ESOA response to the Consultation Amendment to Annex A.5 of EETT Decree 721/2 / 12-06-2014 "Regulation of Terms of Use of Individual Radiofrequencies or Zones" (Government Gazette 1713 / B / 26-06-2014)

Introduction

About ESOA

ESOA, the EMEA Satellite Operators Association, is the world's only CEO-driven satellite association and leads a coordinated and impactful response to the global challenges and opportunities the commercial satellite communications sector faces. Established as a non-profit organisation, ESOA has as its objective to serve and promote the common interests of global and regional satellite operators headquartered in Europe, the Middle East, Africa and the Commonwealth of Independent States (CIS) who deliver information communication services across the globe.[1]

General Comments

ESOA is pleased to respond to the Greek consultation on Amendment to Annex A.5 of EETT Decree 721/2 / 12-06-2014 "Regulation of Terms of Use of Individual Radiofrequencies or Zones" (Government Gazette 1713 / B / 26-06-2014)

ESOA wishes to highlight the importance of CEPT/ECC Decisions and Reports; ECC/DEC/(15)/04 , ECC/DEC/(17)04, ECC/DEC/(18)04 and ECC/DEC/(18)/05, as well as of ECC Report 272, for the harmonised use, exemption from individual licensing and free circulation of ESOMPs and ESIMs in relevant FSS frequency bands. Implementation of these Decisions provide the opportunity for citizens and consumers of Greece to benefit wide ranging innovative communications provided in Greece by the satellite sector as a part of global or European deployments. Access to spectrum, exemption from individual licensing and free circulation within the CEPT are crucial elements for the success of such services.

In this regard, ESOA welcomes the implementation of these ECC Decisions with the national regulation on spectrum usage of Greece. The public consultation prepared by EETT is a welcome initiative as it will greatly enhance the chances of meeting the objectives set by these ECC Decisions. ESOA is pleased to acknowledge it and to respond with the specific comments below.

Response to EETT question (Annex B of the consultation document)

[1] A complete list of ESOA Members can be found at www.esoa.net

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1. Do you agree with the proposed amendment to EETT's Terms of Use of Radio Frequencies or Radio Frequency Bands? If not, justify your answer.

ESOA fully welcomes and agrees with the proposed EETT's amendments, subject to the following comments.

Comments

We are pleased to provide following comments. We have also provided an attachment showing changes needed to the Table in the Consultation. ESOA would be grateful for the kind consideration of the comments provided.

In relation to ECC/DEC/(17)04 and ECC/DEC/(18)05:

- With regard to frequency bands 10.7-11.7 GHz and 12.5-12.75 GHz for use of ESIM (non-geostationary satellite), the table makes references to ECC/DEC/(18)/04. However, the ECC Decision relation to ESIM (non-geostationary satellite) is ECC/DEC/(18)/05, we have amended the table accordingly. These satellite links are Earth to space and in such cases the Report 272 does not apply. We have amended the table to delete such references to Report 272 in some instances. These amendments are made to the table and shown in the attached document which reproduces the table given in the Consultation document.

- With regard to frequency bands 10.7-11.7 GHz, 12.5-12.75 GHz and 14 – 14.5 GHz relating to the ECC/DEC/(17)04 the table lists the "Uses" as Ground stations (with non-geostationary satellite). The term "Ground" could be mis-understood as gateways operating to such networks – therefore we have replaced "Ground stations" with "Fixed earth stations" – also the term used in the ECC/DEC/(17)04. This amendment is made to the table and shown in the attached document which reproduces the table given in the consultation document.

- ESOA found that the band 11.7 – 12.5 GHz has not been included in the table showing the amendments to the regulations. ECC/DEC/(17)04 and ECC/DEC/(18)05 designate the 10.7 – 12.75 GHz band (under the available fixed satellite service allocation) for fixed earth stations and ESIM, respectively. The portion 11.7 – 12.5 GHz band is made available to the fixed satellite service under No 5.492 of the Radio Regulations. This proposed amendment is shown in the attached document which reproduces the table given in the consultation document.

In relation to ECC/DEC/(18)04:

- The ECC/DEC/(18)04 identifies the use of the bands 10.7 – 12.75 and 14 – 14.5 GHz for *land based* ESIM. The proposed amendments to the regulations shown in the table do not indicate that ESIM are land based. This amendment is made to the table and shown in the attached document which reproduces the table given in the consultation document.

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- The Report 272 does not apply to space to Earth links – i.e. the 10.7 -12.75 GHz band. Therefore, the reference to Report 272 in such cases have been deleted. The amendments made to the table are shown in the attached document which reproduces the table given in the consultation document.

