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LATHAM & WATKINS LLP

January 24, 2013

VIA ELECTRONIC FILING

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

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Milan

Re: Ex Parte Submission of Supplemental Information; IBFS File Nos. SES-LIC-20120427-00404; SES-STA-20120815-00751, Call Sign E120075

Dear Ms. Dortch:

ViaSat, Inc. submits information to supplement the above-referenced applications seeking authority to operate a Ka band aeronautical earth station (“AES”) network (“Applications”).

Coordination Letters

In order to expedite the processing of its Applications, enclosed as Exhibit 1 are copies of letters from satellite operators evidencing that the operation of this ViaSat AES network successfully has been coordinated with all potentially affected satellite networks: O3b’s NGSO Ka band network, and the Ka band GSO networks of Hughes Network Systems, SES, DIRECTV, Intelsat, EchoStar, Dish, Telesat, and Bell Canada.¹ Thus, ViaSat has coordinated its proposed operations with all Ka band satellite networks that operate (or are expected within the next few years to operate) on a co-frequency and co-coverage basis with ViaSat’s satellite points of communication (*i.e.*, ViaSat-1 at 115.1° W.L.; WildBlue-1 and Anik-F2 at 111.1° W.L.), and are located within +/-30° of those points of communication.

Data Logging Capabilities

ViaSat currently intends to log and maintain records of the following data for AES transmissions: aircraft location (latitude, longitude, altitude); aircraft velocity; aircraft attitude

¹ Bell Canada indicates that it is authorized to operate a Ka band satellite network at 82° W.L.

(pitch, yaw, roll); transmit channel group;² EIRP density; and satellite used for the communication. The logged data also would include any instances when the AES terminal pointing error exceeds the inhibit limits (0.5 degrees azimuth and 1.35 degrees elevation, or 60 degree combined bank and skew). These data will be more than adequate to ensure that any concerns about the source of suspected interference into other spacecraft can be ascertained (and then addressed).

As to the timing interval of logging, the Commission has adopted rules requiring Ku band AES licensees to collect data at one minute time intervals and maintain that data for “rolling” one-year periods.³ The Commission already has determined that logging AES data at one-minute intervals is more than adequate to ascertain the location of an aircraft and identify a particular terminal as the source of an RF transmission that is suspected to be a source of interference.⁴ This is true regardless of the transmit frequencies used.

Off-Axis EIRP Density Plots

ViaSat’s October 15, 2012 notice of *ex parte* presentation (“October 15th *Ex Parte* Notice”) included plots illustrating the AES antenna transmit performance. Specifically, the plots depict the areas where the EIRP emitted by the grating lobes of the antenna potentially could exceed the Section 25.138 spectral power density mask (under certain operating conditions). Enclosed as Exhibit 2 is a revised version of one of those plots that includes a legend and additional clarifying notations.

² As described in ViaSat’s December 17, 2012 *ex parte* submission, the SurfBeam 2 architecture uses MF-TDMA and can change transmit frequency and symbol rate every 40 ms within a given 62 MHz wide grouping of channels. The channel bandwidth of a given transmission can be determined by knowing the EIRP density of the transmission and the identified frequency range within which the transmission occurred.

³ *Revisions to Parts 2 and 25 of the Commission’s Rules to Govern the Use of Earth Stations Aboard Aircraft Communicating with Fixed-Satellite Service Geostationary-Orbit Space Stations Operating in the 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz and 14.0-14.5 GHz Frequency Bands*, IB Docket No. 12-376, Notice of Proposed Rulemaking and Report and Order, FCC 12-161 ¶ 89 (rel. Dec. 28, 2012) (“*ESAA Order*”).

⁴ *ESAA Order* at ¶ 89 (“Given the rapid rate at which motion and direction could change within the ESAA systems, ESAA licensees will be required to collect this data on one minute time intervals.”).

Prior to the *ESAA Order*, the Commission typically required Ku band AES licensees to record data both (i) at intervals of two minutes under normal flight conditions, and also (ii) at intervals of 30 seconds when aircraft roll angle is greater than 10 degrees during the first year of operation. *See Row 44, Inc.*, 24 FCC Rcd 10223 ¶ 35 (2009); *see also Panasonic Avionics Corporation*, 26 FCC Rcd 12557 ¶ 26 (2011).

