

The Trinity House journal // Autumn 2019 // Issue 31



Ship shape

As we embark upon a project to replace THV *Patricia*, we take a look at the project set-up, fact-finding missions and progress so far



1 Welcome from Deputy Master, Captain Ian McNaught

> 2-4 Six-month review

> > 5 News in brief

6 Coming events

7-8 Appointments/obituaries

> 9 Staff profile

10-12 THV *Patricia* replacement

> **13-14** Royal Sovereign decommissioning

15 Lundy North modernisation

> **16-17** Portland Bill upgrade

18 Swansea Buoy Yard lift

19-21 World Marine AtoN Day

22-24 IALA and the inception of an IGO

25 IALA AtoN Manager course

> 26-31 Charity update

32-35 Partner profile: UK Hydrographic Office

36 Christmas cards and calendar

> 37 Book reviews

38-40 D-Day: 75 years on



13







Investments on the way

Welcome to another edition of *Flash*; our staff have been hard at work driving forward a number of projects with a great deal of progress to show for it. Many thanks are due to everyone who contributed news and features to the issue, as always.

Multi-skilled project teams have been working on two significant projects: one to procure a vessel to replace the 1982-built THV *Patricia*, and another to manage the safe removal of the now-deteriorating Royal Sovereign Lighthouse.

Elsewhere it was great to see the twin successes of Maritime Safety Week and World Marine Aids to Navigation Day—both on 1 July—as our maritime partners at the Department for Transport and IALA further commit themselves to raising the profile of the national and global maritime sector.

Thanks are also due to the UK Hydrographic Office for the partner profile they have written for us.

Neil Jones, Editor

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As we break ground on an exciting new project to replace the much-loved THV *Patricia*, elsewhere we see the maritime sector finding new ways to deliver a message of safety and awareness

would like to open this issue of *Flash* by thanking more than a few of our staff who have recently retired. Each will be missed for the intelligence, experience and commitment they each brought to their respective roles. I would like to thank them all and wish them the very best in their well-earned retirements. Looking on the upside and to the future, this is also a welcome opportunity to promote staff up the ladder and,

in some instances, bring new faces into the family.

One of the more exciting developments that you will read about in this issue is the news that we have begun the project to procure a vessel to replace THV *Patricia*. The exact nature of the replacement is undecided, but will take firmer shape as the months go by and the project team works through their exhaustive analysis and the specification for what we need to deliver our safety service in these waters. This replacement vessel will be the latest addition to a fleet that began in 1741 and will be very much of its time; it will be the tool best fit for the job within our layered four vessel fleet.

In other news, we have made the decision to decommission and remove Royal Sovereign Lighthouse; now that it is at the end of its serviceable life, the time has come for us to take steps to ensure that the lighthouse itself does not become a hazard.

During the second Maritime Safety Week in early July, we were proud to host the launch of the Maritime Safety Action Plan. I am happy to report that Trinity House played an active role in this worthwhile initiative. Similarly, we are pleased to be involved with the Department for Transport's campaign to raise awareness of the dangers of alcohol and drugs in the leisure marine sector.

In a similar vein, I am pleased to note the success of the first World Marine Aids to Navigation Day on 1 July 2019, launched by IALA to help promote safety at sea and the work done by those around the world in pursuit of that goal and duly supported by lighthouse authorities all around the world. I encourage you all to mark 1 July in next year's calendar and take to social media to show your support in your own way.

For Trinity House, this proved to be an ideal platform to show off the work of our Local Aids to Navigation inspection



and audit team. This work requires us to audit and inspect over 11,000 local aids to navigation—often not much more prominent than a yellow diamond poking through a cluster of trees along a river bank—as per the varied powers and duties granted to Trinity House by the Merchant Shipping Act. This often-unnoticed job carries on all year round without fail, come rain or shine—and is another facet of the complex roster of duties that makes up Trinity House and demonstrates our commitment to the mariner's safety.

Van Mc Jauget

Trinity House

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

FEBRUARY 2019

Apprentice Day at Swansea



The annual Apprentice Day was held at Swansea in February with the seven shore-based apprentices from IT, Stores and Engineering all gathering to share experiences from their respective locations and trades.

The day was organised by **Karina Deba**, Training Manager, and was modelled on the successful event held in Harwich last year. Since then, two apprentices have been promoted to Field Operations Technicians (congratulations to **Jared Seeley** and **Jack Lawson**) and we welcomed two new members of the team in their place, **Elwood**

Marshall and Cameron Davey.

The day started with a short presentation by each apprentice on their college course and their recent work and experiences. This was followed by a tour of the Swansea stores led by **Chris Beer** and then the Buoy Yard led by **Charley Kenealy**. They then took the opportunity for a test drive in the new all-electric stores van with very positive reviews on its performance.

After lunch, former apprentice **Jack Lawson** led a visit to Mumbles Lighthouse; this is accessible at a low tide by scrambling over the rocks so the timing had to be right. Mumbles was modernised last year and all were able to see the new generation of equipment that is being rolled out to lighthouses as a standard fit which has been repeated at Sark and Start Point lighthouses and next at Portland Bill.

There was much enthusiasm among the team, which is very promising for the future and a pleasure to see Trinity House's investment in training being well received and directly benefitting current service delivery. It is planned to hold next year's event at St Just where **Scott Tacchi**, the St Just apprentice, will lead the tours. FEBRUARY 2019

Emily P, lighthouse artist

We were very pleased to receive in the mail this handsome picture of Bishop Rock Lighthouse from eight-year-old **Emily P** in Exeter, along with a letter:

"Dear Trinity House,

"In year 3, when I was 7, we did a topic about lighthouses. I chose to learn about Bishop Rock Lighthouse for my project [...] because we often go to the Isles of Scilly on holiday so have seen Bishop Rock Lighthouse lots."

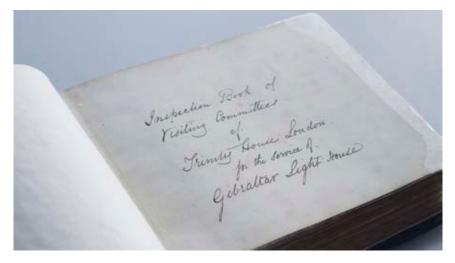
Thank you Emily!

FEBRUARY 2019 Europa Point Order Book

The Trinity House Corporate Charity recently funded the refurbishment of the Europa Point Lighthouse Order Book, which dates back to 1842. Before the original was returned to Gibraltar for display, Head of Engineering and Operations **Simon Millyard** invited staff to review some of the interesting historical entries.

The first entry reads as follows: *«14 August 1842. Establishment was* visited by Captn Richard Drew who expressed his satisfaction with the state of it and suggested an additional panel of lens and corresponding mirrors above & below extending the arc of illumination 36° to the NW which suggestion was afterwards carried out."

The entry for 2 May 1921 records a visit from Hirohito, the Crown Prince of Japan and later Shōwa Emperor.



MARCH 2019

Trinity House cadet Anya receives Academic Excellence award



Anya, a Trinity House Merchant Navy Scholarship Scheme Cadet, earned praise for winning the Honourable Company of Master Mariners' award for academic excellence. Congratulations Anya! James Bullar MBE, of the London Nautical School, wrote on Twitter: "We had the huge pleasure today of Anya receiving her HCMM award for best 6th form maritime studies std at LNS. She is currently a Trinity House cadet and will join the tall ship Tenacious as her first ship whilst at university." (@JBullar)

The school tweeted: "Congratulations to Anya on receiving the prize for academic excellence from the Master Mariners. Here she is as the first female to receive it along with the very first LNS pupil to have won it a number of years ago!" (@londonnautical)



JULY 2019

World Marine Aids to Navigation Day 2019

On 1 July 2019, Trinity House joined lighthouse and aids to navigation authorities around the world to mark the first ever World Marine Aids to Navigation Day, established to celebrate and promote the role of marine aids to navigation and highlight the importance of safety at sea.

For our part in celebrating the day, Trinity House chose to focus on our role as inspectors and auditors of more than 11,000 local aids to navigation. World Marine Aids to Navigation Day is written up in full detail later in this journal.



JUNE 2019

Trinitytide tradition

The annual Trinitytide took place over 4-5 June, being the annual election of the Master, the Deputy Master and the two Wardens of the Court of the Corporation of Trinity House. HRH The Princess Royal was re-elected Master of the Corporation of Trinity House for the forthcoming year at the annual meeting of the Court. Captain Ian McNaught CVO MNM was re-elected as Deputy Master, Captain Nigel Palmer **OBE MNM** was re-elected as Rental Warden and Rear Admiral David Snelson CB was re-elected as Nether Warden of the Corporation. After the Annual Meeting the Elder and Younger Brethren attended the Annual Service at St Olave's Church, Hart Street, where the Preacher was The Rt Reverend The Lord Bishop of Salisbury.



IULY 2019

Maritime Safety Week 2019

The Department for Transport (DfT) launched Maritime Safety Week 2019 (1 to 5 July) at Trinity House in London on 1 July, an event which included the launch of the new Maritime Safety Action

Plan, which features the role and importance of Trinity House and our sister lighthouse authorities. This follows on from the success

of the inaugural Maritime Safety Week in 2018, introduced by

Maritime Minister Nusrat Ghani MP to bring the maritime industry together and provide a focus to highlight the work being done daily to ensure the safety of seas and inland waterways around the UK.



Trinity House News in brief









1 VISIT FROM CHAMBER OF SHIPPING CEO

On 23 April we were very pleased to receive **Bob Sanguinetti** in his capacity as the CEO of the UK Chamber of Shipping, the body that works as the voice of the shipping industry.

He visited our Harwich depot to find out more about how we provide a wide range of aids to navigation for mariners, with a focus on how our AtoNs are a benefit for shipping taking trade into and out of our ports for 'UK plc', or the UK's commercial interests.

Mr Sanguinetti is a Younger Brother of Trinity House and can be found on Twitter at @BobSanguinetti.

2 APPRENTICE SCOTT IN THE SPOTLIGHT

St Just's Apprentice Lighthouse Technician **Scott Tacchi** was featured on the BBC News website on 7 June for the photos he has taken during his time at Trinity House.

