National Institute of Justice

NIJ

U.S. Department of Justice

Office of Justice Programs

The National Institute of Justice

Aviation Technologies Program

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LAW ENFORCEMENT Aviation Technology PROGRAM

A Little Bit of Background
Who is NIJ?

The National Institute of Justice (NIJ) is the research and development agency of the U.S. Department of Justice and is the only Federal agency solely dedicated to researching crime control and justice issues. NIJ provides knowledge and tools to meet the challenges of crime and justice, particularly at the State and local levels. NIJ's principal authorities are derived from the Omnibus Crime Control and Safe Streets Act of 1968, as amended (42 USC §3721-3722).

"An Honest Broker for Public Safety!"

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Office of Science and Technology

manages:

- Technology Research and Development
- Demonstrations, evaluations, transfer and adoption of new and emerging technologies.
- Development of technology guides, standards, and test reports
- Operational tests and evaluations
- Forensic sciences capacity building programs
- Technology assistance to Federal, State, and local criminal justice and public safety agencies

Difficulties of Local Level Law Enforcement and Corrections Operations

- **19,000 law enforcement agencies**
- **50 state correctional systems**
- **Thousands of jails**

- **Difficulty articulating technology needs**
- **Lack of access to objective, easily understandable technology information**
- **Lack of funding for product/technology research evaluation, and purchasing**

OST Technology Portfolio

Aviation

Biometrics

Body Armor

Communications Tech

Corrections (Institutional Community)

Court Technology

DNA Forensics

Electronic Crime

Explosives Detection and Remediation

General Forensics

Geospatial Technologies

Information Led Policing

Less Lethal Technologies

Personal Protective Equipment

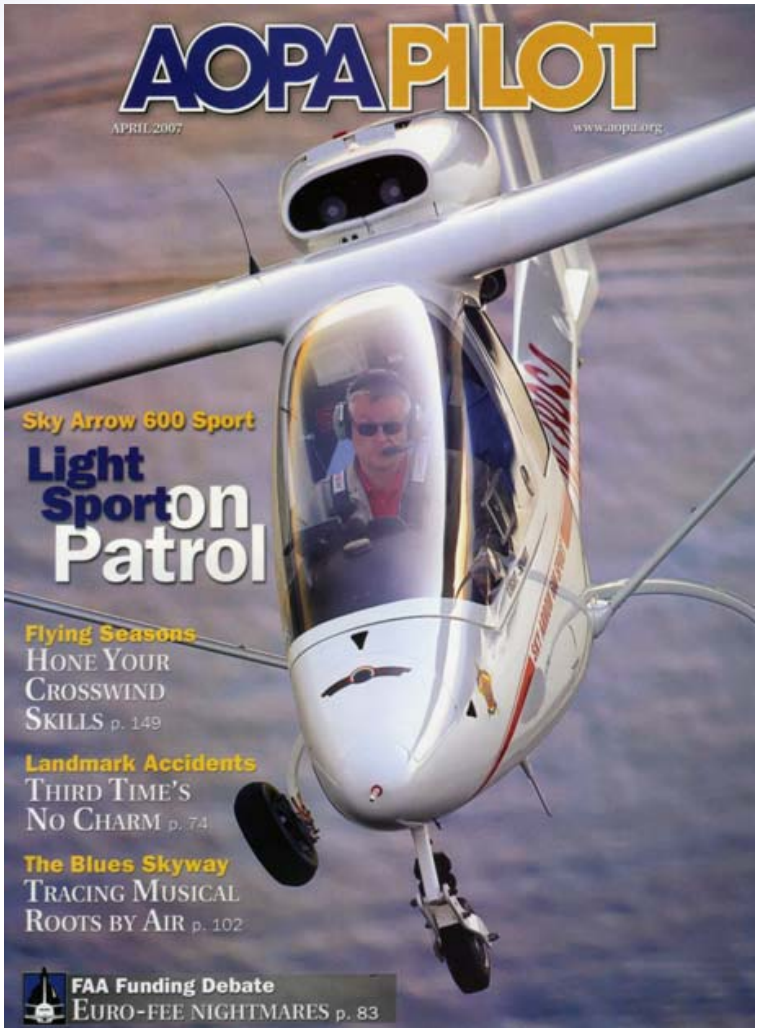
Pursuit Management

School Safety

Sensors and Surveillance

Just About Any Public Safety Technology Area!

