

REX SKY FORCE 3D

TOTAL ATMOSPHERIC IMMERSION



USER MANUAL



REX SIMULATIONS
FLIGHT SIMULATION SOFTWARE

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What is Sky Force 3D?

FIRST, SKY FORCE 3D IS THE FOLLOWING:

- 3D Cloud Model Structures, based on real-world cloud classification
- Intelligent Weather Engine with Real-Time Weather and Cloud Model Synchronization
- Photo-Based Global Environment Texture and Effects
- PTA Integration
- Flight Center
- Interactive Weather Mapping System
- Local & Shared Community Integration
- Advanced Customization

Sky Force 3D is a complete overhaul of the weather and environmental experience while bringing dimension to FSX, FSX Steam, and Prepar3D v1, 2, 3 and 4. This is accomplished through a single platform by:

- Redoing the 3D cloud model structure and SDK and patterning it after **real-world cloud classifications** with their own specifications, positions and heights.
- Developing real-world cloud model system including (but not limited to) **cloud streets, super cells, wall clouds, funnel, shelf, rain shaft and tornadoes.**

- Integrating a weather engine that harnesses **over 70,000 points of weather data globally.** The weather engine reads and interprets live model data to sample the atmosphere and therefore will sync the appropriate clouds structures, allowing for more accuracy.
- Incorporating **synchronization technology which dynamically syncs 3D cloud model structures in real-time during flight.**
- **Increasing frame rates** by eliminating unnecessary cloud sprites for all cloud types.
- Restructuring the cloud SDK for true formation realism. **No more upside down clouds in bizarre and unrealistic positions, or cloud bases that are presented with repeating patterns.**
- Elevating the visual experience through our new **natural, photo-based environment texture technology while exploiting the power of PTA integration.**
- Developing **single-session cloud texture variation, allowing more variety during a flight session**, increasing the overall realism.

...and much, MUCH more! Read on.



WE HAVE SUCCESSFULLY CREATED SUPERIOR CLOUD AND WEATHER FORMATIONS.

The simulator will now be able to display soft and more robust detailed clouds structured together within the SAME session. In addition, we have developed close to **3,000 new cloud model structures and cloud types, nearly 20GB of natural photo-based environmental textures as well as hi-definition atmospheric sound effects.**

Sky Force 3D also simulates real-world cloud classification; from uniform clouds to full and complete mature stage cloud structures... all while being able to be synced in real-time in sim!

Even with costly similar aftermarket products installed, weather systems severely lack due to the constraints of the simulator SDK.

WHAT IS LACKING IN P3D AND FSX?

The current cloud model system within the simulator, misrepresents real-world cloud classification and formations. The randomly created cloud sprites **cause a severe frame rate hit** especially with more dense cloud cover. Because of this we **notice upside down clouds in bizarre and unrealistic positions, cloud bases that are presented with repeating patterns**, all of which affect the overall realism in flight.

THE FIX!

REX Sky Force 3D corrects these problems (and more) and even increases the frame rates by eliminating unnecessary cloud sprites for all cloud types. The 3D Cloud structures are now correctly and accurately displayed, and detailed clouds will NEVER be represented upside down. In addition, we have added NEW cloud types to the SDK, including; altocumulus, stratocumulus, humilis, mediocris, congestus, tower cumulus, cumulonimbus calvus, supercell and rainshaft, tornado, stratus, nimbostratus, altostratus and cirrus class.





REX SKY FORCE 3D IS COMPATIBLE WITH THE FOLLOWING FLIGHT SIMULATORS:

Microsoft FSX
Microsoft FSX Steam Edition
Prepar3D v.1
Prepar3D v.2
Prepar3D v.3
Prepar3D v.4

ALL Weather Engines - *When not using the Sky Force 3D Weather Engine.*
(Freeware, payware, default simulator)

IMPORTANT NOTE: If using another weather engine besides the one that is included within Sky Force, and you want the Sky Force 3D cloud structures to adjust based upon weather conditions within the simulator as you fly, you must make sure the "Enable real-time 3D cloud model (structures) sync mode function is enabled in the Cloud Sync settings. Sky Force must remain opened in the background for this process to work.



! IMPORTANT

■ BELOW ARE IMPORTANT FACTORS IN CONSIDERATION FOR INSTALLING AND OPERATING REX SKY FORCE 3D WITHIN FSX AND/OR PREPAR3D:

1. Sky Force is compatible with Microsoft Flight Simulator X with SP2 or Acceleration Pack, FSX:Steam and Lockheed Martin's Prepar3D v. 1 through v. 4.
2. NEVER install REX into the main FSX or P3D folder.
3. If REX, FSX or Prepar3D are installed into the program files (x86) directory, UAC (User Account Control) MUST be turned OFF in Windows to allow the proper communication between the two.
4. IF FSX or Prepar3D is installed in the Program Files folder you may need to set Permissions and Sharing so that REX may write the necessary files into the simulator.
5. We recommend turning OFF all virus scanners while the simulator is running.
6. If you wish to view high-definition textures within FSX, you must make sure to set this value in the FSX.cfg file. Add **TEXTURE_MAX_LOAD=4096** within the GRAPHICS section of the cfg file. This can be located in your c:\Users\<your account name>\AppData\Roaming\Microsoft\FSX. If the AppData folder is hidden, you will need to change the VIEW settings as outlined below: Open Folder Options by clicking the Start button, clicking Control Panel, clicking Appearance and Personalization, and then clicking Folder Options. Click the View tab. Under Advanced settings, click Show hidden files and folders, and then click OK.



