



# SWITCH

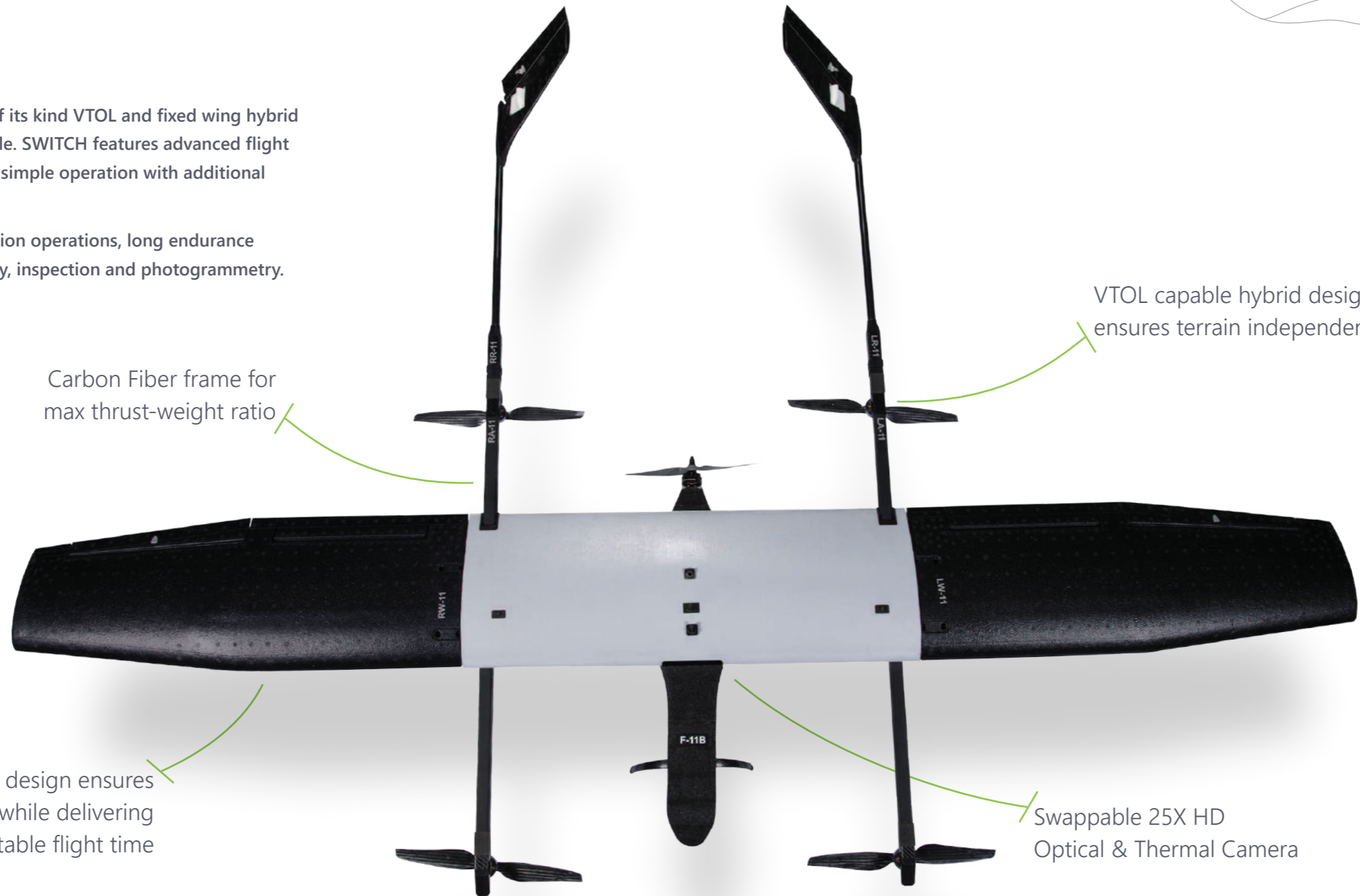
ALL TERRAIN DOMINATOR

Images are for representational purposes only

# About

SWITCH UAV is a first of its kind VTOL and fixed wing hybrid Unmanned Aerial Vehicle. SWITCH features advanced flight time, higher safety and simple operation with additional fail-safe redundancies.

It is used for long duration operations, long endurance surveillance and security, inspection and photogrammetry.