The 30-year-old from Truro in Cornwall has been using his popular Instagram account to document a job that often provides spectacular views: @keeping_a_lighthouse.

"I was working as a mechanic but I wanted more variety, and to see more places," explains Scott. "I absolutely love it. We are so lucky to be doing this job and see things that nobody else sees—I just wanted to show people."

SEAWORK 2019

Trinity House attended Seawork 2019, Europe's largest commercial marine and workboat exhibition. The exhibition was held in Southampton between 10-13 June; Trinity House went along as an exhibitor to showcase its commercial services.

One of the highlights of the Trinity House display area was the 360° virtual reality 'Life Story of a Buoy', showing the buoy maintenance regime from recovery at sea, including on-board inspection and maintenance, right through to the process for on-shore refurbishment.

Visitors to the event were also pleased to see our rapid intervention vessel THV *Alert* alongside, dressed overall.

4 NEW GAS DETECTORS

Trinity House's Health and Safety team has taken delivery of 14 new handheld MSA Altair 4XR gas detectors to be used across our support vessel fleet and lighthouse maintenance operations to detect any dangerous gases.

Given the diversity of our working environments—often in locations that face harsh conditions—we need a robust and reliable gas detector that will stand the rigours of offshore use and an instrument that can be calibrated at point of use. With the advice and customer support provided by Flameskill we look forward to rolling these out across the service.







COMING EVENTS

A brief look at selected highlights from our forthcoming calendar

Carol Service

3 December, St Olave's Church The seventh annual Trinity House Carol Service is to be held at St Olave's on 3 December 2019, open to the family of the Corporation: staff and their partners; beneficiaries from the Walmer almshouses; and the Elder and Younger Brethren of the Fraternity. On conclusion of the service there will be a reception at Trinity House.

Trinity House Staff Awards **@**

30 January, Trinity House Trinity House will be hosting its staff awards at its headquarters on 30 January 2019. Selected staff, teams and contractors will receive awards for exceptional performance and achievements over the past year, many of them travelling to the event from our ships or operational locations at Swansea, St Just and Harwich.

Annual National Service to Seafarers **o**

9 October, St Paul's Cathedral The Service is an opportunity to commemorate and celebrate all seafarers across the maritime profession. Representatives of all sectors of the seafaring community from the Royal Navy, Merchant Navy, fishing industry and nautical colleges to maritime youth groups and veterans' associations, will be shoulder to shoulder with a common understanding in the amazing surroundings of St Paul's.

If you wish to attend, please contact Seafarers UK via its website at www.seafarers.uk/event/annualnational-service-for-seafarers

Maritime Charities Group Conference 2019

28-29 October, Trinity House The Maritime Charities Group Conference will take place at Trinity House, two years after the publication of Navigating Change: a review of the UK Maritime Welfare Charity Sector. The conference will present an up-to-date snapshot of the sector.

Speakers from the Centre for Ageing Better and the King's Fund will provide the latest analysis of challenges for charities in meeting the needs of an ageing population. The conference will consider the role of trustees and how to recruit them, and will look at the wider maritime environment and consider how we can contribute to better health and wellbeing for our seafarers.

Please email **mcg@seafarers.uk** to register your interest.

Trinity House



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:

Commodore Robert James Astley Bellfield RN, Commander Devonport Flotilla Captain Stephen Donkersley RFA (Ret'd), Hotelier

Captain Trevor Braban Harris, Navigation (Examiner) Manager, Trinity House

Paul Heiney Esq, Writer, Broadcaster, Yachtsman

Commander Simon Peter Kelly RN, CO HMS *Westminster*



Commodore Iain Stuart Lower RN, Head of Navy Staff, Royal Navy

C McDade Esq, Manager, Marine HR

Graeme Proctor Esq, Inspector of Seamarks, Trinity House

Mark Rodaway Esq OBE, Marine Operations Commander, HM Coastguard

Captain Michael Peter Rowland, Master/Offshore Installation Manager

Commodore Ian Shipperley CBE RN, Non-executive Director, Milford Haven Port Authority

Lieutenant-Colonel Simon Ewen Southby-Tailyour OBE RM (Ret'd), Author

Appointments

Commander Leslie Chapman FNI RN, Younger Brother No 315, elected and installed as a Warden of the Honourable Company of Master Mariners.

Admiral Sir Philip Jones KCB ADC, Younger Brother No 259, awarded the US Legion of Merit in recognition of his exceptional leadership during his tenure as the First Sea Lord and Chief of Naval Staff. The citation

Trinity House

highlighted the Royal Navy's support of global operations that significantly impacted the European, Middle East and Indo-Pacific regions.

Captain Howard Le Cornu, Younger Brother No 255, appointed Vice Chairman of the Chartered Institute of Arbitrators.

Captain Simon Martin LVO OBE RN,

(Retired) Younger Brother No 177, appointed High Sheriff of the County of Devon.

The Rt Hon the Lord Mountevans,

Younger Brother No 352, Crossbench Peer, has been presented with the Seatrade Lifetime Achievement Award 2019. He has been on the board of Maritime London since 2011, serving as chairman since 2013. He is a Council Member, and former Chairman, of Maritime UK and chaired the UK Government's Maritime Growth Study in 2015, and is president of the Institute of Chartered Shipbrokers. In addition, he is a trustee of Seafarers UK and the White Ensign Association and an Honorary Captain in the Royal Naval Reserve.

Commander Philip Wake OBE RNR RD*

MSc FNI, Younger Brother No 240, has been appointed as Chairman of Trustees of the Royal Alfred Seafarers' Society in place of Captain Duncan Glass OBE MNM, Elder Brother, who has relinquished his appointment. HRH The Master is Patron of the Society.

Honours

We send our congratulations to the following members of the fraternity who have been gazetted since the last issue of *Flash*:

HM The Queen's 2019 Birthday Honours List

CBE Vice-Admiral Jeremy Kyd, Younger Brother No 316

OBE

Sarah Louise Treseder, Chief Executive, The Royal Yachting Association, Younger Brother No 314



(US) Chief of Naval Operations Admiral John Richardson hosted Admiral Sir Philip Jones, First Sea Lord and Chief of Naval Staff, on 30 April. Richardson presented Jones with the Legion of Merit in recognition of his exceptional leadership during his tenure as the First Sea Lord and Chief of Naval Staff. Admiral Sir Philip Jones has now completed his tenure as First Sea Lord and Chief of Naval Staff. Admiral Sir Philip Jones has now completed his tenure as First Sea Lord and Chief of Naval Staff. Admiral Sir Philip Jones has now completed his tenure as First Sea Lord and has been succeeded by Admiral Tony Radakin.

Obituaries

It is with regret that we report the deaths of the following members of the Fraternity.

Admiral Sir Simon Alastair Cassillis Cassels, KCB CBE on 6 March 2019, aged 91, Younger Brother No 3. He was admitted in 1963. He was a former Second Sea Lord and Chief of Naval Personnel and Admiral President of the Royal Naval College, Greenwich.

Captain Paul Fronteras MNI FInstPet

MIFPO on 2 February 2019 at the age of 85, Younger Brother No 29. He was admitted in 1977. He was former Port Captain at Brega, Libya, and Fire Advisor to the Saudi Ports Authority.

Captain Geoffrey Lewis Hope, FRGS FRICS RN on 26 January 2019, aged 86, Younger Brother No 43. He was admitted in 1980. He was a former Director of Hydrographic Plans and Surveys and Captain Hydrographic Surveying Flotilla.

Rear-Admiral Timothy Michael Bevan CB

on 6 June 2019, aged 88, Younger Brother No 8. He was admitted in 1970. He was a former Assistant Chief of Naval Staff (Intelligence), Captain BRNC Dartmouth and Chairman SSAFA Gloucestershire.

Mr Gordon Edward Vincent Holmes JP

on 7 July 2019, aged 90, Younger Brother No 26. He was admitted in 1977 and was a former Chief Officer with the P&O Steam Navigation Company and Trinity House Isle of Wight Pilot Service.

8



STAFF PROFILE

Ready at the drop of a hat

Continuing our look at various roles around Trinity House, **Stuart Mason** describes his work as Senior Technician Civil based at Swansea

What does a typical day look like for a Senior Technician Civil?

That's a difficult one! The multi-role that Senior Technicians carry out for the service ensures that we diversify in all facets of building / civil and painting works, amalgamating in actual hands-on work to supervising and managing contractors. There are not many jobs where you can go from writing a Schedule 1 painting specification to unblocking a drain in the same day!

What has been your favourite lighthouse to visit and work on and why?

Going from my previous job as a Clerk of Works in the steel manufacturing industry to the position I hold today makes me appreciate all the lighthouses I have visited to date. Having an interest in birds and wildlife probably edges me towards the lighthouses we have situated on small islands such as Skerries, Bardsey and Skokholm.

I still enjoy visiting a lighthouse for the first time and looking, studying (from a construction point of view of course) its own unique building characteristics!

What have your highlights been?

I'm not sure if I would use the word highlights but I do take a lot of satisfaction from taking on a project or even a small long term problematic job and solving the issue.

What are the requirements of a Senior Technician Civil?

The ones that comes to mind instantly are flexibility and organisation! The job does not come with a rigid structure of what you will be doing Monday to Friday. You have to be prepared at the drop of a hat to put down something that you are working on and attend another issue that has arisen somewhere else, even if it's at the other end of the country.

As we also deal with a lot of work that is carried out by contractors, you can have various works being carried out in all parts of the district at the same time.

How does the role of a Senior Technician Civil fit in with Trinity House as a whole?

From a building and civil perspective, I think it's a very important role. Not just now, but it has been in the past and certainly will be in the future. A large majority of our technical and mechanical equipment—along with the aids to navigation sit within structures that were built a couple of hundreds of years ago; that brings its own unique set of problems.

