

15 June 2018

Ex Parte

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

Re: Amendment of Parts 2 and 25 of the Commission's Rules to Facilitate the Use of Earth Stations in Motion Communicating with Geostationary Orbit Space Stations in Frequency Bands Allocated to the Fixed Satellite Service; IB Docket No. 17-95

Dear Ms. Dortch:

On 13 June 2018, Maureen C. McLaughlin, Vice President of Public Policy for Iridium Communications, Inc. ("Iridium"), Brandon Hinton of Wiley Rein LLP, and Shiva Goel and I of Harris, Wiltshire & Grannis LLP spoke with Rachael Bender of Chairman Pai's office by phone.

We explained that while Iridium generally supports the Commission's efforts to facilitate the deployment of earth stations in motion ("ESIMs"), the current proposal to allow ESIMs in the 29.25-29.3 GHz band would pose unnecessary risks to Iridium's network with no possible benefit to ESIM consumers.

Unlike other proposed ESIM bands, the 29.25-29.3 GHz band is licensed to Iridium for NGSO MSS feeder uplinks. These feeder uplinks carry every user communication handled by Iridium's network, which our military, first responders, and the commercial sector use as critical infrastructure. The feeder uplinks also transmit the telemetry, tracking, and control communications that keep Iridium satellites safely in orbit.

No one disputes that ESIMs would create interference into Iridium's feeder uplinks—Iridium's satellites are located between the planes, trucks, and ships that will host ESIMs and the geostationary satellites with which ESIMs will communicate. The only question is whether that interference can be managed so that ESIMs safely can share the band.

ESIM operators propose to reduce interference to acceptable levels by muting their terminals whenever they enter exclusion zones drawn around Iridium's feeder-link earth stations. We explained that the problem with this approach is the coordinates of each exclusion zone are a function of the number of terminals in operation and their locations in time. With ESIMs, these variables are known unknowns that cannot be determined *a priori*. Coordination through exclusion zones thus would be based on little more than risky and unverifiable guesswork.

We also explained that there would be no consumer reward to outweigh these risks. The 50 megahertz of spectrum in the 29.25-29.3 GHz band is a tiny fraction of the 2,000 megahertz of new ESIM spectrum proposed. Moreover, recent efforts by ESIMs advocates to inflate the value

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of the 29.25-29.3 GHz band have been frankly absurd—and merely demonstrate that satellite operators do not need the band for ESIMs at all.

For example, Viasat recently claimed that excluding the 29.25-29.3 GHz band would create a “donut hole” that a quick look at the band plan showed would not exist.¹ After abandoning that argument, Viasat proceeded to claim that it needs the 29.25-29.3 GHz band to stream video on planes, failing to recognize that the 29.25-29.3 GHz band is an *uplink* band, whereas a satellite-based streaming video service is provided on the *downlink* to the aircraft.²

Viasat also claimed that it needs the 29.25-29.3 GHz band to service an additional 250,000 users.³ But Viasat’s estimate that it can support 250,000 simultaneous users in 50 megahertz of spectrum proves only that it has no need for the bandwidth in the first place. If Viasat can service 250,000 simultaneous users in 50 megahertz, that means the 2,000 megahertz of new ESIM spectrum proposed by the Commission would support 10 million simultaneous users. But there are only 5,000 flights in the United States at any given time, and 2 million tractor-trailer trucks. Thus, even without the 29.25-29.3 GHz band, Viasat could serve a hundred users on each and every flight and have an ESIM on each and every truck and still have about four times the spectrum it needs to get the job done.

To ESIM users, the 50 megahertz of bandwidth available in the 29.25-29.3 GHz band is beyond insignificant. Yet to Iridium’s users, ESIMs in the band could be a disaster. Under these circumstances, the only rational approach would be to exclude the 29.25-29.3 GHz band from the ESIMs proposal, or at least defer consideration of the band until the need is shown and the industry identifies a workable coordination solution.

Sincerely,

A handwritten signature in black ink that reads "SCOTT HARRIS". The signature is stylized with a large, sweeping "S" and the name in all caps.

Scott Blake Harris

Counsel to Iridium Communications, Inc.

cc: Rachael Bender

¹ Letter from John P. Janka and Elizabeth R. Park, Counsel to Viasat, Inc., to Marlene H. Dortch, Secretary, FCC, IB Docket No. 17-95 (filed Mar. 26, 2018); *see also* Letter from Scott Blake Harris, Counsel to Iridium Communications, Inc., to Marlene H. Dortch, Secretary, FCC, IB Docket No. 17-95 (filed Apr. 11, 2018); Letter from Scott Blake Harris, Counsel to Iridium Communications, Inc., to Marlene H. Dortch, Secretary, FCC, at 1, IB Docket No. 17-95 (June 11, 2018).

² *See* Letter from John P. Janka and Elizabeth R. Park, Counsel to Viasat, Inc., to Marlene H. Dortch, Secretary, FCC, at 1, IB Docket No. 17-95 (filed Apr. 26, 2018) (“Viasat Apr. 26, 2018 Response”); Letter from Elizabeth R. Park, Counsel to Viasat, Inc., to Marlene H. Dortch, Secretary, FCC, at 2, IB Docket No. 17-95 (filed Apr. 26, 2018) (“Viasat Apr. 26, 2018 Notice of Ex Parte”).

³ *See* Viasat Apr. 26, 2018 Response at 1; Viasat Apr. 26, 2018 Notice of Ex Parte at 2.