

**NORTHERN LIGHTHOUSE BOARD
NAVIGATION AND OPERATIONS COMMITTEE**

MINUTES – 3 AUGUST 2022

PRESENT:	Hugh Shaw	Chair
	Alastair Beveridge	Commissioner
	Brian Archibald	Commissioner
	Dick Welsh	Commissioner
	Mike Bullock	Chief Executive
	Phil Day	Director of Operations
	Mairi Rae	Director of Business Services
	Peter Douglas	Navigation Manager
	Andrew Stevenson	Asset Manager
	Paul Hudson	Programme & Renewals Manager
	Tom Cairns	Delivery & Planning Manager
	Gillian Burns	Navigation Officer
	Adam Lewis	Coastal Inspector
	Karen Charleson	Senior Executive Assistant

ASSURANCE STATEMENT

The Navigation and Operations Committee met on 3 August 2022. The Agenda covered key areas including:

- Navigation, Operations and Business Services reports;
- Recent marine incidents and assessment of AtoN adequacy;
- Engineering requirements for existing AtoNs and future options for forthcoming projects including the refurbishment of pillar rock lighthouses and HQ refurbishment;
- NLB lighthouse tender fleet status and helicopter operations;
- Escalated risks and Risk Card Reviews; and ongoing COVID arrangements across NLB.

The Committee can confirm that assurance was received in relation to all key issues.

- The Executive provided the necessary assurance that everything was continuing to be done to mitigate against the reduction of CAT 1 AtoN availability currently just below IALA recommendations and NLB's 'accepted' standard.
- The Capital and Maintenance Programme remains under review and is subject to modification as operational priorities change.
- The Risk Cards for Aids to Navigation Provision, Asset Loss or Damage, Information Technology and Operational, Technological Change and Obsolescence and Natural Events have been viewed by the committee and are updated on a regular basis.

The Committee wishes to draw the Governance Board's attention to the following issues:

- The Committee approved the Inspection/Audit of Local Aids to Navigation, Offshore Structures & Aquaculture Sites 2021/22 Annual Report.

- Following the GRAD site measurement of the 'reduced' nominal range from the Isle of May Lighthouse, and the implementation of a Notice to Mariners, the committee has discussed the matter, considered the evaluation/analysis data provided, and has concluded that the light should be altered to a 18nM range with official documentation being amended accordingly.
- Three other locations (Chicken Rock, Fair Isle North and Haskeir) have been identified as having the same light source. Prior to making a final decision on these lights a more informed report will be brought to the next meeting for further discussion.
- The Category 1 availability is currently at 99.77% and has stabilised. As works are currently taking place at Skerryvore and Dubh Artach, this 3-year rolling availability figure is expected to slowly improve but the impact of previous failures due to a combination of ageing infrastructure, winter weather, tidal limitations and helicopter availability will be seen in the statistics for the next 3 years.
- Design options for Hyskeir Lighthouse (due refurbishment 23/25) were considered and having considered navigational requirements, and the need to reduce emissions, the committee concluded that the light be re-engineered to have a 18nM range.
- Due to essential works at HQ the timescale for some lighthouse capital projects may have to be reprioritised. The Executive will provide more detailed plans at the next Governance Board.
- The three-year extension to the current helicopter contract remains incomplete due to ongoing discussions with PDG. The Executive are confident that an agreement will be made without impacting operational requirements. Tri-GLA work has also commenced on the replacement aviation contract.

Commissioner Shaw welcomed everyone to his first meeting of the NavOps Committee as Chair. This was also Commissioner Welsh's first meeting and general round the room introductions were provided by attendees.

It was agreed that any approvals would be dealt with as they arise rather than wait until Agenda Item 10.

1. APOLOGIES FOR ABSENCE

Apologies for absence were received from Ewen MacKerchar (Marine Operations Manager) and Karl Davies (Coastal Inspector).

2. MINUTES OF PREVIOUS MEETING

The Minutes of the Navigation Committee meeting held on 20 April 2022 agreed and can be published on the website.

