Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of

Wireless Telecommunications Bureau Seeks Comment on Gogo’s Petition for Rulemaking To Enable More Flexible Use of the 800 MHz Commercial Air-Ground Service

WT Docket No. 24-184
RM-11985

COMMENTS OF APCO INTERNATIONAL

The Association of Public-Safety Communications Officials, International (APCO) offers these comments in response to the Wireless Telecommunications Bureau’s Public Notice regarding the Petition for Rulemaking submitted by Gogo Business Aviation LLC (Gogo). Pursuant to a Waiver Order issued by the Wireless Telecommunications Bureau, Gogo requests the Commission initiate a rulemaking proceeding to modify portions of Part 22 of the Commission’s rules to enable more flexible air-to-ground operations in the 800 MHz band. Here, APCO offers relevant background regarding the Bureau’s Waiver Order and provides recommendations for proceeding with a Notice of Proposed Rulemaking that fully addresses the risk of interference from Gogo’s proposed rule changes.

1 Founded in 1935, APCO is the nation’s oldest and largest organization of public safety communications professionals. APCO is a non-profit association with over 40,000 members, primarily consisting of state and local government employees who manage and operate public safety communications systems – including 9-1-1 Emergency Communications Centers, emergency operations centers, radio networks, and information technology – for law enforcement, fire, emergency medical, and other public safety agencies.


I. Background on the Waiver Order

Gogo’s Petition for Rulemaking results from one of several conditions imposed on Gogo by the Waiver Order. APCO was an active participant in the waiver proceeding and raised several concerns regarding Gogo’s request and proposed operations in the 800 MHz band. While some of these concerns were addressed in the Waiver Order, the grant conditions did not fully and correctly address APCO’s positions.

As an initial matter, the Waiver Order failed to adequately address the potential for harmful interference to public safety operations and Gogo’s responsibility to detect, identify, and resolve interference should it occur. Throughout the waiver proceeding, several entities, including APCO, raised concerns with the prospect of interference caused by Gogo’s proposed operations. Gogo claimed that interference would not occur because Gogo’s operations would be limited to 260 base stations the majority of which would be located in remote or rural areas.

In issuing the Waiver Order, the Bureau accepted Gogo’s assertions and did not conduct an independent analysis of the interference potential. Further, the Waiver Order implied that APCO or public safety licensees should have to “demonstrate[] that harmful interference will likely occur.” APCO disagrees with this assumption. The burden to demonstrate that harmful interference will not occur rests with Gogo and should be verified by the Bureau.

Similarly, the Waiver Order failed to include sufficient methods for identifying and mitigating interference from Gogo’s operations. As APCO pointed out, public safety agencies do not have the resources to detect and identify a new source of interference. And, as the

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6 Waiver Order at para. 13.
7 Id.
8 APCO June 7 Ex Parte at 2.
Commission’s rules require, it is the responsibility of service providers like Gogo, not the victim public safety licensees, to “perform a timely analysis of the interference to identify the possible source.” Yet, the Waiver Order rejected APCO’s request that Gogo implement a signal identifier in its operations and instead conditioned the grant on Gogo’s agreement to provide public safety entities with a spectrum analyzer to ascertain whether Gogo’s transmissions were the source of harmful interference.

Additionally, APCO had asked that Gogo conduct field testing in advance of operations and in coordination with public safety licensees to evaluate the risk of interference and efficacy of mitigation procedures. However, while the conditions of the Waiver Order addressed field testing, it instead had Gogo coordinate with APCO and only upon APCO’s request (thereby shifting the burden away from Gogo). APCO subsequently explained to the Bureau that it did not offer, and does not agree, to be a party to this testing.

Finally, APCO filed a timely Petition for Reconsideration of the Waiver Order which, while highly relevant to consideration of the Gogo Petition, remains pending.

