

**BELGIAN INSTITUTE FOR POSTAL
AND TELECOMMUNICATIONS**

Feature: Decision RAM 24/04/2012

**DECISION OF THE COUNCIL OF THE INSTITUTE
OF 24 APRIL 2012
ON
THE FREQUENCY, AND POWER TRANSMISSION MODES WHICH MAY
USED BY THE RADIO AMATEURS**

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1. Introduction

Nature of decision

The decision of the BIPT Council relates to the change of frequencies, capabilities 1 and transmission modes for radio amateurs are permitted.

There are three major changes to the table that is listed in the Annex to the draft:

1. increase the maximum allowed power for holders of basic license, to the problem of the disappearance of the market equipment which meet current standards;
2. permission for the holders of a HAREC license to use a Part of the 70-MHz band which is free of users;
3. increase the maximum allowed power for holders of a HAREC-permit.

Legal basis

Under Article 13 of the Act of 13 June 2005 on electronic communications BIPT is responsible for managing the spectrum of radio frequencies.

Under Article 5 § 1 of the Royal Decree of 18 December 2009 on private radio communications and user for fixed networks and trunked, BIPT provides the technical requirements for the use of radio equipment.

2. Justification

To meet the expectations of the radio amateurs and to cope of different problems, the frequency bands for radio amateurs may use and the terms of use for those tires to be revised. The following changes are made:

**A. Increase the maximum allowed power for holders
a basic license (C license).**

Currently it is radio amateurs holding a basic license a power of 10 watts to be used in the HF bands (High Frequency: less than 30 MHz). Under Article 12 of the Ministerial Decree of 9 January 2001 on the

1 This increases the ability of radio amateurs is not exempt from the obligation to radiation standards to comply imposed by the various regional governments.
2 See Article 2, § 5, 2 °, Article 5 and Article 25 of the Ministerial Decree of 9 January 2001 on the establishment and operation of radio stations by radio amateurs.

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establishment and operation of radio stations by radio amateurs were allowed to equipment with a maximum power of 20 watts.

However, it should be noted that no commercial equipment today meets those constraints. Therefore, the maximum allowable for transmission facilities to be reviewed.

To HAREC licenses 3 attractive to, a limit is applied to the ties that are permitted for holders of a basic license with callsign ON3 (See column "Section" of the table "Basic Permits" in the Appendix). This restriction does not apply to the holders of a basic license with callsign-ON2 (see column "Section" of the table "Basic Permits" in the Appendix), since this more thorough examination is conducted.

**b. Increasing the maximum allowed power for holders
HAREC of a license (A license).**

Given the emergence of new devices on the market, also the maximum power that allowed for the holders of a license in certain frequency bands HAREC can be increased.

Since there is no failure, may also the maximum allowed power also increased be provided this is indicated to BIPT.

**c. Permission for the holders of a license to HAREC
Part of the 70**

**MHz frequency
band to be used**

BIPT has the 69,950 MHz frequency band opened for holders of HAREC license by the decision of the BIPT Council of 12 November 2009.

There was an extension to the BIPT of this frequency band in order requested more countries to communicate. Only Germany is indeed the frequency 69,950 MHz increasing.

Many European countries allow radio amateurs in various parts of the 70,000 - 70.500 MHz band. In Belgium, only the 70.200 to 70.400 MHz band be made available to radio amateurs provided that the requirement of prior notification to the BIPT is observed.

3 Article 1, 9, of the Ministerial Decree of 9 January 2001 on the establishment and the operation of radio stations by radio amateurs: *"HAREC-certificate: the" Harmonised Certificate for the exam of amateur radio "on the basis of mutual recognition by the CEPT Member States"*, see Similarly, Article 2 § 5, 1, Article 5 and Article 6 of the same decision. A HAREC license corresponds with an A license within the meaning of the aforementioned decision.

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3. Consultation

BIPT public consultation of 27 March 2012 to April 6, 2012.

There were a total of 38 submissions were received due to radio amateurs, clubs and associations (UBA⁴, VRA⁵ et UFRC⁶).

The result of the consultation is summarized below.

a Contributions not taken into account

- Modification of the rule of 3 dB

Several amateur radio operators have proposed to power the ON2 ON3 a 10-watt , but in order to allow the apparatus is held with an output power of 100 watts.

- Limited duration of the permit ON3

There is also proposed to ON3 permit limit in time.

These proposals were not examined because they are outside the jurisdiction of the BIPT lie. Such changes should be the subject of an amendment to the Ministerial Decision of 9 January 2001 on the establishment and operation of radio stations by radio amateurs.

b. Analysis of the contributions

What points in connection with the HAREC licenses, there is no negative comments received.

