

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

In the Matter of	)	
	)	
ViaSat, Inc.	)	
	)	
Application for Special Temporary	)	File No. SES-STA-20120815-00751
Authority to Operate Five Aircraft-Mounted	)	Call Sign E120075
Transmit/Receive Earth Stations in the Ka	)	
Band	)	
	)	

**OPPOSITION TO PETITION TO DENY OF ROW 44, INC.**

ViaSat, Inc. (“ViaSat”) opposes the petition to deny (“Petition”) of Row 44, Inc. (“Row 44”) in the above-captioned request for special temporary authority (“STA Application”) of ViaSat. As an initial matter, the Petition should be dismissed as procedurally defective: Row 44 fails to demonstrate that it is a party in interest—that it would suffer any cognizable harm from a grant of the STA Application; moreover, Row 44’s allegations are not supported by the required affidavit. Nor are Row 44’s substantive arguments availing:

- the STA Application is in fact complete and includes all of the information required by the salient Ka band rules and policies;
- the sound technical design of the ViaSat antenna reflects the types of performance tradeoffs specifically contemplated by the Ka band service rules;
- ViaSat’s proposed operations have been coordinated with all potentially affected satellite operators and are fully consistent with the well-defined interference environment that the Commission established for the Ka band over a decade ago; and

- grant of STA under these circumstances is fully consistent with Commission policy and precedent.

For these reasons, ViaSat urges the Commission to grant the STA Application in an expeditious manner, and in time for the planned October 1, 2012 JetBlue market trials for which it is needed.

## **I. THE PETITION TO DENY DOES NOT MEET COMMISSION REQUIREMENTS**

As an initial matter, Row 44 fails to satisfy the requirements for filing a petition to deny. Section 25.154(a)(4) of the Commission’s rules requires that a petition to deny “contain specific allegations of fact . . . to support the specific relief requested, which shall be supported by affidavit of a person or persons with personal knowledge thereof, and which shall be sufficient to demonstrate that the petitioner (or respondent) is a party of interest and that a grant of, or other Commission action regarding, the application would be prima facie inconsistent with the public interest.”<sup>1</sup> The petition must demonstrate that the petitioner would suffer a direct injury that is more than hypothetical or purely speculative, that the injury is causally linked to the challenged action, and that the relief sought will likely be remedied by denial of the pending application.<sup>2</sup> In other words, a petition must establish that the filer has standing, and must be supported by an affidavit.

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<sup>1</sup> 47 C.F.R. § 25.154(a)(4); *see also* 47 U.S.C. § 309(d)(1) (a party filing a petition to deny must demonstrate standing to do so by providing “specific allegations of fact sufficient to show that [it] is a party in interest”).

<sup>2</sup> *See, e.g., Conn-2 RSA Partnership*, 9 FCC Rcd 3295, 3297 (1994) (injury cannot be hypothetical, but rather must be fairly traceable to the grant of the applicant’s request for authority); *PCS 2000, L.P.*, 12 FCC Rcd 1681, 1685 (1997) (petitioner did not meet the requirements of standing because it did not adequately explain how denying the application would remedy its alleged injury).

Row 44 fails to meet any of these criteria. Significantly, Row 44 does not even allege that it would be harmed by ViaSat's proposed STA operations. Row 44 is the licensee of an aeronautical mobile earth station network in the Ku band and does not allege that it operates in the Ka band. Thus, there is no alleged interference into Row 44's operations. Row 44 appears to be merely a disaffected competitor attempting to delay processing of the STA Application and thus impede ViaSat's access to the same type of STA that Row 44 enjoyed prior to grant of its own license.<sup>3</sup> ViaSat urges the Commission to dismiss the Petition on these bases alone.<sup>4</sup>