Aviation Technology Program



Our Aviation Technology program was established to evaluate the efficacy, affordability and frequency of utilization of various aviation assets for smaller and predominately rural law enforcement agencies across the United States.

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Law Enforcement Aviation Technology Program

Goal: NIJ's Aviation Technology program was established to evaluate the efficacy, affordability and frequency of utilization of various aviation assets and associated technologies for smaller and predominately rural law enforcement agencies across the United States.

Statement of Need: Numerous public safety and State and local officials have expressed a need to deploy low-cost and safe aviation assets for cannabis field detection and illegal remote narcotic lab detection; as a search tool for search and rescue missions; aerial photography/surveillance of critical infrastructure; border patrol; traffic; special events and to provide overall support to Joint Police Operations.

Key Thrusts:

- Continue operational evaluation of various aviation assets.
- Continue the work on a best practice guide for aviation technology implementation in an operational setting.
- Continue to investigate and analyze emerging aviation technologies.
- ***Continue the work with the FAA on law enforcement guidelines for the safe and lawful use of Unmanned Aircraft Systems (UAS).***
- Continue the work on a quick deployable, low-cost and safe to use aircraft camera system.
- Stand-up a Technical Working Group from interested public safety aviation experts.
- Conduct aviation technology demonstration day(s) for public safety and other interested parties.
- ***Continue outreach efforts to better educate law enforcement officers on issues such as federal restrictions on the use of UAS and safety issues related to public safety aviation technologies.***

Numbers and Customers

- 19,000 Agencies
- Less than 300 Agencies with Aviation Units
- Average agency (75%) has 25 or fewer Officers
- Budgets are extremely Tight
- Mission Must Drive the Technology
- Technology Should have High Return on Investment

Economy of Scale





$10M ***$1.5K*** ***$55*** ***$120K***

COST ***Operating Cost Per Hour*** ***Operating Cost Per Hour*** ***COST***

$300K ***$100*** ***$25*** ***$15K***

-VS-







Identify Public Safety Requirements

- **Project Description**: Funding will provide support for the Aviation Technology Technical Working Group (TWG).

- **Deliverables & Schedule**: Bi-Annual TWG meetings and the reporting back of recommendations and priorities.

- **Partners**: Federal, State and Local Law Enforcement, National Law Enforcement Associations, Other Federal Agencies and Interested Parties.

National Law Enforcement and Corrections Technology Center

TECH beat

Summer 2006

Dedicated to Reporting Developments in Technology for Law Enforcement, Corrections, and Forensic Sciences

Under Your Own Power…Parachute

It's evident that the Nation's small and rural law enforcement agencies have a need for low-cost alternatives to planes and helicopters that would allow them to perform aerial surveillance for missing children, lost hikers, and illicit marijuana fields, just like many of their larger counterparts. In response, the Office of Justice Programs' National Institute of Justice (NIJ) has been looking at a number of options and since September 2005 has been conducting field demonstrations with a pair of powered parachutes. NIJ is now ready to expand those demonstrations to include law enforcement agencies.

According to Mike O'Shea, NIJ program manager, powered parachutes are two-seater ultralight craft that fly with a parachute as their wing. Should the engine fail, the craft simply drifts, under the parachute, to the earth. These ultralight craft have a range of about 100 miles and a top speed of about 30 miles per hour. Powered parachutes fly on mid-grade (89 octane) gasoline that can be purchased at any service station, although they can also use the more expensive 100-octane low-lead aircraft fuel commonly found at most airports.

As for flying powered parachutes, O'Shea says they are relatively easy to learn to fly. "The steering is very simple," he says. "You push the steering bar with your foot to the left to go left, to the right to go right, and you add throttle to go up and less to go down. They have dual controls so they can be flown from either seat."

