

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: Unmanned Aerial System Testing R1

SECTION B. Project Description and Purpose:

Revision 1:

This revision covers an addendum that was approved on March 2, 2021 that allowed for testing outside of the original specified testing period and also covers a proposed expansion of the support area adjacent to the runway. The proposed area of expansion is approximately 150' x 300'. See the figure below. The expansion is needed because of the proposed addition of three cargo containers (10' x 20' each) to the UAS Test Range for storage of equipment used during testing and validation of the program. The expanded area will also be used as parking as the current area becomes extremely crowded when the two large trailers and other vehicles needed for testing are parked there.

There will not be any structures built upon the newly expanded area. Again, there will be three cargo containers, 10'x20' each and then the remaining area will be additional parking or possibly more storage in the future.

Heavy equipment operators will remove vegetation from a 150' x 300' bare earth area adjacent to the air strip, and transport, place, level, and compact 12" (45,000 cubic feet) of pit run gravel. The project will also construct three (3) gravel approaches to egress the new area and the air strip.



Original EC:

Ascent Vision Technologies, LLC (AVT) is requesting the use of Idaho National Laboratory (INL) testing range to evaluate its signature Counter Unmanned Aerial System product, the Expeditionary Mobile Air Defense Integrated System (X-MADIS).

INL will provide test range assets and personnel for testing a suite of sensors and Unmanned Aircraft Systems (UAS) provided by Ascent Vision Technologies. The Class-2 UAS are under 20 lbs. and are commercially available. The UAS are battery powered by NiMH and Li-Ion batteries. These are the same batteries used and approved by our current Laboratory Instruction LI-786. The UAS Test Range has been used for several years to conduct the type of tests that will be performed during the proposed testing event. No new hazards or operating scenarios are being introduced.

Flight operations will be performed around the UAS runway at an altitude not to exceed 400 ft. The UAS will be within visual line of sight at all times. UAS may be operated under full remote control, supervised pilot in the loop control, and/or full autonomous control (autopilot controlled flight) during the testing event. UAS will be launched from a variety of locations in close proximity of the UAS Runway all of which have vehicular access.

Assorted sensors will be deployed and tested during UAS flight operations. Sensors to be tested include imagery collection (video), radar sensors for determining range and distances, and communication interference devices to determine their impact on command and control of the UAS. A variety of different flight patterns will be flown to quantify the effectiveness of the sensors being tested. Sensors will be deployed both from the UAS and on the hard deck of the UAS Runway.

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

Testing will occur over a four (4) day period during daylight hours starting June 18, 2019. Small portable generators will be used to provide power at the Runway. Procedures identified and approved in LI-786 will be implemented for operation and fueling of the generators. It is not anticipated that any waste will be generated during this activity.

There will be no off-road activity.

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Removal of vegetation may result in the generation of fugitive dust. Emissions will result from the use of heavy equipment and trucks. These emissions are not regulated.

Discharging to Surface-, Storm-, or Ground Water

The proposed area of construction is located within the stormwater corridor for the Big Lost River. However, since the area of construction is less than 1 acre in size, a Storm Water Pollution Prevention Plan is not required for this activity.

Disturbing Cultural or Biological Resources

Vegetation will be removed which includes a small amount of sagebrush.

Generating and Managing Waste

Vegetation may be transported to the CFA landfill. Water bottles and other general waste may be generated by workers.

Releasing Contaminants

When fuel is used there is a potential to spill to air, water, or soil.

Using, Reusing, and Conserving Natural Resources

Material will be recycled to the extent practicable. All applicable waste will be diverted from disposal in the landfill when possible. Project personnel will use every opportunity to recycle, reuse, and recover materials and divert waste from the landfill when possible. The project will practice sustainable acquisition, as appropriate and practicable, by procuring construction materials that are energy efficient, water efficient, are bio-based in content, environmentally preferable, non-ozone depleting, have recycled content, and are non-toxic or less-toxic alternatives. New equipment will meet either the Energy Star or SNAP requirements as appropriate (see <http://www.sftool.gov/GreenProcurement>).

SECTION D. Determine Recommended Level of Environmental Review, Identify Reference(s), and State Justification: Identify the applicable categorical exclusion from 10 Code of Federal Regulation (CFR) 1021, Appendix B, give the appropriate justification, and the approval date.

For Categorical Exclusions (CXs), the proposed action must not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, and health, or similar requirements of Department of Energy (DOE) or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment or facilities; (3) disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources (see 10 CFR 1021). In addition, no extraordinary circumstances related to the proposal exist that would affect the significance of the action. In addition, the action is not "connected" to other action actions (40 CFR 1508.25(a)(1)) and is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1608.27(b)(7)).

References:

10 CFR 1021 Categorical Exclusion B3.11 "Outdoor Tests and Experiments," and B1.15 "Support Buildings."

Justification:

Project activities are consistent with 10 CFR 1021, Appendix B, CX B3.11 "Outdoor tests and experiments for the development, quality assurance, or reliability of materials and equipment (including, but not limited to, weapon system components) under controlled conditions. Covered actions include, but are not limited to, burn tests (such as tests of electric cable fire resistance or the combustion characteristics of fuels), impact tests (such as pneumatic ejector tests using earthen embankments or concrete slabs designated and

DOE-ID NEPA CX DETERMINATION
Idaho National Laboratory

routinely used for that purpose), or drop, puncture, water immersion, or thermal tests. Covered actions would not involve source, special nuclear, or byproduct materials, except encapsulated sources manufactured to applicable standards that contain source, special nuclear, or byproduct materials may be used for nondestructive actions such as detector/sensor development and testing and first responder field training."

And CX B1.15 "Siting, construction or modification, and operation of support buildings and support structures (including, but not limited to, trailers and prefabricated and modular buildings) within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible). Covered support buildings and structures include, but are not limited to, those for office purposes; parking; cafeteria services; education and training; visitor reception; computer and data processing services; health services or recreation activities; routine maintenance activities; storage of supplies and equipment for administrative services and routine maintenance activities; security (such as security posts); fire protection; small-scale fabrication (such as machine shop activities), assembly, and testing of non-nuclear equipment or components; and similar support purposes, but exclude facilities for nuclear weapons activities and waste storage activities, such as activities covered in B1.10, B1.29, B1.35, B2.6, B6.2, B6.4, B6.5, B6.6, and B6.10 of this appendix."

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act) Yes No

Approved by Jason Anderson, DOE-ID NEPA Compliance Officer on: 05/13/2021