## **II. THE STA APPLICATION IS COMPLETE AND FULLY CONSISTENT WITH THE LONG-STANDING KA BAND LICENSING FRAMEWORK**

Row 44's claim that the STA Application is incomplete, and that the design of the antenna is "technically deficient," both ignores the scope and purpose of the Commission's rules for the Ka band, and reflects a misunderstanding of ViaSat's technical demonstration in the underlying license application.<sup>5</sup> In essence, Row 44 claims that because commercial use of the Ka band is "nascent," the Commission should not allow ViaSat to operate based on coordination it has achieved with all potentially affected satellite operators.<sup>6</sup> Row 44 also argues that it is not enough for ViaSat to certify that this coordination has occurred; rather, it asks that ViaSat produce written proof of coordination, based on rules that apply to non-conforming Ku band

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<sup>3</sup> See *Row 44, Inc., Application for Special Temporary Authority for Mobility Testing of Aircraft Earth Stations*, 24 FCC Rcd 3042 (2009).

<sup>4</sup> See, e.g., *Conn-2 RSA Partnership*, 9 FCC Rcd at 3296-97 (describing the dismissal of petitioner's petition to deny without addressing the substantive merits due to lack of standing).

<sup>5</sup> See *ViaSat, Inc., File No. SES-LIC-20120427-00404, Call Sign E120075, Attachment 1 Technical Description* (filed Apr. 27, 2012) ("ViaSat Application").

<sup>6</sup> Petition at 6.

antennas.<sup>7</sup> Then Row 44 claims that the design of the ViaSat antenna does not reflect good engineering practices, and it resorts to making admitted and unsupported “inferences” about the operation of the antenna that are contrary to the record.<sup>8</sup>

Contrary to what Row 44 suggests, the licensing framework for the Ka band is twelve years old, and has provided the basis for authorizing at least a dozen satellites and many more ground networks that are currently deployed and serving the U.S. Those rules define the “default” operating parameters under which Ka band networks are deemed to be “precoordinated,” and also provide a procedure for licensing operations at parameters outside that default “envelope” as long as the applicant certifies that coordination has been achieved with other potentially affected satellites, and as long as the applicant bears the burden of coordinating with other networks deployed in the future that may be affected.<sup>9</sup> In fact, these rules provided the framework for a similar licensing approach that the Commission adopted for the Ku band over *a decade after* the Ka band framework was first conceived.<sup>10</sup>

From their inception, the rules for licensing Ka band earth stations have allowed exceedances of off-axis EIRP density levels as long as those exceedances are certified as having

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<sup>7</sup> *Id.* at 3, 7.

<sup>8</sup> *Id.* at 4, 5.

<sup>9</sup> 47 C.F.R. § 25.138; *see also Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite-Service Use*, Report and Order, 15 FCC Rcd 13430 (2000) (“*18 GHz First Report and Order*”).

<sup>10</sup> *2000 Biennial Regulatory Review – Streamlining and Other Revisions of Part 25 of the Commission’s Rules Governing the Licensing of, and Spectrum Usage by, Satellite Network Earth Stations and Space Stations*, Eighth Report and Order and Order on Reconsideration, 23 FCC Rcd 15099, 15108 (2008) (“an off-axis EIRP approach for conventional C-Band and Ku-band FSS earth stations would be consistent with our treatment of Ka-band FSS earth stations.”) (“*Licensing Reform Eighth Report and Order*”).

been have been coordinated.<sup>11</sup> Moreover, since the beginning, the Ka band earth station licensing rules have allowed manufacturers and operators to make tradeoffs between antenna patterns and power levels, rather than being constrained to a certain “default” antenna pattern.<sup>12</sup> Stated another way, the Commission established off-axis EIRP density values, rather than separate standards for antenna sidelobe performance and maximum antenna input power densities (as then were applicable to the Ku band), because such an approach offered flexibility in system design while establishing a suitable interference environment.<sup>13</sup> Indeed, even in the Ku band, the Commission’s order granting Row 44’s aeronautical earth station license firmly establishes that coordination is all that is required to allow operations at “non-standard” off-axis EIRP density levels.<sup>14</sup>

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<sup>11</sup> *Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite-Service Use*, Notice of Proposed Rulemaking, 13 FCC Rcd 19923, 19951 (1998) (“18 GHz NPRM”); *18 GHz First Report and Order*, 15 FCC Rcd at 13493 (Appendix A: Final Rules, 25.138(b)).

