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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
New ICO Satellite Services G.P.	)	File No. SES-LIC-20071203-01646
	)	File No. SES-AMD-20080118-00075
Application for Blanket License for Mobile Earth Terminals and Ancillary Terrestrial Component Facilities	)	File No. SES-AMD-20080219-00172

CONSOLIDATED OPPOSITION AND RESPONSE OF NEW ICO SATELLITE SERVICES G.P.

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April 17, 2008

TABLE OF CONTENTS

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New ICO Satellite Services G.P. ("ICO") submits this consolidated opposition and response to the petitions to deny filed by Inmarsat Global Limited ("Inmarsat")[1] and Sprint Nextel Corporation ("Sprint")[2] and to the comments filed by TerreStar Networks, Inc. ("TerreStar")[3] regarding the above-captioned application ("Application"), in which ICO is seeking a blanket license for mobile earth terminals and ancillary terrestrial component ("ATC") facilities to be used in conjunction with ICO's 2 GHz Mobile Satellite Service ("MSS") system. For the reasons discussed below, the Commission expeditiously should reject Inmarsat's and Sprint's Petitions, and grant ICO's Application. TerreStar filed comments supporting grant of ICO's application. ICO has addressed concerns raised by TerreStar, and expects to resolve the last remaining issue through coordination without delaying Commission grant of this Application.

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[1] Inmarsat Global Limited Petition to Deny (Apr. 4, 2008) ("Inmarsat Petition").

[2] Petition to Deny of Sprint Nextel Corporation (Apr. 4, 2008) ("Sprint Petition").

[3] Comments of TerreStar Networks, Inc. (Apr. 4, 2008) (TerreStar Comments").

I. INMARSAT'S PETITION LACKS MERIT AND SHOULD BE DISMISSED

Inmarsat's Petition raises no legitimate issues and provides no basis for denying ICO's Application.[4] Contrary to Inmarsat's erroneous assertion,[5] ICO's milestone extension application was granted on April 2, 2008.[6] Moreover, in compliance with the revised milestone schedule, ICO successfully launched its ICO G1 satellite from Cape Canaveral, Florida, on April 14, 2008. ICO fully expects to meet the final milestone requiring a certification that its ICO G1 satellite is operational by May 15, 2008—less than a month away.

Also contrary to Inmarsat's unsubstantiated contention, ICO's Application is not "premature."[7] The Commission's rules require that an ATC applicant certify or demonstrate that it "does or will comply" with certain gating criteria.[8] ICO's Application provided the required certification or showing with respect to every gating criterion set forth in Section 25.149(b) of the Commission's rules.

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[4] As a threshold matter, Inmarsat lacks standing to oppose the Application. Section 309(d)(1) of the Communications Act of 1934, as amended ("Communications Act"), and Section 25.154(a)(4) of the Commission's rules require that a petition to deny contain "specific allegations of fact" sufficient to show that the petitioner is a "party in interest." *See* 47 U.S.C. § 309(d)(1); 47 C.F.R. § 25.154(a)(4). To demonstrate standing as a party in interest, a petitioner must allege sufficient facts to show that the petitioner would suffer a "direct injury" if the Commission grants the subject application. *See Hispanic Information and Telecommunications Network, Inc.*, 18 FCC Rcd 23872, ¶ 19 (WTB 2003). Inmarsat's claim of standing is based solely upon its alleged status as a "competing provider of MSS." Inmarsat Petition at 1 n.1. In fact, Inmarsat is at best a potential, not actual, competitor of ICO, given that ICO does not currently offer any services. The Commission has found that a party "lacks standing to file a petition to deny because it is only a potential competitor." *Sevier Valley Broadcasting, Inc.*, 10 FCC Rcd 9795, 9796 ¶ 6 (1995).

[5] *See* Inmarsat Petition at 1.

[6] *See* Stamp Grant (Apr. 2, 2008) attached to IBFS File Nos. SAT-MOD-20070806-00110, SAT-AMD-20071109-00155.

[7] Inmarsat Petition at 1.

[8] *See* 47 C.F.R. § 25.149(b).

