ORANGE COUNTY
SHERIFF’S DEPARTMENT

ASSEMBLY BILL 481
ANNUAL REPORT
MARCH 30, 2022
CATEGORY 1 - Unmanned, remotely piloted, powered aerial or ground vehicles

Unmanned Aerial System (UAS): An unmanned aircraft and the associated equipment necessary to control it remotely.

1. Description, capabilities, quantity and cost:
   a. DJI MAVIC 2 PRO - Featuring an iconic Hasselblad L1D-20C camera which boasts a 1-inch CMOS sensor. Key features include its 5 mile range using DJI's new OcuSync 2.0 technology, up to 31 minutes of flight time with its 3850 mAh battery making it the longest flight time for a consumer drone on the market. Cost: $2,300, Quantity: 11
   b. DJI MAVIC 2 ENTERPRISE DUAL - Featuring a fully integrated and stabilized dual sensor with Radiometric FLIR® thermal & visible imagery the Mavic 2 Enterprise Dual is one of the most capable aircrafts for its size and very affordable price point. Add-on modules include the spotlight, speaker and beacon. Cost: $3,000, Quantity: 3
   c. DJI MAVIC 2 ENTERPRISE ADVANCED - The Mavic 2 Enterprise Advanced (M2EA) is a highly versatile yet compact tool and boasts a high-resolution 640x512 thermal camera as well as a 48MP visual camera. Thanks to the new RTK module, centimeter-level positioning can be achieved. Cost: $6,500, Quantity: 1
   d. AEE MACH 4 - The AEE Mach 4 is a ruggedized aircraft with rugged Ground Station Controller created to withstand the rigors of field work whether in wet, dusty, windy, or dirty conditions. It has been field-tested in a variety of applications. Ideal for inspections, overwatch, photography, and general UAV use, the aircraft is designed for flexibility to fit virtually any workflow. Cost: Donated, Quantity: 1
   e. SKYDIO 2 - Powered by the Nvidia Jetson Computer System and features a standard 4K camera that shoots at up to 60 fps. The Skydio 2 uses six cameras, with a total of 48MP of resolution, for obstacle avoidance purposes, making it one of the safest drones around, in terms of avoiding a crash. Cost: Donated, Quantity: 1
   f. PARROT ANAFI THERMAL - Featuring the FLIR® Lepton 3.5 microbolometer (radiometric) thermal imager with a resolution of 160x120. An ultra-compact and portable drone capable of stunning 4K HDR aerial videography, and thermal imaging that can help a variety of professional industries. The dual sensors have been made to work in full synchronization, blending the thermal imaging over the visible footage. Cost: $1,600, Quantity: 8
2. **Purpose:**
   To be deployed when its view would assist officers or incident commanders with the following situations, which include but are not limited to:
   
a. Post-incident crime scene preservation and documentation,
b. Bomb Squad missions,
c. Response to hazardous materials spills,
d. Traffic collision investigations,
e. Search and Rescue (SAR) missions as defined in the Department SAR Operations Manual,
f. Public safety and life preservation missions to include, but not be limited to, barricaded suspects, hostage situations, active shooters, apprehension of armed and dangerous and/or violent suspects, and high-risk search warrants,
g. Disaster response and recovery to include natural or human caused disasters including a full overview of a disaster area for post incident analysis and documentation,
h. Training flights in support of the Department UAV Training Manual,
i. For fire response and prevention,
j. When there is probable cause to believe that (1) the UAV may record images of a place, thing, condition, or event; and (2) that those images would be relevant in proving that a crime had occurred or is occurring, or that a particular person committed or is committing a crime and use of the UAV does not infringe upon the reasonable expectation of privacy,
k. Pursuant to a search warrant,
l. Inspection of Orange County property and facilities, to include OCIAC locations designated under the US Department of Homeland Security's Critical Infrastructure Sectors.
m. Production of video for the Department and other County of Orange agencies/departments for promotional, educational and/or training purposes.

3. **Authorized Use:**
   Only assigned operators who have completed the required training shall be permitted to operate any UAV during approved missions.

4. **Expected Lifespan:**
   All UAV equipment has an estimated lifespan of 3-5 years.

5. **Fiscal Impact:**
   The estimated annual cost of the UAV program maintenance is $9,000.
6. **Training:**
All Department UAV operators will be licensed by the Federal Aviation Administration for UAV operation under 14CFR Part 107. In addition, each operator must attend ongoing currency flights and training.

7. **Legal and Procedural Rules:**
The Department will only deploy the UAV for official law enforcement purposes or approved missions pursuant to applicable Federal & State laws, OCSD UAV Policy 308, and in a manner that respects the privacy of our community.

**Hazardous Duty Unmanned Vehicle, Robot:** A heavy-duty remote controlled, tracked, robotic ground vehicle equipped with cameras, two-way audio communication, articulating arm with gripper, and a variety of remotely actuated tool options.

1. **Description, capabilities, quantity and cost:**
Remotec Andros F6A/B hazardous duty unmanned vehicle- A remotely operated hazardous duty robotic platform providing Certified Public Safety Bomb Technicians with the ability to remotely access, investigate, and render safe suspected hazardous devices and items. The F6A/B is a multi-mission platform which also provides Bomb Technicians with the ability to gain access to and observe the interior/exterior of a structure or location. This capability increases the safety of community members, public safety personnel, and suspects by providing the robot operator with the ability to observe and locate subjects and hazardous items without the risk of a face-to-face confrontation or unnecessary exposure to hazardous devices or materials. Additionally, the remote, two-way, communication capability allows personnel to de-escalate situations by negotiating the surrender of barricaded subjects. Robot may be controlled wirelessly with two-way radio frequency transceivers or spooled fiber optic line. Cost: $250,000, Quantity: 3

2. **Purpose:**
The Remotec Andros is a multi-mission capable platform, which may be utilized for accessing, investigating, and rendering safe hazardous devices, providing tactical support during SWAT deployments, allowing for two-way communication and remote delivery of throw phones during crisis negotiations, and deployment of various detectors for monitoring hazardous materials.

