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PIONEERING UTM



# SKYLINK UTM USER MANUAL

SKYLINK UTM - ENABLING THE FUTURE OF AIRSPACE

[www.airmarket.io](http://www.airmarket.io)

Powered by - AstraUTM

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## 1 Introduction

The drone ecosystem represents a growing sub-sector of the aviation industry and its integration within the larger manned aviation segment represents a continuous and challenging area of study and practice. At the core of this is the development of a set of services linked to the facilitation of operators and their functional activities which can be broadly encompassed under UTM - Unmanned Traffic Management or Unified Traffic Management.

SkylinkUTM (powered by AstraUTM) is an advanced full-stack UTM system that caters to civil aviation authorities (CAAs), air navigation service providers (ANSPs), and drone operators. Services provided by SkylinkUTM provide a comprehensive set of tools that can be configured to provide a range of possible UTM workflows aimed at satisfying the needs of a wide range of stakeholders.

SkylinkUTM aims to provide a high level of integrity and robustness to stakeholders within the drone ecosystem thus helping to increase the utilization and efficiency of a limited resource (national airspace) without compromising safety, accountability, and privacy.

### 1.1 Primary UTM Consumers

SkylinkUTM is a set of services that serves the needs of a wide variety of possible data consumers. Primarily, these are:

- Civil Aviation Authorities
- Air Navigation Service Providers
- Enterprise Drone Operators
- Individual Drone Pilots

The services that each can consume and how they are configured can be adapted to each organization's specific use case and do not need to conform to a fixed static data model. However, broadly a set of services have been identified as core to SkylinkUTM and are catered for under a specific paradigm that is set out in this manual.

### 1.2 Key Services of SkylinkUTM

The set of services that are currently available under SkylinkUTM's implementation is as follows:

- Configuration & Localisation Services
- Operator Registry
- Drone Registry
- Flight Requests & Approvals Engine
- Traffic Monitoring Services
- Deconfliction Engine
- Geo Engine
- Meteorological Services
- Dynamic Risk Module
- Billing & Monetization Engine
- Insurance Module

- Non-Cooperative Flight Integration
- AIM/AIP & ATM Integration Services
- Communication & Notifications Services

## 2 Quick Start Guide

This Quick Start Guide (QSG) provides steps to access and set up SkylinkUTM for its initial use. We recommend using the QSG to expedite the setup process. For detailed instructions on how to achieve the most from the UTM instance, please see the detailed sections after the QSG.

This QSG is designed to allow the Super Admin of the SkylinkUTM to configure the system.

### 2.1 Super Admin Registration

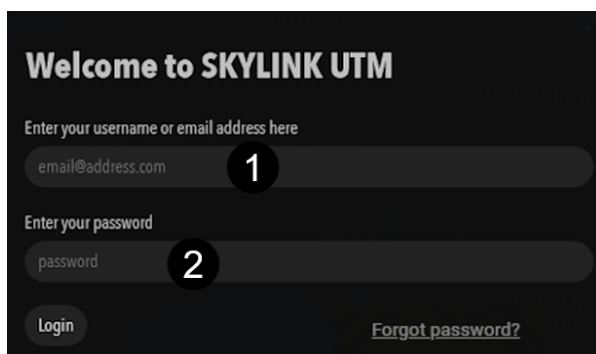
The Super Admin login credentials are provided as part of UTM onboarding. These credentials are provided via a separate communication.

If you have not received your credentials, please contact: [support@astrautm.com](mailto:support@astrautm.com).

### 2.2 Login

To access the login page, please use Google Chrome with the following URL: <http://astra-airmarket.exponent-ts.com/ASTRA/Home>

The following login form is displayed.



To login into SkylinkUTM, the Super Admin enters the following details:

1. Enter the username
2. Enter the password

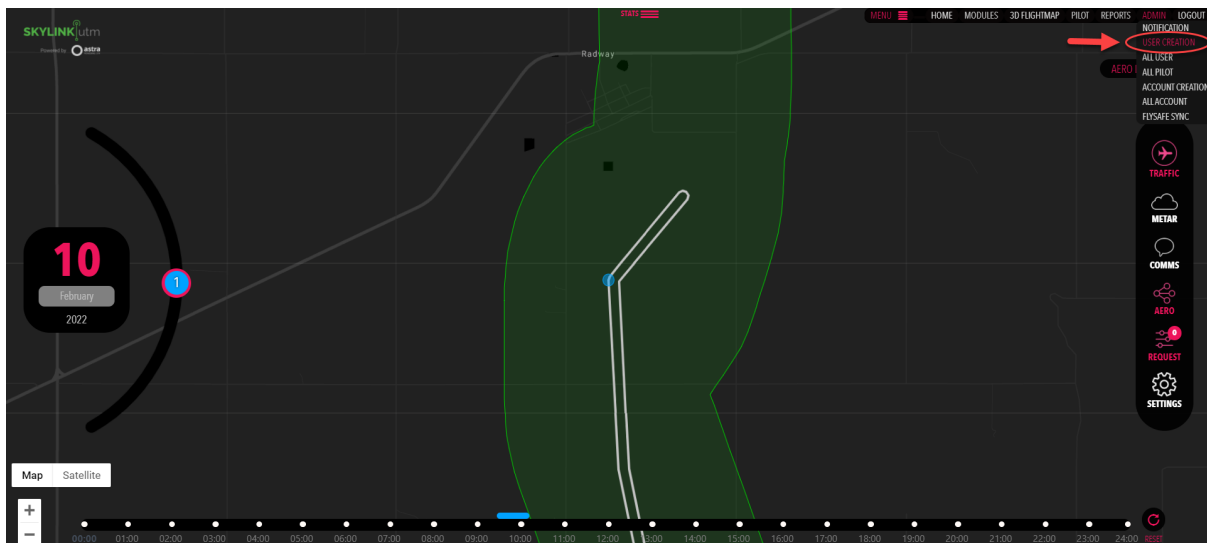
Click the **Login** button.

## 2.3 User Creation

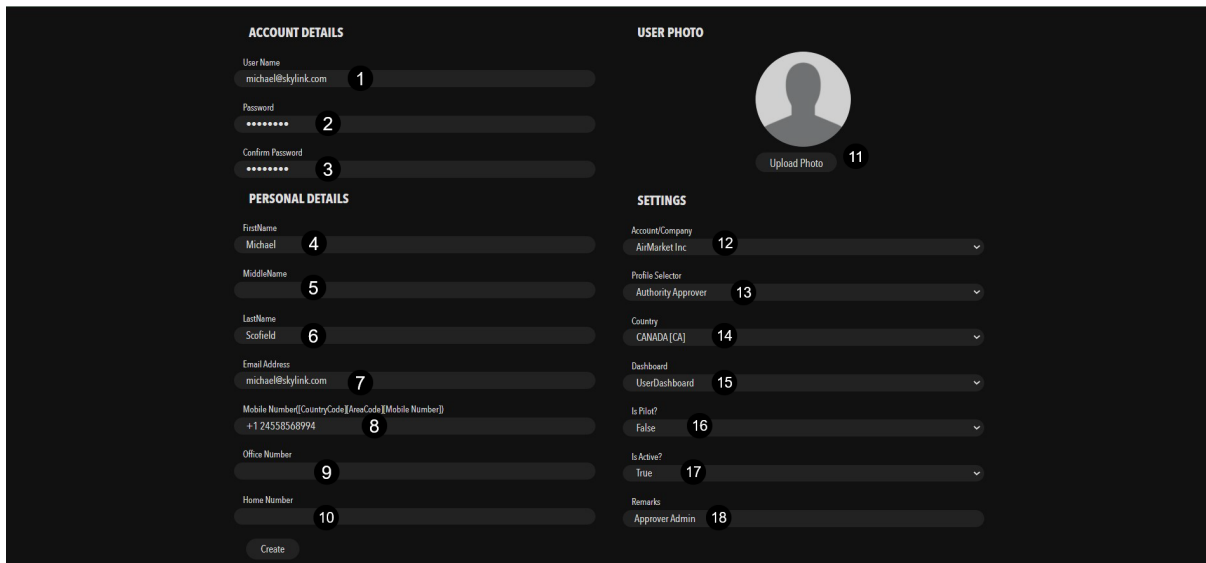
The Super Admin can create users in the system that can be assigned any one of the following roles:

- Administrator
- Approving Authority
- Organization Admin
- Pilot

To create a new user in the system, the Super Admin can click on the **Menu→Admin→User Creation**.



The Super Admin can create a new user by entering the following information:



The screenshot shows a user creation form with the following sections and fields:

- ACCOUNT DETAILS:**
  - User Name: michael@skylink.com (1)
  - Password: [masked] (2)
  - Confirm Password: [masked] (3)
- PERSONAL DETAILS:**
  - FirstName: Michael (4)
  - MiddleName: [empty] (5)
  - LastName: Scofield (6)
  - Email Address: michael@skylink.com (7)
  - Mobile Number[CountryCode][AreaCode][Mobile Number]: +1 24558568994 (8)
  - Office Number: [empty] (9)
  - Home Number: [empty] (10)
- USER PHOTO:**
  - Upload Photo: [placeholder] (11)
- SETTINGS:**
  - Account/Company: AirMarket Inc. (12)
  - Profile Selector: Authority Approver (13)
  - Country: CANADA (CA) (14)
  - Dashboard: UserDashboard (15)
  - Is Pilot?: False (16)
  - Is Active?: True (17)
  - Remarks: Approver Admin (18)

A "Create" button is located at the bottom left of the form.

1. Enter the username
2. Enter the password
3. Enter the same password again
4. Enter the first name
5. Enter the middle name
6. Enter the last name
7. Enter the email address
8. Enter the mobile number
9. Enter office number
10. Enter the home number
11. Upload the profile photo
12. Select the account
13. Select profile
14. Select the country
15. Select the dashboard
16. Select if the user is a pilot or not
17. Select if the user will be active or inactive
18. Enter the remarks if any

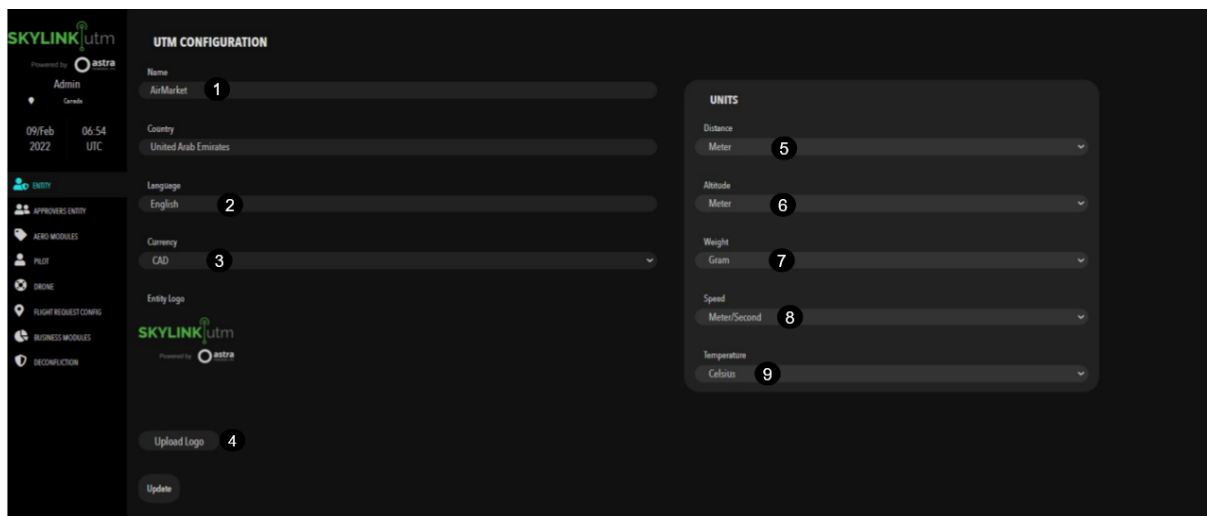
Click on the **Create** button to save the changes.

## 2.4 UTM Configuration

Upon successful login, the Super Admin will be redirected to the main dashboard and may configure the system by clicking on the **Settings** icon.



A set of default values are already pre-configured but the Super Admin can adjust them at any time by filling up the appropriate fields below:



Enter the basic details of the UTM instance in the below fields:

1. Enter the entity name
2. Select the language
3. Select the currency
4. Upload entity logo

Select the unit of measure for each field mentioned below:

5. Select the distance
6. Select the altitude
7. Select the weight
8. Select the speed
9. Select the temperature

Click on the **Update** button to save the changes.

## 2.5 Define Airspace Type

Airspace includes both live and static data on the Map Dashboard. Airspace management allows the Super Admin to configure color, transparency, and type of airspace zones so that they can be distinguished from each other.

Configuring Airspace will help to differentiate the type of zones and allow the Super Admin to easily identify them on the Map Dashboard.

The screenshot shows a configuration form for defining a new airspace. The form is dark-themed and contains the following fields, each with a numbered callout:

- 1** Fill Color: A color selection bar showing a bright green color.
- 2** Fill Opacity: A slider control set to 0.5.
- 3** Stroke Color: A color selection bar showing a blue color.
- 4** Stroke Opacity: A slider control set to 0.3.
- 5** Stroke Weight: A slider control set to 1.
- 6** Zone Type: A dropdown menu with "Auto Approved" selected.
- 7** Zone Name: A text input field containing "Fly Zone".

At the bottom of the form is a "Create" button.

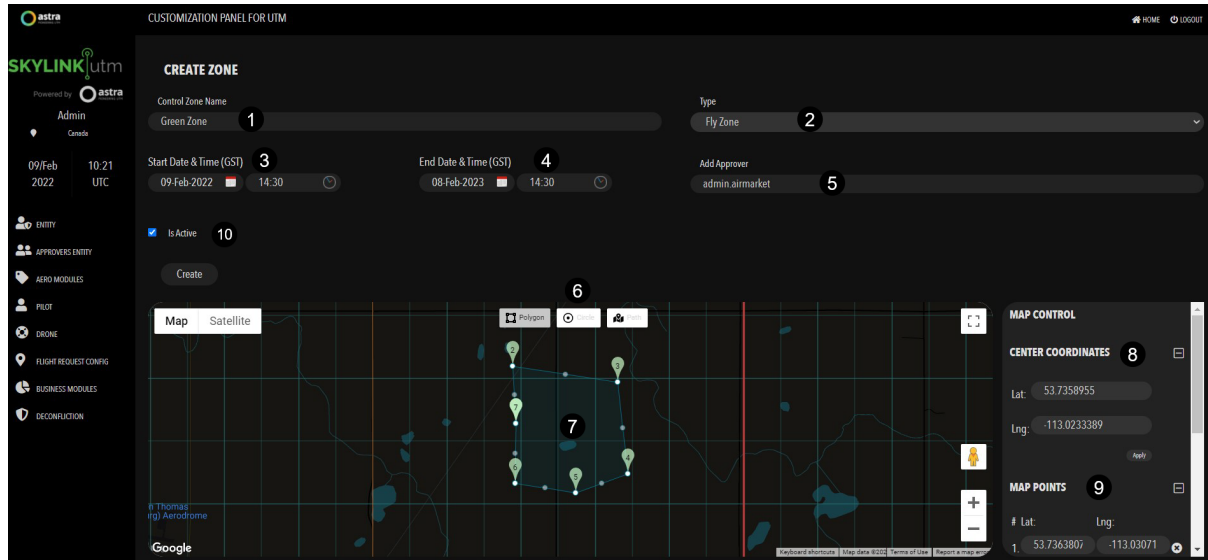
To create new airspace, the Super Admin fills in the following details:

1. Select the fill color
2. Enter the fill opacity
3. Select the stroke color
4. Enter the stroke opacity
5. Enter the stroke weight
6. Enter zone type
7. Enter the zone name

Click on the **Create** button to define new airspace.

## 2.6 Create an Airspace Zone

The Super Admin will define the geographical airspace area and the time range of its validity. The Super Admin will also assign Approver Entities who will have the authority to approve or reject flight requests within these geographical regions.



1. Enter the zone name
2. Select the zone type that was defined
3. Select the start date and time
4. Select the end date and time
5. Enter the approver's name and select the name from the suggestion list
6. Select the area type as polygon, circle, or waypoint
7. Select the area by dragging the pointers
8. Modify the area by entering the center latitudes and longitudes values manually
9. Modify the area by entering the map points latitudes and longitudes values manually
10. Select whether to keep this airspace Active or Inactive

Click on the **Create** button to create new airspace.

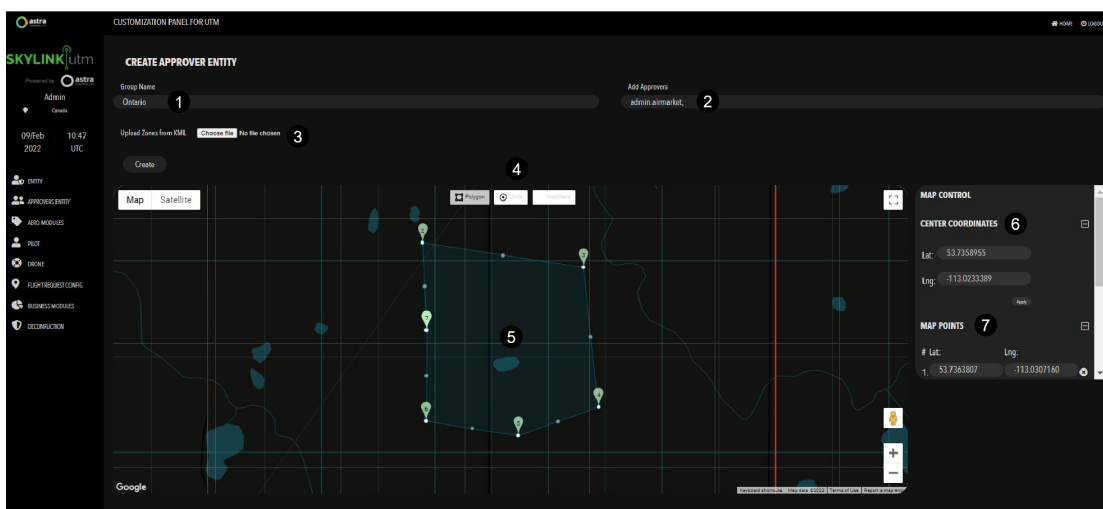


## 2.7 Approving Authority Management

The Super Admin can also assign other entities as Approving Authorities for airspace zones created. Approving Authorities can be selected from the list of Approving Authorities already created. The newly assigned Approving Authority can log in once provided with credentials and view any flight requests within the assigned airspace zones and approve or reject them. The Approver Authority user will only be allowed to manage requests to the regions they are assigned to.

Credentials will be generated automatically as part of the user creation process ([see section 2.3](#)).

If you have not received your credentials, please contact: [support@astrautm.com](mailto:support@astrautm.com).



1. Enter the approving group name
2. Enter the approver's name and select the name from list
3. Upload the zone in a .kml file format
4. Select the area type as polygon, circle, or waypoint
5. If required, modify the coordinates by dragging the pointer
6. If required, edit the center coordinates by providing the latitudes and longitudes values
7. If required, edit each point of the polygon by providing the latitudes and longitudes values

Click on the **Create** button to define approving authorities.

## 2.8 Pilot Management

The Super Admin has the option to configure and customize the fields required for registering Pilots.

A set of fields are required by the system and cannot be changed or removed. These are the System fields.

The second set of fields are available by default and can be enabled or disabled as required. These are the Default fields.

FIELD ID	FIELD TITLE	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	FIELD TYPE	STATUS
1	First Name	15-Mar-2020 12:00:00	internal	15-Mar-2020 02:08:36	admin.airmarket	System	Enabled
2	Last Name	15-Mar-2020 12:00:00	internal	15-Mar-2020 12:00:00	internal	System	Enabled
3	Nationality	15-Mar-2020 12:00:00	internal	03-May-2020 12:47:04	admin.airmarket	Default	Enabled
4	Email Address	15-Mar-2020 12:00:00	internal	15-Mar-2020 12:00:00	internal	System	Enabled
5	Mobile Number	15-Mar-2020 12:00:00	internal	24-Jan-2022 09:22:29	admin.airmarket	System	Enabled
6	Office Number	15-Mar-2020 12:00:00	internal	15-Mar-2020 12:00:00	internal	Default	Disabled
7	Identity Type	15-Mar-2020 12:00:00	internal	15-Mar-2020 12:00:00	internal	Default	Disabled
8	ID Issuing Authority	15-Mar-2020 12:00:00	internal	15-Mar-2020 12:00:00	internal	Default	Disabled
9	ID Number	15-Mar-2020 12:00:00	internal	14-Apr-2020 12:04:33	admin.airmarket	Default	Enabled
10	ID Issue Date	15-Mar-2020 12:00:00	internal	15-Mar-2020 12:00:00	internal	Default	Disabled

If the Super Admin requires fields that are not available in the first or second set of fields, they can be defined as the third set of Custom fields.

This data will be used to link to other entities (drones, flight plans, flight tracking, etc.) and reports.

Field Label: Email Address

Field Name: Email\_Address

Description: This field captures the email address of the UAS pilot.

Data Type: Text

Enable/Disable:  Enable

Link to Rules Engine

Link to Billing Engine

Validation

Save Cancel

1. Enter the field label name
2. Enter the description for the field
3. Select the data type for the field
4. Select whether to keep this field Active or Inactive
5. Define validations rules if any

Click on the **Save** button to define a new field.

## 2.9 Drone Management

The Super Admin has the option to configure and customize the fields required for registering Drones.

A set of fields are required by the system and cannot be changed or removed. These are the System fields.

The second set of fields are available by default and can be enabled or disabled as required. These are the Default fields.

FIELD ID	FIELD TITLE	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	FIELD TYPE	STATUS
1	Manufacturer	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	System	Enabled
2	RPAS Type	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	System	Enabled
3	RPAS Serial Number	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	System	Enabled
4	Model Name	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	Default	Enabled
5	Commission Date	25-Mar-2020 12:00:00	internal	13-Apr-2020 06:30:05	admin.airmarket	System	Enabled
6	Insurance Certificate ID	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	Default	Disabled
7	Insurance Company	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	Default	Disabled
8	Insurance Broker	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	Default	Disabled
9	Valid From	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	Default	Disabled
10	Valid To	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	Default	Disabled

If the Super Admin requires fields that are not available in the first or second set of fields, they can be defined as the third set of Custom fields.

This data will be used to link to other entities (pilots, flight plans, flight tracking, etc.) and reports.

1. Enter the field label name
2. Enter the description for the field
3. Select the data type for the field
4. Select whether to keep this field Active or Inactive
5. Define validations rules if any

Click on the **Save** button to define a new field.

## 2.10 Flight Requests Management

The Super Admin has the option to configure and customize the fields required for registering Drones.

A set of fields are required by the system and cannot be changed or removed. These are the System fields.

The second set of fields are available by default and can be enabled or disabled as required. These are the Default fields.

FIELD ID	FIELD TITLE	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	FIELD TYPE	STATUS
29	Flight Type	17-Mar-2020 09:00:37	internal	17-Mar-2020 09:00:37	internal	System	Enabled
30	For (Client Name)	17-Mar-2020 09:00:37	internal	17-Mar-2020 09:00:37	internal	Default	Enabled
31	Start Date	17-Mar-2020 09:00:37	internal	17-Mar-2020 09:00:37	internal	System	Enabled
32	End Date	17-Mar-2020 09:00:37	internal	17-Mar-2020 09:00:37	internal	System	Enabled
33	Take Off	17-Mar-2020 09:00:37	internal	17-Mar-2020 09:00:37	internal	System	Enabled
34	Max Height	17-Mar-2020 09:00:37	internal	17-Mar-2020 09:00:37	internal	System	Enabled
35	Radius	17-Mar-2020 09:00:37	internal	17-Mar-2020 09:00:37	internal	System	Enabled
37	Drone	17-Mar-2020 09:00:37	internal	17-Mar-2020 09:00:37	internal	System	Enabled
38	Start Time	17-Mar-2020 09:00:37	internal	17-Mar-2020 09:00:37	internal	System	Enabled
39	End Time	17-Mar-2020 09:00:37	internal	17-Mar-2020 09:00:37	internal	System	Enabled

If the Super Admin requires fields that are not available in the first or second set of fields, they can be defined as the third set of Custom fields.

These fields will be populated with data when a pilot creates flight requests.

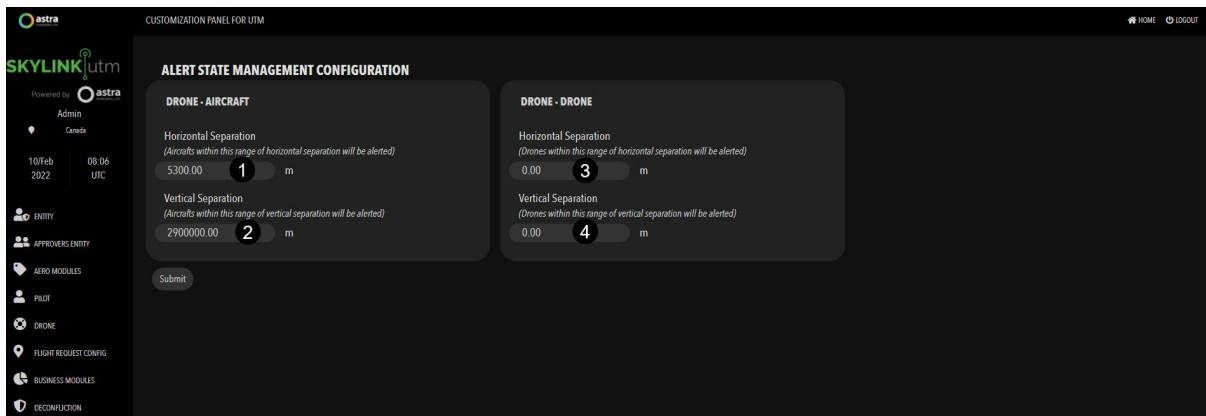
1. Enter the field label name
2. Enter the description for the field
3. Select the data type for the field
4. Select whether to keep this field Active or Inactive
5. Select the icon to be displayed
6. Define validations rules if any

Click on the **Save** button to define a new field.

## 2.11 Alert State Management Configuration

The Super Admin has the option to define the parameters for Alert State Management that is required for alerting and notifying the Pilot in case the drone is in proximity to another manned aerial object or another UAS.

To define Alert State Management in the system, the Super Admin can click on **Settings**→**Deconfliction**→**ASM**.



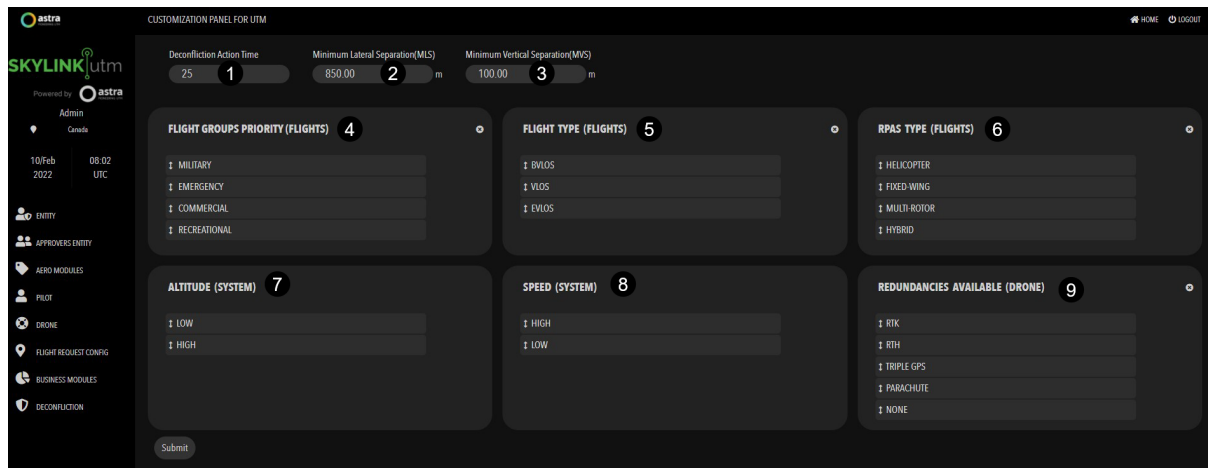
1. Enter the horizontal separation
2. Enter the vertical separation
3. Enter the horizontal separation
4. Enter the vertical separation

Click on the **Submit** button to define the Alert State Management deconfliction.

## 2.12 Tactical Deconfliction Module

The Super Admin has the option to define the parameters for Tactical Deconfliction that will help the system to alert the operator depending upon the priority level of the UAS type.

To define Tactical Deconfliction in the system, the Super Admin can click on **Settings**→**Deconfliction**→**Tactical Deconfliction**.



1. Enter the deconfliction action time
2. Enter the minimum lateral separation
3. Enter the minimum vertical separation
4. Set the flight group priority by dragging the highest priority on the top
5. Set the flight type priority by dragging the highest priority on the top
6. Set the RPAS type priority by dragging the highest priority on the top
7. Set the altitude priority by dragging the highest priority on the top
8. Set the speed priority by dragging the highest priority on top
9. Set the redundancy availability priority by dragging the highest priority on top

Click on the **Submit** button to define the parameters for Tactical Deconfliction.

### 3 General SkylinkUTM WorkFlows

SkylinkUTM implements a set of services (powered by AstraUTM) that have been configured to provide customized workflows as per its specific requirements. The workflows and their associated services are highlighted below:-

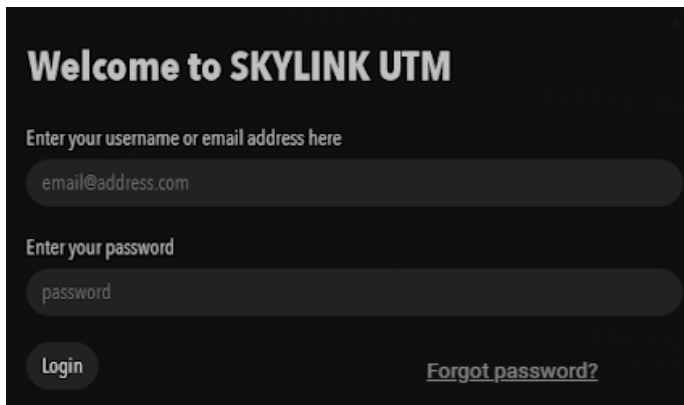
- UTM Setup and Configuration
  - Configuration & Localization Services
- Entity Setup
  - Operator Registry
  - Drone Registry
- Flight Planning & Authorization
  - Operator Registry
  - Drone Registry
  - Geo Engine
  - Flight Request & Approvals Engine
  - Meteorological Services
  - *Dynamic Risk Module (optional)*
  - *Billing & Monetization Engine (optional)*
  - *Insurance Module (optional)*
- Traffic Management
  - Traffic Monitoring Services
  - Deconfliction Engine
  - Geo Engine
  - Meteorological Services
  - AIM/AIP & ATM Integration Services
  - Communication & Notifications Services
  - *Non-Cooperative Flight Integration (optional)*
- Airspace Management
  - AIM/AIP & ATM Integration Service
  - Geo Engine
  - *Dynamic Risk Module (optional)*
  - *Billing & Monetization Engine (optional)*

Initially, an instance of AstraUTM will be configured for SkylinkUTM based upon a set of customization options provided by SkylinkUTM. This instance will be white-labeled and branded as SkylinkUTM and will be referred to as SkylinkUTM without reference to the underlying AstraUTM platform upon which it is based for the rest of this document. The initial set of UTM Administrators (referred to as administrators henceforth) will be provided with access credentials to allow them access to the system.

### 3.1 Welcome to SkylinkUTM

The credentials for the administrator will be provided as a part of the initial installation by AstraUTM.

SkylinkUTM allows the administrator to log in to the web application by entering the username and password for securely accessing the system information.



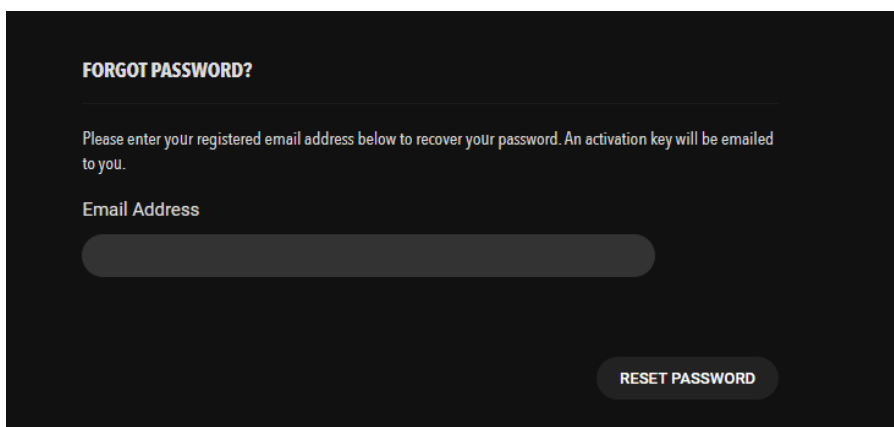
To proceed with the login, the administrator is required to enter the following information:-

1. Username
2. Password

Then press the **Login** button, upon successful login into the application the administrator is redirected to the home page.

### 3.2 Forgot Password

In case the administrator forgets the password then they can click on the **Forgot password?** link, where they will be redirected to the forgot password screen. They can enter their registered email address and click on the **Reset Password** button and will receive a 6-digit activation key.



The administrator can enter the following information:

- Activation Key
- Email Address

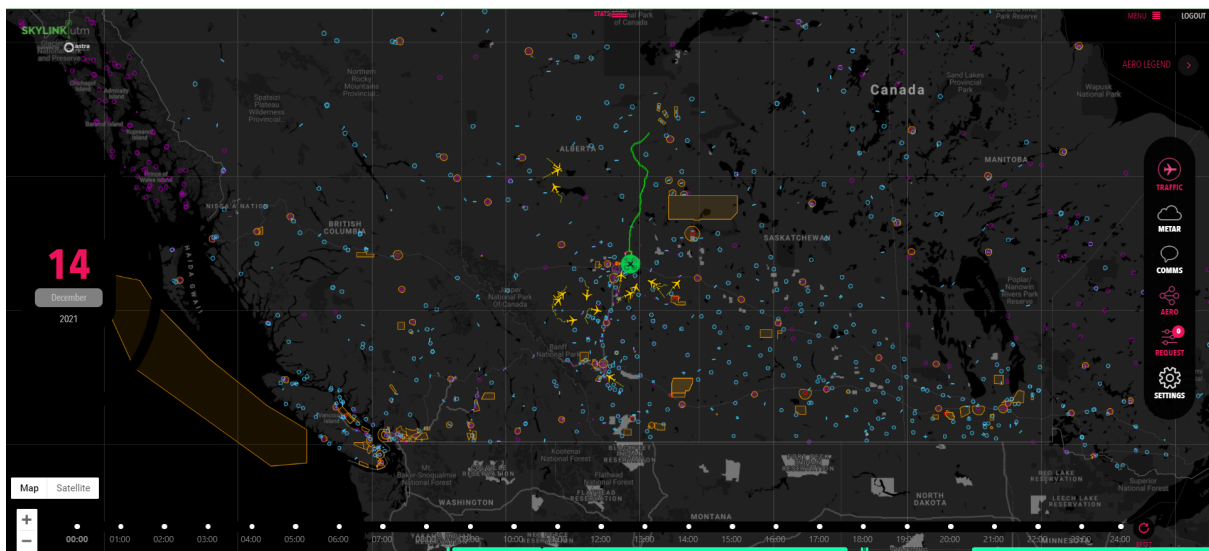


- New Password
- Confirm Password

After entering the above details, the administrator will click on the **Change** button to reset the password and is able to log in with the new credentials.

### 3.3 Dashboard

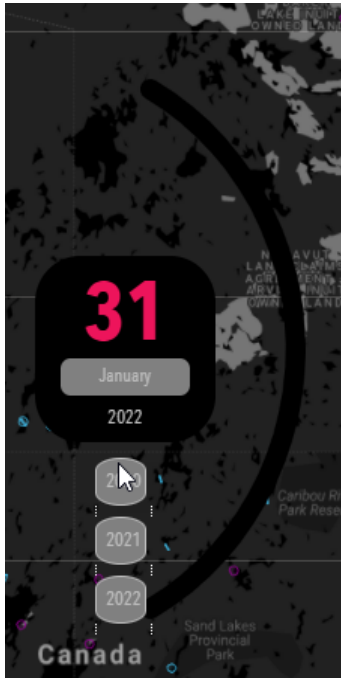
Upon successful login, the administrator is presented with a map view centered on its configured airspace with the various controlled airspace boundaries highlighted. Multiple airspace types can be displayed such as Fly Zone, No Fly Zone, Restricted Zone, Prohibited Zone, Temporary Danger Zone, etc.



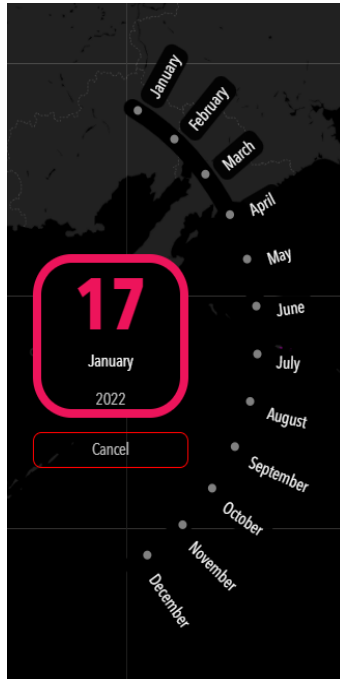
Controls are available on the left, bottom, and right side of the Dashboard.

On the left, the administrator has access to the date picker. On log in, the system defaults to the current date. However, this tool (the date picker) can be used to navigate temporally to a specific date (i.e. single day of the month of the year) whereby the dashboard updates automatically to visually depict the drone activity for that date. This date can be selected in the past (to view historic activity) or in the future (to view planned activity).

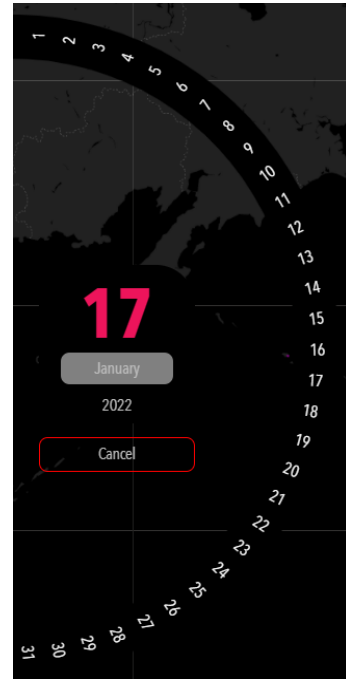
**Selection of Year**



**Selection of Month**



**Selection of Date**



Next to the Date Picker is an arc that displays the status of drone flights for the current selected day. These statuses are color-coded and are summarized by the number of flights within that status.



