

<u>Domain</u>	Administrative	<u>Item No.</u>	EWG-1/2021/AI.017
<u>Action By</u>	beacon manufacturers	<u>Section</u>	EWG-1/2021/Report/8.29 (c)
<u>Key Words</u>	ELT(DT), Type Approval	<u>Status</u>	Ongoing
<u>Short Form</u>	engage as early as possible in pre-application consultations with the Secretariat, regularly inform, and ensure resources concerning an ELT(DT) model to be submitted for type approval	<u>Start Date</u>	27 May 2021
<u>Sys Doc(s)</u>		<u>Target Date</u>	
		<u>Completed Date</u>	
The Experts Working Group also noted general agreement to invite beacon manufacturers, in the interest of the most efficient execution and most timely conclusion of ELT(DT) type-approval campaigns at least through 1 January 2023, to: • engage as early as possible in pre-application consultations with the Secretariat concerning an ELT(DT) model to be submitted for type approval, to allow for: - the definition of the scope of testing to be conducted, - review of the technical items in the draft type-approval application package, - review of the results from factory testing to be included in the type-approval application package as they become available, • keep the Secretariat regularly informed about their development schedule and planned submissions to test facilities and the Secretariat, and progress made in beacon testing, • ensure timely and adequate resources are made available by each manufacturer during the type-approval process of its ELT(DT) model, including dedicated personnel as appropriate, • make best efforts to try to ensure that accepted test facilities provide timely and adequate resources throughout the type-approval process, including dedicated personnel as appropriate, during testing, report generation and when responding to worksheets[.]			
<u>Remarks</u>	See also EWG-1/2021/AI.20. Continuous action to be maintained until at least 1 January 2023.		

<u>Domain</u>	Operational and Technical	<u>Item No.</u>	JC-31/AI.004
<u>Action By</u>	participants	<u>Section</u>	JC-31/Report/5.1.5
<u>Key Words</u>	ELT(DT), RLS, SGB	<u>Status</u>	Ongoing
<u>Short Form</u>	Develop SGB coding guidelines and beacon coding examples for RLS and ELT(DT) beacons	<u>Start Date</u>	27 October 2017
<u>Sys Doc(s)</u>	C/S G.005	<u>Target Date</u>	
		<u>Completed Date</u>	

The Joint Committee [noted] general agreement to invite participants to develop amendments to document C/S G.005 that provided suitable:

- a) SGB coding guidelines for inclusion in a new section 4 of document C/S G.005; and
- b) beacon coding examples for the RLS and ELT(DT) beacons, including all available options, for inclusion in Annex B.

Remarks

<u>Domain</u>	Operational and Technical	<u>Item No.</u>	JC-32/AI.006
<u>Action By</u>	participants	<u>Section</u>	JC-32/Report/3.2.39 (a)
<u>Key Words</u>	RLS	<u>Status</u>	Ongoing
<u>Short Form</u>	System Document Changes - FGB Technical Documents - National RLS Numbers	<u>Start Date</u>	26 October 2018
<u>Sys Doc(s)</u>	C/S T.001, C/S T.007	<u>Target Date</u>	
		<u>Completed Date</u>	

[The] Joint Committee noted general agreement to invite participants to develop a suitable procedure for the application and issuing of national RLS numbers, and propose related changes to Cospas-Sarsat Programme and technical documents, as appropriate, to future Cospas-Sarsat meetings[.]

Remarks With the adoption of RLS serial protocols (TAC and serial number) and RLS MMSI protocols, this action is no longer required unless a national Administration intends to use the National RLS Number allocation method. If no national Administration intends to use the National RLS Number allocation method, then this coding method should be removed from T.001/T.007.

<u>Domain</u>	Operational and Technical	<u>Item No.</u>	TG-1/2017/AI.008
<u>Action By</u>	participants	<u>Section</u>	TG-1/2017/Report/7.1.6 (j), (l)
<u>Key Words</u>	ELT(DT)	<u>Status</u>	Ongoing
<u>Short Form</u>	Investigate use of rechargeable batteries in ELT(DT)	<u>Start Date</u>	03 April 2017
<u>Sys Doc(s)</u>		<u>Target Date</u>	
		<u>Completed Date</u>	

The Task Group noted general agreement to invite participants to:

j) further investigate the matter of the possible use of rechargeable batteries in ELT(DT), and in particular:

- identify what type of batteries would be likely candidates for ELT(DT)s, and develop test programs accordingly,
- discuss the matter of rechargeable batteries with the aviation community and provide feedback on these discussions at appropriate Cospas-Sarsat forums,
- investigate what would be required to allow the use of rechargeable batteries in ELT(DT)s,
- developing requirements for the testing of ELT(DT)s with rechargeable batteries; [and]

l) report the results of the investigations on the two matters above at future Cospas-Sarsat meetings.

