

# Policy 707

## 707.1 PURPOSE AND SCOPE

The purpose of this policy is to provide guidelines for the approval, acquisition, and reporting requirements of military equipment (Government Code § 7070; Government Code § 7071; Government Code § 7072).

### 707.1.1 DEFINITIONS

Definitions related to this policy include (Government Code § 7070):

**Military equipment** – Includes but is not limited to the following:

- Unmanned, remotely piloted, powered aerial or ground vehicles.
- Mine-resistant ambush-protected (MRAP) vehicles or armored personnel carriers.
- High mobility multipurpose wheeled vehicles (HMMWV), two-and-one-half-ton trucks, five-ton trucks, or wheeled vehicles that have a breaching or entry apparatus attached.
- Tracked armored vehicles that provide ballistic protection to their occupants.
- Command and control vehicles that are either built or modified to facilitate the operational control and direction of public safety units.
- Weaponized aircraft, vessels, or vehicles of any kind.
- Battering rams, slugs, and breaching apparatuses that are explosive in nature. This does not include a handheld, one-person ram.
- Firearms and ammunition of .50 caliber or greater, excluding standard-issue shotguns and standard-issue shotgun ammunition.
- Specialized firearms and ammunition of less than .50 caliber, including firearms and accessories identified as assault weapons in Penal Code § 30510 and Penal Code § 30515, with the exception of standard-issue service weapons.
- Any firearm or firearm accessory that is designed to launch explosive projectiles.

### *Military Equipment*

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- Noise-flash diversionary devices and explosive breaching tools.
- Munitions containing tear gas or OC, excluding standard, service-issued handheld pepper spray.
- TASER® Shockwave, microwave weapons, water cannons, and long-range acoustic devices (LRADs).
- Kinetic energy weapons and munitions.
- Any other equipment as determined by a governing body or a state agency to require additional oversight.

### **707.2 POLICY**

It is the policy of the California Department of Fish and Wildlife Law Enforcement Division that members of this department comply with the provisions of Government Code § 7073 with respect to military equipment.

### **707.3 MILITARY EQUIPMENT COORDINATOR**

The Chief of Law Enforcement should designate a member of this department to act as the military equipment coordinator. The responsibilities of the military equipment coordinator include but are not limited to:

- a) Identifying department equipment that qualifies as military equipment in the current possession of the Department, or the equipment the Department intends to acquire.
- b) Conducting an inventory of all military equipment at least annually.
- c) Collaborating with any allied agency that may use military equipment within the jurisdiction of California Department of Fish and Wildlife Law Enforcement Division (Government Code § 7073(a)(4)).
- d) Publish the military equipment use policy on the department website (Government Code § 7073(c)(1)).
- e) Provide a copy of the military equipment use policy to the Governor or the Governor's designee (Government Code § 7073(c)(2)).
- f) Establishing the procedure for a person to register a complaint or concern, or how that person may submit a question about the use of a type of military equipment, and how the Department will respond in a timely manner.

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**707.4 MILITARY EQUIPMENT INVENTORY**

The following constitutes a list of qualifying equipment for the Department.

**[Skydio 2+™ and X2™ – Skydio Inc. | Skydio](#)**

- (6) Skydio X2E Thermal/Color Cameras
- (14) Skydio X2E Color Camera
- (10) Skydio S2+

Three-year life expectancy

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**Skydio X2E Thermal/Color Cameras**

[X2E-color\\_thermal-2021-12-15 \(skydio.com\)](https://skydio.com/X2E-color_thermal-2021-12-15)

AIRCRAFT	
DIMENSIONS (UNFOLDED, FLYING)	26.1" X 22.4" X 8.3" (66 x 56 x 20 cm)
DIMENSIONS (FOLDED, NO BATTERY)	11.9" X 5.5" X 3.6" (30 x 15 x 10 cm)
WEIGHT (WITH BATTERY)	1325 g
FLIGHT TIME	Up to 35 minutes
MAX FLIGHT SPEED (SEA LEVEL, NO WIND)	25 mph (40 km/h)
MAX WIND SPEED RESISTANCE	23 mph
MAX SERVICE CEILING (ABOVE SEA LEVEL)	Up to 12,000 ft
OPERATIONAL TEMPERATURE RANGE	-10°C to 43°C