On the top right corner are the Menu Bar and Logout options which allow the administrator to access further services or to exit the system respectively. The Menu Bar is compressed by default while clicking on it expands to reveal the full set of services available.

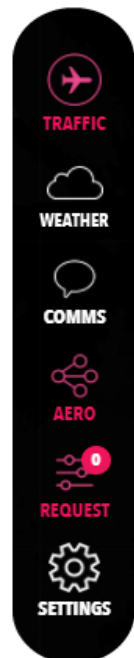
**Compressed View**



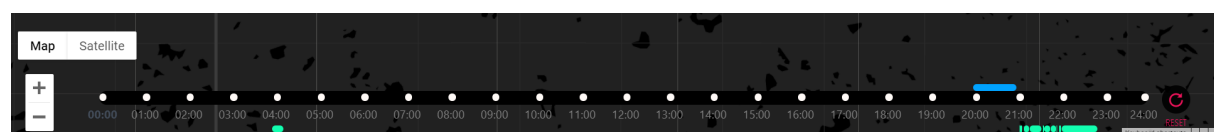
**Expanded View**



On the right-hand side, the administrator is presented with the Situational Awareness Toolbar which allows access to a set of services related to understanding the current state of the airspace and operations within that airspace. This is discussed in detail in [Section 4](#) below.

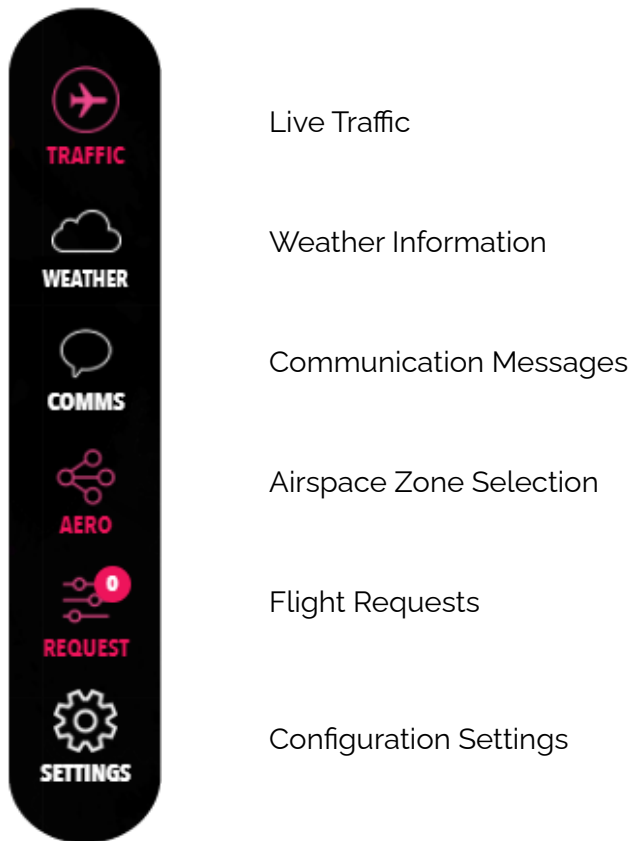


At the bottom left of the Dashboard are buttons that allow the user to toggle between Map and Satellite views and also allow the administrator to zoom in (+) and out (-) of the selected view. To the right of this extending across the bottom of the screen is a time bar that displays a slider allowing the administrator to select a particular time of day (in Local Time Coordinated - LTC). This allows the administrator to focus on a particular time of day and to view airspace activity either historically (if selected in the past) or planned (if selected in the future).



## 4 Situational Awareness

This panel enables the administrator to see the LIVE traffic data, Weather information, communication with the ground station/pilots, airspace filter view, upcoming flight requests by the pilots, and configuration setting to configure the UTM system.



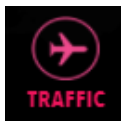
### 4.1 Live Traffic

If the UTM has been configured to accept manned traffic data from an external 3rd party source, this feature allows the administrator to view primary/secondary surveillance radar data, ADS/B data from manned flights, other drone flights, and other low-level aerial activities taking place within the airspace for the selected date and time. The traffic data can be toggled on or off as desired by the administrator by simply clicking on the **TRAFFIC** icon.

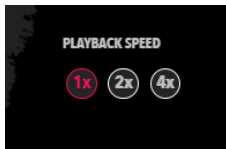


This indicates that this feature is turned off.

After clicking on the **TRAFFIC** icon Live Traffic can be activated.



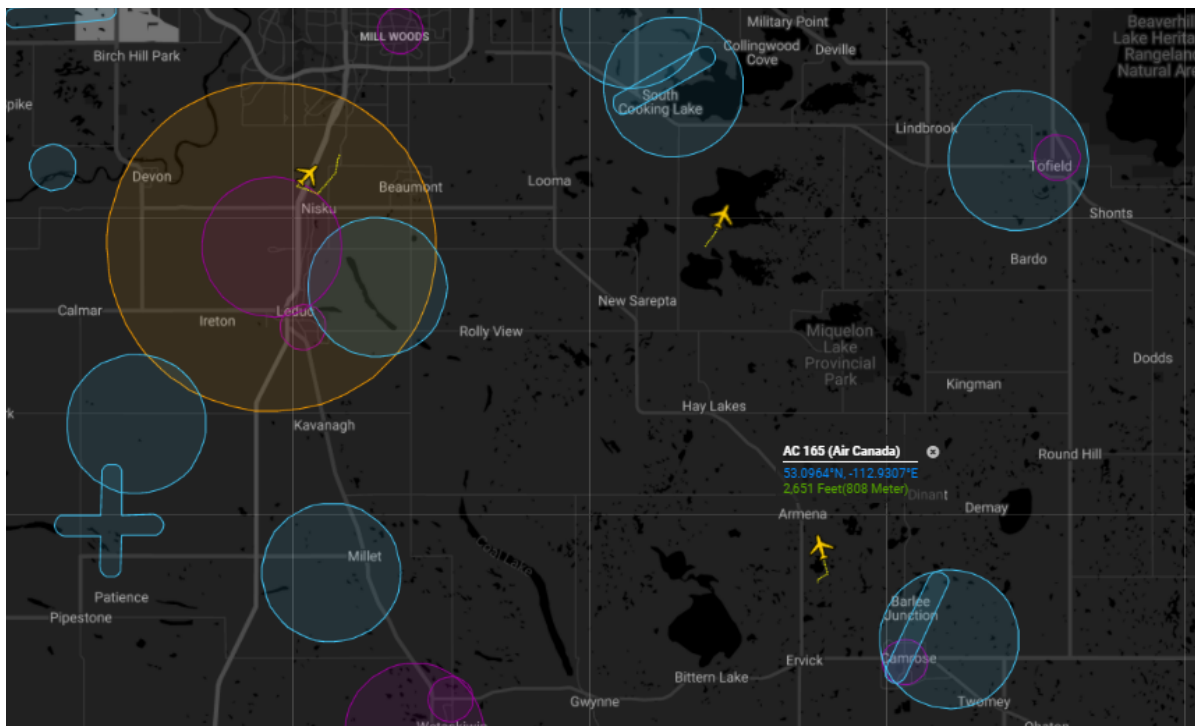
This indicates that this feature is turned on.



The playback speed can be adjusted by clicking on the available options.

The available options are normal speed(1x), twice normal (2x) or 4 times normal (4x).

After clicking on the **TRAFFIC** icon, the administrator is able to view traffic data as shown in the image below. To obtain more information about a particular flight, the administrator can click on the **FLIGHT** icon to see the details (such as Aircraft Registration, position, and altitude).



## 4.2 Weather Information

This feature allows the administrator to view the **Weather** for each reporting station.



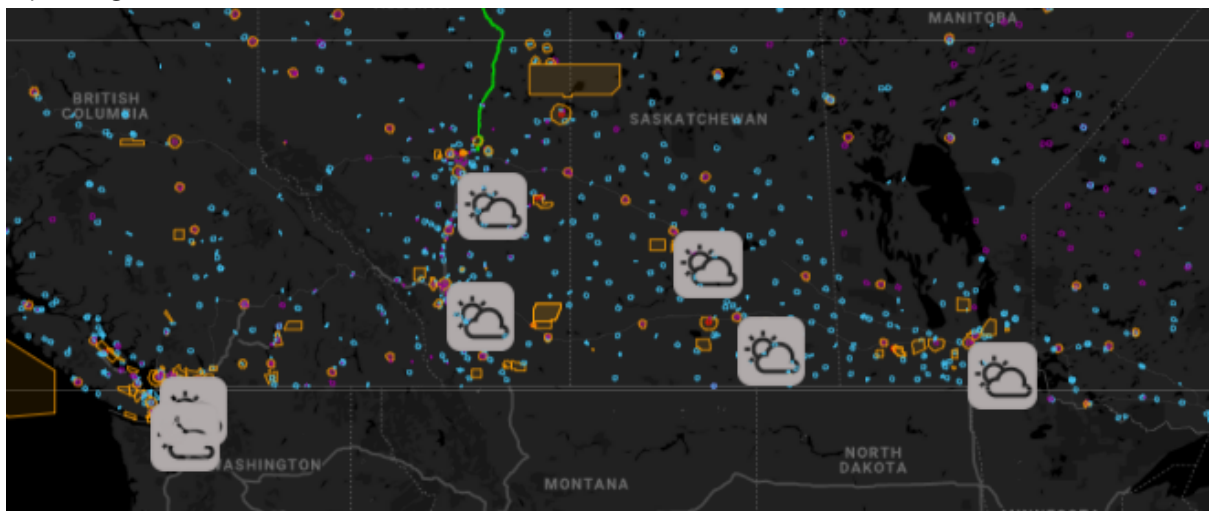
This indicates that this feature is turned off.

After clicking on the icon they can turn on the Weather.



This indicates that this feature is turned on.

After clicking on the **WEATHER** icon, the administrator is able to see the METAR and/or TAF (if available) information for particular stations as shown in the image below. The Administrator can click on the icon to see the weather information for that particular reporting station.



After clicking on a **WEATHER** icon, the administrator is able to see the METAR/TAF report in below format:

```
WEATHER INFORMATION;
TAF OMDB 130500Z 1306/1412 18005KT 5000 HZ NSC
BECMG 1306/1308 8000 NSW BECMG 1308/1310
33010KT BECMG 1316/1318 09005KT PROB30
1400/1405 3000 BR BECMG 1404/1406 17010KT
BECMG 1410/1412 33010KT
```

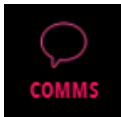
### 4.3 COMMS

This feature allows the administrator to communicate with the drone pilot/ground station via text message and voice messages.



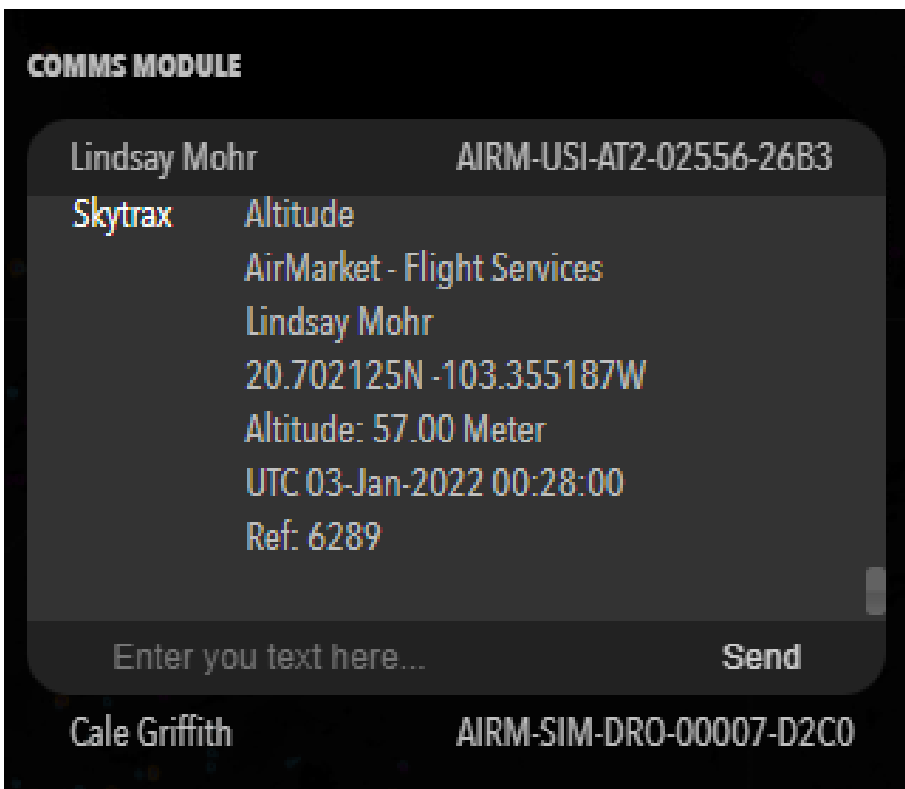
This indicates that this feature is turned off.

After clicking on the icon they can turn on the COMMS.



This indicates that this feature is turned on.

After clicking on the **COMMS** icon, communication between the administrator and the pilot is enabled and they can send text messages and voice messages. The administrator is able to see the alert and notification generated by the system in case there is an altitude/boundary breach.



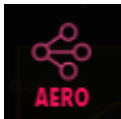
#### 4.4 Airspace Information

This feature allows the administrator to toggle on/off all the airspaces, and other information related to airspace such as controlled aerodromes, uncontrolled aerodromes, heliports etc.



This indicates that this feature is turned off.

After clicking on the icon they can turn on the Airspace Information.



This indicates that this feature is turned on.

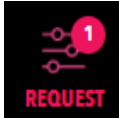
After clicking on the **AERO** icon, the administrator can either toggle on/off the entire airspace at once. They can also hover over the **AERO** icon and toggle on/off any particular airspace from the below list.



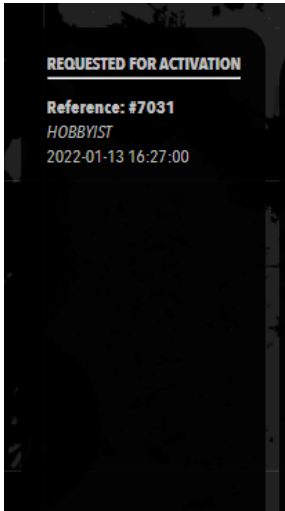


## 4.5 Flight Requests

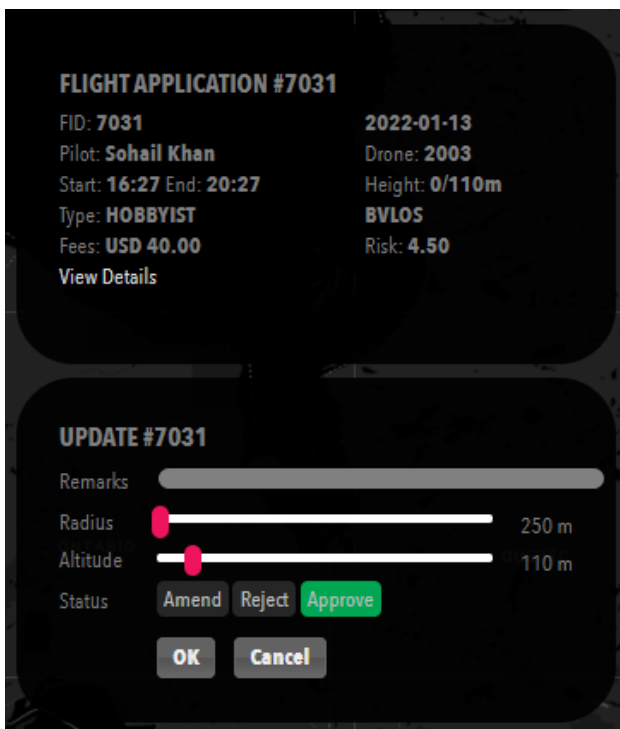
This feature allows the administrator to take quick actions on any new incoming request that is created by the user. These actions could include Approve, Reject, Amend etc.



Once a pilot creates a flight request from the mobile application, the administrator is able to see the request in the below screen. They can also see the count of new requests that are pending a response.



After clicking on the **REQUEST** icon, the administrator is able to see the reference number for a particular flight request. They can click on the request to view the details and take necessary actions as shown in the image below.



The administrator is able to see the details of the flight request such as:

- Flight ID
- Pilot Name
- Drone ID
- Start Date
- End Date
- Altitude
- Flight Purpose
- Fees
- Risk Score

Remarks can be entered, the radius (in the case of a circular operational area and/or maximum altitude permitted) can be adjusted by moving the slider. The final status of the Request (Amended/Rejected/Approved) can also be selected, and click on the **OK** button.

The Administrator is able to view the details of the Flight Application when he clicks on **View Details**.

**SKYLINKutm**  
Powered by **astr**

**Exponent Technology Services** New Approved Rejected Amended 3D MAP

Aerial Filming for Exponent  
26-Feb-2022 - 26-Feb-2022

26-Feb-2022  
12:57 to 13:16

**EXME-DJI-DRO-02699-CD8A**  
DJI Mavic Mini (DJI Drone)

Eduardo Dorado  
eduardo.dorado@exponent-ts.com  
+971 52 734 4969  
AF/2021/00676 (Issue: 08-Dec-2021, Expiry: 30-Apr-2022)

Start Date & Time: 26-Feb-2022 12:57  
End Date & Time: 26-Feb-2022 13:16  
Height (AGL in m): Take Off: 0 m, Max: 56 m  
Operation Type: Visual Line of Sight (VLOS)  
Camera in Use? Yes  
Coordinates: 25.11518°N 55.45376°E, 25.11558°N 55.45443°E, 25.11889°N 55.45158°E, 25.11841°N 55.45097°E, 25.11518°N 55.45376°E

**Approval Authorities Status**

Pending action by Administrator Uae  
Pending action by Admin Area55

**Map** Satellite

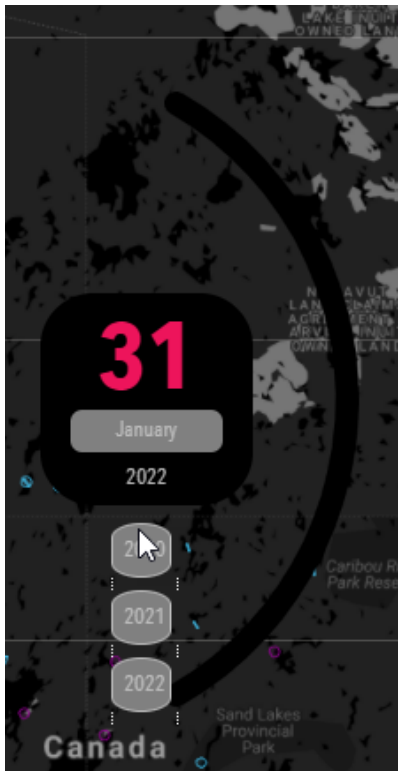
Map showing location in Canada (NUNAVUT, MANITOBA, Baker Lake, Rankin Inlet).

Billing	Total: 0.00 USD	Insurance (Cost: 0 USD)	Selected Plan: none	Risk	Total: 5.5
Tracker Lease	10.00	Allianz	20.11	Pilot Total Flight Hours	6
Duration of Operation	0.95	Axa	11.68	Pilot Age	4
Max Altitude between 51 and 100	7.00	AIG	1.04	Flight duration less than 30 min	6
				Pilot total flight violations	8
				Camera usage	9

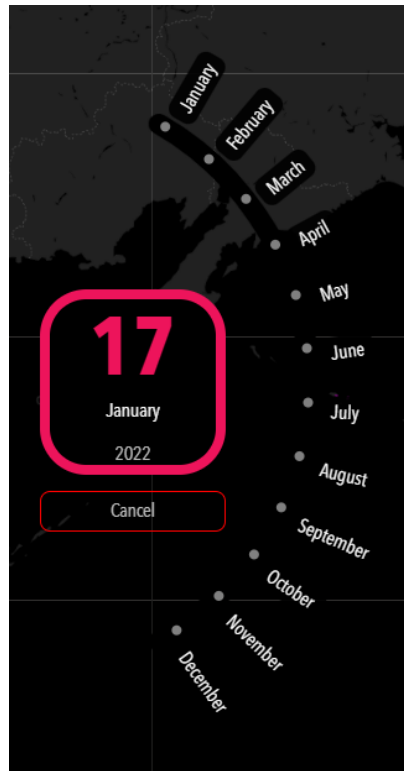
### 4.6 Flight Calendar

This feature allows the administrator to select the year, month, and date as per the requirements, and the system will display all the flight requests that are submitted for that particular day.

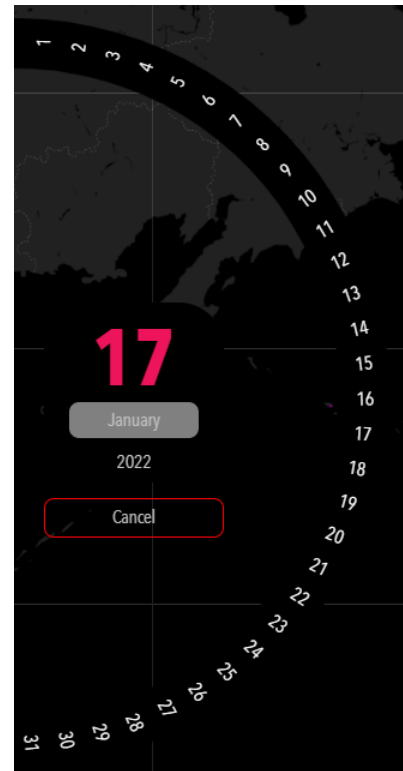
**Selection of Year**



**Selection of Month**



**Selection of Date**



### 4.7 Flight Aero Legend

This feature allows the administrator to determine the status of each flight application with respect to the color scheme as shown in the image below:

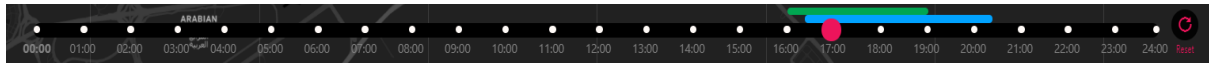


For example: Any flight request that is in “New” status will be represented in blue color, similarly, any request that is in “Approved” status will be represented in green color.

## 4.8 Flight Timeline

This feature allows the administrator to view all the requests for a particular day by sliding through the 24 hours slider.

This slider gives the administrator an overview of the flight requests with their respective time duration.



The above figure shows that there is a flight request in "New" status starting from 16:30 till 20:30 local time and there is another flight request in "Approved" status starting from 16:00 till 19:00 local time.

## 5 Application Modules

This menu provides the administrator with the necessary access to monitor the entire UTM system.

They are able to view the MIS of all the registered users, registered UAS, flight requests and flight history, etc. They are able to extract the flight reports for a particular flight under the "Reports" section.

Additionally, they can send broadcast messages to all the users and can create a new company account, operator admin users, and pilot users under the "Admin" section.



## 5.1 JARUS SORA

The Specific Operations Risk Assessment (SORA) concept was developed by Working Group 6 (WG6) of the Joint Authorities for the Rulemaking of Unmanned Systems (JARUS). The purpose of JARUS-SORA v2.0 (JS2), is to recommend a methodology to assess the risk of a specific operation to determine if it can or cannot be conducted safely. It achieves this by evaluating each operation and categorizing them into 6 Specific Assurance and Integrity Levels (SAIL) with recommended safety objectives for each SAIL. It is meant to provide a vision on how to safely create, evaluate and conduct a UAS operation, providing guidelines to both operators of the UAS and evaluators of the operation.

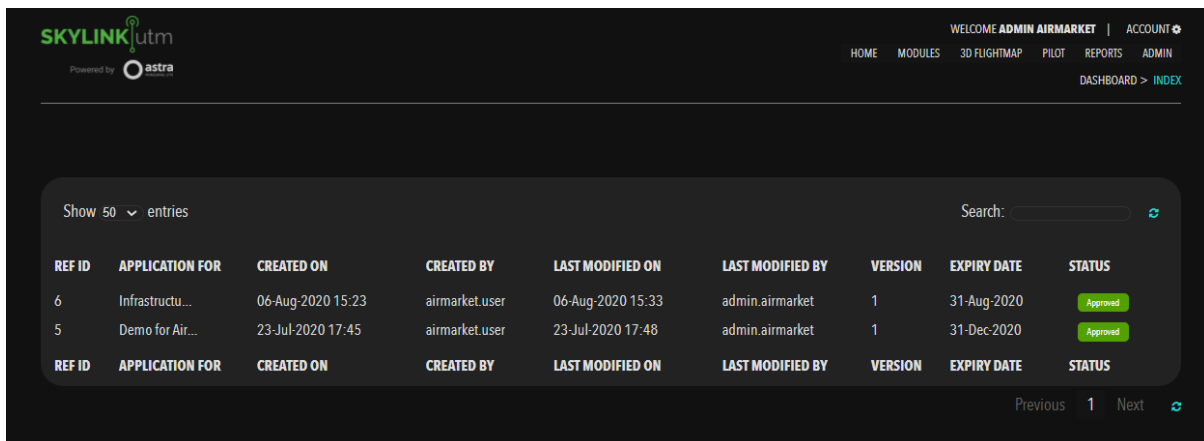
SORA is designed to assess the risk of the operation of a UAS within a specific category as defined by the European Aviation Safety Agency (EASA) Opinion 01/2018. It is intended to be used where traditional approaches to aircraft certification are not appropriate due to the restricted nature of the intended operation of the UAS. SORA is a holistic system safety model used to evaluate risks associated with a given operation by understanding the nature of each risk and the mitigations to those risks.

The applicability of SORA is to all classes and sizes of Unmanned Aircraft Systems (UAS) and their types of operation. It includes the risks associated with collisions between Unmanned Aircraft (UA) and Manned Aircraft, but not between UA and UA or between UA and UA carrying people (these will be addressed in future versions of SORA). UA carrying payloads that introduce additional hazards (e.g. weapons or dangerous goods) are excluded from SORA. SORA does not factor into account the privacy or financial aspects of its proposed methodology.

The administrator can access this module by clicking on the **JARUS SORA** option under the Modules section.

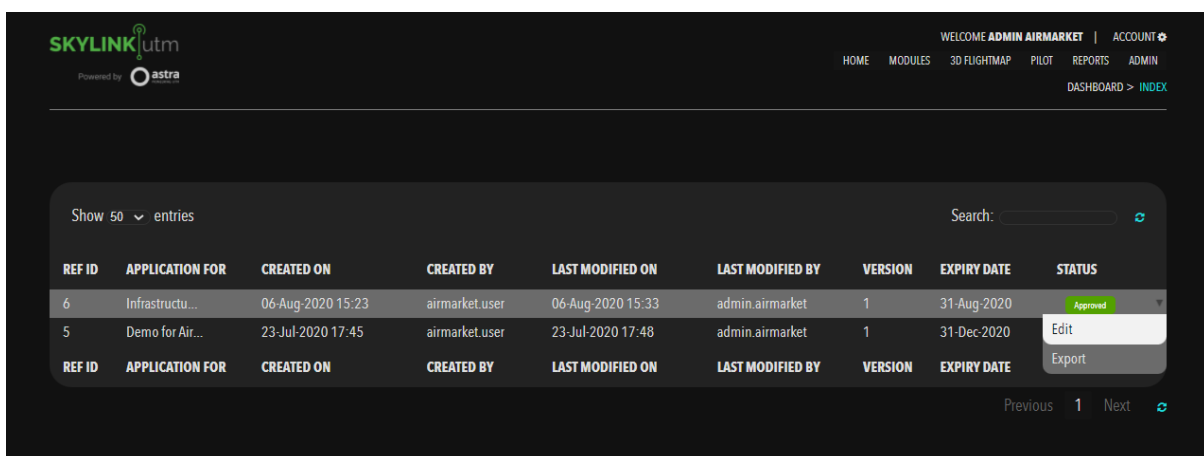


After clicking on the **JARUS SORA** option, the administrator is able to view the list of all SORA applications in the system.



The administrator can access all the applied or saved SORA applications from this list. They can edit the details for a particular SORA by clicking on the **Edit** option in the dropdown menu.

The administrator can click on the **Export** option to download the SORA application in .pdf format. The downloaded file will be a consolidated SORA application along with active links to the attached documents in the application.



After clicking on the **Edit** option in the dropdown menu, the administrator can see the following information:-

- Preliminary Info
- Geography
- CONOPS
- GRM
- ARM
- TMPR
- SAIL
- Adj. Area Consideration
- Status

## Preliminary Info

This section captures the preliminary information required for enabling the SORA process. It includes organization, the purpose of operation, flight mode(whether VLOS, BVLOS, EVLOS), date and time of the operation, proposed UAV that is going to be used in the operation, and its dimensions in meter(wingspan for fixed-wing, blade diameter for rotorcraft, maximum dimension for multi-copters).

The screenshot displays the 'JARUS SORA APPLICATION' interface. At the top, it shows the SKYLINKutm logo and 'Powered by astra'. The user is logged in as 'ADMIN AIRMARKET'. The navigation menu includes HOME, MODULES, 3D FLIGHTMAP, PILOT, REPORTS, ADMIN, and DASHBOARD > JSORA > CREATE. The application title is 'JARUS SORA APPLICATION' with indicators for GRC: 3, ARC-b, and SAIL:11. The 'Preliminary Info' tab is selected, showing the following fields:

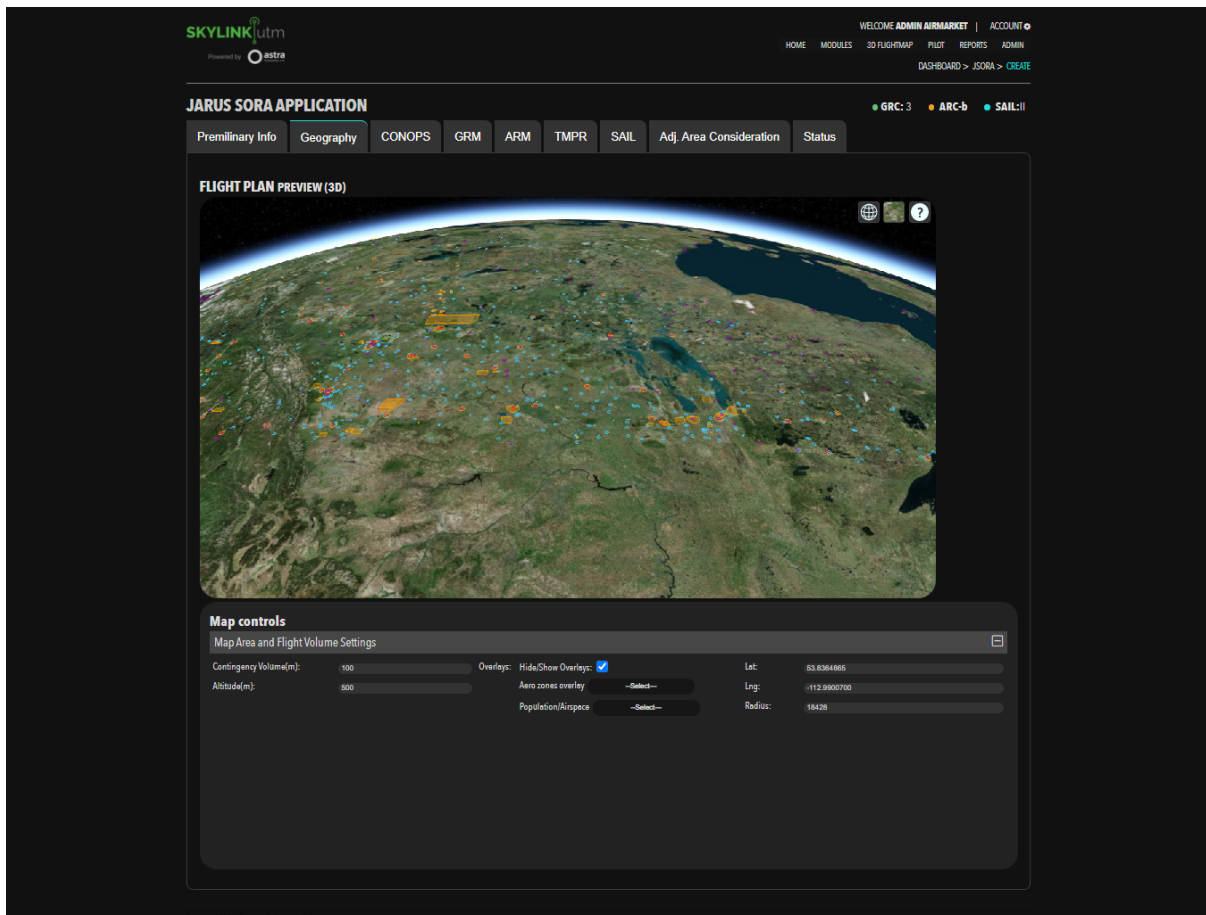
- Organization:** Airmarket
- Purposed UAV Vehicle:** (Dropdown menu)
- Purpose of Operation:** Infrastructure inspection
- Purposed UAV Dimension (m):** 2
- Flight Mode:** BVLOS
- Date Of Operation:**
  - Start Date & Time: 1-Aug-2020 22:00:00
  - End Date & Time: 31-Aug-2020 11:55:00



## Geography

This section allows the pilot user to define the area of the operation where the flights are going to be performed. The map will be populated with SORA specific overlays of population density and airspace classes to clearly identify the Ground Risk Class (GRC) score. Here the pilot user specifies the contingency volume outside the flight geography and also the altitude limit for the operation.

Based on the flight geography and the altitude, the administrator is able to view the initial calculation of Ground Risk Class (GRC), ARC (Air Risk Class), and Specific Assurance and Integrity Levels (SAIL) score on the top right corner.



## CONOPS

This section captures the concept of operations in detail with all the relevant information needed to assess the risk associated with the intended operation of the UAS.

The CONOPS has a prescribed format as per JARUS Guidelines on SORA Annex A, Edition 1.0, 26-June-2017. The pilot user can add elaborated descriptions and has an option to attach relevant documentary evidence under each section.

In the Organizational information section, the pilot user can enter a detailed description of the type of the organization that it represents, the type of the intended operation and its strategies, training details obtained by the personnel conducting the operation, and references.

In the UAS description section, the pilot user can enter the technical specifications of the segment of the Unmanned Aircraft (UA) and controller features of the UAS.

Powered by

WELCOME ADMIN AIRMARKET | ACCOUNT

HOME MODULES 3D FLIGHTMAP PILOT REPORTS ADMIN
DASHBOARD > JSORA > CREATE

**JARUS SORA APPLICATION**

Preliminary Info
Geography
CONOPS
GRM
ARM
TMPR
SAIL
Adj. Area Consideration
Status

● GRC: 3
 ● ARC-b
 ● SAIL:11

**ORGANIZATIONAL INFORMATION**

**Organization Overview** Supporting Documents

Download attachment

Organization Structure

Consists of OA and UAS operators

UAS Operator Responsibilities

Flying and maintenance of UAS

Design & Production if organization designs or produces UAS

Customization to standard UAS

Training

Trained and certified UAS operators

Maintenance

Performed by certified UAS operators

Crew

UAS operator, payload expert

Responsibilities

- Flying and maintenance of UAS
- Qualification (to operate UAS)
- Commercial drone operator license
- Medical Qualification
- Fit as per drone operator standard

UAS Configuration Management

Managed by OA

**Operations**

Download attachment

Type of Operations

Infrastructure Inspection

Standard Operating Procedures

Defined in flight application

Normal Operating Strategy

Follow the predefined flight path

Abnormal Operating Strategy

Return to home through predefined flight path

Accidents, Incidents and Mishaps

Return to home through predefined flight path or land safely using sensors

**Training** Supporting Documents

Download attachment

Initial Training and Qualification

Certified crew

Procedures for Maintenance and Currency

Maintenance procedures defined as per safety standards

Flight Simulation Training Devices

MS simulator x

Training Program

Commercial certification provider

**References**

Description

Attached ref docs

**UAS DESCRIPTION**

**UA Segment**

Airframe

Carbon fiber

Aircraft Performance Characteristics

Specs attached

Propulsion System

ES000

Flight Control Surfaces & Actuators

WooKong-M

Sensors

Specs attached

Payloads

Zenmuse H20 Series

**UAS Control Segment** Supporting Documents

Download attachment

General

AS6522

Navigation

Manual and autonomous

Autopilot

Enabled

Flight Control System

WooKong-M

Control Station

Dji smart controller

Detect & Avoid System

Enabled

Geo Fencing

Enabled

Ground support equipment

Smart controller

Command and Control Link (C2 Link) Segment

Specs attached

C2 Link Degradation

Specs attached

C2 Link Lost

Specs attached

Safety Features

Specs attached

39

## GRM

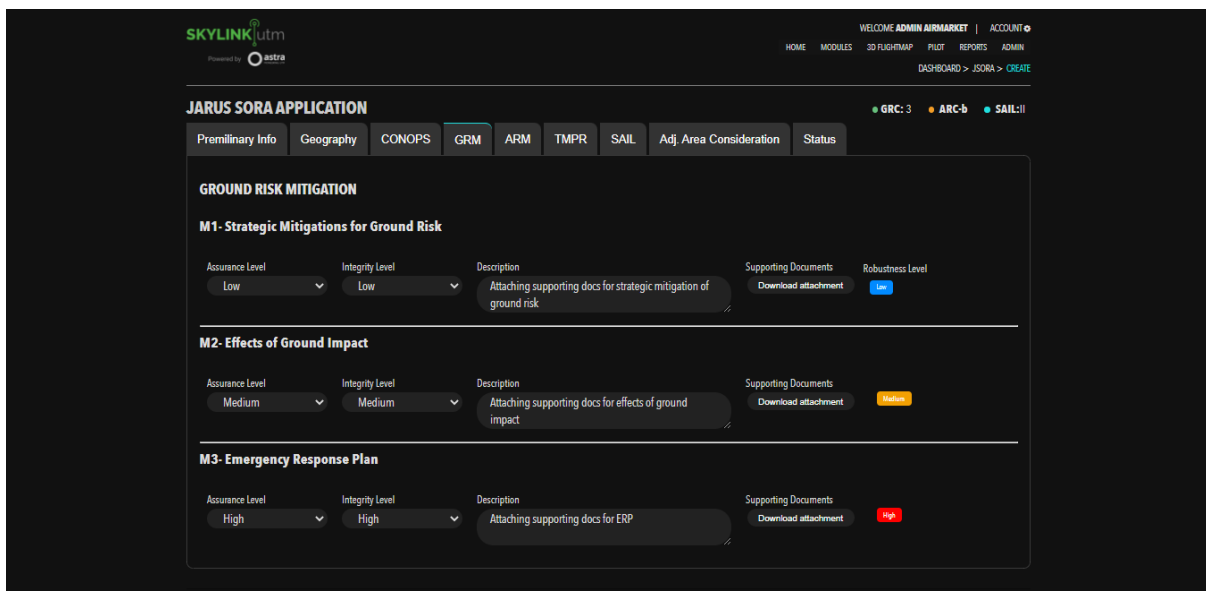
This section allows the administrator to review and edit the Ground Risk Mitigation details and thereby reduce the initially calculated GRC score. The administrator can specify the assurance level and the integrity level that they can provide in 3 sections, that is, M1 - Strategic mitigation for ground risk, M2- How to reduce the effects of ground impact, M3 - Availability, and ability of an emergency response plan.

