



Commissioners of
IRISH LIGHTS | Navigation
and Maritime
Services

2021/22 Report
on
Local Aids to Navigation Inspections
&
Audits of Local Lighthouse Authorities
in
Northern Ireland



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Front cover photo: Carlingford Leading Light

Acronyms

AtoN	Aid to Navigation
DAERA	Department of Agriculture, Environment & Rural Affairs
GLA	General Lighthouse Authority
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities
ILV	Irish Lights Vessel
LAtON	Local Aid to Navigation
LLA	Local Lighthouse Authority
MCA	Maritime & Coastguard Agency
NIFHA	Northern Ireland Fishery Harbour Authority
NI	Northern Ireland
NTM	Notice to Mariners
PMSC	Port Marine Safety Code
RNW	Radio Navigational Warning
SMS	Safety Management System

Executive Summary – All Island

This report covers the period April 2021 – March 2022 inclusive. This reporting period saw a gradual easing of COVID restrictions in Northern Ireland, culminating in a near total removal of restrictions in Feb 2022. During the reporting period, these restrictions on travel and accommodation had impacts on LLAs in fulfilling their responsibilities regarding local aids to navigation. These impacts are reflected in an increase in both major and minor discrepancies found on inspection by Irish Lights personnel during 2021/22. At the end of the reporting period, access to port areas and availability of crews for local boat use gradually improved, which enabled more accompanied on-site inspections.

Major Discrepancies have increased by 6% overall when compared with the previous annual report figures. Northern Ireland Local AtoN display a major discrepancy occurrence of 24%, which is under active management by both the LLAs and Irish Lights.

Over this inspection period, Minor Discrepancies of LAtoN also increased by 8% overall compared to the previous period. The restoration of services and maintenance procedures has proved challenging for LLAs. This continued to affect the general maintenance of LAtoN, with LLAs experiencing difficulty in attending to their LAtoN, such as painting and cleaning requirements.

(Financial Year)	2019/20	2020/21	2021/22
As Required	1,450 (89%)	1,232 (76%)	995 (62%)
Minor Discrepancy	45 (3%)	166 (10%)	294 (18%)
Major Discrepancy	132 (8%)	220 (14%)	329 (20%)
Total LAtoN Inspected	1,627 (100%)	1,618 (100%)	1,618 (100%)

Table 1 - Summary of LAtoN Inspected in Ireland plus Northern Ireland

Consenting activity continued during the reporting period, including four Statutory Sanctions for the provision of Aquaculture LAtoN, six Statutory Sanctions for the provision of LAtoN in relation to the OREI sector, and 25 Statutory Sanctions for the provision of LAtoN for Local Lighthouse Authorities. Overall, Irish Lights processed applications for 75 new LAtoN, the disestablishment of 10 LAtoN, and the amendment of 21 existing LAtoN.

Irish Lights wishes to thank the Local Lighthouse Authorities in Northern Ireland for their support and accommodation during this challenging year. It is a testament to the help provided by those authorities and to the professionalism of Irish Lights staff that despite the ongoing pandemic challenges, Irish Lights achieved 100% of our intended local AtoN inspections and 92% of intended audits. There were no Corrective Action Requests (CAR) issued to Local Lighthouse Authorities in Northern Ireland during the reporting period.

Legislative Background – Northern Ireland

Section 198 (1) of the Merchant Shipping Act 1995 in Northern Ireland (the Act of 1995)¹, empowers the General Lighthouse Authority (GLA) to inspect all lighthouses, buoys, and beacons under Local Lighthouse Authority management. In addition, Section 195(1) of the Act of 1995 vests in the GLA the superintendence of all lighthouses, buoys, and beacons within their areas.

