



TRINITY HOUSE

flash

The Trinity House journal // Autumn 2018 // Issue 29

Going forward

We take a look at new ways to inspire and attract young people to the maritime industry

flash

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Onwards and upwards

I would like to thank all of the contributors who helped me compile this issue, which once again reflects a diverse range of activities and people in support of a forward-facing organisation. In this issue you will read about the 20th anniversary of the automation of the last manned Trinity House lighthouse and a global conference exchanging world-class aid to navigation technology and practices.

This balance between our unique heritage and our position as one of the world's leading aid to navigation providers should be evident throughout the issue, as should be our work as one of the UK's foremost maritime charities.

I hope you will enjoy browsing through this issue and I look forward to working on the next issue.

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Captain Ian McNaught

Deputy Master

A milestone moment for the forward-looking Fleet Review during the inaugural Maritime Safety Week complements two successful conferences about technological advancement and maritime skills and training

Perhaps a downside of being over 500 years old—if it can really be considered a downside—is that the accumulation of so many anniversaries makes it impossible to mark all of them. You will see at the end of this issue that we have attempted to pick a few major milestones out: anniversaries that relate to pilotage, almshouses, lighthouse automation, and the First World War.

But as anyone who knows Trinity House will agree, as proud as we are of our longevity and heritage, it is what drives us forward that really defines this organisation. As such, we were pleased with the Maritime Minister's endorsement of the conclusions of the Fleet Review prepared by all three General Lighthouse Authorities (GLA). The tri-GLA Fleet Review was initiated to identify the optimum number of ships and their capabilities needed to deliver the GLAs' statutory functions; it concluded that Trinity House requires four vessels of mixed capability to carry out our duties effectively. This is a milestone moment in a long-running project, and I would like to take this opportunity to thank everyone involved, before we start looking at how best to move forward with this mandate from the Minister.

It is also pleasing to note that the Minister, Nusrat Ghani MP, has taken such a keen interest in the work of the GLAs, visiting our offices and buoy yard at Harwich, and inviting us to set up a display in the Department for Transport headquarters during the first Maritime Safety Week in early July.

We were also honoured to accommodate a visit to Sark Lighthouse by the Master, HRH The Princess Royal in July; the Master, given her long-standing affection for lighthouse visits, had an enjoyable and informative visit to the recently-modernised lighthouse, which had lost none of its charm in the process.

The 19th IALA Conference took place at the end of May in the Republic of Korea and was very successful. Staff from Trinity House and the tri-GLA Research and Radionavigation team gave briefings and presentations as well as chairing a number of the thirteen technical sessions in front of a global audience; all were very well received and reflected



excellently on the UK as a driver of good management and technological advancement. I am happy to report that Trinity House was re-elected to the IALA Council.

Another successful gathering was the Inspiring Future Mariners conference in May, helmed by Commodore Bill Walworth CBE in his dual capacities as Elder Brother and Chairman of the Maritime Skills Alliance. Bill successfully gathered 75 people from inside and outside the maritime sector to discuss one deceptively simple question: 'Are we doing enough to inspire future mariners?' The attendees took a forensic look at how to encourage young people to take up careers in the maritime industry and drew up an action plan for moving forward; this is good news and a subject very key to Trinity House's work as a maritime charity.

Finally, we note the passing of Elder Brothers Lord Carrington on 9 July and Sir Adrian Swire on 24 August. Both enjoyed illustrious careers, Lord Carrington as (among other things) the Secretary General of NATO, Sir Adrian as the chairman of the Chamber of Shipping and the Swire Group. Both are remembered by the Court.

Van McNaught

Trinity House

Review of the last six months:

Looking back at highlights from Trinity House's calendar

MARCH 2018

Apprentices celebrated at Trinity House

During National Apprenticeship Week, which started on 5 March, employers and apprentices from across England came together to celebrate the success of apprenticeships while encouraging even more people to choose apprenticeships as a pathway to a great career. Just before National Apprenticeship Week, Trinity House hosted its own Apprentice Day at Harwich on 22 February 2018. All eight of our apprentices were brought together at Harwich for the first time, some travelling from our outstations at Swansea and St. Just, to share their experiences in the Buoy Yards, Field Operations, Planning Centre, THV Galatea, Supplies and IT.

Engineering and Operations Manager **Simon Millyard** said that: "A good day was had by all where studies were reviewed, challenges shared and progress celebrated".

The UK's maritime promotional body Maritime UK chose to lead the 'People, skills and careers' section of its Annual Review



Trinity House apprentices from Harwich, St. Just and Swansea come together to share their experiences

with an interview with **Jack Lawson**, a lighthouse technician apprentice with Field Operations West (based at Swansea).

Jack said: "Going through this apprenticeship has been so beneficial for me. Trinity House is a great company

and has met all my training needs. Every individual has their own path, but for me, as a hands-on person, an apprenticeship was definitely the way forward. If there are others thinking of this route, it is a great route to take!"



Maritime Minister Nusrat Ghani MP with Harwich Buoy Yard staff and Director of Operations, Rob Dorey

MAY 2018

Maritime Minister visits Harwich offices

On 17 May, Trinity House was pleased to welcome Parliamentary Under-Secretary of State for Transport and Maritime Minister **Nusrat Ghani MP** to its Harwich offices and Planning Centre.

The Maritime Minister was in the area to visit Felixstowe and Harwich Haven as part of a tour to understand ports and connectivity within the UK. She was then able to join three Trinity House Directors in the Planning Centre for a briefing on the role, responsibilities and key issues facing Trinity House as a General Lighthouse Authority (GLA).

Based within the operational headquarters, the Planning Centre set the scene for a discussion on Trinity House's role as a GLA providing a network of diverse marine aids to navigation, as well as its provision of risk response in Britain's busy waters.

JUNE 2018

NLV *Pole Star* helps out while THV *Galatea* in repair

In June this year, we saw the Northern Lighthouse Board vessel NLV *Pole Star* alongside in Harwich. This followed a period of covering the East Coast Trinity House areas while THV *Galatea* was alongside for a crane repair. During the period of cover, *Pole Star* was diverted to the south coast to tend to a drifted wreck marker buoy that had been positioned to protect shipping from abandoned nets, snagged on an old wreck. The nets were partially floating to a point where they presented a clear hazard to shipping. One buoy was adrift, which was spotted by the sharp eyed Officer of the Watch on *Pole Star*, and the buoy was then returned to its assigned position.

Once *Galatea* was fully operational and back at sea, *Pole Star* needed to come alongside in order to release some personnel for training and with the Trinity House vessels at sea, the Harwich Pier was available and an obvious choice, with the crew enjoying a change of scenery and the professional satisfaction of a workout in a new area.



NLV *Pole Star* alongside in Harwich



Captain Trevor Harris explains how the equipment works to the Maritime Minister

JULY 2018

Maritime Safety Week display

To help launch the Government's first-ever Maritime Safety Week (9-13 July), Trinity House was invited to set up a display about the importance of safety at sea in the Westminster-located headquarters of the Department for Transport.

The display was launched on 9 July by Maritime Minister **Nusrat Ghani MP** and stayed in place for the duration of the week. Alongside a model of THV *Galatea* and a series of videos explaining

what Trinity House is and what it does as both a General Lighthouse Authority and maritime charity, Buoy Yard Team Member **Paul Bailey** set up a display of LED lanterns, a RACON unit, an AIS unit and a 3-D printed model of a buoy superstructure.

Navigation Manager **Captain Trevor Harris** was able to explain the various pieces of equipment and how they are used to the Maritime Minister when she visited the display at the launch.

MAY 2018

Inspiring future mariners conference

Trinity House hosted a conference on 14 May bringing together 75 people from organisations both within and beyond the maritime industry, in association with the Maritime Skills Alliance; the aim of the agenda was to explore whether the industry is doing enough to attract the young talent it needs for long-term success, and to agree some practical steps to make more difference.

The conference was chaired by Elder Brother of Trinity House and Chairman of the Maritime Skills Alliance **Bill Walworth** CBE MNM, who began by asking the main questions of the day. The conference stimulated a lot of discussion and generated a series of points to take forward.

Read more about the conference on page 24.

Trinity House

Review of the last six months:

Looking back at highlights from Trinity House's calendar



JULY 2018

New branding

We have commissioned a new corporate identity to help us present ourselves as a modern corporation and which reflects our work as both a charity and a General Lighthouse Authority. The new brand includes a redesigned logo as well as fonts and colour palettes that are suited to a number of various activities at Trinity House.

The coat of arms, the highest-level insignia of the Corporation, will still be used where appropriate, but day-to-day communications, assets and stationery will bear the new logo in place of the blue logo dating from 2005.



HRH The Princess Royal presents Martin with his long-service certificate

JULY 2018

Martin Thomas celebrates 40-year service milestone with Trinity House

Congratulations to **Martin Thomas** on reaching an enormous 40 years' service at Trinity House. Martin had his long-service certificate awarded to him at Court on 17 July 2018 by **HRH The Princess Royal** in her capacity as the Master of The Corporation.

The Deputy Master offered his sincere

thanks and congratulations to Martin for his 40 years of service: *"I would like to congratulate Martin on reaching 40 years of loyal and great service to Trinity House. I hope he can enjoy the much-deserved celebrations with his colleagues. It doesn't seem enough to say it, but well done and thank you Martin."*



Trevor Kendall receives his certificate from HRH The Princess Royal

JULY 2018

HRH The Master visits Sark and Casquets Lighthouses

HRH The Princess Royal, in her capacity as Master of the Corporation, visited Sark and Casquets Lighthouses in the Channel Islands on 18 July, travelling by helicopter and then horse-drawn cart once on the island. The Master was escorted by the Deputy Master and met with a number of Trinity House staff and also **Trevor Kendall**, who retired as the attendant for Sark Lighthouse on 1 June 2018 after an incredible 25 years of service—she presented him with a certificate of thanks for his service. The Master also met with local parishioners and officials, and was sufficiently struck with the appearance of Sark Lighthouse to stop on the steps and take her own photo.



1 IALA ATON MANAGER AWARDS

Lighthouse Manager **Warren Clarke** and Senior Marine Superintendent **Captain Ross Chadwick** received their IALA Level 1 AtoN Manager module 3 certificates from the Deputy Master on 20 February 2018. **Bill Summers** also passed the level 3 module, while for **Alwyn Williams**, passing module 3 was the final element of the whole course and he will receive the full Level 1 AtoN Manager certificate.

Engineering and Operations Manager **Simon Millyard** has the distinction of being the first person to complete successfully all three sections of the Level 1 AtoN Manager distance learning course.

2 NEW VIDEOS

We have completed work on a suite of eleven videos that present various aspects of our work as a General Lighthouse Authority and maritime charity. Ten of the videos are around one minute in duration and focus on subjects such as cadet training, wreck marking, marine operations and the future of aids to navigation; these videos have a mixture of filmed footage, interviews and animation to help viewers understand the overall picture of what Trinity House is and what we do. We hope the bite-size videos will leave a more lasting impression!

To view these videos, please visit www.youtube.com/trinityhouseuk

3 HM THE QUEEN VISITS IMO

In March 2018, HM The Queen visited the International Maritime Organization (IMO) to mark the 70th year of its formation. During the visit, Her Majesty viewed the illuminated second order optic that was transferred from Orfordness Lighthouse a few years ago as part of the lighthouse's decommissioning process. Her Majesty originally opened its headquarters in 1983, so we hope she loved the new addition.

Her Majesty also saw an exhibition about the role of modern shipping before cutting a cake to mark IMO's 70th anniversary.

4 TRINITY HOUSE CADET AWARDED

Trinity House Cadet **Adam Willmott** received the Outstanding Achievement Award for the Deck HNC Programme at the Fleetwood Nautical College graduation ceremony. Adam is pictured with Trinity House's Director of Maritime Training **Captain Nigel Hope** and the Deputy Master **Captain Ian McNaught**

Well done, Adam, who is now a qualified Deck Officer after three years of hard work with Chiltern Maritime!

For further information on joining the Trinity House Merchant Navy Scholarship Scheme, go to www.trinityhouse.co.uk/mnss



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COMING EVENTS

A brief look at selected highlights from our forthcoming calendar

Annual National Service for Seafarers, St Paul's Cathedral

10 October 2018

The Annual National Service for Seafarers, organised by Seafarers UK, will take place at St Paul's Cathedral on Wednesday 10 October 2018. The Service is our opportunity to commemorate and celebrate all seafarers from across the maritime profession, alongside representatives of all sectors in the seafaring community. If you wish to attend, please contact Seafarers UK via their website at www.seafarers.uk/event/annual-national-service-for-seafarers

First World War tribute

11 November 2018

Sunday 11 November marks the 100th anniversary of the end of the First World War. By way of tribute, a series of unique events is being organised, including 'Beacons of Light'. This event is the lighting of 1,000 beacons around the country and is inspired by a comment made on 3 August 1914 by Britain's Foreign Minister, Sir Edward Grey, looking out of his office window at dusk as gas lights were being lit along London's Mall: "The lamps are going out all over Europe; we shall not see them lit again in our lifetime."

Trinity House has been asked to take part in this commemoration and the following Trinity House locations have been put forward: Heugh Hill (Northumberland), Flamborough Head (Yorkshire), Harwich Pier (Essex), North Foreland (Kent), St Catherine's (IoW), Portland Bill (Dorset), Lizard (Cornwall), St Ann's Head (Pembrokeshire), Start Point (Devon) and Cromer (Norfolk).

More information about this tribute is at www.brunopeek.co.uk

Elsewhere, as part of the national 'Battle's Over' commemoration, the Merchant Navy Association (MNA) is co-ordinating the reading of all the names of those who sacrificed their lives in the First World War and are commemorated on the memorial in the Merchant Navy Memorial Garden at Tower Hill, London. This event starts at 0600 and finishes at 1900 with a break for the memorial service from 1100 to 1230. To express your interest and arrange a time for your visit, please contact MNA at www.mna.org.uk

National Historic Ships photo competition awards

13 November 2018

Trinity House in London will play host to the

award ceremony for National Historic Ships UK's 2018 Photography Competition. Entries for 2018 are encouraged from all those with an interest in maritime heritage. All short-listed entrants will be invited to an award ceremony at Trinity House, London, on 13 November 2018.

For more information, please visit the website at www.nationalhistoricships.org.uk/photography-competition-2018

Carol Service

5 December 2018

The sixth annual Trinity House Carol Service is to be held at St Olave's on Wednesday 5 December 2018. It is open to the family of the Corporation: the Elder and Younger Brethren of the Fraternity, staff and their partners and beneficiaries from the Walmer almshouses. On conclusion of the service there will be a reception at Trinity House.

