Bright sparks

The Buoy Yard Team talk about the training and teamwork required to keep our floating aids to navigation in good order.
Welcome from Deputy Master, Captain Ian McNaught

Six-month review

News in brief

Appointments

Coming events

Engineering review

IALA Update

The Buoy Yard Team at Harwich

SOSREP – the voice of reason

SVS – ready for action

Charity update

London International Shipping Week

New coat of arms

Partner profile: Maritime UK

Home safe campaign

Books reviews

Photography competition

Sixty years of Flash

2018 marks the 60th anniversary of Flash. Although it’s been around for less than one eighth of our organisation’s lifespan, its 60 years means it predates many other organisations (and most of our readers too!). Flash began life as a typewritten and hand-printed newsletter for staff only, and copies had to be shared around given that not enough could be printed; every issue began with the Editor’s lament that he was not receiving enough submissions from the staff.

Today—I’m happy to report—Flash goes out to thousands of readers around the world, filled with willing submissions from great contributors and does not require a hand-turned press.

In this issue we take a look at another headline event for Trinity House: our demonstration event onboard THV Galatea in the Pool of London at London International Shipping Week.

I’m sure you’ll join me in thanking six decades’ worth of editors and contributors.
Captain Ian McNaught  
Deputy Master

State-of-the-art technology displays and last year’s banner delivery of our GLA and charitable duties sit snugly alongside historical milestones as part of the Corporation’s unique identity

For an organisation once referred to as the “super silent service” it was an interesting change of pace to see us not only attend last September’s London International Shipping Week, but also to receive such overwhelmingly positive feedback because of it. It seems some may have half expected a rusty steam tug to amble up the river into the Pool of London with nothing but a sextant and a lead line to show the assembled guests. Although I was unable to attend, all reports indicate that our guests were fascinated with our displays of virtual aids to navigation, renewable energy sources and our cutting-edge research and development hardware, as well as the charity’s thriving cadetships. The event demonstrated the value we continue to provide as a General Lighthouse Authority and the scope of what we do as wider organisation. My sincere thanks go to all of those who helped bring this to fruition, and also to those who attended.

It is good to note that 2018 is the 60th birthday of our journal Flash, and I would like to echo the sentiments of my predecessor Captain Sir Gerald Curteis, who wrote in the foreword for the first issue in 1958 that “Its aim, very briefly, is to help you towards a better understanding and knowledge of our Service, to interest and I hope, in places, to amuse you... The activities of everyone of us are directed to one end—Service to the Mariner, and the object of this Magazine is to try, as it were, to bring us more together and to remind us that we belong to one Service.”

The journal—which started as a staff newsletter—has gone through a number of hands and evolutions in the subsequent six decades, and is today an external-facing but still interesting and illuminating record of our various activities. I hope it has many years left to run.

I was also pleased to see the newest evolution of our coat of arms—the Corporation’s fingerprint—and to see first-hand the heraldic workings in the ledgers at the College of Arms. Although today we are a very modern organisation, it is interesting to be reminded occasionally of our much-envied heritage; it reinforces the position that we are not—as some might say—a historical organisation but that instead we have been modern for a very long time.

It was a pleasure to welcome HRH The Master to December’s Carol Service, demonstrating the close affinity she has for not only the work of Trinity House but also our staff. 2017 was a year in which we once again balanced the provision of reliable aids to navigation against the need to further constrain budgets and deliver savings to the shipowner; the Trinity House Maritime Charity also responded to significant changes in the maritime welfare sector, and it is rare that you will hear discussion about seafarer wellbeing without us being mentioned. It is to the credit of everyone at Trinity House that we managed to deliver our various duties in service to the mariner and 2018 will no doubt see our staff rise to the challenge again.

Van McNaught
Trinity House

Review of the last six months: Looking back at highlights from Trinity House’s calendar

SEPTEMBER 2017

Coat of arms re-drawn

In 2017 we approached the College of Arms with a view to replacing our computer-drawn coat of arms with a professionally hand-painted interpretation of the 1573 grant; on 6 September 2017 the Deputy Master and the Secretary of the Corporation were invited to the College on Queen Victoria Street to receive the new coat of arms from Peter O’Donoghue, otherwise known as York Herald.

Deputy Master Captain Ian McNaught and Secretary Commander Graham Hockley were welcomed at the college and were delighted to be shown a number of historical ledgers containing hand-written descriptions and preparatory sketches for the Corporation’s heraldry going back many centuries. York Herald then presented to the Deputy Master the official coat of arms as a hand-illustrated “Library Painting” on vellum; for general day-to-day use we have also been given a digitally-illustrated version.

To read the full story about the new coat of arms, turn to page 32.

MOVEMBER 2017

Staff raising much-needed funds

A few of our staff members have been raising money for some great charitable causes, which we wanted to highlight here.

Assistant to Health and Safety Manager Phillip Alder, who recently shaved his head, explained why he did it: “The charity Macmillan Cancer Support runs an annual challenge called Brave the Shave, which involves people—often those who have friends or relatives affected by cancer—having their hair shaved off for donations and pledges.

“My elder brother was diagnosed with cancer in 2015 shortly after Christmas, but he was not treatable and he died on 10 June. To help those who helped support him through this terrible time, I have had my head shaved twice; once in 2016 raising £105 and this year raising £110. This year was a challenge for me as I grew my hair for the full 12 months; by then it was very annoying as it had reached the stage it was too long to do anything with but not long enough to plait properly. Although they did remove almost seven inches on the first cut.

“Here are the photos from the barbers before and after the shave. They cut to grade 0.5 then removed what was left with the fine detail trimmer (yes it was a cold shock).”

Another group opted to grow hair rather than shave it, as part of the Movember men’s health fundraising event.

R&RNAV Manager Martin Bransby told Flash about the work done by the team he put together, who raised funds by growing moustaches during November:

The participants were Martin Bransby (Captain of the ‘Tuscany Fried Bats’ team), Alan Grant, Jan Šafář, Bill Summers and Chris Pearson.

Martin said: “In total we raised £365 towards Movember, a charity which raises funds for men’s health issues, because the state of men’s health is in crisis. Men experience worse longer-term health than women and die on average six years earlier. Prostate cancer rates will double in the next 15 years. Testicular cancer rates have already doubled in the last 50. Three-quarters of suicides are men. Poor mental health leads to half a million men taking their own life every year. That’s one every minute. Our fathers, partners, brothers and friends are facing this health crisis and it’s not being talked about. We can’t afford to stay silent: that is why we take part.

“All the proceeds of the Trinity House Harwich Social Club quiz held in November were kindly donated to the cause.”
**OCTOBER 2017**

**THV Galatea in naval exercises**

Keith Lock. Second Engineer on THV Galatea’s Starboard watch (now on THV Alert), describes an exercise in which the crew of THV Galatea helped the Royal Navy with a helicopter training exercise on 10 October: “THV Galatea took part in a number of Naval exercises off the South Coast, known as ‘Renegade’ and serialled throughout the year. Galatea provided an idea platform for several military helicopters to carry out mock boardings and close quarter flying to an impressive standard. These exercises provided me with an excellent opportunity for a photo call.”

“Galatea was set on a course into the wind at quite a lick, some of the windage over the bow reaching 35 knots, which challenged the aircrews, especially the forward aircraft flying sideways on over the flight deck!”

“The photographs that I have presented here show two aircraft: the Merlin and the Chinook. The Merlin clearly shows the skill of the crew, the rotor blades are very close to the crane housing and I mean close, very close, thus enabling the Royal Marines to ‘drop in’.”

“The photographs (for those interested) were taken on a Nikon D3300 in manual mode with an f stop 9 and exposure rate 1/60 with an ISO 100 high resolution, thus providing movement of the rotors plus good depth. I hope you enjoy them.”

---

**DECEMBER 2017**

**Carol Service at St. Olave’s**

The fourth annual Carol Service was held on 4 December at St. Olave’s Church on Hart Street, London, led by our Chaplain the Revd Oliver Ross and well attended by Trinity House staff and their partners, members of the Fraternity and residents from the almshouses at Walmer. The congregation heard a number of readings by members of staff and Elder and Younger Brethren before heading to a festive reception at Trinity House.

---

**NOVEMBER 2017**

**Historical photos of Beachy Head Lighthouse**

The Trinity House Corporate Charity was instrumental in helping to acquire at auction a unique collection of 71 magic lantern slides depicting the construction of Beachy Head Lighthouse during 1900-02.

The slides were acquired after a heritage organisation called The Keep approached Trinity House to ask for help in raising funds for the purpose of buying the slides. Seeing that the slides were of a quality and character that would be of great benefit for lighthouse studies, the Corporate Charity agreed to make a significant donation towards the bid; happily, the bid was successful and the slides are now at their conservation studio, where they will be cleaned by a team of volunteers.

The Keep brings together the collections of the East Sussex Record Office, the Royal Pavilion & Museums Local History Collections and the University of Sussex Special Collections.

We look forward to being able to share these images in a future edition of *Flash*. A glass slide shows one of the helping hands on site.
Staff awards ceremony

The Trinity House staff awards took place on 8 November 2017 at our London headquarters, thanking selected staff and contractors for their hard work and recognising their achievements.

Earning their long-service awards for 20 years’ service were Anna Woodward, Colin Williams, Darren Day and Philip Miucci.

The award for outstanding individual achievement benefiting Trinity House went jointly to Luke Brand, Chris Williams and Angela Barker, all three are Operations Officers in the Trinity House Planning Centre in Harwich.

The Operations Officer is the first point of contact within Trinity House when responding to wrecks and other new dangers to the mariner. They also monitor some 1,700 aids to navigation on behalf of Trinity House and the other GLAs, making it essential that the Operations desk is manned 24 hours a day, 365 days a year. During the past two years the team has been unexpectedly short-staffed for long periods of time, on some occasions by two staff members. Luke, Chris and Angela became the stalwarts of the team throughout this period by working extra shifts when required. They ensured the new Operations Officers were fully trained and utilised new technology to provide support for new Operations Officers when not on duty themselves.

As such, this award recognises and thanks them for their dedication and commitment during the last two years, maintaining consistently high standards and ensuring the continuity of the monitoring service for the benefit and safety of all mariners.

The awards for outstanding team achievement benefiting Trinity House this year pertain to the hard work that went into making our presence at London International Shipping Week such a success. Many departments played a role, whether participating in person or working behind the scenes. Each of the teams played a role, whether participating in person or working behind the scenes. Each of the teams sent representatives to collect the award. IT: James Rowe, Commercial & Planning: David Hayes and Lynn Pomares; Finance & Procurement: Lewis Dale, Anna Sallis and Natalie Carmichael; R&RNAV: Jan Šafář. Navigation: Stephanie Ellis and James Rygate; Secretariat: Nichole Kelly, Neil Jones and Steve Durham; Marine Operations: James Donnelly; Engineering & Operations: Jason Hollands and Terry Graves. Adam Keen collected the award on behalf of the crew of THV Galatea for the fundamental role of the ship.

Recognising those achieving job-related professional qualifications in 2016-17, awards went to Brian Maskell (Professional Certificate in Management (Open University), Rob Dale and Peter Dobson (IALA AtoN Manager Course Level 1), Hanna Mayhew (Certificate of Higher Education in Business Management), Shaun Phillips (CIPS Level 4 Diploma in Procurement and Supply), Martin Hamilton (Master Mariner (Oral Exams)), James Donnelly and Adam Smith (Chief Mate’s Certificate of Competency), Tristan Burgess (Master’s Certificate of Competency), Iain Rowlands (Chief Engineer Certificate of Competency), Jack Lawson (Level 3 Apprenticeship in Engineering Manufacture, including level 3 NVO Extended Diploma in Engineering Maintenance), Laura Sinclair, Rachel Davies and Jessica Chopping (Office Manager Diploma), Chris Ashforth (ILM Level 3 Certificate in Leadership & Management), Natalie Carmichael (Degree in Purchasing and Supply Chain) and Zoë Turner (Master’s Degree in Event Management).

As well as staff, the awards recognise and thank the various contractors who help us deliver our work. SRO Solutions (award collected by Managing Director Tony Lackey and Andy Smith, lead project consultant), who worked closely with us to ensure the smooth implementation of the Maximo system. Redwood International Ltd (award collected by Managing Director Daniel Gabay and General Manager Logistics and Warehousing James Bishop), for their assistance with planning the logistics of the Europa Point Lighthouse modernisation project. Crowland Cranes (award collected by Managing Director Peter Issit), for the service provided to Trinity House during the selection, procurement and delivery of a specialised crane for Harwich Buoy Yard. Willis Towers Watson’s Simon Lockwood and Richard Furness, both of whom have been key players in terms of the GLAs marine insurance package and P&I entry.

Flanigan Maintenance (award collected by Director Paul Flanagan), for their many years of service to Trinity House in the east coast area, covering a range of construction and maintenance tasks, including the recent re-rendering of Flatholm Lighthouse.

Also marked out for recognition were a number of long-standing lighthouse attendants. Richard Jones is our Attendant at Bull Point, Lynmouth Foreland, Crow Point, Instow Front and Rear and formerly at Hartland Point, Richard is held in high regard by the Field Operations team for his prompt response, diligence and attention to detail over the last 20 years. Merion Lloyd-Jones was the Attendant at St Tudwal’s Lighthouse for over 20 years and the local boatman before then; his son Owain has taken over this role and we are grateful to Merion for passing along his local knowledge. Gordon Wells has been our attendant at Anvil Point Lighthouse since the late 20th century and for many years was also housekeeper for the cottages, Gordon’s attention to detail and high standards have been consistently maintained over many years and always recognised by the Visiting Committee.
Archeology at The Skerries

The CHERISH project is mapping the archaeology and landscape of The Skerries islets. In spring 2018 the team plans to visit these Trinity House owned islets to complete an archaeological GPS ground survey.

CHERISH (Climate, Heritage and Environments of Reefs, Islands and Headlands) is a five-year project that aims to raise understanding of the impacts of climate change and extreme weather events on the rich cultural heritage of the Irish and Welsh regional seas and coast.

In February 2017, airborne laser scanning of six Welsh islands, including The Skerries, provided high-resolution mapping data (pictured above).

Find out more at www.cherishproject.eu

2018 Year of Engineering

The Government launched a campaign on 15 January to celebrate and promote the contribution made by engineers to our daily lives: ‘The Year of Engineering’.

A number of organisations and charities throughout the nation’s maritime sector will be looking to inspire more young people to start an engineering career in UK shipping, ports, marine and business services. Trinity House, whether as an aid to navigation provider, operator of ships or sponsor of cadetships, is heavily involved in maritime engineering and welcomes the initiative.

Find out more at www.yearofengineering.gov.uk or by following @YoEgovuk on Twitter.

New videos

At the time of writing, Trinity House is developing a series of short videos that combine operational footage, interviews and the recent A to Z campaign to explain and highlight the work we do as both a General Lighthouse Authority and maritime charity. Ten bite-size videos, each under a minute long, will quickly and visually encapsulate various aspects of what we do, for instance our cadet training sponsorship or our wreck marking duties. Image above shows Commodore Rob Dorey speaking to camera.