Integrate this with the Listed Building consents and environmental designations that are bestowed on most of our sites, and it goes to show how important these buildings are, and that we look after them for future generations. ENGINEERING REVIEW THV PATRICIA REPLACEMENT

Deliver Safety/

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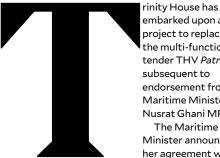
IV. PATRICIA

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Trinity House is working to procure a ship to replace THV *Patricia* following the Maritime Minister's endorsement of the tri-GLA Fleet Review's recommendations

sea



embarked upon a project to replace the multi-function tender THV Patricia, subsequent to endorsement from Maritime Minister Nusrat Ghani MP. The Maritime Minister announced her agreement with

the tri-GLA Fleet Review, an in-depth analysis initiated to identify the optimum number of ships, their capabilities and appropriate ownership and management needed to deliver the three General Lighthouse Authorities' (GLAs) statutory functions.

After exhaustive data collection and analysis of all aspects of the delivery of the safety service provided within our waters by the three GLAs, the review 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 tri-GLA Fleet Review also highlighted the close cooperation between the three GLAs which allows the coordinated 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 Ms Ghani-made during the Department for Transport's (DfT) inaugural Maritime Safety Week (9-13 July 2018)-was 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 DfT, with input from other maritime organisations and in close dialogue with the UK Chamber of Shipping through the Lights Advisory Committee.

The project

The project team has been assigned and is made up as below:

Project Executive Commodore Rob Dorey (Director of Operations); Project Manager Steve Keddie (Head of Engineering and Operations); Senior User Captain Ross Chadwick (Senior Marine Superintendent); Senior Supplier Finance Barry Nunn (Head of Finance & Procurement); Superintendent Gavin Johnson (Technical Superintendent); Superintendent Robert van Duin (Engineering Superintendent); Procurement Specialist Barry Messenger (Supply Chain Manager). From the Lighthouse Board, Captain Nigel Palmer and David **Ring** are industry advisors, with project assurance from the Government Internal Audit Agency.

We have determined a project structure framework which splits out a number of phases, each with key

decision points; some of these will require DfT approval.

Phase 1 is now complete with the approval of the mandate by the Lighthouse Board and DfT to replace THV Patricia.

Phase 2 consists of the development of the business case to explore options for the Patricia replacement.

Phase 3 will-following the approval of the recommended option within the Project Briefprocure the recommended option using a competitive tender and negotiation process. The successful tender response will form the Project Initiation Document (PID) together with the Full Business Case (FBC) following the government's 'Green Book Process'. The PID will be submitted to the Tender Replacement steering group and onward to DfT for approval of funds.

Phase 4 will design the replacement option based on our requirements. The project team will work with the main contractor and an expert technical advisor to develop and approve the design of the replacement option. A full design review and overall Trinity House approval will be required.

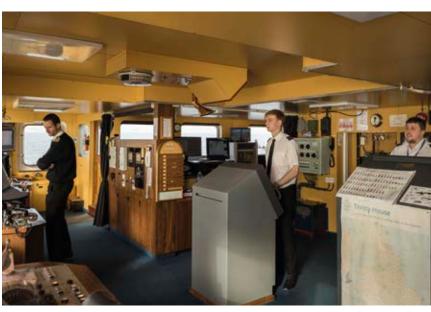
Phase 5 will build/contract and test the required design of the replacement option. The project team will work alongside a technical specialist to ensure the main contractor delivers the replacement option in line within the time, quality and budget requirements defined in the PID.

Phase 6 will trial the replacement vessel at sea, with the project team and the technical specialist working to ensure that the replacement vessel meets the build requirements and is operationally ready. Once the trial assessment is successful the replacement vessel will be handed over to Trinity House and will enter service.

Phase 7 is a defect liability or warranty period assessing the vessel within service.

A separate project will deal with the disposal of THV Patricia.

63



The bridge of the THV Patricia

What has happened so far?

The mandate for procuring a new ship to replace THV *Patricia* has now been fully approved, and Capita Transformation and Braemar Offshore have been contracted to help develop the 'Green Book' business case alongside Trinity House's project team and technical specialist.

Business case specialist Capita Transformation has met three times with Trinity House in a workshop format to gather together the information needed to develop the Outline Business Case (OBC). A longlist of tender replacement options is being drawn up, considering a number of spending objectives and critical success factors. Shipbroking specialist Braemar Offshore has been brought in to augment the economic and financial analysis with industry advice.

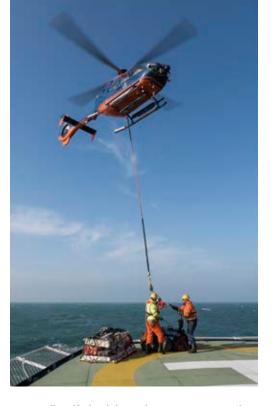
The internal and external teams will work together to determine the shortlist of options and—ultimately—the recommended delivery and financial option.

The OBC—which includes the recommended delivery and financial option—will be subject to review and approval by Trinity House's Lighthouse Board and also the Department for Transport.

The process for buying in the services of a technical specialist has also begun and an Invitation to Tender is being released; a pre-qualifying questionnaire has shown an encouraging number of responses.

Fact-finding and exploring

Representatives of the project team visited the British Antarctic Survey (BAS) and Natural Environment Research Council (NERC) teams that are working on the research vessel RRS *Sir David Attenborough*; the fact-finding visit and a follow-up meeting with the project manager at our London HQ



went well and helped the project team enormously as they work to define requirements, project management, procurement methodology and risk management.

Of the visit, Director of Operations and Project Executive Commodore Rob Dorey said: "This is an exciting time for Trinity House as we build a clear set of requirements for a replacement vessel. We are grateful for the information sharing with BAS and NERC who have been through a similar government procurement process. Our vessel will be far less complex but the lessons learned are extremely valuable as we go forward."



A helicopter drops supplies on the THV *Patricia*'s deck. Below, the vessel from above ENGINEERING REVIEW DECISION ON DECOMMISSIONING

Sovereign's service ends

Trinity House has commenced a project to decommission Royal Sovereign Lighthouse at the end of its serviceable life

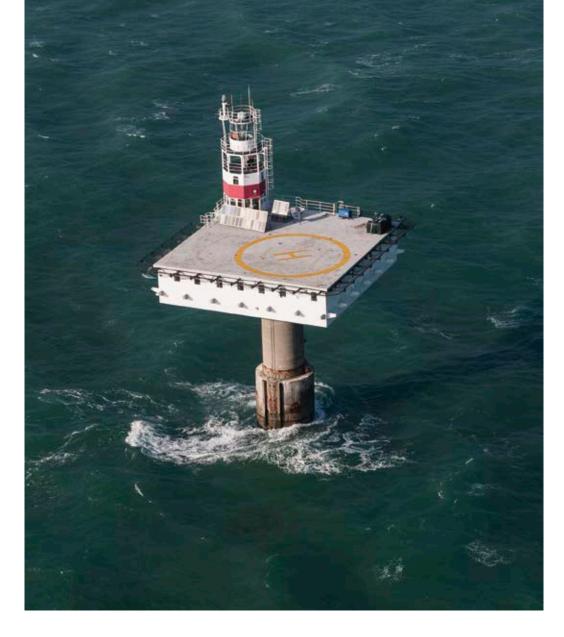


rinity House has begun preparation work on a project to decommission Royal Sovereign Lighthouse. It is the intention that the nowdeteriorating lighthouse will be removed. This has necessitated that local icon Beachy Head Lighthouse be upgraded to ensure the safety of the mariner in those waters.

Trinity House aims to commence work in 2020.

Royal Sovereign Lighthouse was built in 1971 with a design life of 50 years. Having monitored the fabric of the lighthouse over the last decade and observed the expected signs of deterioration, Trinity House has concluded that the ongoing safety of the mariner requires that the structure be fully decommissioned. Royal Sovereign Lighthouse has provided nearly 50 years of reliable service as an aid to navigation, one of over 600 that Trinity House operates for the benefit and safety of the mariner. In anticipation of its intention to remove Royal Sovereign Lighthouse, Trinity House has upgraded Beachy Head Lighthouse; it will also increase the capability of the offshore CS2 buoy and will retain the nearby Royal Sovereign buoy. The upgrade to Beachy Head Lighthouse has increased the number of solar panels around the base of its lantern gallery and installed a longer-range LED lantern; the CS2 lighted buoy will also benefit from an increase in range.

The upgrade to Beachy Head Lighthouse will come as good news to mariners and the local community alike.





Once Trinity House decommissions Royal Sovereign Lighthouse as proposed, Beachy Head Lighthouse's future is secured as the principal aid to navigation in the area.

Royal Sovereign Lighthouse was brought into operation at noon on 6 September 1971. With a farewell blast from the lighthouse's fog signal, THV *Winston Churchill* towed away the last of the series of lightvessels which had marked the Royal Sovereign station since 1875.

Trinity House's Deputy Master **Captain Ian McNaught** said: *"It is never an easy decision to discontinue and even remove such a prominent aid to navigation, but our first priority will always be the safety of the mariner. Now that Royal Sovereign Lighthouse has reached the end of its serviceable life, it is time for us to take steps to ensure that the lighthouse itself does not become a hazard. There will be a lot of work involved for our engineers and our various other teams and we will be working extensively in collaboration with a number of organisations to ensure the success of this project."*

ENGINEERING REVIEW LUNDY NORTH MODERNISATION

Light returns to the tower

Senior Project Engineer **Mike Yaxley** updates us on the project to modernise Lundy North Lighthouse on a remote island in the Bristol Channel



efore I look to informing you about the upgrade project which has just started its Year 1 (civil) phase, let me set the scene. Lundy Island is three and a half miles long and three-quarters of a mile wide and lies in the Bristol Channel off the north Devon coast, or—depending on how you wish to view it—off the south Wales coast. The Landmark Trust manages the island, renting out the refurbished historical

buildings as holiday lets throughout the year, and the visitors and population are serviced by a tavern and a small shop.

As you can imagine, the island is a popular destination in the summer for holidaymakers and day-trippers, when MV *Oldenburg* leaves either Ilfracombe or Bideford; in the winter it is a much quieter place with only the staff and a few visitors, travelling to and fro by helicopter.

