



USER MANUAL VOLANS PUBLIC DISPLAY FOR JOHN WAYNE AIRPORT

BridgeNet International

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1 Welcome

Welcome to Volans Public Display. Volans is a web-based application designed to display real time or playback flight operations in 3D. Through this application, users will be able to easily visualize air traffic operations, to or from John Wayne Airport, and over Orange County. Viewers will also have access to various features, not only to view flights in 3D, but also visualize them from different perspectives, above diverse maps and select aircraft data.

1.1 Accessibility

For Volans Public Display, simply click on <http://jwaflighttrackviewer.airportnetwork.com>

Supported browsers include Chrome, Internet Explorer, Firefox, Safari, and Microsoft Edge. Chrome is preferred.

1.2 Navigation

Volans can be controlled by touchscreen or by using the keyboard and the mouse to zoom in and out, pan the view by swiveling the terrain, or tilting the view toward or away from the earth.

Touch screen



Pan View

One finger Drag



Rotate View

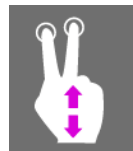
Two finger Drag

Opposite Direction



Zoom View

Two finger pinch



Tilt View

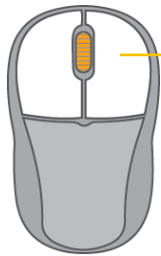
Two finger Drag

Same Direction

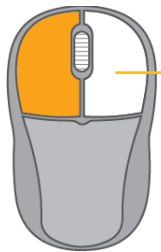
Keyboard functions

Key	Function
Arrows	Move the map up, down, right or left
Ctrl + up arrow	Zoom In
Ctrl + down arrow	Zoom out

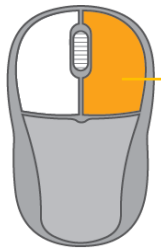
Mouse Functions



Zoom in by using the scroll button on the mouse and rolling it forward.
Zoom out by rolling it toward you.



Left click the map to move the terrain around manually to get the location of your choice.



Right click the map and make a circle either clockwise or counter-clockwise to pan the view. Finally, right click the mouse and drag up or down to change the tilt. This will come in handy when you would like to view a procedure or topography from different perspectives.