More details to come in the autumn 2018 edition of Flash, or keep an eye out on our website and social media channels!

YB Ambassadors

A great many of the Corporation’s Younger Brethren have been taking part in the YB Ambassadors Group, chaired by YB Carol Marlow with assistance from the Corporate Department. The Ambassadors offer a 30-minute presentation—often followed by a round of questions—and so far have visited more than 6,000 people in general interest groups and societies at venues around Britain over the past three years. No charge, just an interesting and entertaining time.

To find out more and to arrange for an Ambassador to come and entertain and enlighten your group, email ambassadors@trinityhouse.co.uk.
New Younger Brethren

We extend a warm welcome to the following who have been sworn in as Younger Brethren of the Corporation of Trinity House:

Christopher John Livett Esq., MD Livett’s Launches Limited

Captain Stephen Mark Richard Moorhouse OBE RN, Assistant Head Operational Capability, Royal Navy

Paul Wavell Ridgway Esq, Editor, Trinity House Fraternity Review, freelance editor, maritime information services practitioner

Captain Aseem Hashmi MNM, Master MS Queen Elizabeth

Awards

We send our congratulations to the following Members of the Fraternity who were mentioned in HM The Queen’s New Year Honours List for 2018:

KCB
Vice-Admiral Simon Jonathan Woodcock OBE, Second Sea Lord, Younger Brother No. 404

LVO
Commodore Laurence Charles Hopkins FIMgt RN, Gentleman Usher to HM, Younger Brother No. 163

MBE
Captain Martin Graham Phipps, Southampton Harbour Master, Younger Brother No. 347

The Merchant Navy Medal for Meritorious Service

At Trinity House on 26 September HRH The Master held an Investiture for the Merchant Navy Medal. We send our congratulations to the following members of the Fraternity so invested:

Captain Stephen Clinch

Captain John Hughes FNI
Captain Phipps, Southampton Harbour Master, being filmed on board THV Galatea for the Chamber of Shipping’s ‘Delivering for Britain’ documentary series.
Coming events

A brief look at selected highlights from our forthcoming calendar

The ALK turns 30
16 April
The Association of Lighthouse Keepers (ALK) celebrates its 30th anniversary on 16 April 2018.

As part of a calendar of events, a major celebration on 14 April will culminate in a reception at Trinity House hosted by its Patron, Elder Brother Captain Richard Woodman. Its autumn AGM will be another opportunity to bring its members together and celebrate this achievement.

The ALK counts a number of retired lighthouse keepers among its members, but has since gone on to include a great many lighthouse enthusiasts and pharologists of all backgrounds and experiences.

To find out more about this milestone and get involved, visit www.alk.org.uk or contact publicity@alk.org.uk.

19th IALA Conference, Republic of Korea
27 May-2 June
The 19th IALA Conference will take place in the week beginning 27 May in Incheon, in the Republic of Korea. The event will be hosted by the Republic’s Ministry of Oceans and Fisheries, and will be the largest international gathering of aids to navigation authorities in which national, industrial and associate members from around the world gather to discuss new technologies and new policy directions for the enhancement of safe waterways.

The Conference, which takes place every four years, is the culmination of work done by many technical committees, each comprised of Working Groups attended by representatives from many IALA member countries working towards IALA’s strategic goals.

For more information about IALA, visit www.iala-aism.org or visit the conference website at www.iala2018korea.org

Merchant Navy Day
3 September
Intended to raise public awareness of the UK’s ongoing dependence on seafarers, the Merchant Navy Day campaign invites local authorities to fly the Red Ensign—the official flag of the UK Merchant Navy—atop public buildings and on prominent flagpoles on 3 September.

Every community, parish and town council is asked to take part, in addition to all borough, county and district councils plus unitary authorities throughout the UK. Owners and custodians of historic and landmark buildings with flagpoles were also invited to get involved, including English Heritage, Historic Environment Scotland, Historic Houses Association, National Trust and Welsh Government Cadw. Trinity House flies its own ensign at a number of lighthouses that are open to the public.

Many flag-hosting ceremonies are attended by local Merchant Navy Association and Royal British Legion members.

In 2017 the Red Ensign was flown ashore at more than 650 locations. For more information visit www.merchantnavyday.uk

Seafarers Awareness Week
23-30 June
Once again, this year’s Seafarers Awareness Week (SAW) will coincide with the International Maritime Organization’s global Day of the Seafarer on 25 June.

The main theme for this year’s SAW will be ‘Maritime Industry Jobs’ at sea and ashore, with an emphasis on engineering to coincide with the Government’s ‘Year of Engineering’ campaign, launched in January 2018 to tackle the engineering skills gap and widen the pool of young people who join the profession.

For more information, visit www.seafarersweek.uk
Towering achievement

Programme Manager Steve Keddie talks to us about what we have been doing to upgrade Sark Lighthouse in the Channel Islands

Sark Lighthouse was built by Trinity House in 1913 to guide vessels passing through the Channel Islands away from the pinnacle of Blanchard Rock. Sark is an island in the Channel Islands in the southwestern English Channel. It is a royal fief with its own set of laws based on Norman law and its own parliament, making it an unusual place for us to work.

Hi Steve, you’ve been Programme Manager for the project to re-engineer Sark Lighthouse down in the Channel Islands. What have we been doing to improve the lighthouse?

SK The lighthouse and light have been fully modernised. The old rotating 2nd order optic has been replaced with two 18NM LED flashing lanterns that will provide long economical
service. To enable this, the old optic—which weighs in at about two tons—was removed. This had the added benefit of removing the hazardous mercury bearing that enables the optic to rotate. At the same time the whole station electronics have been upgraded to our Trinity House standard lighthouse design, giving the benefit of reduced parts storage for spares and ease of maintenance due to familiarity with the equipment and layout.

The station has now been fully commissioned and went live during December 2017. A soak test period of one month has now started and we will be monitoring the aid to navigation closely to ensure error-free performance before handing the station back to the Field Operations team.

Why did we need to do these works?
Routine improvements and/or a change to the navigational requirement?
SK Both actually. The navigational requirement was reduced to 18NM and the equipment on station is pretty much obsolete so there was an increasing risk of failure as identified by the station risk register. We have taken this opportunity to modernise the station so we get another 20 years of reliability from this aid to navigation.

Sark is an interesting island with some unusual rules; what’s it like working there?
SK As you say, very interesting! Our first challenge was getting equipment on and off the island. Where we would normally mobilise to a station like this by using the helicopter in conjunction with a Trinity House tender, flight over the Island of Sark is not permitted due to a flight exclusion zone. Sark Lighthouse is positioned halfway down the cliff and access to the road network is via some 130 steep steps. Motor vehicles are also not permitted on the island except for a number of cart-pulling tractors meaning that the removal from the island of the heavier equipment, and in particular the hazardous mercury, posed a very real risk to personnel and to the environment. Following discussions with both the Sark Government and the Guernsey Civil Aviation Authority we were able to get a temporary lifting of the flight exclusion zone enabling us to remove the mercury, optic and all redundant equipment from the lighthouse while delivering all the new equipment for installation. Sark is a small community, and the islanders have gone out of their way to make our team feel welcome and provide assistance whenever we have requested it.

How did living and working on a vehicle free island affect your off hours?
SK The island has a number of cycle hire shops and the team has hired cycles both in their off hours and to enable faster access to the few local shops for provisions while at work. The island is fairly small and in good weather becomes a beautiful place to walk around; however, as there is only one sealed road on the island, when it rains the roads become a challenge to walk on, let alone cycle along, especially at night as there is no light pollution from street lamps and the island lives up to its name as a dark skies island.

Tell us about having THV Galatea working alongside with the helicopter
SK The lighthouse is situated about half way down the cliff face and has a small courtyard from which the majority of the equipment was dropped in and lifted from. The courtyard is very near to the main lighthouse tower and the helicopter had to use an
extra-long strop to ensure it was clear of the tower during the operation. The crew of THV Galatea positioned the vessel outside of the harbour to deliver and receive equipment to and from station by the helicopter. Due to the very small area of lift operation available at the lighthouse the team at the lighthouse worked hard to ensure that the helicopter was in the air for as much time as possible.

The mobilisation operation was witnessed by Director of Operations Rob Dorey, Engineering and Operations Manager Simon Millyard, VIPs from the Sark Government, the Director of Civil Aviation Guernsey and Sark Lighthouse attendant Trevor Kendall and his wife Jean. All were treated to some spectacular flying from the pilot of the PDG helicopter who consistently positioned underslung equipment with precision and speed to make Galatea’s crew’s job to remove from deck and store below as easy as possible.

What’s been the most interesting part of the project for you and the team working with you?

SK Undoubtedly, working with the local community, Guernsey Environment Agency and Civil Aviation Authority. All have been of great assistance in many aspects of the project, not least in obtaining the necessary permissions required to enable the removal of the mercury and other waste streams from the island. Beth Davis in Procurement has done an amazing job of actually pushing this forward and getting the paperwork in place to enable the waste to come off.

A big thank you to the project team in designing the lighthouse; Paul Briggs and Chris Pearson have done a great job in the electrical and mechanical design. Phil Hawtin in commissioning the lighthouse and the site teams working for site supervisors Ian Gorvin and Si Eade. The team on site has had many challenges, not least the plague of rats experienced in the engine room.

What’s next for Sark Lighthouse?

SK The lighthouse is fully operational at present and is being monitored from Harwich through its soak test period. A phase of snagging some minor issues and some re-painting is planned through to the end of January.

The station will then be de-manned and handed back to the Field Operations team where hopefully we will get a further 20 years of uninterrupted reliable operations.
ENGINEERING REVIEW

AUTOMATIC IDENTIFICATION SYSTEM

Weather stations

Support Engineer Clive Bond tells us about the work he’s doing to transmit meteorological and hydrological data from buoys.

Trinity House has fitted Automatic Identification System (AIS) transponders to key assets, initially transmitting Message 21—Aids to Navigation (AtoN) report, which provides details of the name, MMSI, type and position of the AtoN as well as the AtoN status indicating light, RACON and position status.

Following on from this, the use of AIS Application Specific Messages was reviewed and a trial was arranged to demonstrate the use of Message 8—Binary Broadcast Message to transmit the internationally agreed meteorological and hydrographic data message. The format of the message may contain some 30 parameters within seven categories for wind, air, visibility, water, water level, wave and precipitation.

A new AIS transponder and compatible Ultrasonic Weather Station were selected for use on a Type 1 buoy. The weather station is fitted with GPS, three-axis solid-state compass, rate gyro and tilt sensors, so theoretical and apparent wind can be calculated on a moving platform. The parameters selected to be transmitted for the trial include wind speed and direction (average and gust), air temperature, pressure and pressure tendency.

The arrangement was first trialled at Harwich with the data accessed via the national network of AIS base stations which allows Trinity House to monitor and assess AIS data from around our coast. This data is displayed on the Trinity House CMCS which had been updated to translate Message 8 for meteorological and hydrographic data.

On completion of the successful trial, an active buoy station was selected for a live trial. This was the North East Spit buoy as it was deemed the data would be of use to the Port of London Authority Thames Pilots.

The existing AIS Interface unit used on Type 1 buoys was modified to suit the new system. This would become a junction box between the AIS transponder, weather station and the buoy telemetry equipment. Also connecting to the AIS transponder is a marine VHF antenna for broadcasting the messages to any receiving ship.

A combined two-day visit to Shipwash North and North East Spit buoys was organised on board THV Galatea for maintenance and installation of the new equipment at sea.

NE Spit had an existing AIS transponder, interface unit and VHF antenna and these were swapped out for the new equipment. The weather station fits to the spare GPS point on the marine antenna outrigger. The interconnecting cables were clipped internally to the bottom of the buoy and all connectors sealed to cope with the harsh environment at sea.

The trial equipment has been operating since July 2017.
The Automatic Identification System (AIS) makes possible the use of virtual aids to navigation (Virtual AtoNs) which can be displayed on board a vessel, without a physical aid to navigation (AtoN) present. Virtual AtoNs will be used to provide early warning to mariners of new dangers such as wreck, obstruction, floating debris or an AtoN that is off-station, while physical marks are en route.

Trinity House is creating a network of 12 land-based, four afloat and two mobile Virtual AtoN stations; each station can broadcast up to five Virtual AtoNs. The network and broadcast of all Trinity House AIS and Virtual AIS is monitored and controlled 24/7 from the Trinity House Planning Centre in Harwich.

The Trinity House Central Monitoring and Control System (CMCS) has been updated to allow remote initiation of a Virtual AtoN broadcast from within the Planning Centre along with the generation and translation of the three main AIS message types being used. These are AtoN Report (message 21) and Application Specific Messages (message 6) for AtoN monitoring data and (message 8) for Meteorological and Hydrographic data.

From one of 12 land-based Virtual AIS stations, Trinity House can deploy up to five Virtual AtoNs around wrecks or obstruction. The Virtual AtoN targets can be configured to one of 31 AtoN types, such as cardinal marks around a wreck; these will display on a vessel’s Electronic Chart Display and Information System (ECDIS).

The Trinity House tender fleet will be fitted with AIS transponders which will allow local activation of a Virtual AtoN broadcast, providing the ability to respond to local incidents.

The Virtual AIS equipment is installed on shelving in a customised plastic enclosure. There are three pieces of equipment inside the enclosure to receive and transmit the AIS messages, communicate with CMCS in Harwich and allow remote access.

A marine VHF antenna and GPS antenna are installed to the handrail around the gallery using existing designs for antenna brackets. The VHF antenna transmits and receives the AIS messages on the 162MHz frequency. A GPS signal is used as a timing source for the AIS unit to broadcast on the correct time slot.

A minimum of 48 hours of back-up power for the equipment is provided by either the station’s existing battery banks or dedicated batteries. At some lighthouses, distribution boards are located in different rooms to where the Virtual AIS unit is typically installed in the service room. These sites have the dedicated batteries and an additional charger in the AIS unit enclosure to ease installation. At a later time when these sites are refurbished, a dedicated supply from the station batteries could be used.

The Virtual AIS units communicate over the 3G/4G mobile phone network independent of any communication equipment at the lighthouses. Depending on mobile phone reception at each installation site, the GSM antenna is either a puck style on top of the enclosure or an external antenna.
Back in peak condition

West coast Senior Technician (Civil) Stuart Mason describes the logistical challenges that had to be overcome to repair the lantern roof at Lynmouth Foreland Lighthouse.

Situated on the North Devon coastline, Lynmouth Foreland Lighthouse sits on the side of a cliff overlooking the Bristol Channel. We first took an interest in the roof back in 2009 when it became clear that previous repairs (using plastic) carried out around the perimeter of the gutter line were not sufficient and remedial works were duly completed by subcontractors.

