

Guardian UTM

Operator Portal User Guide

Version: 1.5 Date: 13/05/2024

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Contents

GuardianUTM4
Introduction4
Planning your mission
Flying your drone4
Getting Started5
Registration5
Signing in10
Navigating Operator Portal12
Menu Options12
Account Setup12
Setting up as a single Pilot12
Setting up an Organisation13
Adding users to your Organisation14
Roles within an Organisation14
Adding a User:15
Roles within an Organisation16
Accepting an Invitation16
Fleet Management
Adding an aircraft to the fleet17
Creating a Mission18
Missions18
Specifying the Area of Operation19
Airspace Map19
Search Function
Measuring Tool
Filtering the Map view21
Map Features
Flight Restriction Zones
UTM Ready Facilities23
Areas of Increased Risk
Ground Hazards24
Drone Missions24
Flight Path24
Flight Area
Flight Region



File Import
Operational Details
Pilot Details
Aircraft
Approval Services
Multiple Zones
Choosing Service Levels
Summary
Approval Service Fees
Without Approval Services
Email Notifications
Managing Missions
View
Update
Delete
Flying a mission
Submitting an Incident Report
What do I do if I get stuck?



GuardianUTM

Welcome! If this is your first-time using GuardianUTM, please take a few moments to familiarise yourself with the information in this guide.

Introduction

GuardianUTM provides recreational drone pilots and professional operators with the tools and information needed to fly safely within a Control Zone (CTR).

If you are planning to fly within a 5km zone of selected airports, then your flight may require approval from Air Traffic Control (ATC). GuardianUTM can provide you with a digital flight authorisation without requiring you to contact the tower directly. If your flight requires approval then GuardianUTM will let you know when submitting your flight, allow you to track the approval status and update you when a response is received from ATC.



GuardianUTM is a flight planning and management tool to support your safe operation, but please remember that it is your responsibility to be aware of the rules that are in place to keep everyone safe.

Planning your mission

The GuardianUTM Operator Portal is a pre-flight planning tool which provides information about airspace regions and ground hazards to help you plan and conduct your flights safely, efficiently and remain compliant with regulations.

Flying your drone

GuardianUTM is a free application and a useful companion when out in the field. It includes a smaller subset of features to the Operator Portal, but will help you understand the air and ground risk of the area you wish to operate in.

Through either the Operator Portal or mobile application, you can submit mission requests and obtain pre-flight authorisation to operate in GuardianUTM enabled Remotely Piloted Aircraft Systems (RPAS) zones. By logging in on both you can view your submitted Flight Plans on either platform enabling you to setup your flights easily even when in the field.



On the day of your operation in one of these zones, you MUST adhere to any instructions provided to you through the approval process.



Getting Started

Before accessing any of the GuardianUTM services, you will need to register for a free account that you can use to access both the Operator Portal and the GuardianUTM mobile app (iOS and Android).

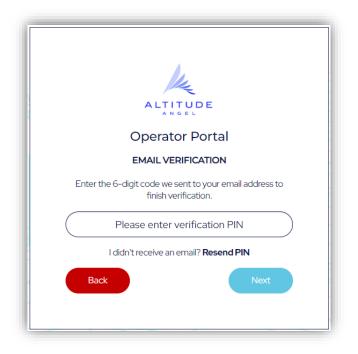
Registration

You will be required to enter some basic details to register an account including name and email address.

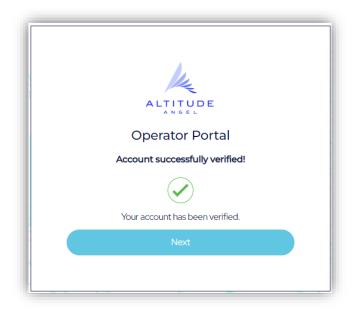
ALTITUDE
Operator Portal
LOGIN REGISTER
B First name
Last name
Email address
Password
Re-confirm Password
I agree to the Terms and conditions and Privacy Policy
Create account

You will need to agree to the Terms of Service before proceeding, we take your data and it's protection very seriously.





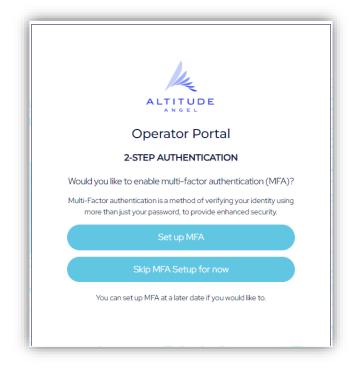
For the next step, you will be asked to verify your email address. A verification pin code will be sent to the email address you used in the Registration details. Please enter this pin to proceed.



The security of your data is very important to us and so you will be prompted during the registration and sign-in process for an additional form of identification – a code from an app on your smartphone.



Multi-Factor Authentication (MFA) is a security layer that verifies a user's identity using multiple credential levels – using a password <u>and</u> an alternative 'factor' such as a Time-based One-Time Passcode (TOTP) from an app on the user's smartphone.



To setup multi-factor authentication you will need an authentication app such as Google Authenticator, Microsoft Authenticator or Authy which can downloaded from your app store. Select Use an authentication app and select Set up MFA.



ALTITUDE
Operator Portal
2-STEP AUTHENTICATION
How would you like to receive authentication codes? You will be asked for an authentication code each time you sign into your account
Select your authentication step Use an authentication app Retrieve codes from an authentication app, such as Google Authenticator, Microsoft Authenticator or Authy, to generate a one-time code.
Set up MFA Back

Download an authentication app to a suitable device and then follow the instructions in the app to add a new account. Use the QR code provided or enter the code supplied to setup the account.

The app will then provide you with a verification code, enter that at the bottom of the screen and click Next.