Remarks

<u>Domain</u>	Programmatic	<u>Item No.</u>	EWG-1/2021/AI.015
<u>Action By</u>	participants	<u>Section</u>	EWG-1/2021/Report/8.29 (a)
<u>Key Words</u>	ELT(DT)	<u>Status</u>	Ongoing
<u>Short Form</u>	Provide any updated information on the activities identified as part of the ELT(DT) development milestones and deadlines	<u>Start Date</u>	27 May 2021
<u>Sys Doc(s)</u>		<u>Target Date</u>	
		<u>Completed Date</u>	

The Experts Working Group also noted general agreement to invite interested participants to provide any updated information on the activities identified as part of the ELT(DT) development milestones and deadlines at future Cospas-Sarsat meetings or during intersessional work[.]

Remarks See documents JC-35/Inf.25 -Rev1 and JC-35/Inf.29. Status provided at JC-35 but needs to be provided at future Cospas-Sarsat meetings until at least 1 January 2023.

<u>Domain</u>	Technical	<u>Item No.</u>	EWG-1/2018/AI.002
<u>Action By</u>	participants	<u>Section</u>	EWG-1/2018/Report/3.16 (g)
<u>Key Words</u>	SGB	<u>Status</u>	Ongoing
<u>Short Form</u>	Determine if updates are required to C/S T.012 to address the introduction of SGBs into the System	<u>Start Date</u>	16 April 2018
<u>Sys Doc(s)</u>	C/S T.012	<u>Target Date</u>	
		<u>Completed Date</u>	

The Experts Working Group noted general agreement [to] invite participants to determine if updates were required to document C/S T.012 to address the introduction of SGBs into the System, and to propose suitable amendments or alternatives to JC-32 that would allow the inclusion of a suitable reference with respect to frequency allocation and a 406 MHz traffic model to be included in document C/S T.012[.]

Remarks

<u>Domain</u>	Technical	<u>Item No.</u>	EWG-1/2018/AI.003
<u>Action By</u>	participants	<u>Section</u>	EWG-1/2018/Report/3.16 (h)
<u>Key Words</u>	Homing Signals, SGB	<u>Status</u>	Ongoing
<u>Short Form</u>	Develop C/S T.021 (e.g., re: homing-frequency offsets, oscillator testing, measurement and sampling tolerances)	<u>Start Date</u>	16 April 2018
<u>Sys Doc(s)</u>	C/S T.021	<u>Target Date</u>	
		<u>Completed Date</u>	

The Experts Working Group noted general agreement [to] invite interested participants, such as those collaborating within the Correspondence Working Group on T.018/T.021 to continue to develop document C/S T.021 and propose amendments to future Cospas-Sarsat meetings, that might include the consideration of:

- the need to elaborate the description of necessary homing-frequency offsets, to be used when beacons were undergoing type-approval testing, to facilitate testing of homing frequencies in addition to 121.5 MHz,
- whether suitable alternatives could be allowed in place of individual testing of each oscillator used in every SGB produced, such as lot testing, to ensure that the frequency stability requirements for production beacons could be met,
- what tolerances would be reasonable to apply to measurements and sampling in future type-approval test-data analysis, once experience with SGB testing was gained, in order to adequately address outlier data points that might not be significant to beacon performance.

Remarks Third bullet point completed with the addition of section A.1.5 in document C/S T.021.

<u>Domain</u>	Technical	<u>Item No.</u>	EWG-1/2018/AI.012
<u>Action By</u>	participants	<u>Section</u>	EWG-1/2018/Report/8.23
<u>Key Words</u>	SGB	<u>Status</u>	Ongoing
<u>Short Form</u>	Develop process and procedures for certification of minor changes to type-approved beacon models	<u>Start Date</u>	16 April 2018
<u>Sys Doc(s)</u>		<u>Target Date</u>	
		<u>Completed Date</u>	

The Experts Working Group noted general agreement to invite participants and other interested parties to address the matter of minor beacon changes and further develop and define procedures and the management processes for minor beacon changes for consideration and review at relevant future Cospas-Sarsat meetings.

Remarks See also JC-32/AI.038 (b).

<u>Domain</u>	Technical	<u>Item No.</u>	EWG-1/2021/AI.001
<u>Action By</u>	participants	<u>Section</u>	EWG-1/2021/Report/6.3.4 (e)
<u>Key Words</u>	SGB	<u>Status</u>	Ongoing
<u>Short Form</u>	Review the inclusion of the 3LD information in the 23 Hex ID	<u>Start Date</u>	27 May 2021
<u>Sys Doc(s)</u>	C/S A.001, C/S T.018	<u>Target Date</u>	
		<u>Completed Date</u>	

The Experts Working Group noted from discussion of documents EWG-1/2021/3/1 and EWG-1/2021/3/3, and from the report of the chair of the Splinter Group on Second-Generation Beacon Technical Documentation, regarding the proposed amendments to address the alternative definitions of the 15 Hex ID in documents C/S A.001 and C/S T.018, and the definition of the 23 Hex ID in document C/S T.018, general agreement to invite participants to review the inclusion of the 3LD information in the 23 Hex ID, taking into consideration:

- that the Experts Working Group had agreed to recommend the deletion of Note #3 associated with Table 3.10 from document C/S T.018,
- the related information provided in documents EWG 1/2021/3/1 and EWG 1/2021/3/3,
- that it might be necessary to consider mitigation measures as a result of an ELT(DT)'s 23 Hex ID changing if the 3LD was changed in operational use (e.g., sharing an aircraft among aircraft operators of different States),
- the information provided at Annex 14 to this Report[.]

