



90th Anniversary
CCIR/ITU-R Study Groups
(1927 - 2017)

Radiocommunication Bureau (BR)

Circular Letter
CR/421

26 September 2017

To Administrations of Member States of the ITU

Subject: **Minutes of the 75th meeting of the Radio Regulations Board**

Pursuant to the provisions of Nos. 13.18 of the Radio Regulations and in accordance with §1.10 of Part C of the Rules of Procedure, please find attached the approved minutes of the 75th meeting of the Radio Regulations Board (17 – 21 July 2017).

These minutes were approved by the Members of the Radio Regulations Board by electronic means and are available on the RRB pages of the ITU web site.

A handwritten signature in black ink, appearing to read 'François Rancy'.

François Rancy
Director

Annex: Minutes of the 75th meeting of the Radio Regulations Board

Distribution:

- Administrations of Member States of ITU
- Members of the Radio Regulations Board

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90th anniversary of the CCIR/ITU-R Study Groups (1927-2017)

Annex

Radio Regulations Board
Geneva, 17-21 July 2017



INTERNATIONAL TELECOMMUNICATION UNION

Document RRB17-2/8-E
21 July 2017
Original: English

MINUTES*
OF THE
75th MEETING OF THE RADIO REGULATIONS BOARD
17-21 July 2017

Present: Members, RRB

Mr I. KHAIROV, Chairman
Mr M. BESSI, Vice-Chairman
Mr D.Q. HOAN, Mr Y. ITO, Ms L. JEANTY
Mr S.K. KIBE, Mr S. KOFFI, Mr A. MAGENTA, Mr V. STRELETS
Mr R.L. TERÁN, Ms J. C. WILSON

Executive Secretary, RRB

Mr F. RANCY, Director, BR

Précis-Writers

Mr T. ELDRIDGE and Ms A. HADEN

Also present:

Mr A. GUILLOT, ITU Legal Adviser
Mr M. SAKAMOTO, Head, SSD/SSC and Acting Chief, SSD
Mr N. VASSILIEV, Chief, TSD
Ms X. WANG, Acting Head, SSD/SPR
Mr C.C. LOO, Acting Head, SSD/SPR
Mr J. WANG, Head, SSD/SNP
Ms I. GHAZI, Head, TSD/BCD
Mr J. CASTRO REY, Acting Head, TSD/BCD
Mr D. BOTHA, SGD
Ms K. GOZAL, Administrative Secretary

* The minutes of the meeting reflect the detailed and comprehensive consideration by the members of the Radio Regulations Board of the items that were under consideration on the agenda of the 75th meeting of the Board. The official decisions of the 75th meeting of the Radio Regulations Board can be found in Document RRB17-2/7.

Subjects discussed	Documents
1 Opening of the meeting	-
2 Report by the Director of BR	RRB17-2/3(Rev.1) + Add.1-5
3 Rules of procedure	RRB16-2/3(Rev.5), RRB17-2/3(Add.3)
4 Submission by the Administration of India requesting an extension of the date of bringing into use of frequency assignments to the INSAT-EXX82.5E satellite network	RRB17-2/1 and RRB17-2/DELAYED/1
5 Submission by the Administration of Indonesia requesting an extension of the regulatory suspension period of the frequency assignments to the PALAPA PAC-C 146E and PALAPA PAC-KU 146E satellite networks	RRB17-2/2
6 Submission by the Administration of the United Kingdom requesting an extension of the date of bringing into use of the frequency assignments to the UK-KA-1 satellite network	RRB17-2/4
7 Iridium satellite system (HIBLEO-2) interference to the radio astronomy service	RRB17-2/5, RRB17-2/6
8 Planning on the preparation of the Board's report to WRC-19 under Resolution 80 (Rev.WRC-07)	-
9 Items for discussion by the Board	-
10 Dates of the next and future meetings	-
11 Approval of the summary of decisions	RRB17-2/7
12 Closure of the meeting	-

1 Opening of the meeting

1.1 The **Chairman** opened the meeting at 1400 hours on Monday, 17 July 2017 and welcomed participants.

1.2 The **Director**, speaking on his own behalf and that of the Secretary-General, also welcomed participants.

1.3 The **Chairman** drew attention to a late contribution received from the Administration of India, which concerned a subject that was already on the agenda of the present meeting. He proposed that the Board take it into consideration for information purposes under the agenda item to which it related, as Document RRB17-2/DELAYED/1.

1.4 It was so **agreed**.

2 Report by the Director of BR (Document RRB17-2/3(Rev.1) and Addenda 1-5)

2.1 The **Director** introduced his customary report in Document RRB17-2/3(Rev.1) and Addenda 1-5. Recalling his comments at the previous meeting, he said that the surge in the number of coordination request submissions for January had reversed the decreasing trend in treatment time, and he informed the Board that the Council had decided to add three P3 posts to the Bureau's staff in order to strengthen work on satellite network filings for the 2018-19 biennium. Interviews had taken place for the post of Chief SSD, and a proposal was to be submitted to the Secretary-General for decision. With regard to cost recovery for non-GSO FSS satellite filings, the Council had asked the Bureau to work with Working Party 4A over the coming year to draw up a specific proposal to be considered by the Council in 2018. The proposal would not affect cost recovery for other satellite filings. He drew attention to Annex 1 to Document RRB17-2/3(Rev.1), summarizing actions arising from the 74th meeting of the Board, and for the first time including a column showing the follow-up specified by the Board, as well as the usual column indicating the actions that the Bureau had taken.

2.2 **Mr Strelets** said that the concern expressed by the Board at its previous meeting regarding delays in the treatment of satellite network filings had certainly prompted contributions to RAG and Council, resulting in a welcome increase to the Bureau's budget.

2.3 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)**, introducing those parts of the Director's report dealing with space systems, drew attention to Annex 3 showing the Bureau's work on the processing of filings related to space services. He provided updated information covering June 2017.

2.4 **Mr Hoan** recalled the Board's discussion at its previous meeting with respect to delays in the treatment of satellite network filings, especially in regard to coordination requests and the problem of the regulatory time limit being exceeded. In view of the large number of submissions received, he asked whether the Bureau remained confident that the regulatory time limit would again be respected by autumn 2017, as indicated by Chief SSD at the previous meeting (§2.9 of Document RRB17-1/9 – Minutes of the 74th meeting). He noted that an impressive number of networks had been published in April 2017 and wondered whether the Bureau would be able to maintain that pace of work.

2.5 The **Director** stressed that the Bureau worked at maximum capacity at all times. When a large number of networks arrived on the same day, however, none could be published until all the coordination requests had been treated, which resulted in a significant increase in processing time when looking at the figures on a month by month basis.

2.6 **Mr Strelets** said that the delays in treatment of satellite network filings had not improved since the previous meeting of the Board. The Bureau must continue working towards meeting the regulatory time limits.

2.7 The **Director** explained that the treatment delay was statistical. The Bureau had received a large number of networks each with 1 January 2017 as date of receipt, that being the same day as the entry into force of the new Radio Regulations. The Bureau needed 3-4 months to deal with all those

networks (not 3-4 months per network), even though all the Bureau's resources had been mobilized. None of those networks could be published before the others.

2.8 **Mr Strelets** thanked the Director for his explanation but stressed that the treatment of filings was one side of a contractual agreement with administrations; the Bureau treated filings and administrations paid for that service. He noted that the treatment times for satellite network filings under Appendices 30, 30A and 30B had almost doubled over the past year. It was essential to redress the situation, and he suggested that the problem might again be brought to the attention of the Council.

2.9 The **Director** said that the contractual agreement was for a specified price based on a certain flow of filings. The flow had tripled, so administrations were getting value for money in this respect. Provided that there was not another peak in submissions, the length of treatment time should decrease progressively.

2.10 The **Chairman** suggested that the Board conclude on §2 of the Director's report as follows: "Regarding Section 2 of Document RRB17-2/3(Rev.1), the Board regretfully noted that, as a result of another surge of submissions of coordination requests on 1 January 2017 (date of application of the Final Acts of WRC-15), the processing time of the satellite networks submitted for coordination, after a two-month period of decrease since February 2017, started increasing again in May 2017 and that the regulatory deadline continued to be exceeded significantly. The Board also noted that the processing times for satellite services subject to plans were also increasing significantly and considered that this situation also needs to be corrected. The Board instructed the Bureau to report to the next Board meeting on specific measures aimed at solving this problem."

2.11 It was so agreed.

2.12 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** said that, with regard to cost recovery, Annex 4 to the Director's report listed satellite network filings for which payment had been received after the due date but prior to the BR IFIC meeting dealing with the matter. The Bureau continued to take those filings into account. No filings had been cancelled as a result of non-payment during the period under consideration. In §4 of the Director's report, Table 3 summarized cases of harmful interference concerning space services and §4.3 dealt specifically with harmful interference to the radio astronomy service in the frequency band 1 610.6-1 613.8 MHz by the Iridium satellite system (HIBLEO-2).

2.13 The **Chairman** said that the Board would consider the Iridium satellite system (HIBLEO-2) interference to the radio astronomy service under a separate agenda item (see § 7 below).

2.14 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** said that §5 of the Director's report provided information on the cancellation of networks under various provisions of the Radio Regulations. In §6 of the Director's report, a report on the Bureau's application of the equivalent power flux-density (epfd) validation software was presented for information. He recalled that Resolution 85 (WRC-03) required the Bureau, once the epfd software was available, to review its findings made in accordance with Nos. 9.35 and 11.31 for frequency assignments to non-GSO FSS satellite systems and to determine coordination requirements under Nos. 9.7A and 9.7B. Responding to a question by **Mr Bessi**, he confirmed that the software complied with study group Recommendations and was based on WRC decisions. Nevertheless, there were no clear criteria for determining coordination requirements when characteristics were modified for non-GSO FSS, so Working Party 4A and others were looking at that problem. Meanwhile, the Bureau was asking administrations for information required for the review and to date had not faced particular difficulties.

2.15 **Mr Bessi** expressed concern that the Bureau might cancel filings as a result of its review of findings. The Board should be kept informed of the Bureau's experience in implementing Resolution 85 and have the opportunity to approve or reject any such steps proposed by the Bureau. The cancellation of a filing already in the MIFR as an outcome of the Bureau's review under Resolution 85 would constitute a retroactive application of the regulations. The Bureau was taking a logical

approach but had no experience of implementing the resolution, so should proceed carefully. Obviously there was no problem as regards new systems.

2.16 The **Director** confirmed that, if a difficulty arose, the Bureau would propose a solution and it would be up to the Board to validate that solution. The Bureau would expect non-GSO FSS systems to comply with epfd limits but would take an open, pragmatic approach to continue to protect GSO systems while encouraging Non-GSO FSS systems. At present, there was time for discussion between the Bureau and the non-GSO FSS community. The Bureau would not simply reject systems that would not be in conformity with Article 22, but would discuss with the administrations concerned how to proceed. Resolution 85 covered a transitional period and presumably the next conference would simply abrogate it.

2.17 **Mr Strelets** observed that the application of Resolution 85 was conditional, in that *resolves* 1 was based on the Bureau being unable to examine non-GSO FSS systems and therefore simply accepting the commitment of the notifying administration that the limits were being respected, while *resolves* 5 stated that the resolution was no longer to be applied once epfd validation software was available. The software referred to in Circular Letter CR/414 was not easy to apply, and he questioned whether it could be considered a final version and hence whether Resolution 85 still applied. He raised two questions about the approach being taken by the Bureau. First, while two systems might individually be within the limits, their cumulative effect might exceed the limits. Did the Bureau take account of cumulative effects? Second, according to the Director, the Bureau would be retaining networks submitted previously that were shown by the software not to meet the limits. If newly notified networks did not meet the limits, however, they would presumably be treated more stringently and given an unfavourable finding. Did the Bureau intend to take that situation into account?

