

# **Salinas Police Aerial Support Unit New Pilot In-House Training**

## **1. Salinas PD Policy**

- a) Public Expectation of Privacy
- b) Chain of Command
- c) Use of UAS
- d) Evidence/Video Disposition
- e) Roles and Responsibilities

## **2. S.P.A.S. Operations Manual**

- a) Safety Management System (SMS)
- b) Ground Operations
- c) Flight Planning
- d) Maintenance
- e) Flight Crew
- f) Flight Procedures
- g) Privacy Issues
- h) Ground Level and Indoor Deployment
- i) Emergency Landing Procedures

### **3. C.O.A. Waivers and Regulations & Requirements**

- a) N.O.T.A.M. Requirements
- b) S.O.S.C. Notification
- c) Flight Reporting Requirements
- d) Night Operation Requirements & Testing
- e) Visual Observer Requirements
- f) Altitude Requirements
- g) Air Traffic Control & UASFM Requirements
- h) Lost Link
- i) Procedures

### **4. Required Phone Applications & Web Downloads**

- a) Air Map (Dart Video)
- b) Kitty Hawk
- c) DJI Fly
- d) Skydio
- e) U.A.S. Facility Map (UASFM)
- f) UAV Forecast
- g) B4UFLY
- h) S.P.A.S. Logbook

### **5. Evidence/Video Download**

- a) S.P.A.S. Laptop
- b) Evidence.com & Evidence Upload XT Procedures

### **6. SPD UAV's , Functions & Settings**

- a) Skydio 2
- b) Mavic Mini
- c) Mavic Air2
- d) Mavic 2 Dual Enterprise
- e) Matrice 300 RTK
- f) Manufacturer Operation Manuals

## **7. Pre-Flight Inspection, Maintenance & Repairs**

- a) Visual Inspection of Cameras, Sensors & Propellers
- b) GPS Signal
- c) Firmware Updates
- d) Battery Condition & Level (UAV & Transmitter)
- e) Propeller Replacement

## **8. Practical Flight Training (Training UAV's)**

- a) Practice Flights and Maneuvers
  - 1) Hovering in place
  - 2) Orientation training (Indoors and Outdoors)
  - 3) Re-establishing Orientation w/o FPV or Return to Home (RTH)

## **9. Practical Flight Training (Department UAV's)**

- a) Mission needs and goals
- b) Positioning
- c) Indoor and outdoor Searching
- d) Vehicle Clearing
- e) Grid Searches

**At the completion of the course pilots are expected to be proficient in the following areas**

### **Maneuvering:**

- **Orbit a Point:** Training and test methods will evaluate pilot capability to move and rotate around a point, consisting of basic maneuvers using FPV to locate and align on targets from a defined radius and altitude.
- **Avoid Obstacles:** Training and testing will evaluate pilot capability to maneuver around vertical obstacles and horizontal obstacles.

- **Fly Straight and Level:** Training and testing will evaluate pilot capability to fly straight and level using a visual target as a guide.
- **Land Accurately:** Training and testing will evaluate pilot capability to land accurately from vertical and downward 45 degree descending approaches. Landings will be performed on platforms from a defined range, altitude and from four different approach directions.

#### **Camera Operations:**

- **Point and Zoom Cameras:** Training and testing will evaluate the pilot capability to point and zoom cameras at near-field and far-field visual acuity targets from a specified hover position.
- **Inspect Objects:** Training and testing will evaluate the pilot capability to move and rotate around an object of interest to identify key details
- **Sensing Features:** Training and testing will evaluate the pilot capability related to:
  - Visual Image Acuity
  - Visual Dynamic Range
  - Visual Color Acuity
  - Audio Speech Acuity
  - Thermal Image Acuity
  - Thermal Dynamic Range
  - Latency of Video, Audio, Control

#### **Energy/Power:**

- Training and testing will evaluate the pilot capability related to evaluate UAS flight endurance range and duration, and dwell time
- Training and testing will evaluate the pilot capability related to evaluate battery health prior to and during flight operations

#### **Radio Communications:**

- Training and testing will evaluate the pilot capability related to radio communications during VLOS flight operations as well as emergency landing operations

#### **Safety and Emergency Operations:**

- Training and testing will evaluate the pilot capability related emergencies such as:
  - Airspace incursion
  - Loss of power (or imminent loss)
  - Loss of VLOS
  - Loss of Radio Comms
  - Loss of RC Comms
  - Ability to fly in ATTI Mode
  - Loss of GPS