Action: Senior Executive Assistant

3. MATTERS ARISING

The Committee noted the update provided within the meeting pack. The majority of outstanding Matters Arising from the previous meeting would be addressed within the relevant subject areas.

Finance – Work continues within the Project Team (supported by the Finance Team) to develop the

information required to highlight total project costs over multiple years.

Action: Programme & Renewals Manager

Small Craft Incidents – The audit of Inverness Harbour was carried out in June 2022. During the audit the number of recent small craft groundings was brought to the attention of the Harbour Master. The Navigation Manager has provided the Harbour Master with a list of incidents and has agreed to contact them if any other incidents come to NLB's attention.

Risk & Opportunities Register Overview– The Senior Executive Assistant will schedule a session to coincide with the next meeting on 19 October 2022.

Action: Senior Executive Assistant

Renewable Energy/Navigation Team Resources – The impact on to the Navigation Team resources due to the potential development of renewable energy has been added as a specific risk on the Navigation Department Risk Register.

Performance Indicators – Following the session held on Q4, the Dashboard has been adjusted accordingly.

4. NAVIGATIONAL REQUIREMENTS

The Committee noted the report and discussion took place on the following items:

2020 AtoN Review Tracker

The Committee noted the update on actions from the 2020 AtoN Review. It was noted that a temporary light has been established at Start Point.

Incidents

- LIVA GRETA - At 0636 on 22 June the 64 metre general cargo ship LIVA GRETA failed to make a turn and ran aground on the east side of the Sound of Mull, immediately east of NLB's Bogha Bhuilg buoy. The vessel refloated on the rising tide and was able to make her way to Corpach for damage assessment.
- MV WILSON BLYTH - At 0913 on 19 July, the 88 metre cargo vessel MV WILSON BLYTH ran aground near Erskine in the River Clyde. The vessel refloated on the rising tide and was assisted to berth by two Clyde tugs.
- ALFRED - At 1420 on 5 July the Pentland Ferries catamaran ALFRED ran aground on the east side of Swona. Passengers were evacuated by the RNLI and the vessel refloated at 1511 to make her own way to St Margaret's Hope. The MAIB are investigating.

RONJA COMMANDER - Further to the grounding of the RONJA COMMANDER in the Sound of Luing on 4 April, NLB have been in contact with the operator Solvtrans and the UKHO to discuss routeing and marking issues in the Sound of Luing. Following discussion, it was agreed to undertake a deeper review of the existing marking, surveys, etc. and have a further discussion at the next meeting in October 2022.

Action: Navigation Manager

Isle of May

The Committee noted the observations regarding the nominal light range required at the Isle of May lighthouse, which is designed for 22nM but achieving 18nM.

The Committee discussed the observations, risks and associated costs and were supportive of retaining 18nM as an effective range and remove the NtM.

Action: Navigation Manager

The Director of Operations advised that following GRAD's measurements of the output of the Isle of May light from the Fife side of the Forth, those measurements have allowed for the checking of calculations for other sites that have the same light source. Three other locations have therefore been identified where the output range has been undervalued i.e. Chicken Rock, Fair Isle North and Haskeir. Following discussion, and while the Committee were minded to accept these lesser ranges on the basis of having looked at the Isle of May, it was felt that it would be beneficial to have a second set of data bearing in mind that this might take some to obtain. It was agreed that the Director of Operations would bring back a more informed report to the next meeting for further discussion.

Action: Director of Operations

It was also agreed to include this item as a work package/presentation for the Users Group meeting in November 2022.

Action: Navigation Manager

Ferries

Ferry operator DFDS has signed an agreement with Ptarmigan Shipping to investigate a new route between Rosyth and Zeebrugge, targeting 2023 for freight services to begin. Passenger services may then follow in the future.

In 2017, the Lochboisdale Harbour Scottish Transport Appraisal Guidance (STAG) report concluded that parts of the existing ferry terminal had reached the end of their serviceable life. CMAL is leading the project to build a new ferry terminal for Lochboisdale, with the preferred options all located on the SW side of Gasay Island. A new ferry will also be procured.

