

USING THE MARKET TO ACHIEVE REGULATORY EFFICIENCY FOR FREQUENCY ALLOCATIONS OF SATELLITE SYSTEMS

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INTRODUCTION

On May 19, 2003, the United States Federal Communications Commission ("FCC") released its Order amending its Space Station Licensing Rules and Policies.¹ After publication in the Federal Register, the amendments took effect in late August 2003.² The Order makes sweeping changes to the domestic satellite licensing process that is designed to speed the allocation of orbital slots and frequencies. The Order relies on the efficiency of the market to fill gaps created by this change in processing.

The FCC developed different processes for considering frequency applications for two categories of satellite systems, non-geostationary satellite orbit systems ("NGSO") and geostationary satellite orbit systems ("GSO"). For GSO system operators, the new procedures should make the licensing process quicker, permitting companies to bring their systems into service in a commercially viable timeframe. For NGSO applicants, the licensing procedures also appear to be streamlined, but the regulations create a risk of increased application costs and post-licensure costs. To mitigate some of these potential costs and to avoid abuses in the licensing procedures, the FCC also put into place safeguards against speculative applications. As a whole, the industry should be well served by the changes in the licensing process.

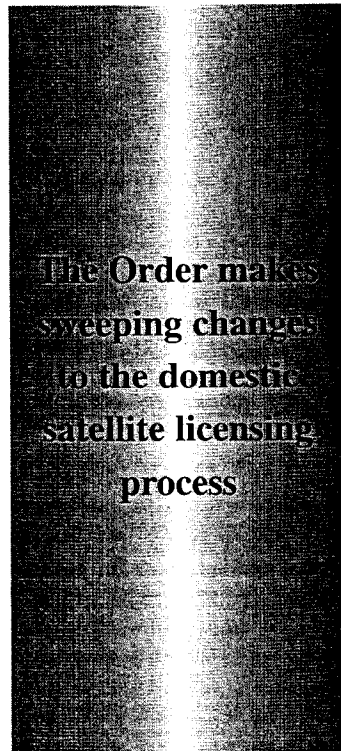
OBJECTIVES OF THE ORDER

Prior to issuance of the Order, the FCC's Spectrum Policy Task Force analyzed the regulatory model used to manage spectrum allocation and to process satellite license applications. In

this process, the FCC identified delay as a significant problem with its satellite licensing process. It noted that an application could take years before it was granted, due to increasing complexity of the applications and cumbersome licensing procedures.³ The processing delay increased the costs to satellite operators and their customers and, perhaps most importantly to the FCC, it allowed "scarce orbit and spectrum resources to lie fallow."⁴ Researchers estimated that billions of dollars of cumulative loss to the U.S. economy could be attributed to inefficient spectrum allocations under the current system of administrative allocation. Specifically, lost consumer welfare from a 10-year delay in cellular service in the U.S. was estimated to be between \$34 billion and \$86 billion.⁵ The International Telecommunications Union's ("ITU") decision to shorten the time by which operators must bring their satellites into service put further pressure on the FCC to shorten the delay to licensure.⁶ As a result, the Spectrum Policy Task Force recommended the FCC migrate to a more market-oriented model.⁷

Following its Notice of Proposed Rulemaking and a comment period,⁸ the FCC adopted its Order with the objectives of "faster provision of satellite services to the public, and maintenance of the United States' position as the

leader of the global satellite industry."⁹ Underlying the Order was a long-standing FCC policy that its regulations and procedures should not unreasonably interfere with licensees' business negotiations and operations, but should allow market forces to drive those activities.¹⁰ The FCC, therefore, sought to adopt regulations that "rely on market mechanisms to achieve the same or substantially similar results more efficiently, on a faster time scale, and with greater administrative ease once licenses are granted...[to] ensure that there is the most efficient use of the satellite spectrum and orbit resources."¹¹



CHANGES TO APPLICATION PROCESSING PROCEDURES

During the rulemaking process, the FCC assessed whether it could apply its proposed new procedures to all satellite systems without distinction. Based in part on comments received by the industry in that rulemaking process the FCC determined that two distinct categories of satellite systems exist that warrant differing treatment. An NGSO system is one in which the earth station has little or no directivity towards a satellite, so that the earth station must track the satellite in all directions.¹² This includes geostationary orbit mobile satellite systems in which the satellites are designed to

communicate with earth stations with omni-directional antennas.¹³ Alternatively, a GSO system means satellites designed to communicate with earth stations with directional antennas, such as fixed-satellite service and mobile satellite system feeder links which use GSO satellites.¹⁴