Remarks

<u>Domain</u>	Technical	<u>Item No.</u>	EWG-1/2021/AI.018
<u>Action By</u>	Secretariat	<u>Section</u>	EWG-1/2021/Report/8.29 (d)
<u>Key Words</u>	ELT(DT), Test Facilities, Type Approval	<u>Status</u>	Ongoing
<u>Short Form</u>	consider procedural adjustments to its internal processes for type approval of ELT(DT)s; ensure maximum awareness; consider engagement of external contractors	<u>Start Date</u>	27 May 2021
<u>Sys Doc(s)</u>		<u>Target Date</u>	
		<u>Completed Date</u>	
The Experts Working Group also noted general agreement to invite the Secretariat, in the interest of the most efficient execution and most timely conclusion of ELT(DT) type-approval campaigns at least through 1 January 2023, to: • consider procedural adjustments to its internal processes for type approval of ELT(DT)s, not disadvantageous to campaigns for non-ELT(DT) beacons, which take advantage of the measures in sub-paragraph (c) above, to: - allow the timeliest possible response to initial and subsequent type-approval submissions (based on information provided by the manufacturer), - minimize the number of worksheet exchanges required with manufacturers, - minimize the turnaround time for worksheet responses, • ensure the maximum mutual awareness between the manufacturer and the Secretariat, and the test facility and the Secretariat, of the testing process and results, supplemental data items and application review status, • consider the engagement of external contractors to assist in more routine type-approval applications to facilitate the ability of Secretariat experts to focus on any ELT(DT) applications and test-facility extended-capability applications that may be submitted and, if viewed as necessary and appropriate, seek from the Council supplemental budget authority for this purpose[.]			
<u>Remarks</u>	Continuous action to be maintained until at least 1 January 2023.		

<u>Domain</u>	Technical	<u>Item No.</u>	EWG-2/2020/AI.002 (a)
<u>Action By</u>	participants	<u>Section</u>	EWG-2/2020/Report/4.65
<u>Key Words</u>	SGB	<u>Status</u>	Ongoing
<u>Short Form</u>	Study the requirements and, if necessary, test methodology for SGB waveforms including additional, collaborative testing by participants	<u>Start Date</u>	28 February 2020
<u>Sys Doc(s)</u>	C/S T.018, C/S T.021	<u>Target Date</u>	
		<u>Completed Date</u>	
The Experts Working Group noted general agreement to invite participants to further study the requirements and, if necessary, test methodology for SGB waveforms within documents C/S T.018 and C/S T.021, and report back to the next relevant meeting, proposing any suggested changes to improve those documents as appropriate, including additional, collaborative testing by participants to supplement the existing results from the USA, as well as the theoretical work that has been done by participants to date[.]			
<u>Remarks</u>	See document JC-35/8/3.		

<u>Domain</u>	Technical	<u>Item No.</u>	EWG-2/2020/AI.002 (b)
<u>Action By</u>	participants	<u>Section</u>	EWG-2/2020/Report/4.65
<u>Key Words</u>	SGB	<u>Status</u>	Ongoing
<u>Short Form</u>	Study the requirements and, if necessary, test methodology for SGB waveforms, including consideration for the inclusion of “notional waveform(s)” for use by beacon and LUT manufacturers as standards	<u>Start Date</u>	28 February 2020
<u>Sys Doc(s)</u>	C/S T.018, C/S T.021	<u>Target Date</u>	
		<u>Completed Date</u>	
The Experts Working Group noted general agreement to invite participants to further study the requirements and, if necessary, test methodology for SGB waveforms within documents C/S T.018 and C/S T.021, and report back to the next relevant meeting, proposing any suggested changes to improve those documents as appropriate, including consideration for the inclusion of “notional waveform(s)” for use by beacon and LUT manufacturers as standards[.]			
<u>Remarks</u>	See document JC-35/8/3.		

<u>Domain</u>	Technical	<u>Item No.</u>	EWG-2/2020/AI.002 (c)
<u>Action By</u>	participants	<u>Section</u>	EWG-2/2020/Report/4.65
<u>Key Words</u>	SGB	<u>Status</u>	Ongoing
<u>Short Form</u>	Study the requirements and, if necessary, test methodology for SGB waveforms, including a thorough review of the spurious emissions masks for the potential waveforms to be used in order to take into account measurement uncertainty	<u>Start Date</u>	28 February 2020
<u>Sys Doc(s)</u>	C/S T.018, C/S T.021	<u>Target Date</u>	
		<u>Completed Date</u>	
The Experts Working Group noted general agreement to invite participants to further study the requirements and, if necessary, test methodology for SGB waveforms within documents C/S T.018 and C/S T.021, and report back to the next relevant meeting, proposing any suggested changes to improve those documents as appropriate, including a thorough review of the spurious emissions masks for the potential waveforms to be used in order to take into account measurement uncertainty[.]			
<u>Remarks</u>	See document JC-35/8/3.		

