

Interim Policy
University Use of Uncrewed¹ Aerial and Submersible Vehicles (“Drones”)
May 20, 2014

A. PURPOSE

The use of uncrewed aerial vehicles (“UAVs”) and uncrewed submersible vehicles (“USVs”), commonly called “drones”, can make significant contributions to University research and service/outreach in a variety of disciplines. Additionally, aerial photography with UAVs can potentially assist in University land management, athletics, law enforcement, and other support functions.

UAV and USV regulation is nascent and multi-faceted. Particularly with respect to UAVs, public concern with privacy is well documented². UAV operational safety – entailing both UAV equipment and the pilots who operate it remotely -- is regulated by the FAA, although the FAA policy framework is likely to evolve significantly in the near future. Both the Department of State (under ITAR) and the Department of Commerce (under EAR) assert export control over various forms of UAV and USV technology. Drones with payload capacity plus programmable navigation or over-the-horizon operational capabilities also pose anti-terrorism security concerns to law enforcement agencies. Such UAV technology has in fact already been acquired by MSU for academic purposes.

As it does with other highly regulated technologies of scholarly or other operational importance, Michigan State University seeks to permit UAVs and USVs to be utilized productively in a manner that fully meets institutional legal, public safety, and ethical responsibilities. To facilitate that outcome, the Office of the President:

- issues this policy on an interim basis,
- creates the MSU UAV and USV Review Board,
- delegates administrative oversight of policy implementation to the Office of the Vice President for Research & Graduate Studies, and
- charges the Office of the Provost and the Office of the Vice President for Research & Graduate Studies to work jointly with the academic governance system to develop a permanent policy, suitable for presentation to the MSU Board of Trustees for its review and approval.

¹ Although “unmanned” is the typical term applied to drone aircraft and submersibles, the “uncrewed” term long used in NASA and other activities is employed here for gender neutrality.

² See, for example: <http://www.informationweek.com/security/risk-management/faa-promises-privacy-standards-for-domestic-drones/d/d-id/1108691?>, last accessed on January 13, 2014.

B. UAV and USV DEVELOPMENT or COMMERCIAL ACQUISITION

1. All UAV and USV system and system component acquisitions shall be processed via requisitions through MSU Purchasing. (Pcard purchases are not appropriate.)
2. Any extramural support project or proposal contemplating either development or commercial acquisition of a UAV or USV may be referred to the UAV and USV Review Board at any time by the principal investigator(s), and a proposal shall always be referred by the Office of Sponsored Programs or Business Connect prior to the acceptance of the associated grant or contract, if it involves:
 - a. the need for government licensing of either equipment or pilot(s), or
 - b. operation of the UAV or USV overseas, or in U.S. territory exterior to lands governed by the Board of Trustees.
3. Any proposed commercial acquisition of a UAV or USV shall be referred to the UAV and USV Review Board by University Services prior to the issuance of a purchase order.
4. Upon receiving a referral, the UAV and USV Board may grant approval, provided that it determines:
 - a. Any prerequisite licenses are in-hand or properly in-process,
 - b. The acquiring unit understands, and has a credible plan for on-going compliance with the applicable governmental regulatory constraints, and
 - c. The acquiring unit understands, and has a credible plan for on-going compliance with the MSU operating guidelines set forth below.

C. UAV and USV OPERATIONS

1. The operation of an MSU-controlled UAV or USV outside of the U.S., or in U.S. territory exterior to lands governed by the Board of Trustees, shall require the prior filing of an operating plan with, and the formal approval of the plan by, the UAV and USV Review Board.
2. The operation of a UAV or USV on lands governed by the Board of Trustees shall require the prior filing of an operating plan with the MSU Police.
 - a. In instances where the plan does not involve WiFi reception near, or aerial photography of, residences or points of public congregation, the MSU Police may either approve the plan or refer it to the UAV and USV Review Board for its review with an indication of its objections. If the MSU Police and the majority of the UAV and USV Review Board cannot

