BEFORE THE
Federal Communications Commission
WASHINGTON, DC 20554

In the Matter of

LightSquared Subsidiary LLC

Request for Modification of its Authority for an Ancillary Terrestrial Component

File No. SAT-MOD-20101118-00239

To: The Commission

APPLICATION FOR REVIEW

Pursuant to Section 1.115 of the rules of the Federal Communications Commission (the “Commission”), the General Aviation Manufacturers Association ("GAMA")\(^1\) hereby asks the Commission to reverse or rescind the Order and Authorization in the above-captioned matter, which granted LightSquared subsidiary LLC ("LightSquared") a conditional waiver to operate a nationwide terrestrial wireless network.\(^2\)

GAMA objected to grant of LightSquared’s waiver based on the potential for catastrophic desensitization interference likely to be caused by LightSquared’s terrestrial operations to the Global Positioning System ("GPS") that is crucial to the safe functioning of the nation’s general aviation activities.\(^3\) The conditions placed on grant of the waiver do nothing to ensure that

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\(^{1}\) GAMA represents its member airplane and airplane component manufacturers before government agencies around the world. GAMA’s aim is to advance the general welfare, safety, interest, and activities of the general aviation industry. GAMA’s members build nearly all of the general aviation airplanes flying worldwide today, and they also operate fleets of airplanes, pilot/technician training centers, and maintenance facilities worldwide. For additional information about GAMA, please see [http://www.gama.aero/](http://www.gama.aero/).


\(^{3}\) See Letter from Peter Bunce, President & CEO, GAMA, to FCC Chairman Julius Genachowski, dated Jan. 13, 2011, appended to Letter from Stephen D. Baruch, Counsel for the
desensitization will be prevented or to guarantee the integrity of GPS service utilized by millions of established users. The waiver therefore places at risk the $25 billion dollar per year general aviation industry, the millions of other businesses, public safety officials, and citizens who rely on it for essential daily services and operations.

For the reasons described below, the Commission should reverse and rescind the _LightSquared Order_ to ensure that operations do not commence until the desensitization issues are resolved.

I. THE COMMISSION’S GRANT OF THE LIGHTSQUARED WAIVER RAISES SERIOUS CONCERNS FOR THE GENERAL AVIATION INDUSTRY.

Virtually all modern general aviation aircraft are outfitted by an aviation GPS receiver, which pilots depend on for takeoff, landing, and general navigation. Aviation GPS receivers are built to specifications established by a private standards-setting body – the RTCA – that are incorporated into the FAA’s Technical Standard Order ("TSO") regulations for airplane manufacturers. The existing standards do not contemplate the interference conditions that would result if LightSquared begins using its conditionally-authorized 1500 watt transmitters adjacent to the GPS L1 spectrum band in the manner contemplated by the _LightSquared Order_, and the installed GPS receivers are not built to accommodate interference from such operations. The cycle for achieving any necessary changes to the RTCA standard is generally at least two years. The subsequent timetable for making any relevant changes to the TSO takes at least an additional year.  

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*Since GPS is an internationally recognized navigation utility, any new requirements would also necessitate discussion, coordination, and change to the international requirements. Typically, RTCA requirements of this sort would be adopted internationally since foreign aviation authorities want equipment and aircraft certified for GPS operations outside the U.S.*
The desensitization LightSquared’s proposed operations would cause to GPS will have immediate, negative practical effects on general aviation. Even presuming that a solution to the desensitization issue is found expeditiously, the multi-stage process described above for modifying aviation GPS receivers and then redesigning, testing, and installing desensitization-resistant GPS devices could take at least eight years, but probably much longer. During that period, aviators would be deprived of a reliable GPS system, compromising the safety of pilots and passengers across the country.

Once any new standards are adopted and incorporated into relevant regulations, manufacturers would need to design and produce GPS receivers that incorporate the new standards, and those devices would have to be approved and installed. Once any approvals are completed, re-fitting a significant portion of the general aviation fleet with new GPS receivers would take an additional three to five years. Installation and certification of new GPS receivers would require professional installation by FAA-approved service centers with FAA-credentialed staff. The resources required to accomplish this task are finite.

In short, the grant of the waiver to LightSquared raises extremely serious concerns for the general aviation industry, concerns which cannot be remedied, if at all, without the expenditure of extensive resources over a significant time period.

II. THE LIGHTSQUARED WAIVER CONFLICTS WITH COMMISSION PRECEDENT AND IS BASED ON A MISAPPLICATION OF ESTABLISHED WAIVER CRITERIA.

The LightSquared Order must be reversed because it clearly conflicts with established Commission precedent. The LightSquared Order frankly acknowledged that existing

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work properly when the aircraft are operated within the United States. Significant additional cycle time can occur during the coordination of the requirements with international interests.

