



## Radiocommunication Bureau (BR)

Circular Letter  
**CR/491**

19 September 2022

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

Subject: **Minutes of the 90<sup>th</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 90<sup>th</sup> meeting of the Radio Regulations Board (27 June – 1<sup>st</sup> July 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 90<sup>th</sup> meeting of the Radio Regulations Board

**Distribution:**

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



**Document RRB22-2/16-E**  
**15 July 2022**  
**Original: English**

MINUTES\*  
OF THE  
90<sup>TH</sup> MEETING OF THE RADIO REGULATIONS BOARD  
27 June – 1 July 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 Mr P. METHVEN

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  
Mr N. VASSILIEV, Chief, TSD  
Mr K. BOGENS, Head, TSD/FMD  
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 90<sup>th</sup> meeting of the Board. The official decisions of the 90<sup>th</sup> meeting of the Radio Regulations Board can be found in Document RRB 22-2/15.

Subjects discussed	Documents
1 Opening of the meeting	-
2 Adoption of the agenda	RRB22-2/OJ/1 RRB22-2/DELAYED/1 RRB22-2/DELAYED/2
3 Report by the Director, BR	RRB22-2/2 RRB22-2/2(Add.1) RRB22-2/2(Add.2) RRB22-2/2(Add.3) RRB22-2/2(Add.4) RRB22-2/2(Add.5) RRB22-2/2(Add.6) RRB22-2/2(Add.7) RRB22-2/2(Add.10)
4 Rules of procedure	-
4.1 List of rules of procedure	RRB22-2/1 RRB20-2/1(Rev.6)
5 Issues and requests relating to the extension of regulatory time limits to bring or to bring back into use frequency assignments to satellite networks	-
5.1 Submission by the Administration of Indonesia requesting the extension of the regulatory time limit to bring into use the frequency assignments to the NUSANTARA-H1-A satellite network	RRB22-2/5
5.2 Submission by the Administration of the Russian Federation requesting an extension of the regulatory time limit for bringing into use the frequency assignments to the SKY-F satellite network	RRB22-2/8
5.3 Submission by the Administration of Papua New Guinea providing additional information on the NEW DAWN 25 satellite network in response to the decision of the 89th Radio Regulations Board meeting	RRB22-2/12
5.4 Submission by the Administration of France requesting an extension of the regulatory time limit for bringing into use frequency assignments to satellite network AST-NG-NC-QV (non-GSO)	RRB22-2/13(Rev.1)
6 Cases of coordination difficulties and harmful interference	-
6.1 Submission by the Administration of Türkiye regarding harmful interference from ARABSAT satellite networks at 30.5°E towards TURKSAT satellite networks at 31°E	RRB22-2/6 RRB22-2/14 RRB22-2/2(Add.8) RRB22-2/2(Add.9)
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 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)	
7 Cases of harmful interference	-
7.1 Submission by the Administration of Japan regarding harmful interference from Russian satellite networks to Japanese satellite networks at 128°E	RRB22-2/7
7.2 Submission by the Administration of the United Kingdom of Great Britain and Northern Ireland regarding harmful interference to	RRB22-2/10

emissions of United Kingdom high frequency broadcasting stations published in Accordance with RR Article **12**

- |           |   |            |
|-----------|---|------------|
| <b>8</b>  | Submission by the Administration of Japan requesting a change in the BR IFIC publication procedure of non-GSO satellite networks/system filings in the band 17.3–17.8 GHz not subject to efd limits or the coordination procedure contained in Section II of Article 9 of the Radio Regulations | RRB22-2/4  |
| <b>9</b>  | Submission from the Administration of the Russian Federation on the examination by the ITU Radiocommunication Bureau of notifications for frequency assignments to IMT stations with active antenna arrays in the frequency band 24.25–27.5 GHz   | RRB22-2/9  |
| <b>10</b> | Submission by the Administration of Liechtenstein requesting a one-year extension of Resolution <b>35 (WRC-19)</b> milestones for all satellite filings subject to this Resolution  | RRB22-2/11 |
| <b>11</b> | Consideration of issues related to Resolution <b>80 (Rev.WRC-07)</b>  | -          |
| <b>12</b> | Confirmation of the next meeting for 2022 and indicative dates for future meetings  | -          |
| <b>13</b> | Any other business  | -          |
| <b>14</b> | Approval of the Summary of decisions  | RRB22-2/15 |
| <b>15</b> | Closure of the meeting  | -          |

## 1 Opening of the meeting

1.1 The **Chairman** opened the 90<sup>th</sup> meeting of the Radio Regulations Board at 0900 hours on Monday, 27 June 2022 and welcomed the Board members. He noted with satisfaction the presence of all Board members in person and wished them a very fruitful meeting.

1.2 The **Director of the Radiocommunication Bureau**, also speaking on behalf of the ITU Secretary-General, likewise welcomed Board members, indicating with appreciation that it was the second in-person meeting in a row with the presence of all members. He indicated that since March 2022, the World Telecommunication Standardization Assembly (Geneva, 2022) and all ITU Radiocommunication Sector (ITU-R) study group and working party meetings had been convened in person with remote participation, which had greatly facilitated progress in the meetings, and that the World Telecommunication Development Conference (Kigali, 2022) had also been successfully convened as an in-person event with remote participation. In addition, he confirmed that the World Radiocommunication Conference 2023 (WRC-23) and the Radiocommunication Assembly (RA-23) would be held in Dubai, United Arab Emirates, on the dates previously agreed. He concluded by wishing the Board a successful meeting.

## 2 Adoption of the agenda (Documents RRB22-2/OJ/1, RRB22-2/DELAYED/1 and RRB22-2/DELAYED/2)

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 with regard to the consideration of late submissions, was presided over by the Vice-Chairman.

2.2 **Mr Botha (SGD)** drew attention to two late submissions (Documents RRB22-2/DELAYED/1 and 2). He said that Document RRB22-2/DELAYED/1 contained the response of the Administration of Türkiye to the submission received from the Administration of Saudi Arabia, as contained in Document RRB22-2/14, and might therefore be assigned to the same agenda item. The submission had not, however, been received within the appropriate deadline.

2.3 Document RRB22-2/DELAYED/2 contained a response by the Administration of China to the submission from the Administration of the United Kingdom, as contained in Document RRB22-2/10, and might therefore be considered under the same item. The submission had likewise been received beyond the appropriate deadline and in Chinese only, though it was now also available in English.

2.4 He also noted that Document RRB22-2/3 had been withdrawn as the Administration of Japan had requested the deletion of the network concerned.

2.5 The **Vice-Chairman**, noting that Documents RRB22-2/6 and 14 and Addenda 8 and 9 to the Document RRB22-2/2 all related to the status of coordination or harmful interference between the Administrations of Saudi Arabia and Türkiye, suggested considering them all under a single item.

2.6 **Mr Hoan** agreed with the proposal to address all those documents under the same item and suggested separating that item from the other cases of harmful interference as the submissions from Saudi Arabia and Türkiye were ultimately about issues of coordination. He also suggested adding Document RRB22-1/DELAYED/7 for consideration under the same item, given that Document RRB22-2/6 had been submitted in response thereto.

2.7 **Ms Jeanty** supported dealing with the documents relating to the Administrations of Saudi Arabia and Türkiye under a single item, as did **Mr Talib**, who stressed the importance of separating the item from the other cases of harmful interference, the resolution of which would involve very different approaches.

2.8 **Mr Borjón**, however, thought that the issue could be considered alongside those other cases as the administrations were complaining of harmful interference.

2.9 **Ms Beaumier** supported dealing with the documents concerning the Administrations of Saudi Arabia and Türkiye under one item and separately from the other cases of harmful interference, as Documents

RRB22-2/6 and 14 clearly discussed both harmful interference and the status of coordination. Moreover, the other cases required the assistance of the Board in addressing harmful interference and not coordination difficulties. In the case of the Administrations of Saudi Arabia and Türkiye, the Board's assistance was required in both areas.

2.10 The **Vice-Chairman** suggested dealing with the documents under a single item on cases of coordination difficulties and harmful interference.

2.11 It was so **agreed**.

2.12 **Ms Beaumier** proposed deferring Document RRB22-2/DELAYED/1 until the following meeting in line with previous decisions taken by the Board, as the submission had been received beyond the deadline and its contents had already been touched on in Document RRB22-2/6.

2.13 **Mr Henri** supported deferring RRB22-2/DELAYED/1 until the next meeting, as it was important to impress upon administrations the need to follow the rules of procedure governing submissions and as deferring the document would have no adverse effect on the Board's consideration of the issue at that meeting, with it likely to be discussed again at the following meeting in any case.

2.14 **Ms Jeanty, Mr Talib** and **Mr Borjón** agreed that RRB22-2/DELAYED/1 should be deferred until the 91<sup>st</sup> Board meeting, but **Ms Hasanova** suggested that it be accepted for information only, in line with a previous decision of the Board.

2.15 **Ms Beaumier** said, however, that in the previous case a delayed document received beyond the deadline had been accepted for consideration as it was the first time that that issue had been under discussion, thus the Board needed all information available to facilitate its consideration. Document RRB22-2/DELAYED/1, by contrast, dealt with a long-standing issue and only added to information already included in Document RRB22-2/6.

2.16 The **Vice-Chairman** took it that the Board wished to defer consideration of Document RRB22-2/DELAYED/1 until its next meeting.

2.17 It was so **decided**.

2.18 **Ms Beaumier** did not support including Document RRB22-1/DELAYED/7 on the agenda, as doing so would create confusion. It had been referred to in Document RRB22-2/6 and could be easily consulted for reference.

2.19 **Mr Hoan** added that Document RRB22-1/DELAYED/7 remained relevant to the present meeting as Addendum 8 to the Director's report was a specific and direct response to its substance.

2.20 **Mr Henri** said that, as RRB22-1/DELAYED/7 had been presented at the 89<sup>th</sup> Board meeting, it should not be included again on the agenda. The submissions on the coordination and interference issues affecting the Administrations of Saudi Arabia and Türkiye referred to many documents, all of which would be borne in mind during the Board's consideration, but only documents directly material to the discussion and presented at the present meeting should be included on the agenda. **Ms Beaumier** expressed her agreement.

2.21 It was so **agreed**.

2.22 Turning to Document RRB22-2/DELAYED/2, **Mr Talib** said that the submission had fallen foul of the rule of procedure on the submission of delayed documents commenting on submissions from other administrations on two counts: it had been received beyond the deadline and in Chinese only. He proposed that its consideration be deferred to the 91<sup>st</sup> Board meeting, which was seconded by **Mr Azzouz**.

2.23 It was so **decided**.

2.24 The Board **adopted** the draft agenda with modifications, as contained in Document RRB22-2/OJ/1(Rev.1). It **decided** to defer consideration of Documents RRB22-2/DELAYED/1 and RRB22-2/DELAYED/2, as both documents had been received after the 10-day deadline for delayed contributions commenting on the submission of another administration, as provided for in No. 1.6 of Part C of the Rules of Procedure, and **instructed** the Bureau to add those documents to the agenda of the 91<sup>st</sup> meeting.

### **3 Report by the Director, BR (Documents RRB22-2/2 and Addenda 1 to 7 and 10)**

3.1 The **Director** introduced his customary report in Document RRB22-2/2. Referring to § 4, on reports of harmful interference and/or infringements of the Radio Regulations (RR) under RR Article **15**, he said that in the cases of harmful interference between Italy and its neighbouring countries good progress had been made concerning digital audio broadcasting (DAB) and TV plans during the multilateral frequency coordination meeting on 8-9 June 2022. With respect to the case of harmful interference to high-frequency (HF) broadcasting stations of the Administration of the United Kingdom, he said that, pursuant to the Board's decisions at its 89<sup>th</sup> meeting, the Bureau had endeavoured to organize a bilateral coordination meeting between the Administrations of China and the United Kingdom. However, it had not yet been convened because of a lack of agreement on the title and scope of the meeting.

3.2 Referring to § 7, on the review of findings to frequency assignments to non-geostationary (non-GSO) fixed-satellite service (FSS) systems under Resolution **85 (WRC-03)**, he noted that the table was getting longer, as finalized lines on the status of the equivalent power flux density (epfd) review under RR Article **22** had not been deleted from it.

3.3 Addendum 2 summarized the status of seven requests for new allotments in accordance with Article 7 of RR Appendix **30B**.

3.4 The report on the work on Resolution **559 (WRC-19)** submissions, which covered until the end of May 2022, was contained in Addendum 6 rather than in the body of the report because of the earlier than usual deadline for preparation of the report. The progress made with respect to the resolution was a source of satisfaction to all. Since the Board's 89<sup>th</sup> meeting, the Bureau had not cancelled any Part A networks that might have an impact on the equivalent downlink protection margin (EPM) of Resolution 559 submissions.

3.5 In response to a question from **Mr Henri**, the **Director** said that the Bureau had so far been able to manage its resources to mitigate the impact of the budgetary constraints facing ITU. The situation remained quite uncertain and fluctuations in the CHF/USD exchange rate were also having an impact on ITU's finances.

#### **Actions arising from the last RRB meeting (§ 1 of Document RRB22-2/2 and Annex 1)**

3.6 In reply to a query from **Mr Hashimoto**, **Mr Vallet (Chief, SSD)** said that the circular letter referred to in paragraph 3h) of Annex 1 had been finalized. Once it had been translated, it would be signed by the Director and circulated.

3.7 The Board **noted** § 1 and Annex 1 to Document RRB22-2/2, on actions arising from the decisions of the 89th Board meeting.

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

3.8 **Mr Vassiliev (Chief, TSD)**, referring to Annex 2 to Document RRB22-2/2 on the processing of notices to terrestrial services, drew attention to the tables contained therein and noted that during the reporting period 104 assignments to stations in the terrestrial service recorded in the Master International Frequency Register (MIFR) had been revised.

3.9 **Mr Vallet (Chief, SSD)** drew attention to the tables on the processing of notices for satellite networks set out in Annex 3 to Document RRB22-2/2.

3.10 The Board **noted** § 2 of Document RRB22-2/2, on the processing of filings for terrestrial and space systems, and appreciated the indications from the Director that, despite the budgetary restrictions, there would be sufficient resources for the processing of filings.

**Implementation of cost recovery for satellite network filings (§ 3 of Document RRB22-2/2 and Annex 4)**

3.11 **Mr Vallet (Chief, SSD)**, referring to § 3.1 of the Document RRB22-2/2 and Annex 4 thereto, said that one satellite network had been cancelled because of non- or late payment since the Board's 89<sup>th</sup> meeting.

3.12 Summarizing § 3.2, he highlighted that, following a question at a meeting of the ITU Council, the Bureau would provide more information to the next Council session on whether Decision 482 (modified 2020) should be revised in order to cover the costs of the Bureau.

3.13 The Board **noted** §§ 3.1 and 3.2 of Document RRB22-2/2, on late payments and Council activities, respectively, under 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) (§ 4.1 of Document RRB22-2/2)**

3.14 **Mr Vassiliev (Chief, TSD)**, drawing attention to Tables 1 to 4 in the Director's report, noted that a total of 329 communications concerning reports of harmful interference and/or infringements had been received by the Bureau between 1 May 2021 and 30 April 2022.

3.15 The Board **noted** § 4.1 of Document RRB22-2/2, on the 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 of Document RRB22-2/2 and Addenda 1 and 4)**

3.16 **Mr Vassiliev (Chief, TSD)** said that since the 89<sup>th</sup> meeting of the Board, the Bureau had received one communication from the Administration of Slovenia (Addendum 1) dated 2 June 2022. According to that Administration, there had been no improvement in the FM radio interference situation. Furthermore, the Italian Administration continued to use the rights from the Regional Agreement (Geneva, 1984) (GE84 Agreement) to systematically object to the recording of Slovenian stations while ignoring the obligations arising from that agreement.

3.17 Addendum 4 provided a report on the multilateral frequency coordination meeting between Italy and its neighbouring countries held on 8-9 June 2022. Since the previous such meeting, some bilateral and multilateral exchanges had taken place between the parties concerned and Italy had adopted a new law concerning FM regulation that would give the relevant Italian ministry a mandate to solve cases of harmful interference and rationalize spectrum use. Agreements on DAB channels had been signed by Italy with some neighbouring countries. With respect to the priority lists of FM sound broadcasting stations, there had been no improvement in the interference situation except for France due to the complex FM situation in Italy. Several proposed solutions had been put forward during the discussion, some of which could not be implemented because of the existing legal framework. During the multilateral meeting, Italy had expressed a willingness to improve the process of coordination with Slovenia. The conclusions and recommendations from the previous multilateral meeting had been maintained.

3.18 The **Chairman** thanked the Bureau for organizing the multilateral meeting and for supporting the efforts of the administrations concerned to resolve the long-standing interference situation. He noted that good progress had been made in solving interference cases relating to DAB and DVB-T stations while little progress had been made for cases involving FM sound broadcasting stations. He also noted that another multilateral meeting was planned for May/June 2023.



3.19 **Mr Hashimoto** expressed appreciation to the Bureau for convening the multilateral meeting, which had provided a meaningful opportunity for the administrations concerned to share the ongoing problems they faced. Although the interference situation varied by country, a way forward had been identified and further progress was expected before the next multilateral meeting.

3.20 **Mr Azzouz**, noting the Italian Administration's objection to the recording of a modified Slovenian station into the Plan under the GE84 Agreement, as outlined in Addendum 1 to Document RRB22-2/2, thanked the Bureau for its assistance and efforts to facilitate coordination between the administrations of Italy and its neighbouring countries, including Slovenia. The Board should encourage the administrations concerned to continue their coordination efforts in goodwill and exchange the information required to resolve the cases of harmful interference to FM stations. The Bureau should continue to provide assistance and report any progress to the Board. He thanked the Bureau for organizing the multilateral meeting and the administrations concerned for their participation. He noted that the Administration of Italy would focus on cases of harmful interference to FM sound broadcasting stations once the DAB plan had been finalized.