<sup>12</sup> *See, e.g., 18 GHz NPRM* at 19946 (adopting off-axis EIRP envelope affords earth station operators more flexibility in designing their systems); *2000 Biennial Regulatory Review – Streamlining and Other Revisions of Part 25 of the Commission’s Rules Governing the Licensing of, and Spectrum Usage by, Satellite Network Earth Stations and Space Stations*, Sixth Report and Order and Third Further Notice of Proposed Rulemaking, 20 FCC Rcd 5593, 5594-95 (2005) (streamlining procedures for processing non-routine antennas in order to “expedit[e] the provision of satellite services to consumers and enhanc[e] the types of services available, without increasing the likelihood of harmful interference to adjacent satellite operators.”); *see also Licensing Reform Eighth Report and Order* at 5101-02.

<sup>13</sup> *18 GHz NPRM* at 19946.

<sup>14</sup> *Row 44, Inc., Application for Blanket Authority to Operate up to 1,000 Technically Identical Aeronautical Mobile Satellite Service Transmit/Receive Earth Stations Aboard Commercial and Private Aircraft*, 24 FCC Rcd 10223, 10233 (2009) (“Row 44 Order”). As Row 44 notes, the Commission rejected ViaSat’s argument that coordination alone was insufficient, *see* Petition at n.14, and the *Row 44 Order* is compelling support for the proposition that coordination with potentially affected satellite operators is all that is required to operate earth terminals at parameters not specified in the Commission rules.

Against this backdrop, Row 44's arguments simply do not bear scrutiny. As an initial matter, rather than requiring that an applicant who proposes to operate at parameters not defined by Section 25.138 to produce evidence of coordination, the Ka band rules require that an applicant certify that it has completed any requisite coordination, and provide a mechanism for satellite operators to express any concerns that they (or their customers) may have by commenting on the application.<sup>15</sup> Similarly, those rules require that such an applicant bear the burden of coordinating with potentially affected satellite networks that are deployed in the future.<sup>16</sup>

Moreover, Row 44's attempt to criticize the technical tradeoffs reflected in ViaSat's antenna design is simply antithetical to the Commission's policy regarding the Ka band. The Commission never has dictated the gain of a Ka band antenna, and the Ka band licensing rules do not require an evaluation of antenna design against alleged "sound engineering practice."<sup>17</sup>

As detailed in the ViaSat Application, the mobile nature of the proposed earth stations creates limited circumstances where the off-axis EIRP density of transmissions in the direction of the geostationary arc may exceed the limits of Section 25.138. Row 44's "inference"<sup>18</sup> that ViaSat's proposed operations potentially impact additional satellites beyond

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<sup>15</sup> See 47 C.F.R. § 25.138(b) (earth station applicants that propose off-axis EIRP levels in excess of the mask "shall *certify* that all potentially affected parties (i.e., those GSO FSS satellite networks that are 2, 4, and 6 degrees apart) acknowledge and do not object to the use of the applicant's higher power densities.") (emphasis added).

<sup>16</sup> *Id.* at § 25.138(c).

<sup>17</sup> *Cf.* Petition at 4.

