

New IMO EPIRB Legislation for 2022

Q1. What official IMO rules has been announced?

IMO requirement; MSC.471(101).

Q2. When will the new rules come into force?

Officially on the 1st of July

Q3. What are the differences with current regulations?

MSC.471 (101) replaces IMO A.810 (19) / A696 (17) as amended.

Key changes summary;

- 1. Adding an Infra-Red (Night-Vision) optical signal
- 2. Adding AIS (SART like) localizers signal
- Revision of Homing/AIS/GNSS/ parameters to latest EPIRB technical standards; IEC 61097-ED4 and latest C/S T.001, T.007 of June 2021
- 4. User and type certification documentation update, EU MED, National certifications globally.

Q4. What is the impact on different marine sectors?

Does it count for every ship? All markets?

All vessels needing to comply to SOLAS accept those under a national dispensation rule (home water only for instance), including, passenger and cargo vessels over 300GT, most fishing, workboats, and commercial charter yachts.

- If you currently have an EPIRB, do you need to replace?
- When will it be compliant for new building projects, with regards to keel laid day?

Your EPIRB is required to be correct at date of vessels first safety survey sign off, typically that means a new build shipyard storage dispensation is not applicable in this case.

Note. Questions of application of rule, should be directly addressed to the vessels Class society.

- When an EPIRB is beyond repair, can you replace with an EPIRB under the previous regulation, or do you need to comply with new law?
 MSC.471 (101) stipulates new type for all on board installations fitted after 1 July 2022.
- Any difference with Manual and Auto housing?
- Any country specific information?
 As with all IMO regulations they must be transposed into each country national law, we anticipate some delays in enforcement subject to how long this legal process takes to work through.

Q5. Timeline for Implementation of New Rules?

The new IMO regulations still require a level of national approvals for implementation, which could mean some level of inconsistency on when the rules are implemented. As a major supplier of EPIRBs to SOLAS vessels, we have done everything in our power to get greater clarification of how and when this regulation will be implemented, as regulation will determine the EPIRBs commercial availability. From the information available our understanding of the timelines are as follows:

Region	Status	Our Interpretation of the Impact
The UK:	 IMO regulation MSC.471(101) should become sanctioned by UK MCA as a requirement for UK SOLAS vessels (MSN 1874) from the 1st of July 2022. Update of MSN 1874 is planned prior to 1st July 2022, which would be Amendment 6, and this will include the new EPIRB Standard set out in MSC 471(101). 	 New or replacement EPIRB installations required to meet UK SOLAS will require the new standard of EPIRB from the first of July 2022. For SOLAS vessels existing EPIRBs can continue on board until they can no longer be maintained. Non-SOLAS vessels can continue to install and use the existing standard of EPIRB
	• It is recognised since MSC 471(101) is not currently listed in MSN 1874, Amendment 5, currently approved bodies are unable to issue certificates without the MCA formally notifying this is acceptable. A UK recommendation to this effect is in the process and notification will be sent once this is published.	

The EU:

- The new EPIRB standard has yet to be incorporated into the MED, required to apply the Wheelmark status for sale in the EU.
- We understand that Implementation of the new requirement is expected at the 6th Implementing Regulation meeting at the start of August, where the approval and clarification on the enforcement date the new requirements should be provided.
- Implementation will be delayed until the IMO rules are made EU law under MED. We expect notification in August, with a start date.
- Wheelmarked EPIRBs of the new standard will not be available before this date.
- It is our understanding that EU law normally requires a grace period before implementation, typically 12 months. This could further delay implementation of the new IMO requirement on to EU flag vessels.
- Non-SOLAS vessels will be able to continue using the existing EPIRBs, the delayed regulation only effects the roll out of the new standard of EPIRB with AIS & Infrared lights.

