Radio Regulations Board
Geneva, 24 – 28 June 2024

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MINUTES*

OF THE

96th MEETING OF THE RADIO REGULATIONS BOARD

24-28 June 2024

Present: Members, RRB

Mr Y. HENRI, Chair
Mr A. LINHARES DE SOUZA FILHO, Vice-Chair
Mr A. ALKAHTANI, Mr E. AZZOUZ, Ms C. BEAUMIER, Mr J. CHENG, Mr M. DI CRESCENZO, Mr E.Y. FIANKO, Ms S. HASANOVA, Ms R. MANNEPALLI, Mr R. NURSHABEKOV, Mr H. TALIB

Executive Secretary, RRB
Mr M. MANIEWICZ, Director, BR

Précis-writers
Ms S. MUTTI, Ms C. RAMAGE

Also present: Ms J. WILSON, Deputy Director, BR, and Chief, IAP
Mr A. VALLET, Chief, SSD
Mr C.C. LOO, Head, SSD/SPR
Mr T. KADYROV, acting Head, SSD/SSC
Mr J. WANG, Head, SSD/SNP
Mr A. KLYUCHAREV, SSD/SNP
Mr N. VASSILIEV, Chief, TSD
Mr B. BA, acting Chief, TSD, and Head, TSD/TPR
Mr K. BOGENS, Head, TSD/FMD
Mr A. MANARA, acting Head, TSD/BCD
Mr D. BOTHA, SGD
Ms K. GOZAL, Administrative Secretary

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* The minutes of the meeting reflect the detailed and comprehensive consideration by the members of the Radio Regulations Board of the items that were under consideration on the agenda of the 96th meeting of the Board. The official decisions of the 96th meeting of the Radio Regulations Board can be found in Document RRB24-2/12).

	Subjects discussed	Documents
1	Opening of the meeting	-
2	Adoption of the agenda	RRB24-2/OJ/1(Rev.1)
3	Report by the Director, BR	RRB24-2/4 RRB24-2/4(Corr.1), RRB24-2/4(Add.1) RRB24-2/4(Add.2) RRB24-2/4(Add.4)
4	Rules of Procedure	-
4.1	List of Rules of Procedure	RRB24-2/1
5	Request for the cancellation of frequency assignments to satellite networks under No. **13.6** of the Radio Regulations	-
5.1	Request for a decision by the Radio Regulations Board to cancel the frequency assignments to the B-SAT-1J satellite network at 68°W under No. **13.6** of the Radio Regulations	RRB24-2/3
6	Harmful interference to administrations' transmissions in the broadcasting satellite service	RRB24-2/4(Add.3) RRB24-2/DELAYED/6
6.1	Submission by the Administration of Luxembourg regarding harmful interference to its SIRIUS-4-BSS satellite network	RRB24-2/5
6.2	Submission by the Administration of Sweden regarding harmful interference to its satellite networks at the orbital position 5°E	RRB24-2/6 RRB24-2/DELAYED/1
6.3	Submission by the Administration of France as the notifying administration for the Intergovernmental Organization EUTELSAT IGO concerning harmful interference to satellite networks F-SAT-N3-21.5E, F-SAT-N-E-13E, F-SAT-N3-13E, F-SAT-N3-10E and EUTELSAT 3-10E	RRB24-2/7 RRB24-2/DELAYED/3
6.4	Submission by the Administration of the Netherlands regarding harmful interference to the F-SAT-N-E-13E satellite network	RRB24-2/8
6.5	Submission by the Administration of Ukraine regarding harmful interference to its television programme transmissions in the broadcasting service	RRB24-2/10
7	Issues regarding the provision of STARLINK satellite services in the territory of the Islamic Republic of Iran	RRB24-2/DELAYED/2 RRB24-2/DELAYED/4 RRB24-2/DELAYED/5

	Subjects discussed	Documents
7.1	Submission by the Administration of the Islamic Republic of Iran regarding the provision of STARLINK satellite services in its territory	RRB24-2/9
7.2	Submission by the Administration of the United States regarding the provision of STARLINK satellite services in the territory of the Islamic Republic of Iran	RRB24-2/11
8	Confirmation of the next meeting for 2024 and indicative dates for future meetings	-
9	Other business	-
10	Approval of the summary of decisions	-
11	Closure of the meeting	-

1 Opening of the meeting

1.1 The **Chair** opened the 96th meeting of the Radio Regulations Board at 1400 hours on Monday, 24 June 2024, and welcomed the participants. The meeting's agenda contained no requests for extensions of regulatory deadlines for bringing frequency assignments into use or back into use – which he construed as a sign that the improvements and enhancements being made by WRCs to the Radio Regulations were starting to bear fruit and that satellite operators and notifying administrations were serious about meeting regulatory deadlines. On the other hand, it would be considering two cases that went beyond regulatory issues to encompass individual administration policies; the relevant decisions would be closely scrutinized at a time when ITU was receiving numerous questions concerning both cases. He was sure that the Board would, as usual, work as a team, in a spirit of friendship and cooperation and found a fair and well-balanced response to the cases under scrutiny.

1.2 The **Director of the Radiocommunication Bureau**, speaking also on behalf of the Secretary-General, likewise welcomed the Board members to Geneva and agreed with the comments made by the Chair. The Board's agenda reflected the current unsettled geopolitical situation and would see the Board discussing sensitive cases related to ongoing conflicts. The good news was that the Administration of the United Arab Emirates, in a sign of their support for achieving the results of the Conference, had donated CHF 1.9 million to the Bureau for implementation of decisions adopted at the 2023 World Radiocommunication Conference (WRC-23). That amount, which represented the remaining balance of the funds transferred to ITU to cover the costs of WRC-23, would be put toward the development of the requisite software and database updates. He wished the Board a successful meeting and assured it of the Bureau's support.

2 Adoption of the agenda (Document RRB24-2/OJ/1(Rev.1))

2.1 **Mr Botha (SGD)** drew the Board's attention to one additional addendum to the Report by the Director (Addendum 4 to Document RRB24-2/4) received from the Bureau; the Board might wish to consider it alongside the Report by the Director under agenda item 3.

2.2 He also drew attention to six late submissions (Documents RRB24-2/DELAYED/1 to 6). Document RRB24-2/DELAYED/6 had been received from the Administration of the Russian Federation and was a response to several other submissions and delayed submissions under agenda item 6. It had been received within the regulatory deadline for such delayed submissions, i.e. before the start of the meeting. Since it referred to several sub-items under item 6, the Board might wish to consider it for information under item 6 in general.

2.3 Documents RRB24-2/DELAYED/1 and 3 had been received from the Administrations of Sweden and France, respectively, and contained information supplementing the contents of those administrations' original submissions under agenda items 6.2 and 6.3.

2.4 Document RRB24-2/DELAYED/2 had been received from the Administration of Norway and was related to agenda item 7 but had not been submitted in response to another document under that item. The Board might therefore wish to consider it under item 7 directly.

2.5 Also under agenda item 7, Document RRB24-2/DELAYED/4 had been received from the Administration of the Islamic Republic of Iran, several days after the regulatory deadline, in response to Document RRB24-2/11 from the Administration of the United States of America. Document RRB24-2/DELAYED/5, from the Iranian Administration, had been submitted in response to Document RRB24-2/DELAYED/2 from the Administration of Norway and received before the start of the meeting.

2.6 **Ms Hasanova** said that the Board should agree to consider all six delayed documents for information, as they were all related to items on the agenda. **Mr Azzouz** agreed.

2.7 The **Chair** also agreed that none of the delayed documents should be deferred to the next meeting. Commenting on a suggestion made by **Mr Azzouz,** he said that he was reluctant to add a sub-item for a delayed document. Even if Documents RRB24-2/DELAYED/4, 5 and 6 were listed alongside the general agenda item, they would be presented after all the other sub-items.

2.8 **Ms Beaumier** agreed with the Chair, adding that delayed documents had to be related to an existing agenda item and that new sub-items should therefore not be created for them; nor should delayed documents be presented before documents that had been received on time. She also agreed that all six delayed documents should be considered for information at the present meeting and not deferred, including Document RRB24-2/DELAYED/4, which had been received after the deadline. She asked why Document RRB24-2/DELAYED/4 was not listed alongside the document to which it replied, Document RRB24-2/11, under sub-item 7.2. Similarly, under agenda item 6, Documents RRB24-2/DELAYED/1 and 3 should be listed alongside the documents to which they replied.

2.9 **Mr Talib** also agreed that none of the delayed documents should be deferred to the next meeting. They should be listed alongside the relevant general agenda items but presented after all the other documents under those items.

2.10 **Ms Mannepalli** said that her preference was to consider all six delayed documents at the current meeting. It was not necessary to create separate agenda sub-items for that purpose.

2.11 **Mr Botha (SGD)**, observing that the order in which documents were considered was the prerogative of the Chair/the meeting, irrespective of their position on the agenda, said that delayed documents were usually added to existing agenda items without creating a new sub-item. He had proposed adding Documents RRB24-2/DELAYED/4 and 5 to agenda sub-item 7.1 because they had both been received from the same administration as the original submission on that sub-item. That said, it could certainly be argued that Document RRB24-2/DELAYED/4 was in response to Document RRB24-2/11 and might therefore be considered under sub-item 7.2. In the case of Document RRB24-2/DELAYED/2, from the Administration of Norway, there was no existing sub-item to which it could be attributed and the proposal was therefore to indicate it under the general heading for item 7.

2.12 In the light of that explanation, **Ms Beaumier** proposed that Documents RRB24-2/DELAYED/2, 4 and 5 be listed under the general heading for item 7. Document RRB24-2/DELAYED/6 should be listed under the general heading for item 6 and Documents RRB24-2/DELAYED/1 and 3 under their respective sub-items, 6.2 and 6.3.

2.13 In response to a proposal by **Mr Azzouz,** the **Chair** said that delayed submissions should not be given greater importance by being attributed under subheadings.

2.14 The draft agenda was **adopted** as amended in Document RRB24-2/OJ/1(Rev.1). The Board **decided** to consider Document RRB24-2/DELAYED/6 under agenda item 6, Document RRB24-2/DELAYED/1 under agenda sub-item 6.2, Document RRB24-2/DELAYED/3 under agenda sub-item 6.3, and Documents RRB24-2/DELAYED/2, 4 and 5 under agenda item 7 for information.

3 Report by the Director, BR (Documents RRB24-2/4, Corrigendum 1 and Addenda 1, 2 and 4)

3.1 The **Director** introduced his customary report in Document RRB24-2/4. Referring to § 8 of Table 1, on the summary of actions arising from the 95th meeting of the RRB, he noted that the Bureau had brought the case of the NSL-1 submission from Israel to the attention of ITU-R Working Party 4A, as instructed. Addendum 4 to Document RRB24-2/4 outlined the working party's consideration of the matter and the Bureau's proposed course of action.

3.2 As the report had been prepared before the 2024 session of the Council, he wished to complement the information in § 3.2 on Council activities. The Bureau had proposed that Council-24 approve a modification to Decision 482 in order to consider cost recovery for earth stations in motion in the light of the WRC-23 decision. Although the Council had been hesitant, it had agreed to adopt the modification on an interim basis pending the final report of the Council Expert Group on Decision 482. The Council had been disappointed that the second meeting of the Council Expert Group on Decision 482 had not yet been held and had requested an interim report from that Group at the Council working group meetings at the end of 2024.

3.3 Referring to § 4.1, on harmful interference to broadcasting stations in the VHF/UHF bands between Italy and its neighbouring countries, he said that the national working group on the FM frequency band established by the Italian Administration was seeking to facilitate the voluntary release of licences in exchange for financial compensation, which might lead to progress.

3.4 Referring to § 7, on the implementation of Resolution **35 (Rev.WRC-23)**, he said that the third paragraph should read "Since the report to the 95th meeting the frequency assignments to the satellite system, 102, were suppressed". The Bureau wished to inform the Board that a new allocation to non-geostationary satellite systems to the fixed-satellite service introduced by WRC-23 had not been added to the table of frequency bands and services for the application of the milestone-based approach in *resolves* 1 of Resolution **35 (Rev.WRC-23)** and asked whether the omission should be considered an oversight.

3.5 Noting that the Bureau considered the implementation of Resolution **559 (WRC-19)** to be successfully completed, he said that § 8 provided a summary of the actions taken in that regard. The Bureau stood ready to provide assistance, upon request, to the four remaining administrations that had not yet started the coordination process. He congratulated the Board on its excellent collaboration with the Bureau on the issue.

3.6 **Mr Talib** welcomed the Director's report, praising the excellent results achieved and the strong collaboration between the Bureau and the Board. He drew particular attention in that regard to the implementation of Resolution **559 (WRC-19)**.

Actions arising from the last RRB meeting (§ 1 of Document RRB24-2/4 and Addendum 4)

3.7 **Mr Vallet (Chief, SSD)**, referring to § 4.2 of Table 1, said that he had met with a delegate from the Russian Administration to explain in greater detail the Board's conclusions regarding the proposed draft modified rules of procedure on Nos. **9.21** and **9.36** of the Radio Regulations.

3.8 **Mr Kadyrov (acting Head, SSD/SNP)**, referring to § 8 of Table 1, introduced Addendum 4 to Document RRB24-2/4, on negligible levels of interference tolerated in regulatory examination and interference analysis involving satellite systems and networks. Recalling the Board's conclusion at its 95th meeting regarding the submission by the Administration of Israel, he said that the Bureau had submitted a contribution to the May 2024 meeting of Working Party 4A (Document 4A/121) requesting guidance on the aggregate *I/N* level to be considered negligible when comparing *I/N* ratio statistics produced by modified and original frequency assignments. The working party had been unable to reach agreement on the appropriateness of considering an *I/N* of −30 dB or less as negligible in the context of the application of No. **9.27**. It was hoped that contributions for the revision of Recommendation ITU-R S.1526 would contain responses to the clarification sought. It had been agreed that, until Recommendation ITU-R S.1526 was revised, Working Party 4A would leave it to the Bureau to address the issue raised in the contribution based on its understanding and taking into account best and past practices.