GSO satellites can operate on the same spectrum with two-degree orbit spacings without risk of interference with other satellite systems,¹⁵ and several licensees may be authorized to operate throughout the frequency band.¹⁶ With NGSO licenses, however, a licensee may operate in so much of the orbit-spectrum resources as to preclude market entry from any other competitor.¹⁷ Because of these differences, the FCC adopted different processing rules for the two systems.

a. NGSO: Modified Processing

For NGSO systems, the FCC adopted a processing round procedure that is slightly modified from its prior procedures.¹⁸ Under the modified approach, the FCC issues public notice of its receipt of an application to use a particular spectrum and it establishes a deadline for submission of competing applications to use the same spectrum.¹⁹ The lead application will be considered with all competing applications, and the FCC will grant the applications to the extent they do not interfere with each other.²⁰ If there is insufficient spectrum for all applicants the FCC will divide the spectrum equally among all applicants.²¹

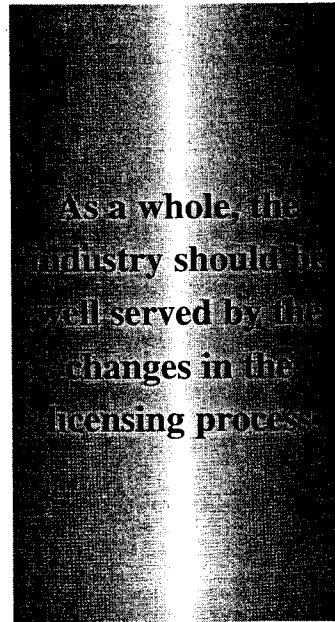
The FCC acknowledged that the amount of spectrum each satellite operator would need for a particular service depends uniquely on the satellite system design and the operator's business assessment.²² Despite this, it adopted a process that splits the spectrum equally, without regard for the particular needs of the individual satellite system or operator. The FCC couples this approach with the elimination of its anti-trafficking rules that previously had prevented the transfer of licenses, so that market forces may rectify any inefficiency in the allocation.

[W]e have relied on market mechanisms to the extent possible. Rather than attempting to judge

whether an applicant has justified its spectrum request ... we believe that a more efficient way of awarding spectrum for NGSO-like systems is through a modified processing round approach with a pre-set band-splitting mechanism. This, together with eliminating the anti-trafficking rule for satellite licenses ... will allow the secondary market to determine the appropriate amount of spectrum for each NGSO-like system.²³

Under this new approach, licensees will be free to purchase spectrum rights from other licensees after the licenses have been granted.²⁴ While this purchase option might be quick and will pose fewer administrative burdens,²⁵ it creates the risk of additional costs for the satellite operator, which must negotiate with other licensees for the spectrum rights necessary to operate within its system design and business parameters. Under the prior procedure the negotiations occurred while the applications were pending so no applicant could be assured of a license; therefore, had more incentive to negotiate a reasonable sharing of the spectrum. With the new FCC Order, the licenses are granted quickly but may have little practical value until additional spectrum is purchased on the open market. As a result, other licensees can be more aggressive in their negotiations for spectrum rights.

Another risk is that the NGSO applicants will seek more of the spectrum than is operationally required out of concern the license will represent only a portion of what was originally requested. The applicant could experience higher costs in its effort to technically support a broader spectrum request. If competing applicants take the same approach the regulations may have unintentionally created a false indication of the market demand. Fortunately, as discussed below, the FCC



adopted certain safeguards against speculative application designed to make this type of commercial leveraging unprofitable.

Despite encouraging a market-driven allocation, the FCC does not permit market forces to function without limitation. The FCC regulations constrain market forces by requiring a minimum number of participants for the processing rounds and frequency allocations. If fewer than three applicants participate in the modified processing round, then the FCC will not allocate the entire requested spectrum between the two applicants or to the sole applicant. Instead, it will reserve one-third of the spectrum for future market entrants and will allocate one-third to each existing applicant.²⁶ Similarly, if a licensee loses its license, the spectrum rights will be allocated among the applicants that were earlier granted licenses in the same processing round, unless there are fewer than three.²⁷ In this event, the FCC may initiate a processing round to invite other applicants to apply for the spectrum rights, without permitting participation by current license-holders in that portion of the spectrum.²⁸

This procedure was adopted out of concern that a significant reduction in the number of competitors and a substantial increase in concentration would hinder future market entry and harm competition.²⁹ The Order creates a presumption that three applicants or licensees are needed to foster necessary competition.³⁰ Although this presumption is rebuttable, the applicant must provide convincing evidence that allowing only two licensees will result in "extraordinarily large, cognizable, and non-speculative efficiencies."³¹