O'Shea points out that the aircraft can become difficult to launch in winds greater than 15 miles an hour, and although they can be flown in cold weather, pilots/passengers are exposed to the elements and it can be quite cold. However, it is not uncommon for pilots to bundle up and fly in sub-freezing temperatures. Stiffer winds can sometimes force a craft to land a short distance from where it took off. It took only one such experience for O'Shea to understand why his instructor told him to sit on the empty parachute bag and take it along for the ride. "I had to tack the chute under the craft to keep it from blowing, walk back to the takeoff point for the bag, and carry the bag back to pack up the chute," he says. "If I had had it with me, I could have packed the chute on the spot and just driven it back across the grass to the storage area."

On the positive side, O'Shea says powered parachutes have the advantage of being able to take off out of any unimproved field, which would be a distinct advantage in small and rural counties that lack airports.

Also a positive is the cost of a powered parachute. "The cost, around $15,000, is extremely attractive," O'Shea says. "Many law enforcement agencies—even the larger ones—just can't afford an aircraft, either helicopter or fixed wing. Small and rural agencies used to be able to call on larger agencies and National Guard aircraft, but because of rising fuel prices and military deployments, these aircraft are only available in the direst of circumstances.

"Ideally, the craft could be used by coalitions of two or three agencies, because not every small and rural agency would need a craft full time; this would further reduce the costs and increase the use of the aircraft."

O'Shea adds that during NIJ's initial field demonstrations

(See Under Your Own Power, page 10)

It's in the Mail

In the fall of 2001, letters containing anthrax bacteria were sent through the U.S. mail. Twenty-two people were infected with anthrax. Five of them died, including two postal employees. The criminal investigation of those attacks continues.

People were on edge. In the year immediately following the attacks, the U.S. Postal Inspection Service responded to approximately 17,000 incidents of suspicious substances. It became clear that postal inspectors needed additional tools to ensure rapid response capabilities to determine if a substance posed a threat.

"During and immediately after the [anthrax] crisis, any powder in the mail was met with suspicion. People were understandably concerned, and even though there hasn't been a similar attack since, those concerns continue," says Tripp Brinkley, postal inspector/program manager, Dangerous Mail

(See It's in the Mail, page 3)

Safety Standards and Policies

• **Project Description**: Working in conjunction with public safety we will help develop safety standards, policies and best practices for the use of aviation assets by public safety.

• **Deliverables & Schedule**: Deliverables will include guides, training and presentations.

Light Sport Aircraft Evaluation And Deployments

7 Fixed-Wing Aircraft Deployed (A)

7 Powered Parachutes Deployed (P)

<u>Emphasis on Shared Use</u>

Technology Additions

- Cameras
- Thermal Systems
- Down-Link
- Alternate Energy
- Sensors

Aerostat Development Project

• **Project Description**: Working in conjunction with public safety and vendors we will help develop a low cost vehicle trunk or light truck deployable tethered balloon that can deploy a geo-stabilized camera and/or radio antenna to provide look down capability at critical incidents and instant radio towers when structure towers are lost due to man made or natural disasters.

Aviation Outreach and Demonstration Events

• **Project Description**: Working in conjunction with our public safety partners we will help host several aviation demos and workshops to enhance public safety's knowledge base on the use and deployment of aviation technologies.

• **Deliverables & Schedule**: Deliverables will include at least one aviation technology demonstration day and one aviation technology workshop as well as presentations at national conferences on the NIJ Aviation Technology Program.

Develop Guidelines for the use of UAS by Public Safety

• **<u>Project Description</u>**: Objective is to work with interested public safety groups and the FAA to develop guidelines for the use of Unmanned Aircraft Systems (UAS) in the National Air Space (NAS) by public safety.

Low Cost UAS's Development

• **Project Description**: A continuing effort to develop complete UAS's for less than $10K. Current systems cost from $25K to $26M.

• **Deliverables & Schedule**: Prototype UAS's for testing and evaluation.

