

starcopter

THE HIGH DRA
AUTERION MISSION CONTROL





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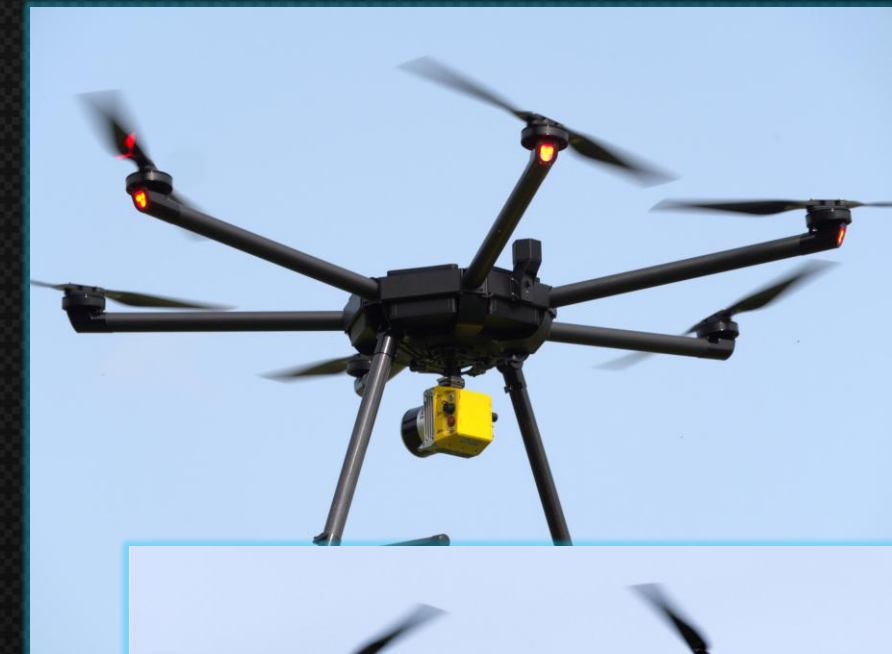
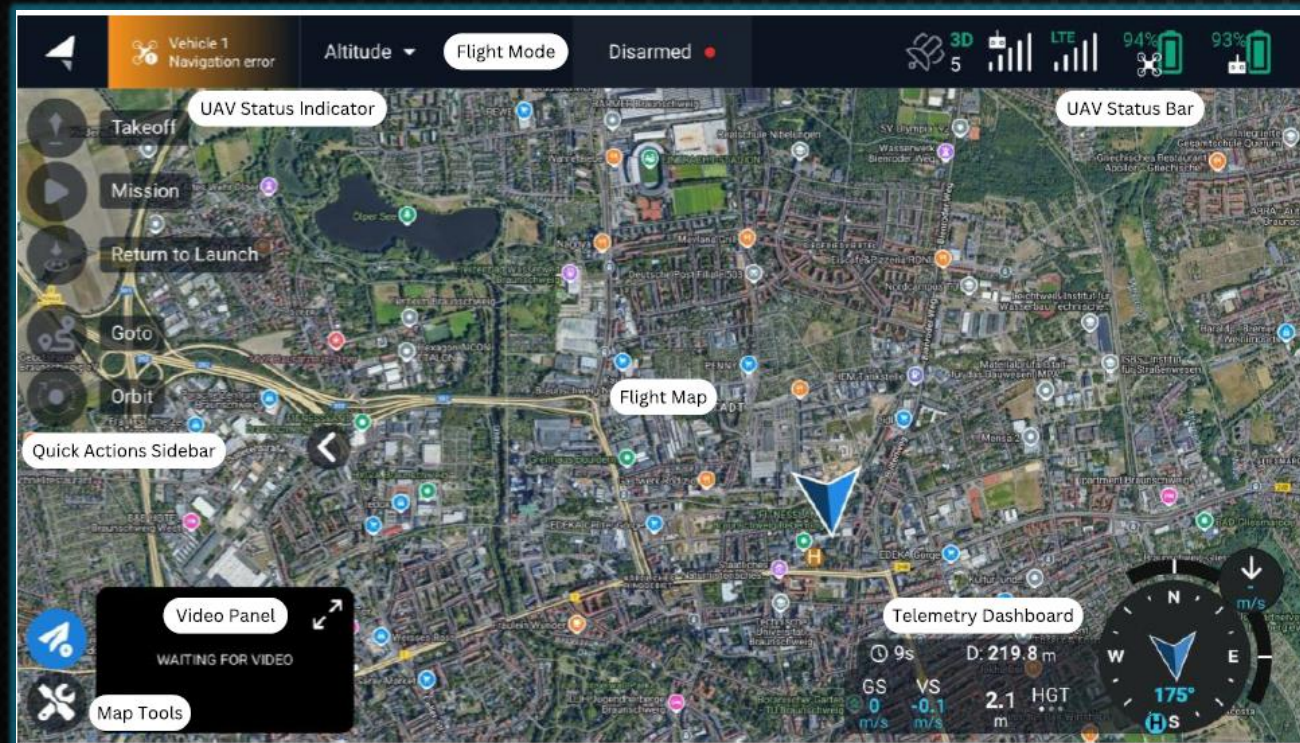
Auterion Mission Control Plan View



*According to the **HIGHDRA** Operating Manual v1.1*



Auterion Mission Control Fly View

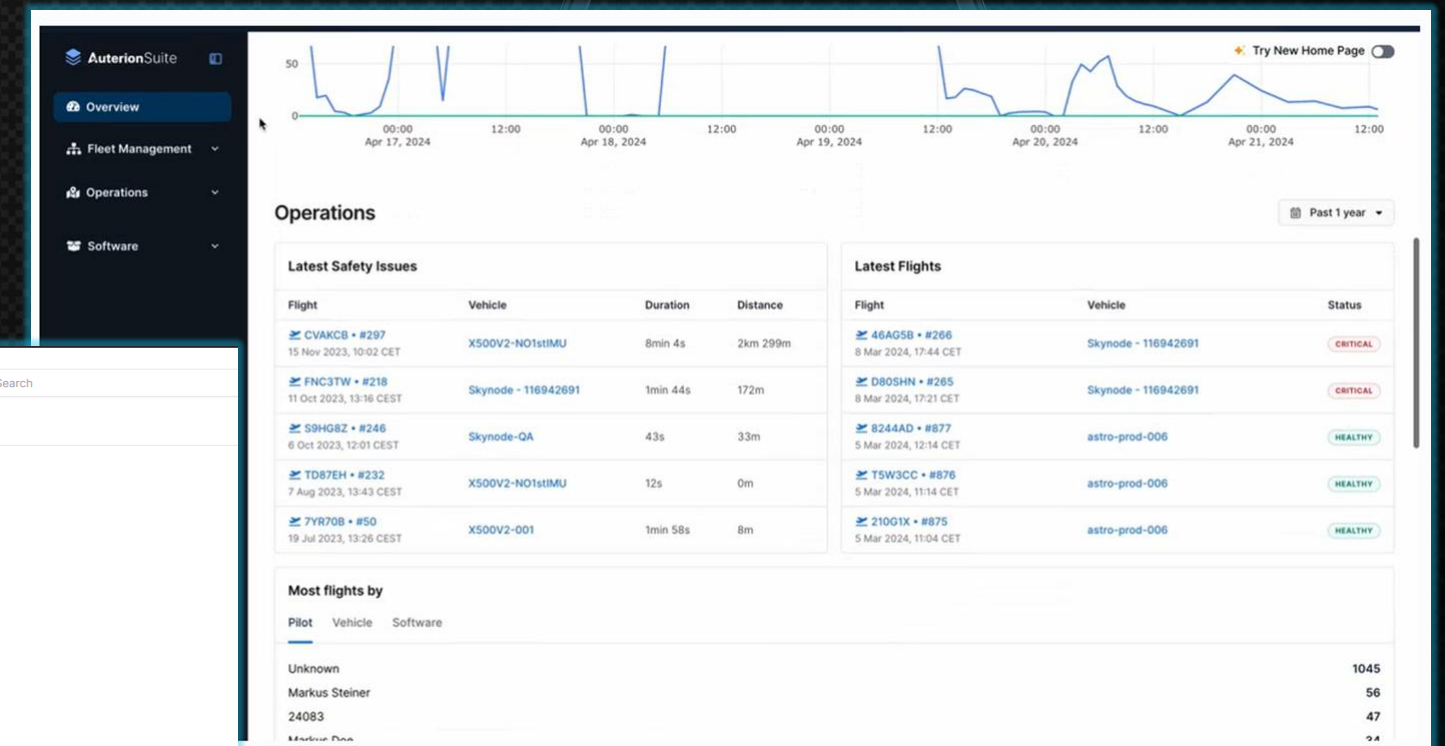
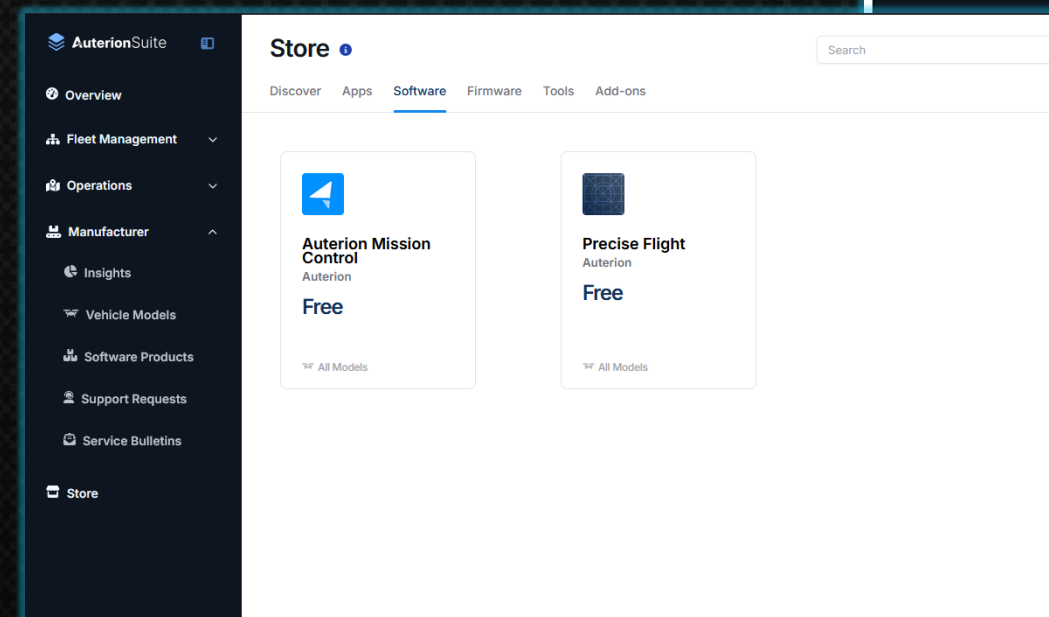




Introduction to Auterion Mission Control

✓ Introduction to Auterion Mission Control (AMC)

- *AMC is a ground station application for UAV pilots.*
- *Supports piloting, mission planning, execution, and configuration.*
- *Ensures safe, compliant, and efficient UAV operation.*





Introduction to Auterion Mission Control

✓ Key Capabilities of AMC

- **Pre-flight safety checklists.**
- **Direct UAV control (manual or autonomous).**
- **Mission planning: waypoints, surveys, corridors.**
- **Real-time in-flight warnings and telemetry.**



AuterionSuite

astro-prod-003 (Bench)

Freely Astro Quadrotor AOS v2.19.23 PX4 2.7.29 FREEFLY_ASTRO_FMU_V5X Transfer Locked

Online OUT OF SERVICE Video

Vehicle Overview Notes History Software Files Parameters Maintenance

Vehicle Summary

Flight Count	Total Flight Time	Average Flight Time
	100h 44min 30s	4min 55s
Flight Status	Total Flight Distance	Average Flight Distance
	1042km 640m	849m

Configuration: ed-9e1d41

Groups: AS GA

Latest flight 12 days ago **CRITICAL**

mapbox

AuterionSuite

Auterion Mission Control Download

Category	Version	Vehicle Model	Author
Software	1.34.21	All Models	Auterion

About the software

A powerful and fully featured ground control station application that is optimized for pilots of Auterion-powered vehicles.