<u>Domain</u>	Technical	<u>Item No.</u>	EWG-2/2020/AI.002 (d)
<u>Action By</u>	participants	<u>Section</u>	EWG-2/2020/Report/4.65
<u>Key Words</u>	SGB	<u>Status</u>	Ongoing
<u>Short Form</u>	Study the requirements and, if necessary, test methodology for SGB waveforms, including analysis and documentation of the differences in SGB waveform interpretation between various participants, and the impact of those differences on performance	<u>Start Date</u>	28 February 2020
<u>Sys Doc(s)</u>	C/S T.018, C/S T.021	<u>Target Date</u>	
		<u>Completed Date</u>	
The Experts Working Group noted general agreement to invite participants to further study the requirements and, if necessary, test methodology for SGB waveforms within documents C/S T.018 and C/S T.021, and report back to the next relevant meeting, proposing any suggested changes to improve those documents as appropriate, including analysis and documentation of the differences in SGB waveform interpretation between various participants, and the impact of those differences on performance[.]			
<u>Remarks</u>	See document JC-35/8/3.		

<u>Domain</u>	Technical	<u>Item No.</u>	EWG-2/2020/AI.002 (e)
<u>Action By</u>	participants	<u>Section</u>	EWG-2/2020/Report/4.65
<u>Key Words</u>	SGB	<u>Status</u>	Ongoing
<u>Short Form</u>	Study the requirements and, if necessary, test methodology for SGB waveforms, including to review whether any specific changes should be considered to other system documents (e.g., document C/S T.019, C/S T.020, etc.)	<u>Start Date</u>	28 February 2020
<u>Sys Doc(s)</u>	C/S T.018, C/S T.019, C/S T.020, C/S T.021, etc.	<u>Target Date</u>	
		<u>Completed Date</u>	

The Experts Working Group noted general agreement to invite participants to further study the requirements and, if necessary, test methodology for SGB waveforms within documents C/S T.018 and C/S T.021, and report back to the next relevant meeting, proposing any suggested changes to improve those documents as appropriate, including to review whether any specific changes should be considered to other system documents (e.g., document C/S T.019, C/S T.020, etc.) based on the results of the above work (i.e., [EWG-2/2020/AI.2] (a), (b), (c), and (d)).

Remarks See document JC-35/8/3.

<u>Domain</u>	Technical	<u>Item No.</u>	EWG-2/2020/AI.008
<u>Action By</u>	Secretariat	<u>Section</u>	EWG-2/2020/Report/4.71
<u>Key Words</u>	Interference	<u>Status</u>	Ongoing
<u>Short Form</u>	Communicate with test facilities to request information on their capabilities to detect the presence of undesired signals in the 406.0 to 406.1 MHz band when conducting SGB testing	<u>Start Date</u>	28 February 2020
<u>Sys Doc(s)</u>		<u>Target Date</u>	
		<u>Completed Date</u>	

The Experts Working Group noted general agreement to invite the Secretariat to communicate with test facilities to request information on their capabilities to detect the presence of undesired signals in the 406.0 to 406.1 MHz band when conducting SGB testing, and to inform them of related actions items from this Report (see section 4.70 of [the EWG-2/2020] Report).

Remarks Communication is ongoing. Only one test facility has sought acceptance for testing of SGBs.

<u>Domain</u>	Technical	<u>Item No.</u>	EWG-2/2020/AI.011
<u>Action By</u>	participants	<u>Section</u>	EWG-2/2020/Report/4.74
<u>Key Words</u>	FGB, Homing Signals, SGB, Type Approval	<u>Status</u>	Ongoing
<u>Short Form</u>	Further define the variations in FGB and SGB characteristics that may affect SAR activities to identify by separate TAC numbers	<u>Start Date</u>	28 February 2020
<u>Sys Doc(s)</u>		<u>Target Date</u>	
		<u>Completed Date</u>	

The Experts Working Group noted general agreement to invite participants to further define the variations in FGB and SGB characteristics that may affect SAR activities (e.g., 121.5 MHz homing, 243 MHz homing, AIS homing, encoded location, ELT(AF), ELT(AP), ELT(AD), floating PLB, non-floating PLB, etc.) that they wish to have identified for a beacon by separate TAC numbers, and to provide this information to JC 34 for consideration.

Remarks

<u>Domain</u>	Technical	<u>Item No.</u>	EWG-6C/2020/S1/AI.002
<u>Action By</u>	participants	<u>Section</u>	EWG-6C/2020/S1/Report/2.5 (d)
<u>Key Words</u>	RLS	<u>Status</u>	Ongoing
<u>Short Form</u>	Review the selection of appropriate serial numbers which could be allocated, to deconflict multiple beacon 15 Hex IDs for the testing of RLS beacons	<u>Start Date</u>	10 March 2020
<u>Sys Doc(s)</u>		<u>Target Date</u>	14 September 2020
		<u>Completed Date</u>	

The Experts Working Group further noted from discussion of document EWG 6C/2020/S1/2/1 general agreement to invite participants to:

- review the selection of appropriate serial numbers that could be allocated to:
 - deconflict multiple beacon 15 Hex IDs for the testing of RLS beacons,
 - ensure each test serial number resulted in the same calculated Moffset value (to ensure consistent test results as expected in beacon documentation),
- propose appropriate amendments to documents C/S T.007 and C/S T.021 for consideration at JC-34.