Forward on nearly seven years and our concerns had raised themselves to the ventilator area. To coincide with our lantern roof survey report, a closer inspection of the roof was required and a decision made in 2016 to commit ourselves to carry out full fabrication repairs in and around the ventilator area.

Now, being a land-based lighthouse with no helicopter access and being—shall we say—relatively not far off the beaten track, you may be led to believe that, logistically, Lynmouth is very accessible and you would be correct; unless, of course, you need to bring down about eight tons of scaffolding (and that’s just the start)! A vehicle from Supplies you make sure that your mode of transport is small enough to get through the narrow winding road that leads down to the lighthouse, a road not suitable for an eight-metre scaffolding lorry.

The access road leading to the lighthouse is an interesting drive and one of those journeys that when you book a vehicle from Supplies you make sure that your mode of transport is small enough to get through the narrow winding road that leads down to the lighthouse, a road not suitable for an eight-metre scaffolding lorry.

Then factor in the path and the 56 stone steps that lead from the end of the road to the station and you’re ready to go.

The first stage of the project was to erect the access scaffolding to the lantern roof; this was carried out by a local company from nearby Barnstaple. The scaffolding was delivered to the field at the top of the main road and brought down by a much smaller vehicle to its final location, where it was carried down manually and erected over the course of five days.

The Trinity House staff responsible for the supervision and repairs comprised a joint effort from Swansea and Harwich depots; the staff all stayed in the National Trust property adjoined to the lighthouse which historically was the keepers’ quarters.

On completion of the scaffolding, the first stage was to get the lifting rig in place. The rig was erected on the lantern roof and was used to lift the ventilator safely off the roof structure and to hold it in place while remedial works were carried out.

After the initial lift of the ventilator it soon became clear that our suppositions were correct and that the corrosion to the steel panels was significant. Work began on cutting out the defective panels (what was left of them), taking care to keep them in good shape as patterns were required for the new sections to be cut and offered in place. Due to the design and shape of the roof the panels were curved on both planes and lapped over each other which proved quite a challenge to get them all in place ready for welding into their final position.

On completion of fitting all the new sections, the steelwork was suitably primed and undercoated and this was then followed by drophing both the inner and outer ventilators back into position which were then securely fixed along with the weather vane.

Although the logistics and fabrication work proved to be a little challenging in places the project was completed with time to spare, with the station ready for its full external redecoration and the removal of all that scaffolding.
The next great leaps for international maritime productivity are poised to be the introduction of autonomous/remote-operated vessels, and the multitude of maritime and supply chain efficiencies brought about by the promised but long-delayed implementation of the International Maritime Organization (IMO) e-Navigation concept.

Unfortunately, both opportunities rely upon a resilient electronic positioning and navigation architecture that IMO first called for in 20081, but which still does not exist.

The world has abundant electronic navigation, of course, from satellites like the Global Positioning System (GPS), and it is now the primary means by which mariners navigate. However, satellites alone are unable to provide IMO’s “robust, reliable and dependable”2 signals for safety of navigation and safety of life applications.

Global navigation satellite systems (GNSS) do continue to improve and grow in number, as discussed later. These upgrades will provide marginal increases in robustness and reliability for those equipped to access the systems. Nevertheless, all GNSS transmit very faint signals in the same general frequency band. These can easily be disrupted by natural phenomena, malicious actors and even system failures. There is ample evidence that local disruptions are happening all the time.

Successful implementation of autonomous/remote-operated vessels and/or eNavigation will require that this fundamental shortfall be addressed. GNSS must be paired with another source or sources such that the combined systems are virtually impossible to disrupt.

The following is a summary of proposed and on-going projects that will help improve electronic navigation and in some cases could make it bulletproof:


GNSS signals are highly precise and free for use almost anywhere with a view of the sky. They should be used whenever services are available and can be trusted. Two independent constellations are currently deployed, and two more are in the process. Even greater location precision can be had by accessing space-based augmentation systems (SBAS), such as WAAS, EGNOS and MSAS, and ground-based augmentation systems (GBAS). The IALA maritime radiobeacon DGPS service, which augments and improves the precision for GNSS in various regions of the world, is one example of a GBAS.

As mentioned earlier, additional satellites alone will not create the needed resilience, but accessing all satellite systems and improvements to the satellites and their signals will marginally improve performance and reliability for properly equipped users.

Satellite navigation receivers must be specifically equipped and configured to access and use more than one of the constellations listed below. Basic services from all the government-sponsored satellite navigation systems are available for use without charge.

GPS, United States (global coverage). The Global Positioning System has long been considered by the United States as “a gift to the world” with its pledge of making signals freely available to all. GPS satellite and ground control systems have refreshment projects underway. Additional frequencies are planned, along with a more secure capability for use by US military forces.
"WITH A TERRESTRIAL, LOW-FREQUENCY, HIGH-POWER SIGNAL, LORAN IS VERY DIFFICULT TO DISRUPT, AND IS COMPLEMENTARY TO GNSS"

GLONASS, Russian Federation (global coverage). Russia’s GLObal Navigation Satellite System first became operational in 1993. Since that time, funding and technical problems have occasionally impacted the usefulness of the system. As of this writing, the system is generally considered operational and effective. The Russian Federation has a deliberate maintenance and continual upgrade plan in place to ensure continued success.

Galileo, European Union (global coverage). This system has 18 satellites in orbit and its operators say they will declare the system operational (users will be able to navigate using just Galileo satellites) when a total of 24 satellites are available for use. Properly equipped receivers are already able to use existing Galileo satellites in conjunction with those from other systems to safely obtain and compute location.

BeiDou, China (global coverage). Scheduled to reach “full operational capability” in 2020, BeiDou has 17 usable satellites in space. Properly equipped receivers are already able to use existing BeiDou satellites in conjunction with those from other systems to safely compute location.

QZSS, Japan (Asia & Oceania). This regional system will consist of four satellites when it is operational in 2018. It is designed to augment GPS and enable high-precision positioning.

IRNSS/NAVIC, India (India & vicinity). The India Regional Navigation Satellite System will have seven satellites and was expected to be operational in 2018. As with the Japanese system, it is designed for high-precision applications. The operational date may now be set back by the recent launch failure of a component satellite.

Commercial Satellite Systems

Satelles (coverage based on subscriber demand) – Using low earth-orbit Iridium satellites, Satelles uses stronger signals than the national systems. It makes these available to subscribers for a fee. The company says that it can provide services anywhere on the globe to an unlimited number of subscribers. However, analysis of the performance of the system against the four required navigation performance (RNP) parameters, accuracy, availability, integrity and continuity, in the maritime domain, has yet to be determined.

Loran-C/eLoran

Loran is a terrestrial radionavigation system that was first developed in the mid-20th century. The technology has been continually improved, with the most recent versions referred to as Loran-C and eLoran. With a terrestrial, low-frequency, high-power signal, Loran is very difficult to disrupt, and is complementary to GNSS.

Loran-C signals are available in most Russian, Chinese, Saudi Arabian, and South Korean navigable waters. India has Loran-C along its northwest and northeast coasts.

eLoran is a more accurate, and robust state-of-the-art version of Loran. It was implemented as a test-bed at Initial Operational Capability (IOC) level (providing 10 metres (95%) for harbour entrance and approach (HEA) applications), for use along the east coast of the United Kingdom for 12 months. Its use as one component of a multi-system receiver was demonstrated as part of the Resilient-PNT stream of the European Union’s ACCSEAS project.

Experts in the US have recently opined that a receiver combining GPS satellite and eLoran signals would be virtually impossible to disrupt. The United States government has twice announced that it will build an eLoran system for use by maritime, other transportation modes, and critical infrastructure. The US Congress is actively considering legislation this year to mandate establishment of the system and fund a $10 million proof of concept project starting on 1 October 2017.

Loran systems, at present, are typically effective to 1,000 NM. This could improve with further developments in receiver and transmitter technology.

R-Mode

R-Mode is the addition of a ranging signal to other maritime radio signals. Two candidate systems are being investigated: the IALA Medium Frequency (MF) differential-DGP service, which operates in the marine radiobeacon band at 285 kHz to 315 kHz; and the Automatic Identification System (AIS), which operates in the marine VHF band at around 162 MHz.

The work is being driven by the maritime administrations of Germany and the Netherlands, and is based on the principle of the re-use of existing MF DGPS beacon transmitter infrastructure. Ranging trials have demonstrated an accuracy of 3 to 4 metres (1-σ). There is a marked difference in performance experienced between day and night because of the prevalence of skywave interference at nighttime.

Dalian University in China has demonstrated AIS R-Mode over a short range, achieving 10 metres positioning accuracy in areas with good transmitter geometry. The geographical range of an MF broadcast is around 150 to 200 km, while that of AIS is approximately 50 km line of sight. It is planned that work on R-Mode will continue in Europe under the auspices of the R-Mode BAL TIC project, which starts in September this year. Also, the General Lighthouse Authorities in the UK and Ireland (GLA) are undertaking a project this year looking specifically at AIS R-Mode.

Radar Absolute Positioning

A number of techniques for absolute radar position fixing have been investigated. This is a technique of deriving latitude and longitude (also course and speed over ground) from radar returns. Previous trials, performed under the ACCSEAS project using active transponders (eRacons) with a modified radar were very successful in
demonstrating sub-10 metres positioning accuracy within 10 NM of the coastline. The usefulness of the technique is dependent on a large amount of expensive and high maintenance, shoreside infrastructure. In addition to their high initial capital outlay (~$30k), eRacons need power, monitoring and physical security. There are techniques, however, that rely less on expensive shoreside infrastructure and more on passive radar returns employing map/feature mapping and tracking techniques. Some of these techniques look very promising, with one in particular (RadarFix) having been in operation in Newfoundland over 20 years ago, purportedly demonstrating positioning accuracies of approximately 2 metres. The General Lighthouse Authorities (GLA) of UK and Ireland have been investigating the independent development of their own radar positioning algorithm, which has some resemblance to techniques found in the literature and practice.

It is believed that radar-return images are unique enough that an automated image-recognition algorithm would be able to associate a particular radar image with a geographical location. Recent trials at the GLA have demonstrated the usefulness of integrating radar map matching with doppler speed log and gyro-compass in a method called Radar Dead Reckoning. Such techniques allow resolution of geographical ambiguities in radar imagery and smoothing during the time between the epochs of radar image capture. Accuracies in the region of 15 metres (95%) have been demonstrated, post-mission, in the Harwich and Felixstowe harbour area.

**Signals of Opportunity**

Methods that employ transmitted signals whose primary purpose is for some other application unrelated to navigation are referred to as Signals of Opportunity techniques (S-Op). The most promising signals of opportunity appear to be DAB radio and DVB-T (digital terrestrial television) broadcasts.

Components of both signals are broadcast with a pseudo-random bit sequence (PRBS) that is known by the receiver in advance. These ‘pilot’ signals are broadcast to aid receiver tracking and demodulation of the audio/video stream. Correlation of the pilot data with a local replica generated by the S-Op receiver can provide an accurate pseudo-range measurement. Accuracy of the system will be limited by multi-path interference and the limited geometry of available transmitters. As a bonus, the network must be precisely time-synchronised to operate as a Single Frequency Network (SFN) so all digital transmitting stations have precise GPS-synchronised clocks. Because of this last point, any resilience created by the use of such S-Op techniques needs to be carefully assessed.

**THE SMALL MARGINAL COST FOR ROBUST AND RESILIENT NAVIGATION WILL BE REPAID MANY TIMES OVER BY SUBSTANTIAL INCREASES IN PRODUCTIVITY AND PROFITABILITY THAT WILL BE REALISED**

**Bathymetric navigation**

Sonar can be used to perform terrain referenced navigation (TRN), or bathmetry, underwater. A multibeam sonar echo-sounder is used to measure the range from the host vessel to a number of points on the sea bed. The relative positions of these points, obtained from the sonar measurements, is known as a bathymetric profile. By matching this with a database, the vessel’s position may be inferred. This is sometimes known as bottom-contour navigation (BCN). The performance depends on the terrain height variation and sensor resolution. The highest resolution sensors can measure more than 10,000 points simultaneously. The positioning accuracy can be as good as 1 metres but is typically around 10 metres. This technique is typically deployed on underwater vehicles. Surface vessel positioning may be less precise because the sensor will be further away from the sea bed, though noise-like errors may be smoothed out through integration with dead reckoning.

**On-board systems**

Other than over intervals of a few minutes, inertial navigation performance is significantly poorer than that achievable using traditional dead reckoning with ground velocity measurements. Currently the most capable inertial system available for use aboard ship is very expensive and even then, its accuracy degrades rapidly once calibration by GPS is lost. Stand-alone inertial navigation is not currently recommended as a reversionary mode as its performance is inferior to that of a gyrocompass and Doppler Velocity Log. The use of Doppler speed log and gyrocompass provides greater positioning accuracy for longer periods of holdover time once GPS has been lost to jamming or interference or other system failure.

**Conclusion**

A recent article in the industry journal GPS World 1 concluded that eLoran is the only complementary backup system that can be implemented within the timescale envisaged for introducing e-navigation; however, there are political obstacles to implementation, at least in Europe.

Dr Brad Parkinson, widely known as the “Father of GPS,” has opined that the ideal navigation suite includes what he calls the “resilience triad,” – GNSS, eLoran, and an inertial system. The authors of this article heartily agree.

We also agree that the small marginal cost for robust and resilient navigation will be repaid many times over by the substantial increases in productivity and profitability that will ultimately be realised.

**Acknowledgements:** The authors thank, Dr. Alan Grant, Mr. Martin Bransby, and Mr. Martin Faga for their review of and contributions to this article.

**Captain Dana A. Goward** is retired from the US Coast Guard and the President of the Resilient Navigation and Timing Foundation. **Paul Williams** is Principal Development Engineer at General Lighthouse Authorities of the UK and Ireland.

---

1. From IMO’s 2008 ‘eNavigation Strategy’ MSC 85/26 Annex 20, the IMO state that positioning systems for e-Navigation “should be resilient ... robust, reliable and dependable. Requirements for redundancy, particularly in relation to position fixing systems should be considered.”
2. Ibid.
New life for old beacons

Two important beacons are currently being overhauled by Trinity House in Penzance Bay, Cornwall. The Cressar and Raymond (Ryeman) beacons are historical marks which date back to the 1850s. Since their last update in 1957, they have relied on a system of cable stay supports which have needed consistent attention and resources to maintain. As the condition of the main beacon poles has begun to deteriorate, Trinity House is taking the opportunity to replace the single pole and cable stay system with a more robust and low-maintenance solution.

By adopting a more substantial beacon structure with a supporting framework of tripod sections, the need for the high maintenance cable stays is removed. This addresses the issue of having to replace missing or slack cable stays, so that the only maintenance needed would be the occasional repainting and marine growth removal to maintain the clarity of the black and yellow south cardinal marks.

