

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)	
)	
Promoting Investment in the 3550-3700 MHz Band)	GN Docket No. 17-258
)	
Petition for Rulemaking Regarding the Citizens Broadband Radio Service)	RM-11788 (Terminated) RM-11789 (Terminated)

COMMENTS OF CALIFORNIA INTERNET, L.P. DBA GEOLINKS

California Internet, L.P. DBA GeoLinks (“GeoLinks” or the “Company”) submits these comments in response to the Notice of Proposed Rulemaking and Order Terminating Petitions (“Notice and Order”) issued October 24, 2017.

I. INTRODUCTION AND SUMMARY

GeoLinks is proud to service the largest coverage area of any single fixed wireless Internet service provider (“ISP”) in the state the California. While the Company had previously focused on business and enterprise customers, in 2016 GeoLinks expanded its customer base to include nearly 30 rural school districts and surrounding communities throughout the state that previously had not had access to any high-speed broadband service. As the Company expands, it strives to reach more unserved and underserved areas within California and beyond. GeoLinks provides these comments to urge the Commission to adopt rules with respect to the 3550-3700 MHz Band (the “3.5 GHz Band”) that promote competition and adopt general spectrum practices that allow small and mid-sized ISPs to deliver competitive high-speed broadband services to help close the digital divide.

As GeoLinks has explained before, millions of Americans lack what is, by today’s standards, considered high-speed broadband access - especially in rural areas. Sparsely populated rural areas are not well suited for traditional, wired broadband service given the cost to build and deliver a cable/ fiber-based network. However, fixed wireless broadband technology can provide high-speed broadband to consumers in these areas for a fraction of the cost. For this reason, it is

imperative that spectrum resources be allocated in ways that allow fixed wireless ISPs to deploy services to these regions.

GeoLinks understands that the 3.5 GHz Band is gaining traction as “one of the core mid-range bands for 5G network deployments throughout the world” and acknowledges that any rules the Commission develops for this band will be primarily for 5G mobile wireless use.¹ However, this band is also well suited for other wireless technologies that can be deployed quickly to start closing the digital divide. GeoLinks urges the Commission to develop rules for this band that support 5G deployment without closing off the 3.5 GHz Band to other uses, such as fixed wireless service.

II. DISCUSSION

A. Licenses Should Be Granted in a Manner that Promotes Competition

In its comments on the Public Notice issued June 22, 2017, GeoLinks supported a longer PAL license term.² The Company believes that longer terms will allow license holders time to better utilize the spectrum. Specifically, the expectation of extended use of a specific band of spectrum creates certainty that will allow license holders to work with equipment manufacturers to develop and produce new equipment at lower costs. These lower costs will, in turn, allow license holders to invest more resources into their networks to promote higher speeds, additional roll out, etc. *However*, in supporting these longer license terms, GeoLinks urged the Commission to ensure that any licenses granted in the 3.5 GHz Band are allocated in ways that allow for robust competition.³ Specifically, spectrum resources should not be available to only those companies with large amounts of capital or those who would purchase it as an asset with no intention of utilizing it to its full potential.

To ensure such competition can flourish within the 3.5 GHz Band and that it can be used as a tool to help close the digital divide, GeoLinks suggests the following approaches:

¹ Notice and Order at para. 2.

² See Comments of California Internet, L.P. DBA GeoLinks, GN Docket No. 12-354 (filed August 8, 2017), at 2

³ *Id.*

i. The Commission Should Ensure Adequate PAL Allocation to Promote Competition

The Commission should consider the role various technologies may play with the 3.5 GHz Band and ensure PALs are allocated in ways that promote competition. Fixed wireless ISPs can offer a competitive choice to traditional, wired broadband service providers for a fraction of the cost. These technologies can be rolled out quickly and are the most cost-effective way to connect unserved consumers throughout the country. Allocating PALs within the 3.5 GHz Band in a way that allows these technologies to compete will help ensure the Commission's stated goal of promoting competition.

