



OBSTACLEANALYZE

PROFESSIONAL USERS MANUAL



www.obstacleanalyze.com



support@obstacleanalyze.com



Home Page



- When users enter the www.obstacleanalyze.com URL from their web browser, they are come across with the Obstacle Analyze Homepage.
- Users can access a lot of information about the system on the homepage. There is information about available services and functions, existing customers, system structure, etc.

Main Services

Explore the range of services offered by the Obstacle Analyze System, including but not limited to the following.



Allowable Height Analysis

It is the function that provides the analysis of the allowable building height within Surfaces. There is also the possibility to create and download a detailed PDF report.



Add Obstacle

It is a function developed to add Obstacle according to ICAO PANS-AIM and to provide Obstacle Management together with the functions in other menus.



Create Obstacle Limitation Surface

It has been developed to create Obstacle Limitation Surface according to ICAO Annex14 Vol I requirements.



Infringement Analysis

It is a function that allows users to analyse the obstacle height according to the surfaces they have previously created.



Add Special Area

It is a function developed for users to perform height analysis for the areas they specify (aeronautical study, shielding study areas etc.) apart from standard surfaces.



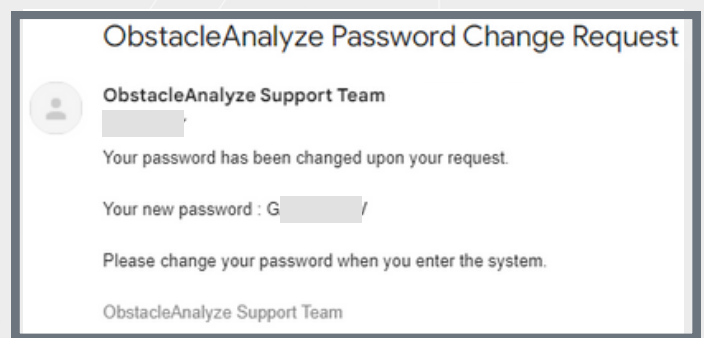
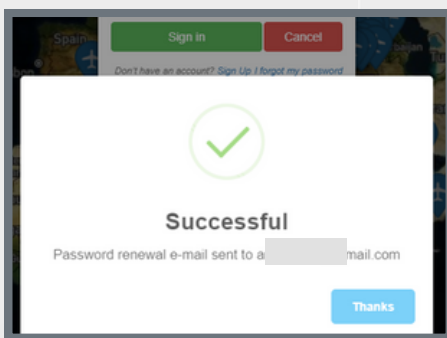
Surface Analysis

It is a function that allows users to create a surface according to the criteria they set and analyse the obstacle height.

Login Page

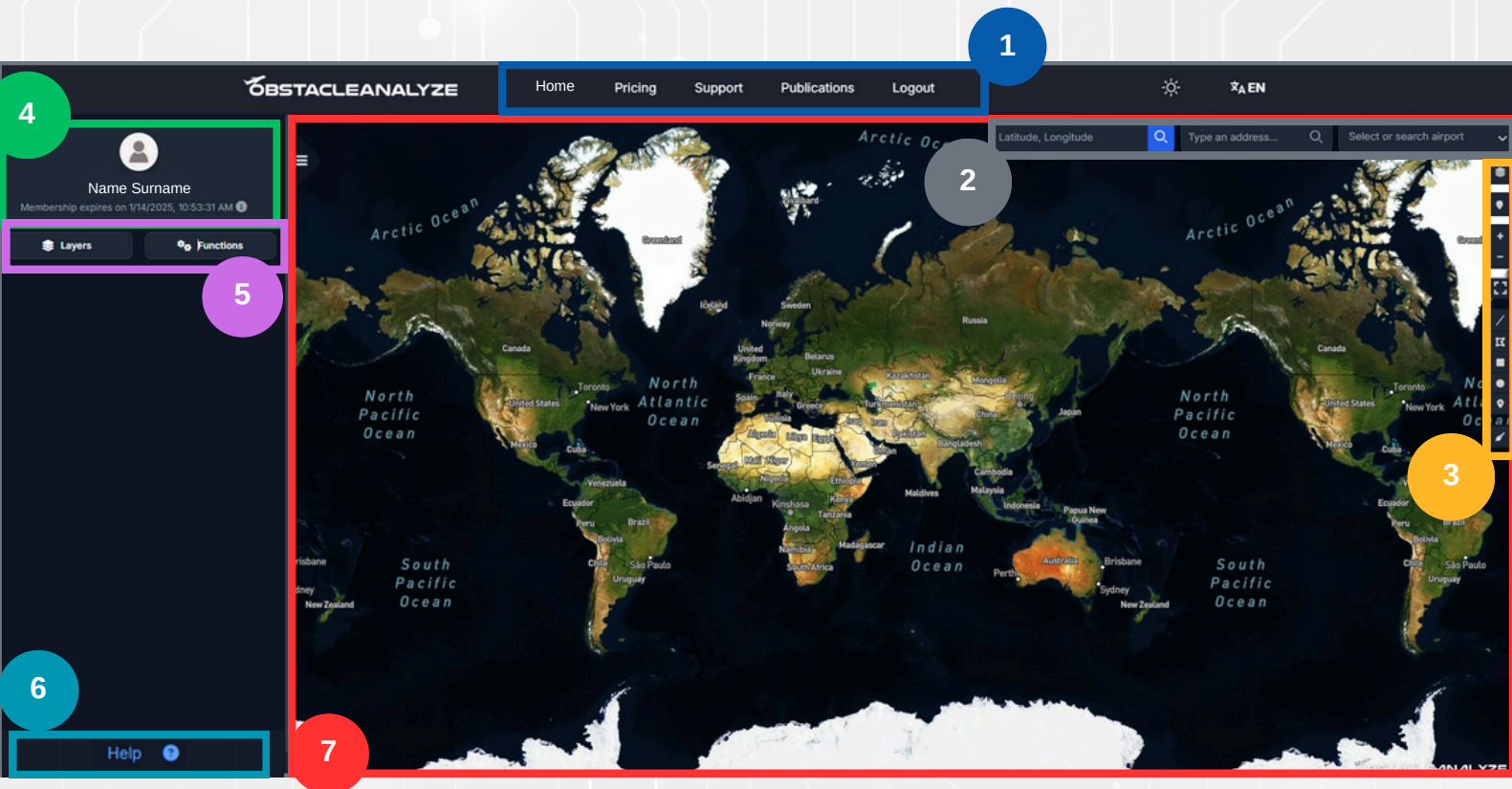
The screenshot shows the login page of the ObstacleAnalyze website. The URL in the browser is <https://www.obstacleanalyze.com/signin.html>. The page has a dark blue header with the ObstacleAnalyze logo and navigation links: About, Pricing, Support, Publications, Sign In, and Sign Up. A dark blue modal box is centered on the page with the title "Sign in to your account" and the subtitle "Login to your account for a faster checkout." Inside the modal, there are two input fields: "Your Email / Username" and "Your Password". Below the password field, there is a checkbox for "Keep me signed in" and a link for "Forgot Password?". A blue "Sign in" button is at the bottom of the modal. Below the button, there is a link: "Don't you have an account? Sign up".

- When users enter the page from the URL www.obstacleanalyze.com/signin, they will see a login screen.
- After entering the username or email and password informations, users can log in by clicking on the Sign In button, also users can check the password, entered from the View  button.



- If the users forgets their password, they can click on "Forgot Password" and a notification will be sent to their email address.

System Page



- Users access the System Page (Explore) after logging in to the platform.
- Section 1 provides an overview of the pages accessible within the platform.
- The explore page is the page where users in the system perform the basic operations related to Obstacle Analyze.
- There are 7 sections on the explore page, these sections will be described separately.

Publication Page

1

Obstacle Analyze System

Obstacle Analyze System is a web-based obstacle management software designed to identify, monitor, and efficiently manage obstacles around airports. It enables all stakeholders including airport authorities, civil aviation organizations, air traffic control units, airlines, governments, municipalities, and other end users to handle obstacles more effectively. This system enhances flight safety, optimizes air traffic flow, and facilitates the seamless sharing of critical data. It also plays a key role in ensuring compliance with regulations and inspections, improving airport infrastructure, and promoting operational excellence. By leveraging expert input, Obstacle Analyze System streamlines obstacle management and automates manual analyses, accelerating processes for airports. As a result, it contributes to safe, efficient, and sustainable aviation operations. This page provides essential information, documents, user tutorials, and frequently asked questions to assist users in navigating the system.

User Roles

There are 2 groups of users in the system, **Professional** user used by the customer (authorities, organizations etc.) and **System Admin** supported by the manufacturer. Depending on the package type and number of user, professional users can also be divided into **inspectors, supervisors and managers** in a hierarchical structure.



System Admin



Manager



Supervisor



Inspector

- The PUBLICATIONS page contains users manual, video and small information that will provide guidance for users.

