

UNMANNED SAFETY INSTITUTE TM



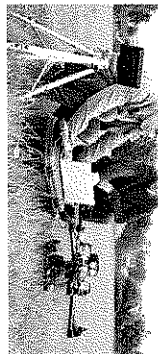
U N M A N N E D S A F E T Y I N S T I T U T E

MISSION

To improve safety in Unmanned Aircraft System operations

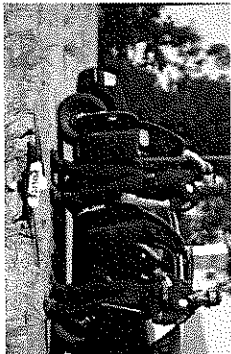
PHILOSOPHY

The Unmanned Safety Institute is a professional training organization for UAS operators and proponents focused on improving safety in UAS operations through the adoption and modification of time honored aviation safety and training practices



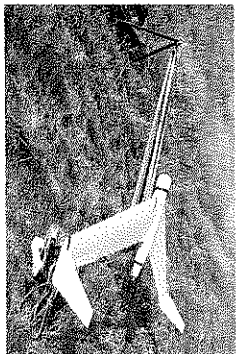
HUMAN FOCUS

Create UAS professionals with safe attitudes and training
focused on reducing errors



ORGANIZATION FOCUS

Provide UAS proponents with Safety Management
Systems (SMS) and OEMs with quality training
programs



TECHNOLOGY FOCUS

Operationally test UAS to create reliability data
and set safety standards

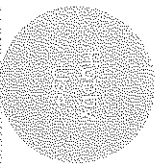




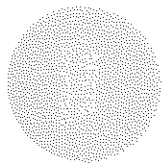
U N M A N N E D S A F E T Y I N S T I T U T E™

Insurance

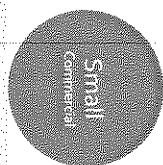
- Training educators on safety so that they may use USI curriculum and training to promote safety awareness
- Authorized Training Provider are certified by USI to offer safety training that will lead to certification
- Institutions of Learning are non-profit organizations (schools and universities) that are certified by USI to offer safety training that will lead to certification
- Develop Initial Qualification Training (IQT) that integrates USI safety training
- Evaluate existing training for certification and make recommendations for improvement
- Provide three levels of safety training for UAS crews
- Help proponent companies to organically grow Safety Management System
- Train Safety Promoters that are approved by USI to offer annual refresher training
- Certify and credential individuals
- Risk Assessment
- Provide safety workshops for customers
- Conduct safety audits



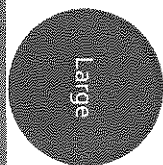
- Use the UAS in a manner that is not reckless or dangerous
- Comply with community-based safety standards
- Fly under 400 feet AGL
- Fly 5 nautical miles away from an airport of heliport, or at a community-based organization sponsored facility
- Use FCC license free frequencies



- Be trained in the system
- Know applicable aviation rules, regulations and guidelines
- Stay a minimum of 150 feet away from people, animals, structures, or vehicles not associated with the operation
- Have liability insurance
- Do NOT directly overfly people
- Use the UAS in a manner that is not reckless or dangerous
- Fly under 400 feet AGL
- Fly during daylight and maintain clear of clouds
- Fly 5 nautical miles away from an airport of heliport, or within the letter of agreement with local air traffic facility
- Use FCC license free frequencies
- Maintain visual line of sight with the vehicle
- Give "right away" to traditional aircraft



- Be qualified in the system
- Have a Private Pilot License
- Stay a minimum of 150 feet away from people, animals, structures, or vehicles not associated with the operation
- Have liability insurance
- Do NOT directly overfly people
- Use the UAS in a manner that is not reckless or dangerous
- Fly under 400 feet AGL (unless approved for higher)
- Fly during daylight and maintain clear of clouds (unless instrument rated and UAS has approved lighting
- Fly 5 nautical miles away from an airport of heliport, or within the Certificate of Authorization boundaries
- Use FCC license free frequencies
- Register the UAS with the FAA
- Maintain visual line of sight with the vehicle
- Give "right away" to traditional aircraft
- Have an approved Standard Operating Procedure
- Have a compliant privacy policy
- Maintain and ensure airworthiness prior for flight



