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Orbital slots and spectrum use in an era of interference

Interference and freedom of information

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The key messages I want to deliver are the following:

1. Intentional jamming is a crucial issue.
2. Two years ago, by end of 2012, the overall situation with regard to deliberate jamming was very alarming.
3. In 2014, the situation seems to have massively improved as the volume of jamming has decreased.
4. Another positive development is increased awareness on the part of all stakeholders.
5. However, the mechanism of international governance remains vulnerable and is not sufficiently efficient.
6. What are the possible avenues for improvement today? One is an outstanding initiative from the European States of the CEPT, offering a range of measures aimed at increasing the ITU's ability to enforce international rules that prohibit jamming.
7. All those (all the countries) who care for freedom should have no hesitation and fully support the European Common Position. This ECP for the Busan Conference is a unique opportunity that must not be missed!

1. Intentional jamming is a crucial issue. Why?

As a result of their inherent nature, purpose and technical specifications (any signal beamed by a geostationary satellite covers around 1/3 of the globe's surface), satellites contribute to the free flow and dissemination of information "regardless of frontiers"¹.

Thanks to satellites, not only television, but also access to knowledge and the opportunity to communicate (via broadband internet) are made available in all parts of the world that have remained beyond reach of terrestrial networks. Satellites are indispensable.

A prominent example of this is Africa, where only satellites bring internet access to sparsely populated inland regions, whereas coastal areas are provided with internet connectivity through underwater cables. Accordingly, over 1,500 TV channels are beamed in Africa via satellite, more than half of which are transported on Eutelsat satellites.

Consequently, it should be borne in mind that whenever there is interference (whether voluntary or not), there is automatically breach of freedom of expression and information. This is why this issue is crucial.

2. Two years ago, by end of 2012, the overall situation with regard to deliberate jamming was very alarming.

Let us recollect the situation back in 2012: we were at that time the target of voluntary jamming operations of unprecedented intensity. As you know, voluntary jamming is unequivocally condemned by international law (see Article 15.1 §1 of the ITU Radio Regulations and Article 45 of the ITU Constitution)².

In spite of the ban, jamming operations have been increasingly widespread since June 2009 before reaching unprecedented heights beginning of 2012. As a reminder, here are a few figures which say it all on the average duration of jamming operations targeting Eutelsat's fleet:

- a. February 2010: 745 mn
- b. January 2011: 148 min
- c. May 2011 : 30080 min
- d. January 2012: 41971 min
- e. February 2012: 79085 min**
- f. December 2012 : 50910 min
- g. May 2013: 46,000 min
- h. August 2013 53,250 min

These interferences were identified as mainly originating in three countries: Iran, Syria and Bahrain.

¹ The expression stems from Article 19 of the Universal Declaration of Human Rights which defines the right to freedom of opinion and expression as "*the right to hold opinions without interference and to seek, receive and impart information and ideas through any media and **regardless of frontiers.***"

² - Article 15.1 §1 of the ITU Radio Regulations provides that "*All stations are forbidden to carry out unnecessary transmissions, or the transmission of superfluous signals, or the transmission of false or misleading signals, or the transmission of signals without identification*". Article 45 of the ITU Constitution entitled "Harmful Interference" specifies that: "*All stations, whatever their purpose, must be established and operated in such a manner as not to cause harmful interference.*"

3. In 2014, the situation seems to have massively improved as the volume of jamming has decreased.

Since 2014, the situation has evolved in a positive way: we have seen a significant decline in the number of jamming operations, which is confirmed by the two following figures:

- January 2014: 6,250 min³
- May 2014: 1,610 min

4. Another positive development is increased awareness on the part of all stakeholders.

Faced with the growing speed and increasing criticality of this trend, Eutelsat decided to join forces with other players of the broadcasting industry affected by the scourge, particularly broadcasters who are their primary targets.

In November 2012, a conference on "International Broadcasting without Barriers" was organised by the BBC in London; a seminar was then hosted by Eutelsat in January 2013 at its Paris headquarters, followed by an IFRI workshop entitled "Governing the Geostationary Orbit" in April 2013.