System Icons

Hold the cursor over the icons used in the system to see their meanings.



Add Line

Documents

Operational user manual, brochure and training request form for users are provided below and may be access at any time. User manual is offered within the scope of Bronze Package. Manuals for other packages are provided to users upon delivery.



User Manual



Brochure



Request Training

Usage Video

Given the extensive range of features included in the Gold, Platinum, and Diamond packages, the video below offers an overview. Detailed instructional videos are provided to users upon delivery.

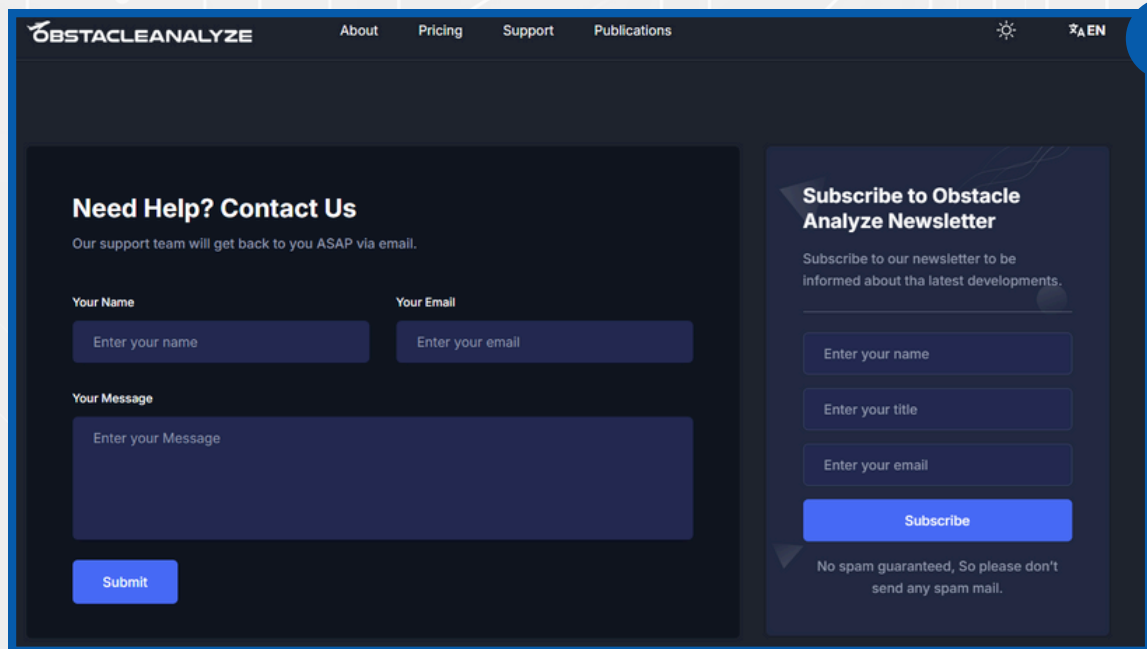


Table of Contents

- System Airport OLSs Query (0:10)
- Add Airport(s) (0:30)
- Add Obstacle(s) (0:45)
- Infringement Analysis (1:00)
- Surface Analysis (1:30)
- Create Airport OLS (2:00)
- Create eTOD Areas (1:30)
- Create CNS BRAs (2:00)

Support Section

- There is a section on the Support Section where registered users can send an e-mail to the system admin. There is also a section to subscribe to our newsletter to keep updated with the latest developments.



The screenshot shows the 'Support' section of the Obstacle Analyze website. It features a 'Need Help? Contact Us' form on the left and a 'Subscribe to Obstacle Analyze Newsletter' form on the right. The contact form includes fields for 'Your Name', 'Your Email', and 'Your Message', with a 'Submit' button. The newsletter form includes fields for 'Enter your name', 'Enter your title', and 'Enter your email', with a 'Subscribe' button. A '1' in a blue circle is in the top right corner.

Need Help? Contact Us
Our support team will get back to you ASAP via email.

Your Name:

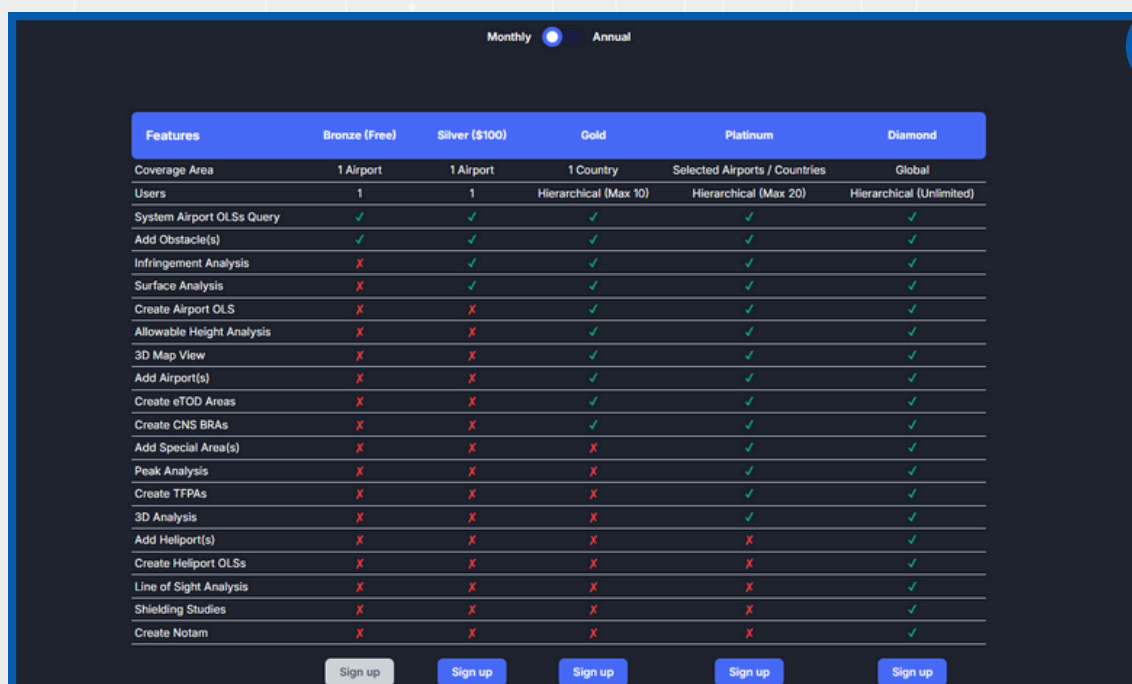
Your Email:

Your Message:

Subscribe to Obstacle Analyze Newsletter
Subscribe to our newsletter to be informed about the latest developments.

No spam guaranteed, So please don't send any spam mail.

Pricing Section



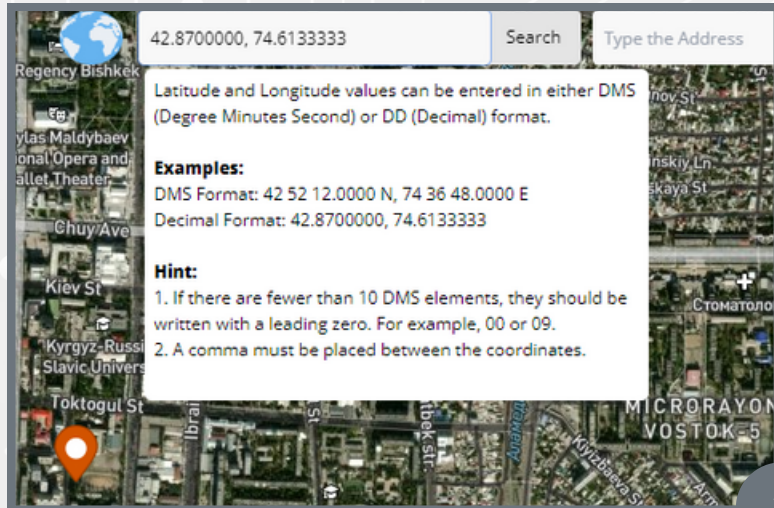
The screenshot shows the 'Pricing' section of the Obstacle Analyze website. It features a table comparing five pricing plans: Bronze (Free), Silver (\$100), Gold, Platinum, and Diamond. The table lists various features and their availability across the plans. A '1' in a blue circle is in the top right corner.

