## SECTION 1: CURRENT INVENTORY POLICY ORDINANCE REQUIREMENTS:

Unassisted, remotely piloted, powered, unassisted aircraft system (sUAS)

# Description

**DJI Mavic Enterprise (M3E) Series** - This is an outdoor sUAS that includes the aircraft and flight controller uses a 48MP camera, up to 4K/60fps videos and 4K/30fps HDR videos. It has a flight time of 45 minutes with an internally closed battery and obstacle sensing system. The Mavic 3 Enterprise has a 56x hybrid zoom, a 28x digital thermal zoom and a 4/3 CMOS sensor on the mapping version for high resolution photo mapping. The Advanced Pilot Assistance Systems detects objects in the aircraft's flight path in real-time.

**DJI Mavic Thermal (M3T) Series -** This is an outdoor sUAS that includes the aircraft and flight controller uses a 48MP camera, up to 4K/60fps videos and 4K/30fps HDR videos. It has a flight time of 45 minutes with an internally closed battery and obstacle sensing system. Mavic 3T's thermal camera has 640 × 512 resolution and supports point and area temperature measurement, high temperature alerts, color palettes, and isotherms to help you find lost or missing people.

**DJI Avata Series** – This is a smaller sUAS that includes the aircraft and flight controller and first-person view (FPV) goggles. This sUAS uses a 4K camera, up to 4K/60fps videos and 4K/30fps HDR videos. It has a flight time of 34 minutes (47 minutes with the Intelligent Flight Battery Plus) and an obstacle-sensing system. Intended for indoor use.

**Brinc Lemur 2** – This is primarily an indoor sUAS that includes floor plan mapping, two-way communications, glass breaker attachment, 4K daytime, night vision, and thermal sensors, 360-degree position hold, live stream off-site.

**Autel Evo Max 4N** – This is an outdoor sUAS that includes global path planning, 3D scene reconstruction, autonomous obstacle avoidance, 160 X Zoom camera, and laser range finder wide-angle camera, thermal imaging camera, and laser range finder.

**DJI Matrice 30T** – This is an outdoor sUAS that includes wide-angle zoom, thermal camera with 4K30 resolution, and 41-minute flight time. This sUAS easily handles adverse weather. Thermal cameras can be essential in finding individuals during search and rescue missions.

# Quantity

## Phase I

- 2- DJI Mavic Enterprise
- 2- DJI Mavic Thermal
- 2- DJI Avata

#### 6 Total sUAS

- 4 TAC for indoor (2 DJI Avata /outdoor ops (2 DJI Mavic)
- 2 TSU for outdoor ops (2 DJI Mavic)

	The above quantity relates to "Phase One" otherwise known as the sUAS Pilot Program.
	Phase II
	8 – DJI Avata 2 8- DJI Mavic 3T Fly More Combo 2- Brinc Lemur 2 2 – Autel Evo Max 4N
	2 – DJI Matrice 30T Plus Combo
	22 Total sUAS
Expected Lifespan	Phase Two may be initiated during the 2024 calendar year.  3-5 years for all sUAS
Purpose	A remotely controlled unassisted aerial vehicle that operates in the air, which is utilized to enhance the safety of the community and officers by providing air support and situational awareness for law enforcement operations. Only assigned operators who have completed the required training shall be permitted to operate the sUAS. Technical Services
	Unit will manage the UAS program.
Authorized Use	Under Prop E (SF Admin Code 96I.2(e)(2)) the Department is authorized to use sUAS along with or in lieu of vehicle pursuits and to assist with active criminal investigations.
	The sUAS will be used for: training and simulations, critical incidents, exigent circumstances, search & rescue, missing persons, Crime Scene Investigation (CSI/TCIU), during suspicious device
	assessments, planned operations, disaster response and community outreach related to vehicle pursuits and active criminal investigations.
	Only assigned operators who have completed the required training shall be authorized to operate the sUAS.
Fiscal Impact	Phase One Initial Cost (current equipment):
	DJI Mavic Enterprise: \$8670.45
	DJI Mavic Thermal: \$13139.28 DJI Avata: \$2638.00
	Total with accessories: \$35,053.91
	Annual maintenance and battery replacement cost is approximately
	\$400 per in-service sUAS (\$2,400.00).
	Estimated annual cost for streaming, logs & fleet management SAAS is approximately \$40,000/year (Axon Air, 4K/10 pilots).
	Phase Two (additional 22 drones, peripheral equipment, and software) Initial Cost: \$324,248
	Expected Reoccurring Cost: \$148,307
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Legal and Procedural	DGO 5.01 Use of Force
Rules	DGO 8.01 Critical Incident Evaluation and Notification
	Technical Services Unit (TSU) Unit Order – 24-01
	Tactical Company (TAC) Unit Orders – 24-02
	Prop E (SF Admin Code 96I.2(d), 96I.2(e))
Training	Required: UAS operators must obtain FAA Part 107 Remote Pilot & Dept. Training.
	Optional: California Peace Officer Certification Reporting (POST) Basic UAS Operator Training