

Satellite Industry Association
Part 25 FNPRM -- Talking Points
May 12, 2015

ITU Filings for GSO and NGSO FSS Space Stations

- SIA supports the FCC proposal to enable the FCC to file with the ITU an operator proposal for a GSO space station for non-planned FSS bands before requiring a full space station application to be filed.
- FCC should expand this proposal to permit ITU filings prior to the license application for NGSO operations in non-planned FSS frequency bands, and for NGSO and GSO operations in frequency bands beyond those allocated to the FSS.
- Current ITU filing practice is inconsistent with the public interest.
 - US applicants are disadvantaged because they must publicly disclose their space station plans in great detail before the FCC will file with the ITU.
 - Operators have a disincentive to pursue U.S. licensing of new satellite systems.

Milestones and Bonds

- FCC should simplify the showing for construction commencement.
- FCC should simplify the critical design review (“CDR”) milestone.
 - Routine submission of CDR documentation unduly prolongs milestone review and creates unnecessary risk that highly sensitive commercial information could be inadvertently disclosed.
- Milestone compliance filings should be deemed granted if not acted upon within 60 days of filing.
- The FCC should not increase the existing bond amount.

SIA supports retaining the first-come, first-served procedure for GSO-like satellite systems

- ORBIT Act prohibits assigning “orbital locations or spectrum used for the provision of international or global satellite communications” by competitive bidding.

Smallsats

- SIA urges the Commission to initiate a separate proceeding to address the regulatory issues that small satellites pose.

Earth Station Technical and Licensing Rules

Overarching Goals

- SIA seeks to bring new products to market faster. New technologies offer exciting opportunities for the satellite industry to serve new markets, and to serve existing markets with improved services.
- The technical rules should be simplified and, in some cases, relaxed. The satellite industry has reduced interference through greater cooperation and technological advances.
- Overly stringent technical standards hamper flexibility and delay licensing and deployment (because of the need to obtain waivers). The changes proposed by SIA will not present a materially greater risk of harmful interference.

Specific Proposals

- 25.209 should be modified to focus on general antenna technical compliance, rather than GSO specific compliance. This will allow testing entities to verify 25.209 compliance without knowledge of the operational use of the antenna.
- SIA supports FCC's efforts to change and align the allowed excess of the routine envelopes for emissions. SIA recommends that the excess off-axis gain in 25.209 be allowed to exceed the mask over 10% of the angular range for *each* of the angular ranges specified.
- The FCC should adopt technology neutral rules – the same rules should apply to parabolic, flat panel and phased array antennas.
- The FCC should adopt a technology neutral off-axis EIRP density mask for conventional GSO Ka-band antennas (25.138) and conventional Ku-band antennas (various sections).
 - Specifically, the FCC should remove the “wings” that begin at 19.1° and end abruptly at 48°.
 - This will “flatten” the mask for the off-axis range from 19.1° – 180°.
 - The current mask is overly strict, and appears to trace the natural shape of the radiated pattern produced by a parabolic antenna.
 - There should be no cross-polarization mask beyond 7°.
- There should be no minimum earth station diameter requirements. Such requirements will put state-of-the-art technologies at a regulatory disadvantage.
 - Earth station terminal performance, regardless of size, should be the only relevant criteria for licensing.
 - Operators are confident that coordination, rather than regulatory mandates, will adequately address any problems with mis-pointing.
 - No minimum antenna size should be adopted for Ka-band antennas.

- The minimum antenna size for Ku-band antennas should be eliminated.
- In all events, there should be no minimum antenna size for GSO FSS earth stations that automatically track the target satellite, and have appropriate pointing error and shut-off mechanisms.

- All references to the minus $10\log(n)$ formula and the definition of N should be deleted.
 - Spot beam satellites have been operating for some time and no problems have been identified to date with the current definition of $N = 1$ for TDMA and FDMA.
 - Aggregate off-axis EIRP density from co-frequency earth stations in each target satellite receiving beam should meet the 25.218 and 25.138 off-axis EIRP density masks.

- The 1 dB limit below the routine off-axis EIRP limits should be eliminated because it is unnecessary and could have a serious impact on network performance.

- All references to “VSATs” and to Section 25.134 should be deleted. The relevant provisions are incorporated in other appropriate provisions.