Without TVs or a good phone signal, the outside world can at times be forgotten, but it is loaded with historical interest and has a rich wildlife interest. I recall that on one survey visit, walking up the track from the boat landing, a few very large wild goats with reasonable-sized horns came charging down this very restricted track toward us. Wondering where to dive for cover, those of us quickest to step aside against the cliff edge did leave one team member as an obvious target. Fortunately they diverted up a nearby path just before us.

As the information announcement on the MV *Oldenburg* warns visitors, the island operates without barriers, fences or signs. Visitors have to be responsible and apply common sense; the wild animals will normally avoid you. This environment obviously forms part of the attraction for visitors.

The normal means of transport on the island is by foot,

involving an hour's walk from the accommodation in the small village to the lighthouse at the north end of the island. To facilitate these works, we have leased a 4x4 vehicle for the duration of the project from Landmark Trust; although it is a bumpy ride on the single track that leads across the island, it is really useful in saving time and moving gear, although there is still the steep walk down to the lighthouse! It's a good workout (although, I must admit, with a couple of scenery stops) on the return walk to the cliff top.

Trinity House operates two lighthouses on the island: one at the south and one at the north end. It is Lundy North Lighthouse that we are currently refurbishing and upgrading.

Since it was solarised in 1991, the aids to navigation at Lundy North Lighthouse were positioned on top of the redundant fog signal building, vacating the main tower that remained as a daymark. The works we are currently doing will see a new LED light repositioned back into the tower, with standard control and communication equipment being installed. Having a less exposed position will benefit visiting staff, and the light will once again shine (more like flash) from the tower.

On site works are scheduled to take place over a two-year period. This year we will see completion of refurbishment to the main tower and adjoining rooms with upgraded welfare facilities. In 2020, our Field Operations technicians will complete the installation of the aid to navigation equipment. This year's civil work has been carried out by contractors in very challenging conditions, removing lead-contaminated paint and refurbishing the internal fabric of the building back to a functional condition, while also installing a new toilet and dayroom for maintenance visits.

We still have much work to do, including the refurbishment of the lantern glazing by Field Operations later this year, installing lightning protection and repositioning the solar array for ease of access and performance.

We'll have more updates as the modernisation project goes.

ENGINEERING REVIEW PORTLAND BILL LIGHTHOUSE MODERNISATIONI

Overhaul for Portland Bill after 23 years

Project Engineer **Phil Hawtin** gives us a brief update on the works that have taken place so far to modernise Portland Bill Lighthouse

ortland Bill Lighthouse was automated in 1996 and—after 23 years of operation—the majority of the installed equipment is now reaching its end-

of-life and supportability. As such, Trinity House has scheduled modernisation works for the lighthouse, with the installation works commencing October 2019 and running through to March 2020.

Ahead of this, some pre-works have been undertaken in preparation for the major works. One of the biggest considerations of the project has been where to relocate the large first order optic following its replacement with LED lanterns in October.

Following discussions with Dorset Council's Conservation Officer, the decision was made to remove the redundant compressed air fog signal system from the tower base, allowing for the optic to be relocated into this area and thus remain on display for the 30,000 annual visitors to the lighthouse.

This fog signal system has not been used as an aid to navigation for many years but remained on site, forming part of the visitor centre. The removal of this equipment also involved the disposal of various hazardous substances contained within the old equipment and took place in spring over a period of five weeks.

Once the contractor had concluded the removal works, a team of Trinity House personnel painted all areas affected by these works, including re-painting the complete tower base, ensuring the lighthouse remained in its usual sparkling quality.

Finally, three digital display boards were installed to provide information to the visitors about Trinity House, the history of Portland Bill Lighthouse and the future modernisation works.

A full account of the modernisation project will feature in a later edition of Flash.





Portland Bill: an icon

he Portland Bill Lighthouse stands on the southern tip of the Isle of Portland, guiding ships through the hazardous waters heading towards Portland and Weymouth as well as acting as a waymark for ships navigating the English Channel. The distinctive tower stands 41 metres tall and is painted in red and white stripes. Portland Bill Lighthouse was automated on 18 March 1996 and is now monitored and controlled from Trinity House's Planning Centre in Harwich, Essex.

Why visit the lighthouse?

Opened in 2015 by the Master, HRH the Princess Royal, the former lighthouse keepers' residence was refurbished and transformed into an exciting and innovative exhibit that is open to the public. Visitors to the lighthouse can also enjoy a guided tour to the top of the lighthouse and climb up into the lantern room where they can experience unspoilt views of the Jurassic Coast.

What is in the new visitor centre?

The visitor centre caters for all ages and displays a number of artefacts as well as some interactive exhibits, enabling the visitor to learn about the lighthouse and its history and technologies as well as the lives and roles of the lighthouse keepers. The exhibition also helps visitors learn about Trinity House's various roles as an aid to navigation provider, cadet sponsor, educator and custodian of an expansive part in British maritime history.

What changes are coming?

Portland Bill Lighthouse is currently undergoing a full re-engineering project modernising the working components within the station. The first order rotating optic will be removed and carefully relocated to the ground floor where it will be displayed to form a part of the visitor centre experience. Two flashing LED lanterns will be installed in its place to produce the new navigation light. The new LEDs will bring with them efficiency, longer life and ease of maintenance.

In addition to this the current two nautical mile fog signal will be replaced with a new one nautical mile fog signal to be installed on the gallery.

The modernisation of the lighthouse is expected to be completed by spring 2020.



WHERE CAN I FIND MORE VISITOR INFORMATION?

If you would like to find out more information about Portland Bill Lighthouse Visitor Centre and other lighthouses that are open to the public then please visit our website: www.trinityhouse. co.uk/visitor-centres

Tourists can visit the lantern



ENGINEERING REVIEW SAFETY AND QUALITY IMPROVEMENTS

Man lift aids buoy painting

Engineering and Operations Manager Simon Millyard (now retired) tells us about the man lift recently installed at Swansea



been installed at Swansea Buoy Yard in the paint bay to replace the aging one there. The new man lift enables personnel to access a buoy safely without the need for

scaffolding and reduces the amount of stretching and bending required by the sprayer to paint a buoy body.

Painting a buoy body requires a high level of skill and dexterity to ensure that the correct amount of paint is applied uniformly across the surface area.

This is measured as Dry Film Thickness (DFM) and should be a minimum of 300 microns for the primer and 125 microns for the top coat.

Too little paint will allow water ingress and the coating to break down prematurely at sea, while too much paint is wasteful, causes runs and will cause delamination and failure of the system.

The new man lift assists this quality control as well as being ergonomically friendly for the staff. The photo here shows Senior Buoy Yard Team Member Gareth Scrine on the new man lift in the paint bay inspecting a recently rebuilt Type 2 buoy body. This buoy body had suffered extensive damage at sea and was close to being written off, but had a new patch on the side and on the top dished end welded on by Swansea fabricator Sam Longhurst, saving some £13,000 for the price of a new body.

Above: Gareth Scrine at work on a Type 2 Buoy using the new man life for easy access

World Marine Aids to Navigation Day

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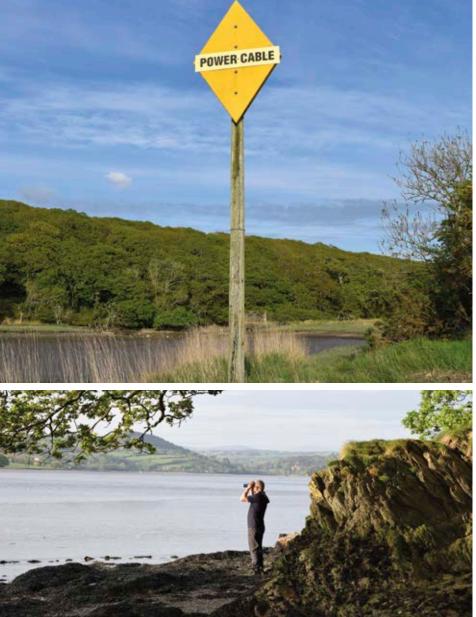
Trinity House joined lighthouse authorities around the world to help mark the inaugural recognition of the role played by AtoNs in global maritime safety

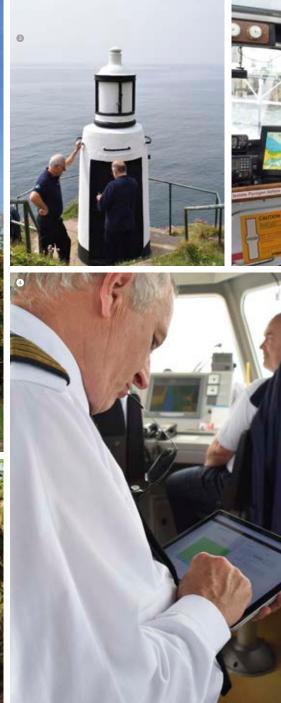


n 1 July 2019 Trinity House joined lighthouse and aids to navigation authorities around the world to mark the first ever **World Marine Aids to Navigation Day**, established to celebrate and promote the role of marine aids to navigation (AtoNs) and highlight the importance of safety at sea.

The body behind the day is IALA (the International Association of Marine Aids to Navigation and Lighthouse Authorities), a non-profit international technical association







established in 1957 to gather together marine aids to navigation authorities, manufacturers, consultants and scientific and training institutes from all parts of the world.

IALA's 305 members—whether national or industrial—assemble across a number of committees and working groups to exchange and compare their experiences and achievements, with a view to drafting and publishing IALA Standards, Recommendations and Guidelines.

The aim of IALA—to which Trinity House subscribes and contributes—

is to foster the safe, economic and efficient movement of vessels, through improvement and harmonisation of aids to navigation worldwide and other appropriate means, for the benefit of the maritime community and the protection of the environment. Trinity House was a founding member of IALA in 1957.

The idea of launching the World Marine Aids to Navigation Day annually on 1 July was agreed at IALA's 2018 conference in the Republic of Korea.

As a focal point for highlighting the importance of aids to navigation as a service for all mariners, Trinity House has chosen to emphasise its statutory duty as an auditor and inspector of local aids to navigation, rather than its more well-known duty as a provider of general aids to navigation such as lighthouses, lightvessels and buoys.

