

10K DRAGONFLY

Joint Precision Aerial Delivery System

The 10K DragonFly is a fully autonomous GPS guided cargo delivery system capable of carrying payloads from 5,000lb (2.250 kg) to 10,000 lb (4.500 kg). The canopy is a fully elliptical ram air parachute with a glide ratio of 3.75:1 for maximum offset capability. The DragonFly is fully qualified for maximum payloads up to 25,000 ft MSL.

The 10K DragonFly has repeatedly demonstrated the ability to land within 150 meters of the designated Impact Point (IP).

Modular Design for Packing and Maintenance

The 10K DragonFly is unique in that the canopy is packed on a frame which can be separated from the Airborne Guidance Unit (AGU). This allows the AGU to be charged, maintained, and stored separately while the canopy is being packed. This modular

approach allows for rapid turnaround times of less than four hours between drops. As with the FireFly and MicroFly systems, operator and rigger training on the 10K DragonFly can be accomplished in one week.

The DragonFly can be rigged for extraction or gravity drop and uses a conventional G-11 style deployment bag with the standard release away static line.

The only data required to program the 10K DragonFly is the location of the Impact Point (IP). No wind data is uploaded into the AGU. Using state of the art avionics, the Airborne Guidance Unit (AGU) calculates its position four times per second and continually adjusts its flight algorithm to ensure maximum accuracy. Just as a jumper under canopy continuously reads the winds and makes the required corrections, the 2K FireFly makes corrections until the final flare to land.



Mission Planning

The 10K DragonFly is already compatible with and included in the current US JPADS Mission Planner (JPADS MP). The Mission Planning software calculates the release point for the system by using forecasted wind data and the flight characteristics of the DragonFly canopy. The Airborne Systems Mission Planner is capable of running simulated missions in virtual operational environments when using terrain mapping software.

The 10K DragonFly is configured with an 802.11 interface for wireless interface which enables remote health monitoring. This ensures maximum technical support can be provided to units deployed to isolated operational theaters.

This data sheet is for information only and shall not form part of a contract

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Family of Systems

The 10K DragonFly is one of four JPADS platforms developed and manufactured by Airborne Systems. The MicroFly, 2K FireFly, 10K DragonFly, and 30K MegaFly systems are capable of delivering payloads from 100 lbs (45 kg) to 25,000 lb (11,300 kg). All operate with a common algorithm, user interface, and mission planner. The packing methodology for all systems is identical, so little additional training is required to qualify riggers on different systems.

All systems are compatible with the optional Remote Control Unit. The Remote Control Unit allows a user to continuously monitor the system onboard the aircraft and in flight to determine location and heading. If desired, an operator may override the Guidance Unit and fly the system manually.

The AGU interfaces on all systems are identical so one training session will qualify an operator on all Airborne Systems JPADS platforms.

Airborne Guidance Unit Weight	127 lb (58 kg)
Drive Motors	2
Power Supply	24 volt
Batteries	-40° F (-40° C) to +176° F (80° C) MIL-S-901C (Impact) MIL-S-167-1 (Vibration)
Display Screen	Liquid Crystal Display Certified to -40 deg F (-40 C) Night Vision Goggle Viewable
Installation and Removal of Canopy and Spool Covers	No tools required (Removable Packing Frame)



Main Canopy Weight, Packed	300 lbs (136 kg)
Surface Area	3,470 ft ² (322 m ²)
Span	100 ft (30 m)
Chord	35 ft (10,7m)
Chord Reduction Factor	0.82
Aspect Ratio	3.2:1
Cell Count	35
Opening Shock, Maximum	4.5 g's
Canopy Opening Time	3-6 sec
Canopy Opening Altitude Loss	500 – 1000 ft (150 m – 300 m)
Minimum Release Altitude	4000 ft (1220 m)
Max Glide, L/D, No Wind	3.75:1

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