ARCTIC HORIZONS

PRODUCTS

Q1 - 2024

PRODUCT

SYSTEMS +

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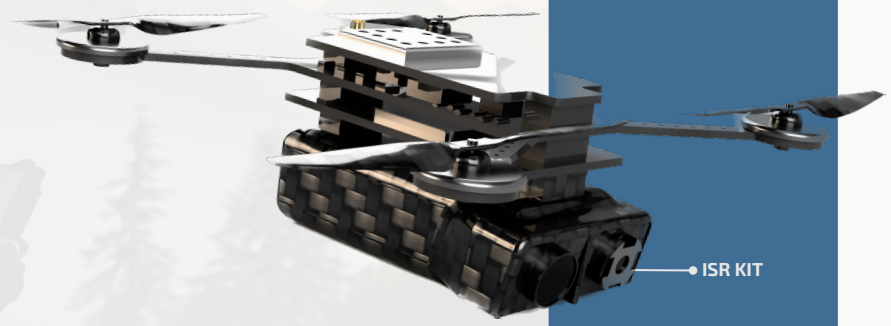
STICTIA

NUAS



SIZE △

FLIGHT TIME △ △ △

STEALTH △ △ △ △ △ △

AHI STICTIA

Group 1 - Nano Unmanned Aircraft System

Stictia is a disposable, credit card-sized nano-UAS, ideal for ISR (Intelligence, Surveillance, Reconnaissance) missions. It is housed in a ruggedized charger that also serves as a tactical camera when docked. Stictia seamlessly integrates with military helmets, vehicle dashboards, and firearm handguard rail systems, making it a highly user-friendly surveillance tool for front-line soldiers and first responders.

CODE-STIC_PACK_1

Included

- Remote with 6.2 Inch Display
- Rugged Charging Case (RCC)
- 2x Dual Purpose Batteries
- Molle Mount Kit for Screen
- Rail Mount Kit for RCC
- Rail Mount Kit for Screen
- Hardwire Kit

CODE-STIC_ISR_1.1

ISR Kit

- EO Sensor 640x480 Video
- IR Sensor 160x120 Video
- AES 256 Level Encryption
- Frequency Hopping Data Link

CODE-STIC_CK_1.1

Custom Kit

- Passive Sensor Module
- Remote Perimeter Module
- Swarm Module

*Rail Mount Kit Fits Picatinny rail, SOPMOD, and the M-LOK System.

SPECIFICATIONS

Performance

20 Minutes - **Flight Time**
55g - **Takeoff Weight**

Mission Data

Video - AES 256 Encrypted
Metadata - Stored on Remote Computer
Storage - No Storage on Disposable Unit
Compatibility - BMS and ATAK

Environmental

-20°C to 43°C - **Temperature**
14 Knots - **Wind**
0.5 to 2.5mm/h - **Rain**

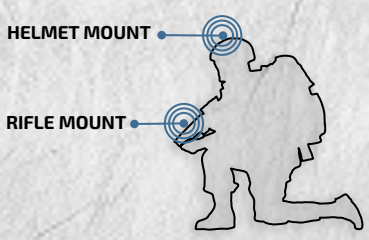
Data Link

Range - Beyond Line Of Sight
Encryption - AES 256
EW Protection - Frequency Hopping

Flight Modes

Computer Aided Flight - **Reconnaissance**
Autonomous - **Remote deployment**
Computer Aided Flight - **Target Tracking**
Autonomous - **Waypoint Flight**
Can Operate - **GPS Denied Areas**

