
	WRITTEN DIRECTIVE GRAND PRAIRIE (TEXAS) POLICE DEPARTMENT	Issued By: 
	POLICE INVESTIGATIONS POLICY 6.05  SMALL UNMANNED AIRCRAFT SYSTEM (SUAS)	Daniel Scesney, Chief of Police  Effective: 12-07-2018 Revised: 12-22-2021

TO VERIFY CURRENT POLICIES, REFER TO THE WRITTEN DIRECTIVES MANUAL ON THE "G" NETWORK DRIVE.

**PURPOSE:** The purpose of the Small Unmanned Aircraft System (SUAS) of the Grand Prairie Police Department is to provide an added resource that enhances the safety of the public as well as members of the Department. This technology not only allows for a safer, more effective and thorough search and rescue mechanism, it also provides officers with the ability to analyze potential threats on active scenes and prevents unnecessary injuries and gather evidence from crime scenes.

**POLICY:** To establish guidelines for the use, care, deployment, and maintenance of the Small Unmanned Aircraft System (SUAS) for legitimate law enforcement purposes.

**LIMITATIONS -** The use of this system and the respective air patrols will respect the privacy considerations of citizens, will be very limited in scope and only used as authorized by the Chief of Police. The random use of the system in residential areas, solely for the purpose of gathering evidence related to criminal wrongdoing or for any other unauthorized purpose, is prohibited without a search warrant.

**6.05.00 DEFINITIONS**

**Air Traffic Control (ATC):** The ground-based personnel and equipment concerned with monitoring and controlling air traffic within a particular area.

**Airworthiness:** In accordance with current rules and regulation the airworthiness of the SUAS will be certified by the Chief of Police or an authorized vendor.

**Exigent Circumstance Flights:** SUAS flights that are performed in emergency circumstances where the loss of life and/or property is imminent or has already occurred. The use of the SUAS can be requested by any governmental or statutory agency that is designated to deal with emergencies (Search/Rescue, Tornado, Flooding, Large fires, etc.) Response to such requests will be approved by a sworn supervisor prior to the deployment of the SUAS.

**FAA Licensed UAS pilot:** A sworn member of the Grand Prairie Police Department that has passed a written examination by the FAA causing the issuance of a Part 107 remote pilot airman certificate.

**Markings:** The SUAS shall be marked with the registration number as required by Federal Law and furthermore shall be identified as owned by the Grand Prairie Police Department by prominently displaying "POLICE" in black or blue on the aircraft. Equipment may include the use of red and blue lights to further identify the aircraft as belonging to law enforcement but is not required for operation.

**National Airspace System (NAS):** The air space (from the ground up) in the United States is controlled and regulated by the Federal Government specifically the Federal Aviation Administration (FAA).

**Pilot in Charge (PIC):** The officer having total control and authority over the flight operations of the SUAS and who is tasked with safe and legal operation of a SUAS in the NAS. The PIC must continuously scan the NAS for possible Aircraft incursions or other dangers that require immediate action. Those not certified as an SUAS operator may only operate the SUAS under the direct supervision of a certified operator.

**Registration:** SUAS registration marking with an FAA registration number in accordance with 14 CFR Part 45. AC Form 8050-1 and evidence of ownership to Aircraft Registration Branch AFS-750.

**Search Warrant Required Flights:** Any flight not designated a training flight, exigent circumstance flight, or a plain view surveillance activity shall require issuance of a search warrant prior to any aircraft activities.

**SUAS:** A SUAS is a Small Unmanned Aircraft System, commonly referred to as a “drone”.

**Surveillance Activities:** Any intentional surveillance flight that falls outside of the search warrant requirement such as “plain view” (or observation from a location where suspected activity can be legally viewed).

**Visual Observer (VO):** Is responsible to assist in monitoring the NAS prior to and during Flight Operations. The VO will, prior to flight operations, survey the area of operations for any hazards to flight operations (power lines, power poles, towers, radar dome reflectors, buildings, etc.). During flight operations the VO can be responsible for operation of the camera system affixed to the SUAS but must also continuously scan the NAS for possible Aircraft incursions and alert the PIC to any situations that require immediate action.

**6.05.01 GENERAL**

I. Operation

A. Pre-flight / Post-flight Checklist

1. Each time the SUAS is flown, a pre-flight and post-flight checklist will be completed. (See Attached Exhibit A – Flight Information Log). These checklists will be maintained by the PIC for reference purposes. A copy will also be maintained by the Criminal Intelligence Unit Supervisor.
2. SUAS Flight profile and information shall be recorded on the Flight Information Log, or a department purchased and approved flight data collection software and/or hardware system.

B. Maximum Flight Level

1. The maximum altitude for flight of the SUAS is 400 feet Above Ground Level (AGL) unless flying over a taller building or structure in which case not greater than 400 feet above that structure.
2. Flight may only exceed this altitude with higher clearance from the appropriate ATC.

C. Launch / Recovery

1. SUAS designs typically allow for Vertical Takeoff and Landing (VTOL). Launch and recovery is performed similar to traditional helicopter/VTOL operations. The SUAS

requires a relatively flat surface free of larger obstructions to be used as its launch/recovery location. There is no required launch/recovery support equipment.