[1.34.21 Changelog](#)

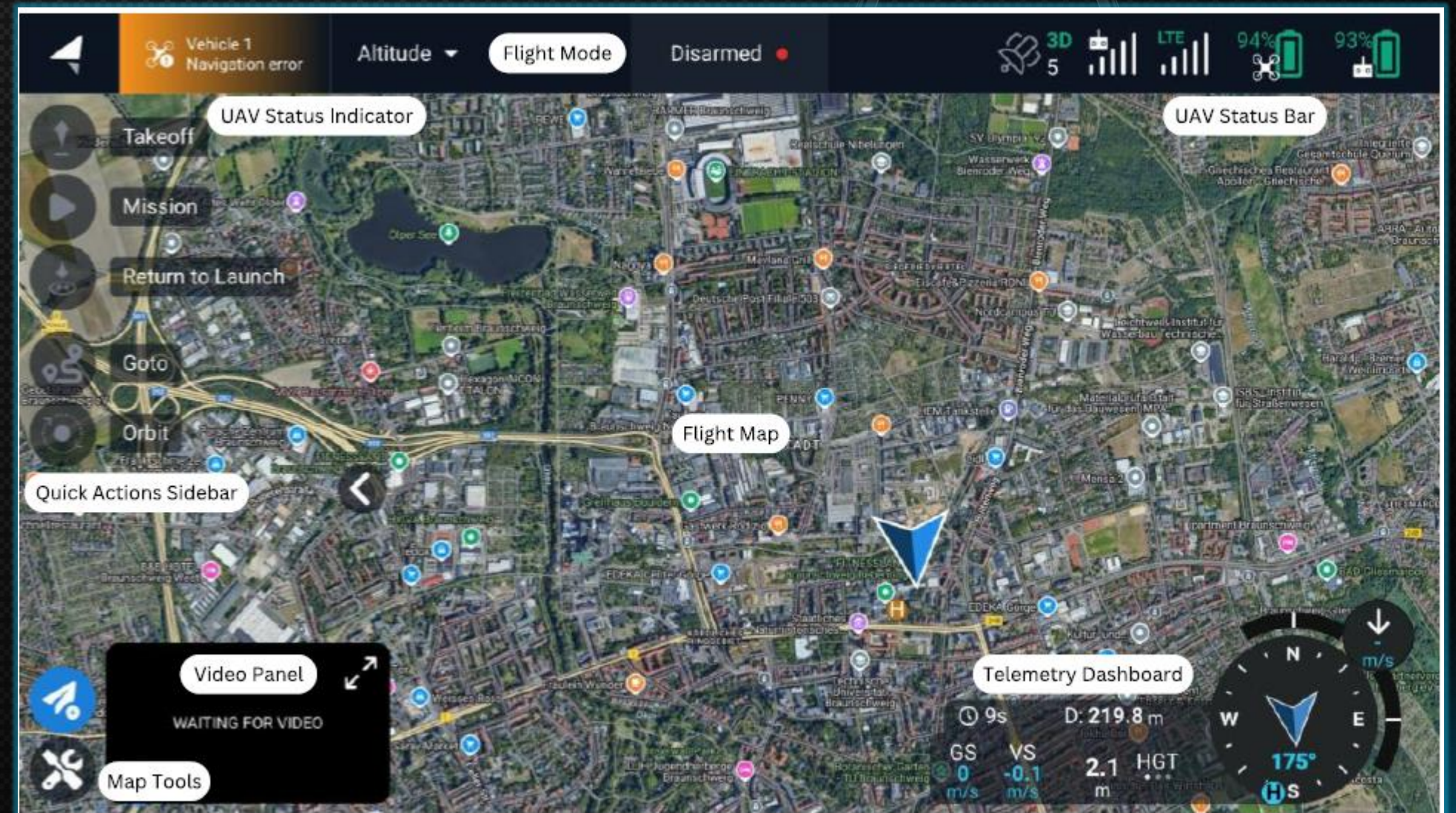
Previous Releases

Auterion Mission Control Fly View



✓ Fly View Overview

- *Default screen for flight operations.*
- *Execute checklists, launch/land, control UAV.*
- *View mission map, telemetry, and video feed.*

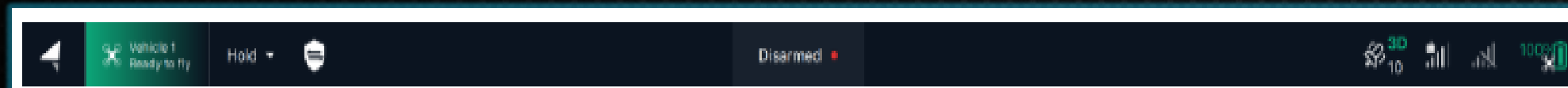


Auterion Mission Control Fly View



✓ UAV Status Bar

- *Displays mode, GPS, link quality, LTE, battery.*
- *Includes Armed/Disarmed, Signal Strength indicators.*
- *Tap icons for more information.*



Icon	Action	Description
	Menu	Application menu: access Fly, Plan, Vehicle Overview, Controller, Photos, Application Settings and User Log in.
	UAV Status	Status of the current UAV (color and status description).
	Mode	Show the current flight mode. Choose to activate a manual flight mode.
	Connection Manager	Pairing status.
	Armed/Disarmed State	Display or select the armed state. The states include Armed (motors spinning), Disarmed (motors stopped), and Emergency Stop (motors stopped in flight, potentially causing the UAV to crash).
	GPS Status	GPS count and GPS Satellite lock.
	Link Quality	The bars indicate the strength of the link signal between UAV and RC. A greater number of lines corresponds to a stronger signal.
	Cellular Indicator	The bars indicate the strength of the cellular signal. A greater number of lines corresponds to a stronger signal.
	UAV Battery Status	Remaining capacity of the UAV batteries.
	RC Battery Status	Remaining battery capacity (percentage) of the RC. The Status is displayed in red at the 30 % mark and below, which indicates RC battery low level.






Auterion Mission Control Fly View

✓ UAV Status Indicator

- *Color-coded readiness indicators.*
- *Green: Ready, Yellow: Issue present, Red: Unknown fault.*
- *Displays descriptive flight status messages.*



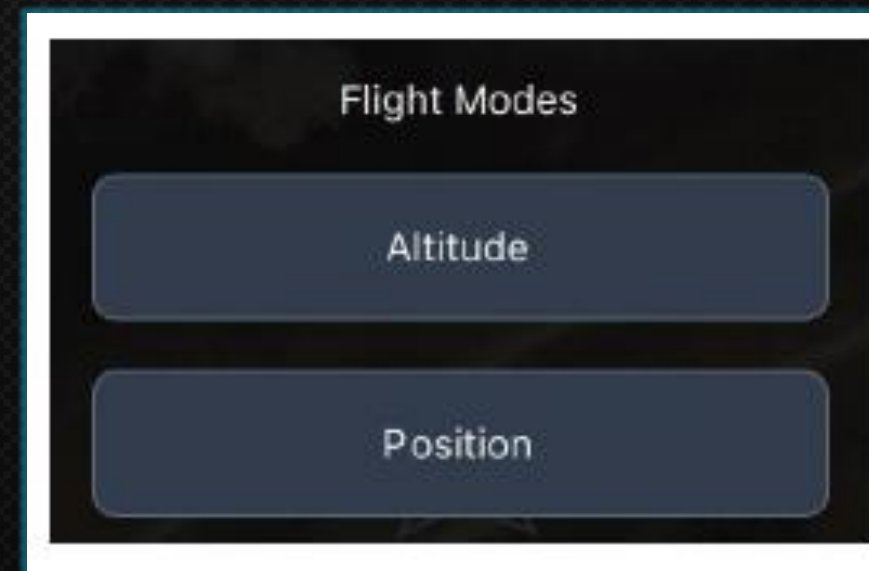
Symbol	Description
 Vehicle 1 Ready to fly	UAV is ready to arm and takeoff.
 Vehicle 1 Setup required	UAV not ready to take off for a known reason: <ul style="list-style-type: none">• System requires setup (e.g. compass calibration).• Active warning of condition preventing takeoff (e.g. no position lock).
 Vehicle 1 Not ready to fly	Unknown fault preventing takeoff.



Auterion Mission Control Fly View

✓ UAV Flight Mode Selector

- *Displays current flight mode automatically.*
- *Manual options: Position Mode, Altitude Mode.*
- *Modes switch automatically during actions like hold, mission or land modes.*





Auterion Mission Control Fly View

✓ Emergency Actions

- *Emergency Stop shuts motors down mid-air.*
- *Leads to uncontrolled descent—only use in critical emergencies.*





Auterion Mission Control Fly View

✓ Quick Actions Sidebar

- *Commands: Takeoff, Land, RTL, Mission, GoTo, Orbit.*
- *Sidebar adapts to current UAV state-greying out invalid choices.*

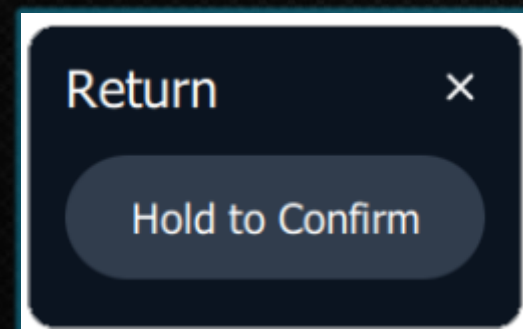




Auterion Mission Control Fly View

✓ Basic Flight Operations

- **Commands:** Mission, Land, RTL, Hold.
- **Actions require user confirmation.**



Icon	Action	Description
	Takeoff	Do not use this action! Enable UAV arming and initiate takeoff to a designated altitude (option visible when the UAV is landed).
	Land	Descend and land the UAV at its present location, followed by disarming (option visible during flight).
	Return	Navigate to a secure location. The path and landing behavior are contingent on the UAV's configuration.
	Mission	Only use this action in midair! Initiate the uploaded mission on the UAV. If a waypoint was previously selected, commence the mission from that specific waypoint.
	Hold	Pause the ongoing operation and maintain the current position.



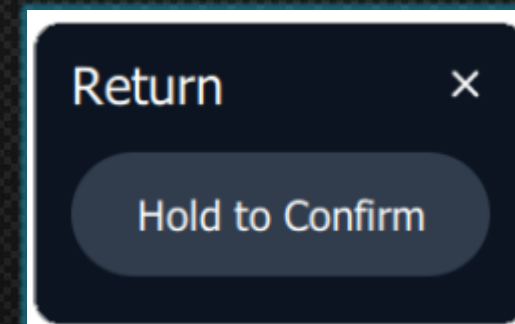
Warning! Do not use the takeoff button and the Mission button before takeoff!