Integrity level - safety gain provided by each mitigation(defined in high, medium, low)

Assurance level - method of proof that the claimed safety gain has been achieved(defined in high, medium, low)

Along with specifying the levels, there is the option to provide the description of the mitigation and the option to attach the required documentary evidence on it.

Based on the integrity and assurance level on each mitigation item, the robustness is calculated to be high, medium, or low and the GRC score is reduced.



## ARM

This section allows the administrator to review and edit the Air Risk Mitigation details and thereby reduce the initially calculated ARC score. This is a set of questionnaires on which the user can answer yes or no and provide a descriptive remark to prove the point. If all items are a yes, then the initial ARC can be reduced by 1 score.

The ARC is a qualitative classification of the rate at which a UAS would encounter a manned aircraft in civil airspace. ARC-a is airspace where the risk of collision between a UAS and manned airspace is acceptable without the need for tactical mitigation. ARC-b, ARC-c, ARC-d are airspace with increasing risk of collision between UAS and manned aircraft.

**JARUS SORA APPLICATION** | GRC: 3 | ARC-b | SAIL: II

**AIR RISK MITIGATIONS**

Are you claiming an ARC adjustment based on Strategic Mitigations?  Yes

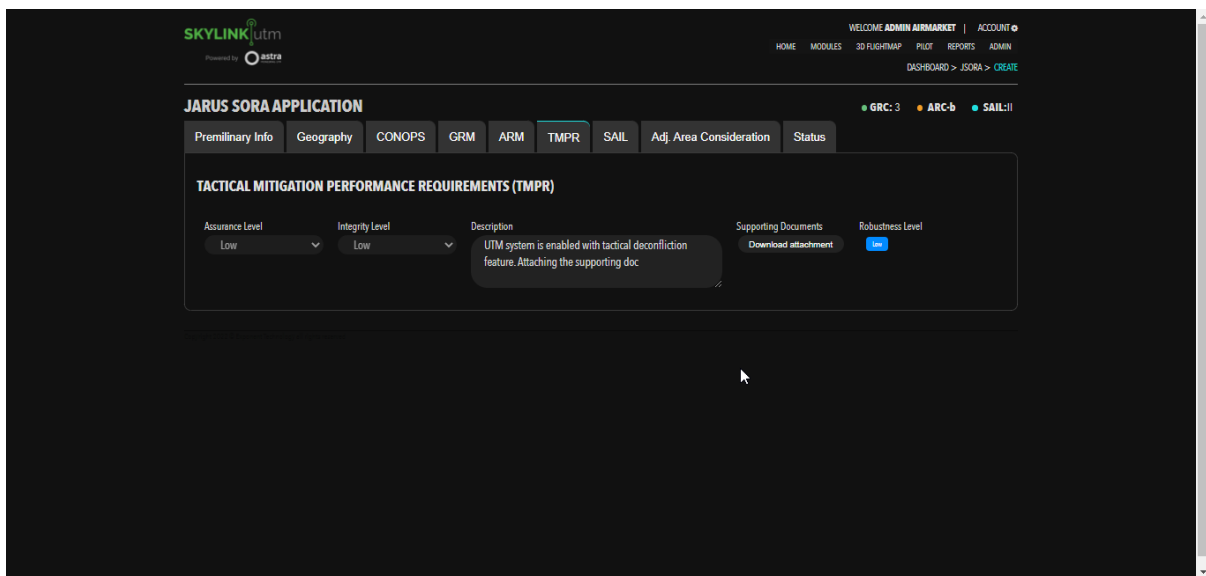
Statement supporting the use of ARM: Standard Air risk mitigation methods are in place to reduce the risk of a mid air collision with a manned aircraft

Question	Remarks	Admin Action	Admin Remarks
Is UA Equipped with Electronic Cooperative System? <input checked="" type="checkbox"/>	Drone is fitted with Skycommander tracker	Accep	
Is UA Equipped with Anti Collision Lighting? <input checked="" type="checkbox"/>	Custom made lights have been installed	Accep	
Is there a procedure to verify other traffic presence during operation? <input checked="" type="checkbox"/>	UTM system alerts other users about the operation	Accep	
Is there a procedure to notify other users of the planned UAS operation? <input checked="" type="checkbox"/>	UTM system alerts other users about the operation	Accep	
Do you have permission from airspace owner to operate? <input checked="" type="checkbox"/>	Flight request approved by ANSP available	Accep	
Can you comply with all airspace Flight Rules, Regulation, and Policies, etc. applicable to the UAS Operational Volume? <input checked="" type="checkbox"/>	Yes, operation to be carried out in complete compliance	Accep	
Can you comply with UAS airspace structure that exists in VLL airspace? <input checked="" type="checkbox"/>	Yes, UTM system ensures complete compliance	Accep	
Can you comply with airspace separation procedures defined for VLL airspace? <input checked="" type="checkbox"/>	Yes, UTM system ensures proper separation by generating timely alerts and TANS	Accep	
Can you directly communicate with ATC or FIS? <input checked="" type="checkbox"/>	Yes, UTM system provide capability of two way communication with ATC	Accep	

## TMPR

This section allows the administrator to review and edit the evidence for the Tactical Mitigation Performance Requirement for the whole operation. Based on the final GRC and ARC calculated after GRM and ARM screens, the system calculates the robustness level required for the tactical mitigation performance required.

Initially, the pilot users can provide the description and the documentary evidence as per the robustness level on this screen. Tactical mitigations are applied to further reduce the risk of mid-air collision to achieve an applicable airspace safety objective. After an assessment of the initial, unmitigated risk of an encounter, and optional application of strategic mitigations, this step assigns a performance requirement on the UAS operation to mitigate the remaining collision hazard.



## SAIL

Specific Assurance and Integrity Levels (SAIL) are derived based upon combining the Final GRC with the Residual ARC for the documented CONOPS. SAIL represents the level of confidence that the operation will remain in control. This section captures the requirements for each of the 20 Operational Safety Objectives (OSO). SAIL is then used to evaluate the defenses of the operation in the form of OSO and to determine the level of Robustness.

The levels of Robustness are as below:

- Optional
- Low
- Medium
- High

A number of OSOs have been documented based on the collective experience of industry experts and represent a fixed point of departure for setting the safety objectives for a specific operation.

The requirement for each level of robustness is as follows.

- Optional - Justification or evidence is optional.
- Low - The user can provide a statement/justification stating the compliance with the OSO.
- Medium - The user can provide a statement/justification and attach documentary evidence supporting the OSO compliance.
- High - The user can provide a statement/justification, attach documentary evidence and attach 3rd party certification of the stated compliance with the OSO.

WELCOME ADMIN AIRMARKET | ACCOUNT

HOME MODULES 3D FLIGHTMAP PILOT REPORTS ADMIN

DASHBOARD > JSORA > CREATE

### JARUS SORA APPLICATION GRC: 3 ARC-b SAIL:II

Preliminary Info
Geography
CONOPS
GRM
ARM
TMPR
SAIL
Adj. Area Consideration
Status

**SPECIFIC ASSURANCE & INTEGRITY LEVEL (SAIL)**

**Technical Issue with UAS**

OSO#	Description	Remarks	Robustness Level
OSO#01	Ensure the operator is competent and/or proven	Operator certified by ANSP	Low
OSO#02	UAS manufactured by competent and/or proven entity	UAS manufacturer approved by ANSP	Optimal
OSO#03	UAS maintained by competent and/or proven entity	UAS maintained by organization approved by ANSP	Low
OSO#04	UAS developed to authority recognized desing standards	UAS model approved by ANSP	Optimal
OSO#05	UAS is designed considering system safety and reliability	UAS model is in compliance with safety standards	Optimal
OSO#06	C3 link performance is appropriate for the operation	Tested for C3 link performance and found appropriate	Low
OSO#07	Inspection of the UAS to ensure consistency to the ConOps	Periodic inspections have been carried out and verified data entered in conops	Low
OSO#08	Operational procedures are defined, validated and adhered to	Operational procedures are defined in flight application and UTM ensures adherence	Supporting Documents Download attachment Optimal
OSO#09	Remote crew trained and current and able to control the abnormal situation	Remote crew consists of certified pilots	Low
OSO#10	Safe recovery from technical issue	UAS have redundancies built in	Low

**Deterioration of external systems supporting UAS operation**

OSO#11	Procedures are in-place to handle the deterioration of external systems supporting UAS operation	Los of comms protocol defined and integrated with UTM	Supporting Documents Download attachment Optimal
OSO#12	UAS is designed to manage the deterioration of external system supporting UAS Operation	UAS have built in RTH in case external systems fail	Low
OSO#13	External services supporting UAS operation are adequate to the operation	External services requirements specified by ANSP are met	Low

**Human Error**

OSO#14	Operation procedures are defined, validated and adhered to	Operational procedures are defined in flight application and UTM ensures adherence	Supporting Documents Download attachment Optimal
OSO#15	Remote crew trained and current and able to control the abnormal situation	Remote crew consists of certified pilots	Low
OSO#16	Multi crew coordination	Coordination achieved and through UTM itself	Low
OSO#17	Remote crew is fit to operate	Crew consists of certified pilots	Low
OSO#18	Automatic protection of the flight envelope from Human Error	UAS have detect and avoid capability	Optimal
OSO#19	Safe recovery from Human Error	UAS have redundancies built in	Optimal
OSO#20	A Human Factors evaluation has been	Remarks	



## ADJ. AREA CONSIDERATION

SORA now considers risks associated with loss of control events that lead to infringements upon adjacent areas and/or airspace. No probable failure of the UAS or any external system supporting the operation shall lead to operation outside of the operational volume.

Compliance with the requirement above shall be substantiated by a design and installation appraisal and shall minimally include:

Design and installation features (independence, separation, and redundancy)

Any relevant particular risk (e.g. hail, ice, snow, electromagnetic interference, etc.) associated with the ConOps.

Operations conducted as below require additional safety requirements:

Where adjacent areas are:

i. Gatherings of people unless already approved for operations over the gathering of people OR

ii. ARC-d unless the residual ARC is ARC-d

In populated environments where

i. M1 mitigation has been applied to lower the GRC

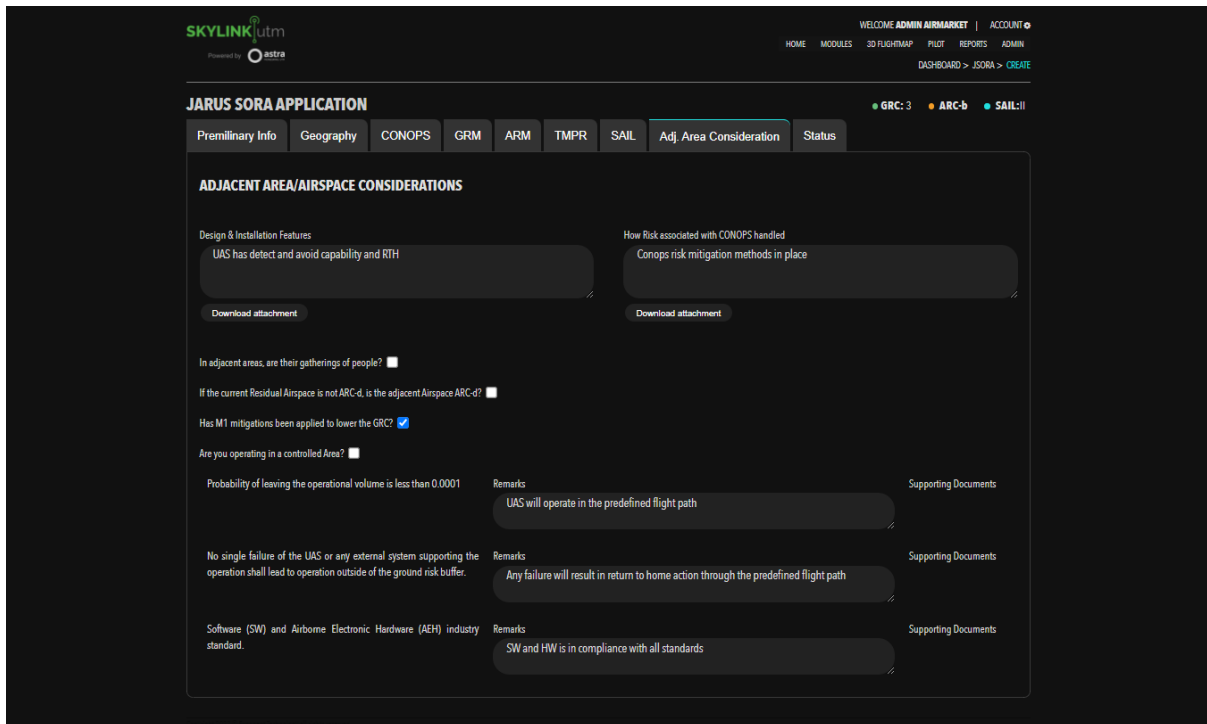
ii. Operating in a controlled ground area

The additional Safety Requirements are:

i. The probability of leaving the operational volume shall be less than  $10^{-4}/FH$ .

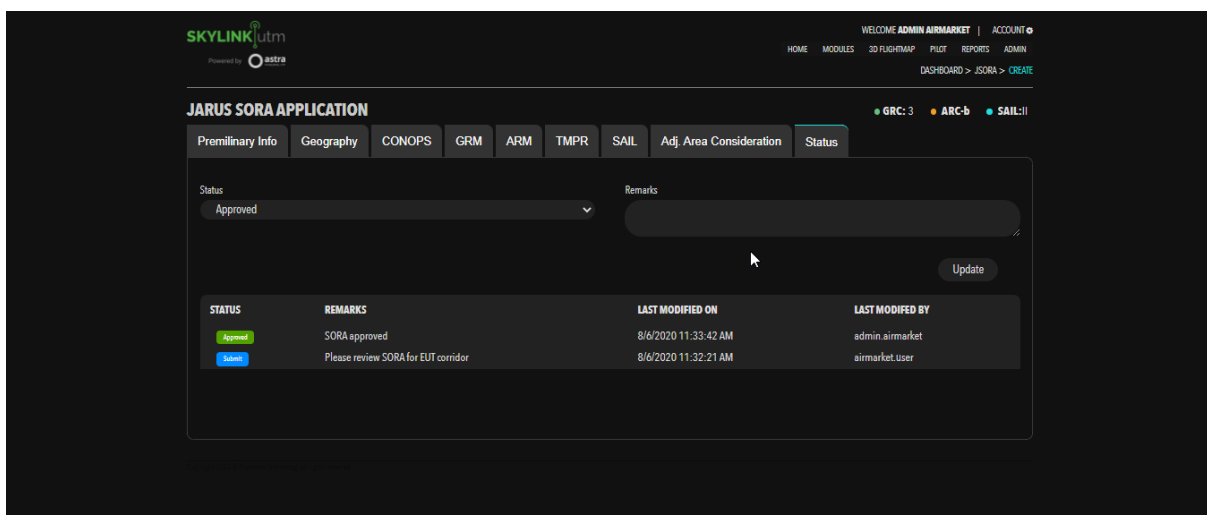
ii. No single failure of the UAS or any external system supporting the operation shall lead to operation outside of the ground risk buffer. Compliance with the requirements above shall be substantiated by analysis and/or test data with supporting evidence.

iii. Software (SW) and Airborne Electronic Hardware (AEH) whose development error(s) could directly lead to operations outside of the ground risk buffer shall be developed to an industry-standard or methodology recognized as adequate by the competent authority.



## STATUS

This section captures the current status of the SORA application along with remarks. When a pilot user applies a SORA, it will be in **Submit** status and then, the administrator can update the status to **Approved**, **Review**, or **Reject** and enter the comments in the remark column. All status changes and the remarks provided by the administrator are available in the history section for reference.



## 5.2 Pilot Listing

This module enables the administrator to view all the registered pilots in the system along with their details such as Pilot ID, Pilot Full Name, Created On, Created By, Last Modified On, Last Modified By, Permit Type, Expiry Date, Mobile Number, and Status, etc.

PILOT ID	PILOT FULL NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	PERMIT TYPE	EXPIRY DATE	MOBILE NUMBER	STATUS
1041	Scott Hamey	09-Feb-2021 02:50	admin.airmarket	12-Dec-2020		Commercial	01-Mar-2030	+61468429945	Active
1846	Unmanned Life	28-Oct-2021 15:13	admin.airmarket	12-Dec-2020			28-Oct-2021		Active
1043	Bob Davies	18-Mar-2021 17:01	admin.airmarket	12-Dec-2020		Professional	18-Mar-2021	1(403)808-8607	Active
1042	Jia Childs	09-Feb-2021 02:51	admin.airmarket	12-Dec-2020			08-Feb-2021		Active
1040	Mark Askey	09-Feb-2021 02:47	admin.airmarket	12-Dec-2020			08-Feb-2021	+61410403014	Active
1039	Dave Kinniburgh	18-Jan-2021 07:58	admin.airmarket	12-Dec-2020		Commercial	18-Jan-2021	17809145751	Active
83	Skytrax.	28-Aug-2018 12:56	internal	04-Oct-2020		Commercial	12-Dec-2020	393351418069	Active
1009	Abdulsamadca...	19-Aug-2018 18:49	internal	12-Dec-2020		Hobby	12-Dec-2020	9710000000	Active
1021	Airmarket User	03-Dec-2019 10:14	internal	12-Dec-2020			12-Dec-2020		Active
1022	Geo Joy	05-Dec-2019 09:27	internal	12-Dec-2020			12-Dec-2020	971508753923	Active
1023	Shahbaz Babar	05-Dec-2019 09:34	internal	12-Dec-2020		Hobby	12-Dec-2020	971505456498	Active
1024	Nabil Urrehman	05-Dec-2019 10:58	internal	12-Dec-2020			12-Dec-2020	971559672987	Active
1025	Eduardo Dorado	11-Dec-2019 10:34	internal	12-Dec-2020		Commercial	12-Dec-2020	971508853923	Active
1026	Muhammad Ja...	11-Dec-2019 10:41	internal	04-Oct-2020			12-Dec-2020	+9715089753923	Active

The administrator is able to select any particular pilot and view full details for that pilot. They can hover over the 'Status' column and in the dropdown menu click on the **Details** option.

PILOT ID	PILOT FULL NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	PERMIT TYPE	EXPIRY DATE	MOBILE NUMBER	STATUS
1041	Scott Hamey	09-Feb-2021 02:50	admin.airmarket	01-Mar-2030		Commercial	01-Mar-2030	+61468429945	Active
1846	Unmanned Life	28-Oct-2021 15:13	admin.airmarket	12-Dec-2020			28-Oct-2021		Detail
1043	Bob Davies	18-Mar-2021 17:01	admin.airmarket	12-Dec-2020		Professional	18-Mar-2021	1(403)808-8607	Edit
1042	Jia Childs	09-Feb-2021 02:51	admin.airmarket	12-Dec-2020			08-Feb-2021		Active
1040	Mark Askey	09-Feb-2021 02:47	admin.airmarket	12-Dec-2020			08-Feb-2021	+61410403014	Active
1039	Dave Kinniburgh	18-Jan-2021 07:58	admin.airmarket	12-Dec-2020		Commercial	18-Jan-2021	17809145751	Active
83	Skytrax.	28-Aug-2018 12:56	internal	12-Dec-2020		Commercial	12-Dec-2020	393351418069	Active
1009	Abdulsamadca...	19-Aug-2018 18:49	internal	04-Oct-2020		Hobby	12-Dec-2020	9710000000	Active

The administrators can view the details of the pilot in the below format:

**PILOT DETAILS**

Eduardo Dorado  
 Mobile Number: +971 52 734 4969  
 Email Address: eduardo.dorado@exponent-ts.com

Exponent Technology Services  
 Email Address: info@exponent-ts.com  
 Mobile Number: 00971555457589

**ID Details**

Nationality: Philippines  
 Date of Birth: 07-Nov-1976

**RPAS Permits**

AF/2021/00676  
 Commercial  
 Validity: 08-Dec-2021 to 30-Apr-2022 OK

**RPAS DETAILS**

- EXME-MFD-X4-01169-03EA  
201841  
MFD
- EXME-DJI-X4-01175-03EB  
3  
DJI
- EXME-ALG-15-01128-03EC  
N/A  
Align
- EXME-GPN-X8-01259-03F2  
10  
Great Planes
- EXME-000-00-00SKC-TEST  
31  
SIM
- EXME-DJI-X4-01349-041E  
N/A  
DJI

**CERTIFICATION DETAILS**

Certificate ID: 20913  
 Date: 04-Jan-2021  
 Certifying Institute: Exponent Technology Services  
 Ground Training Score: 80%  
 Ground Instructor: Asam Khan  
 Flight Training Score: 4.00  
 Flight Instructor: Danijel Jovanovic

**PILOT LOG**

Show 50 entries

FLIGHT	RPAS	DATE	FIXED WING	MULTI-ROTOR	TOTAL
			TOTAL TIME: 18:06:31	23:27:31	17:34:02
3278	VIRO-DJI-X4-01520-0442	21-Apr-2018 15:46		00:58:25	00:58:25
3576	JOHF-DJI-X4-01407-0433	11-May-2018 16:35		00:08:06	00:08:06
3577	JOHF-DJI-X4-01407-0433	11-May-2018 17:51		00:43:33	00:43:33
3579	JOHF-DJI-X4-01407-0433	11-May-2018 19:28		00:29:26	00:29:26

Previous Next

The administrator is able to select any particular pilot and edit their details as and when necessary. They can hover over the 'Status' column and in the dropdown menu click on the **Edit** option.

**PILOT LIST**

Show 50 entries

PILOT ID	PILOT FULL NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	PERMIT TYPE	EXPIRY DATE	MOBILE NUMBER	STATUS
1041	Scott Hamey	09-Feb-2021 02:50	admin.airmarket	01-Mar-2030		Commercial	01-Mar-2030	+61468429945	Active
1846	Unmanned Life	28-Oct-2021 15:13	admin.airmarket	12-Dec-2020			28-Oct-2021		Detail
1043	Bob Davies	18-Mar-2021 17:01	admin.airmarket	12-Dec-2020		Professional	18-Mar-2021	1(403)808-8607	Edit
1042	Jia Childs	09-Feb-2021 02:51	admin.airmarket	12-Dec-2020			08-Feb-2021		Active
1040	Mark Askey	09-Feb-2021 02:47	admin.airmarket	12-Dec-2020			08-Feb-2021	+61410403014	Active
1039	Dave Kinniburgh	18-Jan-2021 07:58	admin.airmarket	12-Dec-2020		Commercial	18-Jan-2021	17809145751	Active
83	Skytrax.	28-Aug-2018 12:30	internal	12-Dec-2020		Commercial	12-Dec-2020	393351418069	Active
1009	Abdulsamadca...	19-Aug-2018 18:49	internal	04-Oct-2020		Hobby	12-Dec-2020	9710000000	Active

After clicking on the **Edit** option, the administrator is redirected to the edit screen and they are able to edit the following details for that particular pilot user.

The screenshot displays the 'Edit Pilot' page in the SKYLINKutm Admin interface. The page is dark-themed and contains several sections for editing pilot information:

- PERSONAL DETAILS:** Fields for First Name (Eduardo), Middle Name, Last Name (Dorado), Email Address (eduardo.dorado@exponent-ts.com), Mobile Number (+971 52 734 4969), Office Number (+971 456998766), and LandLine Number (00971551238972).
- CHANGE PASSWORD:** Fields for Password and Confirm Password. A message states: "'Confirm Password' and 'Password' do not match."
- RPAS INFORMATION:** Fields for Emirates ID (784-1979-1234567-1), RPAS Permit No (AF/2021/00676), Permit Category (Commercial), and Contact Address (Alfaz Building, 2206, Dubai Investment Park (DIP) - Dubai).
- SETTINGS:** Includes Account/Company (Exponent Technology), Profile Selector (Organisation Admin), Country (PHILIPPINES [PH]), Dashboard (UserDashboard), and toggle switches for 'Is Active' and 'Is Pilot' (both set to Yes).
- PILOT DETAILS:** Fields for Emirates ID (784-1979-1234567-1), Passport No (31195855), Date of Expiry (1/1/1900 12:00), Department (UAV), and Title (UAV).

Navigation elements include a top menu with 'HOME', 'MODULES', '3D FLIGHTMAP', 'PILOT', 'REPORTS', and 'ADMIN'. The breadcrumb trail shows 'DASHBOARD > PILOT > PILOT REGISTRATION'. A user profile picture and 'Upload Photo' button are also visible.

### 5.3 UAS Listing

This module enables the administrator to view all the registered UAS in the system along with their details such as RPAS ID, Drone Name, Created On, Created By, Last Modified On, Last Modified By, RPAS Type, Manufacturer, and Insurance Status, etc.

RPASID	DRONE NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	RPAS TYPE	MANUFACTURE	INSURANCE STATUS
71	AIRM-USI-AT4...	28-Apr-2021 02:04	Cale.Griffith	28-Apr-2021 02:04	airmarket.user	Electric Qua...	UAV Systems ...	Valid
72	AIRM-PAR-AT5...	03-May-2021 23:11	Cale.Griffith	03-May-2021 23:11	airmarket.user	Electric Qua...	UAV Systems ...	Valid
73	AIRM-SIM-DRO...	07-May-2021 03:00	Cale.Griffith	07-May-2021 03:00	Cale.Griffith	Electric Qua...	SIM	Valid
74	AIRM-SIM-DRO...	28-May-2021 17:54	Cale.Griffith	28-May-2021 17:54	Cale.Griffith	Electric Qua...	SIM	Valid
75	AIRM-SIM-DRO...	28-May-2021 18:02	Cale.Griffith	28-May-2021 18:02	Cale.Griffith	Electric Qua...	SIM	Valid
76	SAIT-DJI-EX4...	28-May-2021 18:03	Cale.Griffith	28-May-2021 18:03	Scott.Hamey	Electric Qua...	Custom Built	Valid
77	SAIT-DJI-EX4...	28-May-2021 19:32	Cale.Griffith	28-May-2021 19:32	Scott.Hamey	Electric Qua...	Custom Built	Valid
79	GPEA-Manufac...	28-Jun-2021 10:19	Scott.Hamey	28-Jun-2021 10:19	Scott.Hamey	Electric Qua...	68	Valid
80	GPEA-Manufac...	28-Jun-2021 10:19	Scott.Hamey	28-Jun-2021 10:19	Scott.Hamey	Electric Qua...	68	Valid
81	GPEA-DJI-EX4...	28-Jun-2021 10:24	Scott.Hamey	28-Jun-2021 10:24	Scott.Hamey	Electric Qua...	DJI	Valid

The administrator is able to select any particular UAS and view full details for that UAS. They can hover over the **Insurance Status** column and click on the **Detail** option in the dropdown menu.

RPASID	DRONE NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	RPAS TYPE	MANUFACTURE	INSURANCE STATUS
71	AIRM-USI-AT4...	28-Apr-2021 02:04	Cale.Griffith	28-Apr-2021 02:04	airmarket.user	Electric Qua...	UAV Systems ...	Valid
72	AIRM-PAR-AT5...	03-May-2021 23:11	Cale.Griffith	03-May-2021 23:11	airmarket.user	Electric Qua...	UAV Systems ...	Valid
73	AIRM-SIM-DRO...	07-May-2021 03:00	Cale.Griffith	07-May-2021 03:00	Cale.Griffith	Electric Qua...	SIM	Valid
74	AIRM-SIM-DRO...	28-May-2021 17:54	Cale.Griffith	28-May-2021 17:54	Cale.Griffith	Electric Qua...	SIM	Valid
75	AIRM-SIM-DRO...	28-May-2021 18:02	Cale.Griffith	28-May-2021 18:02	Cale.Griffith	Electric Qua...	SIM	Valid
76	SAIT-DJI-EX4...	28-May-2021 18:03	Cale.Griffith	28-May-2021 18:03	Scott.Hamey	Electric Qua...	Custom Built	Valid
77	SAIT-DJI-EX4...	28-May-2021 19:32	Cale.Griffith	28-May-2021 19:32	Scott.Hamey	Electric Qua...	Custom Built	Valid
79	GPEA-Manufac...	28-Jun-2021 10:19	Scott.Hamey	28-Jun-2021 10:19	Scott.Hamey	Electric Qua...	68	Valid
80	GPEA-Manufac...	28-Jun-2021 10:19	Scott.Hamey	28-Jun-2021 10:19	Scott.Hamey	Electric Qua...	68	Valid
81	GPEA-DJI-EX4...	28-Jun-2021 10:24	Scott.Hamey	28-Jun-2021 10:24	Scott.Hamey	Electric Qua...	DJI	Valid

The administrator can view the details in below format:

**RPAS INFORMATION**

**GPEA-FOX-VTO-02769-D2C0**

RPAS SNo: FOX-SWAN-K1-001  
 Reference: H-Wing Swan K1 Tail sitter VTOL  
 Commission Date: 01-Aug-2021  
 Retire Date:  
 Manufacture: Foxtech FPV  
 RPAS Type: VTOL

**GAMA PROJEX AUSTRALIA**  
 mark@gamaprojex.com  
 +61 (0)4 1040 3014

Validity: 05-Aug-2021 to 05-Aug-2022 OK

Certificate:  
 Broker:

**RECENT FLIGHTS**

**# 5796 ON 05-OCT-2021 04:48**  
 Pilot: Scott Hamey  
 Duration: 06:36 (hh:mm)  
 Altitude: 12 Meter  
 Distance: 2,600 Meter

**# 4226 ON 05-AUG-2021 08:39**  
 Pilot: Scott Hamey  
 Duration: 04:10 (hh:mm)  
 Altitude: 5 Meter  
 Distance: 2,958 Meter

**PILOTS OF RPAS**

**SCOTT HAMEY**  
 scottth@gamaprojex.com  
 1016600  
 Issue: 08-Feb-2021, Expiry: 01-Mar-2030

The administrator is able to select any particular UAS and edit their details as and when necessary. They can hover over the Insurance Status and in the dropdown menu click on the **Edit** option.

Show 50 entries

Search:

RPASID	DRONE NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	RPAS TYPE	MANUFACTURE	INSURANCE STATUS ^
71	AIRM-USI-AT4...	28-Apr-2021 02:04	Cale.Griffith	28-Apr-2021 02:04		Electric Qua...	UAV Systems ...	Valid
72	AIRM-PAR-AT5...	03-May-2021 23:11	Cale.Griffith	03-May-2021 23:11		Electric Qua...	UAV Systems ...	Valid
73	AIRM-SIM-DRO...	07-May-2021 03:00	Cale.Griffith	07-May-2021 03:00		Electric Qua...	SIM	Valid
74	AIRM-SIM-DRO...	28-May-2021 17:54	Cale.Griffith	28-May-2021 17:54		Electric Qua...	SIM	Valid
75	AIRM-SIM-DRO...	28-May-2021 18:02	Cale.Griffith	28-May-2021 18:02		Electric Qua...	SIM	Valid
76	SAIT-DJI-EX4...	28-May-2021 18:03	Cale.Griffith	28-May-2021 18:03		Electric Qua...	Custom Built	Valid
77	SAIT-DJI-EX4...	28-May-2021 19:32	Cale.Griffith	28-May-2021 19:32		Electric Qua...	Custom Built	Valid
79	GPEA-Manufac...	28-Jun-2021 10:19	Scott.Hamey	28-Jun-2021 10:19		Electric Qua...	68	Valid
80	GPEA-Manufac...	28-Jun-2021 10:19	Scott.Hamey	28-Jun-2021 10:19		Electric Qua...	68	Valid
81	GPEA-DJI-EX4...	28-Jun-2021 10:24	Scott.Hamey	28-Jun-2021 10:24		Electric Qua...	DJI	Valid

After clicking on the **Edit** option, the administrator is redirected to the edit screen and they are able to edit the following details for that particular UAS.

**RPAS INFORMATION**

- ARMK-DJI-EX4-02857-D2C5
- RPAS SNo: X4/2020/01
- Reference: ARM-DJI-X4-02379-0414
- Commission Date: 28-Oct-2021
- Manufacture: DJI
- RPAS Type: Electric Quadcopter

Validity: 31-Jan-2022 to 31-Jan-2022 ok

Certificate:

Select Sim  
69696969-ICCID-6969

**INSURANCE DETAILS**

Insurance Company: InsuranceMarket.ae

Insurance Issuer: Edwardo

Insurance Certificate ID: 0123665

Insurance Valid From: 31-Jan-2022

Insurance Valid To: 31-Jan-2022

Third Party Liability Limit (NZD):

Full Coverage Limit (NZD): 0.00

Exclusions:

Notes:

Retire Date: 01-Jan-2023

Please upload:  
Choose File No file chosen

Edit

The administrator can view the flight details for that particular UAS by clicking on the **Flights** option in the dropdown menu.

RPASID	DRONE NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	RPAS TYPE	MANUFACTURE	INSURANCE STATUS
71	AIRM-USI-AT4...	28-Apr-2021 02:04	Cale.Griffith	28-Apr-2021 02:04		Electric Qua...	UAV Systems ...	Valid
72	AIRM-PAR-ATS...	03-May-2021 23:11	Cale.Griffith	03-May-2021 23:11		Electric Qua...	UAV Systems ...	Valid <span style="font-size: small;">Detail</span>
73	AIRM-SIM-DRO...	07-May-2021 03:00	Cale.Griffith	07-May-2021 03:00		Electric Qua...	SIM	Valid <span style="font-size: small;">Edit</span>
74	AIRM-SIM-DRO...	28-May-2021 17:54	Cale.Griffith	28-May-2021 17:54		Electric Qua...	SIM	Valid <span style="font-size: small;">Flights</span>
75	AIRM-SIM-DRO...	28-May-2021 18:02	Cale.Griffith	28-May-2021 18:02		Electric Qua...	SIM	Valid
76	SAIT-DJI-EX4...	28-May-2021 18:03	Cale.Griffith	28-May-2021 18:03		Electric Qua...	Custom Built	Valid
77	SAIT-DJI-EX4...	28-May-2021 19:32	Cale.Griffith	28-May-2021 19:32		Electric Qua...	Custom Built	Valid
79	GPEA-Manufac...	28-Jun-2021 10:19	Scott.Hamey	28-Jun-2021 10:19		Electric Qua...	68	Valid
80	GPEA-Manufac...	28-Jun-2021 10:19	Scott.Hamey	28-Jun-2021 10:19		Electric Qua...	68	Valid
81	GPEA-DJI-EX4...	28-Jun-2021 10:24	Scott.Hamey	28-Jun-2021 10:24		Electric Qua...	DJI	Valid



The administrator can view the flight details in below format:

RPAS-AIRM-SIM-DRO-00007-D2C0    Date: 12 Oct 21    RPAS S.no: 88855232  
 Organisation: AirMarket - Flight Services    Manufacture Name: SIM    RPAS Type: Electric Quadcopter

Show 50 entries    Search:

FLIGHT ID	PILOT FULLNAME	CREATED BY	CREATED ON	START DATETIME	END DATETIME	RPAS	STATUS
6152	Cale Griffith	airmarket.user	10-Dec-2021 20:01	11-Dec-2021 05:05	11-Dec-2021 05:05	AIRM-SIM-DRO...	
5953	Cale Griffith	Cale.Griffith	26-Oct-2021 18:10	26-Oct-2021 18:10	26-Oct-2021 18:10	AIRM-SIM-DRO...	
5958	Cale Griffith	Cale.Griffith	26-Oct-2021 23:26	26-Oct-2021 23:26	26-Oct-2021 23:26	AIRM-SIM-DRO...	
5961	Cale Griffith	Cale.Griffith	27-Oct-2021 17:50	27-Oct-2021 17:50	27-Oct-2021 17:50	AIRM-SIM-DRO...	
5963	Cale Griffith	Cale.Griffith	27-Oct-2021 17:15	27-Oct-2021 17:15	27-Oct-2021 17:15	AIRM-SIM-DRO...	
5966	Cale Griffith	Cale.Griffith	27-Oct-2021 18:26	27-Oct-2021 18:26	27-Oct-2021 18:26	AIRM-SIM-DRO...	
5967	Cale Griffith	Cale.Griffith	27-Oct-2021 18:08	27-Oct-2021 18:08	27-Oct-2021 18:08	AIRM-SIM-DRO...	
5972	Cale Griffith	Cale.Griffith	27-Oct-2021 22:12	27-Oct-2021 22:12	27-Oct-2021 22:12	AIRM-SIM-DRO...	
5974	Cale Griffith	Cale.Griffith	29-Oct-2021 16:11	29-Oct-2021 16:11	29-Oct-2021 16:11	AIRM-SIM-DRO...	
5986	Cale Griffith	Cale.Griffith	05-Nov-2021 01:27	05-Nov-2021 01:27	05-Nov-2021 01:27	AIRM-SIM-DRO...	
5994	Cale Griffith	Cale.Griffith	05-Nov-2021 01:28	05-Nov-2021 01:28	05-Nov-2021 01:28	AIRM-SIM-DRO...	

## 5.4 Flight Requests

This feature allows the administrator to monitor and manage all the flight requests registered in the system along with its details such as Flight Request ID, Requester Full Name, Created On, Created By, Last Modified On, Last Modified By, Start Date-Time, End Date-Time, Purpose, and Status, etc.

WELCOME ADMIN AIRMARKET | ACCOUNT

HOME | MODULES | 3D FLIGHTMAP | PILOT | REPORTS | ADMIN

DASHBOARD > FLIGHTREQUESTS > FLIGHT REQUEST

Show 50 entries    Search:

FLIGHT REQUEST ID	REQUESTER FULL NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	START DATETIME	END DATETIME	PURPOSE	STATUS
671	Airmarket User	11-Jan-2022	airmarket.user	12-Jan-2022 01:52	airmarket.user	2022-01-13 1...	2022-01-13 1...	Commercial ...	New
670	Airmarket User	02-Jan-2022	airmarket.user	02-Jan-2022 19:04	airmarket.user	2022-01-02 1...	2022-01-02 1...	Commercial ...	New
669	Airmarket User	15-Dec-2021	airmarket.user	15-Dec-2021 21:39	admin.airmarket	2021-12-15 2...	2021-12-15 2...	Test Flight	Approved
668	Airmarket User	10-Dec-2021	airmarket.user	10-Dec-2021 20:01	airmarket.user	2021-12-10 2...	2021-12-10 2...	Test Flight	New
667	Airmarket User	09-Dec-2021	airmarket.user	10-Dec-2021 00:48	airmarket.user	2021-12-09 2...	2021-12-09 2...	Commercial ...	New

The administrator can view the details for that particular flight by clicking on the **View** option in the dropdown menu.