3. **Authorized Use:**
The tactical robot shall only be deployed by Department personnel trained in its use, and with the approval of the SWAT Commander, Watch Commander, or their designee.
4. **Expected Lifespan:**
   The remaining lifespan is approximately 5-10 years.

5. **Fiscal Impact:**
   Annual maintenance costs under contract, not to exceed $10,000.00.

6. **Training:**
   Only Certified Public Safety Bomb Technicians are authorized to deploy the Remotec Andros F6A/B platform operationally. All Bomb Technicians receive robot operations training during the FBI Basic Bomb Technician Certification Course and all robot operators shall receive the initial training before deploying the robot in the field.

7. **Legal and Procedural Rules:**
   The Department shall only utilize the robot for official law enforcement purposes and pursuant to State and Federal Law.

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**Transcend Vantage Tactical Robot (TR0560):** A remotely controlled, tracked, robot equipped with cameras, two-way audio communication, and CS smoke deployment capabilities.

1. **Description, capabilities, quantity and cost:**
   Transcend Vantage Tactical robot- A remotely operated tactical robot providing officers with the ability to observe the interior/exterior of a structure or location. This capability increases the safety of community members, officers, and suspects by providing the operator with the ability to observe and locate subjects without the risk of a face-to-face confrontation. Additionally, the remote, two-way, communication capability allows operators to de-escalate situations by negotiating the surrender of barricaded subjects. It also provides an option of transporting and deploying a CS smoke canister into an area without exposing personnel into a threat area.
   Cost: $10,475, Quantity: 1

2. **Purpose:**
   To be used during tactical incidents to safely search the interior/ exterior of structures and locations without exposing officers and/or community members to the risk of a face-to-face confrontation or hazard areas.

3. **Authorized Use:**
   The tactical robot shall only be deployed by Department personnel trained in its use, and with the approval of the SWAT Commander, Watch Commander, or their designee.
4. **Expected Lifespan:**
The robot's lifespan is approximately 10 years.

5. **Fiscal Impact:**
Annual maintenance cost of approximately $500.

6. **Training:**
All operators shall receive initial training before deploying the robot in the field.

7. **Legal and Procedural Rules:**
The Department shall only utilize the robot for official law enforcement purposes and pursuant to State and Federal Law.

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**CATEGORY 2- Mine-resistant ambush-protected (MRAP) vehicles or armored personnel carriers**

**Armored Rescue Vehicles (ARVs):** Commercially-produced, ballistically protected, wheeled vehicles designed for law enforcement purposes.

1. **Description, capabilities, quantity and cost:**
   a. **Lenco BEAR** - The Lenco BEAR is an armored rescue vehicle that provides its occupants with ballistic protection beyond ballistic shields or personal body armor. It offers greater safety to community members and officers during high-risk incidents. It is capable of seating a driver and 10-12 passengers. Cost: $293,745, Quantity: 1
   b. **Lenco BEARCAT** - The Lenco BEARCAT is an armored rescue vehicle that provides its occupants with ballistic protection beyond ballistic shields or personal body armor, offering greater safety to community members and officers during high-risk incidents. The BEARCAT is smaller than the BEAR, providing greater mobility in tight city streets. The BEARCAT is equipped with a gas injection system as well as a camera pole. It is capable of seating a driver and seven (7) passengers. Cost: $406,470.63, Quantity: 1
   c. **International Armored Group (IAG) Armored Ford F350 Rescue Van** - The IAG Armored Van is an armored rescue vehicle that provides its occupants with ballistic protection beyond ballistic shields or personal body armor. It offers greater safety to community members and officers during high-risk incidents. It is capable of seating a driver and 10-12 passengers. Cost: $146,275, Quantity: 1
   d. **Ford E350 Armored Medical Transport Van (MTV)** - The Ford E350 Armored MTV is an armored rescue vehicle that provides its occupants with ballistic protection beyond ballistic shields or personal body armor, offering greater safety to community members and officers during high-risk incidents. It is capable of seating a driver and seven (7) passengers. Cost: $138,000, Quantity: 1
2. **Purpose:**

   Used in response to critical incidents to enhance officers and community safety, improve scene containment and stabilization, and assist in resolving critical incidents. Additionally, the ARVs may be deployed as displays for community outreach events.

3. **Authorized Use:**

   The ARVs' use shall only be authorized by a Watch Commander or SWAT Commander based on the specific circumstances of a given critical incident. ARVs shall only be used by personnel trained in their deployment and in a manner consistent with Department policies/procedures.

4. **Expected Lifespan:**

   All ARVs have an estimated lifespan of 10-15 years.

5. **Fiscal Impact:**

   a. Lenco BEAR: The Lenco BEAR was purchased in 2005 using UASI grant funding. Annual maintenance cost: $6,600
   b. Lenco BEARCAT: The Lenco BEARCAT was purchased in 2018 using department funding. Annual maintenance cost: $6,000
   c. International Armored Group (IAG), Armored Ford F350 Rescue Van: The IAG Armored Rescue Van was purchased in 2018 using department funding. Annual maintenance cost: $6,000
   d. Ford E350 Armored Medical Transport Van (MTV): The Ford E350 Armored MTV was purchased in 1998 with department funding. Annual maintenance cost: $6,000

6. **Training:**

   All drivers/operators shall attend formalized instruction in vehicle operations, practical driving instruction, and deployment procedures.