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In addition, enclosed as Exhibit 3 is a copy of the map included in the October 15th *Ex Parte* Notice revised to include a legend for the contours illustrated on that map. The contours denote the geographic areas where the operation of an AES whose emissions at the grating lobes that exceed the Section 25.138 mask (under worst case operating conditions) theoretically could affect a particular GSO satellite at this specific location (77° W.L.). The different colored contours represent the potential effect quantified as a $\Delta T/T$ level. As depicted on that map, the resulting $\Delta T/T$ in this case would not be expected to exceed 0.5% because the operating areas where the AES transmissions would have to originate to produce a greater $\Delta T/T$ level are entirely outside of the coverage areas of the spacecraft that would serve this AES network (*i.e.*, the identified areas over the Pacific Ocean and Canada are outside the service area of ViaSat-1, WildBlue-1 and Anik-F2).

* * * * *

Please contact the undersigned if you have any questions regarding this submission.

Respectfully yours,

/s/

John P. Janka
Elizabeth R. Park

Enclosures (Exhibits 1, 2, 3)

cc: Robert Nelson
Andrea Kelly
Stephen Duall
William Bell
Howard Griboff
Paul Blais
Joseph Hill
Byung K. Yi
Alyssa Roberts
Kathryn Medley
Kal Krautkramer
Cindy Spiers
Hsing Liu
David Keir, Counsel to Row 44, Inc.

Exhibit 1

Bell Canada
671 de LaGauchetière St. West
7th floor, room 700
Montréal, Québec H3B 2M8

Christian Roy
Vice- President - Network, Bell Media & Bell TV
Telephone: 514-870-3271
Fax 514-870-7671
Christian.roy@bell.ca



17 January 2013
Via email

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Attn: International Bureau

Re: Engineering Certification of Bell Canada

This letter certifies that Bell Canada is aware that ViaSat, Inc. ("ViaSat") is seeking authority from the Commission to operate up to 4,000 technically identical transmit/receive earth stations mounted on aircraft using the 28.35-29.1 GHz and 29.5-30.0 GHz bands for uplink communications and the 18.3-19.3 GHz and 19.7-20.2 GHz bands for downlink communications, with Ka band satellites, ViaSat-1 at 115.1° W.L., WildBlue-1 at 111.1° W.L., and ANIK-F2 at 111.1° W.L., and pursuant to the technical parameters described in ViaSat's application, IBFS File No. SES-LIC-20120427-00404, Call Sign E120075 ("ViaSat Application"). ViaSat has also requested special temporary authority ("STA") to operate five such aeronautical earth station ("AES") terminals pending the grant of the ViaSat Application. See IBFS File No. SES-STA-20120815-00751 ("STA Request"). Bell Canada is authorized to operate a Ka-band satellite at the 82° W.L orbital location. Bell Canada confirms that the ViaSat operations have been coordinated with the Bell Canada satellite network and is not expected to cause unacceptable interference into the operations of the Bell Canada network.

Respectfully,

A handwritten signature in blue ink, appearing to read "Christian Roy".

Christian Roy
Bell Canada





October 12, 2012

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Attn: International Bureau

Re: Engineering Certification of DIRECTV

This letter certifies that DIRECTV is aware that ViaSat, Inc. (“ViaSat”) is seeking authority from the Commission to operate up to 4,000 technically identical transmit/receive earth stations mounted on aircraft using the 28.35-29.1 GHz and 29.5-30.0 GHz bands for uplink transmissions and the 18.3-19.3 GHz and 19.7-20.2 GHz bands for downlink transmissions. These earth stations will communicate with ViaSat-1 at 115.1° W.L., WildBlue-1 at 111.1° W.L., and ANIK-F2 at 111.1° W.L., pursuant to the technical parameters described in ViaSat’s application, IBFS File No. SES-LIC-20120427-00404, Call Sign E120075 (“ViaSat Application”). ViaSat has also requested special temporary authority (“STA”) to operate five such aeronautical earth station (“AES”) terminals pending the grant of the ViaSat Application. *See* IBFS File No. SES-STA-20120815-00751 (“STA Request”).

DIRECTV is authorized to operate the Ka-band satellites listed in the table ybelow in all or parts of the satellite uplink bands 28.35-28.6 GHz and 29.25-30.0 GHz and the satellite downlink bands of 18.3-18.8 GHz and 19.7-20.2 GHz . DIRECTV is familiar with the technical and operating parameters of the proposed AES terminals described in the ViaSat Application and the STA Request. DIRECTV confirms that the operations proposed in the ViaSat Application and the STA Request are not expected to cause unacceptable interference into the operations of the networks listed in the table below.