Auterion Mission Control Fly View

✓ *Flight Tools*

- *Frequently used Flight Operations*
- *Actions require user confirmation.*



Icon	Action	Description
	POI	Set a Point of Interest (POI) on the map to orient the Gimbal in this direction (available only with Gimbal).
	Goto	Instructs the UAV to navigate to a particular location (can also be employed within a mission, while pausing the ongoing mission).
	Orbit	Directs the UAV to orbit around a designated location.
	Set Altitude	Adjust the altitude at which the UAV is currently flying.
	Change Speed	Adjust the speed at which the UAV is currently flying.

To modify the radius, speed, and rotation direction of an orbit for UAV's, Joystick inputs are necessary:

Left Stick			Right stick	
•	up/down:	ascent/descent	speed	• up/down: orbit radius decrease/increase (center to lock radius).
•	left/right:	no effect.		• left/right: orbit acceleration CW/CCW (center to lock current speed).



Auterion Mission Control Fly View

✓ *Map Tools*

- *Functions: Center Map, Marker, Measure, Load KML, Toggle Airspace.*
- *Standard gestures for Map interaction.*



Icon	Action	Description
	Center Map	Centers the map on the UAV.
	Marker	Place markers on the map with various shapes and colors.
	Clear Path	Clears the red path shown on the AMC Fly View.

	Map Layers	Select from various map layers.
	Load KML overlay	Load KML files.
	Measure	Measure distance or area on the map.
	Show/Hide Restriction	Show or hide restricted and controlled airspace in AMC.

Auterion Mission Control Fly View



✓ Telemetry Dashboard

- Displays speed, altitude (HGT, MSL, AGL), orientation.
- Switch between altitude modes by clicking label.





Auterion Mission Control Fly View

✓ Flight Map Elements

- *Icons for UAV, Pilot, Waypoints, POIs, Orbit.*
- *Shows actual and planned flight paths.*



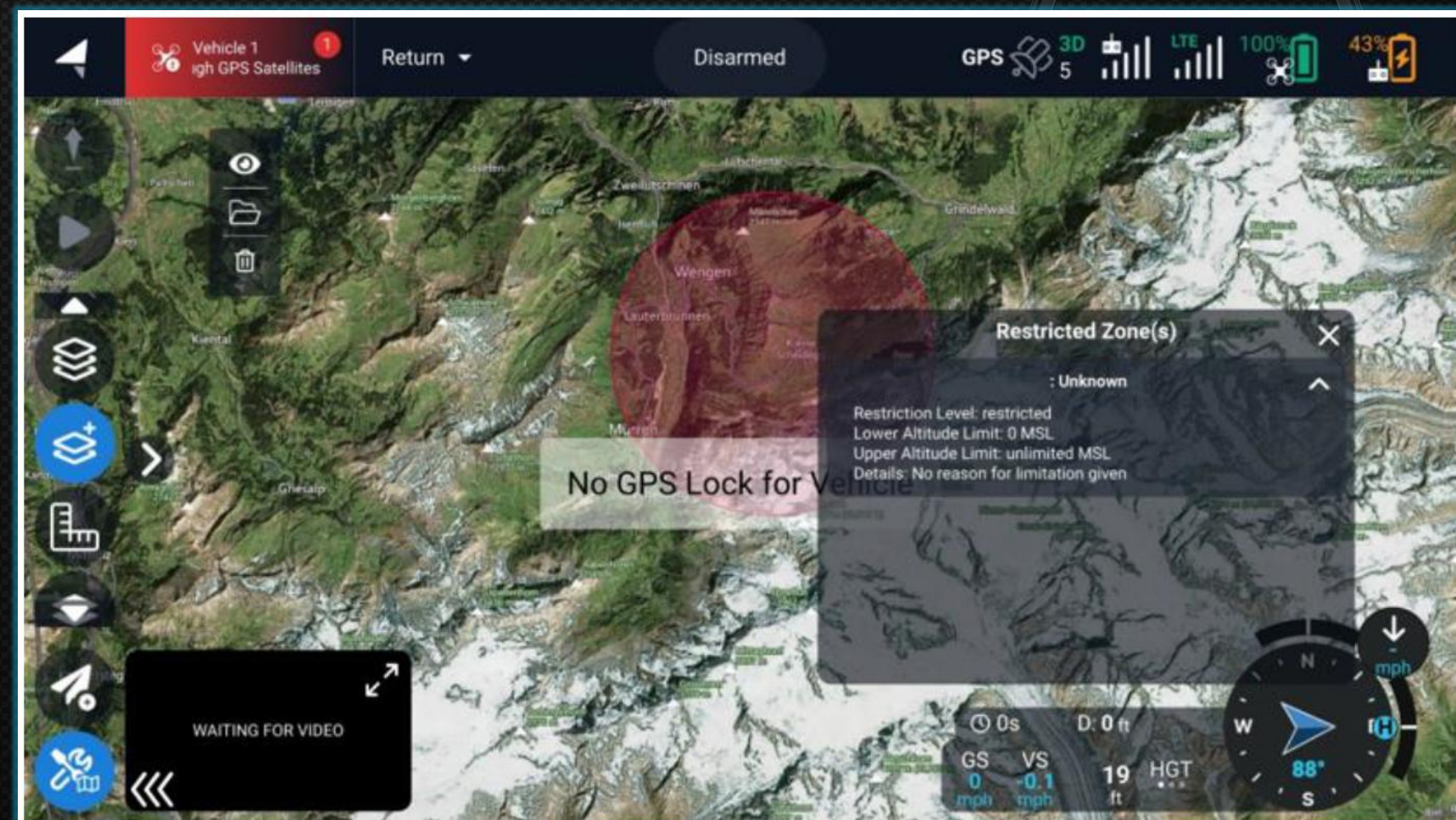
Icon	Action	Description
	Home	Home position is where the UAV first achieves a reliable position lock, usually the arming or takeoff point.
	Remote Pilot	Remote Pilot position defines the pilot's location during operation for communication and control of the UAV.
	UAV	The orientation icon shows the UAV's location and orientation, providing real-time awareness and aiding control.
	Waypoint	A waypoint is an advanced flight planning feature that enables the creation and automatic execution of flight paths.
	Orbit	Orbit map-action target (center of planned orbit).
	Go Here	Goto map-action target location.
	POI	Position mode POI target location.

Auterion Mission Control Fly View



✓ Geo-Awareness Overview

- Warns of approaching restricted airspace.
- Pilot retains full control—AMC does not auto intervene.
- Data must be uploaded before each flight.





Auterion Mission Control Fly View

✓ Uploading Geozone Data

- **Download ED-318 format from EASA sources.**
- **Convert using Starcopter's online converter.**
- **Upload file to Herelink device via USB.**
- **Load geoJSON file via Map Tools > Map Overlays.**
- **Visual warnings appear pre-breach and on entry.**



AMC Geozone Converter

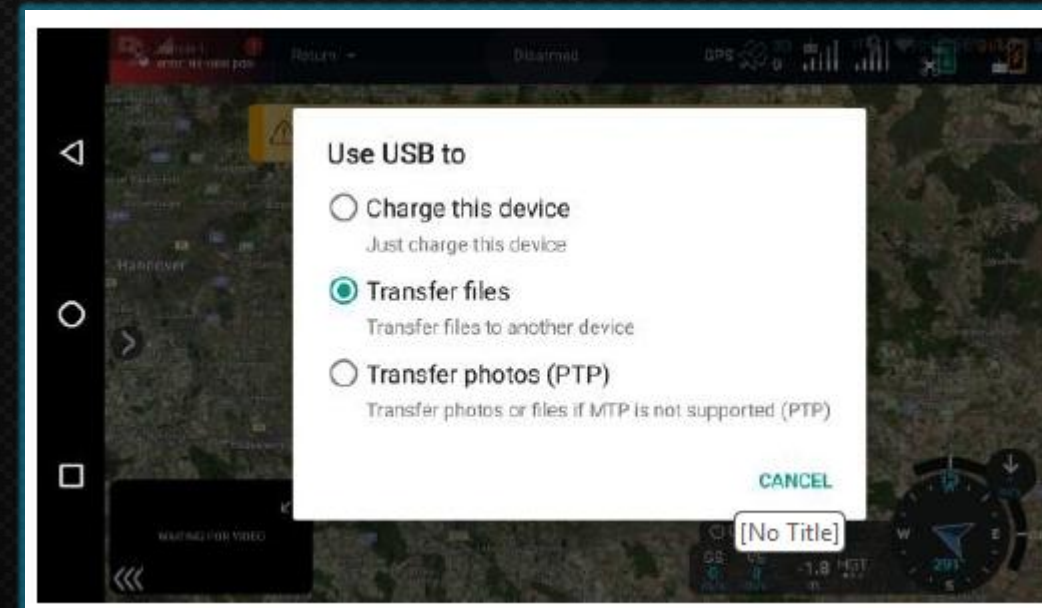
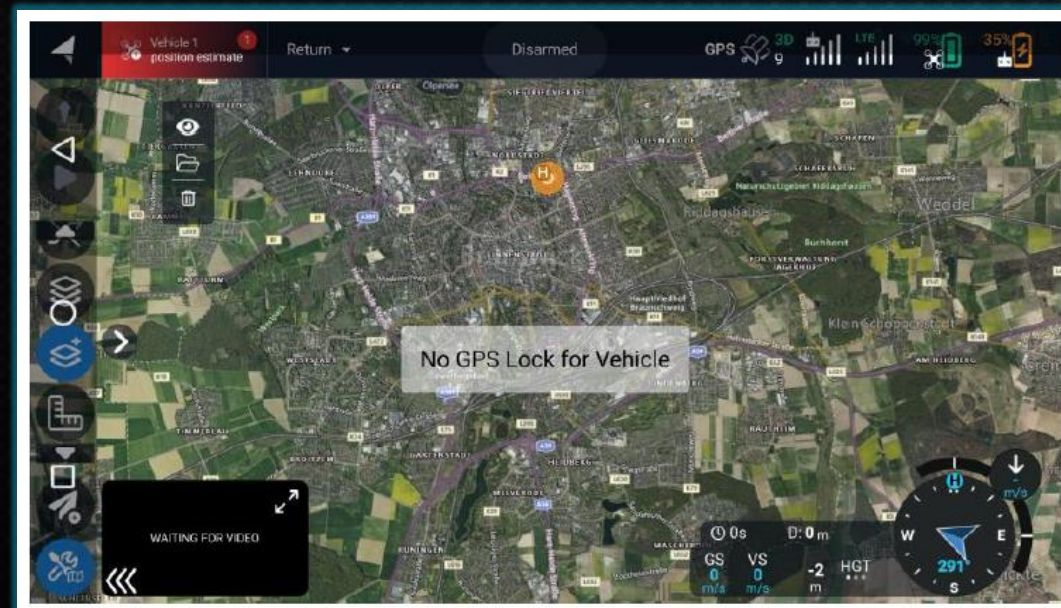
Convert ED-318 geozone files to AMC-compatible GeoJSON.

