

**Decision**  
**awarding a right of use for frequencies to INMARSAT Ventures Ltd for operation of 2 GHz**  
**Mobile-Satellite Services on national territory**

## **1. Framework**

### **1.1. EU selection process**

On 27 February 2007, the European Commission adopted **Decision No 2007/98/EC**<sup>1</sup>, which aimed to promote European harmonisation of the use of 2 GHz frequency bands by systems providing Mobile-Satellite Services.

Given the cross-border nature of services concerned, the advantages of pan-European coverage were undeniable, as fragmentation of the internal market would be prevented and complex harmful interference situations would be avoided. As such, it was additionally considered that 2 GHz MSS system operators should be selected and authorized at Community level.

The legal framework for this process was laid down in Decision of the European Parliament and of the Council, of 30 June 2008 (**Decision No 626/2008/EC**)<sup>2</sup>, which defined a **Community procedure for the selection of 2 GHz MSS operators** as well as **applicable common obligations**, the authorization of selected operators being subsequently incumbent on each Member State, at national level.

As such, under paragraph 1 of article 7 of Decision No 626/2008/EC, Member States must ensure that selected applicants have the right to use the specific radio frequencies identified in the Commission decision and the right to operate a mobile satellite system, in accordance with the time frame and the service area to which they have committed themselves, in accordance with paragraph 1 c) of article 4 and with national and Community law.

Paragraph 2 of the referred provision establishes **common conditions** to which these rights of use are subject, namely:

- a) selected applicants shall use the assigned radio spectrum for the provision of MSS;*
- b) selected applicants shall meet milestones six to nine set out in the Annex within 24 months of the selection decision adopted pursuant to Articles 5(2) or 6(3);*
- c) selected applicants shall honour any commitments they give in their applications or during the comparative selection procedure, irrespective of whether the combined demand for radio spectrum exceeds the amount available;*

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<sup>1</sup> On the harmonised use of radio spectrum in the 2 GHz frequency bands for the implementation of systems providing mobile satellite services. Available at <http://eur-lex.europa.eu/legal-content/PT/TXT/?uri=CELEX%3A32007D0098&qid=1405941209457>

<sup>2</sup> On the selection and authorisation of systems providing mobile satellite services (MSS) - (<http://eur-lex.europa.eu/legal-content/PT/TXT/?uri=CELEX%3A32008D0626>)

- d) *selected applicants shall provide to the competent authorities of all Member States an annual report detailing the status of development of their proposed mobile satellite system;*
- e) *Any necessary rights of use and authorisations shall be granted for a duration of eighteen years from the date of the selection decision adopted pursuant to Articles 5(2) or 6(3).*

At the end of the selection procedure<sup>3</sup>, Commission **Decision No 2009/449/EC**<sup>4</sup>, of 13 May 2009, was published, having thus been selected, as a result of the first selection phase, the operators **INMARSAT Ventures Limited (INMARSAT)** (which was authorized to use in each Member State the sub-bands of the 1980-1995 MHz frequencies for earth to space communications and of the 2170-2185 MHz frequencies for space to earth communications) and **Solaris Mobile Limited**<sup>5</sup> (which was authorized to use in each Member State the sub-bands from 1995 to 2010 MHz for earth to space communications and from 2185 to 2200 MHz for space to earth communications).

## 1.2. ANACOM's Decision of 10 November 2011

By determination of 10 November 2011, ANACOM approved a **Decision on the authorization regime governing Mobile-Satellite Services (MSS) systems in the 2 GHz band**<sup>6</sup>, in the scope of which the Authority decided:

1. *To make the provision in the national territory of MSS systems in the 1980-2010 MHz and 2170-2200 MHz frequency bands, by applicants which are selected under the terms of Decision No 2009/449/EC, subject to the allocation by ICP-ANACOM of a right of use, covering both the satellite component and the ground component (CGC);*
2. *To make the rights of use to be allocated subject to the following conditions:*
  1. *Conditions resulting from the Community selection procedure;*
  2. *Common conditions laid down in paragraph 2 of article 7 of Decision No 626/2008/EC, regarding MSS;*
  3. *Common conditions defined in paragraph 3 of article 8 of Decision No 626/2008/EC, regarding CGC;*
  4. *Conditions resulting from paragraph 1 of article 27 of ECL, which apply by their nature;*
  5. *Conditions resulting from paragraph 1 of article 32 of ECL, among which the following are identified:*
    - i. *Right to use radio spectrum assigned for the provision of MSS;*

<sup>3</sup> The Commission published an announcement on the "Call for applications for pan-European systems providing mobile satellite services (MSS)" in the OJEU C 201 on 7.8.2008 (<http://eur-lex.europa.eu/legal-content/PT/TXT/PDF/?uri=CELEX:C2008/201/03&from=PT>).

