

FOR IMMEDIATE RELEASE
ATTENTION EDITORS

Tillamook UAS Test Range utilizes new High Altitude COA to enable drone flights at the edge of space

Tillamook, OR, October 6, 2016: As part of an unmanned flight test for NASA and the FAA, Near Space Corporation (NSC) successfully flew a drone from the edge of space to operate as a surrogate test bed for technologies supporting new Suborbital Reusable Launch Vehicles (SRLVs) currently under development. The September 26th test, conducted for NASA's Flight Opportunities program, was the first of many flights that will be taking advantage of a unique FAA High Altitude Certificate Of Authorization (COA). The flight, which was designed to help evaluate how advanced FAA surveillance technologies could be applied to winged SRLVs also broke new ground in the emerging UAS regulatory arena. NSC has been conducting flight tests of Mars airplane prototypes and other high altitude unmanned aircraft since 2001, but this is the first operation to be conducted under the FAA's new UAS rules. The Tillamook range, like Oregon's other UAS ranges in Warm Springs and Pendleton, is part of the Pan Pacific UAS Test Range Complex, one of the six FAA designated UAS Test Sites.

With the support of the FAA Office of Commercial Space Transportation, NSC integrated the advanced surveillance payload into an unpowered version of its High Altitude Shuttle System (HASS), a lifting body designed with glide performance similar to the commercial winged SRLV designs currently being developed for suborbital flights and winged vehicles capable of returning from the International Space station. After being launched under a stratospheric balloon system from the Johnson Near Space Center, collocated with the Tillamook UAS Test Range, NSC's HASS was carried to over 70,000 feet before being released to simulate a SRLV entry of tightly controlled Class A airspace from above, then passing through it for final descent and successful landing on a runway. The return flight took a little over 30 minutes for the descent back to Tillamook, all the while being tracked by the FAA's Seattle Air Traffic Control Center and observed remotely by FAA personnel at the FAA Office of Commercial Space Transportation Office in Washington, DC and other locations. The data and initial results of the test are still being analyzed, and a second flight is planned for sometime in the next few weeks. This flight demonstrated basic proof of concept for use of the HASS as a "flying test bed" for advanced surveillance technologies (and potentially other safety enabling technologies) for winged commercial SRLVs.

Within the current UAS regulatory environment, the flights were only made possible after a unique high altitude COA was issued by the FAA along with an agreement that specifies the special Air Traffic Control (ATC) provisions for the flight operations. Together, they allow the Tillamook UAS Test Range to support flight operations of NSC's HASS and other small UAS at altitudes from the surface up to 130,000 feet MSL. The COA's associated airspace includes more than 6,000 square nautical miles within Class A airspace and below, and more than 20,000 square nautical miles of airspace above. The purpose of the COA is to prescribe UAS operating requirements in the National Airspace System (NAS) for the purpose of research, development, test, and evaluation (RDT&E). Key facilitators for this COA included the FAA's UAS Test Site Office, the Western Service Area and the Seattle Air Route Traffic Control Center. Oregon's U.S. Senator Ron Wyden, who has worked to boost the state's rapidly growing UAS industry, requested that the FAA quickly review and approve the permit for Tillamook UAS test range in June. "The Tillamook test range gives unmanned aerial systems businesses and jobs the chance to take off in our state," Wyden said. "I am glad the Near Space Corporation will be able to continue innovating in this flourishing industry by partnering with NASA to conduct flights on the Oregon Coast."

About the Johnson Near Space Center and Tillamook FAA UAS Test Range

Near Space Corporation has over 20 years of experience conducting flight tests of space and unmanned technologies within the National Airspace System, and operates both the Johnson Near Space Center and the Tillamook UAS Test Range. The collocated facilities, approximately 60 mi west of Portland on the Oregon Coast, include: a 5000 square foot Integration Hangar, avionics lab, atmospheric test chamber, GPS simulator, dedicated 3 story UAS control Tower, dedicated range instrumentation and more than 100 acres for terminal operations including two paved runways (3000ft and 5000ft), and a GPS approach. The Range is part of the Pan-Pacific UAS Test Range Complex, operating under the authority of the University of Alaska Fairbanks and is one of six official FAA UAS test sites in the United States. Visit <http://www.nsc.aero> and <http://www.acuasi.alaska.edu/node/9> for more information.

About the NASA Flight Opportunities program:

Flight Opportunities program funded the Near Space Corporation under the Space Mission Directorate. The program obtains commercial suborbital space launch services to pursue science, technology and engineering to mature technology relevant to NASA's pursuit of space exploration. The program nurtures the emerging suborbital space industry and allows NASA to focus on deep space. Visit <http://www.nasa.gov/flighthopportunities> for more information.

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