Upload an ED-318 file



Drag and drop file here
Limit 200MB per file • JSON

Browse files





Auterion Mission Control Fly View

✓ Warnings & Notifications

- *AMC shows root cause and suggested actions.*
- *Log is stored in Auterion Suite.*



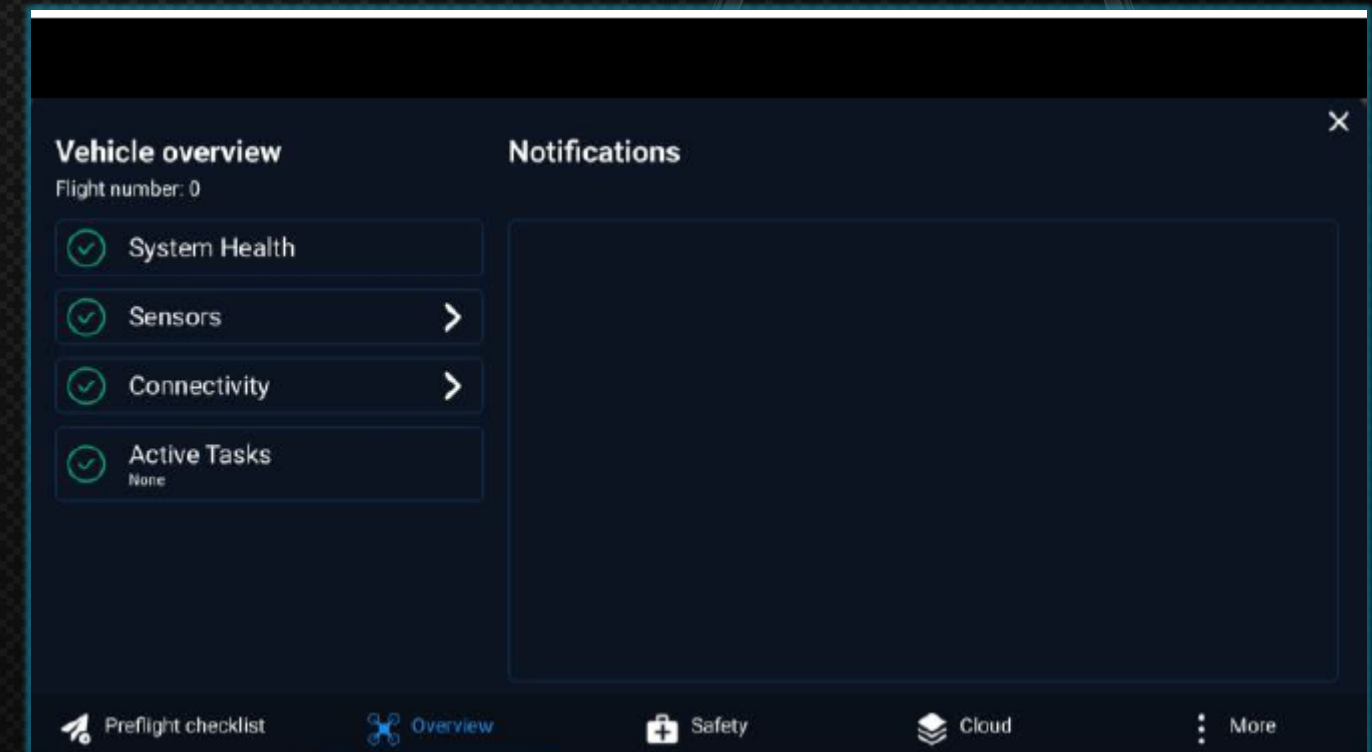
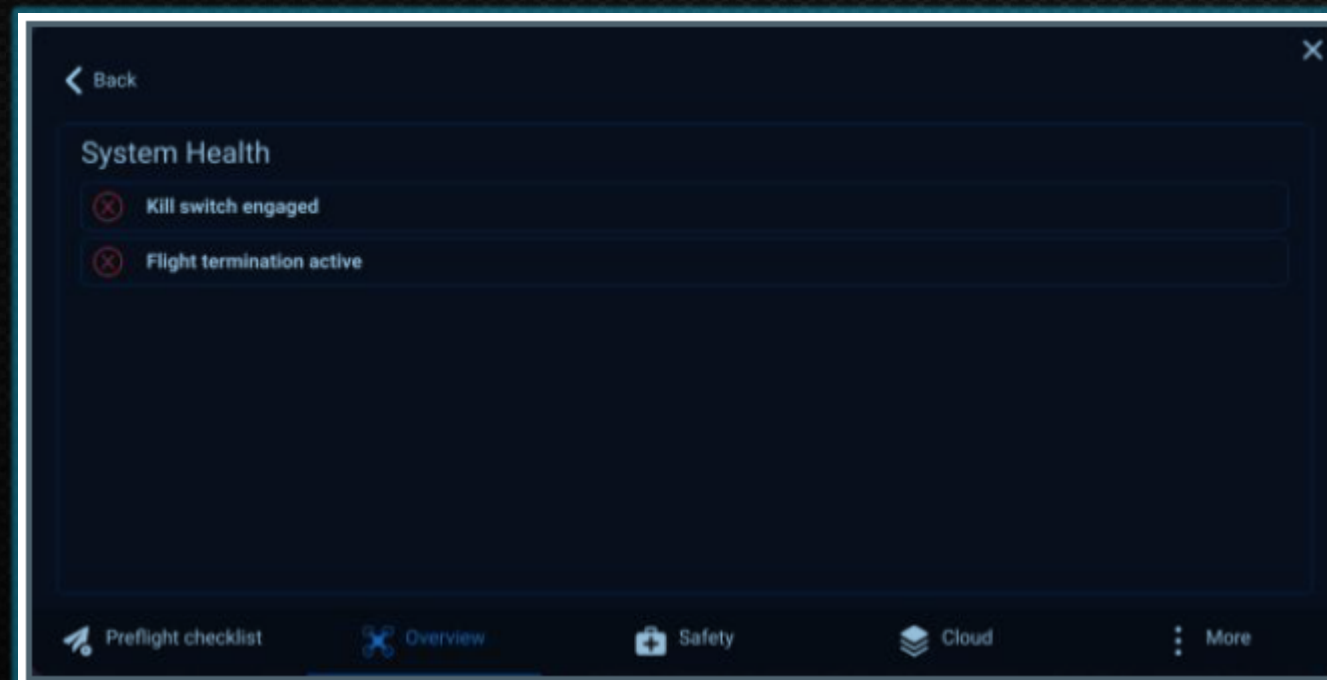
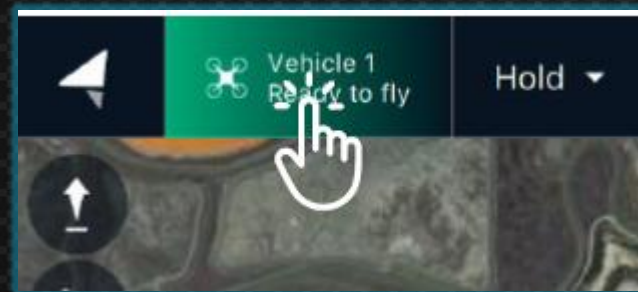
Warning	Instruction
Preflight Fail: Kill Switch engaged	Disengage the kill switch.
Preflight Fail: No connection to the ground control	The UAV is not connected to ground control. Please perform a restart of the UAV.
Preflight Fail: GPS PDOP too high	Wait for improved satellite geometry for better GPS accuracy. Relocate the UAV to a more open area if needed.
Preflight Fail: Compass 1 uncalibrated	Recalibrate Compass.
Preflight: Strong magnetic interference detected	Relocate the UAV to an open area, away from magnetic interference sources such as power lines or metal structures.
Failure: Manual control lost	The drone will automatically enter RC Loss Failsafe.
Switching to mode "Position control" is currently not possible	Remain in Altitude Mode and switch to Position Mode once GPS fix is restored.
Please check orientations and recalibrate	Recalibrate Compass.
ERROR: invalid orientation	This occurs during compass calibration. Please place the UAV in one of the shown orientations.
Operation timeout, aborting transfer	Retry uploading the mission to the UAV.
Mission rejected: previous mission is uploaded	The UAV will not execute the mission if it is outside its range. Please upload the mission within the UAV's range.

Auterion Mission Control Fly View



✓ Vehicle Overview Menu

- *Access System Health, Sensors, Connectivity, Tasks and Cloud.*
- *Includes real-time sensor diagnostics and checklist access.*



Auterion Mission Control Fly View



✓ Preflight Checklist

- Run before every flight, verifies system readiness.
- Automatic and manual checks.
- Logged for compliance tracking in Auterion Suite.



Preflight checklist

Ground control station checks

☐ Joystick control: Check joystick movements and buttons.

☐ Sound output: AMC audio not muted. Check that system volume is enabled too.

☐ Battery: Warning - controller battery level is not available.

Aircraft checks

☐ Motors: Propellers tightened & free to move?

☐ Battery: Secured?

☐ Camera Storage: plugged in and with adequate free space?

Flight Area & Weather checks

☐ Wind & Precipitations: Within aircraft limits?

☐ Failsafes: Low Battery and Data Link Loss failsafes are set as desired?

☐ Airspace: Cleared for flight?

Last Takeoff checks

☐ Mission: Valid mission for current flight area (waypoints valid, no terrain collision)?

☐ RTL: Return altitude is above highest obstacle on the flight area?

☒ Sensors: Passed

☒ GPS: Good

Preflight checklist

Overview

Safety

Cloud

More




Auterion Mission Control Fly View

✓ Safety Settings: RTL

- *Set return altitude, loiter behavior, landing sequence.*
- *Configurable per mission requirements.*



Return To Launch Settings



Climb to altitude (HGT): m

Return to launch, then:

☒ Land immediately

☐ Loiter and do not land

☐ Loiter and land after specified time

Loiter Time s

Loiter Altitude m



Auterion Mission Control Fly View

✓ Safety Settings: *Battery Failsafe*

- *Warn, Return, and Emergency Land at defined thresholds.*
- *Customizable capacity in percentage.*



Low Battery Failsafe Trigger

Failsafe Action:

Battery Warning Level:

Battery Critical Level:

Battery Emergency Level:

Return at critical level, land at emergency level ▼

30.00 %

25.00 %

10.00 %



Auterion Mission Control Fly View

✓ Safety Settings: Data Link Loss & Geofence

- *Set timeout for data link loss.*
- *Define radius and altitude limits for geofence.*
- *Failsafe triggers: warning, hold, or return.*



