



May 28, 2019

**Via Electronic Filing**

Federal Communications Commission  
Experimental Licensing Branch  
MS 1300E1  
445 Twelfth Street, S.W.  
Washington, DC 20554

**Re: Annual Progress Report of HNS License Sub, LLC Pursuant  
to Call Sign WE2XEW**

Dear Sir or Madam:

This Progress Report of HNS License Sub, LLC (“Hughes”) is submitted pursuant to the special conditions associated with Hughes’ Experimental Radio Service license in Call Sign WE2XEW. It is also responsive to the questions raised in the Commission’s e-mail correspondence of May 2, 2019.<sup>1</sup>

On January 1, 2006, Hughes obtained an authorization under Call Sign WE2XEW to conduct experimental operations with in-motion earth terminals in the fixed-satellite service (“FSS”) frequencies at 14-14.5 GHz and 29.5-30 GHz. Subsequent modifications have authorized operations on aeronautical platforms, expanded the bounds of the upper band to 29.25-30 GHz, and added additional satellites as points of communication.

Hughes continues to conduct experimental operations under this license in order to respond to potential and actual customer requirements, assess or demonstrate the viability of particular equipment and service configurations that are under development, and test different antenna products from various manufacturers in order to assess the performance of these products when integrated into the Hughes VSAT system. The activity continues to focus on experimentation and product development,<sup>2</sup> evaluating equipment combinations that may be utilized by commercial licensees in their networks,<sup>3</sup> and which may need further adjustment to meet the standards in other parts of the Commission’s rules prior to commercialization.

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<sup>1</sup> E-mail from Doug Young to Jennifer Manner, Request for Info - File # 0226-EX-CR-2019, *available at* <https://apps.fcc.gov/els/GetAtt.html?id=228961&x=>, (May 2, 2019).

<sup>2</sup> 47 CFR § 5.1 (basis and purpose of the Experimental Radio Service).

<sup>3</sup> See, e.g., Press Release, Hughes Communications India Ltd Receives Flight and Maritime Connectivity (FMC) License, March 1, 2019, *available at* <https://www.echostar.com/en/Press/Newsandmedia/Hughes%20Communications%20India%20Ltd%20Receives%20Flight%20and%20Maritime%20Connectivity%20License.aspx>.

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Hughes continues studies toward integration of Hughes aeronautical K<sub>a</sub> and K<sub>u</sub> band terminals with various manufacturers' antennas, assessing Doppler shift, beam formation, beam switching, and satellite switching performance. Hughes plans to continue fixed and mobile testing with terminals mounted on various mobile platforms. The WE2XEW license has supported these experiments by providing uplink capabilities for these tests.

Please let me know if you have any questions regarding this required report or if any additional information is needed.

Respectfully submitted,

/s/ Brennan T. Price

Brennan Price

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