OP 79.11: UNMANNED AIRCRAFT SYSTEMS/MODEL AIRCRAFT

POLICY

Mississippi State University is one of the leading Unmanned Aircraft System (UAS) research universities in the nation and plans to expand UAS research, development, and use even further by working closely with the Federal Aviation Administration (FAA), Department of Defense (DOD) and commercial partners. The purpose of this policy is to ensure that Mississippi State University and the MSU community acquire and operate UAS and Model Aircraft efficiently, safely, ethically, and consistent with applicable law and University policies and procedures.

DEFINITIONS

UAS – Unmanned Aircraft System. UAS are also referred to as Remotely Piloted Aircraft (RPAs) or drones. Pursuant to FAA guidance, a UAS is an unmanned aircraft and all of the associated support equipment, control station, data links, telemetry, communications and navigation equipment, etc. necessary to operate the unmanned aircraft. FAA regulation and this policy applies to UAS regardless of size or weight. **UAS weighing more than 0.55 pounds must be registered with the FAA, with the registration marked clearly on the aircraft. Details on FAA registration may be found at** https://www.faa.gov/uas/registration/.

Model Aircraft – A form of UAS that is considered differently than other UAS by the FAA and have different applicable regulations. The FAA defines model aircraft as follows:

1. The aircraft is flown strictly for hobby or recreational use;
2. The aircraft is operated in accordance with a community-based set of safety guidelines and within the programming of a nationwide community-based organization;
3. The aircraft is limited to not more than 55 pounds unless otherwise certified through a design, construction, inspection, flight test, and operational safety program administered by a community-based organization;
4. The aircraft is operated in a manner that does not interfere with and gives way to any manned aircraft;
5. When flown within 5 miles of an airport, the operator of the aircraft provides the airport operator and the airport air traffic control tower…with prior notice of the operation; and
6. The aircraft is flown within visual line sight of the operator.

COA – Certificate of Authorization or Waiver. A COA is an authorization issued by the FAA's Air Traffic Organization, and is the mechanism by which UAS flights either by public entities or Section 333 holders can be legally conducted.

333 Exemption – An FAA exemption based on Section 333 of the FAA Modernization and Reform Act of 2012 (FMRA) which grants the Secretary of Transportation authority to determine whether an airworthiness certificate is required by UAS to operate safely in the National Airspace System. A 333 exemption allows civil (commercial) use of a UAS and exempts one or more UAS from the requirement to be type certified.

UAS/Model Aircraft Safety Incident – Any event which results in any injury to people, damage to MSU property, system failure or other malfunction that results in loss of control of the UAS, or damage to the UAS exceeding $1,000.

APPLICATION

This policy applies to the following:

- The operation of UAS (including Model Aircraft) by any person, including without limitation employees, students and third parties, in any location as part of a University program or activity.
- The operation of UAS (including Model Aircraft) by any person on or above MSU owned or controlled property.
- The purchase of UAS with MSU funds, including appropriated, self-generated or sponsored research funds, or funds from affiliated entities of the University.

MANAGEMENT AND OVERSIGHT OF UAS OPERATIONS AND ACQUISITIONS

Operations of UAS at MSU are managed and supported at two levels, policy and operations. The Vice President of Research and Economic Development will be responsible for establishing the overall policy for UAS and Model Aircraft over MSU owned or controlled property. The UAS Steering Committee has been established to provide oversight, guidance and recommendations to the Vice President of Research and Economic Development regarding all aspects of UAS, including but not limited to FAA regulations, safety, operations, data, privacy, acquisitions, and business development and strategic opportunities. The UAS Steering Committee, to be appointed by the Vice President of Research and Economic Development, will be composed of at least one representative from the College of Engineering, the Raspet Flight Research Laboratory (RFRL), the Alliance for System Safety of UAS through Research

Excellence (ASSURE), the Division of Agriculture, Forestry, and Veterinary Medicine, the Geosystems Research Institute, MSU Police Department, and the MSU UAS Safety Officer. The Director of RFRL will chair the committee.

RFRL will be responsible for operational support for UAS for MSU owned or controlled property. Operational support is defined as providing UAS subject matter expertise to MSU researchers and scientists, facilitating safe and legal UAS operations for MSU stakeholders, partners, and external clients, and executing UAS missions with MSU aircraft, payloads, and pilots.

GENERALLY APPLICABLE UAS/MODEL AIRCRAFT POLICIES AND PROCEDURES

I. All individuals who operate a UAS as part of a University program or activity or operate a UAS or Model Aircraft on or over MSU owned or controlled property are responsible for complying with applicable FAA regulations and notices, state and federal laws, and MSU policy.

II. Any MSU unit, employee or student who desires to operate a UAS as part of his/her MSU employment or as part of a University program or activity must first obtain a COA or 333 Exemption issued by the FAA pursuant to the "Procedures Applicable to MSU-Operated UAS" set forth below. RFRL must be provided copies of all COA's and/or 333 exemptions prior to operation.

III. Any individual, including without limitation vendors or other third parties, wishing to use a UAS for other than recreational purposes on or immediately over MSU owned or controlled property must first receive written approval from the RFRL UAS Safety Officer. In addition, any third party must enter into a contract in which the third party agrees to hold the University harmless for the actions/inactions of the third party that cause harm or damage to individuals or property. The third party shall also provide insurance as required by the University.