3.21 **Ms Hasanova** thanked the Bureau for organizing the multilateral meeting and for its support to administrations in resolving the interference issues. She welcomed the signing of agreements on DAB channels between Italy and neighbouring countries and hoped that the Italian Administration would address the matters raised by Slovenia and resolve the interference issues with respect to the GE84 Agreement. The Bureau should continue to facilitate the holding of meetings to help the administrations concerned resolve the interference issues and report on progress to the next meeting of the Board.

3.22 **Mr Talib** commended the Bureau's efforts to resolve the long-standing interference issues and welcomed the positive results achieved, including those with France, which should be encouraging to the other administrations involved. He hoped that bilateral meetings under the auspices of the Bureau would be organized in order to achieve further progress before the next multilateral meeting, which was not for another year.

3.23 **Ms Jeanty** thanked the Bureau for organizing the annual multilateral meeting. While she welcomed the progress made concerning TV and DAB plans, it was regrettable that no improvement had been recorded in the FM interference situation except in relation to France. She was pleased to learn that Italy would focus on the FM plan once the DAB plan had been finalized and that the new legislation would make it easier to improve the situation. She also noted with satisfaction that the Italian Administration had expressed its willingness to improve the process of coordination with Slovenia. She took it that further bilateral meetings would be held in order to facilitate progress in the next multilateral meeting.

3.24 **Ms Beaumier** expressed her appreciation to the Bureau for assisting the administrations in their efforts to resolve the cases of harmful interference, for organizing the multilateral meeting and for providing a detailed report on that meeting. Although good progress had been made concerning TV and DAB plans, there had been little improvement in the FM situation. As the administrations attending the multilateral meeting had decided to maintain the conclusions and recommendations of the previous meeting, the Board should reiterate its previous conclusions to a large extent. It should urge the Italian Administration to take all possible measures to eliminate harmful interference to the FM sound stations of neighbouring countries, focusing on the priority list; and instruct the Bureau to continue providing assistance to the administrations concerned and report on progress. Efforts on a bilateral level were more likely to yield progress than an early multilateral meeting.

3.25 **Mr Hoan** thanked the Bureau for organizing the multilateral meeting and assisting administrations in resolving the long-standing harmful interference situation. He welcomed the new legislation giving the relevant Italian authority a mandate to solve interference and rationalize spectrum use and trusted that it would expedite the elimination of harmful interference to the FM stations of neighbouring countries. An annual multilateral meeting was not sufficient given the significant efforts required to resolve the situation and the Bureau should encourage the administrations concerned to continue to hold bilateral coordination meetings.

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

“The Board considered in detail § 4.2 of Document RRB22-2/2 and Addenda 1 and 4 thereto, on harmful interference to broadcasting stations in the VHF/UHF bands between Italy and its neighbouring countries. The Board noted with satisfaction the good progress and results achieved in solving cases of harmful interference relating to existing and planned DAB and DVB-T stations; however, there was still little progress in resolving cases of harmful interference involving FM sound broadcasting stations. The Board further noted that:

- the Administration of Italy had indicated its intention to focus on cases of harmful interference to FM sound broadcasting stations once the DAB Plan had been finalized;
- a new law relating to Italian FM regulation had been adopted which would provide the Italian Ministry and Authority with a mandate to solve cases of harmful interference and rationalize the use of the spectrum;
- the Administration of Italy would take steps to improve its coordination efforts with the Administration of Slovenia.

The Board expressed its appreciation to:

- the Bureau for organizing the multilateral meeting and the support provided to the administrations;
- the administrations for their participation in the multilateral meeting and their cooperation and efforts in trying to resolve the long-standing matter.

The Board encouraged all administrations to continue their coordination efforts in goodwill and the exchange of information required to resolve the cases of harmful interference.

The Board requested the Administration of Italy once more 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.

The Board instructed the Bureau to:

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

3.27 It was so **agreed**.

#### **Harmful interference to emissions of high frequency broadcasting stations of the Administration of the United Kingdom published in accordance with RR Article 12 (§ 4.3 of Document RRB22-2/2)**

3.28 It was **agreed** that the matter would be taken up under item 7.2 of the agenda (See §§ 7.2.1-7.2.22 below).

#### **Harmful interference to the JCSAT-3A satellite network from the Administration of Japan (§ 4.4 of Document RRB22-2/2)**

3.29 It was **agreed** that the matter would be taken up under item 7.1 of the agenda (See §§ 7.1.1-7.1.13 below).

#### **Harmful interference to the EMARSAT-1G, EMARSAT-5G, YAHSAT and MADAR-52.5E satellite networks from the Administration of the United Arab Emirates (§ 4.5 of Document RRB22-2/2)**

3.30 **Mr Vallet (Chief, SSD)** said that the Bureau had communicated to the Administration of Ukraine the decision taken by the Board at its 89<sup>th</sup> meeting in relation to the harmful interference to networks of the Administration of the United Arab Emirates. The Administration of Ukraine had replied expressing its inability to carry out its obligations under RR Article **15** at that time but its readiness to cooperate and solve the issue as soon as it was able to do so, which the Bureau saw as positive.

3.31 The Board **noted** § 4.5 of Document RRB22-2/2, on harmful interference to the EMARSAT-1G, EMARSAT-5G, YAHSAT and MADAR-52.5E satellite networks of the Administration of the United Arab Emirates.

**Implementation of No. 11.44.1, No. 11.47, No. 11.48, No. 11.49, No. 9.38.1, RES49 and No. 13.6 of the Radio Regulations (§ 5 of Document RRB22-2/2)**

3.32 The Board **noted** § 5 of Document RRB22-2/2, on the implementation of No. **11.44.1**, No. **11.47**, No. **11.48**, No. **11.49**, No. **9.38.1**, Resolution **49 (Rev.WRC-19)** and No. **13.6** of the Radio Regulations.

**Implementation of Resolution 40 (Rev.WRC-19) (§ 6 of Document RRB22-2/2)**

3.33 The Board **noted** § 6 of Document RRB22-2/2, on the implementation of **Resolution 40 (Rev.WRC-19)**.

**Review of findings for frequency assignments to non-GSO FSS satellite systems under Resolution 85 (WRC-03) (§ 7 of Document RRB22-1/4)**

3.34 **Mr Vallet (Chief, SSD)** summarized § 7 of Document RRB22-2/2, noting that the Bureau had published seven non-GSO FSS systems which had been submitted since the 89<sup>th</sup> Board meeting. In total, the Bureau had now reviewed the findings of 87 non-GSO FSS systems.

3.35 Responding to a question from **Mr Azzouz**, he explained that, in reference to the third bullet of § 7, some of the assignments in the filings reviewed had received a favourable finding, while others had received an unfavourable one. The fourth bullet, though, dealt with a different case where four filings had received favourable findings for some assignment groups, while, for other assignment groups in the filings, the notifying administrations had requested application of Resolution **85 (WRC-03)** in order to use the as yet unavailable new validation software provided for in Recommendation ITU-R S.1503-3. Consequently, the Bureau had issued or maintained qualified favourable findings for the relevant groups until that software became available. An added complication was that ITU-R Working Party 4A had been working on a new revision of Recommendation ITU-R S.1503, but it had been impeded in its progress by the coronavirus disease (COVID-19) pandemic. It planned to decide in September 2022 whether it wished to pursue the latest revision further or revert to the existing one, at which point the Bureau would itself decide whether to move forward with the new version of the software.

3.36 The Board **noted** § 7 of Document RRB22-2/2, on the review of findings to frequency assignments to non-GSO FSS satellite systems under Resolution **85 (WRC-03)**.

**Submissions under the provisions of Resolution 35 (WRC-19) (§ 8 of Document RRB22-2/2)**

3.37 **Mr Vallet (Chief, SSD)** drew attention to the table under § 8 of Document RRB22-2/2 and noted that the Bureau had received 19 submissions under Resolution **35 (WRC-19)** and published 10 special sections. Three systems had met milestone three and finished their deployment.

3.38 **Mr Varlamov** said that it would be useful to include the number of satellites deployed at each stage for the different systems, and the frequency bands used by those deployments, in order to give clearer information on the availability of orbit and spectrum resources, which would also be relevant to the report on Resolution **80 (Rev.WRC-07)** to WRC-23.

3.39 **Mr Azzouz**, noting that three systems had completed their deployment and a further seven had been published in special sections, requested a status update on the remaining nine.

3.40 **Mr Vallet (Chief, SSD)** agreed to include the number of satellites deployed and frequency bands used in the next report. The HIBLEO-2FL, QZSS-1 and USCSID-P satellite networks had all completed deployment, while the remaining systems had completed milestone zero, i.e. the launch of one satellite, according to the information received. It was entirely possible that those systems were further along in the completion of milestones one and two, but the Bureau had not thus far received any information to that effect. Administrations would submit that information in due course as the regulatory deadlines under Resolution **35 (WRC-19)** approached.

3.41 Regarding § 8 of Document RRB22-2/2, on submissions under the provisions of Resolution **35 (WRC-19)**, the Board **instructed** the Bureau to report to future Board meetings on the number of satellites deployed and the frequency bands used by those deployments.

**Status of the requests for new allotments under RR Appendix 30B (Addendum 2 to Document RRB22-2/2)**

3.42 **Mr Wang (Head, SSD/SNP)** introduced Addendum 2 to Document RRB 22-2/2, which reported on the status of the requests for national allotments received after WRC-19 in accordance with Article 7 of RR Appendix **30B**. He recalled that, pursuant to the Board's decisions at its 89<sup>th</sup> meeting, the Bureau was implementing, as an interim measure until WRC-23, some additional regulatory measures to avoid the further degradation of the aggregate carrier-to-interference (*C/I*) levels of those Article 7 requests. It had received a Part B submission from the Administration of Belarus that might degrade the aggregate *C/I levels* of the proposed allotment of Bosnia and Herzegovina. The Administration of Belarus had accepted the measures proposed by the Bureau and modified its Part B submission to ensure that degradation to the proposed allotment of Bosnia and Herzegovina did not exceed 0.25 dB.

3.43 **Mr Azzouz** expressed appreciation to the Administration of Belarus for modifying the characteristics of its Part B submission. Having thanked the Bureau for its efforts, he called on it to continue implementing the Board's decisions taken at the 89<sup>th</sup> meeting and to keep the Board informed of progress.

3.44 **Mr Varlamov** said that the case outlined showed that administrations were respecting the equitable use of the radio-frequency spectrum and satellite orbits - a basic principle enshrined in the ITU Constitution. He trusted that all administrations would continue to work together to that end.

3.45 **Mr Hashimoto**, endorsing the views of previous speakers, welcomed the adoption of the mitigation measures proposed to reduce the *C/I* degradation of one of the Article 7 submissions and called on the Bureau to continue providing support to administrations.

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

"Regarding Addendum 2 to Document RRB22-2/2, 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, serving as interim regulatory measures until WRC-23, in response to requests of 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 Belarus had displayed in protecting the Article 7 submission of the proposed allotment of the Administration of Bosnia and Herzegovina by accepting the Bureau's proposals. The Board further noted that that would avoid degradation of the aggregate *C/I levels* of the proposed allotment. The Board once more 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 analyses of the Bureau and the measures 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 in 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 91<sup>st</sup> meeting."

3.47 It was so **agreed**.

**Application of §§ 4.1.10b to 4.1.10d of Appendix 30 of the Radio Regulations in accepting answers from the General Secretariat of ATU on behalf of an administration to reminders sent by the Bureau (Addendum 3 to Document 22-2/2)**

3.48 **Mr Vallet (Chief, SSD)** said that Addendum 3 to Document 22-2/2 had been provided by the ITU Legal Affairs Unit (LAU) in response to the Board's request at its 89<sup>th</sup> meeting. It set out the opinion of LAU on whether the Board could, in the application of §§ 4.1.10b to 4.1.10d of RR Appendix **30**, accept answers from the General Secretariat of the African Telecommunications Union (ATU) on behalf of an administration

to reminders sent by the Bureau where the administration's frequency assignments or allotments were considered as affected. LAU noted that substantially similar provisions were set out in §§ 4.1.10b to 4.1.10d of Appendix **30A** and in §§ 6.14, 6.14bis and 6.15 of Appendix **30B**. As a general rule, administrations were responsible for discharging the obligations they had undertaken under the Radio Regulations, unless otherwise specifically mentioned in the treaty. As the wording of the applicable articles (§§ 4.1.10b to 4.1.10d of Appendices **30** and **30A** and §§ 6.14, 6.14bis and 6.15 of Appendix **30B**) provided no possibility to an administration to transfer its right to reply to reminders to another entity and in accordance with the general rule of interpretation set out in the Vienna Convention on the Law of Treaties, there was no reason to presume that the legislator intended to grant any sort of delegation rights under the applicable articles. LAU was therefore of the view that, when adopting the applicable articles, the legislator did not mean to permit an organization not party to the Radio Regulations to act on behalf of an administration. Furthermore, under RR No. **13.1**, the Bureau was entrusted with the provision of such assistance in the context of the applicable articles, not any third party acting on behalf of an administration. Accordingly, LAU was of the view that the ATU General Secretariat could not exercise the rights or discharge the obligations of administrations under the applicable articles.

3.49 **Mr Talib, Ms Beaumier, Ms Jeanty, Mr Azzouz, Mr Varlamov, Mr Mchunu and Mr Borjón** thanked LAU for its clear and detailed opinion.

3.50 **Mr Talib** said that he fully supported the LAU opinion. A response, or even the legal opinion itself, should be sent to the administrations concerned.

3.51 **Ms Beaumier** noted that there was no explicit reference in the relevant provisions allowing an administration to delegate its responsibility and that an administration could seek assistance from the Bureau in the event of difficulties. Accordingly, there was no need for the Board to revise the decision taken at the 89<sup>th</sup> meeting, and she would have no difficulty in informing the administrations concerned of the legal opinion. Noting that the issue of implicit agreement would be included in the Board's report on Resolution **80 (Rev.WRC-07)** to WRC-23, she said that amendment of the provisions of the Radio Regulations was a matter for WRC.

3.52 **Ms Jeanty**, endorsing the views of previous speakers, said that she was pleased that the conclusion drawn by the Board at its 89<sup>th</sup> meeting had been confirmed and could agree to inform ATU and the administrations concerned of the legal opinion.

3.53 **Mr Azzouz** said that the Bureau should send a summary of the legal opinion to the ATU General Secretariat for information.

3.54 **Mr Varlamov** said that LAU's very clear response indicated that the delegation of rights and obligations to an entity not party to the ITU Constitution, Convention and Radio Regulations was not possible. Any amendment to the relevant provisions to that end should be addressed at the level of the Constitution, which set out the rights and obligations of administrations, not by WRC.

3.55 **Mr Mchunu** said that the clear and succinct legal opinion confirmed the decision taken by the Board at its previous meeting, which therefore did not need to be revised.

3.56 **Mr Borjón** said that the legal opinion validated the Board's decision and should be communicated to the administrations concerned. In response to a suggestion from the **Chairman**, he said that there was no need to publish the opinion on the special topics page of the Board's website as it dealt with a specific case.

3.57 The **Director** said that, in accordance with usual practice, the decisions taken by the Board at its 89<sup>th</sup> meeting had been sent to the administrations concerned. As LAU had confirmed the Board's decision, there was no need for further action by the Board, which might wish to simply note the legal opinion. Addendum 3 was publicly available for any interested administrations to consult.

3.58 **Ms Beaumier** said that, as the legal opinion was set out in an input document to the meeting, there was in fact no need to send a communication to the authors of the submission.

3.59 **Ms Jeanty** said that she had revised her earlier view. There was no need for the Board to send any further communication to the administrations concerned as they had already received the decision of the previous meeting and the legal opinion was publicly available.

3.60 The Board **noted** Addendum 3 to Document RRB22-2/2, which contained the opinion of the ITU Legal Advisor on the application of §§ 4.1.10b and 4.1.10c of RR Appendices **30** and **30A** and §§ 6.14 and 6.14bis of RR Appendix **30B**, and that the opinion confirmed the decisions taken by the Board on that issue at its 89<sup>th</sup> meeting.

#### **Application of procedures related to international coordination of frequency assignments affecting Ukraine (Addendum 5 to Document RRB-22/2)**

3.61 **Mr Vallet (Chief, SSD)** introduced Addendum 5 to Document RRB22-2/2, in which the Administration of Ukraine requested that the Board's decision at its 89<sup>th</sup> meeting on the application of procedures related to international coordination of frequency assignments affecting Ukraine should continue to be applied until the end of martial law in Ukraine.

3.62 The **Chairman** recalled that the Board had decided to reassess the situation at its 90<sup>th</sup> meeting.

3.63 **Ms Jeanty** expressed support for the request, as did **Mr Azzouz** and **Ms Beaumier**, who said that the Board should reassess the situation at future meetings since there could be an impact on other administrations.

3.64 Regarding Addendum 5 to Document RRB22-2/2, which contained a request from the Administration of Ukraine that the decision taken by the Board at its 89<sup>th</sup> meeting should continue to be applied until the declaration of the end of martial law in Ukraine, the Board **decided** to accede to the request from the administration on the understanding that the Board would continue to re-assess the situation at future meetings.

