

**EXHIBIT TO SUPPORT SURREY SATELLITE TECHNOLOGY US LLC EXPERIMENTAL
LICENCE APPLICATION FILE NO. 0594-EX-PL-2013**

DATE: 4th OCTOBER 2013

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To: Rebecca Yoder, Surrey Satellite Technology US LLC
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From: Doug Young
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Applicant: Surrey Satellite Technology US LLC
File Number: 0594-EX-PL-2013
Correspondence Reference Number: 21502
Date of Original Email: 09/13/2013

1. Our Spectrum Coordination Branch is requesting additional information. Please review the information below and submit an exhibit that contains the data. Reference to the specific data descriptions can be found in the NTIA Manual at <http://tinyurl.com/ah6hme5> under Chapter 9.

Please resubmit these records containing the following information:

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ANSWERS FROM SURREY SATELLITE TECHNOLOGY IN BOLD BLUE TEXT.

1.) The type of satellite, geostationary or nongeostationary, (XAL and/or RAL).
NONGEOSTATIONARY

A.) If any satellites are geostationary, report its latitude as 000000N (XLA and/or RLA) and report its longitude (XLG and/or RLG). **N/A**

B.) If any satellites are nongeostationary,

report its inclination angle, **24°**

apogee In kilometres **700km**, perigee in kilometers, **700km**

orbital period in hours and fractions of Hours in decimal, **01.653H**

the number of satellites in the system, then T01, example,
REM04*ORB,98.0IN00510AP00510PE001.58H01NRT01,

ONE SATELLITE

REM01*ORB,24.0IN00700AP00700PE01.653H01NRT01

and for space-to-space communications with another nongeostationary satellite add an additional *ORB for it ending in R01, example, REM05 *ORB,72.9IN03209AP00655PE013.46H01NRR01.
N/A

2.) The satellite transmitter antenna gain and beamwidth (XAD), example, XAD01 16G030B.

LOW RATE S-BAND XAD01 00G360B

HIGH RATE S-BAND XAD02 03G120B

3.) The satellite transmitter antenna azimuth (XAZ), narrowbeam, NB, earth coverage, EC, example,

LOW RATE S-BAND XAZ01 EC

HIGH RATE S-BAND XAZ02 EC

XAZ01 EC or leave blank for space-to-space operations.

4.) The earth station receiver antenna gain, beamwidth, azimuthal range, the site elevation above mean sea level in meters and the antenna height above terrain In meters (rad), example assuming nongeostationary, RAD01 16G030B000-360A00357H006.

SURREY SATELLITE TECHNOLOGY HAS NOT SELECTED A GROUND STATION AS YET, BUT IT WILL MOST LIKELY BE SITED IN US TERRITORY. THE GROUND STATION CHARACTERISTICS HERE ARE THOSE CALCULATED/MOST LIKELY ESTIMATES FOR SUCCESSFUL OPERATION WITH THE OTB SATELLITE.

RAD01 38G002B090-270A00200H005

5.) The earth station receiver antenna azimuth (RAZ), the minimum angle of Elevation, V00 to V90, example, RAZ01 V00.

Minimum 5 ° elevation

RAZ01 V05

6.) The S note (assuming nongeostationary, use S871--This assignment supports of the non-geostationary CubeSat Test Bed (CSTB) satellite).

S871

7.) The transmitter antenna orientation (XAP), example XAP01 J, and the receiver antenna orientation (RAP), example RAP01 J, where J represents linear polarization. Other polarizations include H for horizontal, V for vertical, S for horizontal and vertical, L for left hand circular, R for right hand circular, T for right and left hand circular, E for elliptical and O for oblique angled crossed.

Right hand circular polarized.

XAP01T

2. The FCC's International Bureau requires the submission of SpaceCap data in order to complete evaluation of your application. In accordance with the provisions of Article 9.1 and Appendix 4 of the Radio Regulations, mandatory submission of a SpaceCap file for each individual space station is required. The software and instructions may be downloaded from the ITU link <http://www.itu.int/en/ITU-R/software/Pages/spacecap.aspx>. Submit the results to my FCC email address, Douglas.Young@fcc.gov, as a zip file and rename the file to have an extension of something other than *.zip to avoid problems with the FCC's firewall.

EMAILED 4th OCTOBER 2013 file ref:

**SPACECAP API for OTB SATELLITE file ref 0594_EX_PL_2013 Surrey Satellite Technology
Iss 1.api**

The items indicated above must be submitted before processing can continue on the above referenced application.

Failure to provide the requested information within 30 days of 09/13/2013

may result in application dismissal pursuant to Section 5.67 and forfeiture of the filing fee pursuant to Section 1.1108.