Carbon Fiber frame for max thrust-weight ratio

VTOL capable hybrid design ensures terrain independence

Detachable wing design ensures portability while delivering unbeatable flight time

Swappable 25X HD Optical & Thermal Camera



Up to **25x HD Optical Zoom**  
Daylight Surveillance Payload



Up to **15 km**  
Operational Range



Over **120 min**  
Flight Time

120 minutes till 3000 m AMSL  
90 minutes till 4500 m AMSL



**2X Lighter & Man Portable**  
When compared to the competition



**Over 28X More Linear Coverage**  
when compared to boots on ground

# Built for all terrain Surveillance

# Payload

Whether day or night, SWITCH UAV's advanced combined day & night payload will get you the critical on-ground situational awareness that you need



**Real-time** HD Surveillance



**25x** Optical Zoom



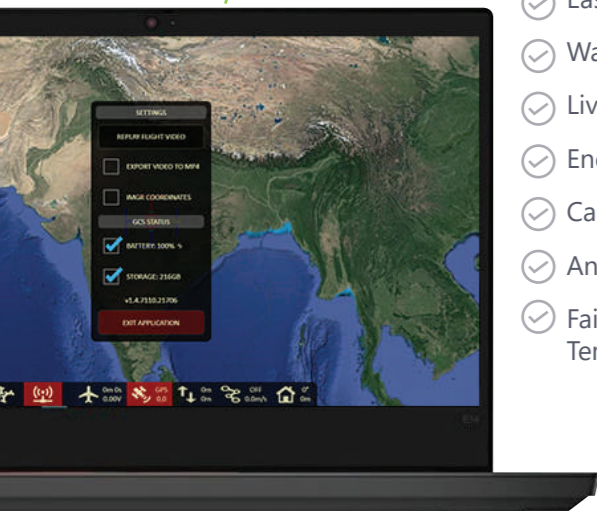
**GCS-Only** Storage for Maximum Security



# Ground Control Station

ideaForge's state-of-the-art GCS enables fully autonomous flight with utmost privacy and provides a host of safety features.

- ✓ Terrain Avoidance to keep your SWITCH UAV safe
- ✓ Easy take-off and landing ensures you concentrate on outcomes
- ✓ Waypoint based navigation for ease of flying
- ✓ Live Display of Flight Parameters to keep you updated every step of the way
- ✓ Encrypted Communication for highest privacy
- ✓ Capability to Integrate with User Provided Maps
- ✓ Annotation of points of interest
- ✓ Fail-safe Features for Communication Loss, Low Battery, High Winds, Temperature Range Violation



# Tech Specs

India is a vast and diverse country. Frigid mountainous regions, hot deserts, humid plains, marine environment and wetlands with torrential rains, the country has regions that represent every weather pattern and terrain conditions. Proudly Made in India, SWITCH UAV has been built to withstand these demanding conditions and deliver stellar performance.

Aerial Vehicle (AV) Characteristics	
UAV Weight with battery and max. payload	<7 Kg
UAV Size with Propeller	<2.6 m x 1.8 m
Range of live transmission (LOS)	15 km (un-obstructed & interference free)
Typical Cruise Speed	13 m/s
Functional Temperature Range	-15°C to 55°C (Third Party Lab Certified)
Dust & Drizzle Resistance	IP53 rating (Third Party Lab Certified)
Deployment Time	<15 minutes
Navigation Lights	Switchable (from GCS)
Communication link Characteristics	
Frequency Band	2.4GHz or 5GHz (depending on application)
Payload Characteristics	
Day Surveillance	Daylight HD 1280 X 720 px with 25x optical zoom video payload
Night Surveillance	Thermal 640 X 480 px video payload
Payload Replacement Time	<5 minutes
Payload Control (in flight)	Pan: 360° continuous   Tilt: 90°
Target Detection Slant Range (Human Size Target)	Daylight: Minimum 1000 m   Thermal: Minimum 500 m
Ground Control Station (GCS) Software Features	
Map	Capability of working with some publicly available open-source maps. Application has the capability to download maps automatically after specifying location GPS co-ordinates 2D Maps: Capability to import custom maps 3D Maps: Capability to integrate SRTM and DTED based elevation data
Terrain Avoidance	Detects and avoids natural terrain by using elevation data (where available)
Free Hand Annotation	Capability to annotate areas of interest on the map screen

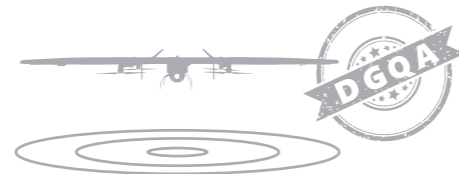
Warranty - 12 months or 500 flights whichever is earlier.