What the ON3 licensing purposes:

1. Increasing the maximum RF power

- Proposal to amend the 100 W devices to allow only a maximum of 20 watts of output to get.

This solution is by BIPT investigated but not considered as such change involves the loss of the guarantee of the new devices and because the new devices such change through the programming to be done and so easy to circumvent.

4UBA: Royal Union of Belgian Amateur Radio
5VRA: Flemish Radio Amateurs
6UFRC: Union Francophone des Radio Clubs

2. Limitations in the frequency bands and transmission modes

- Request for the D-Star mode to maintain

This request is considered as quite a few ON3's equipment have purchased.

- Request more channels for ON3's to maintain, especially for Morse.

This request is partially granted to the HF bands. For the bands 144-146 MHz and 430-440 MHz, the ON3 and ON2's the same privileges.

- Ban on TV for the ON3's

It was decided to only ban ATV and DATV.

4. Decision

The BIPT decided to holders of a permit to allow ham to the bands in the Annex to this decision to use the specified power and transmission modes.

This Decision shall enter into force on the day of publication on the BIPT website.

5. Remedies

Under the law of 17 January 2002 concerning the remedies and

Under the law of 17 January 2003 concerning the remedies and handling disputes following the Act of 17 January 2003 regarding the status of the regulator of the Belgian postal and telecommunications sector, you have the ability to challenge this decision to appeal to the Court of Appeal of Brussels, Poelaertplein 1, B-1000 Brussels. The appeal is, under penalty of nullity, which automatically is pronounced, established through a signed petition that is filed with the Clerk of the Court of Appeal of Brussels, within sixty days after notification of the decision or in the absence of a notification, after the publication of the decision or in the absence of a publication, after receiving notification of the decision.

The petition is filed with the clerk of the court of appeal in so many copies as there are parties. The petition contains the void listed in Article 2, § 2 of the Act of 17 January 2003 concerning the remedies and handling disputes following the Act of 17 January 2003 on the status of the regulator of the Belgian postal and telecommunications sector.

Axel Desmedt
Member of the Board

Charles Cuveliez
Member of the Board

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Member of the Board

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Chairman of the Board

Appendix: Frequency bands and technical characteristics allowed for different classes of amateur radio licenses.

HAREC licenses

Section	Allowed	Frequency	Status	Permitted	Verwijzing
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Section	Allowed power in watts	Frequency MHz		Status (I)	Permitted classes of broadcast	Verwijzingen (II)
CEPT HAREC	1 W EIRP or ERP	Of	To	S	All classes of broadcast his allowed	
	5 W EIRP	0.501	0.504	S	A1A	6
	200 (*)	1.81	1.83	See removing	All classes of broadcast his allowed	1
		1.83	1.85	PEX		
	10	1.85	2.00	S		
	200 (*)	3.5	3.8	P		
		7.0	7.1	PEX		2
		7.1	7.2	S		
		10.1	10.15	S		
		14.0	14.35	PEX		2
		18.068	18.168			2
		21.0	21.45			2
		24.89	24.99			2
		28.0	29.7			2
	50 (**)	50.0	52.0	S		
	10 W EIRP	69.950	69.950			7, 8
	10	70.200	70.400			8
	200 (*)	144.0	146.0	PEX		2
		430.0	440.0	P		3
	50 (**)	1240.0	1260.0	S		9
		1260.0	1300.0	S		3, 4
		2300.0	2450.0			3, 5
		5650.0	5725.0			3, 4
		5725.0	5850.0			2, 5
		10000.0	10450.0			
		10450.0	10500.0			2
		24000.0	24050.0	PEX		2, 5
		24050.0	24250.0	S		
		47000.0	47200.0	PEX		2
		75500.0	76000.0	P		2
		76000.0	81000.0	S		2
		142000.0	144000.0	PEX		2
		144000.0	149000.0	S		2
		241000.0	248000.0			2
		248000.0	250000.0	PEX		2
(*) 1500 W subject to notification to the BIPT						
(**) 200W subject to notification to the BIPT						

Section	Allowed power in watts	Frequency MHz		Status (I)	Permitted classes of broadcast	Verwijzingen (II)
ON2 / O N9A	50	The / of	À / to			
		1810	1830	See remove sing	All classes of broadcast his allowed except ATV et DATV	1
	10	1830	1850	PEX		
		1850	2000	S		
	50	3500	3800	P		
		7000	7100	PEX		2
		7100	7200	S		
		10.100	10.150	S		
		14.000	14.350	PEX		2
		18.068	18.168			2
		21.000	21.450			2
		24.890	24.990			2
		28.000	29.700			2
		50.000	52.000	S		
		144.000	146.000	PEX		2
		430.000	440.000	P		3

Section	Allowed power in watts	Frequency MHz		Status (I)	Permitted classes of broadcast	Verwijzingen (II)
ON3	50	The / of	À / to			
		3500	3700	P	All classes of broadcast his allowed except ATV et DATV	
		7000	7100	PEX		
		10.110	10.150	S		
		14.000	14.085	PEX		2
		14.250	14.350			
		18.080	18.168			2
		21.040	21.100			2
		21.320	21.450			
		24.900	24.990			2
		28.040	29.700			2
		50.125	52.000	S		
		144.000	146.000	PEX		2
		430.000	440.000	P		3

I. Status

P - Primary service.

