



THE FUTURE OF MULTI-MISSION sUAS FOR THE U.S. DoD

R80D SkyRaider

Developed for U.S. Defense and Federal Government Customers, the R80D SkyRaider delivers a range of versatile Group 2-3 payload capabilities with the agility and single-operator deployment footprint of a proven Group 1 VTOL aircraft. With its ability to carry and deliver multiple payloads up to 7.7 lbs, an open architecture, and one of the fastest, most powerful embedded artificial intelligence (AI) computing devices available on a sUAS, the SkyRaider is redefining what's possible with a man-packable UAS.

Built on a battle-tested UAS architecture, the SkyRaider integrates specialized hardware and software to support the unique needs of the U.S. DoD and Federal Government users including proprietary hardware and software interfaces, ATAK/ Nett Warrior integration and more.

The SkyRaider's expanded carrying capacity, open payload architecture, and dynamic and responsive flight control, provides an unprecedented level of flexibility in a single sUAS.

FEATURES

MULTI-MISSION PAYLOADS UP TO 7.7 LBS

The SkyRaider carries a suite of long-range, high-resolution, stabilized daylight and IR imaging payloads. These are supplemented with a front-mounted EO/IR payload for day and night situational awareness and secondary view-angle ISR when carrying non-optical payloads. A simple mechanical claw and mounting plate makes it easy to rapidly attach, carry, and deliver nearly any object up to 7.7 lbs for forward resupply, asset extraction and other specialized missions.

AN OPEN ARCHITECTURE

The SkyRaider's Payload Development Kit (PDK) extends payload development capability to end users and third-party integrators, enabling the rapid development of application-specific payloads for the SkyRaider platform. The PDK enables full integration with the SkyRaider airframe to enable a variety of possible missions including Signals Intelligence (SIGINT) and Electronic Warfare (EW), Counter-IED, Comms Relay, CBRNe and more. The SkyRaider's Application Development Kit enables integration with common Ground Control Station or other host software systems, to control SkyRaider in a "system of systems" deployment.

RaiderOS CYBER-SECURITY

Developed exclusively for U.S. DOD and Federal Agencies operating the SkyRaider, RaiderOS adds enhanced communication channels designed to keep pace with both evolving mission requirements and cyber-security threats.

APPLICATIONS

IMMEDIATE ISR

CLANDESTINE OPERATIONS

PAYLOAD DELIVERY

SITUATIONAL AWARENESS

BEYOND LINE-OF-SIGHT RECONNAISSANCE

FORCE PROTECTION

ADVANCED TARGET RECOGNITION

BATTLEFIELD EFFECTS

SPECIFICATIONS

Item Specification	
Total Length	31.5in (80cm) from motor mount to motor mount
Weight	Aircraft 4.7 kg (10.4 lbs) – Airframe, arms, legs, 4 batteries, no payload Standard pack 8.7 kg (19.2 lbs) – Aircraft, Base Station, HDZoom 30
Payloads	
Hot-Swappable	Yes
Custom	Supported through the SkyRaider Payload Development Kit (PDK)
Carry, Drop, Emlace	Osprey: Up to 7.7lbs (3.5kg)
Day Imager	StormCaster-T: HDZoom 30, EO/IR MK-II, Forward EO/IR
Night Imager	EO/IR MK-II, Forward EO/IR
Image Stills	StormCaster-T: 640 x 512 pixels HDZoom 30: 20 megapixels (5184 x 3888 pixels) EO/IR MK-II: 13 megapixels (4192 x 3104 pixels) / (640 x 512 pixels)
Zoom	StormCaster-T: 5x optical, 15x digital HDZoom 30: 30x optical, 60x digital EO/IR MK-II: 4x digital Forward EO/IR: NA
Field of View	StormCaster-T: 31° to 6° optical, 2° with digital zoom HDZoom 30: 68.6° to 2.6° (30x), 1.3° (60x) EO/IR MK-II: 58° / 45° (13mm) or 32° (19mm) Forward EO/IR: 90° / 57°
Video Resolution	StormCaster-T: 640 x 512 60 FPS, H.264 recorded HDZoom 30: 1080p60 H.264 HD recorded EO/IR MK-II: 640 x 512 / 8.33 FPS H.264 recorded Forward EO/IR: 1920 x 1080 / 160 x 120
Video Metadata	Embedded STANAG 4609 KLV metadata
Performance	
Typical Endurance*	Over 40 minutes with standard propulsion system Tether Kit available <i>* Endurance specifications measured with Forward EO/IR payload; actual flight time varies based on payload and operating conditions</i>
Max. Speed	Ground speed 31mph (50kph) Max ascent speed 13ft/s (4m/s) Max descent speed 9ft/s (3m/s)
Environment	
Temperature	-22°F to 122°F (-30°C to 50°C)
Wind	40mph sustained, 56mph gusting (65kph, 90kph)
Precipitation	IP-54, MIL-STD-810G
Data Link	
Frequency	900MHz, 5.8GHz + other frequencies and waveforms
Radio Range	Up to 5 miles (8km) with standard base station
Mission Data	AES encryption with 256-bit physical key exchange
Launch Time	3-5 minutes



Easily attach, carry and deliver payloads up to 7.7 lbs



Typical SkyRaider configuration with ruggedized tablet, base station and payloads



Object detection and classification

AMERICAS

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