# Consistent & Reliable Performance

# Features



**Best in Class Area Coverage**  
Mission Area of over **700 Square Kilometers** available from each takeoff point



**DGQA Qualified**  
Designed for DGCA standard



**Manual Mode**  
Take control when needed



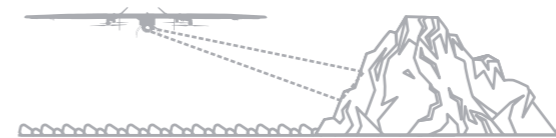
**Certified to operate between -15°C to +55°C**  
Operate with confidence in diverse climates



**Robust Build Quality**  
Switch UAV's airframe is built for over **500 surveillance missions**



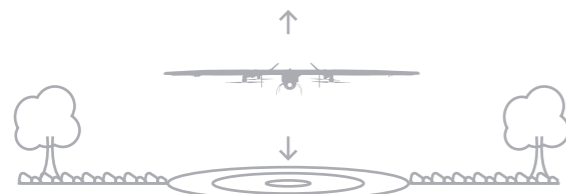
**Man-portable**  
**Up to 100% lighter** than other drones in its class



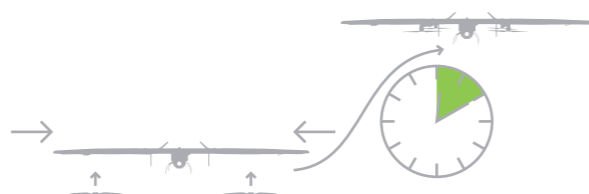
**Target Detection at Over 1 km SLR**  
With HD 25x Optical Zoom payload



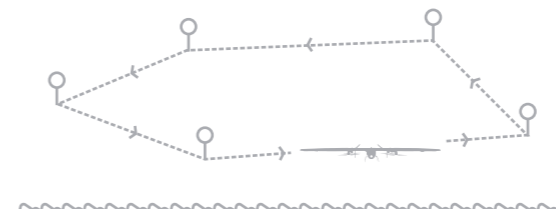
**IP53 Certified**  
Ensuring mission success even in tough conditions



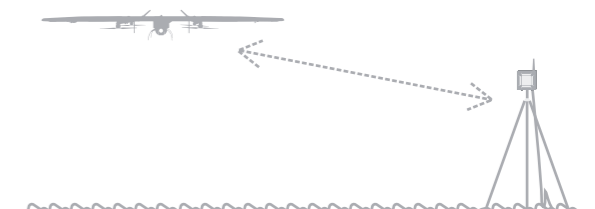
**VTOL Capable**  
Get unmatched **terrain independence** without the need for traditional runways or launching infrastructure



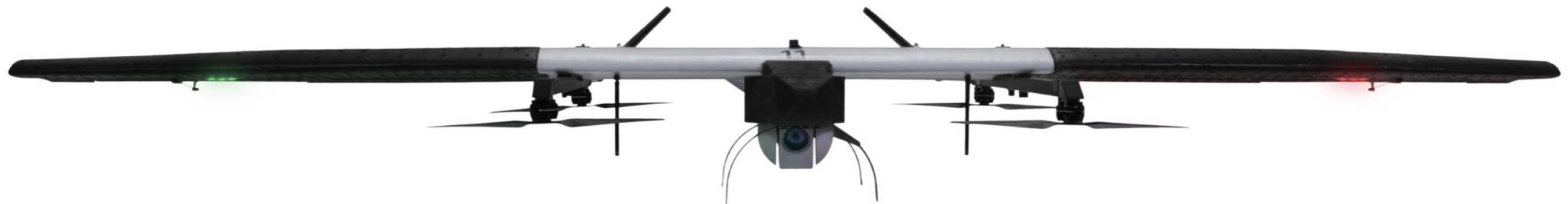
**Less than 10 min Deployment Time**  
User-friendly assembly to conduct surveillance operations faster



