

**3rd ITU INTER-REGIONAL WORKSHOP
ON WRC-15 PREPARATION
(Geneva, 1 – 3 September 2015)**

**Panel Session 2
WRC-15 Agenda items
1.16, 1.4, 1.15**

Christian Rissone

**3rd ITU INTER-REGIONAL
WORKSHOP ON WRC-15
PREPARATION**

**GENEVA, SWITZERLAND
1-3 SEPTEMBER 2015**

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To consider regulatory provisions and spectrum allocations to enable possible new Automatic Identification System (AIS) technology applications and possible new applications to improve maritime radiocommunication in accordance with Resolution **360 (WRC-12)**;
Resolution **360 (WRC-12)**: Consideration of regulatory provisions and spectrum allocations for enhanced Automatic Identification System technology applications and for enhanced maritime radiocommunication

According to the complexity four issues have been identified to develop methods to satisfy the agenda item. For each of these issues methods to satisfy the agenda item have been developed. The issues are complementary to each other.

- Issue A: Application-specific messages, AIS protection
- Issue B: New applications for the maritime radiocommunication – terrestrial component
- Issue C: New applications for the maritime radiocommunication – satellite component
- Issue D: VDES regional solution

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Issue A: Application-specific messages, AIS protection

- **A1** identifies the channels 2027 and 2028 of RR Appendix 18 for the application-specific message (ASM) not necessary for the safety of navigation and ensure protection of AIS1, AIS2, 2027 and 2028 by not allowing ships to transmit on channels 2078, 2019, 2079 and 2020.
- **A2** identifies alternate channels 87 and 88 for the ASM channels and ensures the protection of AIS 1 and AIS 2 by power limitation on channels 2078, 2019, 2079 and 2020.
- **A3** identifies the channels 2027 and 2028 of RR Appendix 18 for the application-specific message (ASM) not necessary for the safety of navigation and ensure protection of AIS1, AIS2, 2027 and 2028 by appropriate actions including not allowing ships to transmit on channels 2078, 2019, 2079 and 2020.

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Issue A : ASM identification, AIS protection









Method	APT	ASMG	ATU	CEPT	CITEL	RCC
A1 Identification of channels 2027 and 2028 for ASM, AIS protection by forbidden usage on channels 2078, 2019, 2079 and 2020	Support	Support	TBD	Support	Support	
A2 Identification of channels 87 and 87, power limitation on channels 2078, 2019, 2079 and 2020 for AIS protection			TBD			Support
A3 Identification of channels 2027 and 2028 for ASM			TBD			

Issue B: New applications for the maritime radiocommunication – terrestrial component

- Method B1 identifies the channels 24, 84, 25 and 85 for the terrestrial component of the VDE.
- Method B2 identifies the possibility to use the channels 24, 84, 25, 85, 26 and 86 for the terrestrial component of the VDE.

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Issue B: Terrestrial component for VDES

						
Method	APT	ASMG	ATU	CEPT	CITEL	RCC
B1 channels 24, 84, 25 and 85 for the terrestrial component of the VDE	Support	Support	TBD	Support	no proposal	
B2 channels 24, 84, 25, 85, 26 and 86 for the terrestrial component of the VDE			TBD		no proposal	Support

Issue C: Satellite component for VDES

Method	SAT-VDE channel (uplink) (effective date) (Referenced ITU-R Recommendation.)	SAT-VDE channel (downlink) pfd mask (effective date) (Referenced ITU-R Recommendation.)	ASM satellite detection (effective date) (Referenced ITU-R Recommendation.)
C1-A	1024, 1084, 1025, 1085, 1026 and 1086 MMSS (Earth-to-space), Secondary (1 Jan. 2019) (Rec. ITU-R M.[VDES])	2024, 2084, 2025, 2085, 2026 and 2086 MMSS (space-to-Earth), Secondary RR Article 5 (1 Jan. 2019) (Rec. ITU-R M.[VDES])	2027, 2028 MMSS (Earth-to-space), Secondary (1 Jan. 2019) (Rec. ITU-R M.[VDES])
C1-B	1024, 1084, 1025, 1085, 1026 and 1086 MMSS (Earth-to-space), Secondary (1 Jan. 2019) (Rec. ITU-R M.[VDES])	2024, 2084, 2025, 2085, 2026 and 2086 MMSS (space-to-Earth), Primary Annex 1 to RR Appendix 5 (1 Jan. 2019) (Rec. ITU-R M.[VDES])	2027, 2028 MMSS (Earth-to-space), Secondary (1 Jan. 2019) (Rec. ITU-R M.[VDES])
C2	148-149 MHz MSS(Earth-to-space), Primary (existing) (No referenced ITU-R Recommendation)	137-138 MHz MSS(space-to-Earth) Secondary RR Article 9 (existing) (No referenced ITU-R Recommendation)	148-149 MHz MSS(Earth-to-space), Primary (existing) (No referenced ITU-R Recommendation)

