

FCC SPECTRUM DEVELOPMENTS

June 2024 – May 2025

CORF Meeting
May 2025

Paul J. Feldman, Esq.

I. 6 GHz Devices

A. November 2023 FCC Second Report and Order and Further Notice of Proposed

Rulemaking addressed unlicensed use of 5.925-7.125 GHz (“6 GHz”) for “very low power” (“VLP”) devices.

Background

- Spectrum for unlicensed *outdoor telecommunications*, and for *indoor* use with *consumer* WiFi and similar devices.
- Unlicensed uses are classified in so called U-NII bands, that overlay bands for licensed operations

I. 6 GHz Devices

Sub-band	Frequency Range (GHz)	Primary Allocation	Predominant Licensed Services
U-NII-5	5.925-6.425	Fixed FSS	Fixed Microwave FSS (uplinks)
U-NII-6	6.425-6.525	Mobile FSS	Broadcast Auxiliary Service Cable Television Relay Service FSS (uplinks)
U-NII-7	6.525-6.875	Fixed FSS	Fixed Microwave FSS (uplinks/downlinks)
U-NII-8	6.875-7.125	Fixed Mobile FSS	Fixed Microwave Broadcast Auxiliary Service Cable Television Relay Service FSS (uplinks/downlinks) (6.875-7.075 GHz only)

I. 6 GHz Devices

CORF's interest:

Footnote US342 -- FCC to take “all practicable steps” to protect radio astronomy observations *at 6.650-6.6752 GHz* (in the “U-NII-7” band).

Footnote RR 5.458 protection for EESS at 6425-7075 MHz and 7075-7250 MHz over oceans: “Administrations should *bear in mind the needs* of the [EESS] in their future planning of the bands *6425-7025 MHz and 7075-7250 MHz.*” (U-NII 6-8 bands)

I. 6 GHz Devices

2023 Order – “Very Low Power” Devices

FCC adopted rules to *permit very low power* (“VLP”) devices to operate across the U-NII-5 and U-NII-7 portions of the 6 GHz band.

Devices: augmented reality/virtual reality, in-car connectivity, wearable on-body devices, healthcare monitoring, short-range mobile hotspots, high accuracy location and navigation.

-VLP devices authorized to operate at *up to -5 dBm/MHz EIRP power spectral density (PSD) and 14 dBm EIRP.*

RAS:

-FCC rejected RAS exclusion zones or notching – “low power” reduces risk of interference.

I. 6 GHz Devices

2023 Order – “Very Low Power” Devices

Mobile use of VLP Devices: In the *2020 Order*, mobile use (cars, trains, boats and aircraft) of *standard and low power* devices was *prohibited*, except for in large planes at above 10,000 feet. Similarly, use on oil platforms (and boats) was *prohibited*, explicitly to protect EESS observations, per the request of CORF.

2023 Order - terrestrial mobile use of VLP devices *allowed*, including on boats:

“lower power” and the primary use of boats inland in lakes and rivers, will limit the potential for interference to EESS.

-2023 Order *retains the prohibition* on use of all 6 GHz unlicensed devices (including VLP devices) on *oil platforms*, in order to protect EESS.

I. 6 GHz Devices

2023 Further Notice of Proposed Rulemaking

FCC sought comments on proposals for allowing *broader uses of the VLP devices*, including:

- 1) Allowing VLP devices to operate in the U-NII-5 through U-NII-8 bands at a *PSD level greater than -5 dBm/MHz*—up to 1 dBm/MHz EIRP PSD and 14 dBm EIRP—provided they operate under the *control of a geofencing system* that prevents devices from operating in close proximity to co-channel licensed incumbent services in these bands. Geofencing would also be used to *protect certain RAS facilities*.
- 2) *Relax the restrictions on mobile use* of VLP devices (e.g., on aircraft and oil platforms).

I. 6 GHz Devices

2023 Further Notice of Proposed Rulemaking

CORF Comments (March 2024)

- Geofenced devices should *avoid transmitting in any channel less than 10 MHz away from the 6.7 GHz RAS band defined in footnote US 342.*
- For regular aircraft – VLP use must be *limited to inside of full fuselage aircraft* and only when operating above 10,000 feet in altitude, and use of the U-NII-5 band only.
- Continue to prohibit VLP transmissions in all *UAS operations.*
- Prohibit use of such devices operating in the U-NII-6, 7, and 8 bands on *oil platforms and boats,* including ocean-going vessels and large inland water bodies.
- Prohibit use of the U-NII 6, 7, and 8 bands for airborne *emissions over oceans* and large inland water bodies.

