

LATHAM & WATKINS LLP

February 2, 2018

VIA ELECTRONIC FILING

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

Re: Viasat, Inc., Notice of *Ex Parte* Presentation, IBFS File No. SES-LIC-20170401-00357, Call Sign E170088

Dear Ms. Dortch:

On January 31, 2018, Chris Murphy and Daryl Hunter of Viasat, Inc. (“Viasat”), and the undersigned, met with Jose Albuquerque, Kerry Murray, Karl Kensinger, Stephen Duall, Paul Blais and Christopher Bair of the International Bureau to discuss Viasat’s earth station application referenced above. The attached presentation formed the basis for the discussion.

If you have any questions regarding this submission, please contact the undersigned.

Respectfully submitted,

/s/

John P. Janka
Elizabeth R. Park

cc: Jose Albuquerque
Christopher Bair
Paul Blais
Stephen Duall
Karl Kensinger
Kerry Murray

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Viasat Blanket License NGSO Condition Reconsideration

January 31, 2018



ViaSat-2 Blanket License NGSO Condition Reconsideration

- Condition 90447 provides the following: No later than 60 days prior to launch, notify Commission that coordination has been completed, or seek modification of license by providing detailed technical demonstrations of how licensee will protect NGSOs
- Condition is unnecessary and adds uncertainty
- Viasat's technical showings demonstrate that unwanted energy toward NGSOs is extremely unlikely
 - Viasat calculations use technical characteristics from both SpaceX and Viasat applications and demonstrate $\Delta T/T$ of 1% or less
 - The cumulative distribution function (CDF) plots indicate unwanted energy in the direction of NGSOs results in I/N of less than -20 dB more than 99.99% of time

ViaSat-2 Blanket License NGSO Condition Reconsideration

- > SpaceX is only party to have opposed Viasat's petition, and their analysis is flawed for a number reasons
- > SpaceX's calculations used incorrect assumptions
 - > Use of faded carriers in clear sky analysis
 - > Does not account for bandwidth of each system's carriers - assumes per hertz power density is applied across full bandwidth of SpaceX receive channel
 - > Significantly overestimates unwanted energy in SpaceX's receiver
 - > Unlikely that multiple Viasat earth stations will have near in-line events, be bursting in adjacent Viasat channels in 28.6-29.1 GHz band at the same time, **and** be in the center of the SpaceX receiving beam
 - > Static station alignment used in two SpaceX scenarios – neither representative of the dynamics of actual SpaceX network operation

ViaSat-2 Blanket License NGSO Condition Reconsideration

- Scenario 1 can't occur at SpaceX's operational GSO separation angles of 22 degrees. The SpaceX NGSO satellite is shown as operational when directly in-line between GSO ES and satellite, i.e. 0 degree separation angle.
0 degrees << 22 degrees
- Scenario 2 showed values for 10 and 20 degree GSO separations – these are less than the 22 degree operational separation angle from GSO SpaceX indicates they will use, and therefore can't happen.
 - The 30 degree separation angle case is possible, but fleeting.
 - The static alignment shown misrepresents the exceedingly low percentage of time such an alignment can actually occur
- The 40 degree minimum elevation angle used by SpaceX ES further reduces likelihood of near in-line events at locations where the Viasat ES operational elevation angle is low
- Viasat actively pursuing coordination with NGSO operators - OneWeb coordination completed prior to filing blanket license application