



## Reveal

## Actionable Intelligence at the Tactical Edge Farsight revealtech.ai

## In the next generation of warfare, the U.S. and our allies will need to establish strongholds in contested, communication-degraded environments.

The warfighter needs capabilities that allow them to be **agile**, lean, and decisive to keep up with the pace of the battlefield.

## Reveal delivers decision dominance, situational awareness and autonomy at the tactical edge.

## Farsight

An operationally validated, receive-only software solution that provides users with actionable intelligence in GPS-denied, network-constrained environments and in tactical cloud environments.

- Processes sensor-collected imagery to create maneuver-quality 3D models in near real-time.
- Sensor and operating system agile to integrate seamlessly into DoD legacy, current, and future systems.
- Modeling is processed with minimal processing power at the edge.
- Ability to mesh AI analytics for additional situational awareness.
- Cloud-enabled, seamless ingestion and dissemination from edge to enterprise



#### **Platform Agile**

Farsight is platform agile and interoperable with legacy, current, and future systems.

#### **2 Processed at the Edge**

Farsight operates on EUDs already carried by the DoD and does not require network connection.

#### **3** Minimal Processing Power

Farsight can process large amounts of data without the reliance on backhaul capabilities.

#### 4 Easy to Learn & Integrate Farsight's straightforward UI is user-friendly and requires only basic training.



# Why Enable Disconnected Decisions?

Our soldiers operate in rapidly changing environments where comms/GPS is often denied and reliance of perfect networks is uncertain. The efficiency of rapid decision-making with real-time data allows for accuracy and increased situational awareness.

Reveal's product toolkit enables large amounts of data to be ingested at the edge with AI-generated recommendations & intelligent insights available in a matter of minutes.

# Achieve Decision

## Dominance with





Airmen, Marines, Sailors, and Soldiers operating at the tactical edge face unique challenges. Their missions often lead them far from headquarters, where their access to intelligence support is limited. Despite ever-increasing data available to decision-makers back at base, forward operators must often wait for slow-moving intelligence analysis that doesn't match their fast-paced tactical environment.

Reveal Technology delivers intuitive, rapid intelligence at the tactical edge, blending state-of-the-art computer vision, artificial intelligence, and edge computing technologies. Both modeling and analytics are processed at the edge with minimal processing power making it unlike any other commercial-off-the-shelf or government-off-the-shelf solution on the market. **Featured Analytics:** 





Al route planning Helicopter landing zone surveying



Terrain analysis & measurement tools

## Intelligent Democratization of Data

Farsight reduces the amount of data processed at the end-user device (EUD) or onboard the UAS. First, Farsight intelligently down-selects available data to achieve time and quality-optimal results regardless of the volume. Once all input data is computed on the Farsight platform, the resulting model will be a fraction of the size of the original input data.

Farsight transforms raw imagery into actionable intelligence instantly, and without a reach back chain. By automating complex data reduction and 3D model generation, it delivers insights once reserved for premier units with access to exquisite data and full analyst teams.

Users can conduct terrain analysis, HLZ surveys, and Line of Sight planning directly on handheld devices without waiting on intelligence or geospatial cells. Real-time 2D maps give immediate situational awareness. AOI-based 3D modelling enables rapid, focused planning and rehearsal .Farsight puts mission-grade intelligence in the hands of every patrol, pilot, and planner.

## Platform Agile

Farsight overcomes the barriers of interoperability by operating with a wide range of past, current and future DoD approved devices.

Farsight seamlessly integrates with unmanned platforms supporting nonproprietary metadata to ensure adaptability to the end-user's needs.

Cross-platform compatibility extends its functionality across multiple operating systems (OS). Eliminate future training costs and reduce complexity by operating Farsight with your preferred platform of choice.













## Maxar 3D Data Integration

**Strategic-Grade Terrain. Tactical-Level Access.** 

Farsight now integrates Maxar Precision 3D (P3D), delivering certified, high-resolution 3D terrain data to users at the edge.