LLA Audits

Audits have been undertaken in person of Glensanda, Inverness, Mallaig, Ullapool and Highland Council.

Isle of Man Harbours

A virtual meeting was held with the Isle of Man Harbour Master and the Acting Director of Harbours on 24 May 2022, at which several issues were discussed, including the recent survey at Ballacash Bank. Another meeting is scheduled for later in the year.

It was noted that the recent Commissioners Inspection Voyage was held on the Isle of Man (22-25 July 2022). Good liaison was had with the Harbour Master and Government during the voyage.

Commissioner Welsh advised that there is a Territorial Seas Committee which covers planning in the maritime environment e.g. wind farm locations. Commissioner Welsh has held some discussions about getting NLB's involved in that Committee which would provide access into the planning and Cabinet Office of the Isle of Man Government. Commissioner Welsh undertook to progress this with the Chief Executive and Isle of Man Government.

Action: Commissioner Welsh

Wreck Response

The Navigation Risk Register includes a recognition that NLB would benefit from further work regarding wreck response i.e the process of potentially taking possession of a wreck and, where uninsured, arranging for raising, removal or destruction as required.

It was agreed that a tabletop exercise to test NLB's response to such an event would be invaluable and consideration would be given to broaden the remit slightly to include flotsam or any other object that is lost at sea from a ship. Such an exercise would also be of benefit to other stakeholders who may have a role who may have a role to play around hazardous items that are not vessels e.g. Councils. The Navigation Manager will keep the Committee updated with any developments.

Action: Navigation Manager

AtonRep software

The AtonRep software (also known as LATONS) used to record AtoNs and inspections was developed by Irish Lights and is used by all 3 GLAs. It has recently become apparent that NLB are running an outdated version on a soon-to-be-unsupported platform (SQL 2012).

Following discussions with ICT and Irish Lights, there are plans to update the offsite (Citrix) version of AtonRep imminently. Further upgrades to the desktop (in office) version and the Online (LLA) version to bring up to the SQL Server 2019 standard, along with firewall updates, are planned in late August.

Offshore Oil & Gas update

The Committee noted the recent decommissioning work:

- Dunlin A topside removal has been completed with the AtoN installed on GBS and monitoring (via NLB) active.
- Brae B upper jacket removal has been completed.
- Sevan Hummingbird FPSO has been removed from field.
- Haewene Brim FPSO has been returned to field following LifeExt drydock.

Revision of MSA 1995

A revision of the Merchant Shipping Act 1995 is due within the Parliamentary cycle. The Navigation Manager is compiling a list of what changes, from a navigation perspective, they would like to see to the existing legislation.

Commissioner Welsh advised the Isle of Man has its own MSA 1995 and asked if anyone had ever cross-referenced what it said about lighthouses and aids to navigation. The Navigation Manager has not looked at the MSA for the Isle of Man but there is a recent Harbours Act for the Isle of Man that clarifies that Isle of Man Harbours are an LLA and essentially a subordinate to the General Lighthouse Authority (which in this case is NLB).

Aids to Navigation Inspections

At the end of June, 246 LLA AtoN had been inspected out of a possible 2295 (10.7%) during the reporting year (April-March). The annual inspection target is 70%. 177 AtoN are recorded as not inspected within the last 3 years, however this includes newly established and occasional AtoNs, as well as some not visible from inspecting ships. 73 faults remained outstanding at the end of the month; there are followed up by Navigation staff.

260 NLB AtoN had been inspected out of a possible 485 (53.6%). No NLB AtoN are currently out with the 3 year maximum inspection period.

Marine Licence and Sanction Requests

The Committee noted for information the summary of Marine Licence Activity and Sanctions for the establishment/ disestablishment of AtoN as required under the Committee's Terms of Reference.

Annual Report

The Committee noted and discussed the draft annual report of Inspection/Audit of local aids to navigation, offshore structures and aquaculture.