**Waypoint Based Navigation**  
Ensures Switch UAV does the heavy lifting while you focus on outcomes



**Encrypted Communication**  
Secured communication between the GCS and UAV with all videos streamed & stored on the operator's system

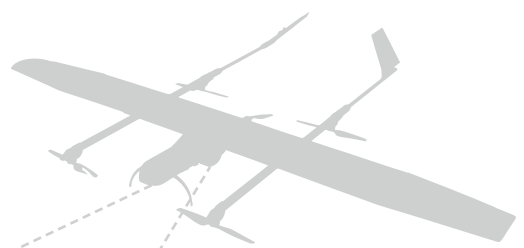


# Every Single Time

# Applications

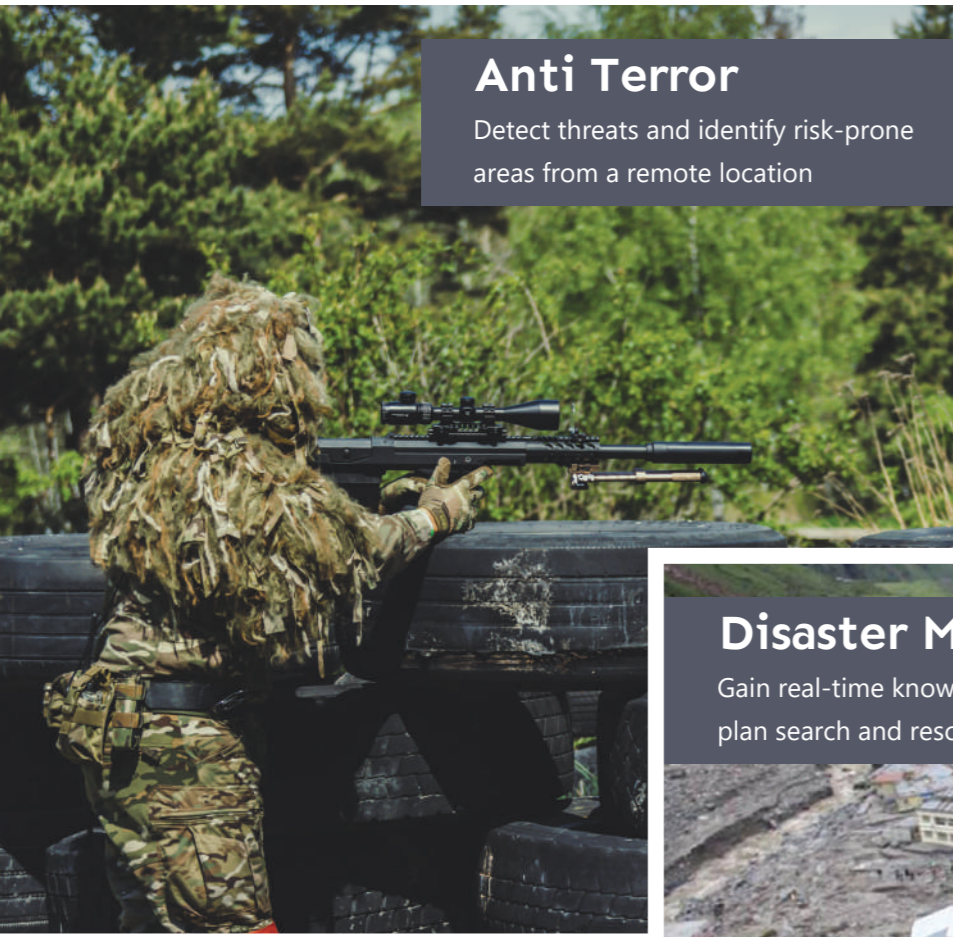
SWITCH UAV is rigorously tested to deliver success across the entire spectrum of security and surveillance missions

