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| IALA Recommendation |

Document reference

GNSS Augmentation Services

Edition 1.0

Document date

Revisions to this IALA Document are to be noted in the table prior to the issue of a revised document.

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| Date | Page / Section Revised | Requirement for Revision |
| Month Year approved |  |  |
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THE IALA COUNCIL

**RECALLING**:

1. The function of IALA with respect to Safety of Navigation, the efficiency of maritime transport and the protection of the environment.
2. Article 8 of the IALA Constitution regarding the authority, duties and functions of the Council.

**RECOGNISING**:

1. The recognised need to provide clarity on GNSS augmentation services being offered for maritime use, as noted in IMO Resolution A.1046 (27) and IALA Recommendation 121,
2. The decision of IMO MSC 98 that augmentation services cannot be recognised as components of its World Wide Radio Navigation Service (WWRNS).
3. That some augmentation services, while being available to maritime user equipment, may not have been provided for maritime use and may not recognise a maritime user.

**CONSIDERING** the need for a clear understanding of which GNSS Augmentation Services are being offered for use by shipping,

**ADOPTS** the Recommendation on *GNSS Augmentation Services*, as described below, which will enable service providers to formally declare and capture their service offering,

**INVITES** Members and GNSS Augmentation service providers’ worldwide to support this Recommendation,

**RECOMMENDS** National members and other appropriate Authorities/Organisations providing marine aids to navigation services submit a formal declaration of their maritime GNSS augmentation service for collation in the format of the Annex of this Recommendation,

**REQUESTS** the *IALA Engineering and Sustainability Committee (ENG), or such other committee as the Council may direct,* to keep the Recommendation under review and to propose amendments as necessary.

**Introduction**

Considering that Mariners are able to receive a number of GNSS augmentation services, including some that may not be provided for maritime use. It is recommended that service providers offering services to a maritime user, provide a declaration to make it clear to the maritime user community.

Considering that an outline of the type of information required a simple pro-forma template that can be used to convey key information about the service is needed. Submitted declarations will be added to the appendix of this document which will be available on the IALA website for all maritime stakeholders to refer to.

**Service provider considerations**

Recommends that GNSS augmentation service providers provide the following information:

* A description of the service being offered, including which GNSS are supported;
* that the service offered is operational and available for use by merchant shipping;
* that its continued service is assured;
* that any future changes will be backward compatible, or where this is not possible, sufficient notice shall be provided to enable mariners to update equipment as necessary;
* identification of the service provider;
* advice on where information relating to the service can be found, along with relevant references to standards and specifications that the service complies with.

**Service provision characteristics**

Recommends that GNSS augmentation service providers should provide the following specific details relating to the service being offered:

* the area within which their GNSS augmentation service can be used and what criteria is used to define the limits of the coverage area;
* the expected performance in terms of accuracy, availability, continuity and integrity;
* the format in which the GNSS augmentation data is provided and by what method;
* the format and method used to convey information about service outages and planned maintenance periods; and
* advice for safe use of the service.

1. Pro-forma template

Date: Click or tap to enter a date. Service name:Click or tap here to enter text.

**Service Provider aspects**

Service provider: Click or tap here to enter text. Contact number: Click or tap here to enter text.

Service Description: Click or tap here to enter text.

I/we confirm that the service offered is operational and available for use by merchant shipping.

I/we confirm that its continued service is assured.

I/we confirm that any future changes will be backward compatible, or where this is not possible, sufficient notice shall be provided to enable mariners to update equipment as necessary.

Information relating to the service can be found at: Click or tap here to enter text.

The service complies with the following standards and/or specifications: Click or tap here to enter text.

**Service specifics**

GNSS and frequencies supported: Click or tap here to enter text.

The service is available within the following area: Click or tap here to enter text.

The coverage area is limited by: Click or tap here to enter text.

The expected performance in terms of accuracy, availability, continuity and integrity is:

Click or tap here to enter text.

Augmentation data is provided in the following format(s) and corresponding communication method:

Click or tap here to enter text.

Information regarding service outages and planned maintenance periods is made available to mariners within the coverage area by the following method:

Click or tap here to enter text.

General advice for safe use of the service.

Click or tap here to enter text.

1. Pro-forma template - example

Date: 14/09/2018 Service name: GLA Differential GPS

**Service Provider aspects**

Service provider: *General Lighthouse Authorities of the UK and Ireland*

Contact number*: +44 (0)1255 245141*

Service Description: *The GLA operate 14 marine radio beacon DGPS reference stations which provide integrity information and GPS corrections to mariners operating within our waters*.

I/we confirm that the service offered is operational and available for use by merchant shipping.

I/we confirm that its continued service is assured.

I/we confirm that any future changes will be backward compatible, or where this is not possible, sufficient notice shall be provided to enable mariners to update equipment as necessary.

Information relating to the service can be found at: [*www.trinityhouse.co.uk*](http://www.trinityhouse.co.uk)*,* [*www.nlb.org.uk*](http://www.nlb.org.uk)*, www.cil.ie*

The service complies with the following standards and/or specifications: *IALA Recommendation R-121 and Guideline 1112.*

**Service specifics**

GNSS and frequencies supported: *GPS L1*

The service is available within the following area: *The GLA service offers mariners accuracies of better than 5m (95%) when operating within 50 nautical miles of the coast.*

The coverage area is limited by: *A distance of 50 nautical miles.*

The expected performance in terms of accuracy, availability, continuity and integrity is:

*In line with Recommendation R-121 and Guideline 112*.

Augmentation data is provided in the following format(s) and corresponding communication method:

*RTCM broadcast standard 2.3, providing by MF radio transmission in the range of 283.5-325 kHz*

Information regarding service outages and planned maintenance periods is made available to mariners within the coverage area by the following method:

GLA *Notices to mariners or local radio broadcast as appropriate*.

General advice for safe use of the service.

*Mariners are encouraged to ensure their receiver is set to select the nearest marine radiobeacon and that any alarms are enabled.*