



KITTEN A DIESEL UAV-VTOL DRONE SPECIFICATION

SPECIFICATION SUBJECT TO CHANGE WITHOUT NOTICE

- Provides a rugged, quiet and cost effective, all-weather, diesel-powered VTOL-UAV helicopter. Designed for disinfecting large areas (sports arenas, whole towns etc.), detecting radioactivity and dangerous materials on passing ships, agricultural aerial applicator and surveillance, movement of cargo from shore to ship and ship to ship, over the horizon fish finding etc. Like a kitten capable of seeing in the dark and at great distances, born to be curious. The KITTEN, with high intensity LED lighting, can light up the sky and get your message out.

- Developed an inexpensive, quiet, reliable, and environmentally friendly diesel-powered UAV-VTOL (drone helicopter), using a rotor system that has been in operation in a two-man helicopter for decades.

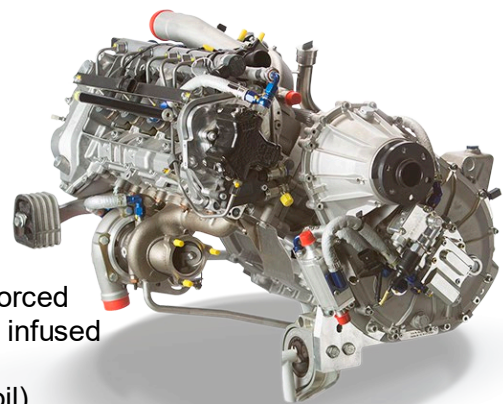
- The KITTEN design is to be easily operated by anyone with computer gaming skills. The KITTEN UAV-VTOL receives its commands from a computer keyboard and override control via a FBW (fly by wire) joystick. Operation can be from any operational base, dispatch center, mobile based unit, vessel or carry around handheld unit.



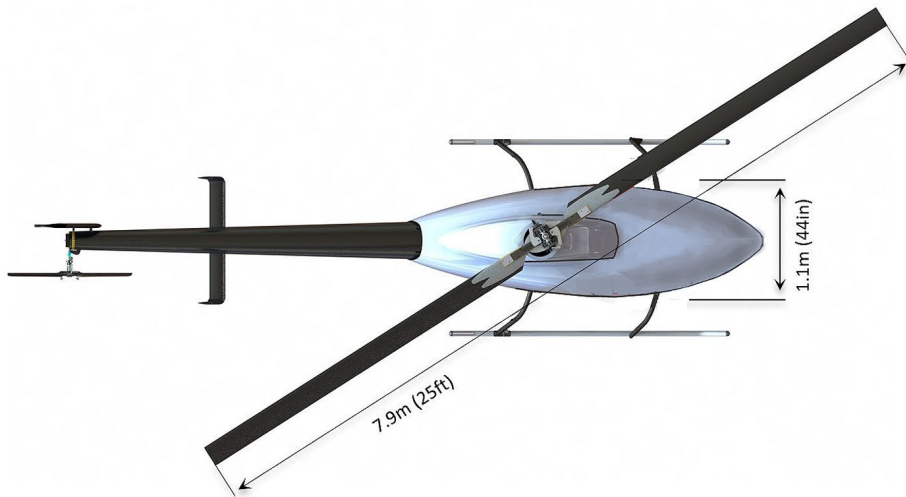
- **BASIC DIMENSIONS:**
 - ✓ Length: 22 ft (6.71 m)
 - ✓ Rotor diameter: 25 ft (7.62 m)
 - ✓ Height: 103 inches (2.6 m)
 - ✓ Empty weight: 1,170 lbs. (530 kg)
 - ✓ Useful load: 1010 lbs. (458 kg)
 - ✓ Max. takeoff weight: 1,630 lb (739 kg)

- **MAJOR FEATURES:**

- ✓ Very Low operating cost
- ✓ Fuselage welded aluminum tubing frame with reinforced Kevlar/Carbon Fiber hand-layup vacuum infused composite skin.
- ✓ Blades: carbon fiber rotor blades (NACA 0012 Airfoil)
- ✓ Endurance – 6 flight hours mission capability
- ✓ Fuel: Diesel/Biodiesel and/or Jet-A/BAF Capacity 136.2 liters (36 US gallons)
- ✓ Operating speed zero to normal operating speed 87 knots
- ✓ Power – Continental Motors CD-155 Turbocharged Diesel 114 kW (155 hp)
- ✓ Retractable skids
- ✓ Easy to operate; Anyone that has computer gaming experience

