Liaison Note to PAP

Potential IALA survey to collate a response to RTCM request

# Introduction

The Radio Technical Commission for Maritime services (RTCM) has sought IALA’s help in identifying the future user requirements for its new RTCM 10402.4 Recommended Standards for Differential GNSS (Global Navigation Satellite Systems) - referred to as RTCM DGNSS broadcast standard v2.4.

The existing standard (version 2.3) provides correction information for the GPS and GLONASS constellations, while the new version 2.4 has new messages in order to provide corrections to any current or future satellite constellations.

Version 2.4 of the standard has been in development for many years but has not yet been finalised. RTCM would like to understand the user demand and time frame for use of this new functionality as that will help identify priorities of work within the RTCM SC-104 committee.

During IALA ENG13, the Chair of the RTCM SC-104 working group on DGNSS posed the following questions:

*1. Does version 2.3 cover the needs for next years?*

*2. Is it likely that 2.4 will be used by service providers?*

*3. Should 2.4 include other message types (like R-Mode support, integrity mode support)*

*4. Alternative use of the marine radio beacons (new RTCM standard supporting ARAIM, R-Mode)*

They also invited IALA to schedule a new work item to update ITU recommendation M.823, which encapsulates the RTCM broadcast standard within an international standard. There is a known error within the definition of Message 27 in the current draft.

# Discussion

These questions were discussed within the radionavigation working group of the ENG Committee where it felt that such questions would require input and response from the majority of marine radiobeacon DGNSS service providers, most of which were not present. From those present at ENG13, it was clear that for some the existing v2.3 would meet most requirements, but there are some that would like to provide corrections for new constellations.

It was also recognised that the future of the marine radiobeacon DGNSS can be a sensitive topic for some administrations currently. The future of marine radiobeacon DGNSS workshop held in 2020, showed that while some administrations have decided to close their system and others have decided to continue to provide corrections, it seems that a significant number had yet to come to a decision.

There may also be merit in seeking the comments from sister organisations, such as CIRM and Nautical Institute to garner to views of receiver manufacturers and mariners.

Given the complexity and sensitivity of this topic, the ENG Committee would like to seek PAP’s views and support on how best to survey IALA’s members prior to responding to the request from RTCM.

# Action requested

The PAP is requested to:

* Consider the most appropriate method for surveying IALA members
* Consider which questions should be asked and how they should be formed (identify requirements rather than version number specifically)
* Provide guidance to ENG on how to progress such a survey
* Approve ENG Committee to liaise with sister organisation on this topic