

Consultation Document

Proposed amendments to the general authorisation regime for radiocommunications apparatus

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1. INTRODUCTION

In simple terms, radiocommunications apparatus refers to apparatus that transmits or receives signals by means of radio waves. In Malta, this type of apparatus is regulated by the Electronic Communications (Regulation) Act (Cap. 399) and regulations made thereunder, as well as by other specific regulations such as the Radio Equipment Regulations (S.L. 427.41).

The Electronic Communications (Regulation) Act requires that the installation or use of radiocommunications apparatus is subject to the grant of an individual licence issued in writing by the Malta Communications Authority ('MCA' or 'Authority'), unless the apparatus is licence exempt or regulated by a general authorisation. The licence-exempt framework is established by the Radiocommunications Apparatus Exempt Order (S.L. 399.42) whilst the apparatus general authorisation framework is currently established by the General Authorisations (Radiocommunications Apparatus) Regulations (S.L. 399.40).

The latter type of framework (i.e. S.L. 399.40) is a light-licensing framework for radiocommunications apparatus that does not need to be licensed individually due to limited risks of causing harmful interference. Apparatus which shall be used without any regulatory barriers in accordance with European Union law or deliverables adopted within the framework of the Electronic Communications Committee ('ECC') of the European Conference for Postal and Telecommunications Administrations ('CEPT') is also regulated through this instrument. The aforesaid ECC deliverables are revised regularly to take into account technological and regulatory developments and aim to harmonise the spectrum management environment across the CEPT member countries.

During 2021, the Authority examined the various spectrum management deliverables adopted by the ECC which include provisions concerning the licensing of radiocommunications apparatus. On the basis of this assessment the Authority considers necessary to revising the radiocommunications apparatus general authorisation framework as set out by the General Authorisations (Radiocommunications Apparatus) Regulations (S.L. 399.40) to either align current provisions with those of the ECC or else to implement new ECC deliverables for the purpose of facilitating the introduction of new radio services in Malta.

In accordance with its obligations under Article 4A of the Malta Communications Authority Act (Chapter 418 of the Laws of Malta), the Authority welcomes written comments and representations from interested parties and stakeholders during the national consultation period. Responses received will assist the Authority in determining the best approach for regulating the radiocommunications apparatus described in this Consultation document which pursuant to Article 30A of Cap. 399 will be in the form of a decision.



2. PURPOSE

The General Authorisations (Radiocommunications Apparatus) Regulations (S.L. 399.40) is the national light-licensing framework for radiocommunications apparatus. This framework allows radiocommunications apparatus compliant with the set technical conditions to proliferate and therefore provides opportunities for growth to economic operators and the general public in terms of availability of different wireless solutions which could be used for a variety of applications.

As stated earlier in this document, these Regulations contribute towards the implementation of European Union legislation concerning the harmonised use of radio spectrum where risks of causing harmful interference are limited and therefore the associated radiocommunications apparatus shall be placed on the market without restrictions. Similarly, these Regulations also serve to implement a number of deliverables adopted by the ECC which include provisions concerning exemption from individual licensing.

The General Authorisations (Radiocommunications Apparatus) Regulations are revised regularly to implement the international obligations of Malta as emanate from European Union legislation as well as from international treaty instruments such as the Radio Regulations of the International Telecommunication Union. As regards ECC deliverables, these are implemented by Malta on a voluntary basis.

The MCA considers to be good practice to aligning national regulatory instruments with those of the ECC in order to provide better opportunities to introduce new radio applications on the market.

On the basis of a technical and regulatory assessment undertaken during 2021, the MCA considers necessary to amend the General Authorisations (Radiocommunications Apparatus) Regulations for the purpose of:

- a) aligning current provisions with those included in the most recent version of ECC deliverables;
- b) implementing new ECC deliverables and by doing so regulate new radio systems on a lightlicensing framework; and
- c) achieving better harmonisation of the radio spectrum for certain radiocommunications apparatus which is currently allowed to operate on non-harmonised radio spectrum.

The MCA is therefore proposing a number of amendments to the general authorisation licensing framework as applicable to radiocommunications apparatus and through this consultation it is seeking to receive written comments and representations on these proposals.



