

NTIA



Federal & International Regulatory Processes to prevent/address RFI

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NTIA

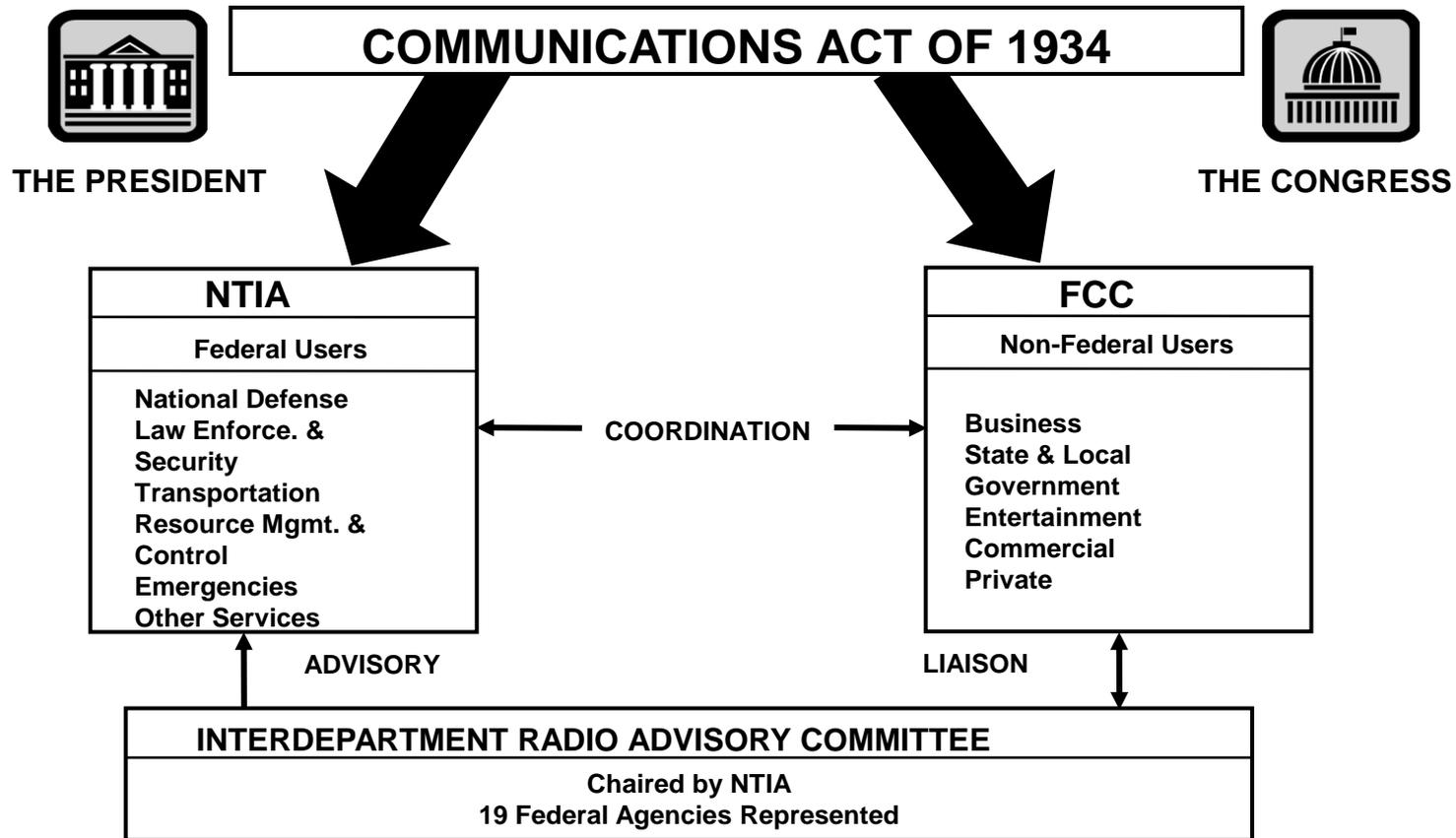
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NTIA promotes a space policy that minimizes potential interference by ...

- 1. Chairing Federal Regulatory Advisory Process**
- 2. Participating in International Regulatory Process**
 - Satellite Frequency Coordination**
 - Inter- and Intra-Service Processes**
 - Eliminating Interferences**
- 3. Engaging in Evolving Issues: Orbital Slots**

The law provides FCC and NTIA authority over users

National Spectrum Management



Not over spectrum

IRAC FUNCTIONS

- **The Interdepartment Radio Advisory Committee (IRAC): Chaired by OSM & Operating Since 1922**
 - Assists NTIA in assigning frequencies for U.S. Government uses
 - Develops procedures and technical criteria
 - Advises NTIA on spectrum issues before the FCC
- **The IRAC includes 6 subcommittees & Ad Hoc groups**
 - **Spectrum Planning Subcommittee: Evaluates Spectrum Supportability**
 - **Frequency Assignment Subcommittee: Assign Frequencies**
 - **Space Systems Subcommittee: Internationally Registers/Coordinates Federal Satellites**
 - **Others: Radio Conference Subcommittee (Prepares for WRCs), Emergency Planning Subcommittee, Technical Subcommittee (Standards)**
 - **Several Ad Hocs: Special Subjects**