Under the UK government's Port Marine Safety Code² (revised 2016) all Local Aids to Navigation (LAtoN) maintained by Harbour Authorities and any other existing Local Lighthouse Authorities must be maintained under the availability criteria laid down by the General Lighthouse Authorities, and must be subject to periodic review³. The characteristics of these LAtoN must comply with Guidelines and Recommendations as laid down by the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA). The GLA requires Local Lighthouse Authorities to ensure that any third party LAtoN, within their area of responsibility, are also established and maintained to the same standards.

Before any aid to navigation can be established, altered or disestablished consent as Statutory Sanction under the Merchant Shipping Act must be obtained from the Commissioners of Irish Lights. The applicant must submit this application through a Local Lighthouse Authority.

A Statutory Sanction can be granted for four classes of AtoN (*Table 2*).

AtoN Categorisation	
Permanent AtoN	AtoN established to mark a known navigational hazard. Example – Channel lateral marks.
Aquaculture AtoN	AtoN established to mark licenced aquaculture sites.
Temporary AtoN	AtoN temporarily established for a period not exceeding 12 months. Example – Turbidity buoy deployed for three months dredging campaign.
Seasonal AtoN	AtoN established for a particular period each year. Example - Swim zone buoys deployed from May to September.

Table 2 - AtoN Categorisation

The level of compliance for these AtoN categories are examined below by Local Lighthouse Authority.

¹ [Merchant Shipping Act 1995 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/1995/19/section/198)

² [Port marine safety code - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/544441/port-marine-safety-code-2016.pdf)

³ [Local Aids to Navigation \(irishlights.ie\)](https://www.irishlights.ie/)

Local Aids to Navigation Inspections – Northern Ireland

Irish Lights' inspection target of 1,618 (100%) AtoN on the island of Ireland was achieved in 2021/22. Within this target, 328 (20%) of the AtoN inspected were in Northern Ireland. It is important to note that the number of physical inspections which took place exceeded this number as several follow-up inspections were conducted of AtoN which were found with an initial discrepancy.

There are three outcomes which result from an Irish Lights inspection of an AtoN.

Inspection Outcomes	Explanation of Outcomes
As Required	Where the AtoN is as described in the Statutory Sanction.
Major Discrepancy	Where the AtoN is not compliant and considered a risk to navigation.
Minor Discrepancy	Where the AtoN is not fully compliant, but not a risk to navigation.

Table 3 – Categories of Inspection Outcomes

Summary of outcomes for AtoN inspected in Northern Ireland.

Year 2021/22	AtoN Inspected	As Required	Major Discrepancy	Minor Discrepancy
Permanent AtoN	286	156	68	62
Aquaculture AtoN	25	14	3	8
Temporary AtoN	13	9	1	3
Seasonal AtoN	4	0	0	4

