



# PENGUIN C UAS

LONG ENDURANCE UNMANNED AERIAL SYSTEM



20 HOURS  
FLIGHT ENDURANCE



OPERATIONS &  
MAINTENANCE TRAINING



100KM RANGE



ITAR - FREE



CREW OF TWO



## UAV FACTORY LTD., EUROPE

1 JAUNBRIDAGI, MARUPE,  
LATVIA LV-2167

GENERAL ENQUIRIES: +371 29191590  
SALES: +371 20262126  
FAX: +371 63048747

## UAV FACTORY USA LLC.

250 NW FRANKLIN AVE,  
SUITE 102, BEND,  
OREGON 97703, USA

PHONE: +1 (914) 5913296

SALES@UAVFACTORY.COM

# 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

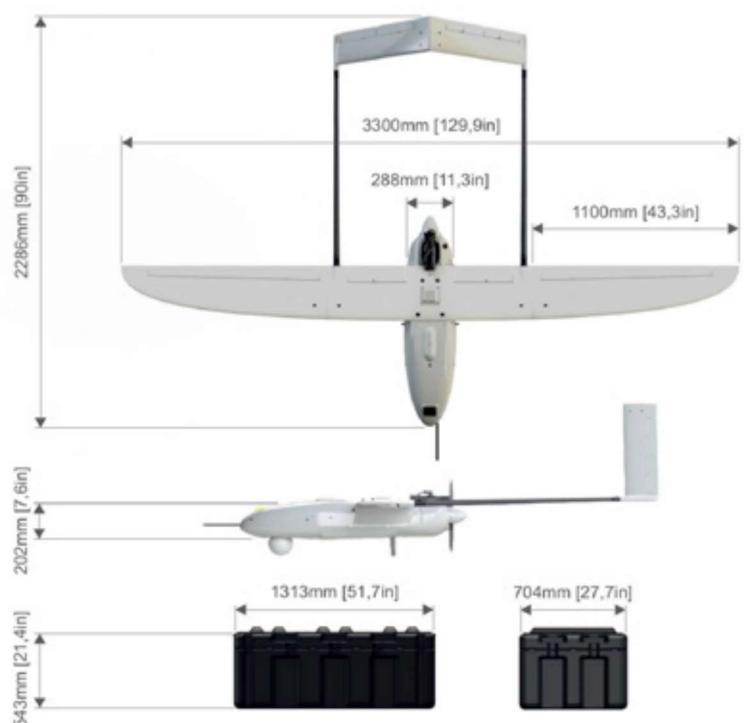


## CLASS LEADING MOBILITY

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

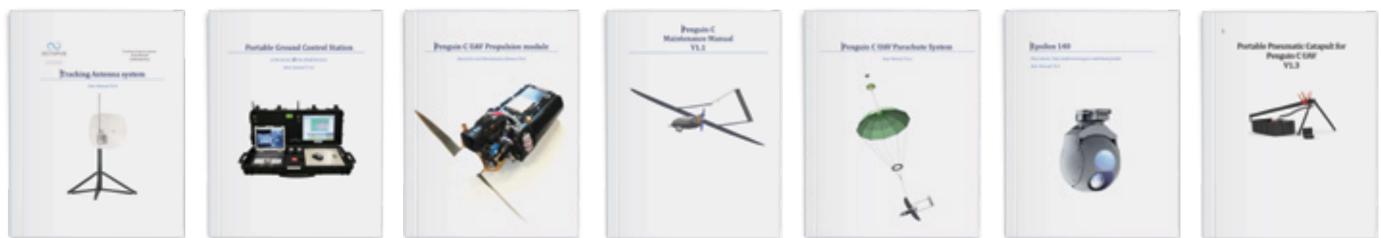


# OPERATIONAL TRAINING



## 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

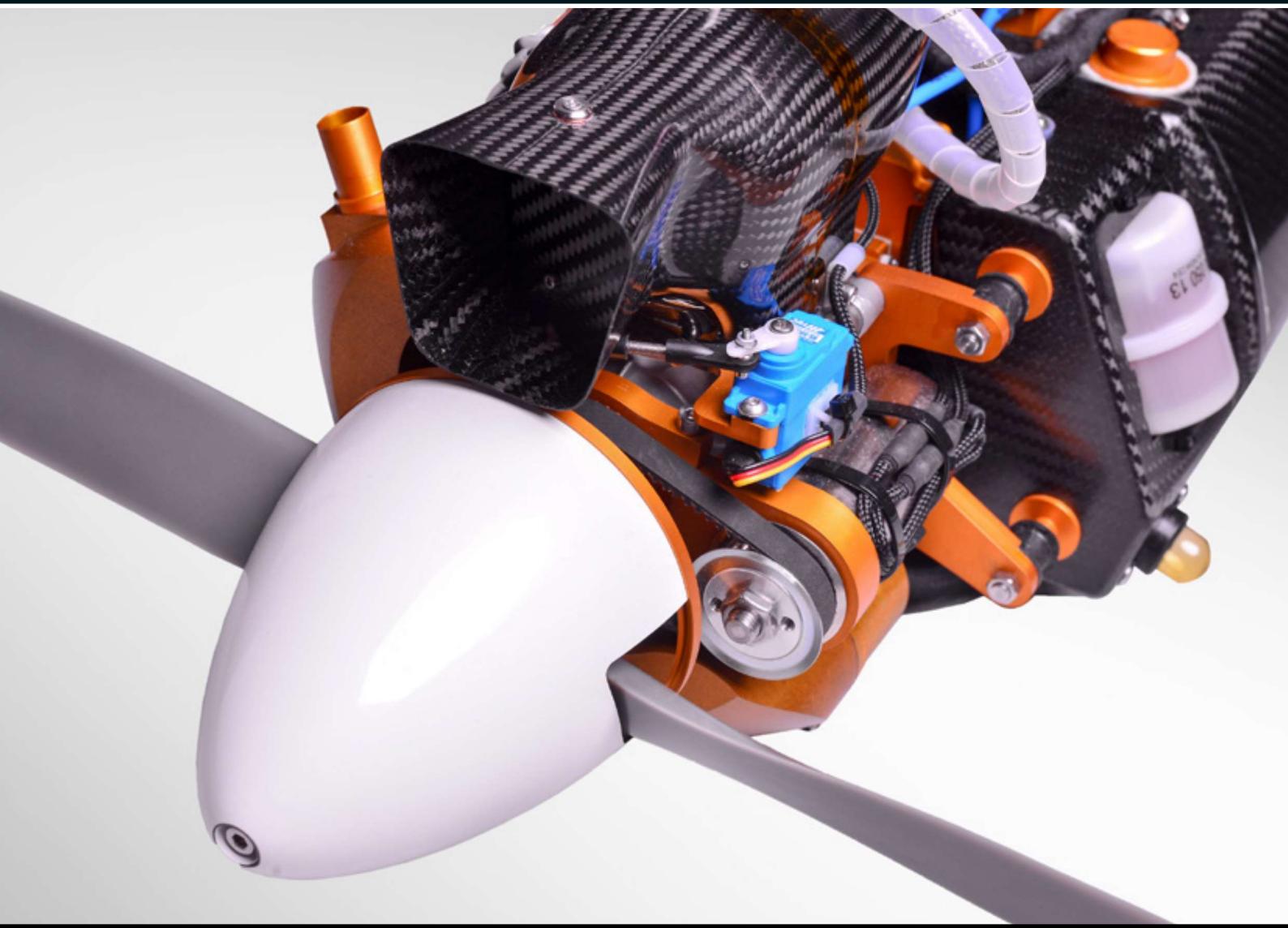
The Penguin C system is equipped with a state-of-the-art portable tracking antenna system that enables encrypted data transmission to a range exceeding 100 kilometers or 60 miles.

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