#### **Progress report on the implementation of Resolution 559 (WRC-19) (Addendum 6 to Document RRB22-2/2)**

3.65 **Mr Wang (Head, SSD/SNP)** introduced Addendum 6 to Document RRB22-2/2, which reported on progress in processing Resolution **559 (WRC-19)** submissions and included a summary of statistics for the main coordination provisions. In reviewing the coordination agreements between the notifying administrations of the Resolution 559 submissions and the affected administrations, notably under §§ 4.1.1 a) and 4.1.1 b) of RR Appendices **30** and **30A**, the Bureau had noticed two types of special agreements in accordance with which it was requested not to update the reference situation of affected networks. Accordingly, when the notifying administration explicitly indicated in the cover letter of its Part B submission that the reference situation of certain networks should not be updated because of an agreement with the notifying administration(s) of those networks, the Bureau proposed not to update the reference situation of the concerned networks. It sought the Board's endorsement of that approach.

3.66 Following implementation of the Board's decision on the examination of Part B submissions at its 89<sup>th</sup> meeting, certain networks continued to be identified as affected. When the affected test points were located on the territory of another Resolution 559 administration, the Bureau proposed to ignore the degraded test points in the examination of the Part B submissions if it was explicitly informed by the notifying administration of an agreement with the administration with jurisdiction over the territory where the degraded test points were located. The Bureau sought the Board's endorsement of that approach.

3.67 The **Chairman** expressed his appreciation for the Bureau's continuous support in notifying administrations of Resolution 559 submissions and the coordination efforts of the administrations, and noted that the Bureau's proposals were the result of the implementation of the Board's decision on the examination of Part B submissions at its 89<sup>th</sup> meeting.

3.68 Responding to questions from **Mr Hashimoto**, who had expressed appreciation for the Bureau's continuous support to notifying administrations of Resolution **559 (WRC-19)** submissions, **Mr Wang (Head, SSD/SNP)** said that the document should be seen to refer to three administrations: first, the notifying administration of the Part B Resolution 559 submission under examination; second, the affected administration; and third, a Resolution 559 administration on whose territory the affected test points were located. The "service areas and associated test points of those networks remain unchanged" referred to in the second indent were on the territory of the notifying administration. The "test points outside the territory of the notifying administration" referred to in the penultimate paragraph were on the territory of another Resolution 559 administration.

3.69 **Mr Hoan** said that the Board should encourage the Bureau to continue to support both Resolution **559 (WRC-19)** notifying administrations and other administrations identified as potentially affected. He supported the Bureau's proposal concerning the processing of the Part B Resolution 559 submissions, which respected the rights of the concerned administration and would avoid the mass application of RR No. **23.13**, which might entail unintended consequences for additional use.

3.70 **Mr Henri** said that the Bureau's first proposal to retain the reference situation of the concerned networks when the notifying administration explicitly indicated in the cover letter of its Part B submission that an agreement had been reached with the notifying administration(s) of those networks was relatively straightforward. The Bureau's second proposal would be a means by which the application of RR No. **23.13** could be avoided. The Board had previously authorized the Bureau to retain the reference situation in certain particular cases to avoid a systematic application of RR No. **23.13** by all Resolution **559 (WRC-19)** administrations. He understood that the proposal was a continuation of the same approach for some very specific test points located on the territory of a third administration and degraded by a Part B Resolution 559 submission of the notifying administration and that the notifying administration of the Resolution 559 submission would reach an agreement with the third administration not to take the degraded test points into account. If his understanding was correct, he could agree to the Bureau's proposal.

3.71 **Ms Beaumier** said that she could support the action proposed, which constituted a continuation of measures taken in the past, was in accordance with the spirit of Resolution **559 (WRC-19)** and did not infringe the rights of any administration. She asked whether the Bureau had received any Part B submissions at all or none with the potential to degrade the EPM of the Resolution 559 submissions.

3.72 **Ms Hasanova** expressed appreciation of the Bureau's efforts to support administrations in implementing Resolution **559 (WRC-19)**. She would also welcome further information on the nature of the Part B submissions received and noted with satisfaction that since the last meeting of the Board the Bureau had not cancelled any Part A networks that might have an impact on the EPM of Resolution 559 submissions. She would have no difficulty in endorsing the Board's proposals.

3.73 **Mr Wang (Head, SSD/SNP)**, responding to a question from the **Chairman**, said that according to calculation results, certain networks should be identified as affected and the reference situation should be updated; however, based on the Board's decision at its 89<sup>th</sup> meeting, those networks were no longer considered as affected. He added that the Bureau had received at least one Part B submission since the last meeting of the Board, but it had no impact on the Resolution **559 (WRC-19)** submissions.

3.74 **Ms Beaumier** noted that since the Board's previous meeting, the Bureau had not received a Part B submission associated with a Part A submission of concern to the Board.

3.75 **Mr Henri** said that the intent should be to avoid, as far as possible, some of the constraints and consequences associated with the application of RR No. **23.13** and to provide for greater flexibility. The Board should therefore decide to agree that the Bureau would ignore test points if explicitly informed of an agreement reached with any other administration on whose territory there were test points that would be degraded by the incoming Resolution **559 (WRC-19)** submission.

3.76 **Mr Mchunu** and **Mr Hoan** endorsed those comments.

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

“Regarding Addendum 6 to Document RRB22-2/2, on the progress report on the implementation of Resolution **559 (WRC-19)**, the Board expressed its appreciation for the continuous support of the Bureau to notifying administrations of Res. 559 submissions and the coordination efforts of the administrations. The Board considered that the proposed measures of the Bureau contained in the addendum for the processing of Part B of Res. 559 submissions were in agreement with the spirit of Resolution **559 (WRC-19)**. Consequently, the Board decided to agree to the proposals of the Bureau, namely:

- when the notifying administration of the Res. 559 submission had explicitly indicated in the cover letter of its Part B submission that the reference situation of certain networks should not be updated because an agreement had been obtained with the notifying administration(s) of those networks, the Bureau would not update the reference situation of the networks concerned, when entering frequency assignments of a Res. 559 submission in the List;
- when the Bureau had been explicitly informed by the notifying administration of a Res. 559 submission that an agreement had been reached with any other administration in order to ignore test points that were located on the territory of the latter administration and that would be degraded by the incoming Res. 559 submission, the Bureau would ignore those degraded test points in the examination of Part B of the Res. 559 submission. Such an agreement could also be provided by the other administration but it had to be communicated to the Bureau at the latest before the start of the formal examination of the Part B submission.

The Board encouraged administrations to further cooperate in their coordination activities so that notifying administrations of Res. 559 submissions could submit their requests for inclusion in the BSS Plans in time for WRC-23. Furthermore, the Board instructed the Bureau to continue to support administrations in those efforts and to report on progress at the next Board meeting.”

3.78 It was so **agreed**.

#### **Coordination activities between the Administrations of France and Greece (Addendum 7 to Document RRB22-2/2)**

3.79 **Mr Vallet (Chief, SSD)** introduced Addendum 7 to Document RRB22-2/2, which reported on the coordination activities between the Administrations of France and Greece concerning the ATHENA-FIDUS-38E satellite network at 38°E and the HELLAS-SAT-2G satellite network at 39°E. Summarizing the progress achieved at the hybrid-format meeting of 10-12 May 2022, he highlighted that the two administrations were starting to discuss concluding a partial coordination agreement on the items that had been completed or were close to being so. The detailed information and clarifications on coordination proposals for certain open cases had been successfully completed by the agreed deadline of 10 June 2022, and further meetings would be held on 5 – 7 July 2022 to address the open cases considered close to completion and the possible partial agreement, and on 12 – 13 September 2022 to focus on the remaining open cases.

3.80 **Mr Talib**, praising the efforts of the Bureau in assisting the two administrations, said that the process was progressing nicely and that he looked forward to further updates at the next meeting.

3.81 **Mr Hashimoto** and **Ms Hasanova** welcomed the positive report and the efforts and goodwill shown by both administrations, expressing hope that a definitive, mutually agreed solution could be arrived at through further coordination.

3.82 **Mr Azzouz** stressed the importance of encouraging the administrations to continue to exchange the necessary information to arrive at a final solution. He and **Ms Hasanova** agreed that the Bureau should continue to support the administrations in those efforts and report on progress at future meetings of the Board.

3.83 Regarding Addendum 7 to Document RRB22-2/2, on the 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 in the coordination efforts between the two administrations and that two additional coordination meetings had been scheduled in July and September 2022 with the support of the Bureau. The Board also **thanked** the Bureau for its support to



the two administrations in their coordination activities and **encouraged** the Administrations of France and Greece to continue their coordination efforts in goodwill. The Board **instructed** the Bureau to continue to provide support for those efforts and to report on progress at the next Board meeting.

#### **Discussions and coordination efforts between the Administrations of Saudi Arabia and France (Addendum 10 to Document RRB22-2/2)**

3.84 **Mr Vallet (Chief, SSD)** summarized the content of Addendum 10 to Document RRB22-2/2, on the discussions between the Administrations of Saudi Arabia, acting as the notifying administration for the intergovernmental satellite organization ARABSAT, and France, acting as the notifying administration of its own satellite networks, and the efforts to coordinate their satellite networks at the orbital positions 25.5°E and 26°E in the 30/20 GHz frequency range. Since the 89<sup>th</sup> Board meeting, the administrations had held a virtual meeting to discuss coordination issues, notably orbital positions other than 25.5°E and 26°E. Both administrations had agreed that a physical meeting could help to facilitate progress but that detailed agendas to frame and prioritize coordination discussions had to be established first. Those efforts were ongoing. Progress had been slowed by the involvement of each administration in other coordination activities, but both were content with the progress.

3.85 The **Vice-Chairman** praised the administrations and the Bureau for their efforts and noted the progress. He expressed hope that a date for the next meeting would be agreed soon.

3.86 Responding to a question from **Mr Talib, Mr Vallet (Chief, SSD)** said that France was acting as notifying administration for its own satellites in relation to the Ka-band, which had been the focus of attention at the recent meeting, while it had acted as notifying administration for its own satellites and for those of EUTELSAT in the Ku-band.

3.87 Regarding Addendum 10 to Document RRB22-2/2, the Board **thanked** the Bureau for its support to the two administrations that had resulted in the completion of the coordination efforts in the Ku-band. The Board **encouraged** both administrations to continue their coordination efforts in goodwill. The Board **instructed** the Bureau to continue to support both administrations in their coordination efforts and in convening future coordination meetings, and to report on progress to the next Board meeting.

3.88 Having considered in detail the report of the Director, as contained in Document RRB22-2/2 and Addenda 1 to 7 and 10, the Board **thanked** the Bureau for the information provided.

## **4 Rules of procedure**

### **4.1 List of rules of procedure (Documents RRB22-2/1 and RRB20-2/1(Rev.6))**

4.1.1 **Mr Botha (SGD)** said that there were very few remaining issues that required a rule of procedure, two of which were RR Nos. **5.218A** and **5.564A**, which, in keeping with the past decision of the Board, would not be finalized until such time as the Bureau had to resolve a related case. The other outstanding issue was the revision of the rule of procedure on Resolution **1 (Rev.WRC-97)** in relation to the treatment of notifications of assignments to stations located in disputed territories, the target date of which was the 91<sup>st</sup> Board meeting.

4.1.2 **Mr Henri**, the Chairman of the Working Group on the Rules of Procedure, said that a preliminary draft revision of the rule of procedure on Resolution **1 (Rev.WRC-97)** had been produced and that the working group had further considered and agreed on it in principle. He further expressed in his oral report on the outcome of the working group meeting his hope that a consensual approach could be found for the qualification of disputed territories by the next meeting, but he suggested that the Bureau, in parallel, provide information to the 91<sup>st</sup> Board meeting on assignments that had been long held in abeyance because of the issue, so that those cases might possibly be addressed prior to the adoption of a general revised rule of procedure on Resolution **1 (Rev.WRC-97)** and the notification of frequency assignments to stations in disputed territories.

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

“Following a meeting of the Working Group on the Rules of Procedure, under the chairmanship of Mr Y. HENRI, the Board decided to update the list of proposed rules of procedure in Document RRB22-2/1, taking into account the progress on the draft rule of procedure on Resolution 1 (**Rev.WRC-97**). On the issue of frequency assignments to stations located on disputed territories, the Board thanked the Bureau for the additional updated text of the draft rule of procedure on Resolution 1 (**Rev.WRC-97**), which included comments from the ITU Legal Affairs Unit. The Board agreed on the elements to be included in the draft rule of procedure. Regarding the territories that might be qualified as disputed in the application of the draft rule of procedure, the Board instructed the Bureau to request the ITU Legal Affairs Unit to request the United Nations Geospatial Information Section to identify such territories and their respective legal status, with the objective of reflecting that information in the rule of procedure, and to report to the 91<sup>st</sup> Board meeting on the outcome of that consultation.”

4.1.4 It was so **agreed**.

## **5 Issues and requests relating to the extension of regulatory time limits to bring or to bring back into use frequency assignments to satellite networks**

### **5.1 Submission by the Administration of Indonesia requesting the extension of the regulatory time limit to bring into use the frequency assignments to the NUSANTARA-H1-A satellite network (Document RRB22-2/5)**

5.1.1 **Mr Loo (Head, SSD/SDR)** introduced Document RRB-22/5, in which the Administration of Indonesia requested an extension of the regulatory time-limit to bring into use the frequency assignments to the NUSANTARA-H1-A satellite network from 24 August 2022 to 24 April 2023 on the grounds of *force majeure*. The GS-1 satellite, construction of which had been completed in January 2022, had been leased from Gravity Space to bring into use the frequency assignments, and launch on board the SpaceX Falcon had been expected between 15 April and 15 May 2022. However, first through an informal communication on 28 January 2022 and then through a formal notification on 16 February 2022, SpaceX had notified Gravity Space that the launch had been delayed until 16 August 2022 at the earliest due to the lack of readiness of the primary mission. The administration went on to describe how the case met the four conditions of *force majeure*, indicating that, on 4 February 2022, a request for information had been issued to determine the availability of a gap-filler satellite to be placed at 116.1°E by no later than 24 August 2022, but none had been available. Furthermore, on 15 April 2022, Gravity Space had formally informed the national satellite operator that the estimated duration of orbit raising and drift to the final orbital location had increased from 4 – 8 weeks to 3-8 months because of potential underperformance of the electric thruster. Copies of the relevant correspondence were set out in the attachments to the submission.

5.1.2 **Mr Henri** welcomed the detailed information provided by the Administration of Indonesia, which provided the evidence that the satellite GS-1 had been ready in January 2022 for a launch by a SpaceX Falcon Heavy booster between 15 April and 15 May 2022, which would have given three months for the satellite to reach its orbital position at 116.1°E in time for the bringing into use of the frequency assignments by 24 August 2022, and further evidence on the launch delay, which had been due to the lack of readiness of the satellite’s primary mission. He said that the situation should, however, be considered as a case of co-passenger delay, as provided for in Part A11 of the Rules of Procedure. However, he questioned the requested length of the extension to 24 April 2023. Indeed, the estimated duration of orbit raising had increased from 4-8 weeks to 3-8 months. Had the satellite been launched on 15 May 2022, the bringing-into-use deadline of 24 August 2022 would have been met with the minimum revised period of three months for orbit raising, but would, have been missed with the maximum revised period of eight months. He would therefore be ready to accede to the request of the Administration of Indonesia for an extension, based on Part A11 of the Rules of Procedure and supported granting an extension of three months or until the end of December 2022.

5.1.3 **Ms Beaumier** said that, although the Administration of Indonesia had invoked *force majeure*, the situation qualified more as a case of co-passenger delay and the information provided did not clearly and specifically address the information requirements specified under Part A11 of the Rules of Procedure. However, there was sufficient information for the Board to reach a conclusion. With a launch window of 15 April – 15 May 2022 and a period of 3-8 months for orbit raising and drift, she was not certain whether the original regulatory deadline of 24 August 2022 could have been met but was willing to give the administration the benefit of the doubt. The rationale provided for the length of the extension was confusing and an extension until 24 April 2023 was not justified. Although there was uncertainty as to how the electric thruster would perform, the Board could not grant an extension because of electric propulsion systems. It could not therefore take into account the revised estimate of 3-8 months for orbit raising and drift, only the period provided for initially, i.e. the three months and nine days between the end of the launch window (15 May 2022) and the original regulatory deadline (24 August 2022). Given the original launch window of one month, she would support an extension of four months and nine days from the expected launch date of 16 August 2022, i.e. to 25 December 2022.

5.1.4 **Mr Hashimoto** said that the case appeared to meet the conditions of co-passenger delay provided for in Part A11 of the Rules of Procedure. If the reasons for the revised orbit-raising period of between three and eight months were clarified further, he was prepared to consider the request positively.

5.1.5 **Mr Talib** said that he sympathized with the Indonesian Administration and welcomed the detailed information provided. He agreed that the case qualified to be considered as co-passenger delay. An eight-month extension until 24 April 2023 was not justified, and he would support a four-month extension which reflected the time between the original launch window and regulatory deadline.

5.1.6 **Mr Azzouz** said that the case met the conditions of *force majeure*, particularly co-passenger delay. Although he was in favour of granting an extension, the eight months requested was too long. The administration should be requested to take all possible actions to reduce the orbit-raising period.

5.1.7 **Mr Hoan** said that the Administration of Indonesia had been unable to meet the regulatory deadline for bringing the frequency assignments into use because of co-passenger delay. He would therefore support granting an extension on those grounds and would support the duration proposed by Mr Henri and other speakers.

5.1.8 **Ms Jeanty** agreed that the situation qualified more as a case of co-passenger delay than *force majeure* and that sufficient information had been provided for the Board to take a decision. According to other sources, there was some uncertainty as to when the GS-1 spacecraft was intended to be ready. She could, however, agree to an extension but suggested that the Board might not specify the extension to the exact number of days. She noted that the administration had indicated that it was making every effort to reduce the orbit-raising period.