IV. UAS/Model Aircraft shall not be used to observe or record in areas where there is a reasonable expectation of privacy. This includes, without limitation, in or near restrooms, locker rooms, individual residential rooms, dressing rooms, and health treatment rooms. This also includes activities that may be closed to the public (i.e. sports team practices). UAS/Model Aircraft shall not be used to monitor or record sensitive institutional or personal information which, for example, may be found on

or in an individual's workspace, computer or other electronic devices. In operating a UAS/Model Aircraft for purposes of recording or transmitting visual images, all operators must take reasonable measures to avoid violating reasonable expectations of privacy.

V. Use of UAS/Model Aircraft on University owned or controlled property must comply with all other applicable University policies and procedures.

VI. All UAS/Model Aircraft Safety Incidents must be reported to the RFRL UAS Safety Officer immediately, but no later than twenty-four (24) hours after an incident has occurred. The UAS Safety Officer can be contacted at [insert telephone number and/or email]. The RFRL Chief of UAS Safety will determine if an accident/incident investigation is warranted and notify other agencies as appropriate.

PROCEDURES APPLICABLE TO MSU-OPERATED UAS

I. Operations Approval

Currently, UAS operations in the National Air Space (NAS) and outside of restricted or warning areas require a COA or exemption. Any MSU unit, employee or student that intends to fly a UAS as part of a university-funded or externally sponsored project will coordinate with RFRL for: (1) an assessment from RFRL staff that the UAS is airworthy to operate; (2) certification from the RFRL UAS Safety Officer that the UAS meets or exceeds applicable safety standards; (3) assessment of Section 333/COA requirements and coordination of airspace safety; (4) development of a safety plan for proposed missions; and (5) certification from the RFRL Chief of UAS Safety that UAS operators meet applicable FAA and MSU standards.

II. Letter of Agreement Approval

A comprehensive letter of agreement (LOA) may be required when operational/procedural needs require the cooperation and concurrence of other persons/facilities/organizations outside the University. When operations are conducted on private property or an airport location, coordination must include property owners and/or the affected airfield manager and air traffic control facility chief. A standardized LOA will be provided. Signed copies of all LOA's will be maintained by RFRL.

III. Safety Certification and Assessments

All pilots, sensor operators and ground observers of MSU-operated UAS must be certified by the MSU UAS Safety Officer to the FAA standards specified in the Section 333 Waiver or COA. The MSU UAS Safety Officer will conduct local area familiarization for MSU UAS crews operating over MSU owned or controlled property and will provide periodic UAS safety refresher courses to all MSU UAS crews.

Safety is absolutely paramount during MSU UAS operations. The MSU UAS crew supervisor must conduct safety risk assessment before any UAS operation.

Each application for a UAS 333 Exemption or COA must contain an additional document detailing potential risks of privacy violations and methods to eliminate or mitigate these risks. The additional document will also detail how to handle data collected during UAS operations to maintain privacy.

PROCEDURES APPLICABLE TO ACQUISITION OF MSU UAS

To avoid duplication of effort within the University and to ensure that systems are acquired that have broad applicability to the University's research and education functions, any UAS purchase, including kits to assemble a UAS, using University funds must be reviewed and approved by the RFRL Director or designated representative.

MODEL AIRCRAFT OPERATIONS FOR RECREATIONAL USE

Safe and responsible use of Model Aircraft for recreational purposes over University owned or controlled property is required. To ensure the safe and responsible enjoyment of UAS, and to protect the safety and privacy of others, recreational use of Model Aircraft is subject to the following restrictions:

- Model Aircraft operators must understand and comply with applicable FAA regulations and guidance. For a summary, visit the FAA's "Know Before You Fly" website at http://knowbeforeyoufly.org/for-recreational-users/.

- Flights must only be conducted over open, unpopulated areas. **Flight over or near people, roads, vehicles, buildings or other structures is strictly prohibited. This prohibition specifically includes, but is not limited to, the following areas on the MSU campus: flight over or near the Drill Field, all academic or administrative buildings, all residence halls, and all intercollegiate, intramural or club athletic facilities**.

- Model aircraft operators must respect the safety, privacy and enjoyment of other users of the space.

Questions regarding Model Aircraft use over MSU owned or controlled property may be directed to the UAS Safety Officer or the University Police Department at 622-325-2121.

The University reserves the right to prohibit Model Aircraft operations on University owned or controlled property if, in the University's discretion, the University determines that:

- The use poses a safety, security or privacy risk to the university community or property;
- The use fails to comply with this policy or applicable laws and regulations;
- The use interferes with any University activity or program; or
- The use interferes with the University's mission.

SANCTION

Any violation of this policy will be dealt with in accordance with applicable University policies and procedures, which may include disciplinary actions up to and including termination, suspension or expulsion from the university. Legal prohibitions regarding physical presence on campus/trespassing and other legal action may also be pursued against individuals that operate UAS or Model Aircraft in violation of this policy. Fines or damages incurred by individuals or units that do not comply with this policy will not be paid by MSU and will be the responsibility of the individual(s) or unit(s) involved.

REVIEW

This policy will be reviewed every four years, or whenever circumstances require an earlier review, by the Vice President for Research and Economic Development, the Vice President for Agriculture, Forestry & Veterinary Medicine and the Provost & Executive Vice.

REVIEWED BY:

/s/ David R. Shaw — 04/25/2016
Vice President for Research and Economic Development — Date

/s/ Gregory A. Bohach — 04/29/2016
Vice President for Agriculture, Forestry and Veterinary Medicine — Date

/s/ Julia Hodges — 05/02/2016
Interim Provost and Executive Vice President — Date

/s/ Timothy N. Chamblee — 05/04/2016
Assistant Vice President and Director Institutional Research and Effectiveness — Date

/s/ Joan Lucas — 05/06/2016
General Counsel — Date

APPROVED:

/s/ Mark Keenum — 05/23/2016
President — Date