	1/4				
Operator Portal					
CONFIGURE TWO FACTOR-AUTHENTICATION					
Once configured you'll be required to enter a code created by your chosen Authenticator app.					
Step 1: Download and install.					
Download and install an authenticator app such as Google Authenticator , Microsoft Authenticator or Authy					
Step 2: Provide the key					
Open your authenticator app and either scan the QR code OR add a new account.					
To use manual entry or equivalent: provide the following key by selecting copy to clipboard.					
	YLDJB36SRDZRL7TYY4QVH4RPEPG3G6YC				
Step 3: Enter verification code					
Once the key has been provided (enter the 6-digital verification code generated in the auth app into the box below.				
	Back Next				

This will complete your MFA setup, click Continue.

The final step will ask you to grant permission to access the Operator Portal. This is required because your account gives you the ability to access a range of Altitude Angel applications from a single login.

For example, if you decide to download the GuardianUTM mobile app then you will be able to login using the same credentials, and will be presented with a similar screen asking you to enable permissions for the mobile app.



'op-ecommerce-login, op-map-embed' would like
access to your Altitude Angel account.
You are logged in as Martin Wislon (Change user?)
If you accept this request, op-ecommerce-login, op-map-
embed will be able to:
Manage flight reports ()
Manage organizations
 Manage user info ()
Query user information ()
Request flight approvals ()
Manage Zone
Query Zone 1
When you accept this request, you authorise Altitude Angel
to exchange your data with 'op-ecommerce-login , op-
map-embed'. You can revoke this permission at any time,
but data already shared will not be deleted. You should refer
to the 'op-ecommerce-login, op-map-embed' privacy
policy for further information.
Reject Accept

Click Accept and you're all done!

You will be successfully logged into the Operator Portal – see Creating your profile for assistance with your first use of the system.

Signing in

Once you have created a user account, you can use this to access the Operator Portal and GuardianUTM mobile app.

First enter your email address and password. If you have forgotten your password then use the link to send an email to your registered account, and you will be asked to enter a new password.



ALTITUDE				
Operator Portal				
LOGIN REGISTER				
Email address				
Password				
Login				
Not got an account? Please click on Register				
Have you forgotten your password? Use an existing login				

Click Next, then sign in is complete.

Creating your profile

Logged in as: Martin Wilsor	You must create a user pro	You must create a user profile before you may use this site.			
Martin Wilsor Profile					
Logout	Title	Mr			
Logout	First Name*	Martin			
Current organiza	tion:				
rsonal	Last Name*	Wilson			
	Email Address	martin.wilson@c ⁺⁺ g-:! com			
łome					
ituational Awarene	Contact Number	₩ +44 7870 000000			
	Contact Mobile Number*	₩ - +44 7870 000000			
ECORDS	Alata de Herae	• Feet			
Aircraft	> Altitude Units	 Meters 			
Pilots	> Language	English			
light Plans	> Fields marked "*" or "Require	ed" are required			
	,	pdate Profile Cancel			
Organization					
Support					

When logging into the Operator Portal for the first time, you will be prompted to create a profile with some basic details. These will be used to enable us to contact you with updates relevant to your submitted flight plans to help you operate more safely.



At this stage you may select your default language, at present the following languages are available:

- English
- French

Once you have created your user profile you may toggle between languages by selecting the flag icons on the left hand side.

Navigating Operator Portal

Operator Portal has a menu on the left hand side which provides access to the available functions and features. These provide a simple way to setup your drone operations whether you are flying recreationally or managing an Organisation with multiple pilots flying your missions.

Menu Options

- Profile Allows you to edit your profile
- Logout Logs you out of Operator Portal
- Current Organisation Drop down menu allowing you to select between your Personal account and any Organisations you are a member of
- Home Displays a dashboard of your upcoming missions, if you have selected an Organisation, as well as the Airspace Map, for all users. The Airspace Map allows you to assess the sites of intended flights, the map highlights risks and restricted airspaces, helping you plan a safe flight
- Aircraft Allows you to add or manage your aircraft
- Pilots Allows you to manage the Pilot details for you or your organisation
- Missions Provides options for Adding or Managing you Missions
- Organisation Allows you to configure your organisation, enabling you to Add new Organisations, Manage ~existing ones and Manage Users in your Organisation
- Support Let's you access guides like this one as well as FAQs and Contact Altitude Angel to request support or provide feedback

Before you explore everything that Operator Portal has to offer we recommend finishing the setup of your Pilot details and an Organisation if required.

Account Setup

Operator Portal is designed to help with the safe operation of drones by both individuals and organisations operating fleets of drones

- Setting up as a single Pilot
- Setting up my Organisation

Setting up as a single Pilot

To set yourself up as a pilot for recreational or commercial activities you will need to provide some additional information about yourself such as your email address and phone number. This enables us to provide you with updates on the airspace picture



and communications from airspace authorities so you can operate safely in concert with the other airspace traffic as well as making submitting plans quick and easy.

Click on Register as a Pilot and fill in the required details.





Note: Your pilot details are the same across all organisations where you are registered as a pilot.

Click Save to complete your Pilot setup, you are now ready to <u>Add any Aircraft</u> you wish to use.

l	Update your pilot d	etails		
F	Please note, your pilot details are t	he same across all organizations where you are registered as a pi	lot.	
	Additional Profile Details Address Line 1 14 Sample address road		User Profile	
			Changing these fields will update your user profile.	
	Address Line 2		First Name*	Martin
	City•	Reading	Last Name*	Wilson
	Postcode*	RG1 3BD	Contact Mobile Number*	₩ - +44 7870 000000
	Country*	United Kingdom 🗸		Allow SMS Contact
	Registration ID	3455345	Email Address	martin.wilson@_!···com
	Operational Authorisation ID	3454534		
	Additional information			
		لمــــــــــــــــــــــــــــــــــــ		
	Save			

Setting up an Organisation

Operator Portal allows you to manage flights for a whole organisation bringing all your flights together under one account so they can be managed effectively and streamline the process of being a responsible airspace user.

