

Executive Summary:

Distributed maneuver units operating in unknown terrain require situational awareness without reliance on slow, labor-intensive analysis. More informed, faster tactical decisions can be made through AI software that reduces the time and labor required to make effective use of ISR assets. Farsight UAS software provides every operator, and every squad, actionable intelligence, surveillance, and reconnaissance (ISR) capabilities at the unit level on timelines measured in minutes and seconds, not hours and days, all while minimizing the heads-down time for operators. Farsight technology operates on the device operators carry, not on a server stack in another time zone. It does not hog SATCOM bandwidth and is platform and operating system agnostic, and designed with integration into ATAK. Developed alongside DoD's special operators, Farsight is easy to learn, easy to integrate, affordable, and customizable. Farsight delivers true human-machine teaming capabilities, by intelligently cueing users with actionable intelligence.



Capabilities

2D Mapping

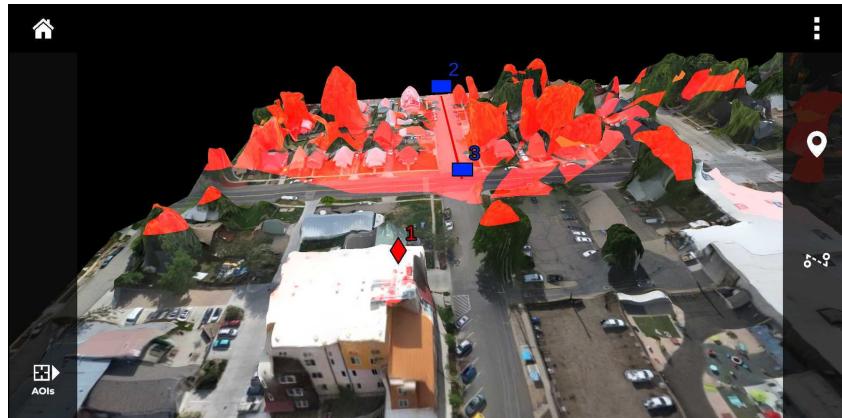
Operators need up-to-date, on-demand mapping to carry out operations. With Farsight, an operator equipped with a sUAS and mobile device can generate their own ISR, maps, and actionable intelligence. This allows tactical elements to be deployed rapidly, without dependence on larger ISR platforms or burdening higher headquarters for GIS or mapping support.

Near-Real-Time 3D Mapping

Farsight builds 3D models from FMV feeds which can then be used to deliver insights to distributed squads. With this, Farsight calculates the height of buildings and walls, measures the dimensions of objects of interest, calculates distance, and more. This information makes it easier for soldiers to understand the nuances of a ridge assent, conduct more informed route planning, and enhance the combat effectiveness of the unit. Whether operated by a reconnaissance element in advance of the main force or an assault force prior to an assault, NRT3D models enhance the mobility and lethality of operators.

Line of Sight Analysis

Once 3D mapping of an area of interest is achieved, Farsight can quickly create value for the operator through line of sight (LOS) analysis. Whether using LOS analysis to avoid detection on a reconnaissance mission or to specifically plan a diversion, Farsight allows the distributed team to be more creative on the battlefield.



ACTIONABLE
INTELLIGENCE FOR
EVERY SQUAD -
ENABLED BY
FARSIGHT'S AI AT THE
TACTICAL EDGE

Figure 1.0 In this image, red force personnel, located at red diamond, have their field of view overlaid on a 3D model of the urban battlespace. The blue troop commander has placed a proposed route (blue square 2→3) but it is clearly within the red force's line of sight.

Route Planning



During a UAS mission, Farsight creates mapping outputs in realtime. The operator can then create routes, symbols, phase lines, and other maneuver markups on the map or 3D model and assess their tactical use. All of these features can be shared with ATAK. If LOS analysis has been run, the route will be evaluated for potential enemy visibility, giving the friendly units enhanced ability to maneuver effectively throughout the battlespace.

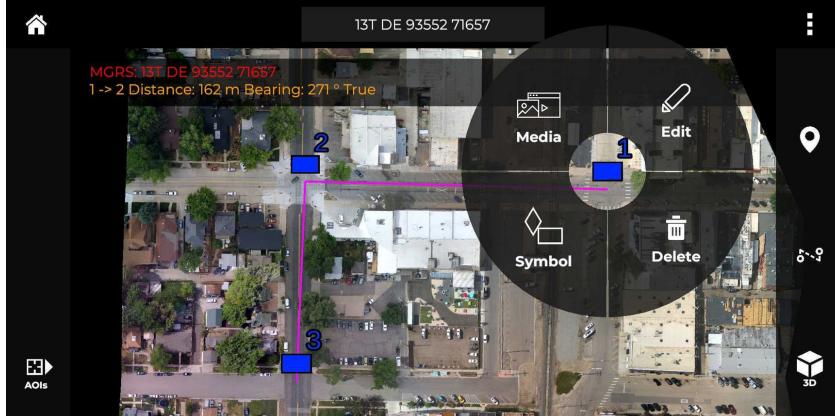


Fig 1.1 The team leader has created a new route in Farsight. All route information MGRS, elevation data, and other relevant information can then be pushed to ATAK.

