

CCS Technical Information

(2024) Technical Information No.2 Total No.634
Feb.03,2024
(Total 2 pages + attachments)

To: CCS Branch, Product manufacturer, Approved Supplier

Technical Notice on the Change of 406 MHz EPIRB Channel

To ensure that the number of 406 MHz beacons is suitable for operation in the given channel from 406.0-406.1 MHz and does not generate a traffic load in excess of channel capacity, The International Satellite System for Search and Rescue (COSPAS-SARSAT) conducts annual statistics on the number of EPIRB devices used at various frequency points. When it is found that there are too many devices used at a certain frequency point, new frequency will be opened according to the COSPAS-SARSAT 406 MHz Frequency Management Plan.

The COSPAS-SARSAT issued a notice on December 6, 2023 regarding changes in EPIRB frequency (see Annex 1), which decided to open 406.076MHz (S channel) from January 1, 2025. From July 1, 2025, newly applied EPIRB for type approval will no longer be allowed to use the 406.031MHz channel (D channel) and must be set to operate on the 406.076MHz (S channel). Past policy of the Cospas-Sarsat Programme has been to allow continued production of beacons using frequency channels that have been closed, if they are produced under an earlier-issued type-approval certificate before July 1, 2025.

Based on the above situation, we would like to remind relevant parties to pay attention to the matters for type approval, survey and test as follows:

1. Applying for CCS type approval and survey of EPIRB:
 - a) CCS surveyors shall confirm that the beacon has been type approved and certificated by COSPAS-SARSAT.
 - b) EPIRB submitted for type approval after July 1, 2025 must be set to operate on the 406.076 MHz channel (S channel), and it must be confirmed that the operating frequency of the EPIRB applied for approval is the same as that specified in the COSPAS-SARSAT approval certificate.

2. Confirm that the proposed or approved supplier testing company is aware of the above requirements and confirms that if the vessel is equipped with EPIRB on

channel 406.076 MHz (S channel), it has the ability to conduct testing, when carry out survey related to safety radio certificate, or related initial or renewal audits to radio supplier.

3. From July 1, 2025, radio suppliers approved by CCS should verify the existing testing equipment for EPIRB can test at 406.076MHz channel (S channel), if not it must be upgraded and updated immediately. CCS auditor should pay special attention to and verify this when conducting audit of the radio supplier.

This notice will enter into force from the date of issue.

Annex 1 - Opening of New Frequency Channel 406.076 MHz and Closing of Frequency Channel 406.031 MHz for Cospas-Sarsat Distress Beacons



International Satellite System for Search and Rescue
Système international de satellites pour les recherches et le sauvetage
Международная Спутниковая Система Поиска и Спасания

CS23/194/F420, F440, F450, F460, F510, F530, F540, F550

Montréal, 6 December 2023

TO: All National/Territorial Administrations, International Maritime Organization, International Civil Aviation Organization, International Telecommunication Union, and Cospas-Sarsat Beacon Manufacturers, Accepted Test Facilities, Ground-Segment Equipment Manufacturers and Oscillator Manufacturers

SUBJECT: Opening of New Frequency Channel 406.076 MHz and Closing of Frequency Channel 406.031 MHz for Cospas-Sarsat Distress Beacons

This a Matter of Potential SAR Operational Significance for Administrations.

The Cospas-Sarsat Council at its CSC-69 session, 24 to 27 October 2023, decided¹ to **open frequency channel 406.076 MHz** (channel “S”) for Cospas-Sarsat distress beacons starting from 1 January 2025, and to **close frequency channel 406.031 MHz** (channel “D”) on 1 July 2025. In each instance the effective date applies to new applications for the issuance of type-approval certificates attesting to compliance with Cospas-Sarsat specifications.²

In addition to the impact on beacon manufacturers (and their suppliers and test facilities), this change may be of operational significance to national/territorial Administrations because beacon-testing equipment (e.g., used by marine surveyors) or 406-MHz search-and-rescue (SAR) receivers (e.g., direction-finding receivers used in local SAR operations) may not be configured to receive frequency channels above 406.050 MHz. Prior to this most recent decision, all frequency channels made available for use have been below 406.050 MHz. Administrations that may be using 406-MHz beacon testers and/or SAR receivers are urged to confirm compatibility of their equipment with the frequency channel 406.076 MHz, considering that beacons using this frequency may be deployed at any time starting from 1 January 2025.

¹ Document CSC-69/OPN/SR, sections 3.2.26 and 3.2.27.

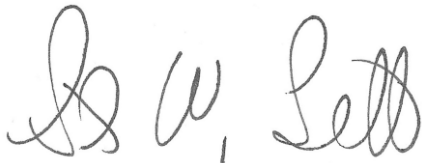
² These changes apply to type approval of beacons based on document C/S T.001, “Specification for Cospas-Sarsat 406 MHz Distress Beacons” (referred to as “first generation beacons”). See also document C/S T.012, “Cospas-Sarsat 406 MHz Frequency Management Plan” at, *inter alia*, Table H.2 of Annex H. Documents available at: <https://cospas-sarsat.int/en/documents-pro/system-documents/system-documents>.

Past policy of the Cospas-Sarsat Programme has been to allow continued production of beacons using frequency channels that have been closed, if they are produced under an earlier-issued type-approval certificate that included the closed channel. In other words, the Programme has not previously foreclosed continued production on a channel specified for use in a beacon's type-approval certificate.³ This past practice remains the current policy. However, further detailed modelling of the capacity of the Cospas-Sarsat System, including the MEOSAR⁴ component of the System, is being undertaken to ensure adequate capacity on each channel based on the estimated beacon population in the channel. The conclusions of this work might result in a re-evaluation of the current policy that allows continued beacon production on a closed channel under an earlier-issued type-approval certificate.

Please contact the Cospas-Sarsat Secretariat at mail@406.org if you have any questions or we can be of further assistance.

Please accept the assurances of my highest consideration.

Yours sincerely,

A handwritten signature in black ink, appearing to read "S. Lett". The signature is fluid and cursive, with the first letter of the first name being a large, stylized 'S'.

Steven Lett
Head of Secretariat

³ Including production pursuant to a type-approval certificate that is later modified, or an "extension" certificate issued to accommodate additional numbers for serially-coded beacons.

⁴ Medium-altitude Earth Orbiting Search-and-Rescue satellite system. Because of, *inter alia*, the relatively higher altitudes of MEOSAR payloads (19,000 to 23,000 km) that make a larger area of the Earth visible to the satellite (the "footprint"), and differences in the amount of Doppler shift experienced, the capacity modelling is different from that for legacy Low-altitude Earth Orbiting Search-and-Rescue (LEOSAR) payloads.