Local aids to navigation are owned and operated by Local Lighthouse Authorities rather than Trinity House, but the powers and duties granted to Trinity House by the Merchant Shipping Act 1995 require it to audit and inspect almost 11,000 local AtoNs. The work is carried out by Trinity House's Inspector of Seamarks and the Local AtoN











Manager, both of whom enjoy meeting local operators and seeing so many often-hidden corners of the nation.

Trinity House's Inspector of Seamarks Graeme Proctor says of the cyclical inspection schedule: "It's a lot like painting the Forth Bridge, but I really enjoy meeting local Harbour Masters and their teams. It is hard work and a lot of long days, but there will often be a cup of tea waiting for me in the harbour office in the winter and we do enjoy an ice cream by the seaside in the summer months. Although it may not be the most famous of Trinity House's contributions to maritime Britain, it's a vital role for safety and is great for keeping us in touch with local aids to navigation providers and the marine users themselves."

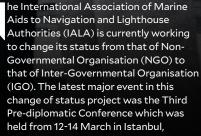
Maritime Minister Nusrat Ghani MP said: "Lighthouses have a place in all of our hearts but their longstanding role can never be underestimated. Aids to navigation are crucial to keeping people safe at sea, alerting them to potential dangers. Our lighthouse authorities, including Trinity House, do a fantastic job of keeping our lighthouses, buoys and other assistance vessels in good condition around the clock." Plant State

right): Paul Pétry (France), PJG Van Diggelen (The Netherlands), Captain Sir Gerald Curteis (Trinity House) and Gerhard Wiedemann (Germany); image courtesy of IALA

founders

IALA, Istanbul and the inception of an IGO

Our Head of Secretariat **Thomas Arculus** writes about IALA's progress as it seeks to change its status from NGO to IGO



generously hosted by the Directorate General of Coastal Safety of the Republic of Turkey and formally opened by the Honourable Selim Dursun, Vice-Minister of Transport and Infrastructure.

The conference was chaired by His Excellency Serge Ségura, French Ambassador for the Oceans, with the support of Vicechairman Ahmet Reha Cöplü, Deputy Director General of Coastal Safety of the Republic of Turkey. 182 delegates representing 53 countries from around the world attended the conference including the Deputy Master and the Head of Secretariat of Trinity House and the Chief Executive of the Northern Lighthouse Board. Irish Lights and the Irish Department for Transport, Tourism and Sport also sent delegates.

The Istanbul conference was the third such pre-diplomatic conference and followed the first in Paris in 2017 and the second in Marrakech in 2018.

The change of status will give IALA parity with other IGOs such as the International Maritime Organization and the International Hydrographical Organization. This change of status will require agreement at governmental level via the instrument of an International Convention, which will be deposited at the United Nations and will be open to signature by all UN members.

The outcome from the Istanbul conference was that 17 of the 21 articles of the draft convention text are now ready to be presented for agreement by governments. A further four draft articles contain matters of a political hue which will need to be discussed at the Diplomatic Conference which will take place in Malaysia in 2020 by the kind invitation of the Malaysian Government.

It is proposed that the new IGO will be called the International Organization for Marine Aids to Navigation but will continue to use the internationally recognised and well-known IALA moniker.

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As IALA advances towards this new chapter it is interesting to look at the origins and development of IALA and the integral part that Trinity House has played in its story.

The foundations for the creation of IALA date back to the first International Lighthouse Conference, which Trinity House hosted in London in 1929 and was "an exchange of views and ideas of a technical nature". Authorities from 24 nations attended. Conferences followed in Paris in 1933 and Berlin in 1937. Industrial representatives were involved from the very first conference and continue to be.

A Safety of Navigation Conference was held in London in 1948 and the International Technical Conference on Lighthouses and Other Aids to Navigation took place in Paris in 1950, billed as "a conference for the informal exchange of technical information", attended by 19 authorities and 131 participants. It had been many years since the previous conference in Berlin and due to the workload several authorities agreed to carry out work packages and to report back. By this time the French lighthouse authority had begun to administer the work of collecting and distributing these reports.

The next conference took place in Scheveningen, Netherlands, in 1953 and lighthouse authorities from every country known to have such an authority were invited. Industrial representatives were also invited but restricted to two per country. The 30 countries represented agreed on the importance of ongoing cooperation. The next conference was not due to happen until 1960 in Washington, USA, but technology was developing at such a pace that more regular meetings were required. It was therefore proposed at Scheveningen that a permanent secretariat should be established in Paris to support the work of the conferences. The Netherlands was asked to investigate how such an organisation could be formed and the four countries which had previously hosted conferences met to discuss it.

Captain Sir Gerald Curteis KCVO RN (Deputy Master of the Corporation of Trinity House 1948-61), together with Mr PJG van Diggelen of the Netherlands, Mr P Pétry (France) and Mr G. Wiedemann (Germany) drafted a constitution to create the new International Association of Lighthouse Authorities. A letter was sent to prospective members in July 1956 and rapidly the requisite 20 lighthouse authorities had agreed to join. The IALA Constitution entered into force on 1 July 1957. IALA had been born.

IALA was originally headquartered in Paris at 43 Avenue du Président Wilson, hosted by the French Lighthouse Service. It was formed under the French Law of Associations of 1901 with the status of a foreign, non-profit organisation bound by the laws of the host country.

The Association flourished and by 1981 had outgrown its offices and relocated, however still under the aegis of the French Lighthouse Service whose Mr Jean Pruniéras was Secretary General. By 1989, due to its continued growth and to an internal restructure of the French Lighthouse Service, the Executive Committee of IALA decided to appoint a full time Secretary General, Mr Norman Matthews, and to relocate to the elegant Parisian suburb of St. Germain-en-Laye in 1990, where it remains. IALA now has national members from 82 coastal states.

After the change of status IALA will continue to have its seat in France and to have the same aim (to foster the safe and efficient movement of vessels through improvement and harmonisation of marine aids to navigation for the benefit of the maritime community and the protection of the marine environment) and the same consultative and technical nature.

Trinity House looks forward to continuing to play a full part in the work of the new IGO.

Cityscape of Istanbul



IALA Level 1.1 Marine Aids to Navigation Manager Training

Trinity House is running IALA's Level 1.1 AtoN Manager course for those interested in the planning, risk assessment, provision and maintenance of aids to navigation

he International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) has developed a training course designed to promote training and share expertise in support of their strategic goals.

As an IALA Accredited Training Organisation, Trinity House is running the Level 1.1 AtoN Manager course from August 2019 to March 2020 through a distance learning and residential programme.

Training in all aspects of marine aids to navigation (AtoN)—including planning, risk assessment, provision and maintenance—is essential for reliable AtoN delivery to promote safe navigation and compliance with international obligations. The successful delivery of AtoN services depends upon competent and experienced personnel to implement and maintain these services.

The course will be delivered in compliance with IALA Recommendation R0141 and IALA Model Course L1.1 with experienced and qualified AtoN managers and engineers.

The course consists of modules one to three. Modules one and two will be carried out by distance learning, and will cover a wide range of introductory knowledge and principles, such as an introduction to aids to navigation and the view from a ship's bridge; module two moves on to more advanced topics such as e-navigation, Vessel Traffic Services, remote monitoring and the technical aspects of satellite-based and terrestrial radio aids to navigation.

The third and final module is a

one-week residential course in Harwich, England, and includes issues such as the role of the Competent Authority and their international obligations, the planning and publication of Levels of Service statement and contractual procedures and funding models.

A final group major planning exercise requires participants to act as the National Competent Authority of a small coastal state charged with the delivery of an internationally compliant AtoN service.

If you would like to find out more, full details of the course syllabus are in IALA Model course L1.1.

Trinity House is very proud to be able to share its experiences and knowledge with IALA's members as a trusted part of IALA's educational and capacity-building outreach programme.



Charity update

The **Trinity House Maritime Charity** continues to seek out liaison opportunities with other maritime welfare providers and smaller seafaring charities to ensure the well-being and robust education of mariners

erchant Navy Scholarship Scheme Deck Officer Cadet Bethany Wilkinson has piloted a scheme

that puts Merchant Navy cadets at sea training with the Royal Navy. She described her recent experiences on the scheme:

One of the main reasons I wanted to do my cadetship with Trinity House was due to being able to gain experience on a wide variety of ships. Never in a million years did I think I would find myself stood on the dock at Her Majesty's Naval Base Portsmouth about to join a brand new firstof-class Royal Navy ship, an Offshore Patrol Vessel (OPV) called HMS *Forth*, and gain accredited sea time while being on board.

I had a vague idea of the amount of training the Royal Navy does before even setting foot on a ship, so to say I was nervous in those initial moments is an understatement! I was welcomed on board by one of the Young Officers (the Royal Navy's equivalent to a cadet) and shown around the ship and where I would be staying. The ship is a much different layout to anything I have grown accustomed to, and I spent the first few days getting lost, but there was always a friendly face to show me the way.

My nerves quickly went when I found how welcoming and helpful the crew were, especially when I found myself almost immediately in at the deep end and being involved with all aspects of



the ship's various routines. HMS *Forth* was undergoing FOST (Flag Officer Sea Training) and OST (Operational Sea Training) to ensure both ship and all crew were up to the correct standard and able to cope with the various and worst-case scenarios she could encounter while at sea.

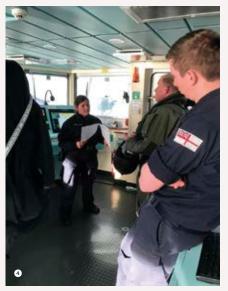
We set sail from Portsmouth, the first time—for both the ship and me—under a white ensign. The duration of my time on board was spent in UK waters around the south coast.

The next few weeks consisted of a variety of sea trials, endorsements and, of course, many drills. I was able to do something from every aspect on the ship, from everything on the bridge to being on watch and giving traffic reports (unlike the Merchant Navy, every vessel within a set range must be reported to the captain); I took part as a team member in various drills including damage control, fire and man overboard. I was even given an opportunity to follow the weapons engineers and shown how to fire a GPMG general-purpose machine gun!