2.18 **Mr Hoan** shared the concerns expressed by Mr Strelets regarding the application of Resolution 85.

2.19 The **Director** said that the matter was complex and assured the Board that the Bureau would proceed prudently. The general policy of Resolution 85 was that, once the software was available, it would be used by administrations and the Bureau. When administrations using the software would find that the characteristics of their non-GSO FSS networks were not in conformity with limits, they would propose modifications to these networks. The Bureau was now in the phase of reviewing the proposed modified characteristics to see whether the modified systems interfered with subsequently submitted filings. In some cases the software did not provide a result, so Resolution 85 would have to continue to be applied to cope with systems that the software could not deal with. The Bureau was in the middle of the process, and would report to the next meeting of the Board on the problems encountered and on the solutions put in place in conjunction with administrations. The Bureau would look to the Board or Working Party 4A to resolve any outstanding problems. Concerning the respect of the aggregate limits specified in Resolution 76 (Rev. WRC-15), and referred to in No. 22.5K, there was no examination by the Bureau of compliance with this provision under no. 11.31 and administrations responsible for non-GSO FSS systems were obliged to reduce levels *a posteriori* to ensure compliance with it.

2.20 **Mr Bessi** thanked the Bureau for raising the matter and said that its proposed approach to implementing Resolution 85 was clear and would respect the real needs of administrations. The Board should not tie the Bureau's hands in treating networks but should let the Bureau discuss matters with administrations. If any problems remained, the Board could discuss them at its next meeting.

2.21 **Mr Ito** observed that in practice some multiple systems might want to use the same frequencies, so only examining single entry interference might not be adequate. He suggested that the matter be taken up in the Board's report under Resolution 80 (Rev. WRC-07) and perhaps also in the Director's report to the forthcoming WRC.

2.22 The **Chairman** suggested that the Board conclude on the matter as follows:

“The Board noted the extreme importance of the work carried out by the Bureau with regard to the review of findings for frequency assignments to non-GSO FSS systems under Resolution 85 (WRC-03). The Board encouraged the Bureau to continue this work and to report regularly to the RRB on progress made on this matter.”

2.23 It was so **agreed**.

2.24 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** introduced §7 of the Director’s report on the operation of non-GSO satellite networks under No. 4.4 of the Radio Regulations. He noted that, since 2014, the Bureau had received an increased number of API notices for non-GSO satellite networks in frequency bands not allocated by Article 5 of the Radio Regulations for the type of service foreseen. That situation was raising concerns as to the viability of the overall radiocommunication ecosystem. The Bureau had therefore started contacting the administrations involved explaining its concerns and requesting their response regarding the coordination or notification of the satellite networks in question.

2.25 **Mr Strelets** thanked the Bureau for raising that important subject. One problem was that, for most of the API filings with non-conforming frequency assignments, the Bureau had so far not received the required notification under No. 11.15. An even bigger problem, in his view, was that most administrations did not have the means to monitor satellite operations and so could not identify sources of interference, especially where emissions were sporadic and short-term. Even the satellite monitoring system used by the European countries would not be able to detect most interference from low-orbiting satellites. He suggested that the matter should be included both in the Director’s report to the forthcoming WRC and in the Board’s report to the conference under Resolution 80 (Rev. WRC-07).

2.26 **Mr Ito** thanked the Bureau for raising the matter. For many years he had been concerned about the proliferation of small non-GSO systems. Administrations were responsible for controlling the interference caused but often they did not have the tools required to do so, while sometimes the organizations operating the systems neither knew nor cared about the regulations. The Bureau’s assistance was needed.

2.27 **Mr Bessi** also thanked the Bureau for raising the question of No. 4.4 and the risks that were being posed to networks and services that were in conformity with the Radio Regulations. The matter should be raised at the WRC and perhaps the Board could study the problem in depth as part of its work under Resolution 80 (Rev. WRC-07). The Board could not, however, make a proposal to modify No. 4.4.

2.28 The **Director** said that the Bureau was making efforts to ensure that administrations applying No. 4.4 did so in conformity with the Radio Regulations. Administrations applying No. 4.4 had to carry out all the relevant procedures to ensure that they met the condition embodied in the provision, namely not to cause harmful interference to a station operating in accordance with the provisions of the Constitution, the Convention and the Radio Regulations, and not to claim protection from harmful interference from such a station. When administrations invoked No. 4.4 for stations within their territories and far from borders, there was less likelihood of causing interference, but the danger was grave in space where stations covered all the Earth.

2.29 **Mr Bessi** welcomed the Bureau’s efforts to ensure that administrations were aware of how No. 4.4 should be applied. A compatibility analysis was needed in each different case. He observed that administrations applied No. 4.4 when they had no other alternative, thus an overview of the use of No. 4.4 gave ITU an idea of developments in the field. Such information could highlight problems and spur efforts to resolve them. Maybe a new rule of procedure was needed to explain to administrations how to implement No. 4.4.

2.30 **Mr Ito** agreed with the Director. No. 4.4 was a basic provision, but the question arose of how to verify that its condition was met. Verification was difficult, especially for non-GSO systems.

2.31 **Ms Jeanty** said that she had no answer to the question identified by Mr Ito but she wholeheartedly supported the work described in §7 of the Director's report as well as the Director's explanation. She looked forward to receiving further information at the Board's next meeting.

2.32 **Mr Strelets** stressed that No. 4.4 should not be used as a pretext for operating in violation of the Radio Regulations. It was not enough for an administration simply to say that a station would not cause harmful interference to stations operating in conformity with the Radio Regulations, the administration should be able to prove it. He recognized, however, that it was difficult to do so for space-based assets.

2.33 **Mr Hoan** agreed that monitoring was difficult for satellite services, especially non-GSO systems. He supported the Bureau's proposal to follow up on different cases and report progress to future meetings of the Board.

2.34 The **Director** thanked the Board for its support for the Bureau's action. Administrations should be aware that No. 4.4 was not an invitation to violate all the Radio Regulations, but only to keep its spirit when operating in derogation to it, in particular to be able to identify and cease harmful interference if it occurred. In particular, an administration using No. 4.4 had to apply Article 11 and notify its stations to the Bureau so that harmful interference may be controlled. It seemed from recent operations of non-notified stations in the 900 MHz band as well as of high altitude platform stations (HAPS) that some administrations or operators mistakenly thought that No. 4.4 was an exception to all the regulations.

2.35 **Mr Bessi** observed that the current regulations did not oblige the Bureau to examine cases under No. 4.4, although the Bureau could do so. In some cases, the Bureau did not have the means to carry out an examination, there being no Recommendation from a relevant study group. The matter should be raised at the WRC, and all administrations should be made aware of how No. 4.4 should be applied.

2.36 **Mr Magenta** said that, whether or not the Board eventually decided to adopt a rule of procedure on No. 4.4, the matter should be brought to the attention of the conference by the Board through its report under Resolution 80 (Rev.WRC-07) as well as through the Director's report. He observed that requiring the Bureau to examine all cases under No. 4.4 would be costly.

2.37 **Ms Wilson** agreed that the matter should be taken up in the Board's report under Resolution 80 (Rev.WRC-07). With regard to HAPS, she pointed out a conflict between Nos. 4.4 and 4.23, the latter provision stating that "Transmissions to or from high altitude platform stations shall be limited to bands specifically identified in Article 5".

2.38 **Mr Strelets** agreed with previous speakers. The Bureau might think about developing a rule of procedure dealing with non-GSO systems, and the Board could consider HAPS at its next meeting. Plenty of monitoring was available for terrestrial stations, whereas for non-GSO systems compliance with criteria to prevent harmful interference should be proved at the notification stage.

2.39 The **Director** said that a rule of procedure on No. 4.4 and perhaps also on No. 11.2 might need to be modified to cover the current concerns. Did the burden of proof fall on administrations intending to operate under No. 4.4, as Mr Strelets implied? In terms of harmful interference, HAPS were similar to space stations in that it was difficult to identify which administrations were affected. He stressed that the use of No. 4.4 should be an exception. The Bureau could not do studies for every case, and in general the provisions of Article 5 should be applied.

2.40 **Mr Bessi** said that No. 4.4 did not require studies to show that there was no harmful interference, and he had doubts about developing a rule of procedure that went beyond the current regulations by making such studies mandatory.

2.41 **Ms Wilson** shared the concern expressed by Mr Bessi, namely that a rule of procedure should not establish an obligation that did not exist in the regulations. The Board should urge administrations using No. 4.4 to be proactive in ensuring that they did not cause harmful interference.

2.42 **Mr Strelets** said that No. 4.4 imposed the condition of not causing harmful interference, and the Board should strengthen the application of that provision by telling administrations to provide evidence that they fulfilled the condition.

2.43 The **Director**, emphasizing the urgency of taking steps to protect the viability of the radiocommunication ecosystem, suggested that the Board might seek to identify a solution to the problem in advance of the WRC.

2.44 **Mr Koffi** thanked the Bureau for raising the matter. The question was how to verify the correct use of No. 4.4, and perhaps a modification to the existing rule of procedure could be developed step by step. He considered that the Board should take measures now, not wait for the conference to solve the problem.

2.45 The **Chairman** suggested that the Board conclude on the matter as follows:

“Regarding the issue of the operation of non-GSO satellite networks under RR No. 4.4, the Board thanked the Bureau for bringing this matter to its attention. Given the urgency of the matter and its potentially significant impact on the RR and radiocommunication services, the Board instructed the Bureau to continue examining the issue and prepare a report to the Board on this matter, including a possible preliminary draft modification of the Rule of Procedure on No. 4.4 to be considered at its 76th meeting.”

2.46 It was so **agreed**.

2.47 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** introduced §8 and §9 of Document RRB17-2/3(Rev.1), which contained decisions taken by the Bureau subject to confirmation by the Board relating to the reinstatement of frequency assignments to the USASAT-55N satellite network (United States) and to the MEXSAT113 L-CEXT-X satellite network (Mexico), respectively.

2.48 **Mr Ito, Ms Jeanty and Mr Kibe** expressed surprise that requests for the reinstatement of frequency assignments were being submitted to the Board for consideration and decision in the Director’s report, rather than as stand-alone, fully documented agenda items.

2.49 **Mr Strelets** agreed with previous speakers, and drew attention to RR Article 14 – Procedure for the review of a finding or other decision of the Bureau, and specifically Nos. 14.4 and 14.5. Under the former, if the outcome of the review successfully resolved the matter with the requesting administration without adversely affecting the interests of other administrations, there was no need to seek confirmation from the Board. Under the latter, when the outcome did not successfully resolve the matter or would adversely affect the interests of other administrations, the Bureau was required to prepare a report to submit to the administrations concerned in order to allow them to address the Board. The Bureau was then to send the report to the Board along with all supporting documentation. Regarding the substance of the request in §8 of the Director’s report, concerning the United States’ network, he could sympathize with the administration, but to accede to the request could set a precedent that would open the door to a potential flood of similar requests.

2.50 The **Director** said that the requests for reinstatement under consideration had seemed sufficiently straightforward for the Bureau to decide them itself, subject to confirmation by the Board. He acknowledged the procedural reservations expressed by the previous speakers, but noted that, had the Bureau refused the requests sent directly to it and left it to the administrations concerned to take their cases to the Board, it would have opened a period of several months of uncertainty.

2.51 **Mr Bessi** agreed with the reservations expressed by previous speakers. He could agree to examine the cases as now proposed by the Director, but to do so the Board would require far more information than that presented in the Director’s report, as the proposed decisions involved a derogation from the provisions of the Radio Regulations. For example, regarding the United States case, the Board would have to base its decision on the actual administrative problems encountered that had led to the late notification, and whether or not the problems had involved the Bureau and the administration, or only the administration.