3. PROPOSED AMENDMENTS TO THE RADIOCOMMUNICATIONS APPARATUS GENERAL AUTHORISATION FRAMEWORKS.L. 399.40

The arrangement of the General Authorisations (Radiocommunications Apparatus) Regulations (S.L. 399.40) comprises a set of general conditions and various schedules aimed to regulate the installation and use of specific radiocommunications apparatus. The schedules therefore include the technical and operational conditions applicable to the type of apparatus falling within the scope of that schedule, such as the operating frequency band, power limitations, location of installation/use, etc.

The proposed amendments being put forward in this consultation intend to revise the following schedules and to introduce new ones concerning specific satellite earth stations.

6th Schedule

Model control

17th Schedule

•Earth Stations on Mobile Platforms operating with Geostationary Satellite Networks in the 17/19 GHz and 28/29 GHz bands

21st Schedule

•Very Small Aperture Terminals (VSAT) in the 11/12/14 GHz bands

23rd Schedule

• High e.i.r.p. satellite Terminals (HEST) in the 11/14/19/29 GHz bands

25th Schedule

•Earth station on board Vessels (ESV) in the 4/6 GHz and 11/14 GHz bands

34th Schedule

•Land and Maritime Earth Stations on Mobile Platforms (ESOMPs) operating with Non-Geostationary Satellite Networks in the 17/19 GHz and 28/29 GHz bands

3.1 Proposed Amendments to the Sixth Schedule

This schedule applies to model control radiocommunications apparatus, operating on various frequency channels between the 26 MHz and 41 MHz bands. The table below represents the technical parameters for model control apparatus as currently established in the Sixth Schedule.



Mand			datory Parameters		Informative Parameters
Oper	rating free	quency	Maximum power limit	Additional technical and/or usage restrictions	Recommended (harmonized) standard
26.975, 27.045, 27.125, 27.195, MHz	26.995, 27.075, 27.145, 27.225,	27.025, 27.095, 27.175, 27.245	100 mW e.r.p.	Channel spacing: 10 kHz	EN 300 220
34.400, 35.000, 35.060, 35.090, 35.120, 35.150, 35.180, 35.210, 35.300, 3	34.700, 35.010, 35.040, 35.070, 35.100, 35.130, 35.160, 35.190, 35.220, 35.600 M	34.990, 35.020, 35.050, 35.110, 35.140, 37.170, 35.200, 35.230, Hz	100 mW e.r.p.	Channel spacing: 10 kHz Usage limited to flying models only	EN 300 220
40.665, 40.695, 40.735, MHz	40.675, 40.715, 40.765,	40.685, 40.725, 40.775	100 mW e.r.p.	Channel spacing: 10 kHz	EN 300 220
41.000, 41.030, 41.060, 41.110, 41.140, 41.170, 41.200 N	41.010, 41.040, 41.070, 41.120, 41.150, 41.180, MHz	41.020, 41.050, 41.100, 41.130, 41.160, 41.190,	100 mW e.r.p.	Channel spacing: 10 kHz Usage limited to flying models only	EN 300 220

Table 1 - Technical conditions for model control as currently in force

The MCA notes that these frequencies were included in the radiocommunications apparatus general authorisation framework in June 2011, in replacement of the individual licensing regime which was still applicable prior to this period. These frequencies represent:

- a) radio spectrum harmonised for model control apparatus pursuant to Commission Decision 2006/771/EC (as amended) concerning short range devices;
- b) radio spectrum harmonised for model control in accordance with ERC Decision (01)11 and ERC Decision (01)12;
- c) legacy installations of model control apparatus which was authorised for use under the individual licensing regime applicable prior to June 2011.



The MCA is aware that at least during the last decade, new wireless technologies for model control applications were introduced which make use of other radio spectrum bands, such as the 2.4 GHz, in accordance with S.L. 399.40¹. This development has therefore provided an alternative towards the availability and use of legacy model control systems and to some extent makes certain frequencies in the lower bands redundant.

The MCA is responsible for the effective management of the radio spectrum and as a result of the above developments, it is proposing to limit the designation of radio frequencies for model control applications to those established in Commission Decision 2006/771/EC, ERC Decision (01)11 and ERC Decision (01)12. It should be clarified that the proposed amendment to the model control framework will not affect in any manner the availability of other frequency designations, such as the 2.4 GHz band. The table 2 below provides the proposed modifications to the technical framework for model control apparatus.