<sup>4</sup> <http://eur-lex.europa.eu/legal-content/PT/TXT/?qid=1405941385740&uri=CELEX%3A32009D0449> .

<sup>5</sup> Company that on 16 March 2015 changed its business name to *Echostar Mobile Limited*.

<sup>6</sup> [Authorisation regime governing mobile satellite service \(MSS\) systems in the 2 GHz band](#) .

- ii. *Effective and efficient use of frequencies;*
  - iii. *Compliance with the specific conditions governing the use of radio frequencies included in radio licenses issued pursuant to Decree-Law No 151-A/2000, of 20 July;*
  - iv. *Compliance with the technical and operational conditions necessary for the non-production of harmful interference and for the limitation of public exposure to electromagnetic fields in accordance with Decree-Law No 11/2003, of 18 January, and Administrative rule No 1421/2004, of 23 November, as well as with ICP-ANACOM regulations published for the implementation thereof;*
  - v. *Period of validity of the right of use set until 14 May 2027;*
  - vi. *Payment to ICP-ANACOM of fees due under article 105 of ECL and of article 19 of Decree-Law No 151-A/2000, of 20 July, as amended by Decree-Law No 264/2009, of 28 September;*
  - vii. *Compliance with obligations arising from applicable international agreements on the use of frequencies.*
3. *To make the MSS network subject to radio licensing in the form of network licensing, pursuant to paragraph 1 of article 7 and to paragraph 1 of article 8 of Decree-Law No 151-A/2000, of 20 July.*
  4. *To amend the National Frequency Allocation Table in accordance herewith.*

## **2. Application submitted by INMARSAT**

### **2.1. Communication of INMARSAT**

By letter received on 3 June 2014, **INMARSAT** submitted to ANACOM a communication for the **provision of electronic communications networks and services under the general authorization regime**, pursuant to article 21 of Law No 5/2004, of 10 February, as amended and republished by Law No 51/2011, of 13 September, and subsequently amended - Electronic Communications Law (ECL).

In accordance with the said communication, **INMARSAT** refers that the network provision involves the use of radio spectrum in the 1980-1995 MHz (downlink) and 2170-2200 MHz (uplink) frequency bands and that, in a first stage, it intends to use the INMARSAT S band platform to provide services aimed to fulfil both the broadband electronic communication needs of air passengers as well as operational needs of airlines themselves. In a second stage, **INMARSAT** intends to provide public protection and disaster relief (PPDR) services in the case of catastrophic circumstances and, lastly, upgraded versions of services which exist today, such as services for maritime use or intended for the market niche of businesses with BGAN-type applications.

The company refers that the coverage is in compliance with common conditions within the scope of the European Union, both in geographic and population terms.

In the description of services, the company shows that its S band MSS project involves the provision of basic services, in traditional MSS markets, such as **(i)** public protection and disaster relief (PPDR) services in the case of catastrophic circumstances, **(ii)** aeronautical services and **(iii)** niche commercial services (including maritime services, land markets and applications and services for ground vehicles).

The service provision is forecasted to begin on 1 December 2016.

## **2.2. Subsequent clarifications**

Taking into account the contents of the received communication, **INMARSAT** was requested to provide additional clarifications, by email dated 5 August 2014, on **(i)** ITU designation of the Inmarsat S satellite, to be used for this service provision, as well as orbital position and respective date of entry into service; **(ii)** effective coverage of the national territory, as well as geographic and population coverage rates; **(iii)** service performance, namely as regards the number of simultaneous users (speed over 64 kbps in each direction) and overall uplink speed.

On 22 August 2014, **INMARSAT** provided by email the requested clarifications on the ITU designation of the Inmarsat S satellite to be used for this service provision, as well as on the effective coverage of the national territory, providing the geographic and population coverage rates. As far as this last issue is concerned, **INMARSAT** indicated 100% coverage for both parameters.

By email dated 28 August 2014, **INMARSAT** requested clarifications on the third issue raised by ANACOM, namely on the meaning of the terms “number of simultaneous users” and “overall uplink speed”.