#### What's Changed:

- From SCIF to Smartphone: P3D data, once limited to strategic headquarters with specialized systems, can now be accessed and used on handheld devices and XR headsets
- Mission-Grade Data, Anywhere: No need to fly a drone. Visualize and plan using globally available, precision terrain datasets





# Farsight Configurations - 1

All Farsight configurations are compatible with industry-standard sensor metadata and are hardware and OS-agnostic. Whether it's Mobile, Node, XR, on the Cloud or our Accelerator, the following capabilities are included:

- High-Fidelity Data Processing
- Real-Time 2D Mapping

- No Network Connection Required
- Tactical AI Tool Kit

#### Farsight Mobile

Processed locally on end-user devices
Squad-embedded ISR capability
Drastically reduces SIGINT signature



uired - Near Real-Time 3D Modeling - Compatible with EO & IR



Global mission hub for data ingestion & sharing
Supports multi-feed 3D generation at scale
Enables fusion of multiple mapping missions and

# Farsight Configurations - 2

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- Real-Time 2D Mapping

- Tactical AI Tool Kit



- No Network Connection Required Near Real-Time 3D Modeling
  - Compatible with EO & IR and Maxar



## Capabilities

#### **Real-time 2D Mapping**

Operators on the tactical edge, in signal-denied environments, often use sUAS for operational ISR. With Farsight, operators equipped with sUAS and a mobile device can launch and immediately access on-demand intelligence with as much range as the UAS allows. This eliminates dependencies on larger ISR platforms and increased situational awareness.





#### **Near real-time 3D Mapping**

Farsight gives operators near real-time 3D (NRT3D) mapping capabilities in the palm of their hands. Models are available to the users in as little as 2 minutes. Accurate 3D mapping helps to streamline mission planning.





#### **Line of Sight Analysis**

Once 3D Modeling of an AOI is achieved, users can utilize Farsight's line of sight (LOS) tool to quickly understand vantage points. Whether using LOS to avoid detection on a reconnaissance mission or to specifically plan a diversion, Farsight allows the tactical teams to be more creative on the battlefield.



#### **Route Planning**

Once 3D model has been processed, users can drop routes, phase lines, and other maneuver mechanics right into the model. Operators can assess and then push planned routes into ATAK. With LOS analysis, the route will be evaluated for enemy awareness, giving team leads the information necessary to move covertly through the battlefield.

#### **Route Planning**

Farsight's Route Planning tool intelligently suggests the most advantageous path from Point A to Point B. Routes are suggested based on maximum concealment (avoiding the LOS of an enemy) and terrain.

#### **Route Terrain & Analysis Graphing**

Farsight seamlessly generates analytical graphics and detail without the need for specialist analytical support or hardware enabling maximum value to be extracted from sensor data and Farsight imagery once processed. Analytics are easily transferable and exportable.











#### **HLZ Surveying**

Forward operators are often tasked with conducting HLZ surveys in advance of an operation. Rather than sending an element forward just for an HLZ survey, Farsight allows users to conduct HLZ surveys, record grid information, and transfer to air assets via ATAK in real time. Farsight considers doctrinal limits and airframe capabilities to suggest HLZ locations. Users can input the size of the landing zone required and the maximum allowable slope to find a Farsight-suggested HLZ on appropriate clearings or rooftops

#### **Measurement Tool**

Using the Measurement Tool, operators can rapidly mission plan knowing the barriers in their environment. When analyzing 3D models, users can easily measure building heights, angle of inclination, length of roads, and more.

#### **ATAK Streaming UAS Workflows**

Farsight is built to keep operators in the fight instead of heads down. Farsight integrates with various ATAK streaming UAS workflows to stream, record, and process data generated by a massive variety of UAS, ground controllers, and software integrations.

#### **Digital Elevation Mapping**

In addition to modeling capabilities, Farsight can export high-resolution digital elevation maps (DEMs). DEMs are useful in both the planning and execution phases of operations. DEMs can allow operators surveying a valley to locate advantageous micro terrain prior to an assault. Slight elevations can be used to establish sniper positions, identify useful cover, and plan phase lines and fields of fire. DEMs can also be used to assess the viability of ridge ascents or other terrain features during an operation.











Operators can rapidly and automatically evaluate slope, runway length, surface distress (ruts, potholes, erosion), and glide path criteria validated for multiple platforms.

#### Key Capabilities:

- Precision Grading: Calculates slope, overrun margins, and obstacle clearance against platform-specific tolerances.

