

**NORTHERN LIGHTHOUSE BOARD**  
**SCOTTISH USERS' CONSULTATIVE GROUP (SUCG)**  
**MINUTES – 3 November 2016**

PRESENT:	Duncan Bruce	City of Glasgow College
	Iain Buchanan	Comhairle nan Eilean Siar
	Andy Clift	RNLI
	Liz Couser	Briggs Marine
	Val Ferguson	Ports & Harbours Branch, Transport Scotland
	Allan Finlay	Piers & Harbours, Argyll & Bute Council
	Robert Hollingdale	Royal Institute of Navigation
	Richard Littlefield	North Marine Ferries
	Edward Mason	Clyde Cruising Club
	John Pirie	Briggs Marine
	David Vass	Royal Yachting Association, WHAM
	Chris Walton	United Kingdom Hydrographic Office
	Scott Wright	Associated British Ports, Ayr
	Alastair Beveridge	Chairman SUCG,
	Mike Close	Commissioner
	Mike Bullock	NLB Chief Executive
	Phillip Day	Director of Marine Operations
	Peter Douglas	Navigation Manager
	Ewen Mackerchar	Marine Operations Manager
	Barri Millar	Civil Maintenance Engineer
	Archie Johnstone	Navigation Officer
	Steve Driver	Coastal Inspector
	Gillian Burns	Coastal Inspector
	Jill Bennett	Secretary to the Board

Alastair Beveridge, the NLB SUCG Chairman, welcomed everyone to the meeting.

**1. APOLOGIES FOR ABSENCE**

Apologies for absence were received from the following organisations:

BP Marine, Chamber of Shipping, Dumfries & Galloway Council, EMEC, European Cruise Service UK Ltd, Fife Council, Fraserburgh Harbour, Marine Scotland, Mull of Kintyre SeaTours and Stenaline.

**2. MINUTES OF PREVIOUS MEETING & MATTERS ARISING**

The minutes of the previous meeting held on 5 November 2015 were agreed as a correct record.

### **3. ANNUAL REVIEW OF NLB**

Mike Bullock, Chief Executive of NLB, welcomed the attendees to the meeting of the SUCG and gave a brief overview of what has done in the last year by NLB to improve the way it operates, how it is changing to make the delivery of services as effective and possible and also provide best value for money to the ship owner who pays light dues.

#### Devolution

The Scotland Act 2016 published earlier this year has incorporated the recommendations made by the Smith Commissioner for further Devolution to Scotland and directly affects NLB in the following:

- formalise the arrangement already in place for the Scottish Government to appoint a Commissioner to the NLB Board, similar to the Commissioner for the Isle of Man and the Commissioner for the Department of Transport in Westminster. Commissioner John Ross is currently the Commissioner nominated by the Scottish Government and NLB will be working with Transport Scotland to recruit a replacement when he retires from the Board in September 2017.
- NLB will now lay our Annual Report and Accounts before the Scottish Parliament.
- NLB officials can now be called before Committees of the Scottish Government to give evidence.
- Transport Scotland officials are now part of the Tri-GLA Joint Strategic Board alongside their colleagues from the Department for Transport and the Irish Department for Transport, Tourism and Sport.

These changes have allowed NLB to build on the already very good relationships within the Scottish Government, including Transport Scotland and Marine Scotland.

#### Investing in the future

For the first time NLB recruited two Rating Apprentices earlier this year; on this occasion they are both Deck Ratings but in future years depending on need NLB also intend to appoint Engineering and Catering Rating Apprentices. From next year NLB intend to recruit two Aids to Navigation Technician Apprentices.

#### Finances

NLB delivered the cost reductions placed on us for the five year period 2011 to 2016, and have now agreed a new five year budget with the Department for Transport from 1 April 2017. This provides NLB with the essential budgetary stability needed to plan the delivery of services whilst still allowing the mechanism to drive towards delivering best value for money.

Light Dues rate was reduced by a further penny earlier in 2016 reflecting the efficiencies delivered.