ANACOM clarified, by email of 1 September 2014, that the Authority intended to know the “theoretical” number of users that could simultaneously access **INMARSAT**’s services, at speed rates of 64 kbps (or more) in each direction, taking into account the available bandwidth for this system (2x15 MHz). It further clarified that “overall uplink speed” means “overall throughput (or transmission rate) on the uplink”.

By email of 18 September 2014, **INMARSAT** confirmed that the “theoretical” number of users that could simultaneously access the company’s services (at speed rates equal to or greater than 64 kbps in each direction, taking into account the available bandwidth for this system), in line with the information indicated in its “White Book”, is 180 000, and could be as high as 200 000, depending on the implementation of the CGC station network.

Finally, by email of 21 October 2014, **INMARSAT** added that the spectral efficiency would be in the order of 600 Mbps/MHz, assuming the installation of 100 CGC under a satellite beam.

### 3. Analysis

#### 3.1. Examination of requirements for the award of a Right of Use for Frequencies (RUF)

The communication presented by **INMARSAT**, on 3 June 2014, corresponds to the model provided by ANACOM for notifying the commencement of activity pursuant to the general authorization regime under article 21 of ECL. The referred communication was completed in Portuguese, and includes the company's identification data, as well as the description of the network and services intended to be provided, being signed by a representative of **INMARSAT** whose signature was authenticated by a notary (an English notary according to recognition drafted in Portuguese) certifying the respective status.

Taking into account that:

- (i) Under ANACOM's Decision of 10 November 2011, the provision on national territory of MSS systems in the 1980-2010 MHz and 2170-2200 MHz frequency bands by applicants which are selected under the terms of Decision No 2009/449/EC is subject to the award by ANACOM of a right of use, covering both the satellite component and the ground component (CGC);
- (ii) **INMARSAT** meets the requirement established in the referred Decision, given that it is one of the operators selected under Decision No 2009/449/EC;
- (iii) Under paragraph 2 of article 76 of the Administrative Procedure Code (approved by Decree-Law No 442/91, of 15 November, which applies *ex vi* article 8 of Decree-Law No 4/2015, of 7 January, the statutory instrument that approves the new Administrative Procedure Code), *it is incumbent on this Authority to correct on its own initiative any defects in applications, so as to prevent that interested parties suffer any damage due to simple irregularities or mere imperfections when making applications*;

ANACOM takes the view that **INMARSAT's** communication constitutes, for the appropriate purposes, an application for the award of rights of use for frequencies, pursuant to and for the purposes of paragraph 6a) of article 30 of ECL, which must now be analysed.

#### 3.2. Technical Analysis

**INMARSAT** provided a detailed description of its MSS network and of the various spectrum and network management elements involved (NOC - Network Operations Centre, GRM - Global Resource Management, SSC - Satellite Control Centre, SAS - Satellite Access Stations), corresponding to what is to be expected for MSS systems.

Subsequent contacts with **INMARSAT** have clarified doubts, as referred in section 2.2.

As such, the technical analysis of this application focuses mainly on operational and technical restrictions/limitations that should be included in the RUF or in the radio license to be awarded to **INMARSAT**.

This analysis covers the four components of 2 GHz MSS systems:

- Satellite(s);
- Earth stations;
- CGC;
- Terminal equipment (end-users).

### 3.3.1 Satellites

Satellites of 2 GHz MSS networks must be duly coordinated in compliance with ITU's relevant procedures, thus ensuring that technical conditions that are imposed ensure, in principle, that harmful interference are not caused to radio stations that use the same or adjacent frequency bands.

On the other hand, as referred earlier, Decision of 10 November 2011 establishes that ANACOM must make RUF to be awarded to 2 GHz MSS operators subject to common conditions laid down in paragraph 2 of article 7 of Decision No 626/2008/EC.

In this context, it must be stressed that the common condition defined in point c) of paragraph 2 of article 7 of Decision No 626/2008/EC lays down that **“operators must honour any commitments they give in their applications or during the comparative selection procedure”**.

It is clear from the analysis of the European Selection and Authorisation Process (ESAP) that applications should include a **commitment signed by the applicant**<sup>7</sup>, according to which:

- the mobile satellite system proposed would cover a service area of at least 60 % of the aggregate land area of the Member States, from the time the provision of MSS commences;
- MSS would be available in all Member States and to at least 50% of the population and over at least 60% of the aggregate land area of each Member State by the time stipulated by the applicant but in any event no later than seven years from the date of publication of the Commission's decision adopted pursuant to paragraph 2 of article 5 or paragraph 3 of article 6 of Decision No 626/2008/EC - which became Decision No 2009/449/EC, of 13 May.