Int'l Frequency Registration of Space Services

- **Advance publication Information (API)**
 - **Networks subject to coordination process submit general information only**
 - **Starts clock on 7-Year Bringing into Use period (DBIU)**
- **Coordination Phase**
- **Notification Phase**
- **Recording in Master International Frequency Register (MIFR)**

Coordination (RR Article 9)

- **Coordination publication contains detailed info about satellite network**
- **Coordination receipt date at the ITU determines coordination priority to other satellite networks**
- **ITU determines networks for which a specific filing requires coordination**
 - **Frequency Overlap, Orbital Separation, Increase in Interference, etc.**
- **Coordination between Administrations takes place to resolve anticipated difficulties**

Notification & Recording (RR Article 11)

- **First Notification** takes place prior to the end of the 7 year DBIU period and lists coordination status
 - Includes both successful or in-progress statuses
- **ITU Favorable finding**
 - Successfully-completed coordinations & those deemed unnecessary
 - Recorded in MIFR
 - Such assignments have international recognition
- **ITU Unfavorable finding**
 - Required coordinations but not yet completed
 - Operate in an unprotected/non-harmful interference basis (RR No. 11.41 recordings) and continue process

Inter- and Intra-Service Processes

Where required...(frequency band specific)

- Coordination of Terrestrial with Space Systems: RR Nos. 9.14 thru 9.19
- Hard limits to protect terrestrial systems (Power-Flux Density Limits): RR Article 21
- Terrestrial power limits to protect space station receivers (Article 21)...Additional constraints throughout Article 5
- Non-Geostationary systems must not cause unacceptable interference to GSO FSS and BSS (RR No. 22.2)
- Non-Geostationary FSS systems given a certain amount of interference budget from GSO FSS (Article 22 Equivalent Power Flux Density Limits)
- Non-Geostationary systems coordinate on an equal basis with GSO: RR No. 9.11A

Article 15 of the Radio Regulations

- In cases of receiving actual harmful interference, Appendix 10 is used to document the full particulars of the interference
- Administrations cooperate in the detection and elimination of harmful interference
- Frequency Assignments recorded under RR No. 11.41 (i.e. assignments that did not successfully complete coordination process) must immediately eliminate the harmful interference (See RR No. 11.42) when informed
- The ITU may become involved when an administration so requests and it may then make recommendations
- The Radio Regulations Board (RRB is independent elected body of 12 members) may also consider issues of harmful interference at the request of an administration

Evolving Issues: Orbital Slots

- WRC-12: U.S. & CITEL strongly advocated for improved provisions on Bringing Into Use, Suspension, & MIFR Maintenance
 - Adopted RR No. 11.44B (Defined BIU for GSO satellites: capability to operate on the frequency assignment & deployed for ninety days)
 - Clear definition: does not require interpretation on the issue of actual operations nor the debate on what additional information would be needed
 - Required administrations to inform the BR within 6 months of suspending an assignment and then follow procedures similar to BIU when recommencing use
 - Increased authority for the ITU to clean MIFR (Revised RR No. 13.6)
- WRC-12: U.S. & CITEL did not support having any further judgment on assignments that did not complete coordination before being recorded in the MIFR
 - Administrations only need to indicate **that** efforts have been made to effect coordination (New RR No. 11.41.2)
 - Recording Conditions: NIB, unprotected & immediately eliminate any interference Once coordination completed, conditions removed per new RR No. 11.41B

BR Circular CR/343

- January 31, 2013: ITU Radiocommunication Bureau (BR) issues CR/343
 - Contains non-exhaustive list of possible types of information that the BR might request to verify a satellite's transmitting & receiving capability for BIU
 - Requires an administration to notify within 120 days of the commencement of the BIU 90-day period
 - Requests information on **what** efforts were made to effect coordination in cases where it was unsuccessful
- U.S. sends letter to BR on March 15, 2013 & joint letter with Luxembourg to RRB on May 31, 2013
 - Sought BR's clarification on how CR/343 complies with the provisions in adopting a Rule of Procedure (ROP, *See* RR No. 13.12A)
 - RR No 13.12A requires the BR to draft, circulate to administrations & seek adoption from the RRB for practices and procedures of the BR
 - Exceeds scope of WRC-12 decisions on BIU and RR No. 11.41.2 or any ROP previously adopted on these issues

BR Circular CR/343

- BR's May 1, 2013 Reply to U.S.
 - Explained how the information requested in CR/343 may be used
 - Did not address the BR's decision on why the procedures in CR/343 did not need to comply with the provisions in adopting an ROP
- Radio Regulation Board Meeting (June 24-28, 2013)
 - U.S./Luxembourg request the RRB:
 - Instruct BR to revise CR/343 (remove new procedures) or withdraw it
 - Indicate to the BR that it may wish to seek an ROP or document any difficulties with the BIU & RR No. 11.41.2 provisions under WRC-15 Agenda Item 9.2
 - Additional contributions from Canada and Russia submitted to RRB supports Joint U.S./Luxembourg contribution
 - Awaiting RRB decision