Staff Awards

30 January 2019

Trinity House will be hosting its staff awards at its headquarters on Wednesday 30 January 2019. Selected staff and contractors will receive awards for their hard work and achievements over the past year.

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:

Nicholas Lee Brown Esq, Lloyd's Register,
Director Marine & Offshore

Matthew James Cox Esq, Chief Executive Officer,
North Atlantic Fishing Co. Ltd.

Commodore David James Rees Dickens CBE RN,
Chief Executive, The Fishermen's Mission

Captain Andrew Gerald Moll RN Rtd., Deputy Chief Inspector,
Marine Accident Investigation Branch

Obituary

The Rt Hon Lord Carrington
KG GCMG CH MC PC DL

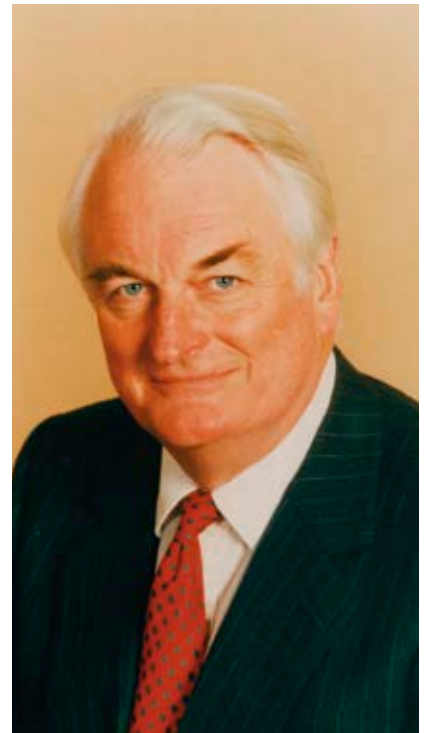
On 9 July 2018, at the age of 99. He was elected an Elder Brother in 1984.

Following Eton and Sandhurst he served in NW Europe gaining an MC and entered the Lords after the war. In 1951 he became an Agriculture Minister. After time as a junior War Minister he was for three years High Commissioner in Australia. In 1959 he became First Lord of the Admiralty. He was architect in 1979 of a Zimbabwe agreement that led to a ceasefire, elections and independence.

He failed to dissuade the MoD from withdrawing HMS Endurance from the South Atlantic in 1982, invasion by Argentina followed and he resigned. As Secretary General of NATO he strove for peace in the Balkans.

As an Elder Brother and member of the Court he frequently provided invaluable guidance to the Corporation, his advice being of particular assistance to the General Lighthouse Authority and to our charity activities.

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Obituary

Sir Adrian Swire
Kt AE DL

It was with regret that we learnt of the passing of Sir Adrian Swire, Elder Brother, on 24 August at the age of 86. He was sworn in as an Elder Brother in 1990, and was Chairman of John Swire & Sons in 1987 and in 2002-04; he is remembered as a significant figure in the maritime sector.

News of Sir Adrian's passing was received as we were going to press with this edition of *Flash*; a more comprehensive obituary will appear in the next issue.



ENGINEERING REVIEW
CAPE PEMBROKE VISIT

An island odyssey

Senior Technician (Civil) **Andrew Johnson** describes a visit to the Falkland Islands to advise on restoring Cape Pembroke Lighthouse to its former glory

Cape Pembroke Lighthouse is situated in the South Atlantic on East Falkland Island. The Falkland Islands Government is responsible for the repair and upkeep of the tower as a historical monument, which was badly treated during the 1982 conflict and had some superficial repairs (gaffer tape) to the dome and glazing.

Alison Barton is the Museum Manager with the Falkland Islands Museum & National Trust; she contacted Trinity House's Lighthouse Manager Warren Clarke to ask for some assistance regarding specifications that we use on our lighthouses. This was passed to me and I was asked to survey the lighthouse and assist with the repair specification to be sent out to tender.

Alison arranged my flight through the Falkland Islands Government and the RAF. I duly arrived on the Sunday evening for the flight, reached the guardroom only to find out the flight was to be delayed for 24 hours. The accommodation at RAF Brize Norton made Beachy Head Lighthouse appear luxurious but it was warm. My only mistake was leaving camp on an escorted pass; I nearly did not get back in!

The flight to Cape Pembroke was 20 hours with two hours for refuelling in the Cape Verde Islands. The flight was about half full so there was plenty of room to spread out, which was a good job because

the second leg of the flight was another ten hours. They kindly produced a moving map showing how far you have left to go!

Alison met me at the airport; once she had dropped me off at the hotel for a quick shower it was off to the museum for a lecture on Conner O'Brien and his boat, the *Il'en*. Very interesting it was too.

The next morning I visited the Falklands Public Works Department and was given a four-wheel-drive truck to get about in, so I headed off for my first sight of Cape Pembroke.

The lighthouse

Cape Pembroke Lighthouse, built in 1854, is a prefabricated cast iron tower shipped out from the UK. In 1906 the tower was moved inland 200m to its present position. The Falkland Islands Government (FIG) at present looks after the lighthouse, but it would like to pass it on to the museum. The museum would love to take it on but does not have the funds to repair the tower; this is where I came in. My task was to assist the museum and FIG to get the tower into a condition that the museum would be willing to take on.

After an initial meeting with the museum and FIG teams, I was given time to survey the tower. I considered my findings against the very comprehensive mechanical report which had been produced by Job Mtetwa, Design Engineer of the FIG.

A major issue at the base of the tower are several vertical cracks to the cast iron panels forming the tower wall. When the tower was rebuilt in 1906 and repositioned, it was given a concrete foundation along with a new cast iron sill. At that time they filled the base of the tower with mass concrete up to the new floor level. Unfortunately, no expansion joint was formed against the cast iron outer wall. Over the years, with the ingress of salt and water, this has led to the slight expansion of the concrete and subsequent cracking of the cast iron panels. The remainder of the tower has suffered from the ravages of weather, sea, time and vandalism.

On entry to the tower, it is clean and bright with white walls and a green staircase leading up to a watch room and lantern. There are very few original artefacts and the lens is badly broken with

“CAPE PEMBROKE LIGHTHOUSE, BUILT IN 1854, IS A PREFABRICATED CAST IRON TOWER SHIPPED OUT FROM THE UK. IN 1906 THE TOWER WAS MOVED INLAND 200M”





Clear blue skies and clean glass are both signs of the pure air

King penguins on Volunteer Point



Steel work in stunning condition due to the low relative humidity



only the frame and a few fragments of the glass lens left.

The glazing is in place but now has various cracked panels. The lantern was reglazed in the 1990s when it was also repainted by a local volunteer group, but not a lot has been done since 2000.

Going up, I reached the tower dome roof. This is perforated in places and has been temporarily repaired with foil tape.

Overall it gave a good impression. These types of dome roof were formed using thin double rolled steel petals, which were through-bolted to a wrought iron frame. The framework and guttering are complete, but until the tower can be scaffolded for repair, the full extent of corrosion damage to the dome cannot fully be gauged. Its condition was helped by the low relative humidity of the Falklands, but coatings suffer due to the high UV radiation found at this latitude.

My findings were reported back to Job, Alison and their teams. I feel my main help has been in my technical knowledge of the construction of the tower and the materials used originally and in subsequent repairs. While we still have some of the construction drawings of the tower, these are quite hard to understand when viewed without the practical

“WE ARE NOW INTO THE FALKLANDS WINTER, AND HOPEFULLY THE GOVERNMENT BUDGETS ARE BEING SHARED OUT; WITH LUCK, THE REPAIRS WILL BE UNDER WAY NEXT SEASON”

experience of dismantling and repairing the similar domes that we have in the UK. The coatings, which can be used for the protection of the tower, have vastly changed and improved over the years.

The repairs needed

One of the great things that has been done to make access to the lighthouse easier is a hard track which has been formed to the end of Cape Pembroke, enabling an easy drive from Stanley.

It has been recommended that the cast-iron sections should be repaired using a cold system involving stitching the plates back together with metal toggles. The worst of the damage was caused when the lantern was left with little glazing for a period of time. This allowed rain to pool at the tower base causing the concrete to expand; the glazing is now complete with minor damage. The roof dome looks

to be sound but has no paint left on it. The paint specifications that the FIG has for the lighthouse are a little dated so I recommended that they investigate the use of a product that Trinity House has been using. The final choice of paint product will depend upon the level of preparation that is possible to the cast iron as some of the existing paint will be bituminous, needing complete removal. The damaged glazing panels could be replaced in Perspex CC or glass. The dome, once scaffolded, should only need localised welded repairs. The lantern ventilator is constructed out of copper and in extremely good condition, with the small drainage holes at its base running clear.

The local scene

The Falkland Islands Museum is also well worth visiting, sat on the shoreline in Stanley, and includes some great exhibits on Shackleton, radio telemetry and farming and a superb diorama of the local wildlife.

I did have some time to enjoy the sights of East Falkland Island, the highlights being a visit to see the king penguins and being helped to find the grave of Frank Brookes, an uncle of mine. Also, the Queen's Birthday Parade was a traditional British event with a chance to meet the Governor afterwards at Government House.

The trip ended with Alison and her husband John, the local Government's Director of Natural Resources, taking me to a great local seafood restaurant. Many thanks to them for their hospitality. The trip back to the UK was easy with no delays and the crew wanted to be home as well so cut an hour off the journey!

We are now into the Falkland Islands winter, and hopefully the government budgets are being shared out; with luck, the repairs will be under way next season.



Queen's Birthday parade in Stanley



ENGINEERING REVIEW
FLEET REVIEW SUCCESS

Mission to protect

Maritime Minister Nusrat Ghani MP endorses the recommendations of the tri-GLA Fleet Review for maintaining an essential maritime safety service within our waters

Trinity House, along with the Northern Lighthouse Board and Irish Lights—which together constitute the General Lighthouse Authorities (GLAs) of the United Kingdom and Ireland—welcomes the endorsement of the Maritime Minister, Nusrat Ghani MP, of the conclusions of the tri-GLA Fleet Review.

The tri-GLA Fleet Review was initiated to identify the optimum number of ships, their capabilities and appropriate ownership and management needed to deliver the GLAs' statutory functions.

After exhaustive data collection and analysis, the tri-GLA Fleet Review comprehensively detailed all aspects of the delivery of the safety service provided within our waters by the three GLAs. It concluded that Trinity House—responsible for the waters of England, Wales, the Channel Islands and Gibraltar—requires four vessels of mixed capability to provide both risk response, incident intervention and routine planned marine aids to navigation (AtoNs such as lighthouse and buoys) maintenance and offshore support work.

The provision by the three GLAs of AtoNs and their ability to locate and mark wrecks and other hazards to shipping—as well as managing the risk of pollution of the environment—remains a critical safety requirement for the UK and Ireland, helping to ensure continuity of trade to both countries.

The tri-GLA Fleet Review also highlighted the close co-operation between the three GLAs which allows the co-ordinated planning of seven vessels, optimising vessel positioning and tasking to ensure effective coverage. This close partnership is critical to the GLAs' joint mission of protecting shipping, the mariner and the environment.

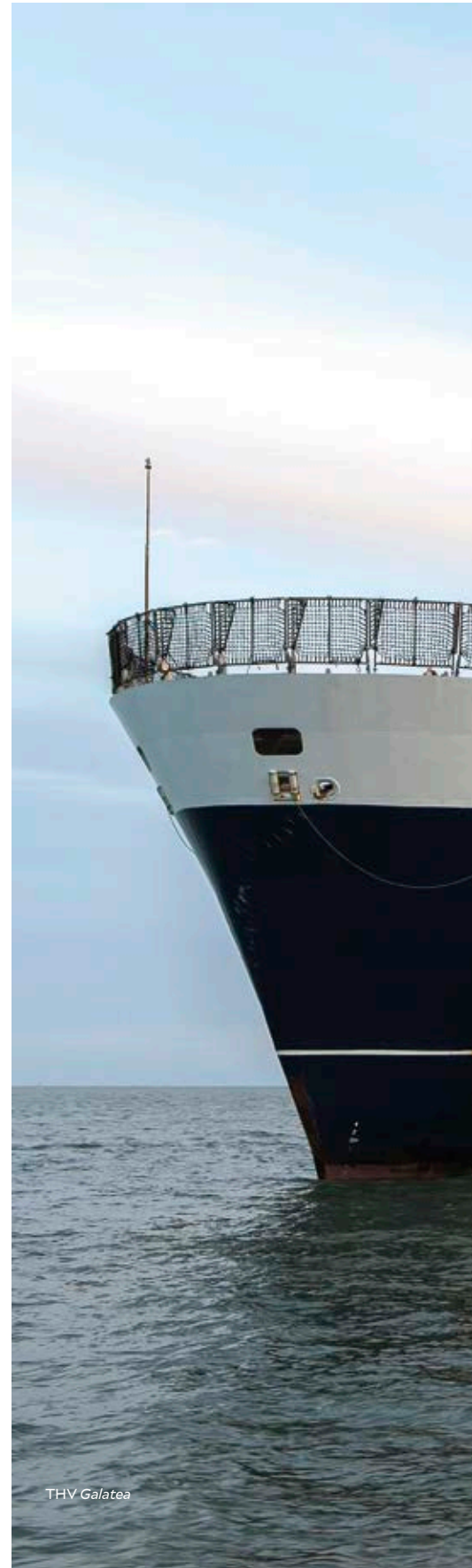
The announcement by Nusrat Ghani—made during the Department for Transport's inaugural Maritime Safety Week (9-13 July 2018)—is a gratifying result for the three GLAs after several years of research and consultation, supported by a number of independent investigations, between the three sister organisations and the Department for Transport, supported by input from other maritime organisations and in close dialogue with the UK Chamber of Shipping through the Lights Advisory Committee.

Trinity House's Executive Chairman, Captain Ian McNaught, welcomed the Minister's decision: "Speaking on behalf of our colleagues at the Northern Lighthouse Board and Irish Lights, I'd like to thank the Minister for supporting the conclusion of our Fleet Review. We have worked hard to create an evidence-based system that demonstrates very clearly that the safety of ships and seafarers in our waters requires a combined fleet of seven vessels.

"We are excited to start looking at how best to move forward with this mandate from the Minister. I'm also glad that this welcome news could be announced during the first Maritime Safety Week, which we are proud to support."