7. **Legal and Procedural Rules:**

   Armored personnel carriers will only be operated by department members who have been trained in their operation and according to Department Policy.
1. **Description, capabilities, quantity and cost:**
   a. AM GENERAL/H1- #M1038, Four door, four-wheel drive utility vehicle with light bar, siren, and casualty litter. Assigned to Search and Rescue. Cost: Donated, Quantity: 1
   b. AM GENERAL/H1- Hummer, Four door, four-wheel drive utility vehicle with light bar, siren. Designated for Public Relations events. Cost: Donated, Quantity: 2

2. **Purpose:**
   Allow personnel to gain access to areas that patrol vehicles cannot traverse while conducting search and rescue operations. Vehicles are also used for public relations events.

3. **Authorized Use:**
   Used in search and rescue operations and public relations events.

4. **Expected Lifespan:**
   An AM General H1 Hummer has an estimated lifespan of 10-15 years.

5. **Fiscal Impact:**
   Annual maintenance cost for each AM General Hummer H1 is approximately $6,000.

6. **Training:**
   Drivers/Operators shall receive safe handling and maneuvering training on a closed training course.

7. **Legal and Procedural Rules:**
   High mobility multipurpose wheeled vehicles will only be operated by department members who have been trained in their operation and according to Department Policy.
CATEGORİY 5- Command and control vehicles

SWAT Mobile Command Vehicle (MCV): A vehicle used during critical incidents as a field-based command post, providing Incident Commanders with access to Department computer systems and radio communication center

1. **Description, capabilities, quantity and cost:**
   Chevy C5500 Chassis (North-Star custom built) vehicle- The SWAT MCV is utilized for SWAT/CNT and other critical incidents, significant, preplanned events, searching for missing persons, natural disasters, and community events in which SWAT is involved. Cost: $230,728.29, Quantity: 1

2. **Purpose:**
   Used for critical incidents based on the circumstances of a specific event, large event, or natural disaster to effectively and efficiently serve the community.

3. **Authorized Use:**
   Only personnel trained in the use and deployment of the MCV, shall drive the vehicle under the direction of the Special Enforcement Bureau or their designee. Situations where the MCV may be deployed include but are not limited to critical incidents, natural disasters, and emergencies.

4. **Expected Lifespan:**
   The MCV has an estimated lifespan of 15-years; however, upgrades are required in 5-year intervals to maintain communications and IT systems.

5. **Fiscal Impact:**
   The MCV was purchased in 2007 using UASI grant funding. Annual maintenance cost is $5,500.

6. **Training:**
   Drivers/Operators shall receive safe handling and maneuvering training on a closed training course. Once the operator has shown competence in vehicle handling, the driver/operator will drive the vehicle with an experienced driver throughout the city. Driver/operators shall also undergo commercial vehicle testing and certification from the California Department of Motor Vehicles.

7. **Legal and Procedural Rules:**
   Command and control vehicles will only be operated by department members who have been trained in their operation and according to Department Policy.
CATEGORY 7- Battering rams, slugs and breaching apparatuses that are explosive in nature

Breaching Shotguns and Munitions: Shotguns and specialty munitions utilized to access secured structures.

1. Description, capabilities, quantity and cost:
   a. Breaching Shotgun Modified Remington 870- Remington 870 shotgun modified for breaching- The breaching shotgun is a Remington 870 shotgun that is shortened and modified to improve maneuverability and effectiveness to access structures in a tactical environment. Cost: $1,000, Quantity: 2
   b. Royal Arms Tesar-1 Orange Cap 275 GR. Copper Frangible- The 12-gauge Royal Arms Tesar-1 Breaching Round is a 12-gauge shell loaded with a compressed copper frangible slug. It is a widely used method to breach door locks or hinges for entry during tactical operations. When properly deployed, the Royal Arms Tesar-1 Breaching Round can defeat door lock mechanisms, doorknobs, hinges, deadbolts, safety chains, and padlocks on both solid wood or hollow core doors. Upon impact with the target, the compressed copper slug disintegrates into a fine powder reducing fragmentation. Cost: $5, Quantity: 100
   c. Royal Arms Tesar-2 Black Cap 425 GR. Copper Frangible- The 12-gauge Royal Arms Tesar-2 Breaching Round is a 12-gauge shell loaded with a compressed copper frangible slug. It is a widely used method to breach door locks or hinges for entry during tactical operations. When properly deployed, the Royal Arms, Tesar-2 Breaching Round can defeat door lock mechanism, doorknobs, hinges, deadbolts, safety chains, and padlocks on metal doors, solid wood, or hollow core doors. Upon impact with the target, the compressed copper slug disintegrates into a fine powder reducing fragmentation. Cost $5, Quantity: 100

2. Purpose:
   Used to defeat locking mechanisms on doors or gates to quickly gain access to a structure.

3. Authorized Use:
   Breaching shotguns and munitions shall only be utilized by trained members of the Department’s SWAT Team.

4. Expected Lifespan:
   a. Remington Breaching Shotguns: 10 years.
   b. Royal Arms Breaching Rounds: 5 years.

5. Fiscal Impact:
   Annual maintenance of shotguns is approximately $250.
6. **Training:**
   All SWAT Team members deploying breaching shotguns and munitions shall receive initial training before utilizing them in the field.

7. **Legal and Procedural Rules:**
   The Department will only utilize breaching shotguns and munitions for official law enforcement purposes in accordance with State and Federal law.

**CATEGORY 8- Firearms of .50 caliber or greater**

**Rifles:** Shoulder-fired firearms, with rifling cut into its barrel, intended to cause projectiles to spin, improving accuracy over a long distance.

1. **Description, capabilities, quantity and cost:**
   McMillan TAC-50 - .50 Caliber, The McMillan TAC-50 Tactical Rifle features a 29” match grade fluted barrel, Jewel trigger, long range high powered scope, detachable magazine, and gray finish. The McMillan TAC-50 delivers optimal long range accuracy and reliability. Cost: $12,850, Quantity: 2

2. **Purpose:**
   Used as precision weapons to address threats that exceed the capability of the Department’s standard-issue handgun.