3.9 Recalling the Bureau's existing practice, which was based on relevant provisions of the Radio Regulations and the application of certain tolerances in interference analysis, and took into account relevant decisions of the Board, he said that the Bureau had decided to treat an *I/N* value of −30 dB

(translating to a degradation level of 0.004 dB) as negligible. Values below that level would not be considered in the analysis carried out under the procedure contained in the rules of procedure on No. **9.27**. That course of action was consistent with the existing practice of the Bureau, whereby higher tolerances of at least 0.05 dB were used in regulatory examinations.

3.10 The **Chair** said that it was unfortunate that Working Party 4A had not been able to agree on the aggregate *I/N* level to be considered as negligible and observed that, given the working party's workload, the revision of Recommendation ITU-R S. 1526 was not likely to be completed for some time. At its previous meeting, the Board had instructed the Bureau to issue a qualified favourable finding to the NSL-1 satellite system pending clarification from the working party on the *I/N* value to be considered as negligible. As the working party had left it to the Bureau to determine that value and, given the Bureau's decision to treat an *I/N* value of −30 dB as negligible, he took it that, conditional on the successful application of all relevant examinations, including the rules of procedure on No. **9.27**, the frequency assignments to the NSL-1 satellite system would receive a favourable finding.

3.11 **Mr Azzouz** asked whether the Bureau had conducted any analysis or investigations since the Board's previous meeting.

3.12 **Mr Kadyrov (acting Head, SSD/SNP)** said that a favourable finding would be issued provided that all the Bureau's examinations received favourable findings. In addition to its regulatory analysis, including compliance with Articles **5** and **21** and examination of Article **22** equivalent power flux-density (epfd) limits, the Bureau had an established practice for modifications submitted under the rules of procedure on No. **9.27**, including to ascertain whether the interference analysis was comprehensive and included all potentially affected networks and whether the assumptions made by administrations were sufficiently justified. It had recently sent a letter to the notifying administration of the NSL-1 satellite system requesting additional clarification and would continue its examinations.

3.13 **Mr Azzouz**, noting that extensive changes had been made to the satellite system characteristics, including with respect to the number of satellites, and that the Bureau had recently sought additional clarification from the notifying administration, said that the Board needed to await the results of the Bureau's studies before discussing the matter further.

3.14 The **Chair** recalled that, in the Board's discussion of the case at the previous meeting, two issues had arisen: whether an increase in the aggregate *I/N* level of −30 dB (representing a degradation of 0.004 dB) of a modified satellite system could be considered as negligible; and the extent to which the characteristics of a system could be modified and still be considered to remain within the envelope of the original constellation. On the first issue, the Board had instructed the Bureau to bring the case to the attention of Working Party 4A. In the absence of a decision at present from the working party on the acceptable increase in aggregate *I/N* level to be considered as negligible, the Bureau had decided to consider an *I/N* value of −30 dB as negligible and was processing the case accordingly. On the second issue, the Board had concluded that there were no provisions in the Radio Regulations or rules of procedure limiting the extent of modifications submitted to an original coordination request for a non-geostationary-satellite system and the issue would likely have to be studied in due course by Working Party 4A. In the absence of any such regulatory provisions, the submission would have to be considered as a modification to the NSL-1 satellite system and the Bureau would conduct a normal examination under the rules of procedure on No. **9.27**. If the Bureau was able to conclude that the modification did not cause more interference than the original submission, the frequency assignments would receive a favourable finding and the original date of receipt would be maintained. As the situation currently stood, the case was no longer a matter for the Board.

3.15 Responding to comments from **Mr Azzouz** and **Mr Cheng**, who expressed support for the proposed course of action set out in Addendum 4 to Document RRB24-2/4, he said that all the points raised on the issue by the Board at its 95th meeting would be duly taken into account by the Bureau

in its examination of the case. There was no need for the Bureau to report to the Board's next meeting on the outcome of its examinations as all relevant information would be found in the publication of the coordination request.

3.16 **Ms Mannepalli** said that the case had been discussed in depth during the Board's previous meeting and recalled the conclusion reached. Noting the Bureau's proposed course of action and the fact that further information was being sought from the administration concerned, she agreed that no further action was required from the Board at the current stage.

3.17 Responding to a request for clarification from **Ms Beaumier**, the **Chair** said that the qualified favourable finding had been issued pending the provision of guidance from Working Party 4A on the aggregate *I/N* level to be considered as negligible. The working party had left that determination to the Bureau. Given the Bureau's proposed course of action, an interference level of −30 dB for the modified NSL-1 system should receive a favourable finding. That conclusion might, however, have to be reviewed following the revision of Recommendation ITU-R S.1526. Like any other cases examined under the rules of procedure on No. **9.27**, the Bureau's finding for the modified satellite system would, however, depend on the results of all relevant examinations. He asked whether a rule of procedure on the aggregate *I/N* level to be considered as negligible might be developed in the interest of transparency.

3.18 **Ms Beaumier** said that, while some Board members might be curious as to the outcome of the Bureau's examination of the modified NSL-1 satellite system, there was no need for the Board to discuss the case further unless the Bureau raised another issue for consideration. The Board had already concluded that it deemed an *I/N* value of −30 dB to be negligible. There was no indication that Working Party 4A would reach a different conclusion, although it still had work to do to determine the threshold that would not be deemed negligible. While the Board could be confident that the Bureau's practice was sound, that practice should probably be set down in a rule of procedure.

3.19 **Mr Kadyrov (acting Head, SSD/SNP)**, responding to a question from **Mr Linhares de Souza Filho** regarding the value of reference for the Bureau, said that the Bureau's tolerance of 0.05 dB was not applied for analysis under the rules of procedure on No. **9.27**. An *I/N* value of −30 dB and below would be used as a trigger in future analyses. As indicated in § 3.1.4.11.3 of the report of the Director to WRC-23 (Document WRC23/4(Add.2)), it would be useful to develop a methodology including not only the minimum *I/N* ratio, but also the highest *I/N* ratio considered as harmful. It was hoped that Working Party 4A would continue studies in that regard and provide guidance on the full range of *I/N* values to be used in analysis.

3.20 The **Chair**, responding to a request for clarification from **Mr Azzouz**, said that all the other examinations besides the *I/N* value under the relevant provisions of the Radio Regulations and the Rules of Procedure, including the rules of procedure on No. **9.27**, had to be completed and to receive favourable findings for the modified frequency assignments to the NSL-1 satellite system to keep the original date of receipt of the coordination request.

3.21 **Mr Azzouz**, recalling that many extensive modifications had been made to the NSL-1 filing, emphasized that all the new characteristics of the satellite system must be taken into account by the Bureau in its examinations under the Radio Regulations and Rules of Procedure.

3.22 **Mr Vallet (Chief, SSD)**, responding to a request for clarification from **Mr Linhares de Souza Filho**, said that following Working Party 4A's consideration of the matter, it was the Bureau's understanding that, for the time being, an *I/N* value of −30 dB and below was to be treated as negligible, and that anything above that value would continue to be taken into account. It was important to be able to respond to the case under consideration and ensure that the proposed course of action was applied consistently. However, there was nothing to prevent the issue from being reopened in the future if warranted, and the Bureau would implement the decision reached by the

working party or the Board. In any event, Working Party 4A would consider the issue in more detail in updating Recommendation ITU-R S.1526 and might come up with a different value. The Bureau would be pleased to prepare a draft modification to the rules of procedure on No. **9.27**.

3.23 The **Chair** proposed that the Board should conclude as follows on the matter:

"Having considered item 8 of § 1 of Document RRB24-2/4, on actions arising from the decisions of the 95th Board meeting, and Addendum 4 to Document RRB24-2/4, concerning negligible levels of interference tolerated in regulatory examination and interference analysis involving satellite systems and networks, the Board thanked the Bureau for having reported the issue to ITU-R Working Party 4A in Document 4A/121. ITU-R Working Party 4A having indicated that the Bureau should address the issue based on its understanding and taking into account its best and past practices, the Board decided to endorse the Bureau's decision to treat an *I/N* value of −30 dB and below as negligible.

In the light of that decision, the Board noted that, conditional on the successful application of all examinations under the relevant provisions of the Radio Regulations and the Rules of Procedure, the modified frequency assignments to the NSL-1 satellite system would receive a favourable finding, maintaining the original date of receipt of the system.

The Board further decided to instruct the Bureau to prepare a draft modification to the rules of procedure on No. **9.27** of the Radio Regulations that would implement the decision and to circulate it to administrations for comments and for consideration at the 97th Board meeting."

3.24 It was so **agreed.**

3.25 The Board **noted** all other action items under § 1 arising from the decisions of the 95th Board meeting.

Processing of filings for terrestrial and space systems (§ 2 of Document RRB24-2/4)

3.26 **Mr Vassiliev (Chief, TSD)** drew attention to the tables describing the processing of terrestrial notices in § 2 of Document RRB24-2/4. No findings for assignments to stations in the terrestrial services had been revised during the reporting period.

3.27 In reply to questions from **Mr Azzouz** and **Ms Mannepalli**, he confirmed that the total for the Part D column in Table 2-1 should be 0. The number of filings received had spiked in August 2023 (fourth row of Table 2-1) following the reception of a large package of notices from the Administration of Belarus.

3.28 **Mr Vallet (Chief, SSD)** drew attention to the tables on the processing of space notices in § 2 of Document RRB24-2/4. As was customary, the number of notices had spiked after WRC-23, in December 2023, creating a slight backlog. Fortunately, the funding received from the Administration of the United Arab Emirates would enable the Bureau to develop the new versions of the software needed to finalize its examination of those notices. In answer to a question from the **Chair**, he added that the Bureau hoped to resume processing notices within the regulatory time-limit by the beginning of 2025.

3.29 The Board **noted** § 2 of Document RRB24-2/4, on the processing of filings for terrestrial and space systems, and **encouraged** the Bureau to continue to make all efforts to process such filings within the regulatory time-limits.

Implementation of cost recovery for satellite network filings (§ 3 of Document RRB24-2/4)

3.30 **Mr Vallet (Chief, SSD)**, drawing attention to Table 3-2 in § 3.1 of Document RRB24-2/4, said that the advance publication information (API) of the USASAT-30V network of the Administration of the United States had been cancelled due to non-payment of invoices; the administration remained liable for the amount owed. In reply to a question from **Ms Mannepalli** on

exceptions to the six-month time-limit for the payment of outstanding invoices, he explained that network filings were suppressed once the time-limit was exceeded and if the Bureau had no news from the operator. Exceptions were made, for example, for late payments caused by banking delays about which ITU had been informed.

3.31 Regarding § 3.2 of Document RRB24-2/4, on Council activities, he reported that Council-24 had considered two documents related to cost recovery. It had noted the first, the report of the January 2024 meeting of the Council Expert Group on Decision 482. It had also noted the second, the annual report on implementation of Decision 482, which, as was customary in the year following a WRC, contained the Bureau's analysis of the potential updates required by WRC-23 decisions. One such decision, namely Resolution **121 (WRC-23)** relating to earth stations in motion (ESIMs) in Appendix **30B**, had resulted in a series of new procedures, prompting the Bureau to create a new notice form. The Bureau had therefore requested the Council to amend Decision 482 with a view to including the new form in the schedule of processing charges to be applied to satellite network filings as of 1 January 2025. It proposed to align the relevant cost recovery fees with those of ESIM submissions (Part A, Part B and notification) under Resolution **121 (WRC-23)**, i.e. it had not introduced any new figures but had simply extended the existing categories to Appendix **30B**. The Council had agreed to that proposal. The amended version of Decision 482 would enter into force on 1 July 2024 but would have no immediate impact because administrations could only start sending notices relating to ESIMs in Appendix **30B** on 1 January 2025.

3.32 The Board **noted** §§ 3.1 and 3.2 of Document RRB24-1/8, on late payments and Council activities, respectively, relating to the implementation of cost recovery for satellite network filings.

Reports of harmful interference and/or infringements of the RR (Article 15 of the Radio Regulations) (§ 4 of Document RRB24-2/4)

3.33 The Board **noted** § 4 of Document RRB24-2/4, containing statistics on harmful interference and infringements of the Radio Regulations.

Harmful interference to broadcasting stations in the VHF/UHF bands between Italy and its neighbouring countries (§ 4.1 of, and Addenda 1 and 2 to, Document RRB24-2/4)

3.34 **Mr Manara (acting Head, TSD/BCD)** summarized the conclusions of the multilateral frequency coordination meeting held between the Administrations of Croatia, France, Italy, Malta, Slovenia and Switzerland in Malta on 27 and 28 May 2024, as set out in Addendum 1 to Document RRB24-2/4. There had been no improvement in the situation of harmful interference affecting FM sound broadcasting stations on the priority lists established in 2017, owing to the constraints inherent in Italian legislation on the subject. The Italian Working Group in charge of investigating ways to resolve the FM situation had submitted a report to the Cabinet of the Ministry containing draft new legislation on the FM switch-off based on compensation; the Administration of Italy had been asked to provide a roadmap and timelines for the implementation of that solution. Regarding VHF Band III, the Adriatic-Ionian Group multilateral agreement was due to be signed in September or October 2024. Once signed, and after a commonly agreed transition period, all signatories would use only the agreed frequency blocks and update the GE06 Plan accordingly, and the Administration of Italy would release the frequency blocks not in line with the agreement, including frequency blocks 7C and 7D.

3.35 The meeting had also issued a number of recommendations. In particular, it had requested the Administration of Italy to provide complete and correct technical data, in ITU or any other usable format, for all Italian FM sound broadcasting stations potentially interfering with those on the priority lists, before the end of 2024; to revise its FM plan in VHF Band II with a view to eliminating all reported cases of harmful interference; to assign or replace frequency assignments/blocks in conformity with the Radio Regulations, relevant regional plans and their provisions; and to apply the relevant Board decisions.

3.36 In Addendum 2 to Document RRB24-2/4, the Administration of Slovenia confirmed that there had been no improvement in terms of the harmful interference, adding that many uncoordinated DAB stations had recently been put into operation.

3.37 In reply to a question from **Mr Fianko**, he said that, under the draft legislation on the FM switch-off, compensation would be given to operators voluntarily releasing the licences of a whole network, with the result that all the FM frequencies assigned to that network would be freed up.