I. 6 GHz Devices

FCC Order – December 2024

- FCC *only addressed the proposal to expand VLP operation to U-NII-6 and U-NII-8*, while deferring the remaining issues to future Commission actions.
- VLP devices permitted to operate across the U-NII-6 and U-NII-8 portions of the 6 GHz band at the *same power levels previously adopted for VLP operations in the U-NII-5 and U-NII-7 bands*: -5 dBm/MHz EIRP power spectral density (PSD) and 14 dBm EIRP. Spectrum available for VLP devices to 1200 megahertz, thereby permitting the use of up to seven 160--megahertz channels or three 320-megahertz channels.
- FCC rejected CORF's suggestions for protecting RAS sites from 6.65-6.6752 GHz operations, and for geofencing be used to avoid the U-NII-6, U-NII-7, and U-NII-8 band operations in oceanic zones, including in coastal waters, and non-geofenced usage be restricted to the U-NII-5 band only. The FCC essentially rejected CORF's calculations regarding potential interference.
- FCC will *continue to prohibit 6 GHz devices, including VLP devices, from operating on oil platforms* because oil platform locations tends to be concentrated in areas where the passive and active sensing of EESS operations are conducted.
- *Previous protections for passive services remain*, and more orders on 6 GHz devices likely to be released.

II. 24 GHz Devices – Unwanted Emissions Standard – Res. 750

What is the *appropriate limit for unwanted emissions* from operations in the band 24.25-25.25 GHz band into the passive 23.6-24.0 GHz band -- the *WRC-19 Resolution 750 limit* on unwanted emissions?

Background

- 23.6-24.0 GHz band is *allocated to EESS* (passive), *Space Research Service* (passive), and *RAS* on a *primary* basis.
- In 2017, the FCC authorized 24.25-25.25 and 27.5-28.35 GHz for Upper Microwave Flexible Use Services (*UMFUS*).
- The UMFUS rules allow licensees *flexibility* to deploy *mobile* operations, along with *fixed* point-to-point and point-to-multipoint systems.
- UMFUS rules specify that emissions outside of a licensee's assigned frequency block must be *limited to -13 dBm/MHz*.

II. 24 GHz Devices – Unwanted Emissions Standard – Res. 750

WRC-19:

-allocated 24.25-25.25 GHz to mobile (except aeronautical) on a primary basis in Regions 1 and 2 and identified the 24.25-27.5 GHz band for IMT

-established limits on unwanted emissions applicable to IMT in the 24.25-27.5 GHz band to protect EESS passive systems in the 23.6-24.0 GHz band – Resolution 750:

>Resolution 750 specifies unwanted emissions *limits* in terms of *Total Radiated Power* (TRP) as the amount of power that may be radiated into any 200 megahertz block of the 23.6-24.0 GHz passive band by IMT *base* stations and IMT *mobile* stations operating in the 24.25-27.5 GHz band.

II. 24 GHz Devices – Unwanted Emissions Standard – Res. 750

WRC-19:

Resolution 750 sets emissions limits for *current* IMT devices as well as more stringent emissions limits for IMT devices that will be brought into use in the 24.25-27.5 GHz band *on or after September 1, 2027*. These two sets of unwanted emissions limits are:

<u>Type of Station</u>	<u>Current TRP Limits</u>	<u>TRP Limits After Sept. 1, 2027</u>
IMT Base Stations	–33 dBW	–39 dBW
IMT Mobile Stations	–29 dBW	–35 dBW

II. 24 GHz Devices – Unwanted Emissions Standard – Res. 750

2023 NPRM

- Use Res. 750 or stricter (CORF) proposals?
- Apply OOB limit stricter than -13dBm/MHz to *fixed operations*?
- Exempt indoor systems* from Res. 750 limits?
- Measure* unwanted emissions using TRP or a conductive methodology?

CORF Comments:

- Operations using Res. 750 unlikely to meet the ITU-RS.2017 standard.
- But, *adopt Res. 750*, which will provide some level of protection to EESS, but not complete protection.
- Apply Res. 750 to *fixed* as well as mobile operations – interference is interference.
- Do *not exempt indoor systems* - multiple devices, leakages into outdoor areas.
- Use TRP methodology to measure unwanted emissions.