2.52 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** said that the problem in the United States case had involved an oversight on the part of the administration resulting from a misunderstanding within it and the satellite operator involved. The Bureau had not been involved in the oversight at all.

2.53 **Mr Strelets** said that §8 and §9 could be removed from the Director's report completely. To his understanding of Article 14, the Bureau had been fully competent to review a decision it had taken, and only if there were adverse effects for administrations would the matter possibly be brought before the Board in accordance with RR No. 14.5 if any of the administrations concerned so wished. The Bureau could and should, if so requested, review its decisions autonomously in accordance with No. 14.4 if there were no adverse effects for administrations, and in that case there was no need to have recourse to the Board.

2.54 **Mr Ito** said that he sympathized with the United States' request, as a real system was involved; but at a previous meeting the Board had already acceded to a similar request by the same administration, and to adopt the approach advocated by Mr Strelets could set a precedent leading to numerous administrations submitting similar requests. It might be useful to bring the matter to the attention of the WRC in general terms.

2.55 **Mr Hoan** said that, as the cases under consideration involved the review of a finding or decision by the Bureau, they came under Article 14, and if the outcome of the review had no adverse effects the matter could but did not have to be reported to the Board. To his mind, given the reasons provided and the fact that the assignments in question were in use, he could endorse the decisions taken by the Bureau.

2.56 **Mr Koffi** endorsed Mr Strelets' comments. Sections 8 and 9 of the Director's report should be deleted and the usual procedure under Article 14 should be implemented.

2.57 **Mr Bessi** said that §8 and §9 of the Director's report should not necessarily be dealt with together, as the circumstances of the two cases differed. Moreover, to delete the two sections could only lead to confusion, especially in view of the exchanges that had taken place between the Bureau and administrations involved. As things now stood, the cases should be analysed and decided by the Board; and the most appropriate way for that to happen, given that decisions could not be taken on them at the present meeting, would be to delete the corresponding filings and leave it to the administrations concerned to bring appeals before the Board.

2.58 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** said that in both cases under consideration the assignments concerned had been suppressed and the administrations had requested reinstatement.

2.59 **Mr Kibe** said that, based on that clarification, §8 and §9 should be neither amended nor deleted, and the two cases should be dealt with separately as they were not identical. One way forward could be to advise the two administrations concerned that if they wished to have their assignments reinstated they should submit their cases to the Board for consideration. He agreed with Mr Ito that the reinstatement of assignments following problems within an administration was becoming a recurring issue, and the matter should be brought to the attention of the WRC.

2.60 **Mr Strelets** said that it really made no difference whether §8 and §9 were amended or deleted entirely. The provisions of No. 14.4 and No. 14.5 were perfectly straightforward, and if No. 14.5 became applicable it was up to the administrations concerned to address the Board and not for the Bureau to do so for them. The problems he had with the cases under consideration related to procedure rather than substance; the way they had been handled appeared to be setting an incomprehensible precedent. The Board should leave the Bureau to handle the cases under the relevant provisions of Article 14, and should simply take note and move on.

2.61 **The Director** said that the way forward proposed by Mr Strelets was perfectly acceptable to him. The decision lay with the Bureau, which would reinstate the assignments, and there would be no further action taken unless a concerned administration disagreed with such reinstatement.

2.62 **Mr Magenta** said that the respective responsibilities of the Bureau and Board remained somewhat unclear, and parts of §8 and §9 were potentially contradictory. In particular, if the Bureau was competent to decide on the cases, then the reference to “subject to confirmation by the RRB” was certainly inaccurate. The items could not simply be deleted from the Director’s report. There remained Mr Strelets’ proposal, which was perhaps the best way forward. In all events, the Board did not have sufficient information to take informed decisions at the present meeting, and should perhaps defer consideration of the issues to its next meeting.

2.63 **Ms Jeanty** said that the Board and Bureau should be transparent, and therefore should not envisage deleting or amending §8 and §9 of the Director’s report. The inaccuracies in those sections would become evident to administrations when they read the minutes of the meeting. As to how to actually handle the two cases, the Board could agree that the Bureau should decide them under No. 14.4 on the understanding that, as regulatory deadlines were involved, affected administrations could always appeal against the Bureau’s decisions. Alternatively, as the filings had been suppressed, it could be left to the administrations concerned to submit appeals against those decisions to the Board’s next meeting. That alternative might be the most straightforward and might go some way towards meeting Mr Ito’s concerns.

2.64 **Ms Wilson**, addressing Mexico’s request for reinstatement as covered in §9 of the Director’s report, said that the request related not to a finding, but to the fact that a regulatory deadline had not been met. The Mexican Administration had nevertheless made every effort to meet the deadline, had coordinated the assignments, and the assignments were in operation. For the Board to accede to the request would be perfectly in line with its competencies and responsibilities and the purposes for which it existed, and would not be in infringement of the Radio Regulations. The provisions of Article 14 were not necessarily applicable. The Board should accede to Mexico’s request, while possibly admonishing the administration for failing to fully comply with the Radio Regulations.

2.65 **Mr Bessi** said that, as the two cases had been brought before the Board, the Board should perhaps decide them, possibly by maintaining the cancellations and leaving it up to the administrations to appeal to the Board if they so wished, based on fully documented submissions. In future, however, the Bureau could decide such matters under Article 14, without informing the Board, but informing all administrations concerned.

2.66 The **Director** said that the requests submitted by the United States and Mexico were similar in that they involved networks that had been coordinated and operational for some time, thus all potentially affected administrations were presumably aware of them. To defer the matter a further six months would only create additional uncertainty, with possible effects on administrations not at present affected. Notwithstanding any administrative irregularities committed, therefore, the Board could, as suggested by Mr Strelets, simply note the cases. The Bureau could reinstate the cancelled assignments based on the understanding that no administrations would be affected for the reasons he had given. If any administrations were affected, they could appeal to the Board. Such a way forward would be the safest course of action, while ensuring the protection of real networks that were in operation.

2.67 **Mr Strelets** endorsed the Director’s comments, particularly regarding networks in operation, and those by Ms Jeanty regarding the need for transparency. He further noted that in the absence of any appeal from an administration there were no legal grounds for the Board to review the decisions taken by the Bureau.

2.68 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** said that the networks involved had been in operation for some time without complaint from any other administrations, and it was therefore considered that no other administrations were adversely affected by them. However, coordination had not been completed, which meant that operation of the assignments would be subject to No. 11.41/11.42.

2.69 **Ms Jeanty** said that she could support the way forward outlined by the Director as the Board should seek to help rather than complicate matters for administrations. It should nevertheless be made

clear that the decisions to reinstate the assignments had been taken by the Bureau, that any affected administrations could come forward, and that administrations should respect all relevant provisions of the Radio Regulations.

2.70 **Mr Bessi** said that he could agree to Mr Strelets' proposal regarding the two cases under consideration, to note the decisions taken by the Bureau under No. 14.4. He nevertheless endorsed Ms Jeanty's comments, and said that all future requests for reinstatement should be transmitted by the Bureau to the Board with all the relevant information required for the Board to take a fully informed decision.

2.71 **Mr Magenta** supported Ms Jeanty and Mr Bessi. Any request for the reinstatement of filings should be in compliance with the relevant rules of procedure, and if any administrations were affected the Board stood ready to reconsider the cases.

2.72 **Mr Hoan** supported the comments made by Mr Strelets, Mr Bessi, Mr Magenta and the Director, adding that the Bureau and Board should not unnecessarily complicate matters: the Bureau was competent to review its findings and decisions, could report the outcome of such reviews to the Board but did not have to do so, and did not have to seek confirmation of review decisions from the Board.

2.73 The Board **agreed** to conclude on §8 and §9 of the Director's report as follows:

"The Board noted Sections 8 and 9 of the Report of the Director of the Radiocommunication Bureau, concerning administrative oversights by two administrations, which had resulted in responses to the Bureau beyond the applicable regulatory deadlines and the decisions taken by the Bureau in reinstating, on an exceptional basis, the corresponding frequency assignments to the concerned satellite networks. Taking into account that the Bureau had taken its decisions pursuant to RR No. 14.4, having determined that they would not adversely affect the interests of other administrations, the Board concluded that these decisions do not require any action by the Board. Considering that such cases should remain exceptional, the Board urged all administrations to strictly adhere to the regulatory deadlines for the submission of notices."

2.74 **Mr Vassiliev (Chief TSD)**, introducing those parts of the Director's report dealing with terrestrial systems, said that, as shown in Annex 2 to the report, in the reporting period the Bureau had processed some 90 000 notices and had reviewed findings of terrestrial assignments recorded in the MIFR to take account of changes made by WRC-15. Statistics relating to harmful interference and infringements of the Radio Regulations were reflected in the tables in §4.1 of the Director's report, while §4.2 dealt specifically with harmful interference to broadcasting stations in the VHF/UHF bands between Italy and its neighbouring countries. Since the 74th meeting of the Board the Bureau had received 98 harmful interference reports from the Administration of Switzerland and there had been three letters from the Administration of Slovenia, contained respectively in Addenda 1, 4 and 5 to the Director's report. No information had been received from the Administrations of France, Croatia and Malta. The letter in Addendum 1, dated 12 June 2017, stated that a bilateral meeting had been held between Italian and Slovenian representatives, on the initiative of Slovenia, but that Italy had not yet organized a subsequent meeting. Furthermore, the letter expressed concern about FM broadcasting and stated that "Italian radio stations are bringing legal charges against Slovenian radio stations at Italian courts, even though Slovenian radio stations are using internationally coordinated frequencies". In the light of that situation, Slovenia and Slovenian radio stations were bringing legal charges against Italian radio stations in Slovenian and Italian courts. The letter in Addendum 4, received on 3 July 2017, stated that interference on operating Slovenian TV channels had been eliminated, and it was expected that similar actions would be taken to free the remaining GE06 TV channels assigned to Slovenia but currently being used by Italian stations. The letter further noted that the situation regarding FM radio frequencies remained unchanged. The letter in Addendum 5, dated 7 July, proposed a second multilateral meeting. Addendum 2 to the Director's report contained a road map provided by the Administration of Italy outlining ways to solve the harmful interference to VHF sound broadcasting stations between Italy and neighbouring countries,

namely Malta, France, Monaco, Slovenia, Croatia and Switzerland. The ways suggested mainly concerned reduction of power and relocation of stations. The document contained measures taken as well as measures proposed but not yet implemented. With regard to Slovenia, the Italian Administration considered that the GE84 registrations were unbalanced, with 348 frequencies registered by Slovenia and only 194 by Italy in the territory between 1° East and 1° West of the border between the two countries. The Administration of Italy proposed a long-term solution based on clearance of the 700 MHz band, re-planning of the 3°, 4° and 5° bands, and development of digital radio, making a new FM plan possible. In the short term, the Italian Administration suggested changes of antenna patterns, transmitter power levels, transmitting sites and C/I ratios. Responding to a query by **Ms Jeanty**, he confirmed that there had been only one multilateral meeting in the ITU framework, which had been held in 2011. In Addendum 2, the Italian Administration stated that the next bilateral meeting between Italy and Slovenia was scheduled for 28 June 2017, but he did not know whether or not that meeting had taken place.

2.75 **Mr Strelets** noted that the letter in Addendum 5 stated that a bilateral meeting had taken place at the end of June. The letter, which was addressed to the ITU Secretary-General, nevertheless called for a multilateral meeting under ITU auspices. The letters in both Addenda 4 and 5 indicated that there had been no change regarding interference to FM radio frequencies. He wondered what the Board could do to improve that situation.

