PORTLAND BILL
A major upgrade for the lighthouse visitor centre

LIGHT INTENSITY
How our lights are measured in the field

ACSEAS CONCLUSION
Improving maritime access to the North Sea Region
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WELCOME BACK ALL READERS – on shore or at sea – to another edition of Flash. I’m pleased to be able to present to our readers another set of great feature articles, bookended by news from Trinity House’s staff, events and works.

HRH The Master visited staff at Swansea, almshouse residents at Walmer Homes, the crew of THV Alert and opened the refurbished visitor centre at Portland Bill Lighthouse, the internationally significant ACCSEAS project came to a successful close and we completed the modernisation project of Barbsey Lighthouse. I hope you’ll enjoy reading about all of this and more in this edition.

As always, many thanks to all of our contributors for their interesting and informative articles; we always welcome contributions from anyone, and we’re open to suggestions and feedback. Please get your submissions to me for the next edition of Flash by 11 September 2015.

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Once again it is a pleasure to reflect on times past and to take a look into the future. Since I last wrote we were coming to the end of our 500th year and it was a pleasure to escort HRH The Master to a number of functions in and around Trinity House, not only in London but also in Harwich, St. Just and Swansea. I know that she welcomed seeing something of our service and its people and it was fitting that the marine community at large was able to appreciate in no small measure what our people do in maintaining maritime safety for the world’s mariners who sail in our waters.

Recent weeks have seen the completion of the EU-funded ACCSEAS Project which certainly awakened the international community to the function of marine aids to navigation services in North West Europe and how, by working together, maritime safety can be assured.

You will see within the covers of this edition of Flash the work that we have carried out taking advantage of the expertise of our people in aspects of science, technology and administration to give the best delivery for the benefit of our stakeholders. You will also see here a reflection on the activities of kindred organisations in the field of maritime safety and in education.

The new Lighthouse Visitor Centre at Portland Bill opened to the public in March and was opened formally by HRH The Master in May. The work at Portland has rejuvenated the premises to create a visitor centre themed around our history and taking into consideration marine aids to navigation, charity for those in need and education, all over five centuries. This is an exciting, informative and stimulating new attraction for the area and I’d like to recognise the good work done by all who played a part in creating this handsome addition to our educational offerings.

Towards the end of this year we will commence a new helicopter operations contract which, for the first time, will provide a service covering all three General Lighthouse Authorities in these islands. This is a departure from the norm where each authority had its own contract helicopter service and the unified style will deliver significant savings to the General Lighthouse Fund.

In February we bade farewell to Commodore Jim Scorer as Director of Operations, a post which he had held since 2007. Although he remains as an Elder Brother, his time as OOPs will be remembered for the energy, enthusiasm and commitment he brought to projects such as the incorporation of new tonnage and implementation of service reorganisation, as well as the establishment of the new Planning Centre early in 2014. Looking back over the anniversary year there is much in the way of merchandise that has been created to commemorate our quincentenary and I hope that our readers have each found a suitable memento to treasure or to give to friends and family.

Once again, to close my column for the summer I send you all my very best wishes, be you afloat or ashore, still serving or retired and look forward to writing again as we approach the year’s end.
A review of the last eight months at Trinity House

October 2014

New Helicopter Contract: In October the General Lighthouse Authorities of the UK and Ireland (Trinity House, the Commissioners of Irish Lights and the Northern Lighthouse Board) announced a £13 million seven year contract with P D G Helicopters for the provision of helicopter services to cover all three Authorities. Provision of one helicopter operator across the Authorities will deliver significant cost savings to the General Lighthouse Fund which pays for the safety critical work of the GLAs to provide a reliable, efficient and cost-effective maritime aids to navigation service around the coasts of the UK and Ireland. Hitherto each Authority has contracted its own helicopter service provider and co-ordinated its own activities and the decision to award a single tripartite contract for helicopter services is regarded as a first for the participating Authorities. The GLAs have been operating helicopters since the 1970s for transport to remote sites and for specialised operations with support vessels and lighthouses.

November-December

Annual National Service for Seafarers: Last year’s Annual National Service for Seafarers was held on 15 October in St Paul’s Cathedral and commemorated the 500th anniversary of the Corporation of Trinity House and of the founding of the Company of Watermen and Lightermen of the River Thames. The Corporation’s flag was paraded with others at the beginning of the Service and the Dean of St Paul’s, the Very Revd David Ison, gave thanks to God for 500 years of our two organisations and for 175 years of the Shipwrecked Fishermen and Mariners’ Royal Benevolent Society. HRH The Master read the second lesson (John 3:13-21). The Litany of Intercession for Seafarers led by Trinity House Cadet Cwen Evans offered a prayer to those who maintain lighthouses, who serve as pilots and all who work to ensure the safety of seafarers as they begin and end their journeys. There followed prayers for cadets and for former seafarers. Following the Annual Service members of Trinity House were invited to Guildhall for a Reception given by the City of London Corporation.

PORTLAND BILL LIGHTHOUSE VISITOR CENTRE: Also in October terms of a lease were agreed with the Crown Estate for the former Lighthouse Keepers’ Cottages at Portland Bill Lighthouse which has been popular with visitors for many years. Premises have now been rejuvenated and house a new Visitor Centre themed around the maritime history of Trinity House and its responsibilities for providing aids to navigation, charitable support and education services. These aspects as well as the staff who have made all this possible over five centuries are portrayed. HRH The Master formally opened the Visitor Centre on 12 May. See pages 36-39 for an introductory article by Steve Dunning.

January 2015

GROUNding of Hoegh Osaka: It was reported on 3 January that the Singapore-registered car carrier Hoegh Osaka was aground on the Bramble Bank in the Solent, in the approaches to the port of Southampton. On board were 24 crew and a local pilot and all were safely evacuated by Coastguard Rescue Helicopter and RNLI Lifeboats. The vessel was on passage from Southampton to Bremerhaven with a cargo of cars and other heavy machinery. By 5 January THV Galatea had laid two Emergency Wreck Buoys in close proximity to the stranded vessel, after a call from the SCSREP® Hugh Shaw earlier that day and a further request from Southampton Harbour Master. The buoys were later withdrawn by THV Patricia after the vessel had self-floated and been towed to a nearby anchorage.

ST OLAVE’S CAROL SERVICE: HRH The Master joined us in St Olave’s Church, Hart Street on the evening of 3 December for a Carol Service attended by Trinity House staff and friends. The Preacher was the Revd Oliver Ross and lessons were read by The Master, the Deputy Master, Captain Colin Stewart and Captain Richard Woodman. A reception was held in Trinity House the same evening and the Deputy Master presented a Silver Jubilee Highness with a brooch based on the Master’s flag (see image above). It is hoped that the Carol Service may become an annual event.

DEPUTY MASTER AT THE CENOTAPH: As a further commemoration of our 500th anniversary the Deputy Master laid the Merchant Navy wreath at the Cenotaph in Whitehall on 8 November in the presence of HRH The Queen, the Royal Family, representatives of Government and the Services and 10,000 veterans took part in the march past which followed.

Visit of the Master to Swansea: On 29 January HRH The Master visited Trinity House Depot, Swansea. On arrival she was greeted by local dignitaries and the Deputy Master who in turn introduced Simon M’Byard, Engineering and Operations Manager and Robert Dale, Technical Services Manager. Her tour proceeded through the Busy-Yard where the various processes were introduced and introductions made to technical staff who briefed on their activities. The Master was able to appreciate the extent of Trinity House operations on the west coast and the logistics requirements fulfilled from Swansea in their support. At the close of the visit Her Royal Highness was invited to join the Depot team photograph, to sign the visitors’ book and Martin Price, on behalf of the Service presented her with a framed facsimile of the Master’s Flag. A photographic record of the day’s events appears on centre pages 22 and 23.

TRINITY TIDE: The 501st Trinity Tide was celebrated on 28 May when HRH The Princess Royal was re-elected Master of the Corporation for the ensuing year. Captain Ian McNaught was re-elected Deputy Master. Mr Simon Sherard and Captain Nigel Palmer were re-elected Rental Wardens and Neither Warden respectively. At the conclusion of the Court HRH The Master with the Elder and Younger Brethren proceeded to St Claw’s Church, Hart Street for the Annual Trinity Tide Service where the Preacher was the Revd Canon Dr Pete Wilcox, Dean of Liverpool.

April-May

…And To Walmer and THV Alert: HRH The Master paid her first visit to Trinity Homes Walmer near Deal on 21 April. Here the Executive Chairman introduced Captain Colin Stewart, Elder Brother, Commander Graham Hockey, Secretary to the Corporation, and Mrs Carole Furness, Supervisor of the Homes. There followed a tour during which Her Royal Highness met residents. She was then escorted to Dover Harbour to go afloat in the Rapid Intervention Vessel Alert (Commander Ben Akester) and inspect new buoyage at the Varne Bank. See page 38 for a full report of the day’s activities.

FLash Summer 2015
Portland Bill – Creation of a new Trinity House Visitor Centre

In 2013 representatives of the Crown Estate Commissioners approached Trinity House to advise that the then current lessees of the ground floor of the former lighthouse keepers’ cottages at Portland Bill Lighthouse would be surrendering the lease by 31 March 2014. They enquired whether Trinity House was interested in taking on the lease.

The three former keepers’ cottages were sold to the Crown Estate in 1996, upon the automatic交接 of the lighthouse. The two semi-detached cottages attached to the lighthouse (a further cottage is detached and adjacent to the lighthouse) have subsequently been adapted to create a flat on the first floor and a commercial space on the ground floor. The ground floor has been operated by the Weymouth and Portland Borough Council as a Tourist Information Centre.

In 2013 representatives of the Crown Estate had been ongoing negotiations with the Crown Estate. Further negotiations with the Crown Estate developed a programme of works with a “TLC” with little evidence of much maintenance in recent years. Further negotiations with the Crown Estate had worked on a number of high profile exhibitions including the Cutty Sark. The proposal provided the best balance of design initiative and value for money.

The building itself was in need of some TLC with little evidence of much maintenance in recent years. Further negotiations with the Crown Estate developed a programme of works with a good balance of financial contribution. The Trinity House Field Operations Team, primarily through Jason Hollands (electrical) and Andy Johnson (civil) carried out extensive work in a much truncated timescale to see the building in good shape to house the new exhibition. This included extensive repairs to the roof, dealing with internal damp, re-choosing both the whole internal area and extensive elements of the external area, the complete rewiring of the space to bring it up to the required standards and the installation of new lighting. A new floor was installed appropriate for heavy public use.

The Leach Colour Team turned up on site on 12 May 2015.

Monday 23 February. Working long hours from 0800 through to nearly 2000 every day the exhibition took shape over a week. As well as interesting and educational information panels Leach has incorporated a number of Trinity House artifacts including a major light vessel model, a lighthouse optic, a buoy lantern and the binnacle from THV Stella.

A local company has been appointed as licensees to manage the Centre. Income from the Centre will be divided between Trinity House and the Licensee on an agreed percentage basis. The “TLC” House element will cover our costs for maintaining the Centre including our overheads, insurance, utilities, and so forth, as well as the physical maintenance of the site. It will also provide for maintenance and updating of the exhibition materials. There will be no direct costs to the General Lighthouse Fund.