3. **Authorized Use:**
   Only members POST certified in the use of the rifle are authorized to deploy them in the field.

4. **Expected Lifespan:**
   MCMILLAN TAC 50 Rifle: 10 Years

5. **Fiscal Impact:**
   Annual maintenance for each rifle is approximately $100.

6. **Training:**
   Prior to deploying a rifle, members must complete a POST certified course in the operation of the rifle. Additionally, all members that operate any rifle are required to pass a range qualification according to department policy.
7. **Legal and Procedural Rules:**
The Department will only utilize firearms in accordance with State law, Federal law and Department policy.

**CATEGORY 9- Ammunition of .50 caliber or greater**

1. **Description, capabilities, quantity and cost:**
   H&M .50 Caliber 750 Grain Rifle Round- The H&M .50 Caliber rifle ammunition is loaded to stringent specifications to guarantee proper ignition and provide consistent, pinpoint accuracy. Each component was selected to ensure uniformity which when coupled with strict quality control means that each round will be loaded to the proper length, consistent charges, consistent pressure, optimal velocity, and repeatable accuracy. This 50 BMG ammunition performs as well or better than hand loads. This rifle ammunition is loaded with one of the most accurate and consistent match bullets in the world: the 750 grain A-Max Boat Tail. Coupled with precision swagged cores and manufactured to the tightest standards in the industry. Cost: $8 per round, Quantity: 100

2. **Purpose:**
   To be used in Department rifles to address lethal threats to the community and Department personnel with greater accuracy, enhancing community safety.

3. **Authorized Use:**
   Only members who are POST certified in the use of the rifle are authorized to utilize rifle ammunition.

4. **Expected Lifespan:**
   The ammunition listed above does not have an expiration date.

5. **Fiscal Impact:**
   The Department budgets $196,000 annually for all Department firearm ammunition.

6. **Training:**
   Prior to deploying a rifle, members must complete a POST certified course in the operation of the rifle. Additionally, all members that operate any rifle are required to pass a range qualification according to department policy.

7. **Legal and Procedural Rules:**
The Department will only utilize firearms in accordance with State law, Federal law and Department policy.
**Rifles:** Shoulder-fired firearms, with rifling cut into its barrel, intended to cause projectiles to spin, improving accuracy over a long distance.

1. **Description, capabilities, quantity and cost:**
   a. AR-15 Style .223/5.56 Rifle- A lightweight, shoulder-fired, magazine-fed, gas-operated, rifle with a long spirally grooved barrel intended to make a bullet spin and thereby have greater accuracy over a long distance with greater ballistic capabilities than a pistol. Modular accessories aiding in the operation and use may vary on each individual rifle.

   I. Rock River Arms/ Hodge Defense HDS/K9 5.56 Rifle- Cost: Donated, Quantity: 20
   II. Colt Defense M4/ Hodge Defense SWAT 5.56 Rifle- Cost: $6,650, Quantity: 55
   III. 2A Armament Balios 5.56 Rifle- Cost: Donated, Quantity: 2
   IV. Barrett REC7 5.56 Rifle- Cost: Donated, Quantity: 1
   V. Bravo Company RECCE-16 5.56 Rifle- Cost: $1,499.99, Quantity: 190
   VI. Colt M4 Carbine 5.56 Rifle- Cost: $1,199.00 Quantity: 286
   VII. Daniel Defense DDM4 5.56 Rifle- Cost: Donated, Quantity: 40
   VIII. Fabrique Nationale FN 15 5.56 Rifle- Cost: Donated, Quantity: 1
   IX. Geissele Super Duty Rifle 5.56 Rifle- Cost: Donated, Quantity: 1
   X. Juggernaut JT-15 5.56 Rifle- Cost: Donated, Quantity: 1
   XI. Lewis Machine and Tool LMT Defender 5.56 Rifle- Cost: Donated, Quantity: 2
   XII. LWRC IC-DI 5.56 Rifle- Cost: Donated, Quantity: 4
   XIII. Noveske N3 5.56 Rifle- Cost: Donated, Quantity: 3
   XIV. Radian Model 1 5.56 Rifle- Cost: Donated, Quantity: 1
   XV. Rock River LAR-15 5.56 Rifle- Cost: $1,025.00, Quantity: 8
   XVI. Ruger AR-556 5.56 Rifle- Cost: Donated, Quantity: 2
   XVII. Smith & Wesson M&P 15 5.56 Rifle- Cost: Donated, Quantity: 25
   XVIII. Springfield Armory Saint Edge 5.56 Rifle- Cost: Donated, Quantity: 11

   b. Surgeon Scalpel 591 Short Action Tactical Rifle, .308 Caliber, equipped with rifle High/Low Power Magnification Scope and sound suppressor- Surgeon Rifle’s Model Scalpel 591 Short Action Tactical Rifle features an 18” Heavy MTU style barrel, low/high power rifle scope, sound suppressor, detachable magazine, Accuracy International FDE Chassis, muzzle break, and Trigger Tech trigger. The Surgeon Scalpel 591 Rifle is built around precision and is capable of. Cost: $9,800, Quantity: 12
c. LaRue Tactical Optimized Battle (OBR) Rifle, .308 Caliber- The Larue OBR 7.62, AR10 Style rifle features a 16.1” barrel, Larue MBT Trigger, Magpul PRS Stock, sound suppressor, and detachable magazine. The Larue OBR is precision built rifle focused on accuracy. The rifle is an AR10 platform which allows for a higher capacity of ammunition in a detachable magazine. Cost: $8,815, Quantity: 3

2. **Purpose:**
A precision weapon used to address a threat with more accuracy at greater distances than a handgun.

3. **Authorized Use:**
Only members POST certified in the use of the rifle are authorized to deploy them in the field.