Remarks

<u>Domain</u>	Technical	<u>Item No.</u>	JC-29/AI.023
<u>Action By</u>	participants	<u>Section</u>	JC-29/Report/10.4 (c)
<u>Key Words</u>	General beacon matters	<u>Status</u>	Ongoing
<u>Short Form</u>	Review need to amend C/S T.012 channel designation for beacons	<u>Start Date</u>	30 September 2015
<u>Sys Doc(s)</u>	C/S T.012	<u>Target Date</u>	
		<u>Completed Date</u>	

The Joint Committee [noted] general agreement to invite participants to review the need to further amend document C/S T.012, particularly with respect to the designation of channels potentially available for beacons (e.g., review of the designation “reserved, not to be assigned”), and propose amendments, as needed.

Remarks

<u>Domain</u>	Technical	<u>Item No.</u>	JC-30/AI.007
<u>Action By</u>	Secretariat	<u>Section</u>	JC-30/Report/5.5.27
<u>Key Words</u>	General beacon matters	<u>Status</u>	Ongoing
<u>Short Form</u>	Develop concept, technical requirements and cost estimate for type approval document management system	<u>Start Date</u>	27 September 2016
<u>Sys Doc(s)</u>		<u>Target Date</u>	14 September 2020
		<u>Completed Date</u>	

The Joint Committee also noted general agreement to invite the Secretariat:

a) to take into account the user requirements proposed in document JC-30/5/6 for the DMS in further development of the DMS concept; and

b) to continue development of the DMS concept, define technical requirements and estimate cost of the development and implementation of the trilingual DMS system, and present their analysis for consideration at a future Cospas Sarsat Council meeting.

Remarks Costing component completed. Other aspects ongoing.

<u>Domain</u>	Technical	<u>Item No.</u>	JC-31/AI.013 (a)
<u>Action By</u>	participants, RTCM, USA	<u>Section</u>	JC-31/Report/6.2.10 (a)
<u>Key Words</u>	SGB	<u>Status</u>	Ongoing
<u>Short Form</u>	Study standards, regulation and best practices applicable to certification of minor changes to type-approved beacon models	<u>Start Date</u>	27 October 2017
<u>Sys Doc(s)</u>		<u>Target Date</u>	
		<u>Completed Date</u>	

The Joint Committee noted general agreement to invite the USA, RTCM and other participants to continue to study national and international standards, regulation and best industry practices potentially applicable to certification of minor changes to type-approved beacon models[.]

Remarks

<u>Domain</u>	Technical	<u>Item No.</u>	JC-31/AI.013 (b)
<u>Action By</u>	USA, RTCM, Secretariat, participants	<u>Section</u>	JC-31/Report/6.2.10 (b)
<u>Key Words</u>	SGB	<u>Status</u>	Ongoing
<u>Short Form</u>	Develop process for certification of minor changes to type-approved beacon models	<u>Start Date</u>	27 October 2017
<u>Sys Doc(s)</u>		<u>Target Date</u>	
		<u>Completed Date</u>	

The Joint Committee noted general agreement to invite the USA, RTCM, Secretariat and other interested participants to continue intersessional development of the minor-change concept in a corresponding working group, and report the results of their work at future meetings[.]

Remarks See also JC-32/AI.079.

<u>Domain</u>	Technical	<u>Item No.</u>	JC-33/AI.011
<u>Action By</u>	participants	<u>Section</u>	JC-33/Report/3.1.27 (a)
<u>Key Words</u>	FGB, General beacon matters	<u>Status</u>	Ongoing
<u>Short Form</u>	Perform Localization Tests on a PLB Using the SINSIN Synchronization Method in significant blockage environment	<u>Start Date</u>	21 June 2019
<u>Sys Doc(s)</u>		<u>Target Date</u>	01 October 2020
		<u>Completed Date</u>	

The Joint Committee noted from discussion of documents JC-33/3/4-Rev.1, JC-33/3/28, JC-33/3/30 and JC-33/Inf.43 general agreement to invite participants to perform localization tests on a PLB using the SINSIN synchronization method in an environment where there might be significant blockage, such as mountainous areas, possibly comparing the results with the ones obtained from alternate localization means such as that provided by beacons equipped with GNSS receivers, and provide their results for consideration at Cospas-Sarsat meetings in 2019 and 2020[.]

Remarks

<u>Domain</u>	Technical	<u>Item No.</u>	JC-33/AI.012
<u>Action By</u>	RTCM	<u>Section</u>	JC-33/Report/3.1.27 (b)
<u>Key Words</u>	FGB, General beacon matters	<u>Status</u>	Ongoing
<u>Short Form</u>	Summarize benefits of SINSIN methodology, outline potential cost estimates for implementation, propose timeline for implementation	<u>Start Date</u>	21 June 2019
<u>Sys Doc(s)</u>		<u>Target Date</u>	01 October 2020
		<u>Completed Date</u>	

The Joint Committee noted from discussion of documents JC-33/3/4-Rev.1, JC-33/3/28, JC-33/3/30 and JC-33/Inf.43 general agreement to invite RTCM to submit a paper to CSC-62 and other relevant Cospas-Sarsat meetings in 2020 to provide:

- a summary of the benefits of the SINSIN methodology, including those which might be obtained as part of the test results obtained as an outcome of JC 33/AI.11,
- potential cost estimates for the implementation of the SINSIN methodologies by elements of the Programme (Participants, beacon manufacturers, LUT manufacturers, etc.),
- a possible timeline for the implementation of the technology, including considering modification of beacon specifications, modification of beacon manufacturing, modification of LUT specifications (if any), need for any related LUT commissioning tests, and any required modification to the standard interface description (SID) in document C/S A.002 to indicate SINSIN source and/or accuracy of independent location data, etc.

