



## Radiocommunication Bureau (BR)

Circular Letter  
**CR/494**

23 January 2023

**To Administrations of Member States of the ITU**

Subject: **Minutes of the 91<sup>st</sup> 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 91<sup>st</sup> meeting of the Radio Regulations Board (31 October – 4 November 2022).

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.

Mario Maniewicz  
Director

Annex: Minutes of the 91<sup>st</sup> meeting of the Radio Regulations Board

**Distribution:**

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



**Document RRB22-3/18-E**  
**4 November 2022**  
**Original: English**

MINUTES\*  
OF THE  
91<sup>ST</sup> MEETING OF THE RADIO REGULATIONS BOARD  
31 October – 4 November 2022

- Present:
- Members, RRB  
Mr T. ALAMRI, Chairman  
Mr E. AZZOUZ, Vice-Chairman  
Ms C. BEAUMIER, Mr L.F. BORJÓN FIGUEROA, Ms S. HASANOVA, Mr A. HASHIMOTO,  
Mr Y. HENRI, Mr D.Q. HOAN, Ms L. JEANTY, Mr S.M. MCHUNU, Mr H. TALIB, Mr N.  
VARLAMOV
- Executive Secretary, RRB  
Mr M. MANIEWICZ, Director, BR
- Précis-writers  
Ms C. RAMAGE and Ms S. MUTTI
- Also present:
- Ms J. WILSON, Deputy Director, BR and Chief IAP  
Mr A. VALLET, Chief, SSD  
Mr C.C. LOO, Head, SSD/SPR  
Mr M. SAKAMOTO, Head, SSD/SSC  
Mr J. WANG, Head, SSD/SNP  
Ms X. WANG, SSD/SPR  
Mr N. VASSILIEV, Chief, TSD  
Mr B. BA, Head, TSD/TPR  
Ms I. GHAZI, Head, TSD/BCD  
Mr D. BOTHA, SGD  
Ms K. GOZAL, Administrative Secretary

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\* 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 91<sup>st</sup> meeting of the Board. The official decisions of the 91<sup>st</sup> meeting of the Radio Regulations Board can be found in Documents RRB 22-3/17 and RRB 22-3/17(Corr.1).

Subjects discussed	Documents
1 Opening of the meeting	-
2 Adoption of the agenda	RRB22-3/OJ/1(Rev.1)
3 Report by the Director, BR	<a href="#">RRB22-3/5</a> <a href="#">RRB22-3/5(Corr.1)</a> <a href="#">RRB22-3/5(Add.1)(Rev.1)</a> <a href="#">RRB22-3/5(Add.2)</a> <a href="#">RRB22-3/5(Add.3)</a> <a href="#">RRB22-3/5(Add.4)</a> <a href="#">RRB22-3/5(Add.5)</a> <a href="#">RRB22-3/5(Add.6)</a> <a href="#">RRB22-3/5(Add.7)</a> <a href="#">RRB22-3/5(Add.8)</a> <a href="#">RRB22-3/5(Add.9)</a>
4 Rules of procedure	-
4.1 List of rules of procedure	<a href="#">RRB22-3/1</a> <a href="#">RRB20-2/1(Rev.7)</a>
5 Requests relating to the extension of regulatory time-limits to bring or to bring back into use frequency assignments to satellite networks/systems	-
5.1 Submission from the Administration of Norway requesting an extension of the regulatory time-limit to bring back into use the frequency assignments to the DUB DUB-5-18W satellite network	<a href="#">RRB22-3/4</a>
5.2 Submission by the Administration of Indonesia requesting an additional extension of the regulatory time-limit to bring into use the frequency assignments to the NUSANTARA-H1-A satellite network	<a href="#">RRB22-3/6</a>
5.3 Submission by the Administration of Indonesia requesting an additional extension of the regulatory time-limit to bring into use the frequency assignments to the PSN-146E satellite network	<a href="#">RRB22-3/7</a>
5.4 Submission by the Administration of Germany (Federal Republic of) requesting an extension of the regulatory time-limit to bring into use the frequency assignments to the H2M-0.5E satellite network	<a href="#">RRB22-3/8</a>
5.5 Submission by the Administration of Pakistan repeating its request for the extension of the regulatory time-limits to bring into use the frequency assignments to the PAKSAT-MM1-38.2E-KA and PAKSAT-MM1-38.2E-FSS satellite networks	<a href="#">RRB22-3/9</a>
5.6 Submission by the Administration of Papua New Guinea requesting an extension of the regulatory time-limit to bring into use the frequency assignments to the MICRONSAT satellite network	<a href="#">RRB22-3/10</a>
5.7 Submission by the Administration of Cyprus requesting an extension of the regulatory time-limit to bring into use the frequency assignments to the CYP-30B-59.7E-3 satellite network	<a href="#">RRB22-3/12</a>
5.8 Submission by the Administration of the Russian Federation providing additional information supporting its request for an extension of the regulatory time-limit to bring into use the frequency assignments to the SKY-F satellite system	<a href="#">RRB22-3/15</a>
6 Cases of harmful interference	-

<b>6.1</b>	Submission by the Administration of China (People's Republic of) in response to the Administration from the United Kingdom of Great Britain and Northern Ireland regarding harmful interference to emissions of United Kingdom high frequency broadcasting stations published in accordance with RR Article <b>12</b>	<a href="#">RRB22-3/3</a> <a href="#">(RRB22-2/DELAYED/2)</a> <a href="#">RRB22-3/DELAYED/1</a> <a href="#">RRB22-3/DELAYED/2</a>
<b>7</b>	Coordination of the ARABSAT and TURKSAT satellite networks  Submission by the Administration of Türkiye in response to the submission from the Administration of Saudi Arabia (Kingdom of) regarding the coordination of the ARABSAT 5A and 6A satellite networks at 30.5°E and the TURKSAT-5A satellite network at 31°E in the Ku-band (10.95-11.2 GHz, 11.45-11.7 GHz and 14.0-14.5 GHz)  Submission by the Administration of Türkiye regarding harmful interference from ARABSAT satellite networks at 30.5°E towards TURKSAT satellite networks at 31°E  Submission by the Administration of Saudi Arabia (Kingdom of) regarding the coordination of the ARABSAT 5A and 6A satellite networks at 30.5°E and the TURKSAT 5A and ARABSAT satellite networks at 31°E in the Ku-Band	<a href="#">RRB22-3/5(Add.10)</a>  <a href="#">RRB22-3/2</a> <a href="#">(RRB22-2/DELAYED/1)</a>  <a href="#">RRB22-3/13</a>  <a href="#">RRB22-3/14</a>
<b>8</b>	Report by the Radio Regulations Board to WRC-23 on Resolution <b>80 (Rev.WRC-07)</b>	-
<b>8.1</b>	Submission by the Administrations of France, Germany (Federal Republic of), Luxembourg, Norway, Spain, Sweden, Türkiye and the United Kingdom of Great Britain and Northern Ireland regarding Provision 4.1.24 of RR Appendices <b>30</b> and <b>30A</b>	<a href="#">RRB22-3/11</a>
<b>8.2</b>	Consideration of issues related to Resolution <b>80 (Rev.WRC-07)</b>	-
<b>9</b>	Discussion regarding Chairman and Vice-Chairman for 2023	-
<b>10</b>	Confirmation of the dates of the next meeting and indicative dates for subsequent meetings	-
<b>11</b>	Issues relating to PP-22	-
<b>11.1</b>	Oral report on PP-22 by RRB representatives	-
<b>11.2</b>	Presentation of certificates of appreciation	-
<b>12</b>	Approval of the summary of decisions	<a href="#">RRB22-3/17</a>
<b>13</b>	Closure of the meeting	-

## 1 Opening of the meeting

1.1 The **Chairman** opened the 91<sup>st</sup> meeting of the Radio Regulations Board at 0905 hours on Monday, 24 October 2022 and welcomed the Board members. He congratulated the Director and the Board members who would serve during the next cycle on their re-election and expressed appreciation to outgoing Board members for their contribution to the Board's work during their term of office.

1.2 The **Director of the Radiocommunication Bureau**, speaking also on behalf of the Secretary-General, said that he considered his re-election a collective achievement that reflected the Member States' satisfaction with the Bureau's work as a whole, including the Board. He congratulated the members who had been re-elected and thanked those who were not continuing for their dedication and hard work.

1.3 The **members of the Board** took it in turn to congratulate the Director and the Board members who would serve a second term on their re-election and to wish the outgoing Board members the best in their future endeavours.

## 2 Adoption of the agenda (Document RRB22-3/OJ/1(Rev.1))

2.1 At the request of the **Chairman**, and in accordance with the working methods of the Board, the discussion of all items of the agenda pertaining to the Administration of Saudi Arabia, including the consideration of late submissions, was presided over by the Vice-Chairman.

2.2 **Mr Botha (SGD)** drew attention to the corrigendum to the Director's report (RRB22-3/5(Corr.1)), the revised version of Addendum 1 thereto (RRB22-3/5(Add.1)(Rev.1)) and Addenda 7 to 10, all of which had been issued since the publication of the draft agenda. Addendum 10 contained the Bureau's report on coordination activities between the Administrations of Saudi Arabia and Türkiye, and the Board might therefore wish to consider it under agenda item 7. He also drew attention to two delayed submissions (Documents RRB22-3/DELAYED/1 and RRB22-3/DELAYED/2). Document RRB22-3/DELAYED/1, a submission from the Administration of the United Kingdom for discussion under item 6.1 of the agenda, had initially been received before the deadline for submission. The administration had subsequently discovered that it contained mistakes and had asked to submit a corrected version, which had arrived after the deadline. Document RRB22-3/DELAYED/2 contained the response from the Administration of China to the submission from the Administration of the United Kingdom set out in Document RRB22-3/DELAYED/1. It had been submitted in Chinese and English before the start of the meeting and was therefore admissible under the Rule of Procedure on late submissions.

2.3 In reply to a query from **Mr Azzouz, Mr Vallet (Chief, SSD)** said that there was no addendum to the Director's report on coordination issues between the Administrations of France and Saudi Arabia because there had been no developments in that respect, the two administrations having been occupied with other coordination activities since the previous Board meeting.

2.4 **Mr Talib** said that he agreed with the **Chairman** that the delayed submissions from the Administrations of the United Kingdom and China were admissible under No. 1.6 of Part C of the Rule of Procedure on Resolution **1 (Rev.WRC-97)** and in line with precedent.

2.5 **Ms Jeanty, Mr Hoan and Ms Hasanova** considered that both delayed submissions were admissible under the rules of procedure, having been received before the start of the meeting.

2.6 Referring to items 6.1 and 7.1 of the agenda, **Mr Azzouz** proposed that Documents RRB22-3/3 and RRB22-3/2, which contained submissions deferred from the previous meeting, also be listed on the agenda by their previous document numbers (RRB22-2/DELAYED/2 and RRB22-2/DELAYED/1, respectively).

2.7 It was so **agreed**.

2.8 The Board **adopted** the draft agenda as amended in Document RRB22-3/OJ/1(Rev.1). It **decided** to include Documents RRB22-3/DELAYED/1 and RRB22-3/DELAYED/2 under agenda item 6.1 for information.

### **3 Report by the Director, BR (Documents RRB22-3/5, RRB22-3/5(Corr.1) and Addenda 1(Rev.1) to 9**

3.1 The **Director** introduced his customary report in Document RRB22-3/5. Referring to § 1, on actions arising from the last RRB meeting, he drew attention to § 7.1 of Annex 1. As instructed by the Board, the Bureau had convened a meeting between the Administrations of Japan and the Russian Federation (Addendum 8), which had taken place in a constructive atmosphere and yielded good results, the interference having stopped shortly before.

3.2 Referring to § 3.2, on Council activities, he said that, owing to a downturn in the industry as a result of COVID-19, the estimated amount of satellite network cost-recovery revenue for 2022 had decreased from the budgeted forecast of CHF 15 million to CHF 10 million. That shortfall would impact the budget and financial planning for the following cycle and was a concern. Filings were often now of a lower quality than previously and the Bureau's analysis took longer, which might need to be reflected in the processing charges. At its extraordinary session in Bucharest, the Council had considered the possibility of reconvening an expert group or of creating a new one to revise the schedule of processing charges but had deemed it premature to do so. The matter was likely to be considered by the Council at its 2023 meeting.

3.3 In order to provide the Board with statistics up to the end of September 2022, information that would normally be included in the body of the report had been set out in several addenda. Addendum 2, which contained a progress report on the implementation of Resolution **35 (WRC-19)**, set out in Table 2 more information on frequency bands and the number of satellites deployed, as requested by the Board. Addendum 4 reported on progress in the implementation of Resolution **559 (WRC-19)**; revision marks had been included in the table to show the significant improvements achieved. Addendum 9 reported on the coordination activities between the Administrations of France and Greece; the Bureau was hopeful that the parties were close to reaching a conclusion. Addendum 10 reported on the discussions between the Administrations of Saudi Arabia and Türkiye. He noted that the issue was no longer the purview of technical staff and had been escalated to the CEO level.

#### **Actions rising from the last RRB meeting (§ 1 of Document RRB22-3/5 and Annex 1)**

3.4 **Mr Vallet (Chief, SSD)**, drawing attention to § 2 p) of Annex 1, said that there had been no further coordination meetings between the Administrations of Saudi Arabia and France since the Board's last meeting. While the situation needed to be resolved, it had not raised any interference issues and was considered a lower priority by the two administrations than other coordination issues in which they were involved.

3.5 **Mr Vassiliev (Chief, TSD)**, referring to § 9 of Annex 1, said that pursuant to the Board's decision at its 90<sup>th</sup> meeting, a remark had been inserted into the 1 458 frequency assignments to IMT stations that might have active array antennas. Once the methodology for notifying power to the antenna had been developed by the relevant ITU-R study group, the assignments would be reviewed.

3.6 The Board **noted** § 1 and Annex 1 to Document RRB22-3/5, on actions arising from the decisions of the 90<sup>th</sup> Board meeting.

#### **Processing of filings for terrestrial and space systems (§ 2 of Document RRB22-3/5 and Annexes 2 and 3)**

3.7 **Mr Vassiliev (Chief, TSD)**, referring to Annex 2 to Document RRB22-3/5, on the processing of notices to terrestrial services, drew attention to the tables contained therein. In response to a comment from **Mr Azzouz**, he confirmed that the date 02.11.2021 should be deleted in the last row of Table A2-4.

3.8 **Mr Vallet (Chief, SSD)** drew attention to the tables on the processing of notices for satellite networks set out in Annex 3 to Document RRB22-3/5. Responding to a question from **Mr Azzouz**, he confirmed that some of the tables did not refer to regulatory time-limits as none were indicated in the Radio Regulations for the Plans and notification, at least for examinations under Parts II-S/III-S.

3.9 The Board **noted** § 2 of Document RRB22-3/5, on the processing of filings for terrestrial and space systems.

#### **Implementation of cost recovery for satellite network filings (§ 3 of Document RRB22-3/5 and Annex 4)**

3.10 **Mr Vallet (Chief, SSD)**, referring to § 3.1 of Document RRB22-3/5 and Annex 4 thereto, said that no satellite network would be cancelled as a result of non-payment or late payment.

3.11 **Mr Azzouz** thanked Member States for their commitment to the timely payment of cost-recovery fees. Noting the expected reduction in cost-recovery revenue from CHF 15 to 10 million, he said that the Bureau should make a proposal for discussion by the Council to overcome the reduction in cost-recovery revenue.

3.12 The Board **noted** §§ 3.1 and 3.2 of Document RRB22-3/5, on late payments and Council activities, respectively, with regard to the implementation of cost recovery for satellite network filings.

#### **Reports of harmful interference and/or infringements of the RR (Article 15 of the Radio Regulations) (§ 4 of Document RRB22-3/5)**

3.13 **Mr Vassiliev (Chief, TSD)**, drawing attention to Tables 1 to 4 in the Director's report, noted that a total of 251 communications concerning reports of harmful interference and infringements had been received by the Bureau between 1 September 2021 and 31 August 2022.

3.14 The Board **noted** § 4.1 of Document RRB22-3/5, containing statistics on harmful interference and infringements of the Radio Regulations.

#### **Harmful interference to broadcasting stations in the VHF/UHF bands between Italy and its neighbouring countries (§ 4.2 and Addenda 5, 6 and 7 to Document RRB22-3/5, and Document RRB22-3/5 (Corr.1))**

3.15 **Mr Vassiliev (Chief, TSD)** said that since the Director's report had been prepared, the Bureau had received communications from the Administrations of Slovenia, Italy and Croatia, set out in Addenda 5, 6 and 7, respectively. According to the Administration of Slovenia (Addendum 5), there had been no improvement in the FM interference situation.

3.16 Addendum 6 contained an updated roadmap from the Administration of Italy. With regard to TV broadcasting in the UHF band, actions had included the implementation of a new national plan that had freed up the 700 MHz band; the conclusion of an agreement with San Marino to finance the removal of some of the latter's stations, resolving potential interference to Slovenian and Croatian stations; and registration of all stations in the GEO6 Plan. Regarding DAB broadcasting in VHF Band III, the Italian frequency regulator had published a provisional national plan for the allocation of frequencies in that band, pending an agreement by the Adriatic-Ionian group. Slovenia had made its signature of that agreement conditional on Italy's signature of a generic commitment to respect international agreements on radio frequencies (including the Radio Regulations and Regional Plans). The Italian Administration considered that it would be inappropriate to sign such a commitment since the subject of the negotiations should remain VHF Band III and conditions should not be imposed concerning VHF Band II. With regard to FM broadcasting, a national working group had been created to examine the situation, but it required clear political direction, and national elections had delayed its operation. Legislative interventions would generally be required to resolve the problems in the FM frequency band, which would take time, and broadcasters would have to be convinced of the advantages of migrating from FM to DAB, there being no legal obligation to do so. The roadmap concluded with the administration's summary of cross-border cases between Italy and France, Switzerland, Slovenia, Croatia and Malta.

3.17 Addendum 7 contained an update from the Administration of Croatia, which reported that interference to TV broadcasting stations had improved. However, there had been no improvement in the harmful interference situation of Croatian sound broadcasting stations, and uncoordinated operation of Italian T-DAB stations had continued to be detected.

3.18 **Ms Jeanty** said that it was clear from the communications from Slovenia and Croatia that the situation had not improved, and the uncoordinated operation of Italian T-DAB stations was worrying. With regard to Addendum 6, she said that as far as TV broadcasting was concerned, the release of the 700 MHz band and the shutdown of all Italian stations not operating on frequencies assigned to Italy were positive developments. However, with respect to DAB broadcasting, the national plan for frequency allocation had not yet been adopted and she asked whether the Bureau had received any information on the meeting of the Adriatic-Ionian multilateral group held on 10 October 2022. The FM situation was concerning because the start of the working group's activities had been delayed and it was likely to be some years before the legislative interventions required were in place. Furthermore, none of the cross-border cases had been resolved. While the slow progress was disappointing, all the Board could do was to instruct the Bureau to continue providing assistance to the administrations concerned.

3.19 **Mr Azzouz** thanked the Bureau for providing support to the administrations concerned and welcomed the progress made in resolving cases of harmful interference relating to television broadcasting stations. The Administration of Italy should continue to hold meetings with neighbouring countries and exchange the information needed to resolve the remaining interference issues as soon as possible. The Bureau should continue to assist the administrations and report on progress to the next Board meeting.

3.20 **Ms Hasanova** thanked the Bureau for the support provided and also asked if it had any further information concerning the meeting of the Adriatic-Ionian multilateral group. She noted with satisfaction that Italy had taken responsibility for resolving a problem concerning channel 51 that would have affected Croatia and Slovenia. However, the lack of improvement in the many unresolved long-standing interference issues discussed at every Board meeting was regrettable. The Board should urge the Administration of Italy to take all necessary measures to eliminate harmful interference to all neighbouring countries and instruct the Bureau to continue providing assistance to the administrations and to report on progress to the next Board meeting.

3.21 The **Chairman** agreed that the long-standing interference issues had been discussed at every Board meeting for many years and that, according to the updates received from neighbouring countries of Italy, there had been no improvement, particularly for FM sound broadcasting.