II. 24 GHz Devices – Unwanted Emissions Standard – Res. 750

3/2024 Letter from House Science Committee to FCC

Urged FCC to:

- Use Res. 750

- Apply to Fixed as well as Mobile

- “Require all 24 GHz band licensees to affirmatively address interference the licensees are found to cause to passive satellite sensing operations in the 23.6-24 GHz band.”

- References CORF Comments

Prior teleconference

II. 24 GHz Devices – Unwanted Emissions Standard – Res. 750

December 2024 FCC Order

Emission Limits: FCC *adopted Res. 750 Limits and timing*. Re CORF concerns about insufficiency of Res. 750 – noted that *Res. 750 supported by NTIA, NOAA and NASA*.

Fixed and Indoor Small Cell Systems:

-FCC *rejects applying Res. 750 to fixed operations* – no evidence of harm to EESS

Per NTIA, fixed operators “encouraged to avoid uptilt of antennas where practicable.

-Res. 750 *applies to indoor small cell systems at this time*. Possible future studies.

Measurement: Both TRP and maximum conductive output power

III. 5 GHz UAS Spectrum

August 2024 FCC Order

-Spectrum for *control of Uncrewed Aircraft Systems allocated to 5030-5091 MHz*, along with other Aeronautical Mobile services

-RAS allocation at *4990-5000 MHz*

-Footnote US211: for 5000-5250 MHz “applicants for airborne or space station assignments are urged to take all *practicable steps to protect radio astronomy observations in the adjacent bands* from harmful interference; *however, US74 applies.*”

US74: at 4990-5000 MHz, “the radio astronomy service shall be protected from unwanted emissions *only to the extent* that such radiation exceeds the level which would be present if the offending station were operating in compliance with the technical standards or criteria applicable to the service in which it operates.”

III. 5 GHz UAS Spectrum

August 2024 FCC Order

- This Order is the *first of a number of steps to fully authorize* use of this band for UAS control – more orders to come
- First step: authorize use of *5040-5050 MHz for individual, non-networked operations*.
- Individual operations “*licensed by rule*” – no FCC applications/unique licenses
- Users must seek coordination through a “Dynamic Frequency Management System” (DFMS)
- Protection of the NRQZ: *CORF had recommended exclusion zone* around the NRQZ

FCC rejects that proposal, but does *require coordination* in the NRQZ between DFMS and NRAO, with similar requirements to standard NRQZ coordination – protecting RAS at 4990-5000 and 5030-5090

First Aeronautical coordination in NRQZ?

III. 5 GHz UAS Spectrum

August 2024 FCC Order

Protection of RAS Outside of the NRQZ:

CORF recommended exclusion zones around major observatories, but FCC rejects this.

Instead *operators must “take all practicable steps* to protect RAS at 4990-5000.

DFMS must notify NSF if it approves UAS operation within 25 miles of RAS facilities listed in FN US385 (ATA, Socorro, Green Bank, VLBA).

IV. Satellite to Cell Phone “Supplemental Coverage”

SCS Order – March 2024

1. Bands Available for SCS:

Order adopted a *secondary*, bi-directional, *mobile-satellite service* allocation in certain frequency bands:

600 MHz: 614-652 MHz and 663-698 MHz;

700 MHz: 698-769 MHz, 775 MHz-799 MHz, and 805-806 MHz;

800 MHz: 824-849 MHz and 869-894 MHz;

Broadband PCS: 1850-1915 MHz and 1930-1995 MHz; and

AWS-H Block: 1915-1920 MHz and 1995-2000 MHz

600 MHz band above is *immediately adjacent to the RAS band at 608-614 MHz*. The Order recognizes that, and notes that protection of RAS is provided for in the Order and in the concurrent FNPRM.

FCC avoided 2.3 GHz (NSF concern re S/X Celestial Reference Frame legacy observations) and 1.4 GHz (passive band and WMTS).

IV. Satellite to Cell Phone “Supplemental Coverage”

SCS Order – March 2024

1. Bands Available for SCS:

FCC Order emphasizes *secondary status* of SCS allocations – meaning operator *must protect users with primary status from interference*.

Order also notes that just because a band is available for SCS operations does *not guarantee that the FCC will automatically authorize* an SCS application in the requested band:

Upon submission of the SCS application, the FCC will conduct a “rigorous analysis of the technical materials submitted to ensure compliance with our entry criteria and any applicable rules and requirements.”