The Minister offered her thanks and recognition of the contribution made by the three GLAs: "I want to add a personal thank you to all who have been involved in any capacity in the project, as I believe it has already delivered significant gains. It has been a tremendous effort over a number of years from inception and as a result we are now in a far better place going forward.

"Maritime Safety Week is an ideal opportunity to highlight the GLAs and recognise the critical work which they undertake on a day-to-day basis."







The Trinity House team at Seawork International with UK Maritime Minister Nusrat Ghani MP
Below: Some of the THV *Alert* crew at Southampton

Trinity House in the spotlight

Commercial Manager **Lynn Pomares** writes about our high-profile exhibition of our commercial services at shipping industry showcase Seawork International

Seawork International is an annual exhibition and innovation showcase for the shipping industry. It offers buyers, legislators and influencers direct access to the commercial marine and workboat market and the most recent products and innovations. The 2018 exhibition attracted more than 7,500 industry professionals and 10,500 products and services, together with more than 70 vessels.

The 21st annual Seawork exhibition, held at Mayflower Park, Southampton, between 3-5 July 2018, was opened by the UK Maritime Minister Nusrat Ghani MP, with a speech focusing on the importance of the maritime sector, seafarer training, women in maritime and Maritime 2050, the long-term strategy for the future of the UK maritime industries.

As our Commercial projects continue to grow and evolve to meet the demands



of a changing environment, Trinity House committed to exhibiting at Seawork to create interest and discussion around our products and capabilities. The exhibition was an ideal opportunity to showcase our expertise in the marine sector and unique leisure services while raising awareness of our statutory role.

The Minister was greeted by the Deputy Master and took a tour of THV *Alert* prior to opening the exhibition where Commander Kris Askey demonstrated

functionality of the bridge systems. Our newly developed monitoring solutions were explained when the Minister visited the Trinity House stand.

The Trinity House stand, housed in Pacific Hall 4, showcased our services, demonstrating how our knowledge and expertise is used to deliver and manage a wide range of aid to navigation and vessel service projects.

A Type 2 Lightweight Aluminium Superstructure and the recently developed condition monitoring system dominated the stand, explaining how Trinity House can offer a high-quality remote 24-hour, 365-day monitoring service of aids to navigation using our Central Monitoring and Control System. A large screen displayed a snapshot of the monitoring capabilities, highlighting continuous checks to show that all systems (lights, audible warning emitter and battery voltages) were operational.

THV *Alert*, the largest vessel at the exhibition, was berthed at the deep-water pontoon. Commander Kris Askey and the crew of Starboard watch welcomed visitors on board, giving the opportunity to meet the team and learn more about her capabilities for hydrographic surveying and commercial services along with her role as a rapid intervention vessel.

Overall, the exhibition proved an excellent forum to increase and enhance the image and visibility of Trinity House, improve our understanding and knowledge of the market place while reaching numerous potential customers and identifying their requirements.

The Victory Walker

Commander Jane Allen RD RNR describes her epic (and ongoing) 5,500-mile 'Victory Walk' around Britain for the Women's Royal Naval Service Benevolent Trust and the Royal Navy and Royal Marines Charity

Although not from a seafaring family, I was born in South Devon, famous for its beaches and coves, so I think my love of the sea began as a young child. I recall watching Start Point Lighthouse with its familiar three flashes and ten-second pause visible from my grandparents' bungalow. On foggy days the moan of Start's foghorn could clearly be heard at that bungalow and on our neighbouring farm.

Life was simple. Our 'days out' were cliff path walks, and Start Point was one of our regular haunts. Being the middle of three children I was used to my own company, frequently spending time alone, which didn't worry me. I often mused about being a lighthouse keeper but being stuck on a lonely rock or headland was, at that time, considered to be the domain of men. And so that dream and another of becoming a Royal Navy seaman officer passed; the era when women routinely served at sea was yet to come.

Because of this, my life moved in another direction, but my love of the sea, walking and coastal paths remained. Therefore, my plan to conclude a 37-year career in the Royal Naval Reserve by walking the coastline of mainland UK seemed the ideal challenge. I'd start in 2017, the year the Royal Navy celebrated the centenary of the formation of the Women's Royal Naval Service (WRNS100), aiming to finish in 2018, 100 years after some women achieved the vote.

The choice of the two charities which will benefit from this challenge was simple. Firstly, the Women's Royal Naval Benevolent Trust (WRNS BT) because I'd

been the RN lead involved with WRNS100 during 2017. Secondly, the Royal Navy and Royal Marines Charity (RNRMC) because my husband Frank, a former Royal Marine, had been press-ganged into being my support team of one!

Thus on Trafalgar Day (21 October) 2017 I set off on the 'Victory Walk' from Admiral Nelson's flagship: an anticlockwise trek around the coastline of mainland UK.

There have been many points of interest along the way, of which one was passing the notorious Beachy Head in all its glory, after 100 miles of walking. North Foreland Lighthouse denoted a change of direction, and inland lights, such as Cromer, were at odds with my earlier vision of

lighthouse life. Flamborough Head was to be my Yorkshire highlight, but thick fog robbed me of any views. I finally moved into the Northern Lighthouse Board's area at the end of April, having walked 1,367 miles since leaving Portsmouth. Once in Scotland my leg muscles were soon tested on steep gradients near St Abb's Head!

I suspect it will be some while before I re-emerge into Trinity House territory, and even longer before I join the South West Coast Path. Here I will be eagerly looking forward to seeing Start Point Lighthouse again and remembering my childhood dreams. More importantly, I'll be on the homeward straight to Portsmouth where the tape awaits at HMS Victory.

To find out more about Jane's Victory Walk or to donate go to www.victorywalk.uk



Day 13: approaching Beachy Head



Day 71: Cromer Lighthouse on the golf course



Day 93: foggy day at Flamborough Lighthouse

“MY PLAN TO CONCLUDE A 37-YEAR CAREER IN THE ROYAL NAVAL RESERVE BY WALKING THE COASTLINE OF MAINLAND UK SEEMED AN IDEAL CHALLENGE”



19th IALA Conference 2018

Aids to navigation in a connected world

Trinity House attended the 19th IALA Conference with peers from around the world to exchange technological and management expertise through presentations and panel discussions

Trinity House and its sister General Lighthouse Authorities represented the UK and Ireland at the quadrennial conference for the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), of which it is a national member.

The 19th IALA Conference 2018 was held from Sunday 27 May until Saturday 2 June 2018 at the Songdo ConvensiA, Incheon, Republic of Korea, hosted by the Ministry of Oceans and Fisheries. The theme for the Conference was 'A New Era for Marine Aids to Navigation in a Connected World', and it was attended by 414 registered delegates representing 65 countries. The accompanying Industrial Exhibition had 49 booths and eight promotion booths.

Mr Kitack Lim, Secretary-General of the International Maritime Organization (IMO), followed an impressive cultural opening ceremony with a keynote address on the importance of safety at sea. He said: *"So much is said and written these days about shipping and the environment that I sometimes think the 'safety' side of the equation is in danger of being overlooked. Perhaps that is a reflection of the fact that those responsible for safety within the industry—and I include IALA among them—are doing such an effective job. But, while that may be true in part, it is imperative that we should never allow our focus on safety to be anything other than pin-sharp. Not only is safety a mission-critical objective in its own right, it is also a major contributory factor to a successful environmental performance."*

Among other opening remarks from IALA personnel and local dignitaries was a report on the IALA's activities over the last four years by Mr Francis Zachariae, Secretary-General of IALA. He said: *"The technical programme of this Conference is, of course, very relevant to IALA's work and I look forward to the many presentations and discussions of the coming days. They will no doubt inform IALA's efforts to fulfil its principal mission—that of ensuring safe ship voyages and the sustainability of Planet Earth by continuously improving and harmonising marine aids to navigation for the safe, economic and efficient movement of vessels."*

"Great care has been taken by the Conference organisers to present an exciting technical programme. This focuses on the latest developments and emerging



trends in key areas related to IALA's mission and aims—and to our role as a responsible international technical organisation to co-operate with other like-minded international organisations and concerned maritime stakeholders. Indeed, it is the will to co-operate and to share knowledge and technical expertise for the benefit of the maritime community and the protection of the environment which has always been the defining hallmark of IALA.

"In this time of terror and tension in the world, I often think about how privileged we are to work for an organisation that seeks to bring people together in a spirit of co-operation and compromise, and where understanding and mutual respect are so important—the recipe for the IALA Family.

"The fact that IALA reached its 60th anniversary last year is ample proof of its 'staying power' as a credible organisation in its field of expertise. By consolidating science, technology and best practice, our technical documentation is accepted worldwide as authoritative material. Furthermore, this authoritative status does not derive from a 'top down' approach. On the contrary, IALA is a connecting organisation that reaches out to people and organisations and brings them together to share knowledge and experience.

"This way of working is also very much the way of the World-Wide Academy, which has gained credibility in the world's key maritime regions in an astonishingly short period of time."

Over the next week, the attendees variously attended, presented or chaired a total of 94 technical presentations made in 13 technical sessions; Conference participants were able to see and discuss the latest developments in aids to navigation (AtoN) and Vessel Traffic Services (VTS) technology



in the large industrial exhibition, where a record number of IALA Industrial Members exhibited.

There were 13 Technical Sessions on Digital Communication and Information Management; Technical Resilient Positioning, Navigation and Timing (PNT); Visual AtoN and Energy Efficiency; Vessel Traffic Services; Managing risk; Maritime Domain Awareness; Marine Aids to Navigation in a Changing Environment; Future Trends; Lighthouse Heritage.

The Conference had a strong focus on the development and exchange of maritime digital information to improve the safety and efficiency of maritime transport. It heard that the use of Maritime Resource Names (.mrn) will be needed for the development of globally-harmonised data models to enable implementation of digital maritime services under the IMO e-Navigation Strategic Implementation Plan. The evolution of the existing automatic identification system (AIS) system into VHF Data Exchange System (VDES) was highlighted by a number of presenters as important for secure and reliable digital communications, together with other commercial satellite and

“NOT ONLY IS SAFETY A MISSION-CRITICAL OBJECTIVE... IT IS ALSO A MAJOR FACTOR TO A SUCCESSFUL ENVIRONMENTAL PERFORMANCE”





terrestrial communications services. There were also presentations on the practical use of existing public terrestrial systems for providing safety information to fishing vessels and leisure craft. Cyber security risks in data transfer will continue to grow, and cyber security precautions will remain vital.

Shore authorities in Europe explained how they share AIS data to support maritime domain awareness and how they are developing traffic management concepts to improve transport chain efficiency.

Effective and unambiguous VTS communications will require common phraseology, procedures and technology for voice communications, and harmonised data models and communications channels for digital information exchange. Revision of IMO Resolution A.857(20) Guidelines on Vessel Traffic Services will be necessary for this harmonisation and for a common global understanding and implementation of modern VTS services. This work is now on the IMO work plan and IALA input will be vital for the success.

In the sessions on PNT, the importance of resilience was underscored. Resilient PNT is vital for electronic navigation and underpins a variety of safety-related services. A mix of dissimilar systems is required to achieve resilient PNT and candidate technologies were explored. Autonomous vessels entering service now and in future will need assured positioning and automatic compensation for Global Navigation Satellite System outages or disruption. Satellite-based Augmentation System (SBAS)s, R-Mode, Radar positioning and eLoran are electronic systems likely to be used to help achieve the necessary resilience, but there is still no global consensus on a co-ordinated

approach for the maritime world.

The growing use of risk assessment by shore authorities to aid safe navigation was noted. While there is no single 'one size fits all' tool, IALA's risk management tool box has a set of proven, widely-used assessment programs. If used correctly, they can greatly assist aids to navigation authorities to evaluate risk and help coastal states to meet their international obligations.

Traditional visual AtoN signalling remains essential in waterways. Increasingly they are being supplemented by virtual electronic AtoNs for navigation and for emergencies or disasters. The conference heard of recent changes to IALA Recommendations for visual AtoN, of technical developments for practical installation, operation, and maintenance. These conclusions were supported by results of user consultation.

In the Best Practice session, many examples of AtoN and VTS service provisions were presented. All presentations and associated papers were very professional and informative and can serve as best practices for other AtoN and VTS authorities and manufactures.

Helped by many IALA members contributing display material and artefacts, an extensive exhibition of lighthouse heritage supplemented the technical sessions and industrial exhibition, tracing the development of lighthouses and lighthouse life. A national painting competition produced a wonderful array of award-winning paintings from schools across Korea. This exhibition was supported by a special Conference session on the preservation and complementary use of historic lighthouses and their real estate. Presentations explored the

cultural, technological, architectural and financial benefits gained from an active heritage programme.

The IALA Complementary Lighthouse Use Manual was published and is very appropriate in connection with the Lighthouse Heritage exhibition and the Incheon Declaration, an initiative of the Korean Ministry of Oceans and Fisheries, presented by the Director of the Korean Ministry of Oceans and Fisheries Ms Young-Shin Kim and the IALA Secretary General Mr Francis Zachariae and witnessed by the newly elected IALA Council.

Trinity House was re-elected to the IALA Council, with Deputy Master Captain Ian McNaught representing the UK.

There were also a number of special sessions on industry innovation, best practices and a technical visit to a buoy tender belonging to the People's Republic of China, and the IALA General Assembly Meeting and IALA Council meetings, made all the more memorable by a calendar of social events put together by the conference hosts and the Industrial Members.



1 2
Scenes from around the busy conference

3 4 5
The world lighthouse heritage exhibition organised by the Korean Ministry of Oceans and Fisheries and the National Lighthouse Museum

6
The newly elected IALA Council with Deputy Master Captain Ian McNaught representing the UK

7
Simon Millyard addressing the conference



BinoNav®: a new navigation system for maritime

Research and Radionavigation Manager **Martin Bransby** presents an important new device that will help provide resiliency in navigation

E-Navigation

Much has been written about e-navigation elsewhere, but briefly, e-navigation is the International Maritime Organization's (IMO) concept for the future of navigation, instigated by the UK Department for Transport in 2004. It will lead to the integration of systems and data, for the exchange of relevant geolocated information, faster and more cost effectively, and it will do this in the context of larger, faster vessels operating in ever more constricting shipping lanes and increasing offshore obstacles such as renewable energy infrastructure as well as the legacy of non-renewable energy infrastructure.

E-navigation is designed to enhance safety of life for the mariner, improve protection of the environment, increase energy efficiency in terms of shorter routing for fuel efficient shipping. Moreover, it will allow more effective use of resources and integration across transport modes, including the more effective provision of integrated port operations.