- agree on the appropriate disposition of such a proposed operating plan, the issue shall be referred to the President of MSU for decision.
- b. In instances where the plan does involve WiFi reception near, or aerial photography of, residences or points of public congregation -- including the MSU Police Department's own use of drones outside of instances authorized by search warrant or in tactical response to immediate threats -- the MSU Police shall refer the plan to the UAV and USV Review Board with a proposed decision. If the MSU Police and the majority of the UAV and USV Review Board cannot agree on the appropriate disposition of such a proposed operating plan, the issue shall be referred to the President of MSU for decision.
 - c. MSU Police use of UAV technology in execution of a search warrant or as part of a tactical response to an immediate threat is always authorized, subject to applicable law and government regulations.
3. Operating plans shall include:
- a. Equipment to be used,
 - b. Dates,
 - c. Locale(s), including the resident or temporary populations therein,
 - d. Purpose(s) of the operation,
 - e. The identity of pilot(s) or other remote operator(s),
 - f. All forms of data (including imagery) to be collected,
 - g. Current status of any required licenses or permissions, and
 - h. Provisions for security of the equipment, both during and outside of operation, and of any sensitive data collected.
4. For approval of an operating plan by the UAV and USV Review Board:
- a. The plan must be forthcoming and complete in its content,
 - b. The envisioned operation must comply with applicable laws, government regulations, and other University policies,
 - c. The envisioned operation must not pose an unacceptable threat to health, safety, privacy, or the environment, either in an absolute sense or compared to other methods of obtaining the desired information³, and
 - d. The envisioned operation must be judged by the UAV and USV Board to be in the best interest of the public and the University.
5. The UAV and USV Review Board shall develop internal procedures for expedited review of operating plans intended to address short-lived phenomena (*e.g.*, flooding).

³ As a hypothetical example: the real or perceived intrusiveness and physical risks of using a UAV to determine how many township residents raise horses on their property should properly be considered in light of the possibility of generating the same information via a mail or phone survey.

6. Whenever the MSU Police or the UAV and USV Review Board approves an operating plan, the applicant will be issued a written permit for execution of the plan. Regardless of the approver, both the MSU Police and the Office of the Vice President for Research & Graduate Studies will receive and retain copies of each permit.
7. Whenever a UAV or USV governed by this policy is in operation, the pilot or remote operator shall be in physical possession of a valid permit for such operation, issued as set forth herein, and shall display the permit upon request from law enforcement or other cognizant authorities.

D. THE UAV AND USV REVIEW BOARD

The UAV and USV Review Board shall consist of:

- the Vice President for Research & Graduate Studies or designee (*chair, ex officio*),
- the MSU Police Chief or designee,
- the Assistant Vice President for University Services, or designee,
- the Director of Environmental Health & Safety, or designee,
- the Risk Management and Insurance unit administrator,
- a college dean appointed by the Provost,
- three faculty members (from different colleges) designated by the University Committee on Faculty Affairs,
- one graduate student designated by the University Committee on Graduate Studies, and
- a representative of the Office of the General Counsel (*ex officio*).

Appointments shall be for two-year terms, and may be renewed.

Deliberations of the UAV and USV Review Board may be informed by, but do not supplant or supersede, other related University policies and review procedures, including without limitation those administered by:

- The Office of Regulatory Affairs (*e.g.*, for human subjects protection),
- Office of Research Facilitation & Dissemination (for export controls and trade sanctions), and
- International Studies and Programs (*i.e.*, for overseeing activity abroad)

When UAV and USV Review Board agenda items implicate issues falling under the purview of such units, the Board chair may invite representatives from them to attend Board meetings in an *ex officio* capacity, in the interest of minimizing delays in the review of proposals, acquisitions, or operating plans.

E. GRIEVANCES

Decisions of the UAV and USV Review Board are advisory to the Vice President for Research & Graduate Studies, who will answer grievances regarding their resulting implementation through the University's established grievance processes.

F. UPDATES OF THE INTERIM POLICY

Until it is superseded by a permanent policy, this interim policy may be updated in writing by the President as necessary or appropriate in light of institutional experience and external regulatory changes.

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