It has been observed significant awareness-raising among the international community, particularly since the BBC conference held in London in November 2012. The BBC took the lead in the fight against this scourge, and I would like to thank and congratulate them for taking this courageous position.

The purpose of the conference was to bring the issue of deliberate jamming into the realms of public debate by acknowledging the political dimension that is systematically associated with it (considering that deliberate interferences are always targeted at specific broadcasting content), rather than tackling it as a purely technical regulatory issue.

Several entities or personalities have publicly condemned deliberate jamming:

- The High Representative of the European Union, as early as end of 2012⁴,
- Followed by the World Broadcasting Union in January 2014, to give only a few examples.
- The UN General Assembly also adopted a resolution on 5 December 2013 entitled "Transparency and confidence-building measures in outer space activities", considering that jamming operations hinder the transparency process that the UN seeks to uphold at international level with regard to space activities, and identifying possible ways of improving governance in this area.

But let there be no mistake: this does not mean that the trend has stopped, and other satellite operators who are with us today share this opinion. The issue has not been settled yet. Why? Because...

³ Always expressed as the average duration of jamming targeting the Eutelsat fleet.

⁴ Declaration by Catherine Ashton dated 14 November 2012.

5. ... the mechanism of international governance remains vulnerable and is not sufficiently efficient.

The BBC's invitation in 2012 enabled me to explain the reasons why the regulatory framework was insufficient in putting an end to these unlawful acts. This framework needs to be reinforced, or at least the international community's ability to ensure its enforcement needed, and still needs, to be reinforced.

As you know, the issue of deliberate jamming is addressed under the framework of an international regulatory telecommunication body known as the ITU, but the current system suffers from two major shortcomings:

- a. When a complaint for jamming is addressed by the ITU, the factual evidence of the existence of interference (geolocating the origin of the jamming signal) is provided by the complaining party and it may be neither challenged nor confirmed by the regulatory authority;
- b. It is impossible to challenge the denial by a country accused of allowing deliberate interferences on its national territory.

These two major drawbacks may only be solved through a strengthening of the ITU's role which should be provided with the means to (i) judge the facts without being bound to any party concerned, (ii) identify the authors and (iii) accuse them officially. This is what has been called the "naming and shaming" process.

6. What are the possible avenues for improvement today? One is an outstanding initiative from the European States of the CEPT⁵, offering a range of measures aimed at increasing the ITU's ability to enforce international rules that prohibit jamming.

The ITU has now taken the lead in addressing the issue at the level of the Conference of Plenipotentiaries which represents the organisation's highest level of authority. The question should be examined at the Conference of Busan⁶ to be held in a few days in Korea on the joint initiative of European States..

Let's get a closer look at the European Common Position to examine both its content and relevance.

- The ECP offers to provide the ITU with the means to monitor and measure any harmful interferences affecting satellite systems on its own, by using an independent network of monitoring control stations, regardless of any data provided by a complaining State.
- The ECP's second major benefit, in my view, is that it authorizes the ITU to initiate and maintain an international database on cases of jamming incidents.

If the ITU Members States approve the ECP package, the international community would have taken a decisive step forward. Indeed, the ability to massively and indisputably geolocate the source of the jamming signal is key to reducing harmful interferences. Undoubtedly, we have recently experienced a decline in jamming incidents (although this may only be a matter of

⁵ CEPT: European Conference of Postal and Telecommunications Administrations.

⁶ 20 October -7 November 2014.

circumstances). Yet, the geolocation rate for those incidents remains at a low level, preventing any initiative by the international regulatory body.

- One figure to illustrate my point: only 10 to 15% of the jamming incidents recorded on the Eutelsat fleet has been successfully geolocated in the past few years.

Last but not least, if the proposals are adopted, countries carrying out jamming operations or allowing jamming activities to develop on their national territory will no more be in a position to claim their alleged ignorance, as the international regulatory body will have the means to provide accurate, objective and undisputable data.