List of DIRECTV Ka-band satellites

Satellite Name	Nominal Location (°W)
SPACEWAY 1	103
SPACEWAY 2	99
DIRECTV 8	101
DIRECTV 9S	101
DIRECTV 10	103
DIRECTV 11	99
DIRECTV 12	103

Respectfully,



Jack Wengryniuk
Sr. Director, Spectrum Management and
Regulatory Affairs
DIRECTV



Jeffrey H. Blum
Senior Vice President & Deputy General Counsel
Jeffrey.Blum@dish.com
(202) 293-0981

January 24, 2013

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Attn: International Bureau

Re: Engineering Certification of New DBSD Satellite Services G.P.

This letter certifies that DISH Network Corporation ("DISH") is aware that ViaSat, Inc. ("ViaSat") is seeking authority from the Commission to operate up to 4,000 technically identical transmit/receive earth stations mounted on aircraft using the 28.35-29.1 GHz and 29.5-30.0 GHz bands for uplink communications and the 18.3-19.3 GHz and 19.7-20.2 GHz bands for downlink communications, with Ka band satellites, ViaSat-1 at 115.1° W.L., WildBlue-1 at 111.1° W.L., and ANIK-F2 at 111.1° W.L., and pursuant to the technical parameters described in ViaSat's application, IBFS File No. SES-LIC-20120427-00404, Call Sign E120075 ("ViaSat Application"). ViaSat has also requested special temporary authority ("STA") to operate five such aeronautical earth station ("AES") terminals pending the grant of the ViaSat Application. See IBFS File No. SES-STA-20120815-00751 ("STA Request").

DISH, through its subsidiary New DBSD Satellite Services G.P., is authorized to operate the G-1 satellite at the 93° W.L. orbital location. DISH is familiar with the technical and operating parameters of the proposed AES terminals described in the ViaSat Application and the STA Request. DISH confirms that the operations proposed in the ViaSat Application and the STA Request have been coordinated with DISH's G-1 satellite at 93° W.L.

Respectfully,



Jeffrey H. Blum



January 17, 2013

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Attn: International Bureau

Re: Engineering Certification of EchoStar Satellite Services, LLC

This letter certifies that EchoStar Satellite Services, LLC is aware that ViaSat, Inc. ("ViaSat") is seeking authority from the Commission to operate up to 4,000 technically identical transmit/receive earth stations mounted on aircraft using the 28.35-29.1 GHz and 29.5-30.0 GHz bands for uplink communications and the 18.3-19.3 GHz and 19.7-20.2 GHz bands for downlink communications, with Ka band satellites, ViaSat-1 at 115.1° W.L., WildBlue-1 at 111.1° W.L., and ANIK-F2 at 111.1° W.L., and pursuant to the technical parameters described in ViaSat's application, IBFS File No. SES-LIC-20120427-00404, Call Sign E120075 ("ViaSat Application"). ViaSat has also requested special temporary authority ("STA") to operate five such aeronautical earth station ("AES") terminals pending the grant of the ViaSat Application. See IBFS File No. SES-STA-20120815-00751 ("STA Request").

EchoStar is authorized to operate the EchoStar-9 at the 121° W.L. orbital location. EchoStar is familiar with the technical and operating parameters of the proposed AES terminals described in the ViaSat Application and the STA Request. EchoStar confirms that the operations proposed in the ViaSat Application and the STA Request have been coordinated with the EchoStar-9 satellite at 121° W.L.

Respectfully,

Jaime Londono
Vice President of Advanced Programs &
Spectrum Management
EchoStar Satellite Services, LLC

ECHOSTAR SATELLITE SERVICES L.L.C.