2.76 The **Director** suggested that the Board might instruct the Bureau to organize a multilateral meeting, as requested by Slovenia. He expressed concern about the escalation of the conflict between Italy and Slovenia to encompass legal procedures in national courts. In an informal exchange of correspondence, the Administration of Slovenia had indicated that it might ask the Bureau to act as an expert in such cases. The Board might wish to clarify the role of the Bureau in the event that it received a formal request to act as an expert in a national court case. Furthermore, the Board might wish to clarify the rights and obligations of Italy as a signatory of the GE84 Agreement, although Italy had not ratified that agreement and the terms of the agreement were not incorporated into Italian law. It seemed that the view of the Italian courts was that the situation remained the same as that prior to this Agreement, namely that the principle of “first come, first served” applied. With regard to television frequencies, he noted that all harmful interference cases had been resolved but warned about dormant cases that would arise when countries wanted to bring in service their assignments in the GE06 Plan at frequencies that Italy was currently using.

2.77 **Mr Bessi** was saddened to hear that the parties were taking each other to court. It would be far preferable for them to get together to resolve the problems. For the second time, Italy had presented a road map but none of the neighbouring countries had as yet reacted to the proposed approaches. Perhaps the Board should request comments on the road map from the countries concerned, to be taken up during the next meeting of the Board. He wondered what approach Italy would take in re-planning bands III, IV and V.

2.78 **Mr Strelets** expressed concern about the possible involvement of ITU in legal proceedings. ITU could base itself on its Constitution, Convention and Radio Regulations, and the Board’s decisions. Those documents were open to all administrations, but it would be dangerous for ITU to venture into legal interpretation. With regard to the road map, he agreed with Mr Bessi that the Board needed to hear the views of the other administrations concerned. So far, it had only received a reaction from Slovenia, which was unhappy with the situation.

2.79 The **Director** suggested that a multilateral meeting might be held to discuss the road map. The Board might wish to invite the ITU Legal Adviser to give an opinion about the possible involvement of ITU in court cases and about the obligations of Italy under the GE84 Agreement. In his view, it would be difficult for ITU to intervene in a court case between operators of different Member States.

2.80 **Ms Wilson** said that the views of the ITU Legal Adviser would be edifying.

2.81 **Mr Koffi** said that it was regrettable that the operators were in court. He recognized the wisdom of preparing an opinion in case the courts asked ITU to intervene, and agreed with Ms Wilson that it would be helpful to hear from the ITU Legal Adviser.

2.82 The **Chairman** invited the ITU Legal Adviser to the meeting to give an opinion about Italy's situation in regard to the GE84 Agreement and the possible involvement of ITU as an expert in proceedings in national courts in the conflict between Italian and Slovenian operators.

2.83 The **ITU Legal Adviser** said that Italy's situation with regard to the GE84 Agreement was similar to its situation with regard to the GE06 Agreement, and he recalled an analysis that he had made of the latter (circulated in Document RRB13-3/INFO/2(Rev.1) dated 20 January 2014). That analysis could be applied *mutatis mutandis* to the GE84 Agreement and was wholly valid. The main points were that Italy had not formally ratified the GE84 Agreement and had not expressed its consent to be bound by that agreement. Italy was therefore not strictly speaking bound to apply the provisions of the agreement proactively. Nevertheless, having signed the agreement, Italy was not an outsider *vis-à-vis* the agreement and had certain obligations to the international community and the countries that were parties to the agreement. The fundamental obligation was that Italy and the Italian Administration must not take actions that would be contrary to the object and purpose of the GE84 Agreement. That obligation arose *inter alia* from the application of Article 18 of the 1969 Vienna Convention on the Law of Treaties, to which Italy had been a party since 1974. Another point worth considering was that, despite not being a party to the GE84 Agreement, Italy had applied some of the provisions of that agreement. The application of provisions of a treaty by a State that was not a member of the treaty created legal obligations for the State concerned; in particular, when a non-member State applied the treaty voluntarily it had to respect the provisions of the treaty. Finally, as discussed in his earlier analysis relating to the GE06 Agreement, even though Italy was not a party to the GE84 Agreement, it was nevertheless a party to the ITU Constitution, Convention and Radio Regulations and, as such, had to apply their provisions. Various provisions of the Constitution and Convention, in particular Nos. 37, 189A, 197 and 199 of the Constitution, provided that stations authorized by a State must operate in a way that did not cause harmful interference to stations authorized by other States that were operating in conformity with the Radio Regulations. Thus an analysis of the case had to go beyond the legal position of Italy in regard to a regional agreement, and had to take other elements into account, in particular legal norms with higher hierarchical level than the regional agreement, to wit the Constitution and Convention or the Radio Regulations to which Italy was a party and whose provisions were incorporated in Italian law.

2.84 With regard to the question of whether ITU could designate an expert to intervene in an Italian or Slovenian court, he pointed out that an official request would have to be sent to the ITU Secretary-General and, as far as he knew, no such official request had been made. ITU's practice had always been not to get involved in conflicts between Member States or between operators in Member States. As a basic principle, ITU had to remain neutral. Furthermore, ITU could not jeopardize the diplomatic immunity that it enjoyed by taking part in national legal proceedings. The Union would have to renounce its immunity in order to intervene in a national court and his own view was that such a step would not be in the interests of ITU, although of course it would be up to the Secretary-General to decide. Thus, if ITU were asked to send an expert, his advice to the Secretary-General would be to refuse that request. Nevertheless, to assist in the proper administration of justice in Member States, ITU could respond to a request from the court itself (not from the parties to the conflict), sent through diplomatic channels, to respond to questions of a regulatory or technical nature. Such action was very rare, but could be envisaged provided that the questions did not jeopardize ITU's neutrality or immunity and were within the Union's mandate and competence. Any responses would be sent in writing.

2.85 **Mr Strelets** pointed out that there was no provision in ITU's basic texts that would enable ITU to send an expert witness to take part in a national court case. To embark on such a course would require the plenipotentiary conference to amend the texts. Nevertheless, ITU was *de facto* involved

in resolving the conflict, and should base its approach on maximum goodwill in applying the Radio Regulations.

2.86 **Ms Wilson** asked whether, in the event of the Union responding in writing to a court's question, the response would include an opinion or would be limited to citing provisions of the basic texts.

2.87 The **ITU Legal Adviser** said that the basic principle was that ITU should not jeopardize its neutrality. Thus the Union would not offer a legal opinion and would not interpret the basic texts. It would simply cite the relevant provisions.

2.88 **Mr Magenta** understood that ITU could not intervene in a conflict between administrations but asked what kind of legal and technical advice the Union could provide.

2.89 The **ITU Legal Adviser** said that, in replying to legal or technical questions within its competence, ITU's response would relate to the framework of the conflict, not the subject of the dispute.

2.90 The **Director** suggested that the Bureau, with the assistance of the ITU Legal Adviser, should prepare an analysis covering the GE84 Regional Agreement and showing how the scenario had developed, in particular looking at the application of No. 11.34 and the assignments of Italy and Slovenia over the past 35 years. The document could be submitted to the Board at its next meeting. Responding to a comment by **Mr Bessi** he stated that the Board would of course reply to questions sent by administrations, as its job was to resolve technical and legal matters. The **ITU Legal Adviser** endorsed that statement.

2.91 **Ms Jeanty** welcomed the Director's suggestion of preparing an analysis relating to the GE84 Regional Agreement. She understood that, if ITU received a request via diplomatic channels, it could provide regulatory or technical information of a general nature, but not opinions or interpretations.

2.92 **Mr Ito** said that it followed from the Legal Adviser's clear explanation that the Board must not get involved in court cases, but when it received documents from countries as part of its daily work, it could carry out its tasks within the boundary of the Radio Regulations.

2.93 **Mr Strelets** said that the Board's work was regulated by the basic texts, the Radio Regulations and the Rules of Procedure. While the Board would deal with requests from administrations within that framework, in no circumstances should the Board be in direct contact with any national court. **Mr Koffi** endorsed those comments.

2.94 The **Chairman** commented that actions not prohibited by the Constitution, Convention and Radio Regulations could be allowed.

2.95 The **ITU Legal Adviser** said that requests sent through diplomatic channels had to be addressed to the Secretary-General as the legal representative of ITU. If such a request came directly to the Board, the Board must not reply. Neither the Board nor the Director had the capacity to examine the consequences for ITU's neutrality and immunity. If a reply was to be made, it would be done by the Secretary-General, with the support of the Bureau, the Board and the Legal Affairs Unit.

2.96 The **Chairman** suggested that the Board conclude as follows:

"The Board noted with satisfaction the absence of complaints of harmful interference from Italian TV transmitters. This confirmed the positive effects of the efforts made by the Administration of Italy. However, the Board recognized that there was still the problem of interference from Italian transmitters in the FM sound broadcasting band. The Board also noted the road map submitted by the Administration of Italy and the great deal of efforts by administrations to date in resolving this problem.

Taking note of the request from the Administration of Slovenia, the Board instructed the Bureau to consult the other administrations concerned on their interest in the ITU convening a multilateral meeting amongst these administrations. Specifically, such a meeting would, on the basis of the

goodwill of the parties concerned and in the same spirit of cooperation as in the case of television broadcasting, address the harmful interference from the FM sound broadcasting transmitters of Italy to its neighbours.

Furthermore, the Board invited the Administrations of Italy and Slovenia to continue their discussions in order to implement a satisfactory solution, with the assistance of the Bureau, if required. The Board further encouraged the other administrations concerned to provide their comments to the Administration of Italy and the Bureau on the road map provided by the Administration of Italy as contained in Document RRB17-2/3(Add.2).

The Board indicated its appreciation for the information provided by the Legal Adviser concerning the use by the Administration of Italy of the spectrum subject to the GE84 Regional Agreement. The Board instructed the Director of the Radiocommunication Bureau to complement the information in Document RRB13-3/INFO/2(Rev.1) in order to cover the GE84 Regional Agreement, for submission to the Board's 76th meeting, taking into consideration the overall history of assignments notified since 1984 by the Administrations of Italy and Slovenia in respect of the application of RR No. 11.34 of the Radio Regulations.”

2.97 It was so **agreed**.

2.98 **Mr Vassiliev (Chief TSD)**, responding to a request by the **Chairman**, gave an update on the progress under Resolution 205 (Rev.WRC-15), a topic discussed by the Board at its previous meeting. The Bureau had modified its software to detect frequency assignments notified in the bands adjacent to the Cospas-Sarsat main band, where administrations should refrain from assigning frequencies. The software already detected several such cases involving three notifying administrations. ITU-R Working Party 4C had developed a list of elements to be used in the monitoring programme and, based on this list, the Bureau was preparing a circular letter on a radiomonitoring programme in the adjacent band to be sent out to inform administrations. Monitoring could currently be done by terrestrial radio monitoring stations, since the satellite segment of the Cospas-Sarsat system with the new receivers capable of monitoring the adjacent bands were to be launched in 2018-2019. Work was continuing in the European FM 22 Monitoring group, in Cospas-Sarsat and in ITU-R Working Party 4A.

2.99 **Mr Strelets** thanked the Bureau for its work under Resolution 205 (Rev.WRC-15) and suggested that it draw the attention of the relevant ITU-R working party to the need to develop criteria regarding an allowable level of out-of-band emissions in the band 406-406.1 MHz from the transmitting devices of systems operating in adjacent bands.

2.100 **Mr Vassiliev (Chief TSD)** introduced Addendum 3 to the Director's report, containing a proposal by the Bureau to revise the rule of procedure on No. 11.14 to align it with the current version of Appendix 17, which had been approved by WRC-12 and had entered into force on 1 January 2017.

2.101 **Mr Bessi** and **Mr Koffi** proposed that the Board deal with the draft revised rule on No. 11.14 under the agenda item relating to its discussion of the Rules of Procedure (see §3 of these minutes).