A case-by-case analysis

IV. Satellite to Cell Phone “Supplemental Coverage”

SCS Order – March 2024

2. Technical Rules

- Order *declines to impose specific downlink power flux density limits*. Rather, those limits are to be *negotiated* among industry players in each *market*. (*But see Starlink Order*)

- *OBE limit*: aggregate out-of-band PFD limit of -120 dBW/m²/MHz at 1.5 meters above ground level. Aggregate is a victory, and limit more stringent than standard satellite limit.

- *Elevation angle of satellite downlinks* - Order notes that each system will vary, and it *does not establish a minimum requirement*.

IV. Satellite to Cell Phone “Supplemental Coverage”

SCS Order – March 2024

3. “Protection” of RAS

FCC “decline[s] to adopt any new rules specific to SCS with respect to protection of radio astronomy and other space science services at this time, and will consider such concerns *in the context of the Commission’s review of SCS license applications.*”

FCC “strongly encourage applicants to conduct outreach and work with appropriate federal agency contacts in advance of submission of license applications to the Commission, including conducting Monte Carlo analyses of potential impacts to radio astronomy systems using their specific configurations [recommended by the NSF], as appropriate.”

BUT, FNRPM.

IV. Satellite to Cell Phone “Supplemental Coverage”

NSF White Paper

“NSF’s preliminary analysis indicates *significant impacts to radio astronomy systems* should SCS applications in terrestrial mobile allocations be implemented, due to the power levels and ubiquitous visibility in the sky”

Specific recommendations for protecting radio astronomy:

1. *Monte Carlo analyses* of EPFD using their specific satellite configurations and antenna patterns.
2. *Field testing with temporary authorizations* to analyze issues (this is similar to a CORF proposal).
3. *Minimizing the frequency bandwidth* of SCS operations.
4. *Coordination requirements*, particularly early in the satellite design process.
5. *Minimal necessary power/PFD*.

The NSF white paper also has an attachment proposing specific *updates to* the section of the *NTIA Manual* regarding coordination in the *Quiet Zone*.

IV. Satellite to Cell Phone “Supplemental Coverage”

FCC Further Notice of Proposed Rulemaking (March 2024)

FNPRM seeks comments on “whether additional rule changes or policies are necessary to avoid harmful interference to radio astronomy”

Revise Quiet Zone rules? Other ways to encourage “coordination and coexistence” of RAS and SCS?

CORF Comments (May 2024)

Core Concerns:

608-614 MHz

1400-1427 MHz

Wide band RAS observing

Quiet Zones

IV. Satellite to Cell Phone “Supplemental Coverage”

CORF Comments (May 2024)

CORF Recommends:

- Iterative licensing process* based on the recommendations *NSF White Paper*:
 - >Monte Carlo aggregate EPFD computations
 - >field testing with “provisional operation” of SCS under Special Temporary Authority
- Minimizing bandwidth* for SCS operations
- Coordination early* in design and development process:
 - prioritize spatial avoidance* over spectral or temporal measures, taking advantage of the *spot beam cell architecture* inherent to the SCS application.
- Modify FCC rule to *expand the National Radio Quiet Zone* to include protection from spaceborne transmitters, and to *extend this protection to other major RAS facilities*

IV. Satellite to Cell Phone “Supplemental Coverage”

NTIA Working Paper (May 2024)

Proposes *methodology for analyzing the impact* of SCS on a Radio Astronomy facility

-CORF files Reply Comments (July 2024) questioning NTIA approach:

SCS - *multiple satellites* with phased arrays to synthesize *many spot beams per satellite*, with each spot beam targeting a geographically fixed coverage cell. In contrast, the NTIA analysis focuses on a *single beam, with a fixed pattern, from a single satellite*.

NTIA analysis *does not realistically model the SCS operational scenario* and does not account for factors such as the pattern variability of a spot beam tracking (or avoiding) a fixed terrestrial reference point from a satellite in motion across the sky.

IV. Satellite to Cell Phone “Supplemental Coverage”

Starlink SCS Authorization Order (Dec. 2024)

Authorizes Starlink satellite system to *commence direct to cellphone service in the U.S.* at 1919-1915 MHz (space to Earth) and 1990-1995 MHz (Earth to space).