Remarks

<u>Domain</u>	Technical	<u>Item No.</u>	TWG-29/AI.001
<u>Action By</u>	participants	<u>Section</u>	JC-29/Report/3.2.79 (c)
<u>Key Words</u>	SSAS	<u>Status</u>	Ongoing
<u>Short Form</u>	Review Type Approval Standard for SSAS Beacons, and determine impact on MEOLUT commissioning	<u>Start Date</u>	30 September 2015
<u>Sys Doc(s)</u>	C/S T.015, C/S T.020	<u>Target Date</u>	
		<u>Completed Date</u>	

The Joint Committee [noted] general agreement [to] invite participants to, by JC-30, review document C/S T.015, "Cospas-Sarsat Specification and Type Approval Standard for 406 MHz Ship Security Alert (SSAS) Beacons", and determine the impact, if any, on MEOLUT commissioning, and propose changes accordingly to document C/S T.020 at a future Cospas-Sarsat meeting.

Remarks See document JC-33/Inf.21 and TG-1/2018/AI.008.

<u>Domain</u>	Technical	<u>Item No.</u>	TWG-30/AI.016 (b)
<u>Action By</u>	participants	<u>Section</u>	JC-30/Report/6.2.42 (b)
<u>Key Words</u>	Homing Signals	<u>Status</u>	Ongoing
<u>Short Form</u>	Ascertain appropriate 406-MHz Type-1 and Type 2 homing signal power levels that would not cause harmful interference or degradation	<u>Start Date</u>	27 September 2016
<u>Sys Doc(s)</u>	C/S T.018	<u>Target Date</u>	
		<u>Completed Date</u>	

The Joint Committee noted general agreement to invite interested participants, such as those contributing to the Correspondence Working Group on Homing and Intelligent Transmit Scheduling, to conduct testing or simulations to ascertain appropriate 406-MHz Type-1 and Type 2 homing signal power levels that would not cause harmful interference or degradation of the Cospas-Sarsat System[.]

Remarks See document JC-33/3/8.

<u>Domain</u>	Technical	<u>Item No.</u>	TWG-30/AI.016 (c)
<u>Action By</u>	participants	<u>Section</u>	JC-30/Report/6.2.42 (c)
<u>Key Words</u>	Homing Signals	<u>Status</u>	Ongoing
<u>Short Form</u>	Perform assessments and identify requirements for short range (close-in) homing on 406-MHz homing signals	<u>Start Date</u>	27 September 2016
<u>Sys Doc(s)</u>	C/S T.018	<u>Target Date</u>	
		<u>Completed Date</u>	

The Joint Committee noted general agreement to invite interested participants, such as those contributing to the Correspondence Working Group on Homing and Intelligent Transmit Scheduling, to perform assessments and identify requirements for short range (close-in) homing on 406-MHz homing signals, for example at 10 NM and less, and to report these to future Cospas-Sarsat meetings.

Remarks See document JC-33/3/8.

<u>Domain</u>	Technical	<u>Item No.</u>	TWG-30/AI.017 (a)
<u>Action By</u>	participants	<u>Section</u>	JC-30/Report/6.3.32 (a)
<u>Key Words</u>	SGB, SGB EIRP Measurements	<u>Status</u>	Ongoing
<u>Short Form</u>	Provide analyses, simulations and/or tests to investigate other potential antenna patterns	<u>Start Date</u>	27 September 2016
<u>Sys Doc(s)</u>	C/S T.018	<u>Target Date</u>	
		<u>Completed Date</u>	

The Joint Committee noted general agreement to invite interested participants to continue future work on SGBs, and specifically to provide analyses, simulations and/or tests to investigate other potential antenna patterns for system performance, and recommend updates to document C/S T.018 as new knowledge was gained[.]

Remarks See documents TG-1/2019/3/3, JC-35/3/6-Corr.1 and JC-35/3/13.

<u>Domain</u>	Technical	<u>Item No.</u>	TWG-30/AI.017 (c)
<u>Action By</u>	participants	<u>Section</u>	JC-30/Report/6.3.32 (c)
<u>Key Words</u>	ELT(DT), SGB	<u>Status</u>	Ongoing
<u>Short Form</u>	Study GNSS velocity characteristics and determine any possible use of the 9 spare bits within rotating field #1 (or others) for ELT(DT)s	<u>Start Date</u>	27 September 2016
<u>Sys Doc(s)</u>	C/S T.018	<u>Target Date</u>	
		<u>Completed Date</u>	

The Joint Committee noted general agreement to invite interested participants to continue future work on SGBs, and specifically to further study GNSS velocity characteristics and determine any possible use of the 9 spare bits within rotating field #1 for ELT(DT)s, or to otherwise propose additional rotating fields to include velocity, for future inclusion in document C/S T.018[.]

