

DRAFT 2016.01.18



UAS/UAV Operator Basic Training Program Outline

Presented by
RI Staff Instructors

Copyrighted 2016 Rescue International

Introduction

- Comprehensive Flight and Ground Search theory, Rescue, LEA, Fire/Haz-Mat training for UAS/UAV operators.
- Students will be delivered a comprehensive classroom and hands on training program with group and individual flight time
- Program is presented by veteran's of Public Safety, LEA, SAR and Disaster response with hundreds of flights on DJI and other GPS assisted unmanned aircraft systems.
- Instructor staff have also logged hundreds of RC and UAV fixed and rotary wing flight hours on various GPS assisted systems.



RITA's Purpose and Goals for UAS/UAV Operator Training

Rescue International's Training Academy is focused on providing 1st responders in the US and around the world with the best most cost effective training from both on-line and in classroom delivery programs.

RITA's UAS/UAV Operator flight training provides the student with all FAA rules and procedures to fly a small UAS aircraft for Public Safety operations with a Government Level COA or 333 exception with an approved PIC and also under the pending FAA proposed 107 UAS flight rules. It includes operations for Search and Rescue, Disaster Response, Law Enforcement, Fire Fighting and Rescue operations. RI also is looking for volunteer UAV operators to provide UAV services for SAR and other emergency flights thru the RI Unmanned Aerial Search Vehicle Task Force at no cost to their local agencies.

Pre Class Coordination for sponsored classes

- RI staff will develop an interactive dialog to determine class sponsors specific needs to be covered to meet their operational requirements
- Air frame training can be modified to meet sponsors current or expected manufactures products and agency required specialty modules.
- Sponsor shall provide classroom that is comfortable, has environmental control, AV system with sound and video projector for computer HDMI and VGA input. A backup laptop should be available. Outdoor flight area.
- Classes sponsored non in English speaking countries or with non English speaking students, must provide translation as is appropriate. Please remember that international flight agreements require English language for ATC operations.

Students Pre-Class training requirements

- FEMA NIMS 100,200,700 online training
- 15 hours of RC or other similar UAS/UAV flight time.
- Completion of the online class materials 7-10 hours, to include sections of the FAA AIM publication, aerial search pattern operations.

Basic Class, as outlined is approximately 25 classroom hours plus 5 group outdoor demo flight hours and 30-60 minutes of student hands on and final class flight testing. Modules add 6-12 hours each.

Training Outline

Copyrighted 2016 Rescue
International

- Lesson Group 1: Flight Operations and the NAS
 - Reviews FAA NAS requirements
 - Flight levels
 - COA, 333 and 107 rules
 - FAA AIM manual review from online training.
- Lesson Group 2: Basic Airframe Training, Operations and Maintenance
 - Explores Airframe operation
 - Theory of UAV flight operations & airframe maintenance
 - Logging requirements
 - Standard Operating Procedures and Guidelines
 - Pre and Post Checklists
 - Manufacture manuals and recommend procedures

- Lesson Group 3: Pre-Flight Planning Launch Pad, Observer, Communications
 - Developing SOPs, Safety and Security of area of operation
 - Flight Plan, Mission Goals, Safety vs Risk assessment
 - Defined Incident Perimeter
 - Launch Area safety, security and layout
 - Observer requirements and training.
 - Air Traffic and Observer Radio Communications systems and procedures
- Lesson Group 4: Weather and In-Flight Operations.
Weather requirements and training in flight rules and procedures FAA Airspace levels and restrictions
- Lesson Group 5: Basic Search Ops and Patterns, Rescue Operations and Payloads
 - Ground and water search operations,
 - Rescue payload delivery
 - HazMat Operations and safety