4. **Expected Lifespan:**
   a. AR-15 style .223/5.56 rifles listed above have an expected lifespan between 5 and 10 years depending upon use.
   b. Surgeon Scalpel 591 Tactical Rifle: 8 years
   c. McMillan TAC 50 Rifle: 10 Years
   d. LaRue Tactical Rifle: 8 Years

5. **Fiscal Impact:**
Annual maintenance for each rifle is approximately $100.

6. **Training:**
Prior to deploying a rifle, members must complete a POST certified course in the operation of the rifle. Additionally, all members that operate any rifle are required to pass a range qualification according to department policy.

7. **Legal and Procedural Rules:**
The Department will only utilize firearms in accordance with State law, Federal law and Department policy.

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**Rifle Ammunition:** Ammunition specifically designed for use in Department rifles.

1. **Description, capabilities, quantity and cost:**
   a. Speer, .223 caliber, 62 grain, Gold Dot Soft Point rifle ammunition- The Speer .223 Gold Dot Soft Point rifle round is built with a 62 grain lead projectile encased with a copper jacket with the lead tip exposed. The projectile is designed to deform upon impact to significantly limit the amount of over-penetration past the intended barrier. This ammunition is the current issued duty rifle ammunition for duty rifles. Cost: .51¢ per round, Quantity: 109,630 rounds
b. Black Hills 5.56 Caliber 62 Grain TSX Rifle Round - The Black Hills 5.56 Caliber TSX rifle round is built with a 62 grain triple shock (TSX) proprietary bullet constructed of 100 percent copper and contains no lead. These bullets typically retain 100 percent of their original weight and are regarded as one of the best performing 5.56 Caliber loads available. Cost: $1.40 per round, Quantity: 1,000 rounds

c. Black Hills 5.56 Caliber 77 Grain OTM Rifle Round - The Black Hills 5.56 Caliber 77 OTM rifle round is a precision built bullet with a 77 grain Sierra Open Tip Match (OTM) bullet. It features a boat tail design to improve long range accuracy. The bullet jacket is constructed of a copper-alloy which is harder than other lead materials. Cost: $1.06 per round, Quantity: 1,000 rounds

d. Federal/American Eagle .223/5.56 Caliber Training Ammunition - Federal XM193X American Eagle 5.56x45mm NATO 55 grain Full Metal Jacket Boat Tail - American Eagle rifle ammunition offers consistent, accurate performance at a price that's perfect for high-volume shooting. The loads feature quality bullets, reloadable brass cases and dependable primers. Cost: .30¢ per round, Quantity: 12,000 rounds

e. Federal/Winchester .223/5.56 Caliber Frangible Training Ammunition - Federal and Winchester Frangible .223 Remington ammunition is loaded with a 42 grain Reduced Hazard Training (RHT) bullet. BallistiClean features frangible Reduced Hazard Training bullets that break-up immediately on contact with metal targets, significantly reducing ricochet and backlash danger. BallistiClean loads feature a copper-plated primer and a "NT" (non-toxic) headstamp to clearly identify BallistiClean as a training round at a glance, eliminating confusion with duty rounds. With this Federal ammunition range operators have no hazardous waste disposal problems and it meets or exceeds all OSHA and EPA standards. Cost: .58¢, Quantity: 1,000 rounds

f. Federal Gold Medal.308 168 GR Rifle Round - The Federal Gold Medal.308 Winchester ammunition is new production ammo that features a 168 Grain Sierra MatchKing Hollow Point Boat Tail bullet, a non-corrosive boxer primer, and the .308 Winchester ammunition is brand new never fired virgin brass casing that can be reloaded up to seven times for those shooters that reload their .308 Winchester ammunition. Sierra MatchKing Boat-tail bullet with Federal's proprietary delivery system. Federal's Gold Medal.308 Winchester ammo offers a muzzle speed of 2,650 feet per second and muzzle energy of 2,619 foot pounds. Cost: .78¢ per round, Quantity: 12,000 rounds

2. Purpose:
To be used in Department rifles to address lethal threats to the community and Department personnel with greater accuracy, enhancing community safety.

3. Authorized Use:
Only members POST certified in the use of the rifle are authorized to utilize rifle ammunition.

4. Expected Lifespan:
The ammunition listed above does not have an expiration date.
5. **Fiscal Impact:**
   The Department budgets $680,000 annually for all Department firearm ammunition to include rifle, handgun, and shotgun ammunition. Approximately $200,000 of the ammunition budget is used for ordering rifle ammunition.

6. **Training:**
   Prior to deploying a rifle, members must complete a POST certified course in the operation of the rifle. Additionally, all members that operate any rifle are required to pass a range qualification according to department policy.

7. **Legal and Procedural Rules:**
   The Department will only utilize firearms in accordance with State law, Federal law and Department policy.

**CATEGORY 12- Flash-bang devices and munitions containing tear gas or oleoresin capsicum**

**Sting-Ball:** A device used as a crowd management tool.

1. **Description, capabilities, quantity and cost:**
   CTS #9590, #9593, #9594- Non Irritant Sting-Ball, These less lethal devices are Multi-effect with a loud blast, bright flash and dispersion of stinging approximately 180 .31 caliber rubber balls. There is a fuse delay approximately 2.5 seconds with an approximate 50 foot effective radius this device can be used as diversionary device as well as less lethal. Cost: $56.65, Quantity: 324

2. **Purpose:**
   Lawful application of force delivered with the intent to subdue or render non-threatening. The less lethal munitions may be used as an option to de-escalate a potentially dangerous/deadly situation, with a reduced potential for death or serious injury to all persons involved. It is accepted that the probability exists for bodily harm to occur. However, it must also be accepted that the application of such force may be the only alternative to using lethal force to stop the subject’s actions.