Also authorized Starlink to provide that service outside of the U.S. in certain sub-bands within 1429-2600 MHz, subject to certain conditions.

Starlink system may operate at lower altitudes than previously permitted – now at 340-525 kilometers.

The *first time that the FCC has authorized* a specific NGSO/low Earth orbit satellite system for direct to cell service - SCS.

Service will be provided in the U.S. through T-Mobile.

FCC Order imposes requirements on SpaceX to protect radio astronomy

IV. Satellite to Cell Phone “Supplemental Coverage”

Starlink SCS Authorization Order (Dec. 2024)

-SpaceX: says it coordinated in good faith with NSF, NRAO, and “the wider radio astronomy community” and recently reached a coordination agreement with NSF, and the parties continue to collaborate in good faith to extend that agreement to cover SpaceX’s application to enable T-Mobile to provide SCS to its subscribers.

-FCC *conditions grant on SpaceX’s continued coordination* with both the NSF and NRAO, and compliance with any resulting coordination agreements. *Requires that “that SpaceX also respects the NRQZ while providing SCS.”*

-*First coordination of satellite operations in the NRQZ?* (Also required to coordinate 10.6-10.7 GHz links in NRQZ)

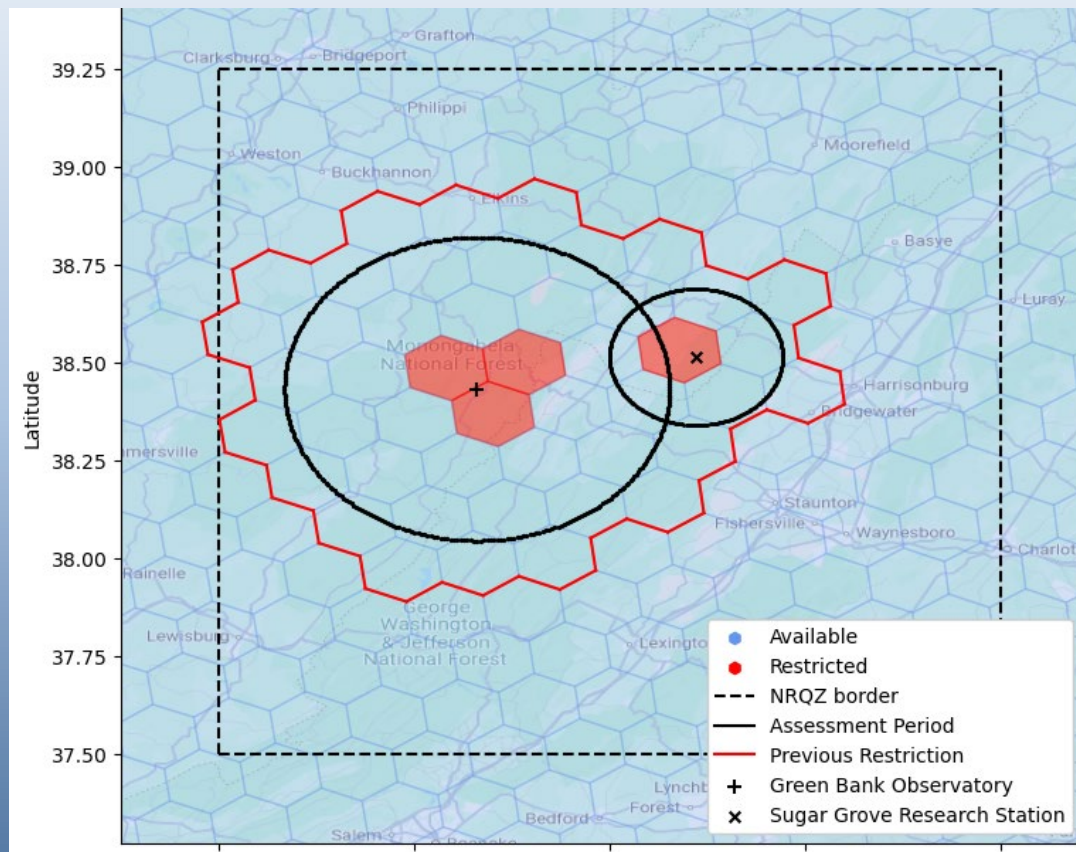
-Starlink must also *coordinate links*: 1.9 GHz Earth stations, 14.47-14.50 GHz (w/NSF), 48-49 GHz, 81-86 GHz (w/NSF); *limit OOB* into 50.2-50.4 GHz (EESS), and general all prac. steps to protect RAS.

