

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)
)
Amendment of Parts 1, 2, 15, 74, 78, 87, 90 and 97)
of the Commission’s Rules Regarding) ET Docket No. 12-338
Implementation of the Final Acts of the World)
Radiocommunication Conference (Geneva, 2007))
(WRC-07), Other Allocation Issues, and Related)
Rule Updates)

To: The Commission

**COMMENTS OF
THE BOEING COMPANY**

The Boeing Company (“Boeing”) files these comments in support of the Commission’s Notice of Proposed Rulemaking (“Notice”) proposing amendment of the Commission’s rules to implement allocation decisions from the World Radiocommunication Conference 2007 (“WRC-07”).¹ Boeing participated in the deliberations at WRC-07 and believes that the process produced a well-considered outcome that will benefit the United States by simplifying and updating the rules, promoting spectral efficiency, and protecting critical flight test operations. Boeing generally supports the proposed amendments, but takes this opportunity to comment specifically on the items identified below.

¹ *Amendment of Parts 1, 2, 15, 74, 78, 87, 90 and 97 of the Commission’s Rules Regarding ET Docket No. 12-338 Implementation of the Final Acts of the World Radiocommunication Conference (Geneva, 2007) (WRC-07), Other Allocation Issues, and Related Rule Updates, ET Docket No. 12-338, Notice of Proposed Rulemaking and Order, FCC 12-140 (rel. Nov. 19, 2012) (“WRC-07 NPRM”).*

I. THE COMMISSION SHOULD ADOPT THE FOLLOWING RECOMMENDATIONS TO BEST IMPLEMENT THE DECISIONS OF WRC-07 AND FURTHER COMMISSION POLICY OBJECTIVES

As the world's largest aerospace company and a leading manufacturer of commercial aircraft and defense, space, and security systems, Boeing is constantly engaged in product development and flight testing. Flight test operations require sensitive receive antennas which are highly susceptible to harmful interference. Boeing makes the following recommendations to promote efficiency in the Commission's regulation of the spectrum while ensuring that this critical service is protected.

A. ¶25 – The Commission Should Adopt AM(R)S Use of 108-117.975 MHz Through a New Footnote US197A, but Should Not Append Any Additional Language Not Contained in RR 5.197A.

In proposing to add an allocation for aeronautical mobile (R) route service (“AM(R)S”) in the 108-117.975 MHz band, the Commission notes that there are interference concerns between AM(R)S and FM radio operations in the spectrum band immediately below at 88-108 MHz.² The Commission therefore proposes to add a new footnote US197A to the 108-117.975 MHz band “based on” the text of RR 5.197A agreed upon at WRC-07, but including an additional statement that “AM(R)S use of the band 108-117.975 MHz shall not constrain the use of the band 88-108 MHz by stations in the broadcasting service operating in accordance with 47 C.F.R Part 73.”³

Boeing supports the addition of a footnote implementing RR 5.197A, but opposes appending the additional language proposed in the Notice. The language of RR 5.197A as agreed on at WRC-07 is the result of a carefully crafted compromise among the aviation industry,

² *Id.*, ¶ 28.

³ *Id.*

regulators, and the broadcast industry, and should not be modified with a US footnote that would be different than the international footnote. The additional language could easily be misconstrued to equate AM(R)S as secondary or otherwise subordinate to broadcast operations, which was not the intent of the Administrations that crafted and agreed to the new footnote.

B. ¶56 – The Unused Non-Federal AMT Allocation at 2310-2320 MHz Should Be Deleted

The Notice proposes to delete the unused non-Federal aeronautical mobile telemetry (“AMT”) allocation at 2310-2320 MHz.⁴ Boeing concurs with the comments of the Aerospace Flight Testing Coordinating Council (“AFTRCC”) in supporting deletion of the AMT allocation at 2310-2320 MHz. The use of the 2310-2320 MHz band for the Wireless Communications Service makes the band unusable for flight test operations and it would therefore be appropriate for the footnote to be removed.

C. ¶58 – The Allocation for AMT in the Frequencies of 2345-2360 MHz Should Be Deleted

Boeing also concurs with the comments of AFTRCC noting that the 2345-2360 MHz band is of limited utility for AMT due to its secondary status, which precludes its use for safety-related operations. Deletion of this allocation would simplify the Commission’s rules and have little to no adverse impact on flight testing operations.

