

Salinas Aerial Support Unit

March 7th, 2023 Training Lesson Plan

C. Mitchell



Location: Blacksite (Sheriff Office's Training Site) East Garrison Marina, CA

Description: On a March 7th 2023, officers assigned to the Salinas Police Aerial Support Unit will meet at the Salinas Police Department. The training will consist of group discussion regarding what has been successful and what has been challenging for the newly formed unit and its officers. The purpose of this training will be familiarization with the newly acquired DJI drones, retraining on Matrice UAV and hands on training with their assigned UAV's. Training will emphasize line of sight orientation, FPV orientation during both indoor and outdoor missions and maintaining UAV control while being able to photograph or video record accurately. We will also be incorporating scenarios that are frequently requested from patrol, VSTF and SWAT. Some of these scenarios consist of both barricaded subjects, SWAT interior clearing, tandem drone flying services and etc.

Materials

Needed: *Student*

Student:

- Officers Assigned Department UAV's
- Hand Pack Radio

Instructor:

- N. I. S. T. Recommended training aids
- All Necessary drones for training (Matrice, M30T, Mavic, Mini)

Materials

Needed: *Instructor*

N.I.S.T. recommended training aids.
SPD UAV'S

Course Description and Objectives

The goal of this course is to familiarize SPAS pilots with the newly acquired DJI Matrice and its accessories/payloads (cameras and spotlight). Copies of ALL manuals provided by DJI will be given to pilots to include in their issued binders. Pilots will be shown how to inspect, assemble and fly the Matrice.

Pilots will perform a series of maneuvers utilizing N.I.S.T. recommended training aids. This exercise is meant to improve UAV maneuvers through FPV flight as well as developing FPV video/photography skills.

Pilots will be introduced to indoor searching via FPV. Once the pilot is comfortable with FPV flying while indoors, they will be given a series of five targets to locate while being timed.

Safety Plan: All pilots onsite are responsible for safety. If anyone feels there may be a potential safety hazard during a training exercise, that person is to stop the exercise by yelling "Stop mission flight" and point out the safety problem.

Matrice Operations:

Pilots will be provided all manuals for the DJI Matrice 300 RTK to include,
Basic manual
Maintenance manual
Battery charger operation manual

Matrice Assembly and disassembly

Pilots will be given a demonstration of procedures to assemble the Matrice out of the storage box to include,

Landing gear assembly attachment prior to UAV removal

UAV removal from the storage case and placement on work platform

Arm assembly sequence

Payload attachment

Required inspections

Battery pairings

Controller and UAV activation

Familiarization takeoff, flight and landing procedures

UAV breakdown and storage

Exercise 1:

Tandem Drone Flying, simulating a search warrant service where one drone remains static (higher altitude) and the other is maintaining a roaming or orbit pattern

-Incorporate possible runners, from residence, having to put out pertinent traffic to the units on the ground (direction, clothing description, location)

-Operators will have to use a radio to show multitasking and proficiency to update pertinent traffic.

Indoor flight and searching:

Exercise 2:

-Utilizing DJI Mini's and DJI Mavic Air 2 pilots will fly practice familiarization missions at the indoor training site (Blacksite).

-Scenarios related to Search Warrant Services such as interior searches where SWAT, VSTF or Patrol are looking for body or barricaded subject (residence and apartment style layouts)

-Operators will show a proficiency in landing indoors, and using the microphone to communicate with possible persons inside the rooms