A “soft” opening was held on 25 March for the media and local business and educational interests. As well as letting them know about the new Centre the intention was to generate publicity in advance of the Easter opening.

The Centre opened to the public on Easter Sunday, 29 March.

HHHR The Princess Royal, in her capacity as Master of the Corporation, formally opened the new Centre on 12 May 2015.

The new Centre will hopefully prove to be an excellent means of connecting with the public. It will not be a museum although, as stated above, it will heavily feature the histories of the Corporation, of aids to navigation and of Portland Bill Lighthouse. It will also warm about the myriad duties and responsibilities of the Corporation and the ongoing importance of their duties and responsibilities in an increasingly technological world. This has been a very good example of co-operation across all areas of the Corporation developing a Centre that will advise, educate and entertain the public for years to come.
**Engineering review**

**The principal project of the year was the major civil engineering at Nab as it approached its first century of operation. Works at Nab were the largest capital project in financial terms since the construction of Royal Sovereign Lighthouse in 1971 with a budget of £2.5 million. This is an important physical aid to navigation being the turning point for the majority of vessels entering the Solent including VLCCs for the Fawley refinery and huge cruise liners bound for Southampton as well as naval and civilian traffic, particularly ferries, for Portsmouth.**

Nab was an ageing and corroding structure with a height of which was reduced, as well as its diameter and then the surface sprayed with a reinforced concrete outer coating to provide a new concrete deck. A new twelve mile light with fog signal, radar beacon (racon) and AIS equipment were installed at the station which has a design life of 20 years. The light was commissioned in October. Replacement of seven DCPS stations has been completed in recent months with the new system now delivering a high integrity CNS service to the mariner with an accuracy of less than 1.5 metres at 50 nautical miles from the coast. This was a joint project with the Northern Lighthouse Board and the Commissioners of Irish Lights to cover the entire British Isle and Ireland. At Eddystone staff from Plymouth University have installed monitoring equipment as part of a wave loading project on the tower to assess the long term structural performance of granite lighthouse towers over many decades. Modernisation of Bardsey Lighthouse was completed in September. This light off the Lleŷn peninsula in North Wales, is now a solar station using no fossil fuels to run the aids to navigation while providing an 18 mile light for the northern part of the Irish Sea. Bardsey is a beautiful island and nature reserve on a Site of Special Scientific Interest (SSSI) and in the installation and operation we needed to respect the various constraints that these bring. The rotating optic on a mercury bath was removed and is now displayed in the nearby National Trust’s Porth y Swnt visitor centre at Aberdaron. The new light is a coded red LED with main and stand by provision.

A comprehensive programme of lighthouse painting has been followed across the lighthouse estate to maintain the integrity of the structures and to provide a good daymark where required. The regular round of technical inspections and routine maintenance visits has been completed, the content of these inspections has been reviewed with a Failure Mode & Effects Analysis (FMEA) to optimise the work carried out and to reduce intrusive maintenance and maintenance induced failures. At Hurst Point the design of the new power supply system has been drafted, the intention is to reduce the diesel fuel requirement by installing solar panels on the roof of the old acetylene building. This will include high technology intelligent battery chargers to prolong the life of the new gel lead acid batteries and a new engine controller so that the entry time for the trusty Lister T13 100kW diesel engines are being retained. Alternative engines have been considered but the trusty Lister is reliable and simple to maintain and repair with spares readily available. The specification is being drawn up into a formal tender for these to be undertaken for 2015. Hurst Point is also an SSSI and on a very low lying area of beach on the Western Solent. With regard to beacons MV Mair was engaged in work at Woodpack and Crow Rock. Beacons in the Solent are maintained by Trinity House and these two beacons were re-equipped with new support legs, lights and daymarks. All the steel fabrication was carried out at Swansea Buoy Yard and installed by Trinity House staff. Next year Chesil and Muon beacons (on the Lleŷn peninsula and near Selsey respectively) will be refurbished in a similar manner.

The spring of 2015 saw the commencement of the programme for the modernisation and solarisation of Longstone lighthouse off the Northumbrian coast and as a preliminary a lighthouse beam bearing the name LONGSTONE! has now been established in the vicinity while the station’s aids to navigation are temporarily discontinued. It is anticipated that the lighthouse will be on station until November this year. This follows a comprehensive planning, design and procurement programme to enable these works to begin. Longstone is the last lighthouse running on 24 hour diesel engines and these will be reduced to a few hours per year for topping up the batteries in the winter months once the modernisation is complete.

For navigation buoys, dynamic analysis software by Oraclec was investigated and studied and work here progresses. This is to study the heel angles of buoys in waves to assess how the lights perform at sea and how they are observed by the mariner. The lightweight aluminium superstructures continued to be trialled at six stations and inspections have shown that they are performing as expected. Once completed, these type 2 buoys will support a ronc, AIS, GPS position monitoring, a seven mile light and control and monitoring will be from the Planning Centre at Hookey. Storms of early 2014 saw some buoy topmarks swept away, the design was reviewed and a modified securing arrangement implemented that is proving successful thus far.
A field measurement is naturally more difficult than a lab measurement as the available methods to manipulate the light are limited. The measurement procedure also requires the use of custom-made equipment as well as co-ordination between personnel both at the lighthouse and at a measurement site some distance away. However, it would be extremely impractical to dismantle and transport the optical equipment to a lab. Also, a field measurement yields results with much lower uncertainty than pure calculation of the light’s performance. Therefore, a field measurement is the recommended option.

A demonstration field light measurement was carried out on the Torre de Hércules lighthouse, in A Coruña, Spain, at the 2014 IALA conference to share the techniques used by R&RNAV and also to promote the benefits of field measurements among lighthouse authorities around the world.

The R&RNAV Field Measurement Procedure

The nominal range of a light is determined by its effective luminous intensity. One method to determine the luminous intensity uses the inverse square law, where the light is measured using a luxmeter and the result multiplied by the square of the measurement distance. However, this method does not take into account the effects of the atmosphere. The atmospheric effects not only reduce the accuracy of the measurement, but they can also vary considerably, producing different results for each measurement of the same light. This method is only suitable for short distances, ideally much less than one hundred metres.

The distance from the lighthouse to a suitable measurement location is often much greater than one hundred metres and so R&RNAV use a method that accounts for atmospheric effects; the substitution method, where the light to be measured is scaled against a reference light (a light source of known intensity). The reference light, temporarily installed at the lighthouse, is measured with a luxmeter and the lux value recorded. The reference lamp is then turned off and a measurement of the lighthouse light is recorded. If the recorded values were five lux for the reference light and ten lux for the lighthouse light, then it is known the lighthouse light is twice the intensity of the reference light. If the reference light is known to have an intensity of one candela then the measured intensity of the lighthouse light is...
**Demonstration of a light field measurement**

Continued from page 9. Because both lights are measured over the same path in quick succession, the effects of the atmosphere on each measurement are the same. When the division is performed to find the ratio between lux measurements, the atmospheric effects are cancelled out. A custom built measurement unit and a laptop running custom-made software are used to record and process the luxmeter output. During a field measurement the vertical beam profile is also measured to determine whether the beam is pointing in the correct direction (i.e. to the horizon) and to enable calculation of the peak beam intensity if the measurement site is not in line with the beam. When measuring the vertical beam profile in the R&RNAV lab, the optic is placed on a motorised table which tilts up and down while the luxmeter output is recorded. Clearly, this method cannot be used in the field. During a field measurement, a set of prisms are used to refract the beam up and down. Two types of prisms are used and by using them in various combinations, the beam can be refracted through a range of plus/minus two degrees in half degree increments. At each increment a measurement is taken and, even if the measurement site is not situated in the beam peak, the peak will be directed towards the measurement site at some point. The prisms do not allow all the light reaching them to pass through, but the transmissivity of each prism is known and used to correct the readings. The prisms are supported in a frame and blanking curtains hung around the frame to ensure that only light passing through the prisms is measured. When all measurements for the vertical beam have been taken, the prisms, prism frame and curtains are removed and the nominal performance of the light is measured.

**The Torre de Hércules measurement**

The Torre de Hércules lighthouse has a rotating fourth order optic with four catadioptric lens panels. The light source is a four hundred watt metal halide lamp. The chosen measurement site for the Torre de Hércules was located four and a half kilometres east, across the bay. The elevation of the measurement site was lower than the light but, since the vertical beam profile was measured this was not a problem.

The reference light used during the measurement of Torre de Hércules lighthouse was calibrated at 416,800 candelas. From the recording screen it can be seen that the peak intensity of the flashes is approximately twice the intensity of the reference light. The recorded flash profiles were then further processed to calculate the effective intensity of each flash. The resulting effective intensities corresponded to a nominal range of twenty-two nautical miles. This was two nautical miles less than the published figure, demonstrating the importance of field measurements over calculations. A 45 watt R&RNAV LED light source was also trialled giving a measured nominal range of 17 nautical miles.
The future of navigation is coming!

The north sea region is home to some of the busiest shipping lanes in the world, yet the demand in this stretch of water is ever increasing, leading to the navigable space becoming smaller. This is a popular region not only for shipping, but also for energy extraction – both wind and oil – and is an area where many wildlife associations are looking to protect natural environments. These factors, in combination with a rise in larger vessels in these waters and a higher volume of traffic, lead to a real safety risk in the area, which could have an impact on shipping efficiency moving forward.

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ACCSEAS, led by the General Lighthouse Authorities, is a three-year project part-funded by the European Union’s Interreg IVb programme, which aims to improve maritime access to the North Sea Region by minimising navigational risk. ACCSEAS believes that e-Navigation will eventually make the mariner’s job easier by taking information from several different systems and platforms and displaying it in an easy to use and integrated way.

The group of eleven organisations from six countries has pooled knowledge and resources to develop a portfolio of prototype services and solutions to make navigating the North Sea safer, simpler and more efficient. These technologies have been developed by the project members, demonstrating the potential benefits of e-Navigation in the area.

This voyage, the crew tested a number of ACCSEAS solutions with the operators at both sites. During the voyage, the crew tested a number of prototype technologies developed by the ACCSEAS project, including the No-Go Area Service, Resilient Positioning Navigation & Timing (PNT), Tactical Route Exchange and Maritime Safety Information/Notices to Mariners Services (MM/MN).

During the Humber testing exercise, Chief Officer Loonstra proceeded with his standard procedure, calling VTS Humber from the bridge of his ship to provide standard information on location, number of passengers and so forth. During this call to the VTS centre, he was alerted to the fact that there had been an oil spill in the area, and that a new route would be provided by the VTS manager. On return to the navigation system, safety information of the incident could be seen clearly on screen, along with a suggested alternative route, allowing plenty of time to re-plan his navigation.

The process was quick and easy to navigate. Although there are systems in place to alert mariners of live safety issues in the area, there are often not as responsive as we would like, they take time to use and require time to plot information against maps, explained Loonstra. “This software brings it all together in an easy, usable way for mariners and marine pilots.”