Mandatory Parameters			Informative Parameters
Operating frequency	Maximum power limit	Additional technical and/or usage restrictions	Recommended (harmonized) standard
26.975, 26.995, 27.025, 27.045, 27.075, 27.095, 27.125, 27.145, 27.175, 27.195 , 27.225, 27.245 MHz	100 mW e.r.p.	Channel spacing: 10 kHz	EN 300 220
34.400, 34.700, 34.990, 35.000, 35.010, 35.020, 35.030, 35.040, 35.050, 35.060, 35.070, 35.080, 35.090, 35.100, 35.110, 35.120, 35.130, 35.140, 35.150, 35.160, 37.170, 35.180, 35.190, 35.200, 35.210, 35.220 , 35.230, 35.300, 35.600 MHz	100 mW e.r.p.	Channel spacing: 10 kHz Usage limited to flying models only	EN 300 220
40.665, 40.675, 40.685, 40.695 , 40.715, 40.725, 4 0.735, 40.765, 40.775 MHz	100 mW e.r.p.	Channel spacing: 10 kHz	EN 300 220

¹ The Second and Fourth Schedules include the framework for the use of 2.4 GHz the band.



Mandatory Parameters			Informative Parameters
Operating frequency	Maximum power limit	Additional technical and/or usage restrictions	Recommended (harmonized) standard
41.000, 41.010, 41.020, 41.030, 41.040, 41.050, 41.060, 41.070, 41.100, 41.110, 41.120, 41.130, 41.140, 41.150, 41.160, 41.170, 41.180, 41.190, 41.200 MHz	100 mW e.r.p.	Channel spacing: 10 kHz Usage limited to flying models only	EN 300 220

Table 2 - Proposed revisions to the general authorisation applicable to model control

Question 1:	Further to MCA's alignment of the current frequency designations for model control
	apparatus with those established in European Union law and ECC deliverables, the
	frequencies in strikethrough propose further changes to address legacy channels
	which may no longer apply.
	Please provide justifications in case of disagreement with this proposal.

3.2 Proposed Amendments to the Seventeenth Schedule

In 2013, the ECC adopted ECC Decision (13)01 on the use, free circulation, and exemption from individual licensing of earth stations on mobile platforms (ESOMPs) in the frequency bands available for use by uncoordinated fixed-satellite service (FSS) earth stations within the ranges 17.3-20.2 GHz and 27.5-30.0 GHz. ESOMPs are defined as terminals with small directional antennas for the provision of wireless broadband communication services, operating in geostationary satellite networks. Subsequently, in October 2018 and July 2021 the ECC adopted modifications to ECC Decision (13)01 as a result of technical and regulatory assessments.

The 2013 version of the ECC Decision was implemented by Malta in 2015, through modifications to the National Frequency Plan and amendments to S.L. 399.40.

In this regard the MCA is proposing amending the 17th Schedule for the purpose of aligning the relevant technical and operational conditions with those established in the latest version of ECC Decision (13)01. These amendments include:

- making available the new frequency range between 28.8365 GHz and 28.9485 GHz for ESOMPs in the Earth-to-space (uplink) direction;
- increasing in the maximum e.i.r.p. level from 55 dBW to 60 dBW;



• introducing new technical criteria in line with ECC Report 272², aimed to ensuring electromagnetic compatibility between satellite terminals and aircraft avionics.

Question 2:	Do you agree with MCA's proposal to make available the 28.8365 - 28.9485 GHz band for ESOMPs? Please provide justifications in case of disagreement.
Question 3:	Do you agree with MCA's proposal to align the current provisions as established in the 17 th Schedule of S.L. 399.40 with those established in the latest edition of ECC Decision (13)01?

Please provide justifications in case of disagreement.

3.3 Proposed Amendments to the Twenty-First Schedule

This schedule applies to Very Small Aperture Terminals (VSATs). VSATs could be described as earth stations that share satellite resources among a large number of similar terminals. Individual VSAT terminals typically have small aperture sizes, transmit at relatively low equivalent isotropically radiated power (e.i.r.p.) levels, and use relatively small apparatus that allows flexible installation of a satellite network earth station directly at a wide variety of user locations and platforms.³

In 2010, a modification was introduced to regulate VSATs under the general authorisation licensing framework (i.e. S.L. 399.40) on the basis of ECC Decision (03)04. This ECC decision establishes the criteria for the exemption of individual licensing of VSATs operating in the 14.25-14.5 GHz (Earth-to-Space) and 10.7-11.7 GHz (Space-to-Earth) bands.

