



PENGUIN C UAS

LONG ENDURANCE UNMANNED AERIAL SYSTEM



20 HOURS
FLIGHT ENDURANCE



OPERATIONS &
MAINTENANCE TRAINING



100KM RANGE



ITAR - FREE



CREW OF TWO



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PENGUIN C OVERVIEW



The Penguin C is a long-endurance, long-range unmanned aircraft system designed for professional use. With a flight endurance of over 20 hours and operational radius of more than 100 kilometers (60 miles), Penguin C is an extremely productive unmanned platform in terms of distance traveled and area covered in a single flight.

The Penguin C aircraft is operated by a crew of two and can be assembled in less than an hour. The aircraft system fits in a minivan, and its portable launcher and parachute recovery system allows for runway-independent operation and unmatched portability in its class.

Penguin C falls under the 55-pound FAA regulation requirements for small UAVs. The aircraft is non-ITAR restricted, giving global customers easy access to its capability. Penguin C has been flight-tested for thousands of hours by UAV Factory's flight operations team, ensuring the aircraft's reliability and robustness in normal to severe weather conditions.



THE PENGUIN C SYSTEM
IN CONTAINERS

SIZE & WEIGHT

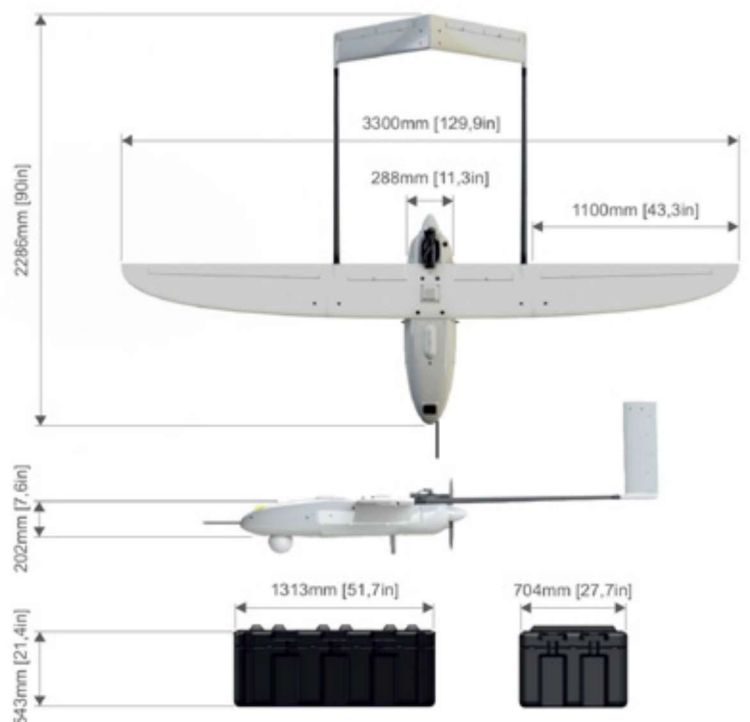


CLASS LEADING MOBILITY

Penguin C can be **operated by a crew** of two, and all necessary equipment including pneumatic launcher can be transported in a minivan and assembled in under an hour. The complete system, packed in several ruggedized containers, weighs up to 265 kilograms (585 pounds).



PNEUMATIC LAUNCHER

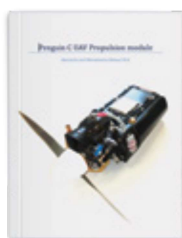


OPERATIONAL TRAINING



OPERATIONAL TRAINING AND DOCUMENTATION

Full-feature operational training is included with the Penguin C system. This 15-day training program covers all aspects of operation and maintenance, site survey, launch procedures, parachute packing, pre- and post-flight procedures, and numerous other topics. All customers are supplied with comprehensive user manuals, and we are available for after-training customer support at the customer's location.



COMMUNICATION EQUIPMENT



LONG-RANGE GROUND COMMUNICATION EQUIPMENT

The Penguin C system is equipped with a state-of-the-art portable tracking antenna system that enables encrypted data transmission to a range exceeding 100 kilometers or 60 miles.

Highlights of the system include a bit rate of up to 12 Mbps, integrated pointing algorithm and automatic switching between directional- and omnidirectional- antenna modes.

The tracking antenna system and ground control station has a military-grade ruggedized design, and it can be operated under any weather condition.