-March 2025 – FCC grants SpaceX’s request to operate its direct-to-cell service at *higher power levels*: operate at 1.9 GHz with a *pdf of up to -110.6 dBW/m²/MHz*, a notable increase from the *-120 dBW/m²/MHz limit* previously granted for SCS in March 2024 R&O.

Basis: enable faster/more reliable 911 emergency calling connectivity in remote locations.

IV. Satellite to Cell Phone “Supplemental Coverage”

Oct. 2024 - Starlink-NRQZ Coordination and Assessment of Satellite Internet Service



V. 37 GHz

FCC Public Notice (Aug. 2024)

FCC issued a Public Notice seeking comments on *facilitating commercial use of the 37.0-37.6 GHz band* (Lower 37 GHz band). Issue for CORF: *EESS allocation at 36-37 GHz*.

FCC did seek information on protection of the 36-37 GHz band:

- A 2016 R&O created an OOB limit intended to “keep emissions from an UMFUS device into the 36-37 GHz band well below the -10 dBW level specified by footnote US550A,” *to protect passive sensors* in the 36-37 GHz band in accordance with ITU Resolution 752 (WRC-07).

- Under FCC rule, UMFUS operations are limited to -13 dBm/MHz, which expands to -13dBW/GHz.

- FCC PN notes that subsequently, Resolution 243 (WRC-19), Table 1, established a -23 dBW/GHz unwanted emission mean power for IMT stations within the frequency band 36-37 GHz.

- In light of these developments, FCC sought input on “*whether additional measures are needed to protect spaceborne remote passive sensors in the 36-37 GHz band.*”

V. 37 GHz

CORF Comments on FCC Public Notice (Sept. 2024)

-CORF: concern that even the more stringent Resolution 243 limits are insufficient to ensure protection from interference when considering *scattering from terrain and ground clutter, and when accounting for the aggregate emission* from many devices within the footprint of an EESS (passive) sensor. But CORF urges adoption of that standard.

-CORF asserts that radiated emission testing is appropriate, and that total radiated power is the appropriate metric.

-If an application emerges for the lower 37 GHz band that would involve an *average number of active transmitters exceeding 10 per 100 km²*, CORF urges the Commission to consider *other measures*, such as further reduced OOB limits or restriction to indoor operation, to ensure continued protection of EESS (passive) observations in the 36-37 GHz band.

V. 37 GHz

NTIA 37 GHz Spectrum Sharing Report (Dec. 2024)

- Significant portion of the Report is devoted to the self-described “critical issue” of the *need to protect remote sensing* operations in the 36-37 GHz band.
- One paragraph describes and summarizes CORF’s September 2024 Comments.
- The NTIA Report *recommends use of the levels in Resolution 243* as the basis for a revised OOB limit.
- Recommends priority access for DoD users at 37.0 – 37.2 GHz, co-equal at 37.2-37.6 GHz.

V. 37 GHz

FCC Report & Order and Further NPRM (4/29/25)

-Commercial users will get non-exclusive nationwide license, then coordination individual sites.

-*DoD priority for 37.0-37.2 GHz*: Commercial users may register, but must modify or cease operations if conflict with military use.

FNPRM:

-Note support for Res. 243 OOB limit of -23 dBw/GHz as a minimum by NTIA and passive users; and opposition by commercial users – degrade performance of *existing equipment*.

-FCC asks more questions:

>Tech basis for asserting the current OOB is insufficient to protect passive users?

>Adopt Res. 243 limit, or adopt *lesser* limit?

>*Provide specific tech info*: tech characteristics of passive sensors in 36-37 GHz

>assumptions re *nature and density of commercial deployment* vs. Res. 243

>*What propagation and scattering* models are being used?

>apply stricter OOB limit *only to 37.0 – 37.2 GHz commercial* operations?

>*grandfather or transition* current equipment?

VI. Satellite Spectrum Sharing

FCC NPRM (04/29/25)

FCC reviewing *spectrum sharing regime between GSO and NGSO* satellites at 10.7-12.7, 17.3-18.6, and 19.7-20.2 GHz.

-NGSO FSS systems must comply with power limits expressed in equivalent power-flux density (EPFD) to protect GSO FSS and BSS networks, and separate power limits expressed in power-flux density (PFD) to protect terrestrial services.