It can be observed from the analysis of *INMARSAT's* application and clarifications that this operator intends to exceed values concerning the coverage of the satellite mobile system, having notified the intention to cover 100% of the national territory (and consequently 100% of the population).

As far as satellites are concerned, apart from operational conditions already imposed via the common conditions laid down in paragraph 2 of article 7 of Decision No 626/2008/EC, no other conditions that should be included in the RUF have been identified.

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<sup>7</sup> This commitment was established in point c) of paragraph 1 of article 4 of Decision No 626/2008/EC.

### 3.3.2. Earth stations

Earth stations of 2 GHz MSS systems shall operate just like any other earth station currently holding a license in the national territory. As such, **(i)** they must be coordinated at national level so as to ensure that harmful interferences are not caused to other licensed users and **(ii)** they must also be coordinated and notified in compliance with ITU's relevant procedures, where appropriate, thus guaranteeing that technical conditions that are imposed on the referred stations ensure, in principle, that harmful interferences are not caused to radio stations used by neighbouring administrations.

In the light of the above, as far as earth stations are concerned, no other conditions that must be included in the RUF have been identified.

### 3.3.3. CGC

CGC are the ground component of 2 GHz MSS systems that raised the most issues and which, for this reason, are applied more (technical and operational) conditions in the current European regulatory framework.

In fact, CEPT Decision **ECC/DEC/(06)09**, amended on 5 September 2007<sup>8</sup>, on the designation of the bands 1980-2010 MHz and 2170-2200 MHz for use by systems in the Mobile-Satellite Service including those supplemented by a Complementary Ground Component (CGC), imposed the following technical and operational conditions:

1. The CGC must operate in the same portions of spectrum of the Mobile-Satellite Service (1980-2010 MHz and 2170-2200 MHz) authorized for associated space stations;
2. The CGC shall only be deployed in the geographical areas where the mobile Earth stations of the associated mobile-satellite system are also authorised to operate;
3. The same direction of transmission by CGC and the satellite component shall be used so as to decrease the number and complexity of compatibility issues;
4. The CGC shall not operate independently from the satellite resource/network management system;
5. The satellite segment shall be re-established as soon as possible in case of failure of the satellite segment, and no later than 18 months after such a failure, unless justified otherwise on considerations based on reasonableness and/or proportionality. Otherwise, CGC shall cease operation;
6. Compatibility with terrestrial IMT-2000/UMTS operational systems in adjacent bands should be ensured.

These conditions were integrated for the most part in common conditions stipulated in paragraph 3 of article 8 of Decision No 626/2008/EC:

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<sup>8</sup> <http://www.erodocdb.dk/Docs/doc98/official/pdf/ECCDEC0609.PDF> .

- a) operators shall use the assigned radio spectrum for the provision of complementary ground components of mobile satellite systems (**ECC Decision point 1**);
- b) complementary ground components shall constitute an integral part of a mobile satellite system and shall be controlled by the satellite resource and network management mechanism (**ECC Decision point 4**); they shall use the same direction of transmission and the same portions of frequency bands as the associated satellite components and shall not increase the spectrum requirement of the associated mobile satellite system (**ECC Decision points 1 and 3**);
- c) independent operation of complementary ground components in case of failure of the satellite component of the associated mobile satellite system shall not exceed 18 months (**ECC Decision point 5**);
- d) Rights of use and authorisations shall be granted for a period of time ending no later than the expiry of the authorisation of the associated mobile satellite system.

In the light of the above, it is deemed appropriate to specify in the **RUF** the set of **operational conditions**, referred above, to be imposed on CGC.

In addition, CEPT Decision ECC/DEC/(06)09 sets out in paragraph 5 that mobile satellite systems must ensure compatibility with terrestrial systems operating in the mobile service in the adjacent bands below 1980 MHz and between 2010 MHz and 2170 MHz.

Moreover, harmonised European standard **ETSI EN 302 574** was established in 2010, including three parts that make up the Harmonized Standard for satellite earth stations of mobile satellite systems (MSS) operating in the 1 980 MHz to 2 010 MHz (uplinks) and 2 170 MHz to 2 200 MHz (downlinks), the focus of each part being as follows:

Part 1: “Complementary Ground Component (CGC) for wideband systems: Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive”;

Part 2: “User Equipment (UE) for wideband systems: Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive”;

Part 3: “User Equipment (UE) for narrowband systems: Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive”.

