



QUALCOMM Incorporated

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May 2, 2013

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

**Re: Petition for Rulemaking To Establish A Next Generation Air-Ground Service
On A Secondary Licensed Basis In The 14.0 to 14.5 GHz Band -- RM-11640**

Dear Ms. Dortch:

Earlier today, Dean Brenner and the undersigned of QUALCOMM Incorporated (“Qualcomm”) discussed the above-referenced Petition for Rulemaking with Commissioner Mignon Clyburn and her legal advisor Louis Peraertz. Qualcomm presented the material in the attached slides and encouraged the Commission to issue a *Notice of Proposed Rulemaking* at its May 9, 2013 open meeting proposing to establish an Air-Ground Mobile Broadband service on a secondary licensed basis in the 14.0-14.5 GHz band.

Respectfully submitted,

John W. Kuzin

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Senior Director, Government Affairs – Regulatory

Att.

cc w/ Att. Commissioner Mignon Clyburn
(via email) Louis Peraertz

A decorative graphic consisting of a series of white squares of varying sizes, arranged in a stepped, staircase-like pattern.

Next-Generation Air-Ground Communications Service: RM-11640 from Petition for Rulemaking to NPRM

May 2, 2013



The Sky IS THE LIMIT!

AIR - GROUND TECHNOLOGY

- ❑ Next Generation Air-Ground (“Next-Gen AG”) service will enable high-speed airborne broadband access (300 Gb/s on a combined basis) to commercial and private plane passengers
- ❑ The new service will support (via in-cabin Wi-Fi) the same broadband experience available on land, e.g., on-demand video, gaming, music, and other cloud services

Timeline & Summary

Next-Gen AG Petition for Rulemaking

Timeline

- Petition for Rulemaking filed - July 2011
- Comments/Replies filed - Sept/Oct 2011
- Pre- and post-filing outreach to SIA
- Responses to FCC staff questions - Jan 2012
- Second round of comments - July 2012

Summary

- Broad support from major airlines, equipment makers, and current air-ground service provider
- Record demonstrates that the proposed service can operate on a secondary licensed basis in successful coexistence with primary FSS operations and other users of the 14.0 to 14.5 GHz band





FCC's Key Policy Objectives

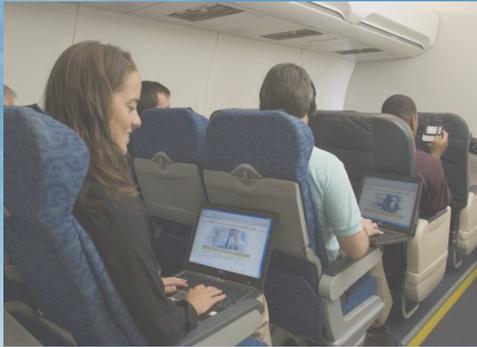
Next-Gen Air-Ground Notice of Proposed Rulemaking

A Next-Gen Air-Ground NPRM would advance the FCC's key policy initiatives

- **Successful spectrum sharing** – Qualcomm's extensive technical submittals show that the 14 GHz spectrum can be shared with primary operations without causing interference; authorizing the proposed Next-Gen AG service on a secondary basis will enable far more efficient use of under-utilized spectrum.
- **In-flight broadband connectivity** – Furthers FCC objective to enable increased support of mobile broadband devices on-board aircraft; Chairman Genachowski formally asked the FAA Administrator to work towards allowing greater use of electronic devices on planes.
- **In-flight broadband service competition** – The FCC recently adopted rules for satellite-based air-ground systems in the 14 GHz band. The proposed terrestrial-based Next-Gen AG system would cost much less than a satellite-based system and deliver superior performance with far less latency. The FCC should treat Qualcomm's proposal with regulatory parity as compared to satellite-based systems and let the free market decide which system or systems will succeed.

Next Gen AG Petition for Rulemaking

The record demonstrates that today's airline passengers expect the same level of service in the air that is available on the ground



24/7 Connectivity

Increasing need for airline travelers to stay connected 24/7 for cloud computing, social networking, and entertainment



High Speed Broadband

Fast connections are key to enabling music and video cloud offerings, content download, gaming and HD video streaming

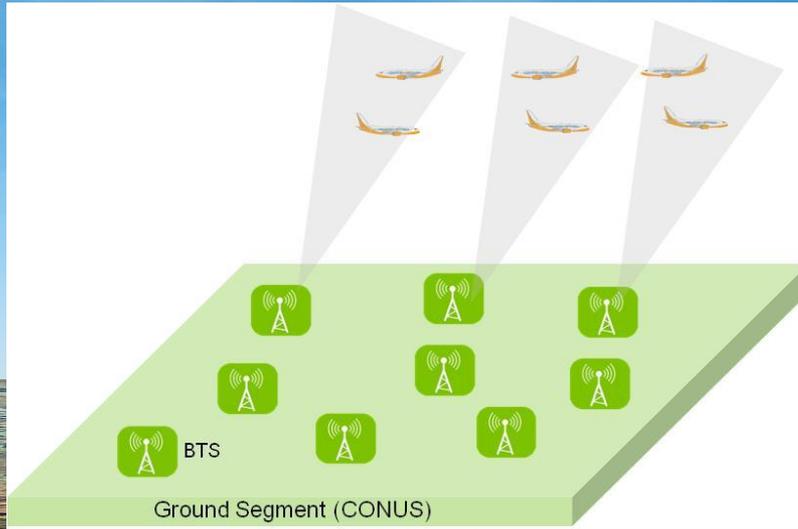


Multimedia Content

Access to the full library of Internet content: TV channels, movies, games, educational content and social media

Next-Gen AG System Design

In-flight Broadband System Operating at 14.0 -14.5 GHz On Secondary Licensed Basis



Key Technology Attributes

- Enables high throughput services such as video streaming, gaming, and other rich multimedia access
- Air-Ground architecture will use several hundred cell sites covering CONUS
- Can support approximately 2 Gb/s throughput per site in existing Ku band FSS uplink spectrum

Co-existence

- Designed to avoid interference with incumbent GSO satellite operations and possible future NGSO satellite services
- Designed to successfully co-exist with other services, including AMSS (now ESAA), TDRSS and radio astronomy