



# ECC Decision (06)03

Exemption from Individual Licensing of high e.i.r.p. satellite terminals (HEST) operating within the frequency bands 10.70-12.75 GHz or 19.70-20.20 GHz space-to-Earth and 14.00-14.25 GHz or 29.50-30.00 GHz Earth-to-space

**Approved 24 March 2006**

**Amended: 8 March 2019**

## EXPLANATORY MEMORANDUM

### 1 INTRODUCTION

Licensing is an appropriate tool for administrations to regulate the effective use of the frequency spectrum and to avoid harmful interference. However intervention from the administrations as far as the installation and use of equipment is concerned needs to be proportionate. Administrations and especially users, retailers and manufacturers will benefit from a more deregulated system of authorising the use of radio equipment.

This Decision intends to provide for individual licence exemption of satellite terminals operating with e.i.r.p. above 34 dBW and below 60 dBW within the CEPT. These terminals operate within the frequency bands 10.70-12.75 or 19.70-20.20 GHz (space-to-Earth) and 14.00-14.25 GHz or 29.50-30.00 GHz (Earth-to-space) under the control of the satellite system, providing digital communications. They operate with geostationary satellites, and they are envisaged for unattended operation.

### 2 BACKGROUND

There is a general agreement that when the efficient use of the frequency spectrum is not at risk and as long as harmful interference is unlikely, the installation and use of radio equipment might be exempted from individual licensing. Within EU/EFTA countries the Radio Equipment (RE) Directive [1] introduces the principle that individual licensing is only justified for reasons related to the effective/efficient use of the spectrum and the avoidance of harmful interference. Furthermore, Directive 2002/20/EC (the Authorisation Directive) provides that, when the risk of harmful interference is negligible, the use of radio frequencies shall be governed by general authorisation.

In general, the CEPT administrations apply similar systems of licensing and exemption from individual licensing. However, different criteria are used to decide whether radio equipment should be licensed or exempted from an individual licence.

The provision of Pan European wide services will be greatly assisted when all CEPT administrations would exempt the same categories of radio equipment from licensing and apply -to achieve that- the same criteria to decide on this.

When radio equipment is subject to an exemption from individual licensing, anyone can have installed and use the radio equipment without any prior individual permission from the Administration. Furthermore, the Administration will not register the individual equipment. The use of the equipment can be subject to general provisions or general authorisation.

The electromagnetic compatibility between satellite terminals and aircraft avionics has been examined in ECC Report 272 [1] 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.

Maximum e.i.r.p. levels for earth stations retained in this Decision are equal to or lower than maximum e.i.r.p. based on ECC Report 272 that ensures compliance with aircraft HIRF protection criteria. Therefore, the maximum e.i.r.p. levels indicated in this Decision implicitly provides the necessary protection for aircraft HIRF.

It is not in the scope of this Decision to cover the requirements applicable for the limitation of exposure of the general public to electromagnetic fields as defined in Council Recommendation 1999/519/EC [6].

### 3 REQUIREMENT FOR AN ECC DECISION

ERC Recommendation 01-07 [3] that was adopted in 1995 listed harmonised criteria for the administrations to decide whether an exemption of individual license should be applied.

The aim of this Decision is to exempt satellite terminals with e.i.r.p. above 34 dBW and less than 60 dBW, and for which the conditions of this Decision apply, from individual licensing, because they fulfil the criteria for exemption listed in ERC Recommendation 01-07.

**ECC DECISION OF 24 MARCH 2006 ON EXEMPTION FROM INDIVIDUAL LICENSING OF HIGH E.I.R.P. SATELLITE TERMINALS (HEST) OPERATING WITHIN THE FREQUENCY BANDS 10.70-12.75 GHZ OR 19.70-20.20 GHZ SPACE-TO-EARTH AND 14.00-14.25 GHZ OR 29.50-30.00 GHZ EARTH-TO-SPACE (ECC/DEC/(06)03), AMENDED ON 8 MARCH 2019**