UAS Technical Bulletin

Department of Justice
Office of Justice Programs

National Institute of Justice
National Law Enforcement and Corrections Technology Centers:
Border Research Technology Center

Technical Bulletin: Law Enforcement Use of UAS 10/10/2007

IMPORTANT INFORMATION FOR LAW ENFORCEMENT:
CONSIDERATIONS PRIOR TO THE PURCHASE AND/OR OPERATIONS OF UNMANNED AIRCRAFT SYSTEMS (UAS)

Unmanned Aircraft Systems (UAS), also known as UAVs, is a rapidly emerging technology that has exceptional appeal to law enforcement. A UAS consists of an unmanned aircraft, an aircraft control station, and command and control links. UAS are considered as aircraft. These aircraft can often be flown autonomously and at great distances from the command station. In addition, these aircraft can be very small, under 25 lbs and still carry enough equipment to provide video downlink capabilities.

The operation of a UAS by a public agency, whether it is Federal, State or Local Law Enforcement, is enforced by FAA regulations and Federal statutes. With the increase in use of UAS by the military in overseas operations, there has been a significant increase in the number of vendors both producing and marketing these same units to law enforcement. Prior to purchasing or leasing a UAS please consider the following:

- ✓ For a public aircraft operation, the FAA holds the position that a Certificate of Authorization (COA) is required to operate UAS in the National Airspace;
- ✓ The FAA has stated publicly that COAs would not be issued for use of a UAS over populated areas, such as may be defined by the yellow areas on aviation sectionals (aviation map). This includes most cities and densely populated areas;
- ✓ The FAA will consider issuing a COA for operations in unpopulated areas as long as the agency seeking the COA can demonstrate that the operation is safe, that sufficient risk mitigations are in place, and the operators have sufficient training (which includes a pilot's license and medical certificate);
- ✓ Any law enforcement agency operating a UAS will be required to establish their own airworthiness for the UAS. The airworthiness establishment is the responsibility of the agency and not the vendor. Remember, any agency applying for and receiving a COA assumes liability for the entire operation. While vendor information may be used in deeming an aircraft airworthy, it should not be the only information relied upon;
- ✓ The operation of a UAS requires a FAA certificated pilot with a current class II medical certificate and an observer, who while not required to be a pilot, but must have a class II medical certificate;

- ✓ A vendor approaching a law enforcement agency offering to demonstrate a UAS to an agency must have an experimental airworthiness certificate issued by the FAA prior to the flight. A vendor cannot rely upon an agencies COA to fly the aircraft. COAs are only issued for aircraft that qualify as "public" aircraft;
- ✓ The rules allowing the recreation use of model aircraft by hobbyist ***DO NOT*** allow law enforcement agencies to use a UAS without a COA;
- ✓ There are currently no comprehensive studies that confirm the safety records or vendor published data regarding the use of UASs. Problems identified by the military's evaluation of UAS have included radio interference, unexplained control loss, and the durability of the units for repeat flight operations. Department of Defense UAS Program Managers expressed at a recent FAA meeting on UAS, that they rarely get 10 or more missions accomplished with one UAS unit due to crashes;
- ✓ It is not anticipated that the FAA will amend their position on the operations of UAS before the year 2010. However, there are 2 key activities taking place that will push the airspace access issue forward. The first is that the FAA has agreed to conduct 2 test projects with major metropolitan police departments. One is Miami/Dade, and the other is the City of Houston. Each of these will provide valuable insight into the difficulties that may exist in operating UAS in urban environments. The other activity is the creation of new regulation for small UAS to fly in the airspace. This recent development is just starting and will be the genesis for getting small UAS flying in a majority of the US without a COA. Rulemaking can take time, however, so stick with the COA process for the next year or two.

What is the U.S. Department of Justice's doing on this issue? Through Office of Justice Program's National Institute of Justice (NIJ) and its Aviation Technology Program, law enforcement will have the chance to voice their opinions regarding the use of UAS in the national airspace. NIJ is working with the FAA on rules and regulations regarding the use of UAS by law enforcement that both enhance the mission of public safety and provide for the safety of other aircraft in the national airspace and those on the ground. NIJ is planning a forum on the use of UAS by law enforcement with FAA participation during the winter of 2007-2008. NIJ invites interested law enforcement agencies to participate in this process. For more information on UAS operations please feel free to contact Michael O'Shea, Aviation Technology Program Manager, at Michael.OShea@usdoj.gov or Timothy Adelman Esq., the Border Research Technology Center Aviation Project Manager, at Tim@txsheriffs.org or Joe Peters, Border Research Technology Center Director at Joe@txsheriffs.org