FLIGHT REQUEST ID	REQUESTER FULL NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	START DATETIME	END DATETIME	PURPOSE	STATUS
671	Airmarket User	11-Jan-2022	airmarket.user	12-Jan-2022 01:52	airmarket.user	2022-01-13 1...	2022-01-13 1...	Commercial - ...	<a href="#">View</a>
670	Airmarket User	02-Jan-2022	airmarket.user	02-Jan-2022 19:04	airmarket.user	2022-01-02 1...	2022-01-02 1...	Commercial - ...	<a href="#">View</a>
669	Airmarket User	15-Dec-2021	airmarket.user	15-Dec-2021 21:39	admin.airmarket	2021-12-15 2...	2021-12-15 2...	Test Flight	<a href="#">Process</a>
668	Airmarket User	10-Dec-2021	airmarket.user	10-Dec-2021 20:01	airmarket.user	2021-12-10 2...	2021-12-10 2...	Test Flight	<a href="#">View</a>
667	Airmarket User	09-Dec-2021	airmarket.user	10-Dec-2021 00:48	airmarket.user	2021-12-09 2...	2021-12-09 2...	Commercial - ...	<a href="#">View</a>
666	Airmarket User	26-Nov-2021	airmarket.user	26-Nov-2021 12:24	airmarket.user	2021-12-31 1...	2021-12-31 1...	Commercial - ...	<a href="#">View</a>

After clicking on the **View** option the following details will be displayed to the administrator.

**AirMarket - Flight Services**  
Commercial - Mapping/Survey for Commercial - Mapping/Survey  
13-Jan-2022 - 13-Jan-2022

13-Jan-2022  
12:00 to 12:15

**AirM-DJI-UAVType-02383-0000**  
Cale - MAVIC 2 (DJI Quadcopter)

Cale Griffith  
cale.griffith@airmarket.io  
7806903165  
(Issue: Invalid, Expiry: Invalid)

Start Date & Time: 13-Jan-2022 12:00  
End Date & Time: 13-Jan-2022 12:15  
Height (AGL in m): Take Off: 0 m, Max: 122 m  
Operation Type: Visual Line of Sight (VLOS)  
Camera in Use? Yes  
Coordinates: 53.73730°N 113.03283°W  
53.73727°N 113.03502°W  
53.73855°N 113.03582°W  
53.73848°N 113.09841°W  
53.75532°N 113.00822°W

Map Satellite

Billing **Total: 0.00 CAD**

Insurance (Cost: 0 CAD) **Selected Plan: none**

Fairfax Financial	3.00
Sun Life Financial	2.00
Allianz	4.00

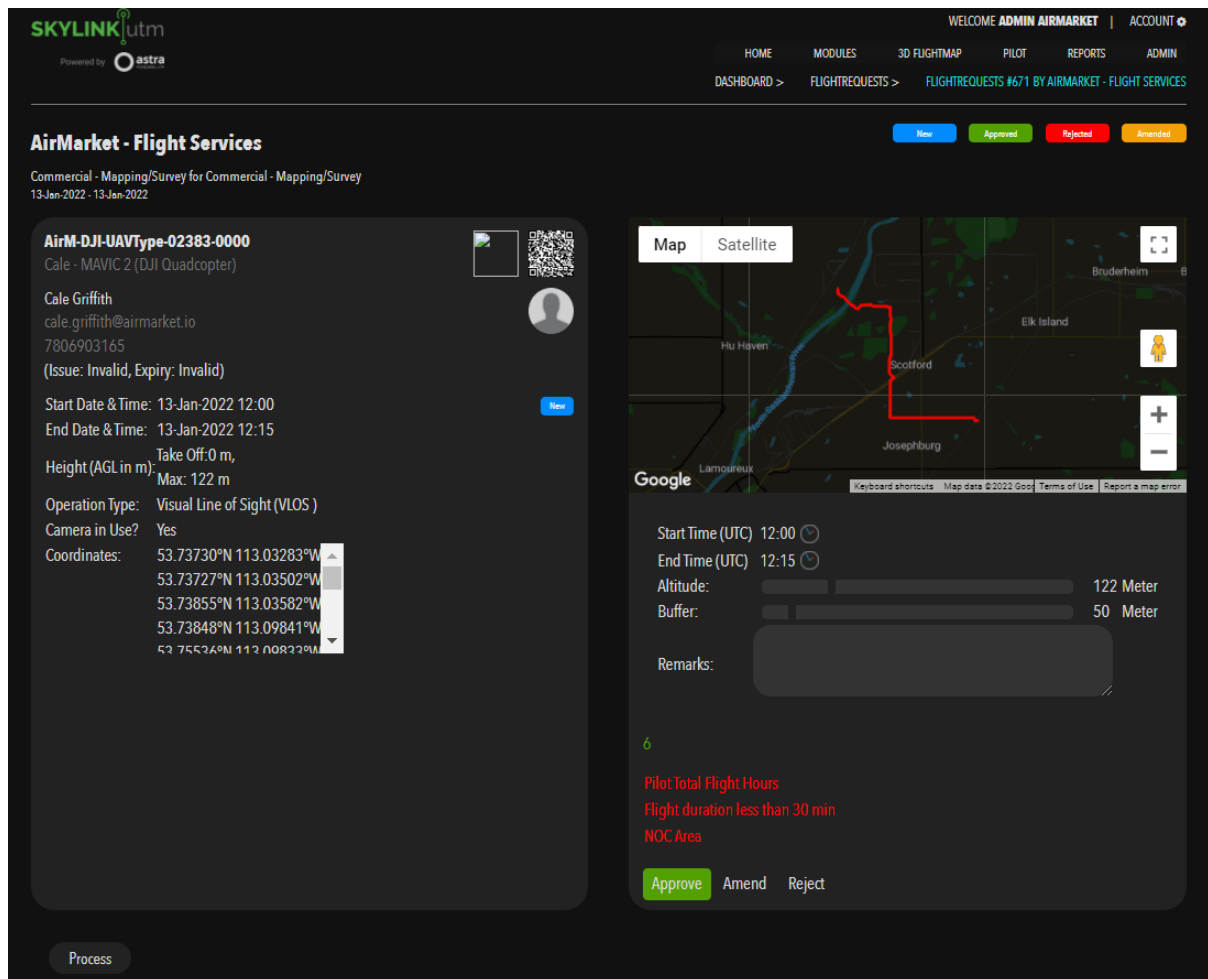
Risk **Total: 6**

Pilot Total Flight Hours	6
Flight duration less than 30 min	6

The administrator can take action on a particular flight request by clicking on the **Process** option in the dropdown menu.

The administrator can click and drag the slider to increase or decrease the Altitude/Buffer, they can enter the remarks for that particular flight request. The actions could be either Approve, Amend or Reject the flight request as shown in the below screen.

After selecting the next action, the administrator can click on the **Process** button to update the status of the flight request to that particular state.



## 5.5 Flights

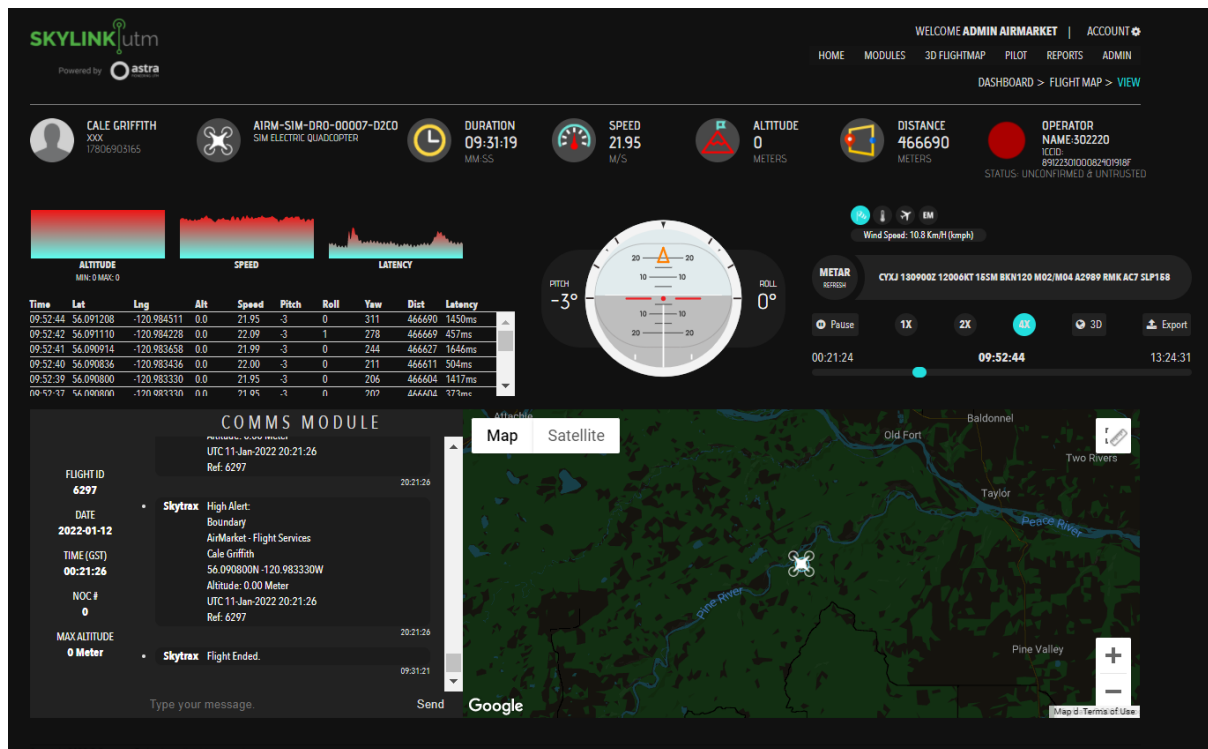
This module allows the administrator to track and monitor the flights that have taken place through the UTM system. It allows them to view the detailed history of the flight with parameters such as Operator Name, Drone Name, Duration, Speed, Altitude, Distance, 2D and 3D Map, METAR, COMMS, and drone's actual movement such as Pitch, Roll, Yaw, etc.

FLIGHT ID	PILOT FULLNAME	CREATED BY	CREATED ON	START DATETIME	END DATETIME	RPAS	STATUS
6190	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 21:44	15-Dec-2021 21:44	AIRM-USI-AT2...	
6191	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 21:51	15-Dec-2021 21:51	AIRM-USI-AT2...	
6192	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 22:04	15-Dec-2021 22:04	AIRM-USI-AT2...	
6193	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 22:34	15-Dec-2021 22:34	AIRM-USI-AT2...	
6194	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 22:45	15-Dec-2021 22:45	AIRM-USI-AT2...	
6195	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 22:48	15-Dec-2021 22:48	AIRM-USI-AT2...	
6196	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 23:05	15-Dec-2021 23:05	AIRM-USI-AT2...	
6197	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 23:16	15-Dec-2021 23:16	AIRM-USI-AT2...	
6198	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 23:27	15-Dec-2021 23:27	AIRM-USI-AT2...	
6152	Cale Griffith	airmarket.user	10-Dec-2021 20:01	11-Dec-2021 05:05	11-Dec-2021 05:05	AIRM-SIM-DRO...	
6155	Cale Griffith	airmarket.user	10-Dec-2021 20:01	11-Dec-2021 01:33	11-Dec-2021 01:33	AIRM-USI-AT1...	
5928	Lindsay Mohr	airmarket.user	22-Oct-2021 19:13	22-Oct-2021 23:26	22-Oct-2021 23:26	AIRM-SIM-DRO...	

The administrator will be able to take the following action on a particular flight:

FLIGHT ID	PILOT FULLNAME	CREATED BY	CREATED ON	START DATETIME	END DATETIME	RPAS	STATUS
6190	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 21:44	15-Dec-2021 21:44	AIRM-USI-AT2...	<ul style="list-style-type: none"> <li>Flight Map</li> <li>Flight Data</li> <li>Flight Videos</li> <li>Post Flight Report</li> </ul>
6191	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 21:51	15-Dec-2021 21:51	AIRM-USI-AT2...	
6192	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 22:04	15-Dec-2021 22:04	AIRM-USI-AT2...	
6193	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 22:34	15-Dec-2021 22:34	AIRM-USI-AT2...	
6194	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 22:45	15-Dec-2021 22:45	AIRM-USI-AT2...	
6195	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 22:48	15-Dec-2021 22:48	AIRM-USI-AT2...	
6196	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 23:05	15-Dec-2021 23:05	AIRM-USI-AT2...	
6197	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 23:16	15-Dec-2021 23:16	AIRM-USI-AT2...	
6198	Cale Griffith	airmarket.user	15-Dec-2021 21:34	15-Dec-2021 23:27	15-Dec-2021 23:27	AIRM-USI-AT2...	
6152	Cale Griffith	airmarket.user	10-Dec-2021 20:01	11-Dec-2021 05:05	11-Dec-2021 05:05	AIRM-SIM-DRO...	
6155	Cale Griffith	airmarket.user	10-Dec-2021 20:01	11-Dec-2021 01:33	11-Dec-2021 01:33	AIRM-USI-AT1...	
5928	Lindsay Mohr	airmarket.user	22-Oct-2021 19:13	22-Oct-2021 23:26	22-Oct-2021 23:26	AIRM-SIM-DRO...	

After clicking on the **Flight Map** option in the dropdown menu, the administrator is able to view the following details for that particular flight.



The above figure shows how the administrator will have all the information related to the flight on one single screen. This information is used to monitor and track drone flight. The details would include the following:

- Ground Station details
- Drone's Information
- Duration of the flight
- Speed
- Altitude
- Distance traveled
- Operator's details
- Altitude, Speed and Latency at the exact location of the drone
- Gyroscope to display the pitch, roll, and yaw, etc
- METAR information for a nearby airport
- Playback speed can be adjusted to 1x, 2x or 4x
- Export the flight details in a .CSV format
- COMMS module
- 2D and 3D flight map

After clicking on the **Flight Data** option in the dropdown menu, the administrator is able to view the data for that flight. That information will contain the fields shown on the below screen.

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HOME MODULES 3D FLIGHTMAP PILOT REPORTS ADMIN

DASHBOARD > FLIGHTS > FLIGHT DATA

RPAS Flight Id:6357    RPAS:AIRM-USI-AT2-02556-26B3    Pilot Name:Lindsay Mohr

Ground Station:Lindsay Mohr    Created By:Lindsay Mohr    Flight Date(UTC):30-Jan-2022 17:52:55

Altitudes
 Satellites
 Pitch
 Roll
 Speed


Show 50 entries    Search:


FLIGHT MAP DATAID	READ TIME	LATITUDE	LONGITUDE	ALTITUDE	SPEED	FIX QUALITY	SATELLITES	PITCH	ROLL	HEADING	TOTAL FLIGHT TIME
29664405	30-Jan-2022 21:52:55	53.55	-113.49	-0.12	0.00	2.00	7	0.00	0.00	254.00	148,752.00
29664404	30-Jan-2022 21:52:53	53.55	-113.49	-52.00	0.00	2.00	8	0.00	0.00	254.00	148,750.00
29664403	30-Jan-2022 21:52:49	53.55	-113.49	-17.00	0.00	2.00	9	0.00	0.00	254.00	148,746.00
29664402	30-Jan-2022 21:52:47	53.55	-113.49	7.00	0.00	2.00	9	0.00	0.00	254.00	148,744.00
29664401	30-Jan-2022 21:52:46	53.55	-113.49	35.00	0.00	2.00	9	0.00	0.00	254.00	148,742.00
29664400	30-Jan-2022 21:52:44	53.55	-113.49	32.00	0.00	2.00	8	0.00	0.00	254.00	148,740.00
29664399	30-Jan-2022 21:52:42	53.55	-113.49	29.00	0.00	2.00	8	0.00	0.00	254.00	148,739.00
29664398	30-Jan-2022 21:52:40	53.55	-113.49	9.00	0.00	2.00	8	0.00	0.00	254.00	148,737.00
29664397	30-Jan-2022 21:52:39	53.55	-113.49	-48.00	0.00	2.00	8	0.00	0.00	254.00	148,735.00
29664396	30-Jan-2022 21:52:37	53.55	-113.49	-54.00	0.00	2.00	8	0.00	0.00	254.00	148,733.00
29664395	30-Jan-2022 21:52:35	53.55	-113.49	-18.00	0.00	2.00	8	0.00	0.00	254.00	148,731.00
29664394	30-Jan-2022 21:52:33	53.55	-113.49	183.00	0.00	2.00	8	0.00	0.00	254.00	148,730.00
29664393	30-Jan-2022 21:52:31	53.55	-113.49	322.00	0.00	2.00	8	0.00	0.00	254.00	148,728.00
29664392	30-Jan-2022 21:52:30	53.55	-113.49	341.00	0.00	2.00	8	0.00	0.00	254.00	148,726.00
29664391	30-Jan-2022 21:52:28	53.55	-113.49	294.00	0.00	2.00	8	0.00	0.00	254.00	148,724.00
29664390	30-Jan-2022 21:52:26	53.55	-113.49	303.00	0.00	2.00	8	0.00	0.00	254.00	148,722.00
29664389	30-Jan-2022 21:52:24	53.55	-113.49	311.00	0.00	2.00	8	0.00	0.00	254.00	148,721.00
29664388	30-Jan-2022 21:52:22	53.55	-113.49	351.00	0.00	2.00	8	0.00	0.00	254.00	148,719.00
29664387	30-Jan-2022 21:52:21	53.55	-113.49	418.00	0.00	2.00	8	0.00	0.00	254.00	148,717.00
29664386	30-Jan-2022 21:52:19	53.55	-113.49	427.00	0.00	2.00	8	0.00	0.00	254.00	148,715.00
29664385	30-Jan-2022 21:52:17	53.55	-113.49	448.00	0.00	2.00	8	0.00	0.00	254.00	148,714.00
29664384	29-Jan-2022 04:33:56	53.55	-113.49	517.00	0.00	2.00	8	0.00	0.00	254.00	13.00
29664383	29-Jan-2022 04:33:55	53.55	-113.49	406.00	0.00	2.00	8	0.00	0.00	254.00	11.00
29664382	29-Jan-2022 04:33:53	53.55	-113.49	320.00	0.00	2.00	8	0.00	0.00	254.00	9.00
29664381	29-Jan-2022 04:33:51	53.55	-113.49	203.00	0.00	2.00	9	0.00	0.00	254.00	7.00
29664380	29-Jan-2022 04:33:49	53.55	-113.49	115.00	0.00	2.00	9	0.00	0.00	254.00	6.00
29664379	29-Jan-2022 04:33:47	53.55	-113.49	20.00	0.00	2.00	9	0.00	0.00	254.00	4.00
29664378	29-Jan-2022 04:33:46	53.55	-113.49	38.00	0.00	2.00	9	0.00	0.00	254.00	2.00
29664377	29-Jan-2022 04:33:44	53.55	-113.49	46.00	0.00	2.00	9	0.00	0.00	254.00	0.00

FLIGHT MAP DATAID
READ TIME
LATITUDE
LONGITUDE
ALTITUDE
SPEED
FIX QUALITY
SATELLITES
PITCH
ROLL
HEADING
TOTAL FLIGHT TIME

Previous 1 Next

After clicking on the **Post Flight Report** option in the dropdown menu, the system will download a .pdf file that contains the status report for that particular flight. The flight report will be in the following format as shown below:



Powered by 

Post Flight Report -  
**#6361**  
AIRM-SIM-DRO-00003-26B4

---

### Basic Flight Information

Pilot: Eduardo Dorado      Ground Staff: Eduardo Dorado  
 Created On (UTC): 30-Jan-2022 08:46 PM      Flight Date (UTC): 31-Jan-2022 07:18 AM


### Flight Summary

General	Speed (M/S)	Altitude (Meters)	Satellites
Flight Time : 10:31:45 (HH:MM:SS)	Average : 0.46	Average : 75.73	Minimum : 0.00
Distance : 16549.00 Meters	Maximum : 33.57	Maximum : 930.00	Maximum : 10.00

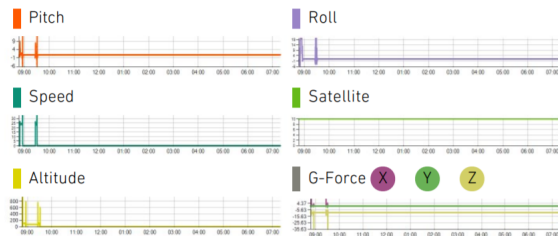
### Weather

Condition:      Wind : 0.00 kph      Humidity: 0 %  
 Visibility: 0.00 kilometers      Pressure: 0 millibars      Temperature: 0 Degree Celsius

### Flight Track



### Flight Chart

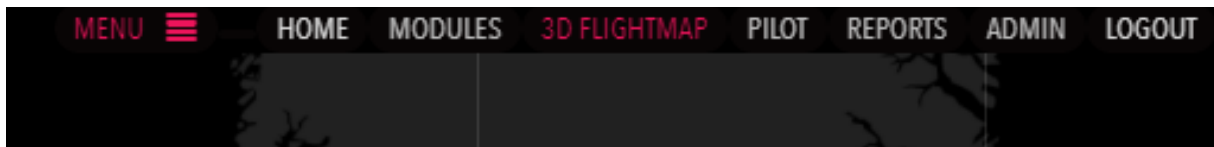


### Warning/Alerts

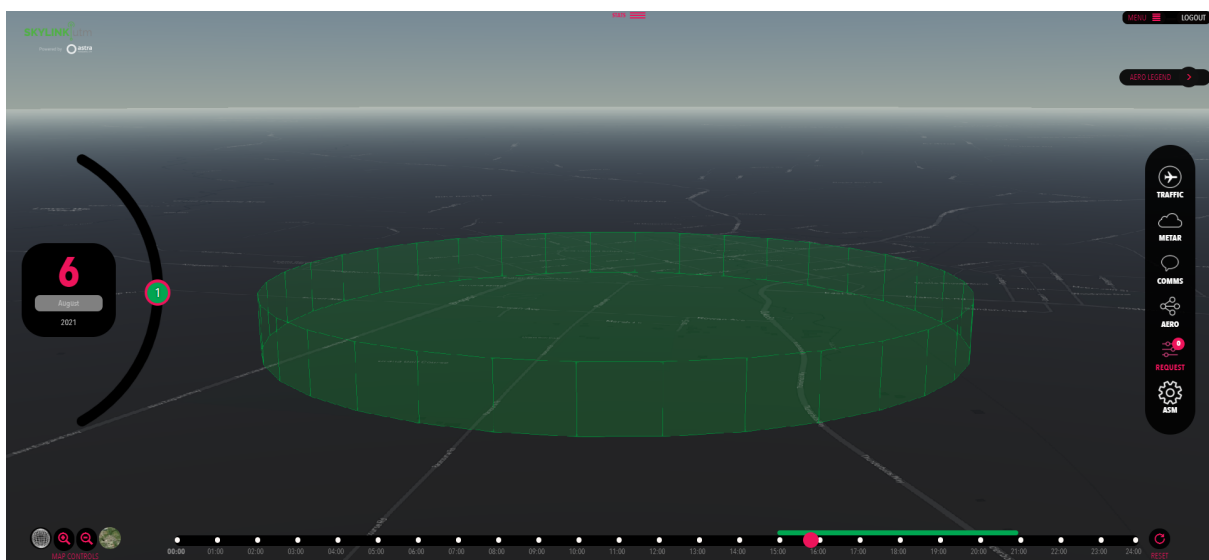
Date & Time (UTC)	Category	Level	Latitude	Longitude	Altitude (Meter)
30-Jan-2022 20:46:45	Boundary	Critical	53.73664N	-113.02081W	0
30-Jan-2022 20:46:45	Boundary	High	53.73664N	-113.02081W	0
30-Jan-2022 20:46:45	Altitude	Critical	53.73664N	-113.02081W	400
30-Jan-2022 20:46:45	Altitude	Critical	53.73662N	-113.02082W	810
30-Jan-2022 20:46:45	Altitude	Critical	53.73862N	-113.02256W	41
30-Jan-2022 20:46:45	Altitude	Critical	53.73620N	-113.02027W	46
30-Jan-2022 20:46:45	Altitude	Critical	53.73665N	-113.02081W	780
30-Jan-2022 20:46:45	Altitude	Critical	53.73664N	-113.02080W	760
30-Jan-2022 20:46:45	Altitude	Critical	53.73664N	-113.02081W	320
30-Jan-2022 20:46:45	Altitude	Critical	53.73863N	-113.02255W	41
30-Jan-2022 20:46:45	Altitude	Critical	53.73622N	-113.02032W	46
30-Jan-2022 20:46:45	Altitude	Critical	53.73665N	-113.02081W	600

## 5.6 3D Flight Map

This feature allows the administrator to monitor the flight replay in 3D view.



The administrator can click and hold the Ctrl button + left click on the mouse to adjust the viewing angle for that particular flight request. They can also change the map style to satellite view and adjust the zoom level by clicking on the '+' and '-' icons on the bottom left of the screen. They can hover over the Traffic button on the side menu to adjust the playback speed to either 1x, 2x, or 4x.



## 5.7 Pilot Registration

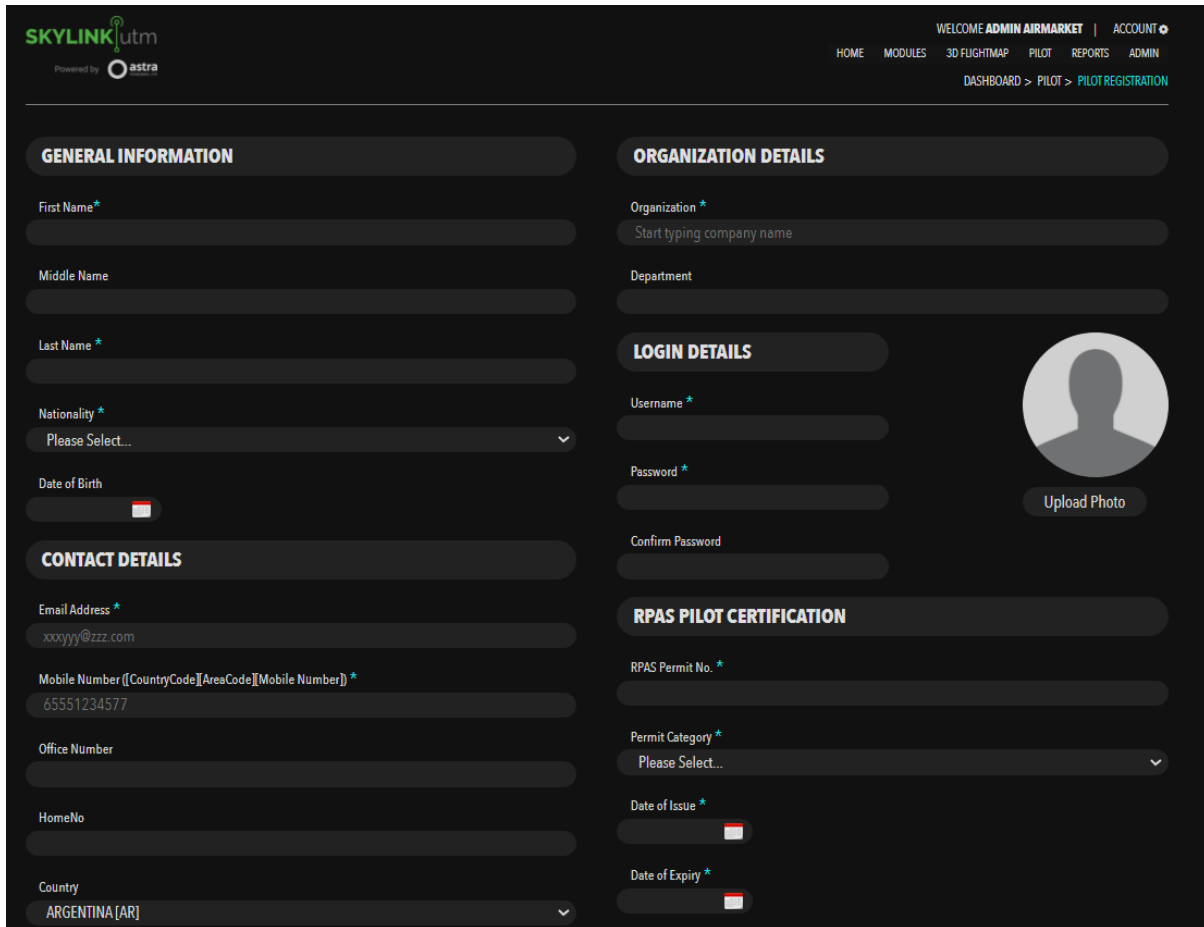
This module enables the administrator to create new pilot users under their organization and allows them to view them in a tabular format containing the details such as Pilot ID, Pilot Full Name, Created On, Created By, Last Modified On, Last Modified By, Permit Type, Expiry Date, Mobile Number, and Status, etc.





### 5.7.1 Pilot Creation

By clicking on the Pilot Registration option in the dropdown menu, the administrator is able to register a new pilot in the system.



The screenshot shows the 'PILOT REGISTRATION' page in the SKYLINK utm system. The page has a dark theme and includes a navigation menu at the top with options like HOME, MODULES, 3D FLIGHTMAP, PILOT, REPORTS, and ADMIN. The current page is 'DASHBOARD > PILOT > PILOT REGISTRATION'. The form is organized into four columns:

- GENERAL INFORMATION:** Fields for First Name\*, Middle Name, Last Name\*, Nationality\* (dropdown), and Date of Birth.
- CONTACT DETAILS:** Fields for Email Address\* (example: xxxyyy@zzz.com), Mobile Number\* (format: [(CountryCode)[AreaCode][Mobile Number]]\*, example: 65551234577), Office Number, HomeNo, and Country (dropdown, currently showing ARGENTINA [AR]).
- ORGANIZATION DETAILS:** Fields for Organization\* (placeholder: Start typing company name) and Department.
- RPAS PILOT CERTIFICATION:** Fields for RPAS Permit No.\*, Permit Category\* (dropdown), Date of Issue\*, and Date of Expiry\*.

Additional features include a 'LOGIN DETAILS' section with Username\*, Password\*, and Confirm Password fields, and a photo upload area with a placeholder image and an 'Upload Photo' button.

The administrator can fill in the above details and click on the **Submit** button, a new pilot user will be created in the system with a unique Pilot ID assigned to it.

## 5.7.2 All Pilots

By clicking on the All Pilots option in the dropdown menu, the administrator is able to view all the pilots that are registered in the system in the below format.

PILOT ID	PILOT FULL NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	PERMIT TYPE	EXPIRY DATE	MOBILE NUMBER	STATUS
1044	Shaun Munro	22-Mar-2021 15:20	internal	22-Mar-2021 15:20	internal	Professional	18-Jan-2021	8732881825	Active
1045	Irfan Ahmed	22-Mar-2021 16:27	internal	22-Mar-2021 16:27	internal	Hobby	01-Mar-2030	+971585586803	Active
83	Skytrax	28-Aug-2018 12:56	internal	28-Aug-2018 12:56	internal	Hobby	12-Dec-2020	393351418069	Active
1009	Abdulsamadca...	19-Aug-2018 18:49	internal	19-Aug-2018 18:49	internal	Commercial	12-Dec-2020	9710000000	Active
1021	Airmarket User	03-Dec-2019 10:14	internal	03-Dec-2019 10:14	internal	Commercial	12-Dec-2020		Active
1022	Geo Joy	05-Dec-2019 09:27	internal	05-Dec-2019 09:27	internal	Commercial	12-Dec-2020	971508753923	Active
1023	Shahbaz Babar	05-Dec-2019 09:34	internal	05-Dec-2019 09:34	internal	Hobby	12-Dec-2020	971505456498	Active
1024	Nabil Urrehman	05-Dec-2019 10:58	internal	05-Dec-2019 10:58	internal	Professional	12-Dec-2020	971559672987	Active
1025	Eduardo Dorado	11-Dec-2019 10:34	internal	11-Dec-2019 10:34	internal	Hobby	12-Dec-2020	971508853923	Active
1026	Muhammad Ja...	11-Dec-2019 10:41	internal	11-Dec-2019 10:41	internal	Hobby	12-Dec-2020	+9715089753923	Active
1027	Imthiyaz Zahur	11-Dec-2019 10:42	internal	11-Dec-2019 10:42	internal	Commercial	12-Dec-2020	050112233	Active
1028	Lindsay Mohr	11-Dec-2019 13:25	internal	11-Dec-2019 13:25	internal	Commercial	12-Dec-2020	17809838584	Active
1038	Cale Griffith	04-Oct-2020 16:37	admin.airmarket	04-Oct-2020 16:37	admin.airmarket	Commercial	04-Oct-2020	17806903165	Active
1039	Dave Kinniburgh	18-Jan-2021 07:58	admin.airmarket	18-Jan-2021 07:58	admin.airmarket	Commercial	18-Jan-2021	17809145751	Active

The administrator can either view more detailed information of the pilot or edit some of the information if required by clicking on the dropdown options mentioned below image:

PILOT ID	PILOT FULL NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	PERMIT TYPE	EXPIRY DATE	MOBILE NUMBER	STATUS
1043	Bob Davies	18-Mar-2021 17:01	admin.airmarket	Invalid		Professional	18-Mar-2021	1(403)808-8607	Active
1009	Abdulsamadca...	19-Aug-2018 18:49	internal	22-Mar-2021 16:27	internal	Hobby	12-Dec-2020	9710000000	Active
1023	Shahbaz Babar	05-Dec-2019 09:34	internal	22-Mar-2021 15:20	internal	Hobby	12-Dec-2020	971505456498	Active
1039	Dave Kinniburgh	18-Jan-2021 07:58	admin.airmarket	03-Dec-2019 10:14	internal	Commercial	18-Jan-2021	17809145751	Active
1021	Airmarket User	03-Dec-2019 10:14	internal	03-Dec-2019 10:14	internal	Commercial	12-Dec-2020		Active
1022	Geo Joy	05-Dec-2019 09:27	internal	05-Dec-2019 09:27	internal	Commercial	12-Dec-2020	971508753923	Active
1023	Shahbaz Babar	05-Dec-2019 09:34	internal	05-Dec-2019 09:34	internal	Hobby	12-Dec-2020	971505456498	Active
1024	Nabil Urrehman	05-Dec-2019 10:58	internal	05-Dec-2019 10:58	internal	Professional	12-Dec-2020	971559672987	Active
1025	Eduardo Dorado	11-Dec-2019 10:34	internal	11-Dec-2019 10:34	internal	Hobby	12-Dec-2020	971508853923	Active
1026	Muhammad Ja...	11-Dec-2019 10:41	internal	11-Dec-2019 10:41	internal	Hobby	12-Dec-2020	+9715089753923	Active
1027	Imthiyaz Zahur	11-Dec-2019 10:42	internal	11-Dec-2019 10:42	internal	Commercial	12-Dec-2020	050112233	Active
1028	Lindsay Mohr	11-Dec-2019 13:25	internal	11-Dec-2019 13:25	internal	Commercial	12-Dec-2020	17809838584	Active
1038	Cale Griffith	04-Oct-2020 16:37	admin.airmarket	04-Oct-2020 16:37	admin.airmarket	Commercial	04-Oct-2020	17806903165	Active
1039	Dave Kinniburgh	18-Jan-2021 07:58	admin.airmarket	18-Jan-2021 07:58	admin.airmarket	Commercial	18-Jan-2021	17809145751	Active

The administrator can view the pilot details by clicking on the **Detail** option in the dropdown menu. The detailed information of a particular pilot will be shown in the below format.

Powered by astra

WELCOME ADMIN AIRMARKET | ACCOUNT

HOME MODULES 3D FLIGHTMAP PILOT REPORTS ADMIN

DASHBOARD > PILOT > BOB DAVIES

**PILOT DETAILS**

Bob Davies  
 Mobile: 1 (403) 808-8607  
 Email: robert.davies@sait.ca

AirMarket - Flight Services  
 Email: admin@airmarket.io  
 Phone: 17804055935

**ID Details**

Drivers License : xxx  
 ID Issuing Authority : Canada  
 Issue Date : 01-Jan-1900  
 Expiry Date : 01-Jan-1900  
 Nationality: Canada  
 Date Of Birth: 01-Jan-1900

**RPAS Permits**

xxx  
 Professional  
 Validity: 18-Mar-2021 to 18-Mar-2021 Expired

Edit
Delete

**RPAS DETAILS**

**AIRM-SIM-DRO-00006-D2BD**  
 am-sim-drone-006  
 SIM

**SAIT-DJI-EX4-00005-D2BE**  
 sait-drone-002  
 Custom Built

**CERTIFICATION DETAILS**

Certification ID:  
 Date: 01-Jan-1900  
 Certifying Institute:  
 Ground Training Score: 0%  
 Ground Instructor: -  
 Flight Training Score: 0.00  
 Flight Instructor: -

**PILOT LOG**

Show 50 entries Search:

FLIGHT	RPAS	DATE	FIXED WING	MULTI-ROTOR	TOTAL
			<b>TOTAL TIME:</b>	<b>00:00:00</b>	<b>00:27:47</b>
3025	SAIT-DJI-EX4-00005-D2BE	28-May-2021 18:14		00:03:33	00:03:33
3086	SAIT-DJI-EX4-00005-D2BE	31-May-2021 00:55		00:24:14	00:24:14
			<b>TOTAL TIME:</b>	<b>00:00:00</b>	<b>00:27:47</b>
FLIGHT	RPAS	DATE	FIXED WING	MULTI-ROTOR	TOTAL

The administrator can edit the pilot details by clicking on the **Edit** option in the dropdown menu. They will be able to edit the information mentioned in the below image.

**SKYLINKutm**  
Powered by **astr**

WELCOME **ADMIN AIRMARKET** | ACCOUNT

HOME MODULES 3D FLIGHTMAP PILOT REPORTS ADMIN

DASHBOARD > PILOT > UPDATE PILOT DETAILS

**PERSONAL INFORMATION**

First Name \*  
Bob

Middle Name

Last Name \*  
Davies

Nationality \*  
Canada

Date of Birth

**CONTACT DETAILS**

Email Address \*  
robert.davies@sait.ca

Mobile Number [(CountryCode][AreaCode][Mobile Number)] \*  
1 (403) 808-8607

Office Number

LandLine Number

Department

Country  
CANADA [CA]

**RPAS PILOT CERTIFICATION**

RPAS Permit No. \*  
XXX

Permit Category \*  
Please Select...