Remarks See document TG-1/2019/3/3. Providing GNSS velocity might be in conflict with the provision of DOP as there are a limited number of free bits available for rotating field #1 for ELT(DT)s.

<u>Domain</u>	Technical	<u>Item No.</u>	TWG-30/AI.017 (d)
<u>Action By</u>	participants	<u>Section</u>	JC-30/Report/6.3.32 (d)
<u>Key Words</u>	SGB	<u>Status</u>	Ongoing
<u>Short Form</u>	Study the need for randomization, and recommend changes to the values in table Transmission Schedule	<u>Start Date</u>	27 September 2016
<u>Sys Doc(s)</u>	C/S T.018	<u>Target Date</u>	
		<u>Completed Date</u>	

The Joint Committee noted general agreement to invite interested participants to continue future work on SGBs, and specifically to further study the need for randomization, and recommend changes to the values in Table 2.1 “Transmission Schedule” as needed in future revisions of document C/S T.018 [.]

Remarks See document TG-1/2019/3/3.

<u>Domain</u>	Technical	<u>Item No.</u>	TWG-30/AI.019
<u>Action By</u>	participants	<u>Section</u>	JC-30/Report/9.1.7 (a)
<u>Key Words</u>	Reference Beacons, System Monitoring (including QMS)	<u>Status</u>	Ongoing
<u>Short Form</u>	Assess if a particular (non-operational, if possible) frequency channel should be used for MEOSAR REFBEs	<u>Start Date</u>	27 September 2016
<u>Sys Doc(s)</u>	C/S T.012	<u>Target Date</u>	
		<u>Completed Date</u>	

The Joint Committee [noted] general agreement to invite participants to assess if a particular frequency channel should be used for MEOSAR reference beacons, or if any non-operational-beacon frequency channel up to channel K (406.052 MHz) inclusive, could be used, and provide amendments to document C/S T.012 as appropriate.

Remarks

<u>Domain</u>	Technical	<u>Item No.</u>	TWG-31/AI.016
<u>Action By</u>	participants	<u>Section</u>	JC-31/Report/5.2.11
<u>Key Words</u>	Homing Signals	<u>Status</u>	Ongoing
<u>Short Form</u>	Conduct 406 MHz homer testing and investigate susceptibility of payloads to in-band interference	<u>Start Date</u>	27 October 2017
<u>Sys Doc(s)</u>	C/S T.018	<u>Target Date</u>	
		<u>Completed Date</u>	

The Joint Committee noted general agreement to invite interested participants, as a component of the proof-of-concept testing associated with SGBs, taking caution not to interfere with the operational system (especially LEOSAR), to conduct 406 MHz homer testing and investigate the susceptibility of the LEOSAR, MEOSAR, and GEOSAR payloads to in-band interference.

Remarks

<u>Domain</u>	Technical	<u>Item No.</u>	TWG-31/AI.017
<u>Action By</u>	participants	<u>Section</u>	JC-31/Report/5.2.12
<u>Key Words</u>	Homing Signals	<u>Status</u>	Ongoing
<u>Short Form</u>	Bring matter of programmatic risks of in-band 406 MHz homing signal to Council's attention, seek guidance on its pursuit	<u>Start Date</u>	27 October 2017
<u>Sys Doc(s)</u>	C/S T.018	<u>Target Date</u>	
		<u>Completed Date</u>	

The Joint Committee noted general agreement to invite interested Participants to bring this matter to the Council's attention and to request that they consider the programmatic risks associated with the potential introduction of an in-band 406 MHz homing signal, and provide guidance on the continued pursuit of this feature by the Programme.

Remarks See documents JC-33/3/8 and JC-33/3/19, JC-33/3/25 and JC-33/3/30.

<u>Domain</u>	Technical	<u>Item No.</u>	TWG-31/AI.019
<u>Action By</u>	participants	<u>Section</u>	JC-31/Report/6.1.45
<u>Key Words</u>	Test Facilities	<u>Status</u>	Ongoing
<u>Short Form</u>	Develop concept of internal antenna associated with ELT(AF), associated test configuration(s)	<u>Start Date</u>	27 October 2017

Sys Doc(s)

Target Date

Completed Date

The Joint Committee noted from discussion of document JC 31/6/1-Corr.1 general agreement to invite participants to:

- a) further develop the concept of internal antenna associated with ELT(AF);
- b) propose associated test configuration(s) that could be used to validate a beacon capable of a meeting a certain level of performance; and
- c) present their results and possible amendments to beacon specifications and type-approval procedures for both FGBs and SGBs at JC-32.

Remarks

<u>Domain</u>	Technical	<u>Item No.</u>	TWG-32/AI.006
<u>Action By</u>	participants	<u>Section</u>	JC-32/Report/3.3.19 (d)
<u>Key Words</u>	FGB, SGB	<u>Status</u>	Ongoing
<u>Short Form</u>	Determine which features for FGBs and SGBs should only be factory-configurable	<u>Start Date</u>	26 October 2018

Sys Doc(s)

Target Date

Completed Date

The Joint Committee [noted] general agreement to invite participants to determine which features for both first- and second-generation beacons should only be factory-configurable, and develop proposed amendments to appropriate Cospas-Sarsat documentation for submission to future Cospas Sarsat meetings in 2019[.]