100 Inverness Terrace East • Englewood, CO 80112 • Tel: 303.706.4000

December 4, 2012

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

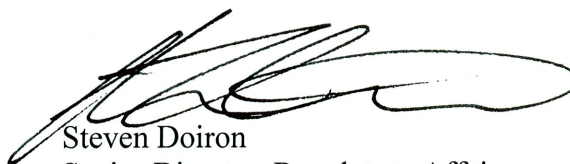
Attn: International Bureau

Re: Engineering Certification of Hughes Network Systems, LLC

This letter certifies that Hughes Network Systems, LLC (“HNS”) is aware that ViaSat, Inc. (“ViaSat”) is seeking authority from the Commission to operate up to 4,000 technically identical transmit/receive earth stations mounted on aircraft using the 28.35-29.1 GHz and 29.5-30.0 GHz bands for uplink communications and the 18.3-19.3 GHz and 19.7-20.2 GHz bands for downlink communications, with Ka band satellites, ViaSat-1 at 115.1° W.L., WildBlue-1 at 111.1° W.L., and ANIK-F2 at 111.1° W.L., and pursuant to the technical parameters described in ViaSat’s application, IBFS File No. SES-LIC-20120427-00404, Call Sign E120075 (“ViaSat Application”). ViaSat has also requested special temporary authority (“STA”) to operate five such aeronautical earth station (“AES”) terminals pending the grant of the ViaSat Application. *See* IBFS File No. SES-STA-20120815-00751 (“STA Request”).

HNS is authorized to operate Ka-band satellites at the 94.95° W.L., 97.0° W.L., 107.1° W.L. and 77.3° W.L. orbital locations. HNS is familiar with the technical and operating parameters of the proposed AES terminals described in the ViaSat Application and the STA Request. HNS confirms that the operations proposed in the ViaSat Application and the STA Request have been coordinated with HNS’ current and proposed Ka-band satellite orbital locations of 94.95° W.L., 97.0° W.L., 107.1° W.L. and 77.3° W.L., and should not cause unacceptable interference into the operations of these networks.

Respectfully,



Steven Doiron
Senior Director, Regulatory Affairs
Hughes Network Systems, LLC

October 8, 2012



Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Attn: International Bureau

Re: Engineering Certification from Intelsat

This letter certifies that Intelsat is aware that ViaSat, Inc. (“ViaSat”) is seeking authority from the Commission to operate up to 4,000 technically identical transmit/receive earth stations mounted on aircraft using the 28.35-29.1 GHz and 29.5-30.0 GHz bands for uplink communications and the 18.3-19.3 GHz and 19.7-20.2 GHz bands for downlink communications, with Ka band satellites, ViaSat-1 at 115.1° W.L., WildBlue-1 at 111.1° W.L., and ANIK-F2 at 111.1° W.L., and pursuant to the technical parameters described in ViaSat’s application, IBFS File No. SES-LIC-20120427-00404, Call Sign E120075 (“ViaSat Application”). ViaSat has also requested special temporary authority (“STA”) to operate five such aeronautical earth station (“AES”) terminals pending the grant of the ViaSat Application. *See* IBFS File No. SES-STA-20120815-00751 (“STA Request”).

Intelsat is authorized to operate and currently operates the Galaxy 28 satellite at the 89° W.L. orbital location. Intelsat is familiar with the technical and operating parameters of the proposed AES terminals described in the ViaSat Application and the STA Request. Intelsat confirms that the operations proposed in the ViaSat Application and the STA Request have been coordinated with the Galaxy 28 satellite at the 89° W.L. and should not cause unacceptable interference into the operations of this satellite network.

Respectfully,

A handwritten signature in black ink that reads "Jose Albuquerque".

Jose Albuquerque
Senior Director, Spectrum Strategy
Intelsat

O3b Networks
Johan van Oldenbarneveltlaan 5
2582 NE The Hague
The Netherlands
T +31 (0)70 711 6500
F +31 (0)70 711 6501
info@o3bnetworks.com
www.o3bnetworks.com



November 6, 2012

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Attn: International Bureau

Re: Engineering Certification of O3b Limited

This letter certifies that O3b Limited is aware that ViaSat, Inc. ("ViaSat") is seeking authority from the Commission to operate up to 4,000 technically identical transmit/receive earth stations mounted on aircraft using the 28.35-29.1 GHz and 29.5-30.0 GHz bands for uplink communications and the 18.3-19.3 GHz and 19.7-20.2 GHz bands for downlink communications, with Ka-band satellites, ViaSat-1 at 115.1° W.L., WildBlue-1 at 111.1° W.L., and ANIK-F2 at 111.1° W.L., and pursuant to the technical parameters described in ViaSat's application, IBFS File No. SES-LIC-20120427-00404, Call Sign E120075 ("ViaSat Application"). ViaSat has also requested special temporary authority ("STA") to operate five such aeronautical earth station ("AES") terminals pending the grant of the ViaSat Application. See IBFS File No. SES-STA-20120815-00751 ("STA Request").