<sup>18</sup> See *id.* ("it can be inferred from the ViaSat Application itself that the skew angle range for which grating lobes point to the geostationary arc ranges from at least 22 degrees to 31 degrees . . . with an affected orbital range extending from 76° W.L. to 90° W.L., at a minimum.").

those with which ViaSat has coordinated is nothing but sheer, unfounded speculation. As detailed in the ViaSat Application, the off-axis EIRP density of the antenna exceeds the Section 25.138(a) mask at four discrete “grating” lobes in the non-geostationary plane, which are far removed from the main beam. Those grating lobes may intersect the geostationary orbital (“GSO”) arc in limited and well-defined circumstances where, as a result of geographic skew with respect to the horizon and/or aircraft banking, the pattern of the antenna is temporarily oriented so the grating lobes fall on the GSO arc.<sup>19</sup> As a matter of physics, these intersections will occur only at the discrete, fixed longitudes that ViaSat has identified—not across a wide range of the orbital arc, as Row 44 alleges.

More specifically, ViaSat identified the orbital locations where a grating lobe could intersect with the GSO arc and determined whether a Ka band satellite was licensed or deployed at that location. At those locations, ViaSat successfully coordinated any exceedances of the Section 25.138 default values with potentially affected satellite operators. ViaSat also successfully coordinated with O3b’s NGSO Ka band network. Consistent with Section 25.138, ViaSat will coordinate its proposed operations with other potentially affected Ka band satellite networks that may be deployed in the future.<sup>20</sup>

In sum, the STA Application and the ViaSat Application provide all information required under Section 25.138, demonstrating both that ViaSat’s proposed operations are consistent with the Ka band interference environment, and how ViaSat will protect other satellite networks. That Ka band interference environment is well-established and has proven to be sufficient to allow the development and deployment of many satellite and earth station networks over the last decade.

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<sup>19</sup> ViaSat Application, Attachment 1 Technical Description at 7.

<sup>20</sup> See Petition at 6; *see also* 47 C.F.R. §25.138(c).

### III. GRANT OF THE STA APPLICATION IS CONSISTENT WITH THE COMMISSION'S PRECEDENT

ViaSat seeks STA authority to permit market access trials and testing and tuning of the system in a commercial operations context. As ViaSat explained, STA is necessary to operate a small number of terminals to test the performance of the service under realistic conditions.<sup>21</sup> An STA is appropriate in cases such as this, where the underlying earth station application has remained pending for more than 60 days.<sup>22</sup>

Significantly, the Commission granted Row 44's request for STA under similar circumstances. More specifically, Row 44's stated need for an STA was "to allow both Row 44 and its airline customers to evaluate system performance, and ultimately passenger interest, on a variety of air routes."<sup>23</sup> As was the case with Row 44's STA, ViaSat has coordinated with all potentially-affected satellite operators. Moreover, no service rules for aeronautical mobile operations in the Ku band existed when Row 44's STA was granted, and no such rules exist today. Row 44's attempt to distinguish the STA Application from its grant of STA for its Ku band AMSS antenna is unavailing.<sup>24</sup>

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<sup>21</sup> STA Application at 1.

<sup>22</sup> *Amendment of Part 15 of the Commission's Rules and Regulations*, 6 FCC Rcd 2806, 2810, n.69 (1991) ("When an application cannot be routinely granted within sixty days, the staff will, in most cases, consider a request for an STA."). The ViaSat Application has been pending for over four months.

<sup>23</sup> Letter from David S. Keir, Counsel to Row 44, to Marlene H. Dortch, Secretary, FCC, Applications of Row 44, Inc. (Call Sign E080100; File Nos. SES-LIC-20080508-00570; SES-AMD-20080619-00826; SES-AMD-20080819-01074; SES-AMD-20080829-01117; and SES-STA-20080711-00928) at 6 (dated Oct. 14, 2008) ("Row 44 October 14, 2008 Letter").