See 47 C.F.R. § 1.115(b)(2)(i).
Commission policy and Section 25.149(b)(4) of the Commission’s rules prohibit the type of commercial offering of terrestrial-only services by MSS providers as contemplated in the waiver.⁶ These restrictions are the result of the Commission’s determination that terrestrial-only service like that proposed by LightSquared is incompatible with satellite operations in the MSS band.⁷ In this case, the Bureau was faced with exactly the type of interference scenario that gave rise to the integrated services rule in the form of evidence that terrestrial-only operations will cause harmful desensitization to GPS.⁸ Nonetheless, the Bureau proceeded to grant this novel waiver despite its acknowledging that the waiver exceeds the Commission’s previous interpretation of its rules and despite the fact that the Commission itself never has waived Section 25.149(b)(4). The Bureau lacks the authority to overrule the Commission’s policy prohibiting terrestrial-only service offerings by MSS providers like LightSquared, and the

_LightSquared Order_ should be reversed on that basis alone.⁹

Moreover, even assuming that the Bureau had the authority to waive Section 25.149(b)(4) as LightSquared requested (which it did not), the Bureau completely misapplied the

Commission’s well-established waiver standards in this case. As a general matter, waiver is

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⁶ See _LightSquared Order_, ¶24; see also 47 C.F.R. § 25.149(b)(4).
⁷ See 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, 4628, ¶ 33 (2005) (“We clarify that ‘integrated service’ as used in this proceeding and required by 47 C.F.R. § 25.149(b)(4) forbids MSS/ATC operators from offering ATC-only subscriptions.”).
⁹ The Bureau’s action also exceeds the scope of its delegated authority. Under 47 C.F.R. § 0.261(b)(1), the Bureau is prohibited from acting on applications that “present[] new or novel arguments not previously considered by the Commission.” Since the Commission has never waived the integrated services requirement of 47 C.F.R. § 25.149 or stated that the requirement could be waived, the Bureau’s action in this case plainly falls within the category of new or novel issues the Bureau may not decide.
appropriate only if special circumstances warrant deviation from a general rule, and such
development would better serve the public interest than would strict adherence to the general rule.\textsuperscript{10} The United States Court of Appeals for the D.C. Circuit has recognized that the Commission may grant a waiver of its rules in a particular case only if (1) the relief requested would not undermine the policy objective of the rule in question and (2) would otherwise serve the public interest.\textsuperscript{11} The Bureau’s decision does not satisfy either of these tests.

The waiver granted by the \textit{LightSquared Order} would not better serve the policies embodied by Section 25.149(b)(4) of the rules – it directly contravenes those policies. The main purpose of the rule was to promote MSS development by permitting ancillary terrestrial wireless service. Obviously, permitting ancillary-only service does not promote MSS development – to the contrary, it encourages L-Band operators to focus on potentially more lucrative terrestrial-only services. The integrated services requirement was specifically intended to relieve ancillary terrestrial operators from interfering with satellite operators in the L-Band and adjacent bands. Thus, under the waiver, terrestrial service may become a principal (not ancillary) service, eliminating the incentive to promote MSS development; separation of the satellite and terrestrial components removes the only incentive to ensure operations do not cause interference to satellite operators. Under these circumstances, the Bureau was required to reject LightSquared’s request because grant “effectively circumvent[s] the Commission’s rulemaking function.”\textsuperscript{12}

\textsuperscript{11} \textit{WAIT Radio}, 418 F.2d at 1157.
\textsuperscript{12} \textit{See Nextel Communications, Inc., Order}, 14 FCC Rcd 11678, 11691 ¶31 (WTB 1999) (“It is axiomatic that the Commission 'must not eviscerate a rule by a waiver.' The Commission has been especially reluctant to grant a waiver when to do so would 'invite numerous other waiver requests which, if granted, would effectively circumvent the Commission's rulemaking function.'”) (citing, e.g., Riverphone, Inc., T/A Maritel, \textit{Memorandum Opinion and Order}, 3 FCC Rcd 4690, 4692 ¶12 (1988)).
The waiver also violates the Commission’s standards because it portends disastrous consequences for the public interest. The Bureau’s analysis focused solely on LightSquared’s history as a good MSS citizen and the potential benefits of LightSquared’s proposed terrestrial-only service without balancing those potential benefits against the demonstrated harms LightSquared’s service will cause.\(^\text{13}\)

GAMA and its members believe the LightSquared waiver will result in significant public interest harms. As noted above, the general aviation industry absolutely depends on a reliable GPS system to ensure safe flight takeoff, routing, navigation, and landing, as well as general air traffic control. Modern air travel for our industry is inconceivable without a smooth functioning GPS system to guide it. Even minimal predicted interference to GPS operations creates unacceptable risks to life and property. The potentially massive desensitization that LightSquared’s operations will cause to the GPS system would result in incalculable losses to our industry and threaten the safety of life itself. Furthermore, undertaking the retrofit and upgrade of each GPS avionics unit including its certification and approval by the FAA becomes an insurmountable task. The Bureau did not even acknowledge these harms in granting the waiver. Grant of the LightSquared waiver without a guarantee that harmful desensitization will not occur plainly is contrary to the public interest, which means that the *LightSquared Order* must be reversed and rescinded.