The following is the procedure on how to install Sky Force.

Before Installation and Operating

The following is **STRONGLY RECOMMENDED** before installing.

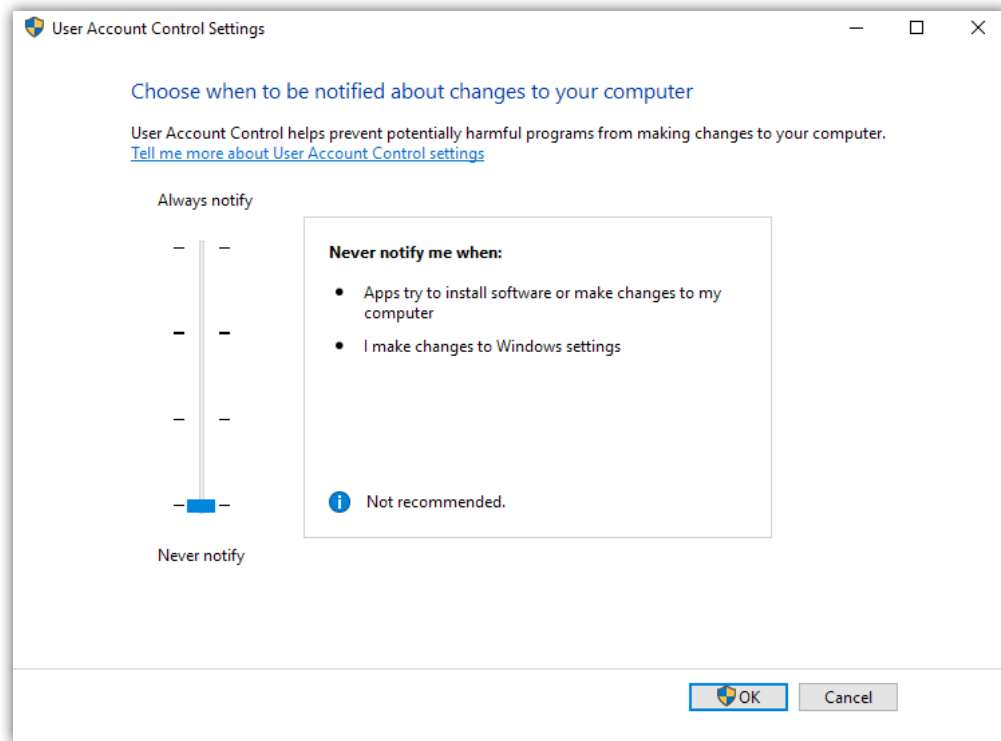


Figure 1.0 – UAC (User Account Control) Screen

1. **Please set your UAC (User Account Control) to “Never Notify” (Fig 1.0).** This will prevent Windows from stopping Sky Force from moving files to and from your simulator and system.
2. **Please turn off your Antivirus software.** All REX files are safe and have been inspected prior to upload and while they sit on the server. After Sky Force is installed, please give the REX Sky Force 3D folder “exclusion” rights.
3. **Make sure you NEVER install Sky Force directly into your Flight Simulator Folders. This could cause MAJOR damage to your flight simulator.**



INSTALLATION PROCEDURE

rexinstaller	12/22/2017 10:53 ...	Application	1,635 KB
rexsk1	12/22/2017 9:18 PM	WinZip File	768,000 KB
rexsk2	12/22/2017 9:29 PM	WinZip File	768,000 KB
rexsk3	12/22/2017 9:36 PM	WinZip File	768,000 KB
rexsk4	12/22/2017 9:43 PM	WinZip File	768,000 KB
rexsk5	12/22/2017 10:22 ...	WinZip File	768,000 KB
rexsk6	12/22/2017 10:43 ...	WinZip File	768,000 KB
rexsk7	12/22/2017 10:45 ...	WinZip File	498,013 KB
rexskyforce_20171222	12/22/2017 10:52 ...	Windows Installer ...	4,073 KB

Figure 1.1 – Install Files

If using Windows 7:

Step 1 – Right-click “rexinstaller.exe” and select “Run-As-Administrator” to begin installation.

If using Windows 8, 8.1, or 10:

Step 1 – Click the “rexinstaller.exe” file to begin installation.

Step 2 – Once the installer starts, follow the prompt windows by clicking “NEXT”.

NOTE: Not all installation windows are represented in the following images.