2. The SUAS provides a gimbaled camera that is positioned underneath the airframe and allows it to look straight down below the aircraft during launch and recovery allowing the Visual Operator to view the launch and recovery locations.
  3. The system implements a number of safety features for launch and recovery. The SUAS has a built in “auto launch” and “RTH” return to home. Both functions can be initiated by either the PIC or the Visual Observer. Pre-flight and post-flight checklists enable to PIC/Visual Operator to identify any issues prior to flight.
- D. Transportation and Storage - The SUAS will not be transported assembled and flight-ready unless secured in a manner that prevents tampering or unauthorized flight.

II. Emergency Operations

A. Emergency Considerations - Normal mission planning procedures include consideration of emergencies for each phase of the flight. The system provides continuous air vehicle status and presents warnings and indications of various emergency conditions. During flight, PICs shall maintain situational awareness and monitor data to notice anomalies as soon as they develop. Emergency procedures include information to handle each of the following:

1. Loss of Link
2. GPS Failure
3. Structural Flight Control Failure
4. Extreme Low Air Vehicle Battery
5. Propulsion Failure
6. Tablet Controller Failure
7. Altitude Hold Failure
8. Avoiding Collision with Other Approaching Aircraft.

B. Emergency Procedures

1. Loss of Link / GPS Failure / Low Battery / Altitude Hold Failure - Upon loss of the link the aircraft will begin a predetermined Loss of Link (LOL) action. The LOL landing location is always the same as the launch (RTH) location of aircraft. The only modification that can be made to this flight path is vertical movement by the PIC utilizing the controller to control height of aircraft. The second option is to override the RTH upon regaining signal and land the aircraft immediately.
  - a. Upon entering “Loss of Link” the aircraft will immediately climb to the “Safe” altitude pre-programed. And will proceed directly to the Launch (RTH) location. Upon reaching the location the aircraft will automatically land unless the PIC overrides the command to gain manual flight control.
  - b. Structural Flight Control Failure / Propulsion Failure – In the event of these failures, the aircraft will immediately terminate flight operations and safely land as quickly as possible.

C. Critical Incident Chain of Command/UAS Incident Chain of Command

1. The normal Chain of Command will be followed at all times during the operation of the SUAS by Grand Prairie Police Department’s certified PICs. Sworn supervisors will become familiar with the operational limitations of SUAS devices to ensure that they are not requested for deployment in prohibited situations.
2. PIC/VO – Flight Operations Team may start/suspend/terminate Flight Operations at any time based upon current FAA rules and regulations, safety of personnel and operations area civilian overflight. NOTAMS (Notice to Airman), SIGMETS (Significant Meteorological Information), AIRMETS (Airman’s Meteorological Information) and TFR (Temporary Flight Restrictions) may all be factors in determining flight decisions.
3. Callout of SUAS pilots will be routed through supervisors assigned to the SUAS program.

D. Aircraft Avoidance - It is the responsibility of the PIC at all times to be aware of the National Air Space (NAS) and the possibility of the intrusion of the SUAS in the Flight Path or Operational Area of any Aircraft.

E. Medical Emergencies - In the event of a medical emergency with any personnel involved, flight operations will cease, and emergency responders will be contacted.

F. Use of Force by a Drone

1. The use of force by a drone is justified if it meets any of the justification provisions found in Chapter 9, Subchapter E, Texas Penal Code.
2. The use of deadly force by means of an autonomous drone functioning through computer software or other programming, without a human operator, is prohibited.

III. Reporting

A. Incident Reports - Incident reports will be logged, and applicable authorities notified. Any incidents pertaining to the performance of the aircraft or other parts of the system will be reported to the manufacturer by the CIU supervisor or designee.

B. ATC Notification

1. In an emergent situation, should it become necessary to contact one or more of the ATC facilities, landline or cell phone contact will be the preferred method.
2. Local ATC facilities possibly affected: Grand Prairie Municipal Airport (KGPM), Arlington Municipal Airport (KGKY), Dallas Executive Airport (KRBD), DFW International Airport (KDFW – Class B Airspace).

**EXHIBIT A**

**FLIGHT INFORMATION LOG  
SR# / FAA REGISTRATION N-#**

Date of Flight: \_\_\_\_\_

Pilot in Charge: \_\_\_\_\_

Observer: \_\_\_\_\_

Time of flight: \_\_\_\_\_

Reason for flight: \_\_\_\_\_

Location of flight: \_\_\_\_\_

GPS Coordinates: \_\_\_\_\_

Weather Conditions:  
\_\_\_\_\_  
\_\_\_\_\_

**Pre-flight checklist / Performed by:** \_\_\_\_\_

Notify ATC if applicable:  
\_\_\_\_\_  
\_\_\_\_\_

Inspect Aircraft:      Body \_\_\_\_\_ Props \_\_\_\_\_ Wiring/ Connections \_\_\_\_\_  
                                 Landing equipment: \_\_\_\_\_ Lights: \_\_\_\_\_ GPS: \_\_\_\_\_  
                                 Battery Condition: \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_

**Post-flight checklist / Performed by:** \_\_\_\_\_

Notify ATC if applicable: \_\_\_\_\_

Inspect Aircraft:      Body \_\_\_\_\_ Props \_\_\_\_\_ Wiring/ Connections \_\_\_\_\_  
                                 Landing equipment: \_\_\_\_\_ Lights: \_\_\_\_\_ GPS: \_\_\_\_\_  
                                 Battery Condition: \_\_\_\_\_

Comments: \_\_\_\_\_

Accidents / Incidents / if so explain: \_\_\_\_\_  
Reported to the FAA as Required: \_\_\_\_\_ By Who: \_\_\_\_\_

Description of incident to FAA: (See Attached)

Agencies assisting or represented at incident: \_\_\_\_\_

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