3.22 **Ms Beaumier** welcomed the improvements with respect to television broadcasting stations, including the resolution of an issue with Albania. However, she had sympathy with the Administrations of Croatia and Slovenia, and the lack of progress in resolving harmful interference involving FM sound broadcasting stations, which had been reported for multiple decades, was extremely disappointing. It was regrettable that the working group established to translate the 2021 legislative decree into operational steps still required political direction and had been unable to move forward because of recent events. While potential financial compensation and other incentives were delicate matters and would require some time to address, little effort appeared to have been made to take all the steps required to ensure the timely resolution of issues. For many years, the Board had repeatedly urged the Italian Administration to take all necessary measures to eliminate harmful interference to the FM sound broadcasting transmissions of its neighbouring countries, focusing on the priority list of FM sound broadcasting stations, yet the situation did not change. While the administration appeared to be going in the right direction, it was not clear why the necessary authority to take the relevant steps had not already been sought. The Board should therefore denounce the lack of progress in the strongest possible terms and request the Administration of Italy to provide a detailed action plan, timelines and milestones for the working group activities.

3.23 **Mr Varlamov** expressed disappointment at the lack of progress and considered that the protracted nature of the situation might suggest a lack of political will on the part of Italy. The Board should request the Administration of Italy to provide a detailed action plan regarding the activities of the working group on the FM frequency band, with clearly defined timelines for implementation and milestones.

3.24 **Mr Hoan** agreed with previous speakers. As the contributions from the Administrations of Croatia and Slovenia indicated, there had been no improvement in the long-standing cases of harmful interference involving FM sound broadcasting stations. Noting that the provisional national plan for the allocation of frequencies in the VHF-III band for DAB+ incorporated agreements concluded with all neighbouring countries



except those in the East Adriatic, he said that the Bureau should continue to support the efforts of countries in the region to negotiate and sign the agreement as soon as possible.

3.25 **Mr Borjón** expressed frustration at the lack of progress in resolving the cases of harmful interference, noting that the number of countries affected had increased during his time on the Board. The current political challenges due to the elections had not been a factor in the past and the failure to resolve the cases reflected a lack of commitment on the part of Italy. He agreed that the Board should encourage the Administration of Italy to take all measures to resolve the harmful interference and provide and commit to a plan of action.

3.26 The **Chairman** proposed that the Board should conclude as follows:

“The Board considered in detail § 4.2 of Document RRB22-3/5 and Addenda 5, 6 and 7 thereto, on harmful interference to broadcasting stations in the VHF/UHF bands between Italy and its neighbouring countries. The Board noted with satisfaction the ongoing progress in resolving cases of harmful interference relating to television broadcasting stations.

However, based on the reports from neighbouring countries of Italy, the Board deplored the complete lack of progress towards resolving very long-standing cases of harmful interference involving FM sound broadcasting stations. The Board strongly urged the Administration of Italy to take all necessary measures to eliminate harmful interference to the FM sound broadcasting stations of its neighbouring countries, focusing on the priority list of FM sound broadcasting stations. The Board also requested the Administration of Italy to provide a detailed action plan for implementation of the activities of the recently established Working Group on the FM frequency band, with clearly defined milestones, to give a firm commitment to its implementation and to report to the Board on progress on its implementation.

The Board expressed its appreciation to the Bureau for the support provided to the administrations concerned and instructed the Bureau to:

- continue providing assistance to those administrations;
- report on progress on the matter to the next Board meeting.”

3.27 It was so **agreed**.

#### **Implementation of Nos. 9.38.1, 11.44.1, 11.47, 11.48, 11.49, 13.6 and Resolution 49 (Rev.WRC-19) of the Radio Regulations (§ 5 of Document RRB22-3/5)**

3.28 The Board **noted** § 5 of Document RRB22-3/5, on the implementation of Nos. **9.38.1, 11.44.1, 11.47, 11.48, 11.49, 13.6** and Resolution **49 (Rev.WRC-19)** of the Radio Regulations.

#### **Review of findings for frequency assignments to non-GSO FSS satellite systems under Resolution 85 (WRC-03) (§ 6 of Document RRB22-3/5)**

3.29 **Mr Vallet** (Chief, SSD) summarized § 6 of Document RRB22-3/5, noting that the Bureau had published seven non-GSO FSS systems submitted for coordination since the 90<sup>th</sup> Board meeting. In total, the Bureau had now reviewed the findings of 88 non-GSO FSS systems.

3.30 In response to a question from **Mr Azzouz** as to why the findings of only one non-GSO FSS system had been reviewed since July 2022, **Mr Vallet** said that it had taken some considerable time to process the filing in question. It had been a large filing because it had concerned a modification.

3.31 The Board **noted** § 6 of Document RRB22-3/5, on the review of findings to frequency assignments to non-GSO FSS satellite systems under Resolution **85 (WRC-03)**.

#### **Status of the requests for new allotments under RR Appendix 30B (Addendum 1(Rev.1) to Document RRB22-3/5)**

3.32 **Mr Wang (Head, SSD/SNP)** introduced Addendum 1(Rev.1) to Document RRB 22-3/5, which reported on the status of the requests for national allotments received after WRC-19 in accordance with

Article 7 of RR Appendix **30B**. Since the 90<sup>th</sup> Board meeting, relatively little progress had been made in coordination between administrations making such requests and those affected administrations, making it more difficult to find solutions than when implementing Resolution **559 (WRC-19)**.

The Bureau had recently processed a Part B submission from the Administration of Papua New Guinea that would have affected an Article 7 submission of the Administration of Croatia. The Administration of Papua New Guinea had agreed to modify its submission as proposed by the Bureau. The Bureau's subsequent examination showed that the maximum degradation to the Article 7 network had fallen to below 0.25 dB.

3.33 **Mr Hoan** considered that the Board should express appreciation to the Administration of Papua New Guinea for agreeing to the Bureau's proposal and modifying its Part B submission.

3.34 **Ms Beaumier** suggested that the Board's decision, like its decision relating to Resolution **559 (WRC-19)**, should encourage administrations with Part A submissions to continue cooperating on coordination with other administrations.

3.35 **Mr Wang (Head, SSD/SNP)** agreed with that proposal. He pointed out that there had been several difficult coordination cases, involving coordination with Part A submissions and with allotments in the Plan, for which the Bureau currently had no easy solution and in respect of which it had made no concrete proposals.

3.36 The **Chairman** proposed that the Board conclude on the matter as follows:

"Having considered Addendum 1(Rev.1) to Document RRB22-3/5, on the status of requests for new allotments under RR Appendix **30B**, the Board expressed its appreciation to the Bureau for providing the report and for its efforts to assist administrations in the implementation of decisions taken by the Board at its 89<sup>th</sup> meeting. The Board recalled that those decisions served as interim regulatory measures until WRC-23, in response to requests from seven administrations for a national allotment in accordance with Article 7 of RR Appendix **30B**. The Board noted with satisfaction the goodwill that the Administration of Papua New Guinea had displayed in protecting the Article 7 submission of the proposed allotment of the Administration of Croatia by agreeing to the Bureau's proposals. The Board further noted that the additional regulatory measures would avoid further degradation of the aggregate *C/I* levels of the new Article 7 requests. The Board once again urged administrations with Part A submissions received before 12 March 2020 to make all efforts to accommodate Article 7 submissions of other administrations and to take into account the results of the Bureau's analyses and the measures taken to avoid further degradation of the *C/I* levels when preparing their Part B submissions.

The Board instructed the Bureau to continue to provide support to administrations in their coordination efforts related to the implementation of decisions taken by the Board at its 89<sup>th</sup> meeting and to report on progress on the matter at its 92<sup>nd</sup> meeting."

3.37 It was so **agreed**.

#### **Implementation of Resolution 35 (WRC-19) (Addendum 2 to Document RRB22-3/5)**

3.38 **Mr Vallet (Chief, SSD)** introduced Addendum 2 to Document RRB22-3/5, which provided a progress report on the implementation of Resolution **35 (WRC-19)**. In Table 1, on the status of Resolution **35** submissions, the current milestone achieved by HIBLEO-2FL2 should read M3, not M0. Eleven submissions had now been published and four filings (two systems) had completed milestone three. Table 2 contained the information requested by the Board at its previous meeting, including the number of satellites deployed and the frequency bands used. For the HIBLEO-2FL and HIBLEO-2FL2 satellite systems, more space stations were deployed than notified; 66 was the maximum number operated at any one time; the other nine were in-orbit spares.

3.39 The Board **thanked** the Bureau for the detailed information provided in Addendum 2 to Document RRB22-3/5, which contained a progress report on the implementation of Resolution **35 (WRC-19)** that included the number of satellites deployed and the frequency bands used by those deployments. The Board **instructed** the Bureau to continue to report on the matter to future Board meetings.

### **Statistics on Resolution 40 (Rev.WRC-19) (Addendum 3 to Document RRB22-3/5)**

3.40 **Mr Vallet (Chief, SSD)** introduced Addendum 3 to Document RRB22-3/5, which summarized data submitted under Resolution **40 (Rev.WRC-19)**. The updated information requested by the Board for its report under Resolution **80 (Rev.WRC-07)** to WRC-23 was included in the embedded webpage and excel file. The summary table showed that for 557 of the 778 submissions received under Resolution **40** before 30 September 2022, the frequency assignments had been brought into or back into use without relocating any satellite used for that purpose within the previous three years. The Bureau would continue to update the statistics to ensure that the most recent information was available.

3.41 **Mr Azzouz** observed that the number of Resolution **40** submissions that had involved satellite relocation was quite high (221) and that the use of gap-filler satellites affected the access of other administrations to orbital positions. He wondered whether a study should be conducted on how to reduce the use of gap-filler satellites. He asked BR to conduct a study in order to find the best solution for dealing with gap-filler satellites which was an important issue for everyone.

3.41*bis* **Mr Vallet (Chief, SSD)** said that all administrations had to provide information under Resolution **40** when bringing into or back into use a frequency assignment to a space station in a GSO network. The Bureau would be pleased to include the names of the notifying administrations in future reports to the Board. The time spent at the orbital position as indicated to the Bureau was reflected in the columns headed “date IN” and “date OUT” in the Excel file. Regarding the issue of gap fillers, he said that the purpose of Resolution **40** was to ensure that administrations had a better understanding of the practice and situation, and it was up to future conferences to decide whether safeguards or different rules were required. The Bureau merely implemented the decisions of conferences and he confirmed that all the cases notified complied with the Radio Regulations. The Board might wish to raise the issue in its report under Resolution **80 (Rev.WRC-07)** to WRC-23.

3.42 **Ms Beaumier** thanked the Bureau for providing updated statistics and more detailed information that would support the Board’s discussion of the topic in the context of its Resolution **80 (Rev.WRC-07)** report to WRC-23. Based on the information and concerns raised, the Board might decide to make recommendations to the conference. The issue, however, was not always the number of times a single satellite had been used for bringing into or back into use, but the repeated practice of bringing a filing into or back into use for a minimum period, suspending it, and then bringing it back into use for another minimum period. Following comments from **Mr Azzouz**, she said that the Working Group on the Report on Resolution **80 (Rev.WRC-07)** should discuss the issue to determine the additional information to be provided by the Bureau for the Board’s next meeting.

3.43 The **Chairman** proposed that the Board conclude on the matter as follows:

“The Board considered Addendum 3 to Document RRB22-3/5 concerning statistics on Resolution **40 (Rev.WRC-19)** and thanked the Bureau for the information and statistics provided. The Board instructed the Bureau to include the following items in the information related to Resolution **40 (Rev.WRC-19)** submitted to the 92<sup>nd</sup> Board meeting:

- name of the notifying administration of the satellite networks concerned and a count of Resolution 40 (Rev.WRC-19) cases submitted per administration;
- information on cases where a single administration had sequentially used a single satellite to bring into use (or bring back into use) several of its satellite networks;
- information on satellite networks that had repeatedly been brought into use and brought back into use with a satellite that had remained at the orbital position for a minimum period of time.”

3.44 It was so **agreed**.

### **Progress report on the implementation of Resolution 559 (WRC-19) (Addendum 4 to Document RRB22-3/5)**

3.45 **Mr Wang (Head, SSD/SNP)** introduced Addendum 4 to Document RRB22-3/5, which reported on progress in processing Resolution **559 (WRC-19)** submissions and included a summary of statistics for the

main coordination in terms of various provisions. Although progress continued to be made on all forms of coordination between administrations, the Bureau had noted that there were fewer responses relating to the Regions 1 and 3 Plans than responses relating to additional uses. In its updated statistics to ITU-R Working Party 4A, it had therefore also provided detailed information on the compatibility between Resolution 559 submissions and the Regions 1 and 3 Plans and had asked the working party for technical advice to assess in which cases the introduction of those Resolution 559 frequency assignments in those plans could be accepted without having to modify the technical parameters of the frequency assignments. Based on the working party's reply, the Bureau proposed that the Board consider including in its report to WRC-23 under Resolution 80 (Rev.WRC-07) that, for cases where the space-to-Earth single-entry carrier-to-interference (*C/I*) ratio was greater than 21 dB and the Earth-to-space single-entry *C/I* ratio was greater than 30 dB, the Resolution 559 submissions and the corresponding Regions 1 and 3 Plan frequency assignments be considered compatible. In such cases, and in order to preserve the same level of protection of those Regions 1 and 3 Plan frequency assignments from incoming Article 4 submissions, the Bureau further proposed that the reference situation of those frequency assignments should not be updated when Resolution 559 frequency assignments were included in the List.

3.46 Since the 90<sup>th</sup> Board meeting, the Bureau had received no Part B submissions that potentially degraded the equivalent protection margin (EPM) of a Resolution 559 submission.

3.47 **Mr Hoan** said that, based on the Board's experience of satellite coordination, he concurred with the technical advice of Working Party 4A. He was in favour of including the matter in the Board's report under Resolution 80 (Rev.WRC-07).

3.48 **Mr Henri** endorsed the approach put forward by the Bureau. He also agreed in principle that the reference situation of relevant frequency assignments should not be updated, as proposed by the Bureau, and that the matter should be included in the Board's report under Resolution 80 (Rev.WRC-07). He asked whether there was any risk of interference if both Resolution 559 and Plan frequency assignments operated simultaneously in the future.

3.49 **Mr Wang (Head, SSD/SNP)** replied that, in accordance with the proposal of Working Party 4A, the *C/I* criterion was used to assess whether a Resolution 559 submission could cause interference to a Plan frequency assignment. Mr Henri's question concerned actual operations when a Resolution 559 submission and a Plan frequency assignment were brought into use simultaneously. When calculating *C/I*, the Bureau assumed the worst-case scenario and took into account the rotation accuracy and pointing error of elliptical beams; the *C/I* value calculated was therefore lower than it actually was. Therefore, if the *C/I* calculations demonstrated compatibility, there should be no difficulty in actual operations. The same was true in terms of aggregate *C/I*. According to experts in Working Party 4A, a larger feed-link antenna could be used to reduce interference to frequency assignments in nearby orbital positions. The fast roll-off antenna pattern could also be used to improve compatibility.

3.50 **Mr Azzouz** said that the Board should encourage administrations to continue cooperating on coordination activities with Resolution 559 notifying administrations and request the Bureau to continue providing support to the administrations concerned. He asked whether there was any way to make it easier for administrations that had not yet submitted Part B to do so.

3.51 **Mr Talib** endorsed the Bureau's proposals and agreed that they should be conveyed to WRC-23 in the Board's report under Resolution 80 (Rev.WRC-07).

3.52 **Mr Mchunu** thanked the Bureau for its proposals and expressed support for their inclusion in the Board's report under Resolution 80 (Rev.WRC-07).

3.53 The **Chairman** proposed that the Board should conclude on the matter as follows:

"Having considered Addendum 4 to Document RRB22-3/5, containing the progress report on the implementation of Resolution 559 (WRC-19), the Board expressed appreciation for the Bureau's continued support to notifying administrations under Resolution 559 (WRC-19) and the implementation of the resolution. The Board noted that ITU-R Working Party 4A had concurred, at its September 2022 meeting,

with the Bureau's proposal. The Board decided to seek endorsement of the measures from WRC-23 by including the following paragraph in the report on Resolution **80 (Rev.WRC-07)** to WRC-23: *'that, for cases where the space-to-Earth single-entry carrier-to-interference ratio is greater than 21 dB and the Earth-to-space single-entry carrier-to-interference ratio is greater than 30 dB, Res. 559 submissions and the corresponding Regions 1 and 3 Plan frequency assignments were considered as compatible. In order to preserve the same level of protection for such compatible cases of those Regions 1 and 3 Plan frequency assignments from incoming Article 4 submissions, the reference situation of those Regions 1 and 3 Plan frequency assignments should not be updated when the Res. 559 frequency assignments in the List were included in the Plans.'*

The Board encouraged administrations to continue cooperating in their coordination activities so that notifying administrations of Resolution **559 (WRC-19)** submissions could submit their requests for inclusion in the broadcasting-satellite service (BSS) Plans in time for WRC-23. Furthermore, the Board instructed the Bureau to continue to support administrations' efforts and to report on progress at the 92<sup>nd</sup> Board meeting."

3.54 It was so **agreed**.

### **Harmful interference affecting satellites at 128°E (Addendum 8 to Document RRB22-3/5)**

3.55 **Mr Vallet (Chief, SSD)**, introducing Addendum 8 to Document RRB22-3/5, reported that the harmful interference experienced by Japanese satellite networks at 128°E had ceased. At an online meeting held in October 2022 pursuant to the Board's decision at its 90<sup>th</sup> meeting and in the presence of the Bureau, the Administrations of the Russian Federation and Japan had established a mechanism to expedite communications between them should the interference reappear. That mechanism had been deployed the previous week when the interference had reoccurred. Even if the interference had disappeared after 20 minutes, the two administrations had immediately entered into communication using the above-mentioned mechanism. The interference had not reappeared since; however, since the source of the interference had not been identified there was no guarantee that it would not reappear. The Board could however consider the case closed at this stage.

3.56 **Mr Borjón** said that he was grateful to the two administrations concerned for the positive spirit of cooperation they had demonstrated in addressing the harmful interference. The fact that they had found an expeditious way to contact each other showed that problems could be solved quickly and that the Bureau's presence was beneficial.

3.57 **Ms Hasanova** also thanked both administrations for their good cooperation and requested the Bureau to provide an update on the situation at the Board's 92<sup>nd</sup> meeting.

3.58 **Mr Hoan** also commended both administrations for the cooperation and goodwill demonstrated, but remained concerned that the source of the interference had not been identified.

3.59 **Mr Talib** also thanked the two administrations for the spirit of cooperation that they had demonstrated in setting up a channel of communication. In terms of the probability of further incidents of interference, he was confident that, thanks to good coordination and the technical tools of the Bureau and of some administrations that were providing assistance, the source would be identified and shut down. He expressed support for continued coordination between the two administrations.

3.60 **Mr Azzouz** also thanked both administrations for their cooperation on accurate geolocation. They should be encouraged to continue their coordination and the Bureau to continue providing assistance to help resolve future incidents of interference.

3.61 The **Chairman** proposed that the Board should conclude on the matter as follows:

"Having considered Addendum 8 to Document RRB22-3/5, reporting on the progress made towards resolving the harmful interference experienced by Japanese satellite networks located at 128°E, the Board noted with satisfaction that the harmful interference had ceased and that the Administrations of Japan and the Russian Federation had agreed on a mechanism to expedite communication should harmful interference reappear, so that the issue could be resolved in a timely manner. The Board expressed appreciation to both

administrations for the spirit of cooperation and goodwill demonstrated in addressing the case of harmful interference, and to the Bureau for its efforts to assist the two administrations and to convene the online meeting between them.”

3.62 It was so **agreed**.

#### **Coordination activities between the Administrations of France and Greece concerning the satellite networks ATHENA-FIDUS-38E at 38°E and HELLAS-SAT-2G at 39°E (Addendum 9 to Document RRB22-3/5)**

3.63 **Mr Vallet (Chief, SSD)**, introducing Addendum 9 to Document RRB22-3/5, said that the Administrations of France and Greece had met twice since the previous Board meeting; the Bureau had been present on both occasions. A draft partial coordination agreement had been agreed upon that formalized the coordination conditions for cases for which discussions had been completed; a decision remained to be taken on which cases to include. At least one case would be difficult to resolve, as small antennas were used in both positions, and might require operational feedback.