To setup your Organisation select the Organisation menu option and click Add Organisation.



Logged in as:	Provide the organization details				
Martin Wilson					
Profile	Name*	Example Drone Company			
Logout	Contact Number	₩ - +44 1234 567890			
Current organization:	Email Address	operations@exampledronecompany.com			
	Address Line 1*	1 Example Road			
Home Situational Awareness	Address Line 2				
ECORDS	City -	Example			
Aircraft >	Postcode	EX1 2AM			
Pilots >	Country*	United Kingdom	~		
Flight Plans 🔹 🕻	I am a pilot for this organization				
Organization >	Save				
Support >					

Add the required details and click Save.

Organization details submitted	
The organization details have been created	I
	Go to organization

Now your organisation is setup, you will be able to invite users to join your organisation. This can be done at any time by going to Organisation and then Manager Users.

Adding users to your Organisation

Having setup your organisation you will have the roles of Org Owner, Org Manager, Fleet manager and optionally, pilot, if you selected this option while creating your organisation.

Roles within an Organisation

- Fleet Manager Manages missions within the organisation including maintaining aircraft and pilot information.
- Org Manager Can manage some aspects of the organisation including org details and users.



• Pilot - Registered drone pilots responsible for flying missions on behalf of an organisation.

To add users to your organisation select the Organisation menu option and click Manage Users.

Logged in as: Martin Wilson Profile	→ Add User			
Logout	Name	Email Address	Contact Number	Roles
cr Eugon	Martin Wilson	martin.wilson@'.'	+447870000000	Org Owner, Org Manager, Fleet Manager,
Current organization:				
Example Drone Comp 🗸				
# Home				
nome				
Situational Awareness				
WY RECORDS				
≻ Aircraft >				
/ Pilots →				
⊜ Flight Plans >				
ŵ Flight Plans →				
Crganization >				
© Support >				

Adding a User:

- 1. Click on the Add User button
- 2. Select the roles you which to invite the user to and click Create invite code to generate an invitation code.

Invite a user
Select the roles to invite the user to
Fleet Manager - Manages flights within the organization.
Organization Manager - Manages the organization.
Pilot - Pilots aircraft for the organization.
Create invite code
The created invite will be usable by any user to add themselves to your organization. The invite will be valid for 24 hours and a single use only.



Roles within an Organisation

- Fleet Manager Manages missions within the organisation including maintaining aircraft and pilot information.
- Org Manager Can manage some aspects of the organisation including org details and users.
- Pilot Registered drone pilots responsible for flying missions on behalf of an organisation.



Once the code is generated, you will need to send it to your recipient and they will have 24 hours in which to click on the link to accept the invitation and join your organisation.

Invite codes are time-limited and for single-use only but, do not worry, you can generate new invite codes at any time.

Invite codes are only valid for 24 hours and can only be used once.

Accepting an Invitation

If you have received communication from a known and trusted contact asking you to join an organisation, you will need to click on the invite link to accept the invitation. You will be taken to a landing page which will include the name of the organisation you are being invited into and the role(s) you will be performing for that organisation.

If this is your first time using the GuardianUTM system, you will need to register for a free account.

Once you have signed into GuardianUTM, you can choose Accept Invite or Reject Invite to join the organisation and the role within it.



Use an invite	
Invitation details	
Your invite code is om7h-uA5N	
YOU HAVE BEEN INVITED TO JOIN Example Drone Company	IN THE ROLES OF Fleet Manager Pilot
Accept Invite	Co Reject Invite

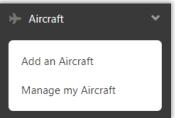
Fleet Management

Those users in the Fleet Manager or Org Manager roles can manage the aircraft, pilots and missions within an organisation.

Before you can create missions under an Organisation, you will need to have invited at least one pilot and added at least one aircraft.

Adding an aircraft to the fleet

Select Aircraft from the menu and click on Add an Aircraft and complete the required details.





Your aircraft will be saved under the currently selected organisation. Make sure you've selected the right organisation before adding.



Add an aircraft	
Provide the aircraft details	
Description *	
Manufacturer	
Model	
Airframe*	Fixed-wing ~
Registration Number	
Colour	
Markings	
Maximum Take-Off Mass (MTOM)*	0 kg
Serial Number 😯	
ICAO Address ?	
Additional details (this information is not shared)	
Save	

Fill in the Aircraft details form for the Aircraft you wish to setup and click Save to add it. Repeat this process for any other Aircraft you wish to add to your fleet. Now you have setup and Organisation with Pilots and Aircraft you are ready to begin creating Missions.

Creating a Mission

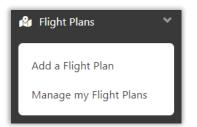
Missions are created by defining the Area of Operation, assigning a Pilot, Aircraft and then submitting. Your mission request will be processed and, depending on the geography, may require an ATC clearance. The GuardianUTM platform will automatically route your request to the appropriate ATC facility for a digital clearance if they are UTM enabled. Any updates to your mission status will be communicated with you via email and SMS (if selected). You can also track the status of a request through the GuardianUTM Operator Portal and mobile app.

Missions

Regardless of your user role, missions are created in the same way.