UAS over 55 lbs. or BVF

- Be qualified in the system
- Have a Commercial Pilot License with Instrument rating
- Stay a minimum of 150 feet away from people, animals, structures, or vehicles not associated with the operation
- Have liability insurance
- Do NOT directly overfly people
- Use the UAS in a manner that is not reckless or dangerous
- Fly within the restrictions of the certificate of authorization and/or have an approved method of "seeing and avoiding" non-cooperative aircraft and a Airworthiness Certificate
- Register the UAS with the FAA
- Fly on a UAS specific Instrument Flight Plan filed with air traffic control
- Give "right away" to traditional aircraft
- Have an approved Standard Operating Procedure
- Have a compliant privacy policy
- Maintain and ensure airworthiness prior for flight
- System must be equipped with ADS-B out and strobe lighting
- Pilots must have a way of communicating with air traffic and ATC





Visual Line of Sight System Operator (VSO)™

- Not applicable or required
- Pass FAA Private Pilot written
- Gain knowledge from an Original Equipment Manufacture or training center on system specific equipment, normal, and abnormal procedures, or
- Demonstrate safe flight and proficiency in a UAS
- Complete Safety Awareness Training
 - Safety culture
 - Safe concept of operations
 - Safety Protocols
 - Human factors
 - Risk management



Professional System Operator (PSO)™

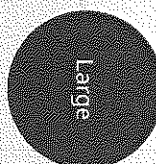
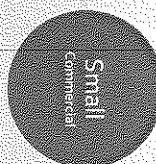
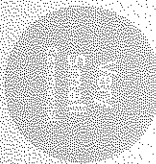
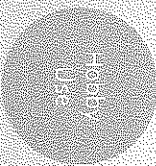
- Obtain a FAA Private Pilot License
- Demonstrate proficiency in the UAS from an Original Equipment Manufacture initial qualification course or USI certified training center
- Complete Safe Practitioner Training
 - Core values for UAS operators
 - Planning safe operations
 - Standard Operating Procedures and Safety Protocols
 - Human factors and crew resource management
 - Risk management



Commercial System Operator (CSO)™

UAS over 55 lbs. or BVR

- Obtain a FAA Commercial Pilot License with an instrument rating
- Demonstrate proficiency in the UAS from an Original Equipment Manufacture initial qualification course or USI certified training center
- Complete Safe Leadership Training
 - Core values for UAS operators
 - Planning safe beyond visual range operations
 - Standard Operating Procedures and Safety Protocols
 - Human factors and crew resource management
 - Risk management for line of sight and beyond visual range
 - Safety Management Systems





Safety Training

SMALL UAS SAFETY COURSE

UNMANNED AVIATION SAFETY WORKSHOP

SAFETY LEADERSHIP WORKSHOP

Level III

- Parts of the Unmanned Aircraft System
- The Responsible Small UAS Operator
- Concept of Operations and Planning
- Human Factors and UAS Level I
- Identifying Hazards in Your Operation
- Operational Risk Management
- The Personal Safety Management System

- Current Safety Challenges
- Site Preparation and Preflight Planning
- Operational Risk Management
- The Professional Operator
- Human Factors and UAS Level II
- Crew Resources and Management

- Systems approach
- Leadership and supervision
- Implementing Safety Policy
- Safety Risk Management for BVR operations
- Safety Assurance
- Learning Lessons
- Safety Promotion