<sup>24</sup> *See* Petition at 7. Row 44 tries to distinguish the timing of filing and review of its STA request, noting that its underlying license application had already been placed on public notice and commented upon. As evidenced by the policy of considering STA grants when an application has been pending longer than 60 days, the absence of public notice of an underlying application is no basis on which to dismiss an STA application,



Row 44's attempt to cast ViaSat's STA Application as a "convenience to the applicant" similarly provides no basis for dismissal.<sup>25</sup> In support of its own request for STA, Row 44 explained that "[t]he Commission has made clear that the language [in Section 25.120(b)(1)] concerning marketing considerations [being insufficient justification for an STA] does not apply in the context of non-routine applications, but 'was included in the rule to address routine applications that could be normally granted within sixty days,' with the objective that staff resources not be diverted to STA requests when the underlying application could likely be processed and granted within a sixty day period."<sup>26</sup> Row 44 argued that this precedent applied to its request for market trials involving STA operations of aeronautical terminals on commercial flights. Commission precedent is clear that the concept of judicial estoppel precludes Row 44 from arguing to the contrary here.<sup>27</sup>

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particularly when the STA itself need not go on public notice. *See* 47 C.F.R. § 25.120(b)(3). Public notice is not required in the case of the STA Application because it requests authority for a period of 60 days, and there is a pending application for regular authority.

<sup>25</sup> Petition at 8 (citing the restrictions in 47 C.F.R. § 25.120(b)(1)).

<sup>26</sup> Row 44 October 14, 2008 Letter, *citing XM Radio Inc.*, 16 FCC Rcd 16781, 16783 (2001) ("although Section 25.120 states that marketing considerations and customer service dates are not a sufficient justification for STA requests, we find that the rule does not apply in these [non-routine] circumstances. That language was included in the rule to address routine applications that could normally be granted within sixty days.").

<sup>27</sup> *See, e.g., Time Warner Cable*, 21 FCC Rcd 9016, 9020, n.25 (2006) (finding Time Warner estopped from arguing that Section 76.1603(b) did not apply to its newly acquired cable systems after it argued successfully that the same provision applied in order to obtain regulatory relief); *see also Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Second Report and Order, 19 FCC Rcd 13494, 13500 n.34 (2004) ("Judicial estoppel applies where a party assumes a successful position in a legal proceeding, and then assumes a contrary position simply because interests have changed . . .").

#### IV. CONCLUSION

Because Row 44 has failed to satisfy the requirements for a petition to deny, its Petition should be dismissed on procedural grounds. As to the merits of Row 44's arguments, the STA Application and the underlying ViaSat Application are in fact complete and include all information necessary to determine that ViaSat's proposed operations are consistent with the Ka band interference environment established by Section 25.138 of the Commission's rules. Furthermore, the STA Application is consistent with the Commission's precedent for granting STA under similar circumstances. Therefore, ViaSat respectfully requests that the Commission dismiss the Petition and expeditiously grant the STA Application by October 1, 2012, to allow the proposed JetBlue market trials to commence as planned.

Respectfully submitted,

/s/

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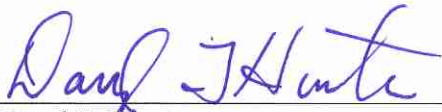
*Counsel for ViaSat, Inc.*

Filed: September 14, 2012

**DECLARATION**

I, Daryl T. Hunter, hereby make the following declarations under penalty of perjury. I understand that this Declaration will be submitted to the Federal Communications Commission.

1. I am Director, Regulatory Affairs of ViaSat, Inc.
2. I have reviewed the forgoing Opposition to Petition to Deny of ViaSat, Inc.
3. I certify that the facts set forth in the foregoing Opposition to Petition to Deny of ViaSat Inc. are true and correct to the best of my knowledge.

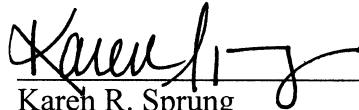
  
\_\_\_\_\_  
Daryl T. Hunter

Executed September 14, 2012

## CERTIFICATE OF SERVICE

I, Karen R. Sprung, hereby certify that on this 14th day of September 2012, I served a true copy of the foregoing Opposition to Petition to Deny of ViaSat, Inc. by hand delivery upon the following:

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\_\_\_\_\_  
Karen R. Sprung