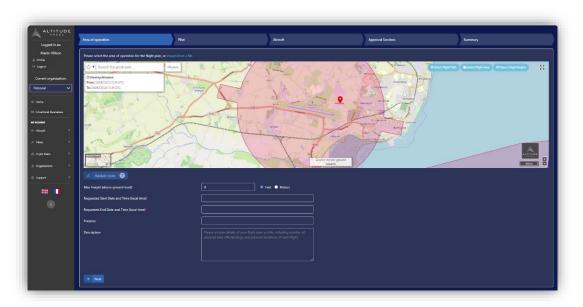
To start select Missions and click on Add a Mission.





Specifying the Area of Operation

The first stage of planning a Mission is to provide details of where and when the flight will occur and provide some basic details about the nature and purpose of the flight.



Airspace Map

The map may be navigated in a similar manner to other web based mapping tools, using the mouse to left click and drag to move and the scroll wheel for zoom level. Dedicated buttons are also provided for zoom selection along with a scale indicator.





Note: Not all airspace information is available when zoomed out of the map, we advise zooming in to view the local area to get a full picture.



The Map can be set to full screen by clicking the maximise button to you a better view of the Area of Operation

give

57

The map can display a number of different views, simply select the minimap from the bottom left hand corner and choose from the options below.

OpenStreetMap - This view shows a topographical map of the ground below displaying rivers and other natural landmarks in addition to highlighting roads and streets.

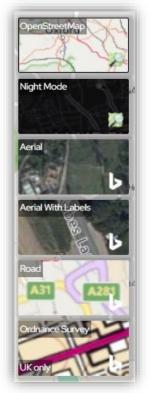
Night Mode - This view provides increased contrast between the airspace information and the background map.

Aerial - This provides a satellite view

Aerial With Labels - This view is composed of a satellite view with labels marking important features relevant to the zoom level

Road - A map view focused on roads and street.

Ordinance Survey - Only available for the United Kingdom, uses the ordinance survey map



Search Function

To quickly locate an area or place a text based search function is provided.

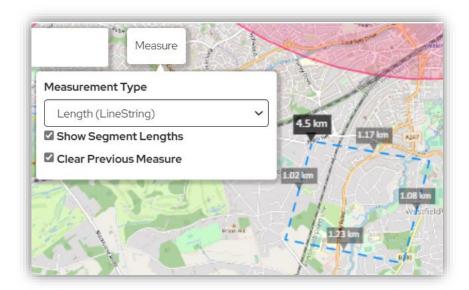


Measuring Tool

The Airspace Map also contains a measuring tool to help you plan out your flight allowing you to determine safe distance from hazards and the best location to be able to observe the flight from.

Click the Measure button on the Airspace Map to open the Measuring Tool.





The Measuring tool can measure:

- Length Enables you to click to place waypoints on the map and the distance between those points will be displayed along with their total length
- Area Enables you to click to place waypoints on the map and the distance between those points will be displayed along with their total internal area

Filtering the Map view

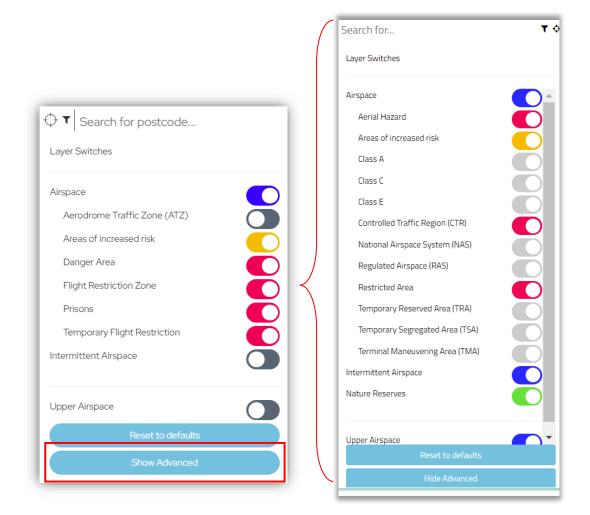
The map view can contain so much information that it can be distracting and overwhelming, the information displayed can be filtered by the Operations Manager user to only that which is desirable. Simply select the Filter icon and toggle the items you don't need off, selecting Show Advanced to view all the filter options.





Note: Only information available on the map at the present level of zoom will feature in the filters.





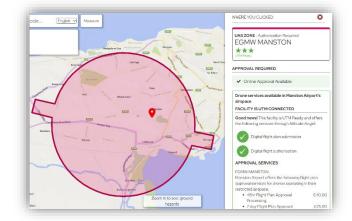
Map Features

Even from a quick look at the Airspace Map you will notice numerous highlighted features, these represent airspace restrictions or ground hazards. Clicking on these will open a panel on the right of the map displaying the available information on that site.



Flight Restriction Zones

Flight Restriction Zones represented in red on the map represent areas where Drone Flights are restricted and cannot go ahead without prior approval from the controlling authority. They are often used over airfields or critical national infrastructure. The map will display information we have including contact details, where available, to help you request access.



UTM Ready Facilities

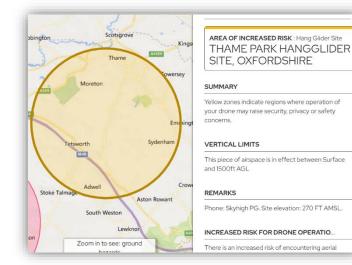
Facilities that are UTM ready will display the UTM ready logo and are integrated with GuardianUTM meaning that any flight plans submitted within their area of authority will automatically generate an approval request. This means that you can plan your flight as normal and the Mission details will be sent to the facility for processing and approval. You cannot fly in these Zones without prior approval. Note for Land Zones you only need approval if you are going to Land or take-off within the Zone.



The status of your approval request is displayed in the <u>Managing my Missions</u> section of Operator Portal. Should the status of your approval request change you also will be notified by email.