This ECC decision was revised in 2019 to introduce a new set of technical criteria in line with ECC Report 272, aimed to ensuring electromagnetic compatibility between satellite terminals and aircraft avionics. In this regard, the MCA is proposing to align the current technical and operational conditions for VSATs with those contained in the latest edition of ECC Decision (03)04. As a result, VSATs will be subject to compliance with the following new criteria:

- maximum HIRF field strength of 190 V/m in the 14.25-14.5 GHz band;
- maximum e.i.r.p. limit of 50 dBW;
- in respecting the maximum e.i.r.p. limit, VSATs operating within TDMA networks shall consider the duty cycle in accordance with ECC Report 272.

Question 4: Do you have any comments on MCA's proposal as outlined above?

² ECC Report 272 on the "Earth Stations operating in the frequency bands 4-8 GHz, 12-18 GHz and 18-40 GHz in the vicinity of aircraft". This Report provides the maximum earth station e.i.r.p. levels to ensure compliance with aircraft High Intensity Radiated Field (HIRF) protection criteria as provided by the European Aviation Safety Agency (EASA).

³ Refer to Report ITU-R S.2278 - Use of very small aperture terminals (VSATs).



3.4 Proposed Amendments to the Twenty-Third Schedule

The 23rd Schedule applies to High e.i.r.p. Satellite Terminals (HEST) operating in the following frequency ranges:

- 10.7-12.75 GHz (space-to-Earth)
- 11.7-12.5 GHz (space-to-Earth)
- 14.0-14.25 GHz (Earth-to-space)
- 19.7-20.2 GHz (space-to-Earth)
- 29.5-30 GHz (Earth-to-space)

This Schedule was added to S.L. 399.40 in 2010 to implement ECC Decision (06)03. In addition to the technical conditions, the ECC Decision adopted an individual licence-exempt approach but with the possibility of introducing a simple registration process on the location where the HEST is to be installed and operated. This ECC Decision was last revised in 2019.

The 2019 revisions to ECC Decision (06)03 introduced new technical criteria in line with ECC Report 272, aimed to ensuring electromagnetic compatibility between satellite terminals and aircraft avionics. In this regard, the MCA is proposing to align the current technical and operational conditions for HEST with those contained in the latest edition of ECC Decision (06)03. As a result, HEST will be subject to compliance with the following revised criteria:

- maximum HIRF field strength of 190 V/m in the 14.25-14.5 GHz band and 150 V/m in the 29.50-30.00 GHz band;
- maximum e.i.r.p. limit of 60 dBW;
- in respecting the maximum e.i.r.p. limit, HEST operating within TDMA networks shall consider the duty cycle in accordance with ECC Report 272.

Question 5: Do you agree with the MCA's proposal to align the current framework for HEST with that established in the latest version of ECC Decision (06)03? Please provide justifications in case of disagreement.

3.5 Proposed Amendments to the Twenty-Fifth Schedule

The 25th Schedule applies to Earth Stations on board Vessels (ESV) operating in the 5925-6425 MHz (Earth-to-space), 3700-4200 MHz (space-to-Earth), 14-14.5 GHz (Earth-to-space), 10.7-11.7 GHz (space-to-Earth) and 12.5-12.75 GHz (space-to-Earth) bands. This Schedule was added to S.L. 399.40 in 2010 to implement ECC Decision (05)09 and ECC Decision (05)10.

The aforementioned ECC Decisions were adopted in 2005 and amended on various occasions to take into account developments taken into account internationally, within the ambit of the International Telecommunication Union (ITU). Of particular relevance is footnote 5.457A and Resolution 902 of the ITU Radio Regulations.



In this regard the MCA is proposing to revise the current 25th Schedule of S.L. 399.40 for the purpose of aligning with the latest versions of ECC Decisions (05)09 and (05)10.

Question 6:	Consultees are invited to review ECC Decision (05)09 and ECC Decision (05)10.
	Do you foresee any regulatory or technical difficulty in the adhering to the 25 th
	Schedule as revised?

3.6 Proposed Amendments to the Thirty-Fourth Schedule

The 34th Schedule applies to Earth Station on board Mobile Platforms operating with Non-Geostationary Satellite Networks (NGSO) in the frequency ranges 17.3-20.2 GHz, 27.5-29.1 GHz and 29.5-30.0 GHz. It was introduced in 2018 following a request made by the satellite industry.