- ESOA found that the band 11.7 – 12.5 GHz has not been included in the table showing the amendments to the regulations. The ECC/DEC/(18)04 designates the 10.7 – 12.75 GHz band (under the available fixed satellite service allocation) for land based ESIM. The portion 11.7 – 12.5 GHz band is made available to the fixed satellite service under No 5.492 of the Radio Regulations. This proposed amendment is shown in the attached document which reproduces the [the table given in] the consultation document.

In relation to ECC/DEC/(15)04:

- The ECC/DEC/(15)04 addresses the bands 17.3-20.2 GHz (space to Earth), and 27.5-29.1 GHz and 29.5-30.0 GHz (Earth to space). Therefore, the band 29.4525-29.500 GHz included in these regulations are outside the scope of application of the ECC Decision. If this band is made available in Greece for Earth to space links, it could be subjected to the same conditions as the ECC/DEC/(15)04.

- The ECC/DEC/(15)04 in its Annex 3 recognises that NGSO ESOMP of the O3b system operate with EIRP up to 70 dBW. Studies conducted by the CEPT recognised that such operation does not lead to any interference situations other than for the protection of aircraft near airfields. For this reason, we urge the Greek administration to reconsider the stated "Maximum permitted radiated power 60 dBW (eirp)" given against the uplink bands, and align it with the ECC Decision by increasing maximum EIRP to 70 dBW. The Greek administration may consider referencing the Report 272 in relation to this ECC Decision or uplink frequency bands, so that up to date information could be taken into account when authorising specific NGSO ESOMP.

- ESOA found that a reference to "paragraph B.26" in connection with a number of frequency bands (14.0-14.5 GHz, 27.5-27.8285 GHz, 28.4445-28.9485 GHz, 29.4525-29.5 GHz and 29.5 -30.0 GHz). We believe this is a reference to a national regulation. It would help if that could be made clear.

The table below was extracted from the Consolation document. The amendments to be made are shown as track-changes to the original document.

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The following amendment is proposed:

Frequency Band (MHz)	Uses	Right of use	Equipment Standards (ETSI)	Additional Requirements
10700 – 11700 (s-E)	Land based ESIM[2]	Not required	EN 302 977 (VMES) EN 302 448 (Trains)	The stations operate under the control of a satellite network that is subject to a General License regime. Usage is not protected against interference from other services operating in the same frequency band. The ECC / DEC / (18) 04 ~~and ECC Report 272 apply.~~
	ESIM (non-geostationary satellite)	Not required	EN 303 980	The stations operate under the control of a satellite network that is subject to a General License regime. Usage is not protected against interference from other services operating in the same frequency band. The ECC / DEC / (18) 05~~4 and ECC Report 272~~ applies~~y~~.
	Fixed earth ~~Ground~~ stations (with non-geostationary satellite)	Not required	EN 303 980	The stations operate under the control of a satellite network that is subject to a General License regime. Usage is not protected against interference from other services operating in the same frequency band. ECC / DEC / (17) / 04 referred to apply.
	Land based ESIM	Not required	EN 302 977 (VMES)	The stations operate under the control of a satellite

[2] ESIM: Earth Stations in Motion

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Frequency Band (MHz)	Uses	Right of use	Equipment Standards (ETSI)	Additional Requirements
11700-12500 (s-E)[3]			EN 302 448 (Trains)	network that is subject to a General License regime. Usage is not protected against interference from other services operating in the same frequency band. The ECC / DEC / (18) 04 applies.
	ESIM (non-geostationary satellite)	Not required	EN 303 980	The stations operate under the control of a satellite network that is subject to a General License regime. Usage is not protected against interference from other services operating in the same frequency band. The ECC / DEC / (18) 05 applies.
	Fixed earth stations (with non-geostationary satellite)	Not required	EN 303 980	The stations operate under the control of a satellite network that is subject to a General License regime. Usage is not protected against interference from other services operating in the same frequency band. ECC / DEC / (17) / 04 applies..
	ESIM	Not required	EN 302 977 (VMES) EN 302 448 (Trains)	The stations operate under the control of a satellite network that is subject to a General License regime. Usage is not protected against interference from other services operating in the same frequency band. The ECC / DEC / (18) 04 applies. ~~and ECC Report 272 apply.~~

[3] This band in available to the fixed satellite service under No 5.492 of the Radio Regulations