3.38 The **Chair**, having recalled the Board's conclusion at its 95th meeting, said that it was most disappointing to observe that there had been no progress at all on any of the requests made since that meeting or indeed for the 20 years since the case had first been brought to the Board's attention; in fact, according to the Administration of Slovenia, many new uncoordinated DAB stations had recently been put into operation. The only result to date would be the possible signing of the Adriatic-Ionian Group multilateral agreement later in the year. As a member of ITU, the Administration of Italy should be in a position to manage cases of harmful interference involving its neighbours and was duty-bound to engage constructively with them to resolve all issues.

3.39 **Mr Fianko** commended the patience of Italy's neighbours and noted that the situation might be equally frustrating for the Italian Administration, which was never in a position to bring solutions to the multilateral meetings. The Board might have to reiterate its strong views on respect for the Radio Regulations and their associated frequency plans, as there was no guarantee that all the parties would uphold the multilateral agreement to be signed later in the year and the other administrations had found the Board's decisions a useful means of exerting pressure on the Italian Administration.

3.40 **Ms Beaumier** expressed disappointment that very little had changed since the Board's conclusions from the previous year. While it was true that the Administration of Italy had addressed the issues relating to TV broadcasting stations over the past 20 years and now seemed to be turning its attention more seriously to FM sound broadcasting stations, the Board should deplore the almost total lack of progress towards addressing cases of harmful interference. She expressed surprise that Italy's neighbouring countries were still finding it difficult to receive lists of the technical characteristics of the Italian stations causing harmful interference; she would have thought that any difficulties in the fundamental task of exchanging data and information would have been resolved long ago. The Board should strongly urge the Administration of Italy to commit fully to all the recommendations made by the multilateral meeting and to take all necessary measures to eliminate all cases of harmful interference, focusing on the priority lists. She was pleased to learn that the FM Working Group had finalized its report and submitted it to the relevant authorities but pointed out that the Board had received no detailed information on that development from the Administration of Italy – all it had was the information gleaned from the Bureau's summary of the multilateral meeting. Moreover, any new legislation would not be adopted overnight. Greater clarity was needed from the Administration of Italy, which should send the Board a detailed action plan and timelines.

3.41 **Mr Cheng**, referring to the FM situation, said that it was a pity that there had been no improvement in terms of the priority lists. While the Administration of Italy was clearly trying to find a way to move forward as of 2025, it would take two to three years to implement its proposed solution, owing to the constraints of Italian law. The administration should be encouraged to speed up the process and to take active measures and work with other administrations to resolve the harmful interference case by case in the meantime. Indeed, considering the physical distance between, for example, the territories of Croatia and Italy, it should be possible to take technical measures to solve some cases on the relevant priority list. It was promising that the signing of the Adriatic-Ionian Group multilateral agreement might resolve some VHF BAND III issues.

3.42 **Mr Azzouz**, summarizing his understanding of the current situation, noted that the Administrations of France and Italy were focused on reaching agreement on the technical criteria to be considered as a basis for coordination of new assignments and resolving the cases remaining on

the French priority list; according to Switzerland, some cases of interference had reappeared after having been resolved, because, according to the Italian Administration, of internal miscommunication; the Italian Administration had transmitted an action plan for VHF Band III to its neighbouring countries; the Adriatic-Ionian Group multilateral agreement was expected to be signed in September or October 2024; a provisional plan published in the meantime provided for three national and three regional networks; once the agreement had been signed, the Administration of Italy would revise the plan accordingly; current DAB licences clearly specified the commitment of operators to modify their frequencies when requested; according to the administrations concerned, there had been no improvement in the situation for stations on the priority lists since 2017; and ITU had repeatedly clarified that only coordinated frequencies were entitled to protection, a fact that was not taken into consideration by the Administration of Italy.

3.43 On the basis of that understanding, the Board should note, regarding the FM situation, that there had been no improvement in terms of the priority lists and that the FM Working Group had submitted a report to the Cabinet of the Ministry that included draft legislation on the FM transmitter switch-off as of 2025. The Board should instruct the Bureau to remind the Administration of Italy that the released frequencies that had not been recorded in the plan should not be reassigned and that steps should be taken to accelerate implementation of the legislative solution. Regarding VHF Band III, the Board should encourage all signatories to the Adriatic-Ionian Group multilateral agreement to use only the frequencies and blocks agreed and to update the GE06 Plan. It should invite the administrations concerned to continue to meet and exchange data. It should invite the Administration of Italy specifically to revise the FM and VHF Band II plans in parallel with the VHF Band III plan, in order to avoid using any unassigned frequencies, and to stop using uncoordinated frequencies so as to prevent cases of harmful interference. It should instruct the Bureau to report on progress and invite the administrations concerned to report on the matter to future Board meetings.

3.44 **Ms Hasanova** expressed disappointment that there had been no improvement in a situation that had been discussed at numerous Board meetings, quite the contrary: according to the Administration of Slovenia, many uncoordinated DAB stations had recently been put into operation, also adding to the Bureau's workload. The Board's decision should urge the Administration of Italy to provide a roadmap and timelines for solving the cases of harmful interference.

3.45 The **Chair** proposed that the Board should conclude as follows on § 4.1 of Document RRB24-2/4:

"The Board considered in detail § 4.1 of, and Addenda 1 and 2 to, Document RRB24-2/4, on harmful interference to broadcasting stations in the VHF bands between Italy and its neighbouring countries. The Board noted the following points:

- A multilateral meeting organized and assisted by the Bureau had been held on 27 and 28 May 2024 in Malta between the Administrations of Croatia, France, Italy, Malta, Slovenia and Switzerland.
- There had been no improvement regarding FM interference in Band II since the 2023 multilateral meeting, not even in respect of the stations contained in the priority lists.
- The Administration of Italy had delivered technical data to none of its neighbouring administrations except France, according to which the data provided had in some cases been incomplete or had had to be verified.
- In some cases concerning Swiss FM broadcasting stations, measurements had been exchanged in a transparent manner, but the interference had reappeared a few days after having been resolved.
- The Italian Administration's Working Group in charge of investigating solutions to the FM situation had submitted a report to the Cabinet of the Ministry containing a draft law on the

switch-off of FM transmitters based on compensation, which could potentially commence in 2025.

- There had been some improvement with regard to DAB interference in Band III, with the resolution of the cases affecting stations in Malta, Switzerland and to some extent Croatia, but the Administrations of Croatia and Slovenia still reported that the Administration of Italy had authorized operations of uncoordinated DAB frequency blocks.
- The multilateral Adriatic-Ionian Group agreement on the VHF Band III was expected to be signed in September/October 2024, following which all the signatories would use only the agreed frequency blocks and update the GE06 Plan accordingly.

The Board thanked the administrations that had participated in the multilateral meeting, the Administration of Slovenia for its report on the status of the situation and the Bureau for convening the meeting and providing assistance. It noted some improvement in the DAB situation and welcomed the expected signing of the multilateral agreement of the Adriatic-Ionian Group on VHF Band III.

The Board nevertheless continued to express profound disappointment at the almost total absence of progress towards resolving cases of harmful interference to FM sound broadcasting stations and of responses to the Board's requests reiterated at its 95th meeting. The Board once again strongly urged the Administration of Italy to:

- fully commit to implementing all the recommendations resulting from the June 2023 and May 2024 multilateral coordination meetings;
- expeditiously provide the complete technical data required by the neighbouring administrations to facilitate the process of mitigating interference cases;
- take all necessary measures to eliminate harmful interference to the FM sound broadcasting stations of its neighbouring administrations, focusing on the priority list of FM sound broadcasting stations as identified at the multilateral coordination meeting in May 2024;
- cease the operation of all uncoordinated DAB stations not contained in the GE06 Agreement.

The Board again encouraged the Administration of Italy to vigorously pursue the planned introduction of new legislation to enable the voluntary switch-off of FM stations causing interference to its neighbours. Furthermore, the Board urged all administrations to continue their coordination efforts in goodwill and to report on progress to the 97th Board meeting.

The Board reiterated its request to the Administration of Italy to provide a detailed action plan for implementing the FM Working Group's recommendations, with clearly defined milestones and timelines, to make a firm commitment to the plan's implementation and to report to the 97th Board meeting on progress in that regard.

The Board thanked the Bureau for its report to the Board and the support provided to the administrations concerned and instructed the Bureau to:

- continue providing assistance to those administrations;
- continue reporting on progress on the matter to future Board meetings."

3.46 It was so **agreed**.

Implementation of Nos. 9.38.1, 11.44.1, 11.47, 11.48, 11.49, 13.6 and Resolution 49 (Rev.WRC-19) of the Radio Regulations (§ 5 of Document RRB24-2/4)

3.47 **Mr Vallet (Chief, SSD)**, referring to § 5 of Document RRB24-2/4, said that the tables therein contained the usual statistics on suppressions of satellite networks. There was nothing specific to report.

3.48 **Mr Azzouz**, welcoming the comprehensive information provided in the tables, suggested that, in future reports, the word "Total" in Table 5-1 might be replaced by another term, such as "Full".

3.49 The Board **noted** § 5 of Document RRB24-2/4, on the implementation of Nos. **9.38.1**, **11.44.1**, **11.47**, **11.48, 11.49**, **13.6** and Resolution **49 (Rev.WRC-19)** of the Radio Regulations and instructed the Bureau to modify the presentation of Table 5-1 in future reports, replacing the word "Total" with a more appropriate term.

Review of findings to frequency assignments to non-geostationary-satellite-orbit (non-GSO) FSS satellite systems under Resolution 85 (WRC-03) (§ 6 of Document RRB24-2/4)

3.50 **Mr Kadyrov (acting Head, SSD/SNP)** said that, since the Board's previous meeting, the Bureau had published 20 non-geostationary-satellite systems submitted for coordination and one for notification. The Bureau was beginning to review findings for satellite networks received in 2022, although three 2021 submissions for which concurrent modifications had been received were still under examination.

3.51 Responding to questions from the **Chair**, he said that Table 6-1 would be updated to include the most recently received non-geostationary-satellite submissions processed by the Bureau for which a date of receipt had been established. The Bureau was seeking to reduce the backlog, which stood at around two and a half years, but some circumstances were beyond its control, including the number of non-geostationary-satellite systems being submitted by administrations. By the end of 2024, it expected to have completed the review of findings for satellite networks received in 2022 and hoped to have made significant progress with respect to the 2023 cases. Although new software would undoubtedly be helpful, many new submissions were still using Recommendation ITU-R S.1503-2, and only a very limited number were relying on the new recommendation. As so many administrations continued to use the old methodology, the Bureau would continue to use it, but hopefully with updated software.

3.52 The Board **noted** § 6 of Document RRB24-2/4, on the review of findings related to frequency assignments to non-GSO FSS satellite systems under Resolution **85 (WRC-03)**, and again encouraged the Bureau to reduce the backlog for the processing of filings.

Implementation of Resolution 35 (Rev.WRC-23) (§ 7 of Document RRB24-2/4 and Corrigendum 1)

3.53 **Mr Loo (Head, SSD/SPR)**, introducing § 7 of Document RRB24-2/4, said that, as at 30 April 2024, the Bureau had received 35 submissions under Resolution **35 (Rev.WRC-23)** and that three satellite systems had finished their deployment. Since the Board's 95th meeting, the frequency assignments to the satellite system "102" had been suppressed. The Bureau noted that the frequency band 17.3–17.7 GHz (space-to-Earth) in Region 2 allocated to the fixed-satellite service by WRC-23 had not been added to the table of frequency bands and services for application of the milestone-based approach in *resolves* 1 of Resolution **35 (Rev.WRC-23)**.

3.54 **Ms Beaumier** said that, in her view, the failure to add the new allocation to the table of frequency bands and services for the application of the milestone-based approach in *resolves* 1 of Resolution **35 (Rev.WRC-23)** was not a deliberate decision by WRC-23, rather an omission. It was for a world radiocommunication conference, rather than the Board, to take a decision on the matter, which should be raised by the Director in his report to WRC-27 or in the Board's report to WRC-27 under Resolution **80 (Rev.WRC-07)**. It would not be appropriate for the Board to suggest a rule of procedure.

3.55 The **Chair** agreed that WRC-27 would be a timely opportunity to take a decision on the matter and that a rule of procedure might not be necessary at that stage. The earlier application of

Resolution **35 (Rev.WRC-23)** with respect to that frequency band would not bring additional value to the overall regulatory processing of the systems and, if WRC-27 decided to include the allocation, administrations would still have sufficient time to provide the relevant information.

3.56 **Mr Loo (Head, SSD/SPR)**, responding to questions from **Mr Azzouz** and **Mr Cheng** regarding the tables, said that in Table 7-1, the second row pertaining to a specific satellite system showed the date by which administrations had to satisfy their obligations for the next milestone period. Turning to Table 7-2, he said that the notifying administration (Norway) of STEAM-1 and STEAM-2 had submitted Resolution **35 (Rev.WRC-23)** information showing that 442 space stations were deployed. At the current stage, the notifying administration was not required to provide information on any other space stations that might have been deployed. Under the next milestone, however, the Bureau would receive information on the rest of the space stations deployed to meet the requirement for that milestone.

3.57 **Mr Vallet (Chief, SSD)** said that WRC-23 had not deliberately failed to add the allocation to the table of frequency bands and services. Agenda item 1.19 had been agreed at the very end of the conference and there had been no time to identify consequential changes. ITU-R Working Party 4A had begun its work on Resolution **35 (Rev.WRC-23)** and the Bureau would raise the matter at the next meeting. It would also suggest that the working party address the applicability of Resolution **35 (Rev.WRC-23)** and identify those services and frequency ranges to which the resolution applied. It would be useful to seek feedback from the working party on the need for a rule of procedure for the current cycle.

3.58 In relation to § 7 of Document RRB24-2/4, on progress towards implementation of Resolution **35 (Rev.WRC-23)**, the Board **noted** that WRC-23 had allocated the frequency band 17.3-17.7 GHz (space-to-Earth) in Region 2 to the fixed-satellite service and that the allocation had not been added to the table of frequency bands and services for the application of the milestone-based approach in *resolves* 1 of Resolution **35 (Rev.WRC-23)**. The Board **decided** to instruct the Bureau to bring the issue to the attention of ITU-R Working Party 4A, inviting it to express an opinion on the need for a rule of procedure governing the situation until a world radiocommunication conference took a decision on the matter.