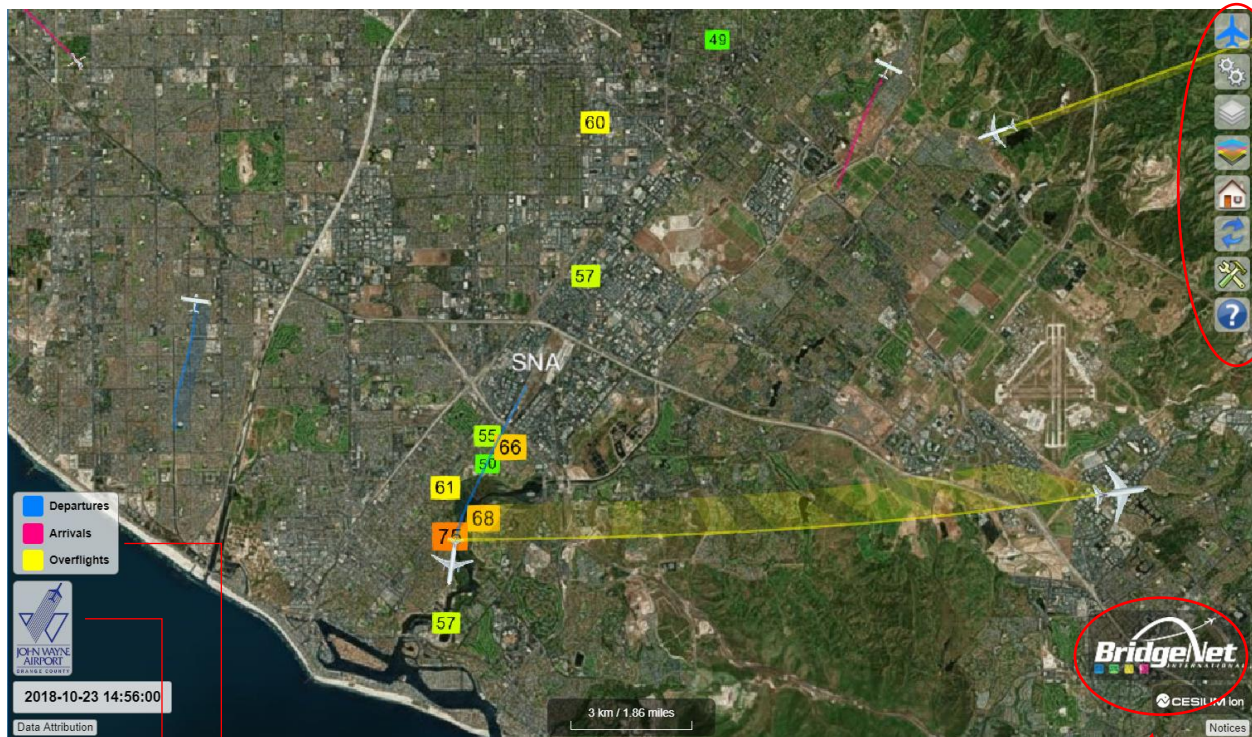
1.3 Map Display

After clicking on the website, the user will be immediately directed to the webpage with near real-time flight operations surrounding John Wayne Airport. By default, the display colors aircraft trails and curtains by type of operation: yellow for overflights, blue for departures, and pink for arrivals. On the bottom-left side of the screen the user will see the aircraft description, John Wayne Airport logo as well as the date and time. On the bottom-right area of the screen, BridgeNet International logo. On the top-right, the user will have access to a menu with various features to change the look and feel of the application. These tools are used to visualize air traffic in different perspectives, they will not be capable to generate any type of analysis.

The user may also visualize general information of an aircraft by simply left clicking once on it. The selected aircraft will be circled in yellow and a grey box with information, such as its altitude, will appear above it.

Note the colored boxes with numbers in them – this is the noise decibel level at that noise monitoring station at that moment in time. You have the choice in the settings to show/hide the noise monitors, and to choose to see decibel level, noise monitor ID, or both.

Menu



Operation legend

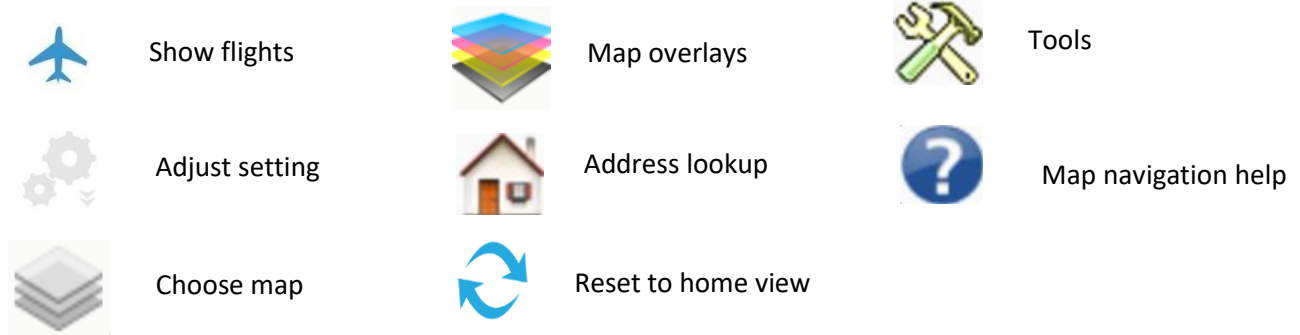
Airport's logo

Date and time of operations

BridgeNet International logo

2 Menu Bar

The menu bar offers seven features to the user in order to change perspectives while visualizing aircraft operations:

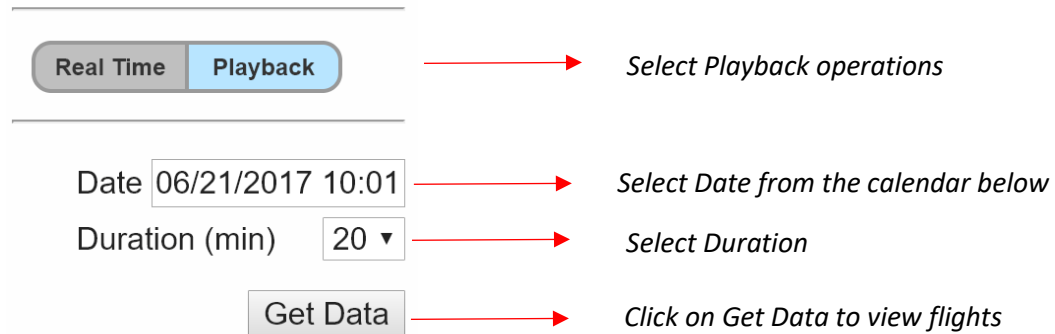


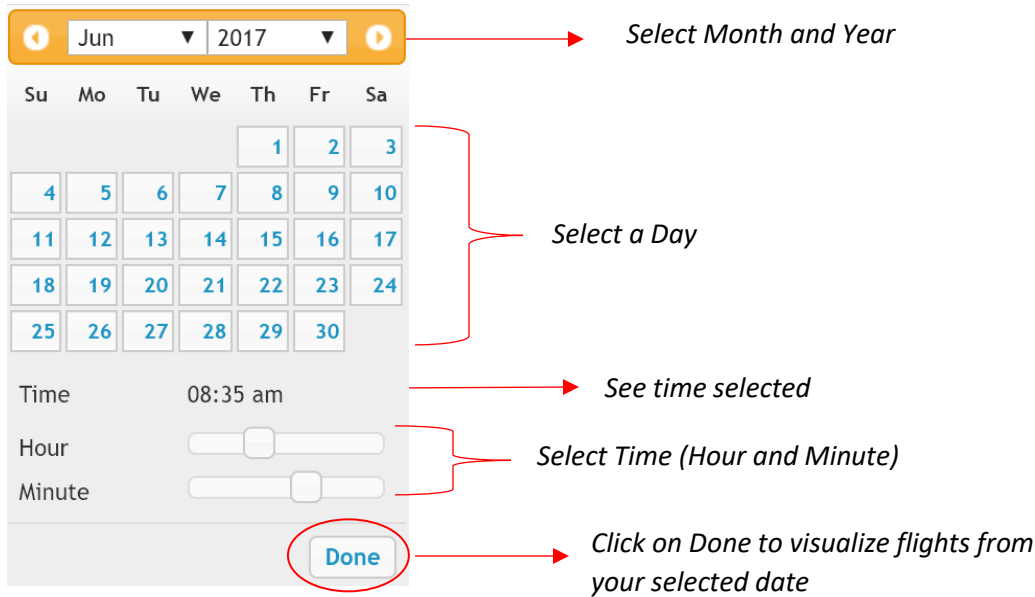
2.1 Show Flights



Show flights allows the user to select real-time or playback aircraft operations. If the user chooses to view playback operations a dropdown menu will appear to enter the date and duration of flights desired.

Flights





2.2 Adjust Settings



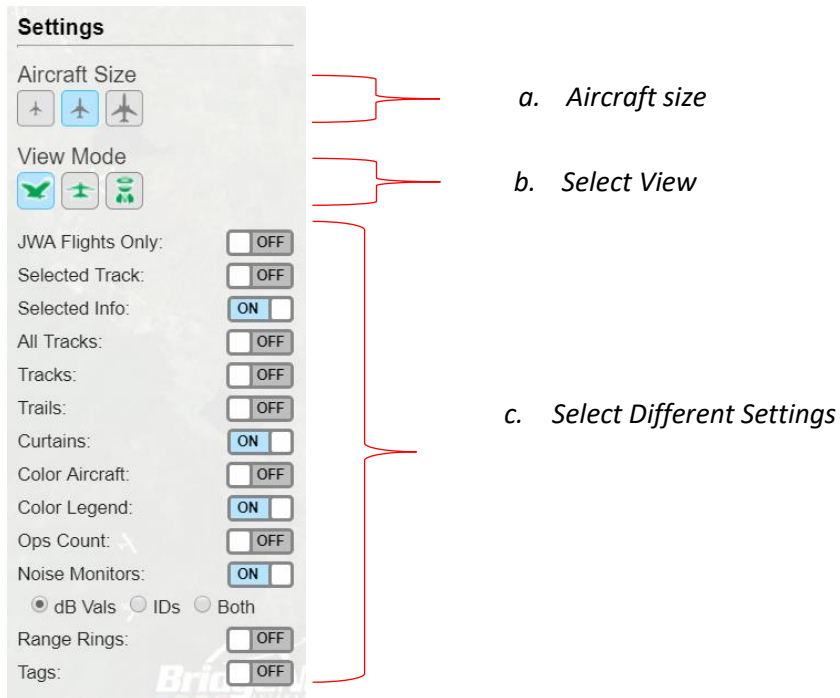
Adjust settings is used to obtain specific data or aircraft information. The user may also visualize general information of an aircraft by simply left clicking once on it. The selected aircraft will be circled in yellow and a grey box with information, such as its altitude, will appear above it. The user may select different aircraft information from the *Tags* feature at the bottom of the settings menu.