O3b Limited is authorized by the UK regulator, Ofcom, to operate the non-geostationary O3b satellite system, scheduled for launch in 2013. O3b Limited is familiar with the technical and operating parameters of the proposed AES terminals described in the ViaSat Application and the STA Request. O3b Limited confirms that the operations proposed in the ViaSat Application and the STA Request have been coordinated with the O3b non-geostationary satellite system and should not cause unacceptable interference into the operations of these networks.

Respectfully,

A handwritten signature in black ink, appearing to read 'Thai E. Rubin'.

Thai E. Rubin
Executive Vice President and General
Counsel
O3b Limited



Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Attn: International Bureau

January 7, 2013

Re: Engineering Certification of SES Americom, Inc.

SES Americom, Inc.
1129 20th Street NW
Suite 1000
Washington, DC 20036
USA
Tel. +1 202 478 7100
Fax +1 202 478 7101
www.ses.com

This letter certifies that SES Americom, Inc. ("SES") is aware that ViaSat, Inc. ("ViaSat") is seeking authority from the Commission to operate up to 4,000 technically identical transmit/receive earth stations mounted on aircraft using the 28.35-29.1 GHz and 29.5-30.0 GHz bands for uplink communications and the 18.3-19.3 GHz and 19.7-20.2 GHz bands for downlink communications, with Ka band satellites, ViaSat-1 at 115.1° W.L., WildBlue-1 at 111.1° W.L., and ANIK-F2 at 111.1° W.L., and pursuant to the technical parameters described in ViaSat's application, IBFS File No. SES-LIC-20120427-00404, Call Sign E120075 ("ViaSat Application"). ViaSat has also requested special temporary authority ("STA") to operate five such aeronautical earth station ("AES") terminals pending the grant of the ViaSat Application. See IBFS File No. SES-STA-20120815-00751 ("STA Request").

SES operates the AMC-15 satellite at the 105° W.L. orbital location and the AMC-16 satellite at the 85° W.L. location. SES and ViaSat have coordinated ViaSat's operation of the AES terminals with these satellites and captured this agreement between the parties in a document dated May 3, 2012 and executed August 7, 2012 ("Coordination Agreement"). ViaSat certifies that the technical and operating parameters of the proposed AES terminals described in the ViaSat Application and the STA Request are consistent with the terms of the Coordination Agreement and that ViaSat will comply with the Coordination Agreement when operating its proposed AES



terminals under the authority requested in the ViaSat Application and the STA Request. SES confirms that ViaSat's operation of the AES terminals in accordance with the terms of the Coordination Agreement should not cause unacceptable interference into the operations of the AMC-15 and AMC-16 networks.

Respectfully,

A handwritten signature in purple ink, appearing to read "Kim M. Baum".

Kimberly M. Baum
Vice President, Spectrum Management & Development, Americas

Accepted and Agreed by ViaSat, Inc.

A handwritten signature in blue ink, appearing to read "Daryl Hunter".

Daryl Hunter
Director, Regulatory Affairs



1601 Telesat Court
Ottawa, ON, Canada
K1B 5P4

EN2012-003
18 December 2012
Via email

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Attn: International Bureau

Re: Engineering Certification of Telesat

This letter certifies that Telesat is aware that ViaSat, Inc. ("ViaSat") is seeking authority from the Commission to operate up to 4,000 technically identical transmit/receive earth stations mounted on aircraft using the 28.35-29.1 GHz and 29.5-30.0 GHz bands for uplink communications and the 18.3-19.3 GHz and 19.7-20.2 GHz bands for downlink communications, with Ka band satellites, ViaSat-1 at 115.1° W.L., WildBlue-1 at 111.1° W.L., and ANIK-F2 at 111.1° W.L., and pursuant to the technical parameters described in ViaSat's application, IBFS File No. SES-LIC-20120427-00404, Call Sign E120075 ("ViaSat Application"). ViaSat has also requested special temporary authority ("STA") to operate five such aeronautical earth station ("AES") terminals pending the grant of the ViaSat Application. *See* IBFS File No. SES-STA-20120815-00751 ("STA Request"). Telesat is authorized to operate Ka-band satellites at the 118.7° W.L., 111.1° W.L., and 91° W.L. orbital locations. Telesat confirms that the ViaSat operations have been coordinated with the Telesat satellite networks and are not expected to cause unacceptable interference into the operations of the Telesat networks.

Respectfully,

A handwritten signature in black ink, appearing to read "Elisabeth", written over a horizontal line.