Geofence Failsafe Trigger



Action on breach: Hold mode ▼

☐ Max Radius: 0 m

☒ Max Altitude (HGT): 120 m

Data Link Loss Failsafe Trigger

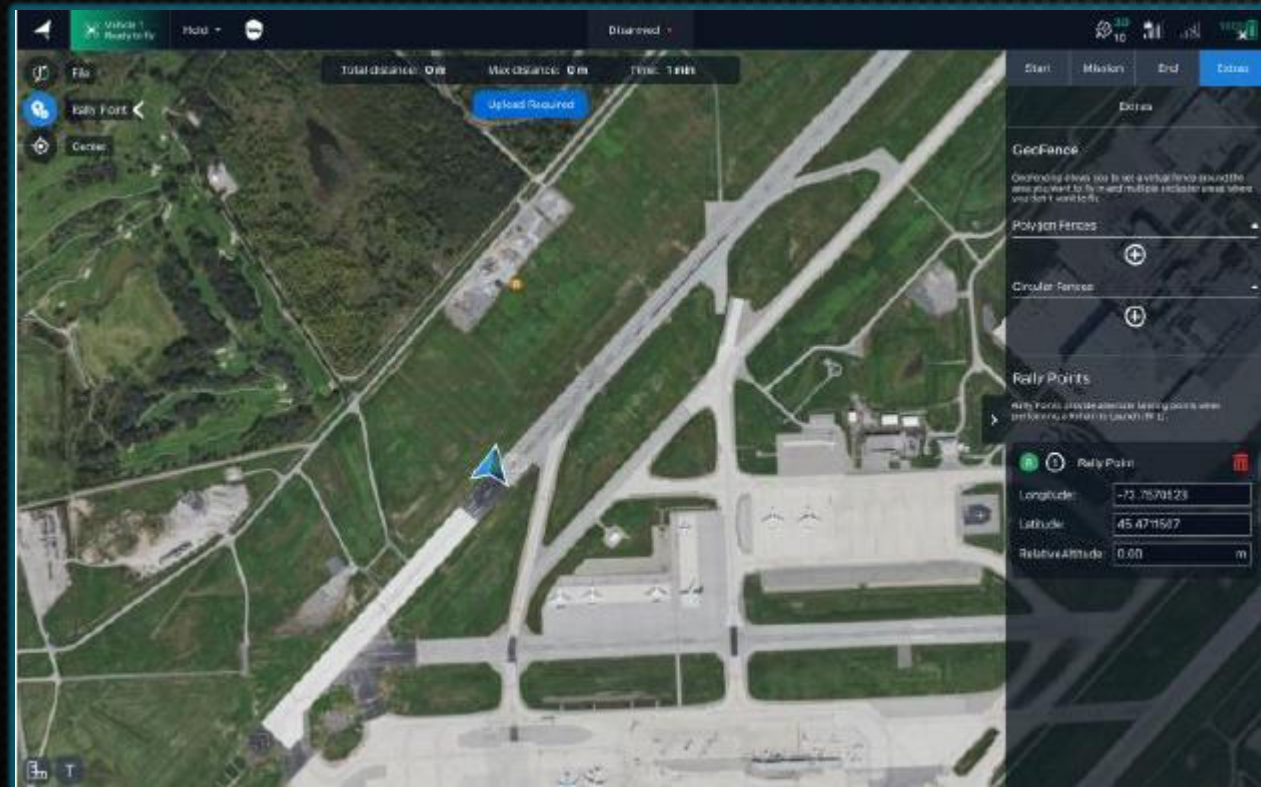


Failsafe Action: Return mode ▼

Data Link Loss Timeout: 10 s



Auterion Mission Control Plan View

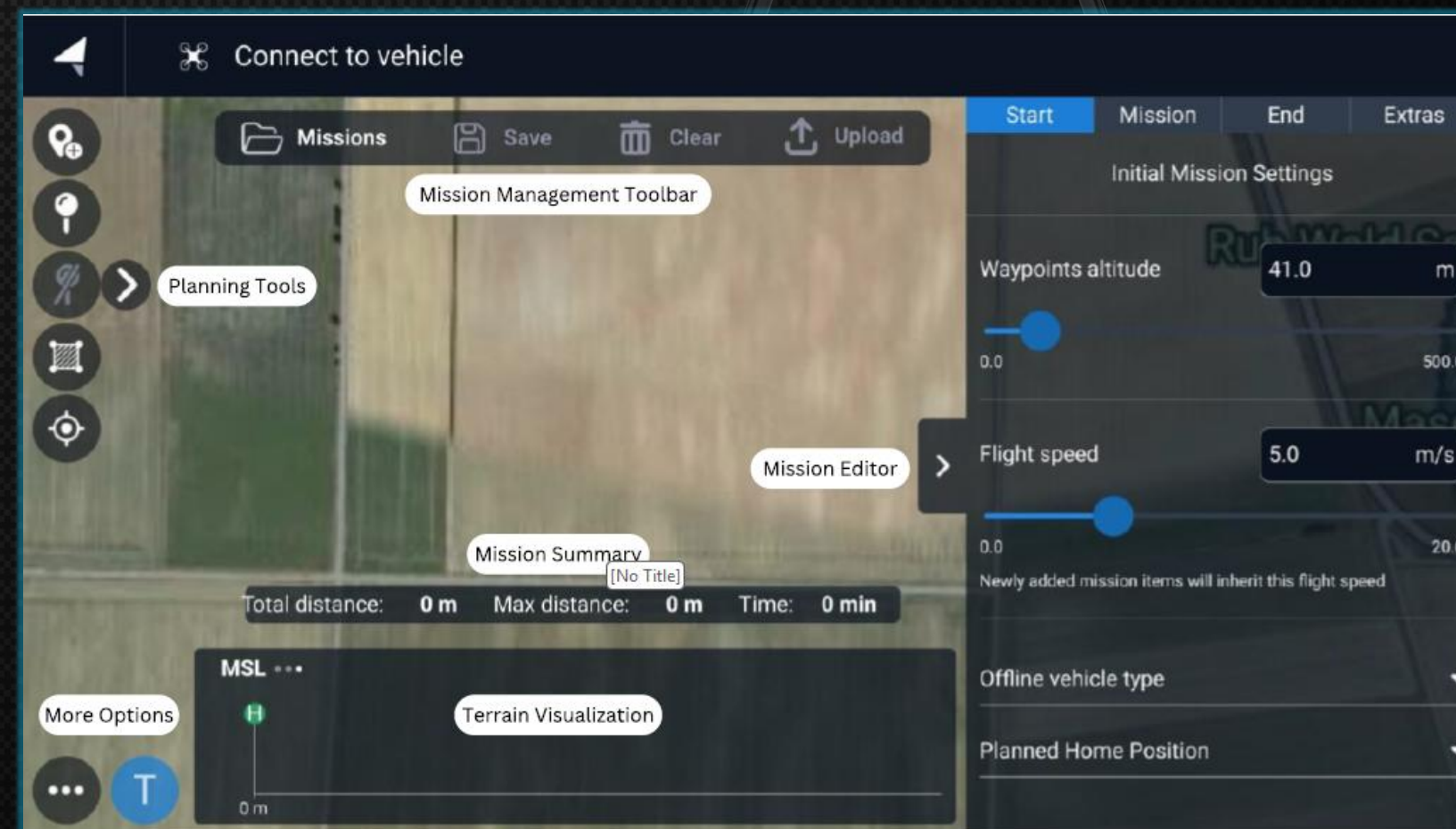
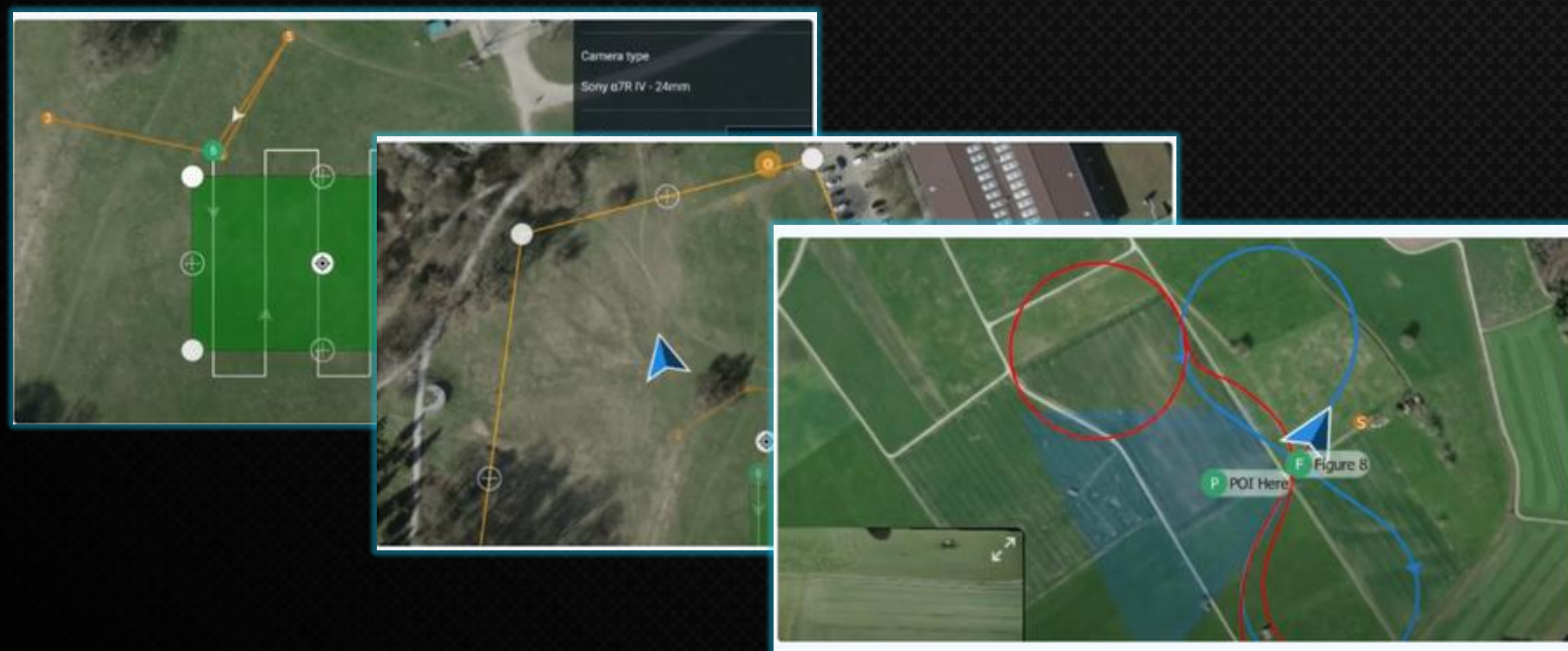


Auterion Mission Control Plan View



✓ Introduction to Plan View

- *Used for planning autonomous flights.*
- *Supports: Waypoints, POIs, Survey Patterns, Corridor Scans, Rally Points.*
- *Displays UAV paths, distances, and terrain profile.*

