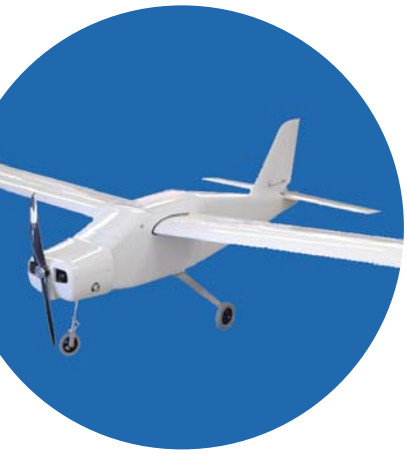
Geneva Aerospace®
At the core of UAV control

When the mission matters



# *Dakota*™ **UAV**



Geneva's *Dakota*™ UAV provides reliable payload delivery at a very affordable price and is fully integrated with our flight control technologies: *flightTEK*™, our advanced autopilot, *linkTEK*™, our data link computer and *missionTEK*™, our control station. The *Dakota* UAV system is a complete integrated autonomous UAV system capable of carrying payloads of up to 50 lbs. and capable of a four and a half hour endurance using current fuel tank configuration. Using our *missionTEK* multi–vehicle control station, a single operator with minimal training can effectively manage and control multiple *Dakota* UAVs from a single control station.

**Airframe**
Simple design with tapered box-section fuselage; high-mounted constant chord wings (with 4° dihedral) and conventional tail surfaces. Fixed tricycle landing gear. Composites construction permits cutouts in fuselage side or bottom panels for cameras, air data probes or other sensors.

**Mission Payloads**
The payload bay is in the center-fuselage, directly below the wing. Typical payloads include daylight or LLTV or FLIR, although other sensors, scientific instruments or equipment can be installed; antennas can be mounted in the tail cone. Mission data can be analyzed in real time, post flight, or both. The system delivers 300 watts of payload power.

**Guidance and Control**
Current version of the *Dakota* UAV is equipped with Geneva's *flightTEK* avionics package that performs the autonomous and semi-autonomous autopilot, guidance, navigation, mission management, and payload control processing utilizing our patent-pending Variable Autonomy Control System (VACS™) technology. Other features include precision actuators, flight termination system (FTS) and a braking system. Robust flight control technology, together with the FTS, ensures mission completion and safe recovery of the air vehicle and its payload.

**Transportation**
Wings, landing gear and tail surfaces (including tail cone) can be easily removed and reinstalled. Air vehicle can be dismantled and re-assembled in less than 30 minutes.

**Packing**
*Dakota* UAV is delivered in 3 wooden crates with a combined weight of 545lbs.
The fuselage 37x17x63 inches at 195 lbs.
The tail 37x22x63 inches at 175 lbs.
The wing 96x23x15 inches at 175 lbs.

**Launch**
Conventional wheeled take-off.

**Recovery**
Conventional wheeled landing. Emergency parachute recovery optional. Parachute recovery capability requires an optional flight termination system (FTS), such as Geneva's *safeTEK*™ product.

**Power plant**
One 16.4 kW (22 hp) 3W-240iB2TS flat-twin two-stroke engine; two-blade propeller. Standard fuel capacity 26.5 liters (7.0 US gallons)

**Point of Contact**
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## *Dakota* UAV Dimensions

| | |
|---|---|
| Wing span | 15.6 ft |
| Wing mean chord | 1.58 ft |
| Length overall | 9.50 ft |
| Fuselage: Max width | 1.12 ft |
| Max depth | 1.64 ft |
| Height overall | 3.42 ft |
| Tailplane span | 5.25 ft |
| Wheel track | 3.41 ft |
| Wheelbase | 3.08 ft |
| Payload bay volume | 2.33 $ft^3$ |

### Weights

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|---|---|
| Weight empty | 160 lbs |
| Max fuel weight | 48 lbs |
| Max payload | 80 lbs |
| Max T-O and landing weight | 240 lbs |

### Performance

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|---|---|
| Max level speed | 100 kts |
| T-O speed | 55 kts |
| Landing speed | 50 kts |
| Stall speed | 40 kts |
| Max rate of climb at S/L | 1000 ft/min |
| Operational radius | 170 nm |
| Endurance | 4.5 hrs |