-CORF interest:

- >EESS 10.6-10.68, 17.2-17.3, 18.6-18.8 GHz

- >RAS(EESS) 10.68-10.70 GHz

- >US131 – NGSOs must coordinate with RAS at 10.7-11.7 GHz

- >US211 - at 10.7-11.7 GHz, applicants for space stations urged to take all practicable steps to protect RAS in adjacent bands from harmful interference; however, US74 applies.

VI. Satellite Spectrum Sharing

FCC NPRM (04/29/25)

SpaceX filed petition for rulemaking - revisit the NGSO-GSO sharing regime in *downlink frequency bands between 10.7 GHz and 30 GHz* that are subject to EPFD limits and to amend sections 25.146 and 25.289 of the Commission's rules.

SpaceX: EPFD limits based on “flawed and outdated assumptions” that result in *inefficient spectrum sharing*.

SpaceX: FCC should develop an updated sharing framework as an *alternative to compliance with the current EPFD limits* in these bands.

NPRM:

- Do current EPFD limits “overprotect” GSOs?
- Continue to use aggregate interference?

VI. Satellite Spectrum Sharing

NPRM:

- “How would any changes to the NGSO-GSO sharing regime affect co-frequency or adjacent-band radio astronomy operations, and how should the Commission ensure that successful coordination continue?”
- “Would any additional considerations with respect to NGSO FSS operation be necessary to protect radio astronomy operations, beyond the existing PFD limits?”

VII. Liberty Airport Scanner Waiver – 10-40 GHz

FCC Order Jan. 2025

FCC waives certain rules to allow Liberty to upgrade its existing full-body security screening scanners deployed in 140 U.S. airports. Among other things, this Order allows the scanners to *expand their spectrum range from 24.25-30 GHz, to 10 – 40 GHz.*

Background

The passive service primary allocations between 10 and 40 GHz are:

10.6-10.7 – EESS

15.35-15.40 -- EESS and RAS

18.6-18.8 – EESS

21.2-21.4 – EESS

22.21-22.5 – EESS and RAS

23.6-24.0 – EESS and RAS

31.3-31.8 – EESS and RAS

36.0-37.0 – EESS

VII. Liberty Airport Scanner Waiver – 10-40 GHz

FCC Order Jan. 2025

-Footnote US342 of the US Table of Allocations requires *all practicable steps to protect RAS* at:

22.01-22.21 GHz, 22.21-22.5 GHz, 22.81-22.86 GHz, 23.07-23.12 GHz , 31.2-31.3 GHz, 36.43-36.5 GHz

-Section 15.205(a) provides that *only spurious emissions are permitted* in any of the frequency bands listed therein, including:

10.6-12.7 GHz; 13.25-13.4 GHz; 14.47-14.5 GHz; 15.35-16.2 GHz; 17.7-21.4 GHz; 22.01-23.12 GHz; 23.6-24.0 GHz; 31.2-31.8 GHz; 36.43-36.5 GHz. These are often referred to as “restricted bands.”

-Liberty seeks waivers of this and other rules, notes that *limited use indoors in airports* will result in significant *attenuation* of the signals, and that “*low power and low duty cycle*,” along with the fact that the scanner transmitters will *not be pointed skyward*, will further reduce any chance of interference to passive users.

-FCC grants waivers, noting that as *unlicensed devices*, they are required to resolve any interference caused. In addition, the waiver grant is conditioned to require that *Liberty coordinate any operations that are within fifty kilometers of any radio astronomy facilities that make observations at 10-40 GHz*.

-Specific requirement to *coordinate any installation within the line of sight of Kitt Peak*.

VIII. “Delete Delete Delete”

FCC Public Notice -- March 2025

- FCC seeks comments identifying FCC rules to delete -- eliminate “unnecessary regulatory burdens”
- Hundreds of comments filed, with short time line for response. Difficult for CORF, but allies.
- This is NOT an NPRM, so FCC *cannot enact new rules, probably* cannot delete rules, only take suggestions for an NPRM.
- Suggestions included:
 - open up Ch. 37 for use by *wireless mics*
 - *reduction of NRQZ requirements* to facilitate local emergency communications
 - deleting rule *prohibiting airborne use of cell phones*

QUESTIONS?

THANKS!

Paul Feldman
feldman@fhhlaw.com
703-812-0403