III. **THE CONDITIONS PLACED ON THE LIGHTSQUARED ORDER VIOLATE ADMINISTRATIVE LAW AND CONSTITUTIONAL STANDARDS.**

The Bureau attempted to ameliorate the risks of granting LightSquared’s waiver by imposing conditions to be fulfilled prior to its commencement of “commercial services.”\(^\text{14}\)

\(^{13}\) *See LightSquared Order* at ¶¶29-35.

\(^{14}\) *LightSquared Order*, ¶36.
conditions themselves, however, result in an unlawful delegation to LightSquared of the responsibility for determining the scope of the interference problems and recommending potential remedies through the work of an inter-industry working group that LightSquared will control. Subdelegation of an agency’s duties to outside parties are assumed improper absent an affirmative showing of congressional authorization.”

The Commission has the duty to make determinations regarding the scope of the interference problems and potential fixes itself, and neither it nor one of its Bureaus has authority to delegate those duties to a private party, let alone one with a vested interest in the outcome.

The Bureau’s grant to LightSquared of the authority to determine the scope of the desensitization problem and its solutions also contravenes interested parties’ due process rights. Due process requires that agency proceedings and determinations be governed by articulated standards that can be evaluated by a reviewing court. The LightSquared Order, however, prescribes almost no procedural requirements and no standards for the inter-industry working group to apply despite the likely serious and significant effect on GPS users. The Bureau retains the right to determine whether the results of the working group are satisfactory but, the LightSquared Order does not articulate what criteria it will apply to make that determination. In other words, the Bureau replaced a waiver proceeding governed by the Administrative


16 Holmes v. N.Y.C. Hous. Auth., 398 F.2d 262, 265 (2d Cir. 1968) (“where the Authority has adopted no standards for selection among non-preference candidates, [it has] thereby failed to establish [a] fair and orderly procedure . . . which due process requires”); United States v. Atkins, 323 F.2d 733, 741-42 (5th Cir. 1963) (failure of voter registration approval board to adopt “uniform objective standards” that enabled the decision maker to exercise “arbitrary power” violated due process).
Procedures Act and the Commission’s rules with an ad-hoc process lacking any discernible rules or standards. This substitution violates all interested parties’ due process rights.

Furthermore, the conditions imposed by the Bureau are arbitrary, capricious, and contrary to law because the inter-industry process they establish is too vague to ensure that interference does not occur, and it fails to respect statutory requirements. The *LightSquared Order* permits LightSquared to deploy “commercial service” only after completion of the working group’s assigned task. But that does not stop LightSquared from deploying terrestrial facilities for testing on a non-commercial basis. That means damaging desensitization could occur as soon as that non-commercial use begins. The *LightSquared Order* lacks any indication that the Bureau even considered the risks of interim non-commercial terrestrial operation by LightSquared, and given the risks, permitting such operation is arbitrary and capricious.

It also was arbitrary for the Bureau to appoint LightSquared, an interested party, as the custodian and sole reporter of the required inter-industry process. The *LightSquared Order* says virtually nothing about how the Bureau expects the next steps to proceed or how disagreements among the participants will be handled. Even if the Commission determines that the Bureau had authority to resolve the interference concerns through an inter-industry working group, it still should establish a reasonable framework for those discussions that does not unduly privilege LightSquared’s view of the problems and solutions.

If the Commission upholds the Bureau’s delegation of the interference issue to an industry group, it should ensure that the group is governed by strong procedural protections for all parties and the opportunity for public input and comment.\(^\text{17}\)

\(^{17}\) In addition to the substantive problems with the *LightSquared Order*, the procedure leading to its adoption was entirely inadequate. The Bureau placed the waiver petition on a fast track with an abbreviated comment period. These procedures contravened the requirements in
III. CONCLUSION

For the foregoing reasons, GAMA requests that the Commission reverse and rescind the

*LightSquared Order.*

Respectfully submitted,

[Signature]

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the FCC’s rules for major change applications like that submitted by LightSquared. *See* 47 C.F.R. § 25.117(f). Moreover, by working a substantial change in the MSS rules through this waiver proceeding, the Bureau appears to have circumvented the requirements of the Congressional Review Act that major changes to the Commission’s rules be accompanied by an analysis of the economic impact of the change and permit Congress a 60-day period to object to the agency action. 5 U.S.C. § 801 *et seq.* Each of these procedural infirmities provides an additional ground for the Commission to reverse the *LightSquared Order.*
CERTIFICATE OF SERVICE

I, Jens Hennig, Vice President, Operations, for GAMA, do hereby certify that a true and correct copy of the foregoing "Application for Review" was served by U.S. mail, first class, postage-prepaid on the 25th day of February, 2011, on the following:

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