Exhibit A
Description of Request for Special Temporary Experimental Authority

As an antenna manufacturer, Viasat, Inc. ("Viasat") designs and produces a variety of fixed and aeronautical antennas supporting a wide variety of frequencies for both commercial and Government users.

Viasat requests special temporary experimental authority to conduct performance testing on its next generation dual band mobile antenna, KuKarray Gen 2, in the 30.0 – 31.0 GHz band. The first generation KuKarray, whose Ka aperture is the M40, has already been granted blanket authority[1] by the Commission to operate on Viasat satellites and experimental authority to operate on Viasat and other satellites.[2]

Details of Testing

The performance testing will be over the air using Inmarsat's I5-F2 and F3 satellites located at 55° W.L. and 180° W.L., respectively. Testing will take place in 4 locations with the satellite beam centered on the test location. Although the antenna to be tested is intended for aeronautical applications this testing will operate as a fixed antenna and not be mobile either in the air or on the ground.

1. Greenville, Texas (33°7'0" N , 96°8'0" W)
    a. Elevation (55° W.L. orbital location): 31.8°
    b. Azimuth (55° W.L. orbital location): 122°
2. Carlsbad, California (33°7'0" N , 117°16'0" W)
    a. Elevation (55° W.L. orbital location):14.5°
    b. Azimuth (55° W.L. orbital location): 106°
    c. Elevation (180° W.L. orbital location):14.1°
    d. Azimuth (180° W.L. orbital location): 254°
3. Duluth, Georgia (33°57'44" N , 84°05'49" W)
    a. Elevation (55° W.L. orbital location): 39.8°
    b. Azimuth (55° W.L. orbital location): 135.1°
4. Germantown, Maryland (39°11'44" N , 77°15'27" W)
    a. Elevation (55° W.L. orbital location): 39.1°
    b. Azimuth (55° W.L. orbital location): 147.1°

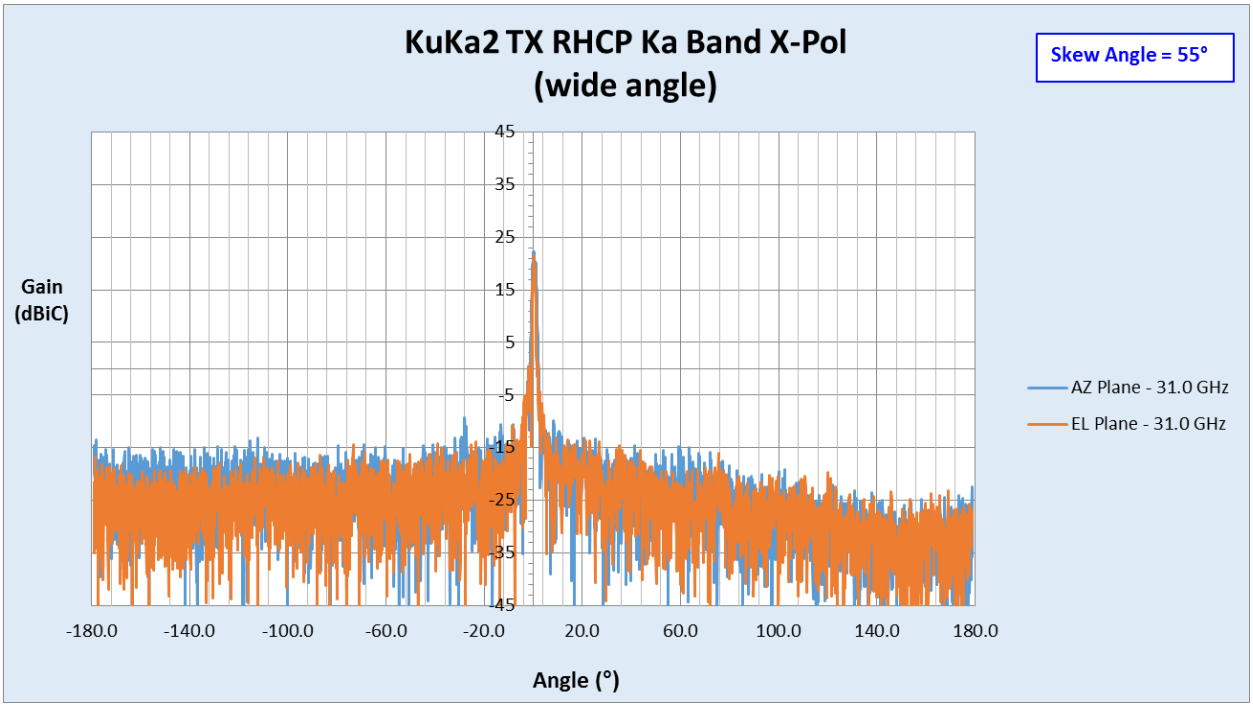
The tables below shows the emission designators, frequencies and power levels requested for this testing.