II. The Commission Should Use the Rulemaking Process to Thoroughly Analyze Gogo’s Requested Rule Changes

APCO welcomes Commission action to fully examine Gogo’s requested rule changes and the potential for interference from Gogo’s proposed operations. A rulemaking proceeding will enable the Commission to develop a more detailed record, fully examine the potential interference to public safety operations, and achieve consensus on appropriate measures for

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9 47 CFR § 90.674(b).
10 Waiver Order at paras. 13, 14.
11 APCO June 7 Ex Parte at 3.
13 See Letter from Jeffrey S. Cohen, Chief Counsel, APCO International, to Marlene Dortch, Secretary, FCC, WT Docket No. 21-282, at 2 (filed July 5, 2022) (“APCO July 5 Ex Parte”). Naturally, APCO is a national association of public safety communications professionals, not a licensee or operator of radio networks.
addressing interference. Should the Commission move forward with a Notice of Proposed Rulemaking, APCO urges the Commission to take a particularly close look at Gogo’s requests to (1) amend the rules to allow ERP to be measured based on maximum average power rather than peak power, and (2) add commercial air-to-ground operations to the station identification exemption list. Additionally, the Notice of Proposed Rulemaking should address APCO’s reasonable request that Gogo conduct testing in advance of commencing operations, in coordination with public safety licensees, under its proposed rule changes.

A. The Commission Should Conduct an Independent Technical Analysis of the Interference Potential of Gogo’s Requests

Gogo requests that the Commission amend section 22.867 to allow ERP in the 800 MHz air-to-ground band to be measured based on maximum average power rather than peak power.\(^\text{15}\) Gogo claims this change is necessary to fully enable the company to transition from a 3G CDMA EV-DO network to a 4G LTE OFDM network.\(^\text{16}\) Gogo does not provide a technical analysis regarding the potential risk of interference to nearby public safety systems from its change in operations. Instead, Gogo relies on assumptions based on the nature of its proposed operations\(^\text{17}\) and inferences from the rules for other bands.\(^\text{18}\)

The record leading to Gogo’s Petition lacks consensus on the risk of interference from Gogo’s proposed operations. Accordingly, the Commission should take all necessary steps to analyze Gogo’s interference assumptions and ensure the proposed rule changes do not add to the potential for interference to public safety operations. The Commission should conduct a detailed,

\(^\text{15}\) Gogo Petition at 4.
\(^\text{16}\) Id. at 3.
\(^\text{17}\) Reply Comments of Gogo Business Aviation LLC, WT Docket No. 21-282, at 6 (filed Aug. 23, 2021) (claiming that Gogo’s operations present a lower risk of harmful interference than other similar bands because Gogo’s network consists of about 260 base stations throughout the United States and Canada and about 80% are in very rural and remote areas).
\(^\text{18}\) Gogo Petition at 8.
independent technical analysis and include such analysis in any forthcoming Notice of Proposed Rulemaking.

Gogo’s Petition highlights precedent for including such technical analyses when evaluating the likelihood of interference to public safety licensees.\textsuperscript{19} Gogo points to situations in which waivers were granted for revised power limits as support for amending section 22.867. However, as APCO pointed out, in those cases the Bureau had received technical studies examining the risk of interference to public safety operations and, in at least one case, the results of interference testing conducted with public safety entities.\textsuperscript{20} In advance of issuing a Notice of Proposed Rulemaking, the Commission should ensure that it receives similar technical studies that can be made available for public review and comment.

In addition to evaluating the interference potential of the proposed rule changes, a detailed technical analysis would indicate what additional rule changes may be necessary to ensure the protection of public safety operations. For example, depending on the results of the Commission’s analysis it may be necessary to codify certain conditions adopted in the Waiver Order, such as to require Gogo to attenuate emissions into the 851-854 MHz band at more stringent levels than required in the rules.\textsuperscript{21}

