Indago 3T

Tethered Unmanned Aircraft Systems:

Persistent Mission Operations

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Powered and controlled by a tethered-sub-system, Indago 3T delivers continuous 360-degree communications, intelligence, surveillance, and reconnaissance support for diverse mission sets. The Indago 3T maintains all the features of the non-tethered Indago 3 including whisper quiet operation, small footprint, tactical mobility, rapid setup/ stowing, and high-quality imagery.

Features:

- Whisper quiet
- Man-portable
- Operable via Windows-based hand controller or laptop
- Zero radio frequency (RF) emissions
- Hot-swappable payload options
- Image stabilization with vision tracking
- Configurable failsafe behaviors
- Ruggedized for use in extreme weather conditions

Specifications:

- Payload: EO, Comms, and Noctis IR
- Dimensions: 32 x 32 x 7 in (12 x 9 x 7 folded)
- Weight: 1,995 g (4.4 lbs)
- Tether Length: 50 meter or 75 meter (165 ft or 246 ft)
- GCS: Touch screen hand controller with Virtual Cockpit Touch
- Communicates with ATAK systems

Indago 3T Applications:

- Persistent intelligence, surveillance, and reconnaissance
- Border protection
- Airborne communication relay
- Situational awareness
- Force protection
- Disaster response and crisis monitoring
- Critical infrastructure protection
- Damage assessment

Payloads:

ION 33X

Features:

- Vision processing provides feature tracking of objects
- Real time geo-location and geo-pointing
- Continuous optical zoom
- MISB compliant video stream with KLV metadata
- Curser on target (COT streaming to ATAK servers)
- Human: detection range is 17 km (11 miles) with recognition at 4 km (3 miles)
- Vehicle: detection range is 78 km (49 miles), with recognition at 16 km (10 miles)

Specifications:

- Video: 720 P Global Shutter
- Optical Zoom: Level 33X (2° fully zoomed FOV)
- Stabilization: 3-Axis gyro and software stabilization
- Weight: 471 g (1.04 lbs)

Noctis Dual IR

Features:

- Optical zoom from 32° to 8° FOV; Digital zoom to 2°
- Laser pointing for high accuracy targeting
- Vision processing provides feature tracking of objects
- Real time geo-location and geo-pointing
- MISB compliant video stream with KLV metadata
- Curser on target (COT streaming to ATAK servers)
- Human: detection range is 2.4 km (1.5 miles), with recognition at 2,200 ft
- Vehicle: detection range is 11 km (6.8 miles), with recognition at 2.5 km (1.5 miles)

Specifications:

- Image Capture: 32° Wide HFOV lens; 8° Narrow HFOV Lens (16X zoom)
- Video: IR: 640 x 512
- Stabilization: 3-Axis gyro and software stabilization
- Weight: 570 grams (1.25 lbs)
- Laser Pointer: 150 mW low power; 650 mW high power

Silvus SC4400

Features:

- A Mobile ad hoc network radio at 50m (165 ft) provides an advantaged node in the network.
- Provides high data-rate over large distances without extra hops or obstructions.
- Built in Beam Steering and nulling of interferers provides improved performance.
- Advanced encryption (DES56 or AES256) over the air and Gig-E in fiber to the ground.
- Models from 400 MHz – 2500 MHz available (2.4 GHZ ISM band - Model 245 shown)

Specifications:

- MANET Radio: SC4400 4 x 4 MIMO radio
- TCP/IP Latency: Gigabit Ethernet to the ground in optical fiber.7ms average
- Antenna EIRP: 4 antennas – Bean Forming, Null Steering up to 15 dBW
- Weight: 820 g (1.8 lbs)
- Throughput: Adaptive, up to 100 MBPS; 30 MBPS at 20 Miles demonstrated

UHF

Features:

- High Antennas for Radio Communications (HARC) for Tethered Drone
- Indago becomes a 50m (165 ft) antenna tower topped with a broadband UHF Antenna.
- Eliminates heavy lossy coaxial cables, extends comms range out to as much as 25 km (15.5 miles).
- Used with any UHF Radio – Department of Defense (DoD), Civilian Amateur - in digital or analog modes.
- Communications range extension when/where you need it

Specifications:

- Frequency: 225 MHz – 450 MHz
- Supports: all waveforms for all combat net radios operated in the specified UHF Band.
- Technology: RF-Over Fiber – keeps the CCI (Co-Channel Interference) on the ground, provides a lightweight antenna at altitude
- Weight: 620 g (1.4lbs)
- RF EIRP: 9.2 dBW

System Elements:

Hand Controller

Features:

- Fixed wing and VTOL
- Untethered Operations
- Secure digital data link
- Windows 10 Panasonic Toughpad

Specifications:

- Weather resistant: IP55
- Weight: 1,406 g (3.1 lbs)
- Run time: 4 hours
- Operating System: Windows
- Ethernet and USB

GEM

Features:

- Converts AC power to high voltage Tethered power (DC)
- RF over-the-air transmission
- Contains backup battery for emergency power

Specifications:

- Weight: 10,659 g (23.5 lbs)
- 3X Ethernet
- 110 V AC or 220 V AC

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