1
Day

2
Days

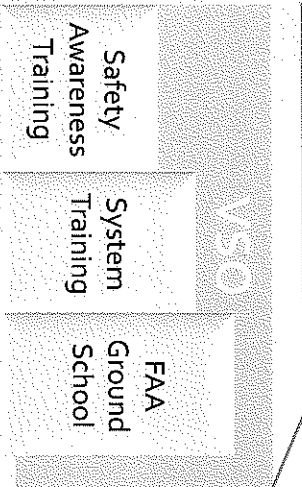
1
Day



Level I

Visual Line of Sight System Operator

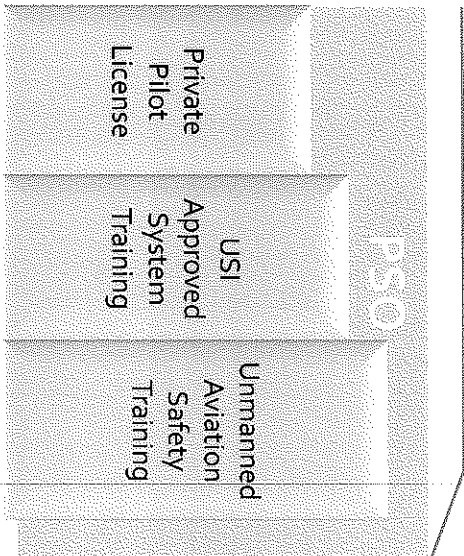
Appropriate for very small system (4 pounds and under) pilots, visual observers, and supplemental crewmembers



Level II

Professional System Operator

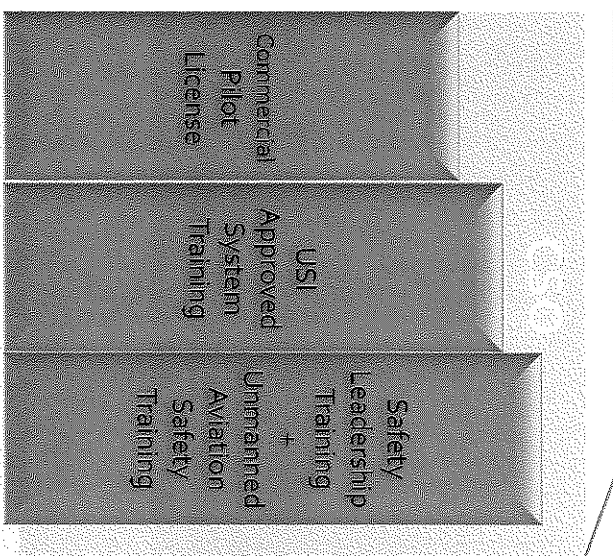
Appropriate for small system pilots in command



Level III

Commercial System Operator

Appropriate for larger system pilots in command



Stackable Credentials

Add-ons

USI Certified Instructor

After earning a USI credential, individuals can add an instructor credential to their resume and teach USI courses/certifications for their company or organization. Also appropriate for OEM instructors who want to focus on safety

About Unmanned Safety Institute Credentials

USI has established training and education criteria for safe UAS crews. Operators and pilots can start at any part of the spectrum and earn USI certifications by stacking a series of credentials and participating in USI training, provided by a USI certified instructor. USI certification levels are shown in the blue circles



UNMANNED SAFETY INSTITUTE™

Respect

The understanding that people, property, and equipment have value and should be treated in a serious and appropriate way. USI members and professional operators will value people's privacy, people's right to their opinions, laws, rules, and regulations, private and public property, and the equipment they operate.

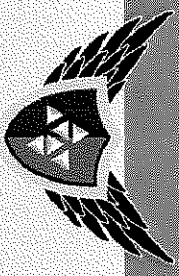
Excellence

Putting in maximum effort every time, diligently working to improve, and striving for the highest possible quality in one's work. Excellence is embodied in: professional development, high standards, highly qualified crews, taking the time to do things correctly and safely, and promoting excellent people.

Responsibility

Knowing that you are ultimately the person who has the power to cause something to happen, have an obligation to perform your duties as required, and expected because it is morally right, legally required, or will affect others. Responsibility includes: safely operating systems, avoiding undue risk, ensuring airworthiness of people and equipment, planning for contingencies, and exercising integrity.

UAS SAFETY STARTS @ THE UNMANNED SAFETY INSTITUTE



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