5.1.9 **Ms Hasanova** thanked the Administration of Indonesia for providing the related documents from the launch company regarding the delay. Given the co-passenger delay, it was clear that the situation qualified as a case of *force majeure*. She would support granting an extension until the end of December 2022.

5.1.10 **Mr Borjón** thanked the Administration of Indonesia for its comprehensive and well-documented request. While he could understand that the administration might have assumed that the irresistible event qualified as *force majeure*, it had in fact been caused by co-passenger delay. In his view, the eight-month extension requested included a margin for contingencies, and he would support a three-month extension, with a slight adjustment if necessary.

5.1.11 **Mr Mchunu** said that the case qualified as a *force majeure* situation due to co-passenger delay. The eight-month extension was not justified and he would support an extension of three or four months.

5.1.12 **Mr Varlamov** thanked the Administration of Indonesia for its comprehensive submission and agreed that the Board should grant an extension. However, while the eight months requested was too long, a three-month extension would not be sufficient for orbit raising and in-orbit testing. An extension until the end of December would be more reasonable.

5.1.13 The **Chairman**, noting that several proposals had been made for the duration of the extension, said that he would support an extension until the end of December 2022 to give additional time for in-orbit testing.

5.1.14 **Mr Azzouz** expressed support for an extension until the end of December 2022.

5.1.15 **Mr Henri** acknowledged the difficulty in predicting the time required for a satellite to reach its orbital position and in-orbit testing before bringing into use, in particular with electric propulsion technologies, which depended on the launch facility location and the altitude of its operational orbital position. However, it was important to send a clear message to an administration seeking an extension to provide the best figures on which the Board could base its decision. The Board did not grant margins for contingencies; should further difficulties arise, the administration could always request a further extension from the Board and provide additional information. He was therefore in favour of granting an extension until the end of December 2022.

5.1.16 **Ms Beaumier** said that the Board must ensure that any extension it granted was based on a solid rationale, properly justified and consistent with its analysis of similar cases in the past. A key consideration was whether or not the regulatory deadline would have been met in the absence of the delay. The Board should not start adding extra time for orbit raising and in-orbit testing, which should originally have been factored into the period between the end of the launch window and the regulatory deadline. Such a subjective approach was not a good basis for the Board to take its decisions and would lead to a loss of rigour.

5.1.17 The **Chairman** said that as the potential for underperformance of the GS-1 electric thruster had only been identified during supplementary testing and had not been taken into account in the initial schedule, that might justify the Board's provision of slightly more time.

5.1.18 **Ms Beaumier** said that in order to justify and fully rationalize an extension until 31 December 2022, the Board should note that there was uncertainty as to how the electric thruster would perform. The Board should also remind administrations that it did not extend regulatory deadlines because of the use of electric propulsion systems—an issue that would be included in the Board's report on Resolution **80 (Rev.WRC-07)** to WRC-23.

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

"In considering Document RRB22-2/5, containing the submission from the Administration of Indonesia, the Board thanked the administration for the detailed information provided in support of its request for an extension of the regulatory time limit to bring into use the frequency assignments to the NUSANTARA-H1-A satellite network. The Board noted that:

- the regulatory deadline to bring into use the frequency assignments to the NUSANTARA-H1-A satellite network was 24 August 2022;
- a satellite lease agreement existed between the Indonesian satellite operator and the satellite manufacturer, signed on 27 September 2021 for leasing the GS-1 satellite;
- the GS-1 satellite construction had been completed and had been ready for shipment to the launch site in January 2022, and had been expected to be launched within the initial launch window between 15 April and 15 May 2022;
- although the administration had invoked a case of *force majeure* in support of its request, the delay in the launch of the GS-1 satellite had been due to the lack of readiness of the primary mission of the shared launch vehicle;
- the launch had been delayed until no earlier than 16 August 2022.

"The Board recognized the efforts that the Administration of Indonesia had made to fulfil its regulatory obligations by issuing a request for information on 4 February 2022 to find a satellite operator that could provide a temporary satellite to bring into use the frequency assignments within the regulatory time limit. Based on the information and supporting documentation provided, the Board concluded that the situation qualified to be considered as a case of co-passenger delay as provided for in Part A11 of the Rules of

Procedure. Consequently, the Board decided to accede to the request of the Administration of Indonesia to grant an extension of the regulatory time limit to bring into use the frequency assignments to the NUSANTARA-H1-A satellite network. In noting that there was an uncertainty in the performance of the electric thruster of the satellite and that the Board did not provide extensions to regulatory time limits because of the use of electric propulsion systems, the Board decided to set the extension of the regulatory time limit to 31 December 2022.”

5.1.20 It was so **agreed**.

## **5.2 Submission by the Administration of the Russian Federation requesting an extension of the regulatory time limit for bringing into use the frequency assignments to the SKY-F satellite network (Document RRB22-2/8)**

5.2.1 **Mr Loo (Head, SSD/SPR)** introduced Document RRB22-2/8, which contained a request from the Administration of the Russian Federation to extend the regulatory time-limit for bringing into use the frequency assignments to the SKY-F satellite network. The manufacture of SKYF-D, the first spacecraft in the SKY-F satellite system, by Academician M.F.Reshtnev Information Satellite Systems, had been proceeding in accordance with the agreed timetable. A joint launch involving the SKYF-D satellite and the Gonets-M non-GSO satellites had been scheduled for launch on 29 September 2022 but had been delayed as the Gonets-M satellites, the main payload, had required further work. It had not been economically viable to launch the SKYF-D satellite on its own launch vehicle, and attempts to secure a joint launch with other spacecraft had been in vain. As a result, the administration was requesting that the Board extend the original time-limit of 5 October 2022 to 31 January 2023.

5.2.2 **Ms Beaumier** said that, although the administration had not explicitly formulated its request as such, it was seeking an extension owing to co-passenger delay, caused by the main payload’s need for further testing. The submission was missing, however, information required for the extension of regulatory time-limits under Part A11 of the Rules of Procedure, namely the name of manufacturer and status of satellite construction, including the date it began, and the frequency assignments on board the satellite. Furthermore, it was not clear if the original time-limit would have been met, as there was no information on the duration of orbit raising and drift required to bring the satellite to its orbital position. The case might well qualify for an extension owing to co-passenger delay, but the Board was not in a position to draw that conclusion at that time given that the information standards had not been met. The Board should request the missing information from the administration and instruct the Bureau to maintain the assignments in the MIFR until the 91<sup>st</sup> Board meeting.

5.2.3 **Mr Henri** noted that the documents contained in the submission provided sufficient detail to justify a case of co-passenger delay, but concurred that required information, particularly on the status of satellite construction and the frequency assignments involved, was otherwise lacking. One might infer from the document that manufacturing had begun at some point from December 2021 and could have been completed in time for the scheduled launch, but there were no details explicitly confirming that. While he sympathized with the case and appreciated the detail of the information provided, the Board should strictly conform to the rule of procedure on co-passenger delay, as it was one of the first cases of application of the rule since its adoption. It should request that the administration submit the missing information to the following Board meeting for consideration and instruct the Bureau to maintain the filings in the MIFR in the interim.

5.2.4 **Ms Jeanty** had drawn the same conclusion as Ms Beaumier and Mr Henri but, in addition, wondered if the satellite would have been able to arrive at its orbital position by the original deadline of 5 October 2022 if launched on 29 September 2022, as originally planned. The timeline seemed to leave little room for manoeuvre, but the submission contained no information on orbit raising or drift, making it difficult to conclude whether the original time-limit would have been met. As it was one of the first cases of co-passenger delay since WRC-19 and the adoption of the rule of procedure, it was important to ask further questions and request the information required, while maintaining the assignments in the interim.

5.2.5 **Mr Talib** agreed with the proposed course of action, saying that the submission contained sufficient detail to justify an extension on account of co-passenger delay but had otherwise failed to provide the requisite information.

5.2.6 **Mr Borjón** noted the validity of the extension request based on co-passenger delay, but stressed the importance of strictly applying the rule of procedure to avoid inconsistency and misinterpretation. He agreed with the actions proposed by other speakers.

5.2.7 **Ms Hasanova** likewise agreed that, based on the information provided, there was a clear case for co-passenger delay, but noted the missing information required under the rule of procedure. She supported the course of action proposed by other speakers.

5.2.8 **Mr Hashimoto** agreed that the information provided in the submission pointed to co-passenger delay. Furthermore, the delay in the preparation of the Gonets-M satellites for launch had only become apparent in April 2022; thus, it was understandable that no other launch options could be secured at such short notice. He shared others' concerns about missing information on the frequency bands to be used by the SKYF-D satellite and the status of construction, but he would otherwise be happy to grant the extension if that information was provided.

5.2.9 **Mr Hoan** said that it was evidently a case of co-passenger delay and that the information concerning the joint launch was clear. While he shared the concerns of others, he supported granting the requested extension at the present meeting, given that an extension of four months was very limited and that the original regulatory time-limit of 5 October 2022 was before the next meeting of the Board.

5.2.10 **Mr Azzouz** also supported granting the requested extension given that the case clearly met the criteria of co-passenger delay and there was enough information to grant a limited and qualified extension of four months. Furthermore, the satellite was to serve a system intended to provide broadband services to the Russian population. He questioned whether the administration should be required to submit, for the purposes of the extension request, specific frequency bands to be used on the satellite given that the filing, and corresponding coordination procedure, was for the whole Ka-band. Moreover, it was entirely possible that a decision had not yet been taken on how much of the Ka-band the satellite would use.

5.2.11 **Ms Beaumier** said that the recently adopted rule of procedure required submission of a summary description of the satellite to be launched, including the frequency bands. Typically, if a system did not plan for the satellites to use all frequency bands in the filing, the Board would grant an extension based solely on the bands to be used. If the administration had numerous sub-bands in the Ka-band and only intended to implement some, it would indicate that. The Bureau would then verify at the time of bringing into use.

5.2.12 After informal discussions, she added that Board members had agreed to request that the missing information required under the rule of procedure be submitted to the next meeting and to instruct the Bureau to maintain the frequency assignments in the MIFR until that time.

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

"The Board considered in detail the request from the Administration of the Russian Federation as contained in Document RRB22-2/8. The Board noted that:

- the regulatory time limit to bring into use the frequency assignments to the SKY-F satellite network was 5 October 2022;
- the initial launch of the satellite had been scheduled for 29 September 2022 together with the Gonets-M satellites as the primary payload;
- agreements to fund the manufacture and launch of the satellite had been provided and manufacturing of the satellite was proceeding in accordance with the agreed schedule, but no detail had been provided on the status of the satellite construction;
- information had been provided to justify rescheduling the launch date from 29 September 2022 to January/February 2023, owing to the delay in the readiness of the primary payload.

The Board considered that, while the request contained elements that would allow the situation to qualify as a case of co-passenger delay, the Board was unable to come to a decision on the request at its 90<sup>th</sup> meeting as additional information was required in accordance with Part A11 of the Rules of Procedure, concerning the extension of the regulatory time-limit to bring into use satellite frequency assignments. The Board requested the Administration of the Russian Federation to provide the required information, which should include:

- a summary description of the satellite to be launched, including the frequency bands;
- the status of the satellite construction, including the date on which the construction began and whether it had been expected to be completed prior to the initial launch window.

Furthermore, the Board instructed the Bureau to continue to take into account the frequency assignments to the SKY-F satellite network until the end of the 91<sup>st</sup> Board meeting.”

5.2.14 It was so **agreed**.

### **5.3 Submission by the Administration of Papua New Guinea providing additional information on the NEW DAWN 25 satellite network in response to the decision of the 89<sup>th</sup> Radio Regulations Board meeting (Document RRB22-2/12)**

5.3.1 **Mr Loo (Head, SSD/SPR)** introduced Document RRB22-2/12, in which the Administration of Papua New Guinea provided additional information concerning the NEW DAWN 25 satellite network in response to the decision of the 89<sup>th</sup> Board meeting. He recalled that the request for an extension to bring back into use the frequency assignments to the NEW DAWN 25 satellite network in the bands 19.7 - 20.2 GHz and 29.5 - 30.0 GHz from 7 April 2022 until 31 December 2024 had first been formally discussed by the Board at its 88<sup>th</sup> meeting. The Board had requested further information, which it had considered at its 89<sup>th</sup> meeting, and had then invited the administration to provide information on five specific issues in support of the request. The administration had provided a comprehensive response to each of those issues, as set out in Document RRB22-2/12, and the extension requested in the current document for the bringing back into use the frequency assignments was until 28 April 2024.

5.3.2 The **Chairman** noted that the Administration of Papua New Guinea had reduced the length of the extension requested from 31 December 2024 to 28 April 2024.

5.3.3 **Mr Talib** welcomed the information provided by the Administration of Papua New Guinea, in particular the justification of the 21-month period for contract signature and the revised length of the extension requested. He would support granting an extension until 28 April 2024.

5.3.4 **Ms Beaumier** thanked the Administration of Papua New Guinea for the additional clarifications provided, which answered in sufficient detail the Board’s outstanding questions. She noted that the satellite operator had attempted to lease an in-orbit satellite, but that none had been available. It was also building a full replacement multi-band satellite and, having investigated the cause of the failure, had selected a new manufacturer and designed a state-of-the-art satellite. That, coupled with COVID-19-related lockdowns in 2020, could reasonably explain the 21 months required to sign a contract with the satellite manufacturer. The Board could therefore conclude that all the conditions of *force majeure* had been met. Although no contract had yet been signed with the launch provider, realistic anticipated timelines had been provided for the launch window, orbit raising, in-orbit testing and drift, which had significantly reduced the length of the extension requested. Furthermore, the operator was also continuing efforts to expedite the bringing back into use of the frequency assignments with an interim satellite. She would therefore support granting an extension until 28 April 2024. The Board might wish to note in its conclusion the optimized time-frames for launch and efforts to minimize the extension requested.

5.3.5 **Ms Jeanty** said that after the in-orbit failure in April 2019, the satellite operator had focused on restoring services and on identifying the cause of the catastrophic event. Preparations for acquiring a new satellite had begun at the beginning of 2020 and had been affected by COVID-19 measures. From the additional information provided, the Board could conclude that all the conditions of *force majeure* had been

met. She was pleased to see that the length of the extension sought had been minimized, and she would support an extension until 28 April 2024.

5.3.6 **Mr Azzouz** thanked the Administration of Papua New Guinea for the detailed information provided in response to the Board's questions. The operator had endeavoured to meet the bringing-back-into-use deadline, including through the use of third-party in-orbit satellites. The initial focus had been on restoring services and on determining the cause of the failure, which had taken time. Furthermore, the contract negotiation and signature had taken longer than normal because of the COVID-19 pandemic. The operator and administration had sought to optimize the schedule to minimize the requested extension period. The responses provided demonstrated that the case met all the conditions to qualify as a situation of *force majeure*, and he would support an extension until 28 April 2024.

5.3.7 **Mr Borjón** thanked the Administration of Papua New Guinea for improving its request since its first submission as a delayed document to the Board's 87<sup>th</sup> meeting. The responses to each of the Board's questions clearly showed that the case met all the conditions to qualify as a situation of *force majeure*. In accordance with the revised timelines, an extension of approximately two years was being requested, and he was in favour of granting an extension until 28 April 2024.

5.3.8 **Mr Hashimoto** said that the Administration of Papua New Guinea had responded appropriately to the Board's questions, especially in clarifying why it had taken 21 months to sign a contract with a satellite manufacturer. It was also clear that efforts had been made to prevent such a catastrophic event in the future and to reduce the length of the extension to around 24 months. He could therefore accept an extension until 28 April 2024.

5.3.9 **Mr Hoan** thanked the Administration of Papua New Guinea for responding to the Board's questions and expressed support for an extension until 28 April 2024. A three-year period for bringing back into use in the event of a total in-orbit satellite failure was not sufficient given all the processes involved, and the Board should include that issue in its report on **Resolution 80 (Rev.WRC-07)** to WRC-23.

5.3.10 **Mr Henri** thanked the Administration of Papua New Guinea and Intelsat for the thorough consideration of the Board's request at its previous meeting and the detailed responses to the Board's questions. As of 7 April 2019, after the IS-29e satellite had failed, the main efforts of the operator had focused on a C- and Ku-band replacement satellite and in parallel, the investigation of the IS-29e satellite failure. By the beginning of 2020, a decision had been taken that a new multi-band satellite including the Ka-band, would be built by Airbus. Efforts in 2020 had been devoted to the concept and design discussion with Airbus, leading to an agreement that had taken longer than usual to sign on 31 December 2020, because of COVID-19 and the fact that Airbus had not manufactured the original satellite. A critical design review had been completed in May 2022. Although the operator was taking a calculated risk in not yet having signed a contract with a launch service provider, it was keen to have a replacement satellite at the location providing services as soon as possible. Noting the revised timeline provided, he could agree to accede to the request for an extension until 28 April 2024, which was shorter than the extension initially requested in their first submission.

5.3.11 **Ms Hasanova** welcomed the additional clarifications provided, in particular a time-frame to justify the length of the extension requested. Although the administration had not provided a launch contract, it had made every effort to have an extension granted by the Board. Taking into account COVID-19 delays on the contract signature and in order to assist developing countries, she was in favour of granting an extension to the NEW DAWN 25 satellite network.

5.3.12 **Mr Mchunu** thanked the Administration of Papua New Guinea for providing sufficient details to allow the Board to make an informed decision. Taking into account the additional information provided, he agreed that the case met the remaining conditions to qualify as a situation of *force majeure* and would support an extension until 28 April 2024.