It was particularly interesting, from a cadet perspective, to be able to see and discuss differences and try some of the different ways in which both the Merchant Navy and Royal Navy operate.

I believe this assisted me in my Deck Officer training by seeing a wider variety of ways to complete an objective. It was a fantastic opportunity to get involved









and widen my experiences. As with any cadet, I was always more than happy to get involved and offer my services as a guinea pig when the opportunity arose. The photos shows me assisting (as a not-soglamorous assistant) in a sea survival brief on how to don survival suits and lifejackets.

Likewise, if there was an opportunity to have a go or take part, officers went out of their way to ensure that I could in order to get the most out of this opportunity, or were more than happy if I wanted to have a go. This enabled me to gain the set tasks required in my Training Record Book.

When the time came for me to leave, I was sorry to have to go!

The liaison scheme

The scheme's co-ordinator is the Royal Navy's Merchant Navy Liaison Officer Lt Cdr David Carter MNM LL.B RNR, a Younger Brother of Trinity House. He said: "Bethany has been a super pilot for formalising this exchange and the Royal Navy is liaising with the MCA on mutual training recognition for sea time accreditation. We have more to follow on HMS Forth and the next OPV HMS Medway."

The Royal Navy has berths allowing for 80 Merchant Navy Engineer Cadets every year; this is part of a mutual Royal Navy to Merchant Navy training exchange, as the former works towards full MCA qualifications.

Lt Cdr Carter added: "We have an enhanced industry-sponsored RN Fastrack Maritime Scheme under MCA Memorandum of Understanding to ease and improve RN to MN resettlement pathways as part of our Maritime 2050 policy commitment; the future is RN and MN together for win-wins on multiple paths. This last year has seen 145 RN to MN liaison voyages, and that number is growing as Royal Navy personnel join Merchant Navy ships to gain STCW-accredited training time. The Royal Navy wants to return that favour by making the best use of our training berths."

For more information on the Merchant Navy Scholarship Scheme, please visit www.trinityhouse.co.uk/mnss

 Bethany with QHM Portsmouth
 Pilot (and Younger Brother of Trinity
 House) Rachel Dunn prior to departure
 HMS Forth, the first Royal Navy
 Bathany in RN PCS uniform wearing
 Merchant Navy Deck Cadet
 Epaulette
 Bethany briefing an RN team on the bridge of HMS Forth prior to a drill

 Bethany being the willing case study for sea survival training
 Bethany the fully dressed

survival-at-sea case study



CHARITABLE GRANTS

The AHOY Centre

In April, the Trinity House Maritime Charity awarded a grant of £20,000 to the AHOY Centre towards the cost of maintaining their boats and equipment. They are a watersports-based charity that supports and changes the lives of disadvantaged, at-risk children, young people and adults (including those with a disability) living in Greenwich, Lewisham and Southwark. The Centre uses watersports as a medium to educate, train and support young people and adults who are at risk, helping them to gain practical experience with transferable skills and secure further opportunities in education or employment. The AHOY Centre offers their participants a number of qualifications including RYA, City and Guilds and NVQs, as well as significant gains in their self-confidence, self-esteem, team building and life skills.

Clive Ongley, Chief Executive, said: "Over the years we have received the continued support of Trinity House, without which we would struggle to continue to offer the level of training at AHOY. This year we are so grateful to have received funding to help us cover our maintenance costs to ensure that our equipment is kept in working condition. Without this support it will be difficult to run the training and activities at AHOY. Thank you Trinity House!" www.ahoy.org.uk

Hull Trinity House Nautical College

Trinity House awarded the Hull Trinity House Academy a grant of £24,000 in support of the refurbishment of their 8.3m RIB. The boat will help train students to an intermediate and advanced level in powerboating alongside learning navigational skills. The experience the students gain not only builds their selfconfidence as they are challenged with unfamiliar conditions and environments, but also increases their knowledge base as they put into practice on the water what they learn in the classroom.

Until Hull Trinity House Nautical College opened in 2017, there was not the opportunity to study within the maritime industry locally and students had to travel further afield to continue their studies. Now, their students are not only benefitting from the new facility but are leaving as high-quality trained personnel, ready to take that next step in their maritime career. Head of Maritime Studies, David Forth, was overjoyed with the grant award and said: *"To know that others can see and appreciate what we're trying to achieve here at Hull Trinity House Nautical College is a massive boost.*

"We wouldn't have been able to even consider looking at offering additional courses and training to our students had it not been for this money.

"We are constantly trying to improve on what we deliver and this additional RIB, once refurbished, will ensure we continue to meet and possibly exceed local demand both for our maritime students and for businesses. We're in a really good place at the minute with increased student numbers proposed for September 2019 and the interest from local businesses is gaining momentum too. I'm looking forward to the growth of maritime training at Hull Trinity House Nautical College and thank Trinity House London for their continued support." www.hthacademy.org.uk

Gosport Marine Scene (now Portsmouth Harbour Marine)

Gosport Marine Scene was awarded a grant of £20,000 in April 2019. The



organisation was set up in 2013 with the objective of improving the life chances of disadvantaged young people in and around Gosport who had an interest in starting a career in the maritime sector.

It was evident that school leavers had little connection with the sea 'on their doorstep', let alone an awareness of a career in the maritime sector, in which there are many opportunities both at sea and nearby ashore. A number of initiatives were put in place to heighten the awareness of these job opportunities and to expose young people to the thrill and excitement of getting afloat in small boats.

With the financial support provided by Trinity House, Gosport Marine Scene (now renamed Portsmouth Harbour Marine (PHM) due to its widened remit to include all the areas around Portsmouth Harbour) has run two highly successful Marine Festivals alongside developing its Marine Futures programme, aimed at getting young people to sea. The results of these initiatives have been to re-connect Gosport to its maritime past and to show young people that many exciting maritime careers and opportunities exist afloat and locally in the area. A number of young people from the Marine Futures programme have gone on to careers in



the maritime industry. Mark Bowden, Chief Executive of PHM, said: "With the support and interest from Trinity House over the last two years, PHM has made a step change in what we are able to deliver. As well as getting young people connected to the sea, we have recognised a real need to bridge the gap between the schools, colleges and universities and the maritime industry to assist the educational establishments in designing the courses that the industry requires in order to develop the maritime sector." www.portsmouthharbourmarine.org.uk

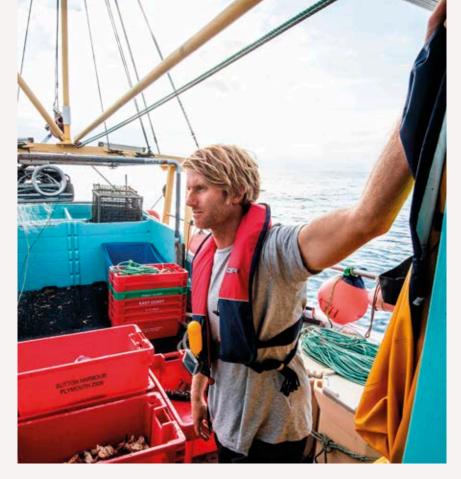
Stoll

Stoll is the leading provider of supported housing to vulnerable veterans. Trinity House awarded it a grant of £19,500 in April towards the cost of providing a tailored casework service to around 50 seafaring veterans or their dependants. Chris, one of the Fishing Animateurs

This support provides each beneficiary with a dedicated caseworker, who works with individuals to enable them to live independently. The support that Stoll offers is ongoing and the team only close a case when all issues identified have been resolved. Beneficiaries are also able to contact them in the future should they need further support. Beneficiary Steve Horrigan said: "I moved into Stoll Mansions, in Fulham, five months ago and their support was vital. At the meeting with Julian Coates, who runs Stoll's Veterans' Nomination Scheme, I was housed very quickly as I met the criteria, having served in the Royal Navy. I'm delighted with my one-bed flat, which is ideal for my work and also close to family. Thanks to Stoll's support, I completed a course in health and fitness and can conduct gym inductions at Stoll's gym. My goal is to complete Boat Master training on the Thames; once established in a new career, I hope to move on and live independently in the community." www.stoll.org.uk

Cornwall Rural Community Charity

Following its grant award in 2018, Trinity House awarded a grant of £25,000 to Cornwall Rural Community Charity (CRCC) in support of its Fishing Animateurs project. The project helps mainly small-scale coastal fishers to develop ideas into



funded projects. The Animateurs' work falls into three areas: improving safety of the boat and fisher, improving facilities in harbours and improving the fishers' ability to sell their catch direct.

The team assists with grant applications for items such as safety rails, life rafts and personal protection, to forklift trucks to make handling the catch easier in harbour or a refrigerated van or website to increase sales. The small team of Animateurs are only able to offer this service with the grant support from Trinity House. Jeremy Hibbard, CEO of CRCC, said: "The financial support from Trinity House has been a vital key component in enabling this service to deliver real change to more than 200 fishing family businesses, unlocking well over £1million in grant support." www.fishinganimateur.co.uk

CHARITIES WE SUPPORT: THE FISHING COLLEGE

A new safety vessel for training fishing industry entrants

The Fishing College was awarded a grant of £30,000 towards the cost of engines, electronics and safety equipment for their new safety vessel, *Trinity*.

She is being launched this summer and will enable the College to offer more practical safety skills courses for fishermen and to introduce new entrants to the industry to the different types of safety equipment supplied on board vessels. The Fishing College has been involved in training fishermen and new entrants to the industry for many years. It works alongside Seafish and other organisations who promote safety at sea.

Through their experience of delivering training, the College discovered that the majority of courses available to people working in the industry are classroombased. The team felt that certain types of courses, especially those surrounding safety, could be delivered on a more practical basis. They offer the opportunity to carry out training on board the safety boat, such as the mandatory drills of man overboard, stability, anchor drills, fire on board, the location of equipment for safety and what to do in an emergency.