Monthly ☒ Annual

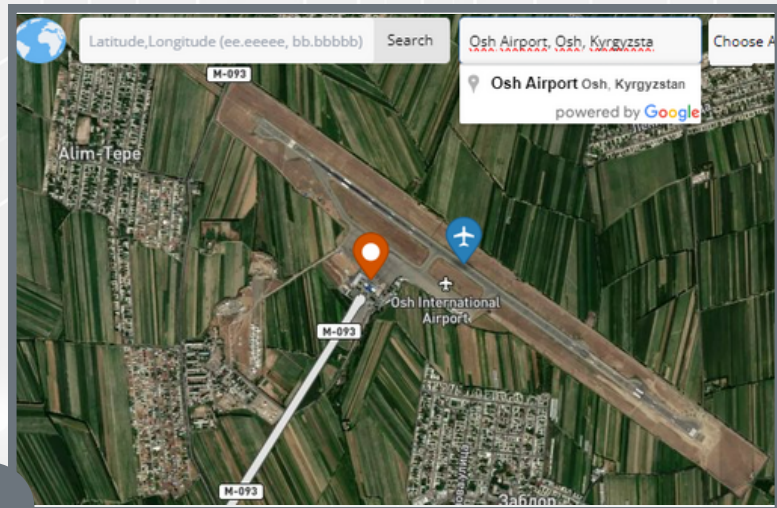
Features	Bronze (Free)	Silver (\$100)	Gold	Platinum	Diamond
Coverage Area	1 Airport	1 Airport	1 Country	Selected Airports / Countries	Global
Users	1	1	Hierarchical (Max 10)	Hierarchical (Max 20)	Hierarchical (Unlimited)
System Airport OLSs Query	✓	✓	✓	✓	✓
Add Obstacle(s)	✓	✓	✓	✓	✓
Infringement Analysis	✗	✓	✓	✓	✓
Surface Analysis	✗	✓	✓	✓	✓
Create Airport OLS	✗	✗	✓	✓	✓
Allowable Height Analysis	✗	✗	✓	✓	✓
3D Map View	✗	✗	✓	✓	✓
Add Airport(s)	✗	✗	✓	✓	✓
Create eTOD Areas	✗	✗	✓	✓	✓
Create CNS BRAs	✗	✗	✓	✓	✓
Add Special Area(s)	✗	✗	✗	✓	✓
Peak Analysis	✗	✗	✗	✓	✓
Create TFPAs	✗	✗	✗	✓	✓
3D Analysis	✗	✗	✗	✓	✓
Add Heliport(s)	✗	✗	✗	✗	✓
Create Heliport OLSs	✗	✗	✗	✗	✓
Line of Sight Analysis	✗	✗	✗	✗	✓
Shielding Studies	✗	✗	✗	✗	✓
Create Notam	✗	✗	✗	✗	✓

Explore Page

- In the navigation bar at the top of the Explore page, the left box contains the field for searching by coordinate, and the middle box contains the field for searching by address and the right box contains the airport list.

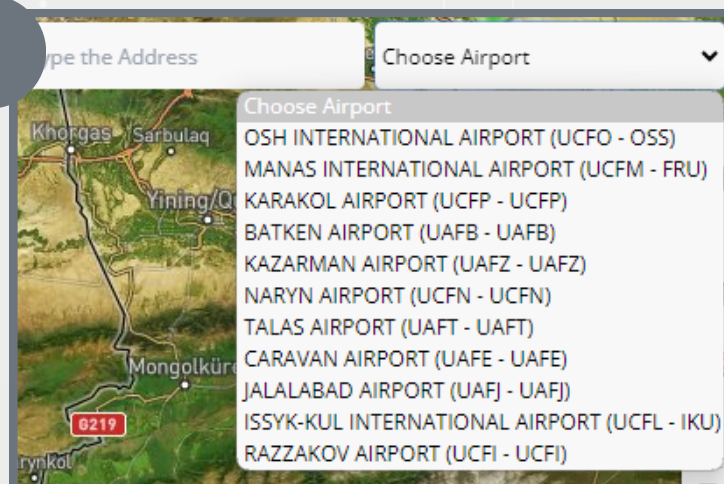


2



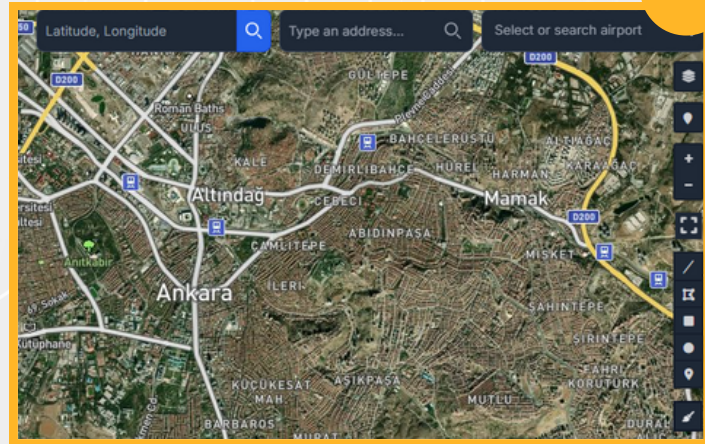
- Latitude and Longitude values are entered in DMS(Degree Minutes Second) or DD(Decimal) Format. Users should enter coordinates in DD.DDDD or DD MM SS.SS. Examples: 42 52 12.0 N, 74 36 48.0 E or 42.8700000, 74.6133333 or 42°52'12.0 "N, 74°36'48.0 "E.
- If there are fewer than 10 DMS elements, should be written with 0 at the beginning. For example, 00 or 09.
- Users should use the point (.) for decimal separators.
- A comma (,) must be placed between the coordinates (latitude, longitude).
- In the search by address section, when users type the keywords of the address they want to search, suggestions are listed for them.

2

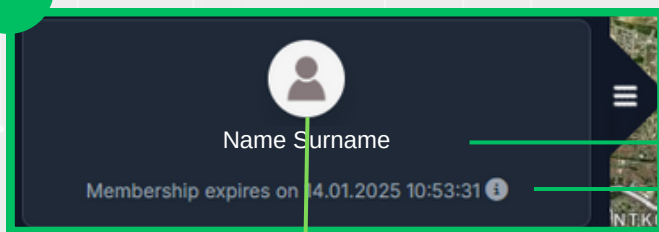


Explore Page

- There are 10 open source 2D basemap on the Layer button  located on the right.
- These are Mapbox, Openstreetmap and Thunderforest basemaps. Any of these basemaps can be selected and used as desired.
- The Location button  is used to display your current location on the map (browser permission required).
- The Plus button  is used for zoom-in, the Minus button  is used for zoom-out. The Frame button  is used for full screen.
- The Line button  is used to draw a line and measure the distance. The Polygon buttons    are used to draw area. Add marker button  is used to add point/marker on the map. The Broom button  is used to clean up if there are any objects left on the map.



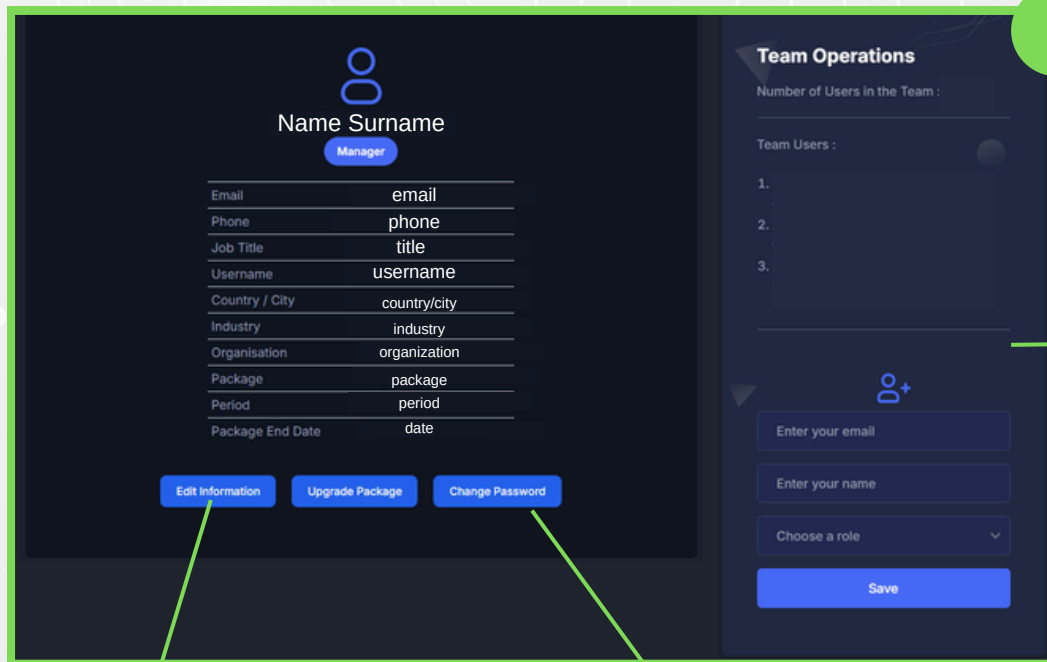
4



Name-Surname
Membership Period
Profile

- Users information is located at the top of the menu on the left side of the page.
- A page opens from the profile button where users can make changes to their information.

Profile Page



The main profile page is divided into two main sections. The left section, titled 'Name Surname' with a 'Manager' role indicator, contains a table of user information and three action buttons at the bottom. The right section, titled 'Team Operations', shows the number of users in the team and a list of team users. Below this is a form to add new team members with fields for email, name, role, and a 'Save' button.