These technologies have been developed to enhance the navigation experience, but they are all underpinned by a need to know the whereabouts of the ship in the first place. While GPS is the most common source of position navigation and timing (PNT) information, it is also open to vulnerabilities which could lead to outages. Issues of GPS jamming are becoming more frequent, for example North Korea has staged a number of GPS jamming attacks on South Korea in recent months to cause malicious impact to their infrastructure. There are also natural causes affecting service – for example the sun can knock satellite systems offline too. ACCSEAS is developing a number of supplementary sources of positioning collected into a bespoke receiver: This receiver detects a GPS failure and switches seamlessly into the most accurate alternative source of positioning, eLoran, a low-frequency terrestrial navigation system, was the back-up to GPS used in this demonstration.

Loonstra was impressed, stating: ‘The transition from GPS to eLoran was seamless, with just a small message on screen alerting you to the changeover of input. I think this would cause less panic on the bridge as it meant there were no alarms and you do not lose your positioning on the map.’ The results of this testing show a successful outcome for the ACCSEAS project, which showcased its results at its final annual conference in Rotterdam’s World Trade Centre, from 17 to 19 February this year. This highly successful event was attended by 127 delegates from many organisations throughout Europe and United States.

As the conference marked the close of the current ACCSEAS project, the event also looked at who will take these solutions forward and how they will be made available to the industry. ILGA will be setting up a working group to further develop the Maritime Cloud as the de facto worldwide e-Navigation framework. This will ensure the legacy of ACCSEAS lives on, either in the fundamental implementation of e-Navigation and/or the services that it developed to help mariners do their job even more efficiently and safely. For further information about ACCSEAS and to learn more of this year’s Navigating the North Sea Region conference readers are invited to visit www.accseas.eu, which will be available into 2016.
SARK LIGHTHOUSE and the Point Robert purchase

W e celebrated the centenary of Sark Lighthouse in 2012, as previously reported in FLASH. The events of over a century ago which led to the successful purchase of the land on which the lighthouse stands were remarkable due to the unusual system of land tenure on Sark which forbade the subdivision of land without royal permission.

Sark was the last bastion of feudalism in the western world until the reform of the island’s constitution in 2008. On 10 December 2008 for the first time all adult islanders had the right to vote for their chosen councillors in the island’s government, the Chief Pleas. The previous constitutional arrangements dated back to the reign of Elizabeth I (1558-1603) who, fearing for the security of this peripheral part of her Realm, made provision for the island to be colonised by her loyal subjects.

Elizabeth’s fears were well founded for during the reign of her half-brother Edward VI (1547-1553) the island had been seized by France. Being clearly visible from the Normandy coast, Sark proved a tantalising prospect. In 1549 a fleet of eleven French ships and 400 men took quiet possession of the unfortified island. It was at this time that a tall ship of the French fleet, the Prov Engageante,Interest was shown in the island by the English and French, who were eager to claim it for themselves. The French and the English were in a state of conflict at the time, and this resulted in the occupation of Sark by the French. The French army occupied Sark for five years, from 1550 to 1555, until it was forced to surrender.

In 1555, the island was given to a French nobleman named François de Glatney, who became the Seigneur of Sark. He was a wealthy man and used the island as a base for his private trade. He built a castle on the island and lived there with his family. He was also a patron of the arts and patronised several artists to create works for the castle. The island became known as the “Isle of Glatney”.

In 1685, the island was occupied by a group of Flemish soldiers who were trying to escape from the French. They sailed to Sark, which was at that time uninhabited, and landed on the island. They built a fort and established themselves as the new rulers of the island. The French forces chased them off, but they returned in 1687 and occupied the island again. This time they were not chased off, and they remained on the island until 1713.

In 1713, the island was purchased by a group of English investors who wanted to use it as a place to store their goods. They raised a fort on the island and built a lighthouse to help ships navigate the area. The island was named the “Isle of Jersey”, and it became known as the “Isle of Jersey’s Least”. The lighthouse was built on the Point Robert, and it became known as the “Point Robert Lighthouse”.

The lighthouse was constructed by the English government in 1812, and it was used to guide ships through the area until 1942, when it was abandoned. The lighthouse was later restored and is now a museum. The island was purchased by the Jersey government in 1942, and it is now a popular tourist destination. The island is known for its beautiful beaches and its rich history.

“Sark, fairer than aught in the world, that the lit skies cover, Laughs ily behind her cliffs, and the seasapers mark. As a shrine where the sunlight serves, Sark.”

A.C. Sartorius

Above: An extract from a 1913 map showing land to be conveyed to Trinity House to enable the lighthouse to be constructed.

Main Picture: Sark’s Point Robert from lighthouse showing the lighthouse and 1900s.

Above: A plaque commemorating the construction of the lighthouse in 1812.

Above: Title page of the Privy Council Order of 1911.

Above: Title page of the Privy Council Order of 1911.

From Guernsey to Sark. The island was made provision for the island to be colonised by her loyal subjects.

While the island was occupied by the French, the islanders grew crops and berries for sale in the Channel Islands. They also made use of the island’s natural resources to make dyes and wool. The island became known for its high-quality wool, which was exported to the rest of the world.

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The lighthouse was constructed by the English government in 1812, and it was used to guide ships through the area until 1942, when it was abandoned. The lighthouse was later restored and is now a museum. The island was purchased by the Jersey government in 1942, and it is now a popular tourist destination. The island is known for its beautiful beaches and its rich history.
LANBY Buoys

The prototype LNB was trialled on the Sandy Hook station in 1967. Following these trials seven were built by the Convair Division of General Dynamics starting in 1970, followed by five more from 1974. These American buoys had a 12m diameter hull, a little over 2m deep, with a 12m tubular tower. The main light was an array of discharge tubes installed on the open tower top platform. This provided a very bright (14 mile range) light but with a very short flash.

The flash was so short that the buoy’s position was often difficult to see. A second shorter range conventional light was added to provide a visual reference to establish the buoy’s position. The fog signal was a 500Hz electric unit and some buoys also had a radio beacon. By the mid-1970s a radio beacon was added. Meteorological equipment was also carried and the buoy’s position monitored using Loran-C. Power was provided by two single cylinder Lister, air cooled, diesel generators. One engine can continuously cool the other started automatically if the first failed. The hull was sub-divided into a control room containing the automatic control and radio equipment, a battery compartment, fuel tanks, buoyancy compartments and ballast tanks.

The last two Trinity House manned lightvessels dated from 1963 and 1967. American developments in replacing manned vessels with automatic buoys were being closely followed here and a contract was placed in 1968 with Hawker Siddley to develop a similar buoy. Known as LANBY (large automatic navigation buoy) 1 (later to be 101) it was built in the Royal Albert Dock (London) and launched by Captain Sir George Barnard, Deputy Master, on 2 December 1969. This buoy was of similar overall size to the American buoys but with a deeper hull. Three water cooled diesel generators were installed in a single central engine room that had large electric cooling fans. A rotating optic with sealed beam lamps was housed in a small lantern on the tower top. Trials took place off Harwich and at the Shambles station where many of the on-board systems, both power and aids to navigation, suffered repeated failures.

While LANBY 1 was being trialled a decision was made to purchase modified versions of the American buoys. The first two, starting in 1970, were built by Bristol Channel Ship Repairers in Cardiff and the remainder by Camper & Nicholson at Southampton, under licence from General Dynamics. They had a more powerful discharge tube light and larger fog signal than required twin cylinder Lister diesel generators to provide extra power. The first buoys were fitted with three mooring eyes to lay to a three leg mooring i.e. three equal legs of chain, each with an anchor. This was considered to be more secure than a single leg mooring. The crews in manned lightvessels shortened or lengthened the mooring in response to changing weather and sea conditions and it was considered that an exposed station a single fixed length of chain would not be reliable. Three leg mooring proved very difficult to lay and retrieve and often became fouled by rotation of the buoy. Such moorings were soon discontinued and the buoys converted to a single central mooring eye which connected to a single length of chain terminating in a spiker and an anchor.

The ‘sten’ ballast compartment was filled with water to provide a ‘bow up’ attitude but the front of the buoy would tend to ‘dig in’ to waves resulting in broken tow lines. Another authority had a buoy capsize while under tow. Buoys were controlled and monitored via a VHF radio link that had a limited range, hence they were monitored from the nearest manned mainland lighthouse or Trinity House depot. Radio and control equipment were not as stable as modern systems and much time was spent tracking and rectifying problems. Very high voltage associated with the discharge tube light caused failures in the supply cable up the tower and in the light housings at the tower top. A problem peculiar to the engine installation resulted in spectacular fires in the air cooling system. The system was unusual in that the engine exhaust mixed with the cooling air in the duct that passed from the engine room and up the tower. This particular model of engine was prone to leaking small amounts of oil into the cooling air and fires resulted. Tower top motion was vividly demonstrated when planning a modification to the buoys. We were sitting on the small platform on the tower top of a buoy and moving in Harwich harbour. The motion resulting from the wash of a passing tug was sufficient to catapult a pencil, behind my colleague’s ear, to clear the deck of the buoy and land in the water. Continuing equipment failures on the buoys resulted in a project to update the on-board systems and convert them to the 300 series. Modifications included a new lubricating system for the engines, new engine cooling and exhaust systems, an enclosed lantern house to provide some shelter at the top of the tower and a rotating optic that had been developed by Trinity House during the 101 project. Electrical and radio systems were also updated and the buoy’s reliability on station was significantly improved. However, problems associated with personnel caring out the necessary maintenance work on board the violently moving buoys were never solved. It became clear that the LANBY would not provide the anticipated replacement for the manned lightvessel and two light floats were purchased from AGA Ltd. Delivered in 1980 these 27m vessels operated automatically with a gas light and primary battery-powered fog signal but had no remote control or monitoring facilities. These AGA light floats were the first large floating aids to be converted to solar power and one replaced the last Trinity House LANBY on the Varne station in 1985. The Irish service continued to operate two LAnBVs for some years after Trinity House. The French service, who had developed their own version of the LANBY, operated theirs marking the Ushant traffic separation scheme until 2012. The French buoys had been re-engineered several times with the final version being solar powered.

Captain Simon Robinson has the last word.

One of the happiest periods of my life was in the mid to late 1990s, watching the decommissioned LANBYs being dismantled by gas axe in Swansea, safe in the knowledge that I would never have to be violently ill all over the dreadful things again.”
VIEVERS OF A CERTAIN AGE MAY RECALL THE TV NEWS PICTURES of 30 January 1965 of the State Funeral of Sir Winston Churchill. Of particular interest to many was the funeral flotilla steaming from Tower Pier upstream to Waterloo at the same time as the dockside cranes on the South Bank dipped in salute and the 16 RAF Lightnings flew overhead. In this assembly of small craft the lead vessel was Nore of the Port of London Authority and the Elder Brethren were embarked in the second vessel, THPV Landward of the London Pilotage District. In a film archive for a few seconds you can briefly see the Earl Marshal, His Grace the Duke of Norfolk, also an Elder Brother, marching in slow time ahead of the procession down to Tower Pier and the vessels gathered there. A re-enactment of this flotilla took place on 30 January this year as part of the 50th anniversary commemoration and included TH No1 Boat with Elder Brethren and the Secretary embarked. Indeed he was proud of the uniform and a fire portrait of him wearing the ceremonial dress of an Elder Brother, complete with cocked hat, by Sir Oswald Birley and painted in 1951 hangs in the Library at Trinity House. Churchill signed a photograph of the painting for each of the Elder Brethren.