#### Tri-GLA Helicopter contract

At our last meeting it was reported that the three GLAs had appointed a new shared contract to PDG Helicopters who are based in Inverness and the contract went live on 1 December 2015. Overall the integration of the new contractor has gone well and the new arrangement is delivering healthy savings to the General Lighthouse Fund, although because NLB is by far the biggest user of the aircraft the direct savings to NLB are minimal.

#### Commercial Work

Over the last year NLB have continued to use our Reserve Capacity to take on Commercial opportunities and bring in revenue which we have been able to offset against our operational costs. For example:

- NLB works with the Ministry of Defence to provide support for Submarine Rescue
- NLB ships support other activity including survey work for MOD and deployment of Oceanographic buoys on behalf of the Met Office.
- provide berthing services for the HEBRIDEAN PRINCESS at Oban base during the summer cruise season; berthed CalMac to allow overnight repairs to their own jetty and supported a number of fish farm vessels with loading and unloading operations.

- provide contracted buoy services to a number of customers including Scottish Water and various councils.

#### Tri-GLA Fleet Review

The first phase of the review undertaken last year - in conjunction with Trinity House and Irish Lights NLB worked with consultants to review the requirement for GLA vessels - has been completed and following direction from the Shipping Minister the GLAs are now testing and evaluating the recommendations proposed. As before a governance structure under the chairmanship of the Department for Transport has been established which includes representatives from the Lights Advisory Committee and Transport Scotland. The testing phase will be throughout 2017 and into early 2018.

#### NLB Chairman

In April 2017, Graham Crerar will take over from Captain Alistair Mackenzie as Chairman of the Board of Commissioners.

#### New Commissioners

NLB will be recruiting two Commissioners in 2017, one in June to replace Mike Close and as mentioned before one in September to replace John Ross as the Commissioner appointed by the Scottish Government. It is anticipated that the first advert will be issued in early March 2017.

#### NLB Conference Rooms

Next year the SUCG will be in our new facilities which are to be aptly named the Stevenson Rooms which have are currently being transformed from the former workshop in the basement of our Headquarters at 84 George Street.

The Chief Executive reminded all attendees that this was their meeting and any suggestions or ideas on how the event could be improved or topics that may be covered would be welcome.

## **4. NEW CHARTING POLICIES AND NEW PRODUCTS OF UK HYDROGRAPHIC OFFICE**

Christine Walton, Geographic & Technical Manager (N & W British Isles) gave a presentation on new charting policies and new products from the UKHO.

Christine's responsibilities are primarily to liaise with data suppliers to ensure getting good, up-to-date data with which to keep charts updated; to write technical specifications for New Editions & New Charts; to review chart portfolio & ensure correct charts are scheduled for New Edition; and to review charting policy (eg depiction of wind farms).

### **New Charting Policies**

#### Omission of Detail Policy

Omission of detail line is roughly where chart becomes 3<sup>rd</sup> scale (defined by GTM). Third scale is for planning & situational awareness; Fourth scale is for planning purposes only

The policy aims to address several issues. In particular, improve on the cluttered view by significantly reducing the amount of detail shown where charts are not largest or second scale for an area. The policy also aims to provide clarity and reduce confusion for mariners. The number of NMs will be reduced, which reduces the maintenance effort for UKHO and mariners. The policy is rules based and should be simple and easily understood by chart users and chart compilers alike. The policy also establishes where a chart can be navigated on and where it should only be used for planning and ensures mariners use an appropriate scale chart for navigation. An added benefit is the reduction in time taken to compile a New Edition of small scale chart by UKHO.

The charts will include routeing measures, major aids to navigation, anchorages and berth names and an 'Omission of Detail' note. The charts will not show depths, wrecks, minor aids to navigation, pipelines or cables.

The policy has been approved for use on charts in UK waters and will be undertaken as and when New Editions are required for new data. The first implementation of the charts has been in Humber and Plymouth areas.