With the support of Trinity House, the Fishing College has been able to build a

Regional Grant Committees



The Scotland and Northern Ireland Committee awarded a £4,000 grant to the **Sir Thomas Lipton Foundation** to expand their Buoyed Up programme into Northern Ireland. Working in partnership with primary schools in the country's most deprived areas, the Foundation delivers a sea change for whole classes of the poorest 10-12-year-old children before they leave primary school, enabling them to develop their confidence, purpose and motivation. The grant enabled 31 children in Bangor and Dundonald to take part in five days of sailing and achieve an RYA Level 1 qualification. **www.sirthomasliptonfoundation.org**

The Wales Committee awarded a grant of £1,920 to **Mission to Seafarers** to enable it to purchase the equipment required to provide fast, reliable internet access



to seafarers in remote berths and ports within South Wales and where there are no Mission to Seafarers centres. Seafarers can often be without communication for up to two months until they reach a port with Wi-Fi or shore leave is granted. This grant will enable the Mission to provide a mobile facility while in the Chaplain's vehicle, which would be useful for visits to busier ports, where the car would remain in port for several hours. Secondly, the 'off the grid' power would mean that the device could be powered for several days from one charge, allowing mobile internet access to crews alongside in the South Wales ports. www.missiontoseafarers.org

The East Committee awarded £4,000 to Adventures Offshore towards its 2019 Young Sea Staff training scheme. Eight young people who excelled on their 2018 summer voyage are selected to train to RYA Watch Leader standard and are given experience of several days' continuous sea time, alongside the daily watchkeeping routine, which provides total familiarity with Adventures Offshore's Oyster 49s.

This experience includes safe handling of all equipment as well as carrying out all routine maintenance tasks onboard. This equips the young people with the knowledge and confidence to take responsibility for a watch; with the addition of an MCA Seafarer medical, they will return in the following sailing season as adult volunteer trainee or second mates with Adventures Offshore. Having young people in positions of responsibility will inspire other young crew to enjoy sailing offshore and hopefully to return and progress through the RYA training scheme. www.adventuresoffshore.co.uk

brand new vessel to provide safety training at sea. This makes the experience more realistic for the fishermen and women enabling them to learn new skills. It will also lead to the development of further courses in the future.

The team strongly believe in safety for all who work on the sea and by using *Trinity*, the Fishing College can give its participants the confidence to act appropriately when an emergency or lifethreatening situation occurs.

The Fishing College has just completed their first training course on board *Trinity*. Nine individuals who are about to join the fishing industry attended and their feedback on using the new equipment was excellent.

www.fishingcollege.co.uk



Partner profile: UK Hydrographic Office

The UKHO describes how marine geospatial data can help others to unlock the full potential of the marine environment, critical to so many aspects of our day-to-day lives





ur oceans are an important part of our day-to-day lives—relied on for trade, food and energy. In the UK alone, they provide jobs for more than 500,000 people and contribute more than £47 billion to the economy through activities such as commercial shipping, offshore wind power and aquaculture.

As this reliance on our oceans grows, so too does our need to use them in a responsible way, with many governments and organisations working hard to protect and sustainably manage the use of marine resources. And while the range of activities is vast, from trade to marine conservation, there is one common element that underpins them all: marine geospatial information.

Data describing the shape of the seafloor, deep sea biodiversity, direction

of the tides, the temperature of the water and more—this is crucial to helping us both benefit from and protect our oceans.

The UK Hydrographic Office sources, processes and provides access to this marine geospatial data. Working with a wide range of partners, we're using this data and our expertise to help others make the best use of our oceans.

Supporting the safety of mariners across the globe

Supporting navigation is at the heart of what we do and, for more than 220 years, we've been producing world-leading charts and publications to support the

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safety of ships, crew and cargo around the world. To achieve this, we work with global partners to collect, compile and analyse global data sets—bathymetric profiles of the seafloor, tidal streams and currents, port information, climatic conditions and many more—all of which are critical to safe maritime navigation. These are then used to develop our ADMIRALTY Maritime Data Solutions, which are used on more than 90% of commercial ships trading internationally today.

As the needs of these ships have evolved, so has the way we collect and use this data. By using satellite imagery and artificial intelligence, we are now able to detect and highlight unidentified ocean objects that pose a risk to vessels. And through analysis of billions of Automatic Identification System (AIS) data points, we are able to monitor the movement of global shipping traffic to ensure our coverage meets the needs of the mariner.

Now we are using this data and expertise to support wider use of the marine environment.

Helping coastal communities to develop marine economies in a responsible way

Many coastal nations around the world depend directly on our oceans for their food security, safety and livelihoods. So, it's vital that they have the information and insight to not only benefit from their marine environments, but also protect them for years to come.

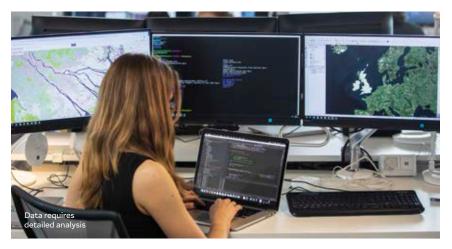
Working alongside government partners, we are helping these countries to meet these challenges as part of the Foreign & Commonwealth Office's Commonwealth Marine Economies (CME) Programme.

Supported by the Conflict, Stability and Security Fund, the programme aims to help Commonwealth Small Island



Developing States grow their marine economies in a sustainable and resilient way. To support this, we've led the survey of more than 6,500km² of ocean across 17 Commonwealth states in the Pacific and Caribbean, collecting marine geospatial data that is essential to supporting trade, sustainable use of ocean resources and the protection of communities from the effects of climate change.

In Grenada, a country with waters 75 times larger than its land mass, this data was used to support a number of these initiatives. Firstly, the National Oceanography Centre and Centre for Environment, Fisheries and Aquaculture



Science used bathymetric data sets captured by the UKHO to support the production of seabed habitat maps. Containing detailed analysis of the marine life, the maps will help Grenada to assess and monitor the health of its coastal habitats, such as coral reefs, to support the sustainable use of marine resources.

In addition to this, further depth data will also be used to create data models that can help to predict the impact of sea level rise and storm surges in the event of extreme weather events. Having already felt the effects of previous hurricanes, this vital information will help the government to create strategies and plans that can protect communities and marine environments into the future.

Data captured and processed by the UKHO is also being used by Guyana to overcome a unique challenge posed by their marine environment. Situated on the South American North Coast, the country has three large rivers stemming from the North Amazon Basin that deposit silt along the adjacent coastlines. As a result, its seabed is extremely shallow and constantly moving, preventing some ships from entering their ports and increasing the likelihood of groundings in the area.

To help them overcome this issue, we commissioned a survey of the approaches to Georgetown, Guyana's main port, and helped local authorities develop





their capability to monitor the marine environment going forward.

This improved data collection has helped Guyana to develop a more accurate picture of the seafloor, allowing ships to confidently navigate in the area, increase cargo loads and open new opportunities to grow their economy.

Helping the UK to maximise the value of geospatial data

Here in the UK, our relationship with the ocean is also changing, with advances in technology and data collection creating new opportunities for marine business to innovate and grow. Working alongside partners across government, we are helping the UK to capitalise on these opportunities through a range of initiatives.

One area of particular focus is autonomous shipping. Working alongside L3 ASV and the Maritime & Coastguard Agency, we recently developed a paper to identify future data requirements for this sector. The project, funded by the Department for Transport's T-TRIG grant, looked at how navigational and wider geospatial data can enable the safe navigation of unmanned autonomous vessels. This included an exploration of how data could be used to create a 'Smart Chart ' system that can be interpreted by a computer without the use of an onboard crew.

We are also a partner body of the UK Government's Geospatial Commission, which is working to increase the quality and accessibility of UK location-based data to support economic growth. As a partner body, we've supported this aim by working with other government agencies to improve the collection and sharing of geospatial data between key government departments. In addition to this we have supported the development of a single data exploration licence which will make it easier for UK businesses to use public data to research and develop products.

Looking to the future

From helping to develop sustainable marine economies to keeping mariners safe at sea, marine geospatial data is transforming the way we use and protect our ocean environments, with working partnerships like the Geospatial Commission and CME Programme helping to drive this change.

As the UK Hydrographic Office, we're proud of the part we play in this and will continue to work with partners to help unlock a deeper understanding of our world's oceans, for safer navigation, the marine economy and the future of our planet.



Christmastide greetings

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

Trinity House 2019 Christmas card

This year the card features a striking image of Beachy Head Lighthouse in the snow which was captured by Matthew Pinner of Pinner's Photography and contains the greeting "All Good Wishes for Christmas and the New Year". The Christmas Card is printed in full colour on marquet card with an embossed border and a white paper insert.

Following Trinity House's commitment to stop producing avoidable plastic waste by March 2020 this year's cards have been wrapped in a natural starch cellophane packaging which is compostable when recycled.

Size – Approx. A5, sold in packs of 10 including envelopes Collected price* £9.50 Inc. P&P: £11.50 UK £14.00 Europe £16.50 Worldwide

*Collection available from Harwich or London offices.



1844



Trinity House 2020 Lighthouse calendar

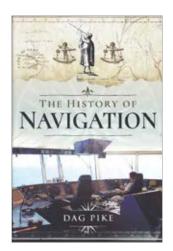
The 2020 calendar features 12 of the year's best photographs captured by members of the public and submitted to the annual photography competition. These are printed in full colour on silk board. Featured lighthouses include Godrevy, Longships and St. Anthony. Following Trinity House's commitment to stop producing avoidable plastic waste by March 2020 this year's calendar will be sent packaged within the boarded envelope. Size – Approx. 300mmx300mm Collected price* £8.99 Inc. P&P: £12.50 UK £15.50 Europe £18.50 Worldwide

*Collection available 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**



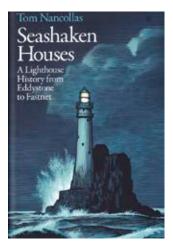
THE HISTORY OF NAVIGATION By Dag Pike Pen & Sword Maritime. 209 pages.

Pen & Sword Maritime, 209 pages, £25.00 ISBN 9781 52673 169 2

Here, 14 chapters, each profusely illustrated, focus mainly on marine navigation as Pike charts successes and failures of mankind's quest to explore the world and to trade. Efforts included the need for, and development of, high accuracy in soundings, charting, nautical publications, passage planning, traffic separation schemes and collision avoidance.