Date of Issue \*  
18-Mar-2021

Date of Expiry \*  
18-Mar-2021

Remarks

Certificate ID

Certificate Date  
01-Jan-1900

Please upload Certification:  
Choose file No file chosen

**LOGIN DETAILS**

Username \*  
Bob.Davies  
*Please leave password files blank, if you do not want to change the current password.*

Password

Confirm Password

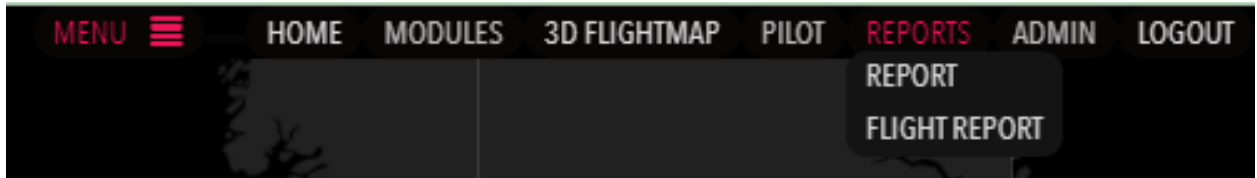
**UAV ASSIGNED TO USER**

	<b>AIRM-SIM-DRO-00001-26B4</b> SIM (Electric Quadcopter)	<input type="checkbox"/>
	<b>AIRM-SIM-TRU-00001-26AD</b> SIM (Truck)	<input type="checkbox"/>

After making the required changes, the administrator can save the changes by clicking on the **Update Pilot** button.

## 5.8 Reports

This feature allows the administrator to view the report of all alerts that were sent to the pilot users via COMMS during the flight. They can either view the list of all the alerts in one single report or the list of alerts for a particular flight.



### 5.8.1 Alerts & Notifications

After clicking on the **Report** option in the dropdown menu, the administrator can see the report of each and every alert message that was sent by the system to the pilot users. The administrator can filter the report based on certain parameters such as Date, RPAS and Pilot, Alert Types. The system is capable of filtering the data based on the input parameters received by the administrator.

WELCOME ADMIN AIRMARKET | ACCOUNT

HOME MODULES 3D FLIGHTMAP PILOT REPORTS ADMIN

DASHBOARD > REPORT > ALERT REPORT

**DATE FILTER**

From Date: 22-Dec-2021

To Date: 21-Jan-2022

**RPAS & PILOT**

Pilot:

RPAS:

**ALERT TYPES**

- Proximity
- Boundary
- Altitude
- NoFlyZone
- Airline Proximity

Apply Filter

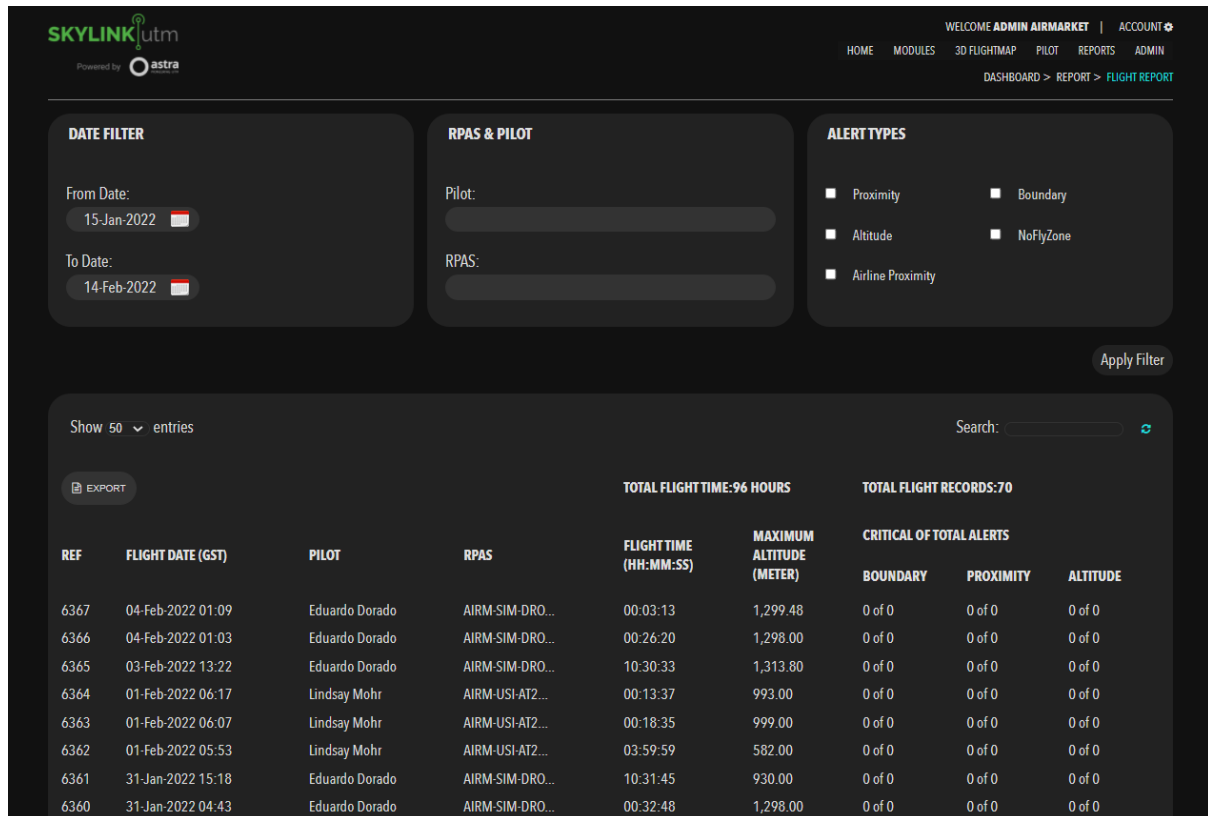
Show 50 entries

Search:

ALERTID	FLIGHTID	CREATED ON	RPAS	PILOT	SMS	ALERT CATEGORY	ALERT TYPE	LATITUDE	LONGITUDE	ALTITUDE
52613	6297	12-Jan-2022 04:21	AIRM-SIM-DRO...	Cale Griffith	No	Boundary	High	56.090800	-120.983330	0
52612	6297	12-Jan-2022 04:21	AIRM-SIM-DRO...	Cale Griffith	No	Boundary	Critical	56.090800	-120.983330	0
52611	6296	11-Jan-2022 04:54	AIRM-USI-AT2...	Lindsay Mohr	No	Altitude	Critical	20.702118	-103.355162	218
52610	6296	11-Jan-2022 04:51	AIRM-USI-AT2...	Lindsay Mohr	No	Altitude	Critical	20.702115	-103.355153	905
52609	6296	11-Jan-2022 04:50	AIRM-USI-AT2...	Lindsay Mohr	No	Altitude	Critical	20.702128	-103.355166	975
52608	6296	11-Jan-2022 03:42	AIRM-USI-AT2...	Lindsay Mohr	No	Altitude	Critical	20.702113	-103.355173	971
52607	6296	11-Jan-2022 03:42	AIRM-USI-AT2...	Lindsay Mohr	No	Altitude	Critical	20.702111	-103.355178	991
52606	6296	11-Jan-2022 03:42	AIRM-USI-AT2...	Lindsay Mohr	No	Altitude	Critical	20.702107	-103.355182	958
52605	6296	11-Jan-2022 03:41	AIRM-USI-AT2...	Lindsay Mohr	No	Altitude	Critical	20.702109	-103.355188	993

## 5.8.2 Flight Reports

After clicking on the **Flight Report** option in the dropdown menu, the administrator can see the report of alerts for a particular flight. The administrator can filter the report based on certain parameters such as Date, RPAS and Pilot, Alert Types. The system is capable of filtering the data based on the input parameters received by the administrator.



The screenshot shows the SKYLINK utm interface for flight reports. At the top, there is a navigation bar with links for HOME, MODULES, 3D FLIGHTMAP, PILOT, REPORTS, and ADMIN. The current page is identified as DASHBOARD > REPORT > FLIGHT REPORT. Below the navigation, there are three filter panels: DATE FILTER (with From Date: 15-Jan-2022 and To Date: 14-Feb-2022), RPAS & PILOT (with Pilot and RPAS input fields), and ALERT TYPES (with checkboxes for Proximity, Boundary, Altitude, NoFlyZone, and Airline Proximity). An 'Apply Filter' button is located to the right of the filter panels. Below the filters, there is a table of flight records. The table has columns for REF, FLIGHT DATE (GST), PILOT, RPAS, FLIGHT TIME (HH:MM:SS), MAXIMUM ALTITUDE (METER), and CRITICAL OF TOTAL ALERTS (BOUNDARY, PROXIMITY, ALTITUDE). The table shows 70 total flight records and 96 total flight hours. The data rows are as follows:

REF	FLIGHT DATE (GST)	PILOT	RPAS	FLIGHT TIME (HH:MM:SS)	MAXIMUM ALTITUDE (METER)	CRITICAL OF TOTAL ALERTS		
						BOUNDARY	PROXIMITY	ALTITUDE
6367	04-Feb-2022 01:09	Eduardo Dorado	AIRM-SIM-DRO...	00:03:13	1,299.48	0 of 0	0 of 0	0 of 0
6366	04-Feb-2022 01:03	Eduardo Dorado	AIRM-SIM-DRO...	00:26:20	1,298.00	0 of 0	0 of 0	0 of 0
6365	03-Feb-2022 13:22	Eduardo Dorado	AIRM-SIM-DRO...	10:30:33	1,313.80	0 of 0	0 of 0	0 of 0
6364	01-Feb-2022 06:17	Lindsay Mohr	AIRM-USI-AT2...	00:13:37	993.00	0 of 0	0 of 0	0 of 0
6363	01-Feb-2022 06:07	Lindsay Mohr	AIRM-USI-AT2...	00:18:35	999.00	0 of 0	0 of 0	0 of 0
6362	01-Feb-2022 05:53	Lindsay Mohr	AIRM-USI-AT2...	03:59:59	582.00	0 of 0	0 of 0	0 of 0
6361	31-Jan-2022 15:18	Eduardo Dorado	AIRM-SIM-DRO...	10:31:45	930.00	0 of 0	0 of 0	0 of 0
6360	31-Jan-2022 04:43	Eduardo Dorado	AIRM-SIM-DRO...	00:32:48	1,298.00	0 of 0	0 of 0	0 of 0

The administrator has three options for each report:

- Flight Map
- Post Flight Report
- Export CSV

WELCOME ADMIN AIRMARKET | ACCOUNT

HOME MODULES 3D FLIGHTMAP PILOT REPORTS ADMIN

DASHBOARD > REPORT > FLIGHT REPORT

**DATE FILTER**

From Date: 22-Dec-2021

To Date: 21-Jan-2022

**RPAS & PILOT**

Pilot:

RPAS:

**ALERT TYPES**

- Proximity
- Boundary
- Altitude
- NoFlyZone
- Airline Proximity

Apply Filter

Show 50 entries Search:

EXPORT TOTAL FLIGHT TIME: 292 HOURS TOTAL FLIGHT RECORDS: 51

REF	FLIGHT DATE (GST)	PILOT	RPAS	FLIGHT TIME (HH:MM:SS)	MAXIMUM ALTITUDE (METER)	CRITICAL OF TOTAL ALERTS		
						BOUNDARY	PROXIMITY	ALTITUDE
6297	13-Jan-2022 17:24	Cale Griffith	AIRM-SIM-DRO...	13:03:06	0.00	0 of 0	0 of 0	0 of 0
6296	11-Jan-2022 14:03	Lindsay Mohr	AIRM-USI-AT2...	10:37:15	999.00	0 of 0	0 of 0	Flight Map
6295	10-Jan-2022 01:09	Lindsay Mohr	AIRM-USI-AT2...	03:49:41	992.00	0 of 0	0 of 0	Post Flight Report
6294	12-Jan-2022 04:21	Cale Griffith	AIRM-SIM-DRO...	15:43:54	0.00	0 of 0	0 of 0	Export-CSV
6293	06-Jan-2022 11:29	Eduardo Dorado	AIRM-SIM-DRO...	10:29:48	1,307.76	0 of 0	0 of 0	0 of 0

After clicking on the **Flight Map** option in the dropdown menu, the administrator is able to view the following details for that particular flight.




The above figure shows how the administrator will have all the information related to the flight on one single screen. This information would be used to monitor and track the drone flight. The details would include the following:


- Ground Station details
- Drone's Information
- Duration of the flight
- Speed
- Altitude
- Distance traveled
- Operator's details
- Altitude, Speed and Latency at the exact location of the drone
- Gyroscope to display the pitch, roll, and yaw, etc
- METAR information for a nearby airport
- Playback speed can be adjusted to 1x, 2x or 4x
- Export the flight details in a .CSV format
- COMMS module
- 2D and 3D flight map



After clicking on the **Post Flight Report** option in the dropdown menu, the system will download a .pdf file that contains the status report for that particular flight.

The flight report will be in the following format as shown below:



Powered by 

**Post Flight Report - #6361**  
AIRM-SIM-DRO-00003-26B4

---

### Basic Flight Information

Pilot: Eduardo Dorado      Ground Staff: Eduardo Dorado  
 Created On (UTC) 30-Jan-2022 08:46 PM      Flight Date (UTC): 31-Jan-2022 07:18 AM


### Flight Summary

General	Speed (M/S)	Altitude (Meters)	Satellites
Flight Time : 10:31:45 (HH:MM:SS)	Average : 0.46	Average : 75.73	Minimum : 0.00
Distance : 16549.00 Meters	Maximum : 33.57	Maximum : 930.00	Maximum : 10.00


### Weather

Condition:      Wind : 0.00 kph      Humidity: 0 %  
 Visibility: 0.00 kilometers      Pressure: 0 millibars      Temperature: 0 Degree Celsius

### Flight Track



### Flight Chart



### Warning/Alerts

Date & Time (UTC)	Category	Level	Latitude	Longitude	Altitude (Meter)
30-Jan-2022 20:46:45	Boundary	Critical	53.73664N	-113.02081W	0
30-Jan-2022 20:46:45	Boundary	High	53.73664N	-113.02081W	0
30-Jan-2022 20:46:45	Altitude	Critical	53.73664N	-113.02081W	400
30-Jan-2022 20:46:45	Altitude	Critical	53.73662N	-113.02082W	810
30-Jan-2022 20:46:45	Altitude	Critical	53.73862N	-113.02256W	41
30-Jan-2022 20:46:45	Altitude	Critical	53.73620N	-113.02027W	46
30-Jan-2022 20:46:45	Altitude	Critical	53.73665N	-113.02081W	780
30-Jan-2022 20:46:45	Altitude	Critical	53.73664N	-113.02080W	760
30-Jan-2022 20:46:45	Altitude	Critical	53.73664N	-113.02081W	320
30-Jan-2022 20:46:45	Altitude	Critical	53.73863N	-113.02255W	41
30-Jan-2022 20:46:45	Altitude	Critical	53.73622N	-113.02032W	46
30-Jan-2022 20:46:45	Altitude	Critical	53.73665N	-113.02081W	600

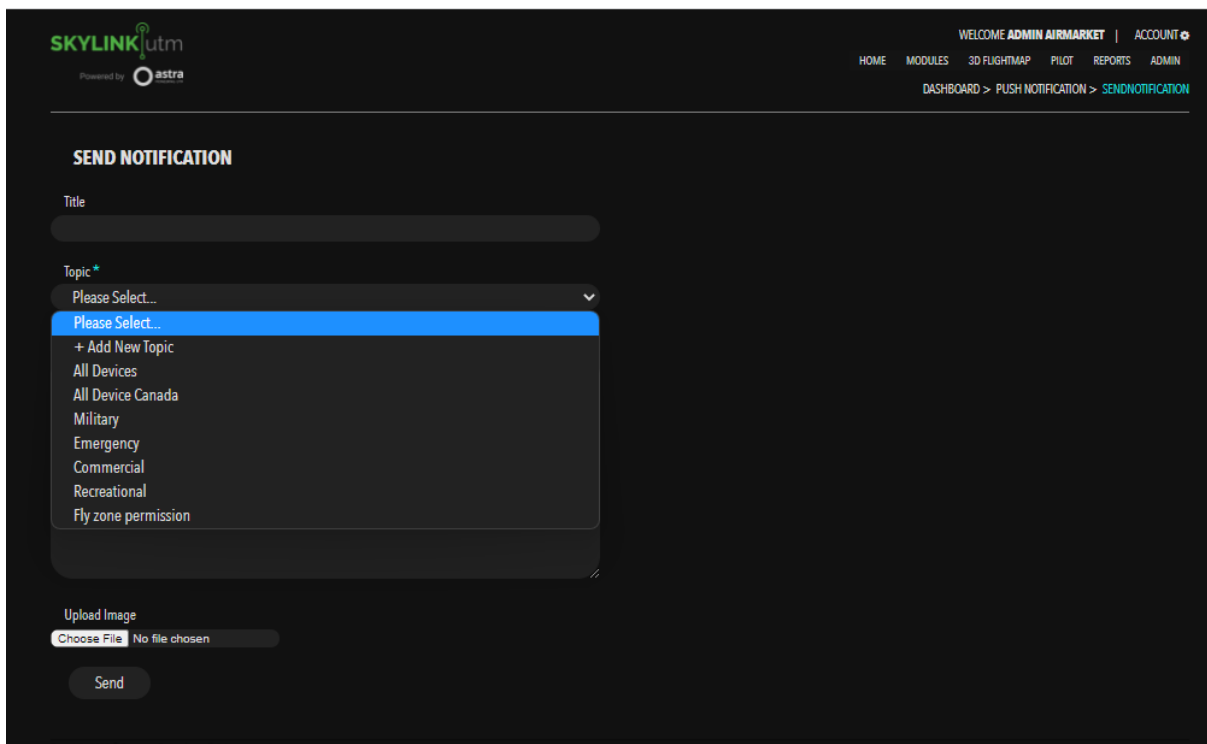
## 6 Administration

This module enables the administrator to send broadcast messages to the users, allowing them to create new users/accounts and view the list of all the users/pilots/accounts in the system.



### 6.1 Notifications

After clicking on the **Notifications** option in the dropdown menu, the administrator will be able to see the below screen and send broadcast messages to the users.



The administrator can fill in the following details:

- Title
- Topic
- Description
- Upload Image

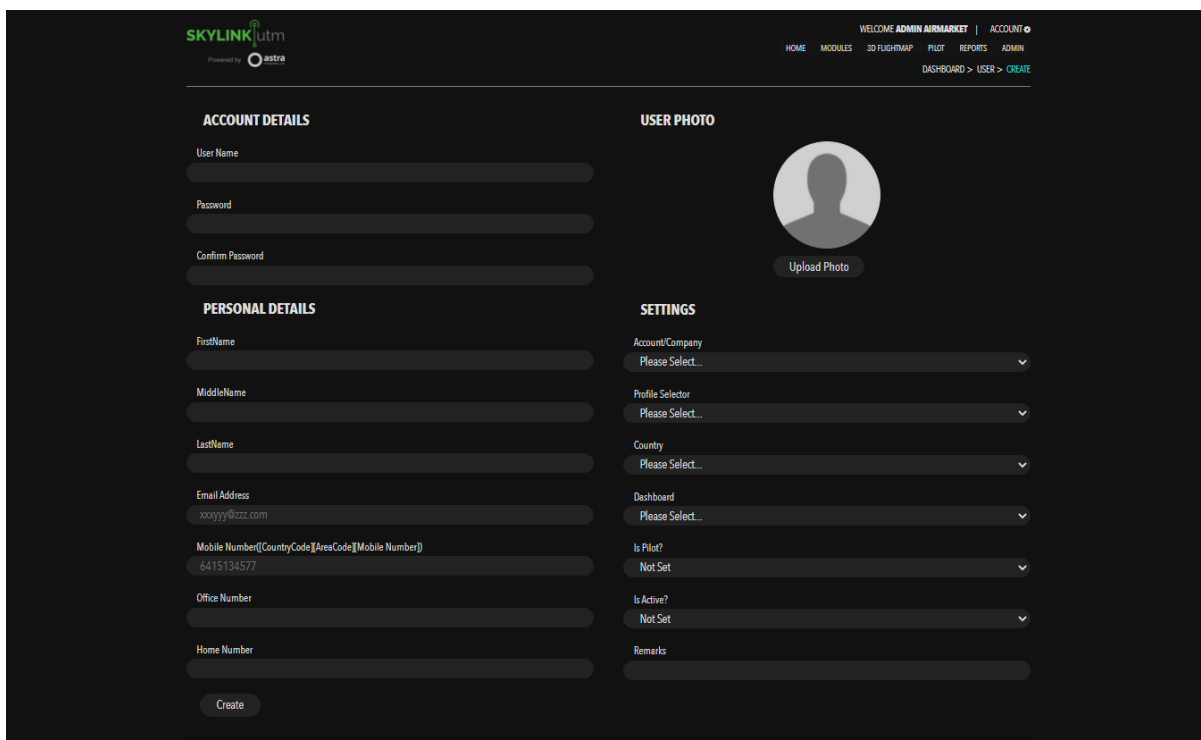
After entering the desired input, the administrator can click on the **Send** button. The administrator gets the confirmation that the message has been sent successfully to the selected recipients.

## 6.2 User Creation

This feature allows the administrator to create different types of user in the system that includes Admin users, Operator Admin users, Pilot users, Customer support agents, etc. The administrator is also able to define the access level for each user type.



After clicking on the **User Creation** option in the dropdown menu, the administrator will be able to create new users in the system by entering the details mentioned in the below image.



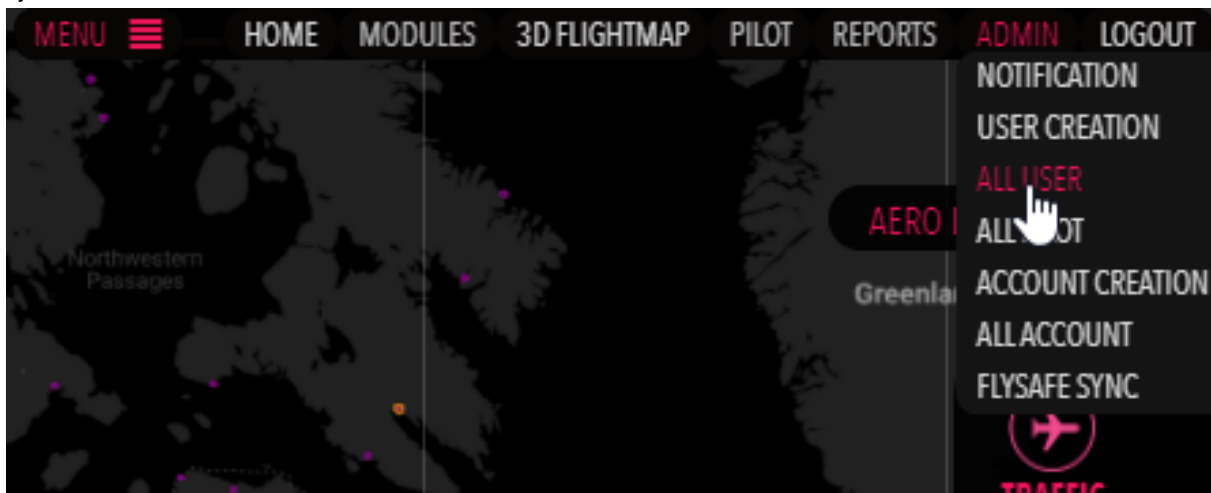
The administrator needs to fill the below fields:

- Username
- Password
- Confirm Password
- First Name
- Middle Name
- Last Name
- Email Address
- Mobile Number
- Office Number
- Home Number
- Upload Image
- Account/Company
- Profile Selector
- Country
- Dashboard
- Is Pilot
- Is Active
- Remarks

After filling in the above details, the administrator can click on the **Create** button and a new user would be created in the system.

### 6.3 All Users

This feature allows the administrator to view the list of all the users registered in the system.



After clicking on the **All User** option in the dropdown menu, the administrator is able to view the users with the following details:

- User ID
- Username
- User Fullname
- Created On
- Created By
- Last Modified On
- Last Modified By
- Mobile No
- Email ID
- User Type
- Login Status

USER ID	USER NAME	USER FULL NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	MOBILE NO	EMAIL ID	USER TYPE	LOGIN STATUS
1045	irfan.ahmed@...	Irfan Ahmed	22-Mar-2021 16:27	internal	22-Mar-2021 16:27	internal	+971585586803	irfan.ahmed@...	RECREATIONAL	Active
1044	shaun.munro@...	Shaun Munro	22-Mar-2021 15:20	internal	22-Mar-2021 15:20	internal	8732881825	shaun.munro@...	COMMERCIAL	Active
1021	airmarket.user	Airmarket User	03-Dec-2019 10:14	internal	03-Dec-2019 10:14	internal		pilot01@airm...	COMMERCIAL	Active
1022	Geo.Joy	Geo.Joy	05-Dec-2019 09:27	internal	11-Dec-2019 10:34		971508753923	geo.joy@expo...	COMMERCIAL	Active
1023	Shahbaz.Babar	Shahbaz Babar	05-Dec-2019 09:34	internal	11-Dec-2019 10:41		971505456498	shahbaz.baba...	COMMERCIAL	Active
1024	Nabil.Urrehman	Nabil Urrehman	05-Dec-2019 10:58	internal	11-Dec-2019 10:42		971559672987	Nabil.Urrehm...	COMMERCIAL	Active
1025	Eduardo	Eduardo Dorado	11-Dec-2019 10:34	internal	11-Dec-2019 13:25		971508853923	eduardo.dora...	COMMERCIAL	Active
1026	Jamaal	Muhammad J...	11-Dec-2019 10:41	internal	04-Aug-2020 12:18		+971 5089753923	m.jamaal@exp...	COMMERCIAL	Active
1027	Imthiyaz	Imthiyaz Zahur	11-Dec-2019 10:42	internal	04-Aug-2020 12:21		050112233	imthiyaz.zah...	COMMERCIAL	Active
1028	Lindsay.Mohr	Lindsay Jame...	11-Dec-2019 13:25	internal	04-Aug-2020 12:37		17809838584	lindsay.mohr...	COMMERCIAL	Active

The administrator can take the following actions for a particular user such as viewing the detailed information, editing the information, or deleting the user from the system.

USER ID	USER NAME	USER FULL NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	MOBILE NO	EMAIL ID	USER TYPE	LOGIN STATUS
1045	irfan.ahmed@...	Irfan Ahmed	22-Mar-2021 16:27	internal	22-Mar-2021 16:27	internal	+971585586803	irfan.ahmed@...	RECREATIONAL	Active
1044	shaun.munro@...	Shaun Munro	22-Mar-2021 15:20	internal	22-Mar-2021 15:20	internal	8732881825	shaun.munro@...	COMMERCIAL	Detail
1021	airmarket.user	Airmarket User	03-Dec-2019 10:14	internal	03-Dec-2019 10:14	internal		pilot01@airm...	COMMERCIAL	Edit
1022	Geo.Joy	Geo.Joy	05-Dec-2019 09:27	internal	05-Dec-2019 09:27		971508753923	geo.joy@expo...	COMMERCIAL	Delete
1023	Shahbaz.Babar	Shahbaz Babar	05-Dec-2019 09:34	internal	05-Dec-2019 09:34		971505456498	shahbaz.baba...	COMMERCIAL	Active
1024	Nabil.Urrehman	Nabil Urrehman	05-Dec-2019 10:58	internal	05-Dec-2019 10:58		971559672987	Nabil.Urrehm...	COMMERCIAL	Active
1025	Eduardo	Eduardo Dorado	11-Dec-2019 10:34	internal	11-Dec-2019 10:34		971508853923	eduardo.dora...	COMMERCIAL	Active
1026	Jamaal	Muhammad J...	11-Dec-2019 10:41	internal	11-Dec-2019 10:41		+971 5089753923	m.jamaal@exp...	COMMERCIAL	Active
1027	Imthiyaz	Imthiyaz Zahur	11-Dec-2019 10:42	internal	11-Dec-2019 10:42		050112233	imthiyaz.zah...	COMMERCIAL	Active

The administrator can click on the **Detail** option in the dropdown menu to view the details of that particular user in the below format:

The screenshot shows a user profile page for 'Unmanned Life' in the SKYLINKutm system. The page is divided into three main sections: PILOT DETAILS, RPAS DETAILS, and CERTIFICATION DETAILS. Below these is a table of flight records.

**PILOT DETAILS**

- Unmanned Life
- Mobile:
- Email: unmannedlife@airmarket.io
- Unmanned Life
- Email: admin@airmarket.io
- Phone: 7807806666

**ID Details**

**RPAS Permits**

- Commercial
- Validity: 28-Oct-2021 to 28-Oct-2021 Expired

**CERTIFICATION DETAILS**

- Certification ID:
- Date:
- Certifying Institute:
- Ground Training Score: %
- Ground Instructor: -
- Flight Training Score: 0.00
- Flight Instructor: -

**Flight Records Table**

Show 50 entries

FLIGHT	RPAS	DATE	FIXED WING	MULTI-ROTOR	TOTAL
			<b>TOTAL TIME:</b>	<b>00:00:00</b>	<b>00:00:00</b>
3158	EXTS-EXP-13-02199-0406	10-Jun-2021 10:57		00:01:10	00:01:10
3159	EXTS-EXP-13-02199-0406	10-Jun-2021 11:04		00:04:53	00:04:53
5978	ARMK-DJI-F6-02857-D2C3	28-Oct-2021 16:42		00:03:02	00:03:02
555	AIRM-SIM-TRU-00001-26AD	03-Sep-2020 09:53		00:00:33	00:00:33
556	AIRM-SIM-TRU-00001-26AD	03-Sep-2020 09:59		00:01:54	00:01:54
557	AIRM-SIM-TRU-00001-26AD	03-Sep-2020 10:10		00:10:01	00:10:01
5885	AirM-DJI-UAVType-02312-0000	14-Oct-2021 22:21		00:33:31	00:33:31

The administrator can click on the **Edit** option in the dropdown menu to edit the details of that particular user. They can edit the following information as shown in the below image:

The screenshot displays the 'MODIFY USER INFORMATION' page in the SKYLINKutm system. The interface is dark-themed and includes a top navigation bar with the user's name 'ADMIN AIRMARKET' and an 'ACCOUNT' menu. The breadcrumb trail shows 'DASHBOARD > USER > MODIFY USER INFORMATION'.

The form is organized into several sections:

- PERSONAL DETAILS:** Includes fields for 'FirstName' (Unmanned), 'MiddleName', 'LastName' (Life), 'Email Address' (unmannedlife@airmarket.io), 'MobileNo', 'Office Number', and 'Home Number'.
- CHANGE PASSWORD:** Includes 'Password' and 'Confirm Password' fields, and an 'Upload Photo' button.
- RPAS INFORMATION:** Includes 'EmiratesID', 'RPASPermitNo', 'PermitCategory' (a dropdown menu currently showing 'Please Select...'), 'ContactAddress', 'RegRPASerialNo', 'CompanyAddress', 'CompanyTelephone', and 'CompanyEmail'.
- SETTINGS:** Includes 'Account/Company' (Unmanned Life), 'Profile Selector' (Please Select...), 'Country' (CANADA [CA]), 'Dashboard' (UserDashboard), and two toggle switches for 'Is Active?' and 'Is Pilot?' (both currently set to 'Yes'). There is also a 'Remarks' text area.
- PILOT DETAILS:** Includes 'Emirates ID', 'Passport No', 'Date Of Expiry' (1/1/1900 12:00), 'Department', and 'Title'.

An 'Update' button is located at the bottom left of the form.

After editing the desired information, the administrator can click on the **Update** button to save the changes.

After clicking on the **Delete** option in the dropdown menu, the administrator will be able to delete the particular user from the system.

USER ID	USER NAME	USER FULL NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	MOBILE NO	EMAIL ID	USER TYPE	LOGIN STATUS
1045	irfan.ahmed@...	Irfan Ahmed	22-Mar-2021 16:27	internal	22-Mar-2021 16:27	internal	+971585586803	irfan.ahmed@...	RECREATIONAL	Active
1044	shaun.munro@...	Shaun Munro	22-Mar-2021 15:20	internal	22-Mar-2021 15:20	internal	8732881825	shaun.munro@...	COMMERCIAL	Detail
1021	airmarket.user	Airmarket User	03-Dec-2019 10:14	internal	03-Dec-2019 10:14	internal		pilot01@airm...	COMMERCIAL	Edit
1022	Geo.Joy	Geo Joy	05-Dec-2019 09:27	internal	Invalid		971508753923	geo.joy@expo...	COMMERCIAL	Delete
1023	Shahbaz Babar	Shahbaz Babar	05-Dec-2019 09:34	internal	Invalid		971505456498	shahbaz.baba...	COMMERCIAL	Active

### 6.4 All Pilots

This feature allows the administrator to view the list of all the pilots that are registered in the system.



After clicking on the **All Pilot** option in the dropdown menu, the administrator can view the list of pilots with the following details:

- Username
- First Name
- Mobile Number
- Profile Name



SKYLINKutm  
Powered by

WELCOME ADMIN AIRMARKET | ACCOUNT

HOME MODULES 3D FLIGHTMAP PILOT REPORTS ADMIN

DASHBOARD > USER > PILOT DETAILS

Show 50 entries Search:

USER NAME	FIRST NAME	MOBILE NO	PROFILE NAME
Dave.Kinniburgh	Dave	17809145751	Pilot
Skytrax	Skytrax	393351418069	Pilot
Abdulsamad	Abdulsamadcale	9710000000	Pilot
Shahbaz.Babar	Shahbaz	971505456498	Pilot
Nabil.Urrehman	Nabil	971559672987	Pilot
Eduardo	Eduardo	971508853923	Pilot
Jamaal	Muhammad	+971 5089753923	Pilot
Imthiyaz	Imthiyaz	050112233	Pilot
Lindsay.Mohr	Lindsay	17809838584	Pilot
Cale.Griffith	Cale	17806903165	Organisation Admin 2D
airmarket.user	Airmarket		Organisation Admin 2D
Mark.Askey	Mark	+61 4 1040 3014	Organisation Admin 2D
Scott.Hamey	Scott	+61 468 429 945	Organisation Admin 2D
Jia.Children	Jia		Organisation Admin 2D
Bob.Davies	Bob	1 (403) 808-8607	Organisation Admin
Geo.Joy	Geo	971508753923	Organisation Admin
shaun.munro@airmarket.io	Shaun	8732881825	Operator
irfan.ahmed@exponent-ts.com	Irfan	+971585586803	Operator

The administrator can take the following action for a particular pilot such as viewing the detailed information, editing the information or deleting the pilot from the system.

SKYLINKutm  
Powered by

WELCOME ADMIN AIRMARKET | ACCOUNT

HOME MODULES 3D FLIGHTMAP PILOT REPORTS ADMIN


DASHBOARD > USER > PILOT DETAILS


Show 50 entries Search:

USER NAME	FIRST NAME	MOBILE NO	PROFILE NAME
Dave.Kinniburgh	Dave	17809145751	Pilot
Skytrax	Skytrax	393351418069	Pilot
Abdulsamad	Abdulsamadcale	9710000000	Pilot
Shahbaz.Babar	Shahbaz	971505456498	Pilot
Nabil.Urrehman	Nabil	971559672987	Pilot
Eduardo	Eduardo	971508853923	Pilot
Jamaal	Muhammad	+971 5089753923	Pilot
Imthiyaz	Imthiyaz	050112233	Pilot
Lindsay.Mohr	Lindsay	17809838584	Pilot
Cale.Griffith	Cale	17806903165	Organisation Admin 2D
airmarket.user	Airmarket		Organisation Admin 2D
Mark.Askey	Mark	+61 4 1040 3014	Organisation Admin 2D
Scott.Hamey	Scott	+61 468 429 945	Organisation Admin 2D
Jia.Children	Jia		Organisation Admin 2D
Bob.Davies	Bob	1 (403) 808-8607	Organisation Admin
Geo.Joy	Geo	971508753923	Organisation Admin
shaun.munro@airmarket.io	Shaun	8732881825	Operator

Detail  
Edit  
Delete

The administrator can click on the **Detail** option in the dropdown menu to view the details of that particular pilot in the below format:




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WELCOME **ADMIN AIRMARKET** | [ACCOUNT](#)

[HOME](#) [MODULES](#) [3D FLIGHTMAP](#) [PILOT](#) [REPORTS](#) [ADMIN](#)

DASHBOARD > USER > **EDUARDO DORADO**

First Name: Eduardo	Middle Name:	Last Name: Dorado
Home No:	Mobile No: 971508853923	Office No:
User Name: Eduardo	Email Id: eduardo.dorado@exponent-ts.com	Passport No:
Date Of Expiry: 01 Jan 1900	Department:	Nationality Id:



**PILOT LOG DETAILS**

DATE	RPAS	FlightID	Fixed Wing	Multi- Rotor	Asflight Instructor	Pilot In Command
04-Aug-2020		370	0.00	299.00	0.00	299.00
04-Aug-2020		371	0.00	117.00	0.00	117.00
19-Jan-2020		92	0.00	6,410.00	0.00	6,410.00
19-Jan-2020		98	0.00	609.00	0.00	609.00
19-Jan-2020		100	0.00	1,208.00	0.00	1,208.00
19-Jan-2020		101	0.00	476.00	0.00	476.00
20-Jan-2020		102	0.00	1,220.00	0.00	1,220.00
20-Jan-2020		107	0.00	258.00	0.00	258.00
20-Jan-2020		108	0.00	598.00	0.00	598.00
20-Jan-2020		109	0.00	1,020.00	0.00	1,020.00
20-Jan-2020		112	0.00	3,597.00	0.00	3,597.00
20-Jan-2020		117	0.00	156.00	0.00	156.00
20-Jan-2020		118	0.00	7,276.00	0.00	7,276.00
20-Jan-2020		119	0.00	3,600.00	0.00	3,600.00
20-Jan-2020		120	0.00	780.00	0.00	780.00
20-Jan-2020		121	0.00	1,197.00	0.00	1,197.00
23-Jan-2020		128	0.00	416.00	0.00	416.00

The administrator can click on the **Edit** option in the dropdown menu to edit the details of that particular pilot. They can edit the following information as shown in the below image:

The screenshot displays the 'MODIFY USER INFORMATION' page in the SKYLINK UTM system. The page is divided into several sections for editing user data:

- PERSONAL DETAILS:** Includes fields for First Name (Eduardo), Middle Name, Last Name (Dorado), Email Address (eduardo.dorado@exponent-ts.com), Mobile No (971508853923), Office Number, and Home Number.
- CHANGE PASSWORD:** Includes fields for Password and Confirm Password, along with an 'Upload Photo' button and a user profile picture.
- RPAS INFORMATION:** Includes fields for EmiratealD, RPASPermitNo (876273551), PermitCategory (Please Select...), ContactAddress, RegRPASSerialNo, CompanyAddress, CompanyTelephone, and CompanyEmail.
- SETTINGS:** Includes dropdowns for Account/Company (ExponentTS), Profile Selector (Pilot), Country (UNITED ARAB EMIRATES [AE]), and Dashboard (UserDashboard). It also features toggle switches for 'Is Active?' and 'Is Pilot?' (both set to Yes).
- REMARKS:** A text area for additional notes.
- PILOT DETAILS:** Includes fields for Emirates ID, Passport No, Date Of Expiry (1/1/1900 12:00), and Department.