Since its inception in 2004, there has been slow progress in the development and delivery of e-navigation services. Even now, some 14 years later, only a few prototype projects have delivered anything like what the original e-navigation vision hoped would be delivered. Despite this, some initiatives have been successfully delivered on a local or regional basis and resiliency in Positioning, Navigation & Timing (PNT) has been identified by the IMO as a lead area in

the delivery of e-navigation, and all these initiatives have used Resilient PNT as the basis of what they have delivered.

GNSS vulnerability and the requirement for Resilient PNT

It is now well recognised that all Global Navigation Satellite Systems (GNSS) are vulnerable to interference, whether these interferers are from natural causes (Space weather and atmospheric disturbances), or from synthetic sources such as jamming or spoofing. GNSS component and satellite failures do occur and there are many examples of all the above occurring.

Resilient PNT information is needed to ensure continuity of maritime operations and safe navigation—especially for e-navigation, Sea Traffic Management and autonomous vessels.

NavStar Global Positioning System (GPS) jamming trials were conducted by the General Lighthouse Authorities of the UK and Ireland's (GLAs) Research & Radionavigation Directorate (R&RNAV) in 1994, 2008, 2009 and 2012. These trials showed the real-time vulnerability of maritime systems to jamming.

The GLAs, through R&RNAV, have conducted a programme of work that has

looked at the issues of GNSS vulnerability and what they can do about it through a series of studies. These have looked at a number of systems inter alia: enhanced Loran; absolute radar positioning; R-Mode; and, other on-board systems. This article deals with equipment that falls into the 'other on-board systems' category.

A driver for optical navigation systems

MV *Tricolor* Incident

On 14 December 2002, the MV *Tricolor* collided with a container ship in the Dover Strait Traffic Separation Scheme. The *Tricolor* was wedged on her side in 30 metres of water in a busy area of navigation.

The wreck was marked by buoys and guarded by vessels, thereby warning other vessels of the danger. Despite the marking and patrolling, only two days later a cargo ship, followed by another vessel, collided with the wreck of the *Tricolor*. In between the two further collisions, more buoyage and patrol vessels were deployed.

Besides the heavy economic losses, including the estimated operation cost of around £25m, the incident caused massive marine pollution and environmental

“A VERY GOOD WAY OF MITIGATING FAILURE OF ANY NAVIGATION SYSTEM IS BY USING REVISIONARY METHODS OF NAVIGATION, LIKE LOOKING OUT OF THE WINDOW!”



A standard pelorus

contamination by spilling large quantities of oil.

Why did it happen?

The incident was blamed on declining professional standards among seafarers. Ships were increasingly crewed by one trained officer and a few poorly paid sailors from parts of the developing world.

It is clear from the ensuing investigation that navigators were not looking out of the window, despite various warnings, not the least of which was deploying wreck marking buoys and virtual aids to navigation.

A very good way of mitigating the failure of any navigation system is by using reversionary methods of navigation, like looking out of the window! This was a big driver in the GLAs' development of the BinoNav®.

What is BinoNav®

Background and the pelorus

BinoNav® is an electronic pelorus. A pelorus is a device that is completely independent of any other system or Electronic Position Fixing System

(EPFS) and this is important for providing resiliency.

A standard pelorus (pictured above) is used to take relative (to the vessel's head) bearings to charted objects.

The navigator then draws a line on the relevant navigation chart bisecting the charted object. It is clear now that the vessel lies somewhere on this line from the charted object. This process is then repeated several times, with a minimum of three iterations. This process then creates a 'Cocked Hat' generated from the intersection of the lines. The vessel should lie somewhere within this cocked hat.

This process is time-consuming, but it does have the advantage of getting the navigator to look at real features outside the vessel! Not just a 'red line' on an electronic chart that they follow without question.

What about Electronic Chart Display & Information Systems?

Electronic Chart Display and Information Systems (ECDIS) are excellent when used correctly and have driven innovation in the shipping industry; however, they do have

disadvantages such as if you are using a pelorus, you cannot very easily draw on a screen. You can generate an electronic bearing line (EBL) on an ECDIS, but it is a convoluted way of providing a position not derived from an EPFS.

Any system that needs to generate an EBL on an ECDIS needs to do it electronically; moreover, it needs to do this without having to rely on GNSS for position or time to avoid the issues of GNSS vulnerability: it should be completely independent. It should also be able to carry out optical to electronic integration to ensure that the mariner is looking out of the window. BinoNav® fulfils all these criteria easily, intuitively and quickly, updating the electronic position of the vessel. Moreover, as it has a wireless connection, bearings can be taken anywhere on the bridge of a vessel.

BinoNav® features

How to use

BinoNav comprises two parts: the 'Bino' unit, which is a modified pair of binoculars, and a 'base' unit that performs the communication link between the Bino





unit and the electronic chart. Pick up the Bino unit from the base unit. Line up the graticule inside the Bino unit with a charted feature of use, press either of the buttons to automatically generate a line that is relative to the ship's head, on the displayed electronic chart. As with the standard pelorus, one needs at least another two of these EBL to generate a cocked-hat position on the electronic chart. Using either the touch screen, or the mouse, 'hover' over the cocked hat to generate a triangle. Now, right click to drop a marker at the centre of the cocked-hat position and delete all lines. Once the vessel has moved, this process can be repeated. When two or more of the markers have been dropped, a line is drawn between the marks, thereby showing a track on the chart.

Features

From the use of the BinoNav® unit as described above, a track is produced on an electronic chart that isn't derived from an EPFS. This is important as it shows the integration of visual navigation into e navigation, something which e-navigation has tried to do from the very beginning.

Another feature of BinoNav® is 'Radar mode' for charted feature recognition. This feature draws a continuously moving line on the display that points at the position relative to the ship's head. This is useful for the recognition of charted features when in unfamiliar territory.

Something for the future

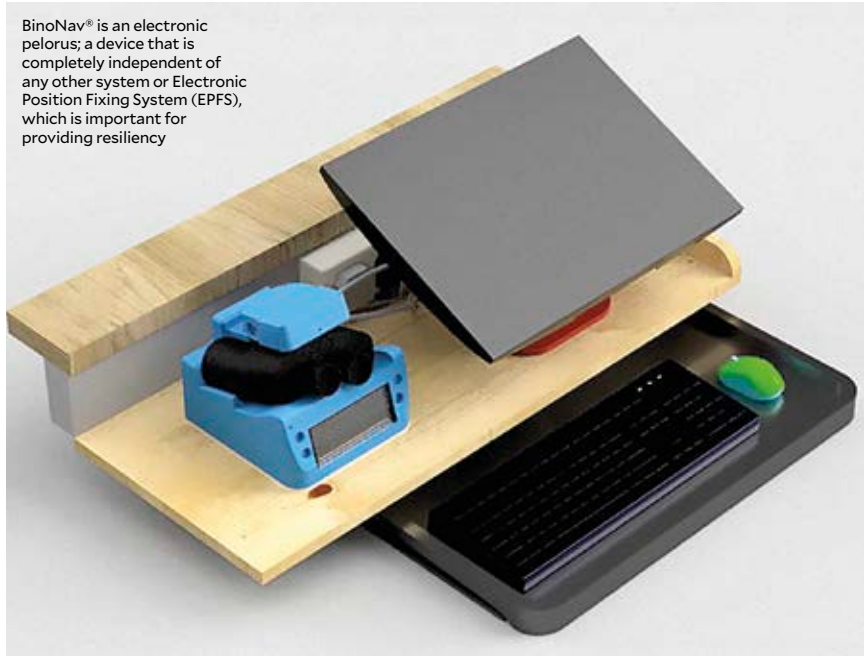
R&RNAV has received a lot of interest in the BinoNav® not only from its own mariners, but also from a variety of influencers in the maritime world. R&RNAV has had a great deal of positive feedback on potential improvements and additional features that it is taking in hand to develop further in the future.

R&RNAV will also seek to gain approvals through IMO and IEC to integrate BinoNav® with ECDIS, so there will be no need for separate displays (unless on non-SOLAS vessels).

Current GLA installations

The BinoNav® has been installed on all six GLA vessels.

BinoNav® is an electronic pelorus; a device that is completely independent of any other system or Electronic Position Fixing System (EPFS), which is important for providing resiliency



Conclusions

- e-navigation is based on the premise of electronic navigation from 'berth to berth'.
- Many accidents happen because crews do not look out of the window.
- There is a need for electronic positioning from non-GNSS sources.
- BinoNav® integrates visual navigation and electronic navigation through an ECS/ECDIS.
- BinoNav® provides an independent verification of position with or without EPFS.

Intellectual property

BinoNav® is a registered Trade Mark and has patents pending.

Acknowledgements

The author thanks the masters, officers and crews of all the GLA vessels for their help and for the benefit of their experience throughout the whole process of the BinoNav® development. Especial thanks go to those who helped during the various development trials on ILV *Granuaile* and THV *Alert* prior to the mainstream installations.

“THE RADAR MODE FEATURE DRAWS A CONTINUOUSLY MOVING LINE ON THE DISPLAY THAT POINTS AT THE POSITION RELATIVE TO THE SHIP’S HEAD. THIS IS USEFUL... WHEN IN UNFAMILIAR TERRITORY”

Charity update

The **Trinity House Maritime Charity** has been supporting seafarers not only through grant awards but also through pushing forward the conversation about how to inspire future mariners

CHARITABLE GRANTS



Merchant Navy Welfare Board (MNWB)

In September 2017, Trinity House awarded a grant of £40,000 to the MNWB for its Joint Welfare Vehicle Replacement project. This project continues to provide support for bonafide seafarers' welfare organisations by helping them to purchase port-based welfare vehicles for the provision of front-line welfare services. Such a requirement has increased over the past decade and is set to continue rising. During 2018 this grant will help the project to replace eleven port vehicles, including four cars, four MPVs and three minibuses; if each vehicle transports around 15 beneficiaries per day, then the project will benefit around 350,000 seafarers and their dependants per annum.

This was a joint grant with MWNB, Seafarers UK and ITF Seafarers Trust.

Sailors Childrens Society (SCS)

In April 2018, we awarded £15,000 to the SCS as joint funding for employing two Family Support Officers. Family Support Officers provide emotional and practical support to ex-Royal Navy and Royal Marines families around the Portsmouth and Plymouth regions, with a programme that empowers parents to tackle their issues and move forwards for the benefit of their children.

This was a joint grant with RNRMC and Greenwich Hospital. The Trinity House Maritime Charity also makes an annual grant of £48,000 towards the SCS's general works in support of mariners' children.



IALA World Wide Academy

In February 2018, we awarded £20,000 (across two years) to the IALA World Wide Academy, the training and capacity building of the International Association of Marine Aids to Navigation and Lighthouse Authorities. The grant will go towards the running of the Academy and the delivery of its Master Plan 2018-20, the focus of which is that "all coastal states have contributed to an efficient global network of marine aids to navigation and services for the safety of navigation, through capacity building and the sharing of expertise".

UTC Portsmouth

In April 2018, we awarded almost £10,000 to University Technical College (UTC) Portsmouth to send 60 students and four leaders on a four-day residential camp with youth sailing training charity UKSA. The camp teaches sailing, engineering and leadership through activities such as

windsurfing, keel boating, dinghy sailing, raft building, diesel engine maintenance, kayaking and more. Students range from ages 12 to 15 and develop new skills in teamwork, leadership, communication and increased confidence.



Sunderland Homes

In June 2018, we awarded £50,000 to the Sunderland Aged Merchant Seaman's Homes, which went towards the costs of repairing damp in the flats. The homes were established in 1840 to provide housing for seafarers and their dependants, and are today comprised of 32 one and two-bedroom flats. This grant is actually the third part of four, as the Trinity House trustees originally granted a sum of £50,000 per year for four years, to tackle the substantial and long-running damp repair issue faced by Sunderland Homes.

CONFERENCE

Inspiring future mariners

On 14 May 2018, 75 people from organisations both within and beyond the maritime industry attended a conference at Trinity House, hosted in association with the Maritime Skills Alliance, to explore whether the industry is doing enough to attract the young talent it needs for long-term success, and to agree some practical steps to make more difference.

The purpose of the gathering was outlined early on by conference Chair Commodore Bill Walworth CBE MNM, Elder Brother of Trinity House and Chairman of the Maritime Skills Alliance: how best to encourage school, college and university leavers to enter the maritime industry. How does the industry most effectively and appropriately reach out to influencers (schools, parents) to gain the attention and interest of young people so that they feel sufficiently inspired to steer their education choices towards a sector they feel well-informed about?

David Dingle, Chairman of Maritime UK and of Carnival UK, began a series of presentations by making the challenge facing the maritime industry: “we have a fantastic story to tell and by rights that should attract fantastic people” but we are repeatedly frustrated by the difficulty of getting our message across, despite a lot of effort. He emphasised that the task now is to attract talent, not just to fill slots. He asked whether we should be more joined-up in our recruitment approach, speaking more effectively with one voice and a clear view about our audiences, our messages and our delivery of those messages.

Next up was Professor Averil Macdonald OBE, who spoke on the subject of getting young women into engineering. Girls do study science, but the proportion of girls studying specifically physics at ‘A’ level has been stuck at 20% for 30 years; without it, no university will accept



The conference explored ways to attract the young talent the maritime industry needs for long-term success

them for engineering. She spoke about the perception by young women and influencers of different careers, who sometimes felt put off by the idea that engineering was ‘not intended for people like me’, and also put off by the masculine language used to advertise engineering careers. Interestingly, the most significant influence on a young woman’s career choices is their mother, who remains the person to convince that a career in engineering or maritime is going to be in her daughter’s best interest.

Cath Longhurst, Chief Executive of EBP South and the Basingstoke Consortium, spoke about the research into how children learn about careers; the “cognitive overload” they have to deal with and the fact that family remains the key influencer over career choices. Meeting people is

powerful, and so is experience of the reality of work. She stressed that the maritime sector is competing against other sectors and recommended that we make fuller and better use of the many existing careers initiatives rather than inventing new initiatives.

Mona Taybi, Acting Head of School at Platanos College, and Katy Peart, Deputy Headteacher at Winterbourne Boys’ Academy, highlighted the value of giving children real life experiences in the form of site visits: “most of our pupils haven’t ever been on a boat”.. They would be very keen to be offered funded trips and experience linked to realistic career options. They suggested that a good way to bring the sector to the attention of teachers was to get coverage in the *TES* (formerly the *Times Educational Supplement*).