- ✓ *Flight number*
- ✓ *Aircraft type*
- ✓ *Altitude*

Selected aircraft

It is also possible to adjust the aircraft size between small, medium or large and change views. The default settings are programmed to show medium size aircrafts, trails and curtains colored by type of operation, with a bird eye view. To view other information simply click the check box assigned to a setting from *OFF* to *ON*.



a. Select Aircraft:

You may change aircraft size from small, medium to large. The default size is set on medium but if you wish to change that, simply click on the smallest or largest aircraft logo.

b. Select View:

Three different views are available.



Bird Eye View: An elevated view of an object from above.



Follow Flight View: An elevated view following an aircraft from behind. To use this view, you will need to select an Aircraft first.



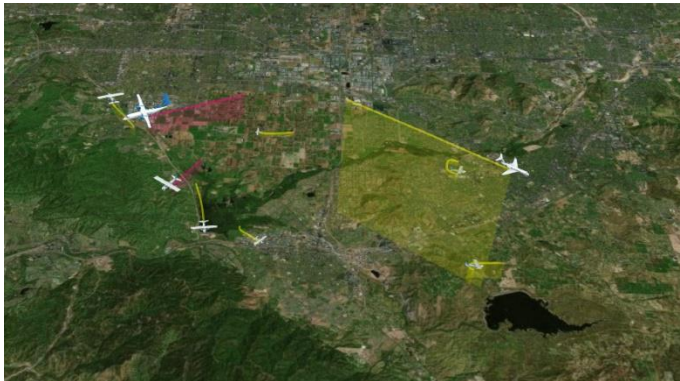
Pilot View: Cockpit View as if you were the pilot of a selected aircraft. To use this view, you will need to select an Aircraft first.

c. Select Different Settings:

- **JWA Flights Only:** Show only flights departing or landing at John Wayne Airport. Turning ON this feature will hide all overflights.
- **Selected Track:** Show Flight Track of a Selected Aircraft
- **Selected Info:** Show Flight Information of a Selected aircraft
- **All Tracks:** Turning this feature ON will display all loaded flight tracks, regardless of whether or not those flights are in the air during the date/time being displayed.
- **Tracks:** The “Tracks” switch only displays tracks that are in the air at the date/time being displayed.
- **Trails:** Show Aircraft Trails.
- **Curtains:** Turning ON this feature will display curtains below all aircrafts displayed on the screen. This tool can be very helpful to visualize different altitudes.
- **Color Aircraft:** Visualize Aircrafts colored by type of operations:
 - Departures: Blue
 - Arrivals: Pink
 - Overflights: Yellow
- **Color Legend:** Turning ON this feature will display the color legend on the bottom left of your screen.
- **Ops Count:** Turning ON this feature will count all Departures, Arrivals and Overflights shown on the screen. You can see the Operation Count in the color legend (bottom left of your screen).
- **Noise Monitors:** Display noise monitors surrounding John Wayne Airport. Options to only show the noise monitor decibel value, the noise monitor “ID”, or both. The decibel level is the noise value at the same time as the flight tracks, whether you are in “live” or “playback” mode. See pictures below for how the different settings operate.
- **Range Rings:** Display Range Rings.
- **Tags:** Turning ON this feature will display a Tag with aircraft information for all flights displayed on the screen. You can choose to display different information (Flight Id. Aircraft, Origin/Destination, Altitude and Heading).