5.3.13 **Mr Varlamov** thanked the Administration of Papua New Guinea for providing detailed information that enabled the Board to respond positively to its request and was in favour of granting an extension until 28 April 2024. In its conclusion, the Board should specify the frequency bands concerned. In addition, he said that the Board often referred to the use of “temporary satellites” in its decisions and might wish to give future consideration to that general approach. On the one hand, administrations were encouraged to lease satellites for short periods to meet regulatory deadlines, but on the other the Board expressed concern when a satellite was used to bring into or back into use various frequency assignments.

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

“In considering Document RRB22-2/12, containing the submission from the Administration of Papua New Guinea, the Board thanked the administration for the detailed additional information provided in response to the decision of the 89<sup>th</sup> Board meeting and in support of its request for an extension of the regulatory time limit to bring into use the frequency assignments to the NEW DAWN 25 satellite network. The Board noted that:

- the administration had provided satisfactory justification for the 21-month period for signing a contract with a satellite manufacturer;
- after the catastrophic failure of the satellite, the main efforts of the administration had been to restore services to customers and to identify the cause of the failure which had led to the selection of a different manufacturer;
- the detailed discussions on, and the finalization of, the design of the multi-band replacement satellite had been delayed due to the impact of the COVID pandemic;
- supporting documentation indicated that a contract had been signed with a satellite manufacturer on 31 December 2020 for delivery of the satellite on 31 October 2023;
- anticipated timelines for the launch, in orbit raising, testing and drifting to the 50°W position had been provided;
- the timeline for the replacement satellite to enter into operation had been reduced by eight months compared with the previous timeline the administration had provided to the 88<sup>th</sup> and 89<sup>th</sup> Board meetings.

Furthermore, the Board recognized the efforts of the Administration of Papua New Guinea to find a temporary satellite to fulfil its regulatory obligations for bringing back into use the frequency assignments to the NEW DAWN 25 satellite network. Based on the information provided, the Board concluded that the situation satisfied all the conditions to qualify as a case of *force majeure*. Consequently, the Board decided to accede to the request of the Administration of Papua New Guinea to grant an extension of the regulatory time-limit to bring back into use the frequency assignments to the NEW DAWN 25 satellite network in the bands 19.7 - 20.2 GHz and 29.5 - 30.0 GHz until 28 April 2024. The Board encouraged the Administration of Papua New Guinea to make all efforts to observe the reduced timeline for bringing into operation the replacement satellite.”

5.3.15 It was so **agreed**.

#### **5.4 Submission by the Administration of France requesting an extension of the regulatory time limit for bringing into use frequency assignments to satellite network AST-NG-NC-QV (non-GSO) (Document RRB22-2/13(Rev.1))**

5.4.1 **Mr Loo (Head, SSD/SPR)** introduced Document RRB22-2/13(Rev.1), which contained a request from the Administration of France to extend the regulatory time-limit for bringing into use frequency assignments to the AST-NG-NC-QV satellite network owing to a case of *force majeure* brought about by the Russian-Ukrainian crisis. On 15 February 2022, Airbus Defence, Space and OneWeb had reached a final agreement for integrating the Q/V band payload on a OneWeb Gen 1 satellite from Batch 14, which had been scheduled for launch from the Baikonur launch site between 15 April and 30 April 2022. As a result of the Russian-Ukrainian crisis, the launch had been cancelled. Two other launch providers had been identified, SpaceX in the United States and NISL in India, with the hope that the launch could take place in late 2022. Assuming an

end-of-year launch, the satellite would be expected to reach station by 30 April 2023. The Administration of France was, however, requesting an eight-month extension of the regulatory time-limit until 23 July 2023, thereby allowing a three-month margin for any eventualities.

5.4.2 **Mr Azzouz** expressed appreciation for the detailed document submitted by the Administration of France, which had clearly outlined that it could not fulfil its regulatory obligations owing to a case of *force majeure* meeting all the relevant criteria. He saw no problem in granting an extension but was reluctant to include a three-month margin for eventualities, in line with past practice of the Board.

5.4.3 **Ms Hasanova** said that the detailed submission demonstrated that the case met the criteria of *force majeure* and supported granting an eight-month extension of the regulatory deadline.

5.4.4 **Mr Borjón** said that the launch had been cancelled clearly because of the Russian-Ukrainian crisis, which had obviously been beyond the control of the Administration of France. As described in the document, all the conditions of *force majeure* had been met, and the administration had been unable to identify any other solutions in order to meet the original time-limit, which would have evidently been met if not for the launch cancellation. Even though he would normally advise against allowing margins for contingencies, he supported granting the eight-month extension in that case as that margin had been built into the original schedule, as could be seen from the document.

5.4.5 **Mr Talib** agreed with previous speakers in recognizing that the case clearly met the conditions of *force majeure*, owing to the Russian-Ukrainian conflict. He was happy with the updated schedule provided in the document and supported granting the requested extension of eight months, as did **Mr Mchunu**.

5.4.6 **Ms Jeanty** said that the request was based on an obvious case of *force majeure* caused by the aggression of the Russian Federation towards Ukraine. The Administration of France had clearly explained the cause of the delay in meeting its obligations and all the relevant conditions of *force majeure* had been met. She was amenable to granting either the full eight-month extension as requested or an extension until 30 April 2023. She suggested further that the Board avoid mention of the phraseology the “Russian-Ukrainian crisis” in its decision, since it did not reflect the actual situation correctly.

5.4.7 The **Chairman** said that a reference to the crisis and its impact on launch of the satellite had to be made in some way in order to qualify the cancellation of the launch as *force majeure*.

5.4.8 **Ms Beaumier** said that the submission from the Administration of France had addressed the four conditions of *force majeure* and demonstrated how the case qualified for each. Its inability to meet the bringing-into-use time-limit had been due to the invasion of Ukraine by the Russian Federation, but the administration could have better explained the impact of that event on its fulfilment of regulatory obligations, i.e. the launch had been cancelled as a result of international sanctions. If not for the extensive media coverage, the Board might have required clarification to that effect. Curiously, the extension request also applied to the 45.5 - 47.0 GHz band, which was not subject to Resolution **771 (WRC-19)** and whose regulatory time-limit was 10 August 2023. The Board should clearly identify the bands to which the extension applied in its decision.

5.4.9 Regarding the length of the extension, she did not support allowing for a three-month margin, in line with past decisions. Based on the information submitted and social media content, it was highly likely that Batch 14 would be launched by the end of 2022. Therefore, when allowing a four-month period for orbit raising, an extension to 30 April 2023 should be more than sufficient.

5.4.10 **Mr Hashimoto** noted that the cause of the extension request had occurred only very recently, rendering it impossible for the Administration of France to fulfil its obligations. The updated schedule provided in the document was clear, but he would need further clarification on the precise need for the three-month margin in order to support granting the requested eight-month extension.

5.4.11 **Mr Hoan** joined other speakers in saying that he would be amenable to an extension of the regulatory time-limit until 30 April 2023. The Board had always emphasized that it could not grant extensions to cover additional contingencies. Without clear indication of the need for the three-month margin, the Board could likely not accede to the request as submitted.

5.4.12 The **Chairman** also preferred to align with past decisions and practice and grant an extension only until 30 April 2023. He proposed that the Board conclude on the matter as follows:

“The Board considered in detail the request of the Administration of France as contained in Document RRB22-2/13(Rev.1) and thanked the administration for the detailed information provided in support of its request. The Board noted that:

- the regulatory deadline to bring into use the frequency assignments in the frequency bands subject to Resolution **771 (WRC-19)** was 23 November 2022;
- the construction and testing of the satellite had been completed on 5 April 2022;
- the original launch schedule of the satellite had been planned for 15-30 April 2022, with four months identified for orbit raising using electric propulsion;
- the administration would have been able to meet the regulatory deadline to bring into use the frequency assignments to the AST-NG-NC-QV satellite network in the absence of the cancellation of the launch event with a margin of three months spare;
- the cancellation of the launch of the OneWeb Gen 1 satellite had been due to the introduction of unforeseen international sanctions, which had made it impossible for the administration to fulfil its regulatory obligations;
- the satellite operator had entered into a contract with another launch provider with a new launch date no earlier than October 2022;
- it was not able to grant extensions of regulatory time-limits based on additional contingencies.

Based on the information provided, the Board concluded that the situation satisfied all the conditions to qualify as a case of *force majeure*. Consequently, the Board decided to accede to the request from the Administration of France to grant an extension of the regulatory time-limit to bring into use the frequency assignments to the AST-NG-NC-QV satellite network in the bands 47.2 - 50.2 GHz, 50.4 - 51.4 GHz and 37.5 - 42.5 GHz, which were subject to Resolution **771 (WRC-19)**, until 30 April 2023.”

5.4.13 It was so **agreed**.

## **6 Cases of coordination difficulties and harmful interference**

### **6.1 Submission by the Administration of Türkiye regarding harmful interference from ARABSAT satellite networks at 30.5°E towards TURKSAT satellite networks at 31°E**

**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 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) (Documents RRB22-2/6, RRB22-2/14 and Addenda 8 and 9 to Document RRB22-2/2)**

6.1.1 **Mr Vallet (Chief, SSD)** summarized the report contained in Addendum 8 to Document RRB22-2/2, highlighting that the Administration of Germany had performed the requested space monitoring activities and quickly observed a sweeping continuous-wave carrier in the 13.75 - 14 GHz band. That signal had then disappeared as Germany had been exchanging information with the Bureau and the Administration of Saudi Arabia with a view to a more accurate geolocation. No further reports of harmful interference in that frequency band had since been received.

6.1.2 Turning to Addendum 9 to Document RRB22-2/2, he reported on the online coordination meeting held between the two administrations on 24-25 May 2022. The discussions had been very active and there had been a marked, positive change in the atmosphere. The administrations had exchanged technical proposals in relation to finding a temporary operational arrangement that would decrease the likelihood of harmful interference, but they had agreed on the need for more detailed consideration, involving their

operational teams. A list of action items had been provisionally established, but it would be further agreed by correspondence and finalized at a meeting in July 2022.

6.1.3 Document RRB22-2/6 addressed in part the interference in the 13.75 - 14 GHz band, which had since disappeared, and the status of coordination from the perspective of the Administration of Türkiye. In Document RRB22-2/14, the Administration of Saudi Arabia confirmed that the interference in the 13.75 - 14 GHz band had not been recorded since 1 April 2022 and reported on the status of coordination from its perspective, making suggestions on how the Board might assist further in resolving the coordination difficulties and harmful interference.

6.1.4 The **Vice-Chairman** expressed gratitude to the Administration of Germany for performing the international monitoring activities, which had led to the disappearance of the carrier, saying that intentional harmful interference had been a large part of the problem. **Mr Talib** said, however, that it was not possible to conclude that the harmful interference had been intentional, but its disappearance was certainly good news.

6.1.5 **Mr Talib, Mr Borjón, Ms Hasanova, Ms Beaumier, Ms Jeanty, Mr Varlamov and Mr Hoan** all thanked the Administration of Germany for its space monitoring activities.

6.1.6 **Ms Hasanova** said that the disappearance of the carrier and the increasingly fruitful discussions between the administrations were clearly positive developments. The administrations should be encouraged to continue their coordination efforts and the exchange of the technical information required to facilitate a mutually agreed coordination process. The Bureau should provide support to that end, facilitate future bilateral meetings and report on progress to the 91<sup>st</sup> Board meeting.

6.1.7 Responding to a question from **Ms Beaumier, Mr Vallet (Chief, SSD)** said that no new reports of harmful interference had been received, even though it was clear from the documents and discussions that such interference persisted because of a lack of coordination. It was positive, though, that the administrations had stopped exchanging such documents for the sake of it and seemed more inclined to addressing the underlying issue of coordination.

6.1.8 **Ms Beaumier** said she was pleased by the positive developments and the change in approach reported in the discussions with a view to finding both a long-term solution and a temporary operational arrangement that would decrease the likelihood of harmful interference. One party might have wished for more progress, but the desire of both administrations to find solutions promptly was clearly there. The Board should reiterate its decisions from the previous meeting and be reassured that its guidance was producing results.

6.1.9 **Ms Jeanty** welcomed the positive reports on the fruitful discussions between both administrations, believing that the Bureau had also played a key role in that respect. There was now a clear desire to find solutions. She supported reiterating the decisions of the previous meeting, in particular those relating to coordination in good faith.

6.1.10 **Mr Talib** said that there had been good progress in view of the decisions taken by the Board at its 89<sup>th</sup> meeting, with the potential for more if the next coordination was held in person and if efforts to limit interference in other bands continued. He called for continued coordination, in accordance with RR No. **9.6**, between the two administrations in the same optimistic spirit with a view to resolving the long-standing issue.

6.1.11 **Mr Hashimoto** welcomed the progress made on the interference issue and the administrations' discussion of a temporary operational arrangement to limit interference and establishment of a list of action items. While reaching an agreement in the near future would be difficult, progress had been made, and the two administrations' submissions demonstrated an intention to cooperate and forego the past tactic of mutual recrimination. The Board's conclusion should include elements that further facilitated cooperation.

6.1.12 **Mr Borjón**, noting the progress achieved on the issue, placed great emphasis on the increasing involvement of the operational teams in the discussions. With the support of the Bureau, and further hard work and cooperation from the administrations, a technical solution could be found. The idea of an in-person meeting was a good one, as the Board had seen for itself the benefits of meeting in person; however, it should only be encouraged and not imposed.

6.1.13 **Mr Varlamov** said that the progress achieved on both the interference and coordination aspects showed that the Board had acted wisely at its previous meeting. As the administrations were starting to exchange ideas and information, including at the operational level, and were communicating at the leadership level, a solution seemed within reach. The Board should continue to encourage the administrations to intensify dialogue. The sooner a compromise solution was reached, the sooner their two systems would operate without interference. The Bureau should assist in discussions to that end.

6.1.14 **Mr Hoan** suggested that the Board not spend time analysing the interference referred to in Addendum 8 to the Director's report now that it had stopped. The Board might, however, consider reminding administrations to avoid causing harmful interference, in particular to services currently being used by customers. Regarding coordination, it was positive that the two administrations seemed to accept coordination on the basis of frequency segmentation, but the two points of view remained very different. The Bureau, therefore, should continue to support the administrations in their discussions and emphasize the importance of coordination in ensuring mutually compatible use of orbit and spectrum resources.

6.1.15 **Mr Henri** considered the progress reported in Addenda 8 and 9 to the Director's report very encouraging and a sign that the administrations were putting aside past grievances. The Board should continue to encourage them along the path to a mutually agreed solution for the long-term coexistence of their systems, as they seemed to be now heading in that direction. The Bureau should provide support to that end and facilitate coordination discussions, as coordination was the only way forward and had always been advocated by the Board; it should provide an update at the following Board meeting.

6.1.16 The **Vice-Chairman** suggested that the Board consider including various possible technical solutions that the administrations might consider in their discussion of the temporary operational arrangement to reduce the likelihood of interference, including, but not limited to, frequency segmentation, coverage separation, polarization discrimination or separation, uplink site selection and using the minimum uplink antenna size. Coverage separation might be difficult, however, as a significant overlap made coverage area definition difficult. An effective short-term solution, such as the 50/50 frequency segmentation proposed by one of the administrations, should be applied while the administrations continued to work on the long-term solution, and the Board should provide guidance and encouragement to that end.

6.1.17 **Ms Beaumier** supported giving examples of possible technical solutions but suggested that they be limited to ones that could be reasonably pursued, noting the challenges and complexity that implementing coverage separation would entail in the case; however, their finer details, such as the percentage split under any frequency segmentation, were best left to the administrations to resolve in their coordination discussions.

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

"The Board considered in detail Documents RRB22-2/6, RRB22-2/14 and Addenda 8 and 9 to Document RRB22-2/2, on the coordination efforts and harmful interference between ARABSAT satellite networks at 30.5°E and TURKSAT satellite networks at 31°E. The Board expressed its appreciation for the efforts of the Bureau in organizing and convening a coordination meeting between the Administrations of Saudi Arabia and Türkiye, and for the support provided to the administrations in their coordination efforts, as well as in organizing the space monitoring activities. The Board also thanked the Administration of Germany for its valuable efforts in performing space monitoring and geolocation measurements. The Board noted with satisfaction that the source of unmodulated signals causing intentional harmful interference had been eliminated as a result of the space monitoring actions in the bands 12.5 – 12.75 GHz and 13.75 – 14.0 GHz. The Board further noted with appreciation the initial constructive efforts of the two administrations to address the uncoordinated use of the radio spectrum and orbital resources.

The Board again encouraged both administrations to:

- exercise the utmost goodwill and mutual assistance in the application of the provisions of Article 45 of the ITU Constitution and Section VI of RR Article **15** to eliminate all harmful interference;
- promptly establish an interim agreement to allow the operation of the two satellite systems free of harmful interference, while coordination efforts for their long-term operation were pursued;
- continue their coordination efforts in goodwill and in an equitable manner, taking into account the rule of procedure on RR No. **9.6**, to find mutually acceptable solutions that would eliminate all harmful interference on a permanent basis;
- exchange technical information and pursue all possible technical solutions, including, but not limited to, polarization separation, frequency band segmentation and transmit power level reductions.

The Board instructed the Bureau to:

- continue to support the two administrations in their coordination efforts;
- convene bilateral coordination meetings with the participation and support of the Bureau;
- report on progress in coordination to the 91<sup>st</sup> Board meeting.”