Email	email
Phone	phone
Job Title	title
Username	username
Country / City	country/city
Industry	industry
Organisation	organization
Package	package
Period	period
Package End Date	date

Buttons: Edit Information, Upgrade Package, Change Password

Team Operations

Number of Users in the Team :

Team Users :

- 1.
- 2.
- 3.

Do+

Enter your email

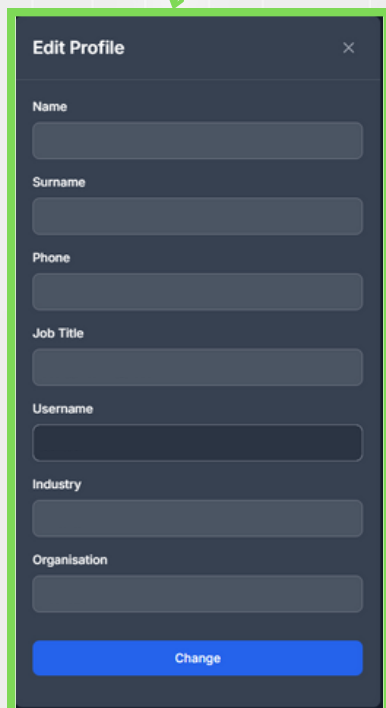
Enter your name

Choose a role

Save

4

Profile



The 'Edit Profile' modal contains input fields for Name, Surname, Phone, Job Title, Username, Industry, and Organisation, followed by a 'Change' button.

Edit Profile

Name

Surname

Phone

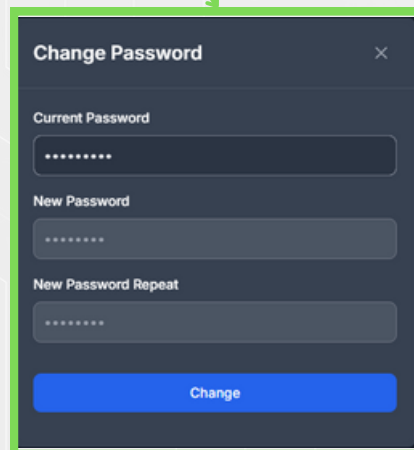
Job Title

Username

Industry

Organisation

Change



The 'Change Password' modal contains input fields for Current Password, New Password, and New Password Repeat, followed by a 'Change' button.

Change Password

Current Password

New Password

New Password Repeat

Change

- Users who want to increase the number of team members according to the user package can add their teammates, and an e-mail will be sent to those people.
- It is possible to view existing information, change password, change users information.
- If the user requests a package upgrade, an automatic e-mail will be sent to the system administrator and the user will be contacted as soon as possible.

Explore Page

 Layers

 Functions

5

- The Layers and Functions menus are where users will perform Obstacle Analyze operations.

Help 

6

- The help area contains some little information that is intended to help users.
- The vertical double line  serves to expand and collapse the left menu, while the horizontal three lines  serve to open and close the left menu.

Help

• How to choose the airport?

You can activate the ICAO Annex 14 Obstacle Limitation Surface's (OLS) by clicking the icon on the airport that you are interested in or you can choose an airport by selecting from the list at the top right.

• How to search by address?

You can use the search bar by address in the top centre.

• How to search for latitude and longitude?

You can use the coordinate search bar at the right top of the map.

▲ Important information

Attention, please make sure that pop-up blocker etc. restrictions are not applied.



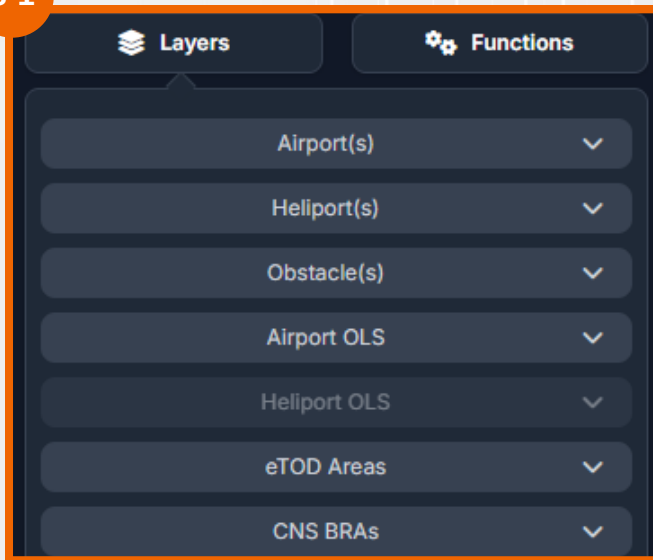
7

- The map area in the middle of the page is where users will visualize all the analysis and operations that users will do.

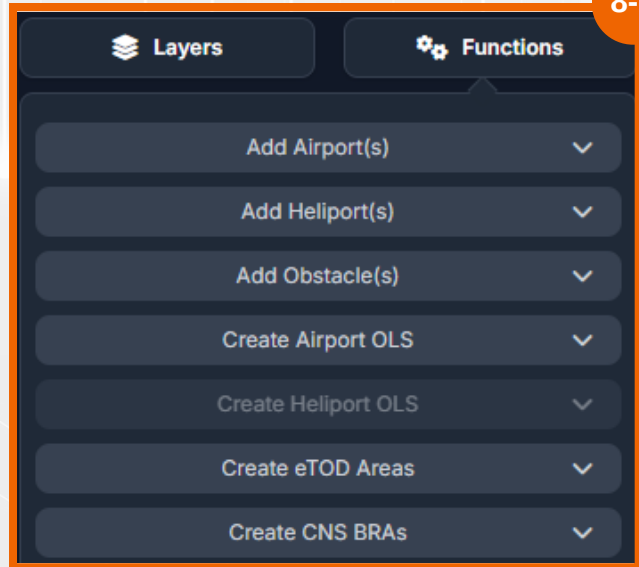
Explore Page

- There are two basic menus on the left side of the system: Layers and Functions. Functions is the menu where every user, regardless of their role, can add, draw, create, and analyze. Once users have done all the work under the Functions menu, they can view the results of all these saved work at any time under the Layers menu.

8-1

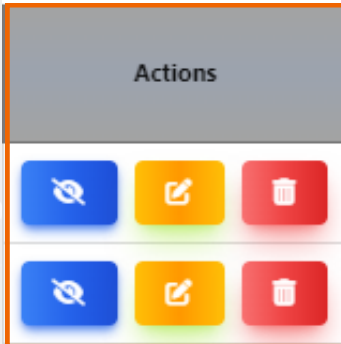


8-2



- There are 16 sub-menus under each menu. Technical details about how they work individually will be given on the following pages.
- Coordinates data entries shall be in geographical and **Degrees Minutes Seconds** (DDMMSS.SS) or **Decimal** (DD.DDDDDD) formats in All Functions Manual Inputs.
- Dimensions, elevations and heights shall be in **meters** in All Functions Manual Inputs.

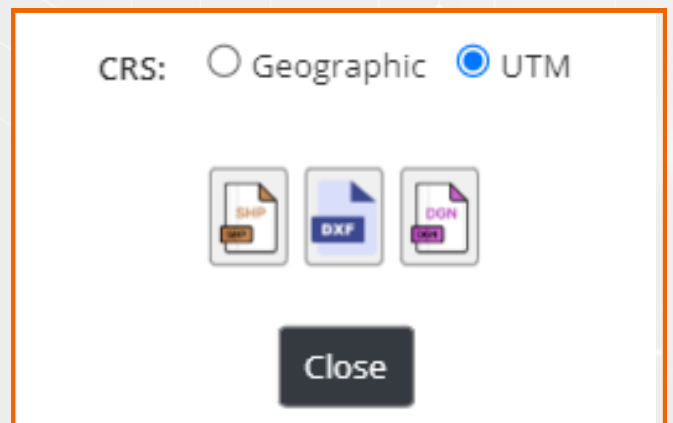
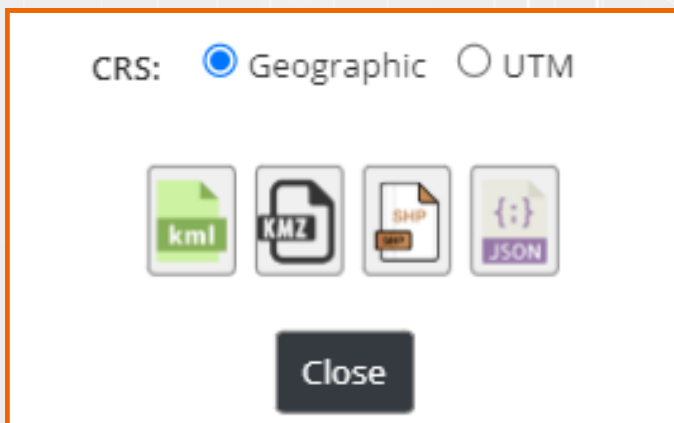
Sub-Menus Icons



- In the Actions section under the My submenu, there is the View button  where users can see the added content, the Edit button  where users can edit the content, and the Clear button  where users can delete the content.