#### **Key Terrain**

#### Landing Zone Assessment Tool

- Surface Distress Detection: Highlights runway damage using mesh
  - analytics, critical for austere or unmaintained strips.
- **Drop Zone Overlay:** Integrates with ATAK and Farsight XR for
  - intuitive visualization and collaborative planning.
- Our contour lines feature allow you to draw an outline at the borders of key terrain. Adjust the sliders to modify the map's elevation. The revised map will include an outline of the primary terrain to provide a clearer representation of the key features.



#### **3D Symbology Overlay on Raw Media**

Farsight users can overlay symbology on top of media, and exporting that media with the overlays. Supported symbology includes points, routes, LoS, HLZ, and vertical obstacles/obstructions.

#### First person view (FPV) on 3D Model

Farsight users can select a route or position and walk around with the first person view (FPV) tool.

#### 2D/3D Model Exporting to

#### **Standardized Formats**

Effortlessly export models to industry-standard 2D/3D formats for universal compatibility.





#### **Thin Structure Detection**

Our thin structure detection capability allows Farsight users to detect structures that can't be constructed in the 3D mesh.





Advanced

Export

# /storage/emulated/0/Pictures

### **Farsight XR**

Farsight XR (Extended Reality) XR takes capability from novelty to practicality, with the sole focus on reducing the cognitive burden on operators and aircrew by ensuring they can be fully immersed in a geospatially accurate render of their battlespace.

Farsight already exists in several successful configurations lauded by users. XR is seen as cumbersome and impractical. What makes Farsight XR different?

- 30 Seconds to Set Up
- Designed with intuition and a '2 click philosophy'.
- Run completely offline, no connectivity modes available.
- Built by users for users, around select operating requirements.





## **Operational Impact**

#### **Enriched CJADC2**

Streamline operational effectiveness and convergence of effects by providing real-time intelligence to decision-makers at every level.

#### **Increased Agility**

Understand the viability of contingency locations through the use of artificial intelligence to modernize the maneuver of forces.

#### **Enhanced Situational Awareness**

Construct force plans and strategies using real-time intelligence of contested theaters and support agile operations.

#### **Reduced Risk to Life (RTL)**

Enhanced mission rehearsal, terrain understanding, and ingress planning, minimizing exposure windows, enabling safer insertion, movement, and strike.

Easily create 3D models of contingency locations to effectively tailor force posture and access forward operating sites.

#### **Faster, Informed Decision-Making**

Enables immersive 3D briefings and visual rehearsals, allowing commanders to rapidly understand complex terrain and commit to actions with greater confidence.

### **Modernized Operational Planning**

## **Operational Vignette**

#### CENTCOM AOR, undisclosed location. – European Tier 1 Unit

The Farsight capability proved extremely useful in helping to identify routes to the objective and visualise the nuances of complex physical infrastructure. It was used extensively by the planning teams to provide an enhanced method of visualisation beyond that of the traditional model pit.

XXX on Deployment XXX proved an area of large and complex terrain. There were multiple buildings, a large array of routes and intricate structures. Even though 2D mapping did assist in the reconnaissance and planning to some degree is was had to visualise the detail of the physical environment.

Our primary objective in the village was the XXXXX which proved a significant structure with multiple approach routes, all of which were difficult to understand without the time for any physical reconnaissance. However, our recce elements were able to capture imagery from sUAS to process in Farsight.

Subsequently, the Teams were able to walk the route to their Final Assault Positions (FAPs), identifying any changes in the terrain and obstacles they faced on route to Target. There was some complex terrain, that had to be navigated to get to the FAPs, which presented the enemy multiple ambush opportunities, Farsight enabled robust red-teaming of proposed routes enabling us to readily understand the enemy's perspective of our route to target.



## Sole Source Eligible

Reveal Technology, Inc. is an awardee of a SBIR Phase II with the United States Air Force. Under SBIR/STTR Policy Directive, Reveal is now eligible to receive sole-sourced awards from any US Government Agency. Eligibility under this policy directive allows government customers with a mission need for Farsight to bypass competition requirements.

This drastically reduces procurement timelines to enable Farsight to get into the hands of the warfighter faster. There are no restrictions on the contract vehicle type (firm-fixed-price, IDIQ, cost, etc.), so our team can work to develop a scope that meets strategic needs with reduced contracting documentation.

#### www.revealtech.ai