3. **Authorized Use:**
   Situations where the deployment of less-lethal impact or munitions are authorized include but are not limited to:
   a. Self-destructive, dangerous, and/or combative individuals
   b. Riot/crowd control and civil unrest incidents where the criminal behavior involved exceeds a failure to disburse or curfew violation.
   c. Circumstances where a tactical advantage can be obtained
4. **Expected Lifespan:**

   Stingballs have a life span of 5 years.

5. **Fiscal Impact:**

   Annual maintenance for all stingballs is $50 total.

6. **Training:**

   Prior to deploying the Sting-Ball, members must complete a POST certified course in the operation of the Sting-Ball. Additionally, all members that operate any Less Lethal Devices are required to pass a qualification course of instruction according to department policy.

7. **Legal and Procedural Rules:**

   The Department will only utilize less lethal devices in accordance with State law, Federal law and Department policy.

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**Light Sound Diversionary Devices (LSDD):** A device used to distract or divert a person’s attention.

1. **Description, capabilities, quantity and cost:**
   a. **Combined Tactical Systems, 7290 Flash-Bang** - A non-bursting, non-fragmenting, light sound diversionary device that emits a bright light and thunderous noise. Ideal for distracting or diverting a potentially dangerous person’s or persons’ attention. Cost: $39.53, Quantity: 0
   b. **Combined Tactical Systems, 7290M Mini Flash-Bang** - A non-bursting, non-fragmenting, light sound diversionary device that emits a bright light and thunderous noise. Ideal for distracting or diverting a potentially dangerous person’s or persons’ attention. Cost: $37.15, Quantity: 115
   c. **Combined Tactical Systems, 7290-9 Flash-Bang** - A non-bursting, non-fragmenting light sound diversionary device that provides 9 unique flash bang actions within a single hand safe assembly. Cost: $125, Quantity: 2

2. **Purpose:**

   A light sound diversionary device is ideal for distracting or diverting a person’s or persons’ attention by emitting a bright light and thunderous noise.

3. **Authorized Use:**

   Light sound diversionary devices shall only be used by trained members of the Department’s SWAT Team.
4. **Expected Lifespan:**
   Until deployed.

5. **Fiscal Impact:**
   No annual maintenance.

6. **Training:**
   Prior to deploying a light sound diversionary device, members must complete a POST certified course in the operation of the light sound diversionary device. Additionally, all members that operate any rifle are required to pass a range qualification according to department policy.

7. **Legal and Procedural Rules:**
   The department will only utilize light sound diversionary devices for official law enforcement purposes and pursuant to State and Federal law.

**PepperBall Launcher and Munitions:** A device that allows a law enforcement officer to maintain distance from an assailant or crowd.

1. **Description, capabilities, quantity and cost:**
   a. Tippmann Pepperball Launcher- Semi-automatic, gas operated launcher, gravity feed, steel barrel with charging handle. The safety is a push button, cross bolt trigger safety. It will launch a standard Pepperball projectile. The projectiles are fired at the velocity of between 300 to 380 feet per second. It has approximately 8 to 10 foot-pounds of kinetic energy. Target range is 0-30 feet (individual) and a maximum range of 100 feet (area of saturation). Cost: $199.95 (with loader) each, Quantity: 179
   b. PepperBall Inert Practice Projectiles- Projectiles contain a harmless, scented powder, best suited for practice or direct impact when chemical exposure is not desired, .68 caliber and weigh 3 grams. Cost: .89¢ each, Quantity: 58,996
   c. Live SD™ Projectiles- Projectiles contain 2.0% PAVA. It is effective for direct impact and area saturation. .68 caliber and weigh 3 grams. Cost: $2.78 each, Quantity: 61,077

2. **Purpose:**
   Lawful application of force delivered with the intent to subdue or render non-threatening. The less lethal munitions may be used as an option to de-escalate a potentially dangerous/deadly situation, with a reduced potential for death or serious injury to all persons involved. It is accepted that the probability exists for bodily harm to occur. However, it must also be accepted that the application of such force may be the only alternative to using lethal force to stop the subject’s actions.
3. **Authorized Use:**
   1. Situations where the deployment of less-lethal impact or munitions are authorized include but are not limited to:
      a. Self-destructive, dangerous, and/or combative individuals
      b. Riot/crowd control and civil unrest incidents where the criminal behavior involved exceeds a failure to disburse or curfew violation.
      c. Circumstances where a tactical advantage can be obtained

4. **Expected Lifespan:**
   a. Tippmann Pepperball Launcher: 20 years
   b. All Pepperball projectiles have a life span of 3 years.

5. **Fiscal Impact:**
   Annual maintenance for the Tippmann Pepperball Launcher is approximately $50 each.

6. **Training:**
   Prior to deploying the Pepper Ball Launcher and Munitions, members must complete a POST certified course in the operation of the Pepper Ball Launcher. Additionally, all members that operate any Less Lethal Devices are required to pass a qualification course of instruction according to department policy.

7. **Legal and Procedural Rules:**
   The Department will only utilize less lethal devices in accordance with State law, Federal law and Department policy.

**Chemical Agent and Smoke Canisters:** Canisters that disburse chemical agents and/or smoke when deployed.

1. **Description, capabilities, quantity and cost:**
   a. Combined Tactical Systems, CS Canister, #5230- The 5230 CS Canister is a large diameter burning device that discharges a high volume of smoke and chemical agent through multiple emission ports. It expels its payload in approximately 20-40 seconds. The payload is discharged through five emission ports. This launchable canister is 6.20 in. by 2.6in and holds approximately 460gm of active agent. Cost: $27.92, Quantity: 30
   b. Combined Tactical Systems, Outdoor Tactical CS, #8230- The 8230 Outdoor tactical CS is the smallest diameter burning device that discharges high volume of smoke and chemical agent through multiple emission ports. It expels its payload in approximately 20-40 seconds. This launchable device is 4.90 in. 1.41in and holds approximately 195gm of active agent. Cost: $21.12, Quantity: 50
   c. Combined Tactical Systems, White Smoke Canister, #5210- The 5210 White Smoke Canister is a pyrotechnic smoke device used for concealment or as a signaling device. It expels its payload in approximately 20-40 seconds. The payload is
discharged through five emission ports. This launchable canister is 6.20in by 2.60in and holds approximately 460gm of active smoke. Cost: $26.41, Quantity: 30

d. Defense Technology, CS Spede-heat Continuous Discharge Chemical CS #1072- The Spede-Heat CS is high volume, continuous burn and it expels its payload in approximately 20-40 seconds. The payload is discharged through four gas ports on top of the canister, three on the side and one on the bottom. This launchable device is 6.12 in. by 2.62 in. and holds approximately 2.9 oz. of active agent. Cost: $26.66, Quantity: 20