Questions	Answers
When will we start to see these charts?	2/3 charts for Plymouth area were published in September. Others will be undertaken as and when New Editions are required.
What minor AtoNs are being left out, and what is your definition of "minor"?	There won't, for example, be a string of lateral marks going into a channel, these can be viewed on the largest or second scale. Agreed that when New Editions are undertaken, a discussion should take place with Ports as to what is "minor". Treat on individual basis.
What happens when you zoom in?	As you zoom in, goes into larger scale, eg harbour chart.

#### Improvements to Source Diagrams Policy

Another new policy with the aim to make source diagrams on paper charts easier to interpret and understand, is currently on trial in the Plymouth area. Source diagrams enable the mariner to determine survey quality and reliability. Mariners are expected to interpret the complex information and determine survey quality using guidance in Mariners Handbook. In many cases these diagrams are very complex, for example Plymouth.

Research amongst mariners has shown that many habitually do not use the Source Diagram and some were only referring in unknown waters. The simpler Source Diagram being trialled in the Plymouth area since 1 September 2016 is based on zones of confidence (CATZOC) the International IHO standard for survey reliability. This mirrors practice in ENCs. Areas of CATZOC C, D & U shaded in red highlighting areas of less accurate survey. This policy received universal approval from mariners in testing, and once the Plymouth trial has been running for a while, end users will be consulted for feedback.

Comment
This is a good reminder for mariners to check Source Diagrams - NLB's Bridge teams now check the source diagrams and the date, particularly if in changeable areas eg where sandbanks move.

## **New Products**

### Port Approach Guides (PAGs)

These guides have been in existence for a couple of years and are designed to be used in conjunction with standard nautical charts. They include all information required for planning to go to a particular port eg pilot boarding places, reporting points, anchorages, tidal & berthing information and have been welcomed by ports & harbour masters.

### Bespoke ENCs

An example of this is Hinkley Point C Power Station which required a new jetty for ships to bring in construction materials. The current chart of the area was at too large small a scale to show sufficient detail for ships to approach the jetty. A Harbour Limit was established, within which

only vessels using the new jetty will be allowed to enter. The ENC ~~was~~ is distributed through the UKHO AVCS service; there is no requirement for a paper chart as ~~the~~ all vessels ~~would~~ will be using ENCs.

Questions	Answers
Are these available if you already use AVCS.	Yes, the Hinkley Point ENC is included in the AVCS service. UKHO have also compiled a couple of bespoke ENCs in the Caribbean for cruise liners but they were for cruise liner use only.

More details are included in the presentation attached to these minutes.

Questions	Answers
How is an underwater obstruction handled?	It depends how the obstruction has been reported and by whom. UKHO would check with the Port/Harbour authority/contact GLAs for advice as to whether it needed to be surveyed. Depending how hazardous, a Notice to Mariners may be issued.
NLB Navigation Committee is working on identifying changes of patterns round the coast as an “early warning system”.	Cruise liners need to have up-to-date data. UKHO work with the MCA, using AIS data and risk methodology, to identify areas for surveying. Feedback is always welcome on potential areas for surveying. Contact details for supply of data are: sdr@ukho.gov.uk or BDC.surveys@ukho.gov.uk

It was agreed that a UKHO item would be included on each agenda of the SUCG meetings going forward.

## 5. THE CONTRIBUTION BY NLB SHIPS TO OUR OPERATIONS

Ewen Mackercher, NLB Marine Operations Manager gave a presentation on the work that NLBs two ships, NLV Pharos and NLV Pole Star undertake for NLB.

NLV Pharos has a 30 ton crane, is equipped for helicopter operations, has a fast diesel RIB and steel work boat as well as cabins for 12 for passengers/contractors; 350 m2 deck area, chain winch and Multibeam surveying kit.

NLV Pole Star undertakes predominantly buoy work both statutory, including of other GLAs (Northumberland region in particular) and commercial and also completes LLA light inspections and attends any outages.