6.1.19 It was so **agreed**.

## **7 Cases of harmful interference**

### **7.1 Submission by the Administration of Japan regarding harmful interference from Russian satellite networks to Japanese satellite networks at 128°E (Document RRB22-2/7)**

7.1.1 **Mr Sakamoto (Head, SSD/SSC)**, introducing the item, drew attention to § 4.4 of the Director’s report (Document RRB22-2/2) indicating that the Administration of the Republic of Korea, which had signed a memorandum of understanding on space monitoring with ITU, had agreed to perform the requested geolocation measurements. No results had been available at the time of writing of the report. However, on 28 June 2022, the Bureau had received a letter from the Satellite Radio Monitoring Centre of the Republic of Korea reporting that three series of geolocation measurements had been performed. Two interference sources had been located in the Sea of Japan and one on the territory of the Russian Federation. On 27 June 2022, the Bureau had received a communication from the Administration of the Russian Federation indicating that it was currently working to identify the source of interference to the JCSAT-3A satellite network and expressing its readiness to interact with the Administration of Japan to find a mutually acceptable solution.

7.1.2 Document RRB22-2/7 contained an update from the Administration of Japan dated 6 June 2022, in which that administration indicated that it had received no communication from the Administration of the Russian Federation since the last Board meeting. It also noted that the interference situation to Japanese satellite networks at 128°E had not improved and might even be deteriorating. It requested the Board to take appropriate action to ensure that the harmful interference ceased.

7.1.3 The **Chairman** observed that, since Document RRB22-2/4 had been written, new information had been provided from the Administration of the Republic of Korea. A reply had also been received from the Administration of the Russian Federation.

7.1.4 **Mr Talib, Ms Hasanova, Mr Azzouz, Ms Jeanty and Ms Beaumier** thanked the Administration of the Republic of Korea for having performed the geolocation measurements.

7.1.5 **Mr Talib** welcomed the recent communication from the Administration of the Russian Federation and, with the administrations concerned now ready to cooperate in resolving the interference situation, suggested that a coordination meeting or exchanges be held under the auspices of the Bureau, the results of which should be reported to the next meeting of the Board.

7.1.6 **Ms Hasanova** was pleased that the Administration of the Russian Federation had indicated its readiness to interact with the Administration of Japan. The two administrations should be encouraged to hold a coordination meeting.

7.1.7 **Mr Azzouz** encouraged the concerned administrations to work together to resolve the interference issue. The Bureau should continue to support both administrations in their coordination efforts and facilitate the holding of a meeting. It should also report any progress to the next meeting of the Board.

7.1.8 **Ms Jeanty** welcomed the willingness expressed by the Russian Federation in its recent communication to coordinate with Japan to resolve the issue. As the two administrations were willing to work together to find a solution, there was no need to involve the Bureau at the present juncture.

7.1.9 **Ms Beaumier** said that she had similar views to Ms Jeanty, adding that, given the developments, the parties should be left to work together to find a mutually acceptable solution. It was not necessary at the present stage to burden the Bureau with organizing a meeting; any further concerns could always be reported to the Board.

7.1.10 The **Chairman** agreed that it was not necessary at the present stage to burden the Bureau with organizing a coordination meeting.

7.1.11 The **Director** said that the case under discussion demonstrated the importance of agreements with international space monitoring stations. The identification of the interference source by a neutral third party under the auspices of the Bureau was credible and administrations tended to react positively. The Bureau would continue extending its network of monitoring stations and was very close to signing an agreement with a new monitoring station in the Arab States region.

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

“The Board considered § 4.4 of Document RRB22-2/2 and Document RRB22-2/7, on harmful interference from Russian satellite networks to Japanese satellite networks at 128°E. The Board expressed its appreciation for the efforts of the Bureau in organizing the space monitoring efforts and thanked the Administration of the Republic of Korea for performing the space monitoring and geolocation measurements. The Board noted with satisfaction the response from the Administration of the Russian Federation, which was now ready to interact with the Administration of Japan to seek mutually acceptable solutions and had investigated the issue of harmful interference to the Japanese satellite networks at 128°E. The Board encouraged both administrations to pursue their efforts in good will to resolve the case of harmful interference and to exchange technical information that would assist in finding solutions to the issue. The Board instructed the Bureau to assist the two administrations in their efforts and to report on progress to the 91<sup>st</sup> Board meeting.”

7.1.13 It was so **agreed**.

## **7.2 Submission by the Administration of 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 (Document RRB22-2/10)**

7.2.1 **Mr Vassiliev (Chief, TSD)**, introducing the item, drew attention to § 4.3 of the Director’s report (Document RRB22-2/2), which outlined the Bureau’s efforts to convene a bilateral coordination meeting pursuant to the Board’s decisions at its 89<sup>th</sup> meeting. The Bureau had written to the Administrations of the United Kingdom and China on 7 April 2022 suggesting meeting dates and had received a reply from the Administration of the United Kingdom on 11 April expressing surprise and disappointment at the Board’s conclusions. It had requested the Bureau to convey to the Chinese Administration its view that the meeting would be limited to establishing the source of harmful interference and should not be referred to as a “coordination meeting/efforts”. It had also requested the Chinese Administration to provide a clear statement accepting the conclusion of the Board’s 87<sup>th</sup> meeting and to detail what measures had been undertaken to eliminate the harmful interference. The Administration of the United Kingdom had indicated that it could not agree to a meeting without acceptance of those established facts and common principles. The Bureau had conveyed that information to the Chinese Administration on 19 April 2022, and although that administration had already accepted to participate in the proposed meeting, it had written to the Bureau

on 29 April 2022 indicating that it disagreed with the limitation of scope. It had, however, expressed its readiness to pursue the coordination efforts and suggested changing the title of the proposed meeting to “Cooperation meeting”. Those comments had been forwarded to the Administration of the United Kingdom on 9 May 2022, but no feedback had been received by the Bureau at the time of writing the report.

7.2.2 Document RRB22-2/10 dated 6 June 2022 contained a submission from the Administration of the United Kingdom, in which that administration indicated that it had responded to the comments of the Chinese Administration in that submission. It also set out in the tables in Annex A individual and specific occurrences of harmful interference to coordinated and published HF broadcasting stations and invited the Board to decide on breaches of the Radio Regulations in respect of those stations. The tables showed that man-made noise (QRM) had been heard and indicated the location/vicinity of the interfering station. In case two, the location identified was near Lhasa, in Tibet, which was unusual but not implausible.

7.2.3 Responding to questions from **Mr Varlamov** and **Mr Azzouz**, he said that the Administrations of the United States and Australia referred to in the tables were not the target of interference but had been asked by the Administration of the United Kingdom to undertake monitoring. Those administrations had also been involved in the international monitoring campaign in May 2021. The main zone for the interference cases to British Broadcasting Corporation (BBC) emissions was Asia. Because of the long-distance propagation of HF transmissions, both the BBC emissions and the interference could be detected from far-off locations, including Australia and the United States and also the United Kingdom. China had responded to Document RRB22-2/10 through Document RRB22-2/DELAYED/2, which the Board had decided to defer to its next meeting. The start and stop time in the tables referred to the monitoring of interference. According to the Administration of the United Kingdom, the interference had continued for quite some time. As the interference tended to occur at specific times, the Administrations of Australia, the United Kingdom and the United States could have coordinated to perform measurements to identify the interference source. As to whether the interference could be from natural sources, he said that, in his view, given the type of noise detected, the interference was likely to be created by a radio station.

7.2.4 **Mr Azzouz** pointed out that some small power transmissions intended to cover a specific area might see their power increase because of ducting phenomena.

7.2.5 **Ms Jeanty** said that, in hindsight, the Board perhaps should not have instructed the Bureau to convene a bilateral “coordination” meeting, particularly as coordination was undertaken by the biannual meetings of the High Frequency Coordination Conference. It had obviously created confusion, although the Board had only intended to indicate that a bilateral meeting should be held under the auspices of the Bureau.

7.2.6 **Mr Borjón**, asked whether the information provided by the Administration of the United Kingdom in Document RRB22-2/10 was sufficient to respond to the request from the Administration of China on 29 April 2022 for more detailed technical information. If not, he asked what further technical information would be helpful in order to eliminate the harmful interference.

7.2.7 **Mr Vassiliev (Chief, TSD)** said that after the Board’s last meeting, the Administration of China had asked for measurements of the field strength of the interference signal. The Bureau had forwarded the request to the Administration of the United Kingdom but had not received any measurements. During conversations, the Administration of the United Kingdom had indicated that, given the nature of the interference (for example mechanical noise), measurement of the interference signal was unnecessary. Furthermore, a complex procedure would have to be followed to measure the interference signal. Those reasons might explain why that administration had not provided the interfering field strength.

7.2.8 **Mr Azzouz** said that it was important to know the level of interference, and the affected administration might have to switch off the station to measure the field strength. Noting that the Administration of China had objected to the description of the meeting suggested by the Administration of the United Kingdom, he said that the source of interference had to be identified in order to resolve any interference issue.



7.2.9 The **Chairman**, recalling that the issue had already been considered by the Board at several meetings, said that the Board should focus on how to resolve the interference and lack of agreement between the administrations. In its decision, it might wish to invite the two administrations to meet without specifying the scope or title of the meeting, which could be decided by the administrations themselves. It might also wish to reiterate certain elements of its previous decision, including that the results of the international monitoring campaign had confirmed the claims by the Administration of the United Kingdom, and to request the Administration of China to take every possible measure to eliminate the interference.

7.2.10 **Ms Jeanty** agreed with the suggestions of the Chairman, pointing out that the aim was to get the parties to meet and attempt to resolve the issue.

7.2.11 **Ms Hasanova** supported the Chairman's suggestions, as did **Mr Azzouz**, who agreed that a general title was better than no meeting.

7.2.12 The **Director** said that the Board should refrain from qualifying the meeting in any way since that could discourage one of the parties from participating. Once the administrations held a meeting, they could decide on an agenda and try to agree on a way forward.

7.2.13 **Ms Beaumier** said that she had no difficulty with the Chairman's suggestions and agreed that the objective was to ensure that the parties met. The Board's reference in its previous decision to a bilateral "coordination" meeting had, in hindsight, not necessarily been appropriate. She noted that efforts had been made under the auspices of the Bureau to convene a bilateral meeting and that the HF broadcasting stations of the United Kingdom, which had been fully coordinated and published in accordance with RR Article 12 continued to experience harmful interference, as confirmed by measurements at several monitoring stations. Furthermore, the international monitoring campaign had clearly identified sources of harmful interference located within the territory of China. A new element brought to the Board's attention was the fact that the characteristics of the interfering signals were not from natural sources or consistent with those of broadcasting signals, which might suggest deliberate actions to cause harmful interference to the frequency assignments of another administration in direct contravention of RR No. 15.1. Accordingly, the Board's decision needed to be stronger. The Board should urge the Administration of China to promptly implement adequate measures to eliminate harmful interference to HF emissions of the United Kingdom, urge both administrations to exercise the utmost goodwill and spirit of cooperation and instruct the Bureau to continue its efforts to convene a bilateral meeting to review the results of the international monitoring campaign and facilitate discussion to resolve the cases of harmful interference.

7.2.14 **Ms Jeanty** agreed that the Board's previous decisions on the issue had been quite cautious and now needed to be firmer and should include a reference to RR No. 15.1.

7.2.15 In response to a question from the **Chairman**, **Mr Azzouz** said that it might be better not to be so prescriptive regarding the title and scope of the bilateral meeting.

7.2.16 The **Director** said that the Board should acknowledge in its conclusion the harmful interference which had been detected by the international monitoring campaign. The objective of the meeting, i.e. to address the interference situation, needed to be made clear. Following a suggestion from **Mr Varlamov**, he said that a meeting was slightly different to consultations, since both parties would be present at the former, not necessarily at the latter.

7.2.17 In response to a suggested meeting title from **Mr Mchunu**, the **Chairman** said that the wording "resolve any difficulties", which was the language used in RR No. 9.3, was not specific enough; the parties needed to address the interference situation.

7.2.18 Responding to a question from the **Chairman**, **Ms Beaumier** said that in addition to the comments to the meeting from the Bureau, the audio files submitted by the administrations that had undertaken the monitoring were sufficient to confirm the characteristics of the interfering signals. **Ms Jeanty** added that, in her recollection, audio fragments had been provided to a previous meeting.

7.2.19 **Mr Borjón** pointed out that the Board did not have sufficient evidence to conclude that the harmful interference was intentional. **Mr Azzouz** and **Mr Hoan** concurred with that view, as did **Mr Talib**, who suggested that reference in the decision to contravention of RR. No. **15.1** was sufficient.

7.2.20 **Mr Vassiliev (Chief, TSD)** said that, as far as he was aware, no document existed to indicate that the signals were not from natural sources. However, the types of noise monitored in the international monitoring campaign often coincided with the time of BBC transmissions. Furthermore, according to the Administration of the United Kingdom, those noises had been continuing since 2013, whereas natural noise was random and would not occur at the same time in the same frequencies and CIRAF zone. The international monitoring campaign had confirmed that such signals occurred on certain frequencies used by one broadcaster (BBC) in specific CIRAF zones, and the origin of those signals had been identified in one specific country. In the light of those elements, it might therefore be concluded that the interfering signals were man made.

7.2.21 **Ms Beaumier** said that in its previous decisions on the issue the Board had been quite vague; it now needed to be more specific in its observations given the limited progress made by the parties. If it was quoting RR No. **15.1**, it was difficult to assume that the interference could be anything other than intentional.

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

“The Board considered § 4.3 of Document RRB22-2/2 and Document RRB22-2/10, on harmful interference to emissions of United Kingdom high frequency (HF) broadcasting stations published in accordance with RR Article **12**. The Board noted that:

- the Bureau had made efforts to convene a bilateral meeting between the Administrations of China and the United Kingdom, which had been unsuccessful;
- the HF broadcasting emissions of the United Kingdom, which had been fully coordinated and published in accordance with the provisions of RR Article **12**, continued to experience harmful interference;
- measurements from monitoring efforts, including measurements by stations of the international monitoring system, had confirmed the existence of harmful interference originating from within the territory of China;
- results of the monitoring measurements indicated that the characteristics of the interfering signals would not be from natural sources or consistent with those of broadcasting signals;
- operation of stations that carry unnecessary emissions was in direct contravention of RR No. **15.1**.

Consequently, the Board urged the Administration of China to promptly implement adequate measures to eliminate all harmful interference to the HF emissions of the United Kingdom. The Board furthermore urged both administrations to exercise the utmost goodwill and spirit of cooperation, to resolve the cases of harmful interference.

The Board instructed the Bureau to:

- continue efforts to convene a bilateral meeting between the Administrations of China and the United Kingdom to facilitate discussions and to address the cases of harmful interference;
- continue to provide support to the two administrations;
- report on any progress to the 91<sup>st</sup> Board meeting.”

7.2.23 It was so **agreed**.

**8 Submission by the Administration of Japan requesting a change in the BR IFIC publication procedure of non-GSO satellite networks/system filings in the band 17.3-17.8 GHz not subject to epfd limits or the coordination procedure contained in Section II of Article 9 of the Radio Regulations (Document RRB22-2/4)**

8.1 **Mr Sakamoto (Head, SSD/SSC)**, introducing the submission by the Administration of Japan contained in Document RRB22-2/4, said that the administration was requesting a change in the BR IFIC publication procedure for the filings of non-GSO satellite networks/systems in the 17.3 - 17.8 GHz band that were not subject to epfd limits or the coordination procedure contained in Section II of RR Article 9. According to the Administration of Japan, such filings were not being consistently published in the API/A special section and were sometimes published in API/C, which made it more difficult for administrations to protect GSO systems, in particular those in the feeder links for the broadcasting-satellite service (BSS), from harmful interference at an early stage.

8.2 **Mr Henri** understood that the specific band most in question was the 17.7 - 17.8 GHz band, which was not subject to coordination in Region 2 in the space-to-earth direction and therefore was published for information only for the Region 2 service area. Confusion seemed to have been created with frequency assignments with a bandwidth extending over the 17.7 - 17.8 GHz in Region 2, which overlapped with frequency bands subject to coordination. Those frequency assignments should normally have been split and published separately, but such separation might not have been done in some publications. He asked the Bureau to elaborate on the issue and the request. **Ms Jeanty** also sought an answer along those lines and asked whether the request made by the administration was in line with the Radio Regulations.

8.3 **Mr Sakamoto (Head, SSD/SSC)** said that the request did indeed relate more specifically to the 17.7 - 17.8 GHz band in Region 2, in which non-GSO FSS assignments were not subject to coordination under Section II of RR Article 9. Therefore, advance publication information should be published in API/A to allow comment by other administrations on possible issues, such as the potential for harmful interference. Since WRC-15, however, the Bureau had not been performing strict scrutiny when validating the completeness of filings. Whereas assignments in that band should have been separated from overlapping assignments and published in API/A, they had at times been published as part of the larger frequency assignments in API/C and, consequently, CR/C special sections. The Bureau had noticed the problem, though, and, since April 2022, had been strictly distinguishing between the relevant bands for the regions and, therefore, separating the API/A publications for the 17.7-17.8 GHz band for Region 2.

8.4 Given the reference made in the publications to the METHERA-E satellite network in the 17.3 - 17.7 GHz band, the administration appeared, however, also to be seeking the Board's consideration of the general question of the publication of non-GSO FSS information in those bands from the point of view of administrations with GSO, and in particular BSS feeder link systems. Under RR No. **22.2**, non-GSO systems should not cause unacceptable interference to GSO networks, but cases of harmful interference were only dealt with at the operational stage. The Japanese Administration was seeking a mechanism, such as publication in API/A, whereby they could comment on assignments at the publication stage and address the potential for harmful interference much earlier. There was, however, no such provision under the Radio Regulations that would allow administrations to comment on GSO networks following the publication of the above-mentioned non-GSO FSS systems.