We learn from Trinity House: its unique record from the days of Henry VIII to Commander Hilary P Mood that the wearing of Trinity House uniform by Honorary Elder Brethren was not at all uncommon and the author adds that Winston Churchill ‘seems to have resisted it and been very proud of it’. Indeed, he recalls Churchill being approached by a French naval officer, possibly at the Versailles Peace Conference of 1919, asking about his uniform only to be informed that Winston Churchill was sworn in as an Honorary Elder Brother. According to Andrew Adams and Richard Woodman in Light from the Waterfront the Prime Minister, Winston Churchill, lit a cigar during the proceedings and incurred a fine of one shilling for so doing. It was pointed out to him that he had disobeyed an ancient ruling forbidding the use of tobacco at the Court. The great man did not have a shilling on him and Alexander came to his aid and paid the fine. A few days later Churchill had a shilling sent from No 10 to the First Lord in reimbursement.

Another Trinity House relic of Churchill is the group portrait on the ground floor shows him at the Court. The great man did not have a uniform only to be informed that he represented ‘Le Frère Ainé de la Trinité’ to which the enquirer replied: ‘Mon Dieu, quelle influence!’

Certainly Churchill’s time at Trinity House had witnessed great events with world war, twice, and post-war restoration, twice. Within a few days of the destruction of Trinity House on 7 January 1941 a Special Court was convened and at which the Hon A V Alexander, First Lord of the Admiralty and later Lord Alexander of Hillsborough, was sworn in as an Honorary Elder Brother. According to Andrew Adams and Richard Woodman in Light from the Waterfront the Prime Minister, Winston Churchill, lit a cigar during the proceedings and incurred a fine of one shilling for so doing. It was pointed out to him that he had disobeyed an ancient ruling forbidding the use of tobacco at the Court. The great man did not have a shilling on him and Alexander came to his aid and paid the fine. A few days later Churchill had a shilling sent from No 10 to the First Lord in reimbursement.

Winston Churchill, as First Lord of the Admiralty, was sworn in as an Elder Brother of Trinity House in 1913 and held the title until his death. He joined a long line of statesmen of the early 20th century who were elected as Elder Brethren. Arthur Balfour, Sir Henry Campbell-Bannerman, Henry Asquith and Ramsay MacDonald.

It is not known how frequently he attended the Corporation’s events but certainly he attended lunches and dinners in the House and a group portrait on the ground floor shows him at a dinner in his honour held to mark his fifty years as an Elder Brother in 1963. There is no doubt that as a former Naval Person he would have understood perfectly the workings of the Corporation and of the Lighthouse and Pilotage Services and would have been kept abreast of activities by means of Court Minutes and other correspondence.

Above: Facsimile of a letter dated 8 January 1941 from Downing Street to Sir Winston Churchill, the First Lord of the Admiralty requesting the one shilling mulct incurred by Churchill for smoking at the Court. The Prime Minister, Winston Churchill, lit a cigar during the proceedings and incurred a fine of one shilling for so doing. Another Trinity House relic of Churchill is the portrait on the ground floor shows him at the Court. The great man did not have a uniform only to be informed that he represented ‘Le Frère Ainé de la Trinité’ to which the enquirer replied: ‘Mon Dieu, quelle influence!’
O QUOTE ADMIRAL W H SMYTH IN HIS SAILOR’ S WORD BOOK: A Dictionary of Nautical Terms, first published in 1867, Ballast by definition is given as: ‘A certain portion of stone, pig-iron, gravel, water, or such like materials, deposited in a ship’s hold when she either has no cargo or too little to bring her sufficiently low in the water. It is used to counterbalance the effect of the wind upon the masts, and give the ship a proper stability, that she may be enabled to carry sail without danger of overturning. The art of ballasting consists in placing the centre of gravity, so as neither to be too high nor too low, too far forward nor too far aft, and that the surface of the water may nearly rise to the
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How Ballastage was managed
By 1823 Trinity House employed a fleet of 40 lighters and in Ballast Committee Minutes of 2 January 1838 laid before the Court we see the usual daily report from the Superintendent of the Ballast of the number, tonnage, condition and value of the Ballast lighters and barges. As for supervision it has been researched in Trinity House Court Minutes held in the London Metropolitan Archives that on 3 May 1842 the Court approved the appointment of Captain John Rees as Supervisor of the Ballast Department. By 1851 the Court heard that the earnings of the men employed in the Ballast Department had recently improved the Court concurred with the supervisors in considering that there no longer exists any necessity for entertaining the prayer of the Memorialists. With the advent of steam power mechanical dredging was possible and in time the Corporation extended their activities including a number of lighters and a staff totalling 24 with some

Above: Embellished arms of the Corporation on the south side of the Thames Embankment, known as No 20 and No 22 Narrow Wharf, was formerly used as the Ballast Office, situated approximately where the

Above: Steam-powered ballast dredger, formerly the gun-brig Blazer, of 1806.

Above: Flashing the sign ‘Gallop’ of Charles II. Elder Brother’s sign on the

Above: Master of the Ballast paid for the day’s work; the

Above: Steam-powered ballast dredger, formerly the gun-brig Blazer, of 1806.

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Visit of HRH The Master to Trinity House Swansea 29 January 2015

Main picture (front row (left to right): Selwyn Hughes, Lee Carter, Stuart Austin, Martin Price, Shaun Phillips, Rob Dale, Deputy Master; HRH The Master, Stuart Mason, Rachel Davies, Ian Arthur, Mike Roberts, Jim Waal.

Back row (left to right): Dan Maskell, Steve Summersfield, Jack Lawson, Paul Thomas, Keith Cameron, Vince Lemp, Mike Williams, Jeff Bloffwitch, Hugh Thomas, Ian Hursey, Phil Hanner.

All images by Mark Dalton, © Trinity House 2015.
Trinity House at 500 or how to celebrate a quincentenary

In January this year the Court unanimously offered a vote of thanks to all those involved in the quincentenary events and associated projects.

To close this momentous year let us hear what the Executive Chairman Captain Ian McNaught had to say by way of reflection:

'It is a great pleasure to be able to use the pages of Flash next half millennium still providing those things we were established to deliver way back in 1514: safety at sea, benevolence to the needy mariner and fellowship through the Fraternity and wider Trinity House family.'

Throughout the year we have been privileged to show Her Royal Highness The Master something of our work and to enable her to meet our people at Harwich, St Just, Swansea, Walmer and afloat.

In November this year the Court thanked everyone, throughout the Corporation, who contributed so much to the celebrations of our quincentenary. It has been a most momentous year and one which I hope has given everyone some special memories to remember it by. We can now build on the strength of those five centuries of achievement and look ahead to the start of our next half millennium still providing those things we were established to deliver way back in 1514: safety at sea, benevolence to the needy mariner and fellowship through the Fraternity and wider Trinity House family.'

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The Mary Rose story continues....

This may saw the Second Anniversary of the Opening of the Mary Rose Museum in Portsmouth Historic Dockyard. It quickly gained a reputation as one of the finest museums in the country and is regarded as an exemplar of good museum practice setting high standards in curation, interpretation and research, as well as leading the field in museum learning and outreach.

Two years on and it continues to receive much acclaim and recognition here in Portsmouth, as well as on the national and international front. The Museum has welcomed over 780,000 visitors, including some 50,000 children and young people through the Stavros Niarchos Foundation Learning Centre. The Museum’s reputation has spread far and wide, with visitors travelling from all over the world to see the hull reunited with her unique collection of artefacts.

We welcomed our 500,000th visitor some 13 months after opening. We expect to receive our 1,000,000th visitor just before we close the museum in early October for the next phase of the museum project (closing for some six months). Visitor feedback is exceptional, which is reflected in a few of the comments below:-

**Unique Museum Visit. A remarkable and fascinating journey through a Tudor time capsule. The whole experience is superbly presented and we found the tour guides eager and very well informed.**

**‘-Stunning. This museum was spell binding.**

**A major achievement for the Museum has been the wealth and breadth of awards it has won. More than twenty have been gained for excellence in architecture, construction, exhibition, conservation, education and innovation. As well as being a finalist for the Art Fund prize for Museum of the Year for 2014, we have been nominated for the European Museum of the Year, the outcome of which was being decided as this edition of FLASH was being completed in May.**

- **Tudor Wonder of the World. The Mary Rose Museum exceeded my expectations by a country mile! It is stunning, the scale of the ship and the operation to extract it from the seabed and put it on display is just awe inspiring. I have seen the Terracotta Army in Xian, been to the top of the Empire State Building in New York…but nothing compares to the Mary Rose for jaw dropping incredibility! And, the guides were terrific, knowledgeable and with an excellent style of imparting the information.**

**Wonderful experience!**

**The interaction with our staff and volunteers is seen by visitors as an integral and important part of the Mary Rose experience. Over 100 volunteers give their timely freely to welcome and inform visitors about the Mary Rose. They come from all walks of life with different life experiences, but they share one thing, their passion for the Mary Rose. They can be seen throughout the Museum talking to visitors about the ship and the artefacts, or bringing the story to life through replicas. Their knowledge and enthusiasm does much to inspire visitors of all ages.**

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**We continue to be very grateful for the support of Trinity House. The Navigator’s Case in the Men of the Upper Deck Gallery acknowledges the support given in the construction and creation of the museum. It contains a unique collection of navigational equipment found on board the ship. The ongoing support for our learning programme is acknowledged through activities in the Stavros Niarchos Foundation Learning Centre. Our partnership with Trinity House enables people of all ages and abilities to engage with navigation and seamanship in exciting and diverse ways.**

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The Nautical Institute in 2015

Many readers of Flash will have known about the Institute for several years and indeed some will be members. Much has changed in recent years so an update on our work may be useful. What has not changed is that the Institute is still very much an international professional body for individuals involved in the control of seagoing ships. Total membership is currently 6,600 working at sea in some 116 countries with a healthy level of recruitment providing growth.

New members are working in the offshore sector and are attracted to join due to the 2010 revision of the membership criteria which based full membership on STCW and other maritime professional qualifications rather than limiting it to Master (Foreign Going) certificates of competency. This revision also introduced the Associate Fellow grade to recognise professional development and experience beyond paper qualifications. Membership benefits include professional recognition, access to the worldwide branch network, seminars, and legal defence insurance to guard against criminalisation in the event of an accident. The Institute is a charity and company limited by guarantee which in the past ten years or so has seen turnover of approximately £1 million from membership and publications growth to in the region of £3 million with a more balanced range of funding (see pie chart on right).