Implementation of Resolution 559 (WRC-19) (§ 8 of Document RRB24-2/4)

3.59 **Mr Wang (Head, SSD/SNP)**, said that Resolution **559 (WRC-19)** had been successfully applied by 41 administrations and, following WRC-23 decisions, 82 frequency assignments had been included in the Appendices **30** and **30A** Plans. The Bureau had published special sections to include the 82 assignments in the plans, reflect the updated coordination requirements, and remove the corresponding previous assignments from the List of Appendices **30** and **30A**. The Bureau considered that the implementation of Resolution **559 (WRC-19)** had been completed successfully and stood ready to provide assistance, upon request, to the four remaining Resolution 559 administrations that had yet to finish the coordination process.

3.60 The **Chair** said that the Board should commend the Bureau for the timely application of WRC-23 decisions regarding the implementation of Resolution **559 (WRC-19)**.

3.61 **Mr Azzouz** thanked the Bureau and Board members for their efforts to ensure that the implementation of Resolution **559 (WRC-19)** was completed successfully. He congratulated the Chair of the African Telecommunications Union (ATU) and African countries on their great achievements and thanked those countries that had facilitated the implementation of the resolution by modifying their existing assignments and completing the coordination process. The Bureau should provide support to the remaining four administrations that had not yet started their coordination processes so that they could obtain their allotments.

3.62 **Mr Wang (Head, SSD/SNP)**, responding to a question from **Mr Talib**, who also thanked the Bureau for its efforts to ensure the successful implementation of Resolution **559 (WRC-19)**, said that the Bureau was in close contact with some of the four remaining administrations. It was up to the administrations themselves to start the process and conduct the necessary coordination, and the Bureau stood ready to provide technical assistance if requested.

3.63 The **Director** thanked the Board for supporting the Bureau's work to implement Resolution **559 (WRC-19)**, which had been one of the most successful recent exercises for countries with a degraded situation vis-à-vis their satellite systems in the Plan. The administrations concerned were particularly grateful to ITU-R in general and to those countries that had facilitated coordination, and the ATU had even held a special ceremony at WRC-23. The Bureau was in contact with most of the four remaining administrations and would continue to try and work with them on the implementation of Resolution **559 (WRC-19)**.

3.64 The **Chair** proposed that the Board conclude as follows on § 8 of Document RRB24-2/4:

"Regarding § 8 of Document RRB24-2/4, on the implementation of Resolution **559 (WRC-19)**, the Board:

- commended the Bureau for the timely application of WRC-23 decisions regarding the implementation of Resolution **559 (WRC-19)**;
- congratulated the 41 administrations whose frequency assignments had been included in the Appendices **30** and **30A** Plans;
- thanked the administrations that had agreed to the coordination requests of the 41 administrations and also thanked the Bureau for its continued support to those administrations.

The Board instructed the Bureau to provide similar support to the remaining four administrations that had not yet started their coordination processes."

3.65 It was so **agreed**.

Status of the requests for new allotments in Appendix 30B and implementation of Resolution 126 (WRC-23) (§ 9 of Document RRB24-2/4)

3.66 **Mr Wang (Head, SSD/SNP)**, drawing attention to § 9.1 of Document RRB24-2/4 on the status of the requests for new allotments in Appendix **30B**, said that following the decision of WRC--23, the Bureau had published the new national allotments of nine Member States in Special Sections in March 2024, as detailed in Table 9-1. The new allotment for Montenegro had been entered into the Plan in accordance with the normal Appendix **30B** procedures. In the case of Slovenia, the new allotment was a modification to an existing allotment for the former Yugoslavia.

3.67 Turning to § 9.2 of Document RRB24-2/4, he said that the special procedure set out in Resolution **126 (WRC-23)** had been applied in respect of three satellite networks for Botswana and Malawi. The publication information was indicated in Table 9-2.

3.68 The **Chair** said that the Board should commend the Bureau for its work in connection with Appendix **30B** in preparation for WRC-23 and for already applying Resolution **126 (WRC-23)**.

3.69 In noting § 9.1 of Document RRB24-2/4, on the status of requests for new allotments in Appendix **30B**, the Board **expressed satisfaction** at the expedited manner in which the Bureau had implemented the WRC-23 decision to include national allotments in the Appendix **30B** Plan for nine administrations.

3.70 The Board **noted** § 9.2 of Document RRB24-2/4, on the implementation of Resolution **126 (WRC-23)** and thanked the Bureau for its efforts to apply the special procedure under the resolution

to three satellite networks, resulting in their publication in a special section of the Bureau's International Frequency Information Circular (BR IFIC).

Notification of frequency assignments to the STEAM-2B satellite network (§ 10 of Document RRB24-2/4)

3.71 The Board **considered** § 10 of Document RRB24-2/4, on the notification of frequency assignments to the STEAM-2B satellite system. It **noted** that the Bureau had acted correctly and that 21 December 2023 would be retained as the date of receipt of the frequency assignments to the satellite system.

Review of No. 4.4 recordings of space station filings in the MIFR (§ 11 of Document RRB24-2/4)

3.72 **Mr Kadyrov (acting Head, SSD/SSC)**, drawing attention to the tables in § 11 of Document RRB24-2/4, said that, in order to meet the requirements of WRC-23 and ensure that recordings in the Master International Frequency Register (MIFR) under No. **4.4** of the Radio Regulations contained accurate and consistent remarks and indications, the Bureau had conducted a comprehensive review of such recordings, including of compliance with frequency allocation tables and pfd hard limits. That review had revealed several inconsistencies, all of which had subsequently been corrected. The findings were published in BR IFIC 3022 and updated in the SRS (Space Radiocommunications Stations) database, further enhancing the integrity and accuracy of satellite network assignments.

3.73 In reply to a query from **Mr Cheng**, he confirmed that the indications "Add/Remove 4.4 flag" and "Add 8.5" in the Review column of Table 11 were related to only some frequency assignments to the satellite system concerned, not the whole system.

3.74 **Ms Beaumier**, recalling that the information received from the Bureau for the Board's report to WRC-23 under Resolution **80 (Rev.WRC-07)** had taken the form of a spreadsheet, said that it would be useful to have an updated version. She asked whether steps had been taken to ensure that frequency assignments recorded before 1990 were still operational.

3.75 **Mr Vallet (Chief, SSD)** replied that the SUPERBIRD filings of the Administration of Japan were supporting two major positions used by multiple satellites; he would check once more that they involved new satellites. The Resolution **4 (Rev.WRC-03)** period of validity for the PROGNOZ and VOLNA filings had already expired once; the Bureau had contacted the Administration of the Russian Federation to ensure that the frequency assignments were still in use and the period of validity had been extended. The Bureau would check with the Administration of Sweden whether the entries for the frequency assignments relating to the KIRUNA ROCKET were still correct.

3.76 The **Chair** noted that many systems were indicated as operating under No. **4.4** without a check having been made by the Bureau at the API stage as there was no regulatory examination with respect to conformity under No. **11.31** for the API. Those filings corresponded to satellites that appeared to have been launched and were operational but had not yet been notified as such. He asked whether it would be possible to list the satellite systems at the API stage indicating operations under No. **4.4** that were not yet notified but corresponded to satellites that had been launched, with a view to reminding administrations of the mandatory regulatory process for notifying the bringing into use of frequency assignments under Article **11** of the Radio Regulations.

3.77 **Mr Loo (Head, SSD/SPR)** said that the Bureau could produce such a list but that it might take some time to do so, as it would have to consult publicly available sources for information on systems that had not been notified. The list could be provided for the 97th Board meeting.

3.78 In reply to a comment from **Mr Azzouz** on the need for transparency, as determined by WRC-23, on the issues related to No. **4.4**, the **Chair** said that those issues had not been fully resolved

at WRC-23 and would be covered in the Board's report to WRC-27 under Resolution **80 (Rev.WRC-07)**.

3.79 The **Chair** proposed that the Board should conclude as follows on § 11 of Document RRB24-2/4:

"With regard to § 11 of Document RRB24-2/4, dealing with the review of No. **4.4** recordings of space station filings in the Master International Frequency Register (MIFR), the Board thanked the Bureau for its thorough and complete analysis and its review, as appropriate, of frequency assignments recorded in the MIFR under No. **4.4**, further ensuring the integrity and accuracy of satellite network frequency assignments in the MIFR. At the request of the Board, the Bureau agreed to study satellite systems at the API stage with indications of operations under No. **4.4** that had not yet been notified but corresponding to satellites that had been launched; it also agreed to report its findings to the 97th Board meeting."

3.80 It was so **agreed**.

3.81 Having considered in detail the Report of the Director of the Radiocommunication Bureau, as contained in Document RRB24-2/4, its Corrigendum and its Addenda 1, 2 and 4, the Board **thanked** the Bureau for the extensive and detailed information provided.

4 Rules of Procedure

4.1 List of Rules of Procedure (Document RRB24-2/1)

4.1.1 **Ms Hasanova**, the Chair of the Working Group on the Rules of Procedure, reported that the working group had held five meetings and that, thanks to the hard work of the Board members and the Bureau, it had concluded on all five points on its agenda. It had discussed and revised the list of proposed rules of procedure contained in Document RRB24-2/1 in the light of the Bureau's proposals to modify certain rules of procedure and proposals for new rules; once approved in plenary, the revised list would be circulated to administrations for comment. Concerning negligible levels of interference tolerated in regulatory examination and interference analysis involving satellite systems and networks, the working group had agreed to modify the rules of procedure on No. **9.27** and, following approval in plenary, to circulate the modified version to administrations for comment and consideration at the 97th Board meeting. The working group had also discussed the rules of procedure on Resolution **1 (Rev.WRC-97)** and agreed with the approach proposed by the Bureau for processing notices of frequency assignments to stations located in the geographical areas governed by those rules; the working group proposed that the Board should instruct the Bureau to submit that approach to the 97th meeting of the Board for its final consideration and approval. Lastly, the working group had agreed that modification of the rules of procedure on Resolution **1 (Rev.WRC-97)** would be deferred for consideration to a future meeting of the Board.

4.1.2 **Mr Botha (SGD)** explained the modifications to Document RRB24-2/1, most of which had been made to align the draft rules of procedure discussed during the working group meetings with those indicated in the plenary.

4.1.3 In reply to a question from **Ms Beaumier**, **Mr Vallet (Chief, SSD)** said that the rules of procedure on WRC-23 decisions related to the implementation of Resolution **559 (WRC-19)** had been included in Attachment 4 to Document RRB24-2/1 because of the need to process and publish certain filings. Regarding the general question of the inclusion of WRC-23 decisions recorded in the minutes of the plenary, the Bureau had published a circular letter containing all such decisions. In the past, the Board had used similar circular letters to decide which decisions to quote in the rules of procedure. In terms of urgency, the WRC-23 decisions already applied and the Board should therefore

focus on rules of procedure that had been considered in 2024 before turning to the topic of rules of procedure quoting WRC-23 decisions recorded in minutes of plenary meetings in 2025.

4.1.4 **Ms Beaumier** suggested that the circular letter to administrations be published well in advance of the deadline for comments. As someone who had once been responsible for reviewing such letters, she felt that it might be helpful if administrations received the texts on which they were being asked to comment in batches rather than all at once.

4.1.5 **Ms Hasanova** alerted Board members to the heavy workload they could expect for the working group during the Board's 97th meeting. In response to her request to receive administrations' comments by e-mail as they arrived, **Mr Botha (SGD)** recalled that some comments were not received in English; they would have to be translated before being dispatched.

4.1.6 The **Chair** thanked Ms Hasanova on behalf of all Board members for her excellent work steering the working group through the numerous new and modified rules of procedure considered. He proposed that the Board should conclude on the matter as follows:

"Following a meeting of the Working Group on the Rules of Procedure, under the leadership of Ms S. HASANOVA, the Board:

- revised and approved the list of proposed rules of procedure contained in Document RRB24-2/1, taking into account proposals by the Bureau for the revision of certain rules of procedure and proposals for new rules of procedure;
- instructed the Bureau to publish the revised version of the document on the website and to prepare and circulate those draft rules of procedure well in advance of the 97th Board meeting, to allow administrations enough time to comment;
- considered the Bureau's proposal for the possible treatment of pending frequency assignments to stations located in disputed territories on a case-by-case basis and instructed the Bureau to further develop that approach and submit it to the 97th Board meeting for final consideration and approval by the Board;
- decided that modification of the rules of procedure on Resolution **1 (Rev.WRC-97)** would be deferred for consideration to a future Board meeting."

4.1.7 It was so **agreed**.

5 Request for the cancellation of frequency assignments to satellite networks under No. 13.6 of the Radio Regulations

5.1 Request for a decision by the Radio Regulations Board to cancel the frequency assignments to the B-SAT-1J satellite network at 68°W under No. 13.6 of the Radio Regulations (Document RRB24-2/3)

5.1.1 **Mr Loo (Head, SSD/SPR)** introduced Document RRB24-2/3, in which the Bureau justified its request to cancel the frequency assignments to the B-SAT-1J satellite network at 68°W of the Administration of Brazil, for which the period of validity had expired on 9 August 2023.

5.1.2 Having examined the Bureau's request, the Board **considered** that the Bureau had acted in accordance with No. **13.6**: it had asked the Administration of Brazil to provide evidence that the B-SAT-1J satellite network remained operational and to identify the actual satellite currently in operation, and had sent two reminders, but had received no response. Consequently, the Board **instructed** the Bureau to cancel the frequency assignments to the B-SAT-1J satellite network in the MIFR.