3.64 **Mr Talib** commended both administrations on the outcome of their meetings and encouraged them to conclude a full coordination agreement.

3.65 **Mr Hashimoto** considered that the situation was gradually moving in the right direction and hoped that both administrations would reach a final agreement in the near future.

3.66 Having considered Addendum 9 to Document RRB22-3/5, reporting on coordination activities between the Administrations of France and Greece concerning the satellite networks ATHENA-FIDUS-38E at 38°E and HELLAS-SAT-2G at 39°E, the Board **noted** with satisfaction the progress made by the two administrations in their coordination efforts; that two coordination meetings had been convened, in July and September 2022, with the support of the Bureau; and the completion of a draft partial coordination agreement formalizing the coordination conditions related to cases for which discussions had been finalized. The Board **expressed** appreciation for the Bureau’s efforts to provide support to the two administrations in their coordination activities and encouraged both administrations to pursue those activities in goodwill. It **instructed** the Bureau to continue providing support to the two administrations in their coordination activities and to report on any progress to the next Board meeting.

3.67 Having considered in detail the report of the Director, as contained in Documents RRB22-3/5 and RRB22-3/5(Corr.1), and in Addenda 1(Rev.1) to 9, the Board **thanked** the Bureau for the information provided.

## **4 Rules of procedure**

### **4.1 List of rules of procedure (Documents RRB22-3/1 and RRB20-2/1(Rev.7))**

4.1.1 **Mr Vallet (Chief, SSD)** said that there had been no updates to the Rules of Procedure since the previous Board meeting.

4.1.2 **Mr Henri**, the Chairman of the Working Group on the Rules of Procedure, reported on the outcome of the group’s meeting. With regard to the preliminary draft revision of the rule of procedure on Resolution **1 (Rev.WRC-97)**, he said that, as requested by the group, the Bureau and the ITU Legal Affairs Unit had engaged in further discussions with the United Nations Geospatial Information Section on how to overcome difficulties relating to the definition of disputed territories and a meeting between both parties was to take place in the weeks to come. The Bureau, for its part, had provided the group with detailed information on the frequency assignments kept in abeyance because of those difficulties and with suggestions on possible approaches to those long-standing cases. The group had therefore decided to postpone any further action on the draft rule of procedure on Resolution **1** and on the frequency assignments in abeyance until the March 2023 meeting of the Board, pending the outcome of the ITU/ UN Geospatial Information Section meeting.

4.1.3 The group had also studied a working document drafted by the Bureau on options for a rule of procedure on the simultaneous bringing into use of several non-geostationary (non-GSO) satellite systems with a single satellite. In line with the principles applied to GSO systems, the group had agreed that overlapping frequency assignments to multiple non-GSO systems could be brought into use with a single satellite if those systems had at least the same identical orbital planes. For cases where the bandwidths of the frequency assignments did not overlap, bringing into use frequency assignments to multiple non-GSO systems with a single satellite would require that the satellite used for declaring the bringing into use had been deployed on an identical orbital plane for each system, irrespective of the other notified orbital planes. The group had discussed in detail the evaluation of the orbital data elements that would qualify two or more non-GSO system filings as identical, but as yet had no definitive response on the set of parameters to take into account under Section A.4 of Annex 2 to Appendix 4. It would revisit the matter at the next Board meeting, at which time it would also consider the impact of the draft rule on the implementation of Resolution 35 (WRC-19), Resolution 76 (Rev.WRC-15), RR Articles 21 and 22, and other provisions of the Radio Regulations.

4.1.4 The group had agreed that, at its next meeting, it would review the list of rules of procedure that might be considered for inclusion in the Radio Regulations in conformity with RR 13.0.1 and 13.0.2.

4.1.5 The group proposed that the Board should update the list of proposed rules of procedure (Documents RRB22-3/1 and RRB20-2/1(Rev.7)) to reflect the progress made on the draft rule of procedure on Resolution 1 (Rev.WRC-97), a modification to the Rule of Procedure on RR No. 11.48 and the addition of a rule of procedure on the simultaneous bringing into use of several non-GSO satellite systems with a single satellite.

4.1.6 It was so agreed.

## **5 Requests relating to the extension of regulatory time-limits to bring or to bring back into use frequency assignments to satellite networks/systems**

### **5.1 Submission from the Administration of Norway requesting an extension of the regulatory time-limit to bring back into use the frequency assignments to the DUB DUB-5-18W satellite network (Document RRB22-3/4)**

5.1.1 **Mr Loo (Head SSD/SPR)**, summarizing Document RRB22-3/4, said that the Administration of Norway had requested an extension of at least one year, from 23 September 2022, to the regulatory time-limit to bring back into use the frequency assignments to the DUB DUB-5-18W satellite network, for reasons of *force majeure*. The *force majeure* events comprised the unforeseen cancellation of the contracts between the manufacturer (Boeing) and launch provider (SpaceX), on the one hand, and the satellite operator (Global IP), on the other, after the publication in 2018 of an article in the *Wall Street Journal* alleging that Global IP was controlled by China; and the COVID-19 pandemic and resulting slowdown in many activities, which had made it impossible for Global IP to seek legal redress and the arbitration hearing currently scheduled to take place in the United States from 16 January to 21 February 2023, had previously been postponed several times. The satellite operator had brought the frequency assignments into use on 13 June 2019, despite the first event; the frequency assignments had been suspended at the request of the Administration of Norway on 23 September 2019.

5.1.2 **Mr Talib** said that, in his view, several elements of the case might be considered to constitute *force majeure*, particularly the initial cancellation of contracts in 2018. He nevertheless wondered, considering the possible financial and related challenges, whether the time-limit for bringing the frequency assignments back into use would be met if the extension was granted.

5.1.3 **Mr Loo (Head SSD/SPR)** said that the Administration of Norway predicted that the financial situation would take at least one year to resolve, as it was contingent on the outcome of the arbitration hearing scheduled in early 2023. The administration had stated that they would also need time to contract an

operator able to bring the frequency assignments back into use with an in-orbit satellite; one year might not be sufficient. The administration had requested the minimum possible extension.

5.1.4 **Mr Henri** said that the document contained little information directly relevant to the status of the project before the publication of the *Wall Street Journal* article that had led to the contracts with the manufacturer (Boeing) and launch provider (Space X) being cancelled, and on the link between the article and the contract cancellation, which did not appear to be an issue involving the Radio Regulations and therefore of relevance for the Board. Furthermore, while the multiple delays owing to COVID-19 in the arbitration proceedings were understandable, he saw no direct connection between those delays and the delay in bringing back into use the relevant frequency assignments to the DUB DUB-5-18W satellite network. Finally, there was no evidence that the frequency assignments to the DUB DUB-5-18W satellite network would have been brought back into use within the original regulatory time-frame or that Global IP would have found an appropriate in-orbit satellite to bring them back into use by the end of the proposed extension. Given that lack of information and supporting documents to possibly qualify the case as a situation of *force majeure*, he was not in favour of the Board acceding to the request and instead suggested that the Administration of Norway should submit a new filing for the network.

5.1.5 **Ms Beaumier** said that, despite the difficulties encountered in 2018, alternative arrangements involving an in-orbit satellite, HYLAS-1, had been made for the initial bringing into use of the satellite network filing in 2019, and she wondered why no similar arrangement had been made for bringing it back into use. The successful bringing into use demonstrated the Administration of Norway's ability to remedy such problems, and the situation, therefore did not satisfy condition two to qualify as a case of *force majeure*. Furthermore, there was no guarantee that the arbitration hearing scheduled for March 2023 would have a favourable outcome. No information had been provided on how the operator planned to bring back into use the frequency assignments or on the status of the satellite project before the alleged *force majeure* events, and no supporting documents had been submitted to show that the original regulatory time-limit would have been met. In addition, it seemed that the current situation was the result of certain business decisions, indicating that it was not fully beyond the operator's control. In view of those factors, she considered that the conditions of *force majeure* had not been met and that the extension should not be granted.

5.1.6 **Mr Azzouz** said that he appreciated the Administration of Norway's attempts to keep the satellite filing "alive" and that the Board should ask the Bureau to maintain the filing until the end of the Board's next meeting, by which time the arbitration hearing would have concluded. In the meantime, the administration should provide complete information on the initial launch plans, the cancellation of the contracts and the current coordination and manufacturing status. The Board would then be able to consider the request.

5.1.7 **Ms Jeanty** agreed with previous speakers that the information provided was lacking in depth and that the situation was unclear. References to an article in the press were not sufficient for the case to be deemed one of *force majeure*, and the Board had previously considered that financial difficulties were also an insufficient reason. The information concerning the arbitration hearing was vague and unspecific, and it was unclear what the large amounts of money paid to Boeing and SpaceX had covered. While a one-year extension had been requested, there was no information on how that time would be used and, in her opinion, one year would not be long enough to resolve the situation. In her view, therefore, the case did not meet the conditions for *force majeure*.

5.1.8 **Mr Hoan** said that, while he appreciated the efforts made by the Administration of Norway to bring the relevant frequency assignments into use despite the problems mentioned, there was not enough information for the Board to consider the case concerning their bringing back into use as one of *force majeure*. While the cancellation of contracts may have qualified as *force majeure* for the initial bringing into use of the satellite filing, he was not sure that it qualified as such for the bringing back into use and was therefore not in a position to accede to the request.

5.1.9 **Mr Hashimoto** said that, while the cancellation of contracts following the publication of the *Wall Street Journal* article might have initially qualified as *force majeure*, it was unclear how it had affected the satellite project since 2019. The current status of the project was also unclear and the detailed information



required to validate the Administration of Norway's request had not been provided. Thus, further information and explanations were required before the Board could accede to the request.

5.1.10 **Ms Hasanova** considered that a one-year extension would not suffice to bring the frequency assignments back into use and pointed out that the submission contained no plan for how that would occur. Furthermore, there was no evidence to support granting the extension based on *force majeure*. She therefore could not support the granting of the extension.

5.1.11 **Mr Varlamov** agreed that there was not enough evidence for the case to be considered on the grounds of *force majeure* and that there was no implementation plan in place. Although the Administration of Norway had asked for a one-year extension, that period of time might clearly not be sufficient. It also seemed that the time would be used only to resolve financial issues and to allow for the arbitration hearing to take place. The Board should therefore request more information with a view to reconsidering the case at its next meeting.

5.1.12 **Mr Borjón** said that he was unsure about the real financial consequences of the article in the *Wall Street Journal* or why the issue was taking so long to resolve. Furthermore, he could not see a direct link between the events in 2018 and 2022 and was not sure that a one-year extension would be sufficient to solve the relevant problems. Given that there was no clear analysis, evidence or plan going forward, he could not support granting an extension on the grounds of *force majeure*.

5.1.13 **Mr Mchunu** agreed with previous speakers that the evidence provided failed to demonstrate that the case met the four conditions for it to be considered one of *force majeure*. He was therefore unable to grant the extension, but he agreed with Mr Azzouz that the filing should be maintained until the end of the Board's next meeting.

5.1.14 **Ms Beaumier** repeated that, in her view, as Global IP had managed to bring the frequency assignments into use using HYLAS-1 in 2019, the publication of the article that had led to the cancellation of the Boeing and SpaceX contracts and necessitated that action did not qualify as a *force majeure* event. In addition, it seemed that the purpose of the delayed arbitration hearing was to secure financing to enable the project to continue. However, delays in securing financing were not deemed to qualify a case as a situation of *force majeure*. As such, there were no elements to support a case of *force majeure* regarding the bringing back into use of the satellite filing. The Board should therefore not ask the Bureau to maintain the relevant frequency assignments or request more information from the Administration of Norway.

5.1.15 Following an informal discussion, the **Chairman** concluded that the Board did not consider that the Administration of Norway had provided enough information to demonstrate that the conditions of *force majeure* had been met and that it therefore could not accede to the request. He proposed that the Board should conclude as follows on the matter:

"Having considered Document RRB22-3/4, containing the submission from the Administration of Norway, the Board noted that:

- the administration had brought into use the frequency assignments to the DUB DUB-5-18W satellite network within the regulatory time-limit in 2019 using an in-orbit satellite and had suspended them on 23 September 2019;
- financial difficulties resulting from an arbitration hearing or other legal actions were not considered sufficient justification for qualifying a case as a situation of *force majeure*;
- the administration had not provided information with supporting documentation to demonstrate that all conditions had been met for the case to qualify as a situation of *force majeure*;
- no elements could be identified that would support the request as a possible situation of *force majeure*.

Consequently, the Board decided that it could not accede to the request from the Administration of Norway."

5.1.16 It was so **agreed**.

## 5.2 Submission by the Administration of Indonesia requesting an additional extension of the regulatory time-limit to bring into use the frequency assignments to the NUSANTARA-H1-A satellite network (Document RRB22-3/6)

5.2.1 **Mr Loo (Head, SSD/SDR)** introduced Document RRB22-3/6, in which the Administration of Indonesia requested an additional extension of the regulatory time-limit to bring into use the frequency assignments to the NUSANTARA-H1-A satellite network. On 1 September 2022, SpaceX had formally notified Gravity Space that the GS-1 satellite launch had been further delayed due to the lack of readiness of the primary mission, Viasat-3, and was not expected to be launched before 27 December 2022. Accordingly, the Administration of Indonesia requested a further extension from 31 December 2022 (granted by the Board at its 90<sup>th</sup> meeting) to at least 31 March 2023 on the basis of co-passenger delay, as provided for in Part A11 of the rules of procedure. Attachment 1 contained a letter from SpaceX confirming the launch delay and Attachment 2 contained the information submitted to the Board's 90<sup>th</sup> meeting.

5.2.2 The deadline for the submission of information under **Resolutions 49 (Rev.WRC-19)** and **552 (Rev.WRC-19)** was 24 August 2022, but the information had not been received until 26 October 2022 following a reminder from the Bureau; the Board was therefore requested to decide whether or not to instruct the Bureau to accept the late submission of that information. In reply to a question from **Mr Henri**, he confirmed that the Administration of Indonesia had submitted the notification information.

5.2.3 **Ms Beaumier**, noting that the launch window was the only element that had changed, said that the case continued to qualify as a situation of co-passenger delay. She could support the extension sought, which was time-limited and reasonable.

5.2.4 **Mr Henri**, recalling the Board's decision at its 90<sup>th</sup> meeting, said that evidence from SpaceX had been provided indicating that the launch had been delayed until 27 December 2022 at the earliest, and other reports suggested a launch window of 4 to 11 January 2023. Given the orbit-raising period of one to two months estimated in the original request, a three-month extension should be sufficient for bringing into use the already notified frequency assignments to the NUSANTARA-H1-A satellite network. The request qualified as a situation of co-passenger delay in accordance with Part A11 of the rules of procedure and he could support an extension until 31 March 2023. While the Administration of Indonesia might well have misunderstood the deadline for submission of information required under Resolution **49 (Rev.WRC-19)** after the extension granted at the 90<sup>th</sup> Board meeting, an administrative delay in providing the required information should not be considered favourably. The Board should therefore remind administrations that an extension of the regulatory time-limit for bringing frequency assignments into or back into use did not confer an automatic extension of the deadlines set out in any other applicable provisions of the Radio Regulations, as indicated in the Rule of Procedure on No. **11.48** (Actions from the Bureau following a Board decision to grant an extension for bringing into use frequency assignments to a satellite network).

5.2.5 **Ms Jeanty** said that she could support an extension until 31 March 2023 and hoped that the launch window would not be delayed further. She agreed that the Board should remind administrations that an extension to the regulatory time-limit for bringing into or back into use did not automatically confer an extension of deadlines set out in other provisions.

5.2.6 **Mr Hoan** said that, given the new launch window, the request qualified as a situation of co-passenger delay. He was in favour of granting the three-month extension requested and considered that the Bureau should accept the late submission of the Resolution **49 (Rev.WRC-19)** information.

5.2.7 **Mr Azzouz**, noting that the request qualified as a situation of co-passenger delay, said that he could support an extension until 31 March 2023.

5.2.8 **Mr Hashimoto** said that he could also accede to the request in light of the Board's previous consideration of the issue.

5.2.9 **Mr Borjón** said that the Board's practice of not granting margins for contingencies enabled it to closely follow cases such as the one currently under consideration. Sufficient evidence had been presented for the Board to grant the requested extension on the basis of co-passenger delay. The Board should remind

all administrations that an extension to the regulatory time-limit did not generate new deadlines for the provision of information.

5.2.10 **Ms Hasanova** expressed support for an extension on the basis of co-passenger delay until 31 March 2023, which should be sufficient for bringing the frequency assignments into use.

5.2.11 **Mr Varlamov** agreed that an extension should be granted. A wide range of bands was listed in the payload summary (set out in Attachment 2 to Document RRB22-3/6) and he sought clarification of the frequency bands included in the Resolution **49 (Rev.WRC-19)** information submitted, particularly as the Gravity Space cubesat spacecraft was relatively small.

5.2.12 **Mr Talib** said that, taking into account the information and additional evidence provided, he could agree to an extension until 31 March 2023, which he trusted would be sufficient.

5.2.13 **Mr Mchunu** said that he was also in favour of granting the requested extension.

5.2.14 **Mr Loo (Head, SSD/SDR)** said that the information submitted under Resolutions **49 (Rev.WRC-19)** and **552 (Rev.WRC-19)** had been made available on SharePoint. The Resolution **49** information submitted by the Administration of Indonesia on 26 October 2022 did not cover all the frequency bands for the NUSANTARA-H1-A satellite network, only those on board the GS-1 satellite that had been notified. The information submitted under Resolution **552** covered the entire band 21.4-22 GHz.

5.2.15 **Mr Varlamov** said that the Board's decision should be applicable to the bands specified in the information submitted under Resolutions **49 (Rev.WRC-19)** and **552 (Rev.WRC-19)**. The Board should also request the Administration of Indonesia to inform the Bureau of the frequency assignments to be used for controlling the satellite for TT&C at the time of bringing into use.

5.2.16 **Mr Loo (Head, SSD/SDR)** said that the notification for the network had been submitted on 8 May 2020 but did not include all the bands on board the GS-1 spacecraft. Furthermore, as the Administration of Indonesia had not provided Resolution **49 (Rev.WRC-19)** information for certain bands and had informed the Bureau that it did not intend to bring them into use, the Bureau would apply the normal regulatory procedure to cancel them. With regard to TT&C, he noted that they had been submitted for the Ku and Ka bands, which covered the mobile-satellite service, fixed-satellite service and space operations.

5.2.17 **Mr Henri** said that, while the Board was in favour of granting an extension of the regulatory time-limit to bring into use the frequency assignments to the NUSANTARA-H1-A satellite network, it was his understanding that such an extension would apply to the frequency bands as specified in the information submitted under Resolution **49 (Rev.WRC-19)**.

5.2.18 The **Chairman** proposed that the Board conclude on the matter as follows:

"The Board considered in detail the request from the Administration of Indonesia as contained in Document RRB22-3/6 and noted that:

- at its 90<sup>th</sup> meeting, the Board had granted an extension of the regulatory time-limit to bring into use the frequency assignments to the NUSANTARA-H1-A satellite network until 31 December 2022;
- the request of the administration received at the 90<sup>th</sup> Board meeting had qualified as a case of *force majeure* and continued to do so at the 91<sup>st</sup> Board meeting, the only change in the request being a delay in the launch window;
- the launch of the GS-1 satellite had been further delayed by the lack of readiness of the primary mission, with the new launch not expected before 27 December 2022;
- the request for an extension of the regulatory time-limit was limited and defined.

The Board concluded from the evidence provided that the request qualified as a situation of co-passenger delay. Consequently, in accordance with the rules of procedure on the extension of the regulatory time-limit for bringing into use satellite frequency assignments, the Board decided to accede to the request from the Administration of Indonesia to extend the regulatory time-limit to bring into use the frequency assignments to the NUSANTARA-H1-A satellite network as specified in the information submitted under Resolutions **49 (Rev.WRC-19)** and **552 (Rev.WRC-19)**, to 31 March 2023.

