NEW MEXICO
DEPARTMENT OF PUBLIC SAFETY
DJI Phantom 3 Pro
Unmanned Aircraft System
General Operating Procedures

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Section 1: Introduction

All personnel performing Unmanned Aircraft Systems (UAS) operations in the New Mexico State Police UAS program will adhere to this General Operating Procedure (GOP). Prior to participating in UAS operations, all personnel will read and understand the contents of all directives cited.

The overall responsibility and authority for this GOP is the New Mexico State Police Special Operations Commander in charge of the UAS program.

Section 2 Duty Positions and Responsibilities

2-1 UAS Team Commander

1. The Team Commander has the primary role of establishing and maintaining the UAS Team. To do this, the individual should:

   a. Be selected by the Special Operations Bureau Commander.

   b. Be responsible for all flight requirements, which include pilot training records and flight proficiency.

   c. Brief the Special Operations Bureau Commander on the UAS Team's readiness status and provide guidance on how to correct shortfalls.

   d. Establish and maintain all records pertaining to the UAS Team.

2-2 Assignment Briefing

1. UAS Team Commander will brief key mission elements to the Pilot in Command (PIC). At a minimum, the team commander will evaluate the following key areas in the mission planning sequence:

   a. The flight is in support of an operational mission and authorized by the commander.

   b. PIC received a brief from the UAS Commander.

   c. PIC is qualified and current for the mission.

2-3 Pilot in Command (PIC)

1. The PIC is responsible for the planning, execution, and safe operation of UAS.
2. The PIC is empowered by the commander to make decisions and take immediate corrective actions necessary to prevent injury, accident, or damage to equipment or individuals.
3. The PIC is responsible for the safe conduct of all UAS flight and ground operations.

4. The PIC shall ensure all personnel involved in support of the operation thoroughly understand their roles in the mission.
5. The PIC shall complete a brief prior to conducting any flight.
6. The PIC shall oversee the execution of the entire mission unless properly relieved by another PIC.

2-4 Mission Log

The mission log will be filled out by the PIC for all missions to include training, maintenance, and missions.

All maintenance, weather, airspace issues, and anything that effects the mission will be included.

Section 3: General Operations

3-1 Types of Missions Allowed

1. The UAS shall be deployed and used only to support official law enforcement and public safety missions or for department approved UAS training.
2. In general, the UAS is used primarily to document crash and crime scenes and as an emergency response asset where public safety is involved. Typical missions include, but are not limited to:
    a. Search and Rescue.
    b. Hazardous Material spills (initial response/investigation).
    c. Larger scale traffic crashes and crime scenes (initial response/investigation).
    d. Catastrophic environmental events/natural disasters (earthquakes, weather, floods).
    e. Emergency response situations.
3. UAS use Restrictions:
    a. The UAS shall not be operated in an unsafe manner or in violation of FAA rules.
    b. The UAS shall not be equipped with weapons of any kind.
    c. The UAS Commander and the Special Operations Bureau Commander shall approve any payload used on a UAS.
    d. The UAS shall not be used for routine observation of the public at large.

e. The UAS shall not be used for surveillance or spying on the public, (without a warrant).

f. The UAS shall not be flown over populated areas, except in support of official law enforcement and public safety missions.

3-2 Pilot In Command Brief:

1. The PIC performs a mission brief and a mission debrief. The PIC prepares a brief to disseminate necessary data for the mission.

2. The PIC is responsible for obtaining the weather brief before the flight.

3-3 Communications

1. If operating in controlled air space, the PIC will have, at a minimum, communication with Air Traffic Control (ATC) prior to any flight operations.

2. If communication with ATC fails, flight in controlled airspace is not permitted.

3-4 Weather Requirements:

1. UAS flights require Visual Meteorological Conditions (VMC). See table 5-1 for FAA weather minimums. The aircraft must remain clear of clouds and visible moisture.

VISUAL FLIGHT RULES (VFR)

Altitude Class C, D And surface E	Visibility 3 sm (4800 m) 1,000’ ceiling	Cloud Clearance 500’ below 1,000’ above 2,000’ horizontal
Altitude Class E & G ≤ 10,000’ MSL	Visibility 3 sm (4800 m)	Cloud Clearance 500’ below 1,000’ above 2,000’ horizontal

Table 5-1

2. A weather briefing is the responsibility of the PIC and can be obtained via local FAA facilities or the internet. The weather brief includes, but is not limited to:

   a. Takeoff - current and forecasted ceiling, visibility, surface wind direction and speed, and any significant weather systems in the mission area.

3. Whenever possible, the PIC will update weather within thirty (30) minutes of takeoff and throughout the mission, depending on the weather patterns and probability that the weather will change. The PIC makes final weather decisions for mission operations.

3-5 Preflight

1. The PIC will complete an aircraft preflight before each mission. The preflight checklist will be followed.

3-6 Mission Operations

1. During mission operations, the PIC will exercise extreme vigilance to ensure safe flight operations. Safety takes priority over mission at all times. If in doubt, land the aircraft.
2. Emergency mission data, lost link clearance altitude, will always be loaded and updated as needed for mission operations.
3. Normal operating altitude ranges are zero to four hundred (0-400') feet AGL. Pay particular attention to obstacle clearance, particularly in reference to base terrain altitude.