Multi-Domain System



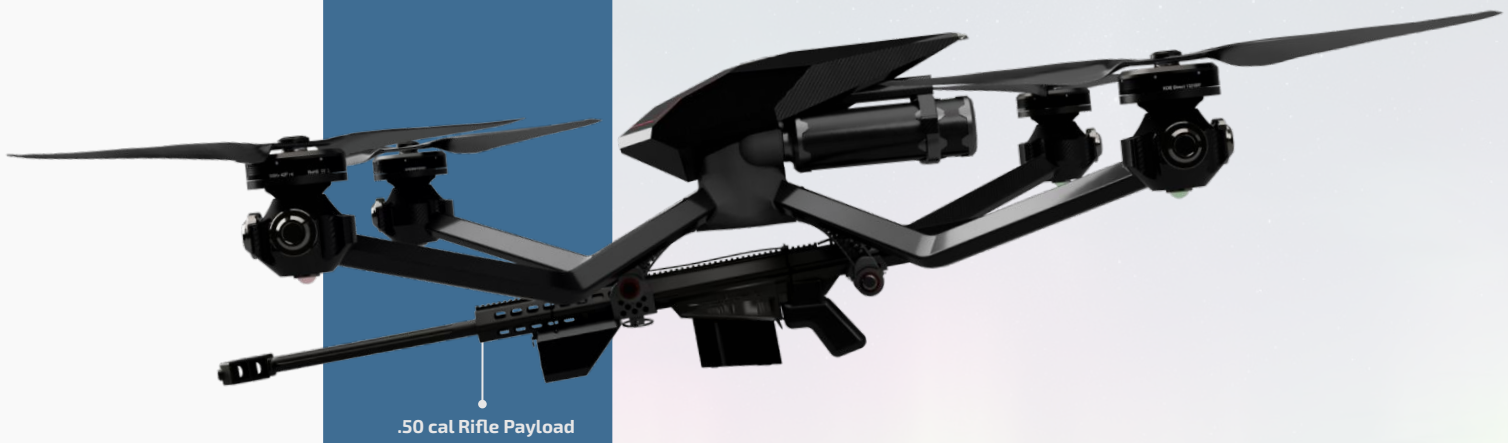
Mounting - Rifles, Vehicles, Helmets
Rugged Case - Doubles as a Charger and Protection Case For UAV
Tactical Camera - UAV in Charger doubles as a Tactical Camera
Helmet Mode - Local Storage, by Radio to BMS
Vehicle Mode - Local Storage, by Hardwire to BMS
Firearm Mode - Local Storage, Hardwire to Operator Display Unit

PIGLET

MUAS

AHI PIGLET

Group 2 - Medium Unmanned Aircraft System



Designed for high maneuverability and stability in combat scenarios, our heavy lift tilt-rotor system replaces conventional gimbals. Supporting rifle systems up to .50 cal. Utilizing next-gen built-in ballistics calculator for operator target assistance.

CODE-PIGL_PACK_1

Included

- Protective Transport Case
- 2x Battery Sets
- In-Field Charging System
- Field Tool Kit
- VFA UNIFY OS Key
- Ballistics Calculator System

CODE-PIGL_ISR_1.1

ISR Kit

- Dual EO Sensors 1920x1080 and 3840x2160
- Dual LWIR Sensors 640x512, 35 and 14mm Lenses
- Laser pointer

CODE-PIGL_CK_1.1

Weapons Systems

- Assault Firearms 5.56x45
- Long Range Firearms 7.62x51 - .338LM
- Anti Materiel Firearm 12,7x99 - .50BMG
- 40mm Multi-Shot Grenade Launcher

SIZE △ △ △ △ △

FLIGHT TIME △ △ △ △

STEALTH △ △ △

SPECIFICATIONS

Performance

40 Minutes - **Flight Time**
18Kg - **Takeoff Weight (No Payload)**

Mission Data

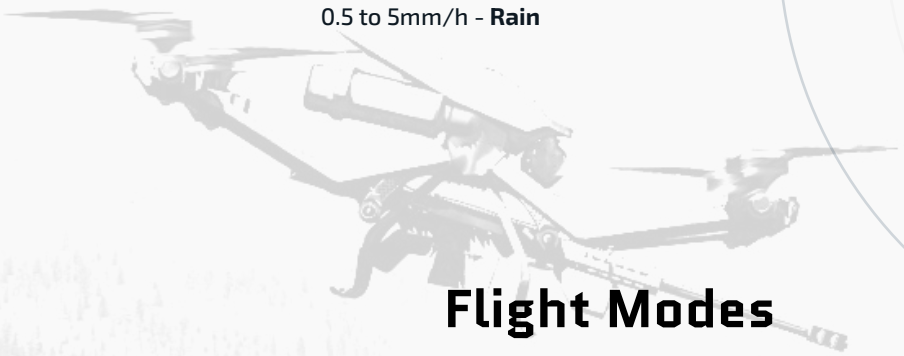
Video - AES 256 Encrypted
Metadata - Stored on Remote Computer
Storage - No Critical Data Stored on Unit
Compatibility - BMS and ATAK