- Lesson Group 6: Emergency Operations, Rules and Procedures
 - Evasive maneuvers, Emergency Communications, FAA reporting rules, crash action plan. Lesson Group 7: FAA Actions COA, NOTAM, Airframe Registration
 - 333 exceptions, filing a COA, Emergency COA, D NOTAM filing's. COA monthly FAA reporting.
 - Restricted area space rules, local ATC requests to fly in airport restricted areas of operation. AIRMAP APP use.
 - FAA Agency and Insurance logging requirements, paper logs and online systems
- Lesson Group 8: Flight Training
 - Group flight demonstrations 5 hours, instructors and students
 - Individual flight training time as allowed
 - Written test 100 questions
 - Flight test 30-60 Min. An approved student airframe may be used



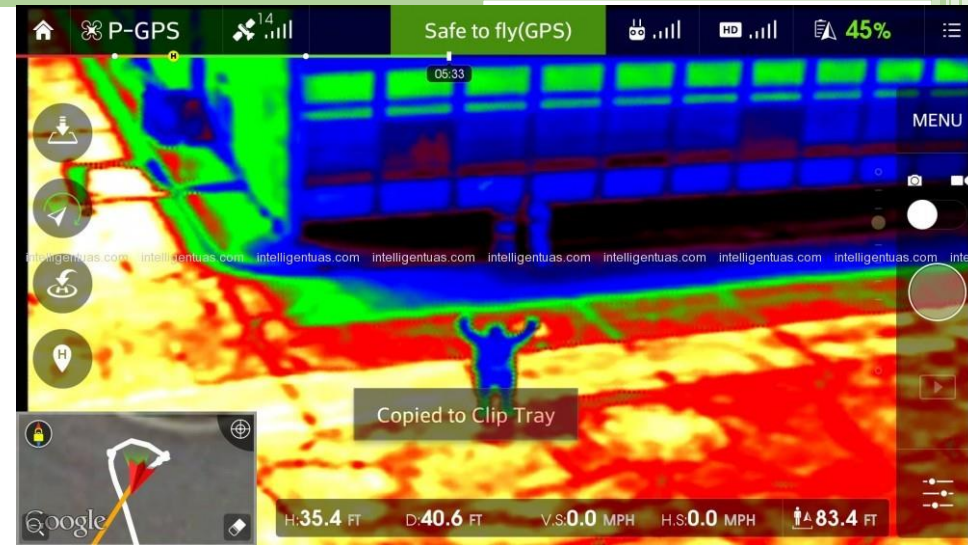
Lesson Groups 1-9: Theory of delivery

- Lessons are delivered in a professional, temperature controlled classroom environment with professional audio visual equipment to ensure the student receives a complete and understandable presentation. Photo, video and hands on classroom show and tell
- Student flight time and testing will be allocated on a class by class basis, depending on sponsoring agency and student needs and budget.
- Students are required to complete 7-10 hours of on line training and reading before the class.

Additional Specialty Training Modules, Audience Specific

- UAS Visual Flight Observers (can be stand-a-lone class w/some on-line)
- UAS Advanced Unmanned Aerial Search Vehicle Operations
- UAS Law Enforcement Agency Operations
- UAS Advanced Disaster Area Flight Operations
- UAS Aerial Damage Assessment Flight Operations
- UAS Ground Crew Operations (can be stand-a-lone class w/some on-line)
- UAS/UAV Flight Program Operator
- UAS Thermal Camera Flight Operations (included in LEA and Advanced UASV Modules)

Training Class Images



Summary of Training

- Review of key and critical information and procedures
- Provide resources for more information on subject.
 - List additional resources and training available
 - Time is allowed for questions and answers.
 - Provisions for after class follow up and contact information
 - Provide handouts (CD) with additional resource material:
FAA rules, checklists, SOP and operations templates, manufacture reference materials. Many other related documents from the web on UAS/UAV operations.

Assessment and Evaluation



- A written test will be given to assess how much information participants learned. A 100 question written test with a 70% passing score and successful test flights is required for certification.
- A Rescue International UAS/UAV operator Pilot certificate and patch will be issued to students, meeting classroom and written test requirements. Module rockers will be issued on their completion.
- Survey participants to see if they found the training beneficial.
- Contact Email bbarton@rescueinternational.org