SKYDIO AUTONOMY ENTERPRISE	
MAIN PROCESSOR	NVIDIA Tegra X2 SOC
CAMERA CONFIGURATION	6x cameras in trinocular configuration top and bottom
ENVIRONMENT COVERAGE	True 360°
OBSTACLE AVOIDANCE COVERAGE	Omnidirectional
3D WORLD MODEL UPDATE RATE	> 1 million points per second
WORLD MODEL-TO-ACTION UPDATE RATE	500 iterations per second
ONBOARD AI	9 custom deep networks used in flight
USER-SELECTABLE SUBJECTS FOR TRACKING	People and motor vehicles
OBJECT TRACKING AND IDENTIFICATION	Up to 20 simultaneous objects of interest
CALIBRATION	Automated calibration of lens parameters, cameras, wind speed, and air density
ADVANCED AI-PILOT ASSISTANCE	360 Superzoom, Close Proximity, Obstacle Avoidance, Point-of-Interest Orbit, Track-in-Place, Vertical View, Visual Return-to-Home

CONTROLLER	
DIMENSIONS	10.75" x 5.25 x 3.0"
WEIGHT	1130 g
APPLICATIONS	Skydio Enterprise App
WIRED LINKS	USB, (via dongle) HDMI
OPERATING FREQUENCIES	5 GHz
MAX RANGE	Up to 6 km (5 GHz)
VIDEO FEED	720p at 30 fps

PRIMARY CAMERA SYSTEM	
COLOR SENSOR TYPE	Sony IMX577 1/2.3" 12.3MP CMOS
COLOR LENS FOCAL LENGTH	41mm (35mm format equivalent)
COLOR VIDEO RESOLUTION	4K / 60 fps with 16x digital zoom
COLOR VIDEO FORMAT	MPEG-4 (AVC/H.264, HEVC/H.265)
COLOR STILL RESOLUTION	4056x3040 (12 MP)
COLOR DYNAMIC RANGE	13 stops
PITCH CONTROLLABLE RANGE	-110° to +45° (-110° to +90° with AEF)
THERMAL SENSOR TYPE	FLIR Uncooled VOx microbolometer
THERMAL RESOLUTION	320x256
THERMAL LENS FOCAL LENGTH	91mm
THERMAL FRAMERATE	30fps

SYSTEM SECURITY	
WIRELESS ENCRYPTION	AES-128
FIRMWARE	Signed and encrypted
CONTROLS	Ability to provision and deprovision devices
INFRASTRUCTURE	Key provisioning burned-in at time of manufacture

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**Skydio X2E Color Camera**

[X2E-color only-datasheet-2021-12-15 \(skydio.com\)](https://www.skydio.com/X2E-color_only-datasheet-2021-12-15)

AIRCRAFT	
DIMENSIONS (UNFOLDED, FLYING)	26.1" X 22.4" X 8.3" (66 x 56 x 20 cm)
DIMENSIONS (FOLDED, NO BATTERY)	11.9" X 5.5" X 3.6" (30 x 15 x 10 cm)
WEIGHT (WITH BATTERY)	1325 g
FLIGHT TIME	Up to 35 minutes
MAX FLIGHT SPEED (SEA LEVEL, NO WIND)	25 mph (40 km/h)
MAX WIND SPEED RESISTANCE	23 mph
MAX SERVICE CEILING (ABOVE SEA LEVEL)	Up to 12,000 ft
OPERATIONAL TEMPERATURE RANGE	-10°C to 43°C