Environmental

-20°C to 43°C - **Temperature**
18 Knots - **Wind**
0.5 to 5mm/h - **Rain**

Data Link

Range - Beyond Line Of Sight
Encryption - AES 256
EW Protection - Frequency Hopping



Flight Modes

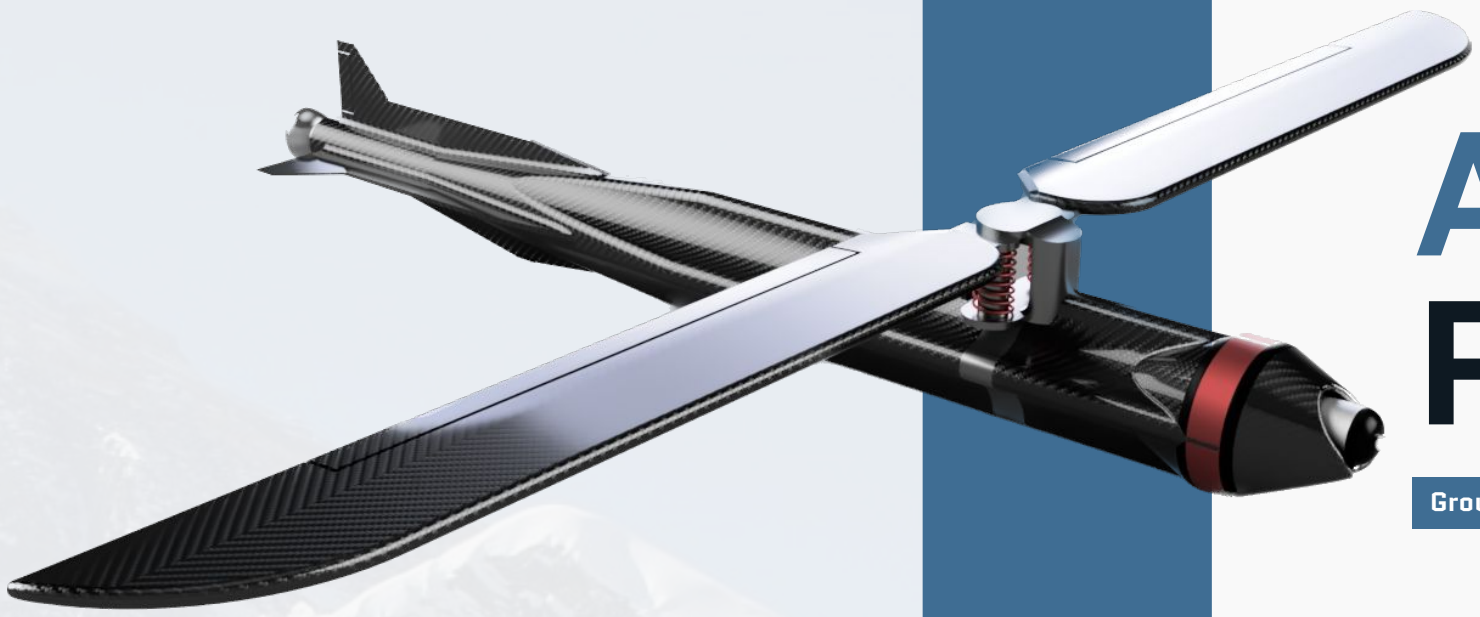
Computer Aided Flight - **Reconnaissance**
Autonomous - **Remote deployment**
Computer Aided Flight - **Target Tracking & Ballistics Calculation**
Human-in-the-Loop - **Target Engagement**
Autonomous - **Waypoint Flight**
Can Operate - **GPS Denied Areas**