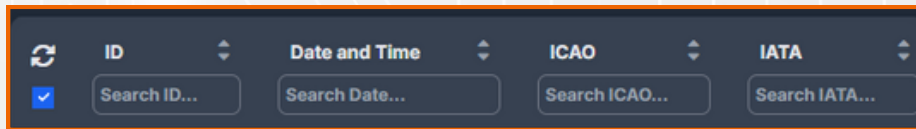


- The **Download** button under the tables provides users with formats that users can save to own computer.

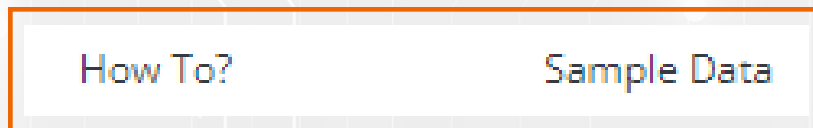


- There are options to export the lists shown in the submenus under the Layers menu in Geographic and UTM formats. Geographical export can be done in .kml, .kmz, .shp, .json formats. UTM can be exported in .shp, .dxf, .dgn formats.

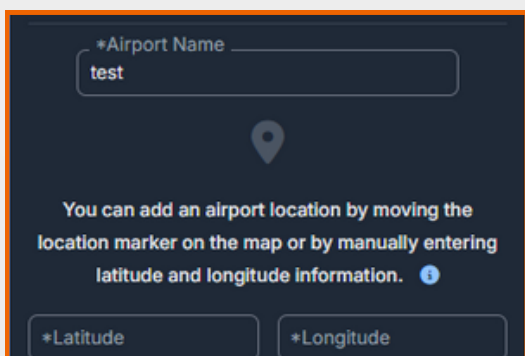
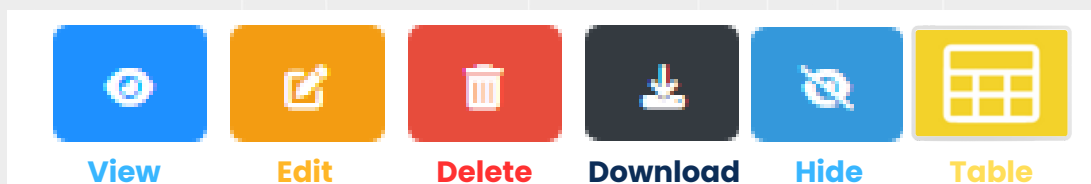
Sub-Menus Icons



- The **Search** field in the columns filters only the values in that column, and the **up and down arrows** to the right of Search allow users to sort the data in ascending/descending order.
- There is also a refresh button in the Layers to instantly display changes made by users in Functions.
- There are also options to navigate between lists and to specify how many lines to show in a single list.

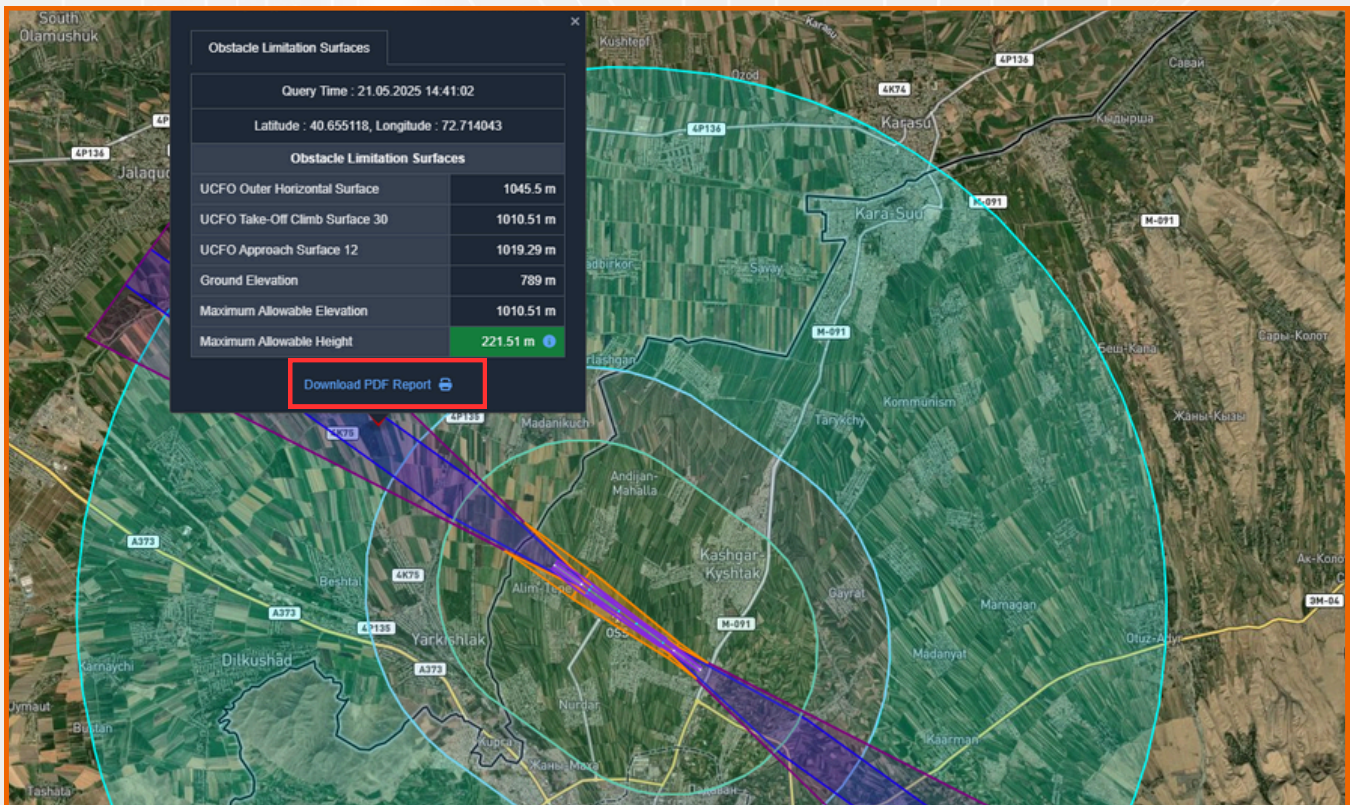


- In the **How To?** section, the technical details of how this process is performed is summarized to the user.
- In the **Sample Data** section, it is exemplified to the users how this function should be used with the sample data.
- When this text is pressed, the sample data related to the relevant function is automatically filled in the relevant boxes in Manual Inputs, and the sample file is prepared for download in Upload From File.



- When users click inside a box, they can see which parameter it belongs to on the box.

System OLS Query



- It is also possible to perform a **System OLS Query** (Allowable Height Analysis) on an OLS previously saved.
- The result of the surface elevations and ground level of the location that the user clicked on the OLS is given, and according to these, the Maximum Allowable Height Analysis result for this location is shown.
- Results are produced depending on the accuracy of the ground level. The ground level in our system is primarily derived from 30-meter resolution NASADEM, ASTERGDEM, SRTM data. In some regions, higher-resolution satellite imagery and ground surveys datasets have been integrated where available.
- The system is customisable according to the demands of the users.

System OLS Query

- When the **Download PDF Report** button is pressed in the Allowable Height Analysis popup, the report of the analysis can be downloaded and printed out if desired.
- The report contains information about the location, the results of the analysis, and the person who performed the analysis, as well as an image of the queried area.

OBSTACLEANALYZE

Allowable height and elevation information of the queried location.
This point is located within the OLS of the airport with the ICAO code UCFO.

The clicked point is shown with a red marker on the map.

Query Result

Latitude: 40.655118, Longitude: 72.714043 Date and Time: 21.05.2025 14:41:05

Obstacle Limitation Surfaces	
UCFO Outer Horizontal Surface	1045.5 m
UCFO Take-Off Climb Surface 30	1010.51 m
UCFO Approach Surface 12	1019.29 m
Ground Elevation	789 m
Maximum Allowable Elevation	1010.51 m
Maximum Allowable Height	221.51 m

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1

OBSTACLEANALYZE

Analyzed By: Selim Çekal, Computer Engineer2
Email: selimcekal@gmail.com

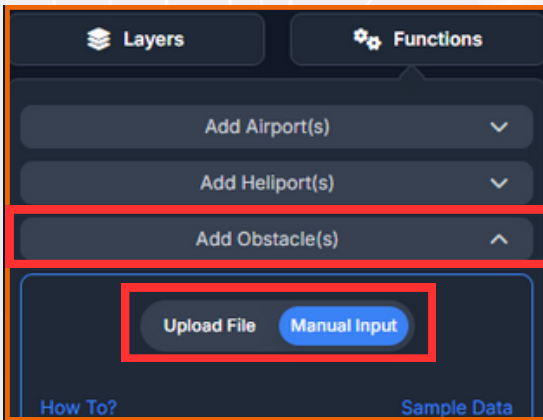
Obstacle Analyze is a service provided by Haritaevi Aviation Engineering Inc. All legal rights to the content and services are owned by Haritaevi. Third parties and companies may use the content, provided that they acknowledge these legal rights. All information provided, such as height, location, value, etc., is approximate. The accuracy of the information depends on the digital elevation model (DEM) used. The system uses open-source elevation models by default, but it can also be integrated with user-provided models if desired. The accuracy of the information depends on the digital elevation model (DEM) used. This report is for informational purposes only and cannot be used as an official document.