The result is a thoroughly entertaining and informative work. It is helpful to note the business of the Decca Navigator in our waters and the advent of GNSS as well as the mariner's hope for a support system in the event of GPS failure.

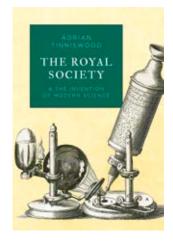
As one would expect, fixed and floating aids to navigation are well-mentioned. To quote Pike: "As a navigator you may want to put total faith in the electronic satellite systems, but from a personal point of view there is nothing quite as reassuring as sighting a mark that pinpoints the unseen dangers to navigation. That first sighting of the loom of the lighthouse over the horizon that heralds the expected landfall is one of the best sights to be seen by any navigator."



SEASHAKEN HOUSES By Tom Nancollas Penguin Random House, 235 pages, £16.99 ISBN 978 1 846 14937 5

Sub-titled: A Lighthouse History from Eddystone to Fastnet, contents include informative chapters regarding Eddystone (1698, 1709, 1759 and 1882), NLB's Bell Rock, Irish Lights' Haulbowline, Merseyside's abandoned Perch Rock, then with an interlude at Blackwall for its training school/experimental tower, followed by Wolf Rock, Eddystone again, our Bishop Rock, and CIL's Fastnet. There is an epilogue, a station list with dates of establishment, notes listing sources and titles for further reading plus acknowledgements/credits (our staff assisted).

Here we are after three centuries of intensive lighthouse construction and 20 years after the completion of automation with lighthouses, their development and relative anecdotage still providing material for the writer. This indicates to me that our engineers, and I include their opposite numbers in Dun Laoghaire and George Street, Edinburgh, walk in the footsteps of Smeaton, Faraday, the Douglasses and the Stevensons in their pursuit of reliability and excellence, characteristics the world's seafarers have come to expect from the aids to navigation in these islands.



THE ROYAL SOCIETY: AND THE INVENTION OF MODERN SCIENCE

By Adrian Tinniswood Head of Zeus Press, 208 pages, £18.99 ISBN 978 1 786 69189 7

A British scientific institution, The Royal Society of London for Improving Natural Knowledge, granted a charter by Charles II, has been at the forefront of scientific endeavour for 360 years.

Fellows elected have been scientific leading lights of the last four centuries. Apart from Wren, Newton and Darwin the roll includes our own Samuel Pepys, diarist, civil servant and Master; John Evelyn, diarist and Younger Brother; Joseph Cotton, Deputy Master; John Smeaton, Eddystone's builder; Michael Faraday, scientific adviser and his successors John Tyndall and Lord Rayleigh with Sir James Douglass, Engineer-in-Chief, to which should be added Lord Browne of Madingley of the present Court.

The Society's motto *nullius in verba* ('on the word of no one'), originated by John Evelyn, is a reminder of its founders' belief that opinions can never be taken for granted; that truths must be demonstrated.

Ten chapters with appendices, chapter notes and bibliography, signal the fortunes of this pivotal institution in the cultural life of Britain and its contributions to the wider world.

Trinity House and D-Day: 75 years on



Trinity House played a vital role in the success of the landing operations of the Allied invasion of Normandy (Operation Overlord) during the Second World War



June 2019 marked the 75th anniversary of the Normandy Landings, on 6 June 1944, also known as D-Day. To observe the occasion, the following

extracts from the Trinity House archives document our involvement in wartime preparations and hopefully show the Corporation to be alert and steadfast even the most adverse of times.

Soon after the declaration of war in September 1939 the Admiralty sought out the services of Trinity House, requiring the exhibition of navigational lights and the establishment of buoys to mark swept channels.

Trinity House established 73 lighted buoys in various depths at given positions between England and France; the buoys were laid according to schedule and in spite of the weather. After the venue for the landings had been agreed a decision had to be taken as to the number of swept lanes and buoys required.

Operation Overlord

Trinity House's Chief Superintendent Captain A G Carrick (d.1953) summed up the detailed work encountered on Operation Overlord in 1951: *"Firstly, after the venue of the invasion had been chosen, the number of swept lanes required across the Channel and the number of buoys in each lane sufficient to meet ordinary conditions of visibility had to be decided upon. This would determine the number of buoys required, which would also give the depth of water of each buoyed position. With the foregoing information,*



the length of chain cable and the sinker necessary to hold these buoys in position could be determined.

"Secondly, the shape and colour of the superstructure that each buoy had to carry in order that these buoy positions could be identified was considered. In order that this identification could be carried out in hours of darkness, different characters of flashing lights were allocated. These were chosen so as to avoid confusion between neighbouring buoys.

"The work of preparing these moorings into their various lengths, preparing the buoys according to their appropriate colours, charging them with gas cylinders and assembling the lamps with their preselected characteristics was taken in hand. "On completion of the above, the task of transporting them to the port of assembly was next to be considered, when it was found that the fighting services were all requiring transport to this same port, and all naturally demanding a high degree of priority for their requirements. However, the Admiralty released several LCTs [Tank Landing Craft] which were, about this period, making a passage within a few days of each other from east coast ports to the southward, and which they detailed to call at Harwich for the purpose of loading these buoys and transporting them to Cowes in the Isle of Wight.

"The next point to be considered on the arrival of these buoys and moorings at the port of assembly was the question of their



storage, as they had to be kept immediately available and ready for service. With the heavy demand on every foot of quay space, deep water berths and shore lifting cranes, the answer to this problem was difficult, and as the LCTs had to be released as soon as possible for their other duties, it was decided that the Thames lighter [barge] should be used for this purpose of storage. Here again the question of priority was paramount, but 20 of these craft were allocated, together with three small tugs.

"These lighters were moored to buoys in the River Medina. The ocean buoys and moorings, according to their groups, were stored therein and then towed from there to the operating vessels as required.

"Six Trinity House Vessels—Patricia (Captain R Goodman), Warden (Captain J Le Good), Georges De Joly (Captain J R Meyrick), Alert (Captain T J White), Andre Blondel (Captain G Sherman) and Discovery II (Captain JJ Woolnough)—were detailed to assemble in the Solent three weeks prior to D-Day, in order to be stored, victualled and loaded with their first consignment of buoys in readiness to mark the lanes for the assault forces and the subsequent passage of innumerable craft of every possible description necessary for an operation of this magnitude.

"After dealing with their load of buoys, these vessels would immediately return to the port of assembly and reload in readiness to sail on their second assignments. This operation was repeated until all the necessary buoys had been laid.

"These channels having been established and marked, it can well be understood that with the amount of traffic plying continually between the two coasts, collisions with, and mishaps to these light buoys would occur. Few would appreciate that the number of casualties amounted to 350 within the period of some four months, and at one time reached the alarming figure of 7.5 per day. This of course kept the Trinity House Vessels fully occupied in supplying and fitting spare parts or lamps, according to the nature of the casualty, and continually servicing the buoys in one way or another in order to maintain the lighted channels.

"The fact that the above laying and servicing was carried out without hindrance, and that later two fully manned lightvessels were established off the coast of France, shows the complete mastery which our fighting services had obtained over the enemy, and more so when it is realised that swept channels were marked by light buoys close along the coasts of France, Belgium and Holland, up to the opening of the River



Scheldt by the Allied Forces, and later along the coast and into the ports of Germany itself."

Day and night pilotage

During the three years prior to Overlord, much shipping was diverted to the east coast ports; as the traffic to London was greatly reduced, over 50 London District Pilots undertook pilotage duties in the Clyde. Traffic in the Port of London increased again with preparations for the invasion and responsibility fell on Trinity House for piloting all the commercial vessels and many of the service vessels engaged in those operations. All the Mulberry (portable temporary) Harbour Units which were constructed on the Thames were towed to their parking places under supervision of Trinity House pilots.

In the month following D-Day, nearly 3,000 ships were handled by 88 River Pilots and nearly 2,000 by 115 Sea Pilots. During that period, many pilots worked day and night unceasingly without relief and pilots had to be recalled from the Clyde and the Royal Naval Reserve.

Juno and Kansas lightvessels

Juno (No. 72) Lightvessel was established

"THE GREAT SUCCESS ACHIEVED WAS DUE IN NO SMALL PART TO THE CONTRIBUTION OF TRINITY HOUSE ... CONVEY MY APPRECIATION TO ALL OF TRINITY HOUSE."

on 18 June 1944 remaining on station until 27 January 1945 when she was towed to Le Havre for damage repairs following various collisions and heavy seas. One month later she was relaid in a new position at a station named Seine. On 3 March 1946 she was replaced by a French Lightvessel named *Le Havre* and towed to Harwich.

No. 68 marked the Kansas station and was laid on 16 July 1944 remaining until 11 November the same year when she was towed to Ryde then to Cowes.

High praise

On 3 September 1944, Admiral Sir Bertram Ramsay, Allied Naval Commander-in-Chief, sent the following message to Trinity House: "I wish to place on record my high appreciation of the invaluable work performed by the vessels of Trinity House and their crews, as well as by those who have been responsible for the organisation and preparations ashore, during recent operations involving the landing on the Continent of Europe of the greatest seaborne expedition in History. The great success achieved was due in no small part to the contribution of Trinity House.

"The smooth way in which the buoylaying has progressed has been in particular due to the work and splendid co-operation of your Superintendent at Cowes, Captain Barber. Without his willing help and advice at all times both before and during the operations the many problems which arose could not have been so easily overcome.

"Success is seldom achieved without loss, and it was with great regret that I learned of the loss of THV Alert on 16th June. She had done fine work close off the enemy coast and it was most gratifying to know that none of her crew was lost.

"I shall be grateful if you will convey my appreciation to all of Trinity House."

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 30 September 2019

Deputy Master: Captain Ian McNaught CVO 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 30 September 2019

Captain Ian McNaught CVO 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 (Non-Executive Director) David Ring Esq (Non-Executive Director) Mrs Margaret Amos (Non-Executive Director) Thomas Arculus Esq (Secretary)



TRINITY HOUSE

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