Like previous successful beacon projects at Crow Rock, Woolpack, Chwislen and Mixon, these beacons were designed in-house with the goal of installing them without the need to mobilise heavy and expensive marine plant. The design uses light and sectional elements which can be safely manhandled and transported piece by piece to the rocks by inflatable, with the Trinity House contract launch MV Mair providing essential support.

The added benefit of the tripod arrangement, in addition to providing the robustness needed to withstand the expected weather conditions, was that it provided an ideal platform from which the beacon could be safely assembled.

The intended sequence of construction means that the two low spring tides would be essential in giving the team the time required to assemble the tripod framework around the existing beacon pole. With the framework in place and fixed to the rock and the lower central pole installed, the remaining upper sections could be installed during the neap tides.

On top of in-house design and installation teams, the painting of the beacon was also completed in-house at Swansea Buoy Yard. The paint specification, comprises a Glass-flake base coat with a top-coat of 3-in-1 Brantho-Korrux. The intricate fabrication of the components was completed with a mix of internal and external teams and test-assembled in Swansea Buoy Yard.

Parts were mobilised to Penzance at the end of July 2017 with the intention of installing both beacons across two spring tides over the summer months—Raymond first, followed by Cressar. This was known to be an ambitious programme and would have relied on a settled period of calm weather across both phases. As it happened, the installation team would have no such luck, and would only have six days of a possible 14 available to them on the first phase.

With only the Raymond lower framework fixed and assembled at the end of the first phase, the decision was made to defer the installation of Cressar until 2018 and concentrate on completing the Raymond beacon in the second phase. The second phase in late August proved more settled than the first and the team were able to finish the painting just as the next front of weather drew in.

Plans are now being finalised for two new phases of work on Cressar in the spring of 2018.
IALA news and activity
Dispaches from staff contributing to the various Committees of the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA)

Engineering and Sustainability Committee (ENG)
Trinity House’s Engineering and Operations Manager Simon Millyard is the Chairman of the Engineering & Sustainability Committee (ENG). ENG7 took place at the IALA headquarters in St. Germain-en-Laye in the week commencing 9 October, which was the final committee meeting before the 19th IALA Conference in Incheon, Republic of Korea, in May 2018. 51 representatives from 22 countries considered 98 input papers and produced 36 output papers (and eight working papers).

Dr. Alwyn Williams, R&RNAV’s Principal Development Engineer for Visual Signalling, reports that work continued on improving the existing IALA Recommendation on effective intensity in Working Group 1.

A draft set of items for the new work programme was briefly reviewed, but the most significant change will be the proposal for ENG to include the PNT Working Group from the ENAV Committee. This will expand the scope of the committee to include existing and future PNT services. WG 2 on Technical Knowledge and Sustainability made further developments on sustainable power system.

Neil Jones, chairing ENG’s Task Group 4 (Heritage), reports that preparations for the heritage exhibition at the 2018 IALA Conference in Incheon in May are going well, having reviewed site plans and interpretation strategies. The group also completed work on a significant revision of the IALA Complementary Lighthouse Use Manual, designed to help lighthouse authorities around the world develop their historical lighthouses for commercial, educational or public benefit.

Aid to Navigation Requirements and Management Committee (ARM)
R&RNAV’s Martin Bransby and members of Northern Lighthouse Board (Phil Day as ARM Chair), Irish Lights (Rory Mullins) and Trinity House (Roger Barker (Assistant Vice-Chair for this meeting)) represented the GLAs at the ARM7 meeting, during the week commencing 23 October 2017. The meeting drew participation of 51 representatives from 25 countries and one sister organisation; nine participants attended for the first time. ARM7 considered 40 input papers and produced 15 output papers from its three Working Groups.

Key outputs included (among other things) the completion and/or revision of a number of Recommendations, Guidelines and external liaison notes, including Recommendation R1015 on Marking of hazardous wrecks and Recommendation R1016 on Mobile AtoN. For the latter, Martin Bransby presented some proposed light characters to be used for MAtOn to demonstrate the visual effect of different flickering characters.

The draft Work Programme for the 2018-22 period was completed and sent to the Policy Advisory Panel for consideration.

The IALA Secretary General approved the invitation from Argentina to organise an ARM Committee meeting in Buenos Aires in spring 2020.

E-navigation (ENAV)
R&RNAV and a member of the Northern Lighthouse Board represented the GLAs at ENAV21 in the week commencing 18 September 2017; the meeting drew 137 attendees from 27 countries, considered 132 input papers and produced 26 output papers to support the development of e-navigation and the development of IALA Recommendations and Guidelines on associated topics.

The typically populous meeting also worked on the completion and revision of a number of Recommendations and Guidelines (among other things), and also otherwise discussed or saw presentations on the Maritime Connectivity Platform (previously the Maritime Cloud), Mobile AtoN and Autonomous Maritime Radio Devices. Several papers on R-Mode were submitted to the meeting, including one from R&RNAV on the results of an interference study.

A major revision of Chapter 4 of the NAVGUIDE dealing with e-Navigation was completed and will be forwarded to the ARM Committee for inclusion into the 2018 Edition of the NAVGUIDE.

The ENAV Chairman expressed his gratitude for the work of the PNT WG (chaired by Dr Alan Grant) in light of its aforementioned move to ENG, commenting on its high degree of productivity.

Legal Advisory Panel (LAP)
The IALA Legal Advisory Panel (LAP), chaired by former Legal & Risk Manager Jon Price, continues to provide legal support to the Association’s decision to move from a Non-Governmental Organization operating under French Law to an Inter-Governmental Organization governed by International Law. The change will put IALA on the same legal footing as the International Maritime Organization, the International Hydrographic Organization and the International Telecommunications Union, three other bodies with which IALA works closely on maritime matters and will allow for a broader participation in its work, best supporting its aim and objectives into the future.

The LAP met at the end of October 2017 to review and consider comments received from some 25 countries from all parts of the world on the text of the draft Convention and the draft General Regulations which sit beneath it, following a pre-diplomatic conference attended by some 56 countries in Paris earlier in the year. The Convention will be the international treaty instrument which, once it comes into force, will bring about the change in IALA’s status to that of an IGO. The LAP finalised revised drafts of both documents which will be considered at a pre-diplomatic conference being held in Morocco in February 2018.
Making light work

Continuing our look at various roles around Trinity House, Craig Neil talks to us about being a Buoy Yard Team Member at our Harwich depot.

I am part of the five-man team that makes up the Buoy Yard team at Harwich. We are the guys responsible for the processing and building of the entire range of our buoys that our boats put out.

On a typical day or week in the Buoy Yard we would receive dirty buoys back from the ships and begin our process by jet-washing the buoys to clean them before moving them on to the grit booth where we grit blast certain areas, then move the buoy to the welding bay for repairs and air testing. This is followed by lug testing whereby we pull on the buoy’s mooring and lifting lugs to a set force to check that they are strong and fit for purpose. Next, it’s back in for a full grit down, followed by a trip to the spray paint booth where it is undercoated and then marked up and top coated with its relevant colour.

The same processes will be applied to the superstructure with the exception of air and lug testing. The superstructure can then be built, have its solar package fitted and the signage applied to identify the buoy before being bolted on to the top of the buoy.

As a Buoy Yard Team Member I am expected to and able to carry out all aspects of this job including building the solar packages and designing the signs.

As one of three crane drivers in the yard I also assist with loading and unloading the vessels and assisting the techs with lightvessel work.

We are also all trained to drive various pieces of plant and machinery and have to undergo regular training for first aid and working at heights.

All in all, the Buoy Yard is a great place to work. We are a close-knit team and are all good friends both in and out of the workplace. We are all trained in all aspects, meaning you get to rotate your workload and the job you are doing on a regular basis. There is never a dull day in the Buoy Yard.
The voice of reason

Recently retired SOSREP Hugh Shaw OBE writes about dealing with maritime emergencies in the UK and the role of the SOSREP.

In 1996, the tanker Sea Empress grounded in Milford Haven, Wales, resulting in a loss of 72,000 tonnes of crude oil into the environment. The incident attracted enormous public interest and provided the news media with headlines for several days as efforts to salvage the tanker and prevent massive oil pollution unfolded before the cameras of the world. The incident highlighted the need for early state intervention and decisiveness.

The late Lord Donaldson was instructed by the UK Government to carry out a full review of how the Government should in future respond to maritime emergencies. It was clear at an early stage that there were important lessons to be learned from the incident itself and the consequential salvage operation.

His report observed that “salvage by committee” was generally ineffective and inefficient. In his opinion, what was needed in such emergencies was a single voice, able to make and enforce decisions on behalf of the UK Government and in the overriding public interest and thus was born the idea of a SOSREP – the Secretary of State’s Representative.

The brief was quite clear: find an individual to provide overall direction for salvage, intervention and the prevention of marine pollution incidents involving ships that required a national response.

As recommended in Lord Donaldson’s report, Ministers and senior officials should not attempt to influence SOSREP’s operational decisions while operations are in progress. In Donaldson’s words, they should “back him or sack him”.

In practice, the SOSREP is free to act on his own initiative without having to refer matters to his political masters. This means that decisions can be taken quickly and on the basis of factual information, logic and reason, rather than on the basis of political or emotional considerations. In an incident, the SOSREP has the final and decisive voice, he can exercise ultimate control and he has the ultimate responsibility.

SOSREP uses all the information available to assess whether the actions proposed are in the public interest. SOSREP also considers what should happen if the current salvage plan goes wrong or the incident escalates in severity.

I was appointed as the second SOSREP in 2008 and, in preparation for retirement, recently handed the position over to Les Chapman.

I have been involved in more than 700 incidents including the MSC Napoli, Lt Cortesia, Ice Prince, MSC Flaminia, Hoegh Osaka, Lysblink Seaways, Transocean Winner, V Due and the Flavias Tamar.

During incident working the SOSREP relies on the services of Trinity House, and the other GLAs, to take all practical steps to establish the precise location of a wreck and, if it constitutes a hazard, take all reasonable steps to mark it. In my time as the SOSREP the professionalism, experience, commitment and support provided by the GLAs has been exceptional and this close relationship will be sadly missed.

“What was needed in such emergencies was a single voice, able to make and enforce decisions”
Always ready for action

Recently-appointed Senior Marine Superintendent Captain Ross Chadwick gives us an overview of the never-ending work of our support vessels in 2017.

The Support Vessel Service is an invaluable part of the organisation, carrying out a huge amount of routine work each year while also always ready to respond to wrecks, new dangers and AtoN casualties. 2017 was as busy as ever and a number of large-scale projects were completed all around our coast, utilising helicopter support to carry out major upgrade work and deliver supplies and equipment to challenging offshore locations.

Ship maintenance
Both tenders were dry-docked at a shipyard on the River Tees for routine maintenance and repairs. THV Galatea was docked in February and underwent surveys and repairs, returning to service mid-march, where she was immediately tasked to attend a Racon Casualty at the Inter-Bank Buoy in the Dover Strait, one of the key Type 1 buoys.

THV Patricia underwent her intermediate docking in October and returned to service in November. She was tasked immediately out into the North Sea for the annual east coast rig inspections, where over 125 offshore installations were inspected with the Inspector of Seamarms to ensure lights, fog signals and name boards were all correct. This is an essential part of the Navigation team’s work along with inspection of local lights in ports and harbours which is reported annually to the Secretary of State.

Mumbles Lighthouse
In April THV Galatea assisted with the Mumbles update project. Galatea berthed at the Swansea outstation and loaded all the tools, equipment and materials that were to be delivered to the station, which included fuel tanks, fencing, cabins, beds, a generator, batteries and all the AtoN upgrade equipment. The tri-GLA helicopter ‘G-GLAB’ rendezvoused with Galatea in Swansea Bay, and over the course of two days the vessel, aircraft, crew and technicians worked together to deliver over 86 under-slung loads from the ship to the lighthouse. Once the equipment had been delivered, Galatea departed with the aircraft on deck for their next tasking at Smalls Lighthouse.

Throughout this project the TH team was also assisted by contract launch MV Mair which provided access to and from the station while the upgrade work was completed.

Royal Sovereign Lighthouse
Early in the year THV Patricia attended with Technicians from Field Operations East, loading equipment in Harwich and making a rendezvous with G-GLAB at the station for the transfer of technicians. A new generator was under-slung to the station in readiness for technicians staying on the station later in the year. Crew members from Patricia were flown across to the station and in conjunction with the technicians, all was completed promptly on what was a very windy day, some 30m above the English Channel.

Later in the year it was Galatea’s turn to assist at Royal Sovereign, and in fair weather conditions the vessel used her advanced Dynamic Positioning System to take up station just metres from the lighthouse. This enabled her to lift several loads of equipment and tools from the ship to the lighthouse platform, without the need for helicopter support. Taking advantage of the conditions, Galatea also passed a water hose across to the lighthouse and replenished the station with over 20 tonnes of potable fresh water.

Sark Lighthouse
A major modernisation project took place at Sark Lighthouse in the Channel Islands. This station is built into the side of the cliff and presented a major logistical challenge to deliver all the equipment needed, as the only traditional access is down a steep flight of stairs from the top of the cliff.

After months of planning, THV Galatea was loaded at Harwich with a considerable amount of equipment for the refurbishment of the station and the sustainment of the engineering team during the project and made passage for the Channel Islands. Once again, Galatea and the helicopter worked in tandem with the technicians to deliver 61 under-slung loads between the ship and the lighthouse as part of the mobilisation phase of the project.

Penzance Bay beacons
The project to remove and replace the 60-year-old Raymond and Cressar beacons in Penzance Bay were commenced this year; Cressar is incomplete at time of press but will resume in March 2018. The MV Mair—ideally suited to operating in shallow waters close to the rocks—provided the platform from which these works were carried out. The engineering team was transferred to the stations via inflatable boat, and both the beacons were replaced.

The tide limited working time on station and everything needed to be secure through each successive high water when the team had to depart. In the latter stages of construction and painting, the high tide was used to reach the upper section by boat. It was essential that the design accommodated the method by which the structure would be constructed on site. The new beacon was designed and manufactured in-house, with all components designed to be man-portable as all would be transferred by boat and manhandled on site.
1. THV Patricia in dry dock for routine maintenance and repairs

2. THV Patricia’s crew hooking up a load for its flight to Royal Sovereign

3. Technicians and the MV Mair at Mumbles Lighthouse

4. Helicopter Operations at Sark as seen from the Bridge of THV Galatea with VIPs looking on

5. Engineers at work on the Raymond Beacon with MV Mair in the background
Masters of their profession

Captain Ross Chadwick, Captain Darren Petersen and Captain Ben Lankester talk about their varied work experience before joining the Support Vessel Service.

New Senior Marine Superintendent
Captain Ross Chadwick joined the Marine Operations Department in September as Senior Marine Superintendent, which replaces the Marine Operations Manager role.

“I went to sea in 1996 with China Navigation Company and sailed on many different types of vessels during my cadetship. In 2000 I gained my Officer of the Watch certification and carried on serving on China Navigation Company vessels, predominantly on the New Zealand, Australia and Pacific Island trade.