As such, the **radio license** to be issued must take into consideration compliance by CGC with harmonised European standards, that aim to ensure compatibility with ground systems operating in the scope of the mobile service in adjacent bands, below 1980 MHz and between 2010 MHz and 2170 MHz, namely in the scope of Decree-Law No. 192/2000, of 18 August.

Lastly, CEPT Recommendation **ECC/REC/(10)01** sets out the procedures required to ensure compatibility between complementary ground components operating in the band 2170-2200 MHz and earth stations of the Earth Exploration Satellite Service (EESS), Space Operation Service (SOS) or Space Research Service (SRS), operating in the band 2200-2290 MHz.

In this context, all CGC operating in compliance with the ETSI EN 302 574-1 standard which are at a distance greater than 60 km from receiving earth stations of the Earth Exploration Satellite Service, Space Operation Service or Space Research Service, must be excluded from any coordination.



As such, in the specific case of Portugal, CGC operating in accordance with the standard ETSI EN 302 574-1 are allowed to be installed in the national territory, without requiring any coordination, insofar as they are at a distance greater than 60 km of the following earth stations:

Local	Latitude	Longitude	Country	Operator
Monte da Flores	36° 59' 49" N	25° 08' 09" W	Portugal (Azores)	ESA
Sintra-Negrais	38° 52' 07" N	09° 16' 52" W	Portugal	PT Comunicações, S.A. (EUTELSAT)
Canical	32° 44' 39" N	16° 44' 05" W	Portugal (Madeira)	Eutelsat Madeira

Table 1 - List of EESS, SOS and SRS receiving earth stations to be taken into account in Portugal.

Therefore, the issue of the radio license must take into consideration the limitation arising from CEPT Recommendation **ECC/REC/(10)01**.

### 3.3.4. Terminal equipment

As referred above, ETSI's European harmonized standards EN 302 574-2 and EN 302 574-3 were issued in 2010, applying respectively to "broadband" and narrowband" terminal equipment (or user equipment).

Moreover, ECC Report 233 concluded that Aero-CGC (installed on the ground) must not cause interference to other services/systems. However, this Report concludes also that **it is possible that interference is caused by aeronautical terminals that communicate with AeroCGC** - where operated at high power and low altitude - to DA2GC<sup>9</sup> ground stations and base stations of the terrestrial electronic communications service network (ECN) that operate in adjacent bands, or even to other CGC of 2 GHz MSS systems.

In order to mitigate these interferences, ECC Report 233<sup>10</sup> proposes the adoption of out-of-band PFD<sup>11</sup> masks:

- One for the 1920 - 1980 MHz band (protection to ECN base stations) that may also be applied to CGC of the other 2 GHz MSS system (insofar as these CGC have similar characteristics to ECN BS);

$$PFD(\delta) = 2 * \delta - 125.5 \quad \text{dB} \left( \frac{W}{m^2} \right) \quad \text{for } 0^\circ \leq \delta \leq 5^\circ$$

$$PFD(\delta) = \frac{13}{85} * \delta - 116.3 \quad \text{dB} \left( \frac{W}{m^2} \right) \quad \text{for } 5^\circ < \delta \leq 90^\circ$$

where  $\delta$  is the angle of arrival at the Earth's surface (degrees above the horizontal) and the PFD is calculated in a reference of 5 MHz in any part of the 1920 - 1980 MHz band.

- Another for the 2010 - 2025 MHz band (protection to DA2GC ground stations)

<sup>9</sup> Direct Air to Ground Communications.

<sup>10</sup> "Adjacent band compatibility studies for aeronautical CGC systems operating in the bands 1980-2010 MHz and 2170-2200 MHz" – Approved May 2015.

<sup>11</sup> In the terminology of the report "out-of-band power flux density (PFD)".

$$\begin{aligned}
PFD(\delta) &= -23/7 * \delta - 105 \quad \text{dB} \left( W/m^2 \right) && \text{for } 0^\circ \leq \delta \leq 7^\circ \\
PFD(\delta) &= -128 \quad \text{dB} \left( W/m^2 \right) && \text{for } 7^\circ < \delta \leq 12^\circ \\
PFD(\delta) &= 29/78 * \delta - 132.5 \quad \text{dB} \left( W/m^2 \right) && \text{for } 12^\circ < \delta \leq 90^\circ
\end{aligned}$$

where  $\delta$  is the angle of arrival at the Earth's surface (degrees above the horizontal) and the PFD is calculated in a reference bandwidth of 10 MHz in any part of the 2010 - 2025 MHz band.