PEX - primary and exclusive service.

S - Secondary service. The stations of a secondary service must not interfere cause of a primary service stations and enjoy no protection against interference by stations of a primary service.

II. References.

(1) The stations of the amateur service in the frequency band from 1.81 to 1.83 MHz must not interference to stations of primary or secondary service and receive no protection against interference from stations of the primary service.

(2) The frequency segments:

7000	-	7100	MHz
14.000	-	14.250	MHz
18.068	-	18.168	MHz
21.000	-	21.450	MHz
24.890	-	24.990	MHz
28.000	-	29.700	MHz
144.000	-	146.000	MHz
5830.000	-	5850.000	MHz
10.450	-	10.500	GHz
24.000	-	24.050	GHz
47.000	-	47.200	GHz
75.500	-	81.000	GHz
142.000	-	149.000	GHz
241.000	-	250.000	GHz

may be used for the amateur satellite service with the same status as the amateur service.

(3) The amateur-satellite service may operate in the bands 435.0 to 438.0 MHz, 1260.0 to 1270.0 MHz, 2400.0 to 2450.0 MHz, 5650.0 to 5670.0 MHz on condition that there are no harmful interference results for other services.

(4) The use of the tires from 1260.0 to 1270.0 and 5650.0 and 5670.0 MHz by the amateur service by satellite is limited to the direction of earth-space.

(5) The 2400 frequency 2483.5 MHz, 5725.0 to 5875.0 MHz, 24.0 to 24.25 GHz and 244.0 - 246.0 GHz are used for high frequency industrial, scientific, medical and domestic purposes. Failures caused by applications that need to be acceptable.

(6) Maximum Bandwidth 100 Hz

(7) Maximum Bandwidth 10 kHz

(8) Mandatory prior notification to the BIPT

(9) This frequency band may not be used for unmanned automatic stations

Symbols of the classes of broadcast

1. First symbol (modulation of the carrier wave form)

N = unmodulated carrier

A = double sideband amplitude modulation with *

B = Amplitude Modulation with independent sidebands

H = Amplitude Modulation with single sideband, full carrier *

R = Amplitude Modulation with single sideband, reduced or variable carrier *

J = Amplitude Modulation with single sideband, suppressed carrier *

C = amplitude modulation with vestigial sideband (vestigial sideband) *

F = Frequency Modulation **

G = Phase Modulation **

D = The broadcast of which the carrier wave as well as a frequency-amplitude phase modulated, either simultaneously or in a set order

P = unmodulated pulse train

K = Pulse Train, amplitude modulated

L = Pulse train, modulated in length or duration

M = Pulse Train, or phase modulated in position

Q = Pulse train, wherein the carrier frequency-or phase-modulated during the pulse time

V = Pulse train, which is a combination of the above or in some other way is to create come

W = Cases which are not covered by these symbols and in which a broadcast consists of a carrier wave, which at the same time or in a predetermined sequence modulated with a combination of two or more of the following ways: amplitude, frequency, phase or pulse

X = Other cases

* Includes transmissions wherein the auxiliary carrier (subcarrier) frequency-or phase-modulated is.

** If it is not known or phase or frequency modulation is used, is used the symbol "F".

2. The second symbol (type of signal modulates the carrier wave)

0 = no modulation present

1 = a single channel with quantified, or digital information without the use of a modulating subcarrier

2 = a single channel with digital information, or quantified by use of a modulating subcarrier

3 = a single channel with the analog information

7 = quantified with two or more channels or digital information

8 = two or more channels of analogue information

9 = composed system, which contains one or more channels with digital or quantified and one or more information channels of analogue information

X = Other cases

3. The third symbol (type of information transmitted)

N = no information (to include information of a constant, non-variable type, such as eg standard frequencies, radar pulses, etc.)

A = morsetelegrafie intended to be included in the hearing

B = Telegraphy for automatic reception

C = facsimile

D = data transmission

E = telephony

F = television

W = combination of the above

X = other cases,

- = Indication that a code or a combination of codes, is applicable.