Food for thought

Here is just a small selection of some of the great points raised during presentations and discussions:

- By concentrating too much on the initial years at sea, do we unwittingly show young people too narrow a view of the wide range of careers available in the maritime sector?
- Can we do more to get maritime (specifically sea-going) qualifications recognised by the wider industry?
- In Carnival UK’s fleet of eleven ships

“WE HAVE A FANTASTIC STORY TO TELL AND... THAT SHOULD ATTRACT FANTASTIC PEOPLE BUT WE ARE REPEATEDLY FRUSTRATED BY THE DIFFICULTY OF GETTING OUR MESSAGE ACROSS”

(two of them captained by women), 57% of the hotel sector officers are female; so it's not the case that 'women won't go to sea'.

- *"We've found companies are very cooperative"*.
- The World Economic Forum suggests that 65% of children in school today will end up in careers that don't yet exist.
- *"We all agree that the maritime sector is big, and good, and well-paid, so if we have a problem getting the right people, it has to be a communication issue"*.
- Children at school today "all want to change the world": how do we frame our careers offer to appeal to that desire?
- Maritime UK's Women in Maritime Task Force will shortly publish a charter inviting companies to make a number of commitments about the position of women in the maritime workforce.

Going forward

The conference closed by marshalling consensus on what the maritime sector needed to do going forward, taking into account the presentations and points raised through out:

1. No one dissented from two core propositions: (A) we need better coordination of the many existing initiatives and programmes and (B) Maritime UK should take the lead in that task;
2. If Maritime UK published guidance on frequently asked questions someone might expect when they visit a school to talk about maritime careers, it would give people more confidence in doing so. Maritime UK's Careers Promotion Forum will pick this up;
3. There are many existing maritime careers initiatives; it would be helpful to have a comprehensive list prepared; the Careers Promotion Forum will pick this up;
4. Could Maritime UK look at possibility of preparing an index of companies willing to arrange visits for school groups;
5. Careers Promotion Forum to review effectiveness and consistency of messaging aimed at young people;
6. Companies should make a commitment to supporting recruitment by releasing staff to do outreach, e.g. for half a day a year to go into a local school; Maritime UK will look into this.



Commodore Bill Walworth CBE MNM, Elder Brother of Trinity House and Chairman of the Maritime Skills Alliance



Professor Averil MacDonald OBE



Mona Taybi, Acting Head of School at Platanos College



CHARITIES WE SUPPORT: SEA SCOUTS

A nautical twist on young adventures

As Scouts, we believe in preparing young people with skills for life.

We encourage young people to do more, learn more and be more. Each week, we help over 460,000 young people aged 6-25 enjoy fun and adventure while developing the skills they need to succeed. This is only made possible by the generosity of over 150,000 adult volunteers.

Sea Scouts have a proud tradition within our movement. Formed in 1909, two years on from the first experimental Scout camp,

we now have more than 10,000 Sea Scouts who get involved in water-based activities such as sailing, canoeing, power boating, navigation, windsurfing, and narrow boating. We welcome girls and boys aged 6-25 and many Sea Scout Groups also incorporate naval and nautical traditions.

The skills our Scouts learn include navigation and sailing techniques, but also the employability and character skills like teamwork, leadership and resilience – skills that have helped them become everything

from teachers and social workers to astronauts and Olympians. Double Olympic Gold medal winning rower Helen Glover is a proud Ambassador and was one of the first girls in her Scout Troop.

We believe in bringing people together. We celebrate diversity and are part of a worldwide movement, creating stronger communities and inspiring positive futures.

Find out more at www.scouts.org.uk/seascouting

Funds help local sailing clubs and students

In the Chichester area, Trinity House donated £3,000 to the **Christian Youth Enterprises Sailing Centre** for the development and training of young people. This grant provided training for four trainees who achieved their RYA dinghy instructor qualification.

In north Wales, Trinity House donated almost £3,000 to **Llandrillo College's Marine Department**, which has commissioned a 22ft training vessel for providing on-the-water experience and additional qualifications for students interested in working in the leisure, workboat or fishing sectors. This grant enabled the procurement of electronic navigation equipment including a chart plotter, radar, wind speed indicator, depth transducer/temp, direction sensor and data repeater.

In Hampshire, Trinity House donated £3,000 to the **Spinnaker Sailing Club** for the purchase of an engine for a safety and support RIB. This RIB will be the safety and support boat for the development of the youth sail training programme that is already underway at the club, used to set courses, marshall the six dinghies, coach and umpire the racing and provide safety cover.

In Leicestershire, Trinity House donated £3,000 to **Rutland Sailability**, to purchase parts for their fleet of four Libertys which are in constant use and are used for competitions.



Trinity House's £3,000 donation to Rutland Sailability will help purchase parts for their fleet of four Libertys



Members of the Spinnaker Sailing Club celebrate the Trinity House donation



Royal Navy's Principal Warfare Officer's Course representatives visit Trinity House. Paul Walton left on the front row

An insight into our history

Our Local Aid to Navigation Manager **Joseph Anderson** writes up a day visit to Trinity House from the Royal Navy's Principal Warfare Officer's Course

On 26 June, twelve Naval Officers undertaking the Royal Navy's prestigious Principal Warfare Officers Course (PWOC) at HMS Collingwood came to visit Trinity House as part of a broadening of their knowledge of the nautical administration of Britain. Hosted by the Navigation Directorate, they enjoyed a tour of the house and briefings on both the navigational and operational work of Trinity House as well as a talk explaining the fraternal organisation, history and charitable works of the organisation.

The PWOC—while primarily intended to train up the future warriors of the Royal Navy—is also open to international officers, and they were represented on this visit by a French Officer and one Lieutenant from New Zealand. Also among their ranks was Paul Walton, a First Officer in the Royal Fleet Auxiliary and former sea-going officer of Trinity House. Paul—who started out in the Royal Fleet Auxiliary as a cadet—spent several years with Trinity House until the call for foreign ports sent him back to the Royal Fleet Auxiliary, where (I am sure thanks to his Trinity House experience) he quickly moved up the ranks and was offered a place on the PWOC. It was, of course, his idea to visit Trinity House when the course instructors indicated a week of visits to London, to both show and tell his colleagues about the work, history and mysteries of the Master Wardens 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, or Trinity House, as it's known to its friends.

On arrival, the officers were greeted by the Deputy Master who, also invited them to visit the Harwich Depot at some point in the future to take in the full Trinity House experience. Next came the tour by one of our expert City of London Tour Guides, Geoff Boyd. He was able to instantly and expertly answer every question posed by the visitors. The interest and surprise that followed each of his facts kept the tour entertaining and engaging.

When the tour finished in the library, Geoff was thanked by the officers and we proceeded down to the Prince of Wales Room for refreshments. It was noted that this was a warfare officer's course and not a navigator's course, as several of the guests lost their way on the short journey downstairs.

“THE BRIEF CONCLUDED WITH A BARRAGE OF QUESTIONS ABOUT THE FUTURE OF NAVIGATION AND THE POWERS OF TRINITY HOUSE”

Commander Graham Hockley gave a talk about the history, corporation, fraternity and charities of Trinity House and gave Geoff the tour guide a run for his money when it came to obscure and interesting facts.

The Navigation Manager Captain Trevor Harris gave a presentation about the Navigation Directorate and the other works of Trinity House, which touched on its regular work with the Ministry of Defence on all things relating to electronic navigation and beyond. The brief concluded with a barrage of questions about the future of navigation and the powers of Trinity House before the class had to get moving to make their next appointment in Portsmouth.

The officers will spend the next five months completing their studies at HMS Collingwood before being dispersed around the fleet to consolidate their studies on-board the frigates and destroyers that makeup the back bone of the Royal Navy. They can choose to specialise in above or below water warfare or in all aspects of electronic warfare loosely termed 'communications'. Once they have achieved full competence, they will take up positions as PWOs 'fighting the ship' whenever and wherever required.

If today's visitors reach command and beyond in the future, perhaps we will see some of them back at Trinity House one day in the fraternity, following in the footsteps of the many admirals and captains that have gone before.



From left: Russell Clarke, Gemma Lowe, Charlotte Thurlow, Karen Hanton, Marilyn Horne and Anna Sallis

STAFF PROFILE

The dues detectives

Continuing our look at various roles around Trinity House, the **Light Dues Team** describes the work of the team in our Harwich office

What are the main requirements of a Light Dues Administrator?

Tenacity, patience and an enquiring mind.

What does a normal day look like for the Light Dues Team?

Each month we input port records into our bespoke software, ALDIS; once we have the whole month loaded, we run a report that matches all the arrivals into ports around the UK and Ireland with the light dues certificates that have been issued. This leaves us with around 400 vessels a month who haven't paid for their general light dues or may have paid in the wrong country.

That's when we become detectives. We investigate each vessel to find out where it has been and why they haven't paid for a certificate. We find the right agent or owner for that vessel by using port records, social media, online search engines, historical records—anything that will give us some contact details so that we can find someone to question. Sometimes there are genuine

exemptions for the arrival, but there are many that forget or don't want to pay.

When we manage to elicit a payment, we then have the fun of identifying the money when it arrives in the bank account. As the light dues vary depending on vessel type and size, if we have no reference numbers with the payment, we have to determine which vessel the money relates to before we can allocate the funds.

At the start of April each year, fishing vessels and tugs are invoiced. This is still a manual process, folding and stuffing envelopes for around 1,100 fishing vessel and 190 tug invoices.

How has the Light Dues collection system changed over the years?

Since 2001, the issuing of light dues certificates has become electronic and 99% of the port records are now received by email so that we can upload the data into ALDIS. The team at Trinity House are streamlining all the query processes and are nearly paperless.

Timeless tales of a passion undimmed

The Association of Lighthouse Keepers' Joy Tubby marks the 30th anniversary of the charitable group's mission to bring like-minded pharologists together

The story of the Association of Lighthouse Keepers (ALK) begins with a recollection from Graham Fearn. In the late 1980s, Graham was Principal Keeper at Cromer Lighthouse, Norfolk – at that time the lighthouse was run as a Keeper and Wife station. Cromer Lighthouse was also the departure point for helicopter reliefs to the Haisbro, Dudgeon and Dowsing lightvessels, and also the Inner Dowsing Lighthouse off the Lincolnshire coast.

Neil Hargreaves was Assistant Keeper on the Inner Dowsing, and on one of his transits via Cromer he suggested that, with the onset of automation of lighthouses and lightvessels, soon there would be no keepers left in the service and that an old keepers' association should be formed.

Graham agreed that it would be good to have a medium of maintaining contact with personnel once they left the service. By the time Neil next passed through Cromer he had managed to get support from a couple of East Anglian-based keepers, and had arranged an initial meeting at Southwold Yacht Club. A couple of early meetings were held at Lowestoft and another in the heli-ops room at Cromer Lighthouse, and as soon as roles were allocated Graham found himself as the first Chairman of the Association of Lighthouse Keepers. By this time there were several serving and former keepers supporting their efforts and he suggested writing them a letter with progress on the initial musings; the letter was typed by Graham's late wife Audrey on an old typewriter.

Eventually Gerry Douglas-Sherwood



1988 ALK Committee, Cromer. Left to right: Audrey Fearn, Mike Berridge, Dawn and Neil Hargreaves and Graham Fearn



Gerry Douglas-Sherwood, Gordon Medicott and Tony Elvers at the Needles Lighthouse in 1991 and the subject of a BBC 2 documentary, *Open Space*

agreed to edit a more formal newsletter, and *LAMP* was born. Gerry was at that time Assistant Keeper on the Needles Lighthouse off the Isle of Wight. As a 'rock' lighthouse, keepers served one month on and one month off. Traditionally keepers on rock stations used to fill their off-watch hours with hobbies and crafts (model making, woodwork, ships in bottles etc). Gerry's off-watch hours were now filled

with the methodical thump, thump, thump as he bashed away on a typewriter to produce *LAMP*.

When Gerry came back ashore he would post his hand-typed proofs to a print shop in Norwich who would print *LAMP*, which Graham would then collect and mail to members. Gerry also designed the ALK logo, based on the Eddystone Lighthouse with a lens panel behind.

The early issues of *LAMP* had few pages, but as members saw what was being produced, further submissions were received by the Editor. *LAMP* was produced in black and white for the first few years—colour didn't arrive until the cover of the December 1994 issue, and today it is produced in magnificent full colour.

In the early years, the ALK membership was made up solely of serving and former lighthouse service personnel, and it was from this rich source that the early articles came. Often they were first-hand reports of reminiscences of times and experiences while in service. Many of the founder members of the Association recalling experiences from many decades previously—all a wealth of information for those of us who want to learn more of this now lost way of life.

Many of the early articles were written by 'Nodrog', the alter ego of Gordon Medicott, who, also serving on the Needles with Editor Gerry, would often write articles at the lighthouse.

My own fascination with lighthouses

“A WEALTH OF INFORMATION FOR THOSE OF US WHO WANT TO LEARN MORE OF THIS NOW LOST WAY OF LIFE”



began when I was aged nine, and visited my first lighthouse at South Stack, which was then manned. A few years later I visited Start Point Lighthouse while on holiday with my family, and by then the bug was well and truly caught. I started by receiving copies of *Flash*, and for a long time I thought (like so many people I have later met) that I was the only one who had a passion for lighthouses! When I found out about the ALK, it was great to find so many like-minded people, and I have made many friends over the years.

At the time I was living in Cheltenham, and a local member, Sallyann Hale (now Anderson) contacted me and asked if I'd like to meet up and go to the 1998 AGM, the first to be held at Trinity House in London. This was an opportunity not to be missed. During that summer I'd been on holiday in Kent and had met up with Gerry Douglas-Sherwood, who was by then stationed at North Foreland. On 26 September 1998 Sallyann and I travelled to London, and outside Trinity House met up with another ALK friend, Paul Howard, who was Vice Chair of the ALK at the time. He came with his friend Patrick Tubby (who, in 2009 became my husband—we got married at Nash Point Lighthouse eleven years to the day of our first meeting outside Trinity House).

Later in 1998, on a very cold November day, I went to the final automation ceremony at North Foreland Lighthouse, where the last lighthouse keepers were withdrawn from service.

Over the next few years many of the ALK AGMs were held in London, either at Trinity House, or at the Union Jack Club, but as its popularity increased, this evolved into a weekend programme of events being



1990 ALK AGM: Back row: Gerry Douglas-Sherwood, John Shippey, Graham Fearn. Centre: Neil Hargreaves, Pam Shippey, Audrey Fearn, Paul Hickley. Front: Andy Balls, Keith Langridge and Tony Elvers

held all around the country from north to south, enabling more members than ever to attend.