The Commission has stated that "[u]pon a satisfactory, prospective and substantial showing that a non-operational MSS licensee will soon meet the gating criteria, we will grant the MSS operator ATC authority to begin ATC operations upon actually meeting the gating criteria."[9] The Commission further stated that it saw "no reason why an MSS operator should not be able to begin ATC operation at the same time it begins MSS operation."[10] As stated above, ICO has successfully launched its G1 satellite and is less than a month away from commencing MSS operation in compliance with the final milestone requirement.

The *only* ATC criterion that Inmarsat claims that ICO has not satisfied is the requirement to have a ground spare satellite available within one year of commencing ATC operations.[11] ICO, however, stated in its Application that it is "in the final stages of an extensive investigation into the most favorable second satellite for its MSS/ATC system in light of valuable information learned from building the ICO G1, the best technical configuration for its anticipated service offerings, efficient pricing, and shortest time to completion."[12] Contrary to Inmarsat's suggestion,[13] ICO is not required to satisfy the ground spare requirement by having, prior to grant of its Application, either a ground spare under construction or a binding contract for construction of a ground spare. In fact, when the Commission granted ATC licenses to Globalstar LLC ("Globalstar") and Mobile Satellite Ventures Subsidiary LLC ("MSV"), it allowed both companies to certify that they will comply with the spare satellite requirement,

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[9] *Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands,* Memorandum Opinion and Order and Second Order on Reconsideration, 20 FCC Rcd 4616, ¶ 89 (2005) ("*Second ATC Reconsideration Order*").

[10] *Id.*

[11] *See* Inmarsat Petition at 1.

[12] *See* Application, Exh. 1, at 7.

[13] *See* Inmarsat Petition at 4.

even though neither company apparently had a spare satellite under construction or a binding contract for construction of a spare satellite prior to Commission grant of their ATC licenses.[14]

Furthermore, ICO intends to execute a satellite construction contract that provides for completion of construction within a year of ICO's commencement of ATC operation. If ICO cannot do so, it either will postpone commencement of ATC operation or will seek an appropriate waiver prior to commencing ATC operation.[15]

II. SPRINT'S PETITION LACKS MERIT AND SHOULD BE DISMISSED

A. Contrary to Sprint's Claim, ICO Has Shown that It Will Soon Comply with the Commercial Availability Gating Requirement

Sprint erroneously claims that because the relocation of broadcast auxiliary service ("BAS") incumbents in the 2 GHz MSS uplink band has not been completed (a task that *it* was responsible for completing last year), ICO cannot satisfy the gating criterion requiring MSS commercial availability prior to ATC operation.[16] As an initial matter, Section 25.149(b)(3) requires that MSS "be commercially available ... in accordance with the coverage requirements

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[14] *See Globalstar LLC,* 21 FCC Rcd 398, ¶ 36 (IB 2006) ("*Globalstar*"); *Mobile Satellite Ventures Subsidiary LLC,* 19 FCC Rcd 22144, ¶ 25 (IB 2004) ("*MSV*").

[15] The Commission adopted a similar approach when it granted ATC licenses to Globalstar and MSV. *See Globalstar* ¶ 36 ("In the event that [Globalstar] fails to achieve compliance with the in-orbit-spare requirement prior to the planned inauguration of ATC service, it will have to postpone commencement of ATC operation pending compliance or disposition of a further waiver request."); *MSV* ¶ 25 ("in the event that MSV completes preparations for commencing commercial ATC operation sooner than six months prior to the milestone deadline for launching its second-generation MSS satellite, we would entertain a request for a limited waiver extending the one-year deadline for obtaining a ground spare, supported by evidence that a suitable spare satellite is under construction with a scheduled delivery date no later than six months after the launch deadline").