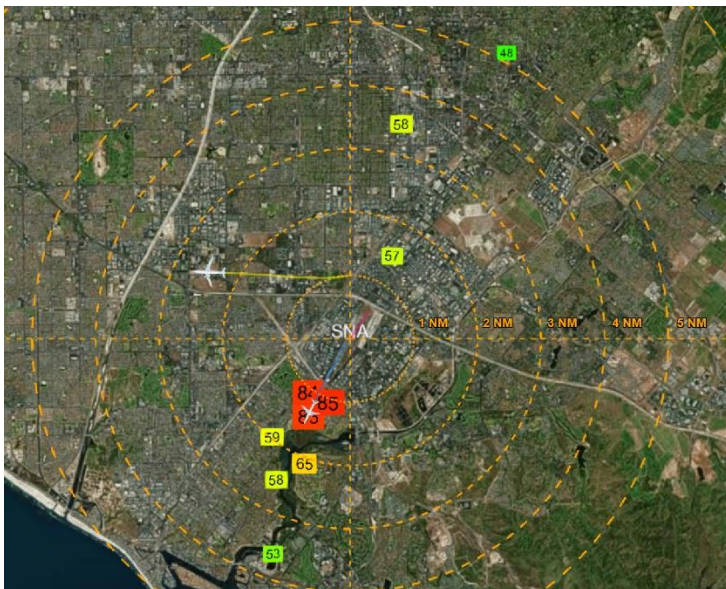
Example with different settings

Let's present different views and settings:

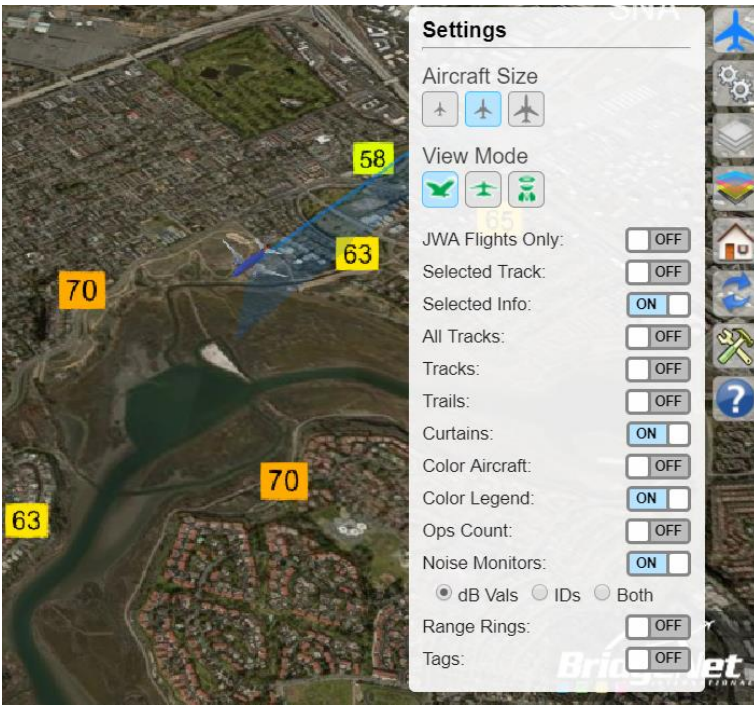


- ✓ Bird Eye View,
- ✓ Large Aircraft
- ✓ Colored Aircraft OFF
- ✓ Curtains ON

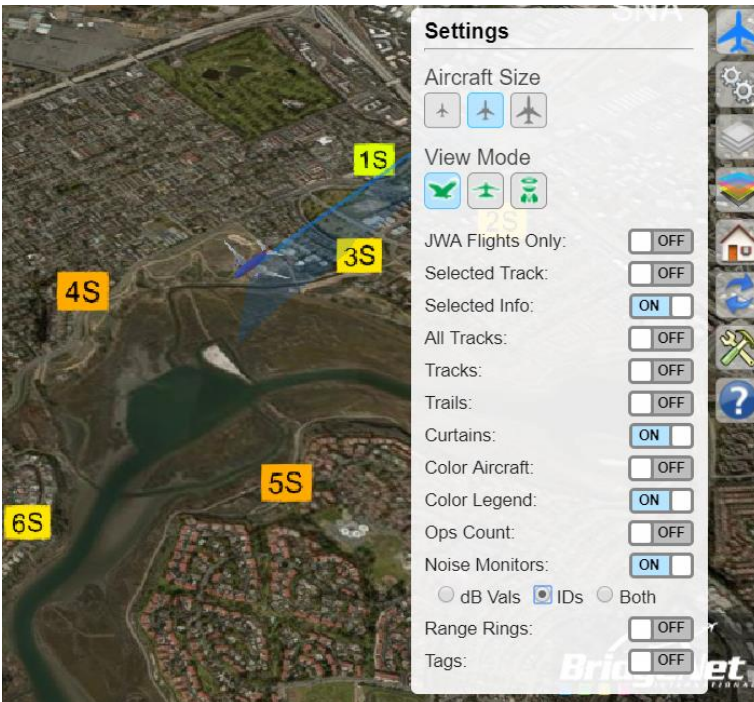
- ✓ Pilot View
- ✓ Colored Aircraft



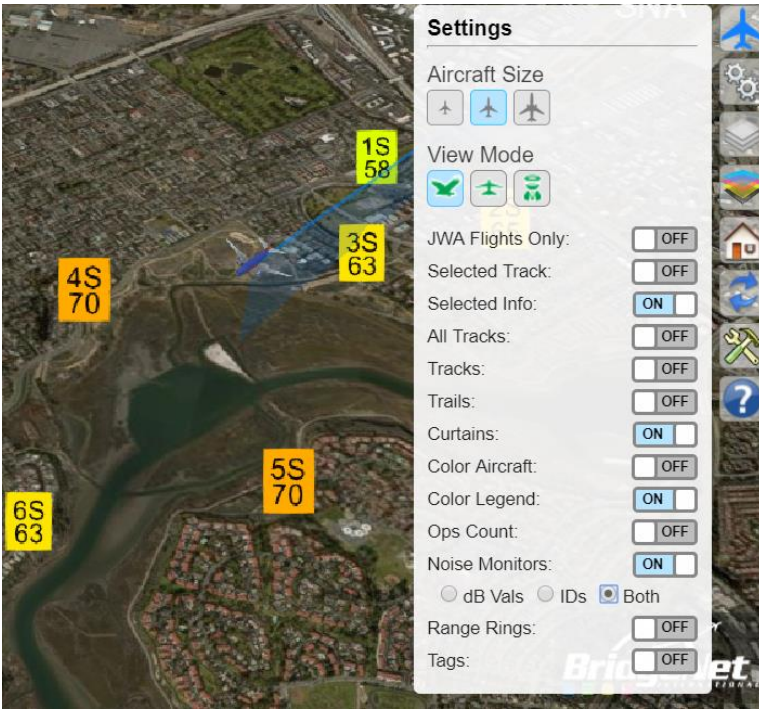
- ✓ Bird Eye View
- ✓ Colored Aircraft OFF
- ✓ Range Ring ON
- ✓ Noise Monitors ON, dB Vals
- ✓ Selected Aircraft



- ✓ Noise Monitors ON, choice of “dB Vals”



- ✓ Noise Monitors ON, choice of “IDs”



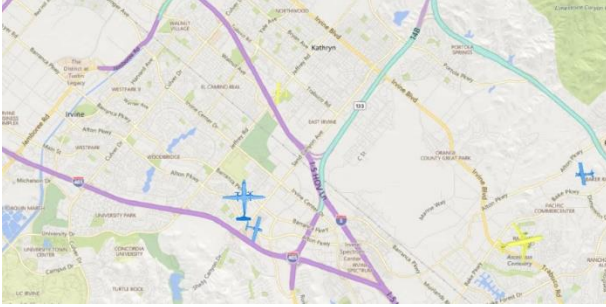
- ✓ Noise Monitors ON, choice of “Both”

2.3 Choose map



Volans Public Display offers three different maps to visualize aircraft operations in Orange County:

- ✓ BN Streets- Google map style

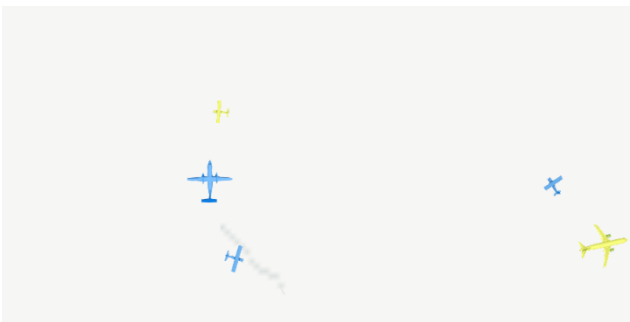


Note: The more you will zoom in, the more detailed the map will become.

- ✓ Earth map



- ✓ Light map



2.4 Map Overlays



The Map Overlays feature allows you to identify city boundaries around the airport. Each city is highlighted in a different color. The user may also adjust the opacity of the city boundaries using the transparency glider tool.