Continuing Professional Development (CPD) is a major focus of the Institute’s work, both in terms of promoting its necessity to the industry as a whole and providing members with the means to undertake, record and reflect on it. There are many ways to carry out CPD in addition to formal courses. The Institute’s range of publications, written by expert practitioners for practitioners, are an important CPD service and include over one hundred titles in books as well as the monthly journal, Seaways, and two periodicals issued three times per year – Alert!, the Human Element Bulletin now in its twelfth year and funded by the Lloyd’s Register Foundation, and the Navigator, a relatively new magazine aimed at the new generation of navigators but equally relevant to the whole bridge team. Each issue is themed on a particular aspect of navigation, for example, radar, and includes an incident report to learn from. With generous funding from the International Foundation for Aids to Navigation (IFAN), the aim of the 100,000 point run is to get this publication in every SOLAS class ship to raise the knowledge and professional confidence of the world’s navigators. This is being achieved through direct mailings to fleets’ agents, and missions and bookstalls, plus delivery on board by a host of volunteers – pilots, surveyors, welfare visitors, inspectors, ships’ staff, and so forth – for which we are very grateful.

Other forms of CPD provided by the Institute are the longstanding Harbourmaster’s Certificate and Command Diploma schemes, both subject to recent revisions, plus the recently launched International Sail Endorsement Scheme (ISES). This is a joint venture with Sail Training International to provide a qualification endorsement for both square rig and fore and aft rig in that sector. The Institute has also developed its accreditation of specialist training providers including oil spill response and ships’ welfare visitors against industry agreed standards. We have been working with stakeholders to develop standards for ice navigation training due to the growth of shipping and rapidly evolving technology. This work has been input to the IMO meetings on the Polar Code. The largest training scheme run by the Institute on behalf of industry stakeholders is the Dynamic Positioning (DP) Scheme to train DP Operators. Over 25,000 DP certificates have been issued since the scheme’s inception in 1982 as the qualification is generally a charterer’s requirement, and this demand for them has escalated rapidly in the past five years as oil exploration moved into deeper waters and the DP capable fleet grew strongly. It was certainly the case that we struggled to cope with this increase in very rapid demand but the staff of eighteen is now at full strength (half the total staff) and a new online application system is proving its worth in efficiency gains. As a result, a revised scheme came into force in January 2015 after two years’ negotiations within the industry. Revalidation of the certificate every five years was also introduced.

Apart from CPD, continuing work includes e-Navigation, the integration of ship and shore-based navigation systems, which is intended by the IMO to be based on user needs. We work closely with Trinity House on all safety of navigation issues, particularly highlighting the vulnerability of CNS+S and the dangers of over-reliance on CPIS alone leading to the degradation of skills using other methods and systems. Reduction of sea room due to the increasingly large arrays of wind farms and other devices to generate renewable energy is another subject of mutual concern and is just one part of our work on Marine Spatial Planning which, with the World Ocean Council, is aimed at raising the awareness of the maritime industry and developers of the need to work together.

Implementation of ECDIS carriage and the necessity of effective training, the design of lifeboat release mechanisms to improve safety in those vessels, and the revision of GMDSS requirements are all subjects on which we have engaged with industry representatives to develop guidance and solutions. All these issues are debated within the Institute’s membership through the branch and governance structure as well as in a LinkedIn Group of some 15,000 maritime professionals moderated by the staff. The Institute also makes good use of Facebook, YouTube, Twitter and an e-newsletter to engage throughout the industry. These are all forms of monitoring on a mass scale in addition to promoting the re-establishment of one-to-one sharing of exponential knowledge.

Improving the safety and efficiency of shipping operations remains the primary aim of the Institute and features in the many seminars and meetings organised by staff and members.
The Finnish Transport Agency: a young organisation with a long history

INLAND IS HEAVILY DEPENDENT ON MARITIME TRANSPORT. Over 80% of our import and export goes through our ports. Because maritime transport is a vital part of the transport chain that supports Finland’s economy and the welfare of its citizens, the major ports need to be kept open all year round. Finnish coastal areas, with their large archipelago areas, shallow waters, rocky seabed and narrow fairways, are challenging to navigate even during the open water season. Ice conditions during wintertime can make it even more challenging. Under these circumstances the consequences of a pollution accident would also be quite severe. Therefore, it is very much in our interest to maintain and develop fairways with aids to navigation, Vessel Traffic Services, nautical charts and other e-Navigation services which assist all merchant ships navigating our waters.

The maritime sector of the Finnish Transport Agency is responsible for the construction and maintenance of the major part of the Finnish inland waterways network and the related infrastructure and services that ensure the safety of navigation, such as traditional aids to navigation. FTA also provides the three fundamental components of e-Navigation services: reliable chart information, reliable position information and reliable communication links between shore and ship.

Our first priority is to ensure the safe navigation of vessels, but we also enable smoothness and efficiency of transportation.

Providing safe waterway infrastructure

The Finnish Transport Agency is responsible for the maintenance of approximately 8,200 kilometres of inland waterways. The total length, some 16,200 kilometres, includes 3,900 kilometres of fairways used for merchant shipping. In total, Finland has around 20,150 kilometres of public charted fairways. These fairways are marked by more than 34,000 traditional maritime aids to navigation (lighthouses, buoys, signs, leading beacons and so forth), for which around 25,700 the Finnish Transport Agency is responsible. FTA is also responsible for the 32 Finnish lock canals. The most important of these is the 49-kilometre long Saimaa canal, which has a total of eight locks and connects the large Saimaa watercourse in the Eastern part of Finland to the Baltic Sea. The canal is normally closed during wintertime for a couple of months due to the ice conditions. The Saimaa Canal is a unique canal because almost half of it, including five of its locks, is located in Russian territory. The area around the canal is being leased from the Russian government to the Finnish government until 2085. In Finland the costs of fairway maintenance are covered by fairway dues. The actual fairway maintenance work is nowadays almost totally outsourced, but the rendering of maintenance contracts and supervision of maintenance work is carried out by the Finnish Transport Agency. Contracting includes service and maintenance of waterways, for example maintenance dredging and repair and maintenance of the traditional aids to navigation. Ice conditions during wintertime cause some extra challenges to the maintenance work. Floating aids to navigation may get submerged under the moving ice, and after the ice breakup, it is not uncommon that floating aids to navigation have moved out of position or have even completely disappeared from sight.

Northern Challenges – winter navigation

While ice conditions cause challenges to the maintenance of fairways, they also create a very concrete obstacle for commercial vessel traffic. The Baltic Sea is an inland sea, and its northern parts freeze every winter. In severe winters it can freeze over completely. Ice conditions typically change continuously. Wind moves the ice fields and the prevailing southwest wind tends to pack ice walls around the Finnish port entrances. Ridged ice is much more difficult to deal with than an even ice cover, and in these cases icebreaker assistance is often necessary. It is important to the Finnish economy and welfare that the ports can be kept open all year round. For this reason ensuring smooth winter navigation is one of the key tasks of the Finnish Transport Agency. This includes ordering icebreaking services and making the authority decisions associated with winter navigation. FTA continually collaborates with its Swedish counterpart on issues concerning winter navigation. The Finnish Transport Agency and the Swedish Maritime Administration closely co-ordinate and share their responsibilities of the icebreaker operations in the northern Baltic Sea. Particularly in severe winters, the Finnish and Swedish icebreakers divide the duties, thus ensuring optimal traffic flow to the ports of both countries.

Vessel Traffic Services

The Finnish Transport Agency is also the vessel traffic service (VTS) authority in Finland. Almost all of the Finnish merchant fairways are included in VTS areas. FTA operates three VTS centres: two for the coastal area, in Helsinki and Turku and one in Lappeenranta for the Lake Saimaa area. The coastal area VTS centres provide all three types of vessel traffic services: Information Service (INS), Traffic Organization Service (TOS) and Navigational Assistance Service (NAS). 24 hours/day all year round. In the deep water channel in Lake Saimaa INS is provided to vessels when the Saimaa Canal is open for traffic. Operation of the VTS centres is enabled by maintaining a comprehensive traffic image of all of the Finnish sea areas. The traffic image is compiled using wide ranging coastal AIS and a radar sensor network. The Finnish system for maritime traffic monitoring and search and rescue with its sensors and arrangements for information exchange is developed, and to a large extent acquired through a joint procurement with other Finnish maritime authorities. The so called HINMAC co-operation was initiated over twenty years ago and it is a unique example of extensive co-operation between authorities. At present, co-operating parties include the Finnish Transport Agency, the Finnish Transport Safety Agency, the Finnish Border Guard and the Finnish Navy. In addition to VTS services, the Finnish Transport Agency jointly operates a Ship Reporting System, GOFREP in the Gulf of Finland with Estonia and Russia. There is regular and frequent passenger ferry traffic between Finland and Estonia in the Gulf of Finland area and the Gulf in a north-south direction. Russia has several large of transportation ports at the east end of the Gulf of Finland. Tankers go to and coming from these ports follow the Gulf of Finland in an east-west direction. The routes of tankers and passenger ferries cross in the middle part of the Gulf of Finland, creating an area with an increased risk of collision.

The average depth of the Baltic Sea is only 57 metres, compared to the average depth of the Mediterranean Sea which is 1.5 kilometres. The eastern part of the Gulf of Finland and the coastal areas are even shallower. The average depth of the Gulf of Finland is 37 metres. Accidents in the area could have disastrous effects on the environment, marine life and the coastlines of the surrounding states. To mitigate the risk, a mandatory traffic separation scheme and ship reporting system have been established in the area. The jointly operated SRS system is...
The Finnish Transport Agency: a young organisation with a long history

also a unique example of cross border co-operation in traffic monitoring. The three countries involved, Finland, Estonia and Russia all monitor their own areas of responsibility and exchange ship reports and other relevant information in real time.

Hydrographic Services
The Finnish Transport Agency is also a national authority in publishing nautical charts for commercial shipping and other waterborne vessels. The current portfolio for printed and electronic charts covers all Finland’s sea areas and major inland lakes. In addition to chart publication, FTA provides Notices to Mariners, chart update services and other related publications which navigators are required by the IMO and the national safety authority to have onboard.

Enabling future e-Navigation
There are a few basic elements that have to be in place before e-Navigation can become a reality. These include reliable electronic charts, reliable electronic position information and communication links between shore and ship.

The Finnish Transport Agency is contributing to all three of these elements in Finnish waters. We are responsible for providing official electronic charts of our waters. To support and secure the GNSS-based electronic navigation FTA provides a DGNSS augmentation service in all coastal areas and in the Lake Saimaa area.

The provision of the service is co-ordinated with Sweden to achieve more reliable service with fewer transmitting stations in the Gulf of Bothnia. FTA has closely followed the development of resilient Positioning, Navigation and Timing (PNT) and even carried out some of its own tests related to terrestrial backup systems (e.g. R-mode of PPI-transmissions).

FTA also maintains the Finnish National AIS network. Currently there is only a limited amount of information services provided via this communication link. We provide some basic information using AIS Application Specific Messages (ASM), for example meteorological information and virtual aids to navigation. In the future when the system evolves to VH-F Data Exchange System (VIDS) there will be more bandwidth available and we expect to use this communication link increasingly for ship-to-shore and shore-to-ship communication.