“The European Conference of Postal and Telecommunications Administrations,

*considering*

- a) that within the CEPT administrations there is an ongoing awareness of a need for harmonisation of licensing regimes in order to facilitate the provision of Pan European wide services;
- b) that it therefore would be desirable for CEPT administrations to have common licence regimes at their disposal in order to control the installation, ownership and use of radio equipment;
- c) that there is a strong desire within the CEPT administrations to reduce the control exercised by administrations in the form of mandatory provisions;
- d) that there is a common EU regulatory framework for electronic communications applying to the Member States of the EU, to the EEA and to some countries associated to the EU;
- e) that there are sometimes considerable differences in national licensing, laws and regulations amongst CEPT administrations and that harmonisation therefore can only be introduced gradually;
- f) that national licensing regimes should be as simple as possible, in order to minimise the burden upon the administrations and users of equipment;
- g) that intervention by the national administrations with respect to the use of radio equipment should in general not exceed the level necessary for the efficient use of the frequency spectrum;
- h) that administrations should work towards the exemption of relevant radio equipment from individual licensing based on harmonised criteria detailed in ERC Recommendation 01-07 [3];
- i) that in the frequency band 10.70-12.50 GHz, fixed service systems are being operated on a shared basis;
- j) that ERC Decision (00)08 establishes the priority between fixed service and uncoordinated earth stations in the fixed satellite service and the broadcasting satellite service in the band 10.70-12.50 GHz;
- k) that there is an increasing demand for systems providing broadband access to the internet and that this may require satellite terminals operating at higher transmit powers than those previously used;
- l) that in EU/EFTA countries the use of such equipment shall comply with the RE Directive [1]. Conformity with the essential requirements in its Article 3(2) may be demonstrated by compliance with harmonised standard EN 301 459 [4] or EN 301 428 [5] or equivalent technical specifications;
- m) that some CEPT administrations may require that HEST network operators obtain frequency authorisation due to national regulatory requirements; similarly, some CEPT administrations may require a simple form of registration or location check prior to transmission from any location;
- n) that some CEPT administrations may require a maximum e.i.r.p. for license exempted HESTs in the range 50-60 dBW;
- o) that RR 5.492 addresses the use of broadcasting-satellite service assignments by the fixed-satellite service (space-to-Earth) in the band 11.7-12.5 GHz;
- p) that this Decision shall not impede EEA member countries from fulfilling their obligations according to Community law;

**DECIDES**

1. to exempt from individual licensing HESTs that fulfil considering l), without prejudice to considering m), and
  - a) operate with geostationary satellites as part of the fixed satellite service (FSS) within the frequency bands 10.70-12.75 GHz or 19.7-20.2 GHz (space-to-Earth) and 14.00-14.25 GHz or 29.50-30.00 GHz (Earth-to-space), and the broadcasting satellite service (BSS) within the frequency bands 11.70-12.50 GHz (space-to-Earth) under the control of the satellite system, providing digital communications, and
  - b) use an equivalent isotropically radiated power (e.i.r.p.) greater than 34 dBW and comply with the following requirements that ensure compliance with aircraft HIRF protection criteria based on ECC Report 272 [2], using maximum HIRF field strengths of 190 V/m in 14.00-14.25 GHz and 150 V/m in 29.50-30.00 GHz:
    - i. The maximum e.i.r.p. of HESTs shall be limited to 60 dBW ;
    - ii. The maximum e.i.r.p. of HESTs operating within TDMA networks shall be respected after taking into consideration the duty cycle (see section 3.3 and 3.4 of ECC Report 272);
    - iii. When an antenna is coupled to more than one transmitter or a transmitter provides more than one carrier (multi-carrier operation), the above e.i.r.p. level is the sum of all simultaneous emissions from the antenna on the main lobe;
2. that this Decision enters into force on 24 March 2006.
3. that the preferred date for implementation of this Decision shall be 1 October 2006.
4. that CEPT administrations shall communicate the national measures implementing this Decision to the ECC Chairman and the Office when the Decision is nationally implemented.”

**Note:**

*Please check the Office documentation database <https://www.ecodocdb.dk> for the up to date position on the implementation of this and other ECC Decisions.*

## ANNEX 1: LIST OF REFERENCES

This annex contains the list of relevant reference documents.

- [1] Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC
- [2] ECC Report 272: "Earth Stations operating in the frequency bands 4-8 GHz, 12-18 GHz and 18-40 GHz in the vicinity of aircraft", January 2018
- [3] ERC Recommendation 01-07: "Harmonised regime for exemption from individual licensing for the use of radio spectrum", revised June 2004
- [4] ETSI EN 301 459 v2.1.1: "Satellite Earth Stations and Systems (SES); Harmonised Standard for Satellite Interactive Terminals (SIT) and Satellite User Terminals (SUT) transmitting towards satellites in geostationary orbit, operating in the 29,5 GHz to 30,0 GHz frequency bands covering the essential requirements of article 3.2 of the Directive 2014/53/EU"
- [5] ETSI EN 301 428 V2.1.2: "Satellite Earth Stations and Systems (SES); Harmonised Standard for Very Small Aperture Terminal (VSAT); Transmit-only, transmit/receive or receive-only satellite earth stations operating in the 11/12/14 GHz frequency bands covering the essential requirements of article 3.2 of Directive 2014/53/EU"
- [6] Council Recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)