

**Record of Decisions Taken at the
Sixth Resolution 609 (Rev. WRC-07) Consultation Meeting**

(June 2009)

The Sixth Resolution 609 (Rev. WRC-07) Consultation Meeting was convened by correspondence through the ITU-R Resolution 609 Consultation Meetings Forum, pursuant to the requirements of Resolution 609 (Rev. WRC-07).

The following actions were taken in regard to Resolution 609:

1. A copy of the Terms of Reference has been posted to the Resolution 609 Consultation Meetings Forum that is maintained by the BR on the ITU web site (<http://groups.itu.int/Default.aspx?alias=groups.itu.int/res-609>).
2. The Meeting decided that the Seventh Resolution 609 (Rev. WRC-07) Consultation Meeting will be convened at a venue to be determined, for a period of three working days, tentatively in 8-10 June 2010.
3. The meeting didn't modify the format for the List of System Characteristics which is contained in Attachment 1 hereto; only 1-degree latitude/longitude steps were considered. The following points describe the List of System Characteristics required to be submitted by Administrations:
 - a. Section I-9 of Attachment 1 contains the format of the results of the epfd calculation for each RNSS individual system, in MS Excel format (see Attachment 2 at Template, Sheet 1), using 1-degree steps in latitude and longitude. For non-GSO systems, administrations should also provide the time step resolution and the number of time steps simulated.
 - b. The system spectral adjustment factors (SAF) provided under Section I-8 should be in MS Excel format (see Attachment 2 at Template, Sheet 3).

Note: It was pointed out that in the future, if calculations determine that the Resolution 609 limit is theoretically breached by RNSS systems, it may be necessary to develop a mechanism that includes only those systems in operation or close to operation. Administrations are encouraged to consider if such a mechanism is required, how it might work and bring contributions to the next meeting.

4. The meeting also agreed with respect to the systems that had provided technical characteristics to the June 2009 Consultation Meeting within the specified deadlines, that it would not be necessary for the same information to be provided anew to the Seventh Consultation Meeting.

5. The Meeting compared the results (obtained using 1-degree data) from the different tools used to determine i) the epfd produced by each RNSS system and ii) the aggregate epfd produced by all considered RNSS systems. After discussions regarding the assumptions and methodologies used by each tool, the Meeting agreed on the specific epfd matrix to be retained for each modified or new RNSS system, results obtained through the different tools being comparable within 0.15 dB. The all-system aggregate epfd results provided by the different tools, with 1-degree resolutions, were then found to be comparable within 0.01 dB at all frequencies and the Meeting was satisfied with this degree of closeness.

6. The Meeting calculated the maximum aggregate epfd produced by all RNSS systems that provided characteristics to the June 2009 Meeting (see attachment 4).

7. The Meeting determined that under its aggregate epfd calculations, the maximum epfd of all satellites associated with the referenced RNSS systems would not exceed -122.82 dB(W/m²/MHz), i.e. 1.32 dB below the Resolution 609 limit of -121.5 dB(W/m²/MHz). The meeting noted that this result is based on the use of worst-case assumptions in terms of interference from RNSS into ARNS. For example, in the case of non-GSO RNSS systems using circular orbits, the epfd at a given latitude is considered equal for any longitude to that of the worst-case longitude.

The Nigcomsat-1G network was not able to provide its 1-degree data for this meeting, but the Meeting determined, based on the 5-degree data, that this system's particular contribution to the peak aggregate epfd figure for the worst 1 MHz is only 0.01 dB. This is reflected in the calculation results given in paragraph 7. The meeting agreed that Nigcomsat should provide the 1-degree epfd data for Nigcomsat-1G network for the next meeting so that it can be formally included in the calculations. Otherwise, the Nigcomsat-1G network will be excluded from the list of RNSS systems or networks and therefore from the maximum aggregate epfd calculation.

8. The Meeting agreed on a Report to the Radiocommunication Bureau that contains the results of the calculation mentioned in Nos. 6 and 7 above, and directed that this Report be communicated to the BR in the manner contemplated in § 14 of the Terms of Reference. A copy of the Report to the Radiocommunication Bureau has been posted to the Resolution 609 Forum that is maintained by the BR on the ITU web site (<http://groups.itu.int/Default.aspx?alias=groups.itu.int/res-609>).

9. The Meeting agreed that it is important, for the orderly operation of the Resolution 609 (Rev. WRC-07) consultation process and to ensure the achievement of accurate calculation results, that administrations providing information to Consultation Meetings comply with the deadlines established in the Terms of Reference.

10. The Meeting received for information a copy of the BR determination of compliance with the pfd criterion as per *instructs* BR 2 from Resolution 609 (Rev. WRC-07). The Meeting noted the document.

List of Attachments

Attachment 1 (Word document): Input format required for RNSS system characteristics.

Attachment 2 (Excel spreadsheet):

Sheet 1. Template for Section I-9 of Attachment 1, longitude/latitude (note orientation change) format for individual system epfd calculation results (1-degree steps).

Sheet 2. Template for Section I-8 of Attachment 1, spectral adjustment factors (SAF) relative to the worst 1 MHz.

Attachment 3 (Word document): RNSS System Characteristics provided to the meeting.

Attachment 4 (Excel spreadsheet): Simulated per-system epfd of each RNSS system using the 1-degree data.