After editing the desired information, the administrator can click on the **Update** button to save the changes.

After clicking on the **Delete** option in the dropdown menu administrator will be able to delete the particular pilot from the system.

WELCOME ADMIN AIRMARKET | ACCOUNT

HOME MODULES 3D FLIGHTMAP PILOT REPORTS ADMIN

DASHBOARD > USER > PILOT DETAILS

Show 50 entries Search:

USER NAME	FIRST NAME	MOBILE NO	PROFILE NAME
Dave.Kinniburgh	Dave	17809145751	Pilot
Skytrax	Skytrax	393351418069	Pilot
Abdulsamad	Abdulsamadcale	9710000000	Pilot
Shahbaz.Babar	Shahbaz	971505456498	Pilot
Nabil.Urrehman	Nabil	971559672987	Pilot

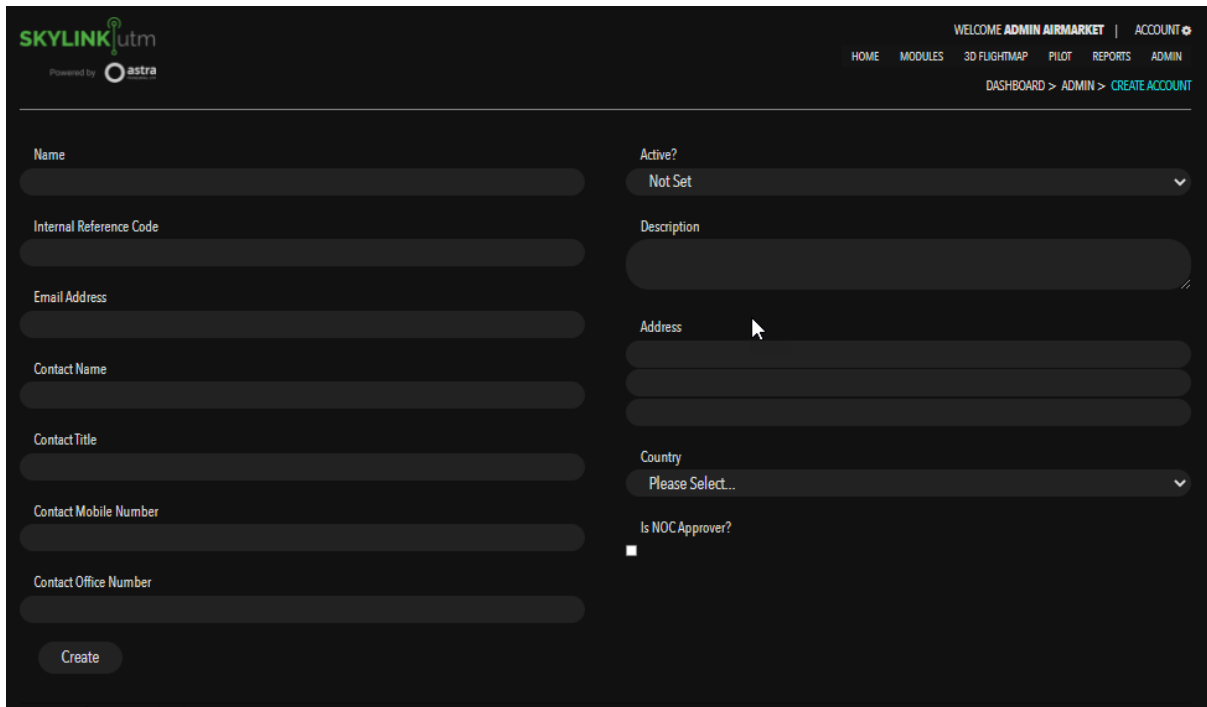
Dropdown menu options: Detail, Edit, Delete

### 6.5 Entity Account Creation

This feature allows the administrator to create a new entity account in the system.



After clicking on the **Account Creation** option in the dropdown menu, the administrator is able to create a new account in the system by entering the details mentioned in the below image.



The screenshot shows the 'CREATE ACCOUNT' form in the SKYLINK utm system. The form is dark-themed and contains the following fields and options:

- Name:** Text input field.
- Internal Reference Code:** Text input field.
- Email Address:** Text input field.
- Contact Name:** Text input field.
- Contact Title:** Text input field.
- Contact Mobile Number:** Text input field.
- Contact Office Number:** Text input field.
- Active?:** Dropdown menu with 'Not Set' selected.
- Description:** Text area.
- Address:** Text input field.
- Country:** Dropdown menu with 'Please Select...' selected.
- Is NOC Approver?:** Checkbox.

A 'Create' button is located at the bottom left of the form. The top navigation bar includes 'WELCOME ADMIN AIRMARKET | ACCOUNT', 'HOME', 'MODULES', '3D FLIGHTMAP', 'PILOT', 'REPORTS', 'ADMIN', and 'DASHBOARD > ADMIN > CREATE ACCOUNT'.

After filling in the above details, the administrator can click on the **Create** button and a new entity account will be created in the system.

## 6.6 All Entity Accounts Listing

This feature allows the administrator to view the list of all the accounts that are registered in the system.



After clicking on the **All Account** option in the dropdown menu, the administrator is able to view the list of all the accounts that are registered in the system. The administrator can view the list of accounts with the following details:

- Account ID
- Name
- Code
- Email ID
- Mobile Number

The screenshot shows the 'All Account' list in the SkyLink UTM Admin interface. The table displays a list of accounts with columns for Account ID, Name, Code, Email ID, and Mobile No. The interface includes a search bar and a 'Show 50 entries' dropdown.

ACCOUNT ID	NAME	CODE	EMAIL ID	MOBILE NO
353	testproduction2	test	testprod2@fieldlab.ca	999999999999
334	test 93 company inc.	test	test93@maildrop.cc	9982984
340	Test Bed 17	Test	test17@fieldlab.ca	78844848484884
63	fly 99 company inc.	fly	fly99@maildrop.cc	7809982985
55	DEVELOPMENT TEAM OF AirMarket	DEVE	666@fieldlab.ca	7809838584
39	AirMarket Inc.	AirM	support@airmarket.io	7809838584
40	AirMarket Inc.	AirM	lindsay.mohr@airmarket.io	7809838584
335	test 94 company inc.	test	lindsay.mohr@airmarket.io	7809838584
291	Pegasus Imagery Ltd	Pega	info@pegasusimagery.ca	7809373881
362	Unmanned Life	UMLF	admin@airmarket.io	7807806666
313	Sureway Construction Manage...	Sure	andrew.evans@sureway.ca	780.691.0746
266	INFRAME Films Inc.	INFR	connect@inframefilms.ca	778.898.5188
292	RISE UAV SERVICES	RISE	riseuav@gmail.com	7057180741
311	Skyball Media	Skyb	nicjcksn@gmail.com	613-900-5500
323	Test	Test	christian+test150302@sauca...	6138477888
52	Christian Test's organization	Chri	christian+test280319@sauca...	6138477888

The administrator can take the following action for a particular account such as viewing the detailed information, editing the information or deleting the account from the system.

ACCOUNT ID	NAME	CODE	EMAIL ID	MOBILE NO
362	Unmanned Life	UMLF	admin@airmarket.io	7807806666
361	AirMarket Inc.	AirM	lindsay.mohr@airmarket.io	+1 780 983 8584
360	WowPhoto	WowP	allan@wowphoto.ca	3065367808
359	Test_Saucal	Test	christiantest18@gmail.com	54911548
358	Test_Saucal	Test	christiantest17@gmail.com	54911548
357	Test_Saucal	Test	christiantest99@gmail.com	54911548

The administrator can click on the **Detail** option in the dropdown menu to view the details of that particular account in the below format.

ACCOUNT ID	NAME	CODE	EMAIL ID	MOBILE NO
362	Unmanned Life	UMLF	admin@airmarket.io	7807806666
361	AirMarket Inc.	AirM	lindsay.mohr@airmarket.io	+1 780 983 8584
360	WowPhoto	WowP	allan@wowphoto.ca	3065367808
359	Test_Saucal	Test	christiantest18@gmail.com	54911548
358	Test_Saucal	Test	christiantest17@gmail.com	54911548

Detailed view of an entity's account:

**SKYLINKutm**  
 Powered by **ASTRA**

WELCOME ADMIN AIRMARKET | ACCOUNT

HOME MODULES 3D FLIGHTMAP PILOT REPORTS ADMIN

DASHBOARD > ADMIN > AIRMARKET INC.

**Account Name :** AirMarket Inc.  
 Code : AirM  
 Email : [info@airmarket.io](mailto:info@airmarket.io)

**Description :**  
 Address : Alberta

**Contact Name :**  
 Contact Number : +1 780 983 8584

**USER DETAILS**

- [mbehns@hotmail.com](mailto:mbehns@hotmail.com)  
mbehns@hotmail.com
- [admin@airmarket.io](mailto:admin@airmarket.io)  
admin@airmarket.io
- [apiaccess@airmarket.io](mailto:apiaccess@airmarket.io)  
apiaccess@airmarket.io
- [api\\_user@airmarket.io](mailto:api_user@airmarket.io)  
api\_user@airmarket.io
- [cale.griffith@airmarket.io](mailto:cale.griffith@airmarket.io)  
cale.griffith@airmarket.io
- [griffithcale@gmail.com](mailto:griffithcale@gmail.com)

**RPAS REGISTRATIONS**

- AirM-Manufacturer-UAVType-02616-0000  
AirTel 1
- AirM-Manufacturer-UAVType-02251-0000  
AirTel 1
- AirM-Manufacturer-UAVType-02255-0000  
AirTel 2
- AirM-Manufacturer-UAVType-02660-0000  
AirTel 3
- AirM-DJI-UAVType-02312-0000  
AM Phantom\_4 #1
- AirM-\*\*\*\*-\*\*\*\*-95328-0000

**NOC DETAILS**

**FLIGHT DETAILS**

ID	RPAS	Pilot Name	GCS Name	Flight Date	Approval Name	Cost	Video
5885	AirM-DJI-UAV...			14-Oct-2021 22:21	NO NOC	0.00	
5887	AirM-DJI-UAV...			16-Oct-2021 22:37	NO NOC	0.00	
5896	AirM-DJI-UAV...			20-Oct-2021 00:15	NO NOC	0.00	
5970	AirM-DJI-UAV...			27-Oct-2021 22:57	NO NOC	0.00	
5977	AirM-DJI-UAV...			28-Oct-2021 16:38	NO NOC	0.00	
5978	AirM-DJI-UAV...			28-Oct-2021 16:42	NO NOC	0.00	



The administrator can click on the **Edit** option in the dropdown menu to edit the details of that particular account.

ACCOUNT ID	NAME	CODE	EMAIL ID	MOBILE NO	
362	Unmanned Life	UMLF	admin@airmarket.io	7807806666	
361	AirMarket Inc.	AirM	lindsay.mohr@airmarket.io	+1 780 983 8584	Detail
360	WowPhoto	WowP	allan@wowphoto.ca	3065367808	Edit
359	Test_SaUcal	Test	christiantest18@gmail.com	54911548	Delete
358	Test_SaUcal	Test	christiantest17@gmail.com	54911548	
357	Test_SaUcal	Test	christiantest99@gmail.com	54911548	

They can edit the following information as shown in the below image.

SKYLINK<sup>utm</sup> powered by **ASTRA**

WELCOME ADMIN AIRMARKET | ACCOUNT

HOME MODULES 3D FLIGHTMAP PILOT REPORTS ADMIN

DASHBOARD > ADMIN > EDIT ACCOUNT

Name: Unmanned Life

Internal Reference Code: UMLF

Email Address: admin@airmarket.io

Contact Name: Unmanned Life

Contact Title: User

Contact Mobile Number: 7807806666

Contact Office Number:

Active?: True

Description:

Address:

Country: CANADA [CA]

Save

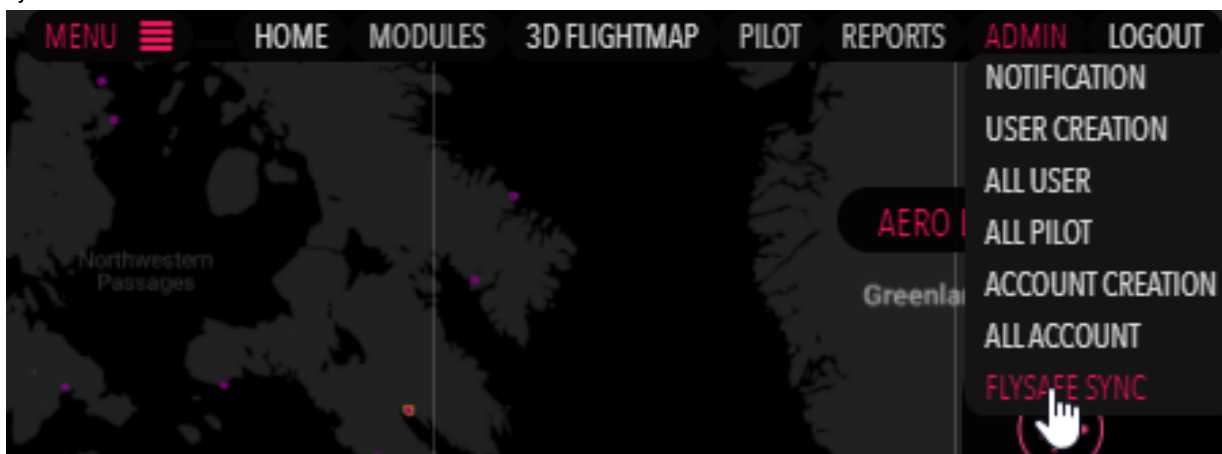
After editing the desired information, the administrator can click on the **Save** button to update the changes.

After clicking on the **Delete** option in the dropdown menu administrator will be able to delete the particular pilot from the system.

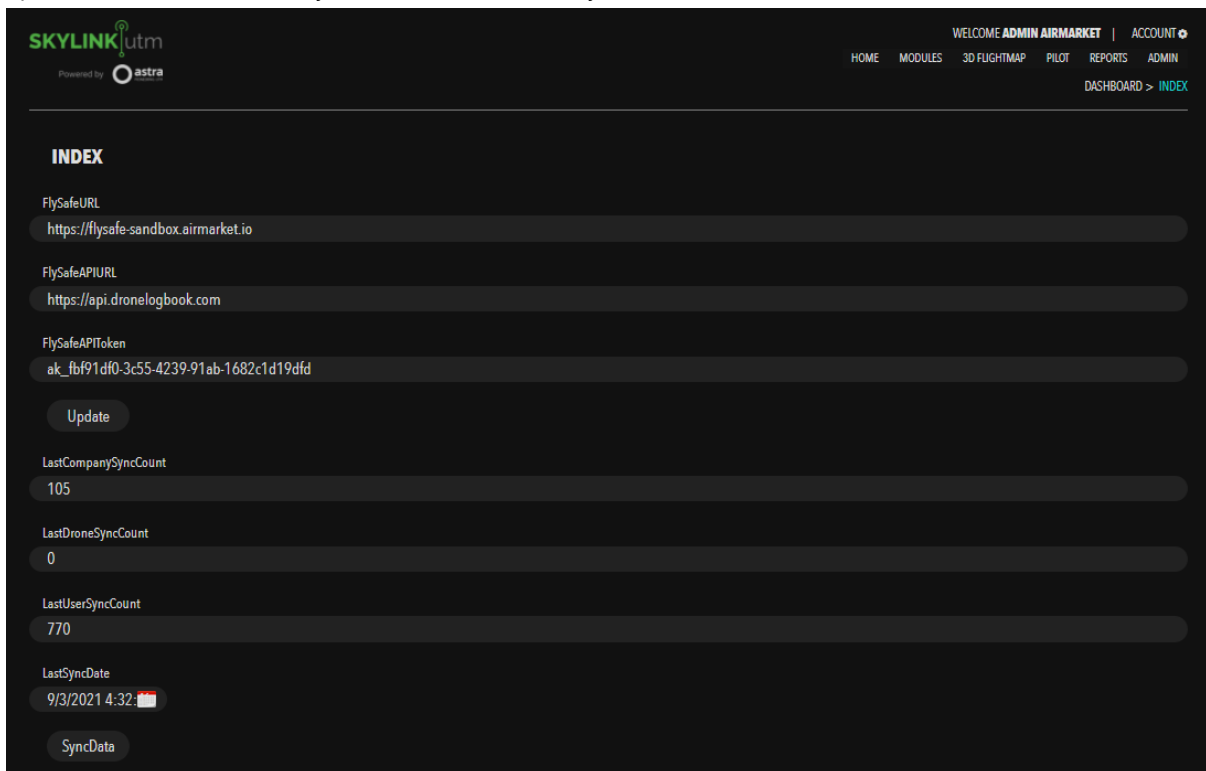
ACCOUNT ID	NAME	CODE	EMAIL ID	MOBILE NO	
362	Unmanned Life	UMLF	admin@airmarket.io	7807806666	
361	AirMarket Inc.	AirM	lindsay.mohr@airmarket.io	+1 780 983 8584	Detail
360	WowPhoto	WowP	allan@wowphoto.ca	3065367808	Edit
359	Test_Saucal	Test	christiantest18@gmail.com	54911548	Delete
358	Test_Saucal	Test	christiantest17@gmail.com	54911548	

## 6.7 FlySafe Sync

This feature allows the administrator to update the URLs and Sync the data in the system.



After clicking on the **FlySafe Sync** option in the dropdown menu, the administrator can update the URLs and Sync the data in the system as mentioned below.



The administrator can update/change the URL for the following fields:

- FlySafeURL
- FlySafeAPIURL
- FlySafeAPIToken

After updating the URLs, the administrator can click on the **Update** button to save the changes. They can click on the **SyncData** button to sync all the data in the system.

## 7 System Configuration

This feature allows the administrator to set up and customize the entire UTM system as per their needs.



→ Configuration Settings

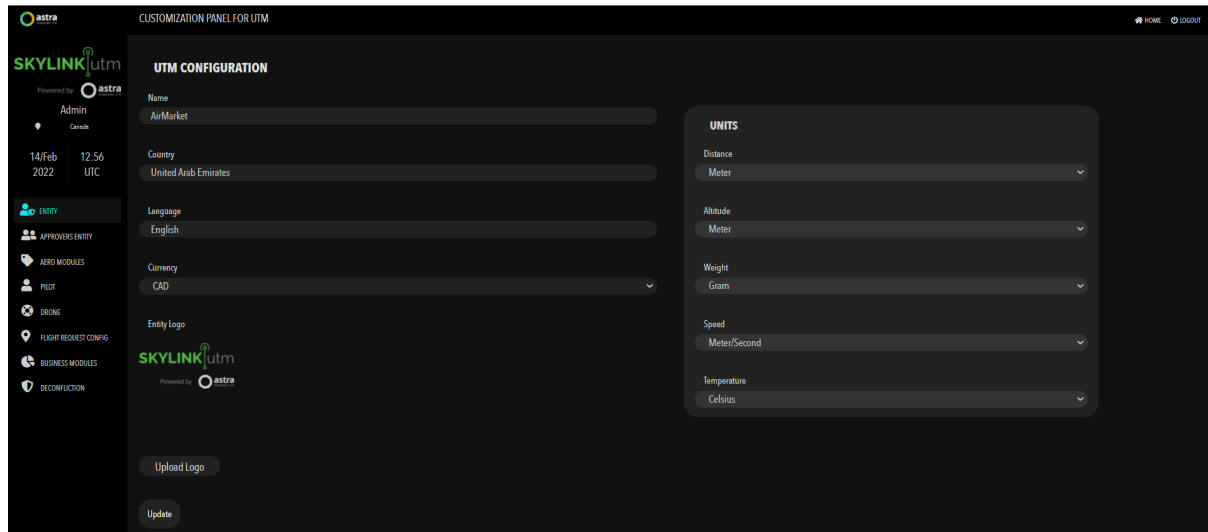
After clicking on the **Settings** button, the Super Administrator can configure the following modules:

- Entity
- Approvers Entity
- Aero Modules
- Pilot
- Drone
- Flight Request Configuration
- Business Modules
  - Modules Configuration
  - Risk
  - Billing
  - Subscription
  - Fines and Violations
  - Insurance
- Deconfliction
  - Alert State Management
  - Tactical Deconfliction
  - Deconfliction by Zone

The detailed description of each module is mentioned below:

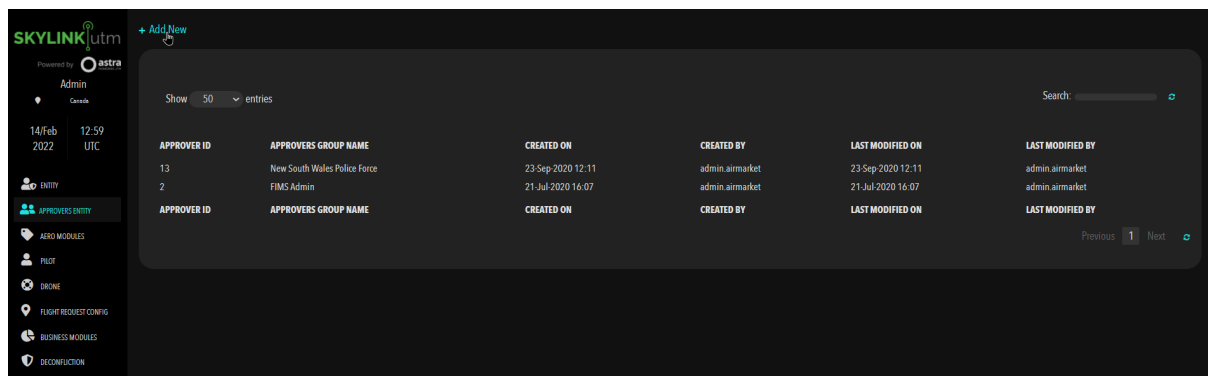
## 7.1 System Profile

This module enables the administrator to configure the entire UTM system as per their needs. The administrator can configure the Country, Default Language, Currency, Entity Logo. They can also configure the unit of measure for Distance, Altitude, Weight, Speed, and Temperature.



## 7.2 Approvers Entity

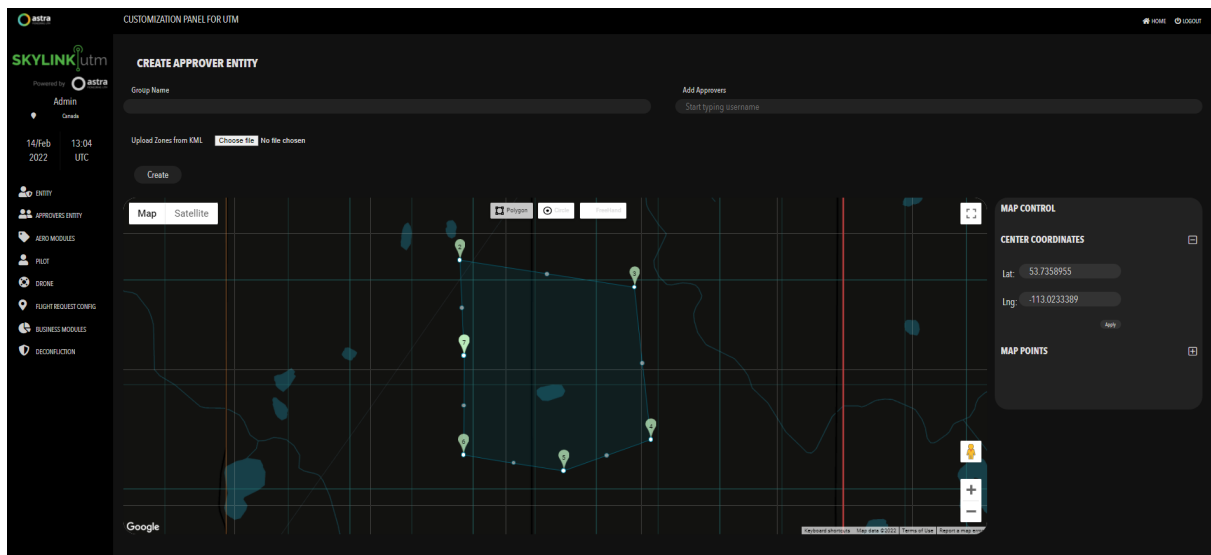
This module enables the administrator to define the approver entity for a specific and designated area. The administrator can either set a single or multiple level of approval workflow as per their needs.



## How to create a new Approvers Entity?

The administrator can click on the **Add New** option and add the information in the fields below.

- Group Name
- Add Approvers
- Upload Zones from KML
- Draw the coordinates on the map



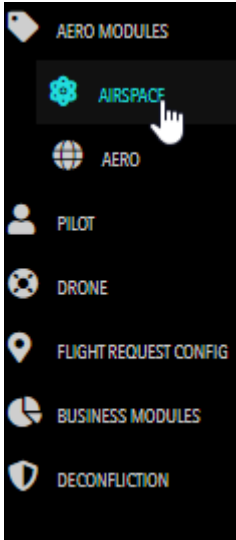
The administrator adds the information in above mentioned fields and clicks on the **Create** button. The administrator will get the confirmation message that a new Approver Entity has been created successfully.

### 7.3 Define an Airspace

This module enables the administrator to define and visualize different types of airspace such as Fly Zone, No Fly Zone, Restricted Airspace and Special Use Airspace, etc for a particular area by defining the zone type, zone name, fill color, stroke color, fill-opacity, stroke opacity, etc to visualize airspace.

#### 7.3.1 Airspace

The administrator clicks on **Aero Modules** then clicks on the **Airspace** option in the menu item and gets the below screen.



CUSTOMIZATION PANEL FOR UTM

SKYLINKutm

Admin

14 Feb 2022 13:08 UTC

ENTITY

APPROVERS ENTITY

AERO MODULES

PILOT

DRONE

FLIGHT REQUEST CONFIG

BUSINESS MODULES

DECONFLICTION

#### CUSTOMIZE AIRSPACE DATA

ID	Zone Name	Created On	Created By	Modified On	Modified By	Zone Type	Fill Opacity	Stroke Color	Fill Color	Delete
10	CDN EUT Pipeline	7/21/2020 7:17:39 AM	admin.airmarket	7/21/2020 7:17:39 AM	admin.airmarket	CDN EUT Pipeline	0.1	#00a100	#00a100	🗑️
11	CDN Airport Military	7/21/2020 7:17:39 AM	admin.airmarket	7/21/2020 7:17:39 AM	admin.airmarket	CDN Airport Military	0.1	#ff0000	#ff0000	🗑️
12	CDN Airports Certified	7/21/2020 7:21:32 AM	admin.airmarket	7/21/2020 7:21:32 AM	admin.airmarket	CDN Airports Certified	0.1	#94009c	#94009c	🗑️
13	CDN Airports Registered	7/21/2020 7:22:24 AM	admin.airmarket	7/21/2020 7:22:24 AM	admin.airmarket	CDN Airports Registered	0.1	#425f5f	#425f5f	🗑️
14	CDN Airspaces	7/21/2020 7:24:12 AM	admin.airmarket	7/21/2020 7:24:12 AM	admin.airmarket	CDN Airspaces	0.1	#ff9400	#ff9400	🗑️
24	IDN Project	12/21/2020 4:54:45 PM	admin.airmarket	12/21/2020 4:54:45 PM	admin.airmarket	IDN Flight Area	0.1	#00a100	#00a100	🗑️
40	KSA Project	12/21/2020 6:14:41 AM	admin.airmarket	12/21/2020 6:14:41 AM	admin.airmarket	KSA Flight Areas	0.1	#00a100	#00a100	🗑️
41	KSA Airports	12/26/2020 1:38:24 PM	admin.airmarket	12/26/2020 1:38:24 PM	admin.airmarket	KSA Airports	0.1	#425f5f	#425f5f	🗑️
43	Restricted	3/23/2021 3:54:27 AM	admin.airmarket	3/23/2021 3:54:27 AM	admin.airmarket	AUS Airspace - Restricted	0.1	#650101	#650101	🗑️
44	CTR	3/23/2021 11:32:24 AM	admin.airmarket	3/23/2021 11:32:24 AM	admin.airmarket	AUS Airspace - CTR	0.1	#ff0195	#ff0195	🗑️

Search: [ ] Previous 1

#### CREATE AIRSPACE

Fill Color: [Red]

Fill Opacity: [Slider]

Stroke Color: [Red]

Stroke Opacity: [Slider]

### How to create a new Airspace?

The administrator enters the information in below mentioned fields and clicks on the **Create** button.

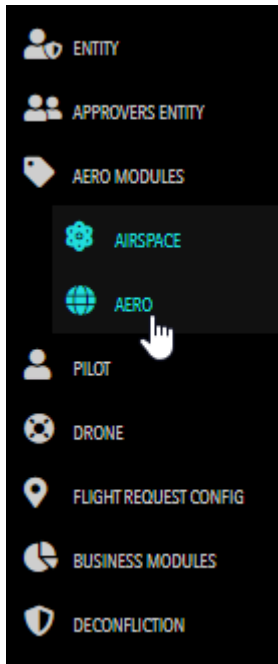
- Fill Color
- Fill Opacity
- Stroke Color
- Stroke Opacity
- Stroke Weight
- Zone Type
- Zone Name

The administrator will get the confirmation message that a new Airspace has been created in the system. The administrator can view the newly added Airspace in the Customize Airspace Data List.

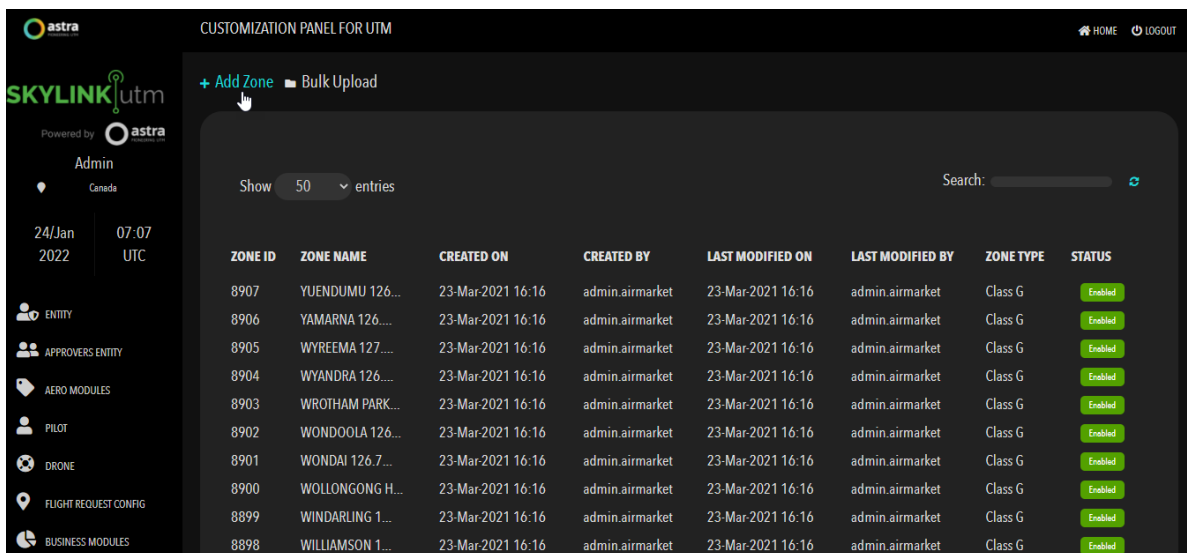


### 7.3.2 Aero

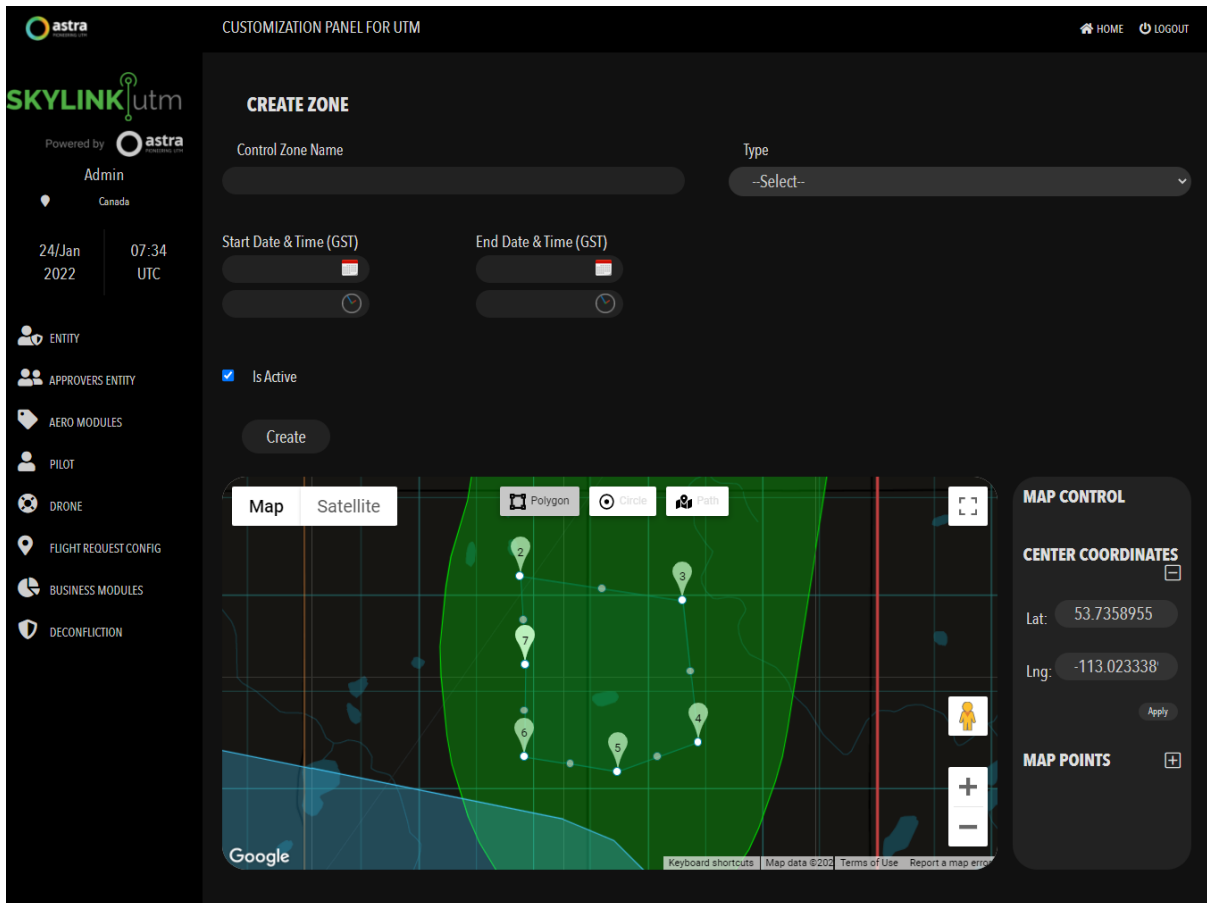
The administrator clicks on **Aero Modules** then clicks on the **Aero** option in the menu item and gets the below screen.



This is the listing screen to view the added Zones and allows the administrator to define new rules and update the existing rules.

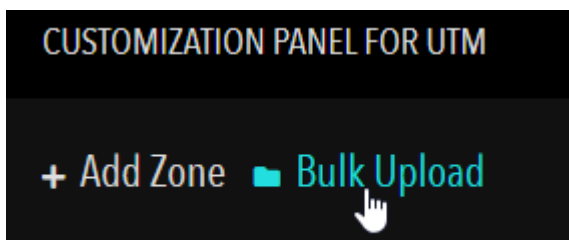


The administrator clicks on the **Add Zone** option in the dropdown menu and adds the information in below mentioned fields.

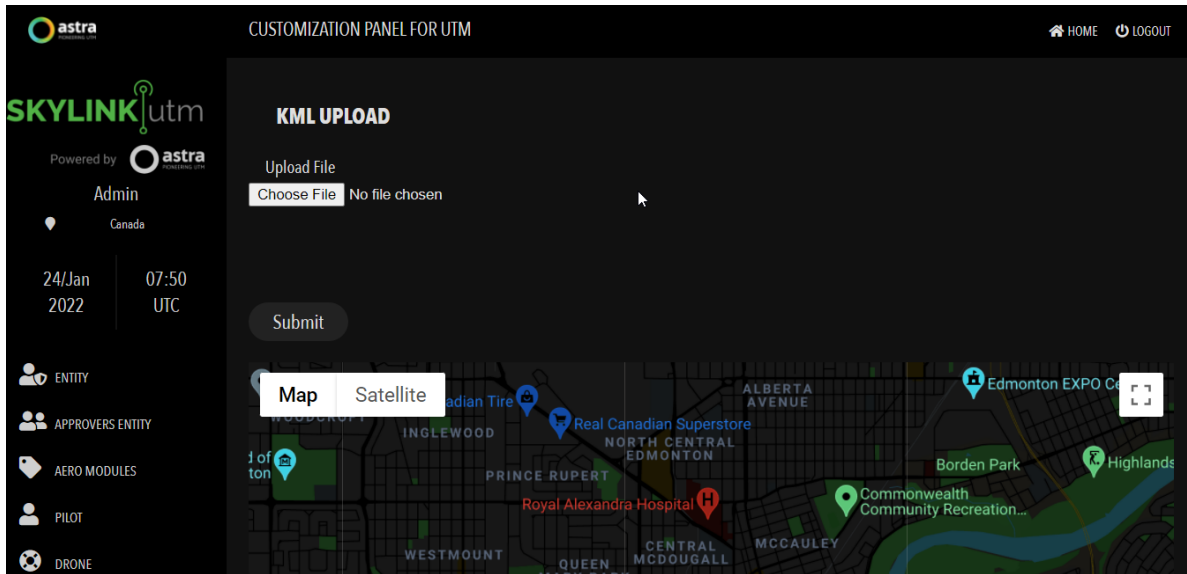


After adding the required information in the above mentioned fields, the administrator clicks on the **Create** button. The system will show the confirmation message that a new Zone has been created successfully.