The Board reminded the Administration of Indonesia that the deadline for submitting the information required under RR Article **11** and Resolutions **49 (Rev.WRC-19)** and **552 (Rev.WRC-19)** was 24 August 2022. Considering that the Bureau had received the required information on 26 October 2022, the Board instructed the Bureau to accept on an exceptional basis the late submission of the information required under Resolutions **49 (Rev.WRC-19)** and **552 (Rev.WRC-19)**. The Board also requested the Administration of Indonesia to inform the Bureau of the frequency assignments to be used for controlling the satellite for TT&C at the time of its bringing into use.

The Board again drew the attention of all administrations to the fact that granting an extension of the regulatory time-limit to bring into use or bring back into use the frequency assignments to a satellite network did not additionally provide an automatic extension of the deadlines set out in any other applicable provisions of the Radio Regulations.”

5.2.19 It was so **agreed**.

### **5.3 Submission by the Administration of Indonesia requesting an additional extension of the regulatory time-limit to bring into use the frequency assignments to the PSN-146E satellite network (Document RRB22-3/7)**

5.3.1 **Mr Loo (Head, SSD/SDR)** introduced Document RRB22-3/7, which contained a request from the Administration of Indonesia for an additional extension of the regulatory time-limit to bring into use the frequency assignments to the PSN-146E satellite network. On 29 September 2022, the satellite manufacturer Thales Alenia Space France (TAS) had informed the Administration of Indonesia of delays in the manufacturing schedule and launch process for the SATRIA satellite, which were detailed in the letter attached to the submission and would prevent the 31 October 2023 regulatory deadline approved by the Board at its 86<sup>th</sup> meeting from being met. TAS had endeavoured to keep delays to a minimum, but nonetheless, a delay of six weeks had been incurred as a result of COVID-19 related issues, and on-ground delivery of the satellite was now expected on 7 June 2023. However, because of the need to change from air transport to a maritime vessel, satellite delivery to the launch site would require an additional month. Assuming a standard launch campaign of one month and seven months of electric orbit raising, the SATRIA satellite was expected to reach its orbital position of 146E no earlier than March 2024. Accordingly, the Administration of Indonesia was requesting a five-month extension until 31 March 2024.

5.3.2 **Mr Henri** said that, while he had much sympathy for the request that met all conditions to qualify as a situation of *force majeure* and was in no doubt that the SATRIA satellite would be launched to bring into use the frequency assignments to the PSN-146E satellite network, there was limited information in support of the duration of the requested extension. The attached letter from the satellite manufacturer referred to a six-week delay because of the COVID-19 pandemic and a one-month journey time for satellite transportation due to the required change from air transport to a maritime vessel, i.e. a total of two and a half months, yet a five-month extension was being sought. Furthermore, there was some uncertainty regarding the proposed satellite launch date of 7 August 2023. As the current regulatory time-limit for bringing into use the frequency assignments to the PSN-146E satellite network was 31 October 2023, he suggested that the Board should defer its decision to its next meeting and request the Administration of Indonesia to provide further information in support of its request, including dates of satellite delivery, arrival at the launch site, planned launch date and arrival at the orbital position.

5.3.3 **Mr Azzouz** said that, based on the information submitted, the length of the extension was difficult to calculate and the Administration of Indonesia should be requested to provide more precise timelines to the Board’s next meeting. Electric orbit raising had been estimated to take five months in the past, not seven as indicated in the submission.

5.3.4 **Ms Beaumier** considered that the situation qualified as a case of *force majeure*, sufficient information having been provided to demonstrate that the regulatory time-limit would have otherwise been met. Based on the information provided, however, the additional delays incurred amounted to two and a half months, and a longer extension would be difficult to justify, particularly in the absence of further information about the launch date. The one-month launch campaign and the previously planned five-month

orbit-raising period had already been taken into account by WRC-19, and when the Board had granted a further seven-month extension at its 86<sup>th</sup> meeting, it had only taken into account the delays due to COVID-19, the *force majeure* event. The satellite manufacturer was now estimating a seven-month electric orbit-raising period considering possible non-nominal cases, potentially to allow for some contingencies regarding the launch, and the Board should be consistent with previous decisions. She would have no difficulty in seeking clarification about the planned launch date and launch window, but it appeared from the submission that the one-month standard launch campaign would begin immediately after the satellite had been delivered.

5.3.5 **Mr Hashimoto** said that the Board required further clarification before granting the extension requested, including with regard to electric propulsion.

5.3.6 **Mr Talib** agreed that the case qualified as a situation of *force majeure*. The Administration of Indonesia should be requested to provide further information in support of the requested extension so that the Board could take a decision at its next meeting. **Mr Borjón** endorsed that request.

5.3.7 **Mr Loo (Head, SSD/SDR)** said that, while delays of two and a half months had been explained in the information from the satellite manufacturer, the Administration of Indonesia had informed the Bureau that a five-month extension was being sought to take into account the possible non-nominal operation of the electric thruster. The original plan had been based on four thrusters (four-and-a-half-month orbit-raising period), but with a worst-case scenario of having only three thrusters in operation, the orbit-raising period would increase to seven months.

5.3.8 **Ms Jeanty** said that the Board should have sympathy for the request, which pertained to a real project. She could agree to an extension of four and a half to five months (six weeks because of COVID-19, one month because of the required change in transportation and an additional two months for orbit raising).

5.3.9 **Mr Hoan**, recalling the Board's conclusion at its 86<sup>th</sup> meeting, said that the extension granted at that time had been based on the specific calculation of the Board, which had not taken into account any additional margin or contingency related to the pandemic. He would have no difficulty in granting an additional extension, but the five months requested did not reflect the delay of two and a half months experienced because of COVID-19 and the change in means of transportation. In his view, no additional time should be given for orbit raising. The Administration of Indonesia should be requested to provide more detailed information in support of the requested extension and outline the measures taken to meet the deadline.

5.3.10 **Ms Hasanova**, noting that the case qualified as a situation of *force majeure*, said that she would have no difficulty in granting an extension. As the regulatory time-limit was 31 October 2023, she agreed that the Administration of Indonesia should be requested to provide additional information in support of its request, including on the launch date.

5.3.11 **Ms Beaumier** said that, from the explanations provided by Mr Loo, it appeared that in requesting a five-month extension, the Administration of Indonesia was taking into account the potential need for an additional two months for orbit raising to cover possible non-nominal cases. In the past, the Board had not provided for such contingencies in its decisions and, should additional time be required, it would be relatively simple for the Board to consider a further extension. Although no launch date had been specified, the anticipated sequence of events was clear, with the one-month launch campaign beginning once the satellite had been delivered to the launch site. She would support the provision of a two-and-a-half-month extension at the present meeting.

5.3.12 **Mr Azzouz** endorsed that view. A two-and-a-half-month extension would avoid any confusion about the orbit-raising period; a further extension could be requested if more time was required.

5.3.13 The **Chairman** said that the case satisfied all the conditions to qualify as a situation of *force majeure*, but views differed as to the duration of the extension to be granted. The Administration of Indonesia should be requested to provide information on the satellite launch date, which was a key element for the Board to determine the justified period of extension.

5.3.14 **Ms Jeanty**, noting the additional workload that a request for further information would entail for the Board and the administration, suggested that the Board should grant a two-and-a-half-month extension at the present meeting on the understanding that a further extension could be sought if more time was required for orbit raising.

5.3.15 **Mr Henri** said that, although he could support granting a two-and-a-half-month extension at the present meeting, issues such as the launch window, orbit-raising period and non-nominal situation were unclear. As the regulatory time-limit was 31 October 2023, the Board had time to request clarification before hastily granting an extension that might not be sufficient. He would prefer the decision to be deferred to the next meeting. In the meantime, the Administration of Indonesia should be requested to provide a table setting out the dates of satellite delivery and arrival at the launch site and at the orbital position.

5.3.16 **Ms Beaumier** said that it would be preferable not to ask for additional information; the Board should make its decision at the current meeting. It was troubling that the explanation for the five-month extension requested had not come from the submission itself, but from the clarifications provided by the Bureau.

5.3.17 **Mr Varlamov** said that it would be very difficult for the Board to take a decision on the duration of extension without any information on the launch window. If it granted a two-and-a-half-month the extension at the present meeting and the Administration of Indonesia requested a further extension, the Board would not be able to grant it on the grounds of *force majeure*. The case would most likely then be referred to WRC-23, which should not be the Board's intention. Accordingly, the Board should request the Administration of Indonesia to provide further information before taking its decision.

5.3.18 **Mr Hoan** said that the evidence provided by the Administration of Indonesia did not justify the five-month extension requested. The Board should defer its decision to the next meeting and request the administration to provide additional information, including on the launch window. Such an approach would prevent the administration from having to request a further extension should two and a half months not be sufficient.

5.3.19 **Mr Talib** reiterated his view that the Board should defer its decision to the next meeting pending the provision of further information by the Administration of Indonesia.

5.3.20 The **Chairman** proposed that the Board conclude on the matter as follows:

"With reference to Document RRB22-3/7, containing a submission from the Administration of Indonesia, the Board noted that:

- it had already granted, at its 86<sup>th</sup> meeting, an extension of the regulatory time-limit to bring into use the frequency assignments to the PSN-146E satellite network until 31 October 2023, having considered that the case qualified as a situation of *force majeure*;
- the satellite manufacturer had experienced a delay of six weeks because of changes to workplace rules resulting from the global COVID-19 pandemic and a fire on the premises of a subcontractor;
- the required change in the satellite transport service from air transport to a maritime vessel had resulted in an additional delay of one month.

Based on the information provided, the Board concluded that the case satisfied all the conditions to qualify as a situation of *force majeure*. However, while the requested length of the extension was limited and defined, the Board was unable to find evidence to justify the requested extension of five months. Consequently, the Board instructed the Bureau to invite the Administration of Indonesia to provide additional information in support of the requested length of the extension that should include:

- specific information about the new launch window;
- supporting documentation from the launch service provider that confirmed the planned launch date;
- specific supporting evidence that an extension of five months was justified, given that the information provided justified a maximum extension of two and a half months only."

5.3.21 It was so **agreed**.

#### 5.4 Submission by the Administration of Germany (Federal Republic of) requesting an extension of the regulatory time-limit to bring into use the frequency assignments to the H2M-0.5E satellite network (Document RRB22-3/8)

5.4.1 **Mr Loo (Head SSD/SPR)**, introducing Document RRB22-3/8, said that it contained a request from the Administration of Germany to extend the regulatory time-limit to bring into use the frequency assignments to the H2M-0.5E satellite network, on the grounds of two *force majeure* events: the COVID-19 pandemic and a terrorist arson attack on the premises of the satellite manufacturer, OHB Systems AG, on 1 January 2022. The events and the way in which they fulfilled the four conditions for *force majeure* were described in detail in the document and its annexes. Detailed information had also been provided on the efforts made to ensure that the satellite reached its orbital position well before the regulatory time-limit of 2 May 2023 and on the mitigation measures taken in the face of the four-month delay caused by the *force majeure* events. The latter included the negotiation by the satellite's operator, the German Space Agency, of a new launch slot (1 to 30 June 2023) with the service provider, Arianespace. Together with Arianespace and the European Space Agency (ESA), the German Space Agency had also explored the possibility of swapping the launch of the ESA JUICE mission, scheduled to take place in April 2023, with the new launch window, to no avail. Its efforts to find a gap-filler satellite with the necessary combination of frequencies in the S, Ku and Ka bands had also been to no avail. The notification and Resolution **49 (Rev.WRC-19)** information for the satellite network had been received by the Bureau on 29 October 2022 and were currently being reviewed. The Administration of Germany requested an extension from 2 May to 15 August 2023, covering the four-month delay caused by the *force majeure* events and allowing a reasonable time-frame for orbit raising and for bringing the frequency assignments into use.

5.4.2 **Ms Beaumier** observed that, according to the commendably detailed information provided by the Administration of Germany, the project had been on track to meet the time-limit for bringing the frequency assignments into use before the outbreak of the COVID-19 pandemic and the terrorist arson attack, which had caused a four-month delay in the project's implementation. She therefore concluded that the case met the conditions for *force majeure*. She further observed that, while the satellite would be ready in February 2023, its actual shipping and launch dates were dependent on the launch of the JUICE satellite in April 2023. The Administration of Germany had explored mitigation measures such as launch alternatives and gap-filler satellites, but no better option than the June launch slot had emerged. According to the schedule set out in the submission, orbit raising would take two weeks, which implied an extension to 15 July 2023. The requested date of 15 August 2023 suggested that the administration wanted an extra month to cover potential schedule slips. The Board had consistently excluded any such margin when deciding on extension durations in the previous 30 months; moreover, the Administration of Germany could always apply for an additional extension should the JUICE mission launch be delayed, as such a delay would qualify as a *force majeure* event. She was therefore in favour of granting an extension to mid-July 2023; the subject of extensions to cover contingencies should be raised in the Board's report under Resolution **80 (Rev.WRC-07)** to WRC-23 rather than setting a precedent that was not considered thoroughly.

5.4.3 **Mr Talib** agreed that the case met the conditions for *force majeure*. He understood Ms Beaumier's concern about the schedule slip and the length of the extension; however, in view of the confirmations provided by OHB Systems AG and Arianespace in the annexes to the document, he was in favour of granting an extension of three and a half months, as requested.

5.4.4 **Mr Hoan** agreed that the delay in bringing into use the frequency assignments had been caused by two events that satisfied the four conditions for *force majeure*. Despite the fact that its request was for a relatively short extension, the Administration of Germany had provided detailed schedule calculations and the German Space Agency had made laudable efforts to find an earlier launch slot. He therefore considered that the Board should grant the request for an extension to 15 August 2023.

5.4.5 **Ms Hasanova** agreed that the Administration of Germany had provided a detailed launch schedule. It had also sent the Bureau the requisite notification and Resolution **49 (Rev.WRC-19)** information. Moreover, the COVID-19 pandemic was an event beyond its control. She therefore considered that the case qualified as a situation of *force majeure* and was in favour of granting an extension to 15 August 2023.

5.4.6 **Mr Azzouz** pointed out that the project concerned a non-commercial satellite intended for scientific and military use. The operator had made extensive successful efforts to coordinate frequencies in the Ka and Ku bands, and had provided the requisite notification and Resolution **49 (Rev.WRC-19)** information to the Bureau. According to the information in the document, the case qualified as a situation of *force majeure*. He was therefore in favour of granting an extension, but, in order to be consistent with previous Board decisions, only to 15 July 2023.

5.4.7 **Mr Henri** said that the two *force majeure* events, well substantiated in the request, had delayed satellite testing until February 2023. An extension of two and a half months, until 15 July 2023, took account of the time needed to ship the satellite and review its launch readiness. The launch window of 1 to 30 June was part of a tight schedule that took account of the planned launch of the JUICE mission in April 2023. The extra weeks until 15 August 2023 apparently included time, after the satellite's arrival at its geostationary orbital position, for several activities such as in-orbit testing before the satellite was fully switched on. He would have been willing to grant an extension until 15 August 2023 but considered that information had been missing in the request on the need for that extra month. He also agreed with Mr Azzouz and Ms Beaumier that the Board had to be careful about granting additional periods to cover unforeseen contingencies. To be consistent with past Board decisions on additional contingency periods, he was therefore in favour of granting an extension until 15 July 2023.

5.4.8 **Mr Borjón** said that the submission provided clear evidence that the case was one of *force majeure* and that the Administration of Germany had made every effort to launch the satellite in time. The new launch schedule was extremely tight. He agreed with Mr Henri that a clearer explanation could have been provided of the process for bringing the system into operation, and with Ms Beaumier that an extension of three and a half months would not be consistent with the Board's decisions in other cases. He therefore supported granting an extension to 15 July 2023.

5.4.9 **Ms Jeanty** said that the contribution was well prepared and detailed, and made a clear case for *force majeure*. The explanations provided for why an extra month was needed to cover contingencies were less clear. She had sympathy for the request for a three-and-a-half month extension, especially in view of the efforts made to mitigate the situation, but was also concerned that the Board should be consistent. If the Board granted an extension of that length it would have to develop a rationale for doing so.

5.4.10 **Mr Hashimoto** said that, in light of the clear input provided, he agreed to accept the case as one of *force majeure*. He also agreed with previous speakers that the Board should grant an extension of two and a half months, to 15 July 2023.

5.4.11 **Mr Varlamov** said that the case was clearly one of *force majeure* and that an extension was therefore justified. It was, however, incorrect to speak about two and a half or three and a half months. The letter from the manufacturer appended as Annex 1 to the document contained a schedule indicating a finish date for the launch and early orbit phase (LEOP) and in-orbit testing (IOT) of 23 July 2023. The Board's decision should be guided by that date.

5.4.12 **Mr Henri** said that it was his understanding that by 15 July 2023 the satellite would have been deployed at 0.5°E with the capability to transmit and receive the notified frequency assignments of the network, in conformity with RR No. **11.44B**. There should therefore be no difficulty, nor harm to the administration in declaring that the frequencies had been brought into use in accordance with RR No. **11.44B** at that time. It would be another matter if there were any shifts in the JUICE programme with adverse effects on the launch of the H2SAT satellite. In that case, he would welcome considering a request for a further extension from the administration at that time.

5.4.13 **Ms Beaumier** agreed. The Board only took account of a period for in-orbit testing when the testing occurred at a different position from the satellite's operating position. If the satellite was launched directly into its orbital position, there was no need to allow for an in-orbit testing period and therefore no need to take one into account from the regulatory point of view.

5.4.14 **Mr Varlamov** said that, in his view, a satellite network was considered as having been brought into use when it could transmit and receive with the specified characteristics, i.e. when it was providing services,



and not when it reached its nominal orbital position. At that point, half of the satellite’s payload might not yet be operational, its energy supply had to be checked, the transponders might not have been turned on and the terrestrial component had to be worked out. The difference between 15 and 23 July 2023 was only eight days. Previous Board decisions had not referred to a satellite at its nominal orbital position; they had been based on specific dates.

5.4.15 **Mr Azzouz** suggested that the Board’s decision should specify that the administration could ask for another extension if any difficulties arose in implementing the first extension.

5.4.16 Following an informal discussion, **Mr Varlamov** reported that the Board members had agreed on an extension to mid-July 2023, bearing in mind that the satellite would have been deployed at its nominal orbital slot by that time.

5.4.17 The **Chairman** proposed that the Board should conclude as follows on the matter:

“Having considered Document RRB22-3/8, containing a submission from the Administration of Germany, the Board thanked the administration for the detailed and comprehensive information provided. The Board noted that:

- the regulatory time-limit to bring into use the frequency assignments to the H2M-0.5E satellite network was 2 May 2023;
- the manufacturing and testing of the H2SAT satellite had suffered delays owing to the global COVID-19 pandemic and a terrorist arson attack on the satellite manufacturer, as a result of which the satellite’s readiness had been delayed by four months;
- the launch provider had set the new launch window for the period 1 to 30 June 2023;
- the notification and Resolution **49 (Rev.WRC-19)** information had been provided on 29 October 2022;
- the Administration of Germany would have been able to meet the regulatory time-limit to bring into use the frequency assignments to the H2M-0.5E satellite network with sufficient margin had the *force majeure* events (the global COVID-19 pandemic and a terrorist arson attack on the satellite manufacturer) not occurred;
- the start of the launch campaign and the exact date of shipment and launch depended on the launch date of the JUICE satellite in April 2023;
- the request for the extension of the regulatory time-limit was limited and defined;
- it was not in a position to grant extensions of the regulatory time-limit based on additional contingencies.

The Board recognized the efforts of the administration:

- to coordinate the frequency assignments to the H2M-0.5E satellite network;
- to fulfil its obligations under the Radio Regulations through different mitigation measures, including discussions to exchange the launch with that of the ESA JUICE mission, investigations to change the launch service provider and the possible use of a gap-filler satellite.

Based on the information and supporting documentation provided, the Board concluded that the case satisfied all the conditions to qualify as a situation of *force majeure*. Consequently, the Board decided to accede to the request of the Administration of Germany to extend the regulatory time-limit to bring into use the frequency assignments to the H2M-0.5E satellite network in the frequency bands listed in Table 1 to 15 July 2023.