Contact Haritaevi for information, assistance, or solutions related to engineering services.
Phone: +90 312 266 66 98 Web: www.haritaevi.com

www.obstacleanalyze.com support@obstacleanalyze.com

2

Add Obstacle Function



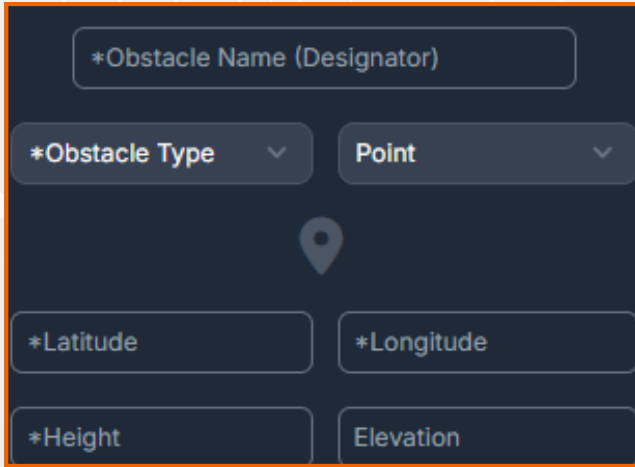
- The Add Obstacle Menu is the area that will be used when users want to add a new obstacle.
- In this menu, users can see two options firstly: **Upload From File & Manual Input.**

- If users are going to upload the obstacle data in the form of a list, users should select Upload From File. If users are going to add a single obstacle data according to ICAO PANSIM, users should select Manual Input.

- In the **How To?** section, the technical details of how this process is performed is summarized to the user.
- In the **Sample Data** section, it is exemplified to the users how this function should be used with the sample data.

Add Obstacle Function

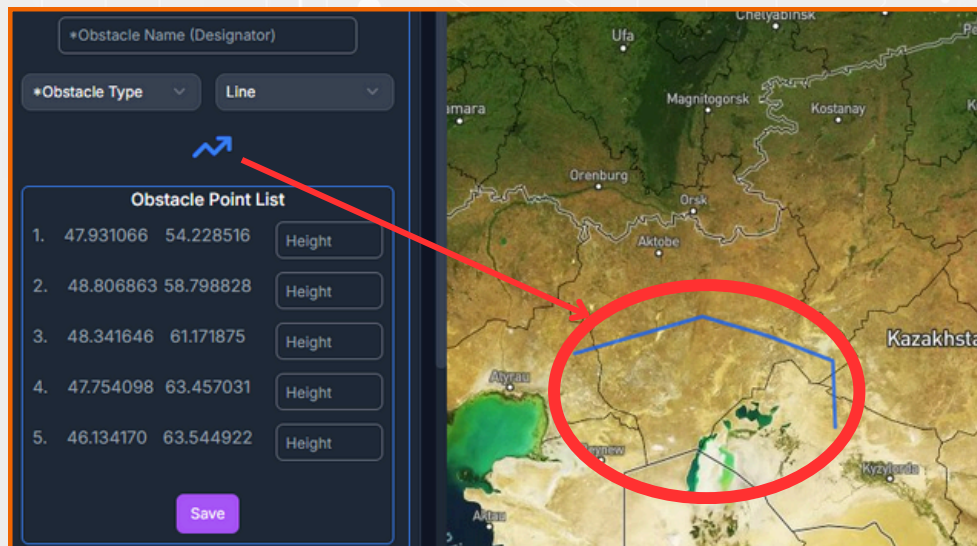
- In Manual Input the search criteria change according to the **Geometry Type** the users selects:



The screenshot shows a form for adding a point obstacle. It includes a text input for '*Obstacle Name (Designator)', a dropdown for '*Obstacle Type' set to 'Point', a map icon, and input fields for '*Latitude', '*Longitude', and '*Height' (labeled as 'Elevation').

- In the Point geometry type, when users click on the **Add Location** button  and navigate the map, users can fill in the Latitude and Longitude boxes by selecting the location users want.
- As another option, users can add a location by filling in the Latitude and Longitude boxes and see it automatically on the map.

- The **Add Line** button  is used to draw a line by clicking on the map. Latitude and longitude information is automatically filled in the table and the users must enter the height information of the line obstacle for each point. Then the user continues by clicking the Save button.



The screenshot shows the 'Add Obstacle' form for a line obstacle. The '*Obstacle Type' dropdown is set to 'Line'. A red arrow points from the 'Add Line' button to a map showing a blue line drawn across a region. Below the map, there is a table titled 'Obstacle Point List' with 5 rows of coordinates and height input fields. A red circle highlights the line on the map.

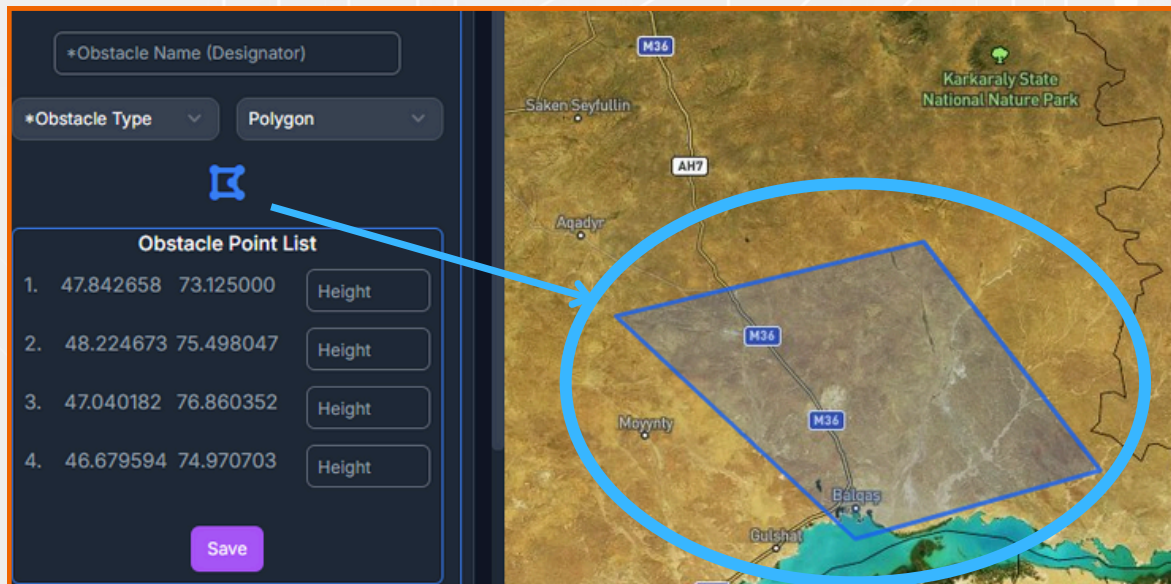
Obstacle Point List		
1.	47.931066 54.228516	Height
2.	48.806863 58.798828	Height
3.	48.341646 61.171875	Height
4.	47.754098 63.457031	Height
5.	46.134170 63.544922	Height

Save

- While this drawn line is kept as the geometry of the obstacle, the heights entered are automatically converted to elevation and saved by the system. When the obstacle is a line, the highest height entered is automatically saved in the obstacle attribute.

Add Obstacle Function

- The **Add Polygon** button  is used to draw a polygon by clicking on the map. Latitude and longitude information is automatically filled in the table and the users must enter the height information of the polygon obstacle for each point. Then the user continues by clicking the Save button.



- While this drawn polygon is kept as the geometry of the obstacle, the heights entered are automatically converted to elevation and saved by the system. When the obstacle is a polygon, the highest height entered is automatically saved in the obstacle attribute.
- Clear button  **Clear** should be used to delete the drawn or added geometries.