Table 4 – Results of Inspections in Northern Ireland

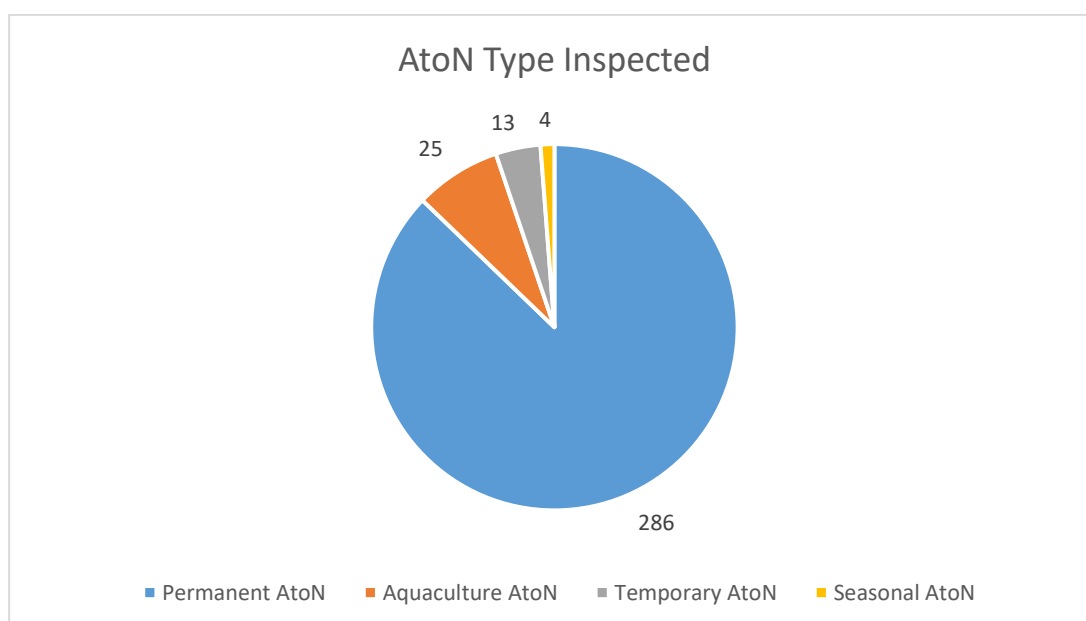


Figure 1

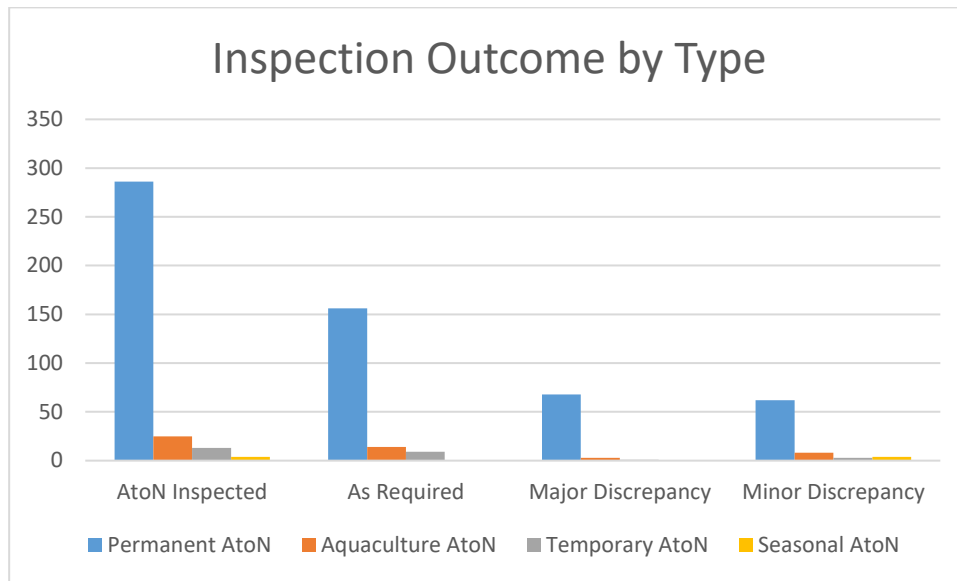


Figure 2

The inspection outcome has several detailed descriptions recorded against it. We showed these descriptions in *Table 5* for the 142 discrepancies observed. Each LAtoN may have one or more discrepancies recorded against it, and we reflect this in the figures:

Outcome detailed descriptions for 2021/22	Discrepancies
Light Character Incorrect	9
Light Extinguished	9
Not Seen (Not Found / Not Located)	82
Out of Position	4
Renewal Required (condition deteriorating)	20
Top Mark Missing	5
Bent/Defective Topmark	4
Leaning (not upright)	3
Requires painting	5
Requires cleaning	1

Table 5 – Number and type of discrepancies – Northern Ireland

Unsanctioned Local Aids to Navigation – Northern Ireland

During local AtoN inspections in Northern Ireland, inspectors visually observed 13 unsanctioned AtoN and reported these AtoN to the relevant LLA. An unsanctioned AtoN is where Irish Lights has observed a navigation mark through physical inspection, yet had not granted corresponding Statutory Sanction permission for the establishment of these AtoN.