# Performer



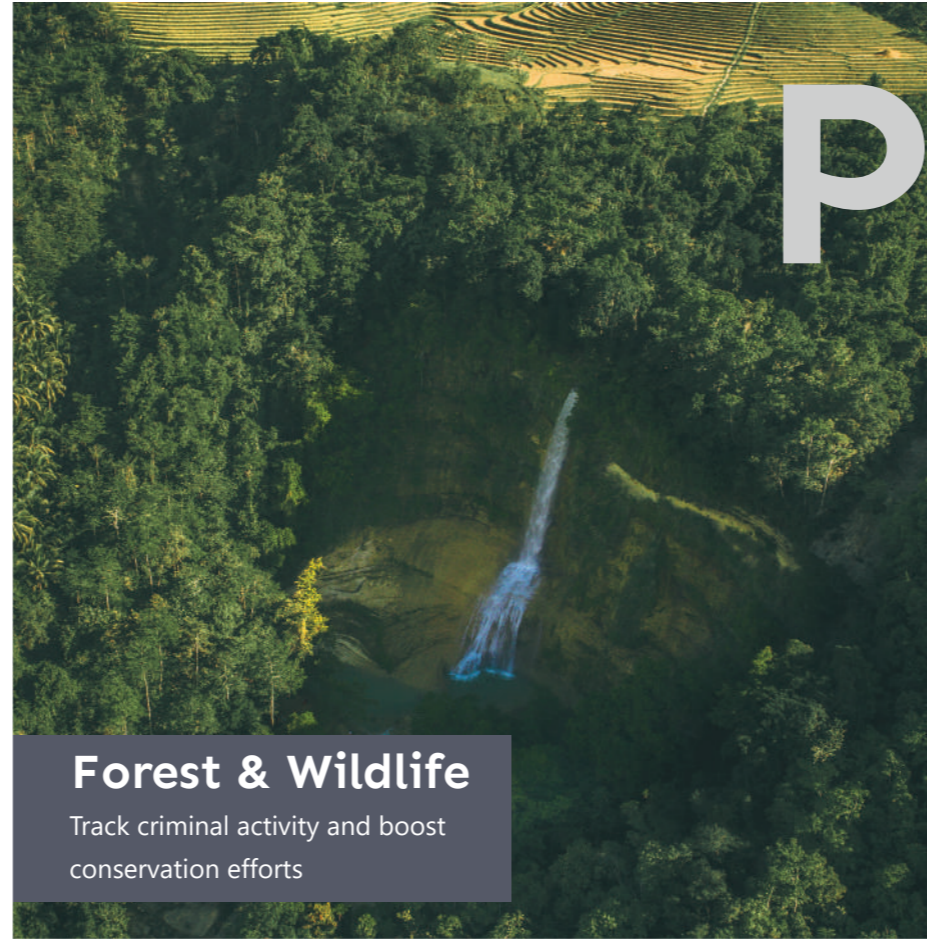
## Anti Terror

Detect threats and identify risk-prone areas from a remote location



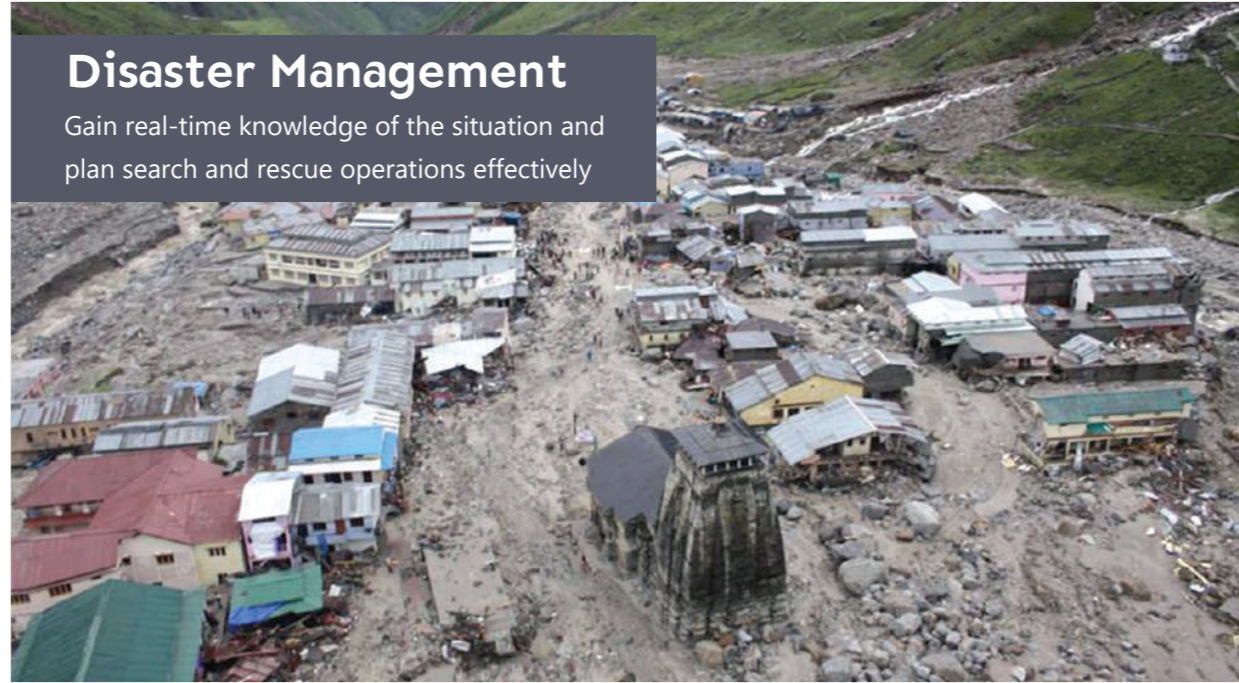
## Forest & Wildlife

Track criminal activity and boost conservation efforts



## Disaster Management

Gain real-time knowledge of the situation and plan search and rescue operations effectively