8.5 **Mr Azzouz**, noting that ITU-R Working Party 4A had considered the issue and decided against including the matter as a topic under WRC-23 agenda item 7, said that a solution to the issue would be to instruct the Bureau to publish non-GSO systems as a matter of course in API/A, rather than API/C, thereby allowing administrations to comment at time of publication and protect their GSO systems and associated BSS feeder links from harmful interference from non-GSO systems. Such a solution, though, appeared to be in conflict with the Radio Regulations. Consequently, the Board or the Director might consider reporting to WRC-23 on the matter and suggesting amending the Radio Regulations to require coordination under RR No. **22.2** at the publication stage, as only WRC had the mandate to make such amendments.

8.6 **Mr Hoan** said that the Bureau appeared to have resolved the specific case of non-GSO FSS systems in the 17.7-17.8 GHz band not subject to coordination being erroneously published in API/C as part of overlapping assignments. With regard to the more general issue, he shared the administration's concern

about having to resolve harmful interference at the operational stage and acknowledged that advance information of networks not subject to coordination could provide mechanisms for administrations to resolve issues at an earlier stage and prevent such interference. There were, however, cost recovery implications in that approach, and so the Board could not instruct the Bureau to convert API/C publications to API/A. The Board might, though, instruct the Bureau to draw the attention of administrations concerned to the requirement under RR No. **9.1** to send to the Bureau a general description of a network or system not subject to coordination under Section II of RR Article **9**. The Board should also offer general guidance to administrations with GSO systems and consider including the issue in the report on Resolution **80 (Rev.WRC-07)** to WRC-23.

8.7 **Ms Beaumier** similarly noted that the Bureau appeared to have resolved the issue of the inconsistent treatment of non-GSO filings in the 17.7 - 17.8 GHz band but sought clarity on how exactly it was dealing with those filings. She expressed her great sympathy for the objective pursued by the Administration of Japan, namely to avoid and eliminate harmful interference at the earliest possible stage, the basic premise of the Radio Regulations. The Board, however, could not give instructions to the Bureau that would have the effect of deviating from the Radio Regulations or amending RR No. **22.2** unless there was an urgent need to address an incoherence or contradiction. The fact that ITU-R Working Party 4A could not agree to take the issue on as a WRC-23 topic clearly indicated that the Board was not in a position to accede to the request. However, she suggested that the Board could include the issue in the report on Resolution **80 (Rev.WRC-07)** to WRC-23 if it believed the request had merit.

8.8 **Mr Varlamov** stressed that the Bureau should act in strict compliance with the Radio Regulations. If required to publish frequency assignments in a particular band in a given region in API/A or API/C, it did so and should not be instructed to do otherwise. The Administration of Japan's request ultimately required the Board to amend the Radio Regulations, which it could not do. The administration's desire to address potential harmful interference at the earliest stage was understandable, but notifying administrations were not obliged to go beyond the provisions of RR No. **22.2**. Working Party 4A had elected not to include the issue in the list of topics for consideration under WRC-23 agenda item 7, but if the Administration of Japan was requesting a change to the application of RR No. **22.2**, that request should be made through WRC. The Board was certainly not in a position to accede to it. In relation to the processing of filings in or overlapping the 17.7 - 17.8 GHz band in Region 2, he requested further clarification from the Bureau on the process involved and if there were any cost-recovery implications.

8.9 The **Chairman** concurred that the Board did not have the authority to instruct the Bureau to deviate from the Radio Regulations or to modify RR No. **22.2**, which could only be done at a WRC.

8.10 **Mr Sakamoto (Head, SSD/SSC)** said that, once the inconsistent treatment and publication of some frequency assignments for which coordination under Section II was not required had come to light, the Bureau had adopted a new practice of scrutinizing submissions much more closely and requesting administrations to separate assignments that should be published in API/A from those to be published in API/C. Some administrations had already done so, and their assignments had been published correctly, but those assignments that had not been separated in advance by the administrations had at times been published in the wrong special section.

8.11 Responding to a question from **Mr Azzouz**, he said that it would be difficult and time consuming to find all instances of assignments incorrectly published, even if for only the 17.7 - 17.8 GHz band, but that the Bureau could do so for the following meeting if requested by the Board.

8.12 Responding to a question from **Ms Beaumier**, he further said that he did not understand the reference to the publication of the METHERA-C satellite network in the 21.4 - 22 GHz band, as it had been processed and published correctly, and suggested that it had been included because it was a BSS frequency band.

8.13 **Ms Beaumier** said that the new practice adopted by the Bureau would address the concerns of the Administration of Japan regarding that particular band by allowing it to comment on non-GSO FSS filings at the publication stage under RR No. **9.3**. It was not necessary to revisit old publications to identify filings that had been processed and published incorrectly. As it was a new practice, the Board could endorse it and consider adopting a rule of procedure if it led to no issues. Another solution might have been for WRC to consider amending RR No. **9.52.1** to allow commenting in those circumstances, but that might be redundant given the new practice of the Bureau.

8.14 **Mr Henri** understood that the concerns of the Administration of Japan should be in part alleviated by the Bureau now processing and publishing frequency assignments in strict compliance with the Radio Regulations. He was unsure whether the Bureau's increased scrutiny of the filings should be described as a new practice, though; rather, it was a normal and correct application of the regulations, whereby the Bureau asked administrations to separate assignments which were not subject to coordination and should be published in API/A from those which were subject to coordination and should be published in API/C. Nevertheless, he thanked the Bureau for now ensuring correct application of the Radio Regulations.

8.15 Evidently, the Administration of Japan was seeking a formal mechanism that would allow it to raise issues of potential for harmful interference to its GSO BSS systems at an earlier stage. For that, though, it would have to submit relevant proposals to WRC. In conclusion, he was not in a position to accede to the Japanese request. It was important to note, moreover, that RR No. **22.2** was a pillar of GSO/non-GSO FSS sharing and, in his view, should not be considered for any review at that stage.

8.16 Responding to a question from the **Chairman, Ms Beaumier**, as Chairman of the Working Group on the Report on Resolution **80 (Rev.WRC-07)** to WRC-23, said that there was no need to include the issue in the report as the Bureau's increased scrutiny of the filings addressed the main concern of the administration by allowing it to comment on the relevant assignments. Modification of RR No. **22.2** was not something that should be taken on either. **Ms Jeanty** shared that view.

8.17 The **Chairman** proposed that the Board conclude as follows:

"The Board considered in detail the request from the Administration of Japan, as contained in Document RRB22-2/4, and thanked the administration for having brought the matter to its attention. The Board noted that:

- it did not have the authority to amend the provisions of the Radio Regulations nor to instruct the Bureau to deviate from the provisions of the Radio Regulations;
- ITU-R Working Party 4A at its meeting in May 2022 had not agreed to create a new topic under WRC-23 agenda item 7 to address the matter;
- in April 2022, the Bureau had introduced a new verification measure, which had resulted in dividing the frequency bands of notices into those that were subject to coordination procedures under Section II of RR Article **9** and those not subject to those coordination procedures, and publishing each in its relevant special section accordingly;
- the new verification measure afforded administrations the opportunity to comment on cases where it had previously not been possible, i.e. for non-GSO FSS satellite systems in Region 2 in the frequency band 17.7 – 17.8 GHz.

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

8.18 It was so **agreed**.

## **9 Submission from the Administration of the Russian Federation on the examination by the ITU Radiocommunication Bureau of notifications for frequency assignments to IMT stations with active antenna arrays in the frequency band 24.25-27.5 GHz (Document RRB22-2/9)**

9.1 **Mr Bogens (Head, TSD/FMD)** introduced Document RRB22-2/9, containing a proposal from the Russian Federation concerning notifications for frequency assignments to International Mobile

Telecommunications (IMT) stations with active antenna arrays in the mobile service in the band 24.45 - 27.5 GHz. Since the decision of WRC-19 concerning new frequency bands for IMT deployment had entered into force on 1 January 2021, administrations had the right to notify IMT stations with active antenna arrays in the frequency band 24.45 - 27.5 GHz, and 1 458 frequency assignments to stations in the land mobile service in that frequency band had already been recorded in the MIFR. As set out in Document 550 of WRC-19, the conference had invited ITU-R to study the verification of RR No. **21.5** regarding the notification of IMT stations that used an antenna consisting of an array of active elements. The first session of the Conference Preparatory Meeting for WRC-23 (CPM23-1) had charged Working Party 5D (WP5D) to conduct the studies, which were still ongoing. There was therefore uncertainty about how to fill in item 8AA “power delivered to the antenna” (Appendix 4, Table 1) for notifications of frequency assignments to IMT stations with active antenna arrays. In the absence of one agreed format for notifications, there was a high risk of infringing the current limits, particularly in RR No. **21.5** and causing interference to satellite reception in the frequency band 24.45 – 27.5 GHz from IMT stations. Accordingly, until ITU-R had decided on the notification format for frequency assignments to stations with active antenna arrays, the Administration of the Russian Federation was proposing that frequency assignments to mobile-service stations in the frequency band 24.45 - 27.5 GHz should be recorded in the MIFR with a qualified favourable finding under RR No. **11.31**.

9.2 In response to a question from the **Chairman**, he said that the ongoing studies in WP5D were not confined to the frequency band 24.45 - 27.5 GHz and were still at the draft stage. Views varied among participants, and three different approaches were under consideration for verification of RR No. **21.5**: Approach 1 based on total radiated power with a specific reference bandwidth, Approach 2 based on the conducted power delivered by a single transmitter within the active antenna system (AAS) and proposing no change to RR No. **21.5**, and Approach 3 based on either conducted power delivered by a single transmitter or TRP. For Approach 3 discussion on a specific reference bandwidth should be concluded. The aim was to finalize the issue during the first meeting of WP5D in 2023 and the outcome would be reported to the Director.

9.3 The **Chairman**, noting that the issue raised in the submission from the Russian Federation was of general interest and not specific to one administration, said that Mr Varlamov was free to intervene in the discussion.

9.4 **Mr Hashimoto** thanked the Administration of the Russian Federation for bringing the issue to the Board’s attention and noted that the outcome of the ITU-R studies would be included in the report of the Director to WRC-23. It was his understanding that there were more than 1 400 frequency assignments currently recorded in the MIFR and categorized as general land mobile stations, not specifically as IMT, for which the value under item 8AA would not exceed 10 dBW. If that understanding was correct, he could agree to grant a qualified favourable finding to such stations, with an additional remark by the Bureau as required. He sought confirmation from the Bureau.

9.5 **Mr Hoan**, having thanked the Administration of the Russian Federation for raising the matter, said that WP5D had discussed the issue at six meetings but had not yet reached agreement. To avoid causing interference to satellite reception in the frequency band 24.45 - 27.5 GHz from IMT stations, he agreed that, until ITU-R had decided on the notification format for frequency assignments to stations with active antenna arrays, frequency assignments to mobile-service stations in the frequency band 24.45 - 27.5 GHz should be recorded in the MIFR with a qualified favourable finding under RR No. **11.31**. Consideration should also be given to developing a rule of procedure on implementation of the interim solution for the notification of IMT stations using active antenna arrays in the 26 GHz band until WRC-23.

9.6 **Mr Azzouz** said that the study period between WRC-19 and WRC-23 was studying compatibility between the new entrant (identification for IMT) and existing services in the same and adjacent bands. While power should not exceed +13 dBW in bands between 1 GHz and 10 GHz and +10 dBW in the bands above 10 GHz as provided for in RR No. **21.5**, one of the difficulties faced by WP5D was in identifying the exact equivalent isotropically radiated power (e.i.r.p.) from an antenna that consisted of an array of active elements. However, delaying the implementation of IMT stations would affect digital transformation and attainment of the Sustainable Development Goals (SDGs). Accordingly, such stations should continue to be recorded; any potential interference issues could be addressed under RR Article **15**. The Bureau should

encourage WP5D to finalize its work as soon as possible and the outcome of the studies should be reported to WRC-23.

9.7 **Mr Varlamov** said that the issue was similar to the situation that had arisen in the past concerning the calculation of efpd limits when a qualified favourable finding had been granted, prior to the development of methodology, adoption of Recommendation ITU-R S.1503 and review of certain cases. Such an approach was normal practice in the absence of a decision from WRC or of specific figures or criteria. Granting a qualified favourable finding under RR No. **11.31** would not delay the development of IMT systems, which would continue, and there would be an opportunity to register the stations of such systems. Such a solution would ensure compliance with the Radio Regulations and promote the development of advanced technologies in achieving the SDGs and digital transformation.

9.8 Responding to questions from **Mr Hashimoto** and **Ms Jeanty**, **Mr Bogens (Head, TSD/FMD)** said that, based on the decision of WRC-19, the nature of service code "IM" was used for IMT stations. The 1 458 frequency assignments were notified with another nature of service code "CP". Those 1 458 frequency assignments had not been notified as IMT and it was very difficult for the Bureau to determine whether they were IMT or other types of land mobile-service stations. Given those difficulties, it was his understanding that the Russian Federation proposal was to apply to all land mobile stations.

9.9 **Ms Beaumier** asked whether WRC-19 had considered how to treat notices received between two conferences or whether there was an oversight. While the proposal of the Russian Federation was to apply a qualified favourable finding to future notifications, she asked whether it also envisaged to change the findings of the 1 458 notices already processed from favourable to qualified favourable and whether, once a decision had been taken by WRC-23, the Bureau would review the findings in any event and if RR No. **11.50** would be applicable. She noted that the Bureau could either suspend the treatment of notifications until a decision was made or apply a qualified favourable finding but the former was not desirable as it would delay the deployment of important services.

9.10 **Mr Bogens (Head, TSD/FMD)** said that WRC-19 had invited ITU-R to study the issue as a matter of urgency for one-year, i.e. before the conference decisions entered into force on 1 January 2021. However, the discussions were taking much longer than anticipated in WP5D because of the different options and approaches, including the view that there was no issue and no increased potential of harmful interference. If a decision was taken by WRC-23, the Bureau would be in a position to review the findings in accordance with RR No. **11.50**. If the Board decided to apply the qualified favourable finding to all land mobile assignments, he was uncertain whether it would be possible, from a legal standpoint, to review the 1 458 assignments already recorded.

9.11 **Ms Beaumier** said that she was still unclear as to whether the Russian proposal for a qualified favourable finding was to also apply to the 1 458 assignments already recorded. She pointed out, however, that WRC-23 could decide to review the findings if it saw fit. Perhaps there was therefore no need to grant any qualified favourable finding at present; that would complicate a review of the findings following a decision of WRC-23 since the same type of assignment might have a different finding based on when it had been received.

9.12 **Mr Azzouz**, having thanked the Bureau for its clarifications, said that he had the same concerns as Ms Beaumier and asked how the Bureau had been recording the stations since 1 January 2021 and whether they had been recorded as IMT stations.

9.13 **Mr Bogens (Head, TSD/FMD)** said that the Bureau's current practice was to examine the assignments vis-à-vis the limits set out in No. RR **21.3** (maximum e.i.r.p.) and No. RR 21.5 (power delivered to the antenna). It did not distinguish whether the stations were IMT stations or other types of land mobile-service stations and had not received any stations notified with the "IM" nature of service code.

9.14 **Mr Azzouz** said that the stations should continue to be recorded in the MIFR pending a decision by WRC-23.

9.15 The **Chairman** said that while the Board might agree to record the assignments with a qualified favourable finding, WRC-23 could decide otherwise. It might therefore be preferable to await a decision of the conference.

9.16 **Mr Varlamov** said that WRC-19 had invited ITU-R to study the issue as a matter of urgency for one year, which it would have deemed sufficient to resolve the issue before the WRC-19 decisions had entered into force on 1 January 2021. It was his understanding from the submission that a qualified favourable finding was to be applied to all frequency assignments recorded since 1 January 2021 because, in fact, there was no difference between IMT stations with an “IM” nature of service code and general mobile-service stations with antenna using an array of active elements, since the Bureau could not verify the power delivered to the antenna as provided for in RR No. **21.5** in the absence of an agreed methodology. The Bureau could always review the findings in the light of the decision taken by WRC-23, if necessary.

9.17 **Mr Vassiliev (Chief, TSD)** said that the Administration of the Russian Federation was not seeking a classical review of findings. The 1 458 assignments had been recorded in the MIFR with favourable findings; they had full rights to operate and other administrations should take them into account when assigning their own stations. Nothing would change by granting a qualified favourable finding except that the assignment would be flagged by the Bureau indicating the need for review. The notifying administration, once the methodology was approved by a WRC and had entered into force, would be requested to confirm that the value under item 8AA was in accordance with the approved methodology. It was logical for all the assignments already recorded to also be flagged in the interests of consistency.

9.18 **Mr Hashimoto** and **Mr Hoan** said that, in the light of the clarifications provided and the fact that a qualified favourable finding might not facilitate the work of the Bureau, they wished to revise their earlier position and would not support the Russian proposal.

9.19 **Mr Vassiliev (Chief, TSD)**, responding to comments from **Mr Azzouz** regarding differences between IMT stations and general mobile stations, said that the recorded stations were not identified as IMT stations and it was not clear whether or not the antennas used were adaptive. While use of the “IM” nature of service code was not mandatory, it was possible to deduce from the characteristics of the stations that the majority were IMT stations. The potential disadvantage of leaving the situation as it stood and not flagging as qualified the 1 458 assignments already recorded was that any mistakes under item 8AA would not be detected and could result in causing interference to satellite reception.

9.20 The **Chairman** asked whether it was the right time for the Board to take a decision; it might be preferable for the studies to be completed and await a final decision from WRC-23.

9.21 **Ms Jeanty** said that she would prefer to await the outcome of the studies and decision of WRC-23, particularly as it was not very long until the conference.

