PUBLIC NOTICE

Federal Communications Commission
445 12th St., S.W.
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INTERNATIONAL BUREAU SEEKS FURTHER COMMENT ON QUALCOMM PETITION FOR RULEMAKING

RM-11640

Comment Date: May 30, 2012
Reply Comment Date: June 11, 2012

Qualcomm Incorporated (Qualcomm) filed a petition for rulemaking (Petition) asking the Commission to initiate a proceeding that would establish a new terrestrial-based, secondary status air-ground mobile service in the 14.0-14.5 GHz band. Qualcomm's proposed service would be used to provide multi-gigabit per second broadband connectivity to aircraft flying within the continental United States.[1] The Commission has placed the Petition on public notice.[2] In response to the public notice, we received eleven comments[3] and four reply comments.[4]

In the United States, the 14.0-14.5 GHz band is allocated on a primary basis to the Fixed-Satellite Service (Earth-to-space).[5] This is the only primary service in the band. In addition, the Space Research Service operates in the 14.0-14.2 GHz band, and the Radio Astronomy Service operates in the 14.47-14.5 GHz portion of the band.[6] Qualcomm seeks both a new secondary status footnote in the U.S. Table of Allocations for a commercial, bi-directional air-ground mobile service and new rules under which such a service would operate. Qualcomm's proposed air-ground mobile service would use between 150 and 250 ground stations to transmit to aircraft and receive from aircraft within the 14.0-14.5 GHz band. The ground stations would use four beams each, with an equivalent isotropically radiated power of about

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[1] Petition for Rulemaking in the Matter of Amendment of the Commission's Rules to Establish a Next-Generation Air-Ground Communications Service on a Secondary Licensed Basis in the 14.0 to 14.5 GHz Band, RM-11640 (filed July 7, 2011) (Petition).

[2] Public Notice, Report No. 2933, RM-11640 (Aug. 30, 2011).

[3] Alcatel-Lucent, American Airlines, American Petroleum Institute, The Boeing Company, Gogo Inc., Panasonic Avionics Corporation (Panasonic), Qualcomm, Row 44, Inc. (Row 44), Satellite Industry Association (SIA), United Airlines, and Virgin America Inc. filed comments.

[4] Honeywell, Panasonic, Qualcomm, and Row 44 filed replies. In addition, on January 27, 2012, Delta Air Lines, Inc. filed an *ex parte* submission.

[5] 47 C.F.R. § 2.106, Table of Frequency Allocations.

[6] *Id.*

39.5 dBW in 50 MHz, and would transmit in a predominantly northern direction to protect primary geostationary Fixed-Satellite Service (FSS) satellites. According to Qualcomm, its proposed system could be one of two similar systems operating throughout the 14.0-14.5 GHz band. Some commenters supported the request to initiate a rulemaking on Qualcomm's proposal,[7] while other commenters did not.[8]

Section 1.407 requires the Commission to determine that a petition for rulemaking discloses sufficient reasons in support of the action requested to justify the institution of a rulemaking proceeding.[9] To assist the Commission in making that determination, the International Bureau requested additional technical information from Qualcomm about its proposal,[10] and Qualcomm responded with letters on January 30, March 29, and April 6, 2012.[11]

In this Public Notice, we seek comment on the technical information provided by Qualcomm on January 30, March 29, and April 6, 2012. In particular, we invite satellite system operators and others who currently use the 14.0-14.5 GHz band to comment on whether the materials provided by Qualcomm sufficiently respond to interference concerns and support Qualcomm's request to initiate a rulemaking. Specifically, we request technical evaluation of the Qualcomm interference analysis and ask for comment on the feasibility of the operation of one or more air-ground systems in the 14.0-14.5 GHz band on a secondary basis. Additionally, because an aggregate of several hundred beams from the ground and aircraft stations could result in increased noise to receivers on FSS satellites, we request comment on Qualcomm's proposed solutions to identifying the air-ground system as the source, if interference should occur. Further, we ask for comment on the types of rules the Commission would need to impose on the proposed air-ground system to ensure that no interference occurred to existing and future FSS systems.