Map Overlays

→ *Click on the checkbox to visualize city boundaries*

→ *Adjust opacity with the transparency glider*



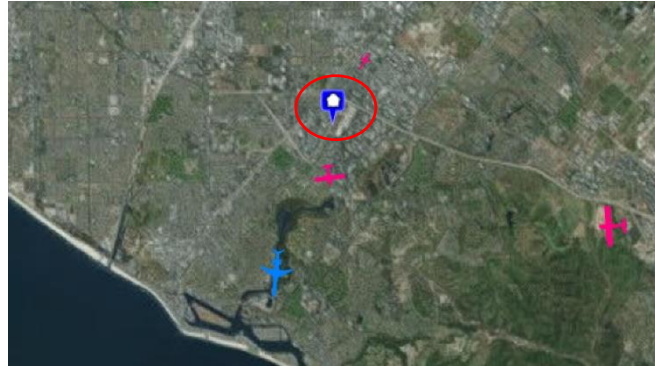
2.5 Address Lookup



With the Address Lookup feature the user will be able to mark on the map a precise location by entering a city, an address or an organization's name.

For example, let's find John Wayne Airport by entering the airport code, SNA, in the search box. The map will automatically fly the user to the location and mark it in blue.

Address Lookup



2.6 Reset to Home View



By clicking on Reset to home view, the user will go from its current view back to the initial bird eye's view.

2.7 Tools



This tool allows you to click and measure distances between any two points on the screen.

Simply select a flight and click Start, click on the map once for the end point. It will tell you the distance in either Mile, Nautical Miles, Feet, or Kilometers depending on your selection. Click Stop to stop drawing (else your next click will start a new line). Click Clear to remove the line from the screen.

Tools

Slant Distance

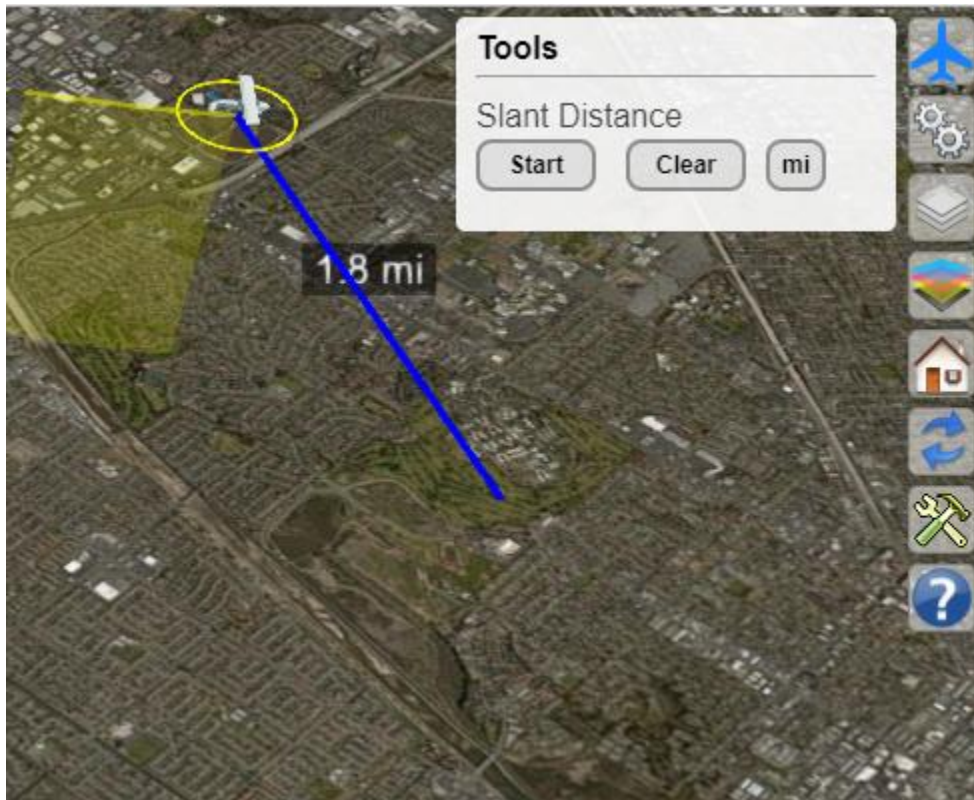
Start Clear mi

Miles
 Nautical Miles
 Feet
 Kilometers

Select Units

Click on Clear to remove the line from the screen

Click on Start to create a line



2.8 Map Navigation Help



This tool is a reminder of how to navigate through the interface using the keyboard / mouse functions or the touchscreen.