6 Harmful interference to administrations' transmissions in the broadcasting satellite service (Documents RRB24-2/4(Add.3) and RRB24-2/DELAYED/6)

6.1 Submission by the Administration of Luxembourg regarding harmful interference to its SIRIUS-4-BSS satellite network (Document RRB24-2/5)

6.2 Submission by the Administration of Sweden regarding harmful interference to its satellite networks at the orbital position 5°E (Documents RRB24-2/6 and RRB24-2/DELAYED/1)

6.3 Submission by the Administration of France as the notifying administration for the Intergovernmental Organization EUTELSAT IGO concerning harmful interference to satellite networks F-SAT-N3-21.5E, F-SAT-N-E-13E, F-SAT-N3-13E, F-SAT-N3-10E and EUTELSAT 3-10E (Documents RRB24-2/7 and RRB24-2/DELAYED/3)

6.4 Submission by the Administration of the Netherlands regarding harmful interference to the F-SAT-N-E-13E satellite network (Document RRB24-2/8)

6.5 Submission by the Administration of Ukraine regarding harmful interference to its television programme transmissions in the broadcasting service (Document RRB24-2/10)

6.1 The **Chair** proposed that the Bureau should introduce all the submissions and provide any clarification thereon before the Board began its discussion. At his request and, in accordance with the working methods of the Board, the introduction of sub-item 6.3 pertaining to the Administration of France was presided over by the Vice-Chair.

6.2 **Mr Vallet (Chief, SSD)** introduced Document RRB24-2/5, in which the Administration of Luxembourg, as the notifying administration of the earth stations to the Swedish SIRIUS-4-BSS satellite network, reported that uplink transmissions between Luxembourg territory and the ASTRA-4A satellite located at 5°E had been receiving intermittent harmful interference in the 18 GHz range since 8 March 2024. The harmful interference took two forms, both of which violated No. **15.1** of the Radio Regulations: a high-power carrier with no content that disrupted the intended signal (unnecessary transmission); or replicated multiplexing signals replacing the original content (transmission of false or misleading signals). In each case, the satellite operator concerned had geolocated the interfering signal to a location within the territory of the Russian Federation or Crimea. The interfering signal tended to follow the targeted signal, affecting one transponder for a period of time and then changing to affect a different one, likely indicating that the interference was deliberate. The transponders predominantly carried Ukrainian television and radio programming.

6.3 The Administration of Luxembourg had attempted to make the Russian Administration aware of the harmful interference and had provided evidence of its origin, but had not received any acknowledgement of its letters. The interference had not only continued but increased. It therefore requested the Board to address the matter and direct the Bureau to take urgent action to stop the interference by concluding that the interfering transmissions infringed No. **15.1** and inviting the Administration of the Russian Federation to take the necessary actions under Nos. **15.21** and **15.22**. The annex to the submission provided technical background, including spectral plots, impact per transponder and geolocation results. The Administration of Luxembourg noted that a high level of technical expertise and an uplink set-up of over 90dBW of effective isotropic radiated power capability would be needed to cause such targeted harmful interference.

6.4 Responding to a question from **Ms Mannepalli** concerning the spectral plots set out in Figure 1 in the annex, he said that the interference and useful carrier were represented by the pink

and blue lines, respectively, and the yellow line was the total power received by the useful and interfering carrier. The spike in the pink line showed where all the energy was concentrated and was characteristic of an unmodulated carrier.

6.5 **Mr Azzouz** observed that it was not possible to conclude with certainty that the interference was intentional; the most effective way to interfere with FM modulation was to use a carrier wave (CW).

6.6 **Mr Vallet (Chief, SSD)** introduced Document RRB24-2/6, in which the Administration of Sweden reported that Swedish satellite networks located at 5°E had been receiving harmful interference in the 14 GHz and 18 GHz ranges in the Earth-to-space direction since 4 March 2024. Over 10 transponders on ASTRA-4A, which was operating under Swedish authorization, had experienced harmful interference affecting frequencies assigned to Sweden. The harmful interference took the same two forms as in the case of the Administration of Luxembourg. In each case, the satellite operator concerned had geolocated the interfering signal to a location within the territory of the Russian Federation or Crimea. The affected transponders predominantly carried Ukrainian television and radio broadcast content. The interference appeared to follow content, which would require significant resources and an uplink set-up of over 90 dBW effective isotropic radiated power capability and might indicate that the harmful interference was intentional.

6.7 The Administration of Sweden had attempted to make the Russian Administration aware of the harmful interference and provided evidence of its origin. It had received two acknowledgements of receipt from the Russian Administration, and the interference had not only continued but increased. The Swedish Administration, which had sought assistance from the Bureau under No. **13.2** of the Radio Regulations, requested the Board to address the matter by concluding that the interfering transmissions infringed No. **15.1** and inviting the Administration of the Russian Federation to take the necessary actions under Nos. **15.21** and **15.22**. Annex 1 to the submission provided technical background, including impact per transponder, spectral plots and detailed geolocation results. Annex 2 contained tables summarizing the events that had affected the various transponders until date of drafting the report (9 May 2024).

6.8 In Document RRB24-2/DELAYED/1, the Administration of Sweden requested the Board to publish the conclusions of its deliberations concerning its contribution (Document RRB24-2/6) on the websites of the Board and the Bureau, in accordance with *resolves to instruct the Radio Regulations Board* 2 of Resolution 119 (Rev. Bucharest, 2022). He recalled that the text of that resolution had been modified at PP-22 to give the Board the possibility of publicizing the conclusions of its deliberations in a more open and focused manner.

6.9 Responding to a question from **Mr Talib**, he said that, while the interference was experienced on the uplink, its effect was seen and measured on the downlink. The Administration of Luxembourg only operated transponders with an uplink in the 18 GHz range and a downlink in the 12 GHz range in the BSS Plan. The affected downlink frequency range for the SIRIUS-5E-2 satellite network was in the 12.529–12.565 GHz range, corresponding to an uplink in the 14 GHz range. For the SIRIUS-5-BSS and SIRIUS-6-BSS satellite networks, the uplink was in the 18 GHz range.

6.10 The **Vice-Chair** invited the Bureau to introduce Documents RRB24-2/7 and RRB24-2/DELAYED/3.

6.11 **Mr Vallet (Chief, SSD)** introduced Document RRB24-2/7, in which the Administration of France reported harmful interference to its satellite networks F-SAT-N3-21.5E, F-SAT-N-E-13E, F-SAT-N3-13E and F-SAT-N3-10E, located at 21.5°E, 13°E and 10°E respectively, and as the notifying administration of the EUTELSAT intergovernmental satellite organization, also reported harmful interference to the EUTELSAT 3-10E satellite network located at 10°E. The harmful interference, which had been identified as coming from large earth stations located on the territory of

the Russian Federation, had begun in mid-March 2024, sometimes in the form of unmodulated carriers and at other times in the form of modulated carriers with the aim of replacing the video content. As detailed in the various reference documents attached to the submission, the French Administration had informed the Administration of the Russian Federation of the situation through letters and interference reports, including various technical material. It had received four acknowledgements of receipt of its letters and one response from the Russian Administration indicating that the monitoring it had performed to detect the sources of interference had not detected any emissions that could cause harmful interference to the satellites identified. The French Administration had requested assistance from the Bureau under No. **13.2** and, as the harmful interference persisted, was bringing the matter to the attention of the Board with a view to a swift resolution.

6.12 In Document RRB24-2/DELAYED/3, the Administration of France requested the Board to publish the conclusions of its deliberations concerning its contribution (Document RRB24-2/7) on the websites of the Board and the Bureau, in accordance with *resolves to instruct the Radio Regulations Board* 2 of Resolution 119 (Rev. Bucharest, 2022).

6.13 Responding to a question from **Ms Mannepalli**, he said that under No **15.35**, an administration should, as soon as possible, acknowledge receipt of information concerning harmful interference. The administration receiving such a communication should then inform the notifying administration of the results of its investigations.

6.14 **Mr Botha (SGD)** informed the Board that at 0730 hours on Wednesday, 26 June 2024, the Bureau had received a further delayed submission, in French, from the Administration of France. He noted that, according to the working methods of the Board, any submissions received after the start of the Board meeting would not normally be considered.

6.15 The **Vice-Chair** asked how the Board wished to proceed with respect to the additional delayed document from the Administration of France.

6.16 **Ms Mannepalli** said that the Board should not consider the late submission at its current meeting; the document had been provided in French and the meeting had already started.

6.17 **Ms Beaumier** agreed, adding that consideration of the document at the present juncture would set a bad precedent. It was likely that the Board would have to consider the situation at its next meeting and it might wish to take the delayed document into account then.

6.18 **Ms Hasanova** shared the views of previous speakers, noting that it was clear from Addendum 3 to the report of the Director (Document RRB24-2/4) that the harmful interference persisted.

6.19 The **Vice-Chair** took it that the Board wished to defer consideration of the delayed submission from the Administration of France to its 97th meeting.

6.20 It was so **agreed**.

6.21 The **Chair** invited the Bureau to introduce Document RRB24-2/8.

6.22 **Mr Vallet (Chief, SSD)** introduced Document RRB24-2/8, in which the Administration of the Kingdom of the Netherlands reported that, on 28 March and 17 April 2024, interruptions to television channels, including to channels aimed at children, had occurred, with the original content being replaced by images of war in Russian. The relevant frequency assignment in the uplink was associated with the F-SAT-N-E-13E satellite network located at 13°E, which was operating under French jurisdiction. The Administration of the Netherlands requested the Bureau to confirm the source of the disruption and address the matter to the administration responsible and, in accordance with *resolves to instruct the Radio Regulations Board* 2 of Resolution 119 (Rev. Bucharest, 2022), to publish the results of its findings on its own website and that of the Bureau.

6.23 Responding to questions from **Mr Talib** and **Mr Azzouz**, he said that no geolocation information had been provided by the Administration of the Netherlands. The satellites affected were those operating under filings notified by Sweden at 5°E or by France at 21.5°E, 13°E and 10°E, and those notifying administrations were taking the lead with respect to the interference reports. All administrations, however, had the right to send documents to the Board. The Administration of the Netherlands was informing the Board of the consequences of the interference, which was not only affecting channels carrying Ukrainian programming but also other broadcasting channels and having a detrimental effect on the audience (affecting Netherlands channels broadcasting in that country, including content addressed to children). Under Article **15** of the Radio Regulations, any administrations affected by harmful interference (those operating the transmitters and satellite receivers as well as the end user) could report interference.

6.24 In Document RRB24-2/10, the Administration of Ukraine reported that, from February to 9 May 2024, there had been at least 11 cases of harmful interference to receiving earth stations in the broadcasting satellite service over its territory, affecting 37 Ukrainian media programmes. The Ukrainian Administration drew attention to information provided by the notifying administrations (France and Sweden) regarding the origin and nature of the interference, to No. 197 of the ITU Constitution and to various provisions of the Radio Regulations. The administration requested the Board to consider the issue as a matter of urgency and to take all possible measures to bring about an end to the interference.

6.25 Document RRB24-2/DELAYED/6 contained a submission by the Administration of the Russian Federation regarding harmful interference to its and other administrations' transmissions in the broadcasting satellite service. The Russian Administration reported that the situation with respect to interference to such transmissions had deteriorated dramatically by mid-2022. Since February 2022, there had been repeated cases of the substitution of content broadcast to the territory of the Russian Federation and transmitted through the Russian Federation's satellites YAMAL-402 at 55°E and EXPRESS-AM8 at 14°W (11 cases respectively), as well as through foreign satellites. Since June 2023, the number of sources of interference to Russian broadcast satellites and their power had increased sharply and, in July 2023, Russian satellite operators had launched a plan to counter such attacks on satellite broadcasting. Drastic solutions had been required to maintain the quality and level of satellite radio broadcasting. The Russian Administration had not contacted the Board about the interference and understood that the attacks on the information infrastructure was not only a matter of interference, but also related to the information policy of individual countries. The Russian Administration had objected to some of the terminology used in the input documents on the item and stated that, in accordance with international law, it would make every effort to protect the legal rights of Russian citizens, including by eliminating illegal information content on its territory by all available means. It concluded by expressing its readiness to engage in a constructive dialogue with the administrations concerned on resolving the harmful interference issues impacting transmissions in the broadcasting satellite service and suggested that the Bureau could facilitate such a dialogue.

6.26 Responding to questions from **Ms Beaumier** and **Mr Talib**, he said that the Bureau had not received any reports through the Satellite Interference Reporting and Resolution System (SIRRS) from the Russian Administration about the harmful interference received since 2022. The Bureau had not been copied in any exchange of letters relating to the harmful interference and was not aware of any bilateral contacts on the issue. He was therefore not in a position to provide the Board with any technical or geolocation information on the matter.

6.27 The **Chair** noted that the Bureau had not received any information about the harmful interference affecting Russian broadcast satellites since February 2022 either via SIRRS or as copy of exchanges of letters between involved administrations and said that he would expect the mention to "a plan to counter attacks on satellite broadcasting" in the Russian document to refer to operational

anti-jamming mitigation measures. However, he was dubious about the reference to the "drastic solutions" of the Russian Administration.

6.28 **Mr Fianko** asked how the Board was to proceed with respect to the historical harmful interference to which the Russian Administration had referred in its delayed submission but had chosen not to bring to the attention of the Bureau. In his view, unless there was a correlation between that historical interference and the current situation, the Board should not attach much value to it: the Russian Administration had not reported the harmful interference, and the Board should discount it in its assessment of the situation.

6.29 The **Chair** said that, in accordance with the Radio Regulations, administrations could seek the assistance of the Bureau in resolving cases of harmful interference, and it was the prerogative of each administration to decide whether or not to do so. While the information provided by the Russian Administration in its delayed submission was of interest, that administration had decided not to inform the Bureau of the harmful interference and had provided no supporting technical information. The Board might consider asking the Russian Administration to apply the relevant provisions of the Radio Regulations in the event of interference.

6.30 **Mr Vallet (Chief, SSD)** said that the Bureau had first learned of the interference affecting the Russian Federation's satellites when it had received the delayed submission on the Friday afternoon immediately preceding the Board's meeting on Monday (Friday, 21 June). He pointed out that the Bureau only acted if an administration invoked No. **13.2** or Article **15** of the Radio Regulations.

6.31 **Ms Mannepalli** noted that the Russian Administration had not provided any technical information on the interference experienced or on countermeasures and had not informed the Bureau about it. The Board should focus on the cases for which technical justification had been provided and try to find a solution. The Bureau should be able to make use of international monitoring facilities to identify interference sources, and the Board might wish to indicate that in its report to WRC-27 under Resolution **80 (Rev.WRC-07)**.