OS & Hardware Agnostic

New software solutions like Farsight must integrate and support interoperability with a variety of hardware devices in inventory. For this reason, Farsight is designed to work on Android, Windows, and Linux operating systems. Unlike traditional "platform-based" ISR capabilities, Farsight is a software-based solution that works with existing, deployed sensors and operator-borne technology.

Example Hardware	3D Reconstruction of 100m ²	3D Reconstruction of 200m ²	3D Reconstruction of 300m ²	3D Reconstruction of 400m ²
Samsung G S9	1:44	3:09	6:19	10:39
Samsung G S10	0:47	2:18	4:37	7:47
Samsung G S20	0:34	1:42	3:24	5:45

Fig 1.4 Example reconstruction times with deployed Samsung hardware. All times listed in minutes:seconds format.

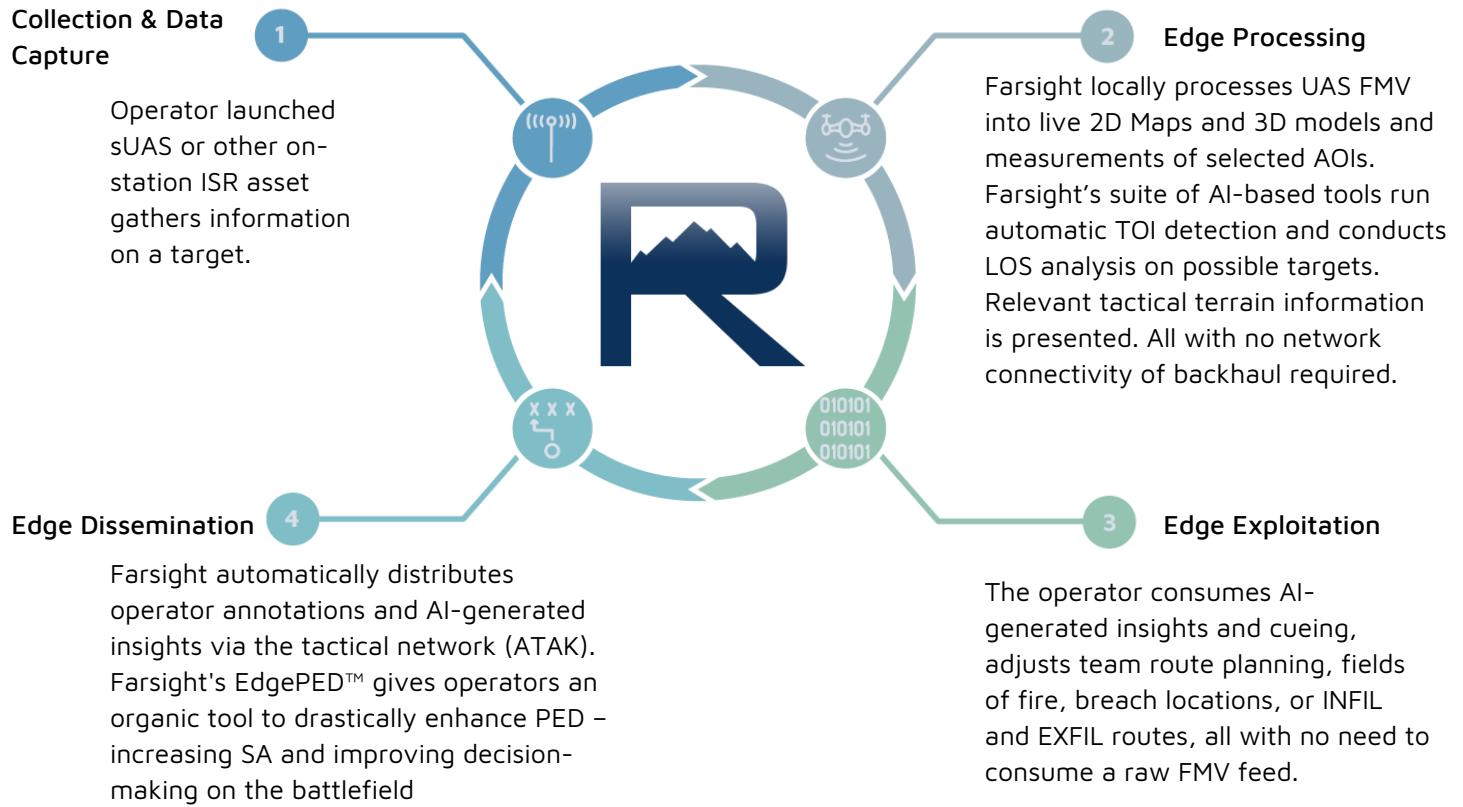
Applied and Tactical AI

In addition to demand from tactical users, Farsight by Reveal supports Executive Branch and Departmental guidance to deliver applied and tactical AI to the battlefield. AI-powered insights reduce the cognitive burden on troops in high-risk environments allowing them to make better, faster decisions. The DOD has identified AI and edge computing solutions, like Farsight, as a high priority acquisitions objective. Farsight delivers the possibility of true applied AI at the tactical edge, without need for network connectivity through technology available today.



Introducing EdgePED™

"Actionable intelligence for every squad, enabled by Farsight's edge AI"



Contact the Reveal team at info@revealtech.ai for additional and more detailed information