[16] *See* Sprint Petition at 2. Sprint's recycled comments regarding reimbursement are irrelevant to this proceeding, ignore the Commission's own orders, and contain untrue statements. ICO has largely responded to these comments in other proceedings and will not burden the Commission with refuting these statements again here.

that pertain to each band."[17] That section does not require that MSS be commercially available nationwide, but rather provides that commercial MSS availability must be "in accordance with" the applicable coverage requirements. The coverage requirements applicable to 2 GHz MSS, in turn, are set forth in Section 25.143(b)(2) and do not require that ICO's geostationary satellite orbit ("GSO") system actually provide satellite service nationwide.[18] Rather, Section 25.143(b)(2)(iv) requires that ICO's GSO system "be *capable* of providing mobile satellite services on a continuous basis throughout the 50 states, Puerto Rico, and the U.S. Virgin Islands, if technically feasible."[19] Thus, in compliance with the commercial availability gating requirement, ICO expects to commence commercial satellite service as soon as January 2009, and this commercial service will be offered using a 2 GHz MSS GSO system with nationwide coverage capability.

To the extent required, however, ICO requests a waiver of the commercial availability gating requirement to allow it to commence ATC operation at the same time that it commences commercial satellite service, even if the satellite service cannot be offered nationwide. The Commission may waive its rules upon a showing of "good cause."[20] Specifically, the Commission may waive a rule if the waiver "would not undermine the underlying policy objectives of the rule in question" and would serve the public interest.[21] In granting a waiver, the

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[17] 47 C.F.R. § 25.149(b)(3).

[18] *Id.* § 25.143(b)(2).

[19] *Id.* § 25.143(b)(2)(iv).

[20] *Id* § 1.3.

[21] *See Assignment of Orbital Locations to Space Stations in the Domestic Fixed-Satellite Service*, Order and Authorization, 15 FCC Rcd 3385, ¶ 14 (IB 1999); *see also Northeast Cellular Telephone Co., LP v. FCC*, 897 F.2d 1164 (D.C. Cir. 1990); *WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969) ("*WAIT Radio*").

Commission may consider special circumstances, including "considerations of hardship, equity, or more effective implementation of overall policy."[22]

In adopting the commercial availability gating requirement, the Commission intended to remove the financial incentives for an MSS licensee to commence ATC operation while delaying the launch of its satellite system. The Commission found that "the financial incentives to operate an MSS system are neither as strong, nor as pressing, if an MSS licensee can operate [ATC] prior to constructing, launching and operating MSS space stations and offering commercial MSS services."[23] Accordingly, the Commission adopted the commercial availability gating requirement to preclude the possibility that an MSS licensee "may choose not to launch space stations, or may delay implementation through petitions for waiver of the implementation milestones" if it were allowed to operate ATC prior to commencing satellite service.[24]

Grant of a waiver in this case, however, would not undermine the underlying policy objectives of the rule because ICO already successfully launched its GSO satellite and is less than a month away from meeting the final milestone requirement. ICO's milestone compliance efforts to date and, specifically, the successful launch of its GSO satellite demonstrate its commitment to implementing its 2 GHz MSS system in a timely manner. Moreover, because ICO does not intend to commence ATC operations prior to commencing commercial satellite service in limited markets, the prospect of obtaining ATC authority offers no financial incentives for ICO to delay implementing its satellite system or commencing commercial satellite service.

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[22] *WAIT Radio*, 418 F.2d at 1159.

[23] *Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands,* Report and Order and Notice of Proposed Rulemaking, 18 FCC Rcd 1962 ¶ 86 (2003) ("*ATC Order*").

[24] *Id.*

In fact, grant of the requested waiver would be consistent with the Commission's express intent to allow MSS operators to commence both ATC and satellite services at the same time.[25]

Although ICO expects to commence commercial satellite service nationwide as soon as January 2009, its ability to do so will depend upon the outcome of a pending rulemaking regarding BAS relocation.[26] In that proceeding, the Commission tentatively concluded to eliminate the "top 30 market rule" as of January 1, 2009, to "allow the 2 GHz MSS operators to begin offering nationwide service, *both satellite and ATC* ... even if BAS relocation is not completed."[27] The Commission also is considering a market-by-market approach that would allow MSS operators to "begin providing service, *both satellite and ATC,* in a market once all BAS operations ... there have been relocated."[28] ICO expects that the Commission will grant the necessary relief in the rulemaking to allow 2 GHz MS operators to commence both satellite and ATC services as soon as possible. In the meantime, however, the Commission should grant the requested waiver, subject to the outcome of the pending rulemaking proceeding, to allow ICO to commence both satellite and ATC services at the same time.