The programme of events within the ALK has also expanded enormously, so much so that many have to be repeated for several years to accommodate everyone who wants to take part. We are indebted to Trinity House and the Northern Lighthouse Board for allowing members access to lighthouses that are not normally open to the public.

The 25th anniversary of the ALK was held in Southwold, at the Yacht Club, where the very first ALK meeting was held. A celebratory plaque was erected on Southwold pier to commemorate the occasion, just at the entrance to the pier. A Trinity House plaque can be found a little further down the pier, near to the Under

the Pier Show. If you ever find yourself in Southwold, give the plaques a little polish, as we do when we visit!

So 2018 sees the 30th anniversary of the ALK. The Association is still going strong with around 700 members. A celebratory event was held in London in April, involving a spectacular boat trip along the River Thames followed by dinner at Trinity House, where more than 100 members attended. The ALK's Patron, Captain Richard Woodman, welcomed everyone to the dinner in the evening.

Lighthouses may have changed dramatically over the last 30 years, and there may no longer be lighthouse keepers, but the Association of Lighthouse Keepers lives on, Keeping Lighthouse Heritage Alive!

Membership is open to anyone with an interest in lighthouses: www.alk.org.uk

Members of the Department for Transport meet on THV *Galatea* during London International Shipping Week 2017, with Captain Bob Culley (centre, white shirt) and Commodore Rob Dorey, Trinity House Director of Operations (far right)



Partner profile:

Department for Transport

The Department for Transport's Head of Maritime Safety Policy **Christopher Angell** tells us about their work with the General Lighthouse Authorities

As an island nation, the UK is incredibly dependent on the maritime sector for the health of its economy, its ability to trade and for the success of its coastal communities. That is not just rhetoric —statistics prove the point—25% of our energy is transported by sea, 48% of our food supplies are brought in by ship and a massive 95% of goods that enter or leave our shores travel through a sea port. The UK's maritime sector generated £14.5 billion in 2016 and directly supported an estimated 186,000 jobs.

The Maritime Directorate is part of the Department for Transport (DfT) based in Whitehall and reports to Ministers—including Nusrat Ghani MP as Maritime Minister—and Parliament. We work with a huge range of partners, including other government departments, executive agencies, regulatory and enforcement bodies, local authorities and with companies involved across all aspects of the industry and its supply chain to ensure that the UK remains a leader at the forefront of global maritime activity.

More about the work of the Maritime Directorate, including its successes over the past 12 months and our priorities for 2018-19, can be found in our

Maritime Annual Report (www.gov.uk/government/publications/maritime-successes-2017-to-2018).

The Maritime Directorate is split into a number of divisions, each with its own particular areas of responsibility, ranging from security, to environment and technology, to international trade. The divisions work independently but closely together under a single Maritime Director, Roger Hargreaves, to ensure knowledge is spread across the team and shared goals can be achieved.

One example of a shared goal where the team has worked in partnership is the development of Maritime 2050, which is an opportunity for the Government to demonstrate its ambition to be a world maritime leader and position the UK to meet the challenges ahead. Maritime 2050 is being supported by extensive input from industry and an expert panel. We expect Maritime 2050 to be

“THE MARITIME DIRECTORATE IS SPLIT INTO A NUMBER OF DIVISIONS, EACH WITH ITS OWN AREA OF RESPONSIBILITY, FROM SECURITY, TO ENVIRONMENT TO INTERNATIONAL TRADE”



published before the end of 2018 and accompanied by a series of route maps explaining the actions which will need to be taken to get us to where we want to be.

We also work in partnership with industry to deliver the biennial London International Shipping Week (LISW). Trinity House formed a large part of the last LISW in September 2017, which saw THV *Galatea* berthed alongside HMS *Belfast* on the Thames to tell the story of the critical work it does to keep mariners safe. Of the many events held on board, the *Galatea* also hosted the DfT’s Executive Committee including the Permanent Secretary and its Director-Generals. We look forward to having more General Lighthouse Authority (GLA) input during the next week in September 2019.

Responsibility for maritime safety falls to the Maritime Directorate’s Maritime Infrastructure, People, Services and Safety division led by its Deputy Director, Rod Paterson. This team covers everything from coastal, inland and offshore infrastructure, to maritime skills, employment and welfare, to insurance and passenger accessibility and much more, including the work of the GLAs.

As well as overall responsibility for safety policy and legislation, on which we liaise closely with the Maritime and Coastguard Agency and the Marine Accident Investigation Branch, we manage the General Lighthouse Fund on behalf of the Secretary of State for Transport to ensure that the GLAs have the appropriate resources to undertake their statutory functions to maintain aids to navigation and respond to new dangers to navigation safety such as wrecks. To do this we work with each of the GLAs to develop and approve their Corporate Plans and yearly financial sanctions, provide recommendations to Ministers on the setting of light dues, and liaise closely throughout the year to deal with all manner of issues arising including the response to unforeseen challenges.

We also lead on issues such as the GLA Fleet Review—the recommendation from which the



Maritime Minister has recently approved—and provide ongoing support and assistance throughout the year on all manner of policy, operational and sponsorship issues.

We are also proud to have arranged the inaugural Maritime Safety Week, 9-13 July 2018, which was a huge success and for which we are grateful for the support of the GLAs and Trinity House in particular. The primary purpose of the week, which we hope will become an annual event, is to highlight the excellent work which is being done in the safety space across the industry and to provide a focal point to ensure that this can be recognised and best practice shared.

This article began by explaining the importance of the maritime sector to the UK. We have some of the busiest and most congested waters in the world. It is thanks to the tireless, professional and world-class work of Trinity House, the Northern Lighthouse Board and Irish Lights that we also have some of the safest.

“THE INAUGURAL MARITIME SAFETY WEEK WAS A HUGE SUCCESS. ITS PRIMARY PURPOSE IS TO HIGHLIGHT THE EXCELLENT WORK BEING DONE IN THE SAFETY SPACE ACROSS THE INDUSTRY... AND TO ENSURE THIS IS RECOGNISED”

- ① Commodore Rob Dorey, Director of Operations, and Maritime Minister, Nusrat Ghani MP, with members of Harwich Buoy Yard
- ② Commodore Rob Dorey, Director of Operations, with the Minister at Harwich
- ③ Captain Trevor Harris, Navigation Manager, discusses maritime safety with the Minister





Trwyn Du Lighthouse © Fiacre Muller

Our priceless heritage assets

Estates and Property Manager **Peter Hill** writes about balancing modern aid to navigation operations with our estate's diverse historical designations and requirements

It will come as no surprise to the reader that Trinity House has some pretty special buildings and that we are custodians of some of the UK's most iconic structures. What is extra special about our historical estate is that our buildings are still being used for the same purpose for which they were originally built.

Sometimes that use has hundreds of years of history to it and frequently the buildings were built by Trinity House, giving an incredible sense of continuity. To ensure that this continues to be the case, a delicate balance must be struck between ensuring these precious buildings meet the current state-of-the-art requirements of a modern lighthouse authority while protecting the priceless heritage assets of which Trinity House is proud custodian.

Trinity House is of course not the only party involved in our heritage buildings. Listed buildings are designated—by Cadw

in Wales and Historic England in England—where they are considered to have special architectural or historical interest. Grade I is the highest listing, applied to the nation's most important buildings, followed by Grade II* and then Grade II. Trinity House in London has Grade I designation despite having been substantially rebuilt in the 1950s.

Buildings do not have to be old to be listed. A good example of that fact is Dungeness Lighthouse. Despite having only been brought into operation in 1961, Dungeness Lighthouse was listed Grade II* in 2003 because of its unique architecture and the innovative example of engineering its construction employed.

When a building is listed, Cadw or Historic England publishes a listing description of the listed building. It is a common misunderstanding that this listing description includes the full extent of the features that are protected in the listed building. In reality, practicality dictated that a large number of listed buildings in the UK were listed by Cadw or Historic England based on fairly limited knowledge of the

building and the listing description can be little more than a single sentence. Regardless, it is the whole building that is listed unless explicitly excluded from the description and this can include very modern extensions and elements of the building as well as fixtures such as the optics and even engines and other fixed plant.

Another common misunderstanding is that listed building status protects only the parts of the building that can be seen. Whereas the planning regime may have a focus on visual harm, listed building regulations are concerned with protecting the national heritage for its own sake—regardless of whether or not they can be seen by the public—and this includes the inside of the building. More than that, listed building status also protects outbuildings, boundary walls and other structures within the curtilage of a listed building where these were built prior to 1948 and this can even include detached houses. In England alone, Trinity House's estate includes 44 individually listed buildings at our aid to navigation sites, ranging from lighthouses

and beacons to piggeries and wash houses and this does not include the various curtilage buildings and structures that are included within each listing!

Being protected does not of course mean that we can't alter these buildings in any way. There is the opportunity to apply for Listed Building Consent (LBC) and it is commonly accepted that in some circumstances 'repair and maintenance' and very minor works without any potential to affect the building's special architectural or historical features do not require LBC at all. However, you may already have observed that there is considerable room for interpretation in the definition of what requires LBC. With this in mind, the interpretation of the enforcing agency—usually the local authority—is perhaps the most important and we consult informally wherever there is uncertainty.

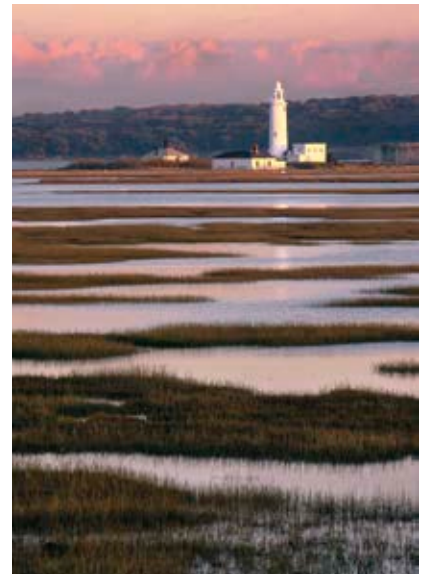
Where an application for LBC is required, Trinity House must make such an application (and receive consent) prior to commencing any works affecting the building's character as a building of special architectural or historical merit. To do otherwise would be a criminal offence except in exceptional circumstances. Application is made to the Local Planning Authority (LPA) where it is usually determined by planning officers under advice from specialist conservation officers (where a Council has one). So long as the works are not unjustifiably harmful to the listed building, consent will usually be forthcoming after an eight-week determination period, but it may have conditions requiring further detailed drawings or survey work to be approved before works commence.

In considering an application, the LPA is particularly interested in the explanation and justification that Trinity House provides. The starting point is that a listed building should not be altered unless that affords heritage improvement or unless there is other good reason for doing so. Allowing a listed building to continue to function for the purposes that it was built is perhaps one of the best justifications for altering a listed building. If a lighthouse building could no longer adequately fulfil

its lighthouse function, then its future as a lighthouse would be at risk. The resulting potential for the building's abandonment or adaptation to an alternative use would usually be much more harmful to the building's historical and architectural character than anything that is being proposed to facilitate its historical use.

Listed Building status is not the only heritage status that affects Trinity House's operations however. Scheduled Monument status may apply to buildings only (such as the Ashy Down beacon) but—unlike listed building status—can also apply to the land itself. Scheduled Ancient Monument status is frequently used to protect heritage that may be buried underground, such as ruins, battlefields or other archaeological features. Hurst Point Lighthouse is a case in point. Its status as a listed building would normally mean that we would have to be conscious only of alterations to structures on the site. However—in addition to that listed status—all Trinity House property at Hurst Point falls within the Scheduled Monument designation for Hurst Castle. Historically, elements associated with the castle would have extended into areas subsequently occupied by the lighthouse and so Trinity House finds itself not only the custodian of its own lighthouse, but of the castle archaeology that lies beneath its property. A Scheduled Monument is protected against ground disturbance or unlicensed metal detecting. Consent (this time direct from Cadw/Historic England) must be obtained before any work on a scheduled monument can begin.

If your interest is restricted to the marine aspects of Trinity House, do not think that these escape designation! Marine sites may be designated as Protected Wrecks where they are likely to contain the remains of ships or their contents which are of historical, artistic or archaeological importance. One such example is at The Needles where a large circular swathe of seabed approximately centred on the Trinity House lighthouse is protected from disturbance. To quote the listing description: *"The site contains what is thought to be the remains of two wrecks: The Assurance, a 44-gun fifth rate*



Hurst Point Lighthouse © Aaron Daniel

frigate, lost in 1753, and HMS Pomone, a 38-gun fifth rate lost in 1811 as well as incorporating the remains of a number of vessels wrecked at the Needles including the Victorian yacht Dream and a Guernsey brig Anglo Saxon."

Although not the responsibility of Trinity House to police such protected wreck sites, we do have to be mindful of them when we consider such matters as anchoring or laying or maintaining undersea electric cables.

Trinity House has a statutory function to perform derived from an Act of Parliament, but in doing so it must comply with other Acts of Parliament relating to everything from health and safety, employment law, the environment and of course heritage. Despite being complex (and admittedly occasionally onerous), the regulatory framework surrounding heritage that Trinity House must operate within is entirely compatible with our own objectives and can even be seen as beneficial in achieving them. Trinity House is proud of its heritage and takes its responsibilities seriously. For this reason our Health and Safety and Environmental Objectives Policy includes a stated objective to "conserve buildings and sites of historic and architectural interest during all operations". After all, who should be more concerned about lighthouse heritage than the very organisation that created that heritage in the first place?

"IN ENGLAND ALONE, TRINITY HOUSE'S ESTATE INCLUDES 44 INDIVIDUALLY LISTED BUILDINGS AT OUR AID TO NAVIGATION SITES, RANGING FROM BEACONS TO PIGGERIES"



St Catherine's Lighthouse
© Ritchie Hunt-King

Christmastide greetings

Every year Trinity House produces a Christmas card and a lighthouse-themed calendar; these much sought-after gifts are available now to buy

The official Trinity House Christmas card

The Christmas card is printed in full colour on marquet card with an embossed border and a white paper insert. It features St Catherine's Lighthouse at night and contains the greeting 'All Good Wishes for Christmas and the New Year'.

Size: approx. A5, sold in packs of ten, with envelopes.
Collected Price*: £9.50 per pack
Inc. P&P: £11.50 UK
£14.50 Europe
£16.50 Worldwide

The official Trinity House lighthouse calendar 2019

The 2019 calendar features the year's best photographs of our lighthouses, compiled from entries submitted to the annual lighthouse photography competition by members of the public. Printed in full colour and on silk paper.