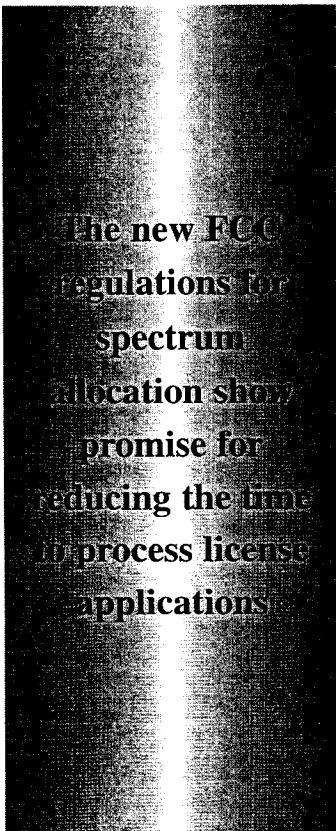
If one desires to have the market drive an efficient allocation and use of the spectrum by satellite operators, then such limitations should be unnecessary. Future market entrants, which have not shown any intent or financial ability to

of missing milestones is presumed to mean missing three milestones in any three-year period.⁴⁷ Any time a licensee misses three milestones in three years the FCC will presume that the licensee's applications were speculative.⁴⁸ If the applicant cannot rebut the presumption that it acquired the licenses for speculative purposes it will not be permitted to apply for a GSO or NGSO satellite or satellite system in any frequency band if it has (1) two or more satellite applications pending; or (2) two licensed-but-unbuilt satellite systems of any kind. In addition, the FCC will not accept any additional applications from entities which have (a) more than five pending GSO satellite license applications or authorized-but-not-launched systems; or (b) more than one NGSO pending application or one authorized NGSO system in which no satellites have been launched.⁴⁹

c. Elimination of Anti-trafficking Rule

Having put these bonding and milestone requirements in place, the FCC felt secure in eliminating its anti-trafficking rules.⁵⁰ Although concerned with applicants that obtain licenses solely for purposes of transferring them at a profit, the FCC felt the concern was outweighed by the public benefits of allowing free transferability of the license.⁵¹ In particular, allowing a licensee, whose business plan is no longer viable, to sell its license would benefit the public by putting the orbit and spectrum resources to use sooner than might otherwise be possible.⁵² The FCC recognizes the buying and selling of unused spectrum may create a secondary market that is beneficial to the overall efficient development of the spectrum resources:

Secondary markets can provide



benefits to satellite users and consumers not only through the outright transfer of licenses, but also through partial redistribution or transfer of unused spectrum. By encouraging satellite licensees to sell unused spectrum to other parties willing to put the spectrum into use, we allow parties flexibility to transfer satellite bandwidth to more efficient uses in response to changing market conditions and consumer demands, and we allow marketplace forces to determine which companies succeed.⁵³

These various safeguards should protect GSO and NGSO applicants from speculative

applications that might increase the cost of seeking a license.

CONCLUSION

The new FCC regulations for spectrum allocation show promise for reducing the time to process license applications. Streamlining the licensing procedures will increase the economic viability of both NGSO and GSO systems, increasing the chances to meet ITU deadlines and market demand. For GSO systems in particular the first-come, first-served approach provides a simple system for resolving competing spectrum requests.

NGSO system operators face more uncertainty under these new market-driven regulations. The market eventually may filter out those licensees with unworkable business plans or those that participated in the modified processing rounds for purely speculative reasons, but this will only happen after a substantial investment of time and resources by successful and motivated licensees to negotiate a fair allocation of the spectrum. The FCC's decision to divide the spectrum equally and without regard to each applicant's needs increases the speed of the ad-

ministrative process, but it may do so at the risk that otherwise viable system operators cannot meet system operational requirements.

**Ms. Yates has practiced law at Holland & Hart since she graduated cum laude from Boston University School of Law in 1990. Ms. Yates serves as the Administrative Partner of the firm's Denver Tech Center Office and is chair of the office's Holland & Hart Foundation Committee. At Holland & Hart, Ms. Yates' litigation practice is divided into three areas: underground storage tank (UST) and upstream oil and gas work; space law; and commercial disputes.*

¹ *In the Matter of Amendment of the Commission's Space Station Licensing Rules and Policies*, First Report and Order and Further Notice of Proposed Rulemaking in IB Docket No. 02-34, and First Report and Order in IB Docket No. 02-54, 2003 W.L. 21135574 (FCC 2003) (hereinafter "Order").