6.32 **Ms Beaumier** noted that the Bureau had not been aware of the content of the document from the Russian Administration when it had developed its recommendations since the delayed submission had been received afterwards. In her view, the Russian Administration had not offered a denial: it had indicated that it had received harmful interference and had almost appeared to acknowledge the use of high-power signals to combat what it considered illegal information content on its territory. International monitoring was not the first step to be taken and should only be used if needed.

6.33 **Mr Talib** said that, given the absence of technical information, the only link between the Russian Administration's submission and the other documents under consideration appeared to be timing: the delayed document had been received after the other submissions that provided geolocation information. The Board might wish to instruct the Bureau to facilitate a meeting of the administrations concerned to resolve the harmful interference cases.

6.34 **Mr Linhares de Souza Filho** said that the Board should not seek to ascertain the submissions' relevance but to send a clear message and ensure implementation of the Radio Regulations, notably No. **15.22**. It should instruct the Bureau to organize a meeting with all administrations concerned to resolve the harmful interference cases. For the sake of balance, it might wish to refer in its conclusion to the interference experienced by the Russian Administration.

6.35 The **Chair** said that it appeared that, in its delayed submission, the Russian Administration was responding to the approach outlined by the Bureau in Addendum 3 to Document RRB24-2/4.

6.36 **Mr Azzouz** asked why the Board would discuss earlier harmful interference to Russian satellites, to which the Russian Administration had referred in its delayed submission but which it

had failed to report to the Bureau or to substantiate. That administration could seek support from the Bureau if it so wished. The Board should focus on the existing harmful interference cases for which geolocation information had been provided.

6.37 Responding to questions from **Mr Nurshabekov**, the **Chair** confirmed that the Bureau had not received any information at all regarding the harmful interference to the Russian YAMAL-402 and EXPRESS-AM8 satellite networks, including about any communication on the interference between satellite operators, and was not aware of any other administrations potentially linked to the interference to the satellite networks. In his view, the Board should base its consideration of the item on factual information and refrain from referring in its conclusion to the harmful interference to Russian satellite networks mentioned in Document RRB24-2/DELAYED/6, which appeared not to have been substantiated by any requests for assistance to the Bureau or exchanges with other administrations.

6.38 **Ms Hasanova, Mr Di Crescenzo, Mr Fianko** and **Mr Cheng** endorsed that approach. The Russian Administration had not submitted any interference reports or informed the Bureau of the harmful interference, nor had it provided any technical evidence to the current Board meeting. The Board should focus on the interference issues for which technical information had been provided. It did not have the necessary technical evidence to discuss in detail the interference to Russian satellite networks. In its conclusion, it should remind administrations to act in accordance with Article **15** of the Radio Regulations in the event of harmful interference and might wish to invite the Russian Administration to provide further technical information to a future Board meeting.

6.39 **Mr Vallet (Chief, SSD)** said that Addendum 3 to Document RRB24-2/4 had been prepared by the Bureau pursuant to No. **13.2**, which had been invoked by the Administrations of France and Sweden. The document summarized the various harmful interference cases before the Board affecting satellite networks located at 5°E, 10°E, 13°E and 21.5°E. In § 5 (summary and recommendations), the Bureau noted that the nature of the harmful interference, its possible sources and the location of the associated earth stations exhibited a very similar pattern of characteristics. It recommended requesting the Russian Administration to provide information about the status of its investigation and actions carried out prior to the Board's meeting; to further investigate whether any earth stations were currently deployed at, or close to, the locations identified by the geolocation results provided by the administrations affected by the interference that might have the capability to cause harmful interference in the 13/14 GHz and 18 GHz frequency ranges, and to take the necessary actions in compliance with Article 45 of the ITU Constitution to prevent the reoccurrence of such harmful interference; and to cooperate with the administrations concerned in the resolution of the cases. Should the harmful interference persist, and the Board deem it necessary, the Bureau could also convene a meeting of the administrations concerned.

6.40 He noted that the Bureau had contacted the Russian Administration in response to the request for assistance under No. **13.2** and had brought to its attention No. **15.22**. The Bureau had received an acknowledgement of receipt, but no substantive reply.

6.41 **Mr Talib** thanked the Bureau for its recommendations, which would provide a good basis for the Board's conclusion.

6.42 **Ms Beaumier** said that, based on the information provided by the five administrations and the detailed supporting evidence supplied on the nature of the interference, the Board could conclude that the transmissions were deliberate and were intentionally causing harmful interference to the transmissions of the satellite networks identified. Two different satellite operators had independently geolocated the source of the interference to their respective satellite networks and had reached similar conclusions regarding the specific locations. The Russian Administration had failed to reply to the Bureau and to communications received from administrations and had only provided one response indicating that it had not detected any emissions that could cause harmful interference to the satellites

identified. However, all the administrations affected by the harmful interference had reported that the interference continued. Moreover, from the information provided in Document RRB24-2/DELAYED/6, the Russian Administration appeared to acknowledge the use of high-level power signals to combat illegal information content on its territory, but there was some ambiguity as to whether there was any actual recognition of such actions.

6.43 She thanked the Bureau for its report and recommendations, which were appropriate. The Board should express grave concern regarding the use of signals to cause intentional harmful interference to the radiocommunication services of another administration and should, as in previous similar cases, condemn such behaviour in the strongest possible terms, as it was in direct contravention of No. **15.1** and No. 197 of the Constitution. The Board might wish to urge the Administration of the Russian Federation to immediately cease any deliberate action to cause harmful interference and to act in compliance with No. **15.22**. In light of the input from the Russian Administration, the Board should instruct the Bureau to convene a meeting of all administrations concerned. Should questions about the interference source persist, the Board might also wish to instruct the Bureau to request the cooperation of administrations that were signatories to the Memorandum of Understanding on Space Monitoring to help perform geolocation measurements. The Bureau should report on progress to the 97th Board meeting.

6.44 The **Chair** said that the Board's conclusion should be factual, clear and carefully worded. The Board should express grave concern that assignments operating in compliance with the Radio Regulations and duly recorded in the MIFR were the target of harmful interference and should recognize clearly that the transmissions experienced by the administrations were in contravention of No. **15.1**. The information before the Board might appear conflicting: the Russian Administration had reported that its monitoring had not detected any Russian emission that could cause harmful interference to the satellite networks indicated, but had also mentioned in its delayed submission that "drastic solutions" had been required to address the external interference situation. As geolocation results were usually provided by the administrations concerned, it might be useful for the sake of transparency for the Bureau to have recourse to the cooperation of signatories to the Memorandum of Understanding on Space Monitoring, if necessary. The Bureau should also be requested to convene a meeting of the administrations concerned.

6.45 **Mr Azzouz** thanked the Administrations of Luxembourg, Sweden, the Netherlands, and France for their efforts to identify the interference and geolocate the source, and the Administration of Ukraine for the additional information relating to the impact of the interference on the distribution of Ukrainian television programmes in the broadcasting satellite service. Given the nature of the signal, the interference was in direct contravention of No. **15.1**. Noting the readiness of the Russian Administration to engage in a dialogue with the administrations concerned, he said that the Board should instruct the Bureau to invite the Russian Administration to act in accordance with No. **15.21** and resolve the harmful interference; to work with the administrations concerned to stop the critical interference; and to provide information on the status of its investigation and actions carried out prior to the 97th Board meeting, and any further information on earth stations in the vicinity of the locations identified. Recognizing the special underlying circumstances of the issue, the Bureau should convene a meeting of the administrations concerned as soon as possible in order to resolve the harmful interference cases and prevent them from reoccurring. It should also report on progress to the 97th Board meeting.

6.46 **Mr Linhares de Souza Filho** endorsed the comments of Mr Azzouz and suggested that the Board should use the Bureau's recommendations, with some adjustments. It should present a balanced conclusion that does not appear to apportion blame. The Board should request all the administrations concerned to cooperate to resolve the harmful interference cases and might also wish to request the

Administration of the Russian Federation to provide further information on the harmful interference it had suffered. **Mr Di Crescenzo** agreed that all administrations should be requested to cooperate.

6.47 **Ms Hasanova** thanked the administrations concerned for their submissions and supporting technical evidence regarding the harmful interference. She indicated that documents received from the Administrations of France, Sweden, Luxemburg, the Netherlands and Ukraine gave information that there was harmful interference to their services.

She noted that the harmful interference affecting the SIRIUS satellite networks located at 5°E in the 17.3 to 18.1 GHz and 14 GHz frequency ranges in both vertical and horizontal polarizations had still been present at the time of the Bureau's preparation of Addendum 3 to Document RRB24-2/4.

The Administration of France also informed the Bureau that the frequency assignments to the satellite networks of France and the satellite networks of the intergovernmental telecommunications satellite organisation, EUTELSAT, located at 21.5°E, 13°E and 10°E were still experiencing harmful interference in the 13.8 to 14.5 GHz frequency range and at 18.33 GHz.

The Russian Administration had expressed its readiness to engage in a constructive dialogue with the administrations concerned regarding the resolution of harmful interference issues. She encouraged the administrations concerned to act in accordance with No. **15.22** and exercise the utmost goodwill and mutual assistance in the application of the provisions of Article 45 of the Constitution, and to exchange the information required to resolve the harmful interference. The Bureau should be instructed to request the Russian Federation to prevent harmful interference to the services affected; to convene a meeting of the administrations concerned; to support the administrations in resolving the repeated harmful interference; and to report to the Board's 97th meeting.

6.48 **Mr Fianko**, welcoming the Bureau's very helpful recommendations, said that the Board should acknowledge in its conclusion that the administrations concerned had provided sufficient information for the Board to confirm the existence of interference that violated No. **15.1**. The information also pointed to the probable sources of the interference and confirmed its impact, including on content addressed to a children's audience, which was of concern. Despite the geolocation information provided, the Russian Administration had chosen not to comment directly on the issue in its delayed submission and had referred to certain peripheral issues. While the administration's willingness to cooperate was encouraging, it must take the appropriate steps to detect and eliminate the interference in accordance with Article **15** of the Radio Regulations, and the Board should request it to take such action.

6.49 **Mr Cheng** said that he could agree with the Bureau's recommendations. In its conclusion, the Board should emphasize that all the interference, which was of the nature described in No. **15.1**, must be stopped immediately. It should also instruct the Bureau to convene a meeting of the administrations concerned as a matter of urgency to resolve the harmful interference cases and prevent them from reoccurring, and request all those administrations to act in accordance with No. **15.22**.

6.50 **Ms Mannepalli** said that, given the technical evidence and geolocation information provided by the administrations affected by the harmful interference, the nature of the interference and the Bureau's view that the possible sources exhibited a very similar pattern of characteristics, the harmful interference to satellite networks of the Administrations of France and Sweden and to radiocommunication services of other administrations, which persisted, appeared to be intentional and a violation of No. **15.1** and Articles 45 and 47 of the Constitution. The Board should request the Administration of the Russian Federation to provide the technical details of the monitoring it had conducted. It should instruct the Bureau to request the cooperation of administrations that were signatories to the Memorandum of Understanding on Space Monitoring to locate the interference

sources, if necessary, and to convene a meeting of the administrations concerned to stop such harmful interference.

6.51 **Mr Nurshabekov** agreed that the Russian Administration should be requested to cease any action causing interference. However, as that administration had also reported interference, it would be advisable to request all countries to refrain from such action. Administrations that were signatories to the Memorandum of Understanding on Space Monitoring could, in the interests of independence, be requested to help identify the sources of harmful interference. The Bureau should be requested to convene a meeting of the administrations concerned to resolve the harmful interference cases and to report to the Board's 97th meeting.

6.52 **Mr Azzouz** said that the Board's conclusion should be carefully worded using neutral language and be based on the Board's own analysis, rather than on the content of the submissions themselves. It was not clear to him whether the harmful interference was intentional and the result of deliberate action.

6.53 The **Chair** said that, from the information received, deliberate actions were being undertaken to cause intentional interference to French and Swedish satellite networks. **Ms Beaumier** agreed, adding that the nature of the interference and the type of signals transmitted pointed to intentional and deliberate interference. In the event of actions contravening No. **15.1**, the Board had to use strong language, as it had in its conclusions on previous cases. The Board had to keep a notion of doubt about the location of the origin of such interference as it had not received a full response from the Russian Administration.

6.54 The **Chair** recalled that the Administrations of France, the Netherlands and Sweden had requested the Board to publish the conclusions concerning their contributions (Documents RRB24-2/7, RRB24-2/8 and RRB24-2/6) on the websites of the Board and the Bureau in accordance with *resolves to instruct the Radio Regulations Board* 2 of Resolution 119 (Rev. Bucharest, 2022), and requested members' views on such action.

6.55 **Ms Mannepalli** observed that the Board was already implementing much of *resolves to instruct the Radio Regulations Board* 2 of Resolution 119 (Rev. Bucharest, 2022) by publishing the summary of decisions, including the associated reasons, by circular letter and on its website.

6.56 **Mr Fianko** said that it would be premature to accede to the requests of the administrations at the present juncture, particularly as further actions were expected. The Board had not published relevant information on requests in previous cases. **Mr Azzouz**, **Ms Hasanova** and **Ms Mannepalli** agreed.

6.57 The **Chair**, responding to a suggestion from **Mr Talib**, said that he was not in favour of highlighting any part of the summary of decisions as all were equally important. In order to ensure its credibility and impartiality, the Board needed to have exhausted all options and have absolute certainty of the facts of any case before taking action under *resolves to instruct the Radio Regulations Board* 2 of Resolution 119 (Rev. Bucharest, 2022) at the request of an administration.

6.58 **Ms Beaumier** said that *resolves to instruct the Radio Regulations Board* 2 of Resolution 119 (Rev. Bucharest, 2022) afforded the Board some discretion. The only element on which the Board could conclude with certainty at the current meeting was that there had been infringement of No. **15.1**. It would be premature to accede to the administrations' requests at present, particularly as the Administration of the Russian Federation had informed the Board of its willingness to engage in further discussion.

6.59 **Mr Di Crescenzo** pointed out that the Board always expressed grave concern about behaviour leading to intentional harmful interference.