7. All those (all the countries) who care for freedom should have no hesitation and fully support the European Common Position. This ECP for the Busan Conference is a unique opportunity that should not be missed!

In my view, successful awareness-raising of the international community has contributed to adding this issue to the Conference Agenda and advancing on the naming and shaming process. Therefore I take this opportunity to express my sincere gratitude to IFRI and to the Secure World Foundation for welcoming us today in Brussels, as I think that the timing of this conference perfectly suits the international agenda...

I would like to conclude by insisting on the importance of this unique opportunity the international community is offered with the European Common Position to improve the regulatory framework. All countries defending freedom of expression and communication, all countries considering access to information as the right of all citizens, all countries caring for freedom whether they are located in Americas, north and south, Africa, Asia-Oceania or Europe... they all should bring their support to the ECP.

A system where the international regulatory body would have the authority to record breaches of regulations on its own and enforce international rules, and where States and operators would become accountable for their deeds, that is where we are aiming at with the ECP to be introduced at the Busan Conference! I therefore have strong hopes for success by the end of the year!

PLENARY MEETING

**Addendum 8 to
Document xx-E
yy September 2014
Original: English**

**Member States of European Conference of Postal and Telecommunications
Administrations (CEPT)**

EUROPEAN COMMON PROPOSALS (ECP) FOR THE WORK OF THE CONFERENCE

ECP-8: New Resolution on strengthening the role of ITU with regard to transparency and confidence-building measures in outer space activities

Introduction

ITU Member States rely more and more on satellite technologies for a range of activities (Earth exploration, telecommunications, navigation, etc.)

The United Nations General Assembly has recently adopted Resolution 68/50 “Transparency and confidence-building measures in outer space activities” (5 December 2013). This Resolution elaborates on a report prepared by a Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (see report A/68/189 submitted to the Sixty-eighth session of the United Nations General Assembly). The Group noted “the role of ITU in the management of the radio frequency spectrum and geostationary orbital slots. In the context of transparency and confidence-building measures, the ITU Radiocommunication Bureau plays a key role in addressing harmful radio-frequency interference, as provided for in article 45 of the ITU Constitution and article 15 of the ITU Radio Regulations. The Group also noted the importance of commitments to establish and implement policies and procedures to minimize any form of harmful radio-frequency interference” (see §17 of the Report).

Proposals

As part of a possible response from the International Telecommunication Union to Resolution 68/50 “Transparency and confidence-building measures in outer space activities” adopted by the United Nations General Assembly, Europe proposes that the Plenipotentiary Conference adopts a Resolution aimed at strengthening the role of ITU with regard to transparency and confidence-building measures in Outer Space activities. In order to promote knowledge dissemination, capacity building and sharing of best practices, the intention is that there should be regular meetings of experts on this topic: such meetings would allow Member States, interested Sector Members, Associates and Academia to share

their views. It is envisaged the current means of the ITU (e.g. World/Regional Radiocommunication Seminars, dedicated BR workshops) should serve as the basis for organizing such meetings of experts.

Europe also proposes some specific actions:

- instruct the Radiocommunication Bureau to further its efforts and actions to get access to existing monitoring earth stations through Cooperation agreements (it should be noted that all the necessary legal instruments for such access already exist in Article 16 of the Radio Regulations);
- initiate and maintain a database on cases of harmful interference affecting satellite systems.

Europe understands that these activities will fall within the normal budget of the Radiocommunication Bureau and will not entail any increase of satellite cost recovery fees.