² FCC Public Notice, DA 03-2737 (August 27, 2003).

³ *Id.* at ¶ 3.

⁴ Order at ¶¶ 4, 16.

⁵ Hausman, J., *Valuing the Effect of Regulation on New Services in Telecommunications*, *Brookings Papers on Economic Activity: Microeconomics*, 1-38 (1997); Jackson, C., Kelly, T., and Rohlf, J., *Estimate of the Loss to the United States Caused by the FCC's Delay in Licensing Cellular Telecommunications*, National Economic Research Associates (1991).

⁶ The ITU shortened its requirement from nine years to five years, with a two-year extension. See also Order at ¶ 16.

⁷ Luther, William A., *Spectrum Management in the Global Village*, May 14, 2003, <http://www.fcc.gov/ib/speeches> (accessed October 24, 2003).

⁸ *Amendment of the Commission's Space Station Licensing Rules and Policies*, Notice of Proposed Rulemaking, IB Docket No. 02-34, 17 FCC Rcd 3847 (2002) (hereinafter "Notice").

⁹ Order at ¶ 1.

¹⁰ Order at ¶ 7.

¹¹ *Id.*

¹² Order at ¶ 21; 47 C.F.R. § 25.157, as proposed to be amended in the Order

thirty days following publication in the Federal Register (hereinafter "as amended").

¹³ 47 C.F.R. § 25.157, as amended.

¹⁴ 47 C.F.R. § 25.158, as amended.

¹⁵ Order at ¶ 21.

¹⁶ Order at ¶ 22.

¹⁷ *Id.*

¹⁸ Under its prior procedures, the first application and all competing applications for the same spectrum would be considered together, with extended periods for negotiations among the parties. The FCC would decide how the spectrum would be allocated, after considering the unique parameters of each proposed satellite system and its uses. Order at ¶ 3.

¹⁹ Order at ¶ 30; 47 C.F.R. § 25.157, as amended.

²⁰ *Id.*

²¹ *Id.*

²² Order at ¶ 29.

²³ *Id.*

²⁴ Order at ¶ 33.

²⁵ *Id.*

²⁶ 47 C.F.R. § 25.157(e), as amended; Order at ¶ 63.

²⁷ 47 C.F.R. § 25.157(g), as amended; Order at ¶¶ 61, 62.

²⁸ 47 C.F.R. § 25.157(g), as amended.

²⁹ Order at ¶ 64.

³⁰ 47 C.F.R. § 25.157(g)(3), as amended.

³¹ Order at ¶ 64.

³² Order at ¶¶ 73, 79.

³³ 47 C.F.R. § 25.155(c), as amended; Order at ¶ 330.

³⁴ 47 C.F.R. § 25.155, as amended.

³⁵ 47 C.F.R. § 25.114(b), as amended.

³⁶ Abelson, D. *A Perspective on the Commercial Satellite Industry*, Sept. 10, 2003, <http://www.fcc.gov/ib> (accessed Oct. 6, 2003).

³⁷ Order at ¶ 164.

³⁸ *Id.*

³⁹ Order at ¶¶ 167, 170. NGSO systems must post a bond of \$7,500,000; GSO bonds are set at \$5,000,000. 47 C.F.R. § 25.149(a), as amended. These bond amounts were set only on an interim basis, and a public notice has been issued for comments on the amount of the bond that should be set permanently. Order and Further Notice of Proposed Rulemaking: Bond Issues, Order at 333-36.

⁴⁰ Order at ¶ 167.

⁴¹ Order at ¶ 164.

⁴² Order at ¶ 167. The bond requirement "will result in the financial com-

munity determining whether the licensee is likely to construct and launch its satellite system. Thus, financial qualifications will become a market-driven rather than a regulatory determination."

⁴³ 47 C.F.R. § 25.149(d), as amended.

⁴⁴ Order at ¶¶ 174, 175; 47 C.F.R. § 25.164, as amended.

⁴⁵ Order at ¶ 175.

⁴⁶ *Id.*

⁴⁷ 47 C.F.R. § 25.159(d), as amended.

⁴⁸ Order at ¶ 200.

⁴⁹ 47 C.F.R. § 25.159(a), (b), as amended.

⁵⁰ Previously, the FCC prohibited the transfer of licenses between operators. See 47 C.F.R. § 25.119 (2003), and as amended.

⁵¹ Order at ¶¶ 211, 215 ("[W]hile preventing unjust enrichment and expediting service to the public are both important policy goals, expediting service to the public warrants more weight.").

⁵² *Id.*

⁵³ Order at ¶ 218.