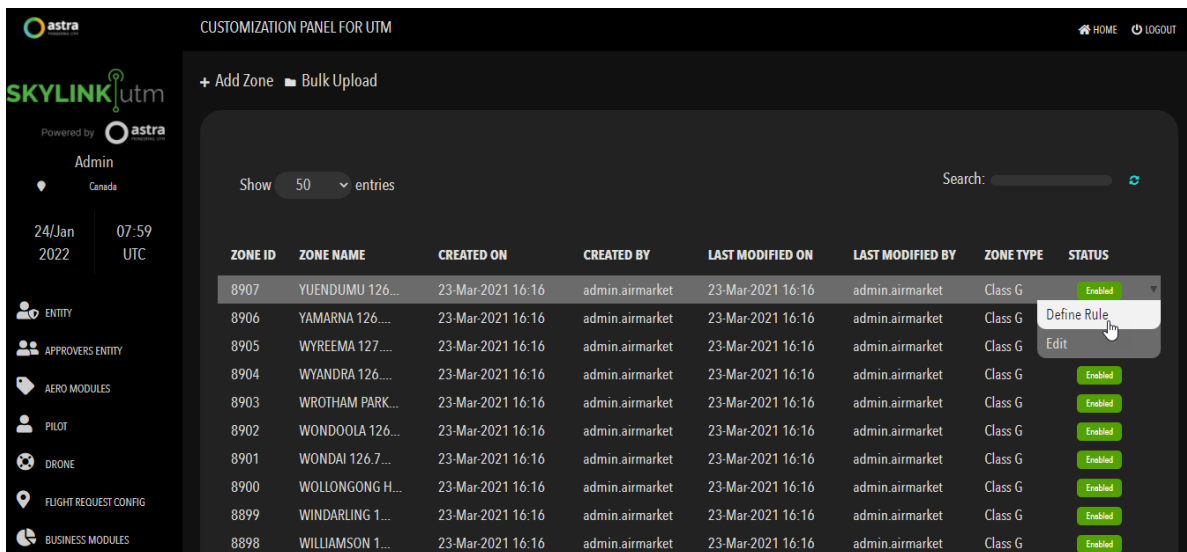
The system allows the administrator to add New Zones in bulk. The administrator clicks on the **Bulk Upload** option and gets the below screen.



The administrator can upload the file in .kml format and click on the **Submit** button. System will show the confirmation message that new zones have been added successfully.



The administrator can view all the added zones in the Aero Listing Page and can define new rules by clicking on the **Define Rule** option against any particular zone.

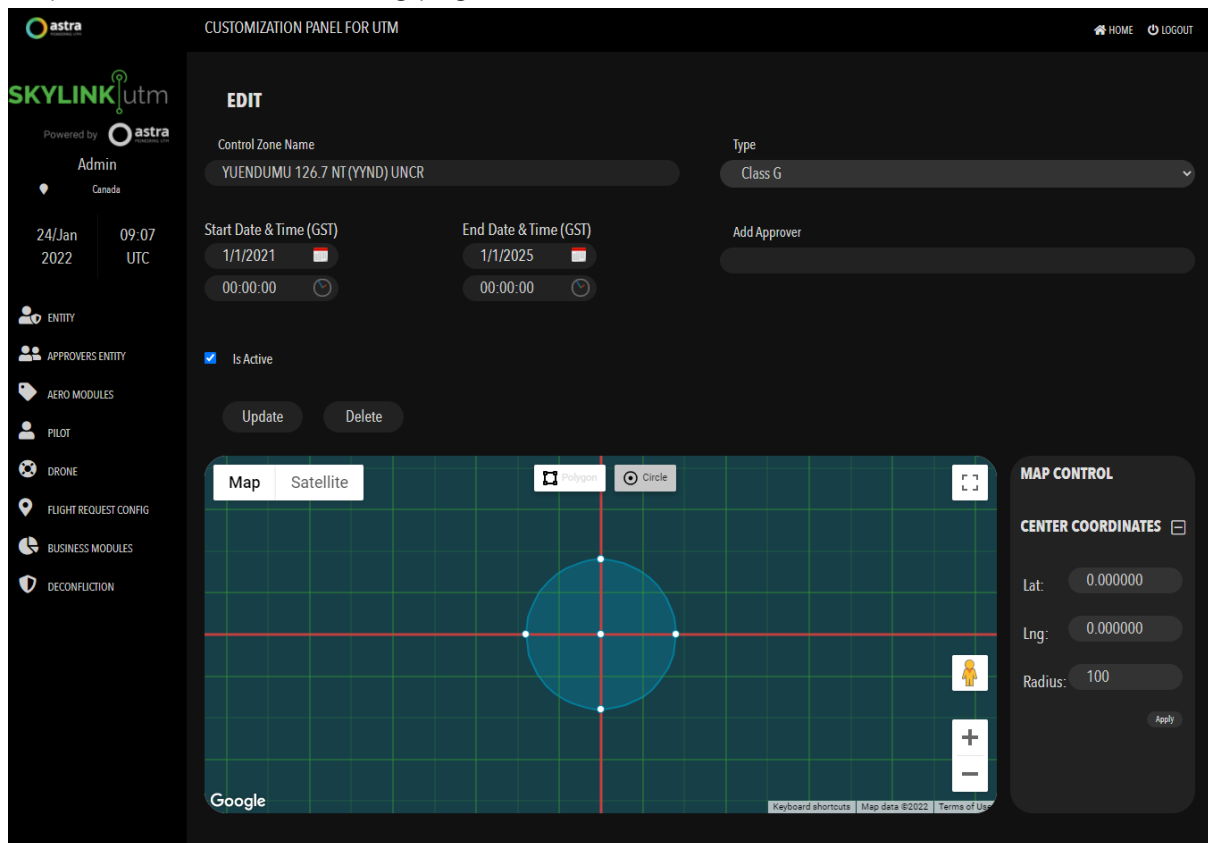


The administrator opens the Define Rule screen and adds the required information in the below fields. The administrator can add or delete any validation conditions.

After adding the required information in above mentioned fields, the administrator clicks on the **Submit** button. The system shows the confirmation message that a new rule has been defined in the System.

ZONE ID	ZONE NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	ZONE TYPE	STATUS
8907	YUENDUMU 126...	23-Mar-2021 16:16	admin.airmarket	23-Mar-2021 16:16	admin.airmarket	Class G	Enabled
8906	YAMARNA 126...	23-Mar-2021 16:16	admin.airmarket	23-Mar-2021 16:16	admin.airmarket	Class G	Enabled
8905	WYREEMA 127...	23-Mar-2021 16:16	admin.airmarket	23-Mar-2021 16:16	admin.airmarket	Class G	Enabled
8904	WYANDRA 126...	23-Mar-2021 16:16	admin.airmarket	23-Mar-2021 16:16	admin.airmarket	Class G	Enabled
8903	WROTHAM PARK...	23-Mar-2021 16:16	admin.airmarket	23-Mar-2021 16:16	admin.airmarket	Class G	Enabled
8902	WONDOOLA 126...	23-Mar-2021 16:16	admin.airmarket	23-Mar-2021 16:16	admin.airmarket	Class G	Enabled
8901	WONDAI 126.7...	23-Mar-2021 16:16	admin.airmarket	23-Mar-2021 16:16	admin.airmarket	Class G	Enabled
8900	WOLLONGONG H...	23-Mar-2021 16:16	admin.airmarket	23-Mar-2021 16:16	admin.airmarket	Class G	Enabled
8899	WINDARLING 1...	23-Mar-2021 16:16	admin.airmarket	23-Mar-2021 16:16	admin.airmarket	Class G	Enabled
8898	WILLIAMSON 1...	23-Mar-2021 16:16	admin.airmarket	23-Mar-2021 16:16	admin.airmarket	Class G	Enabled

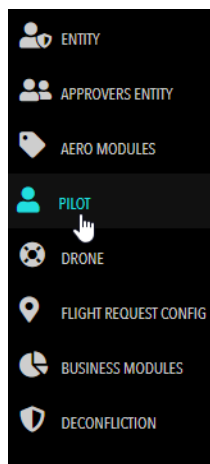
The administrator can edit the defined rules by clicking on the **Edit** option in the dropdown menu on the listing page of Aero List.



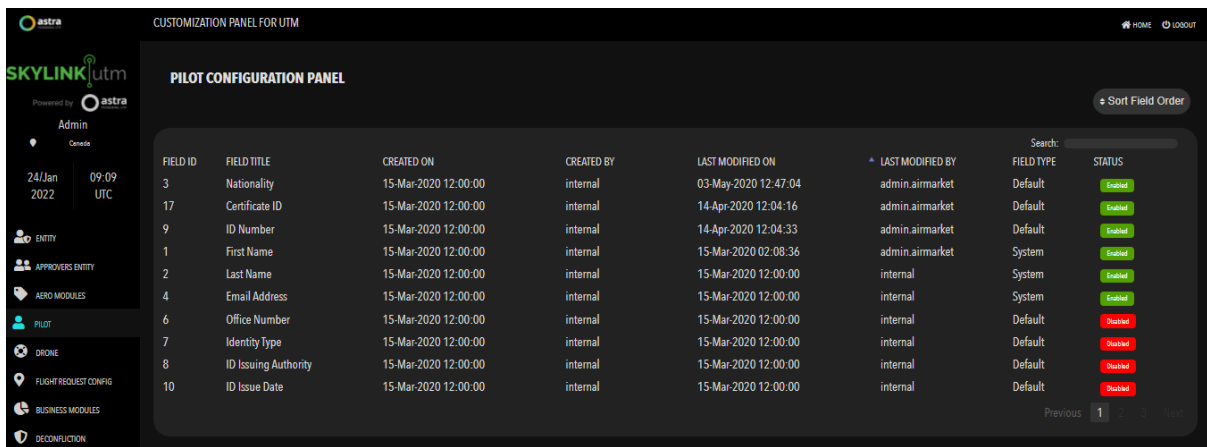
The administrator can change the required information in above mentioned fields and click on the **Update** button. The system updates the existing Aero zone successfully.

### 7.4 Pilot Entity Configuration

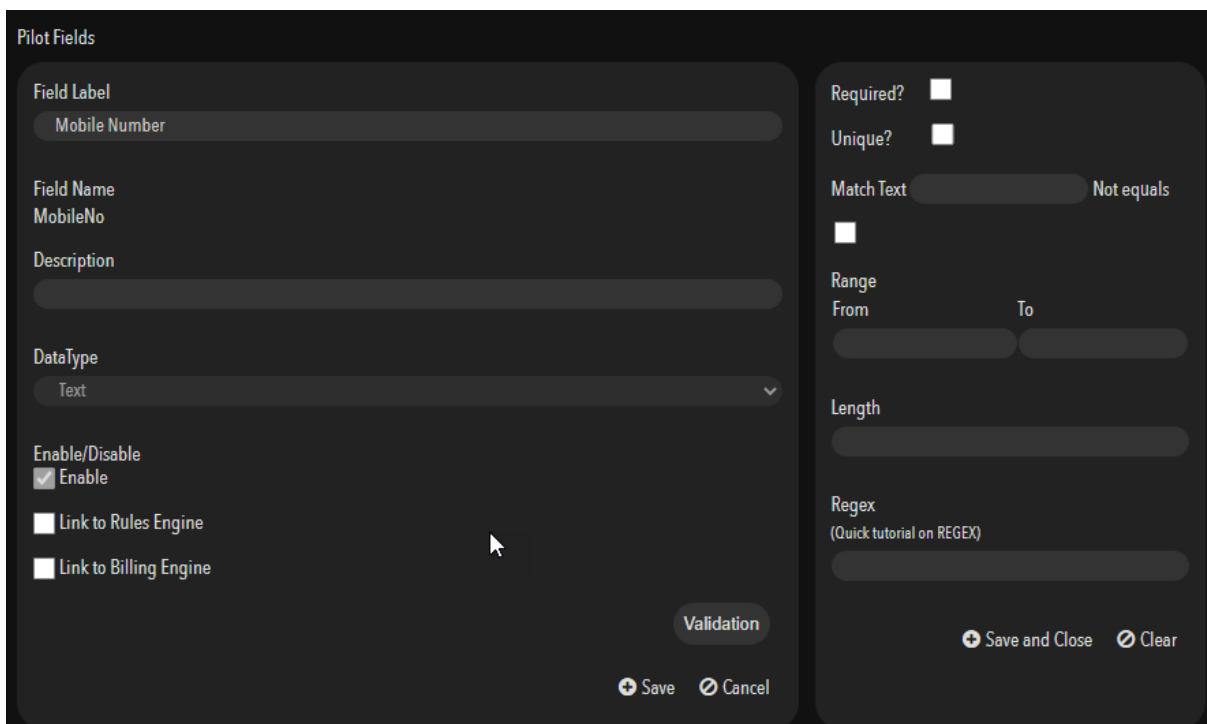
This module enables the administrator to specify the fields that are required for the registration of pilot users. The fields include but are not limited to First name, Last name, Email address, Identification number and Nationality, etc.



The administrator clicks on the **Pilot** option in the menu item and gets the below mentioned screen. They can see all the fields created in the system to register a new pilot.

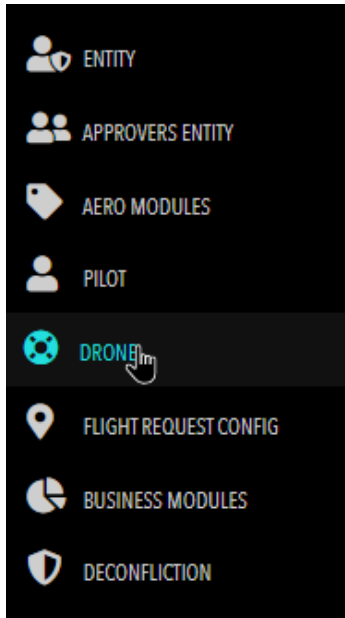


To add a new field in the system for registering a new pilot, the administrator adds the required information in below mentioned fields and clicks on the **Save** button. System shows the confirmation message that a new Pilot field has been added in the system.



## 7.5 Drone Entity Configuration

This module enables the administrator to specify the fields that are required for the registration of the drone. The fields include but are not limited to Manufacturer, RPAS Type, Model Name, RPAS Serial No and Commission Date etc.



The administrator clicks on the **Drone** option in the menu item and gets the below screen. The administrator can view the list of all the fields created in the system.

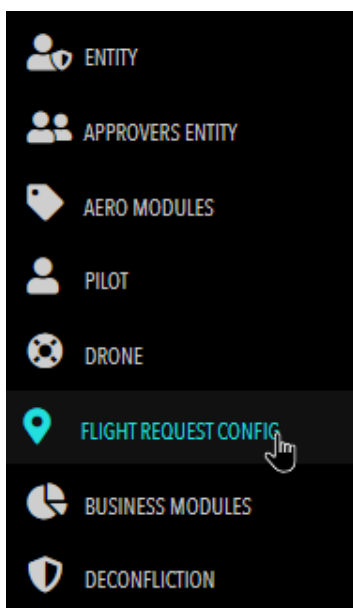
The screenshot shows the 'CUSTOMIZATION PANEL FOR UTM' interface. On the left is a sidebar with the 'DRONE' option selected. The main area is titled 'DRONE CONFIGURATION PANEL' and contains a table of fields. The table has columns for Field ID, Field Title, Created On, Created By, Last Modified On, Last Modified By, Field Type, and Status. A search bar is located above the table. The status of each field is indicated by a green 'Enabled' button or a red 'Disabled' button.

FIELD ID	FIELD TITLE	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	FIELD TYPE	STATUS
5	Commission Date	25-Mar-2020 12:00:00	internal	13-Apr-2020 06:30:05	admin.airmarket	System	Enabled
13	RPAS	30-Mar-2020 12:00:00	internal	30-Mar-2020 12:00:00	internal	System	Disabled
1	Manufacturer	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	System	Enabled
2	RPAS Type	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	System	Enabled
3	RPAS Serial Number	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	System	Enabled
6	Insurance Certificate ID	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	Default	Disabled
7	Insurance Company	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	Default	Disabled
8	Insurance Broker	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	Default	Disabled
9	Valid From	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	Default	Disabled
10	Valid To	25-Mar-2020 12:00:00	internal	25-Mar-2020 12:00:00	internal	Default	Disabled

To add a new field in the system for registering a new drone, the administrator adds the required information in the below mentioned fields and clicks on the **Save** button. System shows the confirmation message that a new drone field has been added in the system.

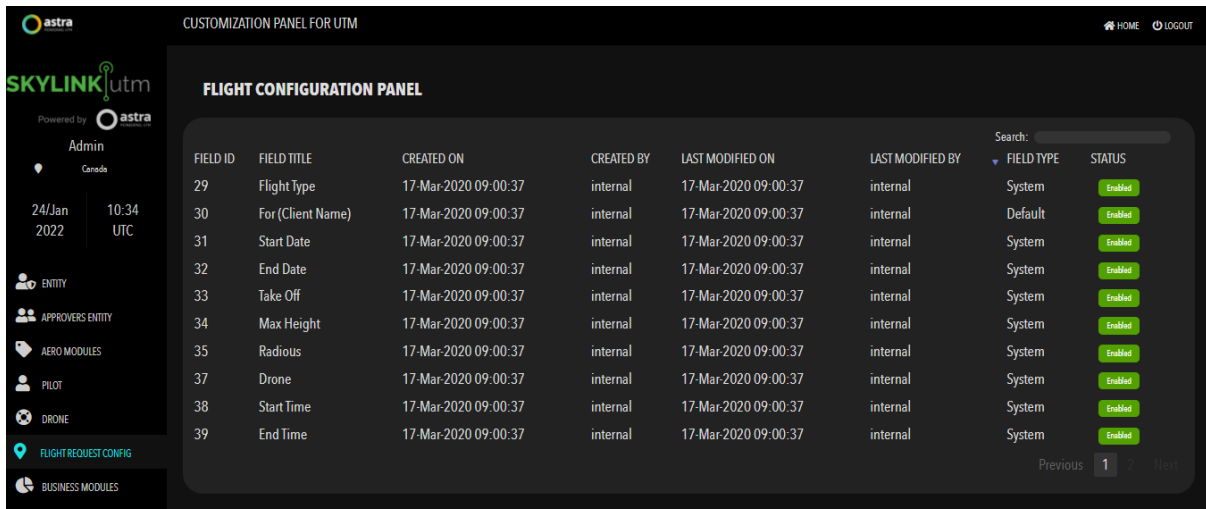
## 7.6 Flight Request Configuration

This module enables the administrator to specify the fields that are required for creating a flight request. The fields include but are not limited to: Flight Plan type such as (Polygon, Circle, Freehand or Waypoints), Maximum Altitude, Start Date and Time, End Date and Time, Operation Type, Flight Purpose, Camera Usage, Drone Selection and Max Takeoff weight, etc.

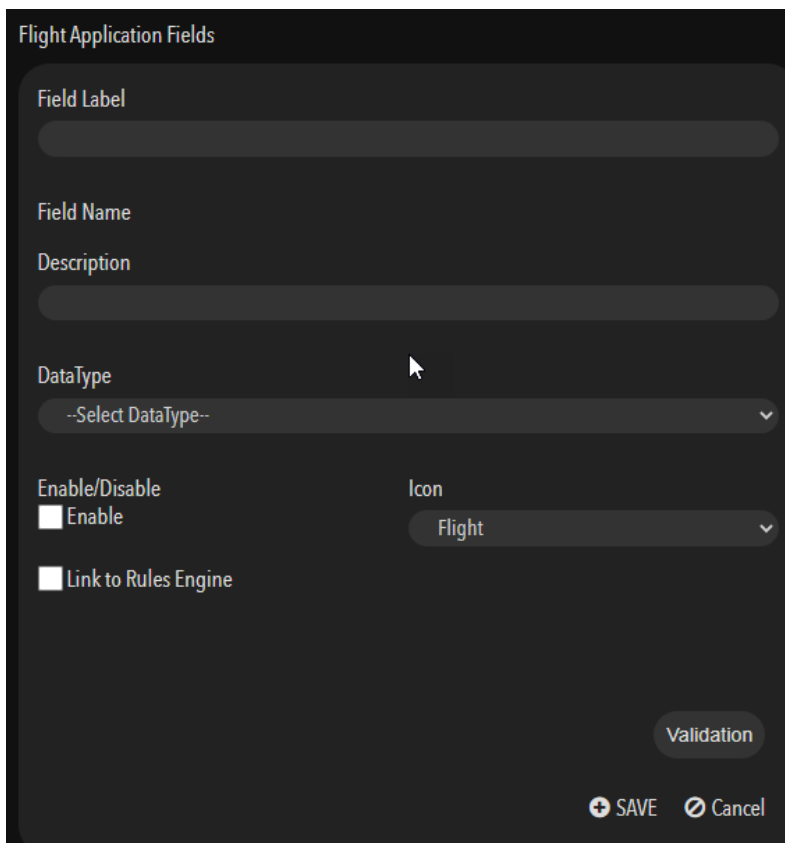




The administrator clicks on the **Flight Request Config** option in the menu item and gets the below mentioned screen.



To add a new field in the system for submitting a flight request, the administrator adds the required information in below mentioned fields and clicks on the **Save** button. System shows the confirmation message that a new field has been added in the system.

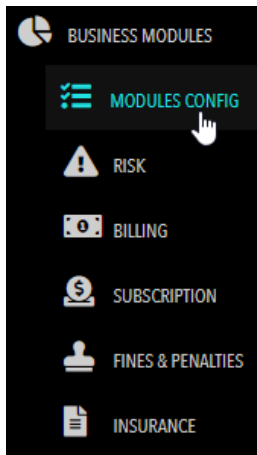


## 8 Business Modules Configuration

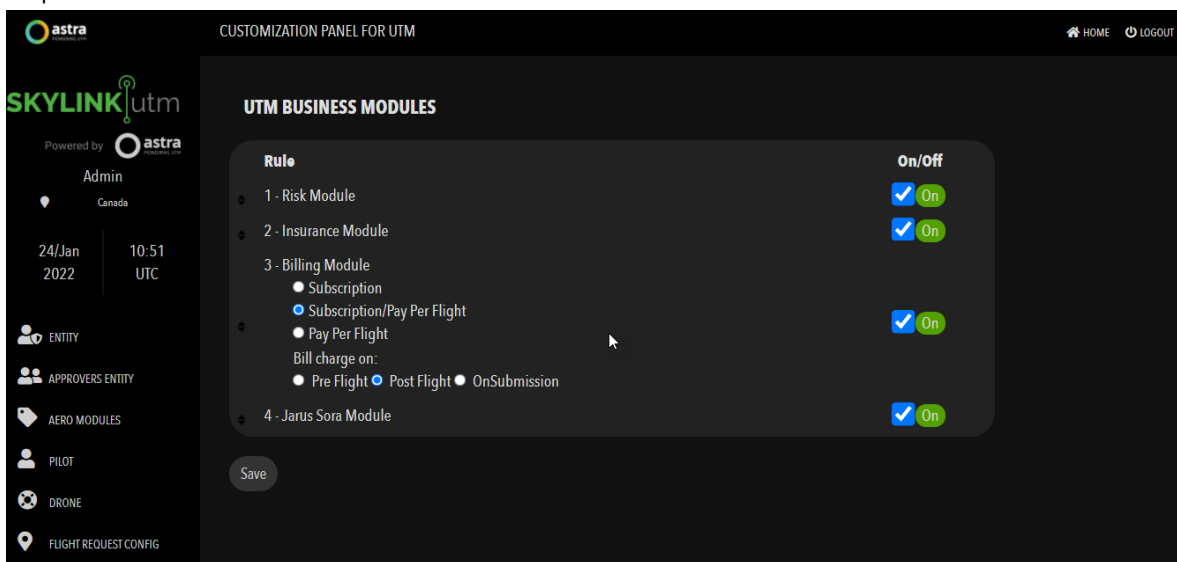
This module enables the administrator to set up the parameters that are used to support the flight application process by calculating the risk involved, the billing for each operation, fines and violations, subscription for a particular area and insurance, etc.

### 8.1 Modules Configuration

This module enables the administrator to toggle on/off all the available modules in the UTM system.

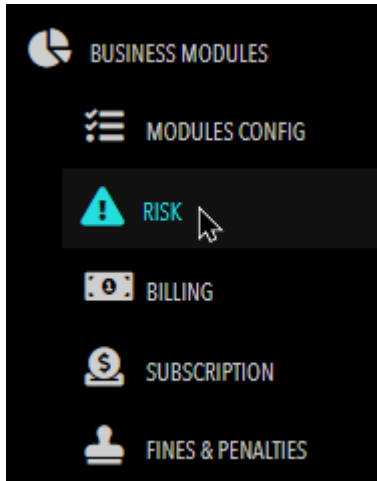


The administrator clicks on the **Modules Config** option in the menu item and gets the below screen. The administrator can turn On/Off any business modules as per their requirements.



## 8.2 Risk Configuration

This module enables the administrator to define certain conditions that will help the system to calculate the risk that is involved in a particular operation based on the parameters such as Operation type, Pilot total flight hours, Flight duration, Pilot's age, and Drone's wind resistance, etc.

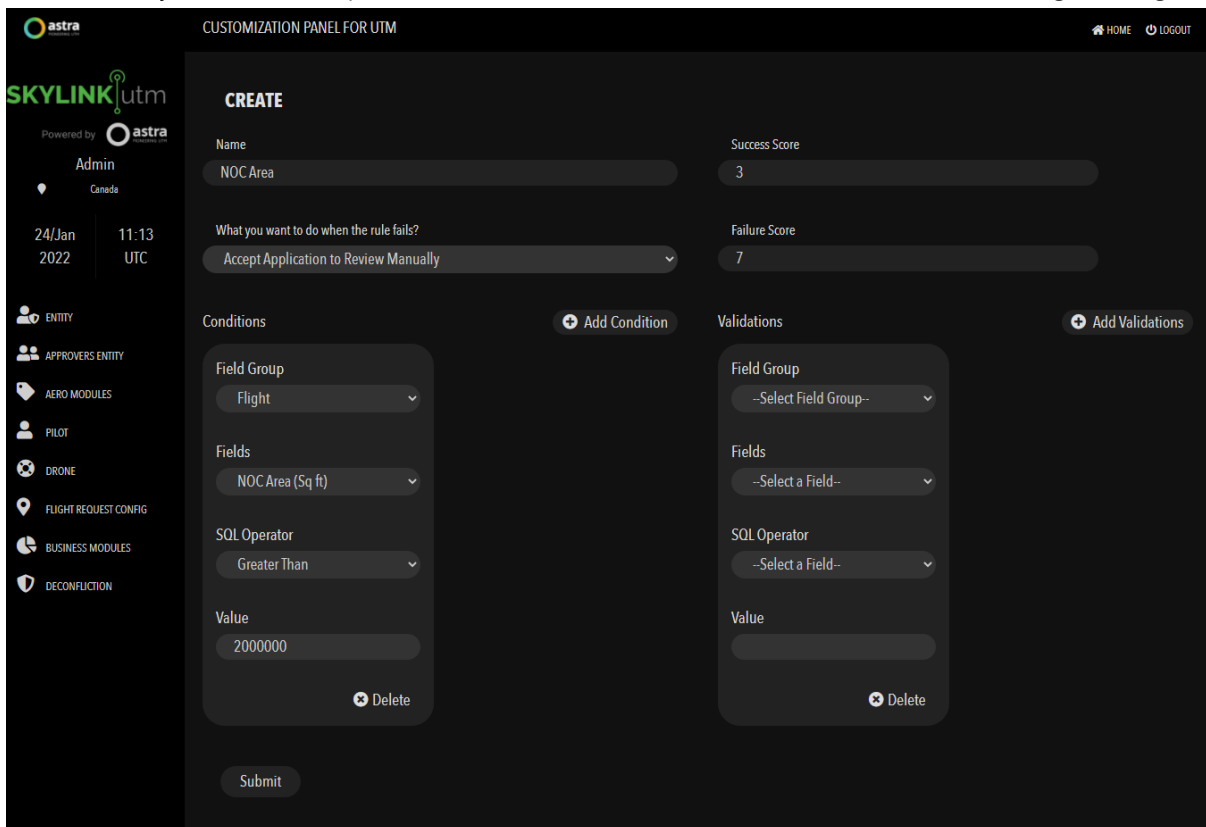


The administrator clicks on the **Risk** option in the module and gets the below screen. This screen shows the list of all the risk rules created in the system.

A screenshot of the 'RISK RULE INDEX' page in the SKYLINKutm system. The page includes a sidebar with navigation options like 'ENTITY', 'APPROVERS ENTITY', 'AERO MODULES', 'PILOT', 'DRONE', 'FLIGHT REQUEST CONFIG', and 'BUSINESS MODULES'. The main content area shows a table of risk rules with columns for ID, Name, Created On, Created By, Last Modified On, Last Modified By, Success Score, Failure Score, and Failure Action. A search bar and a 'Show 50 entries' dropdown are also present.

RISK RULE ID	RISK RULE NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	SUCCESS SCORE	FAILURE SCORE	FAILURE ACTION
14	NOC Area	Invalid	Invalid	Invalid	Invalid	3	7	Manual Approval
13	Drone Speed	Invalid	Invalid	Invalid	Invalid	3	7	Manual Approval
12	NOC Line of ...	Invalid	Invalid	Invalid	Invalid	1	9	Manual Approval
11	NOC for Pilo...	Invalid	Invalid	Invalid	Invalid	1	9	Manual Approval
9	Pilot total ...	Invalid	Invalid	Invalid	Invalid	2	8	Manual Approval
8	Drone weight	Invalid	Invalid	Invalid	Invalid	2	8	Manual Approval
7	Flight durat...	Invalid	Invalid	Invalid	Invalid	0	6	Manual Approval
6	Flight hours...	Invalid	Invalid	Invalid	Invalid	10	0	Manual Approval
5	Pilot Licens...	Invalid	Invalid	Invalid	Invalid	0	10	Manual Approval
4	Pilot Permit	Invalid	Invalid	Invalid	Invalid	9	7	Manual Approval

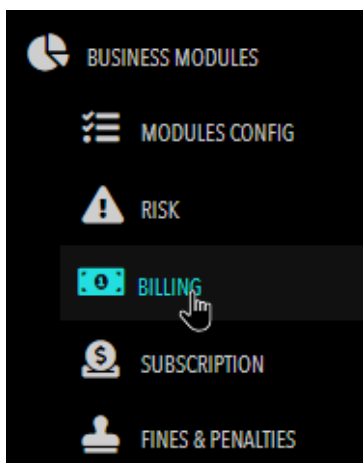
The administrator clicks the **Edit** option in the dropdown menu and gets the below screen. They can edit the parameters that are used to calculate the risks during the flight.



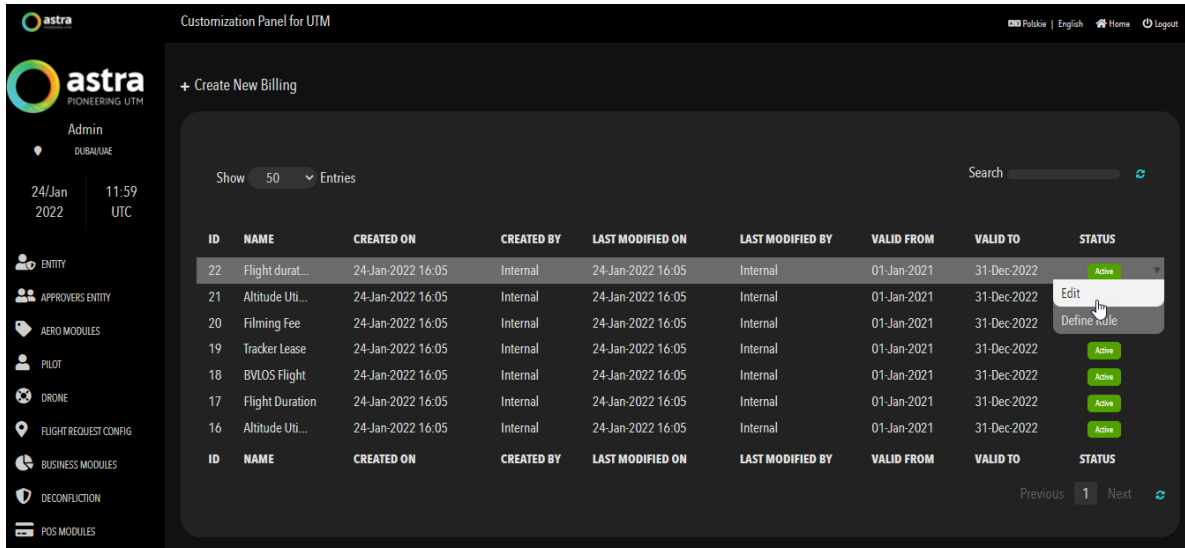
The administrator adds the required information and creates a new risk rule on the basis of new conditions and validations. After adding all the above mentioned information, the administrator can click on the **Submit** button to save the changes.

### 8.3 Billing Configuration

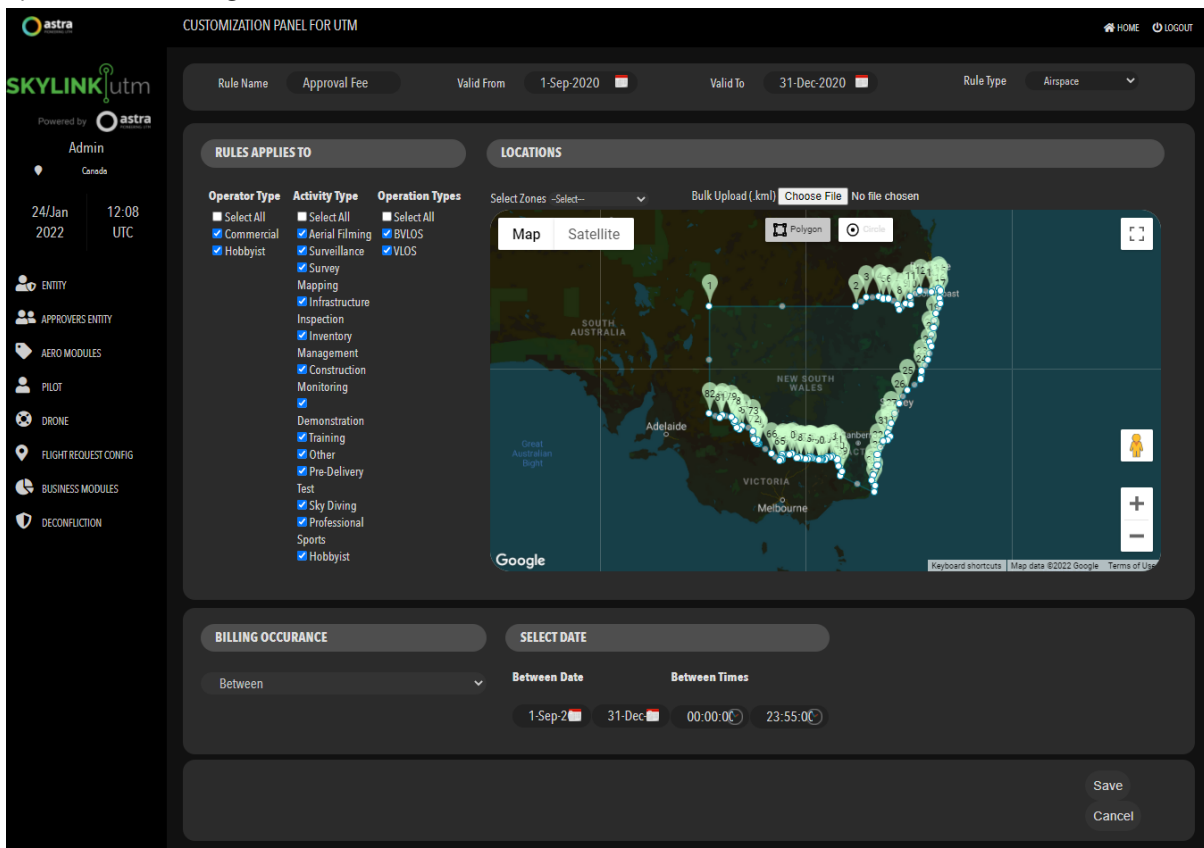
This module enables the administrators to define certain conditions that will help the system to calculate the bill incurred for a particular flight request based on the parameters such as Altitude utilization, Flight duration, Reserved area of operation, and Filming fee, etc.



The administrator clicks on the **Billing** module and gets the below screen.



The administrator clicks on the **Edit** button and gets the below mentioned screen. Here the administrator Edits the already defined Billing rules and clicks on the **Save** button to update the changes.



The administrator can define rules for a particular billing field by clicking on the **Define Rule** option in the dropdown menu based on the parameters as shown in the below image.

+ Create New Billing

Show 50 Entries Search

ID	NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	VALID FROM	VALID TO	STATUS
22	Flight durat...	24-Jan-2022 16:12	Internal	24-Jan-2022 16:12	Internal	01-Jan-2021	31-Dec-2022	Active <span style="float: right;">▼</span>
21	Altitude Uti...	24-Jan-2022 16:12	Internal	24-Jan-2022 16:12	Internal	01-Jan-2021	31-Dec-2022	Edit
20	Filming Fee	24-Jan-2022 16:12	Internal	24-Jan-2022 16:12	Internal	01-Jan-2021	31-Dec-2022	Define Rule
19	Tracker Lease	24-Jan-2022 16:12	Internal	24-Jan-2022 16:12	Internal	01-Jan-2021	31-Dec-2022	Active
18	BVLOS Flight	24-Jan-2022 16:12	Internal	24-Jan-2022 16:12	Internal	01-Jan-2021	31-Dec-2022	Active
17	Flight Duration	24-Jan-2022 16:12	Internal	24-Jan-2022 16:12	Internal	01-Jan-2021	31-Dec-2022	Active
16	Altitude Uti...	24-Jan-2022 16:12	Internal	24-Jan-2022 16:12	Internal	01-Jan-2021	31-Dec-2022	Active

Previous 1 Next

The administrator can define the rule for a particular billing field by entering the Field Group, Fields, SQL Operator, Value and Fixed Fee/Surcharge, etc. They can delete any rule by clicking on the **Delete** button. They can also add any new rule by clicking on the **Add More** button.