2.102 It was so **agreed**.

2.103 The Director's report in Document RRB17-2/3 (Rev.1) and Addenda 1-5 was **noted**.

3 Rules of procedure (Documents RRB16-2/3(Rev.5) and RRB17-2/3(Add.3))

3.1 **Mr Bessi** said that although the Board had virtually completed its consideration of Document RRB16-2/3 and its successive revisions, it remained a living document to which any draft new or modified rules of procedure could be added. He therefore proposed that the draft modified rule of procedure on No. 11.14 in Addendum 3 to Document RRB17-2/3 be added to Attachment 3 to Document RRB16-2/3(Rev.5) with the indication that it would be considered at the Board's 76th meeting, and that it be sent out to administrations for comment in the meantime. He also noted that

the first entry under Attachment 2 (“Minutes of the 13th Plenary Meeting”) should indicate that the rule of procedure in question had been approved at the Board’s 72nd meeting.

3.2 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** said that although a draft modification to the rule of procedure on receivability was supposed to have been considered at the present Board meeting under the “RES 907 (WRC-15)” entry in Attachment 2, it would not be possible to prepare the draft modification and send it out for comment until the relevant software had been developed and tested. Document RRB16-2/3(Rev.5) should therefore be amended to reflect that the draft modified rule would be taken up at the Board’s 76th or 77th meeting.

3.3 It was **agreed** that the document would be updated to reflect the above amendments and would be published as Document RRB16-2/3(Rev.6) on the Board’s webpage.

3.4 Following a suggestion by the **Director** and comments by **Mr Strelets, Ms Jeanty and Mr Bessi**, it was **further agreed** that the latest version of Document RRB16-2/3 would be submitted to each Board meeting, and that for ease of reference it should be identified by two numbers: its original document number (Document RRB16-2/3 + Rev. number), and a number allocated for each meeting.

3.5 The **Chairman** suggested that the Board should instruct the Bureau to prepare the relevant draft rules of procedure.

3.6 It was so **agreed**.

4 Submission by the Administration of India requesting an extension of the date of bringing into use of frequency assignments to the INSAT-EXK82.5E satellite network (Documents RRB17-2/1 and RRB17-2/DELAYED/1)

4.1 **Mr Wang (Head SSD/SNP)** introduced Document RRB17-2/1, in which the Administration of India requested that the Board grant it an extension based on *force majeure* to the date of bringing into use of India’s INSAT-EXK82.5E satellite network in the Appendix 30B Plan, from 30 March to 31 December 2017. India’s initial plan to bring the network into use had involved the use a new launch vehicle GSLV-MK-III, and when difficulties had been encountered it had tried to lease another launcher, but unsuccessfully; hence India was invoking *force majeure* on the grounds of circumstances beyond its control. He also drew attention to Document RRB17-2/DELAYED/1, in which India informed the Bureau and Board that the GSAT-19 satellite, which was intended to bring network INSAT-EXK82.5E into use, had been launched successfully on launch vehicle GSLV-MK-III on 5 June 2017. Responding to questions by the **Chairman**, he said that India had made all the submissions required for the network under the Radio Regulations. The Part A notification had been submitted and published in 2009; the Part B notification had been submitted on 15 March 2017, two weeks prior to the bringing-into use deadline, but had not yet been published because of delays in processing; and the Resolution 49 information had also been received on 15 March 2017, and had been published on 11 July 2017.

4.2 The **Chairman** questioned whether the Board could alter the date of bringing into use frequency assignments that had not yet been registered.

4.3 **Mr Bessi** said that the request before the Board invoked *force majeure* based on the fact that it had been impossible to launch a given satellite on a specific launch vehicle, but failed to provide sufficient information explaining why the bringing-into-use deadline had not been met and satisfying the four basic criteria that had to be met for *force majeure* (Document RRB12-2/INFO/2(Rev.1)). He wondered whether more information was available.

4.4 **Ms Jeanty** agreed with Mr Bessi that the information before the Board was insufficient. For example, it was unclear what assignments were to be brought into use and at what positions by satellite GSAT-19, especially in view of India’s indication that the satellite was to be operated initially at 82.5°E for ninety days before moving to “the designated orbital slot”.

4.5 **Mr Wang (Head SSD/SNP)** said that the Bureau had no details on the case other than those provided in the documents now before the Board. The Bureau's understanding was that technical difficulties had been encountered by India in developing the new launch vehicle GSLV-MK-III, which was designed to carry a bigger payload than India's previous launch vehicles. The Bureau had established the link between satellite GSAT-19 and network INSAT-EXK82.5E based on the Resolution 49 information submitted by India.

4.6 **Mr Strelets** asked whether the 82.5°E position corresponded to a Plan allotment for India or an additional use. He also noted that it was unclear what orbital position was eventually to be occupied by the GSAT-19 satellite. He was concerned that in its letter of 17 March 2017, the Administration of India observed that the Board had acceded in the past to requests that India deemed similar to its present case, and was therefore confident that the Board would accede to it. The Board dealt with all requests invoking *force majeure* on a strictly case-by-case basis. Moreover, India's correspondence failed to analyse and justify the basis of its *force majeure* claim in terms of the four conditions that had to be met. The Board would require much more information in order to properly examine India's request.

4.7 The **Chairman** agreed that far more information was required, without which the Board had to make deductions of its own which might or might not be correct. For example, India's correspondence referred to both the C and Ku bands, whereas to his understanding the Indian network under consideration incorporated only the Ku band.

4.8 **Ms Wilson** agreed with previous speakers that information was certainly lacking, but even with additional information she would have difficulty accepting the request as a case of *force majeure*, not least because India had tied its hopes of meeting the bringing-into-use deadline to the use of a new launch vehicle, which was highly likely to entail delays. To her mind, India's insistence on using the new launch vehicle had placed its programme in jeopardy, thus clearly failing to meet the condition for *force majeure* which referred specifically to the fact that the event must be beyond the control of the obligor and not self-induced.

4.9 **Mr Bessi** said that he shared previous speakers' doubts as to whether India's request could be treated as a case of *force majeure* based on the information provided. Various aspects were unclear. For example, surely India would have been aware from the outset of the problems involved when planning to use the older launch vehicle, GSLV-MK-II. Had that launch vehicle been used previously to launch other satellites? And under what precise circumstances had the decision been taken to switch to the GSLV-MK-III launch vehicle? Were the problems encountered really beyond the control of the Indian Administration? When it became clear that the bringing-into-use deadline would not be met, what other launch providers had been contacted in a bid to find a solution?

4.10 **Mr Ito** agreed that it was unclear whether India's request could be considered a case of *force majeure*. Moreover, he shared Mr Strelets' doubts regarding the orbital position at which the satellite was ultimately to be located, which begged the question of whether the satellite was to be used to activate networks at one orbital position or more than one. In that regard, the case potentially raised the same doubts as the request submitted by the Administration of Israel examined by the Board at its 73rd meeting.

4.11 **Mr Koffi** agreed with previous speakers that, based on the information and arguments put forward by the Indian Administration, the Board could not accede to the request as a case of *force majeure*.

4.12 **Mr Strelets** said that, bearing in mind that satellite GSAT-19 had now been launched, India should be given the opportunity to provide the information required for the Board to decide the matter properly. Thus, the Bureau should be requested to ask the Indian Administration to provide information regarding the orbital positions that the GSAT-19 satellite would occupy and for how long, and the bands it would use. India should also provide information justifying its claim of *force majeure* in terms of the four conditions to be met (Document RRB12-2/INFO/2(Rev.1)). Pending the

availability of all that information, the Board should instruct the Bureau not to take any action on the network involved until the Board had further considered the matter at its 76th meeting.

4.13 The **Chairman** endorsed the comments made by previous speakers, as well as the way forward proposed by Mr Strelets.

4.14 **Ms Jeanty** agreed with Mr Strelets. If the grounds for *force majeure* proved too weak, she wondered whether other justification could be found for acceding to India's request, given that the extension requested was relatively short and a real satellite had been launched to bring the network involved into use. She noted that information was publicly available on the GSAT-19 satellite, indicating *inter alia* that it had Ku and Ka band capacity, and would spend a short period at 82.5°E before moving on to 48°E; but India had not seen fit to provide that information to the Board. India should be asked to do so, and to provide full information as to why launch of the satellite had been delayed.

4.15 Responding to various questions raised, **Mr Wang (Head SSD/SNP)** said that India had an Appendix 30B Plan allotment at 74°E, at which position it already had an operational satellite, and the position at 82°E was therefore additional. Regarding the status of the GSAT-19 satellite, according to publicly available third-party information, the satellite had indeed been launched on 5 June 2017, had taken up a stable position at 82.5°E on 19 June and was still at that position as at 17 July 2017. Only the Ku band appeared in the relevant filing.

4.16 **Mr Magenta** said that the information available to the Board in the documents submitted by India was unclear, particularly in regard to the precise reasons for the launch delay from the first quarter of 2017 to June 2017. Moreover, India had failed to justify its claim of *force majeure* in terms of the four conditions to be met. He therefore agreed with previous speakers that additional information was required if the Board was to rule a case of *force majeure*. He stressed that cases of *force majeure* were judged case by case, and were not conceded automatically.

4.17 **Ms Wilson** agreed that the Board could defer its decision on the case to its 76th meeting for the reasons given by other Board members – although she noted that satellite GSAT-19 clearly did not have C-band capacity.

4.18 **Mr Hoan** said that, although the Board could not establish a case of *force majeure* for India based on the information available to the present meeting, India was to be congratulated for its successful launch of the GSAT-19 satellite using the new launch vehicle GSLV-MK-III. Moreover, India had made every effort to comply with all relevant provisions of the Radio Regulations. The Board should give India the opportunity to provide further information in justification of its case for consideration by the Board at its 76th meeting.

4.19 **Mr Kibe** agreed that the information available to the Board was insufficient for establishing a case of *force majeure*, and he therefore endorsed the course of action now being proposed. For the Board to decide on the matter at its 76th meeting would not pose a problem since that meeting was to be held in November 2017 and the relatively short extension requested by India was up until 31 December 2017.

4.20 The **Director** said that additional information – details regarding the launch vehicle, explanations regarding efforts to find an alternative launch vehicle, precise use of the GSAT-19 satellite, etc. – was clearly called for in order for the Board to be able to decide whether or not to concede a case of *force majeure*. He personally would be surprised if the Board saw fit to decide not to, once the full picture emerged. For example, India could hardly have been expected to have a back-up launch vehicle standing ready to be used in case its intended launch vehicle could not fulfil its mission on time. He nevertheless noted that satellite GSAT-19 had taken up position at 82.5°E on 19 June, thus bringing into use the network barely three months late, which begged the question of why India had asked for a nine-month extension when three months would have sufficed, and raised the doubts entertained by Mr Ito regarding the precise orbital positions to be activated by the satellite.

4.21 Responding to a request by **Mr Wang (Head SSD/SNP)** for guidance on how to proceed following the present meeting, **Mr Strelets** said that the Bureau should process India's filing for network INSAT-EXK82.5E, and the **Chairman** said that the Bureau should then not suppress the network from the MIFR for the time being, pending the decision to be taken by the Board at its 76th meeting.

4.22 The Board **agreed** to conclude as follows:

"The Board carefully considered the request from the Administration of India, as provided in Document RRB17-2/1 and for information Document RRB17-2/DELAYED/1. The Board considered that the information provided was not sufficient to decide whether this situation met all of the conditions of a case of *force majeure* and requested the Administration of India to provide additional information that would allow the Board to come to a decision at its 76th meeting. Meanwhile, as a conservative measure before the Board can review this matter, the Board instructed the Bureau to continue to process the filing for the INSAT-EXK82.5E satellite network until the 76th meeting of the Board."