Commissioner Archibald asked whether the statement at 6.1.3 around Crown Estate Scotland as an active landlord was still accurate or whether local authorities now act as the devolved landlord. The Navigation Manager was not aware of any landlord duties having been devolved from Crown Estate Scotland. The Councils will have an increased role through the new planning arrangements which are in discussion. It was agreed that the Navigation Manager would check and amend the report if necessary.

Action: Navigation Manager

The Chair suggested that, going forward, there should be more inclusion of the Isle of Man within the report as it is very Scotland centric and that a copy of the report should be submitted to Isle of Man Government as happens with the Scottish Government.,.

Action: Navigation Manager

The graphic of the Scottish Offshore Wind Market (page 36 of the meeting pack) will be included in the papers for the next Governance Board on 25 August 2022 to provide an illustration of the amount of work that will be undertaken over the next 10 years.

Action: Director of Operations

Commissioner Beveridge requested that, if there were opportunities for any of the Commissioners to take part in the Offshore Inspection Voyage, it would be gratefully received. The Navigation Manager advised that it is intended to carry out inspections of existing wind farms in the Autumn which may be more convenient for Commissioners to join.

5. OPERATIONS REPORT

The Committee noted and discussed the Operations report:

AtoN Availability

The Committee noted the 3 year rolling availability figures to 20 July 2022.

The figures for Category 1 (Cat 1) availability have been significantly impacted by pillar rock outages which have previously been reported. The Cat 1 availability has stabilised and will slowly improve but the impact of this significant issue will carry through for the coming 3 years.

Outages

Since the last committee there has been 10 outages over 72 hours. This is a significant reduction compared with the Committee report.

Ship Downtime

NLV PHAROS has been severely impacted through unanticipated defects in the azimuth thrusters and consequently delays in getting parts and pieces machined in drydock. There was also a leak in the steering flat in the azimuth drive room which has now been resolved.

Maintenance

The Committee noted the Q4 Dashboard which was appended to the report. Overall planned maintenance overdues have reduced to circa 16% which is classed as "Good" internationally.

Operations Projects

The Committee noted the Project Dashboard which was included in the meeting pack. Temporary lights for project work remain at Stroma (Swilkie Point) and Fair Isle South (Skadan) and Lunna Holm. Since the last committee temp lights have been established at Start Point and Cava

Stroma Skerries

There has been a protracted project to light the beacon at Stroma Skerries following a navigation review decision in 2005 to light all unlit beacons. Access has been continuously a problem. The newly fitted ladder has recently been swept away again making access impossible. There is a proposal to fit a ladder in the centre of the beacon in way of the original climbing point notwithstanding the possibility of this ladder being robust enough it leaves significant doubt as to whether technicians will be able to support this light in a timely manner. The Committee were asked to consider and decide whether it remains a priority to light the beacon or consider that the light should be no more than IALA Cat 3.

Following discussion and review of the live charts and AIS analysis, it was agreed that the Director of Operations would submit a paper to the next meeting in October for further discussion.

Action: Director of Operations

Assets

HQ Refurbishment - The HQ refurbishment project has been developed to a RIBA stage 3 design and is being readied for procurement. The consultants supporting this project has advised there is significant advantage to completing this project in one go albeit spread over the turn of a financial year. As the HQ refurbishment project requires to be done for a safety reasons, from an operational perspective this means lighthouse projects have to be reprioritised.

The Directors of Operations will provide a paper on which capital projects will be impacted and any risk assessments to the next meeting. An update briefing on the HQ Refurbishment Project will also be produced for discussion at the Governance Board in August.

Action: Chief Executive/Director of Operations

Winkie - As previously agreed, the sale of Winkie Lighthouse is being progressed.

Escalated Matters

(i) Monitoring

Ignition monitoring system and servers are operational and monitoring all sites after the remaining 10 Datac 932 RTU were changed. This completes the monitoring project. The system is working well and substantial improvements in data flow can be seen in sites with new RTU which removes the dial up modem connection and replaces it with 4G.