Issue C: Satellite component for VDES

						
Method	APT	ASMG	ATU	CEPT	CITEL	RCC
C1-A secondary allocation for uplink and downlink of satellite VDES, ASM satellite detection	Support	Support			Support partially	
C1-B secondary allocation for uplink of satellite VDES and primary allocation for downlink of satellite VDES, ASM satellite detection				Support		
C2 Satellite component in the existing MSS allocation			Support			Support

Issue D: VDES regional solution

Method (unique) provides a regional VDES solution, utilizing channels 80, 21, 81, 22, 82, 23 and 83.

- – Channels 80, 21, 81 and 22 can be used using multiple 25 kHz contiguous channels for both ship and coast station transmission as regional use.
- – Channel 82 can be used for both ship and coast station transmission as regional use.
- – Channels 23 and 83 can be used using multiple 25 kHz contiguous channels for both ship and coast station transmission as regional use.

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Issue D : VDES regional solution



Method	APT	ASMG	ATU	CEPT	CITEL	RCC
VDES regional solution	Support	Support	Support	No proposal	No proposal	No proposal

To consider possible new allocation to the amateur service on a secondary basis within the band 5 250-5 450 kHz in accordance with Resolution **649 (WRC-12)**;

Resolution **649 (WRC-12)**: Possible allocation to the amateur service on a secondary basis at around 5 300 kHz

Agenda item 1.4 – CPM Methods

- **Method A:** An allocation to the ARS, on a secondary basis, for one or more blocks of spectrum (not necessarily contiguous) in the range 5 275 kHz to 5 450 kHz.
 - **Method A1** allocation to the ARS, on a secondary basis in the frequency band, 5 275-5 450 kHz.
 - **Method A2** allocation to the ARS, on a secondary basis in the range 5 350 to 5 450 kHz.
 - **Method A3** allocation to the ARS up to 15 kHz or [xx] kHz, on a secondary basis, in the range 5 275 kHz to 5 450 kHz.
 - **Method A4** allocation to the ARS at several specific channels, on a secondary basis, in the range 5 275 kHz to 5 450 kHz.
- **Method B:** No changes to Frequency Allocation Table of Radio Regulations in the frequency band 5 250-5 450 kHz.

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Method	APT	ASMG	ATU	CEPT	CITEL	RCC
A1 secondary allocation to ARS 5 275-5 450 kHz	no		Support		Support	Oppose
A2 secondary allocation to ARS in the range 5 350 to 5 450 kHz	P		Support	consider		Oppose
A3 secondary allocation to the ARS up to 15 kHz or [xx] kHz, in the range 5 275 kHz to 5 450 kHz	A	Support 5 435-5450 kHz + new footnote	Support	consider		Oppose
A4 secondary allocation to the ARS at several specific channels, in the range 5 275 kHz to 5 450 kHz	C		Support			Oppose
B NOC	P			consider		Support

To consider spectrum demands for on-board communication stations in the maritime mobile service in accordance with Resolution **358 (WRC-12)**;

Resolution **358 (WRC-12)**: Consideration of improvement and expansion of on-board communication stations in the maritime mobile service in the UHF bands

Agenda item 1.15 – CPM Methods

Method (unique): No new frequency bands are proposed for on-board communication, but in order to have a more efficient usage of the existing frequencies it is proposed to introduce digital technologies and to encourage the use of mitigation technologies, such as continuous tone coded squelch systems (CTCSS), digital coded squelch (DCS) and listen before talk (LBT), as a way to mitigate the impression of congestion to the user.

This is intended to be achieved with a revision of Recommendation ITU-R M.1174-2 during the study period. Amendments to RR No. **5.287** are proposed to reflect these changes.

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Method	APT	ASMG	ATU	CEPT	CITEL	RCC
(Unique) Modification to RR No. 5.287 , no additional frequencies	Support	Support	Support	Support	Support	Support

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**Thank you for your
attention**

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