### Buoy Work

NLB buoys are type 2 or type 3, and 7 foot 6in diameter or 10 feet diameter. The buoys used to be in the sea for 5 years, then 6 years and now are at sea for eight years. The buoys are either serviced annually or every 2 years depending on location, for instance more exposed locations are visited annually. Servicing a buoy involves bringing the buoy onboard the ship, removing weeds, inspecting for any damage, testing components and inspection of mooring for worn or damaged chain, checking shackles and pins.

### GLA Helicopter

The helicopter is an integral part of the ships' operations and the now that the three GLA's have a contract sharing the helicopter, careful planning is required for NLB's requirements and workplan.

The helicopter is involved in storing, the replenishing lighthouses with stores on either an annual or bi annual basis. The cargo can be fuel, water, fire extinguishers, spare parts, life-saving equipment such as lifejackets, survival suits emergency food rations. Storing on offshore lighthouses involves the Ships' crew going ashore to help marshall and manhandle the goods and cargo from the rock into the lighthouse. The helicopter is also involved in Project and Maintenance Work and can include moving building supplies to accommodation camps on site.

The Ships undertake various different contracts for commercial work, from the Met Office to NATO. NLV Pharos is also used for MOD wreck surveying to ascertain wreck condition and identify any pollution.

The two most important factors to make our ships successful are Communication and Planning.

## **6. LIGHTHOUSE MAINTENANCE**

Barri Millar, NLB Civil Maintenance Engineer gave a presentation on the work that NLB undertakes to maintain lighthouses.

Operationally, to many, the maintenance of the lights would seem reasonably straight forward. When the light stops working you simply replace it, however, the operational flashing light isn't the extent of our maintenance responsibility. Lighthouse buildings and structures, themselves, also require continual maintenance. Many of our Northern Lights are exhibited in traditional stone built structures, and like most historic buildings, the lighthouses need sympathetic repairs.

The Building and Estate Maintenance is an often forgotten, but hugely important part of the successful, and reliable operation of our Navigational lights. The Civil Maintenance Department was established around 16 years ago, when the Marine Operations Department, handed the building maintenance responsibility from the Superintendents to Engineering. In that time we have refurbished, and carried out building and estate maintenance, at almost every lighthouse in the service, and successfully completed well over 200 refurbishment and redecoration projects. These projects range from simple building repairs such as replacing damaged roof tiles to a complete re-roofing a full lead roof and full refurbishment of all the stations buildings.

The general principal is based on a cyclical ten year programme. The purpose of the refurbishment and redecoration is to present a distinguishing day-mark for the mariner, and to apply a protective and weatherproof coating to protect the building from the harsh Scottish coastal environment. The NLB have developed a multi-layer coating system that adheres brilliantly to the structure, keeps the weather out, and offers a bright glossy finish that can be easily distinguished, as a land mark. We now use a multitude of coatings, which vary to suit the many substrates: be it stone, brick, copper and our biggest foe, cast iron.

Over the last ten years we have implemented a 'Term Maintenance Contract' which is awarded as a five year contract and we are presently preparing to advertise for the next five year term contract, to be awarded in early 2017, and start on site sometime in March. The largest item in the term maintenance contract is painting and it is an important aspect. By continually assessing and altering our approach we were able to reduce our project costs several years ago. We developed a system where a powered access cradle was specified for carrying out the external works to the tower, instead of scaffolding. This enabled large savings to be made on each project, and allowed greater flexibility throughout the works. This meant

less ship and helicopter time when establishing each site, and reduced the number of days spent on site by Engineering staff, when clearing the site at completion. Any cost savings made enabled us to make better use of our budgets and carry out more work throughout the year.

Whilst NLB operate on a theoretical ten year cycle, we inspect the stations within the first year of completion, as part of Defects Liability inspections, again at year five, to assess mid-term condition, and at year eight. The inspection at year eight enables us to determine if the station needs to be refurbished in year ten, or if it can be deferred to year eleven or twelve etc. In some cases we may need to bring the schedule forward to year eight or nine if buildings have deteriorated unexpectedly.