6.60 The **Chair** proposed that the Board conclude on the matter as follows:

"The Board considered in detail Addendum 3 to Document RRB24-2/4, reporting on harmful interference affecting satellite networks located at 5°E, 10°E, 13°E and 21.5°E. It also considered submissions from the Administrations of Luxembourg, contained in Document RRB24-2/5, and Sweden, contained in Document RRB24-2/6 relating to harmful interference to SIRIUS satellite networks in the broadcasting satellite service (BSS) at 5°E; France, contained in Document RRB24-2/7 relating to harmful interference to its satellite networks and EUTELSAT satellite networks at various orbital positions; from the Kingdom of the Netherlands, contained in Document RRB24-2/8, and from Ukraine, contained in Document RRB24-2/10 reporting on harmful interference to its transmissions in the BSS. The Board also noted for information Documents RRB24-2/DELAYED/1 from the Administration of Sweden, RRB24-2/DELAYED/3 from the Administration of France and RRB24-2/DELAYED/6 from the Administration of the Russian Federation, providing further information on that subject. The Board thanked the Bureau for the summary on the reports of harmful interference it had received affecting the above-mentioned satellite networks and its recommendations.

The Board noted the following points:

- Several reports of harmful interference to the services of the above-mentioned satellite networks, which were operating in full compliance with the Radio Regulations and therefore had the right to international recognition in order to avoid harmful interference, in accordance with No. **8.3** of the Radio Regulations, had been submitted to the Bureau by different administrations.
- The nature of the interference took several forms, ranging from high-power unmodulated carriers to replicated multiplexing signals replacing the original content transmitted by the BSS feeder link earth station over-riding the original content.
- The harmful interference had affected specific channels predominantly carrying Ukrainian television and radio programming, but also channels of the Administration of the Netherlands, and had occurred repeatedly.
- Two different satellite operators had geolocated the source of the interference and reached similar conclusions, namely that the harmful interference had originated from earth station(s) located in the areas of Moscow, Kaliningrad and Pavlovka.
- In response to a request for assistance under No. **13.2** of the Radio Regulations, the Bureau had contacted the Administration of the Russian Federation and had brought to its attention No. **15.22**.
- The Bureau had received no reply from the Administration of the Russian Federation on the status or results of its investigation.
- In an earlier response to the Administration of France, the Administration of the Russian Federation had indicated that it had performed monitoring to detect the sources of interference but had not detected any emission that could cause harmful interference to the satellite networks of the French administration.
- The administrations concerned had all reported that the interference was still present.
- The Administration of the Russian Federation had informed the Board of its willingness to discuss the matter with those administrations.

The Board expressed its grave concern regarding the use of signals to cause intentional harmful interference to the radiocommunication services of another administration and condemned such actions in the strictest terms, indicating that such behaviour was in direct contravention of No. **15.1** of the Radio Regulations. Furthermore, the Board viewed the deliberate actions to cause harmful interference to the French and Swedish satellite networks in the 13/14 GHz and 18 GHz frequency

ranges, which seemed to originate from earth station(s) located in the areas of Moscow, Kaliningrad and Pavlovka, as extremely worrisome and unacceptable.

The Board therefore requested the Administration of the Russian Federation:

- to immediately cease any deliberate action to cause harmful interference to frequency assignments of other administrations;
- to provide information on the status of its investigation and actions carried out prior to the 97th Board meeting;
- to further investigate if any earth stations were currently deployed at, or close to, the locations identified by the geolocation results provided by the administrations affected by the harmful interference that might have the capability to cause harmful interference in the 13/14 GHz and 18 GHz frequency ranges as experienced by the satellite networks located at 5°E, 10°E, 13°E and 21.5°E, and to take the necessary actions in compliance with Article 45 of the ITU Constitution ("All stations, whatever their purpose, must be established and operated in such a manner as not to cause harmful interference to the radio services or communications of other Member States…"), so as to prevent the reoccurrence of such harmful interference.

In addition, the Board urged the Administration of the Russian Federation and the Administrations of France, Sweden, Luxembourg, the Netherlands and Ukraine, in compliance with No. **15.22**, to collaborate and exercise the utmost goodwill and mutual assistance in the resolution of the harmful interference cases.

The Board instructed the Bureau to:

- convene a meeting of the administrations concerned in order to resolve the harmful interference cases and prevent them from reoccurring;
- request the cooperation of administrations that were signatories to the Memorandum of Understanding on Space Monitoring to help perform the geolocation measurements needed to identify the sources of harmful interference, if necessary;
- report on progress to the 97th Board meeting.

Considering that further information and actions were expected in relation to the issue, the Board decided that it was premature at this stage to accede to the requests from the Administrations of France, the Netherlands and Sweden under *resolves to instruct the Radio Regulations Board* 2 of Resolution 119 (Rev. Bucharest, 2022)."

6.61 It was so **agreed**.

7 Issues regarding the provision of STARLINK satellite services in the territory of the Islamic Republic of Iran (Documents RRB24-2/DELAYED/2, RRB24-2/DELAYED/4 and RRB24-2/DELAYED/5)

7.1 Submission by the Administration of the Islamic Republic of Iran regarding the provision of STARLINK satellite services in its territory (Document RRB24-2/9)

7.2 Submission by the Administration of the United States regarding the provision of STARLINK satellite services in the territory of the Islamic Republic of Iran (Document RRB24-2/11)

7.1 **Mr Vallet (Chief, SSD)**, introducing the item, said that, in Document RRB24-2/9, the Administration of the Islamic Republic of Iran quoted the decision taken by the Board at its 95th meeting and stated that, despite that clear and firm decision, no action had been taken by the Administrations of Norway, as the notifying administration, or the United States, as an associated

administration to the notifying administration, to disable the STARLINK terminals operating without authorization on Iranian territory. The Iranian Administration also provided publicly available evidence to the effect that the operator had started to crack down on users connecting to its services from other countries where such connections were not authorized. The administration's submission ended with a request to the Board to take a decision that would lead to an immediate stop to the unauthorized provision of STARLINK services from within Iranian territory.

7.2 In Document RRB24-2/11, the Administration of the United States stated that, as an associated administration, it would continue to provide assistance to prevent the unauthorized operation of transmitting earth stations to the extent possible but did not believe that its commitments under the ITU Constitution and Convention or under the Radio Regulations extended to addressing the activities of smugglers, which was primarily a domestic issue; moreover, the Iranian Administration had not alleged that the operator was marketing, selling or activating its terminals on Iranian territory. In response to the two questions it had been explicitly asked by the Board, the Administration of the United States replied that the operator's message in English and Persian to users indicating the risks "in regions that may be hostile to Starlink usage" addressed, according to the operator, the practical risks of using its terminals, regardless of whether such use was authorized. The message had been conveyed in Persian out of concern for the safety of Persian speakers in the region and their enjoyment of the right to freedom of expression. The Administration of the United States also replied that, while it was possible for the operator to disable a particular earth station that had been brought to its attention, it was neither required nor practicable, in the case of global constellations, to turn off satellite beams over a given geographic area, as doing so could affect operations in other countries.

7.3 In Document RRB24-2/DELAYED/2, the Administration of Norway replied to the same two questions explicitly asked by the Board, stating that it had been informed by the operator that the message in English and Persian had been sent to alert users to the potential for legal action if they used a terminal without a licence from the territory on which the terminal was located. The administration also confirmed that it was possible for the operator to disable a particular earth station that had been brought to its attention and said that it would forward to the operator any information received on terminals found to be operating without authorization from within Iranian territory. Referring to the Board's interpretation of the applicability of Resolution **25 (Rev.WRC-03)**, the administration pointed out that the operator's services were not marketed or sold, and could not be activated, within the borders of any country that had not authorized those services. It was therefore of the view that the requirements set out in the resolution could not be interpreted in such a way that the filing administrations of satellite systems were obliged to impose technical requirements on their operators enabling those systems to exclude certain territories from downlink coverage. Lastly, the Administration of Norway pointed out that the preparatory work for agenda item 1.5 of WRC-27 involved ongoing studies of the need for new regulations, beyond the current requirements of the Radio Regulations, addressing the issue.

7.4 In Document RRB24-2/DELAYED/4, the Iranian Administration refuted the points made by the Administration of the United States in Document RRB24-2/11, stating that the issue at hand was the unauthorized operation of STARLINK terminals on Iranian territory, not the import or export of such terminals; that it had received no assistance to deactivate such terminals; that there would have been no need for a warning message if the operator had disabled the unauthorized terminals on Iranian territory; that it had never alleged that the operator was marketing or selling unauthorized terminals on Iranian territory; and that it was impossible for an administration such as itself to detect all unauthorized terminals on a territory as vast as that of the Islamic Republic of Iran. The Iranian Administration asked why, if the operator was able to disable terminals used without authorization on Iranian territory, it had not yet done so, and referred once again to the operator's tweet ("Approaching 100 Starlinks active in Iran") as evidence that it had not taken all reasonable and

practical steps to ensure that the operator's terminals were not available on Iranian territory. The Iranian Administration also pointed out that statements on the observance of human rights in a given country went beyond the operator's remit and ITU's core mandate to affect the sovereignty of other States in the region.

7.5 In Document RRB24-2/DELAYED/5, the Iranian Administration refuted the contents of the submission from the Administration of Norway (Document RRB24-2/DELAYED/2). It suggested that, rather than posting a warning message in Persian and English, it would have been simpler for the operator to ensure that its terminals were disabled if located on territory on which they were not authorized to operate. The Iranian Administration provided evidence to the effect that the operator was in a position to disable terminals operating without authorization and asked why it had taken no steps to do so in respect of such terminals on Iranian territory. It repeated that it was impossible for an administration such as itself to detect all unauthorized terminals on a territory as vast as that of the Islamic Republic. In respect of agenda item 1.5 of WRC-27, the Iranian Administration stated that it expected the conference would act to confirm that Member States had the sovereign right to regulate the use of telecommunications on their territories.

7.6 In its initial submission and in both of its delayed documents, the Iranian Administration requested the Board to act in accordance with the last paragraph of *resolves to instruct the Radio Regulations Board* 2 of Resolution 119 (Rev. Bucharest, 2022).

7.7 **Mr Talib** said that he had received information that the operator had published a communiqué informing subscribers having purchased a STARLINK terminal in a country in which its use was authorized and subsequently removed it to a country in which such use was not authorized that they had until 30 April 2024 to deactivate those terminals; after that date, the terminal would be disabled by the operator itself. As a result, unauthorized terminals in 37 African countries had been deactivated. Neither the United States nor Norway had addressed that point, which was directly relevant to the matter at hand.

7.8 **Mr Azzouz** said that he had received the same information, with users being given two months to disable their unauthorized terminals. He found it hard to understand that the operator could stop services in African countries but not in the Islamic Republic of Iran. Referring to the assertion by the United States and Norway that the operator could disable terminals being used without authorization about which it had been notified, he observed that it would be difficult for some countries to monitor activities with a view to producing a list of all the operator's customers transmitting without a licence.

7.9 The **Chair** pointed out that operators had lists of all their customers and knew the location of their terminals, in particular those operating via non-GSO satellites where bandwidth was limited and insofar as the service had been authorized, in order to ensure an equitable amount of the available bandwidth to all operating customers within a specific area. In the case at hand, the service had not been authorized but the operator had confirmed that it could disable unauthorized STARLINK terminals. He agreed that it was peculiar that the operator had done so in some African countries but not in the Islamic Republic of Iran.

7.10 **Ms Mannepalli** added that her understanding of the various submissions received was that the Administrations of the United States and Norway, while conceding that the operator could disable any unauthorized STARLINK terminals on Iranian territory, considered it was up to the Iranian Administration to monitor the situation and inform them of the existence of terminals contravening the roaming arrangements made for the terminals' use. In her view, it would be humanly impossible for the Iranian Administration to do that. She agreed with the Chair that operators were aware of the location of their terminals operating in a particular satellite beam. From publicly available information it was clear that the STARLINK operator had been able to disable, or geofence, an unauthorized service – as opposed to cancelling coverage – in other areas. It should therefore be able

to do so in the case of the Islamic Republic of Iran. Indeed, the Board had not asked the administrations concerned to switch off the beam or cancel coverage; it had always referred to the need to disable the provision of services from within the Islamic Republic.

7.11 **Mr Linhares de Souza Filho** said that he was bothered by parts of the submissions from the United States and Norway containing arguments purported to be in response to the Board's decision but in fact unrelated to that decision – the so-called strawman fallacy. The Board should clearly state that the issue was one of compliance with the Radio Regulations, No. **18.1** of which was obviously related to the operation of transmitting stations, not to the smuggling or marketing thereof – two aspects which the Board had, moreover, never raised. The Board's discussion was focused on the unauthorized operation of STARLINK terminals in places where they were not licensed to operate.

7.12 **Mr Cheng** said that Resolutions **22 (WRC-19)** and **25 (Rev.WRC-03)** clearly stated that it was for the notifying administration to ensure that a satellite system could be operated only from the territory of an administration having authorized that service. That obligation was not to be interpreted as being limited to refraining from marketing the relevant terminals in certain countries. In his view, the measures taken by the operator and the Administrations of the United States and Norway did not suffice to fulfil their obligations under No. **18.1** and Resolutions **22 (WRC-19)** and **25 (Rev.WRC-03)**. Those administrations should again be urged to comply proactively with the relevant provisions and to take immediate action to disable all STARLINK terminals, which the operator was in a position to geolocate, on Iranian territory.

7.13 It was also his view that the Administrations of the United States and Norway had not provided clear answers regarding the publicly available and reliable information that the operator had disabled specific services over certain areas in the past. They should be asked to fulfil their obligations under the Radio Regulations, to confirm that STARLINK had the capability to disable services, as evidenced by growing amounts of public information, and, if that was indeed the case, to explain why it had not done so in the case of the Islamic Republic of Iran.