Capabilities

Firearm Payloads - 5.56x45 - 12,7x99/50BMG
Launcher Payloads - 40mm Multi-Shot Grenade Launcher
Ballistics Calculator - Range 1000m with up to ≈15cm Grouping on Target
Mothership Module - Up to 3x Nano UAS ISR Sensor Deployment

PEREGRINE

TLM



AHI PEREGRINE

Group 2 - Tactical Loitering Munition

Mid-Range tactical loitering munition, equipped with precision warheads suitable for anti-armor and anti-materiel targets.
Advanced aerodynamics, capable of dash speeds of up to 500 km/h,
Optimal for rapid deployment mid-range engagement.

SIZE △ △ △ △

FLIGHT TIME △ △ △ △

STEALTH △ △ △

CODE-PERE_PACK_1

Included

- Remote with 6.2 Inch Display
- Protective Case for Deployment
- Self Contained Tube Launch System
- Digital Twin for Training
- Battery Kit
- Cable Kit

CODE-PERE_ISR_1.1

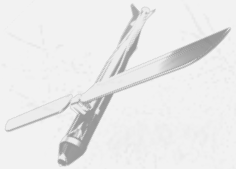
ISR Kit

- EO Sensor 1920x1280 Video
- IR Sensor 640x480 Video
- AES 256 Level Encryption
- Frequency Hopping Data Link

CODE-PERE_CK_1.1

Options

- Lethal Precision Strike Anti-armour Warhead
- Multiple Radio Options
- Aerial target Model for Training Purposes



SPECIFICATIONS

Performance

60 Minutes - **Flight Time**
12Kg - **Takeoff Weight**
500km/h - **Dash Speed**

Mission Data

Video - AES 256 Encrypted
Metadata - Stored on Remote Computer
Storage - No Storage on Disposable Unit
Compatibility - BMS and ATAK

Environmental

-20°C to 43°C - **Temperature**
21 Knots - **Wind**
0.5 to 5mm/h - **Rain**

Data Link

Range - Beyond Line Of Sight
Encryption - AES 256
EW Protection - Frequency Hopping

Flight Modes

Computer Aided Flight - **Reconnaissance**
Autonomous - **Remote deployment**
Computer Aided Flight - **Target Tracking**
Human-in-the-Loop - **Target Engagement**
Autonomous - **Waypoint Flight**
Can Operate - **GPS Denied Areas**

Capabilities

Tube Launch - Self Contained Unit
Rapid Deployment - Less than 15 minutes to air
Exchangeable Warheads - Various warheads can be fitted in field

FALCONET

CUAS

AHI
FALCONET

Group 2 - Medium Unmanned Aircraft System

Low altitude, high speed CUAV / Smart Munition with extended standby time, features a modular payload, including shotgun, fragmentation or kinetic intercept capabilities. Designed for swarming and system integration, for frontline defense, and even deployable in aquatic environments.