## Border Security

Conduct reconnaissance missions and track illegal activities without risking lives



## Crime Control

Enhance law enforcement with remote situation assessment and crime scene analysis



## ISR Operations

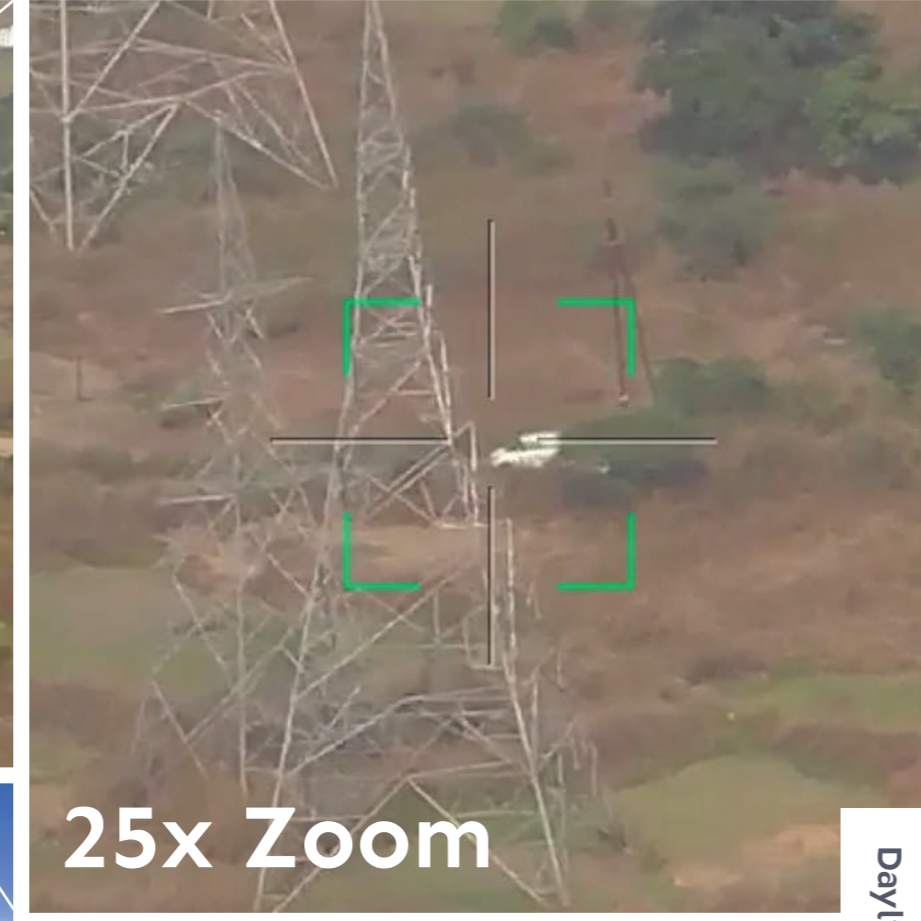
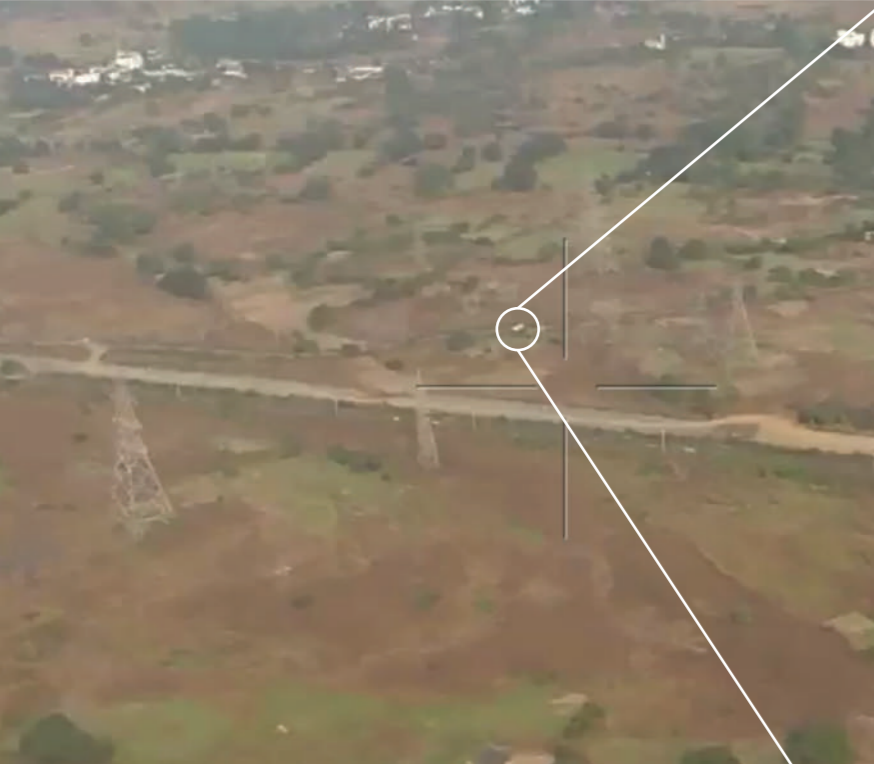
Conduct surveillance and gather actionable intelligence