“In 2002 I moved to Swire Pacific Offshore serving on anchor handling vessels throughout the world. During this time I gained many skills that come with towing and positioning oil rigs in many different situations. In 2010 I was appointed as Master.

“In 2012 I moved ashore into the position of Operations Manager of Swire Pacific Offshore’s West African fleet. I lived in Cameroon with my young family and worked in a vibrant and diverse office with control of up to 35 vessels. I was promoted to Marketing Manager and also temporarily appointed General Manager. After three years in Cameroon I was appointed as Marketing Manager of Swire Pacific Offshore’s Middle Eastern fleet which involved moving my family to Dubai, UAE.

“I am very excited and honoured to now be employed with Trinity House and looking forward to a new change in location with my family.”

New Captain for THV Galatea
We also welcome Captain Darren Petersen who has taken over on THV Galatea.

“On leaving school at 16 I sailed on my first trip to sea from Hull, on the deep-sea trawler Boston Lincoln, fishing in the Arctic Circle for 13 weeks—the trip seemed to fly by and the adventure had begun. In December 1977 I joined the Royal Navy and specialised in communications and the submarine service. On completion of training, I served on HM Submarines Dreadnought, Valiant and Warspite.

“On leaving the Royal Navy in 1986, I joined the Foreign & Commonwealth Office (FCO) as a communications and cipher officer. After 18 months at the FCO, I felt working ashore was not for me and decided to join the Merchant Navy. In late 1987, I started my career as a trainee seaman, working mainly in the offshore sector, serving on-board anchor handling tugs supply (AHTS) vessels, positioning and towing oil rigs all over the world. Gaining my Efficient Deck Hand and Able Seaman qualifications and promoted to Bosun, I managed to save up and go to college. In 1999, I gained a Class 4 Certificate of Competency. In 2010, I gained my Masters licence and worked as Chief Mate and Master on AHTS vessels. In 2012 I went into Client Representative, Marine Representative and Marine Warranty Surveying roles, again in the offshore industry, working on construction vessels, Dive Support Vessels and AHTS.

“In August 2017, I applied for the Master position with Trinity House. After a successful interview process and familiarisation period, I joined THV Galatea as Master; I feel very proud to be working for such an honourable organisation steeped in history.”

Promotion to Captain
Captain Ben Lankester has recently been promoted to Master, taking over Command of THV Patricia from Captain Richard Eggleton.

“I began my career with Trinity House in 2003 as a 3rd Officer. Following a cadetship on dredgers, THV Patricia with all her grandeur and splendour was a welcome treat. I spent 18 months here learning my trade before getting the opportunity to bring THV Galatea into service. Being involved with developing new working practices was both challenging and rewarding.

“During this time I developed Dynamic Positioning operator skills while carrying out routine work and also contract work such as generator removal from wind farm turbines. The introduction of multi-beam survey capability on board THV Galatea was a big step forward for us and one that I became closely involved with and has since become a big interest of mine.

“After an enjoyable time on THV Galatea and promotion to Chief Officer, I was promoted to Commander on THV Alert. This was a major turning point in my career. My first experience of being in charge was made easier by all that I had previously learnt. This was where I was able to develop my ship handling skills to a good level of confidence and understanding.

“I have now made it full circle and have been promoted to Captain on board THV Patricia. Into my 13th year with Trinity House, I’m looking forward to the future and all it may bring.”
Charity update

The Trinity House Maritime Charity has been busy not only with major and regional grant awards, but also with a key role in a major review of the maritime welfare charity sector in the UK.

CHARITIES GROUP REVIEW

MCG publishes the Navigating Change report

The Maritime Charities Group (MCG) has produced a review of the UK maritime welfare charity sector.

Trinity House—in its capacity as a maritime charity—is a member of MCG, along with a great many other high-profile maritime charities working to research new directions and requirements for the future of the sector in the UK.

The Navigating Change report presents the findings of a major new research project reviewing current and future needs and demographics of UK maritime beneficiaries, as well as the support offered by the UK maritime welfare charity sector in light of the ups and downs of the period 2005-15.

Supporting seafarers

Few studies have brought together research on the needs of the maritime sector as a whole, covering the Royal Navy and Royal Marines, Merchant Navy and Fishing Fleets, so in 2005 the MCG members jointly funded and managed a major research project to examine the support provided by maritime welfare charities matched against potential future needs across the whole sector. The resulting Supporting Seafarers and their families: Challenges for the Future report (2007) concluded that a number of existing charity practices needed to adapt to meet the current and future needs of the seafaring community, and included a number of recommendations.

Ten years on, the MCG wished to understand how the landscape and predictions for the future had changed in the light of those previous findings and recommendations. That decade saw large upheavals in UK society which resulted in increased pressure on charities, now facing reduced funding and increased demand.

A project was commissioned that aimed to assess the supply side of the equation: the maritime welfare charities which support maritime beneficiaries. This programme of work was aimed at assessing whether the UK’s maritime welfare charity (MWC) sector is fit for purpose, flexible and adaptive to the changing needs of its beneficiary population and operating at the forefront of innovation and good practice, in particular with regard to the delivery of benevolence and housing and in measuring impact.

The output for this research project is the Navigating Change: A Review of the UK Maritime Welfare Charity Sector report published in October 2017, a copy of which can be found on the Trinity House website.

Navigating change

Section 1 of the report explores the changing demography of maritime beneficiaries and shows that the population of seafarers and their families is currently larger and declining more slowly than previously thought. In 2015 there were 1.35 million people in the UK seafaring community, comprising 74,800 working seafarers; 258,000 former seafarers of working age; 357,000 former seafarers over 65 (including 67,000 over 85); 662,000 dependants (including 191,000 children) of seafarers; 298,000 of which are older adults; 13,710 Sea Cadets and 5,460 cadets in the Naval Service of the Combined Cadet Force.

Section 2 summarises how the needs profiles of different groups of maritime beneficiaries have changed in the last ten years and how they are projected to change in future: while the overall picture of seafarers’ needs remains similar to ten years ago, some groups of beneficiaries require greater support and may have more complex needs, particularly older Merchant Navy/Fishing Fleet (MN/FF) seafarers and their dependants. More support will be needed in the next ten-20 years to address financial issues, loneliness and isolation, dementia, limitations with daily living and longstanding illness.

Section 3 addresses the maritime charities providing support to beneficiaries in need and finds that the MWC sector is diverse, loosely defined and unevenly spread across different seafarer groups with the result that some beneficiary groups have more support than others.

Sections 4 and 5 describe the changing landscape and financial health of the MWC sector over the last ten years, and how the sector fared during the economic recession and other tumultuous events of the last decade: overall the sector stalled financially during the

“SEAFARERS ARE STILL AMONG THE LEAST VISIBLE OF UK WORKFORCES AND CONTINUE TO FACE MANY NEEDS UNIQUE TO THEIR OCCUPATION”
recession but, overall, it has a healthy bank balance with plenty in reserve.

Section 6 investigates housing and accommodation provision for seafarers and their families, finding that a crucial part of meeting future housing and social care needs will be collaboration and co-operation across the maritime sector and beyond, as well as adapting existing provision.

Section 7 describes the role and relevance of benevolent grant-making and Section 8 explores impact assessment among MWCs, discovering that while most MWCs receive feedback from beneficiaries, more structured impact assessment could provide a better understanding of beneficiary needs and help to raise the profile of a charity or cause by reporting its success stories.

Section 9 looks into the future and predicts that significant changes in the maritime world and society at large will impact on MWCs and the support they provide; they will need to review the fundamentals of ‘who, what, where, when and how’ they serve if they are to maximise their impact.

Section 10 concludes the report with a look at the top ten issues currently facing MWCs and their beneficiaries, the top ten issues which they might face in the future and some thoughts on how the MWC sector might rise to the challenge.

ARCHAEOLOGICAL DIG

Sarcophagus found at Trinity Village

In an unusual turn of events, the Corporation of Trinity House is now the proud owner of a 1,600-year-old sarcophagus after it was unearthed during an archaeological dig at a site being developed by the Corporation for new flats in the Southwark area.

The ancient coffin was found on Swan Street and Harper Road, near Borough Market, and was taken to the Museum of London’s archive for analysis, where experts examined the bones and soil inside. Trinity House has owned this property since we bought the empty farmland in 1661.

The sarcophagus is made of stone but it was probably plundered in the 18th century, as its lid was broken in two and it was filled with soil.

According to Gillian King, Senior Planner for Archaeology at Southwark Council, the sarcophagus was built into the walls of a mausoleum, and therefore the individual buried within was probably a member of nobility. She said: “We always knew this site had the potential for a Roman cemetery, but we never knew there would be a sarcophagus.”

The remains of a baby dating from the same period were found next to the coffin, so perhaps the mother was buried inside.

Although the sarcophagus had been disturbed quite significantly, analysis of the fill of the sarcophagus in December 2017 identified a diverse range of items. The main find was the partial skeleton of an adult female, with a number of baby bones nearby; many small fragments (more than 100 bags) of animal bone were recovered, as well as many small fragments (more than 45 bags) of pottery spot-dated to AD 250-275. A gold item (possibly a gold earring) and also an intaglio of dark jasper from a ring depicting a satyr walking with his lagobolon (a throwing stick) and an animal skin in his left hand and a hare or bunch of grapes in his right, probably dating to the 2nd century AD.

WIDER SUPPORT FOR SEAFARERS

Report on Fraternity involvement in Training Review

Rear Admiral David Snelson adds the following note about bringing in the experience of the Corporation’s extensive fraternity to help with a Training Review:

“Elder and Younger Brethren of the Fraternity will be aware that the Corporation has been trying to involve them further in the activities of the Corporation, particularly the activities of the Trinity House Maritime Charity.

“Following an evaluation of charity policy by the Corporate Board, it was decided to review that element of charity spend that goes towards the training of seafarers, which takes the lion’s share of the charity grants. A working group was set up which included the input of a small number of YBs who had specific knowledge or skills in the areas being discussed – particularly RYA training and superyacht training.

“At the meeting of the Corporate Board on 16 January a decision to shift some of the training budget to areas of seafarer training not hitherto supported by TH was taken. Sectors such as the offshore renewables industry, fishing and boat master’s licence (BML) holders are the areas being targeted. The first scheme to get under way will be an RYA Power Yachtmaster scheme proposed by Younger Brother James Stevens. The Thames Skills Academy—which undertakes BML training and is supported by Trinity House—is headed up by YB Julian Parkes.

“Other training areas approved in principle will be taken forward by Nigel Hope, Director of Training. He will be calling for assistance from YBs with particular sector knowledge.”
Care for Veterans

In July 2017 Trinity House awarded £12,828 towards the Care for Veterans’ Neuropsychology Unit, continuing our support for the charity which began in 2007. The hospital specialises in the rehabilitation and care of disabled ex-servicemen and women with acquired brain injury or degenerative neurological conditions such as Multiple Sclerosis and Parkinson’s. Their aim is to give the residents the best quality of life, in spite of their condition, in a home away from home environment.

The Outward Bound Trust

The same meeting also awarded £25,382 to purchase a new Rigid Inflatable Boat (RIB) for the Trust’s Aberdovey Centre, following on from previous grants that helped the Trust purchase boats and equipment.

At 6.5 metres in length and with capacity to carry 17 people, the new RIB will enable them to support improved marine safety for 8,200 young people, teachers and Outward Bound instructors across 49,000 marine people hours per year at their Aberdovey Centre.

Mission to Seafarers

Another July 2017 award for £18,000 went to fund a British Mission to Seafarers intern on the Falkland Islands. The purpose of the role is to provide an effective port welfare service providing physical, moral and spiritual support to seafarers and their families from diverse backgrounds and nationalities. Crucially the Centre will be able to provide a 24/7 service.

The Mission to Seafarers, founded in 1856, is the foremost port welfare charity for the shipping industry, providing emergency support, including transport and assistance once seafarers have been brought ashore.
CHARITIES WE SUPPORT: SAILORS’ CHILDREN’S SOCIETY

Help for disadvantaged children of seafarers

Sailors’ Children’s Society provides help to disadvantaged children of seafarers, funded via donations, legacies, local fundraising events, trusts and grants from bodies such as Trinity House.

Families come to us usually after a traumatic event such as bereavement, diagnosis of a terminal illness or the breakdown of a marital relationship. While we recognise we cannot give a family their old life back, we aim to help them build the life skills necessary to cope with their new circumstances and move forwards again for the benefit of the children.

We provide support in a number of different ways including:
• child welfare grants to allow children to participate in childhood activities such as Brownies, Cubs, music and sports lessons or simply to help with day-to-day children’s expenses;
• clothing grants to provide a new school uniform and a winter coat and shoes;
• caravan holidays for families in need of a holiday for a week away from the stresses and strains of daily life;
• home computers for families who need access to a computer at home for educational and social use.

The team at the Society also provide a sympathetic ear, emotional support and offer links to specialist organisations when needed.

Find out more, at www.sailorschildren.org.uk

REGIONAL GRANT COMMITTEES
Small-community focus

In the Cambridgeshire area, Trinity House donated £3,000 to Grafham Water Sailability (GWS) towards the purchase of a new boat. The objective of GWS is simply to encourage and enable people with disabilities of all types to participate in sailing and other water-based activities, and have the same enjoyment, freedom and fun as able-bodied sailors. Sailing presents unique opportunities for disabled people—the chance to achieve self-reliance and feel the exhilaration or peaceful relaxation of being on the water, and for competitive sailors the chance to compete on equal terms with the able-bodied.

In south Wales, Trinity House donated £3,000 to Newport Mission to Seafarers to improve facilities for seafarers at the Mission Club in Newport Docks by providing IT facilities.

In Devon, we awarded £3,000 towards the replacement of VHF pagers for Sidmouth Lifeboat, a self-funding independent lifeboat. Twenty-nine new pagers will help the volunteer lifesavers by improving communications and awareness. Sidmouth Lifeboat covers an area of approximately 150 square miles of sea between Axmouth and Budleigh Salterton, and all crew members are volunteers, on service 24 hours a day, 365 days per year.

Families get support and relief from the stresses and strains of everyday life.
Trinity House played a key role in London International Shipping Week 2017 (LISW)—the British maritime industry’s flagship event—by hosting its own demonstration event on Wednesday 13 September, attended by about 150 guests from various parts of the maritime sector.

Passing under Tower Bridge and arriving on berth next to HMS Belfast in the Pool of London on Monday 11 Sept at 0615, the crew of THV Galatea and other staff proceeded to set up a number of displays on the aft deck and the bridge that demonstrated the full range of the service it provides to the mariner, covering subjects such as navigation, engineering and operations, charitable works, research and development, commercial services and marine operations.