Add Obstacle Function

The screenshot shows the 'Add Obstacle(s)' interface. The 'Manual Input' tab is selected. The form includes fields for: *Obstacle Name (Designator), *Obstacle Type, *Geometry Type, Start of Life of Th, End of Life of Th, Radius, Integrity, *Unit of Measure, Lighting, Operations, Horizontal Config, Vertical Config, Horizontal Ref. Sys. (WGS84), Vertical Ref. Sys. (EGM96), Horizontal Accuracy, Vertical Accuracy, Horizontal Resolution, Vertical Resolution, Data Originator, Data Source, and Comment. A red box highlights the 'Upload file' section at the bottom, which contains a 'Select File' button, a 'File not selected.' status, and two checkboxes: 'AIP Obstacle' and 'Metadata'. At the bottom of the form are 'Save Obstacle' and 'Clear' buttons.

- In Manual Input, after selecting the geometry type, users who want to add obstacles can save it by filling in the ICAO PANSIM obstacle properties accordingly.
- When users enter the **Height** information of the Obstacle, the **Elevation** information(s) can be calculated automatically by the system.
- If users have an image of the obstacle, they can upload it to the system from Upload File.
- Attributes with an asterisk (*) next to them indicate attributes that are required to be entered by the system.
- Users can create their own metadata records for the added obstacle by selecting the **Metadata** option.
- A default metadata file in INSPIRE format is automatically saved in the system according to the obstacle information users enter. Users can then download and view it from the list under My Obstacles in Layer.
- If users want to save the obstacle as an AIP obstacle, **AIP Obstacle** option should be selected.

Add Obstacle Function

Add Obstacle(s)

Upload File Manual Input

How To? Sample Data

Coordinate Reference System

☒ WGS84 ☐ UTM

GeoJSON

Upload file(s)

Dosyaları Seç Dosya seçilmedi

Uploaded Files

✓	Type	File Name	×
✓	GeoJSON	hknw_obstacles	×

Upload File Show on Table Save

Clear

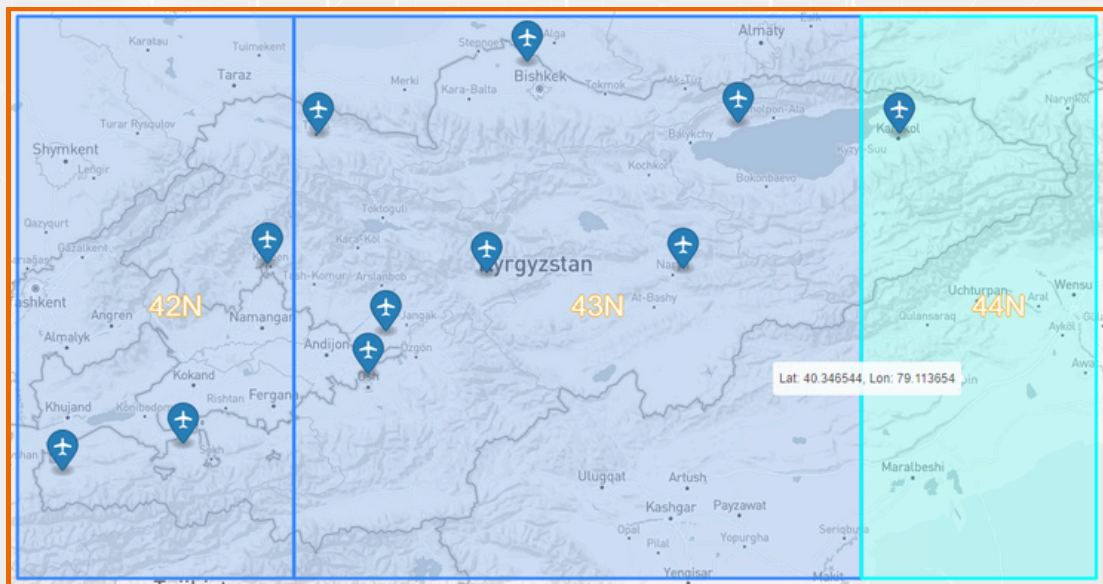
- In the Upload from File section, users can upload obstacle lists after selecting the coordinate system and file format.
- In the **How To?** section, the technical details of how this process is performed is summarized to the user.
- In the **Sample Data** section, it is exemplified to the users how this function should be used with the sample data.
- With the Information button, **i** the users is given an explanation about the upload file(s).



- After the Obstacle file is loaded, if users click the **Upload File** button, they can see the file their loaded on the map, if users click the **Show on Table** button, they can see the file their loaded in the table, and if they click the **Save** button, they can save the file.

Add Obstacle Function

- When users want to upload a file in the function, there are two different coordinate reference systems: Geographic and UTM. For Geographic upload can be done in .kml, .kmz, .shp, .geojson, .xml (AIXM), .csv formats. For UTM, upload can be done in .shp, .dxf, .dgn, .csv formats.
- If UTM format is selected, the appropriate **UTM Zone** must first be selected from the zones opened on the map.
- When users click the **Show in Table** button, they can see the export options in different formats at the top of the table.



KML Layer Data

Export Data ☒ Geographic ☐ UTM

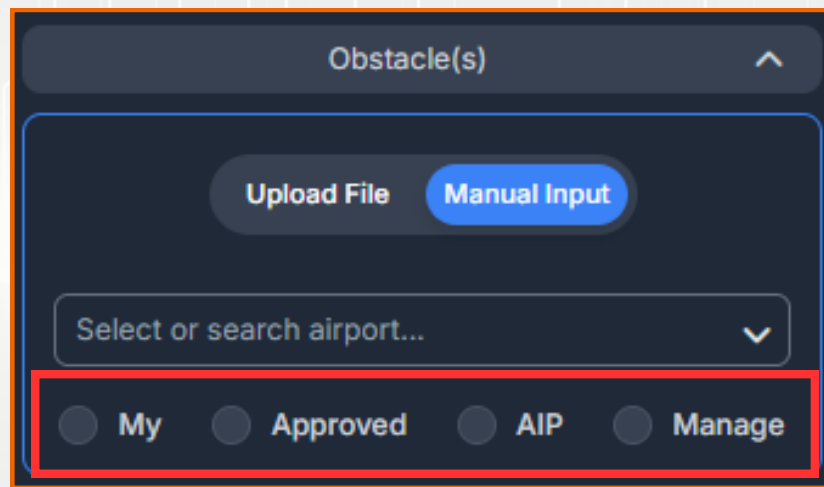
Show 10 entries Search:

Type	Coordinates	id	type	latitude	longitude	unitmeasure	elevation
Point	36.815944 ...	1	FLOOD LIGHT	-1.320055556	36.81594444	M	1693
Point	36.814917 ...	2	FLOOD LIGHT	-1.319583333	36.81491667	M	1694
Point	36.814056 ...	3	FLOOD LIGHT	-1.3195	36.81405556	M	1695
Point	36.811667 ...	4	FLOOD LIGHT	-1.320638889	36.81166667	M	1699
Point	36.810306 ...	5	FLOOD LIGHT	-1.321416667	36.81030556	M	1702
Point	36.807417 ...	6	FLOOD LIGHT	-1.323583333	36.80741667	M	1706
Point	36.806667 ...	7	FLOOD LIGHT	-1.323861111	36.80666667	M	1708
Point	36.804528 ...	8	FLOOD LIGHT	-1.324555556	36.80452778	M	1709