Areas of Increased Risk

Areas of increased risk highlight numerous features which need to be considered before conducting a flight. These can smaller aerodromes or flying clubs or any airspace where special care is recommended.





Ground Hazards

Zooming into a local area on the Airspace map will populate it with further details on local hazards or safety factors for you to consider. These can be power lines, schools, hospitals, towers major roads etc.



GROUND HAZARD : Power Pylon GROUND HAZARD

SUMMARY

Yellow zones indicate regions where operation of your drone may raise security, privacy or safety concerns.

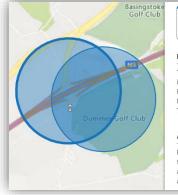
POWER HAZARD

The highlighted area is believed to contain power infrastructure. Power infrastructure presents heightened risk of damage to your equipment and critical National infrastructure.

• Report a flight incident

Drone Missions

One of the main benefits of submitting a Mission is that it makes other airspace users aware of your intentions. Blue markings on the airspace map show you the plans of other drone operators, helping you share the airspace safely.



FLIGHT REPORT : User Reported TRAFFIC SURVEY

FLIGHT REPORT

This is a user submitted flight report. A drone flight is planned to take place here between Wednesday, February 1, 2023 6:00:08 PM and Wednesday, February 1, 2023 7:00:08 PM in Europe/London. This flight is tagged as commercial.

ABOUT FLIGHT REPORTS

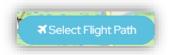
Flight reports allow users to tell other members of the aviation community about your planned aerial activity to help improve safety and optionally activate Airspace Alerts.

Having reviewed the map and identified the Area of Operation for a proposed Mission, Operator Portal provides 4 different options to define your Flight:

- Flight Path: Use this if your flight will be a conducted as a series of waypoints.
- Flight Area: Use this to define a cylindrical area within which your flight will take place.
- Flight Region: Use this to define an irregular area within which your flight will take place.
- File Import: Use this to import an operation area created through an external application and exported in GeoJSON or KML formats.

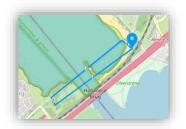
Flight Path

The Flight Path option allows you to create a series of waypoints, identifying the planned Flight Path.





Click on the Select Flight Path button and click on your intended route to create a series of waypoints. To complete the route, click again in the same position as your final waypoint.



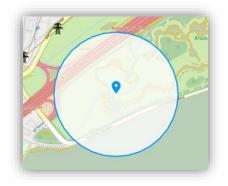
Click **Done** to complete your Flight Path selection.

Flight Area

The Flight Area option allows you to specify a circular area on the map, which with the Max Height value we'll set later, creates a cylindrical volume for your operation.



Click on Select Flight Area, then click on the map to select the <u>centre-point</u> of where your flight will be taking place.



Adjust the unit of measure and size of the radius of your flight area to match your plans.





Click **Done** to complete setting up your Flight Area.

Flight Region

The Flight Region option allows you to create a series of waypoints, identifying the border points of your Flight Region.

To define an irregularly shaped operation volume, click on Select Flight Region.



Click on the map to add a series of border points. Your flight region must form a complete boundary. Click again at the start (first) border point to complete the region.



Click Done to complete your Flight Region.

File Import

If you have created your operation through another planning tool, that provides output as GeoJSON or KML files then you can import it into GuardianUTM.



Click import from a file just above the map area to open the Import from a file dialog box.



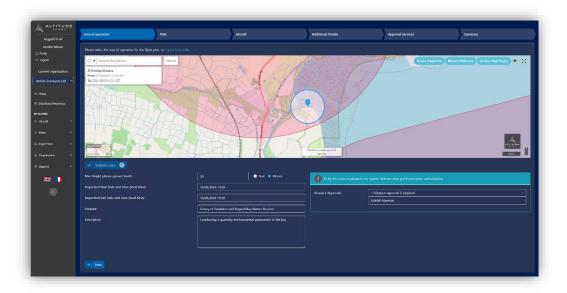
Import from a file	×
Accepted file types: • GeoJSON • KML	Accepted shapes: • LineString • MultiGeometry (KML only) • Point (KML only) • Polygon
Choose File No file chos	en
	Back Import

Click Choose File and select the desired GeoJSON or KML file, then click Import. A message will be displayed above the map confirming the successful upload and the map will display the area specified in the file.



Operational Details

You can now complete the remaining mission steps, starting with the other Area of Operation fields.





Specify the Max Height of the operation, the start and end time and date of the flight, and provide some information on the Purpose and a Description of the Mission.

Should your flight enter an air or land UTM zone which requires authorisation these will be shown in the box below. If entering an Airspace UTM zone you will need prior approval before you fly, which we will submit for you on submission of your plan. For Land UTM zones you need to specify whether you will need to access the land for takeoff or landing, select the tick icon next to any zones you need access to or select I don't require access to any of these land volumes.

Airspace Approvals	1 Airspace approval is required	
Land Approvals 🕜	Please choose the locations you will need to access	
	Manston Vertiport	\checkmark

Click Next when ready.

Pilot Details

Next select the Pilot that will be flying the mission from the drop down box.

Area of operation	Pilot	Aircraft	Additional Details	Approval Services	Summary		
Select Pilot:	Martin Wilson						
First Name	Martin		Address Line 1	14 Sample address road			
Last Name	Wilson	Wilson					
Contact Mobile Number	+44 7870 000000	₩ + +44 7870 000000		Reading			
	Allow SMS Contact		Postcode	RG1 3BD			
Email Address ^a	martin.wilson@altitudeangel.com		Country	United Kingdom	United Kingdom		
Observer phone number 📀	🗮 👻 Enter a phone number	🗮 🕶 Enter a phone number					
Registration ID	3455345						
Operational Authorisation ID	3454534	3454534					
Additional information 📀							
← Back → Next							

Once the mission has been submitted, the selected pilot will have visibility of the operation through their Operator Portal login (it will be listed in the missions under the 'Personal' organisation context), and in their mobile app.



