

FEWER INTERFERENCES AND MORE CHANNELS IN THE AIR

Conflict in Radio Dial Reception

Do the changes in Radio Broadcast Regulations as proposed by Anatel Public Consultation N. 24 from 2019, threaten Radio's business model? How to reconcile the increase of airwave channels, with less interference, while maintaining the economic viability of broadcasters?

If on one hand we can accommodate many more broadcasters, on the other hand how not to "bother" the currently existing ones? Rural areas and regions more distant from urban centers may become a reception conflict area .

Chair: **Claudio Lorini - Director of Lorini Engenharia**

- **RECEIVERS AND THEIR EVOLUTION! SENSING (CPQD TESTS)**

Speaker: **Marcus Aurélio Ribeiro Manhães** - CPqD Researcher

Based on this year's CPqD tests, specially contracted by ABERT, the current situation of the receivers was evaluated, proposing to update the FM Technical Regulation in its latest 2010 version, originally generated in 1998. (Resolution 67/1998 - ANATEL).

An objective approach on the evolutionary theme of FM service.

- **NEW FM REGULATIONS - TRENDS AND IMPACT**

Speaker: **Paulo Eduardo dos Reis Cardoso** - Coordinator of Administration of Basic Broadcasting Plans / Spectrum, Orbit and Broadcasting Management – ORER
Anatel is undertaking a preliminary evaluation of the contributions received during Public Consultation N. 24, published on June 17, 2019, their technical arguments and the trends towards the New FM Technical Regulations (highlighted here).

It is taking into account the public hearings and submissions from the representatives of broadcasters, with the aim of using the extended band to accommodate the Migration and to govern the use of of all modalities of services on the band. Above all, it seeks to protect the public interest in the provision of the best services, which has always been the final objective of providers and users.

His presentation will give an overview of the deadlines involved in developing the Regulations, the intermediate phases and their actual coming into force and effect.

- **MODIFY THE FM REGULATION RESOLVES MIGRATION?**

Speaker: **Andre Ulhoa Cintra** – Radio Director - ABERT

The analysis of ABERT's Radio Director will show how the possible amendment of the FM Technical Regulation could contribute to allocate all Migrant AM stations to FM.

The balance of the Basic Plan and its planning with the unfeasible in the conventional FM range (88 to 108 MHz) accommodated in the extended range (76 to 88 MHz) would not reach a hundred stations. Thus the viralization of FMs would not pose a threat to the existing ones and would have their coverage area preserved. How far?

Learn about the decisive fate of FM broadcasting in Brazil, combining a business model with the preserved reception of radio content on the ground.



Chair: Claudio Lorini - Director of Lorini Engenharia

Electronic Engineer with specialization in Telecommunications and Information Networks from the Pontifical Catholic University of Rio Grande do Sul - PUC. Lawyer with specialization in Telecommunications Law also by PUC. Worked at Rádio e TV Gaúcha / Stamac - Generator Sets / Indelsul - Telecommunications Industry He is managing partner of Lorini Engenharia Ltda./Loriservice - Broadcasting and Telecommunications - Founded in 1981 - Porto Alegre / RS.



Marcus Aurélio Ribeiro Manhães - CPqD Researcher

He has been a telecommunications researcher since 1984. He has been researching and developing topics involving technology, education and society. His works include the Internet, digital cities, fixed and mobile telecommunications, digital inclusion, optical systems, radio, digital TV, interactivity channel, radio frequency channel plans and propagation models. Has experience in channel coding, optical transmission, modulation, radio frequency spectrum optimization and channel planning. Graduated from the Methodist University of Piracicaba and master in Education from the State University of Campinas. His research in the field of education and psychology culminated in obtaining the master's degree. In May 2019 - by CPqD - concludes receiver evaluation report, FM channel protection relationships to motivate proposal for amendment of Technical Regulation.



Paulo Eduardo dos Reis Cardoso - Coordinator of Administration of Basic Broadcasting Plans / Spectrum, Orbit and Broadcasting Management – ORER

He holds a doctorate from DECOM-FEEC-Unicamp (2018), researching the Broadcasting Regulation with the emphasis on Digital TV; a master's in electrical (Electronic) Engineering from DEMIC-FEEC-Unicamp (2005); and an undergraduate degree in Electrical Engineering from FEEC-Unicamp (2002). He holds the position of Regulation Specialist at the National Telecommunications Agency - Anatel, where he coordinates the Administration of Basic Broadcasting Plans within the Spectrum, Orbit and Broadcasting Department; and is leader of the GRR6 Reporting Group (Broadcasting) of the CBC2. Prior to this, he had worked at the Regional Management office of Anatel in São Paulo, working with Licensing and Amendments to the Technical Characteristics of broadcasting stations; Technical Supervision of broadcasting entities; and in solving radio interference problems in any telecommunication system. He was technically responsible for the proposed modification to the Technical Regulations for Frequency Modulation Sound Broadcasting and for analyzing the technical feasibility processes for including or altering the Basic Distribution Plan for Frequency Modulated Sound Broadcasting. He was a Brazilian government observer at the Digital Sound Broadcasting tests, both in the tests of the US standard - HD Radio, in 2008 and 2012, and the tests of the European standard - DRM, in 2010. He worked as a Telecommunications Researcher at the Fundação Centro de Pesquisa e Desenvolvimento em Telecomunicações (Telecommunications Research and Development Center Foundation) - CPqD.



Andre Ulhoa Cintra - Radio Director – ABERT

Communications Engineer - Consultant specialized in the planning of broadcasting channels. Director of Radio Abert and currently working on the FM Channel, by ABERT to accommodate the migrant channels. Developed by SET work to accommodate the TV channeling in the process of planning the TV Digital TV channeling.