Showing 1 to 8 of 8 entries Previous 1 Next

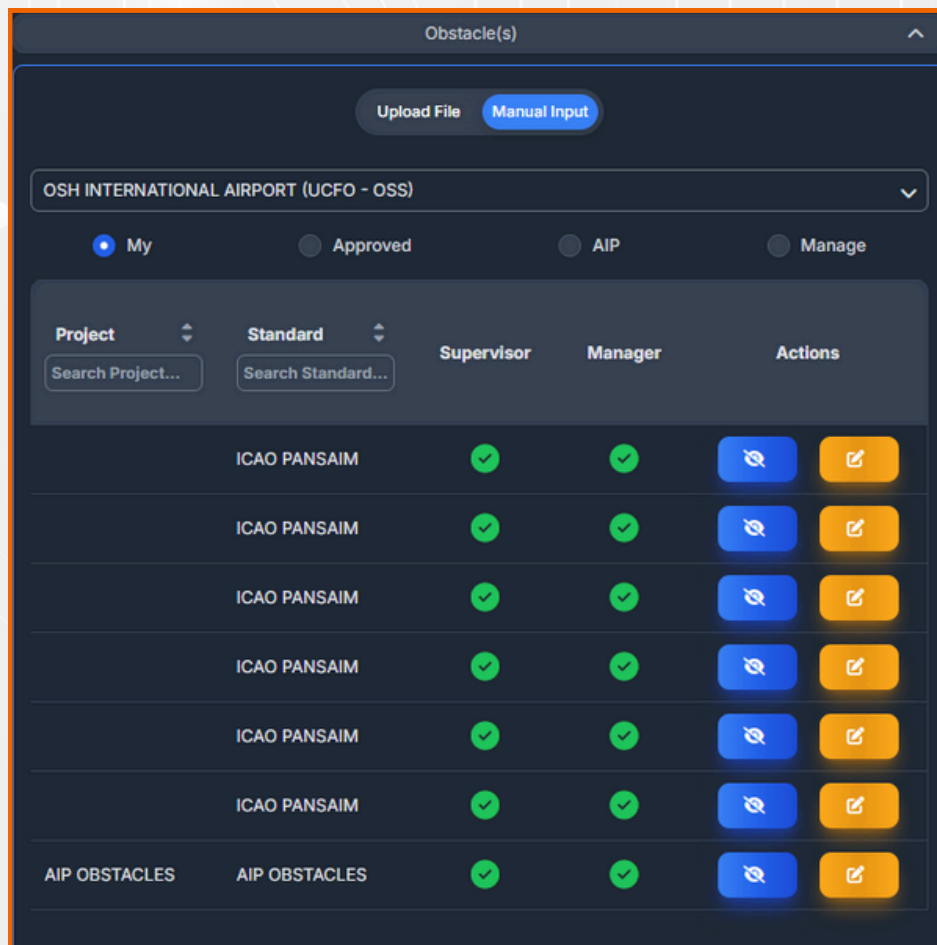
Obstacles Layer

- To view the previously added obstacle data, users need to look at the submenus under the Layers menu.
- Users see 3 or 4 submenus in Obstacles Layer . **My, Approved, AIP and Manage** if the user role is Manager.

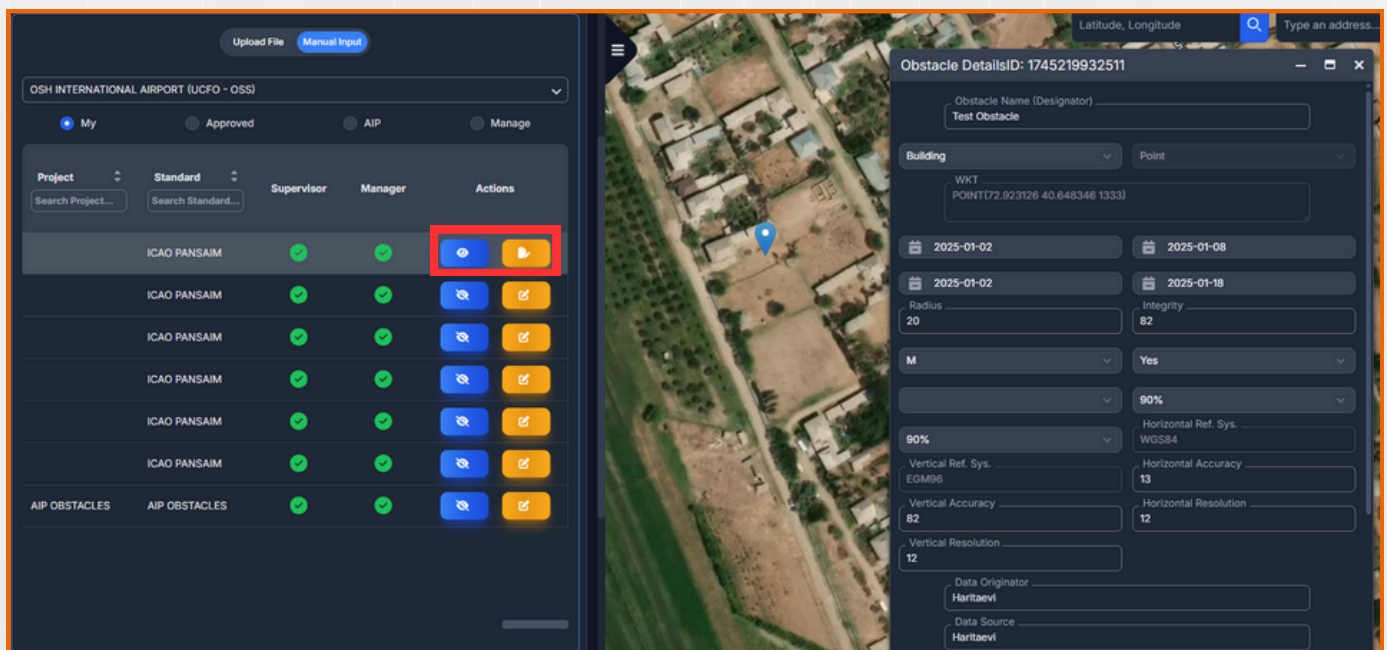


- Under the **My** submenu, the user can view, edit and delete all the content own added.
- Under the **Approved** submenu, the user can view all the content added by their team and approved by the Supervisor/Manager.
- Under the **AIP** submenu, users can see the AIP obstacles added to the database.
- Only Supervisor and Manager users can see the **Manage** submenu, they can approve or reject the content added by the people in their team.

Obstacles Layer

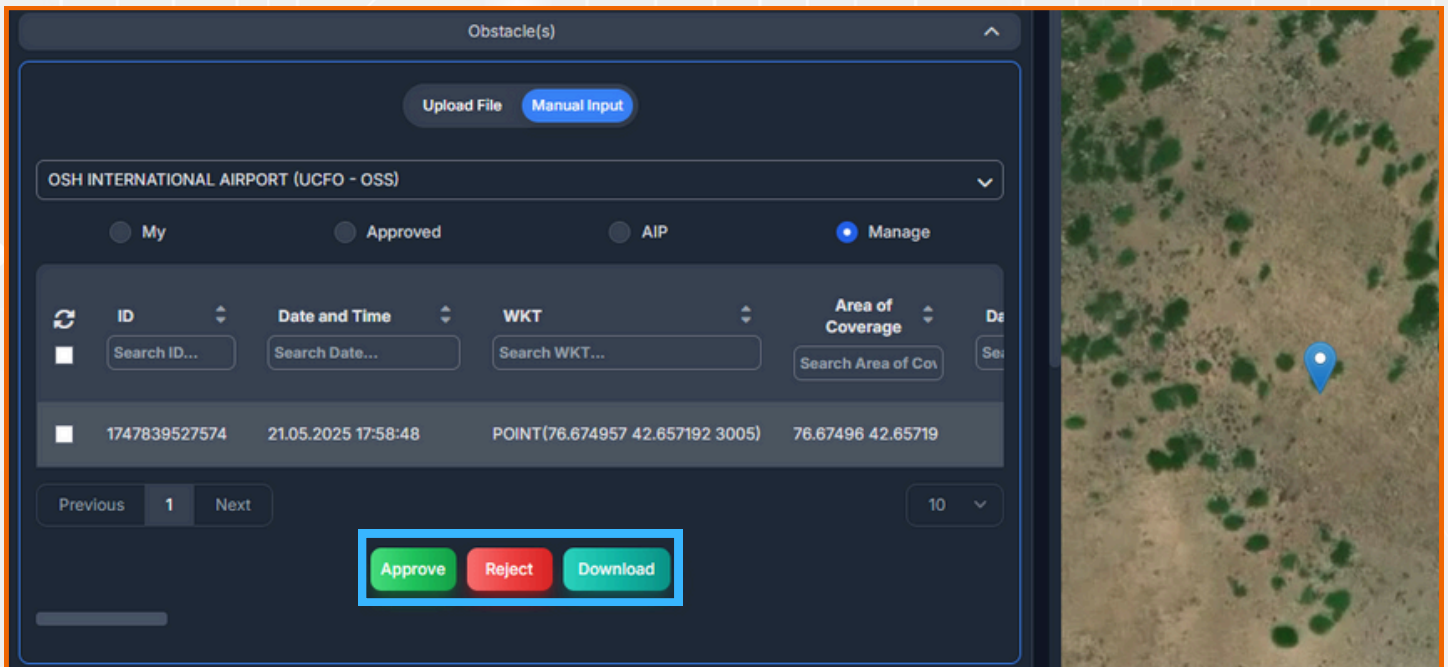


- Users can view obstacles by clicking the **View** button.



- Users can edit own obstacles properties by clicking the **Edit** button.

Obstacles Layer



- In the Manage sub-menu, if the user is a Supervisor(s), they can check the obstacles added by the Inspector(s), accept or reject them, if accepted, the record is added to the Manager's Manage sub-menu, and the record added by the Supervisor is also added to the Manager's Manage sub-menu.
- In the Manage submenu, the Manager(s) can check, accept or reject obstacles added by the Supervisor(s) and obstacles checked and approved by the Supervisor(s) by the Inspectors. If accepted, it will be registered in Approved sub-menu, if rejected, it will be registered in My sub-menu of the user who added it. Content added by the Manager is added directly to the Approved sub-menu.

CONCLUSION

The Obstacle Analyze is a product of Haritaevi Aviation Engineering Company.

Service will be provided for all kinds of questions and problems within the scope of Support and Maintenance Package through support@obstacleanalyze.com.

This document is intended for professional type users. If users need more information about the users and the system, please contact System Admin.



www.obstacleanalyze.com



support@obstacleanalyze.com