B. Sprint's Harmful Interference Claims Are Speculative and Unfounded

The Commission should also reject Sprint's completely unsupported claim that ICO's proposed ATC operation "seems quite likely to interfere with scores of millions of current cellular phone users."[29] ICO has submitted an extensive technical analysis in connection with its

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[25] *See Second ATC Reconsideration Order* ¶ 89 ("We see no reason why an MSS operator should not be able to begin ATC operation at the same time it begins MSS operation.").

[26] *See Improving Public Safety Communications in the 800 MHz Band,* Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 23 FCC Rcd 4393, ¶¶ 49-56 (2008).

[27] *Id.* ¶ 52 (emphasis added).

[28] *Id.* ¶ 56 (emphasis added).

[29] Sprint Petition at 1-2.

Application.[30] As the technical analysis demonstrates, ICO is not seeking major changes that would result in a significant increase in potential for harmful interference, as Sprint claims. Rather, ICO asks simply to conform the ATC rules to industry standard regulations for terrestrial-based services, thus harmonizing the ATC portion of its MSS network with other terrestrial networks to enable spectrally efficient deployment. Accordingly, the requested waivers of the Commission's power levels, out-of-band emissions, and measurement procedures for ATC base stations seek to harmonize the regulations governing ATC and other similar terrestrial services,[31] as well as eliminate unnecessary and outdated limits primarily designed to protect now-defunct services.[32]

Ironically, Sprint asks the Commission to reject technical changes that Sprint has already secured for itself. In other proceedings, Sprint successfully argued in favor of higher base station transmit powers, stating that a failure to increase base station transmit power for broadband

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[30] Sprint criticizes the lack of an interference mitigation measure without demonstrating a need for it. Sprint Petition at 2. ICO's Application contains analysis to demonstrate that grant of its requests will support harmonization with other technical regulatory standards and would not require interference mitigation.

[31] Sprint also places some emphasis on note 1 of Section 25.252: "The preceding rules of 25.252 are based on cdma2000 system architecture. To the extent that a 2 GHz MSS licensee is able to demonstrate that the use of a different system architecture would produce no greater interference potential than that produced as a result of implementing the rules of this section, an MSS licensee is permitted to apply for ATC authorization based on another system architecture." Sprint Petition at 6. As ICO demonstrated in its Application, ICO's proposed architecture produces no greater interference potential than a cdma2000 architecture. ICO's waiver requests are intended to remove overly restrictive protections for the AMS(R)S service which will not be deployed, and to harmonize regulations with surrounding bands. Furthermore, technology implementations are converging as the industry seeks to reuse components among technologies with the resulting scale and cost advantages. For instance, a common cdma2000 base station architecture is to deploy multiple CDMA carriers through a single multi-carrier power amplifier. This power amplifier would have common characteristics to that required by a UMTS technology, each supporting 5 MHz or multiples of 5 MHz with similar overall power levels and emissions. Thus, different technologies generally deliver a similar power profile.

[32] These limits were primarily designed to protect 2 GHz MSS services proposed by Boeing, which subsequently surrendered its license.

technologies "may unfairly restrict the deployment of wideband technologies by requiring more new cell sites than necessary or reducing coverage areas from the same number of sites as deployed in today's cellular systems."[33]

ICO requests similar consideration to reduce deployment cost and align operations with other frequency bands slated for broadband technologies such as PCS, AWS and 700 MHz. Specifically, ICO's requested changes mirror base station EIRP regulations that the Commission recently adopted for these frequency bands.[34] Grant of the requested out-of-band emission waivers similarly will reflect the limits applicable to surrounding frequency bands and ensure ICO's ability to take advantage of future technological improvements that may allow equipment cost reductions while maintaining the current interference environment. With regard to the method used to measure out-of-band emissions, ICO is simply requesting a rule equivalent to the rules that apply to PCS, AWS and BRS/EBS systems.[35]

Sprint's concern over ICO's requested waiver of mobile and portable transmit power and out-of-band emissions is misplaced. Sprint argues that the out-of-band interference modeling in ICO's application is "faulty" because it does not represent typical industry practice in the PCS band.[36] Industry practice, however, often differs from the Commission regulations and reflects

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[33] *Biennial Regulatory Review - Amendment of Parts 1, 22, 24, 27 and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services*, Third Report and Order, FCC 08-85, ¶ 17 (Mar. 21, 2008).