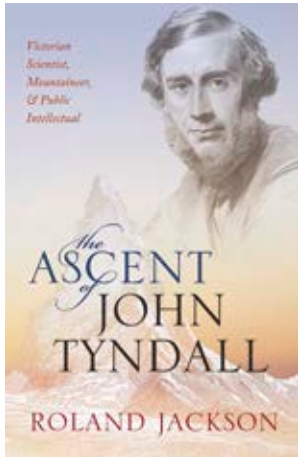
Size: 300x300mm
Collected price*: £8.99
Inc. P&P: £12.50 UK
£16.50 Europe
£20.00 Worldwide
* Collection from Harwich or London offices

How to buy: orders can be placed online at www.trinityhouse.co.uk/shop or by telephoning 01255 245156



BOOK REVIEWS

A round-up of maritime publications that have been sent to us and reviewed by **Paul Ridgway**



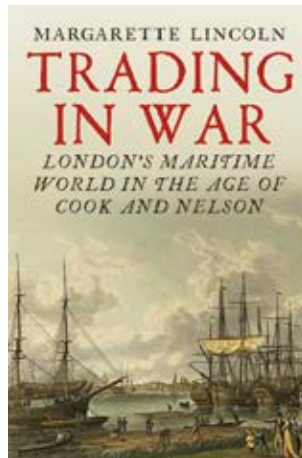
THE ASCENT OF JOHN TYNDALL

By **Roland Jackson**
Oxford University Press, hardback,
556 pages, £25.00
ISBN 978 0 19 878895 9

A Victorian Irish scientist, mountaineer and intellectual, Professor Tyndall FRS (1820-1893), was successor to Professor Michael Faraday as Scientific Adviser to Trinity House. Faraday served from 1836-1866 and Tyndall from 1866-1883, during what can be described as a golden age of lighthouse building.

Drawing extensively on journals, letters, articles and scientific publications, the former head of the Science Museum London, Roland Jackson, paints a detailed portrait of Tyndall and his world in this first major biography for more than 70 years. He sets Tyndall's life and changing ideas against the backdrop of the intense debates of Victorian Britain concerning science, religion and society, and describes Tyndall's scientific achievements and his mountaineering expeditions.

It contains references to lighthouses, correspondence between the Board of Trade, Trinity House, Commissioners in Dublin and Edinburgh indicating their discussions, disagreements and the political climate. Additionally, Tyndall's studies of oils, gas burners, fog signals, lantern design and electrical experiments at South Foreland are mentioned along with references to the Douglasses (James and William) and Thomas Stevenson.



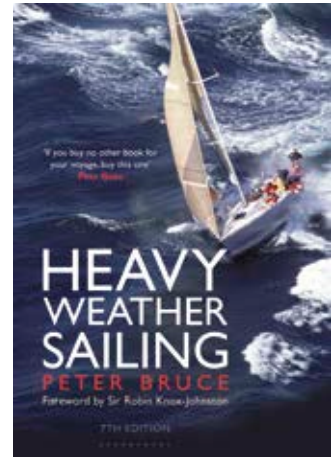
TRADING IN WAR: LONDON'S MARITIME WORLD IN THE AGE OF COOK AND NELSON

By **Margarette Lincoln**
Yale University Press, hardback,
292 pages, £25.00
ISBN 978 0 300 22748 2

A vivid account of the forgotten citizens of maritime London who sustained Britain during the Revolutionary Wars.

In the half-century before the Battle of Trafalgar, the port of London became the commercial nexus of a global empire and launch pad of Britain's military campaigns in North America and Napoleonic Europe. The unruly riverside parishes east of the Tower seethed with life, a crowded, cosmopolitan and incendiary mix of sailors, soldiers, traders, craftsmen and the network of ordinary citizens that served them.

Students of the Trinity House of the 18th and 19th centuries will find this meticulously researched book of value for it contains many references to Trinity House and others concerning aspects of Deptford, Ratcliff, Mile End and the City of London, each of which is parallel to the Trinity House story having regard to our transit through the riverside parishes of Deptford (on incorporation in 1514), Ratcliff (1618), Mile End (with its almshouses built 1696) and to the City of London which we entered in 1660.



HEAVY WEATHER SAILING

By **Peter Bruce**
Adlard Coles Nautical, hardback,
310 pages, £35.00
ISBN 978 1 4729 2319 6

For 50 years *Heavy Weather Sailing* (now in its seventh edition) has been regarded as an authority on surviving storms at sea aboard sailing and motor vessels. Since 1967, technology has improved but the weather has not, and the book remains relevant. Here is a wealth of expert advice from many great sailors with accounts of yachts overtaken by extreme weather. One such writer is Dag Pike (formerly with our Steam Vessel Service) and the foreword is by Captain Sir Robin Knox-Johnston (Younger Brother).

Expert advice has been received to accord with current thinking, particularly on the use of storm sails and drag devices. Technique in taking refuge has been reviewed, and chapters dealing with preparations for heavy weather and its effect on yacht design have been rewritten.

This is said to be the definitive book for those contemplating voyages out of sight of land, whether racing or cruising, and provides a clear message of the preparations required, and tactics needed for consideration as the weather deteriorates.

Please note that we regret we are unable to take orders for the above publications



60 years of Trinity Homes

Secretary to the Corporation **Commander Graham Hockley** marks the 60th anniversary of the Trinity Homes almshouses by looking at their origins and history since

The 60th anniversary of the opening of the Corporation's Trinity Homes at Walmer in Kent, were marked on 9 May 2018. These almshouses are provided by the Trinity House Maritime Charity for retired mariners and their dependants.

On 9 May 1958, HRH The Duchess of Gloucester opened the new homes, which had been built to replace those at Mile End which were damaged beyond repair in the Second World War. The provision of almshouses for retired mariners is one of the central objects of Trinity House's charitable goals and predates even our 1514 Royal Charter; before 1514 we had 21 almshouses and a hall at Deptford, which were added to from time to time by charitable bequests of members of the Corporation and others; and in the 17th century many more were built on the estate at Mile End.

As the homes at Mile End were so seriously damaged by enemy action, and that since they were first built the locality had been largely industrialised, the Elder Brethren decided to find a site in a position more suitable for elderly retired people than central London. The present site in St. Clare Road, near Walmer Castle and not far from the sea, was eventually considered the most suitable.

The construction of the new homes began in January 1957. A *Flash* article from the time reports that *"The Homes consist of fourteen single floor houses erected as three sides of a square with a two floor block in the centre of the St. Clare Road frontage... Each house contains a Living Room and two Bedrooms, a Kitchen, Bathroom and usual offices. The Kitchens are fully equipped with sink units and a gas cooker, and the Bedrooms have built in wardrobes. The Homes are centrally heated and designed with every modern convenience in order to provide the maximum comfort for elderly people with the minimum of housework.*

"The upper floor contains a very fine Common Room or Library with a large television set and sound radio for the use of the residents. A self-contained flat for the resident Matron is also on this floor... The main entrance to the buildings has been adorned with carved stones bearing the illuminated coats of arms of HRH The Duke of Gloucester [then Master of



Trinity House] and of Trinity House itself."

In a speech recorded for radio and television by the BBC, the Duchess—in her capacity as the wife of the Master—said they were very fine homes which would set a high standard, not only for today, but for many years to come.

Applicants for homes must be a mariner—or a widow of a mariner—who has had over 15 years' service at sea; has held a recognised certificate of competency or service as a Navigating, Engineer or Radio Officer, or other Mariner Qualification which the Trustees may determine; must be aged 60 or above, able to prove financial need and must be self-caring in all important respects.

Today the charity works to continually update the grounds and bungalows to improve the lives of the residents, and looks for new residents to welcome on site.

Up and down the rivers

To accompany the 30th anniversary of the passing of the Pilotage Act, we go through our archive to look briefly at Trinity House's long association with pilotage

'CUNNING MASTERS'

In its 1513 petition to Henry VIII for incorporation, the guild of mariners that later became Trinity House cited as its principal concern the poor state of pilotage on the Thames, and the danger to life and cargo: *"The practise of pilotship in rivers, by young men who are unwilling to take the labour and adventure of learning the shipman's craft on the high seas, is likely to cause scarcity of mariners; and so this your realm which heretofore hath flourished with a navy to all other lands dreadful shall be left destitute of cunning masters and mariners; also that Scots, Flemings and Frenchmen have been suffered to learn as loadsmen [pilots] the secrets of the King's streams..."*

The rise in shipping and the need for well-regulated pilotage only increased and subsequent charters and Acts in 1604 and an 1808 renewed charter expanded upon the original powers, conferring rights concerning the compulsory pilotage of shipping and the exclusive right to license pilots on the River Thames.

The Act of 1808 mandated Compulsory Pilotage for all vessels *"up and down the Rivers Thames and Medway and the Channels thereof between Orfordness and London Bridge as far Westward as the Isle of Wight and vice versa"*, with exemptions for colliers, coasting vessels and constant traders to Ireland. The same Act also officially established the Trinity House Outports, overseen by their respective Local Pilotage Committees

with Sub-Commissioners appointed by Trinity House.

20TH CENTURY

For much of the 20th century the authority, responsibilities and conduct of pilots and committees was pinned together by the overarching Pilotage Act of 1913. The vital role played by pilots was perhaps at its most apparent during the First and Second World Wars. During the latter, as traffic in the port of London increased as Operation 'Overlord' approached, Trinity House pilots were responsible for piloting all commercial vessels and many of the service vessels engaged in such operations. In the month following D-Day nearly 3,000 ships were handled by 88 river pilots and nearly 2,000 vessels by 115 sea pilots, working day and night without relief.

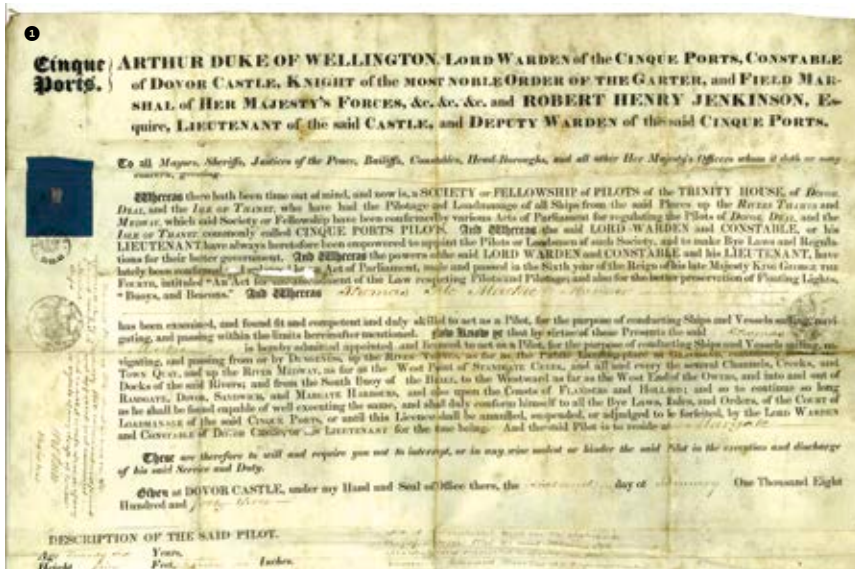
"...AND SO THIS YOUR REALM WHICH HATH FLOURISHED WITH A NAVY TO ALL OTHER LANDS DREADFUL SHALL BE LEFT DESTITUTE OF CUNNING MASTERS AND MARINERS"

THE PILOTAGE COMMITTEE

The Pilotage Service was managed by the Pilotage Committee, governed by the Board of Trinity House in the Corporation's role as principal Pilotage Authority in the UK. The four Elder Brethren comprising the Pilotage Committee had a number of duties; one was to make recommendations to the Board on the reports of the Sub-Commissioners with regard to filling vacancies, granting licences and certificates, setting rates of pilotage and awarding pensions. The committee was also responsible for the upkeep of the Corporation's fleet of pilot vessels and its offices, where a senior executive officer (the 'Principal') enlisted the help of a deputy, an accountant, an engineer superintendent and clerical staff.

The London Pilotage District—the largest under Trinity House authority—was directed by a special London Pilotage Committee, comprised of six Elder Brethren, including the four members of the general Pilotage Committee, four shipowners and four pilots. The London District extended from Dungeness to Felixstowe, taking in the harbours of Folkestone, Dover, Sandwich, Margate, Ramsgate and Harwich, the river Thames as far upstream as London Bridge and the river Medway up to Rochester Bridge.

There were four main pilot stations and five chief classes of pilots: River Thames Pilots, Channel Pilots, Cinque Ports Pilots, North Channel Pilots and River Medway Pilots. The various classes of pilot were controlled by Superintendents at Dover,



1 Thomas Mackie's Cinque Ports Pilot Licence, 1843
2 Joseph Hartley, Cinque Ports Pilot, 1854-1896
3 Ipswich Pilot, c 1890
4 THPV Pathfinder
5 PV Valonia launch
6 PV Versatile alongside PV Brook for transfer of pilots © W LD Bayley



1 50-foot PV St Clement © Press Association 2 Pilot launches from Harwich 3 40ft launches like this one replaced much larger cutters

Harwich, Gravesend and Chatham. The Superintendent at Gravesend had the title of Ruler of Pilots, dating back centuries to the time when pilots formed small groups to put up funds for a cutter.

THE PILOTS

There were around 600 Trinity House pilots licensed—but not employed—by the Corporation; 400 worked in the London District, cruising off Dungeness or the Sunk waiting for ships to signal their need for a pilot.

Pilots—then and now—take over navigation of a ship from the minute they board it to the time it has been docked at its destination, instructing the ship’s captain and helmsman about the course to take, the speed to adopt and the manoeuvres to complete, drawing on years of experience, training and knowledge.

Pilots would not know what ship they would next be called to or when, whether the ship would be 50 or 50,000 tons or what time of day the call would come; that meant being prepared to come into the pilot station 24 hours a day, 365 days a year.

The uncertainty of the job was both a positive and a negative: the near-endless variety of jobs and people and the experience that comes from interacting with crews from around the world versus unsociable hours and constant pressure after years of training.

Archive articles described pilots who

learned a working knowledge of every European language, small communities with a great sense of camaraderie and an industry that saw itself dwindle in the face of global containerisation.

THE PILOT CUTTERS

Trinity House maintained nine pilot cutters, six of which were based in the London District, cruising off Dungeness or the Sunk waiting for ships to signal their need for a pilot.