5 Submission by the Administration of Indonesia requesting an extension of the regulatory suspension period of the frequency assignments to the PALAPA PAC-C 146E and PALAPA PAC-KU 146E satellite networks (Document RRB17-2/2)

5.1 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** introduced Document RRB17-2/2 containing a request by the Administration of Indonesia for an extension of the regulatory suspension period from 24 January 2016 until 25 November 2016 for the frequency assignments to the PALAPA PAC-KU 146E satellite network in the band 12 523-12 679 MHz and until 30 June 2019 for the frequency assignments to the PALAPA PAC-C 146E satellite network in the band 6 665-6 723 MHz. Responding to a query by **Ms Wilson**, he explained that all the frequency assignments to the PALAPA PAC-C 146E and PALAPA PAC-KU 146E satellite networks had been suspended on 24 January 2013. The 3-year suspension period had ended on 24 January 2016, by which time the frequency assignments to the PALAPA PAC-C 146E satellite network in the bands 3 442-4 198.15 MHz and 5 927-6 665 MHz as well as the frequency assignments to the PALAPA PAC-KU 146E satellite network in the band 14 021-14 497 MHz had already been brought back into use by the PSN VR satellite and subsequently operated by the PSN VR2 satellite. However, the frequency assignments to the PALAPA PAC-C 146E satellite network in the band 6 665-6 723 MHz had not been brought back into use, while the frequency assignments to the PALAPA PAC-KU 146E satellite network in the band 12 523-12 679 MHz had been brought back into operation by the PSN VR2 satellite on 25 November 2016, some 10 months after the end of the regulatory suspension period. From a regulatory standpoint, the Bureau was ready to cancel the frequency assignments in those two bands, but the Administration of Indonesia had sent the letter in Document RRB17-2/2 requesting extension of the suspension periods for the frequency assignments in those two bands. Following requests for clarification by the **Chairman** and various Board members, he provided a graphic time line of events.

5.2 **Mr Strelets** asked whether the frequency assignments for which extension was being sought covered the national territory of Indonesia or went beyond it.

5.3 **Mr Ito** recognized the importance of the C band in providing telecommunication services to Indonesia. However, according to the publicly available information, the C-band coverage was different. He asked whether the new PSN VI satellite being constructed would have the capacity to provide the necessary coverage.

5.4 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** said that the frequency assignments in both the C and Ku bands had been notified for wider than national coverage. The Bureau did not track which operating satellite covered which part of the notified coverage, unless another administration contested a satellite's operation claiming that the satellite was not in conformity with the notified characteristics. The Bureau had reported that difficulty to WRC-15 but the conference

had considered the need for operator flexibility and had not taken a clear decision on what to do if notified characteristics on coverage and service area did not correspond to actual characteristics.

5.5 **Mr Bessi** recognized that Indonesia had been faced with a series of difficulties in moving ahead with the construction of the new satellite PSN VI.

5.6 **Ms Jeanty** said that it became clear from the information that Indonesia had done a lot to secure the frequencies. Some of the difficulties encountered could be considered *force majeure*, but other difficulties faced, such as the problem of getting a loan, did not provide grounds for granting the extensions on the basis of *force majeure* in her view. Also, given the details of the first attempt at satellite procurement, the Board might grant the extensions on the basis of co-passenger delay.

5.7 **Ms Wilson** said that requesting an extension until a date that had already passed raised the question of the regulatory status of the Ku band frequency assignment. She noted that, for the C band frequency assignment, the request was for a total suspension period of some six and a half years.

5.8 **Mr Magenta** said that, among all the events described by the Administration of Indonesia, only the failure of the original satellite CHINASAT-5B could be considered *force majeure*. The other events, for example the delay in obtaining a loan, could not be considered *force majeure*. Observing that previous decisions of the Board were listed in the document, he stressed that the Board examined each individual case on a case-by-case basis and needed a regulatory basis for its decision.

5.9 **Mr Strelets** felt that the Board could resolve the case positively, looking at the long chain of unforeseen events that the administration had faced.

5.10 The **Chairman** said that it was nevertheless surprising that the Administration of Indonesia had been unable to find a replacement satellite to bring the frequency assignments back into use within the 3-year regulatory period.

5.11 **Ms Wilson** agreed with the Chairman. Board members had observed the popularity of the *force majeure* argument, with some cases being well-founded and others flimsy. For example in the present case, if a loan had been granted and subsequently became unavailable, the event might have been considered *force majeure*.

5.12 **Mr Bessi** said that Indonesia had clearly been faced with a set of events that were beyond its control, including a change in policy by the United States Congress which had delayed its attempt to secure a loan. He considered that those events fulfilled the conditions for *force majeure*. Great efforts had been made to bring the frequency assignments back into use within the regulatory time limit by deploying the PSN VR satellite and subsequently the PSN VR2 satellite, but unfortunately the frequency assignments in two bands could not be covered by the available satellites. In the light of the difficulties faced, he considered that the Board should accede to Indonesia's request for extension in those two bands, although one of the requested extensions was rather long.

5.13 **Mr Hoan** stressed that satellite communications were crucial for Indonesia as an archipelago and expressed sympathy for Indonesia's plight in making major efforts to bring the frequency assignments back into use. He supported the comments made by Mr Bessi.

5.14 **Mr Strelets** agreed with Mr Bessi and Mr Hoan. There was no sign that Indonesia was reserving the frequency-orbit resource, and there was a real need for satellite communications. The Board should accede to Indonesia's request.

5.15 **Ms Wilson** considered that neither the termination of the contract with Boeing nor the two years and seven months taken to get a loan could be considered *force majeure*. She nevertheless was sympathetic to Indonesia's request. The **Chairman** supported those comments.

5.16 **Ms Jeanty** considered that the only event that constituted *force majeure* was the loss of the original satellite. All the other difficulties mentioned were simply extra information. She agreed with Mr Bessi, Mr Hoan and Mr Strelets that the Board should accede to Indonesia's request.

5.17 **Mr Ito** appreciated the efforts made by Indonesia to bring its frequency assignments back into use despite numerous difficulties, but said that the lack of a co-passenger and financial difficulties did not constitute *force majeure*. The Board should guard against the lax use of *force majeure* as the grounds for granting extensions of regulatory time limits, otherwise there would be a flood of administrations seeking extensions on that basis. The conditions for granting requests on the basis of *force majeure* should be limited. He asked whether the new PSN VI satellite would have the capacity to bring into use the remaining C-band.

5.18 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** said that the Bureau had not received any information from Indonesia as the PSN VI satellite was still under construction. From the public website it seemed that the satellite would have C band and Ku band beams.

5.19 **Mr Hoan** shared the concern expressed by Ms Wilson, but said that finding a co-passenger had been Boeing's task and was thus out of the control of Indonesia.

5.20 The **Director** confirmed that the contract with Boeing was for the delivery of the satellite in orbit, and that the contract therefore covered delivery of the satellite, finding a co-passenger and the launch.

5.21 **Mr Strelets** said that Ms Wilson had raised an important point but that the Board should bear in mind that Indonesia was a developing country.

5.22 **Ms Wilson** highlighted a recurrent problem faced by administrations after in-orbit failure of a satellite. The three-year period allowed to replace the satellite (including financing, building and deploying a new satellite) was inadequate, and the administration concerned had to seek an extension of the suspension period. But there were only two grounds on which the Board could grant an extension, namely co-passenger delay and *force majeure*. The Board should bring the matter to the attention of the WRC in its report under Resolution 80 (Rev.WRC-07) and suggest that the extension following in-orbit failure should be longer than three years.

5.23 **Mr Strelets** agreed that three years was an impossibly short time to replace a satellite that had failed in-orbit. He suggested that the WRC should consider extending the timeframe in such cases. Unless the operator happened to have a second satellite in stock that could be used to bring the frequency assignments back into use, the only possibility open to the administration was to submit a request for an extension of the regulatory period to the Board. The operator would be faced with a lengthy process, starting with collecting the insurance money, calling for tenders and so on. In his view, in the present case, Indonesia had been faced with two *force majeure* events, and the Board could grant the requested extensions on that basis.

5.24 **Mr Ito** said that the understanding of *force majeure* should not be expanded to cover difficult circumstances. He suggested that the next WRC should discuss the types of circumstances that could be covered by *force majeure*. Meanwhile, in the present case, the Board could grant the requested extensions on the basis of co-passenger delay, which was completely separate from *force majeure*.

5.25 The **Director** said that Indonesia had suffered three delays: nine months lost because of the termination of the contract with Boeing, which might be considered *force majeure*; nine months lost because the first loan arrangement had fallen through, which again might be considered *force majeure*; and then one year and ten months to find a new loan. In his view, the first two delays were sufficient to justify a ten-month extension for the Ku band. The Board would, however, have to treat the C-band as a special case, on the basis that only the C-band satellite network could economically secure highly reliable telecommunication services for Indonesia, that there was obviously no attempt to hoard resources, and that Indonesia was a developing country.

5.26 **Ms Jeanty** said that mere financial difficulties could not be considered *force majeure*. The approach suggested by the Director would be acceptable.

5.27 **Mr Koffi** said that he did not see much to back up granting the extensions on the basis of *force majeure* but he had sympathy for Indonesia and considered that the Board should accede to its request on the basis of other arguments, in particular co-passenger delay.

5.28 **Ms Wilson** agreed with Mr Koffi, although she noted that extending the regulatory period for the C band by three and a half years (January 2016 to June 2019) was a long period compared to a nine-month co-passenger delay. **Mr Hoan** agreed with Ms Wilson.

5.29 The **Chairman** suggested that the Board conclude as follows:

“The Board carefully considered the request from the Administration of Indonesia as provided in Document RRB17-2/2, the difficulties experienced in obtaining a replacement satellite as a result of the failure of Chinastat-5B and the extensive efforts made by the administration in this regard.

Taking into account:

- No. 196 of the Constitution with regard to the special needs of developing countries and the geographical situation of particular countries;
- that telecommunication services to thousands of islands in Indonesia can be provided economically only via satellite (specifically the C-band);
- that the new replacement satellite (PSN-VI) is genuinely intended to bring back into use the frequency assignments to these satellite networks;
- that the launch delay was a result of the impossibility of identifying a co-passenger for the launch;
- that the Indonesian administration effectively deployed replacement satellites to restore the service,

the Board decided to accede to this request by extending the regulatory period for bringing back into use the frequency assignments to the PALAPA PAC-C 146E satellite network until 30 June 2019 and the PALAPA PAC-KU 146E satellite network until 25 November 2016 in the bands 6 665-6 723 MHz and 12 523-12 679 MHz, respectively. Furthermore, the Board instructed the Bureau to maintain the concerned frequency assignments in the MIFR.”

5.30 It was so **agreed**.

6 Submission by the Administration of the United Kingdom requesting an extension of the date of bringing into use of the frequency assignments to the UK-KA-1 satellite network (Document RRB17-2/4)

6.1 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** introduced Document RRB17-2/4, in which the United Kingdom requested the Board to grant an extension of four months to the regulatory period for bringing into use its UK-KA-1 satellite network frequency assignments on board the now-launched ViaSat-2 satellite at 70°W, from 19 October 2017 to 19 February 2018, on the grounds of *force majeure* as set out in the United Kingdom’s submission, which included annexed correspondence from Boeing and Arianespace corroborating the claim of *force majeure*. The United Kingdom said that the requested extension would allow for the completion of orbit raising and for the possibility of potential additional delays.

6.2 **Ms Jeanty** said that the United Kingdom’s request was clearly a case of *force majeure* and should therefore be granted. She further noted that the extension requested was relatively short, and the satellite concerned had been launched successfully.

6.3 **Mr Strelets** said that the structured submission made it clear that the administration concerned had made every possible effort to meet the relevant bringing-into-use deadline and explained with full regard for international law how circumstances of *force majeure* alone had led to a delay requiring an extension of four months. It was an open and shut case, and the United Kingdom’s request should be granted.

6.4 **Ms Wilson** supported the previous speakers, adding that the correspondence from Arianespace to ViaSat in Attachment D to Document RRB17-2/4 made it explicitly clear that the case was one of *force majeure*.

