottish and Manx Lighthouses
By Janet Black
Published by National Maritime Museum Heritage Trust
382 pages, £14.95 paperback
Available from
The National Maritime Museum
www.maritimemuseum.org

Scottish and Manx Lighthouses

SUB-TITLED A PHOTOGRAPHIC JOURNEY TO THE FOOTSTEPS OF THE STEVENSONS this is an inspirational appraisal of Scottish and the Isle of Man’s lighthouse heritage and is an excellent companionship for photographers. I am fortunate to have lived in the Northern Isles and the Scottish coast for many years. I have always been fascinated by the history and the people that have worked in this field. The book is well researched and written in an engaging style. I would recommend it to anyone interested in lighthouse history or photography.