3-7 Post Flight Debrief

At the completion of a flight, the PIC will conduct a debrief and record total flight time and launch/land time of the UAS on the approved forms. The PIC will also note any deficiencies with the UAS or equipment used.

3-8 Multiple UAS Operations: Not Authorized

Section 4 Airspace

4-1 Airspace

1. Flights in controlled airspace are coordinated through the local FAA facility. Be aware of all restrictions listed in the NOTAM'S.
2. All flights will be conducted between zero to four hundred (0-400') feet AGL and within visual range (VLOS) of the PIC.
3. No aircraft will be flown within five hundred (500') feet of the taxiway during manned aircraft operations

4-2 Manned Aircraft

1. If manned aircraft enter the flight path or operating area of the UAS, the UAS will take immediate action to avoid traffic, and if able, land prior to the manned aircraft entering the UAS flight area.

Section 5 UAS Pilot Training

5-1 UAS Pilot Training Program:

1. Purpose: To provide specific guidance to ensure the highest standards of flight proficiency and operational readiness among UAS Pilots.
2. Responsibilities:

   a. UAS Team Commander: Responsible for ensuring all UAS Pilots are

properly trained.

b. UAS Team Commander: The Special Operations Commander's direct technical advisor. Helps the commander develop, implement, and manage pilot requirements.

4. The UAS Pilot Training Program: Administer, document, and execute the above stated references. All UAS Pilots will comply with this Training Program.

   a. Initial DJI Phantom 3 Training:

      1. Undergo a course of instruction on FAA rules and regulation and pass FAA Part 107 prior to flight training.

      2. Flight training is administered by the UAS Team Commander over a five (5) day course of instruction. Complete review and familiarity of the DJI Phantom 3 Operation and maintenance manuals, followed by flight operations and maintenance demonstrations, to include one hundred (100) flights and twenty (20) flight hours.

      3. After completion of the above, the UAS Pilot will be assigned/designated operational. UAS Pilots must maintain one (1) DJI Phantom 3 flight a month to remain in an operational status. A UAS Team pilot's first mission flight must be under the direct supervision of the UAS Team Commander.

   b. Qualification/Refresher Training (RL2):

      1. Individuals not meeting the training requirements members who do not have documented training or flight time for the preceding sixty (60) days shall demonstrate proficiency before performing pilot duties during a mission. This training shall include a minimum of one (1) hour of ground instruction and flight time, including making three (3) ten (10) minute flights to demonstrate proficiency.

   c. UAS Pilot Annual Training:

      a. UAS Pilot:

         1. Each pilot must attend in-service training once a year to include updated industry standards and field exercises.

         2. Review of current case law governing the use of UAS, and FAA regulations pertaining to the operation of UAS as designated by the Special Operations Bureau Commander

5-2 UAS Flight Training Area

The New Mexico State Police will conduct flight training in a remote site, away from roads and housing projects. All flights will be conducted from the surface to four hundred feet (400') AGL and within visual range of the PIC. The daily flying site will be determined based on local activities, weather, and avoidance of persons

gathered at or around a possible flying site. No flights will be conducted that will place the UAS closer than five hundred feet (500') of manned operations.

Section 6 Emergency Procedures

6-1 Emergency Procedures

Emergency procedures response to events dealing with emergency of the aircraft and personnel on the ground.

Personnel flying the DJI Phantom 3 will first and foremost be trained that in any emergency situation, the safety of persons on the ground and in the air is number one. The following are emergency procedures:

1. Fire: UAS will be flown away from people and property until a safe landing location can be found. A fire extinguisher and first aid kit will be located at the mission site.

2. Loss of Link: Onboard system will land aircraft automatically.

3. Line of site lost: Emergency landing will be executed by manually activating return home mode via client control software.

4. Loss of engine: Emergency landing will be executed by manually activating emergency mode via client control software.

5. Unusual Attitude: Onboard stabilization gyros will be allowed to level aircraft before control is resumed by ground control.

Section 7: UAS Safety

7-1 Introduction

1. Purpose:

   To establish policy, assign responsibility, and prescribe administrative procedure for accident prevention in mission area. This GOP provides guidance for organizing, coordinating and controlling the implementation of the NMSP Safety Program.

2. Scope:

   All operations will be conducted to minimize the accidental loss of life, injury, man hours, equipment, and money. An aggressive accident prevention effort compatible with the mission must be maintained throughout all operations and activities.

3. Objectives:

   All personnel will ensure implementation of the GOP in all section. Communication and effort will be directed toward the prevention of UAS accidents and other accidents resulting from equipment failure or human error.

7-2 UAS Safety

1. Danger Zones: ten to one hundred (10'-100') feet radius from the launch point depending on wind condition and operator experience.
2. All personnel must familiarize themselves with the hazards associated with batteries and battery charging.

Section 8 Crash Reporting

8-1 Crash Reporting

1. If a crash occurs that meets the following criteria the FAA must be notified within ten (10) days via hard copy to the FAA Flight Safety District Office (FSDO) or Internet.

a. Serious Injury: Loss of consciousness, broken bones, sutures, or overnight hospital stay.

b. Property Damage: Greater than five hundred (500) dollars not including the UAS.

2. NTSB must be notified immediately at 844-373-9922

Section 9 Media

9-1 Media Storage

1. DPS Policy OPR: 17 Evidence/Property Handling - All original digitally recorded data and media of a flight will be handled and stored in accordance with DPS policy OPR: 17 Evidence/Property Handling.