Addressing the aims and objectives of THV Galatea’s presence at LISW 2017, Director of Operations Commodore Robert Dorey spoke to the assembled guests: “Our aim in welcoming Trinity House puts on a show for LISW 2017

Trinity House flew the red ensign at London International Shipping Week 2017, the UK maritime industry’s flagship promotional event.
“WITH 95% OF TRADE ARRIVING IN THE UK BY SEA, THE SAFE PASSAGE OF THOSE VESSELS INTO AND OUT OF OUR PORTS … IS ESSENTIAL TO OUR PROSPERITY AS A NATION”

you on board this evening is to provide you with an opportunity to learn more about those roles and to talk to our personnel who run their individual aspects of the business on a day-to-day basis.

“I hope you will see the diversity of what we do as charity in benevolence, safety and training, while as a General Lighthouse Authority we determine and constantly review the requirement for aids to navigation and then maintain and service those aids across our areas of responsibility of England, Wales, the Channel Islands and Gibraltar.”

Lord Mountevans—Alderman, Chairman of Maritime London and a Younger Brother of Trinity House—followed those words with his own: “I would very much like to thank Trinity House for the significant effort involved in bringing this fine ship the Galatea into London for London International Shipping Week. A red ensign vessel in the heart of London captures very visibly, the fact that we are open for business…

“I am very proud to be a Younger Brother of Trinity House and to be a part of the fraternity which supports a wide range of charitable work; including benevolence in terms of caring for some of our more ageing ex-seafarers, through safety, which covers a wide remit in supporting various charities in getting the young and not so young to sea, to training, where £1 million a year is spent on supporting young people through Officer Cadets schemes as Deck Officers, Engineer Officers and Electro-Technical Officers. Not to meet Trinity House needs, but to meet the wider needs of the industry.

“But back to their role as a General Lighthouse Authority, in providing a service which we should never take for granted.

“With 95% of trade arriving in the UK by sea, the safe passage of those vessels into and out of our ports and the provision for safe transit of ships which come and go through our waters to the rest of Europe and beyond is essential to our prosperity as a nation…

“My message to Trinity House staff is that your work is, I assure you, very much appreciated by the industry and recognised as being vital to the safe movement of trade and through to the safety of each individual mariner.”

The event was partially co-sponsored by Norton Rose Fulbright, Standard P&I Club, Britannia P&I Club, UK Hydrographic Office, IALA, IMarEST and
the Trinity House Maritime Charity, who all had their own stalls at Wednesday’s event. Wednesday evening’s event on THV Galatea was preceded by a panel discussion at Norton Rose Fulbright’s office on the aftermath of a casualty, co-hosted by Trinity House. Safety at sea: managing the aftermath’ featured speakers considering a hypothetical scenario and discussing the key issues, risks, liabilities and responsibilities following a major maritime casualty within the UK Exclusive Economic Zone.

Outside of the main evening event, Trinity House hosted meetings and tours aboard THV Galatea for the Department for Transport, London Nautical School Sixth Formers, the Merchant Navy Training Board and the HMS Belfast sea cadet unit. Trinity House’s headquarters on Tower Hill also hosted a number of LISW-related maritime events.
Trinity House has had its ancient coat of arms redrawn by the College of Arms, ensuring the highest possible standard of our most recognisable insignia.

"I, the said Garter Principall King of Armes, have assigned, gyven, and graunted unto their Corporacon aforesaid such Armes as they may lawfully bear in those necessary affaires of theirs as shall seeme best: that is to say—argent, a plain cros geules, betwene four ships sable, the fore and top-sayles up, vnde underneath on a wreath of theyr colers, a demi-lion rampant, gardat, and crowned with a croune imperall or, in his right pawe an armynge sword argent, hylt and pomell or, langued and armed azure, mantled argent, doobled geules..."

Every once in a while, Trinity House has its coat of arms—its official insignia—re-drawn according to the above text; the passage is an excerpt from the Grant of the Corporation’s coat of arms made on 27 January 1573.

In 2017 we approached the College of Arms with a view to replacing our computer-drawn coat of arms with a professionally hand-painted interpretation of the 1573 grant; on 6 September 2017 the Deputy Master and the Secretary of the Corporation were invited to the College on Queen Victoria Street to receive the new coat of arms from Peter O’Donoghue, otherwise known as York Herald.

Deputy Master Captain Ian McNaught and Secretary Commander Graham Hockley were welcomed at the college and were delighted to be shown a number of historical ledgers containing hand-written descriptions and preparatory sketches for the Corporation’s heraldry going back many centuries. Thankfully we were also given the opportunity to correct a mistake in their records that had our date of incorporation as March 1513 rather than May 1514.

York Herald then presented to the Deputy Master the official coat of arms as a hand-illustrated ‘Library Painting’ on vellum; for general day-to-day use we have also been given a digitally illustrated version.

The history of the coat of arms is referred to in a book written by a past Deputy Master Captain Joseph Cotton in 1818, entitled Memoir on the Origin and Incorporation of the Trinity House of Deptford Strond; provision was made in the 1514 Royal Charter for a Common Seal to “serve and seal for the business and occasions of the said Guild or Fraternity”.

He suggests that it remained in use until the reign of Elizabeth I and goes on to say: “Although no record exists thereof, it is evidently exemplified upon the monument of Sir Thomas Spert, Knight (Comptroller of the Navy to King Henry VIII and founder of the Corporation), as erected by that body to his respected memory in the year 1622, in a separate and distinct shield from his arms.”

The shield consisted of a representation of a three-masted ship with a banner flying from each of the mastheads, presumably that of St George. “From this the arms in 1573... were unquestionably compiled in the improved spirit of that day.”

Captain Cotton then gives the text of the Grant of the Corporation’s coat of arms as received from the College of Arms and signed by Garter Principal King of Arms Sir Gilbert Dethick in 1573. These armorial bearings consist of a white shield bearing the red cross of St George; in each quarter there is a representation of a sailing ship of the Elizabethan period, in black, sailing upon the sea towards the observer’s left. Surmounting the shield is an esquire’s helm with white and red mantling and crest—a demi-lion, crowned and with its head facing the observer, in gold, holding a sword in the right paw.

The motto ‘Trinitas In Unitate’ is borne on a scroll beneath the shield.
The Armorial Bearings of
THE MASTERWARDENS AND ASSISTANTS OF
THE GUILD FRATERNITY OR BROTHERHOOD OF
THE MOST GLORIOUS AND UNDIVIDED TRINITY AND
OF ST. CLEMENT IN THE PARISH OF DEPTFORD STROND
IN THE COUNTY OF KENT

College of Arms
London

York Herald
Former Maritime Minister The Rt Hon John Hayes CBE MP joins the first Maritime UK trade mission onboard QM2 in Shanghai
Maritime UK brings together the UK’s shipping, ports, marine and business services industries to promote the sector, influence government and drive growth.

2017 was a critical year in the organisation’s development. Since the government’s Maritime Growth Study, we’ve grown in size and capacity. Last year built upon the solid foundations laid by members in their coming together to collaborate, and started the serious process of delivery.

Trinity House is a key component of the UK’s maritime sector, and joined Maritime UK in 2017. Together, the sector is making progress in raising its profile, speaking more clearly and compellingly to government, and fostering innovation—all to drive growth.

Policy, politics and profile
We act as “One Voice” for the common concerns of the sector—amplifying its profile, identifying common issues and promoting joint policy positions.

2017’s politics were as unpredictable as 2016’s, and provided a similarly valuable platform with which to engage and promote our collective interests.

We produced a cross-sector manifesto based upon individual member priorities (www.maritimeuk.org/manifesto), covering:
• Ensuring an attractive business environment
• Backing British
• Investing in connectivity and infrastructure
• Fostering an innovation nation
• Boosting maritime exports.
2017 saw the publication of our new study, delivered by Cebr, into the economic contribution of the sector. Launched in Parliament during London International Shipping Week, parliamentarians heard that the sector now supports just under 1 million jobs and contributes around £40 billion to UK GDP.

UK maritime productivity, employment, turnover and contribution to GDP have increased nationwide over the five years analysed. The report also found that there had been a 12.7% increase in turnover, a 6.6% increase in GVA and 3.9% increase in employment. It also showed that productivity per worker stood well above the UK average at £77,897, compared to £50,830.

We significantly increased our mainstream media coverage, including on television, radio and in newspapers—BBC News, CNBC, Today programme, The Guardian, Financial Times, Daily Mail, Telegraph, Express and Mirror to name a few. Mainstream media coverage means that the public and their representative decision-makers are hearing the maritime sector’s priorities alongside other sectors with more established public affairs records.

Maritime UK and its members continue to engage at the highest political levels, including at the Maritime UK-UK Government Ministerial Working Group on Maritime Growth. This group brings together ministers from all Government Department’s with a maritime interest, including Business, Energy & Industrial Strategy (BEIS), Transport (DfT), International Trade (DIT), Treasury, Defence and the Foreign & Commonwealth Office.

Round tables were held with the Treasury, the Department for Exiting the European Union (DExEU) and BEIS select committee chairs and meetings are planned with DIT to discuss industry’s
priorities for government export support. We also increased engagement with the opposition.

London International Shipping Week—organised by Maritime UK and its members—played host to a high-level round table at 10 Downing Street, chaired by the Maritime UK Chair and International Trade and Transport Secretaries, along with ministers from BEIS, DExEU and HM Treasury.

Promoting the UK’s maritime offer
We organised the first pan-sector trade mission with DIT to Shanghai, which saw the entire UK maritime offer being presented to Chinese customers on board QM2 (thanks, Cunard!).

Shipping Week brought thousands of global industry leaders to the UK, and we worked with government to organise an impressive array of 1-2-1s and round tables—linking customers with the relevant UK suppliers. We organised the first International Maritime Xchange at Somerset House, sponsored by ABP, which brought together predominately Chinese visitors with UK maritime companies from across the sector. This is a model likely to be repeated.

2018 sees the Commonwealth Heads of Government Meeting come to London, and we’re working with members and government to ensure we make the most of this high-profile opportunity to promote the UK’s products, services and investment opportunities.

We produced a number of Maritime UK promotional products, which can be seen on the website. The products continue to be distributed to target market diplomatic posts, and at trade shows and missions.

Work continues to scope opportunities for the entire sector, with a great deal of focus on the opportunities to be found within India’s Sagar Mala project.

Our working groups bring together all parts of the sector to collaborate on projects of importance and relevance to all our industries. One such example was the publication of the industry code of practice for maritime autonomous vessels, demonstrating that British regulatory know-how as well as technology, innovation and thought-leadership are creating the future of maritime autonomy.

Skills and careers
Career opportunities in the maritime sector are as broad as they are exciting. We have developed a pan-sector maritime careers portal to serve as a shop window for those careers: www.maritimeuk.org/careers

Members are developing a sector skills strategy that will identify the future labour needs of the sector, including gaps that industry and government must address together.

2018 is the Year of Engineering, and the maritime sector is determined to play its part in promoting the vast number of engineering opportunities across all industries.
We plan to attend a number of major career fairs, providing a strong and co-ordinated platform for individual maritime industries and their respective trade association to champion the careers on offer in their part of the sector.

Apprenticeships have been the buzz word of recent times, and the sector continues to develop new apprenticeship standards and encourage their adoption. During Shipping Week we launched a joint Maritime UK—DfT employer resource “Maritime Apprenticeships: Your Future, Their Future, Our Future”, including common misconceptions, FAQs and case studies. Thanks to the MSA and DfT for their help with the project.

Just as we work to get more apprentices, we are committed to getting more women in the sector, and an action plan comprising practical and robust steps will be produced to aid delivery.

**Industrial strategy and sector deal**

Maritime UK is co-ordinating the maritime sector’s bid in response to the government’s invitation for sector deal bids. More information: www.maritimeuk.org/sectordeal.

**Regional cluster development**

There is much interest in regional clusters at the moment, and we have a programme of regional cluster development, being led by Mersey Maritime. The cluster development programme will have two key elements, focused on both bringing together existing cluster organisations and establishing new organisations as vehicles of maritime growth.

By being brought together, clusters will be able to share best practice and consider any regulatory or policy requests that uniquely affect their role within the maritime sector.

The second key pillar of the programme will be the creation of a ‘service’ that is available for regions across the UK to support the creation and later development of new cluster organisations. The service will be based upon the experience and model developed by the existing cluster organisations.

Such a programme of new cluster creation and development will support Maritime UK’s ambition to deliver jobs and growth across the whole country.

**Final thought**

2017 was a year of real delivery, and one that has set a solid foundation for further delivery in 2018. We look forward to working with you to promote the sector, influence government and drive maritime growth.

‘Everyone home safe’ is the mantra and vision behind the latest health and safety initiative within Trinity House and it is the banner that supports the introduction of our Fair Safety Culture and Lifesaver Principles.

In the event of an accident or catastrophe, it is not uncommon to see a blame culture arise, wherein accusations are followed by retribution, quite often unfairly so and not based on facts or first-hand observation. A Cherokee saying goes ‘Don’t judge a person unless you have walked a mile in their shoes’. Unfortunately, the blame culture can permeate into the workplace and in some organisations people can be hesitant to take notice of or speak up about conditions that might need improvement. People can be reluctant to report errors made by others, especially if they think it will get that person into trouble, or they may get into trouble themselves for telling tales.

See no evil, hear no evil, speak no evil? Although the Wise Monkeys of Nippon portray an honourable philosophy, this approach is not effective in identifying potential issues and improving health and safety.

Our Fair Safety Culture is an established process based on the ‘Just Culture’ principles applied in healthcare, rail networks, aviation and many other industries. It is a culture where it is recognised we are all human and no matter how good or clever we are, we all lapse and make mistakes at times. It is a culture where people are not punished for actions, omissions or decisions taken by them, which are commensurate with their experience and training, but equally where gross negligence, wilful violations and destructive acts are not tolerated.

Getting the job done by frightening employees with disciplinary procedures or with threats of suspension or dismissal is never good for performance and it simply discourages people from reporting any kind of mistake or issue. This has the consequence of reducing the flow of essential safety information and may even promote safety mis-information. Such a situation does not allow proper analysis of safety performance and unsafe situations can often emerge from the shadows.

It is therefore fundamentally important to continue with the encouragement and development of an environment in which occurrences and misdemeanours in safety rules are reported and the necessary processes for investigating and developing preventive action, such as reviewing work systems, coaching, re-training, improved supervision are put in place. It is all about getting the best from people, empowering them to make a difference and improve their performance as well as that of Trinity House.

This Fair Safety Culture does not mean absolute protection of individuals in the event of incidents and accidents. This is not a ‘no-blame’ culture. Nobody can be above the law and interpreting acceptable or unacceptable behaviour or actions remains the responsibility of management, but our Fair Safety Culture offers a post-incident structured process that managers can follow to achieve a fair and equally applied outcome and commensurate to the root cause. The process is tailored to promote consultation, coaching and training outcomes, only resorting to punitive measures in the most serious cases of gross negligence or willful misconduct.

This Fair Safety Culture process encompasses much that we have already achieved and reinforces our near-miss reporting system. It also establishes twelve safety ‘rules’ called our ‘Lifesaver Principles’ and these are based on the ‘dirty dozen’ causes of serious accidents that have occurred in Trinity House over the last ten years.