Powered by **ASTRA**

Admin

Canada

30/Jan 2022 12:59 UTC

- ENTITY
- APPROVERS ENTITY
- AERO MODULES
- PILOT
- DRONE
- FLIGHT REQUEST CONFIG
- BUSINESS MODULES
- DECONFLICTION

### BILLING RULES

Fixed Fees
+ Add More

Field Group: Flight

Fields: Flight Type

SQL Operator: equals

Value: Aerial Filming

Fixed Fee/Surcharge: 10

Delete

Field Group: Flight

Fields: Flight Type

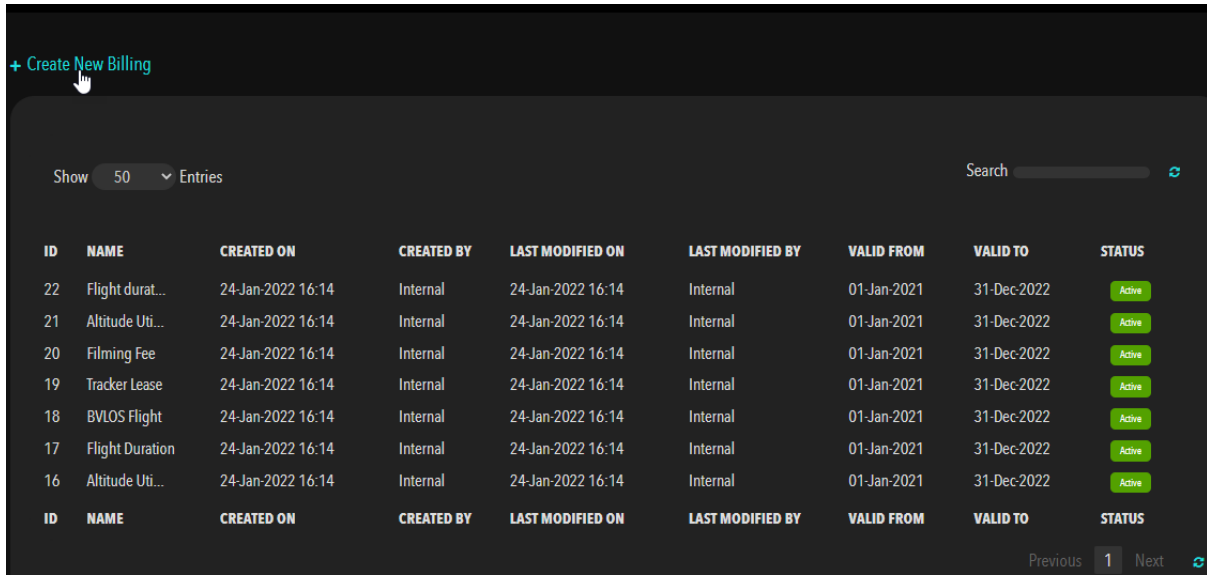
SQL Operator: equals

Value: Construction Monitoring

Fixed Fee/Surcharge: 10

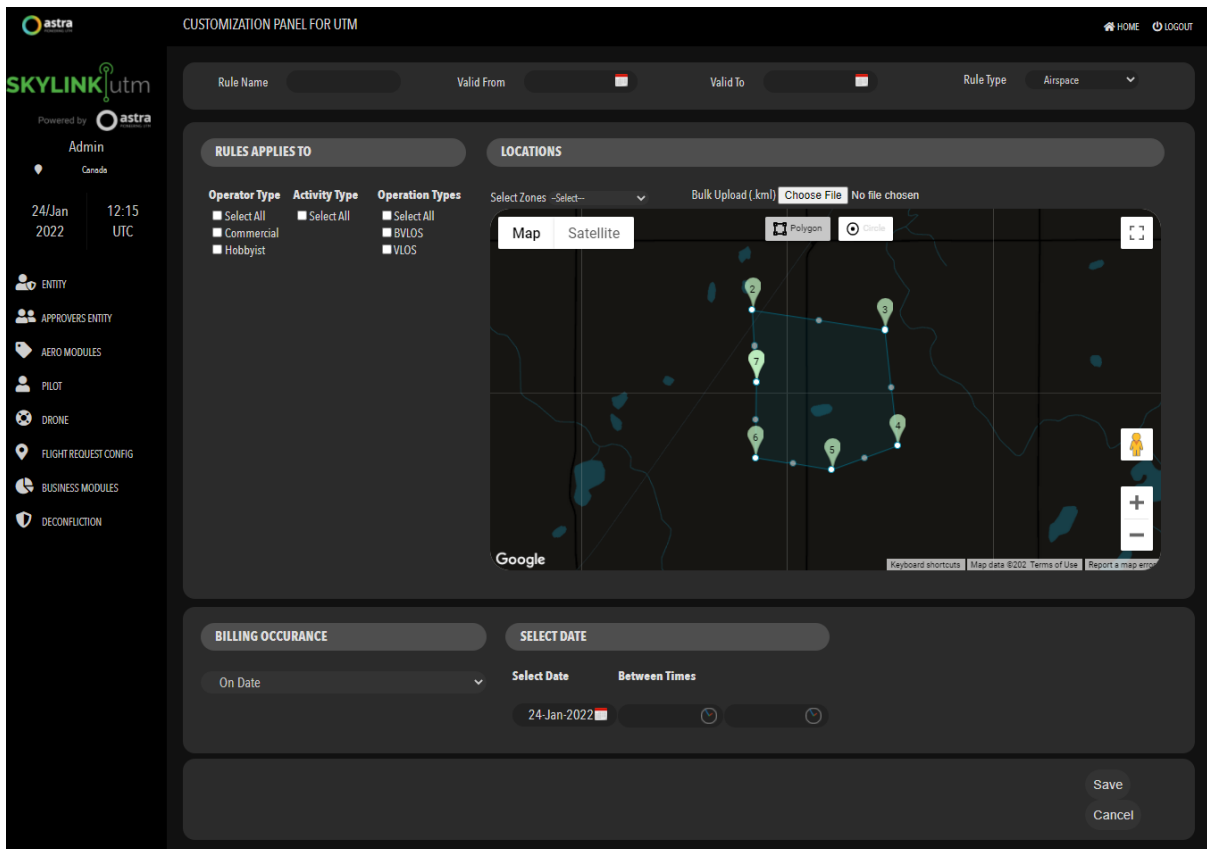
Delete

The administrator can click on the **Create New Billing** option to create the Create New Billing rules.



ID	NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	VALID FROM	VALID TO	STATUS
22	Flight durat...	24-Jan-2022 16:14	Internal	24-Jan-2022 16:14	Internal	01-Jan-2021	31-Dec-2022	Active
21	Altitude Uti...	24-Jan-2022 16:14	Internal	24-Jan-2022 16:14	Internal	01-Jan-2021	31-Dec-2022	Active
20	Filming Fee	24-Jan-2022 16:14	Internal	24-Jan-2022 16:14	Internal	01-Jan-2021	31-Dec-2022	Active
19	Tracker Lease	24-Jan-2022 16:14	Internal	24-Jan-2022 16:14	Internal	01-Jan-2021	31-Dec-2022	Active
18	BVLOS Flight	24-Jan-2022 16:14	Internal	24-Jan-2022 16:14	Internal	01-Jan-2021	31-Dec-2022	Active
17	Flight Duration	24-Jan-2022 16:14	Internal	24-Jan-2022 16:14	Internal	01-Jan-2021	31-Dec-2022	Active
16	Altitude Uti...	24-Jan-2022 16:14	Internal	24-Jan-2022 16:14	Internal	01-Jan-2021	31-Dec-2022	Active

The administrator adds the required information in the below mentioned fields and clicks on the **Save** button. The system shows the confirmation message that the new Billing Rule has been added successfully.



**CUSTOMIZATION PANEL FOR UTM**

Rule Name: \_\_\_\_\_ Valid From: \_\_\_\_\_ Valid To: \_\_\_\_\_ Rule Type: Airspace

**RULES APPLIES TO**

- Operator Type:  Select All,  Commercial,  Hobbyist
- Activity Type:  Select All
- Operation Types:  Select All,  BVLOS,  VLOS

**LOCATIONS**

Select Zones: --Select-- Bulk Upload (.kml):  No file chosen

Map | Satellite | Polygon | Circle

**BILLING OCCURANCE**

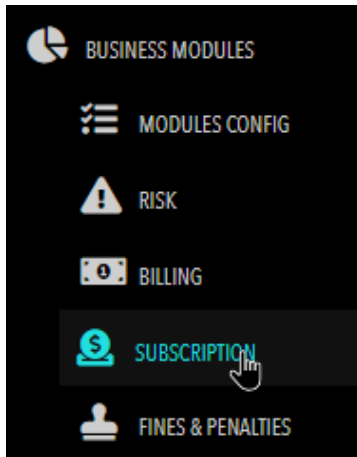
On Date: \_\_\_\_\_

**SELECT DATE**

Select Date: 24-Jan-2022 Between Times: \_\_\_\_\_

## 8.4 Subscription Configuration

This module enables the administrator to define a subscription for a particular area with some parameters such as (Start date and time, End date and time, Fees), and the users can opt to take a subscription for that particular area if he/she is frequently flying in that area.



The administrator clicks on the **Subscription** and gets the below screen. This screen shows the Listing view of already defined Subscription in the System.

+ Create New Subscription

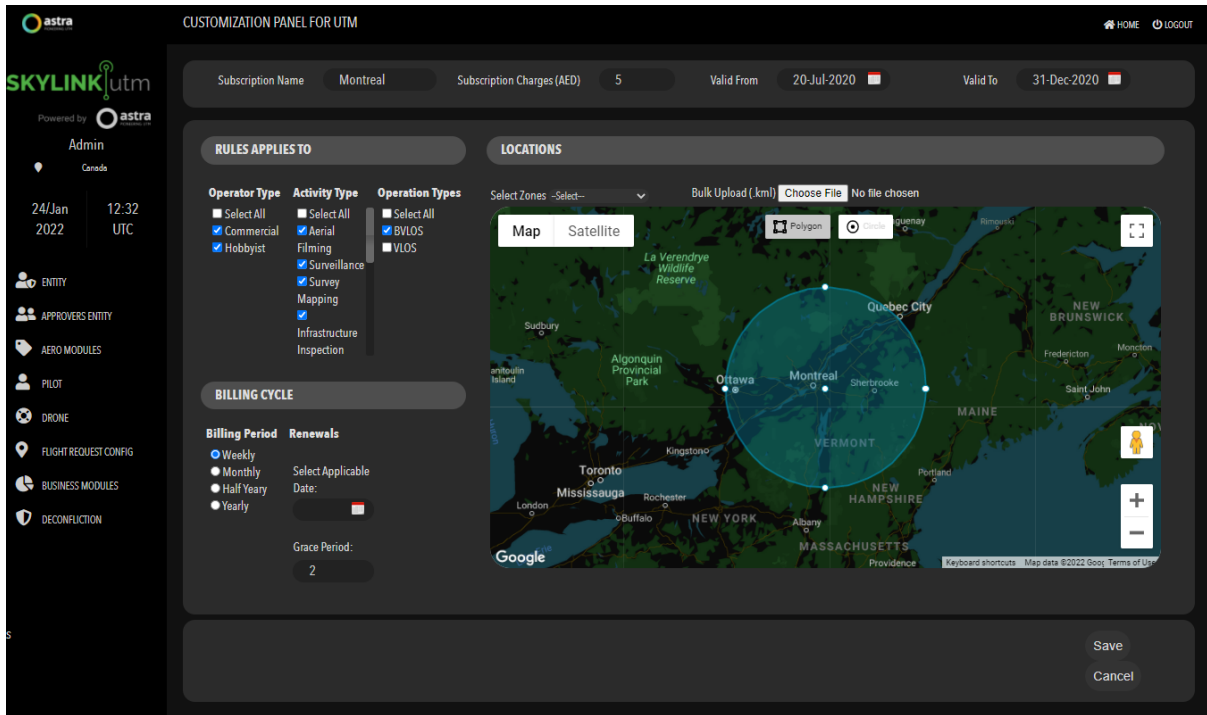
Show 50 Entries Search

ID	NAME	BILLING CYCLE	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	VALID FROM	VALID TO	STATUS
5	Al Khail Cor...	2	24-Jan-2022 16:26	Internal	24-Jan-2022 16:26	Internal	01-Nov-2020	31-Dec-2022	Active
4	E11 Corridor	2	24-Jan-2022 16:26	Internal	24-Jan-2022 16:26	Internal	01-Nov-2020	31-Dec-2022	Active
3	Palm Jumeirah	2	24-Jan-2022 16:26	Internal	24-Jan-2022 16:26	Internal	01-Nov-2020	31-Dec-2022	Active
2	World Island	2	24-Jan-2022 16:26	Internal	24-Jan-2022 16:26	Internal	01-Aug-2020	31-Dec-2021	Expired
1	Palm Jumeirah	2	24-Jan-2022 16:26	Internal	24-Jan-2022 16:26	Internal	01-Aug-2020	30-Sep-2021	Expired

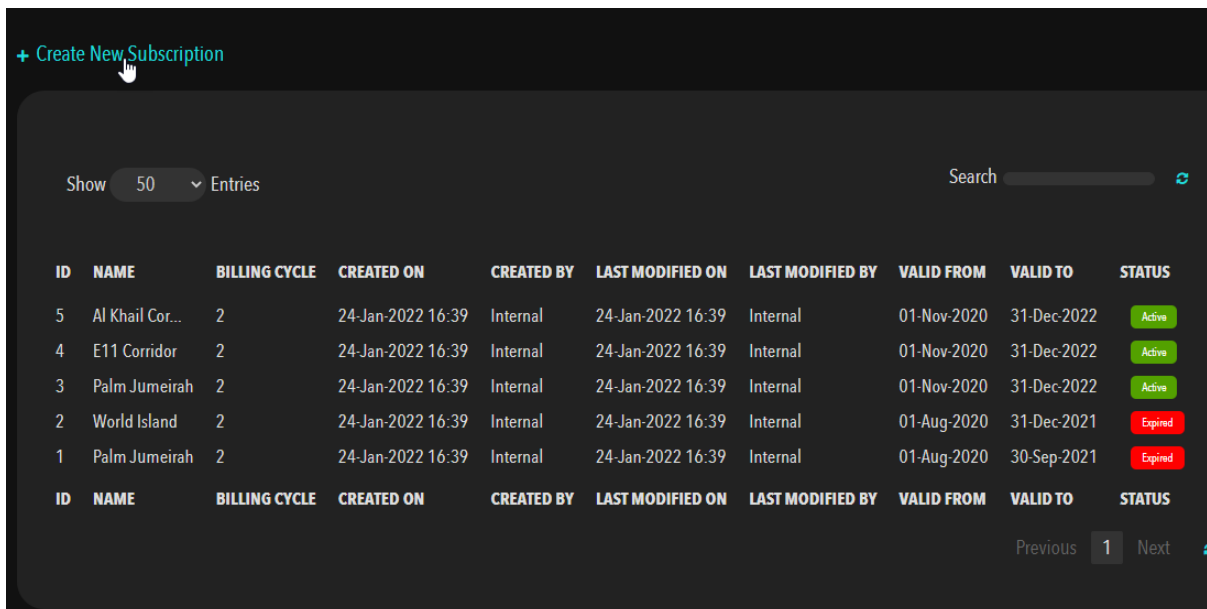
Previous 1 Next



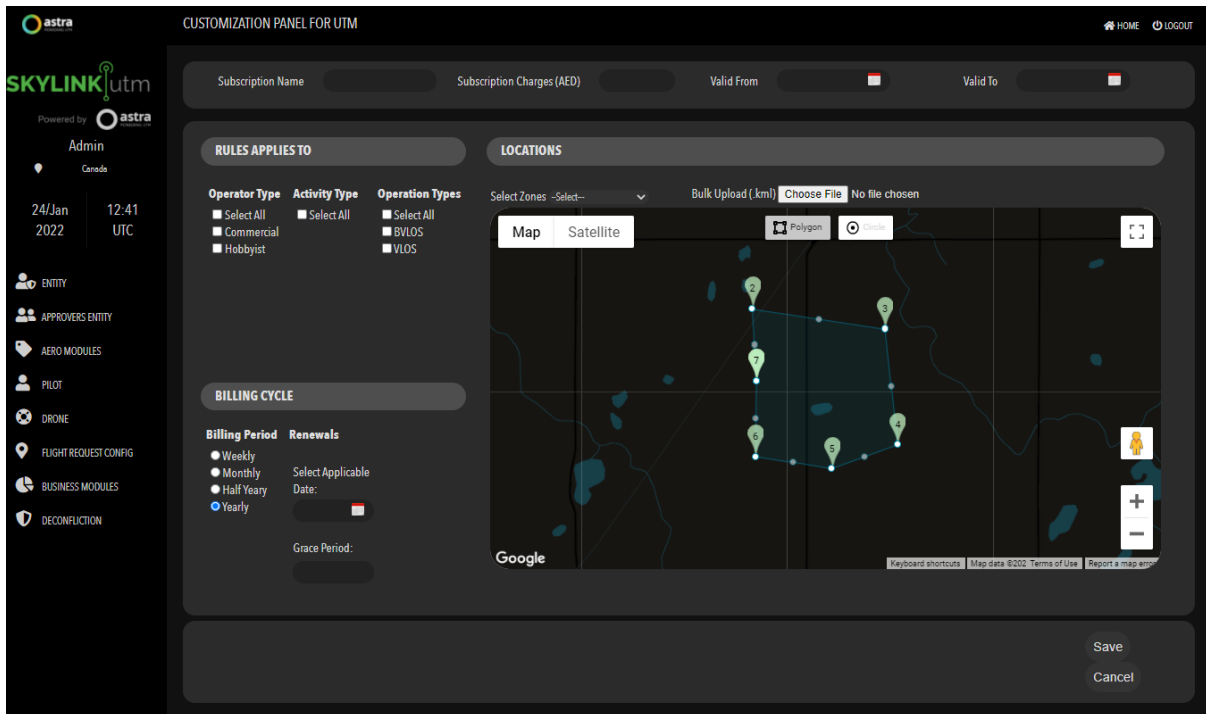
The administrator clicks on the **Edit** option in the dropdown menu and gets the below mentioned screen. Here the administrator Edits the already defined rules for Subscription.



The administrator clicks on the **Create New Subscription** option and gets the below mentioned screen to create the New subscription Rules.

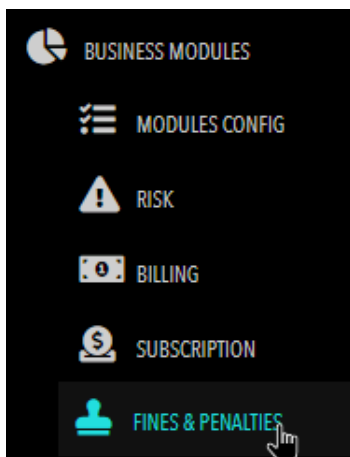


The administrator adds the information in the below mentioned fields and clicks on the **Save** button to create the new Subscription rules.

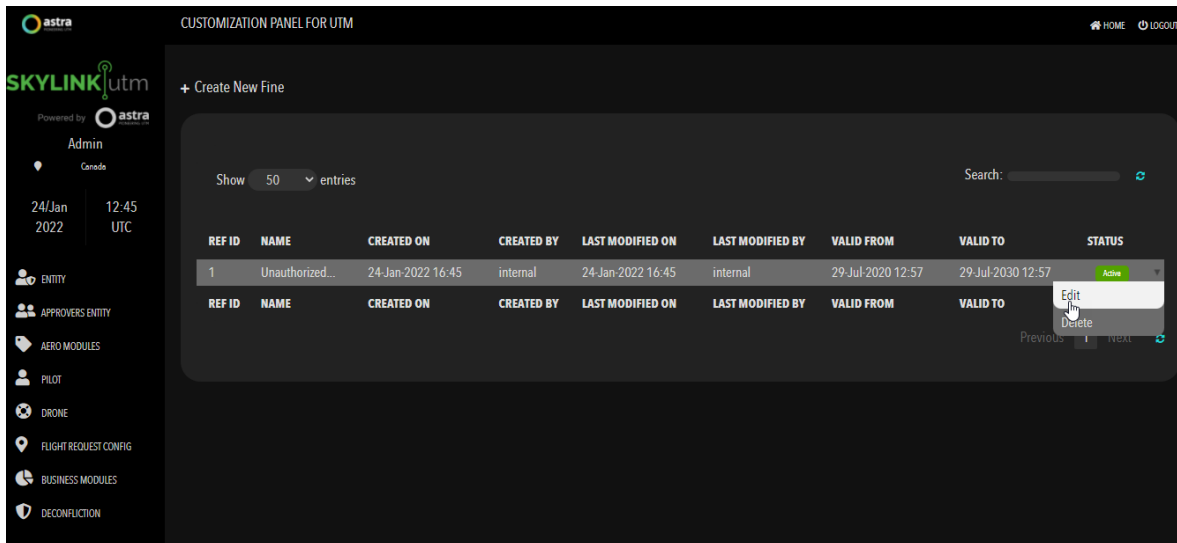


### 8.5 Fines and Violations Configuration

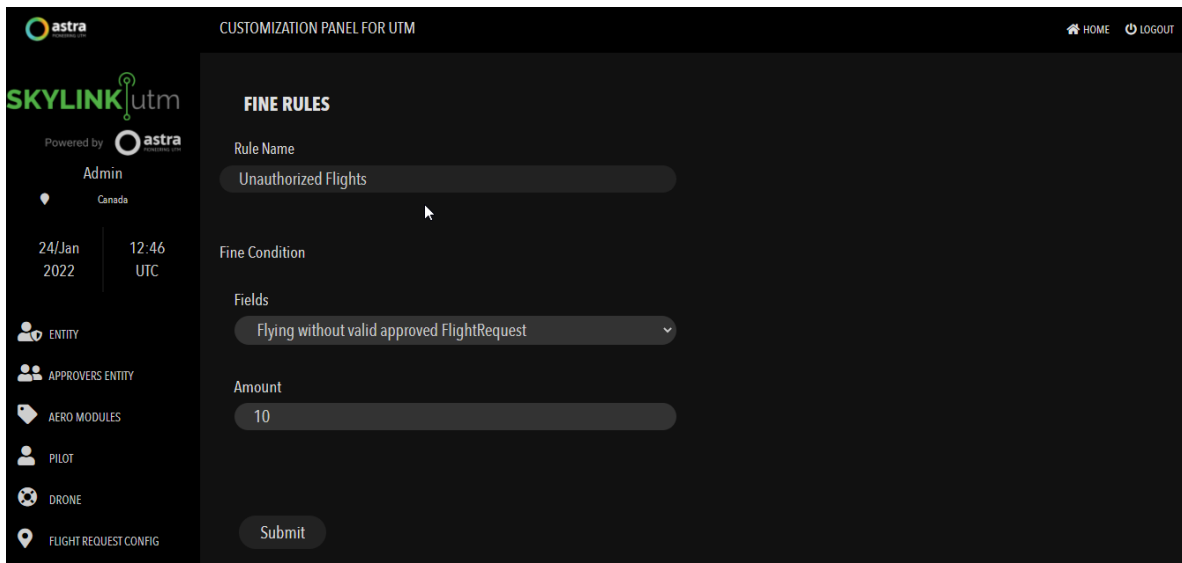
This module enables the administrator to define the fines and penalties in case a user violates the regulations set by the authority. For example: Overstaying in the area of operation outside of the allotted time, Flying without a valid approved flight request, Breaching the defined altitude, Breaching the boundary of the flight request area, etc.



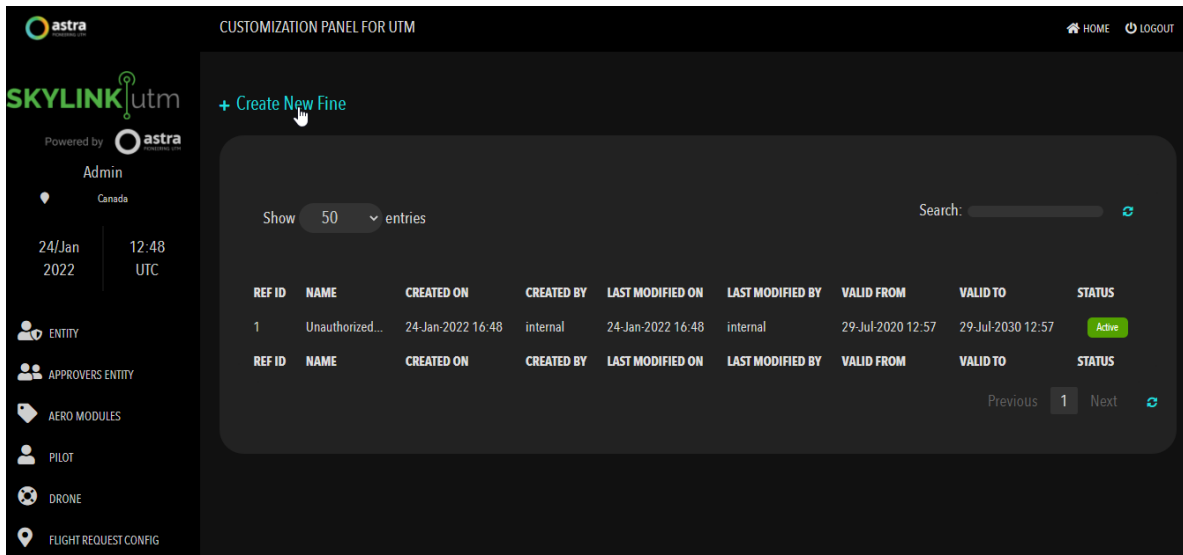
The administrator clicks on **Fines & Penalties** and gets the below mentioned screen. It is a listing page where the already created Fines and Penalties are displayed.



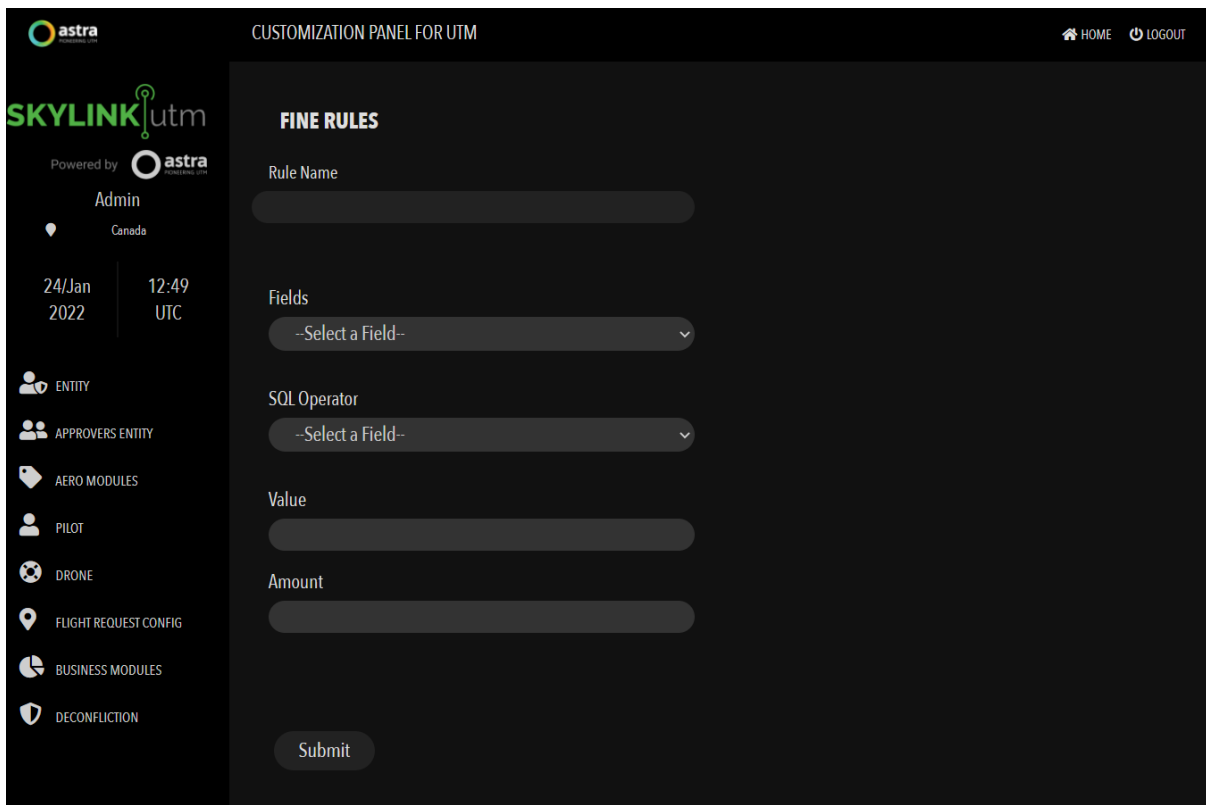
After clicking on the **Edit** option in the dropdown menu, the administrator edits the already defined Fines and clicks on the Submit button.



To create a new Fine and Penalties in the system, the administrator clicks on the **Create New Fine** button.



After clicking on the Create New Fine, the administrator gets the below mentioned screen. They can enter the Rule name, define the fields and assign a value to the field.



After entering all the details, the administrator clicks on the **Submit** button to create a new Fine in the system.

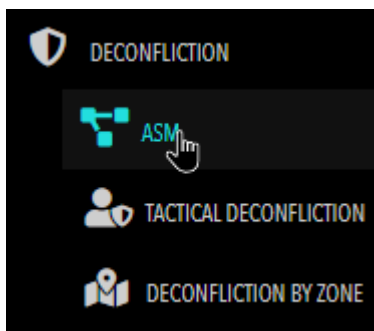
## 9 Deconfliction Configuration

This module enables the administrator to set up the rules based on certain parameters that helps the system to alert/notify the user in case the UAS is about to collide with any object in the airspace. The administrator is able to define the horizontal and vertical separation between the two UAS.

### 9.1 Alert State Management

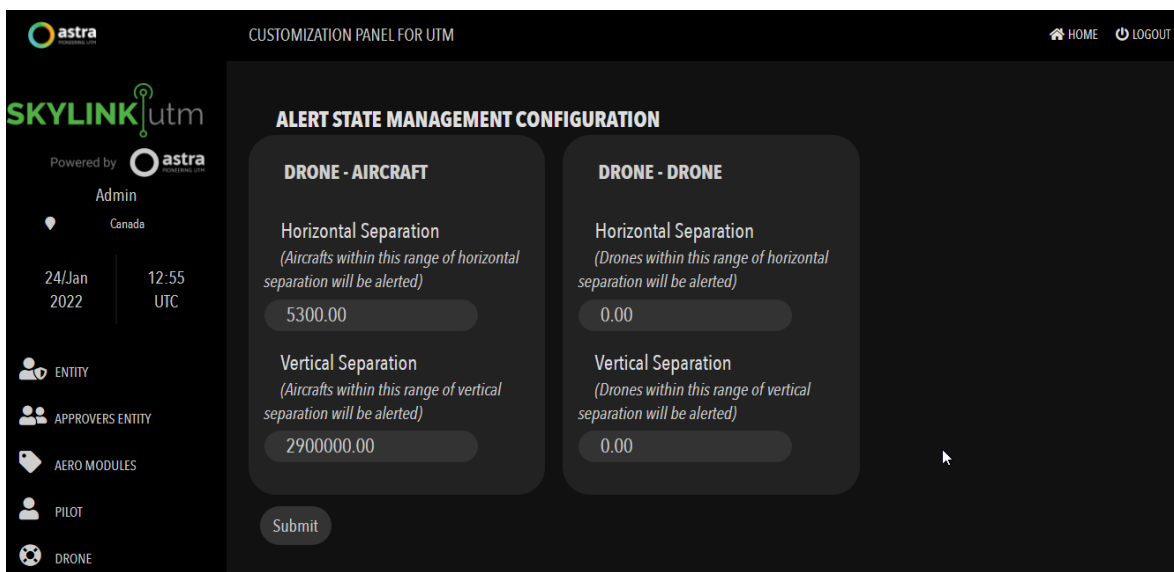
This module enables the administrator to set up the rules based on certain parameters that will help the system to alert the operator in case the drone is in proximity to another object either horizontally or vertically.

The administrator clicks on Deconfliction and selects the **ASM** option from the menu.



After clicking on the **ASM** option, the administrator is able to define the Drone to Aircraft separation horizontally and vertically, the administrator can also define the Drone to Drone separation horizontally and vertically.

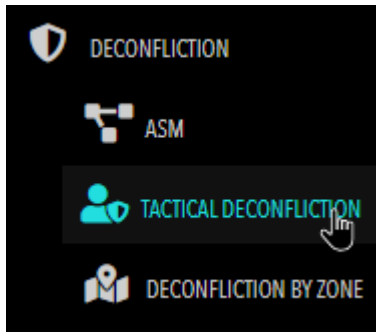
The value defined in the separation field will be used by the system to alert the drone operators during the flight.



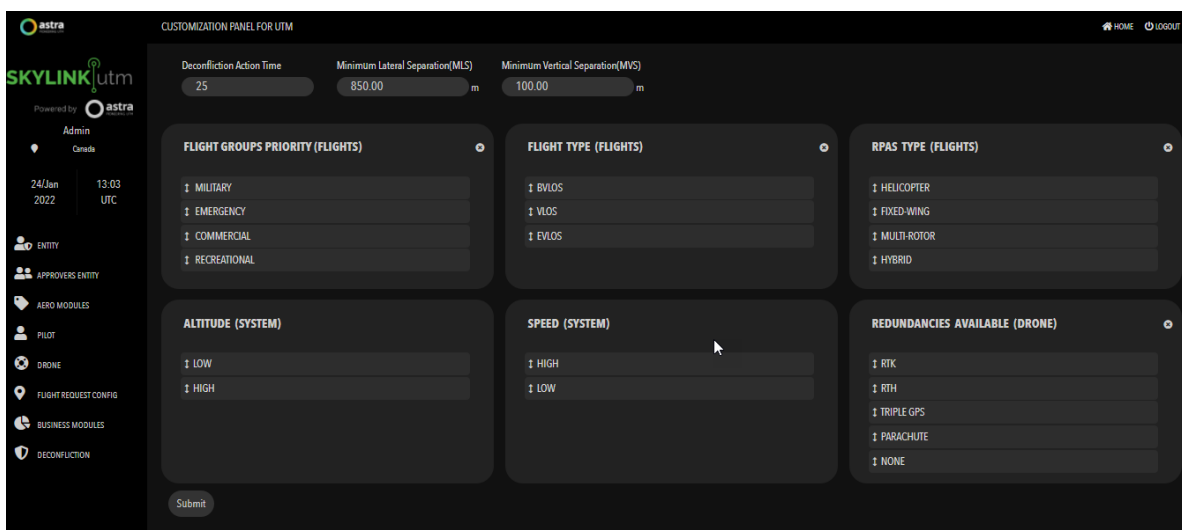
## 9.2 Tactical Deconfliction

This module enables the administrator to set up the rules based on certain parameters that will help the system to alert the operator depending upon the priority level for the UAS type.

The administrator clicks on Deconfliction and selects the **Tactical Deconfliction** option in the menu.



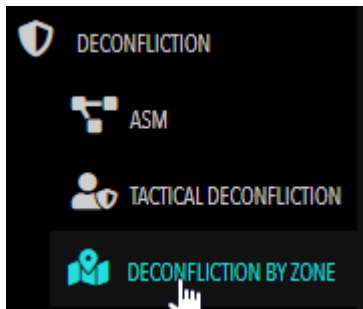
After clicking on the **Tactical Deconfliction** option, the administrator is able to define the priority level on the basis of Flight groups, Flight Type, UAS Type, Altitude, Speed and Redundancies available, etc. After defining the priority levels for tactical deconfliction, the administrator can click on the Submit button to save the changes.



### 9.3 Deconfliction by Zone

This module enables the administrator to set up the rules based on certain parameters such as if the zone is allowed to have overlapping flight requests, or not allowed to have overlapping flight requests or allowed to have overlapping flight requests but only if they are approved manually by the administrators. These parameters will help the system to alert the operator based upon the area of operation in which they want to operate.

The administrator clicks on Deconfliction and selects **Deconfliction By Zone** option in the menu.



After clicking on the **Deconfliction By Zone** option, the administrator gets the listing view of all the Deconfliction By Zone parameters added in the system.

astrea CUSTOMIZATION PANEL FOR UTM

SKYLINKutm

Admin

24/Jan 2022 13:09 UTC

ENTITY

APPROVERS ENTITY

AERO MODULES

PILOT

DRONE

FLIGHT REQUEST CONFIG

BUSINESS MODULES

DECONFLICTION

Search:

ZONE ID	ZONE NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	DECONFLICTION TYPE	STRATEGIC DECONFLICTION PARAMETER	ZONE STATUS	EDIT
2127	Approver group: Airmarket Approver	7/21/2020 12:07:23 PM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
6413	Approver group: Lamont County	8/5/2020 6:02:24 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
6414	Approver group: Department of National Defence	8/6/2020 10:02:07 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
6420	Approver group: Suncor Base Mine	9/4/2020 8:24:04 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
6421	Approver group: Suncor Mine Ops	9/4/2020 8:25:25 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
6422	Approver group: Suncor Aviation	9/6/2020 6:48:36 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
6423	Suncor Aviation	9/6/2020 7:47:59 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
6424	Suncor Aviation	9/6/2020 7:49:10 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
6425	Suncor Aviation	9/6/2020 8:01:39 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
6426	Suncor Aviation	9/6/2020 8:05:14 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
6802	#1 - Middle Leg	12/21/2020 4:04:54 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
6803	#2 - East Leg	12/21/2020 4:05:40 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
6804	#3 - South Leg	12/21/2020 4:06:23 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
6818	Abha International Airport	12/22/2020 8:07:12 PM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
6820	Abu Ali Airport	12/22/2020 8:07:12 PM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
7159	King Khaled International Airport_	12/25/2020 8:31:38 PM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
7160	Thumamah Airport_	12/25/2020 8:31:38 PM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
7161	King Abdul Aziz Military Academy Airport	12/25/2020 8:31:38 PM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
7179	Al Ahsa Airport_	12/25/2020 8:35:21 PM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕
7180	Gassim Airport_	12/25/2020 8:35:21 PM	admin.airmarket		admin.airmarket	Tactical		Enabled	✕

Previous 1 ...

The administrator can edit any parameter by clicking on the **Edit** button as shown in the below image.

ZONE NAME	CREATED ON	CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	DECONFLICTION TYPE	STRATEGIC DECONFLICTION PARAMETER	ZONE STATUS	EDIT
Approver group: Airmarket Approver	7/21/2020 12:07:23 PM	admin.airmarket		admin.airmarket	Strategic	Select	Enabled	
Approver group: Lamont County	8/5/2020 6:02:24 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	
Approver group: Department of National Defence	8/6/2020 10:02:07 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	
Approver group: Suncor Base Mine	9/4/2020 8:24:04 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	
Approver group: Suncor Mine Ops	9/4/2020 8:25:25 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	
Approver group: Suncor Aviation	9/6/2020 6:48:36 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	
Suncor Aviation	9/6/2020 7:47:59 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	
Suncor Aviation	9/6/2020 7:49:10 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	
Suncor Aviation	9/6/2020 8:01:39 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	
Suncor Aviation	9/6/2020 8:05:14 AM	admin.airmarket		admin.airmarket	Tactical		Enabled	

Here the administrator edits the Deconfliction By Zone rule by selecting the **Deconfliction Type** and **Strategic Deconfliction Parameters** in the dropdown menu.

CREATED BY	LAST MODIFIED ON	LAST MODIFIED BY	DECONFLICTION TYPE	STRATEGIC DECONFLICTION PARAMETER	ZONE STATUS	EDIT
admin.airmarket		admin.airmarket	Strategic	Select	Enabled	Save  Cancel
admin.airmarket		admin.airmarket	Tactical	Overlap Flights Allowed	Enabled	
admin.airmarket		admin.airmarket	Tactical	Overlap Flights Not Allowed	Enabled	
admin.airmarket		admin.airmarket	Tactical	Overlap Flights with Manual Approver	Enabled	
admin.airmarket		admin.airmarket	Tactical		Enabled	
admin.airmarket		admin.airmarket	Tactical		Enabled	
admin.airmarket		admin.airmarket	Tactical		Enabled	

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