D. ¶61 – The Proposed Allocation for Aeronautical Mobile Services in the 5091-5150 MHz Band Should Be Adopted but Must be Protected by a Coordination Requirement for WiMax Operations at Affected Airports

In response to the widespread use of aeronautical mobile route service (“AM(R)S”) and the nearing saturation of available spectrum in high traffic areas, the Commission proposes to

⁴ *Id.*, ¶ 57.

add a primary allocation for aeronautical mobile services (“AMS”) in the 5091-5150 MHz band.⁵ Boeing generally supports this addition and seconds the comments of AFTRCC on this issue. Boeing is concerned, however, that the FAA’s proposal for the use of WiMax at airports may increase the risk of interference where flight test receivers are co-located or operate within the transmission range of the FAA’s proposed new system.

Because of the sensitivity of flight test receive equipment, and the critical nature of flight test communications, Boeing would urge the FAA to coordinate any implementation of WiMax at airports with operators of flight test receivers that could suffer harmful interference from co-channel operations in the 5091-5150 MHz band. Boeing specifically urges the Commission to require coordination at St. Louis International Airport and at Seattle-Tacoma International Airport where Boeing conducts some of its flight testing. Boeing believes that good engineering practices would limit interference, and that any coordination required would not be onerous because full use of the frequency band by the FAA is unlikely to be necessary where flight test operations are co-located or located within radio line-of-sight of FAA operations in the same frequency band.

E. ¶65 – The Charleston, South Carolina Test Site Should Be Added to the List of Flight Test Areas Where AMT Operations in the 5091-5150 MHz Band Are Permitted

The Notice proposes to restrict AMT use of the 5091-5150 MHz band to 52 flight test areas listed in a new footnote US111.⁶ Boeing supports this restriction generally, but recommends that an additional sub-location be added to footnote US 111 to include Charleston, South Carolina, where Boeing has opened a major new manufacturing facility and carries out

⁵ *Id.*, ¶ 61, 65.

⁶ *Id.*, ¶ 65.

flight test operations for the Boeing 787. Boeing participated in the discussions that developed the original list of 52 sites several years ago, but the Charleston site was not in existence at that time. The Charleston site could be combined with the Marietta, GA location to form a single location which could be renamed the “Southeast Range Complex” or could be added as its own line to US 111 at coordinates 32 degrees, 52’ 35.85”N by 80 degrees, 01’ 49.70”W.

F. ¶188 – Additional Coordination Areas for Meteorological Satellite use of 17.7-19.7 GHz in California and Guam are Acceptable

Boeing has no objection to the proposal to include the additional two sites in San Miguel, California and Guam within the coordination requirements for the 17.7-19.7 GHz band.⁷

Additionally, Boeing supports the Commission’s tentative conclusion that, to preserve non-Federal use of the 17.8-20.2 GHz band, no additional primary Federal earth station sites beyond these two should be authorized to operate in the 17.8-18.3 and 19.3-19.7 GHz band.⁸

G. ¶136 – The Commission Should Not Require Compliance with Non-Mandatory Out of Band Emissions Limits in the 1452-1525 MHz Sub-Band as a Prerequisite to Operating in the 1435-1452 MHz Band

Boeing does not oppose the NTIA recommendation to “encourage” AMT stations transmitting in the 1435-1452 MHz band to “take all reasonable steps” to limit their out of band emissions (“OOBE”) into the 1400-1427 MHz band.⁹ The Notice, however, goes beyond the NTIA recommendation and proposes to require operators to meet their operational requirements in the 1452-1525 MHz sub-band prior to operating in the 1435-1452 MHz sub-band.¹⁰ Boeing

⁷ *Id.*, ¶ 95.

⁸ *Id.*

⁹ *Id.*, ¶ 136.

¹⁰ *Id.*

sees no justification for such a requirement and concurs with the comments of AFTRCC in not recommending adoption of this proposal.

II. CONCLUSION

Adopting the above recommendations will promote spectral and administrative efficiency while also ensuring that adequate spectrum is allocated and protected for critical flight test operations. For these reasons Boeing urges the Commission to adopt the recommendations detailed above.

Respectfully submitted,

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