One way in which the Commission can ensure competition within the 3.5 GHz Band is by keeping its existing spectrum aggregation limit in place. In the Notice and Order, the Commission asks whether it should modify or remove its current 40 MHz spectrum aggregation limit.⁴ GeoLinks asserts that allocating more than 40 MHz of spectrum to one PAL holder will essentially close off the band to any other provider that could use that spectrum to provide high-speed broadband service. Moreover, allocating more than 40 MHz to one PAL holder that is not positioned to utilize the band immediately (e.g. a mobile wireless carrier planning to utilize the band for future 5G services) could mean that the 3.5 GHz Band would not be utilized fully for an indefinite amount of time. The Commission should reject any rule changes that could promote inefficient use of spectrum or spectrum warehousing. Along this vein, the Commission should also create rules to ensure that an entity cannot circumvent this aggregation limit by acquiring another PAL license holder. In the case of an acquisition, the remaining PAL holder should be required to relinquish any spectrum in excess of 40 MHz in the band within the specific geographic license area.

In addition, PALs should be distributed in a way that ensures a mixture of technologies are able to utilize the 3.5 GHz Band. Specifically, GeoLinks suggests that the Commission create a licensing scheme that distributes PALs amongst technology types as equally as possible. For example, if mobile wireless service providers and fixed wireless ISPs apply for PALs within the same geographic area, the Commission should ensure that both types of technologies are able

⁴ Notice and Order at para 27.

to obtain PALs in that area. In other words, the Commission should not let one technology type dominate the entire band within a geographic area. This will help ensure that the specific characteristics of the 3.5 GHz Band are utilized in more efficient and technology neutral manner.

ii. The Commission Should Require PAL Holders to Meet Rigorous Performance Requirements Focused on the Deployment of High-Speed Broadband to Unserved Areas

In the Notice and Order, the Commission asks whether “if we adopt longer term, renewable PALs, it would serve the public interest to adopt certain performance requirements to ensure that the spectrum is put to its best use in an efficient and effective manner.”⁵ As an initial matter, GeoLinks believes that any spectrum license should carry with it the requirement to serve the public interest. Spectrum is, first and foremost, a public resource and should be allocated accordingly. GeoLinks asserts that PALs should be awarded in a way that promotes the Commission’s interests in closing the digital divide.

GeoLinks proposes that the Commission implement a requirement to provide broadband service over the 3.5 GHz Band to some minimum portion of the geographic license area within a reasonable time frame (regardless of how large or small the license area may be). Specifically, GeoLinks recommends that this minimum be set high enough to ensure that unserved areas (if applicable) within the license area are not left behind. In addition, if a PAL is renewed, it should carry a new set of buildout or network improvement requirements to ensure PAL holders do not sit on spectrum licenses without fully utilizing them.

GeoLinks urges the Commission to require license holders to provide status updates regarding their deployment/ network improvements within the 3.5 GHz Band by census block. Reporting should be required on a quarterly basis for the first year of the initial license period or renewal and annually thereafter. In addition, the Commission should develop rules to require relinquishment, partition, or disaggregation of the PAL if deployment requirements are not met (as discussed in more detail below). These requirements will alleviate the risk of spectrum warehousing within any given license area and encourage rapid deployment of high-speed broadband by license holders.

⁵ Notice and Order at para 17.

iii. If PAL Holders are Unable or Unwilling to Fully Utilize a PAL, the Commission Should Create Rules to Allow (or Require) that Excess Spectrum to be Partitioned and Disaggregated

As noted above, spectrum is a public resource and it should be managed in a way that more effectively and efficiently serves the public need. Regardless of what license area the Commission may adopt, the Commission must implement rules for PAL holders that prohibit spectrum warehousing.

