April 19, 2015

Via Electronic Filing

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Terrestrial Use of the 2473-2495 MHz Band for Low-Power Mobile Broadband Networks; Amendments to Rules for the Ancillary Terrestrial Component of Mobile Satellite Service Systems, IB Docket No. 13-213, RM-11685

Dear Ms. Dortch,

For more than a dozen years, as a volunteer, I have helped install, expand, and maintain a few open community wireless networks, established to provide free Internet access to low-income residents of public and private housing developments, along with offering technical support to users, including "cleaning", tuning up, refurbishing and repairing equipment. These networks initially relied on generous wireless equipment donations by Cisco, and then about ten years ago, I collaborated with MIT grad students (who subsequently dropped out and founded Meraki) on using experimental mesh networks for such purposes. The networks that I continue to support now rely on a blend of the original Cisco APs, esp. for point-to-point links, and, mostly first generation, Meraki and Open-Mesh devices.

When I started doing this, there was remarkably little wireless interference in some of these housing complexes. That has changed dramatically, particularly in mixed-income areas. Especially prominent are high strength cable company wireless signals. And, increasingly, vast numbers of mobile phones are seeking at least transient connections to our open wireless networks. At the same time, the average bandwidth load per user has greatly increased. As a result, some of these networks that I continue to maintain are embarrassingly poor quality, especially at their edges, but still have users reliant on them, given their limited financial resources and the extreme dearth of commercial, low-cost competition.

I think that the FCC's proposed rulemaking that would allow Globalstar's Terrestrial Low Power Service (TLPS) could potentially help greatly improve the situation. One possibility I imagine is that the local cable company could have a relationship with Globalstar that would move much of its wireless traffic out of channels 1-11, which would greatly help with the co-interference problems that I see on those channels in dense multifamily apartment buildings.

Another, even better, possibility is that Globalstar could coordinate with a company, such as Amazon, Google, Cisco or Sprint that would in turn cooperate with the local housing
authority and major developers of multi-family housing, placing TLPS-capable Hotspot 2.0 devices throughout buildings and providing a base level of free Internet access, while monetizing telephone traffic offload. This could represent a huge improvement over the level of service I, for one, am able to engineer with limited budget, aging equipment, and an increasingly congested wireless environment. Something like that, implemented nationwide, could hugely relieve our country's digital access problems.

Reviewing other comments I see some concern has been expressed that TLPS might by some measurement, even if imperceptibly, create interference at the upper edge of the current set of WiFi channels, and it has been suggested that that might be demonstrated if low-quality access points operating at the highest allowable power were crowded together, with client devices relatively isolated from their host access points.

At the same time, I note that the FCC's NPRM sought "comment on whether the current unwanted emissions limit provided in Section 15.247(d) is compatible with systems operating below 2473 MHz from Globalstar’s proposed operations at 2473-2495 MHz. If this limit is not appropriate, we seek comment on an appropriate limit.(83) Parties proposing such an emission limit should provide technical analyses and/or studies adequate to demonstrate that their proposed limit is appropriate."

Perhaps I've missed it, but I haven't seen evidence that anyone has proposed a well-substantiated regimen better-suited than the FCC's proposal to ensure that the massive potential benefits of TLPS outweigh any relatively minor problems that might occur in unusual circumstances.

So, I encourage the FCC to go ahead and adopt its proposed rulemaking.

Stephen B. Ronan
17 Albion Street
Roxbury, Massachusetts

p.s. I am not certain of the proper etiquette in these circumstances, but consider I should likely confess a potential conflict of interest as I comment on this matter: Believing the company's commercial interests and the public interest to be highly compatible, I invested in some shares of Globalstar stock a while back, and continue to hold them.