Sometimes, unexpected or emergency works have to be dealt with, such as when heavy seas destroyed the boundary wall at Fair Isle, which had to rebuild as it was part of the listed building status. This involved a drawn out process of applying for listed building consent before we could rebuild the wall, and we only got permission to rebuild it once we conformed to both the councils, and historic Scotland's requirements.

Civil Maintenance work involves every aspect of building and estate maintenance and repair, except of course, for the operational requirements for the light. NLB is now faced with an ever aging estate with some of the buildings around 200 years old. There is greater pressure to comply with conservation policy and environmental restrictions which make carrying out work more restrictive and the methods for maintaining the buildings more difficult. We have a responsibility to repair and maintain our historic buildings, and ensure their structural integrity, and that they provide a reliable, cost effective, Aid to Navigation, for as long as they are deemed necessary.

## **7. NLB AQUACULTURE INSPECTION PROCESS**

Steve Driver, NLB Coastal Inspector gave a presentation on the process that NLB takes to interact with the aquaculture industry, which is a growing market.

NLB provide appropriate lighting and marking recommendations to Marine Scotland Licensing and local Council Planning Permission applications. This information should then be passed to the applicant to implement at their aquaculture sites.

### Site Assessment

Sites are by plotted onto Admiralty charts and then assessed as to how they orientate with other marine issues (ie piers, jetties, harbours, safe channels etc). The direction of buoyage and local marine traffic are also considered.

### Inspection Process

Companies/Owners are chosen from NLB, Crown Estate and government records and then contacted to arrange site inspection visits. Firstly we check the site paper work for up to date recommendations we then travel to the site to perform a physical inspection of the marking equipment looking at its condition and if lit the character flash sequence. Reports are issued with relevant recommendations. This is an ongoing process to ensure the correct markings are installed and any help and advice is offered where necessary.

### Early Discussions

NLB encourage the industry to consult with us regarding any possible site areas they are looking at before they enter into the expensive process of applications so we can quickly say where or not there are navigation issues thus avoiding expensive misunderstandings.

### Correctly Marked Sites

Since 2003 when NLB started running the inspection process we have seen the percentage of correctly marked sites (finfish & shellfish) rise dramatically from 7.9% to 67.3% in 2015. This

figure still needs to improve and we will carry on our work to ensure this.

Questions	Answers
What if there was an accident when the marking of an aquaculture site was not adequate?	The aquaculture company would be liable if it can be proven that the marking had been like that for a period of time.
There are several busy locations in the West Coast which are challenging to navigate. Can you see a point coming when it will not be feasible to put more aquaculture farms in an area?	Yes this has been discussed and there will have to be corridors of non-development.
Do you have an overall database of lights/sites that can be seen by the public?	The Scottish Government website has an Aquaculture section which shows all the farms but not the marking/lighting.
Are there pressures to develop Offshore sites?	Proposed sites are moving into deeper water and more remote areas but not as yet “off shore”.

## 8. GUIDELINES ON NLB PROVISION AND MAINTENANCE OF LOCAL ATON AND FOLLOW-UP OF LOCAL ATON INSPECTIONS

Peter Douglas, NLB Navigation Manager, gave a brief overview on guidelines for provision and maintenance of local AtoNs.

NLB issued a document 15 years ago outlining the legal responsibilities. An updated document will be published on the NLB website in the near future. This gives an introduction to aspects that Local Lighthouse Authorities (LLA) should be aware of – maintenance; NOB inspections, sanction process and AtoN reporting online.

Follow-up of Local AtoN Inspections are undertaken annually by ship and recorded in AtonRep software. We have recently reviewed the follow-up procedures undertaken for faults that have been found at inspection. NLB takes its responsibilities as a GLA seriously and has undertaken legal action recently to ensure that faults are corrected.

## 9. ANY OTHER BUSINESS

There was no other business.

## 10. DATE OF NEXT MEETING

The next meeting of the SUCG is scheduled to take place in Edinburgh on Thursday, 2 November 2017.

The Chairman thanked the presenters and attendees and asked all present to forward any suggestions for future meeting agenda items to NLB.

### Navigation

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