TABLE 1

2 102.5 – 2 107.5 MHz	2 283.5 – 2 288.5 MHz	10 950 – 11 200 MHz
11 450 – 11 700 MHz	14 000 – 14 500 MHz	19 700 – 21 200 MHz
23 270 – 23 308 MHz (ISL)	26 364 – 26 400 MHz (ISL)	29 500 – 31 000 MHz”

5.4.18 It was so **agreed**.

## 5.5 Submission by the Administration of Pakistan repeating its request for the extension of the regulatory time-limits to bring into use the frequency assignments to the PAKSAT-MM1-38.2E-KA and PAKSAT-MM1-38.2E-FSS satellite networks (Document RRB22-3/9)

5.5.1 **Mr Loo (Head, SSD/SDR)** introduced Document RRB22-3/9, in which the Administration of Pakistan repeated its request for an extension to the regulatory time-limit to bring into use the frequency assignments to the PAKSAT-MM1-38.2E-KA and PAKSAT-MM1-38.2E-FSS satellite networks, from 26 January 2024 and 17 December 2023, respectively, to 31 July 2024, on the grounds of *force majeure* as a result of circumstances related to the COVID-19 pandemic. The important project would provide vital telecommunication services to the whole country.

5.5.2 At its 86<sup>th</sup> meeting, the Board had encouraged the Administration of Pakistan to make all efforts to meet the regulatory time-limits to bring into use the frequency assignments to those satellite networks. Since then, the project schedule had been reduced by two and a half months with a new launch date of 15 January 2024 (37.5 months after the commencement of work), as detailed in Addendum 1 to Document RRB22-3/9. The contract with the satellite operator (China Great Wall Industry Corporation), specifying agreed milestones for the new launch date, had been signed on 21 January 2022 (Annex C to Document RRB22-3/9). However, the Chinese Government had imposed further COVID-19 lockdowns in 2021 and 2022 (Annex D to Document RRB22-3/9) which, together with pandemic-induced supply chain delays, had resulted in a further six-month delay to the project. A current programme schedule and measures being taken by the administration and manufacturer to ensure a launch by 15 July 2024, including the certificates of confirmation for the launch, were outlined in Addendum 1, with supporting documentation set out in Annexes E to H of Document RRB22-3/9.

5.5.3 **Mr Henri** thanked the Administration of Pakistan for rightfully taking into account the Board's advice and comments at its 86<sup>th</sup> meeting and noted that the launch schedule had been reduced from 40 to 37.5 months after commencement of satellite development work on 30 November 2020 (from 30 March 2024 to 15 January 2024). COVID-19-related lockdowns in China had been quite severe and he could understand that they had led to a further six-month delay to the project, although the length of the delay might have benefited from more substantial information. He had much sympathy for the case, particularly given all the efforts and actions taken by the Administration of Pakistan to ensure a timely satellite launch and operation of the PAKSAT filing frequency assignments at 38.2°E. He was in favour of granting an extension as the case met the conditions to qualify as a situation of *force majeure*. With the satellite expected to arrive at its orbital position on 24 July 2024 according to the project schedule submitted, the exact duration of the extension might require further discussion.

5.5.4 **Mr Hashimoto**, noting that project activities were ongoing, said that the Board should recognize that the impact of COVID-19 on the industry varied among countries. China had imposed some of the most stringent restrictions and it was understandable that the effects of the pandemic continued to be felt. The requested extension was limited and reasonable, and sufficient supporting documentation had been provided. He could therefore support the request.

5.5.5 **Ms Beaumier** thanked the Administration of Pakistan for its detailed submission and for taking into account the advice given at the previous meeting when the Board had noted that the programme had experienced delays directly related to the pandemic but had not been able to conclude that the situation met all the conditions to qualify as a case of *force majeure*. She noted with satisfaction that the Government of Pakistan was proceeding with the satellite project and that significant progress had been made towards its implementation. While there was no doubt that the programme had suffered further delays due to the pandemic, no details had been provided as to how the six-month delay had been derived and further information on the duration of the COVID-19 lockdowns would have been useful. Furthermore, limited information had been provided as evidence of an agreement with the launch service provider and the administration had still failed to address other options, such as the use of a gap-filler satellite. From the information presented, it was difficult to conclude that all possibilities for mitigating the risks of missing the deadline had been considered or pursued. While she recognized fully the efforts made by the Administration of Pakistan and the detailed information provided to explain the progress achieved and difficulties

encountered, she was in favour of requesting further, limited clarifications so that the Board could confirm that the situation met all four conditions to qualify as a case of *force majeure* and to justify the length of the requested extension.

5.5.6 **Mr Hoan**, noting the information provided by the Administration of Pakistan in compliance with the Board's decision at its 86<sup>th</sup> meeting, observed that the manufacturer had applied additional resources, reducing the project schedule by two and a half months, but the lockdowns and restrictions imposed by the Chinese Government had affected the revised plan. In his view, the extension requested was not too long and evidence of the launch of the satellite before 15 July 2024 had been provided. The project was of importance to satellite communications in Pakistan, a developing country, and he could accede to the request.

5.5.7 **Mr Borjón** thanked the Administration of Pakistan for its well-supported request and its efforts to meet the regulatory time-limit. The impact of COVID-19 varied from country to country, but China had imposed some of the strictest lockdowns. In its consideration of cases citing COVID-19 as grounds for *force majeure*, the Board must consider the effect on the schedule. The present case met all four conditions to qualify as a situation of *force majeure* and he was in favour of the extension requested, which he hoped would help Pakistan cope with the natural disasters it was experiencing.

5.5.8 **Mr Azzouz**, noting the coordination agreements reached with other administrations, the clear efforts made to reduce the project duration and the impact of the COVID-19 pandemic on China and Pakistan, said that he was in favour of granting an extension to 24 or 31 July 2024.

5.5.9 **Ms Jeanty**, having recalled the Board's conclusion at its 86<sup>th</sup> meeting, said that despite the efforts made by the Administration of Pakistan to meet the regulatory time-limits, an extension was still necessary due to the strict COVID-19 restrictions imposed in China. She noted that the administration and satellite manufacturer were endeavouring to launch the satellite before 15 July 2024 but could support an extension until 31 July 2024.

5.5.10 **Mr Talib**, recalling the Board's conclusion at its 86<sup>th</sup> meeting and the considerable efforts made by Pakistan, said that in the present case, the pandemic constituted grounds for *force majeure*, in particular given the very strict COVID-19 measures taken in China that had a direct impact on the project in question and the ensuing disruption to supply chains. He would support an extension until 31 July 2024.

5.5.11 **Ms Hasanova** welcomed the detailed submission and the efforts outlined therein, noting the importance of the satellite project for the provision of telecommunication services in Pakistan, a developing country. Although the contract had been signed in January 2022, the revised plan had been delayed due to the global COVID-19 pandemic restrictions; the current satellite project schedule had also been provided. She was in favour of granting the extension requested.

5.5.12 **Mr Varlamov** agreed that the Board should accede to the request for an extension; 24 July 2024 would be appropriate since it would give enough time for the satellite to reach its orbital position and was in line with similar cases considered by the Board.

5.5.13 The **Chairman** proposed that the Board conclude on the matter as follows:

"The Board considered in detail the request of the Administration of Pakistan contained in Document RRB22-3/9 and noted that:

- the Board had decided at its 86<sup>th</sup> meeting not to accede at that stage to the request from the administration and to encourage it to make every effort to meet the regulatory time-limits to bring into use the frequency assignments to the PAKSAT-MM1-38.2E-KA and PAKSAT-MM1-38.2E-FSS satellite networks on 26 January 2024 and 17 December 2023, respectively;
- the project was a real project in an advanced development stage;
- a contract had been signed with a satellite manufacturer on 21 January 2022 with an effective date of contract of 30 November 2020;

- the impact of the global COVID-19 pandemic on the project timelines had caused a delay of six months, with a new launch date of 15 July 2024 and a new date for the bringing into use of 31 July 2024;
- the launch service provider and launch vehicle developer had confirmed the launch of the satellite before 15 July 2024;
- the project was important to the Administration of Pakistan and would provide vital telecommunication services to the whole country.

The Board recognized the efforts that the administration had made to reduce the original schedule by two and a half months, applying additional resources and revising the launch date to 15 January 2024, before new restrictions arising from the global COVID-19 pandemic had affected the revised plan. In accordance with Article 44 of the Constitution, the Board took into account the special needs of developing countries and the geographical situation of particular countries.

Based on the information and documentation provided, the Board concluded that the case satisfied all the conditions to qualify as a situation of *force majeure*. Consequently, the Board decided to accede to the request of the Administration of Pakistan to extend the regulatory time-limit to bring into use the frequency assignments to the PAKSAT-MM1-38.2E-KA and PAKSAT-MM1-38.2E-FSS satellite networks to 31 July 2024.”

5.5.14 It was so **agreed**.

## **5.6 Submission by the Administration of Papua New Guinea requesting an extension of the regulatory time-limit to bring into use the frequency assignments to the MICRONSAT satellite network (Document RRB22-3/10)**

5.6.1 **Mr Loo (Head SSD/SPR)** introduced Document RRB22-3/8 and its annexes, in which the Administration of Papua New Guinea requested an extension, from 23 November 2022 to 10 March 2024, of the regulatory time-limit to bring into use the frequency assignments in the Q/V bands to the MICRONSAT satellite network, on the grounds of *force majeure*. Under the original manufacturing schedule, the network’s first satellite, BW3, was to have been built and tested in time for a launch during the fourth quarter of 2021, well before the time-limit established in accordance with Resolution **771 (WRC-19)** for bringing the frequency assignments in the Q/V bands into use. The launch had been delayed by the Russian launch service provider, GK Launch Services (GK), due to its own internal technical and operational issues, and subsequently, the United States Department of Commerce had suspended the export licence for the Soyuz rocket in response to the situation in Ukraine. The MICRONSAT operator had immediately explored alternative options and the BW3 satellite had ultimately been launched by SpaceX on 10 September 2022, but not into its previously planned orbit. It would raise its own orbit using an electric propulsion system in a process that would take up to 18 months, hence the request for an extension of that length.

5.6.2 In response to comments and questions from **Ms Hasanova, Ms Jeanty** and **Mr Hoan**, he confirmed that, in accordance with No. **11.44C**, only one space station with the capability of transmitting or receiving in the relevant frequency band(s) was needed to bring into use the entire constellation. The request for an extension concerned only the frequency bands that were subject to Resolution **771 (WRC-19)** listed in Annex 5 to Document RRB22-3/10. The Bureau had no further information on the internal technical and operational issues experienced by the launch company.

5.6.3 **Mr Hoan** said that, while the suspension of the initial launch might be considered a *force majeure* event, the Board should first obtain information on why it had not been possible to launch the BW3 satellite on the Soyuz rocket in the fourth quarter of 2021, before the suspension of the export licence.

5.6.4 In reply to a question from **Mr Talib** about the length of the extension, **Mr Loo (Head SSD/SPR)** said that the 18 months needed for orbit raising had been calculated from the date of the SpaceX launch, i.e. 10 September 2022.

5.6.5 **Ms Beaumier** commended the operator for finding an alternate launch provider and arranging a launch in September 2022. That being said, it was not clear from the documents provided what the new

launch window would have been after GK delayed the launch or how much time had originally been set aside for orbit raising. The reference to “internal technical and operational issues” did not seem to indicate a *force majeure* event, nor did the submission address any of the four conditions for *force majeure*. In addition, no information had been provided enabling the Board to compare the timelines for a Soyuz versus a SpaceX rocket launch, and there was therefore no way to assess whether it would have been possible to meet the original deadline for bringing into use. Moreover, she was not in a position to assess the correctness of the technical information provided in Annex 4 to explain why up to 18 months were needed for orbit raising. Lastly, it was unclear how the suspension of a United States export licence (according to Annex 3 of the submission) or launch authorization (according to the submission itself) affected a filing by the Administration of Papua New Guinea. In conclusion, she considered that the Board did not have enough information to determine whether all four conditions for *force majeure* had been met.

5.6.6 **Mr Hashimoto** agreed with previous speakers that no explanation had been provided for the delay in the initial launch. Moreover, while the reasons why 18 months were required for orbit raising were set out in Annex 4, no source had been indicated and it was unclear who had produced the annex. Those points must be clarified before the Board could grant the extension.

5.6.7 **Mr Henri** said that, while the Administration of Papua New Guinea had asked for an extension of 18 months, its request should in fact have been for 15 months: the time between the time-limit established under Resolution **771 (WRC-19)** (23 November 22) for bringing into use the frequency assignments in the Q/V bands and the date on which the satellite would reach its orbital location. He shared the concern of previous speakers that some information was either missing or incomplete. Regarding the orbit-raising time, his understanding was that the Soyuz rocket would have delivered the satellite at a higher altitude from a more northerly launch site than the SpaceX launcher and site, which could explain a longer orbit-raising time; he would welcome confirmation thereof. He fully agreed with Mr Hashimoto that an indication was needed of the source for the explanation provided in Annex 4. While the case might be considered to meet some of the conditions to qualify as a situation of *force majeure*, the information provided was insufficient at that stage to allow the Board to conclude that the satellite would have been in place on time were it not for the Russian Federation/Ukraine crisis. He sensed that the Board had a great deal of sympathy for the situation faced by the Administration of Papua New Guinea, but felt that it needed more information before reaching a final decision.

5.6.8 In reply to a question from **Mr Varlamov** about the frequency bands listed in the network’s filing, **Mr Loo (Head SSD/SPR)** said that the MICRONSAT filing, which had been published in 2018, contained a wide range of frequency bands. Since notification had been received only for space operations in the S-band and for the other services in the Q/V bands, the Bureau currently had no information on the planned date of bringing into use of the other bands. That being said, only the Q/V bands were subject to Resolution **771 (WRC-19)** and had to be brought into use by 23 November 2022. Under RR No. **11.44**, the regulatory time-limit for bringing into use the other bands was seven years (i.e. in 2025), irrespective of whether they had been notified under No. **4.4**.

5.6.9 **Mr Azzouz** agreed with previous speakers that the Administration of Papua New Guinea should be asked to provide further information on all the aspects they had raised, with a view to enabling the Board to reach a decision at its 92<sup>nd</sup> meeting. Moreover, he considered that the calculations indicated in Annex 4 contained an error, making it all the more important to know the source.

5.6.10 The **Chairman** proposed that the Board should conclude as follows on the matter:

“Having considered Document RRB22-3/10, containing a submission from the Administration of Papua New Guinea, the Board noted that:

- the frequency assignments to the MICRONSAT satellite network had been notified to the Bureau before 23 November 2019 and, in accordance with Resolution **771 (WRC-19)**, should be brought into use before 23 November 2022;
- the BW3 satellite had been contracted for a Soyuz launch vehicle from the Russian launch service provider, GK Launch Services (GK), and the launch had been planned for the fourth quarter of 2021;

- the export licence of the company AST&Science, LLC, which had had a contract with the GK launch service provider, had been suspended;
- the launch service provider had delayed the launch for internal technical and operational reasons;
- insufficient information had been provided to determine whether the case satisfied all the conditions to qualify as a situation of *force majeure*;
- insufficient information had been provided to justify the requested length of the extension of 18 months;
- a satellite had been launched on 10 September 2022.

Based on the information provided, the Board concluded that it was unable to accede to the request from the Administration of Papua New Guinea. More detailed information would be required to determine that the case qualified as a situation of *force majeure* and to justify the requested length of the extension of the regulatory time-limit. Consequently, the Board instructed the Bureau to invite the Administration of Papua New Guinea to provide information to the 92<sup>nd</sup> Board meeting on the following issues in support of its request:

- detailed evidence that all conditions had been satisfied for the case to qualify as a situation of *force majeure*;
- documentation to justify the requested length of the extension of the regulatory time-limit;
- information on any new launch window proposed by GK following the launch delay after the fourth quarter of 2021;
- information on the time required for the orbit-raising manoeuvre related to the original GK launch;
- the origin, and validation/attestation from an expert source, of the information in Annex 4 on the BW3 electric propulsion system.

The Board further instructed the Bureau to continue to take into account the frequency assignments to the MICRONSAT satellite network in the frequency bands 37.5-42.5 GHz (space-to-Earth), and 47.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space), until the end of the 92<sup>nd</sup> Board meeting.”

5.6.11 It was so **agreed**.

## **5.7 Submission by the Administration of Cyprus requesting an extension of the regulatory time-limit to bring into use the frequency assignments to the CYP-30B-59.7E-3 satellite network (Document RRB22-3/12)**

5.7.1 **Mr Wang (Head, SSD/SNP)** introduced Document RRB22-3/12, containing a request from the Administration of Cyprus to extend the regulatory time-limit to bring into use the frequency assignments to the CYP-30B-59.7E-3 satellite network by 11 months, from 15 December 2022 to 18 November 2023, on the grounds of *force majeure*. As detailed in the submission, the contract with the manufacturer (Maxar Space) on behalf of Ovzon, Sweden, for the OVZON 3 satellite had an effective date of 10 July 2019 with a contractual shipment date of 25 August 2021. A contract with the launch service provider (Arianespace) had been signed on 29 July 2019 with a three-month launch window of October to December 2021. The satellite had been expected to reach its orbital position before the end of April 2022.

5.7.2 Summarizing the timeline of events, he said that, on several occasions beginning in March 2020, Maxar had claimed *force majeure* delays due to the global COVID-19 pandemic, wildfires and adverse weather conditions, as detailed in Attachments 1 to 4 of the submission. On 29 April 2021, Maxar had given notice to Ovzon of a failure of key components in the reaction wheels delivered by a subcontractor (Attachment 6 to Document RRB22-3/12), which constituted *force majeure*. On 14 May 2022, Maxar had informed Ovzon that the prioritization rules under the United States Defence Production Act had been applied by the subcontractor in respect of the reaction wheels, which had finally been delivered on 8 July 2022 (Attachment 10 to Document RRB22-3/12), 22 months behind schedule. As a result of those delays, the manufacture of the OVZON 3 satellite had been caught up in a bottleneck at the Maxar factory

(Attachment 9 to Document RRB22-3/12). The current delivery date was 25 March 2023, 19 months after the contracted shipment date. The launch was now expected in the first half of 2023 and, with an electric orbit-raising period of 140 days, bringing into use was expected before 18 November 2023.

5.7.3 The administration went on to outline the *force majeure* events preventing the frequency assignments from being brought into use within the regulatory time-limit and how the four conditions for *force majeure* had been met.

5.7.4 **Mr Henri** said that he had some sympathy with the case, which related to a real ongoing satellite project. The effective date of the contract, initial contractual shipment date and planned launch window of October to December 2021 suggested that all efforts had been undertaken to respect the regulatory time-limit for bringing into use the frequency assignments to the CYP-30B-59.7E-3 satellite network. While much supporting information had been provided in the submission, the delays indicated and their impact had not always been clearly quantified. Furthermore, no confirmation had been provided of the expected delivery date of 25 March 2023 and the information on the launch provider was missing. Press reports indicated that the OVZON-3 satellite was to be launched between December 2022 and February 2023 on board one of the last Ariane 5 rockets, in which case the expected satellite delivery would have to be before 25 March 2023. While there was a certain logic to the request for an extension, with certain delays that could be attributed to the global COVID-19 pandemic, some information was still missing. He also hoped that the administration would submit the information required under Resolutions **49 (Rev.WRC-19)** and **552 (Rev.WRC-19)** and notification information by the end of December 2022.

5.7.5 **Mr Azzouz** said that, while much information had been provided, certain delays had not been quantified and it was difficult to justify the 11-month extension requested. Furthermore, no explanation had been given for the 140-day orbit-raising period.