Elisabeth Neasmith, P. Eng
Manager ITU and Coordination
Office of CTO
Telesat

Exhibit 2

M40 QUAL1 LHCP Measured FCC 25.138 Exceedance, TX 30 GHz, Terminal EIRPo = 30.5dBW/40kHz

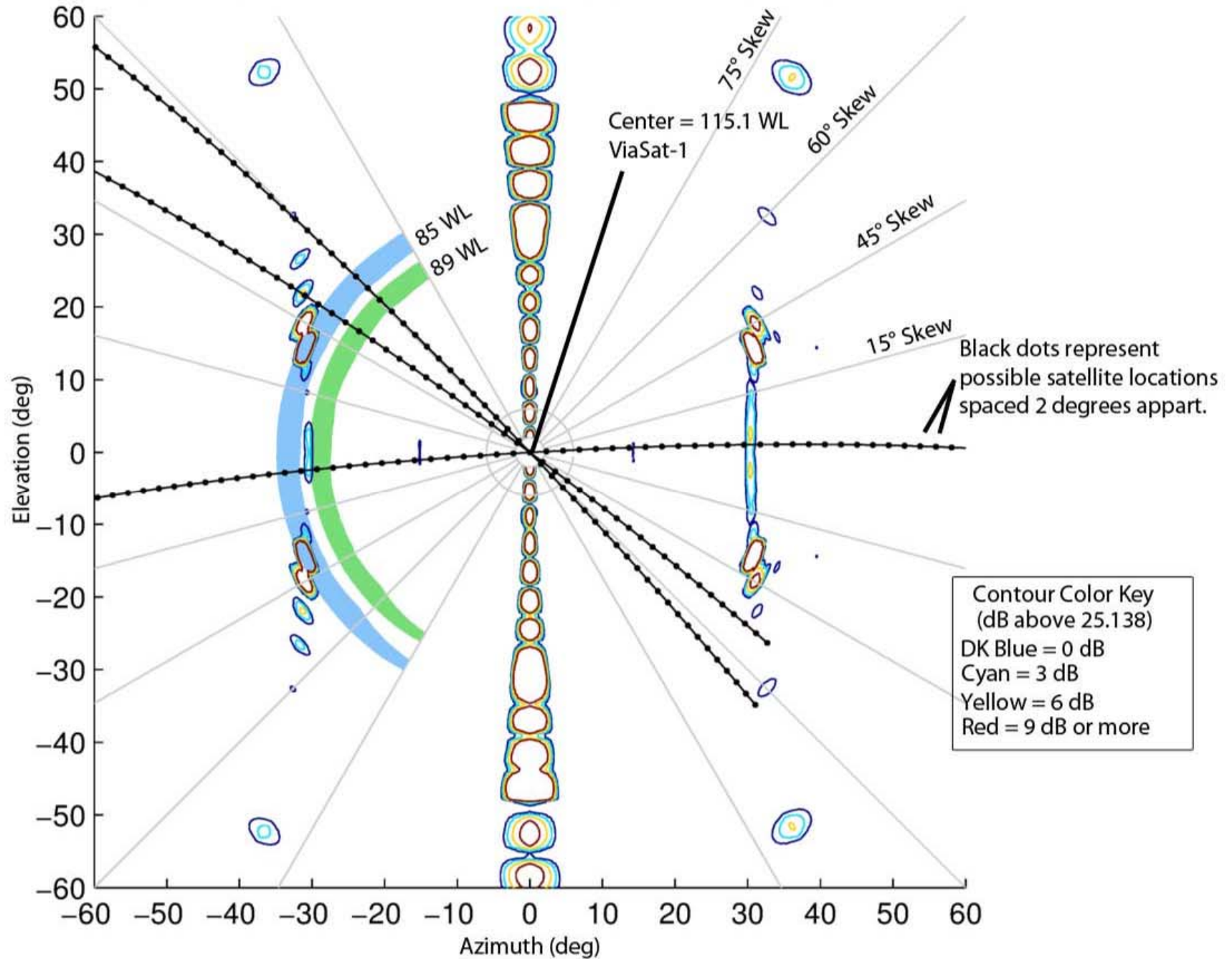


Exhibit 3



Color Key

Grey = 0.5% delta T/T
Blue = 1% delta T/T
Cyan = 2% delta T/T
Green = 3% delta T/T

US Dept. of State Geo. Service
© 2012 Google Earth
Image © 2012 Earthstar
Data SIO, NOAA, University of Alaska, USGS

39°46'47.85" N 102°29'30.09" W Elev: 4132'

Google earth

Eye at 5081.23 mi