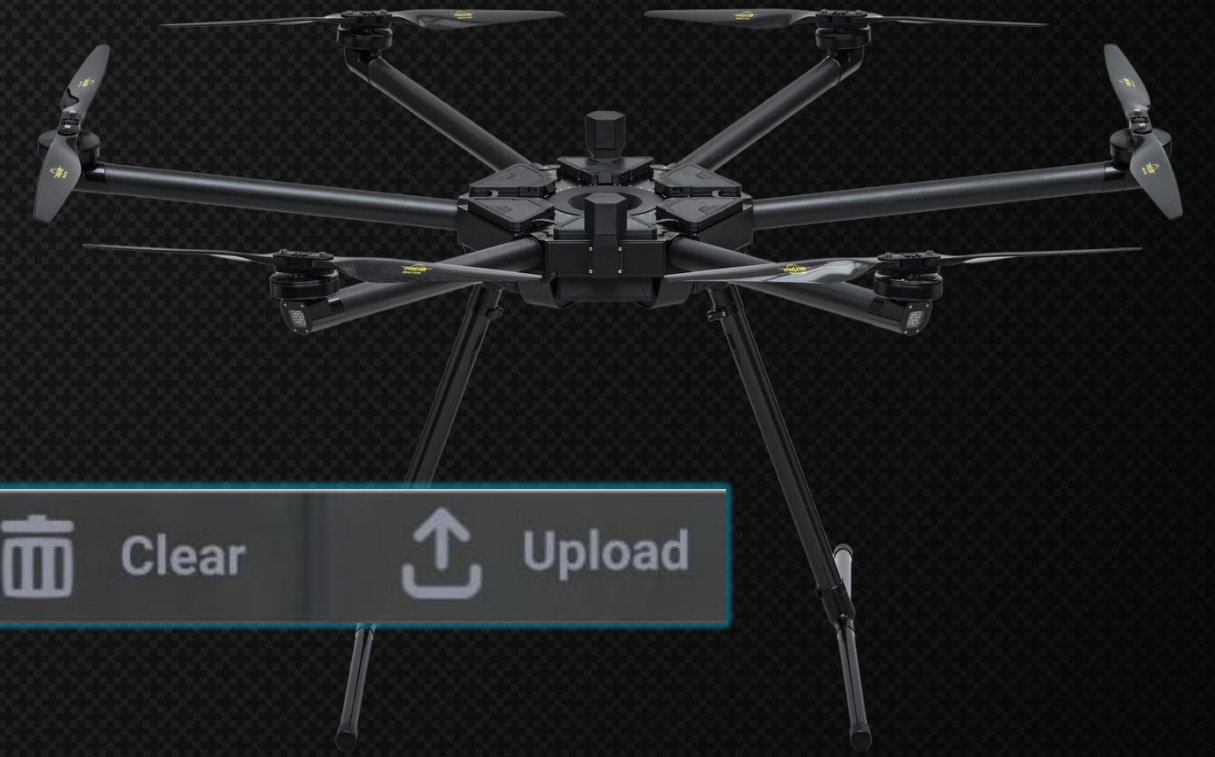
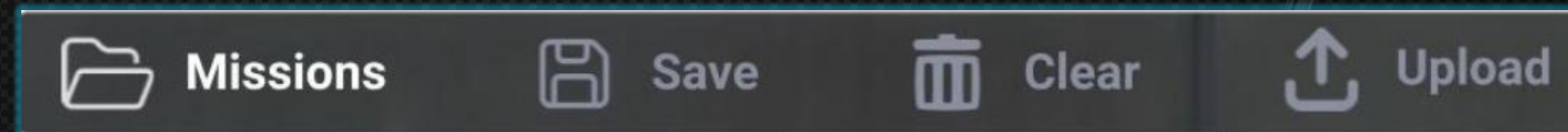








Auterion Mission Control Plan View

✓ Mission Management Toolbar

- *Open/load mission templates or saved plans.*
- *Save current mission layout.*
- *Clear current mission from the map.*
- *Upload mission to UAV.*



Icon	Action	Description
	Mission	Access mission templates or saved missions.
	Save	Save the current mission for future use.
	Clear	Remove the current mission from the Plan View.
	Upload	Upload the mission to the UAV.



Auterion Mission Control Plan View

✓ *Planning Tools Sidebar*

- *Add Waypoints and POIs.*
- *Insert Survey or Corridor Scan patterns.*
- *Center map on UAV or selected items.*
- *Download waypoints from vehicle.*
- *Access Measurement Tools and Airspace Overlay toggles.*



Icon	Action	Description
	Waypoint	Choose to activate the option for adding new waypoints to the map.
	POI	Choose to enable the addition of a Point of Interest on the map. The camera/gimbal will orient towards the most recently created POI.
	Cancel POI	Cancel previously added POIs.
	Survey Pattern	Add or load a survey pattern: Survey or Corridor Scan .
	Center	Recenter the map on the mission, home, UAV, all items, or a designated location.
	More Options	Open this to access the following options below.
	Download from Vehicle	Download saved waypoints from vehicle.
	Measurement Tools	Measure distance or area on the map.
	Show/Hide Restriction	Show or hide restricted and controlled airspace in AMC.

Auterion Mission Control Plan View

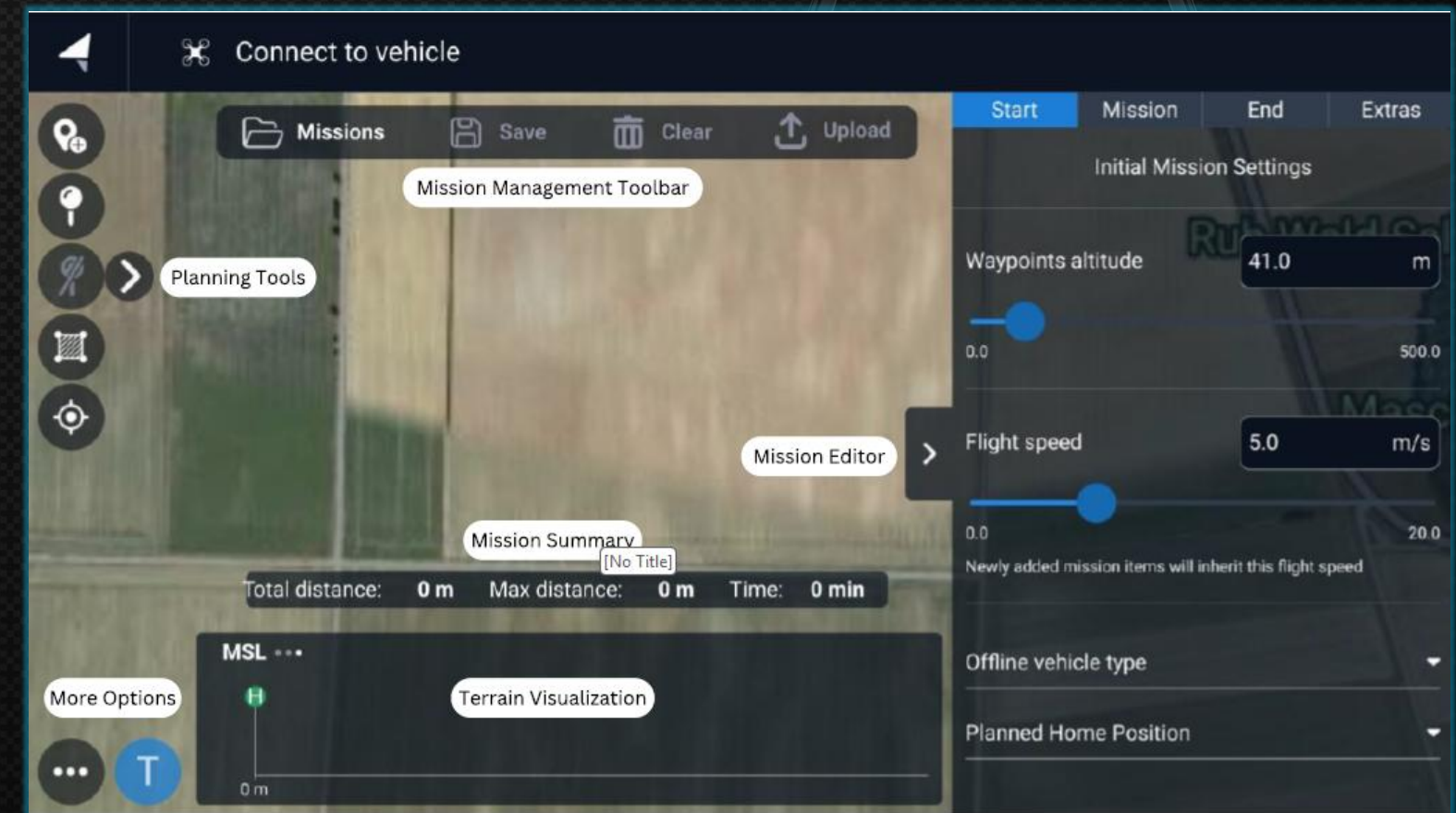


✓ Mission Summary Panel

- Summarizes total mission distance.
- Displays max distance from ground control station.
- Estimates total flight duration based on UAV speed settings.



Total distance: 0 m Max distance: 0 m Time: 2 min

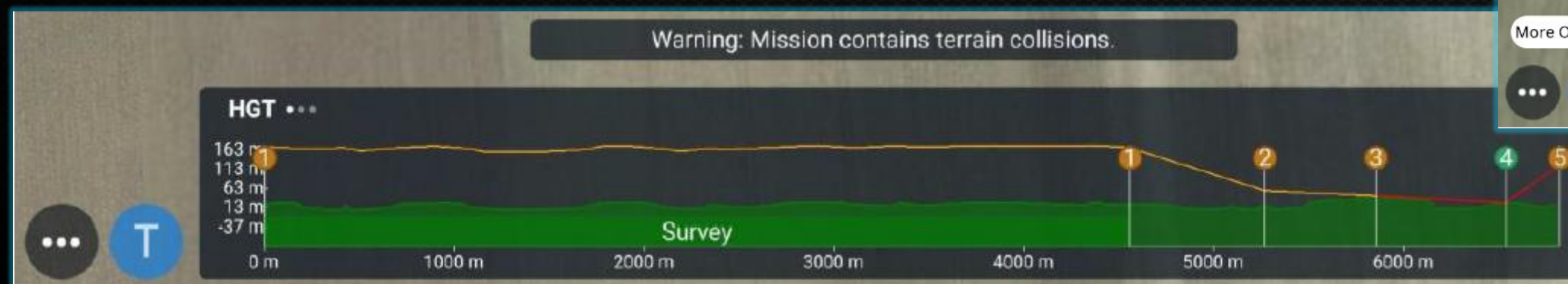
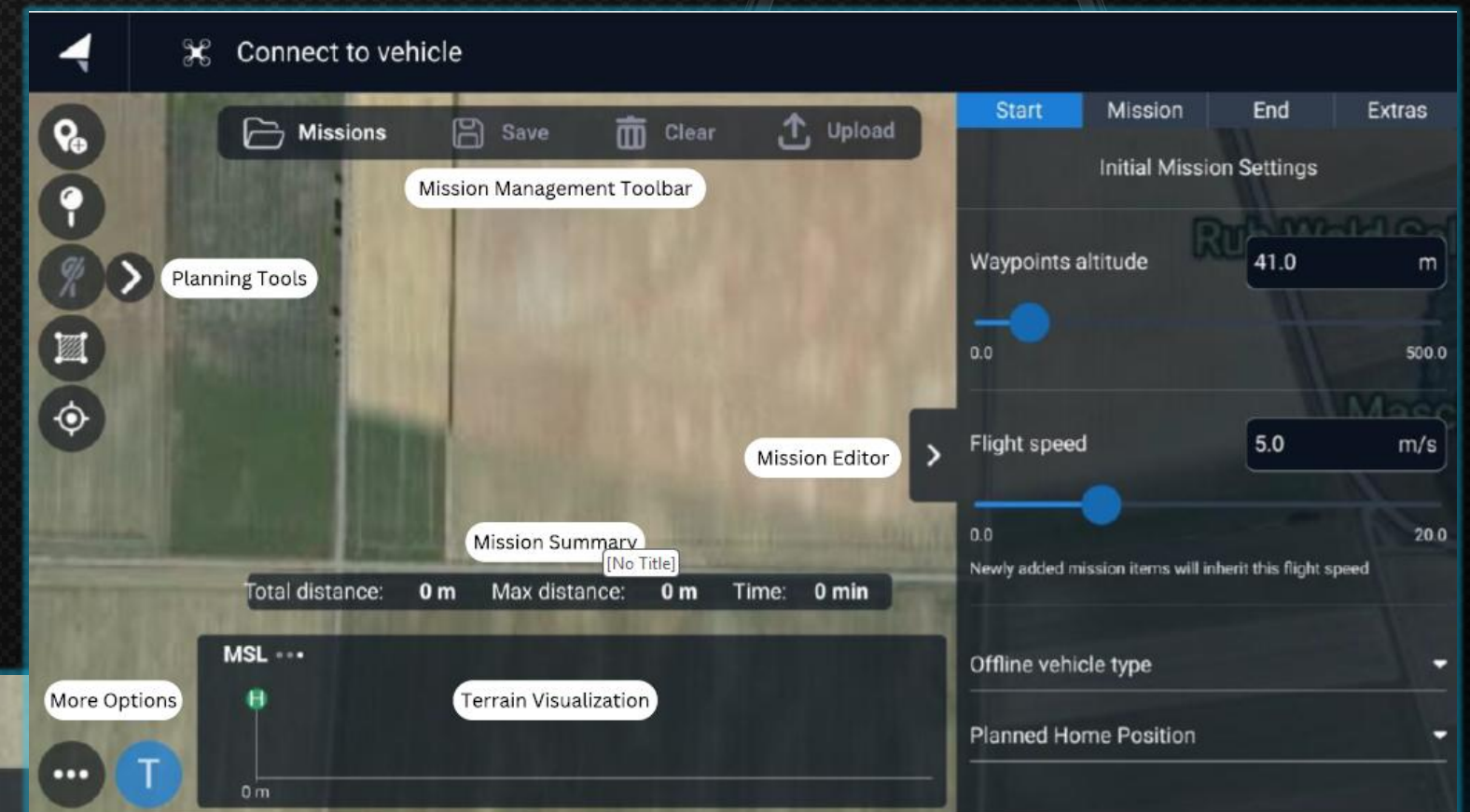