Aircraft

Finally, select the Aircraft that will be used from the Select Aircraft drop down menu and click Next when you are ready.

Select Aircraft	Long range survey dri	one v			
Colour	Grey		Manufacturer	PWOne	
Markings			Model	Orca	
Maximum Take-Off Mass (MTOM)*		kg	Airframe	Fixed-wing	
Serial Number 🕜			Registration Number		
ICAO Address 🕐			Additional details (this information is not shared)		

Approval Services

Should the Mission cross into a UTM Zone configured with Approval Service Fees the next step will be to review and choose from the services available. Approval Service Fees are paid to the entity controlling the Zone who will be reviewing your request and are only paid when a Mission is approved. Some facilities have denied requests on the basis that it complicates their operations and reviewing requests is a cost without benefit to them. Approval Service fees helps recoup the cost of processing the approval requests and enable the opening up of airspace that would otherwise be closed.

Multiple Zones

Should your plan intersect with Multiple UTM Zones you will need to select appropriate Service Levels for each Zone you are entering. Not all facilities are UTM enabled so please ensure you have permission to access all restricted airspaces on your intended flight path.

If no Approval Services zones are included in your flight plan this step will be automatically skipped.



If they are detected you will be shown a list of the Approval Services Zones and the Service Levels they operate.

rea of operation	Pi		Aircraft	Additional Details	Approval Services	Summary			
Approvals requiring pa	/ment 1 item(•		Payment Summary					
EGMW Manston				When you select request approval on the summ	ary page, Altitude Angel will collect the amount	below from you on behalf of:			
All charges and requirements li				guardianutm					
We offer the following services				Altitude Angel does not charge you a fee to use	this service. A receipt will be emailed to you on	e your transaction has been finalised.			
				Service level					
Service level	7 day Approval Service 124.00 (incl. Tax) v Select a service level			EGMW Manston - Aispace - 7 day Approval Service					
View zone Terms and Conditions Contact Administrator martin wilso	7 day Appr	wal Service £24.00 (incl. Tax) roval Service £18.00 (incl. Tax)							
	30 day Apt	oval service a lacoo (inca lab)				Subtotal £20.00			
						Sales Tax(20%) £4.00			
						Total (inclusive of tax) £24.00			
					WEEN YOU, AND THE ZONE ADMINISTRATOR(5)	ancellation policy set up by each zone administrator. We have no responsibility or influence in determining debit your sament card as outlined above.			
				 I agree to the zone owner(s) and Altitude Angel 					

Choosing Service Levels

Each UTM Zone charging for Approval Services who's airspace you plan to use will be listed as well as the service levels they offer. These are often configured to depending on the turnaround time of the request, with for example a 24hr Approval costing more than a 14 day one.

Select a Service level for each UTM Zone(s) and the total will be calculated on the right, review the terms and conditions for operation in the zones and when you are ready to proceed check the Terms and Conditions checkbox and click Next.

rea of operation		Pilot	Aircraft	Additional Details	Approval Services	Summary		
Approvals requiring	ayment 1 ite	m 0		Payment Summary				
EGMW Manston				When you select request approval on the summa	ary page, Altitude Angel will collect the amount bel	ow from you on behalf of:		
All charges and requirement	levied by guardia	nutm		guardianutm				
We offer the following service	s for reviewing an	rd approving Drone flight plans.		Altitude Angel does not charge you a fee to use t	this service. A receipt will be emailed to you once y	our transaction has been finalised.		
Service level 7 day Approval Service #24.00 (incl. Tax)				Service level				
				FGMW Manston - Airspace - 7 day Approval Serv		620.00		
Contact Administrator: martinui						Subtotal 620.00		
						Sales Tax(20%) £4.00		
						lotal (inclusive of tax) £24.00		
				L	VEEN YOU, AND THE ZONE ADMINISTRATOR(S). W	e have no responsibility or influence in determinin		
				the outcome of your approval request. If approved, agree to the zone owner(s) and Altitude Angel's		it your payment card as outlined above.		

Summary

The summary page contains all the details of your Mission for review prior to submission, scroll through your summary and when satisfied with the Mission click Create, this will be Create Order if you selected a UTM Zone with Approval Services.



Area of operation	Pilot	Aircraft	Additional Details	Approval Services	Summary
Review details					
By submitting you understand and agr Submission of this form does not Understand and accept the Altit	e to the following: constitute any approval of clearance to c ide Angel Privacy Policy and Portal Terms	acy and completeness, and then click Request Appr ross or enter any controlled airspace. of Use, and autorine Alfinide Angel to process info atheniation. You will also need to sopply a payment	rmation in this request.		
	vs. please return to the Approval Service on tab if you do not require access to the		EGMW Manston - Airspace - 7	? day Approval Service	620.00
					Subtotal 620.00
					Sales lax(20%) £4.00 Iotal (inclusive of tag) £24.00

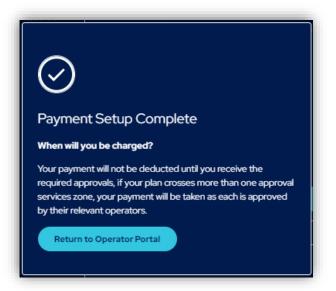
Approval Service Fees

If your plan requires the payment of Approval Services Fees you will now be taken to a page to submit payment details. Note payment will not be taken for a particular Zone until your flight plan has been approved, these details will be held until that time.