A typical cutter was 175ft long with a complement of six officers, nine ratings, two stewards, one cook and three boys, with accommodation for 22 pilots.

The reform of the pilotage system in the 1960s saw the grand pilot cutters make way for a fleet of nimble fast launches,

which reduced waiting time and improved the safety of sea transfers. The last of the cruising cutters, THPV *Pathfinder*, was sold out of service in 1986.

ALL CHANGE

1987’s Pilotage Act saw Trinity House part with its District Pilotage responsibilities, which passed to various local harbour authorities on 1 January 1988.

This act also permitted less stringent requirements for compulsory pilotage, allowing harbour authorities to integrate their pilotage service with their other port services.

Ensuring the continuance of one of its oldest duties, Trinity House became a licensing authority for Deep Sea Pilotage.

TODAY

Although no longer involved with local or river pilotage, Trinity House is one of several Deep Sea Pilotage licensing authorities authorised by the Secretary of State of Transport. While not compulsory to carry a Deep Sea Pilot, many ship’s masters unfamiliar with Northern European waters employ their expertise to assist their bridge team.

The next time you see a huge container ship steaming slowly in or out of the country with goods vital to our everyday lives, please spare a thought for a vital cog of merchant shipping.

“THE REFORM OF THE PILOTAGE SYSTEM IN THE 1960S SAW THE GRAND PILOT CUTTERS MAKE WAY FOR A FLEET OF NIMBLE FAST LAUNCHES”

The early days of Beachy Head

The 33-metre Beachy Head Lighthouse on the Sussex Downs was brought into service in 1902. It took two years to complete and involved building a coffer dam and a cableway from the top of the cliffs to carry materials down to the site, including 3,660 tons of Cornish granite



A fine farewell

PR and Records Manager **Neil Jones** marks the 20th anniversary of the automation of North Foreland Lighthouse, the last manned Trinity House lighthouse

In 1994 Trinity House converted its first lighthouse to solar power operation at Lundy South. In 1996 Les Hanois Lighthouse was the last manned Trinity House rock tower lighthouse to be automated, and was the first rock lighthouse converted to solar power operation.

The completion of the ambitious lighthouse automation programme came in 1998 with the conversions of Lizard Lighthouse, Nash Point Lighthouse and finally North Foreland Lighthouse on 26 November.

Ending four centuries of service, the last six keepers in Trinity House service were given a warm farewell by the Master HRH The Duke of Edinburgh, and the profession passed for the most part into folklore and history; a number of lighthouse keepers remain in a few countries around the world.

On 26 November the last six Trinity House lighthouse keepers finished their service with a ceremony attended by the Master, HRH The Duke of Edinburgh, to conclude the automation of the lighthouse automation programme. The last keepers were Dave Appleby, Colin Bale, Dermot Cronin, Tony Homewood, Barry Simmons and Tristan Sturley.

On 15 December 1998 a service of thanksgiving for lighthouse keepers and their partners was held at St. Olave's Church in the City of London, followed by a dinner. HRH The Duke of Edinburgh attended and gave a toast of appreciation and Dermot Cronin, the service's Senior Principal Keeper, responded. A commemorative medallion was presented to all.

With no more manned lighthouses or lightvessels—the last manned lightvessel was towed to Harwich on 9 June 1989—the far-reaching network of staffed depots around England

and Wales was no longer required to facilitate administration, reliefs and supplies; in 2003, the Great Yarmouth supply store closed, followed in 2005 by the depots at Penzance and East Cowes—having been operational since 1868 and 1842 respectively—relocating the Engineering directorate to Harwich. Busy offices and buoy yards remain today at both Harwich and Swansea, with a forward operating base at St Just, near Land's End.

Today, the retired keepers are often keen ambassadors of their erstwhile profession, actively supporting the Association of Lighthouse Keepers or giving talks to local groups, and are welcomed every year to the Christmas buffet at Trinity House in London where they catch up with each other and share their experiences with staff. Some of them are even still living in lighthouse cottages and looking after the station.

We would like to take this opportunity to thank the keepers for their many years of superlative service, which was always such a great credit to our organisation.

As a brief testimonial to what they accomplished in adverse conditions for almost 400 years, BBC commentator Edward Ward was marooned on Bishop Rock Lighthouse for 29 days from 21 December 1946, when heavy seas prevented his scheduled relief; Ward signed off his stretch as a lighthouse keeper with a palpable sense of relief: "I wore the same shirt for 29 days, and I am fed up of the sight of it. Now I am going home for a bath, a drink, and a change of clothes, and I hope I don't get another job like that in a hurry... I spent three years as a prisoner-of-war, and would rather go behind barbed wire again than face a further few weeks on that damned rock."

Right top: Master HRH The Duke of Edinburgh attended a ceremony at North Foreland on 26 Nov 1998 to mark the automation of the last manned lighthouse

Right bottom: The last six keepers. From left: Tristan Sturley, Dermot Cronin, Tony Homewood, Colin Bale, Dave Appleby and Barry Simmons



CORPORATION OF TRINITY HOUSE

ROLL OF HONOUR 1914 - 1918

In memory of those Trinity House employees who lost their lives while on active service or performing their duty providing aids to navigation during the First World War

NAME	RANK	DATE	REMARKS
YOUNGER BRETHREN			
ARNOT, George Henry, RNR RD	Commander	28.10.1917	<i>Killed on Active Service</i>
MURRAY, James Anderson, RNCVR	Lieutenant-Commander	06.12.1917	<i>Killed on Active Service</i>
SYLVESTER, Edward Arthur	Captain		<i>Killed on Active Service</i>
HEADQUARTERS STAFF			
PRICE-EDWARDS, Owen	Captain, Royal Fusiliers	22.06.1916	<i>Killed on Active Service</i>
ALLEN, Sydney John	Corporal, London Regiment	01.07.1916	<i>Killed on Active Service</i>
HENDERSON, Claude William	Rifleman, London Regiment	21.02.1917	<i>Killed on Active Service</i>
LIGHTHOUSE SERVICE			
PRITCHARD, Henry	Second Lieutenant		<i>Killed on Active Service</i>
ANCELL, Frederick Gordon	Serjeant, Royal Fusiliers	21.10.1915	<i>Killed on Active Service</i>
DUNSFORD, William David	Gunner, Royal Garrison Artillery	02.02.1915	<i>Killed on Active Service</i>
LONG, Harold Edward			<i>Killed on Active Service</i>
WITHERS, Arthur William	Private, D. of Cornwall Light Infantry	01.06.1917	<i>Killed on Active Service</i>
LIGHTVESSEL SERVICE			
BRAGG, William A			
BROWN, William R			
CALVER, Percy R C	Seaman, RNR	23.05.1918	<i>Killed on Active Service</i>
CHASE, William G			
EDMUNDS, Arnold James			
HORSCROFT, Horace Reginald	Seaman, RNR	06.11.1914	<i>Killed on Active Service</i>
MILLER, George			
MONK, Charles			
OSMOND, John			
RUDD, William Henry Emerson	Master, Corton LV	21.06.1916	<i>Killed when Corton lightvessel was sunk by mine</i>
SADLER, John	Seaman, Corton LV	21.06.1916	<i>Killed when Corton lightvessel was sunk by mine</i>
STONE, William George Joseph	Seaman, Corton LV	21.06.1916	<i>Killed when Corton lightvessel was sunk by mine</i>
TENBETH, George Henry Mitchell	Leading Seaman, RNR	14.09.1918	<i>Killed on Active Service</i>
TUCKER, William George			
VAUGHAN, Joseph Bowen			
WILLSON, George Percy	Lamplighter, Corton LV	21.06.1916	<i>Killed when Corton lightvessel was sunk by mine</i>
WILLIAMS, Hugh			
WRIGHT, James			
STEAM VESSEL SERVICE			
PHILLIPS, Hugh Leopold	Master, THV Irene	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
THOMAS, Harold Frederic	2nd Mate, THV Irene	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
DEWAR, Henry Ritchie	1st Engineer, THV Irene	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
ALDERSON, Joseph	Coxswain, THV Irene	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
BARBER, Walter Henry	Seaman, THV Irene	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
BARNES, Edward Stephen	Seaman, THV Irene	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
BATT, Walter Edwin	Trimmer, THV Irene	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
BAYLEY, Robert William	Cook, THV Irene	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
BEAVANS, William George			
BEAVIL, Edward John			
BLAKEMORE, Alfred	Fireman, THV Irene	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
CHARMAN, Joseph Philip			
CLARKE, George	Fireman, THV Irene	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
COOK, William George	Fireman, THV Irene	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
EADES, George Augustus	Fireman, THV Irene	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
EDWARDS, Martin			
GIBBS, Ernest	Seaman, THV Alert	15.04.1917	<i>Killed when THV Alert was sunk by mine</i>
GIBBS, William Edward	Fireman, THV Irene	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
GODFREY, Thomas William	Seaman, THV Irene	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>

HARVEY, Ernest George William	Seaman, THV <i>Alert</i>	15.04.1917	<i>Killed when THV Alert was sunk by mine</i>
HAZELL, Frederick William	Trimmer, THV <i>Irene</i>	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
HILL, David	Trimmer, THV <i>Irene</i>	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
JONES, Richard Sydney	Fireman, THV <i>Alert</i>	15.04.1917	<i>Killed when THV Alert was sunk by mine</i>
KERR, Thomas	Seaman, THV <i>Irene</i>	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
LEE, Charles	Fireman, THV <i>Alert</i>	15.04.1917	<i>Killed when THV Alert was sunk by mine</i>
MERRALLS, William Thomas	Fireman, THV <i>Irene</i>	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
MURRELL, Walter	Steward, THV <i>Irene</i>	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
NEWSON, George Samuel Henry	Fireman, THV <i>Alert</i>	15.04.1917	<i>Killed when THV Alert was sunk by mine</i>
OVENDEN, William	Seaman, THV <i>Alert</i>	15.04.1917	<i>Killed when THV Alert was sunk by mine</i>
PEARCE, William Leonard			
POWELL, Percival Arthur	Seaman, THV <i>Irene</i>	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
REECE, John Basil	Seaman, THV <i>Alert</i>	15.04.1917	<i>Killed when THV Alert was sunk by mine</i>
REEDER, Charles	Senior Fireman, THV <i>Alert</i>	15.04.1917	<i>Killed when THV Alert was sunk by mine</i>
REVELL, Robert Charles			
TRICKER, William James	Steward, THV <i>Irene</i>	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
WALKER, William James Kinsey	Seaman, THV <i>Irene</i>	09.11.1915	<i>Killed when THV Irene was sunk by mine</i>
WESTHORPE, James	Fireman, THV <i>Alert</i>	15.04.1917	<i>Killed when THV Alert was sunk by mine</i>
PILOTAGE SERVICE			
BLAXLAND, Thomas	Pilot, Cinque Ports	28.02.1916	
BONE, Thomas Edwin		26.09.1915	<i>Killed when pilot cutter Vigilant struck a mine</i>
BROWN, Andrew James		26.09.1915	<i>Killed when pilot cutter Vigilant struck a mine</i>
BRUHN, Charles Allan		09.01.1919	
COCKS, Charles William		16.07.1918	
COCKTON, John		15.12.1917	
COLLISTER, John Joseph		07.02.1917	
COLLISTER, William Thomas		26.09.1915	<i>Killed when pilot cutter Vigilant [or Valiant] struck a mine</i>
CORNHILL, Arthur Robert		26.09.1915	<i>Killed when pilot cutter Vigilant [or Valiant] struck a mine</i>
EALLES, William Charles		21.10.1917	
FERGUSON, John		29.10.1917	
FISHER, Albert Ernest		26.09.1915	<i>Killed when pilot cutter Vigilant struck a mine</i>
FLETCHER, William		25.02.1916	
GANE, Charles Purcell		26.09.1915	<i>Killed when pilot cutter Vigilant struck a mine</i>
HASTIE, George Nelson		09.02.1917	
JONES, James Henry		26.09.1915	<i>Killed when pilot cutter Vigilant [or Valiant] struck a mine</i>
KENNEDY, Albert Ernest		07.08.1917	
KITSON, Reynolds Hamilton		07.06.1915	
KNOX, Alfred George John		05.03.1918	
MANSFIELD, Joseph Billett		07.01.1916	
REDMAN, Hubert James		15.04.1918	
URQUHART, Thomas Edward		26.09.1915	<i>Killed when pilot cutter Vigilant struck a mine</i>
WILLIAMS, Griffith			
PILOT VESSEL SERVICE			
CHARRINGTON, David	Master	26.09.1915	<i>Killed when pilot cutter Vigilant [or Valiant] struck a mine</i>
BARLEY, William John Fryer	Steward	26.09.1915	<i>Killed when pilot cutter Vigilant struck a mine</i>
CLAYDON, Robert Henry	Diver	26.09.1915	<i>Killed when pilot cutter Vigilant struck a mine</i>
DUNN, William			
FENNER, Frederick William	Seaman	26.09.1915	<i>Killed when pilot cutter Vigilant struck a mine</i>
FOOTS, Charles	Seaman	26.09.1915	<i>Killed when pilot cutter Vigilant struck a mine</i>
WARD, Alfred William	Driver	26.09.1915	<i>Killed when pilot cutter Vigilant struck a mine</i>

Fields have been left blank where specifics are unknown to us.

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

The Corporation of Trinity House

Master

Her Royal Highness The Princess Royal KG KT GCVO

Corporate Board as at 31 September 2018

Deputy Master: Captain Ian McNaught MNM FNI

Captain Nigel Palmer OBE MNM

Rear Admiral David Snelson CB FNI

Captain Roger Barker MNM FNI

Captain Nigel Hope RD* RNR

Captain Stephen Gobbi MNI JP MA LLB

Commodore William Walworth CBE MNM RFA

Commodore Robert Dorey RFA

Malcolm Glaister Esq

Richard Sadler Esq

Commander Graham Hockley RN (Secretary)

Lighthouse Board as at 31 September 2018

Captain Ian McNaught MNM (Executive Chairman)

Captain Roger Barker MNM FNI

Commodore Rob Dorey RFA

Ton Damen Esq

Captain Nigel Palmer OBE MNM (Non-Executive Director)

Mrs Valerie Owen OBE

David Ring Esq (Non-Executive Director)

Mrs Margaret Amos (Non-Executive Director)

Thomas Arculus Esq (Secretary)



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Cover image

Trinity House Merchant Navy Scholarship Scheme Cadets raise the ensign on THV *Patricia*.