EFI ENGINE

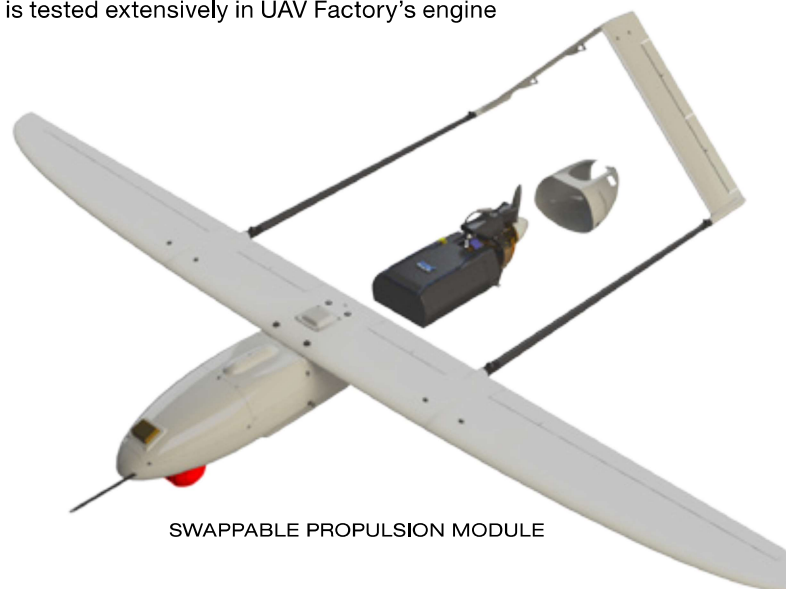


HIGHLY EFFICIENT EFI LONG-ENDURANCE ENGINE

UAV Factory's state-of-the-art electronic fuel-injected (EFI) engine enables Penguin C flight **endurance of more than 20 hours**. The engine's cooling system offers the ability to operate from $-40\text{ C} / -40\text{ F}$ to extremely hot conditions up to $50\text{ C} / 122\text{ F}$. Before delivery, each engine is tested extensively in UAV Factory's engine testing cell to maximize reliability and efficiency.

The EFI engine comes built into a **swappable propulsion module** that can be changed in minutes, allowing for uninterrupted operation of the aircraft system while maintenance is performed on a second module.

Each engine is equipped with a silent muffler to provide the **lowest acoustic signature** in this class of aircraft, making the Penguin C an attractive platform for covert surveillance missions.



SWAPPABLE PROPULSION MODULE

PAYLOAD OPTIONS

EPSILON 140 Z



EPSILON 175



EPSILON 140



EPSILON 135

PAYLOAD OPTIONS

Penguin C is available with the Epsilon series of advanced micro-gimbals developed by **Octopus ISR Systems**, a division of UAV Factory. Epsilon gimbals provide advanced operation, inspection, and surveillance capabilities, including day- and night-time object tracking and small moving target indication. Epsilon gimbals come fully integrated and have been tested extensively with Penguin C aircraft.



THIRD-PARTY PAYLOAD INTEGRATION

Penguin C is also available for purchase with an empty payload bay and all documentation necessary to perform payload integration. This option allows customers to **integrate third-party payloads** using standard connections based on specific project needs. Payloads can be powered with the onboard 6V, 12V and 24V power supply. Payload control and real-time video is achievable with an integrated data link Ethernet and serial pass-through, with a rate of up to 12 Mbps.



AIRCRAFT SPECIFICATIONS

Wingspan	3.3 m / 10.8 ft
MTOW	23 kg / 50.7 lbs.
Endurance	20+ hours
Range	100 km / 60 miles
Cruise speed	19-22 m/s / 37-43 knots
Max level speed	32 m/s / 62.2 knots
Ceiling	5000 m / 16 400 ft AMSL
Takeoff Method	Pneumatic Catapult, fully autonomous
Maximum takeoff altitude	3000m / 10 000 ft AMSL
Recovery	Parachute recovery, airbag
Operational temperature	-40 C to +50 C / -40 F to +122 F
Anti-icing measures	Heated Pitot tube. Continuous flight operations in icing conditions is not approved.
Environmental protection	< 5 millimeters / hour rain. Pitot with drain.

PROPULSION SYSTEM

Engine type	28cc EFI engine with the lowest acoustic signature in this class of aircraft
Temperature control system	Automatically controlled via mechanical flap
Fuel type	98 Octane, oil mix
Generator system	100W onboard generator system

EPSILON PAYLOAD SPECIFICATIONS

	135	140/140Z	175
Global shutter EO HD sensor, 30x zoom	•	•	•
LWIR sensor with 60 mm lens (7.7° FOV)		•	
LWIR sensor with 3.3x optical zoom (24.2- 7.7° FOV)		•	
MWIR sensor with 15x optical zoom (24.2-1.5° FOV)			•
Laser range finder		•	•
Laser Illuminator		•	•
Onboard Processing Unit, High precision Geo-Location, Moving Map software	•	•	•

DATA LINK SPECIFICATIONS

Frequency	2.304-2.364 GHz, 2.405-2.470 GHz, 5.00-5.800 GHz
Link Rate	Up to 12 Mbps
Encryption	128 bit AES / 256 bit AES

WATCH PENGUIN C IN FLIGHT
ON OUR YOUTUBE
CHANNEL

[HTTP://EJ.UZ/S517](http://EJ.UZ/S517)



OCTOPUS ISR SYSTEMS
YOUTUBE CHANNEL



[HTTP://EJ.UZ/SG8J](http://EJ.UZ/SG8J)