6.5 **Mr Ito, Mr Koffi, Mr Bessi, Mr Hoan, Mr Magenta and Mr Kibe** endorsed all the previous speakers' comments.

6.6 The Board **agreed** to conclude as follows:

"The Board considered the request and information provided by the Administration of the United Kingdom as provided in Document RRB17-2/4. Noting the reasons given, the Board concluded that:

- this situation met all of the conditions of *force majeure*;
- the administration had made efforts to meet the regulatory time limit; and
- the request was for a defined and limited extension.

Consequently, the Board decided to accede to this request by extending the regulatory period for bringing into use the frequency assignments to the UK-KA-1 satellite network until 19 February 2018."

6.7 In the course of the Board's consideration of the text of its decision on the United Kingdom's request, the **Director** expressed his concern that the Board must be consistent in its decision-making. To his mind, the Indian and United Kingdom cases were very similar, as they both involved delays attributable to issues with a new launch vehicle. For the United Kingdom, the Board was accepting a case of *force majeure* and granting an extension of four months, which could be broken down into 36 days due to the strike action, two months due to the Arianespace-related events, and one month due to the Falcon Heavy launch delay - even though there was no information available to substantiate that delay apart from what ViaSat referred to as being "widely reported". On the other hand, and despite the similarities between the two cases, India was being requested to provide additional information.

6.8 **Ms Wilson** said that some cases of launch delay could be deemed *force majeure*, others could not, depending on the circumstances, and the Board handled all *force majeure* submissions case by case. Nevertheless, regardless of whether launch delay was at issue, certain conditions had to be met for *force majeure*, including the need for the event to be beyond the control of the obligor, and for it to be unforeseen or, if foreseeable, inevitable or irresistible. In the United Kingdom case, the delay related to the Falcon Heavy vehicle had represented a small part of the total delay, but it had clearly been beyond the control of the obligor and therefore met that condition for *force majeure*. The same was true of other delays encountered by the United Kingdom. She did not see the parallels between the Indian and the United Kingdom cases as evoked by the Director.

6.9 **Mr Strelets** commented that had ViaSat-2 been launched successfully by 31 March 2017, or even by 25 April, as specified in the Contract, the regulatory deadlines for bringing into use would have been met. In that case, the delay due to the Falcon Heavy-related issues would have had no effect on compliance with the regulatory periods for bringing into use the frequency assignments to satellite network UK-KA-1. The circumstances of *force majeure* had arisen because launch had subsequently been delayed from 25 April to 1 June due to social unrest. Therefore no other circumstances needed be considered, and the information concerning the Falcon Heavy problems was redundant and need not be taken into consideration.

6.10 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** drew attention to §13 of the United Kingdom's letter dated 22 June 2017 in Document RRB17-2/4, which stated that ViaSat-2 would not be used to bring into use assignments to any other satellite network between its launch and arrival at 70°E. Regarding the Director's question as to why an extension of four months was being requested rather than the 36 days required, he stressed that according to the United Kingdom's submission the four-month extension was requested in order to allow for the completion of orbit raising and for the possibility of potential additional delays, thus leaving a safety margin.

6.11 Raising the question of whether the deadline for the submission of Resolution 49 and Notification information should change if the bringing-into-use deadline changed, **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** said that to his understanding it should not necessarily be the case. **Mr Bessi** said that the Board should not discuss other deadlines if the United Kingdom had spoken only of the bringing-into-use deadline. Speaking in general terms, **Mr Strelets** said that it would be logical for the Resolution 49 deadlines to change in some cases, especially if a lengthy extension was granted. However, he noted that the only specific indication regarding the deadline for Resolution 49 information appeared to be in §12 of Annex 1 to Resolution 49.

6.12 The Board **agreed** to discuss that matter further at a later juncture.

7 **Iridium satellite system (HIBLEO-2) interference to the radio astronomy service (Documents RRB17-2/5 and RRB17-2/6)**

7.1 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** introduced §4.3 of the Director's report in Document RRB17-2/3(Rev.1) concerning harmful interference to the radio astronomy service in the frequency band 1 610.6-1 613.8 MHz by the Iridium satellite system (HIBLEO-2), as well as the two documents received from administrations on the matter: Document RRB17-2/5 submitted by the Administrations of Italy, the Netherlands and Switzerland, and Document RRB17-2/6 submitted by the Administration of the United States.

7.2 **Mr Ito** said that at least there was a dialogue between the parties concerned. He asked why a simulation could not be carried out now that there were ten of the new generation of satellites in orbit. Why was it necessary to await the launch of the complete Iridium NEXT constellation in 2018?

7.3 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** said that, in his understanding of the explanation given by Iridium, the old satellites had to continue to be used along with the ten new satellites in order to maintain service, and only when the complete Iridium NEXT constellation was deployed would it be possible to implement the avoidance techniques to protect the radio astronomy service from harmful interference.

7.4 The **Director** said that presumably having the old satellites in operation would bias measurement of the interference caused by the constellation as a whole.

7.5 The **Chairman** recalled that the documents submitted to the Board at its previous meeting had reflected different views of the results of modelling carried out by Iridium in 2016.

7.6 **Mr Strelets** thanked the Bureau for implementing the Board's decisions taken at the previous meeting, and for smoothing things out between the two sides. From the documents presented to the present meeting and the discussion at the previous meeting (§7 of Document RRB17-1/9 – Minutes of the 74th meeting), it appeared that the parties were stuck in their previous positions. What seemed to be particularly worrying to the radio astronomers was that Iridium apparently reserved the "right not to comply with the Radio Regulations" if its traffic model grew successfully, and that some 20 years of promises had not yet guaranteed the protection of the radio astronomy service. Thus CEPT planned to verify by measurement the modifications made for Iridium NEXT. For its part, Iridium had made a commitment to meet the protection thresholds given in Recommendation ITU-R RA.769. Obviously, Iridium had to comply with the Radio Regulations, and the Bureau should continue to assist the administrations concerned. The Board's decision on the matter should be along the same lines as its decision at the previous meeting. The outcome would be apparent in 2018. Today, a secondary service was causing interference to a primary service, contrary to the Radio Regulations.

7.7 **Mr Bessi** endorsed the comments made by Mr Strelets and asked whether Iridium would violate the Radio Regulations if it exceeded the thresholds given in Recommendations.

7.8 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** said that harmful interference should not be caused by out-of-band emissions. Respecting the Recommendation thresholds, however, was a community agreement and was not in the Radio Regulations. It is understood that the threshold levels could be exceeded if the interference was notified and the radio astronomy

community agreed. As the radio astronomers did not agree to the threshold levels being exceeded, Iridium had to observe the levels given in the Recommendations, unless some other agreement was reached. From a regulatory point of view, the Recommendations concerned were not incorporated by reference in the Radio Regulations, but administrations were to take note of the Recommendations with the aim of protecting the radio astronomy service.

7.9 **Mr Bessi** understood that observance of the threshold levels arose from an agreement with the radio astronomy community, and that nothing in the Radio Regulations prevented the levels being exceeded. Consequently, the argument that the Radio Regulations were not complied with, because of these exceedances, was not valid. On the other hand, he noted that the SRA was entitled to protection under Nos. 5.149, 5.372 and 29.13 of the RR.

7.10 **Mr Strelets** said that the band 1610.6-1613.8 MHz was allocated to the radio astronomy service on a primary basis, whereas the adjacent band 1613.8-1626.5 MHz was allocated to the mobile-satellite service (space-to-Earth) on a secondary basis. Emissions from the secondary service (Iridium) were leading to violation of the applicable thresholds in the bands set aside for the primary service (RAS). Thus, notwithstanding any agreements concluded between the parties concerned, there was a clear case of violation of the Radio Regulations (Nos. 5.149, 5.372 and 29.13), as had been clearly recognized by the Board at its 74th meeting, in that a secondary service was causing interference to a primary service. The United States maintained that the problem would be resolved when the Iridium NEXT satellites came into operation, in 2018. Meanwhile, the situation had not changed since the Board's 74th meeting. The situation should continue to be monitored, and the Board should consider reiterating the decision it had taken at its 75th meeting.

7.11 The **Director** noted that the situation had not changed since the previous meeting of the Board and suggested that the Board might see fit to reiterate its previous conclusion. **Mr Strelets** and **Mr Koffi** agreed with the Director.

7.12 The **Chairman** suggested that the Board conclude as follows:

“The Board carefully considered Section 4.3 of Document RRB17-2/3(Rev.1) and the submissions from the Administrations of Italy, the Netherlands and Switzerland as contained in Document RRB17-2/5 and the Administration of the United States as contained in Document RRB17-2/6. The Board noted that the Bureau had implemented all the decisions and followed the instructions issued from its 74th meeting. The Board further noted that the situation had not changed significantly since then. Consequently, the Board encouraged concerned parties to, as soon as possible, cooperate in conducting measurements and sharing the results from modelling, if necessary, in order to evaluate any progress regarding this matter. The Board reiterated its previous conclusions on the regulatory evaluation of the situation, as well as its previous decisions to:

- urge the administrations and international organizations concerned to continue to cooperate in order to avoid causing harmful interference to RAS; and
- instruct the Bureau to continue providing the necessary support to facilitate this activity and to continue to report on any progress at future meetings of the Board.”

7.13 It was so **agreed**.

8 Planning on the preparation of the Board's report to WRC-19 under Resolution 80 (Rev.WRC-07)

8.1 **Ms Wilson**, speaking as Chairman of the Board's working group on Resolution 80, suggested that the Board begin identifying the topics it would consider including in its report to WRC-19 under Resolution 80 (Rev.WRC-07).

8.2 **Mr Bessi** said that the Board should not reopen topics on which the WRC had already taken clear decisions.

8.3 **Mr Magenta** said that he agreed with Mr Bessi in principle, but the Board should not be afraid to continue to analyse issues and report on difficulties encountered based on its experience in the inter-WRC period.

8.4 **Mr Strelets** wondered at what stage administrations should be involved in contributing to the Board's report.

8.5 **Ms Wilson** said that, although administrations were invited to comment, the report must remain that of the Board. The approach adopted for the Board's report to WRC-15 had worked well: once the Board had established a solid draft of the report at its first meeting in 2015, administrations had been invited by circular letter to send in their comments on it, and the Board had taken them into consideration where it deemed appropriate when finalizing the report at an extended second meeting in 2015. She suggested that the same basic approach be adopted for the Board's report to WRC-19. As to work in the immediate future, at the Board's 76th meeting an outline of the report could be established, topics grouped, and sub-topics identified. Following that meeting, work could commence on the drafting of texts, for which purpose she would be counting on volunteers to work on given items.

8.6 The Board **endorsed** the approach described by Ms Wilson.

8.7 The Board **agreed** on the following list of topics for possible inclusion in its report to WRC-19 under Resolution 80 (Rev.WRC-07), noting that further topics could be added to it:

Items addressed in previous RRB reports under Resolution 80:

- Introduction
- Approach
- The Board's mandate under *resolves 2* of Resolution 80 (Rev.WRC-07)
- Issues and draft recommendations
- Considerations regarding harmful interference
- Considerations regarding the status of assignments involved in harmful interference situations and factors affecting the resolution of harmful interference
- Situations of *force majeure*
- The status of WRC decisions recorded in the minutes of a world radiocommunication conference
- Conclusions

and perhaps also:

- Suspending the use of a recorded assignment to a space station
- Linkage between bringing into use and notification for recording in the MIFR
- Considerations on satellite failure during the ninety-day bringing into use period

New items:

- Requests by two administrations to transfer the "notifying administration" responsibility from one to the other
- Interpretation of the definition of "satellite network" in RR No. 1.112 and the rule of procedure on No. 1.112
- Adequacy of three-year time period for replacing a satellite in the case of (in-orbit) satellite failure
- Application of No. 4.4 (provision of evidence that harmful interference would not be caused)
- Co-passenger delay
- Status of assignments notified to the Bureau before the WRC's relevant frequency allocation decision comes into force

- Limit on the time duration of extensions of bringing-into-use periods following a case of *force majeure* or co-passenger delay
- Extending regulatory time limits to take account of the time required for electric-drive space stations to be placed in orbit
- Discrepancies between the durations of and conditions for granting regulatory time-limit extensions in planned and non-planned frequency bands, especially if present on the same satellite.