GeoLinks believes that it will be inevitable that some PAL holders may be unable or unwilling to expand their services over the 3.5 GHz Band throughout an entire license area. Without rules to allow (or require) relinquishment, partition and/ or disaggregation of the remaining license area, PAL holders could merely sit on the unused spectrum. The likely result would be that urban areas within a license area would receive the benefit of services offered over the Band while rural areas would be left behind and spectrum that could otherwise be used for broadband deployment would be left unused. To avoid this potential problem, the Commission should create rules that would allow other interested parties to acquire the unused portion of the PAL license areas.

In making this recommendation, GeoLinks does not advocate that PAL holders should be able to set the price or terms for transferring unused spectrum to an interested party. GeoLinks firmly believes that if a PAL holder is not willing to utilize the 3.5 GHz Band throughout the entire license area or does not meet certain mandatory buildout requirements (such as those suggested above), the holder should not reap a benefit. GeoLinks urges the Commission to create rules that discourage spectrum warehousing by ensuring that PAL holders do not obtain a windfall for poor spectrum management and allowing other interested parties to obtain unused spectrum resources.

B. Geographic Areas Should Be Determined in a Manner that Promotes Competition and Accounts for Regional Broadband Needs

In its comments on the Public Notice, GeoLinks did not oppose the use of PEAs in licensing PALs but urged the Commission to consider the unique characteristics of rural vs. more populated areas when determining how those areas should be licensed. Specifically, GeoLinks suggested that the Commission consider whether rural areas would benefit more from using

smaller geographic areas (such as by census tract or county) vs. PEA if it would ensure more timely broadband access to rural communities.

PEAs differ in size as well as in urban vs. rural make up. For example, PEA 2 in Southern California,⁶ encompasses very populous areas like Los Angeles and Orange Counties as well as large rural areas that are currently deemed “unserved” by high-speed broadband such as San Bernardino and Kern Counties.⁷ Conversely, PEA 192 is only comprised of Cumberland County, NC, which encompasses Fayetteville. These PEAs are undoubtedly very different and a licensing scheme appropriate for one would not necessarily be appropriate for the other.

GeoLinks recommends that the Commission develop PAL licensing rules that account for the differences between areas like PEA 2 vs. PEA 192. Logic dictates that areas such as PEA 2 should be divvied up in a way that would account for differences between the different regions and sub-regions within it. Because census areas are widely used and understood, division by census area (tract or even block group) would likely be easier to implement than some other metric. However, the Company urges the Commission to use its expertise in assessing broadband deployment and population centers to develop a licensing scheme that is in the best interests of the specific area that license falls within.

Regardless of what geographic area(s) the Commission adopts for PALs within the 3.5 GHz Band, as discussed above, GeoLinks urges the Commission to develop and enforce strict buildout/ service requirements and develop robust relinquishment, partition and/ or disaggregation rules to ensure that license holders utilize the spectrum within the entire license area held. This will help ensure that rural, sparsely populated areas that may not be attractive to some license holders are not left with no way to benefit from this band.

C. Connect America Fund Phase II Recipients Should Get Priority Access to PALs within Auction Award Areas

As GeoLinks has previously expressed to the Commission, the Company believes that the Connect America Fund Phase II Auction (“Phase II Auction”) presents an opportunity for the

⁶ PEA 2 is comprised of Kern, Los Angeles, Orange, Riverside, San Bernardino, San Luis Obispo Santa Barbara, and Ventura Counties.

⁷ See <http://www.broadbandmap.ca.gov/> (last visited on December 22, 2017).

Commission to develop spectrum licensing policies specifically focused on unserved and rural areas. Specifically, GeoLinks urged the Commission to allow Phase II Auction awardees the opportunity to obtain *priority access* to spectrum resources with which to serve eligible areas. GeoLinks believes that this priority access could be considered in developing rules for the 3.5 GHz Band.