Please setup your payment for		Please select from your existing payment method(s) or a	dd a nei
Payment will not be taken until your pl requires multiple approvals then paym is processed by a zone administrator.		payment method.	
Flight Plan Approval for facility "EGI Airspace" with service level "48hr FI Approval Processing".		Visa 🛛 🛛 *4242 10/2026	
Tax	£6.67		
Total	£40.00	Add Card	
	£40.00 ?	Submit Order	
Payment facilitated by Altitude A zone administrators listed above.		Cancel	

Add the card number, expiry date, CVC code, name on card, country and Post Code of the cardholder. Select use this card for payment when the card details have been added.





You will then be shown a submission confirmation, with a Flight Plan ID, Pre-Flight Approval Status and Payment.

OUES NOT constitute approval to enter controlled	ee your flight plan request status below. or restricted airspace.	Please n	ote thi
light Plan ID: 62081D			
re-flight approval: Pending			
ayment Status: Pending			
You will only be charged if your approval is granted, or i set up by each zone administrator	f you do not cancel in accordance with the can	cellation	policy
Approval Services			
		Sales	
Description	Net	Тах	Tota
Flight Plan Approval for facility "EGMW Manston service level "7 day Approval Service". Payment Status: Pending	- Airspace" with GBP 20.00	4.00	24.00
	Subtotal	GBP	20.00
	Sales Tax(20.0%)	GBP	4.00
	Total (inclusive of tax)	GBP	24.00
Edit payment method			
You will only be charged if your approval is grant cancellation policy set up by each zone administra	ator. ALTITUDE ANGEL ACTS AS AN INTE	RMEDIA	
BETWEEN YOU, AND THE ZONE ADMINISTRATOR determining the outcome of your approval reque			and

Safety | Trust | Respect | Innovation



- Flight Plan ID The identifier for your mission. Referenced in the list of your submitted missions and the communications (email/SMS) you receive about the mission.
- Pre-Flight Approval The current approval status for the mission. If the area of
 operation requires an ATC clearance, then the GuardianUTM system will route this for
 you automatically and you will receive updates through the Operator Portal and via
 email/SMS. If your mission takes place outside the airspace serviced by GuardianUTM,
 then you will be informed as such and expected to follow the national and local rules
 and regulations applicable to the operation.
- Payment Status The current status of payment for Approval Services fees, this will be pending until the approval request has been approved. Once approval has been received the payment attempt will be made. Any declined transactions need to be resolved before any Flights are made.



If your mission approval status is Pending then you <u>DO NOT</u> have clearance to enter controlled or restricted airspace and must wait for the approval to come through the GuardianUTM system. You are responsible for ensuring you have permission to access all restricted airspaces your Mission enters.

Without Approval Services

If your plan doesn't include Approval Services you will then be shown a submission confirmation, with a Flight Plan ID and Approval Status should your Mission require approval.

Mission request submitted.
Your mission request has been Created. Please see your mission request status below. Please note this DOES NOT constitute approval to enter controlled or restricted airspace.
Flight Plan ID: 4112d6
Approval Status: Pending
Please check your email for further information.
ОК

- Flight Plan ID The identifier for your mission. Referenced in the list of your submitted missions and the communications (email/SMS) you receive about the mission.
- Approval Status The current approval status for the mission. If the area of operation requires an ATC clearance, then the GuardianUTM system will route this for you automatically and you will receive updates through the Operator Portal and via



email/SMS. If your mission takes place outside the airspace serviced by GuardianUTM, then you will be informed as such and expected to follow the national and local rules and regulations applicable to the operation.



If your mission approval status is <u>Pending</u> then you <u>DO NOT</u> have clearance to enter controlled or restricted airspace and must wait for the approval to come through the GuardianUTM system. You are responsible for ensuring you have permission to access all restricted airspaces your Mission enters.

Email Notifications

You will also receive an email notification regarding your Flight Plan, this contains details of any Approval Services required for your flight as well as a link to your Pre-Flight report which contains a summary of your flight.

Dear Martin Wilson,									
Thank you for filing you Bay Nature Reserve").	ır flight plan no	AFED9ED (titled "Survey of the Sandwi	ich & Pegwell						
Approval is required p	prior to your f	light.							
	ith the availab	nave contacted the approval zone admini le options/service levels that you have c y-out your operation:							
Approval Zone Admi	ninistered By	Service Level	Fee						
EGMW Manston marti	indemo	48hr Flight Plan Approval Processing							
Sub-t	total		GBP 50.00						
Tax ((at 20%)		GBP 10.00						
Total	1		GBP 60.00						
administrators indicated above A note about fees If your intended flight plan intersects one or more Approval Zones for which fees are due, payment will only be taken as each zone administrator approves a decision									
What happens next?									
You will receive updates as your flight plan is processed, so please look out for correspondence from us to this email address. We highly recommend that you login to your account to check on the status periodically, too.									
One more thing!									
We have also created a pre-flight report for you here that summarises and categorises the ground, air, and environment risk that we think might help as part of your risk management process, with our compliments.									
Many thanks,									
Altitude Angel									



Action Required Status

Should the authority in charge of approving a flight require more information or a change to your plan they can request that you modify your plan. This will set your plan to Action Required, you will be notified by email should this occur.