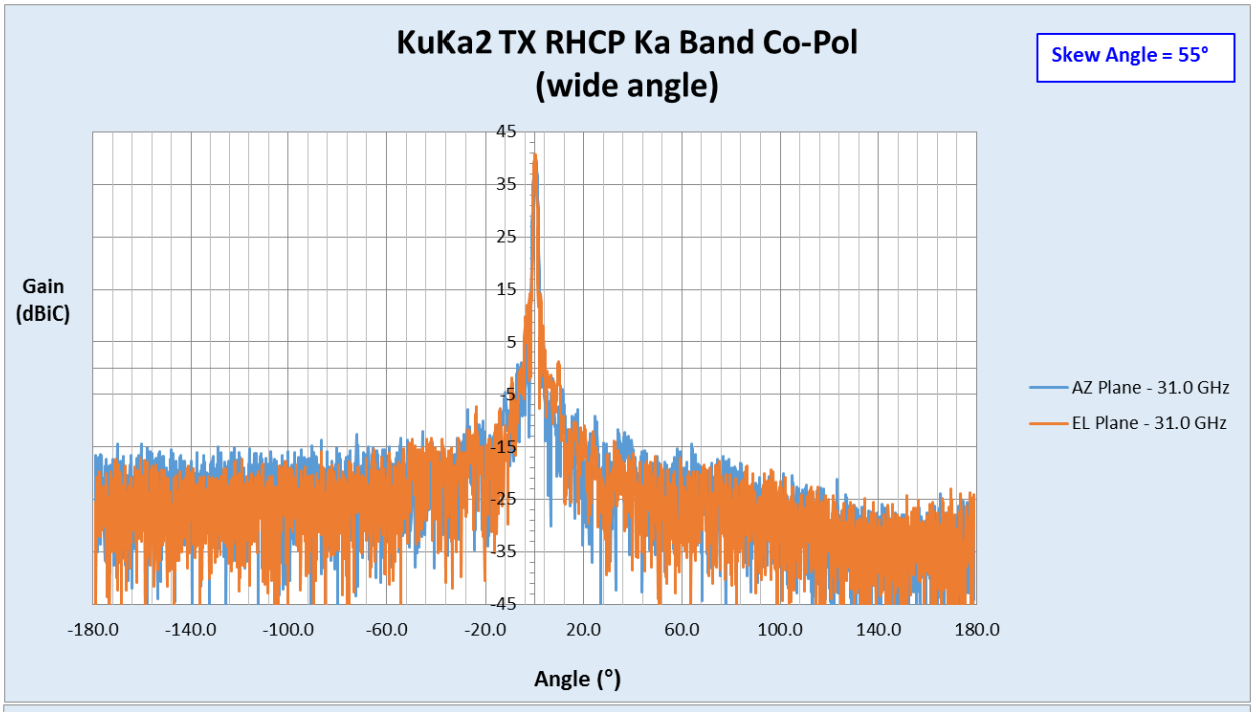
[1] *See* Viasat, Inc., File No. SES-LIC-20120427-00404, Call Sign E120075 (granted July 17, 2013).
[2] *See* Viasat, Inc. File No. 0015-EX-CM-2018, Call Sign WH2XTJ (granted February 26, 2018).