5.7.6 **Ms Beaumier** said that the submission was relatively well prepared, and clear and detailed supporting information had been provided, including the helpful analysis of how the four conditions of *force majeure* had been met. Satellite delivery had been delayed by 19 months and, while the launch was expected during the first half of 2023, no information was given on the launch service provider and contract. With an orbit-raising period of around five months, the satellite would be at its orbital position by 18 November 2023, assuming a launch before the end of June. Even though the administration had received and attached several notices of *force majeure* from the manufacturer, only one quantified the actual delays attributed to the global COVID-19 pandemic, wildfires and supply chain issues. Thus, while there was no doubt that the project had experienced delays due to *force majeure*, insufficient information had been provided on the project schedule or on the status of satellite construction for the Board to determine whether the project had been on track before the delays or for it to conclude that the two-year delay was directly and only attributable to *force majeure*. She had some sympathy with the difficulties encountered in the implementation of what was a real project and suggested that the Board should seek further clarification from the Administration of Cyprus for consideration at its next meeting.

5.7.7 **Mr Hoan** said that he had sympathy with the difficulties of the Administration of Cyprus, noting that manufacturing and launch contracts had been signed early on to bring into use the frequency assignments before the regulatory time-limit. According to the submission, it had not been possible to meet that time-limit because of the global COVID-19 pandemic and the failure of key components supplied by a subcontractor. He agreed that the case qualified as *force majeure* resulting from the COVID-19 pandemic and that the Board could grant an extension on those grounds. Noting that WRC-12 had discussed delays in component delivery after a natural disaster, he said that the Board should, however, carefully consider whether such delays following the application of national legislation could be used as a justification for *force majeure*. The Board's decision in that regard would set a precedent for other cases.

5.7.8 The **Chairman** said that Mr Hoan had raised a very important point and agreed that the Board should carefully consider whether delays attributed to the impact of the application of national legislation or delays in the delivery of components by subcontractors could be used as a justification for *force majeure* or should be taken into account in the project planning stage.

5.7.9 **Mr Hashimoto** said that the delays attributed to a component procurement problem with a subcontractor, including because of the application of the Defence Production Act, were difficult to understand. It was not clear what measures had been taken to overcome or reduce the 22-month delay in the component delivery, and the main contractor might have a responsibility to plan for subcontracting delays. While he had sympathy for the Administration of Cyprus, further clarification was required to determine whether the case satisfied the conditions of *force majeure*.

5.7.10 **Mr Talib** said that he had much sympathy with the Administration of Cyprus and thanked it for its comprehensive submission. The case concerned a real project, but it was not clear whether all four conditions of *force majeure* had been met. The administration should be requested to provide further information, including on the launch window and frequency ranges on board the satellite, to enable the Board to determine the extension to be granted since insufficient information had been provided to justify an extension of 11 months.

5.7.11 **Ms Jeanty** said that she, too, had sympathy with the case, which concerned a real project. The well-prepared contribution explained how the situation met the four conditions of *force majeure* and she had concluded that the Administration of Cyprus would have met the regulatory time-limit in the absence of the delays experienced. She could therefore agree to grant an extension on the grounds of *force majeure*. However, she would have no difficulty in asking for further information from the administration in light of the questions raised by other members. The submission had gone into great detail regarding delays in the delivery of components by a subcontractor, which should probably be covered under manufacturing delays. As national laws ought to be common knowledge, the issue as to whether their impact might be considered unforeseen was an interesting one.

5.7.12 **Ms Hasanova**, noting that the case concerned a real project, said that she had sympathy with the Administration of Cyprus. It should be invited to provide the missing information to the Board's 92<sup>nd</sup> meeting, including on the launch service provider and contract. The notification of the satellite network of Cyprus was receivable until 15 December 2022. The Bureau should be instructed to continue to take into account the frequency assignments to the CYP-30B-59.7E-3 satellite network until the end of the 92<sup>nd</sup> Board meeting.

5.7.13 **Mr Varlamov** said that the Administration of Cyprus had clearly made efforts to manufacture the satellite and the submission set out the difficulties encountered. The Board did not, however, have enough information to confirm that all the conditions of *force majeure* had been met and to determine the length of the extension to be granted. When drawing up a contract, lawyers would have taken into consideration the provisions of national laws, including those relating to the defence industry, and the impact of their possible application should therefore have been accounted for. Further information was required, including on the delays experienced and the new launch window.

5.7.14 **Mr Wang (Head, SSD/SNP)**, responding to a query from **Mr Henri**, said that the Administration of Cyprus had submitted four networks at 59.7°E that used the frequency bands under Appendix 30B. The first two (CYP-30B-59.7E and CYP-30B-59.7E-2) had been submitted in 2017, brought into use in March 2020 and suspended after 90 days. The regulatory time-limit for bringing back into use was 16 June 2023, i.e. before the extension requested by the administration for the network currently under discussion. The CYP-30B-59.7E-3 network had been submitted in 2014, but the Bureau had received only the Part A submission. The information required under Resolution 49 (Rev.WRC-19), the Part B and notification had not yet been submitted, despite the Bureau's reminders in June and September 2022. The CYP-30B-59.7E-4 network had been received by the Bureau in 2021 and published in 2022. With regard to the frequency bands concerned, he said that the first two networks had only 250 MHz in the Ku band for the uplink. The last two networks, which were still at the Part A stage, had the full 500 MHz in the Ku band.

5.7.15 **Mr Henri** said that he had been trying to understand the relationship between the date of resumption of the two suspended networks (16 June 2023) and the date of extension requested for the operation of the OVZON-3 satellite (18 November 2023); there was not likely to be more than one satellite at the 59.7°E orbital position, and such a satellite should be there by 16 June 2023 for the resumption of operation of the two suspended satellite networks. The Board should remind the Administration of Cyprus of the need to comply with regulatory procedures and to submit the Part B, notification and information



under Resolution **49 (Rev.WRC-19)** by the respective deadlines. He agreed that the issue raised by Mr Hoan was an important one. National legislation would be known by all relevant parties and therefore taken into account at the time of contract signature. The Board should make clear its position as to whether such legislation, if applied, could be used as justification for *force majeure*.

5.7.16 **Ms Beaumier** agreed that legislative requirements would be well known at the time of contract signature and that their application alone would not usually be considered as satisfying the conditions of *force majeure*. Indeed, if their application were cited as the only reason for the delay experienced, the Board was unlikely to respond favourably and would expect some contingencies to be provided for in the planning process. However, if the impact of their application were compounded by other elements related to the *force majeure* event (e.g. the COVID-19 pandemic) and other extensive problems that could not have been foreseen in the present case, the Board might wish to indicate that the potential impact of relevant national legislation or potential delays in component delivery could not be used as a justification of *force majeure* unless there were exceptional circumstances. In addition, while the submission provided much supporting documentation, many of the events notified to the operator had been qualified as *force majeure* by the manufacturer and might not necessarily satisfy all the Board's requirements. Accordingly, in her view, the Board did not have sufficient information at present to conclude that the case qualified as a situation of *force majeure*.

5.7.17 The **Chairman** said that the Board's conclusion should remain general in nature and should not send a signal that national legislation might be used to justify *force majeure*. Exceptional cases could be raised by the administrations concerned. He therefore proposed that the Board conclude on the matter as follows:

"Having considered Document RRB22-3/12 containing a submission from the Administration of Cyprus, the Board noted that:

- the regulatory time-limit to bring into use the frequency assignments to the CYP-30B-59.7E-3 satellite network was 15 December 2022;
- the case concerned a real project in an advanced development stage;
- a contract had been signed with the manufacturer of the OVZON 3 satellite on 10 July 2019, with a shipment date of 25 August 2021;
- the administration also had indicated that a contract had been signed with the launch service provider on 29 July 2019, with a launch window of October-December 2021 and an anticipated arrival of the satellite at its orbital position before the end of April 2022, but had provided no supporting documentation;
- based on the project timelines provided, the administration would have met the regulatory time-limit to bring into use the frequency assignments to the CYP-30B-59.7E-3 satellite network in the absence of the delays experienced;
- the potential impact of the relevant national legislation or potential delays in delivery of components by subcontractors should be taken into account in project planning and could not be used as a justification of *force majeure*;
- while delays were attributed to the impact of the global COVID-19 pandemic, wildfires and adverse weather conditions, their impact was not quantified;
- insufficient information had been provided to determine whether the case satisfied all the conditions to qualify as a situation of *force majeure*;
- insufficient information had been provided to justify an extension of 11 months.

Based on the information provided, the Board concluded that it was unable to accede to the request from the Administration of Cyprus. More detailed information would be required to determine that the case qualified as a situation of *force majeure* and to justify the requested length of the extension of the regulatory time-limit. Consequently, the Board instructed the Bureau to invite the Administration of Cyprus to provide information to the 92<sup>nd</sup> Board meeting on the following issues in support of its request:

- detailed evidence that all the conditions had been satisfied for each of the *force majeure* events for the case to qualify as a situation of *force majeure*;

- documentation to justify the requested length of the extension of the regulatory time-limit;
- documentation to quantify the delays attributed to the global COVID-19 pandemic, wildfires and adverse weather conditions and their combined impact, with a view to justifying the request for an 11-month extension of the regulatory time-limit;
- documentation on the contracts signed with the manufacturer and launch service provider that also indicated the satellite shipment date and the launch window;
- the frequency ranges of transponders on board the OVZON 3 satellite;
- the steps undertaken by Maxar to alleviate the delay due to the original failure of the Honeywell reaction wheel and further additional delays;
- the measures taken by Maxar to reduce the impact of the United States' prioritization rule Defence Production Act (DPA);
- the timeline of the OVZON 3 satellite construction (effective date of the contract, beginning of construction, delivery of satellite), launch preparation duration and planned launch date, planned date of arrival at the GSO location (59.7°E), including the orbit-raising period, as originally planned and finally foreseen;
- the status of the satellite's construction before each of the *force majeure* events.

The Board reminded the Administration of Cyprus that the Part B and the notification were receivable no later than 15 December 2022 and that the information under Resolution **49 (Rev.WRC-19)** was receivable no later than 30 days after 15 December 2022. The Board further instructed the Bureau to continue to take into account the frequency assignments to the CYP-30B-59.7E-3 satellite network until the end of the 92<sup>nd</sup> Board meeting."

5.7.18 It was so **agreed**.

## **5.8 Submission by the Administration of the Russian Federation providing additional information supporting its request for an extension of the regulatory time-limit to bring into use the frequency assignments to the SKY-F satellite system (Document RRB22-3/15)**

5.8.1 **Mr Loo (Head SSD/SPR)** introduced Document RRB22-3/15, in which the Administration of the Russian Federation provided the additional information requested by the Board at its 90<sup>th</sup> meeting in respect of the administration's request for an extension, on the grounds of co-passenger delay, of the regulatory time-limit to bring into use the frequency assignments to the SKY-F satellite system. The information provided comprised a summary description of the satellite to be launched (in Annex 1 to the submission), including the frequency bands, and the status of satellite construction, including the date on which construction had begun and whether the satellite was expected to be completed before the initial launch window (in Annex 2).

5.8.2 In reply to a question from **Ms Hasanova**, he confirmed that the satellite had been launched on 22 October 2022.

5.8.3 **Mr Azzouz, Ms Jeanty, Mr Talib, Mr Hoan, Ms Hasanova, Mr Hashimoto, Mr Borjón** and **Mr Mchunu** considered that the document contained the information requested by the Board at its 90<sup>th</sup> meeting and demonstrated that the satellite had been built and launched. They supported granting the request for a four-month extension, to 31 January 2023.

5.8.4 **Ms Beaumier** also considered that the document demonstrated that the satellite had been ready for shipping at the end of August, that a launch date had been identified and that the launch had actually occurred. She was therefore also in favour of granting an extension but suggested that it should be to the end of October 2022. The previous submission had forecast a launch window of January/February 2023, which justified the request for a four-month extension. Since then, the satellite had been launched, on 22 October 2022, and the Board's decision should take account of that new information.

5.8.5 **Mr Henri**, highlighting that the case under consideration was covered by the rules of procedure on co-passenger delay, said that he would be in favour of granting an extension of the regulatory time-limit to bring into use the frequency assignments to the SKY-F satellite system, but for a time-limited duration based on the satellite launch date of 22 October 2022.

5.8.6 In reply to a proposal from **Mr Azzouz** that the Administration of the Russian Federation should revert to the Board at its next meeting with a request for a longer extension, if necessary, he added that he did not think that more time would be needed after the end of January 2023, as the satellite had been launched. The Board had to grant an extension that was compatible with the launch date, which was 22 October 2022. The information provided at the previous meeting seemed to indicate a short period for bringing into use. If the Board wanted to be coherent when it came to granting extensions, it should grant an extension up to the end of November 2022.

5.8.7 **Ms Beaumier** agreed and recalled that the Board was mandated to grant time-limited extensions. According to the time-frame provided, trials had always been scheduled to start immediately after launch. Given the satellite's effective launch date, an extension to the end of October 2022 appeared reasonable; out of an abundance of caution, however, the Board could consider granting an extension to the end of November 2022.

5.8.8 **Ms Jeanty** agreed, given that the satellite had been launched.

5.8.9 The **Chairman** proposed that the Board should conclude as follows on the matter:

"The Board considered in detail the request and additional information from the Administration of the Russian Federation as contained in Document RRB22-3/15. The Board thanked the Administration of the Russian Federation for providing all the information requested during the 90<sup>th</sup> Board meeting. The Board noted that:

- the information provided a description of the satellite and its frequency bands;
- the information on the status of the satellite construction and the date on which construction had commenced demonstrated that satellite construction had been completed in advance of the initial launch window;
- the SKYF-D satellite had been launched on 22 October 2022.

Based on the information provided, the Board concluded that the case qualified as a situation of co-passenger delay in accordance with the rules of procedure on the extension of the regulatory time-limit for bringing into use satellite frequency assignments. Consequently, the Board decided to accede to the request from the Administration of the Russian Federation to extend the regulatory time-limit to bring into use the frequency assignments to the SKY-F satellite system in the frequency bands 17 800 – 18 600 MHz and 18 800 – 19 300 MHz (space-to-Earth), and 27 600 – 28 400 MHz and 28 600 – 29 100 MHz (Earth-to-space), to 30 November 2022."

5.8.10 It was so **agreed**.

## 6 Cases of harmful interference

### 6.1 Submission by the Administration of China (People's Republic of) in response to the Administration from the United Kingdom of Great Britain and Northern Ireland regarding harmful interference to emissions of United Kingdom high frequency broadcasting stations published in accordance with RR Article 12 (Documents RRB22-3/3, (RRB22-2/DELAYED/2), RRB22-3/DELAYED/1, RRB22-3/DELAYED/2)

6.1.1 **Mr Vassiliev (Chief, TSD)**, introducing the item, said that Document RRB22-3/3 contained the delayed submission from the Administration of China to the 90<sup>th</sup> meeting (Document RRB22-2/DELAYED/2) and provided clarifications in response to the submission of the Administration of the United Kingdom to that

meeting (Document RRB22-2/10). The Administration of China indicated that, as the frequencies concerned were under the jurisdiction of the Administrations of Oman and Singapore, respectively, at the time of the occurrence of interference, the interference should, in accordance with RR No. **15.34**, be reported by those administrations. The Board was requested to consider whether it was necessary to proceed with consideration of the issue. The Chinese Administration also questioned the claims of the Administration of the United Kingdom concerning the source of harmful interference in the region of the Qinghai-Tibet plateau, considering that specific climatic conditions there could lead to an atmospheric waveguide effect, causing errors in direction finding and positioning. Furthermore, in the absence of technical verification, it was inappropriate for the Administration of the United Kingdom to request the Board to decide on breaches by the Chinese Administration of RR No. **15.1**.

6.1.2 Document RRB22-3/DELAYED/1 contained a submission from the Administration of the United Kingdom, expressing disappointment that the Board had been unable to determine from the evidence provided by that administration to its 90<sup>th</sup> meeting (Document RRB22-2/10) and from the results of the international monitoring campaign (Addendum 10 to Document RRB21-2/3) that RR No. **15.1** had been breached. The Administration of the United Kingdom requested the Board to clarify in the minutes of the current meeting the statement in its conclusion at the 90<sup>th</sup> meeting (§ 7.2.22 of Document RRB22-2/16) that “operation of stations that carry unnecessary emissions was in direct contravention of RR No. 15.1” was ascribed to stations located in the territory of China in the case at hand. It also requested clarification of the additional evidence required to conclude that the harmful interference was intentional. If the Board considered the evidence from the international monitoring campaign insufficient for that purpose, consideration should be given to a further measurement campaign. The Administration of the United Kingdom detailed reasons why the results of the field strength measurements requested by the Chinese Administration could be open to debate. It concluded by noting that the alleged atmospheric waveguide effect was not known to it, not cited in meetings of the High Frequency Coordination Conference (HFCC) and not specifically referred to in ITU-R Study Group 3 Recommendations.

6.1.3 Document RRB22-3/DELAYED/2 contained a further submission from the Administration of China responding to the delayed contribution from the Administration of the United Kingdom. It considered that both administrations should fully respect the Board’s decisions at the 89<sup>th</sup> and 90<sup>th</sup> meetings, strengthen cooperation and address issues in strict compliance with the relevant provisions of the Radio Regulations, including RR No. **15.22**. The Administration of the United Kingdom should not jump to the conclusion that the Chinese Administration had violated RR No. **15.1** without conducting the necessary technical investigation. Since 2019, the Chinese Administration had been suggesting that the Administration of the United Kingdom provide relevant technical data and that Recommendations ITU-R P.845 and ITU-R BS.560-4 should be used as a reference for the field strength measurements requested. The Administration of China trusted that both parties would continue bilateral coordination and stood ready to work with the Administration of the United Kingdom to solve the technical problems that might cause interference. It was, however, of the view that the Board should not consider the case further unless all technical information was provided by that administration and further coordination efforts were undertaken.

6.1.4 Responding to questions from **Mr Talib, Ms Hasanova, the Chairman, Ms Beaumier and Mr Azzouz, Mr Vassiliev (Chief, TSD)** said that the Bureau had not received any reports of interference since the Board’s previous meeting. The transmitting stations were recorded in the HF broadcasting schedule for the Administrations of Oman and Singapore, and the Administration of China indicated that, in accordance with RR No. **15.34**, those administrations, which had jurisdiction at the time of the interference, should submit the interference reports. HF broadcasting transmissions had a propagation of many thousands of kilometres, and several stations in countries in addition to the United Kingdom, including Oman and Singapore, transmitted British Broadcasting Corporation (BBC) emissions. As to the differing views of the two administrations on the need for field strength measurements, he said that while such technical measurements would undoubtedly be useful, their feasibility was an issue: the interference signal might not be detected during the period when the transmissions were switched off; other signals might be detected because of the long-distance propagation of HF transmissions, thus making it difficult to isolate and measure interfering signals; and the results could be contested due to the significant variation in propagation conditions. The interference had been reported by the Administration of the United Kingdom since 2016 for

different seasons. It was not continuous over a 24-hour period and often coincided with time slots for BBC transmissions listed in the HF broadcasting schedule. The Bureau did not have information on the results of any measurements of the field strength of the interference signal. The next HFCC meeting would be held in February 2023.

6.1.5 The **Chairman** said that the Board's main goal was to resolve the long-standing case of harmful interference, not to delve deeply into regulatory issues. It had repeatedly instructed the Bureau to convene a meeting between the two administrations to facilitate discussions to resolve the issue, but the Bureau had as yet been unable to arrange for such a meeting to take place.

6.1.6 **Mr Talib**, noting that it would be difficult to obtain measurements whose reliability could not be questioned, said that he had more confidence in coordination efforts than technical measures to resolve the case. The Board might therefore wish to conclude by inviting both administrations to a coordination meeting under the auspices of the Bureau and send a strong message on the need for compliance with the Radio Regulations, in particular Articles **4** and **15**. The Board must be careful not to reproduce in its conclusion statements from one administration that it had not been able to confirm.

6.1.7 **Ms Beaumier** said that the Board had been very clear in its decision and deliberations at the previous meeting that the meeting between the two administrations should not be referred to as a "coordination" meeting. The term was a source of discord and it was unfortunate that it had been used by the Administration of China in Document RRB22-3/3. The HF stations were already fully coordinated, and the Board should be careful to label the meeting as anything other than a bilateral meeting to resolve the harmful interference. The Chinese Administration appeared to suggest that the interference location in the Qinghai-Tibet plateau might have been identified in error due to an atmospheric waveguide effect, and she asked whether the Bureau was familiar with any particular aspects of the terrain that could give rise to that phenomenon, which was not widely known. There were clear difficulties in obtaining reliable field strength measurements and, although the results of the monitoring campaign had, in her view, been clear as to the source of interference, she asked whether any further monitoring could be undertaken to dispel any doubt about the interference source.