[34] *Id.*

[35] *See* 47 C.F.R. §§ 24.238(b), 27.53(g)(1) and 27.53(l)(6).

[36] ICO has performed an analysis to compare the interference a PCS terminal receives from an ATC terminal (using the emissions limit of 70 + 10 log P) with the interference a PCS terminal receives from another PCS terminal (using the industry-imposed emissions limit of 106 + 10 log P). The analysis shows that the interference from an ATC terminal is not higher for practical applications than the interference from a PCS terminal, and is further subject to the low probability that an ATC mobile transmitting at high power will be in close proximity to a PCS device operating near the edge of its coverage area. Furthermore, whereas the model used by

the evolving state of technology, system capabilities, and deployment factors. As these factors change, industry practice adjusts to keep pace with the evolution. The Commission does not continually revise service rules based on current industry practice, but rather adopts service rules that support the evolution of these factors. Accordingly, ICO properly based its waiver requests upon the Commission's regulations for the PCS band and other similar frequency bands, as well as upon the supporting technical analyses included in ICO's Application.

ICO's waiver requests simply seek to provide a similar regulatory environment for the 2 GHz MSS band as neighboring bands, and to leave similar room for evolution of the technology implementation. Sprint overreaches by arguing that strict safeguards (such as tighter out-of-band emissions and reduced transmitter power) are essential to protect mobile receivers. ICO has not requested a waiver of the out-of-band emissions to protect adjacent spectrum below 2000 MHz; the current out-of-band emission rules are more restrictive than those governing the PCS band, and therefore are more than sufficient to protect Sprint's operations.[37] Sprint provides no

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ICO assumes that the ATC terminal emissions remain flat at 70 + 10 log P for frequencies of 1,995 MHz and below, in reality the emissions will roll-off further with increasing frequency offset from the ATC channel. Because there is a 5 MHz frequency band that separates the upper edge of the G Block downlink band at 1,995 MHz from the upper edge of the PCS downlink band at 1,990 MHz the emissions level within the PCS band will be even lower than the level specified by the 70 + 10 log P limit. Therefore, the emissions from an ATC terminal will not cause significant additional interference to the PCS terminals.

[37] ICO is not proposing to change the out-of-band emissions limit for frequencies below 2000 MHz, *i.e.*, the frequencies that affect the PCS, G Block and H Block spectrum. The out-of-band emissions within the PCS and G Block would remain at 70 + 10 log (P), which is much lower than the out-of-band emissions limits currently specified for PCS and G Block terminals. Section 24.238(a) states that "[t]he power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB." 47 C.F.R. § 24.238(a). This emission limit is 27 dB greater than the equivalent rule for ATC terminals under Section 25.252(c)(1). Hence, the regulations for ATC terminals already ensure less adjacent channel interference than those for PCS terminals. In addition, in its comments to the Commission regarding the AWS-3 proceedings, Sprint has proposed an out-of-band emissions limit of 55 + 10 log (P) at 5.5 MHz from the channel edge for AWS-3 terminals in order to mitigate mobile-to-mobile interference. Sprint Petition at 7-9. The proposed AWS-3

support, technical or otherwise, for its claim that grant of requested waivers for out-of-band emissions and transmitter powers will result in "widespread interference" to the PCS base transmit band (1930-1990 MHz), Sprint's own G Block (1990-1995 MHz), and the yet-to-be finalized AWS block (1995-2000 MHz, sometimes referred to as "H Block").[38] Instead of providing any analysis, Sprint merely references other Commission proceedings to describe its supposed concern without explaining how the Commission's findings in those proceedings are even applicable here.[39] The Commission therefore should reject Sprint's interference claims as speculative and unsupported by technical analysis for a number of reasons.