GeoLinks proposes that Phase II awardees (or, depending on timing, Phase II applicants that pass the short form phase of the application process) that rely on spectrum resources be allowed “first crack” at a PAL covering applicable eligible areas. The 3.5 GHz Band offers a broadcast range that would allow fixed wireless ISPs such as GeoLinks the ability to provide high-speed broadband service across large rural areas with minimal tower construction. Therefore, GeoLinks asserts that access to spectrum resources in this band (especially resources sufficient enough allow point-to-multipoint (“P2MP”) services) would ensure the speed tiers that the Commission seeks from Phase II applicants could be met at a fraction of the cost of traditional wired networks. GeoLinks suggests that the Commission develop licensing rules for the 3.5 GHz Band that will maximize the benefit of the Phase II auction.

D. If the 3.5 GHz Band Will be Allocated Primarily for 5G Services, the Commission Should Allocate Other Spectrum Bands for Fixed Wireless Services

As stated above, GeoLinks asserts that the Commission should make the 3.5 GHz Band available to different technology types on an equal basis. Doing so would allow consumers to benefit from different service offerings and ensure competition opportunities. However, as noted, GeoLinks understands that the 3.5 GHz Band will be primarily be allocated for 5G mobile wireless use. If that is the case, the Company urges the Commission to allocate other bands primarily for fixed wireless technology uses and implement rules similar to those proposed herein to ensure that spectrum is fully utilized.

As an initial matter, mobile wireless carriers have more spectrum than they need to meet current service requirements and 5G technology is still years from being fully developed and deployed. It makes little sense to allocate most, if not all, of 3.5 GHz Band plus other mid-band spectrum plus the spectrum that wireless carriers already control to a technology that is still being developed and won’t be ready for deployment for an indefinite amount of time. Instead, the Commission should develop spectrum allocation policies that allow for **immediate**

deployment of high-speed broadband services, specifically in rural areas. These policies are imperative to closing the digital divide.

In the recent *Restoring Internet Freedom Order*, the Commission determined that “network investment is key to closing the digital divide, spurring competition and innovation that benefits consumers.”⁸ To reach this goal and spur this network investment, the Commission must create avenues by which competition can flourish and alternative providers can enter the market. With respect to wireless technologies, this can be accomplished by making additional spectrum resources available. Access to dedicated spectrum will allow fixed wireless ISPs to utilize clean spectrum connections to deliver robust, high-speed service. Specifically, access to dedicated licenses for P2MP connections will allow for high-speed broadband connections to numerous locations from a single transmission point, resulting in additional bandwidth and deployment opportunities at a fraction of the cost of traditional, wired broadband services. GeoLinks believes there are numerous bands well suited for P2MP technologies (in addition to the 3.5 GHz Band), including 3.7-4.2 GHz, 5.925-6.425 GHz, 10-11 GHz, and 23-24 GHz.⁹ The Company encourages the Commission to continue its work to develop new spectrum allocation policies and, in doing so, urges the Commission to ensure these policies create the competitive opportunities that will promote network investment.

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⁸ *Public Notice*, “FCC Acts to Restore Internet Freedom; Reverses Title II Framework, Increases Transparency to Protect Consumers, Spur Investment, Innovation, and Competition,” WC Docket No. 17-108 (rel. Dec 14, 2017).

⁹ In developing new spectrum policies, GeoLinks urges the Commission to undertake rulemakings to develop rules to allow for P2MP services in the 11 and 23 GHz bands (which are currently only for point-to-point services). GeoLinks asserts that any new rules developed for any band should include the rigorous reporting and buildout requirements discussed herein and should set forth a process for relinquishment of any unused spectrum.

III. CONCLUSION

In conclusion, GeoLinks urges the Commission to adopt rules with respect to spectrum licensing in the 3.5 GHz band that do not close off the band to fixed wireless service providers, ensure efficient use of the band, prohibit spectrum warehousing, and promote broadband deployment and competition.

Respectfully submitted,

GEOLINKS, LLC

/s/ Skyler Ditchfield, Chief Executive Officer

/s/ Melissa Slawson, General Counsel/ V.P of Government
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December 28, 2017