6.1.8 **Mr Vassiliev (Chief, TSD)** said that there was no description in the ITU-R Recommendations on propagation of the atmospheric waveguide effect to which the Administration of China had referred, and he described some of the known phenomena. While that effect was not very probable, it was not implausible and its existence could not be completely disregarded. However, as the interference sometimes coincided with BBC transmissions, it might be difficult for the effect to occur at such precise times. The HF monitoring campaign, which had required considerable coordination efforts, had been the first such campaign in 25 years, and data had been collected by four administrations for five weeks to confirm the presence of an interference signal. In view of the number of direction-finding measurements taken, the results could be qualified as reliable and plausible, and it might be difficult to collect additional data. Furthermore, at its 87<sup>th</sup> meeting, the Board had decided that no further monitoring results were required at that stage and that the results were sufficient to draw some conclusions.

6.1.9 **Mr Azzouz** encouraged the Chinese Administration to take all possible measures to eliminate the harmful interference, should it be located in its territory, and suggested that the issue of whether international monitoring stations might help in determining the interference source might be considered further. The Administration of the United Kingdom should be requested to communicate with the Chinese Administration and exchange the information required to resolve the issue, such as technical parameters, start and end times and direction finding. The Bureau should be requested to assist both administrations, to propose technical and regulatory methodologies with a view to reaching a conclusion on the interference source, and to report on progress, including any advances made during the next HFCC meeting.

6.1.10 The **Chairman** said that he hoped the environment at the next HFCC meeting which would take place in February 2023 with the presence of HF broadcasting technical experts of both parties would be conducive to further progress.

6.1.11 **Mr Varlamov** said that he doubted that the issue would be solved at the HFCC meeting, which dealt with time slots and frequency bands, not harmful interference. In its delayed submission (Document RRB22-

3/DELAYED/1), the Administration of the United Kingdom was not addressing the issue of harmful interference but requested the Board to clarify two issues. With regard to the first, he said that the Board had not had enough evidence at its previous meeting to conclude that the specific case was in direct contravention of RR No. **15.1** and it still did not have grounds or information, such as the signal level, to do so. It was his understanding that an administration had the sovereign right to use any emission within its national territory and that any interference to the reception of signals in other territories should be eliminated, and he sought clarification from the Bureau on that point. As far as he was aware, there had been no interference complaints from neighbouring countries, and the reports from the Administration of the United Kingdom concerned interference to its emissions arising from broadcasts within the territory of China. Accordingly, it did not constitute harmful interference or a violation of RR No. **15.1**. The Board should not comment on its conclusion or on the outcome of its discussions, even if requested to do so by an administration. With regard to the second issue, on the additional evidence required to conclude that the harmful interference was intentional, he said that field strength measurements from a country receiving interference would be useful.

6.1.12 **Mr Vassiliev (Chief, TSD)** said that the Radio Regulations did not contain provisions regulating the use of any emissions within a country's national territory. While RR No. **15.1** prohibited unnecessary transmissions, it did not specify to which territory it applied. Furthermore, since the Radio Regulations related to communications having an international impact, it might be argued that RR. No. **15.1** concerned communications between countries.

6.1.13 **Mr Hoan** said that neither administration had provided information on the interference situation to the current meeting, focusing instead on how the interference should be handled. He recalled the Board's conclusion at its 90<sup>th</sup> meeting, which was reasonable, correct and responsible. In the absence of information such as the transmitter and the operator of the interfering station, it was very difficult for the Board to conclude that the harmful interference in the HF band was intentional. At the current meeting, the Board should urge both administrations to cooperate with a view to resolving the matter and exchanging information. As interference had been confirmed as originating from within the territory of China, that administration would have to identify and eliminate it.

6.1.14 **Ms Jeanty** agreed that the Board should not refer to a "coordination meeting", since that term had given rise to confusion and the issue had been addressed at the previous meeting. Field-strength measurements were difficult to perform and their results were open to interpretation; the Board should not decide that they should be undertaken. As to the first question from the Administration of the United Kingdom, she said that the Board's previous conclusion had been carefully built up, culminating in the statement that "operation of stations that carry unnecessary emissions was in direct contravention of RR No. **15.1**". That statement was, in her view, related to the particular case and did not constitute a general observation. With regard to the second question, she said that in her opinion there was sufficient information to conclude that the interference was intentional. Some Board members and the fourth bullet of the previous conclusion at the 90<sup>th</sup> meeting had alluded to that. The interference appeared to be timed to coincide with BBC emissions, which also pointed to intentional interference. As the case concerned HF broadcasting stations, it was logical that not all broadcasting came directly from the United Kingdom and that other countries, such as Oman and Singapore, were involved. Suggesting that interference complaints should be filed by those countries rather than the United Kingdom was not an example of cooperation and goodwill. The main purpose of HF broadcasting was to reach out to other countries of the world. Should interference problems arise, from intentional interference or otherwise, there was a well-established procedure for meetings to be held with the assistance of the Bureau, and the parties were urged to cooperate. The decision from the Board's previous meeting remained valid and it would be advisable to hold further meetings.

6.1.15 **Ms Beaumier** said that if the HFCC could have resolved the case, which had been ongoing since 2016, at one of its biannual meetings, it would have done so by now. She considered that the statement that "operation of stations that carry unnecessary emissions was in direct contravention of RR No. **15.1**" was related to the specific case, particularly given the other elements set out in the Board's conclusion. Furthermore, as the interference was not random and occurred repeatedly during specific time slots, it appeared to be intentional. She continued to consider that sufficient information had been collected in the

international monitoring campaign. It was unfortunate that the two parties had not been able to meet under the guidance of the Bureau, and the Board should continue to encourage them to do so, indicating clearly that the aim of the meeting was to address the cases of harmful interference, not coordination. The performance of field strength measurements was not practicable or particularly helpful and should not be used by the Administration of China as a prerequisite for further discussion.

6.1.16 **Mr Borjón** said that it was clear that the harmful interference originated within the territory of China and that it sometimes coincided with BBC transmissions. The Chinese Administration was therefore being requested to cooperate in resolving the issue. As the meeting would address the cases of harmful interference, it should not be referred to as a “coordination meeting”.

6.1.17 **Mr Azzouz** reiterated that the Board should encourage both administrations to exchange the information required to resolve the cases of harmful interference.

6.1.18 In response to a question from the **Chairman** regarding the issue raised by the Chinese Administration in Document RRB22-2/3 concerning RR No. **15.34**, **Ms Beaumier** said that, as some affected stations were on the territory of the Administrations of Oman and Singapore, reports of harmful interference should also be submitted by those administrations. However, such reports did not nullify the case; it was her understanding that other affected stations were also on territory under the jurisdiction of the Administration of the United Kingdom. There was disagreement between the administrations on the need to exchange information, and from the information presented to the Board at the current meeting, she could understand why the Administration of the United Kingdom might not wish to provide field strength measurements. In its conclusion, the Board needed to build a rational and logical explanation of how it arrived at its decision and should not lose sight of its previous decisions. Accordingly, it should refer to the international monitoring campaign, which had confirmed the existence of interference originating from within the territory of China. **Ms Hasanova** agreed with that suggestion.

6.1.19 Responding to a request for clarification from **Ms Beaumier**, **Mr Vassiliev (Chief, TSD)** confirmed that during the international monitoring campaign in May/June 2021, only the presence of an interference signal had been detected and reported to the Bureau. No field-strength levels or other technical information had been collected to determine the level of interference and whether or not it could be qualified as harmful.

6.1.20 Following informal discussions, the **Chairman** proposed that the Board conclude on the matter as follows:

“With reference to Document RRB22-3/3, the Board considered the submission from the Administration of China and also considered Documents RRB22-3/DELAYED/1 and RRB22-3/DELAYED/2 for information. The Board noted that:

- the Bureau had again tried to convene a bilateral meeting between the Administrations of China and the United Kingdom, in vain;
- the sole purpose of the meeting would have been to resolve the harmful interference experienced by the HF broadcasting emissions of the United Kingdom and its broadcaster;
- no new reports of harmful interference had been submitted to the Bureau since the 90<sup>th</sup> Board meeting;
- sufficient information had been collected from the international monitoring campaign to confirm the existence of interference originating from within the territory of China;
- repeated interference had been detected during the international monitoring campaign (overlapping with the United Kingdom broadcaster/BBC signal transmission time slots) and the characteristics of the interfering signals indicated that they were not from natural sources or consistent with those of broadcasting signals;
- the stations within the territory of China that had produced unnecessary transmissions causing such interference at the time of the international monitoring campaign had been in direct contravention of RR No. **15.1**;
- the Administration of China had expressed its willingness to cooperate with the Administration of the United Kingdom to resolve the cases of harmful interference;

- the performance of field strength measurements was not practicable, as it raised technical difficulties and the results were variable;
- the atmospheric waveguide effect mentioned in Document RRB22-3/3 was not recognized or documented within ITU as possibly affecting the propagation of signals in HF bands;
- under RR No. **15.34**, *'Having determined the source and characteristics of the harmful interference, the administration having jurisdiction over the transmitting station whose service is being interfered with shall inform the administration having jurisdiction over the interfering station, giving all useful information in order that this administration may take such steps as may be necessary to eliminate the interference'*;
- in accordance with RR No. **15.41**, 'the administration concerned' should forward the details of the case of harmful interference to the Bureau.

The Board again urged the Administration of China to promptly implement adequate measures to eliminate all harmful interference to the HF emissions reported by the United Kingdom.

Furthermore, the Board urged both administrations to exercise the utmost goodwill and spirit of cooperation, with a view to resolving the cases of harmful interference.

The Board instructed the Bureau to:

- pursue its efforts to convene a bilateral meeting between the Administrations of China and the United Kingdom, so as to facilitate discussions and address the cases of harmful interference;
- continue to provide support to the two administrations;
- report on any progress to the 92<sup>nd</sup> Board meeting."

6.1.21 It was so **agreed**.

## **7 Coordination of the ARABSAT and TURKSAT satellite networks (Addendum 10 to Document RRB22-3/5)**

**Submission by the Administration of Türkiye in response to the submission from the Administration of Saudi Arabia (Kingdom of) regarding the coordination of the ARABSAT 5A and 6A satellite networks at 30.5°E and the TURKSAT-5A satellite network at 31°E in the Ku-band (10.95-11.2 GHz, 11.45-11.7 GHz and 14.0-14.5 GHz) (Document RRB22-3/2 (RRB22-2/DELAYED/1))**

**Submission by the Administration of Türkiye regarding harmful interference from ARABSAT satellite networks at 30.5°E towards TURKSAT satellite networks at 31°E (Document RRB22-3/13)**

**Submission by the Administration of Saudi Arabia (Kingdom of) regarding the coordination of the ARABSAT 5A and 6A satellite networks at 30.5°E and the TURKSAT 5A and ARABSAT satellite networks at 31°E in the Ku-Band (Document RRB22-3/14)**

7.1 The **Vice-Chairman** invited the Bureau to introduce the documents.

7.2 **Mr Vallet (Chief, SSD)** said that Document RRB22-3/2 (RRB22-2/DELAYED/1) contained the views of the Administration of Türkiye on Document RRB22-2/14, which had been submitted by the Administration of Saudi Arabia as the notifying administration of Arabsat. He suggested that the Board should simply take note of the document, as it had been superseded by a new submission from the Administration of Türkiye to the current meeting (Document RRB22-3/13), which contained information on recent developments in the coordination process between the two administrations and stressed that the frequency segmentation solution proposed by the Administration of Saudi Arabia remained unacceptable. The document also stated that high-level discussions between the two parties had resulted in an agreement in principle in October 2022 and that they were currently working on the details of a possible coordination agreement. Document RRB22-



3/14, a submission from the Administration of Saudi Arabia on behalf of Arabsat, had been received on the same day as Document RRB22-3/13 and was not a reply thereto; it, too, summarized developments in the coordination activities.

7.3 In Addendum 10 to Document RRB22-3/5, the Director of BR reported that, since the Board's 90<sup>th</sup> meeting, the two administrations had met online, with the participation of the Bureau, in order to finalize the summary record of the coordination meeting of 24 and 25 May 2022 and to pursue their coordination discussions. The Bureau had also been informed that high-level discussions were continuing between the management of Arabsat and Turksat. Unfortunately, while those discussions showed that both Arabsat and Turksat were taking the issue seriously, they also had a freezing effect on the detailed technical discussions, as the two frequency teams were unable to move forward or negotiate while the discussions were ongoing. In his view, the case was quite concerning and the Board should continue to exert gentle pressure on both parties to pursue their discussions and reach a solution that took account of the agreement in principle resulting from the high-level discussions. The Bureau's role in the future should be to track progress in the implementation of the discussion outcomes, as any solution would probably involve issues outside ITU's mandate.

7.4 **Ms Hasanova** asked whether the Bureau had recently received interference reports from either administration. Both parties had been working on the details of a possible high-level coordination agreement. The Board had to wait until the end of the negotiations. It appeared that both parties were pursuing efforts to meet bilaterally and reduce the harmful interference.

7.5 **Mr Vallet (Chief, SSD)** replied that the Bureau had received no interference reports from either administration. The interference nevertheless continued, the consequence of the absence of coordination agreements. Both administrations recognized that point but had not yet reached an agreement.

7.6 **Ms Beaumier**, referring to Document RRB22-3/13 from the Administration of Türkiye, asked whether the fact that no operational tests had taken place was due to Arabsat's reluctance to commit to an interim operational agreement.

7.7 **Mr Vallet (Chief, SSD)** replied in the affirmative, adding that the discussion of operational tests had failed to agree on their extent. Turksat had proposed some transponders and Arabsat had proposed that various transponders be tested and then both teams would rediscuss the issue, but there was no agreement on how to process the tests. Arabsat had always proposed 50/50 frequency segmentation, whereas Turksat had consistently refused that solution and instead proposed shared transponders with restrictions in geographic coverage to avoid interference; both were sticking to their initial proposals without considering a compromise or third way.

7.8 He agreed with the **Vice-Chairman** that it would make sense for the Board to ask both administrations to adopt a temporary solution until a final outcome was reached, but did not consider such a way forward to be implementable, as it would imply agreeing to stop the transmissions of certain customers and would therefore raise questions of contractual liability: stopping transmissions constituted a breach of contract. The current situation was unwelcome but often preferable to stopping the contracts.

7.9 **Ms Beaumier** expressed disappointment that the two administrations had not yet reached an interim agreement to allow interference-free operation of both satellite systems, for what appeared to be business reasons. It was nevertheless encouraging to note that they recognized the need for high-level discussions and had reached an agreement in principle. She agreed with the Bureau that, at the current stage, the Board should encourage both administrations to pursue their efforts to conclude a coordination agreement and implement the agreement in principle; the Board should also instruct the Bureau to monitor progress and remain available to provide assistance as required to finalize any agreement stemming from the agreement in principle. It would be neither productive nor constructive to make further suggestions regarding frequency segmentation; the Board's decision should refer to technical solutions in general terms only.

7.10 **Mr Henri** agreed that the Board should not focus on the detailed interference issues, although it should nevertheless denounce the unacceptable behaviour that could be viewed as a case of intentional

harmful interference. He recalled that the Board's overall goal was to promote the fair implementation of the Radio Regulations for all parties based on goodwill and mutual assistance. He noted with satisfaction that the high-level discussions had resulted in an agreement in principle. The Bureau's role now was to continue supporting both administrations and to monitor the details being worked out as a result of the high-level agreement in principle. There was no need for the Board's decision to go into detailed technical solutions at that stage; instead, it was important that both administrations and operators draw up a roadmap for progress based on the high-level agreement.

7.11 **Mr Talib** expressed cautious optimism that the agreement in principle resulting from the high-level discussions would serve as a basis for coordination. While the two administrations were talking and expressing goodwill, they must also consider technical solutions. He agreed with previous speakers that the Board's recommendations in that respect should remain generic, pending the outcome of the ongoing discussions. The Board had sent a clear message at its previous meeting, when it had encouraged both administrations to "exchange technical information and pursue all possible technical solutions, including, but not limited to, polarization separation, frequency band segmentation and transmit power level reductions".

7.12 **Mr Hashimoto**, noting that both administrations reported limited progress in their submissions to the present meeting, said that the Board should encourage them to reach an interim agreement enabling the technical operation of the satellites, with the assistance of the Bureau.

7.13 **Mr Borjón** said that, while he was worried about the lack of progress, it was good news that the discussions were now on a high-level track that might resolve the issues of principle and establish timelines for technical work. The Board should not refer to any particular technical alternative, but simply encourage the administrations to find a solution as soon as possible at a high level. The Bureau could encourage progress to that end by following and facilitating the process, as it always did.

7.14 **Ms Jeanty** considered that the fact that discussions were ongoing was positive, but that in time they had to be translated into coordination agreements. The Board should rephrase the decision it had made at its 90<sup>th</sup> meeting and instruct the Bureau to monitor the discussions and provide assistance as needed. The Board should adopt a "wait-and-see" strategy that nevertheless continued to exert some pressure on the administrations involved.

7.15 The **Vice-Chairman** proposed that the Board should conclude on the matter as follows:

"The Board considered in detail Document RRB22-3/14 from the Administration of Saudi Arabia, Documents RRB22-3/2 and RRB22-3/13 from the Administration of Türkiye, and Addendum 10 to Document RRB22-3/5 addressing the coordination efforts and harmful interference between ARABSAT satellite networks at 30.5°E and TURKSAT satellite networks at 31°E. The Board thanked the Bureau for its efforts to organize and convene an online coordination meeting between the Administrations of Saudi Arabia and Türkiye, and for the support provided to the administrations in their coordination efforts. The Board noted with appreciation that an agreement had been reached in principle between the two satellite operators as a result of high-level discussions and that efforts had started on a possible coordination agreement.

The Board again encouraged both administrations to exercise the utmost goodwill and mutual assistance to ensure the operation of the two satellite systems free from harmful interference.

The Board instructed the Bureau to:

- continue supporting the two administrations in their coordination efforts;
- monitor and follow up on the results of the high-level discussions;
- report on progress on the coordination efforts to the 92<sup>nd</sup> Board meeting."

7.16 It was so **agreed**.

## 8 Report by the Radio Regulations Board to WRC-23 on Resolution 80 (Rev.WRC-07)

### 8.1 Submission by the Administrations of France, Germany (Federal Republic of), Luxembourg, Norway, Spain, Sweden, Türkiye and the United Kingdom of Great Britain and Northern Ireland regarding Provision 4.1.24 of RR Appendices 30 and 30A (Document RRB22-3/11)

8.1.1 **Mr Wang (Head, SSD/SNP)**, introducing Document RRB22-3/11, said that it contained a contribution from eight administrations on § 4.1.24 of RR Appendices **30** and **30A**, which limited the operation of frequency assignments in the BSS and feeder-link Lists of Regions 1 and 3 to 15 years from the date of bringing into use or 2 June 2000, whichever was later; that time limitation could be extended once for not more than 15 years. According to the submitting administrations, the BSS systems might take decades and several generations of satellites to build up, at a huge cost to satellite operators and users; large numbers of broadcasters, cable TV operators and households relied on the services provided as a result. Moreover, terrestrial broadcasting did not have the capacity required to distribute all the TV channels or to cover all remote locations and dark zones. Yet, as a consequence of the time limitations imposed by § 4.1.24, some of the frequency assignments in the Lists would expire after 2 June 2030 and would therefore be cancelled. While a new filing could be submitted for the same location and with the same characteristics as the original filing, there was no guarantee that coordination could be successfully completed with those characteristics. The eight administrations pointed out that cancelling frequency assignments that were in use and operating in conformity with the Radio Regulations at the time of their expiry did not constitute the rational, efficient or economical use of spectrum resources stipulated in Article 44 of the ITU Constitution and would consequently lead to a loss of service for broadcasters, operators and millions of TV households. As a way of avoiding the situation that frequency assignments were maintained in the List of Appendices **30** and **30A** and in MIFR indefinitely in the absence of an operational satellite and would have the effect of blocking access to radio frequency and orbit resources for others; they therefore suggested that notifying administrations should be asked periodically to confirm that the frequency assignments continued to be used in accordance with their characteristics. The eight administrations invited the Board to discuss the difficulties arising from the removal of fully coordinated frequency assignments associated with operational in-orbit satellites from the Appendices **30** and **30A** Lists under § 4.1.24 and to report on its deliberations to WRC-23.

