

JONES DAY

51 LOUISIANA AVENUE, N.W. • WASHINGTON, D.C. 20001.2113
TELEPHONE: +1.202.879.3939 • FACSIMILE: +1.202.626.1700

DIRECT NUMBER: (202) 879-3630
BOLCOTT@JONESDAY.COM

March 10, 2016

BY ELECTRONIC DELIVERY

Nnake Nweke
Chief Experimental Licensing Branch
Office of Engineering and Technology
Federal Communications Commission
445 12th ST SW
Washington DC 20554

Re: **NASA Agreement Regarding Ownership and Control of CubeSat Mission
File No. 0194-EX-PL-2014.**

Dear Nnake:

We write to provide an update on the ownership and control of the CubeSat satellites involved in the Cubesat Proximity Operations Demonstration (“CPOD”) project, for which Tyvak-Nano Satellite Systems, Inc. (“Tyvak”) sought Federal Communications Commission (“Commission”) experimental authorization under file number 0194-EX-PL-2014.

As you are aware, the CPOD project was initiated under NASA’s Edison Small Satellite Flight Demonstration Missions program, government contract number NNA12AC39C. This project is intended to validate the technologies needed to support rendezvous, proximity operations, docking, servicing, and formation flight by utilizing a pair of identical nano-satellites. As part of the project, Tyvak sought authorization for operation of certain space station transmitters, including two-way telemetry monitoring, tracking, and command (“TT&C”) transmissions in the 400 MHz UHF range and intersatellite communications in the 2.4 GHz range.

Under the terms of the CPOD contract, Tyvak operates the satellites and has control authority over maneuvering and transmissions at all phases of the satellite life, from launch through decommissioning.¹ During the commissioning and CPOD mission phases of the satellite life, NASA will be the legal owner of the satellite. Under an agreement recently reached by NASA and Tyvak, the parties will execute a no-cost extension of the CPOD contract in which, at the end of the planned CPOD program, NASA will designate Tyvak as owner of the satellites, including all transmitters, through the remaining useful life of the satellite. In return, Tyvak will

¹ Downlink transmissions to NASA S-band receivers in the S-band are initiated at NASA’s direction. See Application of Tyvak Nano-Satellite Systems, Inc., File No. 0194-EX-PL-2014, Narrative at 2.

Office of Engineering and Technology
March 10, 2016
Page 2

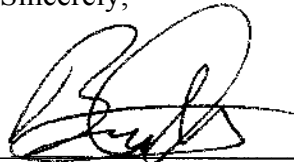
provide to NASA all satellite performance data generated by the satellite prior to decommissioning, at no cost to NASA.

This contract extension and change of ownership does not change the underlying operational control of the satellite. At all times, Tyvak will be in control of satellite operations, including maneuvering and transmissions, from its Mission Operations Center (“MOC”) in Irvine, California. Tyvak acknowledges that the Commission does not have regulatory authority over radio transmitters “belonging to and operated by the United States.”² Such radio transmitters are instead regulated and authorized by NTIA. NTIA’s guidelines regarding whether or not a transmitter belongs to and is operated by the U.S. federal government provide that a federal government transmitter must both be owned by the federal government and a federal department or agency must also “be able to exercise effective control over the radio equipment and its operation.”³ A federal government transmitter can be maintained or operated by a private contractor, as long as the federal department or agency “assumes responsibility for contractor compliance” and maintains “sufficient” supervision over the contractor to “ensure” compliance with NTIA and other requirements.⁴

Based on these guidelines and the level of discretion and autonomy that is maintained by Tyvak with respect to the day-to-day operations of the CPOD satellites, Tyvak believes that the satellites would not be deemed as “belonging to *and operated by* the United States” during any portion of the CPOD mission. The contract extension discussed above will provide Tyvak clear ownership of the satellites during their remaining operational life, but Tyvak’s operational control of the satellites at all stages is sufficient basis to place the satellites and their transmitters within the Commission’s operational authority.

Please let us know if you would like to discuss the above.

Sincerely,



Bruce A. Olcott

² Section 305(a) of the Communications Act of 1934 (codified at 47 U.S.C. § 305(a)).

³ NTIA Spectrum Manual, Section 8.2.17.

⁴ *Id.*