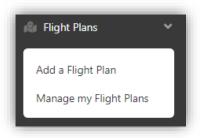
Furthe recepti	r to your flight plan no. E424C9 (titled "Filming and taking pictures of Wedding on"):
	an status has been updated to Action Required with the following zone strator feedback
•	Could you change your flight start time to 14:30 please, your current flight time conflicts with other operations.
Wha	at does this mean?
flight p	ns that approval for the segment of the operation you intended to carry out in your lan at Delaware Manor cannot be approved by martindemo, until you have sed the feedback above.
Wha	at happens next?
	commend you re-submit your plan, having amended it in line with the guidance
above.	no longer wish to fly, please cancel the flight plan in the application.
above. If you r If you v	
above. If you r If you v via the	no longer wish to fly, please cancel the flight plan in the application. vould like to request further information then please contact the zone administrator
above. If you r If you v via the marting	no longer wish to fly, please cancel the flight plan in the application. vould like to request further information then please contact the zone administrator following contact details

The email will also contain the reason that the plan needs further action before it can be approved. In this example there is a conflict with other operations and a request to move the flight start time slightly, but it could also be a request for further information. Should the change in start time be acceptable the Operator can adjust their plan to reflect the request or cancel the flight plan should they not be able to make the requested change. To do so log into Operator Portal and navigate to Mission and then Manage my Missions.



Managing Flight Plans

You can view, track, update, copy, delete and report a safety incident by selecting Flight Plans and then Manage my Flight Plans from the menu.



This will display a list of your Flight Plans they will be listed with some of the key operational details, as well as the current Approval Status.

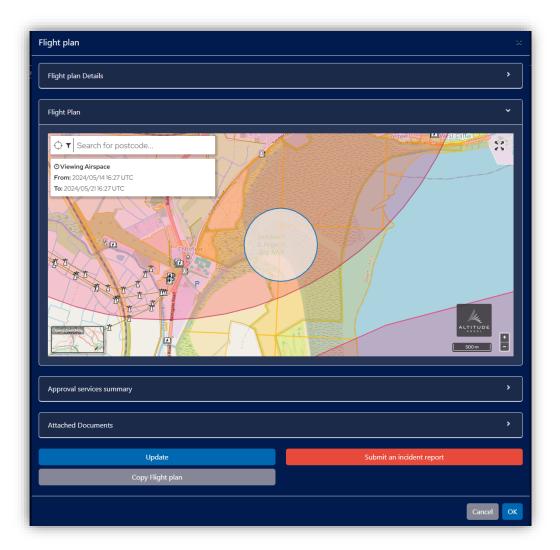
anaye	ge my flight plans							
	Purpose	Flight Pl	Flight plan Status	Pre-flight approval	Start (Europe/Lo	End (Europe/Lon	Max Height	
🖍 Q 🧻	Survey of Sandwich and Pegwell Bay Nature Reserve	62081D	Submitted	Pending	15/05/2024 14:30	15/05/2024 15:30	50m AGL	

To the left of each Flight Plan you'll find the options to View, Update and Delete a Flight Plan. Note that Update will not be available if the Flight start time has lapsed.

View

Clicking View will display the full mission details, including the area of operation. Click on the Flight Plan Details and Flight Plan accordions to expand/collapse the detail.





Update

Selecting Update will take you to the Flight planning pages enabling you to change any details and then resubmit the Flight Plan. This enables you to make changes to your plan, this is particularly useful should you receive a request for more information before your plan can be approved. Should this happen the status will be changed to Action Required and your plan updated with comments from the airspace controller, these will also be emailed out to you.

Delete

You can delete any Flight Plan that hasn't completed should you no longer intend to fly it.



Please note that if your flight plan included Approval Services that have already been performed and charged that this fee will not be refunded to you as the service has already been provided.

You can however Update your flight plan to fly on a different date in the same zones without additional charge.



Flying a Flight Plan

We recommend using the GuardianUTM mobile application when out in the field so that you have access to the planning and logbook features.

GuardianUTM currently does not provide a digital take-off clearance service outside of restricted UTM Zones, so you MUST ensure you follow any flight instruction that is provided to you with your pre-flight approval.

Through the safety map you will be able to check the air and ground risk in your flight area, as well as look out for any active NOTAMs that might affect the operation.

Your Flight Plan - whether created in the Operator Portal or mobile application - will be available from the 'Logbook' so that you can access the latest (pre-flight) approval status and pre-flight report.



We recommend your CONOPS include a check, at least 1 day before the mission, that the assigned pilot is correct and available to carry out the flight. If not, then you can update the mission assignment as required.

Firstly, you'll need to make sure you have installed the GuardianUTM app, available from the Apple and Google Play app stores.

Upon loading the application, you will be asked to accept the terms of use for the app and then will be presented with our air and ground safety map, centred on your location (subject to sharing that through your device settings).

You will be able to use several app features without signing in:

- Exploring the map
- Viewing the air and ground features that you should be aware of when flying your drone

The following app features are only available after signing in:

- Creating a Flight Plan
- Receiving and tracking pre-flight approval to operate in the RPAS
- Viewing your logbook of missions that you created, or have been assigned to you as a pilot through the Operator Portal
- Viewing pre-flight safety reports for your flight plans

You will be asked to sign in after tapping on any feature where it is required or can chose to do so by opening the main menu, tapping <u>Settings</u> and then <u>Login</u>. You can use the same details as you use to sign into the Operator Portal.



If you don't have a GuardianUTM account but are expecting a flight plan to be assigned to you then please complete the your account <u>registration</u>.



Submitting an Incident Report

Openness and honesty are key parts of what make Aviation as safe as it is today, as typified by the <u>Just Culture</u>. The focus on incident reporting is on learning and by reporting incidents we offer others the chance to learn from our experiences and thus prevent future incidents.

To submit an incident report select Flight Plans and then Manage my Flight Plans from the menu and view the Flight Plan during which you had an incident. Click on Submit an incident report and complete the form to share your experience.

What do I do if I get stuck?

For general support or feedback regarding GuardianUTM please contact

technical.ask@altitudeangel.com

If you require operational, rather than technical, assistance then please contact the relevant authority.

You will also find assistance within the Operator Portal under the Support menu. Which is kept updated with FAQs (Frequently Asked Questions), resources and helpful contact information.



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