The Office of Justice Programs provides federal leadership in developing the nation's capacity to prevent and control crime, administer justice, and assist victims. OJP has five component bureaus: the Bureau of Justice Assistance; the Bureau of Justice Statistics; the National Institute of Justice; the Office of Juvenile Justice and Delinquency Prevention; and the Office for Victims of Crime. Additionally, OJP has two program offices: the Community Capacity Development Office, which incorporates the Weed and Seed strategy, and the Sex Offender Sentencing, Monitoring, Apprehending, Registering and Tracking Office (SMART). More information can be found at http://www.ojp.usdoj.gov

Working Requirements

A. *Considerations for the Federal Government:*

Establish a public use exemption for UAS subject to the following requirements:

- **Aircraft weight shall not exceed *15 pounds* (micro-UAS).**
- **UAS Operators and observers shall demonstrate medical fitness for UAS operation via state issued motor vehicle drivers' license. Mere possession of a valid state issued drivers' license will not absolve the UAS operator and/or observer of responsibility if they are aware of or should have been aware of any medical condition that could limit their ability to safely operate and/or observe for a particular UAS mission.**
- **As an interim measure of proficiency, UAS Operators shall have successfully completed ground school training typically provided for persons seeking certification as sport, recreational or private pilots and must have demonstrated knowledge of airspace regulations and aircraft operational rules and characteristics.**
- **The U.S. Department of Justice will identify subject matter experts to work with the Federal Aviation Administration (FAA) to expeditiously develop and deploy easily accessible online course(s) designed specifically for public safety operation of UAS and include but not be limited to the requirements contained in A3 above, the successful completion of which will replace the requirement in A3 above.**
- **Training course(s) alluded to in A4 above shall include training on dealing with emergencies involving the use of UAS and in U.S. Constitution Fourth Amendment limitations on search and seizure.**
- **The FAA, in cooperation with the Public Safety user community should expeditiously establish a suite of standards to include desired operational and safety characteristics for classification of a UAS as micro-UAS. Manufacturers would then be required to certify compliance with that suite of standards prior to sale of UAS for public safety agency use and thereby eliminate the requirement to obtain Certificates of Authorization (COA) for each system deployed for public use.**
- **Prior to deployment within controlled airspace, the operator of a Public Use UAS shall be responsible for notifying the appropriate entity with responsibility for controlling the subject airspace of such operation; estimated duration of operation; radius of operation around given coordinates and maximum operational altitude.**
- **As the technologies become available, transponders or other technologies capable of transmitting a code unique to the operation of UAS or otherwise enhancing the ability of all aircraft operators to see and avoid UAS aircraft operating at or below 500 feet AGL should be required. Micro-UAS should be limited to operational altitudes at or below 500 feet vertically and 1500 feet horizontally from the control point. Pilots must maintain visual contact with UAS aircraft in order to see and avoid other aircraft or obstructions.**
- **Collaboration between the Departments of Defense, Justice, Homeland Security and the FAA is encouraged to expeditiously define standards testing methodology for micro-UAS designation prior to operation in the national airspace.**
- **A website should be developed to provide ready accessibility for public safety users of UAS to obtain the most current information regarding applicable rules, regulations, and UAS test results and to provide access to UAS user forums as may be beneficial to the public safety UAS user community.**
- **An aggressive outreach program should be developed to educate the potential public safety user community regarding utilization of UAS as a part of their public safety mission.**