Trinity House has a strong safety management foundation and a good safety record, with managers and employees already on board and seeking proactive improvements in health and safety and we could not move onto this formal process unless we had.
Safe working on THV Patricia as the workboat is deployed
RMS Queen Mary The Final Voyage
edited by Richard Tennant, Michael Gallagher and Miles Cowsill
Ferry Publications, hardback, 288 pages, £24.95
ISBN 978 1 911268 10 9

Profusely illustrated, this tells of RMS Queen Mary's final voyage from Southampton on 30 October 1967 to Long Beach via Cape Horn. After 31 years' operation for Cunard, the famous liner was sold in 1967 to become a floating hotel. She has been in America longer than she was under Cunard. Her delivery voyage was commanded by Captain John Treasure Jones whose reminiscences of that voyage are extracted here in marking the termination of an illustrious career.

Having signed over the ship to the City of Long Beach on 11 December 1967, both he and ship retired the same day.

In addition to the introduction and Captain Jones’s contribution, seven chapters tell the history of the vessel and feature over 200 photographs with valuable archive material. The Finale, Epilogue and the final 100 pages bring together valuable appendices of subsidiary information.

The Trinity House connection? It is safe to say that the Fraternity has been well represented down the years with Cunard.

Life and Death on Little Ross
by David R Collin
ISBN 978 1 84995 359 7

On the Solway Firth, Little Ross is an attractive and unspoiled island and its lighthouse, created by Alan Stevenson in 1843, was automated in 1960. Here is recorded a community's battle to have the lighthouse built against opposition. David Collin brings to the fore the story of the island, its lighthouse, its keepers and families as well as the ships and crews wrecked near to Little Ross island. Collin also provides extracts from a keeper's diary written on the island during the Great War.

As with most seamarks they rarely make headline news except when danger or upset occurs. In this case, in 1960 a murder at the lighthouse brought it widespread notoriety, to the grief of all involved. The author was at the island on the day of the murder, and was a witness in the High Court trial that followed.

Without doubt this is a valuable social document.

As expected, the index provides many references to the General Lighthouse Authorities of these islands.

The Curious World of Samuel Pepys and John Evelyn
by Margaret Willes
Yale University Press, hardback, 282 pages, £20.00
ISBN 978 0 300 22139 8

Here are intimate portraits of pivotal Restoration figures during one of the most dramatic periods of English history: Samuel Pepys (1633-1703) and John Evelyn (1620-1706). Both were close friends, diarists, and commentators of the arts, politics and culture of their times. Pepys the administrator, Clerk of the Navy Board near Tower Hill, and Evelyn the much-travelled horticulturist. Each was close to the centre of the establishment with influential friends and witnessed an age of regicide, revolution, plague and fire, and saw these times as of literary opportunity.

An informative and well-researched volume, believed to be the first full portrait of the two men's friendship, greatly assists our understanding of their times.

Of the Trinity House connections: Pepys was Master in 1676 and 1685. Evelyn was a Younger Brother, admitted in 1673 at a time when the House had recently arrived in the City (1660) only to be destroyed in the Great Fire, although its Hall and Almshouses remained at Deptford until the 19th century.

Please note that we regret we are unable to take orders for the above publications.
Every year, Trinity House holds a competition for photographs of our lighthouses. Trinity House selects 12 photographs of lighthouses entered as part of this competition to be included in the annual Trinity House lighthouse calendar.

The overall winning entry receives a £200 gift card for use at John Lewis Partnership stores. To find a winner, we post the winning images online and ask the public to vote for their favourite.

Photographs must be of one of the following Trinity House lighthouses: Alderney, Anvil Point, Bamburgh, Bardsey, Beachy Head, Berry Head, Bishop Rock, Bull Point, Caldey Island, Casquets, Coquet, Cromer, Crow Point, Dungeness, Eddystone, Europa Point, Farne, Flamborough Head, Flatholm, Godrevy, Guile Point East, Les Hanois, Heugh Hill, Hilbre Island, Hurst Point, Lizard, Longships, Longstone, Lowestoft, Lundy North & South, Lynmouth Foreland, Mumbles, Nab Tower, Nash Point, Needles, North Foreland, Pendeen, Peninnis, Point Lynas, Portland Bill, Round Island, Royal Sovereign, Sark, Skerries, Skokholm, Smalls, South Bishop, South Stack, St. Ann's Head, St. Anthony, St. Bees, St. Catherine's, St. Tudwal's, Start Point, Strumble Head, Southwold, Tater Du, Trefose Head, Trywn Du, Whitby and Wolf Rock.

Photographs can be submitted online at www.trinityhouse.co.uk/photographic-competition where terms and conditions can also be found.

Good luck!
January 1958
FOREWORD BY THE DEPUTY MASTER
CAPTAIN SIR GERALD CURTEIS KCVO

Flash is, I am sure a good idea. Its aim, very briefly, is to help you towards a better understanding and knowledge of our Service, to interest and I hope, in places, to amuse you.

It is not, of course, an original idea: many Organisations have their own Journals; but it is the first time in our long history that the Trinity House has made this venture.

Ours is a Service of great historical, practical and technical interest, but its nature requires the wide dispersion of its personnel. 1700 of us serve the Corporation in various ways and places—many leading austere, lonely and disciplined lives at isolated Stations on and around our Coasts. But, separated though we are, the activities of everyone of us are directed to one end—Service to the Mariner, and the object of this Magazine is to try, as it were, to bring us more together and to remind us that we belong to one Service.

We must wonder from time to time what is happening elsewhere in the Service and at the Trinity House, and what is being done to keep everything up-to-date, improve amenities, and so on. Flash will give this information. I welcome it, and wish it great success.

EDITORIAL (EXCERPT)
The question of producing a Trinity House magazine has been thought about for quite a while, and we have at last taken the plunge. The idea is to keep you all informed about what is going on in the Service—movements of personnel, building and reconstruction, technical developments, and items of general news.

Interspersed with all this will be items of a far less serious tone as you will see from the following pages.

Your reaction after reading through this magazine will probably be that it could be greatly improved; if so, we hope that you will try and help us with the improvement by sending in articles for publication. What are required are articles of every description—humorous, factual, poems, odd items of news, and even recipes on household hints; we may even start a correspondence column if we receive any sufficiently interesting letters.

TELEVISION NOTES
Not so long ago the six ratings on board a light vessel lived, cooked, ate and slept in one compartment—the fo’c’l’sle.

Today separate cabins, galley, messroom, refrigerator, bathroom, and central heating are the rule rather than the exception.

These amenities have added greatly to the comfort of the crew but the latest innovation—television—has gone a step nearer to making the ship a home from home.

It is of course not possible for a luxury item of this nature to be provided at the expense of the General Lighthouse Fund and consequently the crew of the twentyone light vessels that have had television sets installed at the time of writing owe them to the generosity of various individuals and
organisations ashore, usually folks with some local interest in the lightships concerned. Sets have been promised for a further nine vessels.

The success of appeals for funds for this purpose is an indication that the good (but often unsung) work of the Light Vessel Service is not entirely unnoticed by the general public.

Trinity House has recently taken over the purchase of the £4 licence required for each station operating a television receiver, also the renewal of these and all existing licences.

The first light vessel to have television was the Breaksea, the set being a personal gift from the Mayor of Barry who said on 7th May, 1954, when presenting it: “This is the first television set to be installed in a lightship and I hope I have started something which will spread around the British Isles.” It has!

Donors range from individual well-wishers to such organising bodies as local branches of the Royal National Lifeboat Institution, Toc H and the Missions to Seamen. Mayors, Town Councils, Rotary Clubs, a Carnival Committee, a Fishing Vessel Owner’s Association, a Federation of Inshore Fishermen and a Ladies Club have also been responsible for local appeals.

April 1958
Rude Awakening

Mr. E. Whaley, now an Assistant Keeper in the Swansea District recently had an uncomfortable experience whilst serving as a Supernumerary Assistant Keeper at North Foreland.

Mr. Whaley was sleeping in the caravan used by relief Keepers at the station when at some unearthly hour early one morning it was blown over on its side by the severe southerly gale prevailing at the time. The door was jammed, being face downwards on the ground, and the only way out was through the small window. Fortunately Mr. Whaley appears to have suffered no ill-effects from his adventure.
Every issue I am hoping to offer you one or more recipes for less well-known items. The following is humbly put forward for your approval. I should very much like to hear of your recipes for various tit-bits, and they should be sent to the Editor.

PICCALILLY

**Ingredients:**
- 6 lbs. vegetables in all, onions, cauliflower, green tomatoes, marrow, cucumber.
- 3½ ozs. Mustard.
- 4 ozs. Loaf Sugar
- 2 Tablespoons Flour
- 1 oz. Turmeric
- 3 Pints Vinegar.

Cut up vegetables, spread on dish, sprinkle with salt (1 dessertspoon) and leave all night. Place vegetables with sugar and 2½ pints vinegar in saucepan and boil for ¼ hour.

Mix Turmeric, Mustard and Flour, with remaining ½ pint of Vinegar, pour into saucepan over vegetables and boil for 3 minutes, stirring continually.

Put into warm jars whilst hot.
July 1958
FIRST TIME
The first vehicle ever to reach North Stack Fog Gun Station, a large tractor, arrived there a few weeks ago.

January 1959
TRINITY HOUSE MOTOR TREASURE HUNT
The above event was held on Sunday, 26th October, starting from Hayes Common when fourteen members and their friends arrived to compete. A simple driving test was performed and surprisingly the drivers who failed appeared to be the most experienced in this type of event. After the driving test the successful competitors were soon off on the usual ramble through the countryside to finish, if not too confused by their devious routes, at the Old Barn, Hildenborough, where “mine host” awaited them to serve tea. After this pleasant relaxation the results were announced and the prizes presented by Mrs. Rawlings-Smith. Everybody appeared to have had a very enjoyable day and Mr. Rawlings-Smith suggested that there might be additional entries next year which would help to augment the pleasure of this event. Incidentally, are there any offers for organising next year’s event?

Of course such an outstanding event as a Trinity House Car Treasure Hunt could not pass unnoticed by the village life of Britain. The rendezvous at Hever Station disturbed its serenity. These mariners on wheels peering in booking halls, gazing thoughtfully at railway trains and casting disdainful glances at British Railway luxury coaches have we believe caused the Station Master to contemplate his resignation as he fears the approach of a Light Vessel or Lighthouse on his beloved track. Finally, what has happened to the four charming ladies who graced the event at the start but did not arrive for tea?

Christmas 1959
OUR OLDEST PENSIONER (EXCERPT)
Recently I had the pleasure of visiting Mr. Thomas Ashby at his old cottage at Stones Green—some ten miles from Harwich where he lives with his wife (82) and three stepdaughters.

Mr. Ashby was 94 last May, and is the oldest living Trinity House pensioner, and I am very glad to say that, although a little frail looking, he is still hale and hearty, and manages to cultivate a vegetable garden of some 15 rods. Mr. Ashby’s sight is not as good as it used to be, but his hearing and memory are excellent, and many an interesting yarn he can tell of the days when he served in the old wooden Light Vessels.

Mr. Ashby was in at the birth of radio in the Service, for he was a Lamplighter in the East Goodwin Light Vessel (No.13) in 1898 when Marconi was experimenting with Wireless Telegraphy between this vessel and North Foreland. These experiments went on for two years. Senator Marconi himself spent a week on board, but was a very bad sailor, and spent much of his time at the rail. Whilst on board he wanted to send a signal to the Prince of Wales (later Edward VII) and Ashby asked if he could send it. The reply was that he could, if he knew the Morse Code. Ashby sat up all night learning it, and sent the signal next day. The Prince of Wales replied and sent each member of the crew ½lb of tobacco.

Mr. Kemp, Marconi’s right-hand man, told Mr. Ashby afterwards that he had given them the signal as the signals had increased threefold. Foreland sent a signal asking what they had done, it. The reply was that he could, if he knew the Morse Code. Ashby sat up all night learning it, and sent the signal next day. The Prince of Wales replied and sent each member of the crew ½lb of tobacco.

Mr. Kemp, Marconi’s right-hand man, told Mr. Ashby afterwards that he had given them the idea to make the first R/T condenser ever made.

Christmas 1959
ARTHUR GIBLIN (EXCERPT)
We are sorry to say Arthur Giblin passed away in August last year.

Giblin was a dark, lithe, swarthy, good-humoured little man, with dark flashing eyes, and gold earrings. His father was a horse dealer, who travelled much abroad, and spoke seven languages.

Giblin, however, had little taste for selling horses, and ran away to sea as a boy, and eventually joined the training ship “Warspite” and then the Light Vessel Service in 1920. He was a remarkably fit man, and two years before he died told me that he could still swim 30 or 40 lengths at the baths, ride a bicycle 100 miles or go down three flights of stairs on his hands. He often frightened his shipmates by holding an open razor in each hand and shaving both sides of his face at once! To see him working at the Blackwall Wharf, invariably with a razor-sharp mast knife stuck in his belt, one might have thought him to be a real tough character when he was in fact kindly and gentle.

Many times I have seen him cycling down the East India Dock Road to Blackwall on a tandem for the relief with a portable harmonium, harp or dulcimer slung on his back, and at the stern of this unainly vehicle was stuck his box of stores and kit-bag. He whispered the secret of his fitness to me one day, but guaranteed I would not adopt it. I think it very sound advice, and pass it on to readers of FLASH who I think may agree with me but will not adopt it, any more than I have.

Every night he boiled a quart of water, put it into a jug and squeezed half a lemon into it (no sugar!). On getting up next morning he drank a pint of it—cold—another pint before going to bed, and that was practically all he drank, very little tea, and never spirits or beer.
BUYING AND COOKING ONE’S OWN FOOD

THE TRADITIONAL LIGHTSHIP CUSTOM OF SERVICE, BECAUSE THEY ARE OPPOSED TO

It has been said that young seamen are reluctant to join the Light-Vessel Service, because they are opposed to the traditional lightship custom of buying and cooking one’s own food.

KITE FISHING

Having read quite a bit about the sea-fishing skill and know-how of those in the Light Vessel Service, and lest anyone should get the impression that they are the sole exponents of this art, I feel obliged to put in a word on behalf of Rock Keepers.

In very calm weather it is possible to practice still-fishing, with rod and line, from the set off, but, during rough weather and the winter months this becomes impracticable and kite fishing from the gallery takes its place. I think that this form of fishing must be almost unique to the Service and was probably evolved by a rock keeper. The kite is similar to that flown by any schoolboy and has about 100 feet of line attached to the tail, terminating in a length of wire to take the hook. Kites of varying size are used depending upon the strength of the wind. The ideal is one that will not fly too high, will take out all the kite line (about 300 yards) to clear the rocks and reach the known grounds, and yet will lift a twelve pounder clear of the water.