Remarks

<u>Domain</u>	Technical	<u>Item No.</u>	TWG-32/AI.009
<u>Action By</u>	participants	<u>Section</u>	JC-32/Report/3.3.19 (g)
<u>Key Words</u>	SGB, Type Approval	<u>Status</u>	Ongoing
<u>Short Form</u>	Discuss need for formal oversight of the type approval results table	<u>Start Date</u>	26 October 2018

Sys Doc(s) C/S T.021

Target Date

Completed Date

The Joint Committee [noted] general agreement to invite participants to intersessionally discuss views regarding the need for formal oversight of the type approval results table (Annex E) in document C/S T.021, and prepare proposals for discussion at future Council meetings[.]

Remarks See documents EWG-1/2021/4/2, JC-35/3/5 -Rev.1 and JC-35/3/10.

<u>Domain</u>	Technical	<u>Item No.</u>	TWG-33/AI.002
<u>Action By</u>	Secretariat	<u>Section</u>	JC-33/Report/3.3.20 (a)
<u>Key Words</u>	SGB, SGB EIRP Measurements	<u>Status</u>	Ongoing
<u>Short Form</u>	Study issue of beacon manufacturers' reliance on application of measurement uncertainty to meet EIRP requirements during EIRP recalculation	<u>Start Date</u>	21 June 2019
<u>Sys Doc(s)</u>		<u>Target Date</u>	19 May 2020
		<u>Completed Date</u>	

After discussion of the report of the TWG Splinter Group on FGB Technical Documents, the Joint Committee noted general agreement to invite the Secretariat to further study the issue of beacon manufacturers' reliance on the application of the measurement uncertainty to meet EIRP requirements during EIRP recalculation[.]

Remarks

<u>Domain</u>	Technical	<u>Item No.</u>	TWG-34/AI.007
<u>Action By</u>	participants	<u>Section</u>	JC-34/Report/5.2.19 (a)
<u>Key Words</u>	Ground Segment	<u>Status</u>	Ongoing
<u>Short Form</u>	Review whether matching National Location or Standard Location protocols based on default beacon IDs should be allowed for messages containing invalid fixed bits	<u>Start Date</u>	23 November 2020
<u>Sys Doc(s)</u>	C/S T.001, C/S T.019	<u>Target Date</u>	
		<u>Completed Date</u>	

The Joint Committee also noted from discussion of the report of the chair of the Splinter Group on Ground Segment Technical Documentation general agreement to invite participants to review whether matching National Location or Standard Location protocols based on default beacon IDs should be allowed for messages containing invalid fixed bits, and propose amendments, as appropriate, to section 4.2.6.1, "C/S T.001 Message Association", of document C/S T.019 for consideration at JC-35[.]

Remarks

<u>Domain</u>	Technical	<u>Item No.</u>	TWG-34/AL011
<u>Action By</u>	participants	<u>Section</u>	JC-34/Report/5.2.19 (e)
<u>Key Words</u>	Ground Segment	<u>Status</u>	Ongoing
<u>Short Form</u>	Provide test data and analysis from real beacons, beacon simulators, and simulation results to verify and define moving beacon speed categories	<u>Start Date</u>	23 November 2020
<u>Sys Doc(s)</u>		<u>Target Date</u>	
		<u>Completed Date</u>	

The Joint Committee also noted from discussion of the report of the chair of the Splinter Group on Ground Segment Technical Documentation general agreement to invite participants to:

- provide test data and analysis from real beacons, beacon simulators, and simulation results to:
 - verify that the location probability and location accuracy performance requirements for the new slow-moving (medium-speed) beacon category were appropriate,
 - define the location accuracy requirements that remained “TBD” for the fast-moving beacon category,
- report their findings at JC-35 or future EWG meetings on LUT commissioning[.]

Remarks See documents JC-35/5/4, JC-35/5/5, JC-35/5/6-Corr.1 and JC-35/5/7. Outstanding "TBD" for the fast-moving beacon category.

<u>Domain</u>	Administrative	<u>Item No.</u>	CSC-59/OPN/D.016 (b)
<u>Action By</u>	participants	<u>Section</u>	CSC-59/OPN/SR/4.3.26 (b)
<u>Key Words</u>	Type Approval	<u>Status</u>	Ongoing
<u>Short Form</u>	Review the roles and responsibilities of the Secretariat and beacon manufacturers, to ensure timely, efficient, and accurate updating of TAC information in local databases of MCCs	<u>Start Date</u>	08 February 2018
<u>Sys Doc(s)</u>		<u>Target Date</u>	
		<u>Completed Date</u>	

The Council DECIDED to invite interested Participants to consider the potential need to review the roles and responsibilities of the Secretariat and beacon manufacturers, to ensure timely, efficient, and accurate updating of TAC information in local databases of MCCs[.]

Remarks The new IBRD will have functionality to maintain TAC information (built into the original specification because it is required to determine beacon type for SGB), and provide it to MCCs and RCCs as required.