Working Requirements

B. Considerations for Manufacturers of Public Use Exempted UAS:

- **Aircraft component of UAS should not weigh more than 15 lbs.**
- **UAS, including aircraft and ground station control equipment should be easily transportable by a standard full size law enforcement equipped sedan.**
- **UAS aircraft should be capable of near vertical takeoff and landing to facilitate operation in dense urban environments.**
- **UAS aircraft should have the capability of automatically returning to the ground station in the event of loss of communications and low power condition**
- **UAS aircraft should have the ability to remain in flight for a minimum of three hours or have the ability to land for a rapid battery change and redeploy. Ground station equipment should be capable of controlling more than one aircraft consecutively, but not simultaneously.**
- **The system should have optional water and weather resistance and should be capable of operation in winds up to 20 mph.**
- **Float system for UAS aircraft should be an option.**
- **UAS aircraft should have autopilot capability.**
- **UAS operation should be user friendly and be capable of enroute flight planning/reprogramming.**
- **UAS should have GPS referenced flight recording capability.**
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- **Video and photo target output from the aircraft should be referenced to GPS coordinates.**
- **Camera systems on UAS aircraft should be rapidly exchangeable and should include at a minimum, medium resolution full motion video and digital still photos, low light/night vision systems to include forward looking infrared (FLIR).**
- **UAS should undergo and successfully complete standards testing by an independent testing facility. Testing should include but not be limited to safety features, maneuverability, standards compliance when developed and resistance to radio frequency interference (RFI) in rural and urban environments.**
- **Target cost for full production run UAS is <$25,000. Prototypes for test and evaluation should not exceed $90,000 in costs.**

Working Requirements

C. ***Considerations for Public Safety Agencies***

- **Ensure that the mission at hand would benefit from UAS technology before deployment. Allow the mission to dictate the appropriate technology, resist the temptation to allow the technology to drive the mission.**
- **Prior to making a purchase decision, the purchasers should determine whether or not thesystem has successfully completed minimum standards testing. Vendors should be willing to demonstrate UAS in an operational environment in the purchaser's area of potential operations. Systems that perform well in a rural setting free of potentially harmful RFI may perform erratically or not at all in an urban environment where RFI issues are more likely to occur.**
- **Purchasers should take steps to ensure that control and link frequencies for UAS are legal for the proposed operation.**
- **Purchasers should determine from the manufacturer the estimated number of missions a particular system is capable of performing prior to requiring replacement of major components such as the aircraft itself or control station equipment. Determine replacement costs of major components in the event of physical damage or loss.**
- **UAS operators and observers will require initial training and on-going proficiency training in order to help ensure safe and efficient operation. Agencies contemplating purchase and deployment of UAS should be prepared to commit the necessary time and resources to achieve this training and proficiency maintenance.**
- **Each Public Safety agency contemplating a UAS mission should employ adverse risk assessment for every mission. Are the winds too strong? Is the rain to heavy? Is the launch and recovery space adequate? Have the pilot and observer been adequately trained and have they demonstrated proficiency in UAS operation? Is radio frequency interference going to be an issue in the mission area?**
- **Public Safety agencies utilizing UAS should be encouraged to share experiences with the larger UAS Public Safety user community, including safety issues and other unique problems encountered during training and/or missions.**
- **Public Safety agencies should be cognizant of the fact that safe and effective UAS operations are paramount to the success of their operations and public acceptance of the technology.**

Small UAS Standard Test Methods

Collaborators:

U.S. Department of Homeland Security
-Science and Technology Directorate
-Test and Standards Division

U.S. Department of Commerce
-NIST Intelligent Systems Division

U.S. Navy
-Naval Air Warfare Center
-Pax River Naval Air Station Maritime UAV Development Operations Test Team

U.S. Department of Justice
-Office of Justice Programs
-NIJ's Office of Science and Technology
-NLECTC