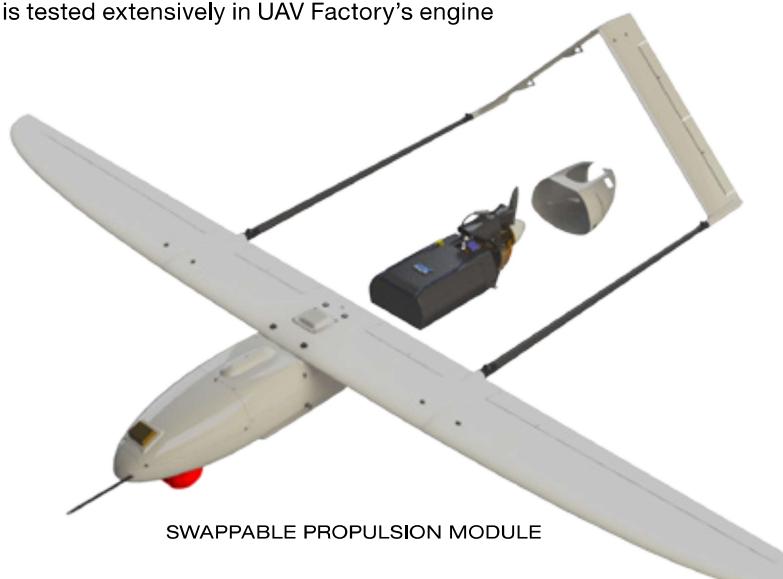


## HIGHLY EFFICIENT EFI LONG-ENDURANCE ENGINE

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 C / -40 F to extremely hot conditions up to 50 C / 122 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

# PAYOUT OPTIONS

EPSILON 140 Z



EPSILON 175



EPSILON 140



EPSILON 135

## PAYOUT 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

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

## PROPULSION SYSTEM

<b>Engine type</b>	28cc EFI engine with the lowest acoustic signature in this class of aircraft
<b>Temperature control system</b>	Automatically controlled via mechanical flap
<b>Fuel type</b>	98 Octane, oil mix
<b>Generator system</b>	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

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

WATCH PENGUIN C IN FLIGHT  
ON OUR YOUTUBE  
CHANNEL

[HTTP://EJ.UZ/S5I7](http://ej.uz/s5i7)



OCTOPUS ISR SYSTEMS  
YOUTUBE CHANNEL

[HTTP://EJ.UZ/SG8J](http://ej.uz/sg8j)