In the light of the above, the **radio license** to be issued must include a **technical condition** on terminal equipment, in order to ensure compliance with the relevant ETSI European harmonized standards.

On the other hand, given that technical limitations applicable to terminal equipment are still subject to some uncertainty, as referred above, any additional limitation that is specified within the European regulatory framework must be taken into consideration and thus also set out in the radio license.

### 3.3.5 Conclusions of the technical analysis

In brief, in addition to operational conditions already imposed via common conditions defined in paragraph 2 of article 7 of Decision No 626/2008/EC, no other conditions that should be included in the RUF have been identified.

### 3.3. Characteristics of the provision

According to **INMARSAT**'s description in the communication presented to ANACOM, its S band MSS project involves the provision of basic services, in traditional MSS markets, such as (i) public protection and disaster relief (PPDR) services in the case of catastrophic circumstances, (ii) aeronautical services and (iii) niche commercial services (including maritime services, land markets and applications and services for ground vehicles).

It is deemed, taking into account the characteristic of the offer under consideration, that the service provision falls within the assumptions for the award of the RUF as intended by **INMARSAT**, in the light of ANACOM's determination of 10 November 2011.

### 3.4. Conditions attached to the RUF

Being fulfilled the requirements for the award to **INMARSAT** of the corresponding right of use for frequencies for the provision of MSS systems on the national territory, in the 1980-1995 MHz sub-bands for earth to space communications and 2170-2185 MHz sub-bands for space to earth communications, it must be subject, pursuant to ANACOM's determination of 10 November 2011, to the following conditions:

- Conditions resulting from the Community selection procedure;

- Common conditions laid down in paragraph 2 of article 7 of Decision No 626/2008/EC regarding the MSS;
- Common conditions defined in paragraph 3 of article 8 of Decision No 626/2008/EC regarding the CGC;
- Conditions resulting from paragraph 1 of article 27 of ECL, which apply by their nature;
- Conditions resulting from paragraph 1 of article 32 of ECL.

Taking into account that **INMARSAT** must abide by common conditions provided for in Decision No 626/2008/EC, the award of a RUF is without prejudice to any proceedings for failure to comply therewith under article 100 of ECL, according to the procedure provided for in Decision No 2011/667/EU, of 10 October, which establishes the modalities for the coordinated application of Member States' rules on enforcement applicable to an authorised operator of mobile satellite systems in the event of an alleged breach of the common conditions attached to its authorisation.

#### 4. Decision

In the light of the above, the Management Board of ANACOM, pursuant to its Decision of 10 November 2011, to articles 15, 16, 16-A, 27, 30 and 32, all of the Electronic Communications Law, and under point q) of paragraph 1 of article 26 of its Statutes, approved by Decree-Law No. 39/2015, of 16 March, hereby determines:

1. To award to **INMARSAT** a right of use for frequencies for the Mobile Satellite Service (MSS) on the national territory, in sub-bands of the 1980-1995 MHz and 2170-2185 MHz frequencies, covering both the satellite component and the ground component (CGC).
2. To establish the conditions to which **INMARSAT** is subject in the scope of its activity and conditions attached to the awarded right of use, under the draft certificate in **annex** to this determination, which is deemed to be an integral part hereof.
3. To submit the draft certificate of the right of use for frequencies in **annex** hereto to the prior hearing of **INMARSAT**, under article 100 *et seq.* of the Administrative Procedure Code (approved by Decree-Law No. 442/91, of 15 November), setting a deadline of 10 working days for the company to assess the matter in writing.
4. To amend the National Frequency Allocation Table (NFAT) in force so as bring it in line with this determination.

## **ANNEX**

### ***Draft***

### **RIGHT OF USE FOR FREQUENCIES**

### **ANACOM NO --/2015**

The Management Board of ANACOM, pursuant to its Decision of 10 November 2011 and to articles 15, 16, 16-A, 27, 30 and 32, all of Law No 5/2004, of 10 February, as amended and republished by Law No 51/2011, of 13 September, and subsequently amended (Electronic Communications Law), and under point q) of paragraph 1 of article 26 of its Statutes, approved by Decree-Law No 39/2015, of 16 March, hereby determines to issue this certificate, which is governed by the following clauses:

#### **Part I**

#### **General part**

##### **1. Subject-Matter**

**1.1.** This certificate defines the conditions that apply to the right of use for frequencies awarded to “Inmarsat Ventures Mobile” (hereinafter referred as **INMARSAT** for short), with its seat in 99 City Rd, London, EGY IAX – UK, for the provision of 2 GHz Mobile Satellite Services (MSS), in sub-bands of the 1980-1995 MHz (earth to space) and 2170-2185 MHz (space to earth) frequencies, without prejudice to compliance with obligations identified in the scope of the Radio Regulations of the International Telecommunication Union (ITU) and in the National Frequency Allocation Table (NFAT).

