

The DragonFly[®] is a fully autonomous GPS guided cargo delivery system capable of carrying Gross Rigged Weight (GRW) from 4,900 lb (2,222.6 kg) to 10,000 lb (4,535.9 kg).

The canopy is a fully elliptical ram-air parachute with a glide ratio of 3.5 : 1 for maximum offset capability. The DragonFly[®] is fully qualified for maximum payloads up to 24,500 ft (7,467.6 m) AMSL in a C-130 and 17,999 ft (5,486.1 m) AMSL in a C-17.

The DragonFly[®] has repeatedly demonstrated the ability to land 80% of all drops within 820 ft (250 m) of the designated Impact Point (IP).

Selected by U.S. DoD

The DragonFly[®] has been selected as the system of choice for the U.S. 10,000 lb Joint Precision Aerial Delivery System (JPADS 10k) program.

Modular Design for Packing and Maintenance

The 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.

The DragonFly[®] can be rigged for extraction or gravity drop and uses a deployment bag similar to a conventional G-11 style deployment bag with a standard Release Away Static Line (RASL). The system can be easily converted from gravity drop to extraction configuration while the system is packed.

Ease of Use

The DragonFly[®] AGU is programmed in the same way as all other AGUs manufactured by Airborne Systems. The only data required to place the system into operation is the location of the Impact Point and the system GRW. Wind data can be uploaded into the AGU, but the wind data is not required for operation. Using state of the art avionics and payload GRW, the 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 DragonFly[®] makes continual corrections until the final flare to land.



Mission Planning

Use of a Mission Planner is essential for the accurate deployment of the DragonFly[®]. Mission Planning can be conducted with the Airborne Systems jTrax Mission Planner or the current U.S. Air Force Consolidated Airdrop Tool Mission Planning Application (CAT MPA). 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 jTrax Mission Planner is also capable of running simulated missions using the included terrain mapping software. Simulating missions before an actual airdrop allows the aircrew to ensure surrounding terrain will have no effect on the mission.

Control Unit

The Remote Control Unit allows a user to remotely program the system for a mission and can be used to monitor the status of systems while onboard the aircraft prior to drop. After the DragonFly[®] is dropped, the Remote Control Unit can be used to monitor the location and

heading while in flight. If desired, an operator may override the Airborne Guidance Unit and fly the system manually.

Family of Systems

The DragonFly[®] is part of a family of GPADS platforms developed and manufactured by Airborne Systems. The MicroFly[®], FireFly[®], and DragonFly[®] systems are capable of delivering gross rigged weights from 200 lb (90.7 kg) to 10,000 lb (4,535 kg). Airborne Systems is also developing the MegaFly[®] and the GigaFly[®] which will increase the gross rigged weight range up to 42,000 lb (19,050 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.

Specifications

DragonFly®

Gross Rigged Weight

Minimum	4,900 lb	2,222.6 kg
Maximum	10,000 lb	4,535.9 kg

Physical characteristics

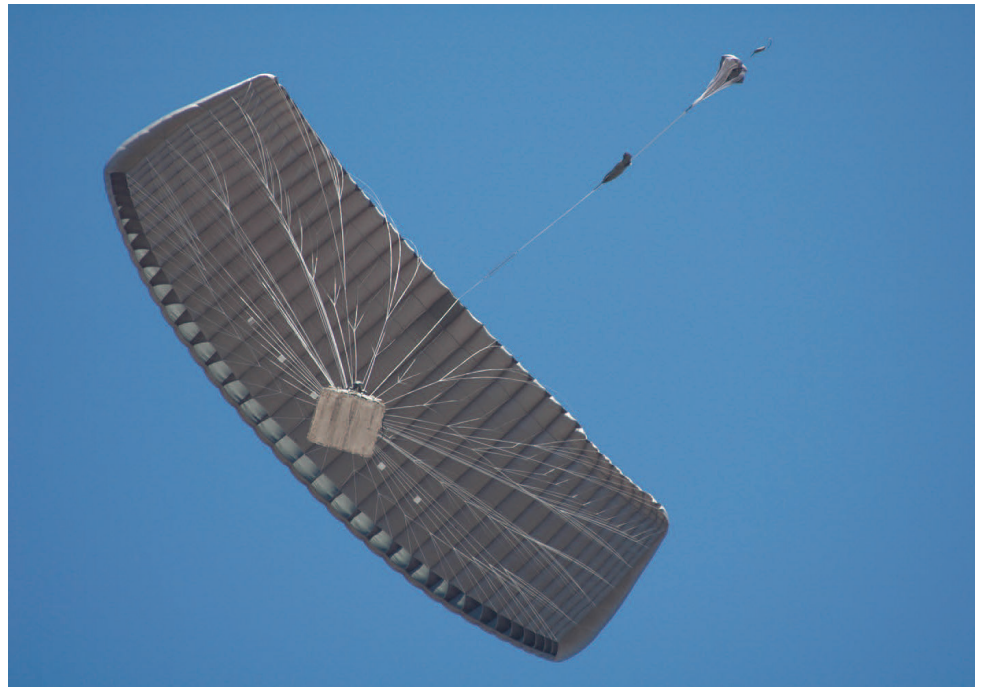
System Weight	508 lb	230.4 kg
Span	110 ft	33.5 m
Surface area	3,500 sq ft	325.2 m ²
Chord	33 ft	10.1 m
Cell Count	35	

Altitudes

Maximum Release (AMSL) in a C-130	24,500 ft	7,467.6 m
Maximum Release (AMSL) in a C-17	17,999 ft	5,486.1 m
Minimum Release (AGL)	9,999 ft	3,047.7 m

Max Glide

L/D, No Wind	3.5 : 1
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