SKYDIO AUTONOMY ENTERPRISE	
MAIN PROCESSOR	NVIDIA Tegra X2 SOC
CAMERA CONFIGURATION	6x cameras in trinocular configuration top and bottom
ENVIRONMENT COVERAGE	True 360°
OBSTACLE AVOIDANCE COVERAGE	Omnidirectional
3D WORLD MODEL UPDATE RATE	> 1 million points per second
WORLD MODEL-TO-ACTION UPDATE RATE	500 iterations per second
ONBOARD AI	9 custom deep networks used in flight
USER-SELECTABLE SUBJECTS FOR TRACKING	People and motor vehicles
OBJECT TRACKING AND IDENTIFICATION	Up to 20 simultaneous objects of interest
CALIBRATION	Automated calibration of lens parameters, cameras, wind speed, and air density
ADVANCED AI-PILOT ASSISTANCE	360 Superzoom, Close Proximity, Obstacle Avoidance, Point-of-Interest Orbit, Track-in-Place, Vertical View, Visual Return-to-Home

CONTROLLER	
DIMENSIONS	10.75" x 5.25 x 3.0"
WEIGHT	1130 g
APPLICATIONS	Skydio Enterprise App
WIRED LINKS	USB, (via dongle) HDMI
OPERATING FREQUENCIES	5 GHz
MAX RANGE	Up to 6 km (5 GHz)
VIDEO FEED	720p at 30 fps

PRIMARY CAMERA SYSTEM	
COLOR SENSOR TYPE	Sony IMX577 1/2.3" 12.3MP CMOS
COLOR LENS FOCAL LENGTH	20 mm (35 mm format equivalent)
COLOR VIDEO RESOLUTION	4K / 60 fps with 16x digital zoom
COLOR VIDEO FORMAT	MPEG-4 (AVC/H.264, HEVC/H.265)
COLOR STILL RESOLUTION	4056x3040 (12 MP)
COLOR DYNAMIC RANGE	13 stops
PITCH CONTROLLABLE RANGE	-110° to +45° (-110° to +90° with AEF)

SYSTEM SECURITY	
WIRELESS ENCRYPTION	AES-128
FIRMWARE	Signed and encrypted
CONTROLS	Ability to provision and deprovision devices
INFRASTRUCTURE	Key provisioning burned-in at time of manufacture

*Military Equipment*

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**Skydio S2+**

[S2Plus Enterprise-datasheet-2022-04-06 \(skydio.com\)](https://skydio.com/S2Plus_Enterprise-datasheet-2022-04-06)

AIRCRAFT	
DIMENSIONS WITH BATTERY (ANTENNAS UP)	229 x 274 x 126 mm
WEIGHT (WITH BATTERY)	800 g
FLIGHT TIME	Up to 27 minutes
MAX FLIGHT SPEED (SEA LEVEL, NO WIND)	36 mph
MAX WIND SPEED RESISTANCE	25 mph
MAX SERVICE CEILING (ABOVE SEA LEVEL)	Up to 15,000 ft
OPERATIONAL TEMPERATURE RANGE	-5°C to 40°C

SKYDIO AUTONOMY ENTERPRISE	
MAIN PROCESSOR	NVIDIA Tegra X2 SOC
ENVIRONMENT COVERAGE	True 360°
3D WORLD MODEL UPDATE RATE	> 1 million points per second
USER-SELECTABLE SUBJECTS FOR TRACKING	People and motor vehicles
ONBOARD AI	9 deep networks used in flight
ADVANCED AI-PILOT ASSISTANCE	360 Superzoom, Close Proximity, Obstacle Avoidance, Point-of-Interest Orbit, Track-in-Place, Vertical View, Visual Return-to-Home

PRIMARY CAMERA SYSTEM	
COLOR SENSOR TYPE	Sony IMX577 1/2.3" 12.3MP CMOS
COLOR LENS FOCAL LENGTH	20mm (35mm format equivalent)
COLOR VIDEO RESOLUTION	4K / 60 fps with 3x digital zoom
COLOR DYNAMIC RANGE	13 stops
PITCH CONTROLLABLE RANGE	-110° to +90°