# Real-world Outputs

SWITCH UAV is the force multiplier that saves lives

# Boost Operation



25x Zoom

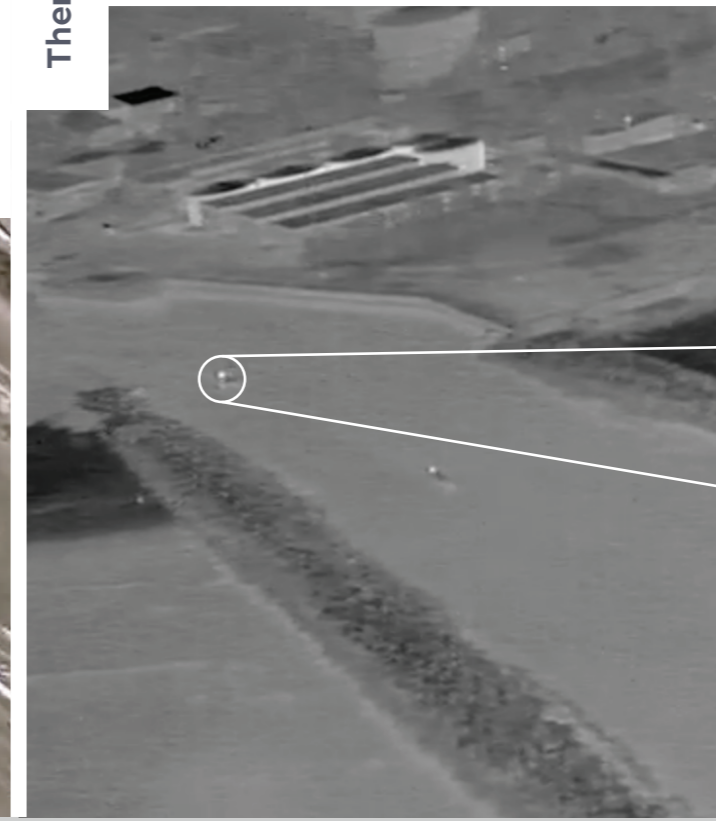
Daylight



Thermal



-15°C



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