

# SILENT ARROW<sup>®</sup>

IMMEDIATE AIR RESPONSE



## GD-SERIES

GLIDER / DISPOSABLE / AUTONOMOUS

**SILENT ARROW<sup>®</sup> GD-2000** is the world's most efficient standoff delivery platform, safely transporting more than 3/4 ton of critically needed cargo anywhere in the world with unprecedented efficiency.



YATES ELECTROSPACE CORPORATION / WORLD LEADERS IN UNMANNED CARGO DELIVERY SOLUTIONS

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# SILENT ARROW®

**SILENT ARROW®** is a tandem-wing, disposable, guided delivery vehicle developed for the US Special Forces to conduct military resupply and civilian disaster relief missions at less than half the cost of JPADS with more than 2.5X the standoff capability. The patented design allows the 28-foot (8.5m), spring-loaded wingspan to be stowed inside the 8-foot (2.4m) fuselage for compact transportation to the theater of operations.

Silent Arrow® is deployed from the C-17, C-130, CH-53, V-22, various side-door aircraft as well as via helicopter sling load with wings closed and static-line deployed, or wings already open and locked in position.

PARAMETER	GD-2000
Aircraft Category	Tandem-wing glider, static line wing deployment, full-span elevons on all four wings
Autopilot	Modified COTS Pixhawk Cube, GPS, Magnetometer, Baro, IMU, LiDAR, Pitot, Optional RF, Optional FPV
Programming Interface	ATAK (Android Tactical Assault Kit) (2020), Mission Planner
Gross Weight	2,000 lbs (907 kg)
Cargo Weight	1,631 lbs (740 kg)
Fuselage Length (As Shipped) (Ready to Fly W/Tailcone) (Ready to Fly W/O Tailcone)	8 ft (2.43 m) (4 spring-loaded wings fit into fuselage for transport), 13 ft (4.0m) w/tailcone, 9.5ft (2.8m) w/o tailcone
Wingspan	28 ft (8.5 m) wingspan (4 x 7 ft wings)
Glide Ratio	8.4 : 1 (with tailcone installed), short length version available
Range (25,000 Drop)	40 sm (35 nm) standoff, 12-minute flight
Cargo Volume	>26 cu/ft (0.75 cu/m) (not including additional area inside tailcone)
Standard Cargo	MREs, medicine, ammunition, water, batteries, fuel (goal is to supply 1 rifle squad for 1 day of heavy direct-action combat)
All Fuel Cargo	CG is easily maintained up to 125 gallons (473 liters) of jet fuel (850 lbs) (385 kg), additional fuel capacity available with ballast
Landing Accuracy	100 meters, Full Stall Landing, Zero Vertical Impact
Landing Speed (Stall)	62 kts @ 1000lbs, 92 kts @ 2000lbs
Flight Test	Current testing with USSOCOM C-130 in restricted airspace, additional testing with foreign militaries using UH-1H sling load in FAA airspace under two approved Silent Arrow COAs
Variants	GD-2000 WB, GR-2000, ER-2000, GD-800

Silent Arrow® is proudly manufactured in the UK under AS9100 by The MEL Group, exclusive manufacturer and distributor of Silent Arrow for the UK, with sales and service available for all EU countries.

Contact: [orders@yateselectrospace.com](mailto:orders@yateselectrospace.com) +1 949 243 4163



Silent Arrow® is a registered trademark of Yates ElectroSpace Corporation and is protected by one or more of the following patents: 9,043,106 / 9,340,299 / 9,650,138 / 9,815,563 / 9,868,526 / 10,232,938, 15/967,197, and PCT/US19/29946. US and international patents pending. © 2019 Yates ElectroSpace Corporation, all rights reserved.

# GD-2000

GLIDER / DISPOSABLE / 2,000 LBS.

## SIMPLE CONOPS

2 ft x 2 ft x 8 ft Form Factor



2 ft x 2 ft x 8 ft box arrives in theater containing the 4 spring-loaded wings inside, attached to the underside of the lid



Release lid latches and pull out lifting rods. Two operators lift lid away from cargo fuselage



Set lid down with wings facing up. Load cargo fuselage with up to 1,631 lbs (740kg) of supplies



Place lid back on cargo fuselage, with wings up and install nosecone and tail assemblies. Collect 4 wing static lines and connect to C-130/C-17, other cargo airplane, or helicopter



Deploy from cargo aircraft like JPADS CDS bundle - push out backwards, static line pulls pins from wings and they spring open - designed to successfully spring open at up to -130+ knots oncoming air

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The MEL Group