2. Purpose:
Lawful application of force delivered with the intent to subdue or render non-threatening. The less lethal munitions may be used as an option to de-escalate a potentially dangerous/deadly situation, with a reduced potential for death or serious injury to all persons involved. It is accepted that the probability exists for bodily harm to occur. However, it must also be accepted that the application of such force may be the only alternative to using lethal force to stop the subject’s actions.

3. Authorized Use:
Situations where the deployment of less-lethal impact or chemical munitions are authorized but are not limited to:
   a. Self-destructive, dangerous, and/or combative individuals
   b. Riot/crowd control and civil unrest incidents where the criminal behavior involved exceeds a failure to disburse or curfew violation.
   c. Circumstances where a tactical advantage can be obtained
   d. Tactical situations involving the deployment of the Department’s SWAT Team.

4. Expected Lifespan:
   5 years from manufacturing date.

5. Fiscal Impact:
   No annual maintenance costs.

6. Training:
   Prior to deploying Chemical Agent and Smoke Canisters, members must complete a POST certified course in the operation of Chemical Agent and Smoke Canisters. Additionally, all members that operate any Less Lethal Devices are required to pass a qualification course of instruction according to department policy.

7. Legal and Procedural Rules:
The Department will only utilize chemical munitions in accordance with State law, Federal law and Department policy.
Less Lethal Remington 870, 12-gauge pump action shotgun and munitions:

1. **Description, capabilities, quantity and cost:**
   a. Less lethal Remington 870, 12-gauge action shotgun - The Remington 870, 12-gauge shotgun has a receiver mounted side saddle, a forend mounted flashlight and three-point sling. The stock is painted “ORANGE”. Cost: $400, Quantity: 96
   b. Combined Tactical Systems, 2581-12 Gauge Super-Sock Bean Bag, Point Control Impact Munition - The 2581-12-gauge super-sock bean bag is fired with the Remington 870, 12-gauge action shotgun. The 2581-12 super sock bean bag weighs 40 grams and has a terminal velocity of 280 ft. per second and delivers kinetic impact energy. The 2581-12-gauge super sock bean bag is in its deployed state immediately upon exiting the barrel. It does not require a minimum range to “unfold” of “stabilize.” The super-sock is an aerodynamic projectile, and its accuracy is relative to the shotgun, barrel length, environmental conditions, and the operator. The optimal fire distance of the super-sock is 10 to 40 feet. The effective range is 75 feet. Cost: $5.18, Quantity: 5,982

2. **Purpose:**
   Lawful application of force delivered with the intent to subdue or render non-threatening. The less lethal munitions may be used as an option to de-escalate a potentially dangerous/deadly situation, with a reduced potential for death or serious injury to all persons involved. It is accepted that the probability exists for bodily harm to occur. However, it must also be accepted that the application of such force may be the only alternative to using lethal force to stop the subject’s actions.

3. **Authorized Use:**
   Situations when the deployment of less-lethal impact or munitions are authorized include, but are not limited to self-destructive, dangerous, and/or combative individuals.

4. **Expected Lifespan:**
   a. Remington 870, 12-gauge pump action shotgun: 10 years
   b. 2581-12-gauge super sock bean bag: 5 years

5. **Fiscal Impact:**
   Annual maintenance for the Remington 870, 12-gauge pump action shotgun is approximately $50 each.

6. **Training:**
   Prior to deploying the Less Lethal Shotgun, members must complete a POST certified course in the operation of Less Lethal Shotguns. Additionally, all members that operate
any Less Lethal Devices are required to pass a qualification course of instruction according to department policy.

7. **Legal and Procedural Rules:**
   The Department will only utilize less lethal devices in accordance with State law, Federal law and Department policy.

**40MM Launchers and Munitions:** 40MM Launchers are utilized by Department personnel as a less-lethal tool to deploy less-lethal impact munitions.

1. **Description, capabilities, quantity and cost:**
   a. Penn Arms Single Shot Launcher, #L140- The 40MM single-shot, break-open frame, launcher with a rifled barrel, fixed stock and combo rail. Features include: Double-action trigger, trigger lock push button and hammer lock safeties. It will fire standard 40MM less-lethal ammunition, up to 6 inches in cartridge length. It will launch a 40MM less-lethal round up to 150 feet. Cost: $999.80, Quantity: 92

   b. Penn Arms Multi Shot Launcher, #L540- The 40MM multi-shot spring-advance magazine drum launcher with a six-shot capacity, rifled barrel, 6-inch cylinder and break-action loading. Spring cylinder advance actuated by trigger pull. The safety is a push button, cross bolt trigger safety. It will fire standard 40MM less-lethal ammunition, up to 6 inches in cartridge length. It will launch a 40MM less-lethal round up to 150 feet. Cost: $2,782.07, Quantity: 35

