Skate® SUAS is designed around a common airframe and ground control systems (GCS) to provide utility to a wide range of military, law enforcement, and research/education focused users. Advanced Skate® system capabilities such as the encrypted digital data link and infrared (IR) camera capabilities are designed to meet specific mission requirements for the warfighter and the law enforcement community. For our education and research customers that do not require some of the more advanced system capabilities, the low cost airframe and open software architecture provides a rich set of hardware and software tools for cutting-edge research in flight controls, autonomous systems, payload development, photogrammetry, and other small UAS applications. Regardless of market or application, the Skate® SUAS is a highly capable, versatile, and cost effective small UAS platform.

Skate® SUAS is a man-packable ISR/RSTA asset designed for operation by tactical units requiring airborne (VTOL and wing-borne) surveillance. The Skate air vehicle’s large flight envelope allows for covert launch and recovery and operations involving flight in close proximity to targets or obstacles. Skate® is designed to be an organic asset that can be deployed in a matter of minutes in a “react to contact” battle drill or for route/FOB perimeter security. Skate® provides immediate eyes-on-target and provides the warfighter with a situational awareness force multiplier.
**SKATE-C® EMPOWERING LAW ENFORCEMENT**

Skate® Small Unmanned Aerial System (SUAS) is a low-cost and safe law enforcement asset for search and rescue missions and aerial photography of accidents, crime scenes and special events. The system is water and weather resistant and capable of operating in winds up to 20 mph. The camera systems can be rapidly exchanged for capture of full motion video and digital still photos as well as infrared low light/night video. Skate’s® compact size allows for easy transport law enforcement vehicles.

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**SKATE® FEATURES**

- A low-cost, unmanned air vehicle system (UAS) designed to improve tactical situational awareness
- Two operational flight modes:
  - Fully autonomous, waypoint navigation
  - Stabilized, “fly-the-camera” manual control, for maneuvering in tight urban environments
- VTOL or fixed-wing flight for mission flexibility and versatility
- Modular, hot-swappable, day and night full motion video (FMV) payloads
- No dedicated launch or recovery equipment required
- Compact and lightweight: folded aircraft, payload pods, GCS, and comms system easily fits into a single, rugged case
- Small logistics footprint: no special tools and no unique support equipment required
- Rugged, easy to maintain system
Skate® SUAS provides a cost effective and capable Small Unmanned Aircraft System (SUAS) solution for Higher and Secondary Education and Science, Technology, Engineering, and Mathematics (STEM) initiatives to:

- Grow and train future generations of aerospace professionals
- Develop curriculum for university-level degree programs in unmanned systems technology and operations
- Challenge students to design and develop the next generation of unmanned aircraft through high school and university-level competitions

Specifications for education specific Skate SUAS models:

**SKATE® SPECS**

- Skate® SUAS Airframe with payload (Electo-Optical camera or GPS only)
- Paparazzi open source autopilot software (installed on user computer)
- 2.4 Ghz Xbee or RC transmitter handheld controller (Optional)
SKATE® TECHNICAL SPECIFICATIONS

Specifications for Military and Commercial (Law Enforcement and First Responders) specific Skate® SUAS models:

PAYLOADS

• EO Payload Pod (with dual, Full-Motion Video (FMV) color video cameras. Payload pod can be configured for up to six apertures.
• IR Payload Pod (with FLIR Tau 320 or Tau 640 LWIR camera. Can be combined with an EO camera)
• High Definition (HD) Video Payload Pod (1080p HD video; streaming SD video; HD stills)
• Laser Illumination Payload Pod
• Custom Payload Pods (tailored for specific missions)

Range: 3.0 km, with standard omnidirectional antenna
          5.0 km, with optional directional antenna
Endurance: 60 minutes
          > 90 minutes, with optional extended endurance kit
Speed: Hover to 50 knots
Operating Altitude: 400 ft AGL (typical); 15,000 ft MSL max operating altitude
Wing span: 24 inches (0.61 m)
Length: 19 inches (0.48 m)
Vehicle Weight: 2.2 lbs (1.0 kg), including payload & battery pods
System Weight: 7.5 lbs (2.7 kg)
Payload Weight: 0.5 lbs (0.2 kg)
Communications: Digital Data Link (DDL), video & data. AES128/ AES256 encryption (available in US & Canada, only)
GCS: Lightweight, modular ground control station with integrated video display and hand controller
Launch Method: Hand-toss or vertical takeoff. No dedicated launch or recovery equipment required
Operating Modes: Fully autonomous, waypoint navigation
                 Stabilized, “fly-the-camera” control
Product Status: Skate® Gen 2 Digital System available for purchase

IR Imagery  Handheld controller with IR imagery  HD Imagery  Handheld controller with Display (HUD)
Aurora Flight Sciences is a privately held aerospace company. As a leader in unmanned aerial vehicle technology, Aurora is engaged in the design, development, production, and support of robotic aircraft. Built on a strong foundation of more than two decades in the industry, Aurora invests in leading edge robotic technologies along with design and production of large composite structures for large aviation prime contractors. Learn more about Aurora Flight Sciences by visiting the company’s web site at www.aurora.aero.