The end of Orbcomm services this year and the larger issue of PSTN replacements by end of 2025 is being addressed in a separate project which requires the change out of a significant number of RTU planned for completion by the end of 2024. To date 22 sites have been completed.

(ii) Pillar Rocks

There has been an outage at Dubh Artach and Skerryvore during the period. The completion of battery reinforcement work (Skerryvore) and generator install (Dubh Artach) is taking place at the end of July and into August.

(iii) Vessels

NLV POLE STAR is fully operational. The EM log previously reported as faulty has been repaired by divers. The vessel had a two day out of service due to PLC fault on the main azimuth drive which was resolved through makers advice. NB Maker only has one staff member familiar with the Pole star system and vessel had to await his return from holiday.

NLV PHAROS departed Belfast on 8 May after sea trials. These trials revealed a leak within the steering flat which was repaired in Oban and the vessel re-entered service on 18 May. Since then, the vessel has been fully operational. There is an issue regarding unpainted sections of the azimuth drive being susceptible to corrosion and this is being monitored. The drydock have been advised of NLB's concerns by formal letter.

Commissioner Archibald asked if the issue with the painting was known about before the docks were flooded. The Director of Operations advised that the areas were confirmed as being painted and the undocking took place. The undocking was driven by the ferry astern of PHAROS and at that stage it was not possible to stop that happening. When the situation with the painting was realised it was reported to the yard but the dock was flooded anyway.

Following a later inspection it was also noted that some cathodic protection anodes had been painted by the shipyard. These have now been cleaned and are all being monitored.

Cases of Covid continue to occur. This has been dealt with through local isolation onboard.

(iv) Helicopter

The three year extension remains incomplete due to ongoing discussions with the contractor over some terms in particular the contract guarantee. The replacement aviation services contract project has been commenced with the PID agreed by the 3 GLA. The technical working group is working on the specification and PMO as Project manager is progressing the overall project.

The Chair asked whether there was any scope within the PID to look at an additional or dedicated helicopter for NLB. The Director of Operations advised that the extension of the contract includes the options to use additional aircraft within the contractor's fleet. The new contract will look at solutions to backfill the normal aircraft providing flexibility to have additional aircrafts when required.

(v) Vessel Replacement

As a major strategic project this will be reported on at the Governance Board.

(vi) Oban Base

No significant Matters to report.

(vii) Oban Harbour

Argyll & Bute Council are progressing preparations for the HRO to extent their harbour area. A consultation has been launched on aspects of the HRO such as harbour limits. A second consultation for an updated Navigation Risk Assessment has also commenced.

Hyskeir Lighthouse Optic Design Proposals

The paper included within the meeting pack sets out the decisions made regarding the design for the planned major capital refurbishment works due to commence at Hyskeir lighthouse during 2023.

Proposals to provide either an 18Nm balcony mounted optic or 20Nm dome mounted optic were outlined to enable a decision to be made by the Navigation Committee as to which design would be most suitable.

It is the intention to completely solarise the lighthouse station and install either:

- Option 1 - 2 x LED optics at 180° to each other on the lighthouse tower balcony which would provide an 18nM range or,
- Option 2 - 1 x LED optic on a platform constructed above the lighthouse dome which would provide a 20nM range.

Both options will allow the existing lens and gearless pedestal to remain on site.

The accommodation and welfare building will be completely stripped out with emergency accommodation being created.

The Committee discussed the issue of through life support, engineering solutions, and cost benefits and agreed to support Option 1 with a range of 18nM.

6. BUSINESS SERVICES

Procurement

Construction Playbook - The Procurement Manager is in discussions with DfT regarding the application of the construction playbook which requires all NLB's construction projects to be bundled into one large contract for a specified period e.g., 5 years this would lead to a higher level of DfT procurement assurance. NLB do not feel this option would provide the best outcome for the organisation as such a large contract is likely to attract larger contractors who are not experienced in our environment and requirements and are likely to use smaller contractors and add their profit markup thus increasing the overall cost to NLB.