**1.2.** The right of use covers the provision of the satellite component and of the complementary ground component (stations - hereinafter referred to as CGC).

##### **2. Applicable Regime**

**2.1.** The right of use for frequencies shall be governed by the following statutory instruments:

- a) Decision 2007/98/EC of the European Commission, of 14 February 2007 (Decision No 2007/98/EC);
- b) Decision No 626/2008/EC of the European Parliament and of the Council, of 30 June 2008 (Decision No 626/2008/EC);
- c) Decision No 2009/449/EC of the European Commission, of 13 May 2009 (Decision No 2009/449/EC);
- d) Decision No 2011/667/EU of the European Commission, of 10 October 2011 (Decision No 2011/667/EU);
- e) Electronic Communications Law;

- f) Decree-Law No 151-A/2000, of 20 July, as amended and republished by Decree-Law No 264/2009, of 28 September, and subsequently amended by Laws No 20/2012, of 14 May and No 82-B/2014, of 31 December (Decree-Law No 151-A/2000);
- g) Other legislation related to the electronic communications sector.

## **Part II**

### **General Conditions**

**3. INMARSAT** is subject to compliance with the following conditions provided for in points a), b), c), d), e), f), g), h), j), l), m), n), o), q), r), s) and t) of paragraph 1 of article 27 of the Electronic Communications Law:

- a) Interoperability of services and interconnection of networks;
- b) Obligations of access that do not include the specific conditions set forth in article 28, but which may include, among others, rules in respect of the restrictions of provision;
- c) Transparency obligations on operators of public communications networks providing electronic communications services available to the public to ensure end-to-end connectivity, in conformity with the objectives and principles set out in article 5 of the Electronic Communications Law, disclosure regarding any conditions limiting access to and/or use of services and applications where such conditions are allowed in conformity with the law, and, where necessary and proportionate, access by ANACOM to such information needed to verify the accuracy of such disclosure;
- d) Maintenance of the integrity of public networks, namely through conditions to prevent electromagnetic interference between electronic communications networks and/or services, in accordance with Decree-Law No 325/2007, of 28 September, as amended by Decree-Law No 20/2009, of 19 January;
- e) Terms of use for communications from public authorities to the general public for warning the public of imminent threats and for mitigating the consequences of major catastrophes, as well as terms of use during major disasters or national emergencies to ensure communications between emergency services and authorities;
- f) Security of public networks against unauthorised access according to legislation governing personal data and privacy protection in respect of electronic communications;
- g) Environmental and town and country planning requirements, as well as requirements and conditions linked to the granting of access to public or private land and conditions linked to co-location and facility sharing, including, where applicable, any financial or technical guarantees necessary to ensure the proper execution of infrastructure works;
- h) Personal data and privacy protection with specific respect to electronic communications, in accordance with legislation governing personal data and privacy protection;
- i) Accessibility by end users to numbers of the National Numbering Plan, numbers of the European telephone numbering space, to universal international free phone numbers,

and, where technically and economically feasible, to numbers of numbering plans of other Member States, and respective conditions in conformity with the Electronic Communications Law;