7.14 **Mr Fianko** considered that Documents RRB24-2/11 and RRB24-2/DELAYED/2 reflected the endeavour of the Administrations of the United States and Norway to reframe the substance of the issue, about which there was, in his view, no ambiguity. The issue at stake was compliance with the Radio Regulations, in particular *resolves* 2 of Resolution **22 (WRC-19)**, which stipulated that "the notifying administration for a satellite network or system shall, to the extent practicable, limit the operation of transmitting earth stations on the territory of an administration on which they are located and operated to only those licensed or authorized by that administration". Publicly available information showed that the satellite operator had that capability. The Board should impress on the Administrations of Norway and the United States its expectation that they would comply with that provision.

7.15 **Ms Beaumier** expressed disappointment in the responses from the Administrations of Norway and the United States. While the warning message in Persian and English may have been developed for humanitarian reasons, it was clear that STARLINK was aware that its terminals were transmitting in the Islamic Republic of Iran. In addition, the Board did not expect the operator to turn off the beam, but instead to comply with *resolves* 2 of Resolution **22 (WRC-19)** and turn off the terminals. And while it was true that STARLINK was not marketing, selling or activating terminals in the Islamic Republic, it was not doing anything to stop its terminals located in a country where they were not authorized to operate from transmitting a signal.

7.16 The Administrations of Norway and the United States considered that it was up to the Islamic Republic of Iran to act, and it was true that the Islamic Republic had a responsibility to take appropriate action under *resolves* 3 i) of Resolution **22 (WRC-19)**. The Iranian Administration had stated that it was impossible for it to take such action, but the Board might consider asking the administration what it was doing on an ongoing basis to stop the unauthorized transmissions.

7.17 The Board knew from publicly available information that STARLINK had acted to disable unauthorized terminals in similar situations. It was hard to understand why it could not take similar action in the case of terminals in the Islamic Republic of Iran. The Board should reiterate its conclusion from the 95th meeting that all three administrations must comply proactively with *resolves* 1, 2 and 3 of Resolution **22 (WRC-19)**.

7.18 **Mr Nurshabekov** expressed concern that the Board was having to base its conclusion, not on the replies it had received from the operator or its notifying and associated administrations, but from publicly available sources. According to those administrations, it was up to the Iranian Administration to inform the operator about the location of unauthorized terminals, but that administration and many others might not have the technical capacity to do so. The Board should urge the notifying administrations to comply with Resolution **22 (WRC-19)**. It might also be interesting to look into how the terminals had been purchased, as they had presumably been paid for from another country.

7.19 **Ms Hasanova** considered that the operator knew where its terminals were located and operating. Their use in the Islamic Republic of Iran was not authorized under No. **18.1,** Resolutions **22 (WRC-19)** and **25 (Rev.WRC-03)**. Given that the Administration of the United States had stated its willingness to provide assistance to the extent practicable, the Board should urge the notifying and associated administrations to take action to disable all STARLINK terminals operating within Iranian territory.

7.20 **Mr Azzouz** said that the Board should strongly urge the Administrations of Norway and the United States to take immediate action to disable all STARLINK terminals operating within Iranian territory or any other territory in which they were not authorized to operate, and to fully comply with No. **18.1**, with Resolutions **22 (WRC-19)** and **25 (Rev.WRC-03)**, and with the Board's previous decisions.

7.21 In his view, the responses of the notifying and associated administrations relating to the message in English and Persian were not satisfactory: concern for the human rights and potential legal jeopardy of Persian speakers did not come under the operator's remit and the message constituted implicit encouragement for customers to use the operator's terminals illegally and without authorization, in violation of international and domestic law, and ITU regulations.

7.22 In terms of the operator's ability to disable STARLINK services over a specific territory, and according to the Administration of the United States, the operator had used the information in screenshots provided by the Iranian Administration to identify all the earth stations reported by that administration and had deleted the associated user accounts from its list of authorized users. It should apply that same procedure to all earth stations operating without authorization from within Iranian or any other territory. The Board had not requested a beam switch-off; it had asked for the terminals of individual customers to be disabled. It should now request immediate action to disable the operator's terminals, noting that neither the notifying and associated administrations nor the operator had taken reasonable and practical steps to ensure that STARLINK terminals did not operate without authorization from within the Islamic Republic of Iran.

7.23 Lastly, the Board should instruct the Bureau to raise the issue for consideration under agenda item 1.5 of WRC-27.

7.24 The **Chair** said that it might be interesting for the Board to consider agenda item 1.5 of WRC-27 at a later point, in conjunction with its report under Resolution **80 (Rev.WRC-07)** to WRC-27.

7.25 **Mr Di Crescenzo** cautioned that the Board should exercise great care when wording its decision, as the case was but the first of its kind and the Board's conclusion would lay the groundwork for decisions on other systems potentially affecting many other administrations in the future.

7.26 The **Chair** reminded the Board of the Iranian Administration's request that the Board act in accordance with *resolves to instruct the Radio Regulations Board* 2 of Resolution 119 (Rev. Bucharest, 2022) and asked the members for their views on such action. In his view, the Board's disappointment in the responses of Norway and the United States were indicative of its level of extreme concerns regarding the outcome of the case. That said, the Board had to be careful not to become a "naming and shaming" institution rather than working with all parties involved to ensure compliance with the application of the Radio Regulations.

7.27 **Mr Fianko** said that the Board should be consistent with its earlier decision on agenda item 6. While the Board was unanimous on the need to impress on the notifying and associated administrations their obligation to comply with the Radio Regulations, it should give them the opportunity to do so before taking any special measures.

7.28 **Ms Mannepalli** considered that the cases under agenda items 6 and 7 were not exactly similar. The case at hand had been before the Board for quite some time without any progress being made. That said, if the Board decided on a strong concluding statement, it could defer a public announcement to its next meeting.

7.29 **Ms Beaumier** and **Mr Azzouz** agreed that a decision on the Iranian Administration's request would depend on the wording of the Board's conclusion on the case.

7.30 **Mr Cheng** said that he had no definite position on whether or not to accede to the Iranian Administration's request. What had happened in the Islamic Republic of Iran could happen anywhere and the Board's decision would set a precedent; it would therefore be helpful for other administrations to have information on it. In addition, similar discussions would be held under agenda item 1.5 of WRC-27 and it might be useful to publish some information in that light.

7.31 **Mr Fianko** remained reluctant to accede to the Iranian Administration's request. Requests under Resolution 119 (Rev. Bucharest, 2022) were sure to increase in number in the future and the Board should therefore exercise restraint in that regard to the extent possible, so as not to place itself under even greater pressure. Public announcements should be made only when there was no other choice. Every attempt should be made to resolve a case before "naming and shaming" an administration and placing the matter in the public domain.

7.32 Following a final discussion on the wording of the decision, the **Chair** proposed that the Board should conclude as follows on agenda item 7:

"The Board carefully considered Document RRB24-2/9 from the Administration of the Islamic Republic of Iran and Document RRB24-2/11 from the Administration of the United States of America, on the provision of STARLINK satellite services within Iranian territory. The Board also noted for information Document RRB24-2/DELAYED/2 from the Administration of Norway, and Documents RRB24-2/DELAYED/4 and RRB24-2/DELAYED/5, submitted by the Administration of the Islamic Republic of Iran in response to the submissions of the Administrations of the United States and Norway, respectively.

The Board thanked the Administrations of Norway and the United States for providing the additional clarification requested at the 95th Board meeting and also thanked the Administration of the Islamic Republic of Iran for the additional information provided.

The Board noted the following points:

- The Administration of the Islamic Republic of Iran had reported that no action had been taken by the notifying administration to disable unauthorized STARLINK terminals operating from within its territory despite the Board's decisions at its 95th meeting. The administration had repeated its requests to the Administration of Norway, as the notifying administration for the

relevant satellite systems providing STARLINK services, and to the Administration of the United States, as an associated administration to the notifying administration, to disable such terminals.

- The responses to the two questions explicitly asked to the Administrations of Norway and the United States raised aspects that were mostly not related to the issue of the provision, in direct contravention of the provisions of Article **18** and of *resolves* 1 and 2 of Resolution **22 (WRC-19)** and the *resolves* of Resolution **25 (Rev.WRC-03)**, of transmissions from within any territories where they had not been authorized.
- While the notifying administrations had confirmed that STARLINK terminals were not marketed, sold or activated within the territory of the Islamic Republic of Iran, the operator had only disabled specific terminals reported.
- No evidence had been provided that the operator had made efforts to disable all other STARLINK terminals operating within Iranian territory.
- In that regard, the Board further noted, based on reliable publicly available information, that the operator had been able to and had disabled terminals and terminated service in a general manner in several countries where their operation had not been authorized and that such action had been taken based on the geographical location of those terminals.
- While a reporting administration in whose territory the presence of unauthorized transmitting earth stations was identified had a responsibility under *resolves* 3 i) of Resolution **22 (WRC-19)** to take all appropriate actions at its disposal to the extent of its ability to stop such unauthorized transmissions, the notifying administration of the satellite system had the obligation under *resolves* 3 ii) of Resolution **22 (WRC-19)** to cooperate with the reporting administration, to the maximum extent possible, in order to resolve the matter in a satisfactory and timely manner.
- The Administration of the Islamic Republic of Iran had indicated that it was not able to detect and verify the operation of all unauthorized STARLINK terminals throughout its entire territory.

Consequently, the Board reiterated that the provision of transmissions from within any territories where they had not been authorized was in direct contravention of the provisions of Article **18** and of *resolves* 1, 2 and 3 of Resolution **22 (WRC-19)** and the *resolves* of **Resolution 25 (Rev.WRC-03**). The Board strongly urged the Administration of Norway, as the notifying administration for the relevant satellite systems providing STARLINK services, and the Administration of the United States, as an associated administration to the notifying administration, to comply with those provisions by taking immediate action to disable STARLINK terminals operating within the territory of the Administration of the Islamic Republic of Iran in the same manner as the operator had done in several other countries.

The Board instructed the Bureau to:

- invite the Administrations of Norway and the United States to provide further information on any additional actions taken since the 95th Board meeting to comply with *resolves* 1, 2 and 3 of Resolution **22 (WRC-19)** and the *resolves* of Resolution **25 (Rev.WRC-03)**;
- invite the Administration of the Islamic Republic of Iran to provide further information on any actions it had taken since the 95th Board meeting to comply with *resolves* 3 i) of Resolution **22 (WRC-19)**.

Considering that further information and actions were expected on this issue, the Board decided that it was premature at this stage to accede to the request from the Administration of the Islamic Republic of Iran under *resolves to instruct the Radio Regulations Board* 2 of Resolution 119 (Rev. Bucharest, 2022)."

7.33 It was so **agreed**.

8 Confirmation of the next meeting for 2024 and indicative dates for future meetings

8.1 The Board confirmed the dates for the 97th meeting as 11-19 November 2024 (Room L).

8.2 The Board further tentatively confirmed the dates for its subsequent meetings in 2025, as follows:

- 98th meeting: 17-21 March 2025 (Room L);
- 99th meeting: 14-18 July 2025 (Room L);
- 100th meeting: 3-7 November 2025 (Room L);

and in 2026, as follows:

- 101st meeting: 23-27 March 2026 (Room L);
- 102nd meeting: 29 June-3 July 2026 (Room L);
- 103rd meeting: 26-30 October 2026 (Room L).

9 Other business

9.1 Space Sustainability Forum 2024

9.1.1 The **Director**, noting that space was one of the pillars identified by the Secretary-General for her tenure in office, said that for ITU the issue was both old – in terms of spectrum access – and new – in terms of the number of objects in space and responsibility for avoiding waste. It had already been mentioned twice by the membership: once in Resolution 219 (Bucharest, 2022) and again in Resolution ITU-R 74. ITU had since taken several initiatives to convene the telecommunication community for a discussion of voluntary measures related to a code of conduct for space stakeholders. The Space Sustainability Forum 2024, which would be held on 10 and 11 September 2024 with high-level participation, with government authorities, regulators, space agencies and operators having been invited to discuss the policies, guidelines and solutions needed to ensure that outer space remained accessible and available.

9.1.2 The **Chair** said that he had been invited to speak, in his capacity as chair of the Board, at one of the forum panels. The views he expressed – which he would share with Board members beforehand – would be taken mostly from the Board's work in 2023, as described in the Board's report on Resolution **80 (WRC-07)** to WRC-23.

9.1.3 In reply to a question from **Mr Azzouz**, the **Director** said that Board members were free to attend the forum as representatives of their administrations.

9.2 2024 World Radiocommunication Seminar

9.2.1 The Board **noted** that Mr Fianko had agreed to represent the Board at the 2024 World Radiocommunication Seminar.

9.2.2 **Ms Beaumier** suggested that Mr Fianko might circulate his draft presentation to Board members, allowing enough time for them to comment before the seminar took place.

9.2.3 **Mr Fianko** thanked Board members for their vote of confidence.

10 Approval of the summary of decisions

10.1 The Board **approved** the summary of decisions contained in Document RRB24-2/12.

11 Closure of the meeting

11.1 The **Chair** thanked Board members for demonstrating goodwill, a spirit of cooperation and teamwork during their discussions of highly sensitive issues. He also thanked the Vice-Chair and the Chair of the Working Group on the Rules of Procedure for their work, the Director for his assistance, and the Bureau staff, including Mr Botha and Ms Gozal, for their support.

11.2 **Ms Beaumier**, **Mr Azzouz** and **Mr Talib** also expressed appreciation, to the Chair for his able conduct of the meeting and for adding a touch of humour, and to their colleagues for their collaboration in producing a truly good result. Mr Linhares de Souza Filho was congratulated on his first experience chairing the meeting and Ms Hasanova on the superb job she had done as Chair of the Working Group on the Rules of Procedure. Gratitude was expressed to the Director for his wisdom and guidance, to the Deputy Director for her insight, and to the Bureau and its staff for their hard work.

11.3 **Ms Hasanova** said that she was grateful for the kind words on her chairmanship and would do her best to learn and improve.

11.4 The **Director** thanked the Board members for their excellent work on a misleadingly short, quite tricky agenda. He was glad to see that the Board continued to function as a unified body. He thanked the Chair and Ms Hasanova for handling a difficult agenda with efficiency and wished everyone a safe journey back to their respective countries.

11.5 The **Chair** wished all members a safe journey home and closed the meeting at 1525 hours on Friday, 28 June 2024.

The Executive Secretary:
M. MANIEWICZ

The Chair:
Y. HENRI