9.22 **Ms Hasanova** said that, having heard the explanations from the Bureau, she was concerned that the qualified favourable finding would apply to the recorded assignments. She would therefore prefer not to take a decision at the current meeting and to await the completion of the studies in WP5D and the decision of WRC-23.

9.23 **Mr Talib** thanked the Administration of the Russian Federation for bringing the matter to the Board’s attention and the Bureau for the additional information provided. Noting that the studies in WP5D were ongoing, he said that the Board should not take a decision at the current meeting.

9.24 **Ms Beaumier** understood that, by not flagging the assignments, there could be a risk of overlooking a station without the right power levels that could cause interference. However, she questioned whether the assignments needed to be flagged by means of a qualified favourable finding, particularly if a review was to be undertaken after the decision of WRC-23 under RR No. **11.50**. Perhaps they could be flagged with a remark inviting the administration to clarify whether the assignments were for IMT stations with active antenna arrays.



9.25 **Mr Vassiliev (Chief, TSD)** said that such an approach could be a good option but noted that, as the allocations or conditions of use would not have been changed by the conference, the findings would not be reviewed under RR. No. **11.50**. The Bureau might instead request the notifying administration to confirm that the notifications recorded in the MIFR were in accordance with the methodology approved by the conference for determining item 8AA.

9.26 **Mr Varlamov** thanked Ms Beaumier for her suggestion and expressed support for a remark inviting administrations to confirm that the methodology used was consistent with that approved for determining item 8AA.

9.27 **Ms Hasanova** said that she would also support the provision of such a remark.

9.28 Following comments from the **Chairman** and **Mr Azzouz, Mr Vassiliev (Chief, TSD)** said that although the identification of IMT notifications started at 24.25 GHz, the methodology would be applicable from 24.45 GHz, which was where the limit verified under RR No. **21.5** began. The Bureau would continue to process any notifications for land mobile-service stations in the band 24.25 - 27.5 GHz with a favourable finding and insert a remark to review such frequency assignments once the methodology had been approved. As the nature of service code was not mandatory, the Bureau would not know whether or not the assignments were for IMT stations, and administrations would be requested to confirm that item 8AA was in accordance with the approved methodology for determining the power delivered to the antenna for IMT stations. The Bureau would be pleased to report to the Board on the completion of the activities.

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

“With reference to Document RRB22-2/9, the Board considered the request from the Administration of the Russian Federation and thanked it for bringing the matter to its attention. The Board noted that:

- CPM23-1 had charged ITU-R Working Party 5D to study, as a matter of urgency, the methodology of filling in item 8AA of notifications for frequency assignments to IMT stations with active antenna arrays in the frequency band 24.25 - 27.5 GHz;
- the issue was still under study in ITU-R Working Party 5D and, once completed, the outcome of the study would be submitted to the Director;
- the 1 458 frequency assignments to mobile stations in the band 24.25 - 27.5 GHz recorded in the MIFR had not been identified as IMT, and it was unclear what type of antenna system was used by those assignments;
- changing the finding of the 1 458 frequency assignments from “favourable” to “qualified favourable” would not necessarily facilitate the review of the frequency assignments subsequent to a decision of WRC-23.

Consequently, the Board decided not to accede to the request from the Administration of the Russian Federation; however, the Board instructed the Bureau to:

- provide a remark to the 1 458 recorded frequency assignments and future frequency assignments to land mobile service stations in the band 24.45 - 27.5 GHz received until the methodology was completed and approved, indicating the need to review such frequency assignments once the ITU-R Working Party 5D studies were completed;
- request the notifying administration, once the methodology was approved by a WRC and had entered into force, to confirm that the value of the power to the antenna (8AA) in the assignment was in accordance with the approved methodology for determining item 8AA for IMT stations, in the band 24.45 - 27.5 GHz, with antennas that consisted of an array of active elements (see Document 550 of WRC-19).”

9.30 It was so **agreed**.

## 10 Submission by the Administration of Liechtenstein requesting a one-year extension of Resolution 35 (WRC-19) milestones for all satellite filings subject to this Resolution (Document RRB22-2/11)

10.1 **Mr Loo (Head, SSD/SPR)** introduced Document RRB22-2/11, in which the Republic of Liechtenstein requested a one-year extension of all milestones under Resolution 35 (WRC-19) for all satellite filings subject to that resolution owing to launch-capacity constraints, delays arising from the COVID-19 pandemic and environmental concerns. Regarding its own 3ECOM-1 and 3ECOM-3 satellite networks subject to the resolution, a request for information (RFI) had been sent to eight satellite manufactures in February 2022 and, once their responses had been received, a request for proposals (RFP) to those same companies in April 2022. RFIs had also been sent to potential launch-vehicle manufacturers between February and May 2022. Responses were under review and discussions with manufacturers and launchers ongoing, but the administration believed that the various constraints meant that its operator would struggle to meet the milestone deadlines.

10.2 Responding to questions from **Mr Mchunu** and **Mr Azzouz**, he said that the administration was requesting that the deadline for each milestone be extended by one year, meaning that the deadlines for meeting milestones one, two and three would all be extended by one year from the current two, five and seven years, respectively, from the end of the seven-year regulatory period for the bringing into use of frequency assignments.

10.3 **Mr Azzouz** further asked if other administrations had communicated difficulties in being able to meet the milestone deadlines and whether the Administration of Liechtenstein was in fact making the request on behalf of a number of administrations. The constraints were clear and understandable. If the request was to extend the deadlines for the two specific networks of the Administration of Liechtenstein, the Board could consider the matter. If the request concerned, however, all administrations and systems subject to the resolution, the request was beyond the Board's mandate and should instead be submitted to WRC-23.

10.4 **Mr Loo (Head, SSD/SPR)** said that, while the Administration of Liechtenstein began its submission by referring to its own two systems, it concluded by clearly requesting the Board consider a one-year extension of all milestones for all satellite network filings to which Resolution 35 (WRC-19) applied. The Bureau had not, however, received expressions of difficulties in meeting the milestones from any other administrations thus far.

10.5 **Mr Talib** said that he had initially interpreted the request to apply specifically to the networks of the Administration of Liechtenstein, but now understood it to apply globally. That being the case, the Board was not in a position to accede to the request and should instead propose that it be submitted to WRC-23. Alternatively, the Board might invite the administration to clarify whether the request only applied to its own networks, as, based on the constraints described, he saw no issue in granting a specific extension.

10.6 **Mr Varlamov** said that a global request was beyond the mandate of the Board. Furthermore, despite noting the obvious constraints in terms of launch capacity, he expressed doubt that the Administration of Liechtenstein would have been able to meet the milestones even without the various constraints. Both the RFI and RFP had only been sent in early 2022, several years after the assignments had been brought into use. Manufacturing had likely not begun, making it unrealistic that all the satellites could have been built in time to meet the original deadline. Even if the request was specific to the case of the administration, not enough information had been submitted in order for the extension to be granted. **Ms Jeanty, Mr Hoan, Ms Beaumier** and **Mr Henri** shared the same concerns.

10.7 The **Chairman** agreed with that assessment and said that, although Resolution 35 (WRC-19) offered administrations a flexible approach for the implementation of frequency assignments to their non-GSO satellite systems, administrations needed to be timely in their preparations and activities.

10.8 **Mr Borjón** said that the language of the submission was clear: it requested a modification to Resolution 35 (WRC-19), for which the Board did not have the authority. The administration might consider submitting a request for the extension of regulatory deadlines for its own networks, but it should be very careful in doing so, given the concerns raised by Mr Varlamov.

10.9 The **Chairman, Ms Hasanova and Ms Jeanty** agreed that the Board did not have the mandate to make a global change to the milestones under Resolution **35 (WRC-19)** and that the request should be submitted to WRC-23. **Mr Azzouz and Mr Borjón** suggested that that might be done as a common proposal with other administrations.

10.10 **Mr Hashimoto** said that the submission clearly reflected the difficulties involved in meeting the milestones under Resolution **35 (WRC-19)**, expressing appreciation for the efforts of the Administration of Liechtenstein in producing the document. Nevertheless, the request was clearly not limited to its own networks and therefore fell beyond the mandate of the Board. He suggested, however, that the issue be included in the Board's report on Resolution **80 (Rev.WRC-07)** to WRC-23.

10.11 **Ms Jeanty** said that the Board should indicate in its conclusion that it considered extension requests on an individual basis, without necessarily pointing out that the Administration of Liechtenstein could resubmit the request as specific to its own networks. Furthermore, as the Bureau had not been contacted by other administrations expressing similar difficulties, there seemed to be no need to include the matter in the report on Resolution **80 (Rev.WRC-07)**.

10.12 **Mr Hoan** stressed that the difficulties facing administrations in meeting the milestones were clearly real, including launch capacity and the impact of COVID-19. Environmental concerns and long-term space sustainability were also important and had even been touched on at the Board's 89<sup>th</sup> meeting. He anticipated that further administrations would raise the matter in the future, but it was clearly not within the Board's mandate. He agreed that there was no need to include the matter in the report on Resolution **80 (Rev.WRC-07)**, suggesting that the administration make a submission to WRC-23.

10.13 **Ms Beaumier** said that the Board had a mandate to consider requests for the extensions of regulatory deadlines for reasons of *force majeure* and co-passenger delay on a case-by-case basis. The request of the Administration of Liechtenstein was not specific to a case, despite the references to the administration's own systems, and the effect of granting the extension would be to alter the decision of WRC-19. Furthermore, *force majeure* had not been invoked as the grounds for the request, and there was considerable doubt as to whether the administration could have met the original deadline anyway. Consequently, there were insufficient grounds to acquiesce to an extension request, even if for the administration's networks only. As no other administrations had reported such difficulties in meeting the milestones under Resolution **35 (WRC-19)**, she said it would be premature to include the matter in the report on Resolution **80 (Rev.WRC-07)**.

10.14 **Mr Henri**, was somewhat surprised at the rather late RFI sent by the Administration of Liechtenstein in February 2022, with a view to implementing its project and meeting its regulatory obligations, given that the bringing into use of the frequency assignments of both filings had been back in 2019 and 2020. He noted that the Administration of Liechtenstein still had one year to meet the first milestone under Resolution **35 (WRC-19)** i.e. 10 per cent of the total number of satellites listed in the filings and to provide the necessary information. To date, the Board had not been in the habit of granting extensions on hypothetical future situations or of allowing margins for meeting regulatory time-limits. Therefore, his view was that the Board should not accede to the request, and any specific requirements or possible difficulties associated with the implementation of Resolution 35 should be raised in a timely manner providing the rationale and evidence as to why some milestones might not be completed..

10.15 **Mr Loo (Head, SSD/SPR)** pointed out that Resolution **35 (WRC-19)** had provided for mechanisms that allowed administrations to report issues in fulfilling milestones and drew attention in particular to *resolves* 12, which outlined the process.

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

"The Board considered in detail the request from the Administration of Liechtenstein, as contained in Document RRB22-2/11. The Board expressed its appreciation to the administration for having brought the matter to its attention. The Board noted that:

- the request was for a general one-year extension of the milestones for all satellite network filings subject to the provisions of Resolution **35 (WRC-19)**;

- the Board had the mandate to consider requests for the extension of regulatory deadlines due to situations of force majeure and co-passenger delay strictly on a case-by-case basis;
- *resolves* 12 of Resolution **35 (WRC-19)** provided a mechanism so that administrations with satellite network filings for which the end of the seven-year regulatory period in RR No. **11.44** was before 28 November 2022 could request a waiver from the requirement to meet the first milestone if they encountered difficulties;
- in accordance with *instructs the Radiocommunication Bureau* 2 of Resolution **35 (WRC-19)**, the Bureau would report any difficulties encountered in the implementation of the resolution to WRC-23;
- modifying the provisions of a WRC resolution or the Radio Regulations was not within its mandate.

Consequently, the Board decided that it was not in a position to accede to the request from the Administration of Liechtenstein and encouraged the administration to conform to the provisions of the Radio Regulations and Resolution **35 (WRC-19)**.”

10.17 It was so **agreed**.

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

11.1 **Ms Beaumier**, speaking in her capacity as Chairman of the Working Group on the Report on Resolution **80 (Rev.WRC-07)** to WRC-23, said that the group had reviewed the first draft of the report. While some work remained to be done, she was hopeful that all sections would be completed in time for consideration at the next meeting. She would be pleased to take into account any further comments on the current draft, which colleagues were invited to continue reviewing. The working group had also discussed in detail the contribution to the Plenipotentiary Conference (Bucharest, 2022) (PP-22) on the invocation of Article 48 of the Constitution in relation to the Radio Regulations. She thanked colleagues for their cooperation and constructive comments and the Bureau for providing relevant data and statistics. A list of administrations having invoked Article 48 and of the number of networks would be useful. It would be helpful for administrations and regional groups preparing contributions on the issue for PP-22 if the report was made publicly available as soon as possible.

11.2 The **Chairman** thanked Ms Beaumier for her excellent work and colleagues for their support and invited the Board to review the contribution to PP-22 on the invocation of Article 48 of the Constitution in relation to the Radio Regulations.

11.3 **Ms Beaumier**, responding to a question from **Mr Talib** concerning retroactive application, in particular of paragraphs 3) and 4) of the conclusion, said that the working group had not had sufficient time to fully resolve that issue. While she acknowledged that there might be certain scenarios where the issue of retroactive application might not be clear, she said that the text of paragraph 3) reflected the outcome of a lengthy discussion in the working group and should remain as it stood; PP-22 could consider providing further details if it so wished.

11.4 The **Director** pointed out that the Board was giving guidance to PP-22 on aspects to be addressed and it would be counterproductive for it to go into too much detail at present. As the Plenipotentiary Conference was not a technical body, it would probably task the WRC, Bureau and Board to go into greater detail. The real value added was set out in paragraph 3) in obtaining confirmation from PP-22 that the Bureau and the Board could seek clarification and consequently apply all relevant regulatory provisions if it appeared from reliable information that a recorded frequency assignment for which Article 48 of the Constitution had been invoked was actually not in compliance with that article, which had hitherto not been the case.

11.5 Following a concern expressed by the **Deputy Director** regarding paragraph 4) of the conclusion and a comment from the **Director** indicating his understanding that the paragraph sought to ensure that, where a station had both military radio installations and others, only the frequency assignments used for military purposes had the right to claim protection under Article 48 of the Constitution, if recorded in the MIFR, the

text of paragraph 4) was amended to read “regardless of whether Article 48 was invoked, frequency assignments used by military radio installations are entitled to international recognition and the right to claim protection from harmful interference only if they are recorded in the MIFR.”

11.6 The **Chairman** said that the report on the invocation of Article 48 of the Constitution in relation to the Radio Regulations would be attached in annex to the summary of decisions. He suggested that the Board conclude on the matter as follows:

“Under the chairmanship of Ms C. BEAUMIER of the Working Group on the Report on Resolution **80 (Rev.WRC-07)** to WRC-23, the Board developed and finalised its contribution to the Plenipotentiary Conference 2022 (PP-22) describing cases considered relating to Article 48 of the ITU Constitution and the need to clarify the invocation of the article in relation to the Radio Regulations to avoid abuse of its application. The Board instructed the Bureau to submit to PP-22 the document contained in the Annex to the summary of decisions.

The Board reviewed a first draft of the Report on Resolution **80 (Rev.WRC-07)** to WRC-23 and identified additional elements to be included in the Report for some of the issues based on the cases considered and decisions at that meeting.”

11.7 It was so **agreed**.

## **12 Confirmation of the next meeting for 2022 and indicative dates for future meetings**

12.1 **Mr Botha (SDG)** said that as the work to demolish the Varembe building would not begin until the end of the first quarter of 2023, the Board could hold its 92<sup>nd</sup> meeting in Room L. However, as the external venue now had to be booked 18 months in advance, it would be very difficult to change the dates of the 93<sup>rd</sup> and 94<sup>th</sup> meetings.

12.2 The Board **agreed** to confirm the dates for the 91<sup>st</sup> meeting as 31 October - 4 November 2022 in Room L.

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

- 92<sup>nd</sup> meeting: 20-24 March 2023 (Room L);
- 93<sup>rd</sup> meeting: 26 June-4 July 2023 (Room CCV Genève);
- 94<sup>th</sup> meeting: 16-20 October 2023 (Room CCV Genève).

## **13 Any other business**

13.1 The **Chairman** noted that there was no other business for the Board to discuss.

**14 Approval of the Summary of decisions (Document RRB22-2/15)**

14.1 The Board **approved** the summary of decisions as contained in Document RRB22-2/15.

**15 Closure of the meeting**

15.1 The **Chairman** thanked his colleagues on the Board for their support, spirit of cooperation and commitment, which had enabled the Board to take decisions on sensitive and difficult issues. He was grateful to the Vice-Chairman for his assistance, to the chairmen of the working groups for their hard work, to the Director for his wise counsel and to the Bureau staff, including Mr Botha and Ms Gozal, for their support in holding such a successful meeting.

15.2 Board members took the floor to thank the Chairman for his excellent leadership, efficiency and balanced summaries, which had enabled the Board to complete its agenda. They also thanked the Vice-Chairman and the chairmen of the working groups for their contributions, the Director for his valuable advice and guidance and the Bureau and other ITU staff for their assistance.

15.3 The **Director** congratulated the Chairman on his able leadership and thanked the Vice-Chairman and working group chairmen for their assistance. It was a pleasure for the Bureau to support a Board that worked in such a collegial atmosphere. He wished those members seeking re-election at PP-22 the very best of luck.

15.4 The **Chairman** thanked speakers for their kind words and closed the meeting at 1640 hours on Friday, 1 July 2022.

The Executive Secretary:  
M. MANIEWICZ

The Chairman:  
T. ALAMRI