

SPACE POLICY AND LAW COURSE 2018

CASE STUDY

THE FACTS:

1. Satellite **SP-1** is a satellite (built by a satellite manufacturer from **USA**) of a Corporation **SP-SAT** registered in **Bermuda** with operation headquarters in **USA** for mainly DTH satellite television over Asia-Pacific.
2. Corporation **SP-SAT** acquired the authorisation to operate the Satellite **SP-1** at an ITU orbital right from **Singapore** that has a satellite network **SN-1** duly filed at the ITU at the orbital location **97.5°E** on the geostationary satellite orbit arc.
3. Information on the Advance Publication (API) and Coordination Request (CR/C) of Satellite Network **SN-1** has been submitted to the ITU and published in accordance with the relevant provisions of the Radio Regulations. For **Singapore** to maintain its rights on satellite network **SN-1**, the notification and due diligence information must be submitted to the ITU and the frequency assignments of the network has to be brought into use before the end of the regulatory time limit *on 1 March 2017* (7 years from the submission of the API).
4. Satellite **SP-1** was finally launched, despite the non-completion of the ITU coordination procedures, from the French site of **Kourou** but reached the orbital location **97.5°E** *at mid-March* shortly after the end of the regulatory time limit *1 March 2017*.
5. Two Administrations with orbital slots immediately adjacent to **97.5°E** complained then to ITU about potential harmful interference for one of them that could be caused by Satellite **SP-1** to its own satellite in operation (due to lack of coordination discussion between the concerned satellite operators) as well as a request for assistance about the risk of physical collision with one of its satellite in the vicinity of **97.5°E** for the other.

QUESTIONS:

1. What recourses are available to **Singapore** to keep its ITU rights over the satellite network **SN-1** despite the late launch and bringing into use of the frequency assignments of the satellite beyond the regulatory time limit?
2. **Singapore** having finally decided not to pursue the case with ITU, therefore relinquishing its rights over orbital location **97.5°E**, what is the status of Satellite **SP-1** and the responsible authorities regarding the complaints by two administrations on the potential for harmful interference and risk of physical collision?
3. What recourses are available to ITU to resolve the issue?

Company, countries satellite and ITU filing names although realistic in term of the satellite eco-system are fictional.

DISCUSSION

The questions to be answered are:

1. What recourses are available to *Singapore* to keep its ITU rights over the satellite network *SN-1* despite the late launch and bringing into use of the frequency assignments beyond the regulatory time limit?
In other terms, how are defined ITU rights and obligations for the frequency assignments to a satellite network used for international radiocommunication? What ITU recourses are available to the notifying administration of a satellite network when the regular registration provisions of the Radio Regulations for the satellite network are not completed in time?
2. *Singapore* having finally decided not to pursue the case with ITU, therefore relinquishing its rights over orbital location *97.5°E*, what is the status of Satellite *SP-1* and the responsible authorities regarding the complaints by two administrations on the potential for harmful interference and risk of physical collision?
3. What recourses are available to ITU to resolve the issue?

In other terms, for cases where the space object (satellite *SP-1* in the case study) is not covered by an ITU satellite network filing but for which the satellite ownership and information on its launch are known, what legal course of actions can be found and applied in case of potential harmful interference or collision liability caused by the space object. Who would have responsibility over the space object for such issues: the state manufacturer of the space object, the launching state, the state where the satellite company is registered...

The case study describes a real case that the ITU had to solve in the 2007-2008 timeframe and which involved regulatory issues within and beyond the ITU instruments (Constitution, Convention and Radio Regulations).

Company, countries satellite name and ITU filing names although realistic in term of the satellite eco-system are fictional.

For question 1, rights and obligations of an Administration, information on the applicable procedures could be found at the following address:

<https://www.itu.int/en/ITU-R/space/elearning/Pages/ITU-SSD-N003.aspx>

Two main RR articles apply, Article **9** and Article **11** with the goal for the frequency assignments of your satellite network to be notified and recorded in the Master International Frequency Register (MIFR) Such recording requires the submission of the notification information of your satellite network, due diligence information on the launching within the regulatory timeframe indicated in RR No. **11.44**, with the consequence in case of non-compliance with the submission of information and more importantly the bringing into use that your satellite network will be cancelled:

11.2 Any frequency assignment to a transmitting station and to its associated receiving stations except for those mentioned in Nos. **11.13** and **11.14** shall be notified to the Bureau:

11.3 a) if the use of that assignment is capable of causing harmful interference to any service of another administration; or

- 11.3A** (SUP - WRC-07)
- 11.4** b) if that assignment is to be used for international radiocommunication; or
- 11.5** c) if that assignment is subject to a world or regional frequency allotment or assignment plan which does not have its own notification procedure; or
- 11.6** d) if that assignment is subject to the coordination procedure of Article 9 or is involved in such a case; or
- 11.7** e) if it is desired to obtain international recognition for that assignment; or
- 11.8** f) if it is a non-conforming assignment under No. 8.4 and if the administration wishes to have it recorded for information.