Sheriffs' Association of Texas

DRAFT EXCERPTS TEST SCOPE + METHODOLOGIES

Table 1

Tests Phases and Objectives

Phase	Event #	Description	Objective	Type
I		**Ground Checks**		
	1	System Deployment	Determine the speed in which the system can be deployed.	Quantitative
	2	System Inspection	Mechanical and Electrical inspection of aircraft and ground systems.	Qualitative
	3	EMV / EMC	Evaluate the system in the intended environment.	Quantitative
	4	Data Links	Evaluate the quality of the data link.	Quantitative
	5	Failure Modes	Determine which on-board sensor failures cause degraded modes of flight. (GPS, Engine, Gyro, Compass etc).	Quantitative
	6	Flight Sensors, avionics	Determine accuracy of on-board command and control sensors (Air Speed, Altitude, Gyro, Compass, etc).	Quantitative
	7	Loss of Link	Determine vehicle response to a loss of command and control link.	Quantitative
	8	Fuel / Battery Endurance	Measure the aircraft propulsion / sensor endurance.	Quantitative
	9	Flight Termination	Determine flight modes that cause flight termination. Verify functionality of commanded flight termination sequence	Quantitative
	10	Displays	Evaluate the ground control station displays for relevant data.	Qualitative
	11	Mission Planning	Evaluate ease of mission planning.	Qualitative
	12	Environmental	Evaluate system in various environmental conditions.	Qualitative
II		**Flight Evaluation / Day Operations**		
	1	Launch Performance	Measure or evaluate launch characteristics. Area required, hazards to personnel etc.	Qualitative/ Quantitative
	2	Manual FQ & P	Perform basic maneuvers.	Quantitative
	3	Semi Autonomous Flight	Demonstrate semi – autonomous mode of flight.	Qualitative
	4	Autonomous Flight	Demonstrate autonomous modes of flight, airspeed, altitude, heading, waypoint navigation and station keeping.	Qualitative/ Qualitative
	5	Recovery Performance	Measure or evaluate recovery characteristics.	Qualitative/ Quantitative
	6	Vehicle Performance	Range, Endurance, Altitude, Speed, Climb rate	Quantitative
	7	Lost Comms	Demonstrate lost comm. Procedures.	Qualitative
	8	In Flight Mission Changes	Re-program route.	Qualitative
	9	Collision Avoidance	Demonstrate ability to avoid obstacles.	Quantitative
	10	End User	Evaluate ease of transferring vehicle to a	Qualitative

AIR ROBOT TEST PLAN DRAFT EXCERPTS

multiple flights to demonstrate the objectives. Additional flights will be scheduled as necessary to complete the objectives. Table 4 - 1 contains the tests and test conditions matrix.

Table 4 - 1
Tests and Test Conditions Matrix

Test / Type	Objective	Airspeed (knots)	Altitude (AGL feet)	Airspace	Method	Risk Cat.
System Inspection / Ground	Mechanical and Electrical Inspection	N/A	N/A	Webster Ground	5.1.1.1	A
Avionics Test / Ground	Test on-board sensors for accuracy	N/A	N/A	Webster Ground	5.1.1.2	A
Loss of Link / Ground	Determine vehicle response to loss of link.	N/A	N/A	Webster Ground	5.1.1.3	A
Battery Endurance / Ground	Measure the systems battery life.	N/A	N/A	Webster Ground	5.1.1.4	A
EMC SOFT	Evaluate system in intended environment	N/A	N/A	Webster Ground	5.1.1.5	A
Loss of Link Flight	Verify the loss of link procedure performs as expected	0-22	0-50	Webster ATA	5.1.3.1	A
Endurance	Measure the endurance of the aircraft	0-22	0-50	Webster ATA	5.1.3.2	A
Low Battery Autoland	Verify the aircraft automatically lands when the battery is low	0-22	0-50	Webster ATA	5.1.3.2	A
Launch & Recovery Performance / Flight	Confined space evaluation	0-22	0-50	Webster ATA	5.1.3.3	A
Visual Acuity	High Rise Window Peek Evaluation / Image Stability	0-22	0-250	Webster ATA	5.1.3.4	A
Vehicle Performance	Range Evaluation and visual acuity.	0-22	0-500	Webster ATA	5.1.3.5	A
End User Evaluation	Evaluate novice operator's ability to manipulate aircraft.	0-22	0-50	Webster ATA	5.1.3.6	A

4.4 Test Loadings

One loading will be used for this evaluation. This includes the baseline aircraft, battery, and day light camera

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National Law Enforcement and Corrections Technology Center

Issues: The Sky is Falling?

General Concerns:

- Crash into a plane
- Crash into a school
- Crash into a person
- Restrict Airspace
- Clog Airspace
- Hog Air Traffic Control

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Thank You

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