Due to COVID the number of opportunities to engage with new suppliers has been limited to online activities but events are now recommencing and the Procurement Team plan to attend Meet the Buyer North 2022 to try to attract other construction companies to bid on NLB projects.

Procurement Resources - NLB have continued to experience issues recruiting Procurement staff but have a new Procurement Officer starting on Monday 25 July 2022 and new Stores Supervisor position has been offered with a September start date. The new Procurement Specialist role is being shortlisted and it is expected to advertise the new Contracts Manager role late summer. Several lower-level procurements have been delayed slightly due to this.

Business Support

The Committee noted the update on commercial work.

HQ Refurbishment Decant - Project Swift has been launched to co-ordinate the decant of Edinburgh HQ building to facilitate the works to replace outdated electrical wiring and improve the work environment for staff. It is expected that the contractor would take possession of the building in late 2022 so it is aimed to have the decant completed by November 2022.

ICT

PSTN - At a recent demonstration of the new monitoring system Engineers indicated that the system utilises SIM cards which roam for the best mobile signal and therefore NLB may not require to install replacements to the current analogue lines. This will be explored further with the Engineers leading this project as this would significantly de-risk NLB's exposure to the removal of PSTN.

Finance

Quinquennial Revaluation Exercise 2022/23 - Asset Engineers from the three GLAs require to deliver the methodology of valuing assets at their modern equivalent replacement value. Each GLA will review their recently completed projects to inform the methodology. Asset Engineers intend to have the document ready by October 2022 detailing the Tri-GLA approach of how a Modern Replacement Lighthouse would be designed and installed for their internal review before sharing with tri-GLA Finance teams and NAO for preliminary review at interim audit before December 2022.

7. COVID UPDATE

COVID continues to impact individual staff members but operations remain unaffected.

8. NOTICES TO MARINERS

The three Notices to Mariners (NtM 6 of 2022, NtM 7 of 2022 and NtM 8 of 22) published since the last meeting were noted.

9. ESCALATED RISKS AND RISK CARD REVIEW

The Committee noted and reviewed the Escalated Risks.

The Committee reviewed Risk Card Numbers 10 – Asset Loss/Damage and 12 – Natural Events at this meeting. No changes were required.

Risk Cards Numbers 5 – AtoN Provision; 6 – Information Technology and Operational Technology; 8 – Exploitation of Reserve Capacity and 9 – Technological Change and Obsolescence were noted.

10. POLICY APPROVALS

Any items for approval/decision were dealt with under the appropriate Agenda Item.

11. TERMS OF REFERENCE

Following the Governance review all Committee Terms of Reference require revision. A draft will be circulated for comment out of Committee to enable the final document to be submitted for final approval at the next meeting.

Action: Chair

12. ANY OTHER BUSINESS

Escalating Costs

The Director of Operations highlighted a couple of issues arising from the discussions around the Isle of Man and Corporate Plan review. It was acknowledged that costs are beginning to escalate for projects and range decisions around some lights will drive expensive engineering solutions. There will require to be discussions in the forthcoming meetings around cost effectiveness in terms of engineering solutions, navigational implications and environmental impacts.

Commissioner Welsh asked whether there was a means to have a quantitative model based on the factors that could be applied to the decision making to ensure consistency to the approach. Commissioner Beveridge explained that the 5 year AtoN Review is a complex process which is peer tested by the other GLAs. It is a very robust process but is still a paper process.

Northern Lighthouse Board User Group (NLBUG)

The Navigation Manager will start put together a programme for the event on 3 November 2022. Following the success of the last two virtual NLBUGs it was agreed to hold this as a hybrid event. Any suggestions for speakers would be welcomed.

Action: All

13. ASSURANCE STATEMENT

The Chair will circulate a draft Assurance Statement following to the meeting. Committee Members are requested to send any comments/amendment to the Chair over the next few days.

Action: All

14. DATE AND TIME OF NEXT MEETING

The next meeting of the Navigation Committee will take place on 19 October 2022 at 10.00am.