This Schedule implements the 2015 version of ECC Decision (15)04 which establishes a harmonised licensing framework for NGSO land and maritime ESOMPs in the above-mentioned frequency bands. Subsequently, this ECC Decision was amended in 2019 and 2020.

In this regard the MCA is proposing amending the 34th Schedule in order to align current provisions with those established in the latest version of ECC Decision (15)04 and by doing so make the 34th Schedule also applicable to aeronautical ESOMPs operating with NGSO satellite systems. Consequently, on the basis of ECC Report 272, a set of power limits will be introduced to protect aeronautical systems using the assumptions and methodology provided by EASA.

Question 7:	Consultees are invited to review ECC Decision (15)04.
	Do you agree with MCA's proposal to align the 34 th Schedule with the latest version of ECC Decision (15)04, and by doing so make the general authorisation framework also applicable to aeronautical ESOMPs? Please provide justifications in case of disagreement.

3.7 Proposal to regulate certain satellite terminals by an apparatus general authorisation

A number of satellite earth stations are regulated by an apparatus general authorisation, as currently established under the General Authorisation (Radiocommunications Apparatus) Regulations. Nonetheless, the satellite sector is continuously developing and as a result, new satellite technologies and systems are introduced. On the basis of technical studies, during recent years the ECC adopted the deliverables described in Table 3 below, to harmonise the spectrum management of these new systems and the licensing framework of the associated satellite terminals.



Reference	Description
ECC Decision (17)04	ECC Decision of 30 June 2017 on the harmonised use and exemption from individual licensing of fixed earth stations operating with NGSO FSS satellite systems in the frequency bands 10.70-12.75 GHz and 14.00-14.50 GHz.
ECC Decision (18)04	ECC Decision of 6 July 2018 on the harmonised use, exemption from individual licensing and free circulation and use of land based Earth Stations In-Motion (ESIM) operating with GSO FSS satellite systems in the frequency bands 10.7-12.75 GHz and 14.0-14.5 GHz
ECC Decision (18)05	ECC Decision of 6 July 2018 on the harmonised use, exemption from individual licensing and free circulation and use of Earth Stations In-Motion (ESIM) operating with NGSO FSS satellite systems in the frequency bands 10.7-12.75 GHz and 14.0- 14.5 GHz

Table 3 - List of new ECC deliverables

The MCA has examined these deliverables and considers to be opportune to implement them through an apparatus general authorisation regime. It should be underlined that in implementing these instruments the MCA does not see a need to depart from any of the regulatory conditions established therein.

Question 8:	Consultees are invited to review ECC Decision (17)04, ECC Decision (18)04 and
	ECC Decision (18)05. Do you agree with MCA's proposal to implement these ECC
	deliverables?
	Please provide justifications in case of disagreement.

Question 9:	In addition to the ECC deliverables described in table 3 above, do you consider that
	the MCA should consider implementing other new ECC deliverables?
	Please substantiate your comments.



4. CONSULTATION FRAMEWORK

In accordance with its obligations under Article 4A of the Malta Communications Authority Act [Cap. 418 of the Laws of Malta], the MCA welcomes written comments and representations from stakeholders during the consultation period which shall run from the 29th October 2021 to the 30th November 2021.

For the sake of clarity and ease of understanding, the MCA encourages stakeholders to structure their comments in order and in line with the section numbers and sub-section numbers used throughout this document.

The MCA appreciates that respondents may provide confidential information in their feedback to this consultation document. This information is to be included in a separate annex and should be clearly marked as confidential. Respondents are also requested to state why the information should be treated as confidential.

The MCA will take the necessary steps to protect the confidentiality of all such material in accordance with the MCA's confidentiality guidelines and procedures. Respondents are however encouraged to avoid confidential markings wherever possible.

The MCA will, after taking into consideration the responses received to this consultation, publish a new decision establishing the apparatus general authorisation framework, in accordance with the Electronic Communications (Regulation) Act (Cap. 399).

All responses should be submitted electronically to the MCA on <u>consultations@mca.org.mt</u>, and addressed to the Chief of Spectrum Management and Technology. The consultation period will run until **12.00hrs. CET** of the **30th November 2021**.

Extensions to the consultation deadline will only be permitted in exceptional circumstances and where the MCA deems fit. The MCA reserves the right to grant or refuse any such requests at its discretion. Requests for extensions are to be made in writing within the first ten (10) working days of the consultation period.