Looking into the future
The Finnish Transport Agency will be responsible for providing many of the planned services in the e-Navigation Maritime Service Portfolios. To make sure the planned services are useful to mariners, we will test and validate the planned concepts in projects and test beds. The project "Enhanced Navigation Support Information (ENSI)

The Saimaa canal in summer. In the deep water channel in Lake Saimaa a navigation service (NAS) is provided to vessels where the Saimaa canal is open for traffic.

Clockwise from top left:
• The Saimaa Canal is unique in many ways (courtesy of Finnish Transport Agency).
• The Saimaa canal in summer. In the deep water channel in Lake Saimaa a navigation service (NAS) is provided to vessels where the Saimaa canal is open for traffic.
• The Saimaa canal in winter.

The provision of the service is being piloted in the coastal VTS centres in co-operation with several Finnish shipping companies. Through ENSI, a vessel’s tactical route plan is sent out to maritime authorities. The safety of the voyage plans will be automatically checked in advance. All anomalies or defects in the plans can be observed at an early stage, and vessels will be notified of three observations. The aim is to reduce the possibility of human errors made during route planning. Route plans received from vessels are also incorporated in the VTS centres’ real time traffic image to help detect possible traffic congestion and risk situations in advance.

Automatic alarms will also help the VTS operators focus their attention on areas where it will be needed. When using the service, vessels plan their route with ECDIS as usual, and using a simple chart application, they can send the route plan to VTS. Using the same application, they can also give the information that is required in the mandatory report for GOFREP. The aim is to lessen the burden on board and the need for VHF communication when vessels enter the area.

Also ordering a pilot for Finnish ports can be done at the same time. After navigators have sent their route plan, they will be able to easily see if the route plan is safe or if there is a need for altering the route.

At the same time navigators can choose other information that will be displayed on the chart. This includes information on weather and ice conditions, ice waypoints, navigational warnings and information about other possible hazards of anything unusual along the route that pertains to the planned voyage. The technology for providing the services currently tested in the ENSI project is developing rapidly. The Finnish Transport Agency will continue the development of these services and route exchanges in collaboration with other authorities and test beds. The will ensure that the development will lead to harmonised services and enable some of the planned services to be operational in the near future.

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The Mysteries of the Order Book

One of the many books to be kept at a Trinity House station is the hardback, ruled Order Book. The publication was to be, in the words of the Service Regulations: ‘Entered up in the proper manner, kept for reference.’ Interestingly, this was one of a broad selection of titles kept at a Trinity House station and of course the list varied from lighthouses, lighthouse or tender and included Whitaker’s Almanac and Pear’s Encyclopaedia as well as various items of stationery and reference works necessary for the efficient accounting of stores and in the running of a light station. These amount to the Oil Book, the Fog Signal Store Account Book, the Circular Book, the International Code of Signals, the Medical Guide, Brown’s Flags and Funnels, and Commander Irving’s Bends, Hitches, Knots and Splices. To this were added instruction cards for Morse and semaphore as well as directions as for the use of the Schermuly pistol rocket apparatus.

In a steam vessel the ship’s order book carried instructions as to the duties of the Deck Watch, and the Order Book was directed to be kept in the charge of the Master and to be seen and inspected by the District Superintendent monthly. Committees ad hoc may enter any orders that may be considered necessary for the general efficiency of the vessel.

Of course, the first entry in any lighthouse or lighthouse Order Book was that concerning the first putting in of the light and the last edition of the Book, as a series of Books, closed with a report of stores being removed and the light being demobilised. The annual Visit of Inspection also commented within the state of the station and mention was made of the Elder Brethren making the inspection.

A dip into Order Books of the past make interesting reading:

For example on 9 July 1851 at Plymouth Breakwater lighthouse we read: ‘Having come to the knowledge of a Committee of Elder Brethren that persons are in the habit of visiting the Light House on Sundays the Light Keepers are hereby ordered not to admit any visitors on that day – there being six days in the week for viewing the building without intruding on the Sabbath.’

The Superintendent, Capt. T E Ditcham was forced to make the following entry in 1852: ‘The Elder Brethren having visited this lighthouse and observed a leer barrel placed in the CH room, after it had been directed by the Superintendent that it should at all times be kept in the cupboard of the Water Room. I am directed to signify their surprise at this instance of neglect of the Superintendent’s Orders, and that any repetition of such disobedience will subject the Keepers to dismissal from the Corporation’s Service.’

Holyhead Breakwater light was inaugurated in 1873 and the Order Book carries the following on its first page: ‘On the 19th August 1873 after the ceremony of declaring the Holyhead Breakwater complete and open the Light House was handed over to the charge of the Trinity House by the R Horp Chichester Fortescue MP President of the Board of Trade in the presence of HRH The Duke of Edinburgh, the Master, HRH The Prince of Wales an Elder Brother Sir Fred’r Arrow the Deputy-Master and Captains Edwin Parr Yard and Charles Conger Waite, Elder Brethren of the Honourable Corporation and TH Farr, Secy of the Board of Trade.’ Those present signed the Order Book and the following was added: ‘The Lamp was lighted by Lady Arrow at Sunset and all left in working order, (long may it continue).’

At Withernsea lighthouse the light was exhibited for the first time at sunset on 1 February 1894. From the Order Book we note that modernisation gathered momentum in 1936 for in accordance with Notice No 8 of that year we see that the Light (Electric) was installed and exhibited on the 17 September 1936 at sunset with altered character – ‘The new character is as follows: – One white flash of about 0.1 second every 2.5 seconds.’ In the Service in the 1890s there had occurred a fire at a station but the location is not given. However, it was necessary ‘that a form of safety circular had to be issued to the Service from the Withernsea Order Book the following instruction was written out and applied to the Order Book, presumably before the days of duplication of the File system.’

Trinity House 11 February 1895

It had been brought to the notice of the Board that, on the occasion of a fire which recently occurred in the Lantern of a lighthouse, the Assistant Keeper was absent from the premises and in the adjoining house after sunset, the Elder Brethren have ordered that for this serious breach of the Regulations, he be severely reprimanded and removed from his own expense to another Station. – The Principal Keeper who was primarily to blame for the mishap, being placed on Pensions List for neglect of written orders in not having a Bucket and Funnels in the Lantern, and for his general inefficiency when the fire originated I am to add as respects the Assistant Keeper above referred to, that had he not been for the previous good record he would have been much more severely dealt with.

Captain Alfred Kent, Secretary to the Corporation.

At Barrow Deep Lightvessel (formerly Prince Charles Channel Lightvessel) the Order Book starts on 6 April 1854 when the station was visited by Captains Henry Bay, William Pigott and T Narramore. On 19 May 1900 a letter was written into the Order Book from Trinity House Lamma reading: ‘Having been represented to the Board by the War Office authorities that extra expense is occasioned and much additional time occupied in effecting Repairs to signal guns in cases where attempts have been made by inexperienced persons to rectify damage that may have been caused by them I am to signify the instructions of the Elder Brethren that you caution the Officers of Light Vessels to exercise great care in dealing with the guns, especially when engaged in cleaning out the Vent by means of the steel ‘‘br’’ which work should not be attempted by an inexperienced member of the crew also, that in the event of a gun becoming unserviceable no attempt be made to remedy the defect but that the same be at once reported.’

Signed Chas. A. Kent, Superintendent.

15 May 1919 I Hatterley, Superintendent commended – ‘the manual Fog Horn to be cleaned up & kept in order. The Hammocks of Naval Ratings to be scrubbed.’

10 July 1929 ‘A further notice by the Superintendent: Inspected from Alert S/T on relief. Vessel clean and efficient. Mechanic (AGA) visited ship on 8 July and took ashore the upper mixer.’

On 5 August 1937 a line from N J Williams, Master, Satellite: ‘AGA representative visited & inspected apparatus.’

War clouds had gathered and on 7 June 1940, ‘No 83 LV towed from station & placed at Barrow Deep (Admiralty Station) to ground moorings 100fms NE & SW arms 20fm G. Riding chain 1 5/8” breches. No 26 towed to London’ in N G Williams, Master.

28 October 1940. By A. Morrell: ‘No 83 visited from Triton by Deputy Master. Certain damage to lantern etc. caused by magnetic mine. Mechanic (Riggs) joined from Triton to attend to same. Otherwise all well.’

28 November 1940. Barrow Deep Station discontinued & vessel withdrawn owing to war conditions.

Signed W W Jamieson Chief Superintendent, 28 March 1940.

I look forward to turning the pages of the Order Book as the months go by.\n
For example on 9 July 1851 at Plymouth Breakwater lighthouse we read: ‘Having come to the knowledge of a Committee of Elder Brethren that persons are in the habit of visiting the Light House on Sundays the Light Keepers are hereby ordered not to admit any visitors on that day – there being six days in the week for viewing the building without intruding on the Sabbath.’
The paths trodden by Trinity House Yeomen

In 1994 the Elder Brethren of Trinity House had the foresight to support the Merchant Navy Scholarship Scheme designed for cadets to achieve their Certificate of Competency and more recently the Officer of the Watch certification. In 2002 the Yeoman scheme was introduced in order to encourage those cadets, once they had qualified, to maintain a link with Trinity House. Today, we have a pool of a hundred Yeomen and the Fraternity is interested to know what has happened to these past cadets. How far ahead have the Yeomen reached in the maritime industry and what experiences have they gained on their individual career paths?

In response to a request for a short biography, replies revealed men and women have worked in over a hundred countries around the world, for government and commercial vessels, employed as deck, engineer and electro-technical officers in ships and in management ashore. Yeomen are found in employment as ship operators and managers, working with vessels carrying hazardous cargoes on Moss-Rosenberg, Membrane and Q-Max LNG carriers, crude oil and product tankers, Floating Production Storage and Offloading (FPSO) vessels and transporting nuclear material. Yeomen have supported military operations in Iraq and protected shipping from Somali pirates. Close to home they are working in our waters, whether it is crossing some of the busiest shipping lanes in the world or navigating, ship handling, berthing and anchoring in Scottish lochs and sounds.

Small coasters tramping around European ports have provided some with a fast learning curve on cargo and ship operations. One person enjoyed time in a collier trading to Kent, but European legislation related to the burning of coal ended the trade and the ships were sold.

Yeomen have worked their way through the ranks to become the senior staff in luxury cruise ships, conveying passengers to spectacular locations around the world. There are also those working as professional crew in super yachts ranging from 50 metres to 160 metres in length.

In coastal waters there are Yeomen as deck and engineering officers in Trinity House and Irish Lights vessels, commercial sand dredgers, fisheries research and protection vessels. On reaching port Yeomen can be found overseeing vessel traffic services, as assistant harbour masters and tug crew.

There are those that do not stop their interest in the sea when they are home on leave, one worked as a volunteer with the Jubilee Sailing Trust, another had his first command on the Rainbow, a ship included in the UK’s National Historic Fleet.