Interested parties may file **comments on or before May 30, 2012**, and **reply comments on or before June 11, 2012**. All pleadings are to reference **RM-11640**. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.[12]

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[7] *See, e.g.*, American Airlines Comments at 1-2, Gogo Comments at 5-10; United Airlines Comments at 1; Virgin America Comments at 1; Honeywell Reply at 1.

[8] Some commenters expressed concerns about interference into existing FSS operations in the band. *See, e.g.*, SIA Comments at i, 4-5, 6-7; Boeing Comments at 2, 7; Row 44 Comments at 5-7; Panasonic Comments at 4-6. *See also* API Comments at 1; Alcatel-Lucent Comments at 4-7. Commenters also recommend adopting rules for Aeronautical Mobile-Satellite Service broadband service to aircraft prior to considering two-way terrestrial-based air-ground service in the FSS uplink band. *See* SIA Comments at ii, 2-3, 9-10; Boeing Comments at 4-6; Row 44 Comments at 2-3; Panasonic Comments at 6.

[9] 47 C.F.R. § 1.407, Action on Petitions.

[10] Letter from James Ball, Chief, Policy Division, International Bureau, to Dean R. Brenner, Vice President, Government Affairs, Qualcomm, RM-11640 (dated Jan. 19, 2012). This set of questions solicited details concerning the proposed operation and distribution of ground stations, as well as on the interference protection proposed to be provided to the FSS. At a meeting with Qualcomm on March 8, 2012, the staff requested additional detail on the potential growth of the system in geographic areas with high aircraft density, and more information on the modulation to be used by the proposed air-ground system.

[11] Letter from Dean R. Brenner, Vice President, Qualcomm, to James Ball, Chief, Policy Division, International Bureau, RM-11640 (filed Jan. 30, 2012); Letter from Dean R. Brenner to James Ball, RM-11640 (filed Mar. 29, 2012); Letter from Dean R. Brenner to James Ball, RM-11640 (filed Apr. 6, 2012).

[12] *See Electronic Filing of Documents in Rulemaking Proceedings*, GC Docket No. 97-113, Report and Order, 13 FCC Rcd 11322 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: http://fjallfoss.fcc.gov/ecfs2/.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, D.C. 20554. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building. The filing hours are 8:00 a.m. to 7:00 p.m. Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743. U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, S.W., Washington D.C. 20554.

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In addition, one copy of each pleading must be sent to each of the following:

(1) The Commission's duplicating contractor, Best Copy and Printing, Inc., 445 12th Street, S.W., Room CY-B402, Washington, D.C. 20554, www.bcpiweb.com; phone #: (202) 488-5300 fax #: (202) 488-5563;

(2) Howard Griboff, Deputy Chief, Policy Division, International Bureau, 445 12th Street, S.W., Room 7-A662, Washington, D.C. 20554; email: howard.griboff@fcc.gov;

(3) Paul Locke, Assistant Chief, Engineering, Policy Division, International Bureau, 445 12th Street, S.W., Room 7-A666, Washington, D.C. 20554; email: paul.locke@fcc.gov; and

(4) Kathleen Collins, Attorney-Advisor, Policy Division, International Bureau, 445 12th Street, S.W., Room 7-A515, Washington, D.C. 20554; e-mail: kathleen.collins@fcc.gov.

Filings and comments are also available for public inspection and copying during regular business hours at the FCC Reference Information Center, Portals II, 445 12th Street, S.W., Room CY-A257, Washington, D.C. 20554. They may also be purchased from the Commission's duplicating contractor, Best Copy and Printing, Inc., Portals II, 445 12th Street, S.W., Room CY-B402, Washington, D.C. 20554, telephone: # (202) 488-5300, fax: # (202) 488-5563, or via e-mail www.bcpiweb.com.

For further information, please contact Howard Griboff at (202) 418-0657 or Kathleen Collins at (202) 418-1474.

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