8.1.2 He pointed out that Region 2 frequency assignments under Appendices **30** and **30A** were not subject to a similar limitation of time, as they were entered into the Plan when the Part B examination had led to a favourable finding and they had been treated as the original frequency assignments in the Plan. Moreover, a similar contribution had been submitted twice to ITU-R Working Party 4A, where it had triggered a fierce debate. Some administrations had objected so strongly to even discussing the issue that it had proved impossible to introduce the document. The administrations that had submitted Document RRB22-3/11 hoped to bring the issue to the attention of WRC-23 via the Board.

8.1.3 **Mr Mchunu** considered that the matter was one for Member States to discuss at WRC-23 under standing agenda item 7, which dealt with matters pertaining to rational, efficient and economical use of radio frequencies and any associated orbits. The Board's remit was to consider cases involving the application of the Radio Regulations between conferences.

8.1.4 **Ms Jeanty** considered that § 4.1.24 was clear and unambiguous; the consequences thereof must have been foreseen by WRC-2000. It was her understanding, moreover, that § 4.1.24 was the outcome of a compromise. It raised no issues in terms of the application of the Radio Regulations and she could therefore see no role for the Board in the matter and did not think it should be included in the Board's report under Resolution **80 (Rev.WRC-07)**. The matter could, however, be addressed by a future conference.

8.1.5 **Ms Beaumier** agreed that § 4.1.24 was clear. She sympathized with the difficulties facing satellite operators, service providers and customers, but § 4.1.24 was the outcome of a very deliberate decision by WRC-2000 and of a compromise between two regional groups, one of them CEPT: it had been inserted as a trade-off to balance another provision (§ 4.1.18) inserted by the other group. The contribution referred to Article 44 of the Constitution and the principle of rational, efficient and economical use of spectrum

resources, but did not consider the principle of equitable use. The aim was to ensure that procedures were in line with those principles. Procedures in the Plans favoured equitable access, whereas those in unplanned bands favoured rational, efficient and economical use of the spectrum. In conclusion, she did not see what role the Board could play in the matter or any disconnect between the principles set out in Article 44 of the Constitution and a plan that favoured equitable access. She therefore saw no justification for raising the point in the Board's report under Resolution **80 (Rev.WRC-07)**. She did not think that Member States would agree to address the issue under agenda item 7 of the conference, but it might be considered as a future agenda item. Given that the issue concerned a fundamental aspect of the Plan as developed in 2000, it was up to the Member States to decide how they wanted to address it.

8.1.6 **Mr Talib** agreed with Ms Jeanty and Ms Beaumier that § 4.1.24 was the outcome of a compromise reached at WRC-2000 in respect of Appendices **30** and **30A** and of planned bands; it was therefore up to the conference to modify or construe that provision. The matter should be submitted directly by the administrations concerned to WRC-23 or WRC-27; the Board was not the right place to deliberate it.

8.1.7 **Mr Varlamov** recalled that WARC-ORB88, for example, had established time limitations for filings in the Plan for fixed-satellite services and that WRC-07 had subsequently decided not to cancel those filings. There was therefore a precedent for the current situation. It was not for the Board to reach a similar conclusion in the present case, but, as Ms Beaumier had noted, it could consider the balance to be struck between principles. Article 44 of the Constitution referred to rational, economical and efficient use of, and equitable access to, spectrum resources; the Board might therefore look at the frequency assignments and the Plan itself from those points of view. The technology had changed significantly since 2000, which was a good reason to discuss the issue and include it in the report under Resolution **80 (Rev.WRC-07)** or ask the Director to raise it in his report. Article 44 also referred to the special needs of developing countries and certain geographical regions. His country, for instance, was large and had specific geographical needs, related to the number of time zones and the number of channels available to users. Restructuring the Plan would have a financial impact on all countries using satellite radio broadcasting services. He proposed that the Board should reconsider the submission once the Bureau had provided information on additional uses, with a view to developing a balanced approach between administrations that wanted to have filings under the Plan and others that wanted to ensure digital equality on their territories and equal conditions for their citizens. The Board's discussion should be reflected in its report under Resolution **80 (Rev.WRC-07)** to WRC-23.

8.1.8 **Mr Azzouz** said that the proposal had to be considered from the point of view of its advantages and disadvantages before a decision could be made on whether or not to include it in the Board's report under Resolution **80 (Rev.WRC-07)**. The proposal was tantamount to reserving the orbits and frequencies concerned to the submitting administrations and therefore denying the needs of countries trying to find orbital positions, contrary to the aim of Resolution **559 (WRC-19)**. Even if the proposal reduced the Bureau's workload in terms of analysing satellite filings, it would also reduce the number of cost-recovery fees collected. If the Board applied the hard expiry date for in-orbit satellites, the current satellite ecosystem would have to be completely changed – hardly an economical use of spectrum resources. ITU's ability to observe and monitor spectrum resources would also be affected.

8.1.9 **Mr Hoan**, noting that Working Party 4A had been unable to reach a consensus on agenda item 7 of WRC-23 and how to address § 4.1.24, stressed the delicate nature of the issue. WRC-2000 had approved § 4.1.24 based on § 3.3 of Article 3 of Appendices **30** and **30A**, which clearly specified that the associated procedures set out in the appendices were intended to promote long-term flexibility and prevent monopolization of the bands by a country or group of countries, thereby ensuring equitable access to frequency and orbital resources for all countries. Under § 4.1.24, administrations with an existing filing had 30 years to coordinate a new frequency assignment. By comparison, new administrations had only eight years for coordination. In his view, the Board should express appreciation for the contribution and ask the submitting administrations to forward their concerns directly to WRC-23, noting the discussion in Working Party 4A, or to submit them as a new agenda item to WRC-27.

8.1.10 **Mr Hashimoto** agreed with Mr Hoan's view. The Board should note the sensitive and historical backdrop to the adoption of § 4.1.24. It should be careful to ensure that the contribution did not lead to a

review of that provision unless it had the support of a wide range of Member States – which was apparently not the case. For the time being, therefore, the Board could undertake no substantial action other than to suggest that the contribution be submitted directly to WRC-23.

8.1.11 **Ms Hasanova** said that, while she understood the difficulties faced by the eight submitting administrations, she also agreed with previous speakers that all Member States had the right to equitable access to spectrum resources. She did not agree that the matter should be addressed in the Board's report under Resolution **80 (Rev.WRC-07)** and suggested that if those administrations so wished they could submit their contributions directly to WRC-23.

8.1.12 **Mr Varlamov** pointed out that the Board was not being asked to modify the Radio Regulations, but simply to consider and report on the issue to WRC-23. He failed to understand why the Board could not do that.

8.1.13 **Ms Beaumier** agreed that the submission did not request a modification of the Radio Regulations. The Board could not consider the issue for inclusion in its report to WRC-23, however, because it did not address an issue of linkage between the principles set out in the Radio Regulations and the Constitution, on the one hand, and the procedures for their application, on the other. The Plan was focused on ensuring equitable access, and the linkage was therefore correct. It would be another matter if a future conference decided otherwise. She did not consider it appropriate to raise the matter in the Board's report under Resolution **80 (Rev.WRC-07)** because she saw no conflict between the principles to be applied and the procedures for applying them.

8.1.14 In reply to queries from **Mr Hoan** and **Mr Henri, Mr Wang (Head, SSD/SNP)** said that, according to the records in the Bureau's database, only one administration had applied for cancellation of a network in application of § 4.1.24. There were 122 networks in the List of BSS downlinks and 97 in the List of feeder links. The earliest expiry date was 2 June 2030.

8.1.15 In reply to a query from **Mr Varlamov** about the number of frequency assignments implemented according to the characteristics in the Appendices **30** and **30A** Plans, he said that the Bureau had received 87 requests for an extension of 15 years for BSS networks and 65 feeder link networks. Concerning the use of the Plan frequency assignments, 12 BSS networks and 13 feeder links networks were operating within the envelope of the Plan characteristics, making a total of 25 networks from four administrations that used the frequency assignments according to the Plan.

8.1.16 **Mr Henri** considered that the request from the submitting administrations exceeded the mandate of the Board. The Board's conclusion should therefore be as minimal and straightforward as possible, indicating that it could not accede to the request.

8.1.17 **Mr Varlamov** noted that the information provided by the Bureau would appear in the minutes of the meeting, which reflected the views of members and the discussion. In the interests of clarity, he suggested that, in its conclusion, the Board should note the compromise decision reached at WRC-2000, refer to § 3.3 and indicate the number of networks expecting an extension and the number implemented. It should then state its decision that the matter did not relate to the equitable use of the spectrum and that there was no need to include it in the Board's report under Resolution **80 (Rev.WRC-07)**.

8.1.18 The **Chairman** proposed that the Board should conclude on the matter as follows:

“With reference to Document RRB22-3/11 from the Administrations of France, Germany, Luxembourg, Norway, Spain, Sweden, Türkiye and the United Kingdom concerning the application of § 4.1.24 of RR Appendices **30** and **30A**, the Board noted that:

- the Regions 1 and 3 Plan had been established with a view to guaranteeing equitable access to the geostationary-satellite orbit for all Member States of the Union in specific frequency bands;
- § 4.1.24 was the result of a delicate compromise that had been reached during WRC-2000;
- §§ 3.3 and 3.4 of Articles 3 of Appendices **30** and **30A** provided that ‘the Regions 1 and 3 Plan / feeder-link Plan is based on national coverage from the geostationary-satellite orbit. The associated

procedures contained in this Appendix are intended to promote long term flexibility of the Plan and to avoid monopolization of the planned bands and orbit by a country or a group of countries;

- given the emphasis on equitable access in the BSS Plan and the clear intent of WRC-2000 when it had established the List, no justification could be found to include the matter in the Report on Resolution **80 (Rev.WRC-07)** to WRC-23.

Consequently, the Board concluded that it was not in a position to accede to the request from the administrations as contained in Document RRB22-3/11.”

8.1.19 It was so **agreed**.

## **8.2 Consideration of issues related to Resolution 80 (Rev.WRC-07)**

8.2.1 Convening as the Working Group on the Report on Resolution **80 (Rev.WRC-07)** to WRC-23, under the chairmanship of Ms Beaumier, the Board continued to review a draft of the Report under Resolution **80 (Rev.WRC-07)** to WRC-23 and identified additional elements to be included under certain issues arising from cases considered and decisions made at the meeting. The Board also agreed to include a new issue in its report: the notification of frequency assignments under RR No. **4.4**.

8.2.2 The Board **instructed** the Bureau to provide the 92<sup>nd</sup> Board meeting with statistics on satellite systems that had been notified under RR No. **4.4**, including information on frequency bands, the nature of the derogation and the type of use, with a view to enabling the Board to address the difficulties that had arisen from such notifications in its report under Resolution **80 (Rev.WRC-07)** to WRC-23.

8.2.3 Considering that several Board members would conclude their term of service at the end of 2022, the Board also **instructed** the Bureau to provide updated statistics related to satellite systems that had been notified under RR No. **4.4** and those related to Resolution **40 (Rev.WRC-19)** by e-mail well before the end of 2022.

## **9 Discussion regarding Chairman and Vice-Chairman for 2023**

9.1 Various **Board members** highlighted the need to appoint an interim chairman to prepare for the Board's 92<sup>nd</sup> meeting, at which point the new Board would appoint its chairman and vice-chairman for 2023.

9.2 The Board **agreed** to elect Mr Azzouz as its interim Chairman until the 92<sup>nd</sup> Board meeting, in accordance with No. 144 of the ITU Convention, and to propose that the next Board confirm him as Chairman for 2023, in keeping with the standard practice of electing the Vice-Chairman as Chairman for the following year.

9.3 **Ms Beaumier** congratulated Mr Azzouz on his nomination as Chairman for 2023, as did the **Director**, who assured him of the Bureau's full support.

9.4 **Mr Azzouz** said that he looked forward to working with Board members in a spirit of goodwill.

## **10 Confirmation of the dates of the next meeting and indicative dates for subsequent meetings**

10.1 The Board **agreed** to confirm the dates for its 92<sup>nd</sup> meeting as 20-24 March 2023 in Room L.

10.2 The Board further tentatively confirmed the dates for its subsequent meetings in 2023 as:

- 93<sup>rd</sup> meeting: 26 June – 4 July 2023 (CCV Room Genève);
- 94<sup>th</sup> meeting: 23-27 October 2023 (Room L).

## 11 Issues related to PP-22

### 11.1 Oral report on PP-22 by RRB representatives

11.1.1 **Ms Jeanty** said that she and the Chairman had represented the Board at PP-22, where some issues of interest to the Board's future work had been discussed. Three new resolutions of particular relevance to the Board had been adopted. The first one (Resolution 216 (Bucharest 2022), on the use of frequency assignments by military radio installations for national defence services), had been developed in response to the request of WRC-19 to consider the question of the invocation of Article 48 of the Constitution and take necessary actions. The Secretary-General had been invited to bring the resolution to the attention of WRC-23 and report to the next plenipotentiary conference on its implementation, but as the resolution was self-contained, there was no need for WRC-23 to take further actions. Outlining the main elements of the resolution set out in the *resolves* section, she drew particular attention to provisions included at the request of the Board, namely that the Bureau could seek clarification from the Member State concerned regarding possible non-compliant use of frequency assignments under Article 48 of the ITU Constitution; that if the Member State disagreed with the assessment of the Bureau, the matter would be referred to the Board; that if the Member State disagreed with the Board's decision, it could appeal to the next WRC, and that the Board's decision would remain in abeyance until WRC decided on the matter; and that in providing clarification, Member States were not obliged to provide information that might cause prejudice to their installations for national defence services. The resolution might therefore have some consequences for the Board's work, and in view of the need to maintain the sensitivity and confidentiality of the information provided, as recognized in the resolution, the working methods of the Board, set out in Part C of the rules of procedure, might need to be reviewed.

11.1.2 The second new resolution of interest for the Board was Resolution 219 (Bucharest, 2022), on sustainability of the radio-frequency spectrum and associated satellite orbit resources used by space services. Drawing attention to the *resolves* section and to the studies to be performed, she said that the Board had already decided to include in its report under Resolution **80 (Rev.WRC-07)** a paragraph on the topic and could thus contribute to the issues raised.

11.1.3 The third one was the new Resolution 218 (Bucharest, 2022), on ITU's role in the implementation of the "Space2030" Agenda: space as a driver of sustainable development, and its follow-up and review process.

11.1.4 Also of major importance to the Board was the revision of Resolution 119 (Rev. Bucharest, 2022) on methods to improve the Board's efficiency and effectiveness. A proposed amendment from a regional organization to the effect that a press release should be issued if the Board decided that RR No. **15.1** had been violated was heavily debated. The conference had decided to add the following at the end of *resolves to instruct the Radio Regulations Board 2*: "upon request from an administration, RRB may also consider, if appropriate, publishing relevant information on that request on the RRB and BR websites". The following text for inclusion in the minutes of the plenary had also been agreed upon: "In adopting modifications to Resolution 119, it was considered that decisions of the RRB, especially pertaining to interference as defined in the Radio Regulations, may be of interest to the general public". The Board would have to react to requests from administrations in that regard and should take note of the text in the minutes. It might also need to consider whether any changes to the working methods were required.

11.1.5 Lastly, the revision of Resolution 186 (Rev. Bucharest, 2022), on strengthening the role of ITU with regard to transparency and confidence-building measures in outer space activities, was of interest to the Board.

11.1.6 The **Director** thanked Ms Jeanty and the Chairman for their hard work at PP-22 and highlighted the key role that they had played in the discussions and in finding solutions. The Board's input document on the invocation of Article 48 of the Constitution had been a very important element, and the new resolution contained more or less what the Board had sought. Importantly, as the resolution was self-contained, nothing would spill over to WRC-23.

11.1.7 **Mr Talib** recalled that he had represented the Board at the 2022 World Radiocommunication Seminar that had been held remotely. The presentation given was available on the ITU website.

11.1.8 **Mr Vassiliev (Chief, TSD)** recalled that some cases, such as the submission from Lithuania to the Board's 89<sup>th</sup> meeting, remained outstanding pending consideration of the application of Article 48 of the ITU Constitution by PP-22. The Bureau might have to submit such cases to the Board's next meeting as administrations were insisting on guidance and the Board's advice would be appreciated. **Ms Jeanty** agreed that some pending cases would need to be considered by the Board.

11.1.9 The **Chairman** said that the adoption of that new resolution, which he understood applied to both terrestrial and space services, was an important achievement and would help to resolve many difficult issues.

11.1.10 **Mr Mchunu** thanked Ms Jeanty and the Chairman for representing the Board so well at PP-22, as did **Mr Varlamov** and **Ms Beaumier**, who drew particular attention to *recognizing e)* of draft new resolution COM5/1, which might be of particular relevance to the Board's future consideration of certain cases. The conference had discussed including other wording to the effect that the invocation of Article 48 for recorded frequency assignments did not exempt those frequency assignments from coordination obligations on an ongoing basis but had decided not to do so, as that requirement should be obvious.

11.1.11 The Board **thanked** the RRB representatives for their efforts during PP-22 and **noted** Ms Jeanty's oral report with appreciation.

## 11.2 Presentation of certificates of appreciation

11.2.1 The **Director**, on behalf of the Secretary-General, presented certificates of achievement and ITU medals to Mr Borjón, Mr Hashimoto and Mr Hoan, who had not been present at PP-22 and had therefore not been able to receive them at the same time as the other Board members.

## 12 Approval of the summary of decisions (Document RRB22-3/17)

12.1 The Board **approved** the summary of decisions contained in Document RRB22-3/17.

## 13 Closure of the meeting

13.1 The **Chairman** said that it had been an honour for him to lead the Board over the previous year; he was proud of the Board's achievements and the spirit of cooperation that had prevailed during his tenure as Chairman. He thanked the Vice-Chairman for his assistance, the chairmen of the working groups for their efforts, the Director for his wise counsel, and the Bureau staff, including Mr Botha and Ms Gozal, for their support. He wished the new Board every success in its work.

13.2 **Mr Borjón, Mr Varlamov, Mr Hashimoto, Ms Jeanty** and **Mr Hoan** took the floor to express their gratitude for having been part of such a strong team during their time on the Board. They thanked all Board members for their cooperation and goodwill, and the Bureau staff who had contributed to the smooth running of meetings and enabled the Board to achieve such excellent results over the last four years. They wished the new Board every success and hoped that it would continue to work in such a convivial atmosphere. **Mr Mchunu** echoed those comments and, on behalf of the Southern African Development Community, thanked the Board and the Bureau for their efforts to ensure the successful implementation of Resolution **559 (WRC-19)**, which was so important for the subregion.

13.3 Other Board members took the floor to congratulate the Chairman on his excellent leadership and praise the results achieved during his tenure. They also thanked the Vice-Chairman and chairmen of the working groups for their hard work, the Director for his invaluable guidance and the Bureau and other ITU staff for their assistance. They wished the outgoing Board members every success in their future endeavours.

13.4 The **Director** said that the ITU membership had sent a strong message of the importance it attached to the work of ITU-R by including in Decision 5 (Rev. Bucharest 2022) a provision that there should be no reductions in expenses which would affect cost-recovery revenue and in funding activities directly linked to



the implementation of the Radio Regulations and associated studies. The Board had made an essential contribution to that outcome and had every right to be proud of its accomplishments. It had been a pleasure for the Bureau to support a Board that had worked in such a collegial atmosphere over the previous four years. He wished the outgoing Board members every success in their future endeavours.

13.5 The **Chairman** thanked the speakers for their kind words and closed the meeting at 1650 hours.

The Executive Secretary:  
M. MANIEWICZ

The Chairman:  
T. ALAMRI