

Invalidation of a Satellite Network: from Theory to Practice



**ITU/IDA 2010 Workshop on the efficient use
of the spectrum/orbit resource**

Singapore, 17-18 June 2010

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The issue addressed:

- Conditions under which Radio Bureau is authorized to invalidate a satellite network and cancel entries of frequency assignments recorded in MIFR
- The question is relevant whenever BR is called upon to exercise its powers to cancel an entry in the Master Register pursuant to RR Nos. 11.44, 11.47 and 13.6 – at the request of an administration or in BR's own initiative

- In recent years – a growing sense within the satellite community, that too many entries in the Master Register do not reflect realistic utilization of spectrum/orbit resource
- Need is felt –
 - to enhance BR's capability of dealing with frequency assignments that have not been properly brought into use
 - to clarify the rules laid down in RR

- No. 13.6 - text

“[W]henver it appears from reliable information available that a recorded assignment has not been brought into regular operation in accordance with the notified required characteristics as specified in Appendix 4, or is not being used in accordance with those characteristics, the Bureau shall consult the notifying administration and, subject to its agreement or in the event of non-response after the dispatch of two consecutive reminders, each within a three-month period, shall either cancel, or suitably modify, or retain the basic characteristics of the entry. A decision of the Bureau to cancel the entry in the event of non-response shall be confirmed by the Board.”

- No. 11.44 - text

“The notified date of bringing into use of any 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**, as appropriate. 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.”

Principal questions

- RR No. 13.6 and related provisions contain several significant issues which require clarification.
- Three principal questions:
 - I. What counts as 'bringing into use', or 'regular operation'
 - II. What constitutes 'reliable information' upon which 'use' may be contested or verified
 - III. What is the scope of the BR's powers under RR Nos. 13.6 and 11.44

Question I – **substantive requirement** of 'use'

Question II – **evidence** for BR decision making

Question III – **legal base** of BR's powers

The approach

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- Underlying assumption: Power to suppress recorded assignments is intended to be a practical tool in the hands of BR, capable of being employed effectively in the proper circumstances
- Brief analysis of each of the three questions and suggestions as to possible resolution

I. Bringing into Use

- The concept 'bringing into use' – either initially (as in No. 11.44) or following suspension (as in No. 11.49) – not provided a definition
- Terms appear (interchangeably) –
 - 'use' (as in 11.44) '**regular use**' (as in 11.49)
 - '**regular operation**' (as in 13.6)
- The closest to definition of 'use' – AP4, Item A.2:

“... the date at which the frequency assignment is brought into regular operation to provide the published radiocommunication service with the technical parameters within the technical characteristics notified to the Bureau”



- The question of what counts as BIU may arise in a variety of possible scenarios with respect to placing of the satellite –
 - launch of new satellite
 - a drifted in-orbit satellite
 - gap-filler
- There may be different scenarios with respect to –
 - duration
 - frequency range
 - type of operation.



Duration

- How long **regularity** of use needs to last: Several minutes? Days?
- We propose: 4 to 6 months in which the satellite is continuously present in the orbital location – reasonable indication of regularity

If subsequently moved to a different location – need for suspension under No. 11.49



Frequency range

- What part of the filed assignments need be in use?
- Wording – impression that 'use' is in relation to every recorded assignment or group
- Commercially – only rarely can satellite be used in full at the start; on the other extreme, BIU of a network cannot be due to operation of single assignment
- Suggested requirement: Satellite's payload can support each of the relevant frequency bands that were filed, even if not all activated at date of BIU

Type of operation

- Activity required: Commercial implementation? Operational ability ?
- 'Use' – more than mere presence of satellite at orbital location
RRB ruling: several days of in-orbit testing (IOT) by satellite which is then moved to a different orbital location – not enough
(re Europesat-1 BSS system, RRB 13th Meeting, 6-14 July 1998)
- Satellite needs to reach stage in which it is **capable** of commercial use; whether service actually provided to customers – not part of the test; satellite should be capable of transmitting and providing service in relevant frequency bands, even if not all activated

Bringing into Use (cont.)

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- Use of in-orbit satellite: a satellite that was drifted into the location but no payload turned on – not 'use'
- Mere telemetry and command signals – not regular use
- If in-orbit satellite is used and not a satellite specifically built for the particular network, question arises as to the extent in which technical characteristics of satellite must reflect filed characteristics of network

II. Reliable Information

- What may count as **reliable evidence** which, when presented, would cast doubt on an administration's report
What may count as reliable counter evidence, put by a reporting administration, to rebut such doubts
- BR and RRB reluctant to critically examine factual information on BIU reported by an administration
Prevalent approach: ITU – no tools to corroborate or challenge factual reports made by administrations
- This approach may be open to modification



I. Formal commitment

- To strengthen level of commitment with respect to the information, we suggest that all “BIU data” shall be submitted –
 - in official document signed by top ranking official (e.g. director of national regulatory agency responsible for spectrum/orbit matters)
 - supported by affidavit of chief executive of relevant satellite operator, taking full responsibility for the reported information
- This might deter administrations and operators from declaring that a satellite network had been BIU when in fact a satellite was not there at the reported time and place

II. Monitoring system

- We suggest (as others have) setting up an international satellite monitoring system:
 - establishing a dedicated ITU body, or
 - approving national ground stations as authorized monitoring facilities.
- Stations will be able to issue reports, endorsed as 'reliable information', of two kinds:
 - (i) reports which can trail a particular satellite from launch and provide whereabouts at any given point in time (NORAD-type report); and
 - (ii) reports which can show whether there exists (or not) uplink or downlink transmission in specified radio frequency, time, and coverage

III. BIU confirmation

- re Resolution 49 'due diligence' information –

Suggestion (as proposed by Correspondence Group on the efficient use of the spectrum/orbit resource):

A month after BIU date, another report shall be submitted, confirming BIU and identifying actual satellite used at specific orbital location



IV. Sanctions

Should there be a sanction for submitting untrue information?

- One possibility – pecuniary sanction, fine in a predetermined sum, and loss of WRC voting rights in case of non-payment
- Alternative type of sanction – administration found to have submitted false information will be barred from making regulatory submissions to BR for a set period; would be precluded from advancing the regulatory status of its networks

Legal base - Fundamental issue re BR's Powers:

- Literal reading of No. 13.6 – might seem that BR authorized to cancel entry in MIFR only if notifying administration, when consulted by BR, either agrees to the cancellation or fails to respond
- Under such reading of No. 13.6, BR cannot act if notifying administration **confirms** its notification and insists it is correct
- In such cases, is it the intention of No. 13.6 to render BR powerless, even if reliable information presented which indicates that assignments have not been BIU?

Our view:

- current legal position – an open question
- More plausible interpretation of No. 13.6 – it is not meant to exclude case where an administration **reaffirms** its information, while reliable information is put forward to the contrary
- Helped by tools for establishing reliable information available – BR can use No. 13.6 to implement the **mandatory** wording of No. 11.44 ("Any frequency assignment not brought into use within the period required **shall be cancelled** by the Bureau")
- Good faith and good will cannot always be taken for granted

To conclude

- BR needs appropriate tools to cope with changing times
- We hope further discussion and elaboration of the suggestions raised in our presentation will contribute to **reinforcement of BR's powers** and to their **effective execution** in dealing with networks that have not been properly BIU, to the benefit of global satellite communications community



**Thank you for
your attention**

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