Auterion Mission Control Plan View

✓ *Terrain Visualization*

- *Confirms all waypoints are above ground.*
- *Shows green (terrain), orange (flight path), and red (collision risk) lines.*
- *Toggle with the 'T' button on the interface.*

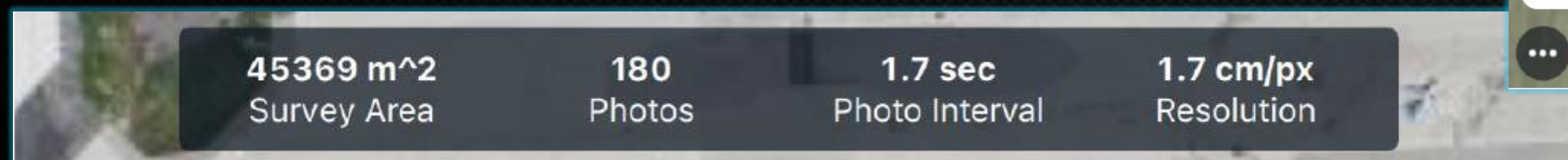
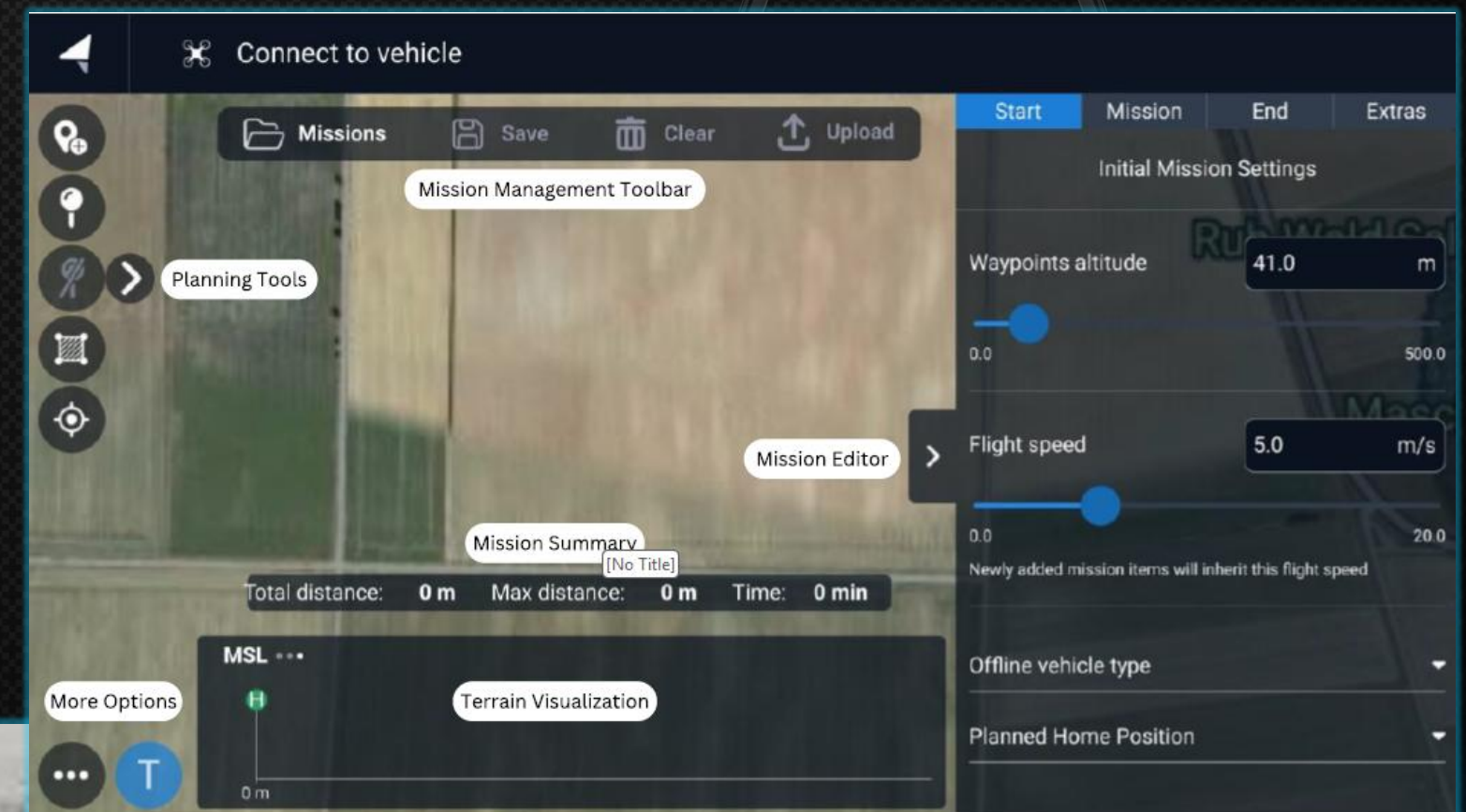


Auterion Mission Control Plan View



✓ Statistic Panel

- *Displays calculated survey area.*
- *Estimates number of images and capture interval.*
- *Evaluates photo resolution.*





Auterion Mission Control Plan View

✓ Creating a Waypoint Mission

- Use Planning Tools > Waypoint to place waypoints.
- Configure altitude, speed, and camera settings in Mission Editor.
- Add Hold, Land, or Return at mission end.
- Upload and switch to Fly View to execute.

Start	Mission	End	Extras
Initial Mission Settings			
Waypoints altitude		69.0	m
<input type="range"/>		0.0	500.0
Flight speed		5.0	m/s
<input type="range"/>		0.0	12.0
Newly added mission items will inherit this flight speed			

Start	Mission	End	Extras
Initial Mission Settings			
Waypoints altitude		69.0	m
<input type="range"/>		0.0	500.0
Flight speed		5.0	m/s
<input type="range"/>		0.0	12.0
Start	Mission	End	Extras
Mission End Action			
This action is executed at the end of the mission			
<div>Land</div> <div>Hold</div> <div>Land</div> <div>Return to Launch</div>			

Start	Mission	End	Extras
<< Point of Interest >>			
Waypoint type		Point of Interest	
Sets the point of interest for cameras.			
Altitude Frame		AGL	
Altitude above terrain Actual AMSL altitude: 29.0 m			
Altitude		0.0	m
<input type="range"/>		0.0	500.0

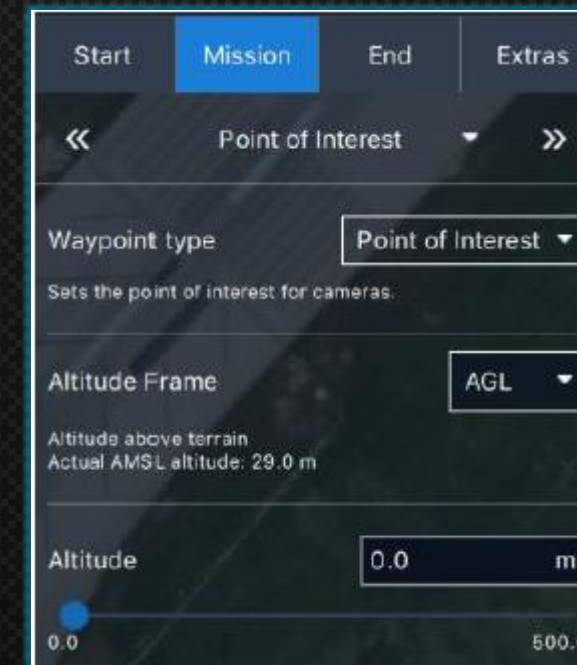
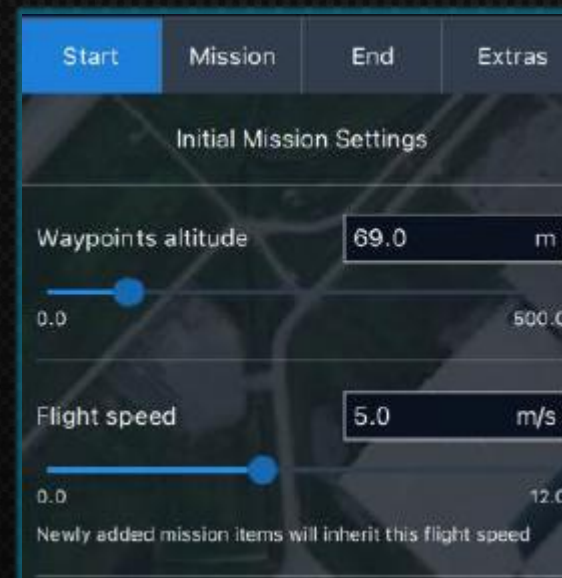




Auterion Mission Control Plan View

✓ Creating a Point of Interest (POI)

- Click on map with POI tool active to add POI.
- Set POI altitude and adjust position.
- Cancel POI by adding a Cancel POI mission item.
- POIs affect gimbal orientation between waypoints.

