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| From: ENG | ARM20-6.2.8  (ENG19- 9.2.2.4) |
| To: ARM | 24 October 2024 |

LIAISON NOTE

Cleanup and Modernization of R0101 Marine Radar Beacons and R0146 Strategy for Maintaining Racon Service Capability

# INTRODUCTION

The reformat of R0101 Marine Radar Beacons into the current IALA document format is a task for the current work program. Reformatting includes references to new Gxxxx on use of racons (title TBD), the update of G1010 Racon Range Performance (to include solid state radars) and G1147 Enhanced Radar Positioning System (unchanged this work session). During this work, R0146 Strategy for Maintaining Racon Service Capability has been evaluated and is discovered to be out of date and in many ways no longer relevant. The Committee realizes that R0146 could be a candidate for withdrawal.

# DESCRIPTION OF PROPOSAL FOR R0146

Most of R0146 is a history of solid-state radars for marine radars. The history is very old, between 16 and 25 years depending on subtopic. R0146 introduced the term New Technology (NT) Radar which is itself quite out of date. The term was misleading when introduced and the committee is moving forward using the term solid-state radar. The technologies described by the NT term were not new (in fact, decades old), but newly applied to marine radars. The gap between invention and application are due to many influences, the greatest being IMO carriage requirements on radars and interoperability with racons and SARTs. Secondary to that was cost per unit to implement. In last two or more decades, the cost per unit to provide techniques used for many decades in military and high-performance radars has dropped two or more orders of magnitude making these techniques attractive for marine radars. S-Band radars are already taking advantage of these techniques. A more complete history can be found in R0146.

Hardware and software to improve performance and reduce cost of marine radars is also available to racon manufacturers. If there is any apparent strategy for IALA, it would be to encourage racon manufacturers to invest in development of universal racons that should work with any radar. Universal racons are not currently available on the market. This strategy can be expressed in R0101.

R0101 is also out of date and is being updated during the current work session. The revision of R0101 already includes some material from R0146 as relevant to the use of racons with existing radars and solid-state S-band radars in-particular. The committee feels that the historical material from R0146 is not appropriate for R0101.

# ACTION REQUESTED

The ARM Committee is requested to:

1. Note that a marked-up R0146 is provided as an attachment.
2. Review marked-up R0146 and suggest as appropriate to retain recommendation or to withdraw it.
3. If to retain recommendation, comment on marked-up R0146 text, suggest changes as necessary and return to ENG Committee.
4. Inform ENG Committee on actions taken.