RESOLUTION XXX (Busan, 2014)

Strengthening the role of ITU with regard to Transparency and Confidence-Building Measures in Outer Space Activities

The Plenipotentiary Conference of the International Telecommunication Union
(Busan, 2014),

recalling

a) Resolution 68/50 “Transparency and confidence-building measures in outer space activities” adopted by the United Nations General Assembly on 5 December 2013;

b) The report A/68/189 of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities transmitted to the Sixty-eighth session of the United Nations General Assembly,

noting

a) that the United Nations General Assembly has requested the United Nations Secretary-General to circulate the report to all other relevant entities and organizations of the United Nations system in order that they may assist in effectively implementing the conclusions and recommendations contained therein, as appropriate;

b) that the United Nations General Assembly has encouraged relevant entities and organizations of the United Nations system to coordinate, as appropriate, on matters related to the recommendations contained in the report,

considering

a) that ITU Member States rely more and more on satellite technologies for a range of activities such as Earth exploration, telecommunications, navigation, etc.;

b) that reliable satellite applications are increasingly becoming an integral part of national and international infrastructures;

c) that users who rely on satellite services as well as their providers have a legitimate expectation that those services operating through satellite systems, which have been established in accordance with the Radio Regulations, will be able to operate without experiencing interference or disruption,

recognizing

a) that the use and development of spaced-based infrastructure for ICTs is acknowledged in WTDC Resolution 37 (Rev. Dubai 2014) as a key part of the action needed for bridging the digital divide as regards affordability, resilience and reliability, with further endorsement through Resolution 139 (Rev. Guadalajara, 2010);

b) that §1 of Article 45 of the Constitution (No. 197) indicates that “All stations, whatever their purpose, must be established and operated in such a manner as not to cause harmful interference to the radio services or communications of other Member States or of recognized operating agencies, or of other duly authorized operating agencies which carry on a radio service, and which operate in accordance with the provisions of the Radio Regulations”;

c) that Article 15 of the Radio Regulations contains, *inter alia*, the procedure to be followed in a case of harmful interference;

d) that Article 16 of the Radio Regulations sets up the principles for implementing international monitoring,

resolves

to encourage the dissemination of knowledge, capacity building and the sharing of best practices in the use and development of space-based infrastructure, with the objectives of improving connectivity in the provision of communications and access to information, facilitating disaster preparedness, rescue, relief and recovery, remote sensing of the Earth's resources and environmental threats, and bridging the digital divide, through a range of initiatives including but not limited to:

- instituting coordination mechanisms within and outside the Union, such as regular meetings of experts that would allow Member States, interested Sector Members, Associates and Academia to share their views;
- improving confidence and security in the reliability and availability of satellite networks and systems;
- improving the means to detect, record, resolve and prevent harmful interference affecting satellite networks and systems,

invites the Council

to monitor the operation of the Cooperation Agreements related to the use of existing monitoring earth stations, as regards participation, costs and effectiveness;

instructs the Secretary-General

- 1 to encourage all Member States and Sector Members to participate in the consideration of these matters;
- 2 to submit a report to the next Plenipotentiary Conference on the contribution made by the Union in responding to General Assembly Resolution 68/50 on transparency and confidence-building measures in outer space activities,

instructs the Director of the Telecommunication Development Bureau

to encourage all Member States and Sector Members to contribute to the consideration of these matters, especially through providing ITU-R and ITU-T with advice on how transparency and confidence building in the development of spaced-based infrastructure can assist in meeting the objectives of the WTDC Dubai Declaration (Dubai, 2014) and Resolution 37 (Rev. Dubai, 2014),

instructs the Director of the Radiocommunication Bureau

- 1 to further its efforts and actions to get access to existing monitoring earth stations through Cooperation Agreements with Member States, which participate in the international monitoring system;
- 2 to take the necessary steps to maintain a database on cases of harmful interference affecting satellite operation in consultation with Member States and Sector Members, in particular satellite notifying administrations and satellite operators;

3 to coordinate activities, as necessary, with the Directors of the other two Bureaux;

4 to include progress in these matters in future Reports of the Director to World Radiocommunication Conferences, in accordance with Article 7 of the Convention,

resolves to invite ITU-R

to develop appropriate ITU-R Recommendations including methodology of measurement by space monitoring earth station used under such Cooperation Agreements,

urges administrations

to actively contribute to the studies and actions taken in response to this Resolution and to encourage all parties concerned at their national level, especially satellite operators, to participate in the relevant fora.