- j) Consumer protection rules specific to the electronic communications sector, including conditions in conformity with the Electronic Communications Law, and conditions on accessibility for users with disabilities in accordance with article 91 thereof;
- l) Measures regarding the limitation of exposure of the general public to electromagnetic fields caused by electronic communications networks in accordance with applicable law;
- m) Measures designed to ensure compliance with the standards and/or specifications referred to in article 29 of the Electronic Communications Law;
- n) Installation, at the undertaking's own expense, and provision of systems of legal interception to competent national authorities, as well as the supply of means of decryption or decoding where these facilities are present, in accordance with legislation governing personal data and privacy protection within the scope of electronic communications;
- o) Restrictions on the transmission of illegal content, in accordance with Decree-Law No 7/2004, of 7 January, as amended by Decree-Law No 62/2009, of 10 March, and by Law No 46/2012, of 29 August, and the transmission of harmful content, in accordance with Law No 27/2007, of 30 July, as amended by Law No 8/2011, of 11 April, and by Law No 40/2014, of 9 July;
- p) Financial contributions to the funding of the universal service in accordance with articles 95 to 97 of the Electronic Communications Law;
- q) Payment of the following fees:
  - (i) The fee due for the exercise of the activity of electronic communications networks and services provider, pursuant to point b) of paragraph 1 of article 105 of the Electronic Communications Law and under the provisions laid down in Administrative Rule No 1473-B/2008, of 17 December, as amended and republished by Administrative Rule No 291-A/2011, of 4 November, and subsequently amended by Administrative Rules No 296-A/2013, of 2 October and No 378-D/2013, of 31 December (Administrative Rule No 1473-B/2008);
  - (ii) The fee due for the assignment of rights of use for frequencies, pursuant to point c) of paragraph 1 of article 105 of the Electronic Communications Law and under the provisions laid down in Administrative Rule No 1473-B/2008;
  - (iii) Fees due for the use of radio spectrum, pursuant to point f) of paragraph 1 of article 105 of the Electronic Communications Law and article 19 of Decree-Law No 151-A/2000, of 20 July, in the amount set out in Administrative Rule No 1473-B/2008.
- r) Information to be provided under the notification procedure set out in article 21 and for the purposes set forth in article 109, both of the Electronic Communications Law.

## Part III

### Conditions associated to the right of use for frequencies

#### Chapter I

#### Conditions resulting from the Community selection procedure

#### 4. Common conditions laid down in Decision No 626/2008/EC

Under Title III of Decision No 626/2008/EC, and further to the Community selection procedure, **INMARSAT** is subject to common conditions provided for in the following points, which for all purposes fall under points a), b), d) and g) of paragraph 1 of article 32 of the Electronic Communications Law.

**4.1.** As far as the **MSS** is concerned, **INMARSAT** is subject to compliance with the following conditions defined in paragraph 2 of article 7 of Decision No 626/2008/EC:

- a) To use the assigned radio spectrum for the provision of MSS;
- b) To meet milestones six to nine set out in the Annex to Decision No 626/2008/EC within 24 months of Decision No 2009/449/EC, of 13 May 2009 (13 May 2011);
- c) To honour any commitments given in its applications or during the comparative selection procedure;
- d) To provide to ANACOM an annual report detailing the status of development of its mobile satellite system, the first report being due within one year from the date of issue of this certificate.

**4.2.** As regards **CGC**, **INMARSAT** is subject to compliance with the following conditions defined in paragraph 3 of article 8 of Decision No 626/2008/EC:

- a) To use the radio spectrum assigned for the provision of CGC of mobile satellite systems;
- b) To use CGC so that they constitute an integral part of a mobile satellite system, are controlled by the resource management mechanism and the satellite communications network mechanism, use the same direction of transmission and the same portions of frequency bands as the associated satellite components and do not increase the spectrum requirement of the associated mobile satellite system;
- c) Independent CGC operation in case of failure of the satellite component of the associated mobile satellite system must not exceed 18 months.

**4.3.** As regards the **period of validity**:

The right of use is assigned for a period of eighteen years from the publication of Decision No 2009/449/EC, of 13 May 2009, expiring on 14 May 2027.

## Chapter II

### Conditions resulting from the Electronic Communications Law

#### 5. Services and systems

For the purpose of point a) of paragraph 1 of article 32 of the Electronic Communications Law, the right of use for the following frequencies:

- 1980 to 1995 MHz for earth to space communications or communications between terminal equipment and complementary ground components (CGC), and
- 2170 to 2185 MHz for space to earth communications or communications between CGC and terminal equipment (space to earth),

on national territory, is assigned for the provision of mobile satellite services by systems capable of providing radio services (i) between a mobile earth station and one or more space stations, (ii) between mobile earth stations through one or more space stations or (iii) between a mobile earth station and one or more CGC used at fixed locations.

#### 6. Effective and efficient use

In accordance with point b) of paragraph 1 of article 32 of the Electronic Communications Law, **INMARSAT** must ensure an effective and efficient use of assigned frequencies, in compliance with article 15 of the same Law, subject to the specific conditions of use of frequencies set out in the radio network license to be issued pursuant to Decree-Law No 151-A/2000.

#### 7. International agreements

Under point h) of paragraph 1 of article 32 of the Electronic Communications Law, **INMARSAT** must fulfil its obligations arising from international agreements relating to the use of frequencies, namely those associated to the coordination of the use of frequencies in border areas.

Lisbon, 25 June 2015.