Kite fishing is really hard work, and skillful. Having baited the hook, usually with bacon fat, the tail line is dropped from the gallery and sufficient kite line is let out to leave the hook just clear of the set-off, the operator then walks round the gallery into the wind until the kite takes the air. The line must then be paid out and checked, alternately to keep the bait submerged; the faster the line runs out the lower the kite drops; on the other hand paying out too slowly may lift the kite too high. Various devices can be used to keep the kite flying into the wind. Almost invariably, towards the end of its run, the kite drops into the water; if on its back it will dive and may be left to come in slowly under water until it surfaces again, when it may fly if the right way up.

When a heavy swell is running, a ‘flat kite’ is difficult to handle, the line will suddenly streak out, and if the operator is not wary he will find himself nursing string burns on the palms of his hands, but at the same time he must check the run before all the line is paid out, or he will lose all his gear. Gradually the kite is worked back towards the tower and usually if a bite has been secured, the kite will rise sharply, then if the tide is running awkwardly the fish must be cleared and flown into the tower, or it will almost certainly be fouled and lost amongst the rocks. Quite frequently a good catch is made and flown in until the kite comes under the lee of the towers, when it may suddenly ‘die’ and the fish crashes into the masonry and drops off the hook.

Pollack and bass are the usual catch, but sometimes one may go as long as three or four weeks without a successful catch. Kite-fishing is truly a test of a fishermen’s stolid perseverance.

FIRST PRIZE

We are pleased to be able to announce that Mr. W.J. Lewis, Principal Keeper, at North Foreland lighthouse has been successful in winning first prize of £50 in the recent “Reader’s Digest” short story competition organised by the Seaman’s Education Service. This competition is open to all British seafarers no matter what rank or rating, and to win first prize is no mean achievement.

The story submitted by Mr. Lewis was entitled “My most exciting experience” and told of how he spent several days, including Christmas day, alone at Godrevy Island Lighthouse some years ago. Godrevy was at that time a manned station, and, with the other keeper having been taken ashore ill, Mr. Lewis manned the station single handed. The bad weather, loneliness, and his imagination all combined to make those days ‘his most exciting experience’.

HINTS FOR LIGHTSHIPMEN:

It has been said on various occasions that many young seamen are reluctant to join the Light-Vessel Service, because they are opposed to the traditional lightship custom of buying and cooking one’s own food.

At first sight, this does seem a trifle old-fashioned to men out of the Merchant Service, who have been accustomed to having three good meals a day from the galley with food supplied by the Company, and cooked by a professional cook—and the service and washing-up done by boys who have been signed off for this especial purpose, and are always known as “peggies”.

Let me just try to show any possible new entrants to the Lightship Service how wrong they are. One great feature of the lightship system, is the absolute freedom of choice afforded to the individual. Instead of coming off watch at eight bells, finding a meal of porridge, kippers and eggs and bacon every Thursday morning, or corn flakes, bloaters and liver and bacon every Tuesday—as the case might be—the lightshipman comes off watch to find a perfectly bare table every morning.

Given a clean start in this manner there is nothing to prevent the lightshipman from having exactly what he wants, irrespective of the day of the week and the chief steward’s standard menu. Many of us old hands have a slice of toast and

“IT HAS BEEN SAID THAT YOUNG SEAMEN ARE RELUCTANT TO JOIN THE LIGHT-VESSEL SERVICE, BECAUSE THEY ARE OPPOSED TO THE TRADITIONAL LIGHTSHIP CUSTOM OF BUYING AND COOKING ONE’S OWN FOOD”
margarine, instead of one of the stodgy meals described above. Not only is this less fattening for those of us who are developing a bit of middle-aged spread but it is also far cheaper—an important point when it is realised that lightsmen not only have to provide their own food but are also required to pay for it.

Another indirect benefit of the lightship system is also worthy of note. Whereas the merchant seaman turns in and sleeps as soon as he has eaten his meal thereby getting fatter and fatter the lightsman does not do so. By the time he has cooked and eaten his breakfast and washed up afterwards it is time to think about getting something ready for dinner, and so the temptation to oversleep is absent. If there are a few spare moments left over before going back on watch at noon they can be profitably used up in scrubbing out the galley and pumping up the fresh water with an occasional trip forward to get a bucket of coal as necessary.

Lightship crews also develop wonderful feelings of comradeship due to this system of feeding. With fresh supplies delivered only once a fortnight, it is inevitable that some items of food become, to use the newspaper jargon, “in short supply”, especially to a new man who is not accustomed to buying a whole month’s food at one go.

He must not worry, the old hands are always willing to help out with a gift of a few pork chops or a quarter of tea, or anything else that the new man wants. The feelings of kindness and generosity shown to first-trippers in this way are almost unbelievable, so much so in fact that I don’t believe them myself after more than thirty years in the lights.

July 1967
WHAT A RELIEF!
It may be a surprise to learn that 20 years have passed since Edward Ward and Stanley Cooms of the B.B.C. were marooned on Bishop Rock Lighthouse. The Keeper-in-Charge at the time was Mr. T.F. Beale, now Principal Keeper at St. Anthony Lighthouse.

Edward Ward, now Lord Bangor, and the engineer Stanley Cooms arrived at the lighthouse on Christmas Eve 1946 with the sea flat calm. The broadcast was to be on Christmas afternoon in the Round the World link-up prior to the customary Royal speech by H.M. King George VI. The narrator for the programme was Robert Donat. Mr. Beale says that to deaden the hollow sound of the tower, the broadcast was made from inside a tent of blankets rigged up in the Sitting Room.

The two B.B.C. men were to have landed Boxing Day but the weather broke, and in the event they had to stay for 28 days before being taken-off by St. Mary’s lifeboat. During his enforced stay Edward Ward made another broadcast during a “News” programme in which he referred to his bunk as a “stone sarcophagus”. Perhaps he wanted his mummy!
Autumn 1967
RADIO AND TELEVISION TOPICS
The D.J. on the Late Night Show on Radio One called up the Keepers at Bishop Rock Lighthouse on 25th October. This was the 80th Anniversary of the rebuilding and heightening of the tower. The D.J. chatted to the Keepers about their work and asked whether, as a last resort, they had 720,000 candles in reserve. The cheery reply from Russell Pape, Assistant Keeper-in-Charge, was “No, we run around with a ‘No, we run around with a ‘No, we run ’”.

Autumn 1967
ST. AGNES INCH
During his researches into the history of St. Agnes Lighthouse, Captain W.R. Chaplin (a retired Elder Brother) came across a letter dated May 5th, 1740, from Trinity House to the resident keeper Amor Clark, in reply to the latter’s letter which unfortunately we haven’t got:

“From: Deputy Master, Captain John Werry, Trinity House, London.
To: Amor Clark, Scilly Light, St. Agnes.
Yours to Mr Whormby has been read to all the gentlemen of the board, which does very much surprise us. I am very sorry to see what you say about the grate sent you. I am very sorry you cannot be in your senses to write as you do, for we kept the model you sent us by us, and most of us saw it before we sent it away, and I do say it is exactly like the model, not one quarter of an inch bigger nor less than the model in every respect, except the Upright Barrs, which we thought proper to make them to be taken out or put in, if any should be burnt. The former dimensions you sent us for a new grate were your mistake, as you confess, in sending us small inches instead of great inches, and now you have made the model of great inches instead of small.

For my part I must own I never knew any difference in inches, I think all inches in England are alike, but perhaps you have inches at St Agnes different from all the rest of ‘Ye World’. It plainly appears to me you are mad, and if you continue so, we must send over another man to take care of the light. I do tell you that if the grate be not as it should be, it is your own fault in sending such a model, and now you are ordered, if any smith is to be had at St Mary’s that you bring him over to St Agnes, and let him make a grate out of that we sent you last as it ought to be, to please you if possible.

Be sure the Lighthouse is not set on fire, and that the glass be kept very clean. I perceive that you do not like the Welsh coals now, you say they will not flame. Altho’ you had no other formerly for years and no complaint then, yet you say now those coals made so strong fire, that had like to set the Lighthouse on fire, which seems to me a contradiction in itself, however, to please you if possible, although you have wrote us lately a very impertinent letter, we have agreed with a vessel to go to Sunderland to load about fifty Chaldrons of those coals for St Agnes, which you are to receive and see measured and send us how many Chaldrons she makes out.

I do advise you as a Friend to take care to the Light and keep the Glasses clean and make the grate according to your own mind (if it be possible a smith can be had) that we may have no more complaints, for I do assure you that you and your son will soon be removed if you go on as you do, and then it will be too late to repent.

It is for your Family’s sake I may say, and good Captain Rogers, that you were not turned out long since.

I desire you will take care for your Family’s sake;

I fear you give yourself so much to drinking that you make yourself unfit for any business, I have not else at present.

“I remain your Friend as long as you behave yourself well John Werry.”

Winter 1972
A WORD OF CAUTION FOR WOLF ROCK KEEPERS
You may have admired the drive and initiative of the two salesmen from that well-known baked bean company [Heinz], whose area covered the whole of Cornwall. Like all good salesmen they considered that every person should have the opportunity to sample their wares. They applied to Trinity House for permission to present some of their goods personally to the keepers on Wolf Rock, the most isolated part of their territory. They did in fact visit Wolf Rock, and found the trip both exciting and interesting.

I remain your Friend as long as you behave yourself well John Werry.”

Winter 1972
LIGHT SLEEPING
A letter in a recent edition of Tit-Bits from an ex-lighthouse keeper, Mr. P. Wood, stated that even though he had retired from the Service he still could not break the Service habit of waking at midnight and 4.00 am to go on watch.

Winter 1973
FAMILY TRADITION
We were pleased to hear from ex Principal Keeper D.P.F. Norton and think that you will all agree that it is no mean feat to have had such a family tradition of service to Trinity House.

“My great grandfather George Norton was Master of a Light Vessel. My grandfather retired as Master of the Seven Stones Light Vessel and my grandmother was one of the last widows to receive a pension from Trinity House. She died in 1910 and I can remember her telling me at that time the Masters received an allowance for victualling the crew.

My father, George Norton, experienced the longest overdue relief at The Wolf Rock Lighthouse in January 1915 (45 days).
An uncle, Harry Norton, retired as Master of the Breaksea Light Vessel and another uncle, Alfred Norton, retired as Principal Keeper from St. Anthony Lighthouse in 1923.

I had two brothers, Harry and John, who were also Lighthouse Keepers. I myself retired in 1959 after 39 years’ service. I joined the Service in 1920 after strict medical examinations (one a local and another in London). I served in the 1914-1918 war and eventually after a long wait I finally started training at Trinity House in 1920. The Experimental Room was known as the Black Hole of Calcutta. Mr. Lee was the Instructor and Mr. Hood was the Engineer-in-Chief. I then went to the Blackwall Workshops for a further period of training and was finally appointed as a Supernumerary Keeper for a period of 6 years. When we were not required for duty we returned to Blackwall where we acted as messengers carrying mail to Trinity House.

Friday was Board day and one of my duties was to carry the Superintendent’s coat and cap who at that time was Captain Hattersley. One day I tried the coat and cap on, but was caught in the progress of the Captain who informed me that it took more than a coat and cap to make a Superintendent!

I think it can be fairly said that the Norton family have a record of approximately 300 years’ service with Trinity House.

Mr. Norton’s overdue relief was seen as a challenge by many members of staff, and one keeper’s wife wrote the following:

From Mrs. A. Trezise, Shanklin, Isle of Wight.

“Thank you very much for the most interesting Flash received this month.

Re. Mr. Day the only man to spend a long overdue on Rock Lighthouse, I can recall when I was 10 years old, 1913, my Dad (W.J. Clay) and PK. W. Harvey Odden went off to Longships for six weeks (was six weeks on Lighthouse and 14 days ashore.) Both my Dad and the PIC were there for four months and 20 days, when brought ashore the boatmen had to help them as they were so weak (no fridges etc., in those days to keep their food). Bully Beef and ships biscuits to live on and if any baking powder left, baking powder bread. The boatmen even had to hire a pony and jingle to take the said men home. No doubt any other retired keepers or wives can relate long overdues.”

Winter 1974

MEMORIES OF TIMES PAST (EXCERPT)

We recently received a long and very interesting letter from Mr. S.D. Knox, an ex-Principal Keeper, who was born in 1886 and joined Trinity House in 1910, retiring in 1948 after serving on 6 lighthouses and experiencing 2 World Wars.

“Lots of changes have taken place since I entered the Service on the Lighthouse Staff, in the year 1910, when the wages were 17/6 per week, and free uniform and the victualling at Rock Stations at 1/9 per day, and strong discipline which was administered by the P.Ks. Without a doubt the present generation of Lighthouse Keepers today don’t know they are born, what with the “amenities” and big wage packets, and travelling about in comfort. Which was much different in the good old days of sixty years ago, when S.A.Ks. [trainee Supernumerary Assistant Keepers] used to sit in the shanty at Blackwall Depot waiting for orders to proceed to a certain station, for quarterly or sick duty.

You would arrive at your lodging, get a 5 ft. sailor’s bag packed with your belongings and set off for Poplar Railway station en route to Broad Street (Liverpool Street) and hire a hansom cab, and the driver would hoist the sailor’s bag on top of where he was sitting and you would direct him to Paddington or Waterloo, and a good mare would jog along, to get you on time for your train. No hold ups for traffic in those busy streets, as a hansom got priority, the public surmising someone of an official capacity sitting inside. [..]

I did enjoy the B.B.C. programme of The Bishop Rock Lighthouse in February last, as I was P.K. at the beginning of hostilities in 1939, a much different version of Tony Parker’s impression of the life of the Keepers of the present, to what we older Keepers had to live with in the old days.

A donkey’s breakfast to lie on in your bunk, no Aldis lamp, for morse messages. We had an antique lamp on the shutter style for more with on the venetian blind system. When going off on the relief you took garden produce off with you such as turnips, cabbage, carrots, potatoes, the former would only last about two weeks as they got withered. There were no tinned vegetables like we get today, and the same with the yeast. In my time you got your yeast from the chemists, and took enough to last two months. As soon as you landed on the rock, the ounces of yeast had to be put into a glass 1 lb. jar and filled with water to keep it fresh, and the water had to be changed every other day so as to keep the yeast fresh. The meat was put in a cask with salt brine until the later years when it was put in 1 lb. stone jars and simmered in the oven for four hours.”

Autumn 1974

GET WELL SOON

A personal message from the English and Welsh Grounds Light Vessel to Mr. J.S. Jaeger, District Clerk, Swansea Depot.

‘GET WELL SOON’

You sent us men with half a leg.
And once a Guy
With one eye
But we forgive
And hope you live
So please return
You are our friend
Our pay is small
So paying out
(Flowers)
will break us out
Sir, that is all.

Below: The landing at Wolf Rock Lighthouse with guests, 1911.
S D Knox centre
Trinity House is a charity dedicated to safeguarding shipping and seafarers, providing education, support and welfare to the seafaring community with a statutory duty as a General Lighthouse Authority to deliver a reliable, efficient and cost-effective aids to navigation service for the benefit and safety of all mariners.