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Frequency Band (MHz)	Uses	Right of use	Equipment Standards (ETSI)	Additional Requirements
12500–12750 (s-E)	ESIM (non-geostationary satellite)	Not required	EN 303 980	The stations operate under the control of a satellite network that is subject to a General License regime. Usage is not protected against interference from other services operating in the same frequency band. The ECC / DEC / (18) 054 applies. ~~and ECC Report 272 apply.~~
	Fixed earth ~~Ground~~ stations (with non-geostationary satellite)	Not required	EN 303 980	The stations operate under the control of a satellite network that is subject to a General License regime. Usage is not protected against interference from other services operating in the same frequency band. ECC / DEC / (17) / 04 referred to apply.
14000–14500 (E-s)	ESIM	Not required	EN 302 977 (VMES) EN 302 448 (Trains)	The stations operate under the control of a satellite network that is subject to a General License regime. A declaration of the stations to EETT is required according to a model published by EETT. Maximum permitted radiated power 54.5 dBW (eirp). For the rest, the ECC / DEC / (18) 04 and ECC Report 272 apply.
	ESIM (non-geostationary satellite)	Not required	EN 303 980	The stations operate under the control of a satellite network that is subject to a General License regime. A declaration of the stations to EETT is required according to a model published by EETT.

Frequency Band (MHz)	Uses	Right of use	Equipment Standards (ETSI)	Additional Requirements
				Maximum permitted radiated power 54.4 dBW (eirp). The ECC / DEC / (18) / 05 and ECC Report 272 apply.
	Fixed earth ~~Ground~~ stations (with non-geostationary satellite)	Not required	~~EN 303 980~~	The stations operate under the control of a satellite network that is subject to a General License regime. A declaration of the stations to EETT is required according to a model published by EETT. Maximum permitted radiated power ~~60~~ 70 dBW (eirp). Limitations on the minimum allowable distance from the outer enclosure of aerodromes and heliports shall apply in accordance with paragraph B.26. For the rest, the ECC / DEC / (17) / 04 applies.
17300-17700 (s-E)	ESOMP (non-geostationary satellite)	Not required	EN 303 979	The stations operate under the control of a satellite network that is subject to a General License regime. ECC / DEC / (15) / 04 referred to apply.
17700-19700 (s-E)	ESOMP (non-geostationary satellite)	Not required	EN 303 979	The stations operate under the control of a satellite network that is subject to a General License regime. ECC / DEC / (15) / 04 referred to apply.
19700-20200 (s-E)	ESOMP (non-geostationary satellite)	Not required	EN 303 979	The stations operate under the control of a satellite network that is subject to a General License regime. ECC / DEC / (15) / 04 referred to apply.
	ESOMP (non-geostationary satellite)	Not required	EN 303 979	The stations operate under the control of a satellite network that is subject to a General License regime.

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Frequency Band (MHz)	Uses	Right of use	Equipment Standards (ETSI)	Additional Requirements
27500,0-27828,5 (E-s)				For stations with specific technical characteristics according to ECC / DEC / (15) 04 Decision. Maximum permitted radiated power 70~~60~~ dBW (eirp). Minimum permissible distance from the outer enclosure of aerodromes as set out in paragraph B.26 and Annex A.3 of ECC / DEC / (15) 04 Decision apply. The highest resonance distance value is used
28444,5-28948,5 (E-s)	ESOMP (non-geostationary satellite)	Not required	EN 303 979	The stations operate under the control of a satellite network that is subject to a General License regime. For stations with specific technical characteristics according to ECC / DEC / (15) 04 Decision. Maximum permitted radiated power 60 dBW (eirp). Restrictions on minimum allowable distance from external fencing of airports in accordance with paragraph B.26 and Annex A.3 of ECC / DEC / (15) 04 Decision. The highest resonance distance value is used.
29452,5-29500,0 (E-s)	ESOMP (non-geostationary satellite)	Not required	EN 303 979	The stations operate under the control of a satellite network that is subject to a General License regime. For stations with specific technical characteristics according to ECC / DEC / (15) 04 Decision. Maximum permitted radiated power ~~60~~ 70 dBW (eirp). Minimum permissible distance from the outer enclosure of aerodromes as set out in paragraph B.26 and Annex A.3 of ECC / DEC / (15) 04 Decision apply. The highest

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Frequency Band (MHz)	Uses	Right of use	Equipment Standards (ETSI)	Additional Requirements
				resonance distance value is used.
29500-30000 (E-s)	ESOMP (non-geostationary satellite)	Not required	EN 303 979	The stations operate under the control of a satellite network that is subject to a General License regime. For stations with specific technical characteristics according to ECC / DEC / (15) 04 Decision. Maximum permitted radiated power ~~60~~70 dBW (eirp). Minimum permissible distance from the outer enclosure of aerodromes as set out in paragraph B.26 and Annex A.3 of ECC / DEC / (15) 04 Decision apply. The highest resonance distance value is used.

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