First, the only users of spectrum with an "embedded base of equipment" are the systems deployed in the PCS band. These systems are, at a minimum, 10 MHz away from the entire MSS/ATC allocation.[40] ICO's analysis demonstrates that these users will not be impacted by ICO's proposed ATC operation in the 2 GHz MSS band.

Second, the Commission has already found that future adjacent-band interference issues can be resolved cooperatively between MSS/ATC and yet-to-be-deployed PCS and AWS operators.[41] ICO also accounted for the Sprint G block when designing its ATC system and associated waiver request, and has demonstrated to the Commission in its application that its

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limit is less stringent than that imposed on ATC terminals, and in the case of ATC, the PCS terminals have the added protection of at least 10 MHz separation.

[38] Sprint makes this claim in connection with the proximity of ATC uplink bands to these bands, and also cites the existing installed base of equipment as additional point of concern. Sprint Petition at 7.

[39] *See id.* at 8 n.14.

[40] ICO will be 20 MHz away because it intends to select 2010-2020 MHz for the operation of its uplink communications.

[41] *ATC Order*, ¶ 120. With respect to H-Block, in addition to the disputed use of the band within the wireless industry, representatives of the MSS industry have raised concerns about the appropriate safeguards needed to ensure operation of systems in the H block (both base and mobile transmit) without causing adjacent-band interference.

requested ATC use of the 2010-2020 MHz band will fall within levels already tolerated by the industry.

Sprint's arguments are diametrically opposed to the arguments it raised in other proceedings. Interestingly, although Sprint cites the AWS-2 proceeding in support of its Petition, its filings in that and other proceedings contradict its position here. Sprint vehemently argued in the AWS-3 and the AWS-2 proceedings that receiver overload is an improbable event.[42] In the AWS-3 proceeding, Sprint made the same argument for a band directly adjacent to the newly established AWS-1 service, while opposing the imposition of any guard band. Yet, in this proceeding, Sprint argues against ICO's proposed mobile operations even though they would be 10 to 20 MHz away. ICO agrees with the arguments that Sprint has made in other proceedings with regard to the low probability of mobile-to-mobile interference. ICO adds that in this case, most of the PCS terminals will be located in urban and suburban areas, and the probability for mobile-to-mobile interference is highest in those areas. In those areas, ICO's ATC terminals will utilize power control and hence, throughout most of the area, the EIRP of the terminals will be lower than the maximum EIRP, thus greatly decreasing the probability of terminal overload.

Third, the power levels and limitations for user equipment often vary from band-to-band, depending on incumbent and planned future usage.[43] Unlike PCS systems, which have been developed primarily for voice communications on portable handsets, ICO's MSS-ATC system is designed to support a variety of broadband services and will include portable devices, such as

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[42] Comments of Nextel Communications at 22-38, WT Docket No. 04-356 (Dec. 8, 2004).

[43] As Sprint itself points out in its AWS-3 comments, although "AWS-1 mobile transmitters in the 1.7 GHz band are limited to one watt EIRP, the considerations that lead to the adoption of this lower limit do not apply to the 2.1 GHz band." Comments of Sprint Nextel Corporation at 8, WT Docket No. 07-195 (Dec. 14, 2007).

PDAs, laptops, and vehicular terminals. As with the Commission's prescient reconfiguration of the BRS-EBS band to facilitate true wireless broadband services, ICO seeks flexibility in its "green field" design to deploy a wide range of devices to take advantage of the broadband network.

Broadband technologies differ from the traditional voice-based networks in that the communication link may take advantage of a higher available signal-to-interference plus noise ratio (SINR). With a voice system, the phone call requires a fairly low SINR to maintain the call with adequate voice quality. Delivering a higher SINR provides no further advantage to the device. Indeed, in a cdma2000 system, the network strives to deliver no more than the minimum SINR needed as this frees more capacity for other users.