\textsuperscript{19} Gogo cites to four waiver requests the Bureau granted to permit AT&T to use the PSD model at various locations in Florida, Vermont, Missouri, and Kansas. Gogo Petition at 7. In each of these cases the Bureau cites reliance on technical studies submitted in conjunction with the waiver requests as the basis for determining interference was unlikely. See Letter to Jeanine Poltronieri, Esq., and William Roughton, Jr., Esq., from Roger S. Noel, Chief, Mobility Division, Wireless Telecommunications Bureau, WT Docket No. 13-202, DA 14-1419 at 5 (rel. Sept. 30, 2014); Letter to Jeanine Poltronieri, Esq., and William Roughton, Jr., Esq., from Roger S. Noel, Chief, Mobility Division, Wireless Telecommunications Bureau, WT Docket No. 14-107, DA 14-1418 at 5 (rel. Sept. 30, 2014); Letter to Robert Vitanza, Esq., from Roger S. Noel, Chief, Mobility Division, Wireless Telecommunications Bureau, WT Docket No. 15-86, DA 15-1122 at 4 (rel. Oct. 2, 2015); Letter to Robert Vitanza, Esq., from Roger S. Noel, Chief, Mobility Division, Wireless Telecommunications Bureau, WT Docket No. 15-130, DA 15-1482 at 4 (rel. Dec. 22, 2015).


\textsuperscript{21} Waiver Order at para. 14.
B. The Commission Should Closely Examine Gogo’s Request to Add Commercial Air-to-Ground Operations to the Station Identification Exemption

Gogo requests that the Commission add commercial air-to-ground operations to the list of services that are exempted from station identification. In its Petition, Gogo argues that implementing a signal identifier would be unnecessary because it would not provide enough information to identify the associated signal as the source of harmful interference and would be prohibitively expensive to implement. As APCO pointed out, companies proposing new or modified operations that can adversely affect public safety licensees should ensure that they do not add to the effects of ghost interference or an increased noise floor as it becomes increasingly difficult for public safety licensees (and Enforcement Bureau personnel, as the case may be) to identify interfering sources. Thus, signal identifiers can play an important role in enhancing opportunities to identify and eliminate sources of interference.

Furthermore, Gogo’s Petition fails to identify any methods for detecting, reporting, or eliminating harmful interference should it occur. The Commission should ensure that it proposes rules that provide impacted public safety agencies with adequate methods to report interference to Gogo, and stringent requirements that outline Gogo’s obligations for responding to such reports in a timely manner. A signal identifier would become even more important in the absence of a robust interference resolution process.

C. The Commission Should Implement Requirements for Real-World Testing as Part of the Rulemaking Process

In the Waiver Order proceeding, APCO requested that Gogo conduct a trial in coordination with public safety licensees to evaluate the risk of interference and efficacy of

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22 Gogo Petition at 9-10.
23 Id.
24 APCO July 5 Ex Parte at 2.
mitigation procedures.\textsuperscript{25} Instead, and inconsistent with APCO’s request, the Waiver Order required Gogo to conduct field testing with APCO.\textsuperscript{26} Gogo subsequently offered to “work with any public safety licensees operating within a 10-mile radius of a Gogo base station for field testing that expresses interest in participating in field testing.”\textsuperscript{27} The Commission should propose rules that require Gogo to conduct testing, at its own cost and in coordination with potentially impacted public safety licensees, in advance of commencing its proposed operations. The proposed rules should require Gogo to submit a test plan for further public review and Commission approval that accounts for public safety’s limited resources.

In sum, APCO supports the Commission moving forward with a Notice of Proposed Rulemaking to evaluate Gogo’s proposed rule changes in accordance with the above recommendations.

Respectfully submitted,

APCO INTERNATIONAL

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\textsuperscript{25} APCO June 7 Ex Parte at 3.
\textsuperscript{26} See Waiver Order at para. 14.
\textsuperscript{27} See Opposition of Gogo Business Aviation LLC to Petition for Reconsideration of APCO International, WT Docket No. 21-282, at 10 (filed Aug. 1, 2022).
CERTIFICATE OF SERVICE

I, Alison P. Venable, hereby certify that on this 22nd day of July, 2024 at 10:20 a.m., I caused copy of APCO’s Comments to be served, electronically via email, on the following:

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