   c. Combined Tactical Systems, 40MM Exact Impact Sponge Round, #4557- A less lethal 40MM sponge round that is smokeless, spin stabilized and 4 inches long. The 40MM sponge projectile is fired from a single or multi-round purpose-built 40MM Launcher. The 60-gram sponge baton is a spin-stabilized projectile delivering blunt trauma effect. The 40MM exact impact sponge round provides accurate and effective performance when fired from the approved distance not less than five (5) feet from the target. The optimal Range for the 40MM sponge round is 10 to 75 feet. Cost: $18.85, Quantity: 6,364

   d. Combined Tactical Systems, 40MM .60 Cal. Sting-Balls, Smokeless, 4.8-Inch-Long Skip Round, #4558- The 40MM crowd dispersal cartridge contains a payload of .60 caliber stinging pellets. The 40MM Skip projectile is fired from a single or multi-round purpose-built 40MM Launcher. The Skip firing, aiming the impact munitions toward the ground three (3) to ten (10) feet in front of the target. Skip firing attenuates some of the blunt trauma on the target and reduces the possibility of impacting the human target and reduces the possibility of impacting the human target above the belt line. Cost: $20.63, Quantity: 2,350

   e. Combined Tactical Systems, 40MM .30 Cal. Sting-Balls, Smokeless, 4.8-Inch-Long Skip Round, #4553- The 40MM crowd dispersal cartridge contains a payload of .30 caliber stinging pellets. The 40MM Skip projectile is fired from a single or multi-round purpose-built 40MM Launcher. The Skip firing, aiming the impact munitions toward
the ground three (3) to ten (10) feet in front of the target. Skip firing attenuates some of the blunt trauma on the target and reduces the possibility of impacting the human target and reduces the possibility of impacting the human target above the belt line. Cost: $18.53, Quantity: 44

f. Combined Tactical Systems, 40MM CS Liquid Barricade, Spin Stabilized, 4.1 Inch Long, #4330- The liquid CS projectile is fired from a single or multi-round purpose-built 40MM Launcher. The Liquid CS filled projectile penetrates intermediate barriers and delivers irritant agents into an adjacent room. When deploying CS liquid projectile, you should be thirty (30) feet back from the target, aiming approximately thirty (30) degrees up in angle. Only trained members of the Department’s SWAT Team are authorized to deploy the CS liquid projectile. Cost: $23.50, Quantity: 107

g. Combined Tactical Systems, 40MM CS Powder Barricade, Spin Stabilized, 4.1 Inch Long, #4431- The powder CS filled projectile is fired from a single or multi-round purpose-built 40MM Launcher. The Powder CS filled projectile penetrates intermediate barriers and delivers irritant agents into an adjacent room. When deploying CS powder projectile, you should be thirty (30) feet back from the target, aiming approximately thirty (30) degrees up in angle. Only trained members of the Department’s SWAT Team are authorized to deploy the CS powder projectile. Cost: $23.50, Quantity: 20

h. Combined Tactical Systems, 40MM Aerial Flash-Bang, 100 Meter Warning Signal, 4.1 inch, #4090-1- The 40MM Aerial Flash-Bang 100 Meter Warning Signal is fired from a single or multi-round purpose-built 40MM Launcher. The 100-meter 40MM aerial flash-bang produces an intense bright light and sound. It is used to determine intent or used to hail or warn approaching individuals, vehicles, or marine vessels. The light output is between 6 million and 8 million candela. The sound output is between 165-175 dB. The effective range is 100 Meters. Cost: $39, Quantity: 6

i. Combined Tactical Systems, 40MM Aerial Flash-Bang, 200 Meter Warning Signal, 4.1 inch, #4090-2- The 40MM Aerial Flash-Bang 200 Meter Warning Signal is fired from a single or multi-round purpose-built 40MM Launcher. The 200-meter 40MM aerial flash-bang produces an intense bright light and sound. It is used to determine intent or used to hail or warn approaching individuals, vehicles, or marine vessels. The light output is between 6 million and 8 million candela. The sound output is between 165-175 dB. The effective range is 200 Meters. Cost: $39, Quantity: 8

j. Combined Tactical Systems, 40MM Aerial Flash-Bang, 300 Meter Warning Signal, 4.1 inch, #4090-3- The 40MM Aerial Flash-Bang 300 Meter Warning Signal is fired from a single or multi-round purpose-built 40MM Launcher. The 300-meter 40MM aerial flash-bang produces an intense bright light and sound. It is used to determine intent or used to hail or warn approaching individuals, vehicles, or marine vessels. The light output is between 6 million and 8 million candela. The sound output is between 165-175 dB. The effective range is 300 Meters. Cost: $39, Quantity: 8
2. **Purpose:**
   Lawful application of force delivered with the intent to subdue or render non-threatening. The less lethal munitions may be used as an option to de-escalate a potentially dangerous/deadly situation, with a reduced potential for death or serious injury to all persons involved. It is accepted that the probability exists for bodily harm to occur. However, it must also be accepted that the application of such force may be the only alternative to using lethal force to stop the subject’s actions.

3. **Authorized Use:**
   Situations where the deployment of less-lethal impact or chemical munitions are authorized include but are not limited to:
   a. Self-destructive, dangerous, and/or combative individuals
   b. Riot/crowd control and civil unrest incidents where the criminal behavior involved exceeds a failure to disburse or curfew violation.
   c. Circumstances where a tactical advantage can be obtained
   d. Tactical situations involving the deployment of the Department’s SWAT Team.

4. **Expected Lifespan:**
   a. Penn Arms Single/Multi Shot Launcher: 15 Years
   b. All munitions listed above: 5 years

5. **Fiscal Impact:**
   Annual maintenance for the single/multi shot launchers is approximately $50 each.

6. **Training:**
   Prior to deploying 40MM Launchers and Munitions, members must complete a POST certified course in the operation of 40MM Launchers and Munitions. Additionally, all members that operate any Less Lethal Devices are required to pass a qualification course of instruction according to department policy.

7. **Legal and Procedural Rules:**
   The Department will only utilize less lethal devices in accordance with State law, Federal law and Department policy.