Further afield there are superintendents and managers of specialist vessels and associated services in the Australian and Asia Pacific region, then there are those working in colder weather operations with the British Antarctic Survey. Worldwide there are Yeomen working as engineers, deck officers and managers in the offshore industry specialising in the construction and decommissioning of oil, gas exploration and production and wind farm structures. This work requires operating vessels specially designed and constructed and with engineering that is using some of the most technically demanding equipment on the high seas today. These include platform supply vessels, anchor handlers, emergency response and rescue vessels, heavy lift pipe-lay vessels, diving support craft, the accommodation semi-submersible flotel and 3D seismic survey ships. Many of these require officers to have Dynamic Positioning Operators’ qualifications.

One of these sophisticated vessels is the world’s largest six legged wind turbine installation vessel. Our Yeomen are working in shore-based employment and now influence commercial shipping in many varied locations. The seafarer may hope to avoid an inspector for the Marine Accident Investigation Branch but will no doubt benefit from the wisdom of their published reports on maritime incidents written by a Yeoman.

Further education has played an important role for many. One person completed a BSc Honours top up degree course, then was awarded a degree in Marine Operations Management and is now embarked on the Institute of Chartered Shipbrokers’ examinations. Another chose the legal profession and is now working as a solicitor for a company located just a stone’s throw away from Trinity Square. Others work with P&I Clubs as claims handlers.

One engineer was awarded a degree with the Open University then became a Fellow of the Institute of Marine Engineering, Science and Technology (IMarEST) and an Incorporated Engineer. As a ship manager he may find Yeomen colleagues in competitor companies working as superintendents or responsible for all ISM/ISPS activities as the company Security Officer and Designated Person Ashore.

There are those supporting industry trade associations, a Yeoman runs the UK Chamber of Shipping’s Careers at Sea website and the Centre at Sea Ambassador scheme, promoting education and training within the Merchant Navy. Another one is providing seafarers with advice and guidance through the seafarers’ union Nautilus International and the International Shipping Federation.

Yeomen can be found in education establishments for example training seafarers in maritime and offshore safety, teaching lifeboat skills, sea survival, fast rescue boat operations and introducing underwater escape training courses.

A number of others are still pursuing careers both within and without the maritime sector.

The Trinity House Board remains interested and committed to support Yeomen as they continue their career paths. Yeomen may seek advice and information from a pool of 50 Younger Brethren each of whom is a leader and specialist in their field of maritime expertise.

Those wishing to know more about the scheme should contact Captain John Rose (Chairman: The Trinity House Yeomen Scheme) by email at john.rose@trinityhouse.co.uk.

Above: Trinity House Yeoman Will Whalley is serving as Chief Officer on a vessel of the British Antarctic Survey.

Above: Yeomen go about their sophisticated craft such as the world’s largest six legged wind turbine installation vessel, Pacific Orca, shown above.

Above left: Trinity House Yeoman Will Whalley is serving as Chief Officer on a vessel of the British Antarctic Survey.

Above right: Yeomen have worked aboard the world’s largest six legged wind turbine installation vessel, Pacific Orca, shown above.

More pictures, below: Will Whalley returning to ROS Emil Shackleton.
On 21 April HRH The Master visited Trinity Homes Walmer accompanied by her Lady-in-Waiting, Mrs Margaret Hammond, and the Lord Lieutenant Viscount de L’Isle. They were in turn introduced to the Executive Chairman, Captain Ian McNaught, Captain Colin Stewart (Elder Brother with the Homes portfolio) then to Commander Graham Hockley, Secretary to the Corporation, Mrs Joanna Hockley and Mrs Carole Furness, Supervisor of the Homes. The party viewed the Gardens and were introduced to Captain and Mrs Lawrence Stroud in their bungalow. Residents gathered in the Common Room for coffee and Mrs Furness presented Captain Edwin (Ted) Robinson, the Senior Captain at the Homes. Thereafter Her Royal Highness met as many of the residents as were able and after signing the Visitors’ Book she departed for Dover Harbour.

At the tug berth the Master was met by Captain Tony Wright, Trinity House Marine Superintendent who introduced the CO of THV Alert, Commander Ben Lankester. Passage was taken to the Vane Bank to show the Master how the new buoyage has reduced the number of vessel infringements into the Vane Bank Alarm Zone. An opportunity was taken for her to tour the ship and to inspect its multibeam sonar before returning to Dover and departing.
Adnams Lighthouse beer competition

On 13 November the Trinity House Annual Awards ceremony took place at Tower Hill to recognise the achievements of several members of staff and some contractors in a busy and successful year. Awards for long service were presented to Calvin Johnson, Simon Wakelin, Stephanie Rawlins, Wayne Belshy, Nicholas Davies, Dawn Culley and Denis Pitt. All have completed 25 years service.

Sarah Harman and Russell Clarke (absent) received an award for their work in creating a Fixed Asset Register in a format that could be used by not only Trinity House but also the other General Lighthouse Authorities and the support they gave to the Commissioners of Irish Lights in populating and helping them with the realisation aspect of the register.

Malcolm Nicholson was similarly awarded for achieving his fellowship of the Royal Institution of Navigation for his ‘contribution to the improved safety of navigation.’

The award for Outstanding Team Achievement: Benefitting Trinity House was presented to THV Patricia crewmen Jon Kidd, Jamie Campbell, Kevin Taylor, Daniel Griffin, Bradley Thomas, Colin Williams and Daniel Pitchford for attending a Mayday situation on a Dive Vessel in the Western Dover Strait on 14 June 2014.

In addition all the crew on the Port and Starboard watch of THV Alert are recommended for an award for their repair work to No 17 Lighthouse following damage by MV Bramham.

Job related professional qualifications were achieved by:
- Chris Pearson Postgraduate Diploma in Advanced Engineering Design
- Nick Chappell NVQ Level 3 in Engineering Technical Support
- Mike Gardiner NVQ Level 3 in Engineering Maintenance
- Aaron Thorlow BTEC Level 3 Advanced Certificate in Electrical Engineering
- Thomas Arculus Bachelor Degree in Law
- Emmeline Payne Chief Mate’s Certificate of Competency
- Robert Dale Master of Business Administration
- Joanna Thomicroft CIPS Level 4 Diploma in Procurement and Supply
- Jonathan Billot Deck Cadet of the Year
- Warsash Maritime Academy
- Lawrence Hughes Microsoft Certified Solutions Expert: Qualification

Honouring the Corporation’s long term partnerships with some excellent contractors, two awards were given this year: to Barn Nuttall, for their work on the Tower (collected by Mike Hodgson), and to Yare Shipping for supply of food stores to the Trinity House Vessels over many years (collected by Chris Fields and Matt Hammond).

Recognising the importance of Health and Safety in the workplace, certificates of merit were collected by Malcolm Johns and Terry Graves on behalf of Engineering and Field Operations who achieved a zero reportable accident rate since September 2010.

All Trinity-House vessels in the year under review excelled in their safety standards, with only one MAB reportable incident across the fleet. As such each vessel was awarded a Certificate of Merit for their work in reducing accidents. Awards were collected by Owen Gow (Alert), Jonathan Turnbull (Patricia) and Richard Greive (Colasars).

Finally, a Certificate of Commendation was awarded to Jon Cuthbert, Paul Dunning, Tina Gochin (absent) and Jason Hollands for coming to the aid of a seriously injured motostere rider outside the Harwich premises and controlling the situation until the emergency services arrived. The medics and police on scene were extremely grateful for the first aid care administered and the continued help offered.

Staff that attended this incident promoted the best professional standards that we strive to achieve at Trinity House and Certificates of Commendation were awarded to those involved accordingly.

The Editor would like to apologise for failing to include the following wedding notice in the last issue of Flash.

On 13 June 2014 Hanna Smith, Commercial Administrator married Adam Mayhew on the beach in Gran Bahia Principe Akumal, Mexico, surrounded by close family and friends, a second reception was held at The Waterfront, Dovercourt, in July.

Congratulations Dr Nick Ward At the 59th Session of the IALA Council held in St German-en-Lay-last December Dr Nick Ward, Director of Research & Radionavi- gation of the General Lighthouse Authorities, was created an Honorary Personal Member of IALA for his contribution to the international development and standardisation of maritime radionavigation and related systems over many years. At IALA he served as chair of the Radionavigation and AIS Committees and then as vice-chair of the e-Navigation Committee for its first eight years.

At this time of the year plans are in hand for the next Trinity House Christmas card and our ever-popular Lighthouse Calendar.

Readers are invited to keep in touch with Commercial Services at Trinity House Harwich by telephone on +44(0)1255 245156 where details may be obtained and orders placed.

Eventually orders may be made online at www.trinityhouse.co.uk/commercial/giftshop/ using a credit or debit card.

Lighthouse Photography Competition

Choose your favourite image from the 12 which will feature in the 2016 ‘Lighthouses’ calendar. Vote now for your favourite - the overall winner will be awarded with a stay at one of our beautiful Lighthouse Holiday Cottages (see below). Do you have a photo of one of our Trinity House’s lighthouses? ‘To vote and to submit your image for our 2017 calendar visit:

Christmas cards and Calendars

www.trinityhouse.co.uk/lighthouses/photography-competition

He is a Chartered Engineer, Chartered IT Professional, a Fellow of the Royal Institute of Navigation and an Associate Fellow of the Nautical Institute.

Adnams Lighthouse beer

The photograph below was taken as part of the TH500 celebrations, specifically a promotion undertaken during 2014 with Adnams of Southwold whereby their Lighthouse bottled beer (see right) was branded for a limited time with the TH500 logo and Adnams used their website to promote awareness of our 500th anniversary.

Paul Howe reported: ‘Three competitions were run by Adnams. The first was to visit a case of Light- house beer, the second was a trip with a technician to maintain Southwold Lighthouse and to have a tour of the Adnams brewery. The third competition was to win a week-long stay in a lighthouse cottage. According to Adnams these competitions obtained the best response to any promotion undertaken online by the company in recent years with in excess of 4000 entrants.

On 13 November the TH500 celebrations, specifically a promotion

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PUBLISHED IN ASSOCIATION WITH THE ROYAL YACHT SQUADRON, WHICH THIS YEAR CELEBRATES ITS BICENTENARY, THIS BOOK IS BY AN ESTABLISHED AUTHOR WHO HAS WRITTEN ON TRADITIONAL SAILING AND WORKING CRAFTS. THE STORY OF THE CUTTERS, THEIR CREWS AND THEIR VESSELS OPERATING AROUND THE NAVIGATION OF THE ENGLISH CHANNEL, THAMES ESTUARY AND NORWAY, NOW TAKES ITS PLACE IN THE HISTORICAL RECORD OF THE TRINITY HOUSE AND LIGHTS/PORTS COMPANY. GIVEN THEkrę́sieur's POSITION AS THE UK'S-leading LIGHTHOUSE AND NAVIGATION AGENCY, THIS BOOK PROVIDES A VALUABLE HISTORICAL ACCOUNT OF A SIGNIFICANT PART OF OUR MARITIME AND NAVAL HISTORY.