All of these LAtoN have been provided to increase safety of navigation, and with good intent. However, Irish Lights must be engaged in order to ensure the LLA is aware of the LAtoN within their remit, and the relevant Hydrographic Organisations are supplied with the correct information in order to update nautical charts and publications. The detection of these unsanctioned AtoN during physical inspections is therefore a positive indicator of the efficacy of the inspection process, however, it points towards a requirement for wider stakeholder engagement and education of both LLAs and the public on the legal requirements concerning aids to navigation.

These unsanctioned LAtoN were mainly associated with aquaculture, or local user organisations who deployed the LAtoN without the consent or knowledge of the LLA. As a result of these LAtoN being detected, Irish Lights has engaged with the Local Lighthouse Authorities in these areas and requested either removal of the unsanctioned AtoN or the commencement of the Statutory Sanction process.

Local Lighthouse Authority Audits – Northern Ireland

Audits of Local Lighthouse Authorities policies and procedures assist in the fulfilment of Irish Lights' duties of superintendence and management of Local Aids to Navigation. There are 20 Local Lighthouse Authorities within Northern Ireland. Irish Lights audited 13 of the 20 LLAs during 2021/22 (*Table 6*). Typically an LLA is audited every two years, however depending on the result of the audit, the frequency in which Irish Lights audits an LLA may increase. Because of restrictions in the year's commencement, most of these audits were conducted remotely. Of the audits planned, two were not progressed due to issues with arranging the meetings with the LLA.

The focus areas discussed with an LLA during the audit are shown in *Figure 3*:



Figure 3 – Items covered by the LLA Audit

13 Local Lighthouse Authorities Audited in 2021/22
Agri-Food and Biosciences Institute
Ards & North Down Borough Council
Belfast Harbour
Causeway Coast & Glens District Council
Defence Estates Northern Ireland
Department of Infrastructure Northern Ireland
Mid & East Antrim Borough Council
Mid Ulster District Council
Newry, Mourne & Down District Council
Northern Ireland Water
Port of Larne
UK Met Office
Warrenpoint Harbour Authority

Table 6 – LLAs audited in Northern Ireland

Following an audit, Irish Lights provide a detailed report to the LLA to assist with maintaining or improving compliance. There are three outcomes which result from an audit as shown in Annex D, *Table 8*.

- **Compliant** - Appropriate standards observed regarding records of inspections and maintenance as evidenced during the audit. The LLA has in place comprehensive policies and procedures for the management of AtoN.
- **Compliant with Advisory** – The LLA partially meets the required standards. These evidenced partial records of inspections and maintenance during the audit. The audit report will contain advice and guidance on how to improve processes and develop policies to form a more robust management system for AtoN within the LLAs jurisdiction.
- **Corrective Action Request** – The LLA does not meet its obligations regarding the required standards and urgent action is required by the LLA. Irish Lights provide guidance and help on the appropriate improvement measures and required timelines. Irish Lights plan an intermediate audit for 12-months' time to monitor progress.

Assistance Provided to Local Lighthouse Authorities – Northern Ireland

Irish Lights aid Local Lighthouse Authorities in many forms. Some examples of this help are detailed below;

Establishment of the Cloghan Jetty buoy. In early April 2021 Irish Lights was approached by the energy firm LCC Group, the new owners of the Cloghan Jetty oil terminal, to discuss the reactivation of the facility to shipping. This required the reestablishment of the Cloghan Jetty buoy, which was decommissioned and removed during the closure of the facility in 2018. Working with the LLA, Mid, and East Antrim Borough Council, Irish Lights facilitated the assessment, sanction and deployment of the buoy by Granuaile under contract to LCC.

Belfast Lough – Following Irish Lights reporting Unsanctioned LAtoN reports to Belfast Lough, Irish Lights assisted Belfast Harbour Commissioners in updating their Sanctioned LAtoN. This included legacy Special Marker buoys deployed in Belfast Lough to mark a pipeline, running from the Hollywood bank to the Carrigfergus Bank on the North Shore.