CODE-FALC_PACK_1

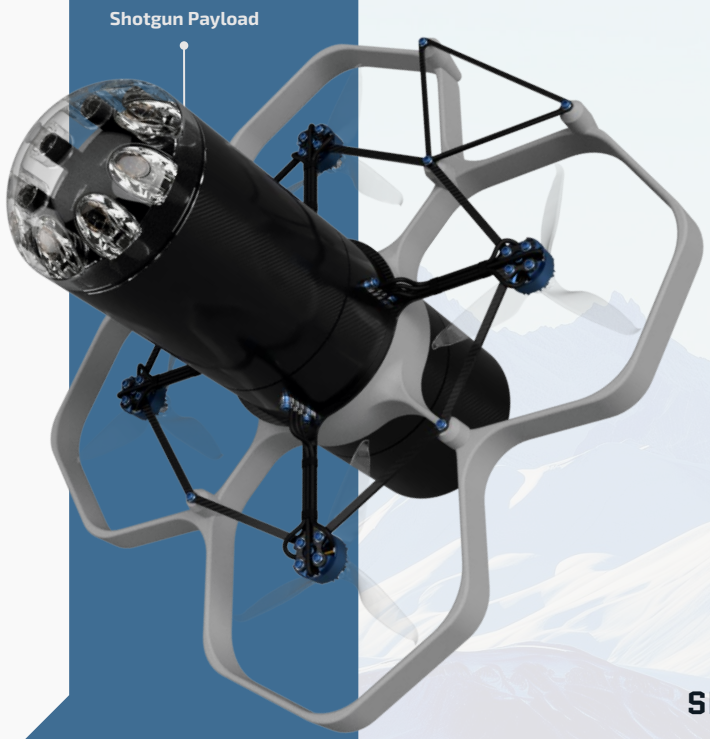
Included

- Protective Transport Case
- 2x Battery Sets
- In-Field Charging System

CODE-FALC_CK_1.1

Weapons Systems

- Burst-fire Shotgun payload (9 Buckshots)
- 40mm fragmentation round



SIZE △ △

FLIGHT TIME △ △

STEALTH △ △ △

SPECIFICATIONS

Performance

10 Minutes - **Flight Time**
180km/h - **Dash Speed**

Mission Data

Video - AES 256 Encrypted
Metadata - Stored on Remote Computer

Environmental

-20°C to 43°C - **Temperature**
24 Knots - **Wind**
0.5 to 8mm/h - **Rain**

Data Link

Range - Beyond Line Of Sight
Encryption - AES 256
EW Protection - Frequency Hopping

Flight Modes

Autonomous - **Remote deployment**
Autonomous - **Target Trajectory Interception**
Human-in-the-Loop - **Target Engagement**

Capabilities

Ground or Aquatic Launch - Self Contained Unit
Exchangeable Warheads - Various warheads can be fitted in field

UNIFIED OS

OPERATING SYSTEM

UNIFY OS

AHI UNIFY

OPERATING SYSTEM

Hardware Agnostic Platform
Engineered to be hardware agnostic, UNIFY OS empowers clients to select the most suitable AHI airframes and sensor technologies for their specific requirements. It is designed to support a wide array of payloads, weapons systems, and camera control modules, ensuring adaptability to diverse operational needs.

CODE-UNIF_OS_1

UNIFY OS is a cutting-edge operating system tailored for robotic and UAS systems, offering unparalleled versatility. Its core features include seamless map integration and real-time telemetry, significantly easing operator training and enhancing UAV interchangeability.

*Frontend OEM Services Available Upon Request

Comprehensive Control with STANAG 4586 Compliance
Aiming to be fully compliant with STANAG 4586,
UNIFY OS facilitates shared command and control of unmanned aircraft systems, offering a high degree of interoperability and coordination.

Automated Sensor and Weapon Management
UNIFY OS boasts sophisticated automation capabilities for managing onboard sensors and weapon systems, enabling efficient and precise mission execution.

Advanced Mission Planning and Analytics
The system provides comprehensive tools for mission planning, incorporating key elements like goals, ROE, and order of battle. It leverages advanced data analytics to refine planning based on insights from previous missions, ensuring continual improvement and strategic advantage.

GCS

CONTROL SYSTEMS

AHI GCS

Ground Control Systems

Our advanced Ground Control Systems, powered by the UNIFY Operating System, set a new standard in defense-oriented UAV command and control. Designed for military precision, our systems offer robust interface options and secure communication channels tailored to the demands of defense operations.

CODE-INTE_OPTIONS_X

Interface

- Tactical Large Tablet Designed for strategic missions with enhanced data control.
- Tactical Small Tablet Portable, ideal for rapid-response and simple UAV tasks.
- Universal Remote Control Compatible with both tablets.

CODE-COMS_OPTIONS_X

Communication

- Group 1 UAVs Secure radio link with frequency hopping for reliable, short to medium range communication.
- Group 2 UAVs Advanced digital datalink with phased-array antennas for long-range operation.

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