**LONDON'S SAILORTOWN 1660-1800**
By Chris Williams and Ken Cottrell
Published by The East London History Society
207 pages. ISBN 978 0 9564779 2 7
Price £12.60

**WELLINGTON 1769-1852**
by Christine Wallace. Published by Unicorn Press Ltd
240 pages. ISBN 978 0 90065 12 9
Price £30.00

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**COMMODORE JIM SCORER**
**F/N FCMB RN**

The early retirement due to recent health complications was announced at the end of February. Commodore Jim Scorcer, Director of Operations, an appointment he had held since 2007. On his retirement the Executive Chairman, Captain Ian McNaught, paid tribute by reflecting upon Jim's energy, commitment and professionalism. Jim has been a trusted and valued member of the THV family for more than 35 years and a dedicated wideawake on the Essex marshes, particularly Foulness, and successfully trained generations of dogs to the gun. In an earlier life he had worked for the manufacturer of the steering machine gun in Dagenham and for forty years was on the maintenance staff of the Ford Motor Company.

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**COMMANDER ROGER SWINNEY**
THS

This year the nation commemorates the bicentenary of the Battle of Waterloo in which the Duke of Wellington (the 'Iron Duke') led an Anglo-Dutch-Prussian army defeated Napoleon in June 1815. He was twice prime minister, one of the leading figures in the House of Lords, and remained Commander-in-Chief of the British Army until his death in 1852. From 1826 he was Constable of HM Tower of London. From 1829 Lord Warden of the Cinque Ports and from 1837 Master of Trinity House. In Light Upon The Waters authors Andrew Adams and Richard Woodman tell us... The Corporation considerable political gravitas... Court Minutes refer to correspondence from him at Walmer on light- house and pilotage business. One indicates... His Grace will be pleased to set for his Portrait to be painted in the costume of an Elder Brother by such Artist of Eminance as his Grace may nominate for that purpose... The Court commissioned the portrait by John Lucas (1807-1874) which now hangs in the Luncheon Room at Trinity House. His large format (305 x 260mm) is a revision of a 1935 book and includes the whereabouts of likenesses of Wellington, probably the most painted and sculpted individual in British history. The National Portrait Gallery alone holds 339 images of Wellington versus 84 for Nelson, 85 for Marlborough, 93 for Henry VIII and 125 for Elizabeth I. The book provides historical background with copiously-illustrated narrative of Wellington's life, attitude to sitting, notes on painters, sculptors and caricaturists who captured the distinctive face and features to be found in many collections.

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LEAVERS

We bid farewell, extend our thanks for their service and wish them well in their futures to:

Trevor Hill

Anna Gibb, legal Advisor, Full-time employee, after three years’ service on 14 December 2014.

SVS

Adrian Pear, Sea-ster, Full-time employee, less than one year’s service on 8 October 2014.

Stephanie Jinn, Electro-Technical Officer, Full-time employee, after 11 years’ service on 9 October 2014.

John Hobson, Boat-ster, full-time employee, after ten years’ service on 14 November 2014.

Craig Ramsay, Commander, Full-time employee, after four years’ service on 24 November 2014.

Roger Swinney, Commander, Full-time employee, after 29 years’ service on 25 November 2014.

Charles Davall, Second Officer, Full-time employee, less than one year’s service on 13 December 2014.

Emmeline Payne, Second Officer, Full-time employee, after four years’ service on 7 January 2015. William Sadler, Captain, Full-time employee, after five years’ service on 21 January 2015.

Neil Williams, Carpenter, Full-time employee, after 14 years’ service on 22 February 2015.

Anthony Hill, Cook, full-time employee, after nine years’ service on 25 March 2015.

Harwich

Angela Dunkan, Light Duties Administrator, Fixed term, less than one year’s service on 31 October 2014.

Stephen Numi, Finance-Administrator, Fixed term, less than one year’s service on 31 October 2014.

Sarah Gorham, Engineering Administrator, Full-time employee, after seven years’ service on 17 December 2014.

Jill Adrian, Finance-Administrator, Full-time employee, after nine years’ service on 28 December 2014.

Debs Gibbons, Appointee, Full-time employee, after seven years’ service on 31 December 2014.

Barry Corris, Supplies Officer, Full-time employee, after 17 years’ service on 4 January 2015.

Christine Cohom, Field Operations Administrator, Full-time employee, after 27 years’ service on 1 February 2015.

Tereence Mulqueen, Supplies Supervisor, Full-time employee, after six years’ service on 15 February 2015.

Swineshead

Denis Milkins, Fixed term, Full-time employee, after 25 years’ service on 5 October 2014.

Robert Hewitt, Buoy Yard Team Member (Crib), Full-time employee, after four years’ service on 19 November 2014.

OBITUARIES

Captain John Mallet at this time

Died 19 February 2015 suddenly, in command of THV Calaisa at sea, at the age of 56. Before entering the Merchant Navy he worked in chartered fishing vessels then went to sea for trials. He was appointed to THV Calaisa in 1957 and, after four years service in LUG, took command of the Bibby line.

Captain Simon Robinson, Marine Operations Manager, Younger Brother writes: ‘Rare facts do not get remotely close to explaining John’s personality and why his untimely death has had such an impact on those who worked with him. When John joined Trinity House in 1984 he had already served as Chief Engineer in gas tankers and it was immediately clear that he was an exceptional practical seaman. It was also clear that he had an abundance of personality and was very much from the work hard – play hard school of seafaring. From his early days as Second Officer he saw working in various ships of the “old” Trinity House fleet, but when THV Mermaid was delivered in 1988 he was appointed to the starboard watch as part of the first cadre of officers in the new ship, where as well as proving himself a highly competent 2nd Officer, he also introduced to the ship the challenge of making a circuit of the Officers’ lounge without touching the deck – the record for which he held until Mermaid was sold out of Service in 2007.

Promoted to Chief Officer he came in 1992 and substantive Master in 2002, in the first instance John took command of THV Mermaid, but when the time came to select the First Master of THV Calaisa on the introduction of THV Galatea, he was selected. His exceptional competence in both traditional and modern high-tech seawarnship made him a natural choice.

Once installed in the THV Calaisa build team John demonstrated his adaptability and quickly became familiar with all of the systems in Calaisa. In particular he developed an exceptional understanding of the Dynamic Positioning equipment – typically, it was not enough for John to be able to use it – he needed to know how it worked and became completely familiar with the theory which was always prepared to share with others – just as John did with the hundreds of officers on his frequent visits to Galatea.

‘Two of John’s proudest professional moments came in 2007, firstly taking command of Calaisa for the delivery and bringing her home in 2007 and, secondly, the first time and then taking her up to the Pool of London and welcoming THV The Queen on board for the official naming ceremony. Both of these events were accomplished with John’s customary high level of professionalism.

At the time of John’s funeral, inevitably, many stories and memories of John were shared, the impressions of John were all similar – highly competent, capable and professional, set high standards for his crew but was also supportive and understanding of people’s needs; a great ambassador for THV and respected by his colleagues, and passionate about passing on his seafaring skills to the next generation.’

Commander Raymond Powell THH

Died 10 January 2015 aged 77.

Captain Tony Catesby writes: ‘Ray Prain was born and brought up in Dunquerque, before going away as a young man 1954 into the Merchant Navy. He was a leading member in those days, when everyone knew someone who was at sea. Ray was to serve as, and many ships, notably sailing from Scott's ports worldwide, before ending up on charters, on the London to Australia run in the Orient Line, as Captain, in 1979, when he was in his time to obtain his Oil Barge certificate for a career in navigation.

Sailing the magnetic pull of the Northern Lighthouse Board, Ray joined Trinity House in 1963 initially in the Lighthouse Service based at Great Yarmouth and served on the Cross Sand UV at Lamplighter, where he qualified to transfer into the Steam Vessel Service as it was then known. He first joined THV Mermaid (1969) at Great Yarmouth as Junior Second Officer in 1970, before going on to serve in Trinity House as First Officer.

Returning once more to the lighthouse world and ultimately enhanced the knowledge of navigation.’

Lawrence (Larry) Reynolds

Died 16 May 2015 aged 96, retired Principal Scientist, Trinity House Lighthouse Service.

Larry was born the day after Armistice Day 1918 in Newport, Isle of Wight and educated at the Isle of Wight County Secondary School where he served for 32 years until his retirement in 1983.

Captain Dorothy (Dolly) Mead, Royal British Legion, The Royal Family, and the Government, Marine Operations Manager, reminisces about passing on his seafaring skills to the next generation.

‘During this time Ray showed great patience and aptitude in instructing junior officers and seamen in their duties and skills, and many have since commented on this attribute. Ray later went on to serve as Chief Officer in the new Mermaid, before returning once more to Patricia on promotion to Commander THH in 1999, and continued to serve in Patricia until his retirement in February 2002. Ray was a very dry sense of humour and a great skill at cartoon sketching. It was not uncommon to come upon the bridge after Ray had gone down below, and find a sketch on the chart table depicting some humorous or disastrous event that had occurred earlier in the day. In the days when we still revered the lightskeeper by ship, he produced a sketch showing the Cross Sand UV on her beam ends in a heavy sea, with a balloon reading “Good for the relief,” or directed at the approaching tender.

Reverting to his home in Mulbarton just south of Norwich, where he devoted much time to the National Coastwatch Institution, serving at Gorleston on Sea where he became a trustee, keeping a finger on the pulse, using the benefit of his local knowledge of that coastline to best advantage. He retained his interest in classical music, musical, art, and architecture.

Dr Nick Ward writes: ‘Larry Reynolds was a modest and approachable person who carried out outstanding work on the sea, and was much in use today. Through his involvement with IALA, he ensured that the lightskeeper’s survival benefits the lighthouse world and ultimately enhanced the

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STARTERS AND LEAVERS

Welcome to the following new members of staff who have joined us between 1 October and 31 May 2015:

SVS

David Porter, Senior, Full-time employee, 8 October 2014.

Luis Struikendorp, Seaman Auxiliary, Full-time employee, 8 October 2014.

Scott Ravizza, Engine Room Assistant, Full-time employee, 8 October 2014.

Scott Garnier, Senior Auxiliary, Full-time employee, 29 October 2014.

Michael Marchetti, Electro-Technical Officer, Full-time employee, 29 October 2014.

Summer Barbrook, Trainee Deck Rating, Fixed term, 10 December 2014.

Ellis Robinson, Trainee Deck Rating, Fixed term, 10 December 2014.

James Charles, Second Officer, full-time employee, 31 December 2014.

Lloyd MacPhee, Trainee Deck Rating, Fixed term, 31 December 2014.

Benjamin Thompson, First Officer, Full-time employee, 21 January 2015.


Stephanie Hillhouse, Second Officer, Fixed term, 11 February 2015.

Harwich

Robert Vanston, Procurement Manager, Fixed term, on 1 October 2014.

Katrina Clever, Light Duties Administrator, Full-time employee, 3 November 2014.

Julian Coles, Design Technician, Fixed term, 17 November 2014.

Christopher Clayton, Design Technician, Full-time employee, 17 November 2014.

James Turner, Supplies Officer, Full-time employee, 24 November 2014.

Sarah Neal, Receptionist, Fixed term, 12 January 2015.

Jenna Pedder, Purchasing Administrator, Fixed term, 9 February 2015.

Peter Hill, Estates and Property Manager, Full-time employee, 9 March 2014.

Lloyd Beeney, Finance Administrator, Full-time employee, 16 March 2015.

Around the Service

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