Conclusion

This annual report provides a high-level summary of performance local AtoN within Ireland, under Irish Lights' statutory responsibilities for the superintendence and management of all lighthouses, buoys and beacons managed by Local Lighthouse Authorities. These responsibilities are the cornerstones of Irish Lights' role in ensuring that mariners using the waters around the island of Ireland can do so safely.

2021/22 Summary of AtoN Inspected in Northern Ireland			
AtoN Inspected	As Required	Major Discrepancy	Minor Discrepancy
328	179 (55%)	72 (22%)	77 (23%)

Table 7

Most local authorities that we attended during this year have weathered the restrictions and difficulties placed upon them by the COVID pandemic, although many reported shortfalls in the availability of their workforce and difficulties including supply chain issues in obtaining spare parts for their AtoN. Irish Lights provide an assurance service through physical inspections and the provision of virtual audits throughout this year, which has assisted Local Lighthouse Authorities in maintaining a focus on the safety of mariners.



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Annexes

Annex A – Extract from IMO SOLAS

Available at: [Regulation 13 - Establishment and operation of aids to navigation \(imorules.com\)](http://imorules.com)

REGULATION 13 - Establishment and operation of aids to navigation

1. Each Contracting Government undertakes to provide, as it deems practical and necessary either individually or in co-operation with other Contracting Governments, such aids to navigation as the volume of traffic justifies and the degree of risk requires.
2. In order to obtain the greatest possible uniformity in aids to navigation, Contracting Governments undertake to take into account the international recommendations and guidelines* when establishing such aids.
3. Contracting Governments undertake to arrange for information relating to aids to navigation to be made available to all concerned. Changes in the transmissions of position-fixing systems which could adversely affect the performance of receivers fitted in ships shall be avoided as far as possible and only be effected after timely and adequate notice has been promulgated.

* Refer to the appropriate recommendations and guidelines of IALA and SN/Circ.107 – Maritime Buoyage System.

Annex B – IALA Categorisation and Availability Objectives for Short Range Aids to Navigation

Available at:

[R0130 Categorisation and Availability Objectives for Short Range Aids to Navigation \(O-130\) - IALA AISM \(iala-aism.org\)](https://www.iala-aism.org/)

Within these IALA guidelines, Aids to Navigation are categorised into three types – Cat 1, Cat 2, Cat 3:

- CATEGORY 1 - An AtoN or system of AtoN that is considered by the Competent Authority to be of vital navigational significance. For example, lighted AtoN, AIS AtoN and racons that are considered essential for marking landfalls, primary routes, channels, waterways, dangers or the protection of the marine environment.
- CATEGORY 2 - An AtoN or system of AtoN that is considered by the Competent Authority to be of important navigational significance. For example, it may include any lighted AtoN, AIS AtoN and racons that mark secondary routes and those used to supplement the marking of primary routes.
- CATEGORY 3 - An AtoN or system of AtoN that is considered by the Competent Authority to be of necessary navigational significance.

Table 1 Categories of percentage availability

CATEGORY	AVAILABILITY OBJECTIVE	CALCULATION PERIOD
1	99.8%	Availability Objectives are calculated over a continuous three-year period, unless otherwise specified
2	99.0%	
3	97.0%	

Calculations principles according to IALA Guideline on Availability and Reliability of Aids to Navigation.

The minimum availability of any individual AtoN should be 95.0%.

Where the availability of an individual AtoN consistently falls below 95.0%, consideration should be given to the discontinuance or replacement/modification of that AtoN.

Maximum permissible downtime per AtoN by category to remain IALA compliant:

Category 1 – 17.3 hours per annum or 52.59 hours over three years

Category 2 – 3.65 days per annum or 10.95 days over three years

Category 3 – 10.96 days per annum or 32.88 days over three years