11.44 The notified date of bringing into use of any frequency assignment to a space station of a satellite network shall be not later than seven years following the date of receipt by the Bureau of the relevant complete information under No. 9.1 or 9.2 in the case of satellite networks or systems not subject to Section II of Article 9 or under No. 9.1A in the case of satellite networks or systems subject to Section II of Article 9. Any frequency assignment not brought into use within the required period shall be cancelled by the Bureau after having informed the administration at least three months before the expiry of this period. (WRC-15)

For question 2, we have to refer to existing ITU mechanisms in the Radio Regulations when such above registration procedures are not satisfied with the possibility to exceptionally prolong the rights for a satellite network that e.g. did not brought its frequency assignment into use on time.

In accordance with Article 14 of the Radio Regulations, any administration may request a review of any decision of the Bureau, including the cancellation of a satellite network for having been brought into use but after the regulatory deadline, as in the Case Study. If the outcome of the review does not successfully resolve the matter, or if it would adversely affect the interests of other administrations, the Bureau shall prepare a report and send it in advance to the administration which requested the review and to any others concerned in order to enable them, if they so desire, to address the Radio Regulations Board. The decision of the Board on the review, to be taken in accordance with the Convention, shall be regarded as final in so far as the Bureau and the Board are concerned. However, if the administration which requested the review disagrees with the Board's decision it may raise the matter at a world radiocommunication conference.

For question 3, the course of action is more delicate as we cannot refer to clear provisions of the Radio Regulations to resolve the issue. At that stage references to be considered could only be found in the ITU Constitution, particularly in Article 44 CS No. 196 and 197, and RR No. 18.1 of Article 18 on Licences of the Radio Regulations:

ITU, Constitution

Article 44

Use of the Radio-Frequency Spectrum and of the Geostationary-Satellite and Other Satellite Orbit

- 196 In using frequency bands for radio services, Member States shall bear in mind that radio frequencies and any associated orbits, including the geostationary-satellite orbit, are limited natural resources and that they must be used rationally, efficiently

and economically, **in conformity with the provisions of the Radio Regulations**, so that countries or groups of countries may have equitable access to those orbits and frequencies, taking into account the special needs of developing countries and the geographical situation of particular countries.

197 All stations must be established & 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.

18.1 § 1 1) No transmitting station may be established or operated by a private person or by any enterprise without a licence issued in an appropriate form and in conformity with the provisions of these Regulations by or on behalf of the government of the country to which the station in question is subject (however, see Nos. **18.2**, **18.8** and **18.11**).

A letter was sent by the ITU to all ITU Members (193 Member States) referring to the request for assistance with regard to the critical concerns about the serious risk of physical collision that could exist between a satellite of one administration and the satellite *SP-1*. The ITU also indicated that in the absence of information concerning the associated ITU satellite network filing, nor the notifying administration under which satellite *SP-1* was brought into use and operated, it was extremely concerned and alarmed to be the witness of a situation in which a satellite could be operated in contravention of the ITU Constitution, particularly No. **196**, and No. **18.1** of Article **18** on Licenses of the Radio Regulations, and this by an operating agency not duly authorized by ITU member States. Furthermore, the Bureau was also worried about possible cases of harmful interference that may be caused by satellite network to frequency assignments of satellite networks or stations of terrestrial services duly recorded in the Master International Frequency Register and the impossibility for the Bureau to apply Section IV of Article **15** of the Radio Regulations for the settlement of the problem. In view of the above, the ITU asked for any information regarding an authorization for the In orbit testing (IOT) of the satellite *SP-1*, which should include an authorization for the operation of the involved TT&C earth stations, as well as an authorization for the further operation of the payload of the satellite and any information on the associated ITU filings, if any.

The ITU also pressured the different actors in the development of the satellite *SP-1* project creating some concerns within these administrations: *USA* as the manufacturer of the satellite *SP-1*, *UK* as the country where the Corporation *SP-SAT* was based and *France* as the launching state.

After many exchanges with all players... The resolution of the case came when a third party (an ITU Administration) indicated that the satellite *SP-1* was being operated under one of its existing satellite network duly registered at the ITU... but this was not the end of the story!



ARTICLE 9.docx



ARTICLE 11.docx



ARTICLE 14.docx



ARTICLE 18.docx