The USA

- The Radio Technical Commission for Maritime Services (RTCM) on 18th January 2022 petitioned the FCC to request they start the legal process to amend regulation 47 CFR Part 80 (GMDSS), leading to acceptance of the new EPIRB standards in U.S. law.
- RTCM proposes that Subpart A be updated to reference the revised RTCM standard for EPIRBs and allow for a transition period for carriage of existing EPIRBs through December 31, 2023.
- Progress of the request can be tracked online at this URL: https://www.fcc.gov/ecfs/search/ search-filings/filing/10114179764896

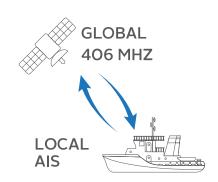
- Current FCC approved EPIRB can continue for U.S. non-mandated vessels not subject to CFR (federal rule) and until such time the importation / placing on marketplace rules are change by federal rule.
- For US mandated vessels under USCG/GMDSS Pt80 CFR rule(s), then the outcome of the January 2022 RTCM, Part 80 (GMDSS) petition letter to FCC is awaited with interest.
- In particular, whether the RTCM letter requested transition period for carriage of existing EPIRBs through to December 31, 2023 is accepted or
- The RTCM filing has remained dormant since so is not likely to be complete by the 1st of July IMO requirement

Classification Societies

Note: Many of the classification societies plan to implement the IMO regulations from the 1st of July for new installations, however the availability of the EPIRBs will depend on the national regulations mentioned above and might be subject for discussion

Q6. What is Seas of Solutions overall message?

- 1. Seas of Solutions EPIRBs are compliant to current IMO requirement; A.810 (19) / A696 (17) as amended.
- 2. Starting in July 2022, we will change over to supplying an updated EPIRB meeting the new IMO requirement; MSC.471 (101).
- 3. At this time all type approval certifications will also be updated. We will announce the timelines to market under new type approval certification in due course.



Understanding the Impact of IMO Safety Legislation on EPIRBs in 2022

Legislation is often the primary driver in the adoption of innovation in marine Safety equipment. This brief overview highlights imminent changes that will impact SOLAS vessels, the timeline for implementing and explains the safety rational behind them

Legislation: Global Mandating of AIS EPIRB for SOLAS Vessels

The IMO's Maritime Safety Committee updated the SOLAS requirements for EPIRBs in June 2019. The new regulations will apply from the 1st of July 2022 and require float free EPIRBs to include a range of functionality to accelerate the detection of vessels in distress and locate their crews.

Recommendation on performance standards for float-free EPIRBs from IMO's Maritime Safety Committee (MSC) 101/24/Annex 24 2.3.16

"The MCA recommends an update of the International Convention for the Safely of Life at Sea (SOLAS)...requiring that ships be provided with an emergency position-indicating radio beacon (EPIRB), if installed on or after 1 July 2022, to include an Automatic Identification System (AIS) locating signal in accordance with the Recommendation ITU-R M.1371, Technical characteristics for an automatic identification system using time division multiple access in the VHF maritime mobile frequency band".

Technical Changes

The legislation requirement for float free EPIRBs are to include:

- AIS signal
- Infrared light
- Revision of beacons frequency standards & certification documentation

The addition of Infra-Red (Night-Vision) optical signal will aid search and rescue responders' ability to detect survivors in low light conditions. Infrared can be detected at greater range and in poor conditions using infrared detectors, than standard EPIRB lights, therefore accelerating recovery times.

By deploying AIS EPIRBs the rescue authorities are contacted, while at the same point vessels within VHF range pick up the EPIRBs AIS, Search And Rescue Transmitter (SART) signal* along with GNSS coordinates of the distress location. This increases the chances of an accelerated response to the distress signal and the possibility of local recovery.

A secondary benefit of the local AIS alert is greater awareness of false activations, as vessels in the vicinity will pick up the AIS activation, where previously the first insight is often a helicopter overhead. This may seem a trivial problem, but the reality is the vast majority of activations are accidental and by identifying and standing down search and rescue crews, we can both reduce the significant risk to deployed crews and the unnecessary cost of coastguards and volunteer bodies.

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*Clarification: EPIRBS SART signal differs from IMO SART parameters as it runs 48h not 96h. It does appear on ECDIS in the same way a standard SART signal does.

