



Date: January 7, 2016

TO: Whom It May Concern

FROM: Stevan Spremo

SUBJECT: NASA EcAMSat

The EcAMSat Satellite is planned for launch in Q2 2016, on-board a SpaceX Falcon 9 Launch Vehicle at Vandenberg Air Force Base. At the launch site, the 6U EcAMSat CubeSat is inserted into a QuadPack-2XL™ payload dispenser attached to a SHERPA™ payload adapter. The QuadPack-2XL™ dispenser provides full enclosure of the satellite until deployment in orbit. The satellite is maintained in the off position for the duration of the launch phase. Mission operations begin upon on-orbit deployment when the satellite will turn on for the first time. NASA has contractually requested Santa Clara University to conduct all mission operations of the EcAMSat Spacecraft. EcAMSat Mission operations will be conducted by Santa Clara University with effective control and NASA will not have effective control of the satellite. Santa Clara University will continue to operate EcAMSat in its elliptical orbit using passive magnetic stabilization until natural orbit decay results in reentry. There are no propellants. (Reference document XS001 Orbital Debris Assessment Report Rev A 1-7-2016).

The EcAMSat Mission will conduct a microfluidics experiment studying antibiotic resistance in a microgravity environment. This EcAMSat experiment is a Stanford University derived PI led experiment (supported by a NASA grant). The satellites primary experiment functions are to be completed within 1 month after launch. Data from the experiment, satellite, and payload systems are retrieved, by way of radio communication, over the course of subsequent weeks, up to 6 months. Upon completion of the mission, Santa Clara University plans to continue to operate the Satellite for student research for its remaining useful life. During the entire on-orbit lifetime of EcAMSat Mission, NASA has no effective control of the spacecraft.

The Satellite payload commanding and data telemetry delivery functions utilize a 2.4 GHz ISM-band transceiver. A small subset of satellite telemetry will also be transmitted over an amateur beacon for Education and Public Outreach purposes. Mission operations, E&PO operations, and student research operations are solely the responsibility of Santa Clara University.

NASA has an agreement with Santa Clara University (SCU) to operate EcAMSat under a general contract that also includes operation of a number of other Ames nanosatellites. The NASA contract number is NNA11AA76C, issued June, 2011. It requests that Santa Clara University operate EcAMSat while on-orbit, and defines operations to include the uploading of commands

(if any) to the satellite, downloading telemetry and science data files from the satellite, and delivery of all acquired data to the Ames EcAMSat Team for archival and post-processing at Ames Research Center. NASA will provide the science data to the Principal Investigator at Stanford University. Consistent with previous missions operated by Santa Clara University, discussions between the EcAMSat Project and the NASA Spectrum office has concluded that EcAMSat is non-federally operated with effective control exercised by Santa Clara University.

Please feel free to contact me at 650-604-4128

Respectfully,

A handwritten signature in black ink, appearing to read 'Stevan Spremo', with a long horizontal flourish extending to the right.

Stevan Spremo
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