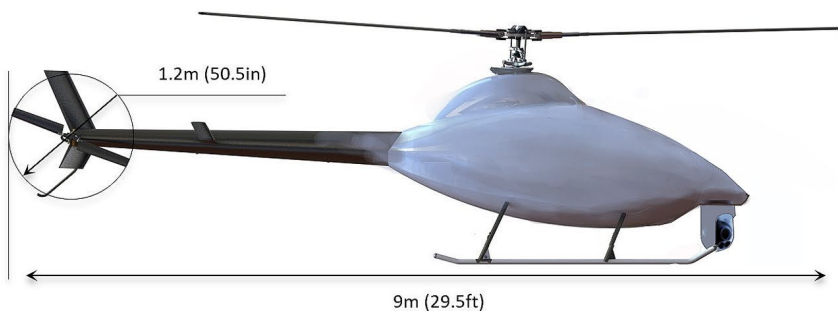


NOTE: Ideal surveillance UAV-VTOL drone for large and small Coast Guards.



The Kitten

Surveillance VTOL-UAV
Diesel Powered



- PAYLOAD FEATURES:

- ✓ Communication with Long Range Acoustic Device (LRAD) 1,200-watt PSAir32N siren and loud hailer system (non-lethal crowd control)

NOTE: HD Cyclone Doppler Radar provides over the horizon target acquisition as far as 96 mi around the Kitten. The new six-foot open array radar weighs only 26 pounds. The radar was inspired from an aircraft wing with 100-knot wind rating. Plots targets as small as birds, providing the targets direction, range, and speed.

- ✓ Tracks multiple targets
- ✓ AIS automatic identification system of other vessels is incorporated
- ✓ Very high definition
- ✓ FLIR M364C LR a premium Multispectral with active gyro-stabilization

NOTE: FLIR M364C LR featuring a high-definition low light camera and one of the most advanced FLIR thermal imaging, provide an elite level of awareness. Both cameras use multispectral imaging to deliver exclusive FLIR Color Thermal Vision™ (CTV) technology when used with Raymarine Axiom™ MFDs. Color Thermal Vision blends visible camera details with a thermal image, overlaying vital color imagery that allows operators to positively identify objects, navigation aids and other vessels within the thermal scene. Outstanding imaging performance and enhanced gyro-stabilization make the FLIR M364C LR indispensable tools for law enforcement professionals, commercial operators, and serious recreational users.

FLIR M364C LR Range Performance

- ✓ Person in the Water 4,900ft (1,494m)
- ✓ Small Vessels and/or Vehicles 2.1nm (3.9km)





Optional Equipment:

- ✓ Optional Mobile Command Post: all in one; enclosed drone transport, mobile drone command post and support tandem axles gooseneck trailers.
- ✓ Airframe cargo-hook
- ✓ Sling Assembly w/ Remote Release Swivel Hook for Helicopter

Maintenance:

- ✓ Easier system maintenance, with black box" or cable change out/swap program
- ✓ Detailed diagnostic codes downloaded to a PC for quick, easy troubleshooting
- ✓ Dependable diesel power, direct injection requires no tune-ups.



Overhaul and Replacement:

Major Components (Engine, transmission, rotor-head & rotor blades) require overhaul and/or replacement every 2,000 flight hours. (Approximate cost is \$125.00 USD per hour of operation).

Every 2,000 flight hours, the Puma is required to be sent to an authorized facility for overhaul.

- ✓ Overhaul or Replacement: Engine, transmission, rotor head and accessories.
- ✓ New Components: Rotor blades and batteries.
- ✓ Upgrades: All current software upgrades are made.

Spares:

Recommended spare parts required for equipment installed on the VTOL-UAV.

Warranty:

All fabrication work is unconditionally guaranteed for 12 months. Installed equipment by Manufacturer's Standard Warranty guaranteed for 500 hours of flight.

Support:

Provisions made to provide tools and equipment to support the VTOL-UAV operation. All specialty tools and maintenance manuals to include but not limited to operational flight software provision for particular missions.



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