In contrast, a broadband data service takes advantage of better SINR conditions to send more data bits to a device within the same amount of system resources, such as CDMA codes or OFDMA tones. The broadband system accomplishes this greater efficiency by adjusting the modulation and coding employed in the communication link to pack more bits into the channel. Therefore, technology enhancements such as directional antennas employed with certain devices are able to improve the SINR of the link to the base station, without an appreciable impact to other bands. This business need is a new development unique to broadband systems, and forms the basis for the relatively new regulations enacted in the BRS/EBS band for user station transmit power. ICO's waiver request for other user stations observing a transmit power of 2 W is consistent with the BRS/EBS band regulations established with Sprint's significant input and support.

Fourth, Sprint incorrectly asserts that ICO has not accounted for overload interference in its study. To the contrary, ICO accounted for overload, but determined that the potential for

overload based on the proposed rules is no greater than the potential for overload based on the current rules. The current rules specify the EIRP for an ATC terminal on a power spectral density basis, *i.e.*, an EIRP of 1 dBW in 1.23 MHz. Based on the current rule, a terminal with a bandwidth of 5 MHz will be allowed an EIRP of approximately 7 dBW. The Commission adopted this rule in the *ATC Order* in February 2003,[44] and Sprint has had more than five years to develop PCS handsets to appropriate specifications if it were concerned about the transmit power limits adopted in the *ATC Order*.

ICO is requesting a waiver to meet a peak EIRP limit of 3 dBW (or 2 watts) for mobile terminals. Thus, ICO is proposing a lower EIRP limit on its mobile terminals than currently allowed by the rules.[45] ICO is also requesting a transmitter output power limit of 3 dBW (or 2 watts) for all other user stations. Using this transmitter output power, the current rule allows for an antenna gain of up to 4 dBi with a 5 MHz carrier. ICO's proposed ATC operation is similar to that of other broadband services, and devices of this nature, such as PCMCIA cards, tend to have antenna gains of no more than 5-6 dBi due to the size and SAR limitations of these antennas. Contrary to Sprint's suggestion, ICO does not intend to use antenna gains that will result in terminal EIRPs that are many times in excess of the existing limit.

III. TERRESTAR'S CONCERNS SHOULD NOT DELAY GRANT OF THIS APPLICATION

ICO is pleased that TerreStar generally supports ICO's Application. With respect to TerreStar's concern regarding the requested waiver of Section 25.252(b)(1), ICO has demonstrated through a technical study that its waiver request will not cause satellite receiver

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[44] *See ATC* Order.

[45] Sprint incorrectly interprets ICO's mobile EIRP waiver request. Sprint Petition at 5-6 & n.10. ICO's waiver request is not stated on a per-MHz basis but instead requests 2 W EIRP. Thus, the ICO mobile EIRP waiver request mirrors the regulation in place for PCS and BRS/EBS bands, and is lower than the 3 W EIRP set for the 700 MHz band.

overload. Moreover, TerreStar's request to identify an alternate standard for Section 25.252(c)(2) is not in conflict with ICO's request for partial waiver of the rule. With respect to Section 25.252(a)(1), TerreStar's concerns are limited to MSS/ATC operations within the MSS band, and ICO expects that the parties will resolve this issue through coordination. Thus, TerreStar's comments should not delay the Commission's grant of this Application.[46]

IV. CONCLUSION

Based upon the foregoing, ICO urges the Commission to reject Inmarsat's and Sprint's Petitions, and to grant ICO's Application expeditiously. Moreover, with respect to TerreStar's concerns, ICO expects to resolve the last remaining issue without delaying Commission grant of this Application.

Respectfully submitted,

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[46] Although TerreStar states that a very few of ICO's requests for waiver of the ATC technical rules raise potential interference issues, TerreStar has not provided any technical analysis or reached any definitive conclusions regarding these issues, noting that it "is continuing to evaluate these issues." *See* TerreStar Comments at 3.

CERTIFICATE OF SERVICE

I hereby certify on this 17th day of April 2008, a copy of the foregoing CONSOLIDATED OPPOSITION AND RESPONSE has been served via hand delivery to the following:

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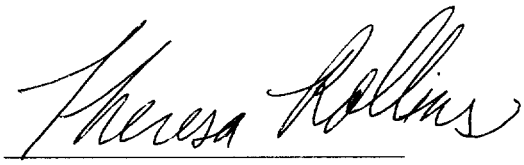

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