9 Items for discussion by the Board

9.1 The Board discussed the topics summarized below and **agreed** to continue discussion of them at future meetings.

– Webcasting of Board meetings

9.2 **Mr Strelets** said that the idea of webcasting Board meetings had been and was being discussed by various parties, including in anticipation of PP-18, and it would be advisable for the Board to establish its position on the idea lest attempts were made to impose a decision on the Board. He personally would oppose the live webcasting of RRB meetings, *inter alia* in order to ensure that nobody tried to influence Board members during a meeting, but he could accept a compromise of making a full webcast available immediately following each meeting.

9.3 **Ms Wilson** said that the live webcasting of Board meetings could expose Board members to attempts by different parties to influence the Board's decisions, and could therefore jeopardize the members' role as custodians of an international public trust who should not receive any instructions from administrations or members of the private sector. She would therefore be strongly opposed to live webcasting. As to making webcasts available following each meeting, she considered that the summary of decisions and relatively full minutes produced for each meeting adequately ensured transparency. She further noted that any webcasting would have to be provided in all six official languages of the Union, which would have financial implications. She would therefore be opposed to the webcasting of Board meetings.

9.4 **Ms Jeanty** supported Ms Wilson. She recalled that the possibility of webcasting Board meetings had been discussed briefly at WRC-15, but those discussions had not been pursued beyond working group level.

9.5 **Mr Bessi** said that meetings for which webcasting was provided, such as WRCs and ITU Council sessions, for the most part discussed general issues of interest and concern to all administrations. The Board, on the other hand, often discussed issues and even conflicts involving the specific interests of individual administrations, and webcasting could expose individual members to the risk of reaction from administrations. The present system was perfectly adequate, with administrations having access to the minutes following each meeting, leaving them free to submit their reactions to subsequent Board meetings.

9.6 **Mr Koffi** said that live webcasting could expose individual Board members to attempts by administrations to influence them and indeed to recrimination for views expressed during a given meeting.

9.7 **Mr Magenta** endorsed previous speakers' comments, noting that extracts from webcasts could be used by interested parties to present a distorted picture of the meeting's proceedings rather than the balanced picture ensured in the minutes.

9.8 **Mr Strelets** said that while he agreed with the previous speakers, the Board might find webcasting imposed upon it. If so, the Board would have to take whatever steps were required in order to protect itself and individual members. In that regard, he recalled that attempts had been made in the past to present the views of individual members as reflected in the minutes as the view of the Board as a whole, following which the Board had added the disclaimer that appeared on the cover

page of each set of minutes indicating that they reflected the detailed and comprehensive consideration by the Board members of the items under consideration at the meeting, whereas the official decisions of the Board were to be found in the summary of decisions of the meeting.

9.9 **Mr Ito** said that the subject of webcasting Board meetings had been and probably would continue to be discussed regularly, with the same arguments being made time and again. The idea remained unlikely to receive support.

9.10 **Mr Kibe** agreed that the matter was likely to come up again, particularly as the plenipotentiary conference approached, and he supported the comments made by previous speakers. As had been stated, the Board's meetings dealt with subjects that other meetings did not, the Board members acted in an individual capacity rather than as representatives of countries or organizations, and they took quasi-judicial decisions. Members must feel free to express themselves frankly and spontaneously.

9.11 The **Chairman** said that he shared the views already expressed; caution should be exerted before making any change to the present working method. At the last WRC, the Board had come under no criticism for the work it did, for any lack of transparency or for working behind closed doors.

9.12 **Mr Strelets** said that upon further reflection he would be in favour of webcasting the Board's meetings, as it would help ensure that members prepared themselves better for meetings and weighed their words more carefully when intervening. It might also help lessen the influence of the Bureau at Board meetings.

9.13 The **Director** stressed that the Bureau intervened in Board meetings solely to provide clarifications and possibly to make suggestions when asked. It exerted no influence as such.

– **Participation of Board members in other ITU and regional meetings**

9.14 **Mr Strelets** said that matters of relevance and particular interest to the Board and its individual members were sometimes discussed at other ITU meetings or regional meetings, and participation by given Board members, duly authorized by the Board as a whole, could be advantageous to all parties. He cited as examples ITU-R Working Party 4A, which often discussed matters of direct relevance to the Board, the ITU Council, which had taken decisions recently on the Board's budget, and the fact that he himself had been approached to make a presentation on the Board's work at regional meetings. It should also be borne in mind that the active participation of Bureau officials in regional meetings was also extremely beneficial for administrations, and at the same time the Bureau received real benefits and practical experience from collaborating with administrations.

9.15 **Ms Wilson** noted that the basic texts of the Union specified clearly which ITU meetings were to be attended either by two Board members (plenipotentiary conference and RA) or by all Board members (WRC and Board meetings). Otherwise, Board members could participate in any other meetings on the delegations of their country (or company if a Sector Member), but not in their capacity as a Board member unless specifically mandated to make some form of presentation. The basic texts did not seem to allow any flexibility in terms of adding to the duties of Board members.

9.16 **Mr Magenta** said that the Board's hands were somewhat tied with regard to participation in meetings other than those identified by Ms Wilson, despite the fact that it could be to everyone's advantage for Board members to be authorized to participate in various meetings where they could make useful contributions or witness first-hand the treatment given to subjects of interest to the Board. If such participation were to be authorized, various aspects would first have to be addressed, including the budget to cover it, the conditions governing it, and the interventions that Board members would be authorized to make.

9.17 **Mr Ito** endorsed Ms Wilson's comments, adding that, if members attended and intervened in meetings other than those cited by Ms Wilson, they had to make it clear that they were not doing so as Board members.

9.18 **Ms Jeanty** endorsed the comments made by Ms Wilson and Mr Ito. She did not consider that any great advantage would be gained from Board members attending meetings other than those cited, save perhaps those of Working Party 4A, but participation in that working party was not covered by the basic texts.

9.19 **Mr Strelets** said that the basic texts of the Union indicated where members' participation was mandatory, but did not prevent them from participating in other meetings, as Board members. He further noted that when Chairman of the Board, Ms Jeanty had represented the Board and made a presentation on its work at a BR seminar, and Mr Bessi had participated in the Special Committee. He personally participated in various regional meetings and those of Working Party 4A to great advantage, even though he made it clear that he was neither participating nor intervening as a Board member.

9.20 The **Director** agreed with the previous speakers, noting that normally the Board's budget could not be used to cover Board members' participation in any meetings other than those covered by the basic texts. For Board members to participate in any radiocommunication-related meetings could bring obvious benefits, but he endorsed Mr Ito's comments: even if they were not participating as Board members, they could be perceived as doing so.

– **Consideration of the report of the Director to the WRC on difficulties encountered with certain parts of the Radio Regulations**

9.21 **Mr Strelets** said that, whereas the issues identified in the Board's report under Resolution 80 were established well in advance of the WRC, leaving administrations ample time to prepare their positions on them, administrations had extremely little time to do the same on the numerous items involving difficulties in implementing the Radio Regulations included in the Director's report to the conference. The result was that the WRC could not possibly consider such items properly, if at all. A better way to handle such items should be sought. One possibility could be for the Board to consider them, perhaps with a view to creating rules of procedure on them; such an approach would involve the careful consideration of the draft rules by the administrations too.

9.22 **Ms Wilson** said that the Board dealt primarily with cases brought before it by administrations in the form of appeals, or requests, and could obviously react to matters reported to it in the Director's report to each Board meeting. Should the Board be playing the additional role suggested by Mr Strelets?

9.23 The **Director** said that Mr Strelets had raised a real problem, as many of the items referred to were either rejected or not dealt with at all by the WRC for lack of time. It would be useful to share such difficulties with administrations, the CPM and other groups such as Working Party 4A as early as possible, in order to avoid surprises at the conference, and if any items could be dealt with by the Board, he would welcome it.

9.24 **Mr Sakamoto (Head SSD/SSC and Acting Chief SSD)** recalled that, in the past, rules of procedure had readily been developed to deal with any matters requiring clarification in the regulatory texts of the Radio Regulations, resulting in a voluminous set of Rules of Procedure. Consequently, the WRC had stipulated that the set should be reduced to as few rules as possible, with rules developed only where clearly required; every effort should be made to convert rules into provisions of the Radio Regulations, and matters involving difficulties in implementing the regulatory provisions should be reported to the WRC. That approach partially explained why so many items were reported to the WRC.

9.25 In the light of the comments made, **Mr Strelets** urged the Bureau to make every effort to resolve difficulties ahead of the WRC wherever possible, and to bring to the Board's attention any matters that it could help resolve.

– **Matters relating to *force majeure***

9.26 **Mr Strelets** said that the Board must discuss the extremely sensitive and complex matter of *force majeure* in depth at some stage. Indeed, in Working Party 4A and other ITU-R meetings the Board had come under criticism for its handling of cases of *force majeure*, with one administration in Working Party 4A requesting the Bureau to produce a list and analysis of all such cases handled by the Board to date with a view to examining them within the working party. The reaction of the working party had been to indicate that the proper forum for reviewing decisions by the Board was the WRC, but the doubts had nevertheless been expressed. Responding to a question by **Mr Magenta**, he said the participants in Working Party 4A were much the same as those who participated in WRCs.

9.27 **Ms Wilson** said that the subject would be discussed in depth by the Board when developing its report under Resolution 80 (Rev.WRC-07). **Ms Jeanty** agreed.

9.28 The **Director** said that the Board should not be too surprised to come under criticism from some parties for its decisions involving *force majeure*, as there were inevitably parties who could feel hard done by. The real measure of the membership's satisfaction with the Board's decisions came at the WRC, where administrations were free to appeal against the Board's decisions. Viewed from that angle, the Board had good reason to believe that the membership was very satisfied. There was a major difference between expressing criticism at a working party meeting and lodging an appeal at a WRC. Nor were the participants in the different meetings by any means the same. The members of the Board were elected by the plenipotentiary conference, representing all Regions of the world, and worked by consensus, and for these reasons, could be expected to reach the same conclusions as the WRC under the same circumstances.

9.29 **Mr Magenta** agreed with the comments made by the Director, and added that when decisions were made by the Board on a case by case basis, the outcome might not necessarily be what the parties involved expected even if the Board applied the same basic criteria to each case. The Board always endeavoured to reach the wisest and fairest decision possible.

10 Dates of the next and future meetings

10.1 The Board **agreed** to confirm the dates of its 76th meeting as 6-10 November 2017.

10.2 The Board **further agreed** to tentatively confirm the dates of its subsequent meetings as follows:

- 77th meeting: 19-23 March 2018
- 78th meeting: 16-20 July 2018
- 79th meeting: 26-30 November 2018.

11 Approval of the summary of decisions (Document RRB17-2/7)

11.1 The summary of decisions (Document RRB17-2/7) was **approved**.

12 Closure of the meeting

12.1 The **Director** thanked the Chairman and all Board members for their contributions to a fruitful meeting.

12.2 **Mr Magenta** and **Mr Strelets** thanked and commended the Chairman for his able handling of what had turned out to be a full and productive meeting. They also thanked the Director and all staff involved for their important contributions.

12.3 The **Chairman** thanked the previous speakers for their kind words and expressed his appreciation to everyone who had contributed to the success of the meeting. He closed the meeting at 1210 hours on Friday, 21 July 2017.

The Executive Secretary:
F. RANCY

The Chairman:
I. KHAIROV