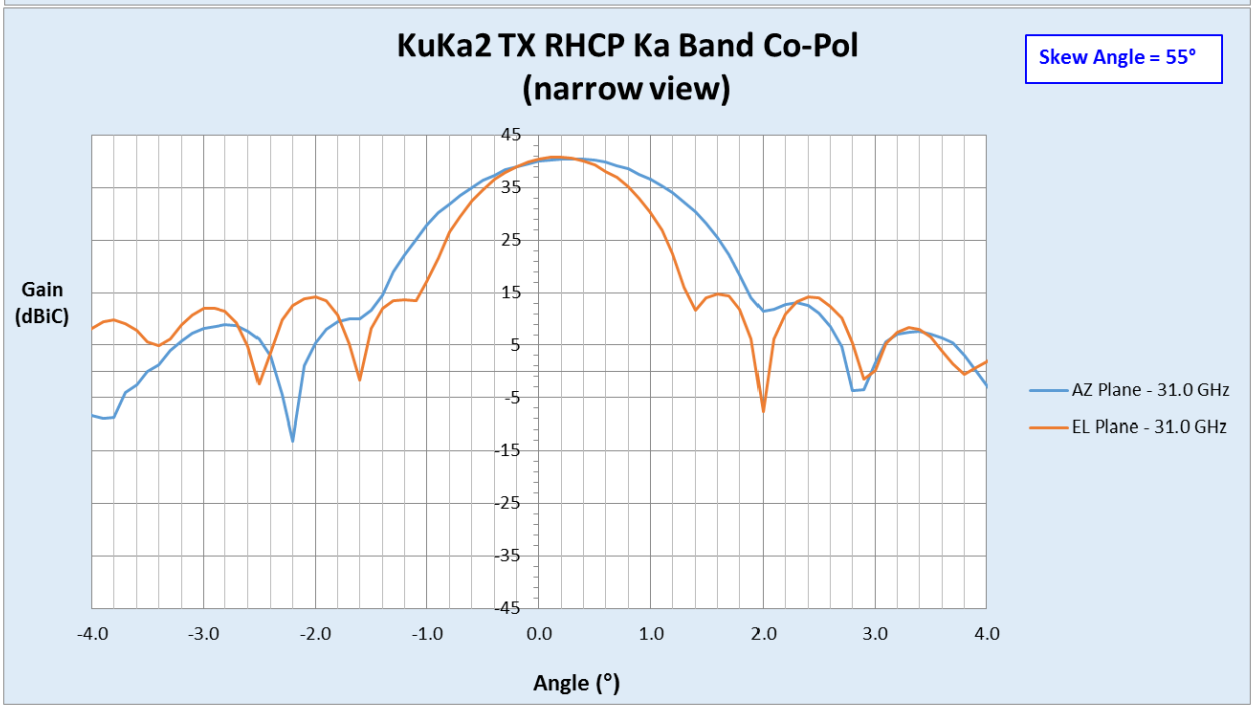
Uplink Testing Parameters					
Test Case	Uplink Carrier Center Frequency (MHz)	Emissions Designators	Uplink Polarization	Uplink EIRP (dBW)	Uplink EIRP Density at bore-sight (dBW/Hz)
4	30350	50M6M1D	RHCP	49.0	-28.0
5	30350	10M1M1D	RHCP	49.0	-21.0
6	30325, 30375	10M1M1D	RHCP	49.0	-21.0