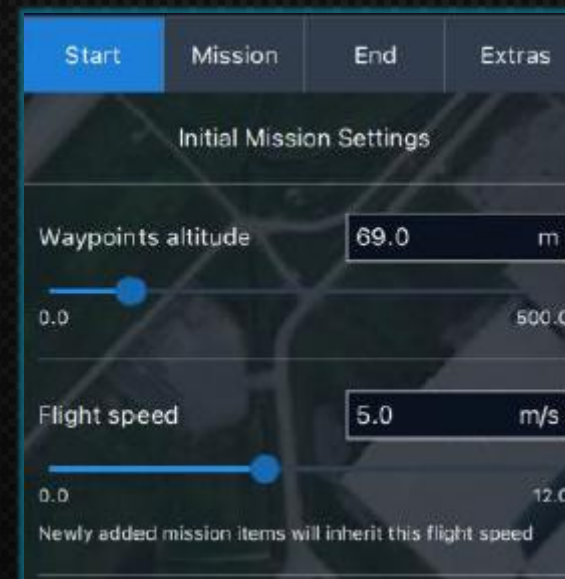




Auterion Mission Control Plan View

✓ Mission Editor Overview

- Split into: *Start Mission, Mission, End of Mission, Extras.*
- Configure global settings: default altitude, flight speed, and launch location.
- *Each mission item has a dedicated editor panel.*

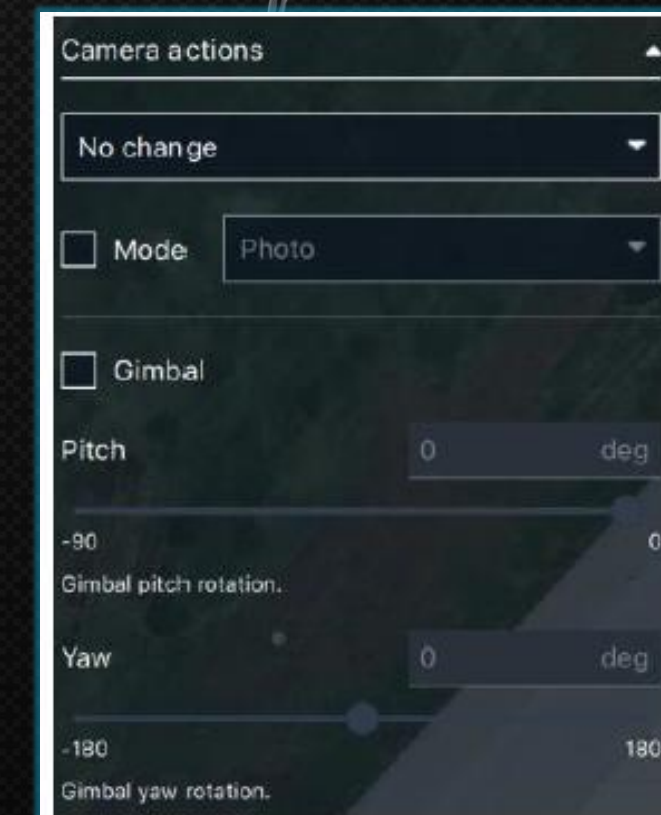




Auterion Mission Control Plan View

✓ Waypoint Editor Settings

- Set altitude relative to HGT, AGL, or MSL.
- Adjust speed per waypoint.
- Include camera and gimbal settings (Photo, Video, Survey).
- Trigger camera actions: Start/Stop video, Photo by time/distance.

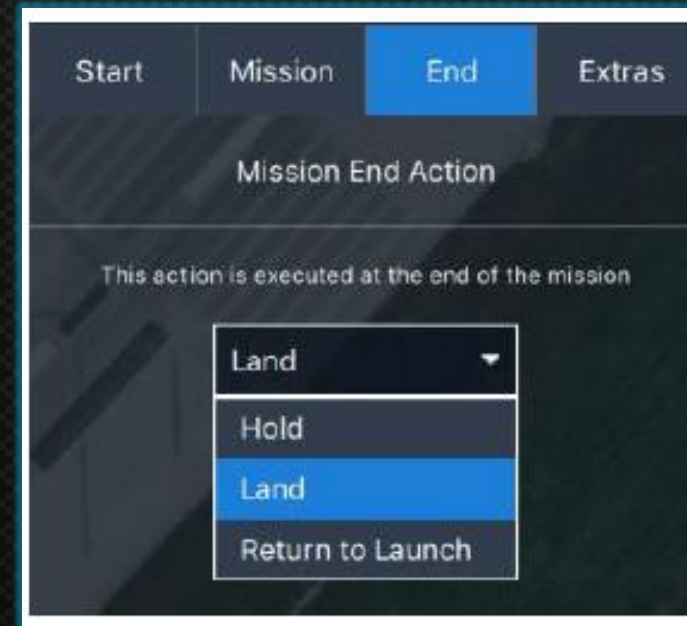




Auterion Mission Control Plan View

✓ End of Mission Settings

- *Options: Hold (hover), Land (current position), Return to Launch.*
- *Customizable via drag-and-drop or input fields.*

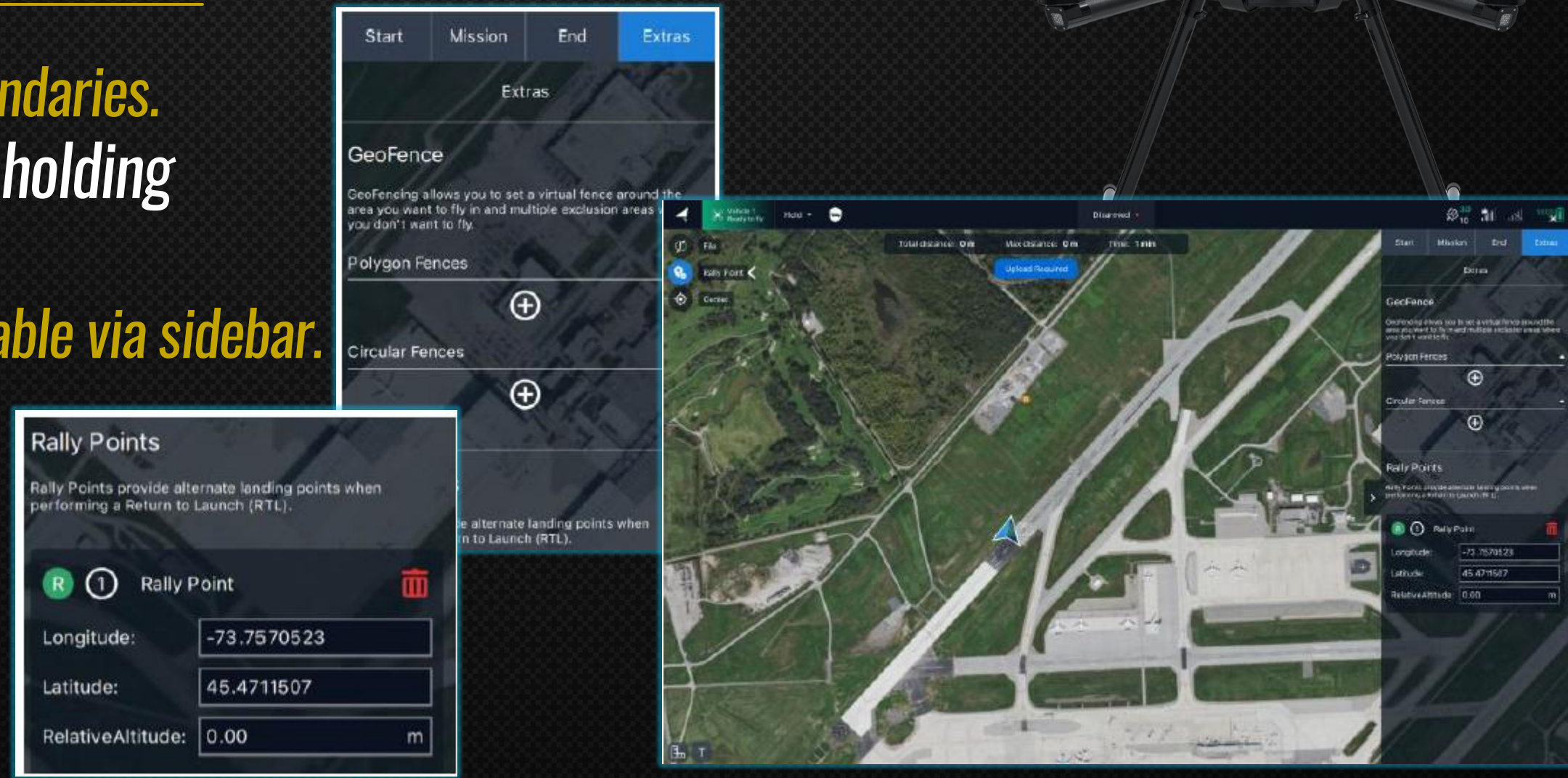




Auterion Mission Control Plan View

✓ **Extras:** Inclusion Zones and Rally Points

- **Inclusion Zones** define flight area boundaries.
- **Rally Points:** alternate landing or holding locations.
- **Visible on map** with 'R' icon and **editable via sidebar.**

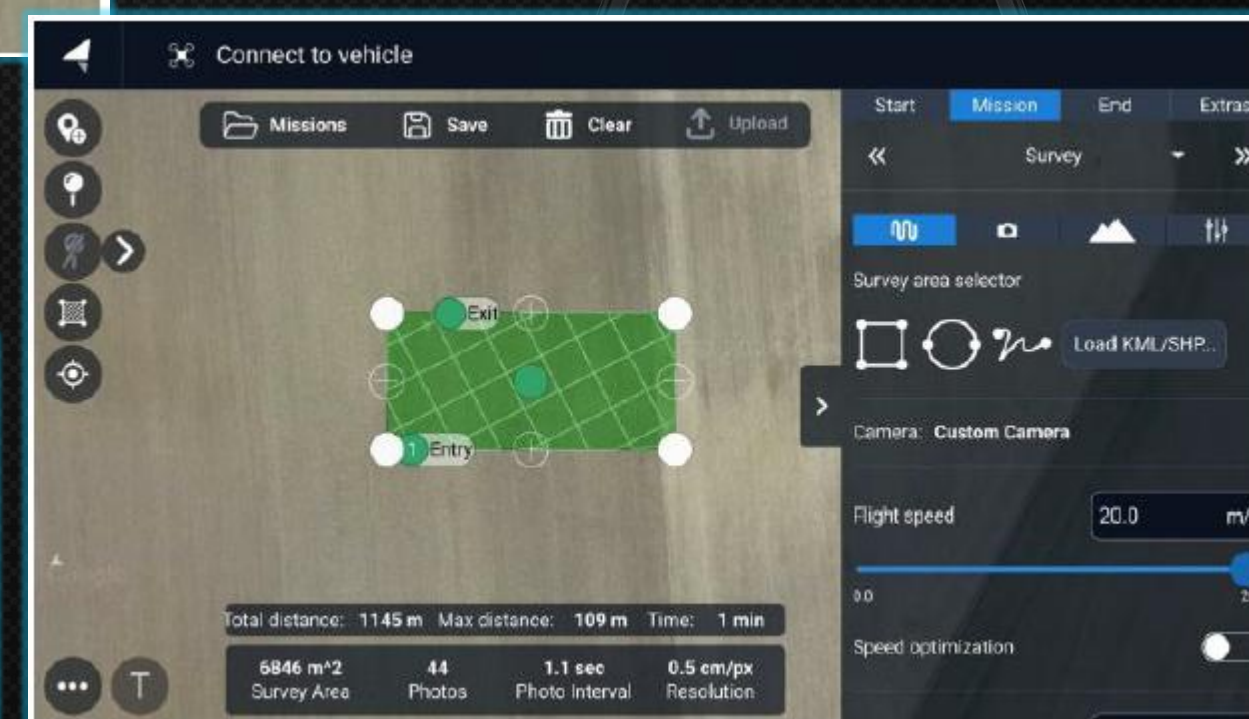


Auterion Mission Control Plan View



✓ Creating Survey Missions

- **Survey:** defines area coverage using polygonal boundaries.
- **Corridor Scan:** traces linear.
- **Edit shape, spacing, direction in Survey Editor.**





starc[✦]pter

The Highdra



starcoputer.com