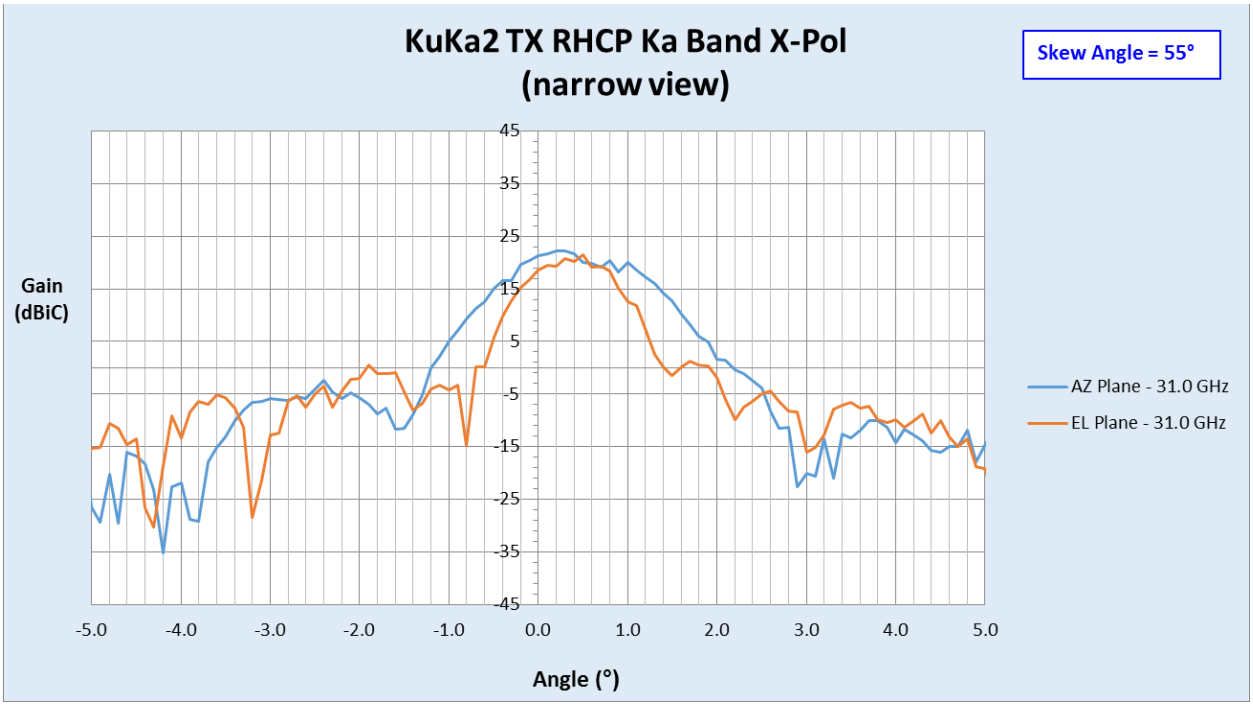
Downlink Testing Parameters					
Test Case	Downlink Carrier Center Frequency (MHz)	Emissions Designators	Downlink Polarization	Downlink EIRP (dBW)	Downlink ESD (dBW/Hz)
1	20550	70M1M1D	LHCP	57.6	**-20.85**
2	20550	22M5M1D	LHCP	57.6	**-15.92**
3	20525, 20575	22M5M1D	LHCP	53.6	**-19.92**

The figures below show the measured transmit gain plots for co-pol, and cross-pol in the azimuth and elevation planes at a skew angle of 55° and include radome in the measurement.




KuKa2 TX RHCP Ka Band Co-Pol
(wide angle)
Skew Angle = 55°
Gain
(dBiC)
45
35
25
15
5
-5
-15
-25
-35
-45
-180.0
-140.0
-100.0
-60.0
-20.0
20.0
60.0
100.0
140.0
180.0
Angle (°)
AZ Plane - 31.0 GHz
EL Plane - 31.0 GHz


KuKa2 TX RHCP Ka Band Co-Pol
(narrow view)
Skew Angle = 55°
Gain
(dBiC)
45
35
25
15
5
-5
-15
-25
-35
-45
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
3.0
4.0
Angle (°)
AZ Plane - 31.0 GHz
EL Plane - 31.0 GHz



The complete details of the testing at each site have been submitted to MILDEP SMO and prior coordination with AFSMO has been initiated. Please contact Jimmy Nguyen (Jimmy.Nguyen@us.af.mil) for coordination of this test and use of the requested spectrum.

Stop Buzzer for Operation:

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