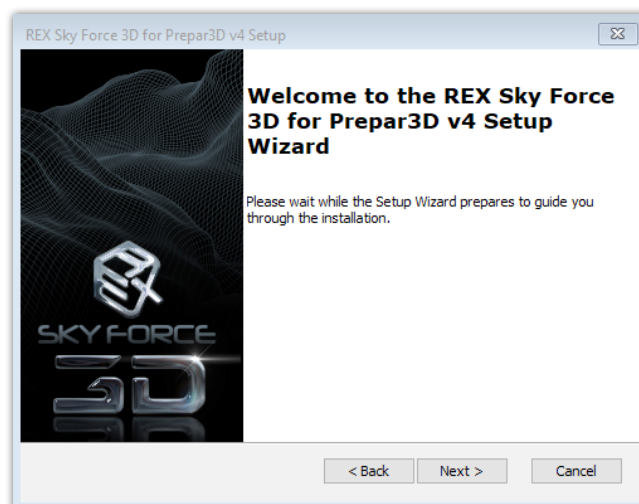


Figure 1.2 – Install Welcome Screen

Step 3 – Click “NEXT” to start the installation (Fig. 1.2).



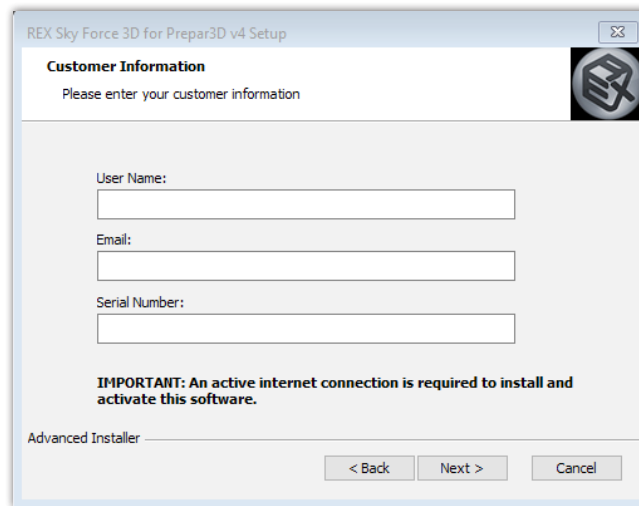


Figure 1.3 – Customer Registration Screen

Step 4 – Enter your information: Username, Email Address, and Serial Key (Fig 1.3).

IMPORTANT NOTE: It is important to have an active internet connection to install and activate your software.

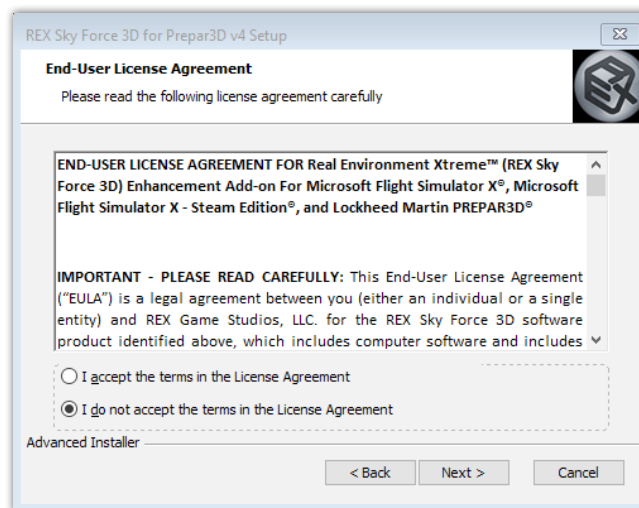


Figure 1.4 – EULA License Agreement Confirmation Screen

Step 5 – To continue installation you must accept the End-User License Agreement (Fig 1.4).



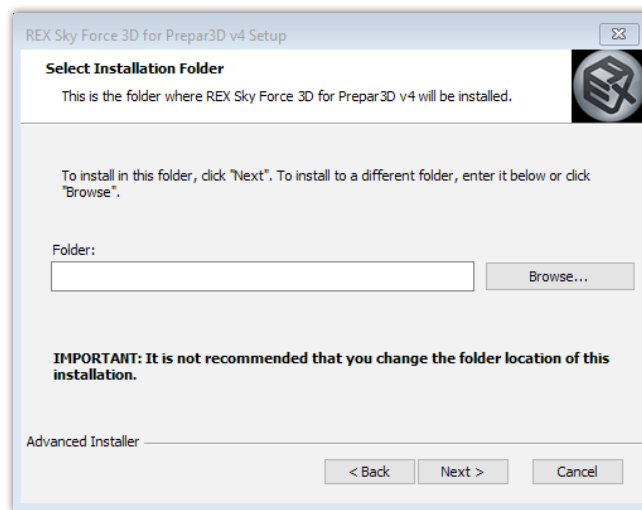


Figure 1.5 – Installation Folder Screen

Step 6 – The installer will select the RECOMMENDED default location for installation. It is important that you do not change this location unless it is absolutely necessary. (Fig 1.5).

IMPORTANT NOTE: Do not install REX Sky Force 3D into your main flight simulator folders or this may cause serious damage to your simulator files.

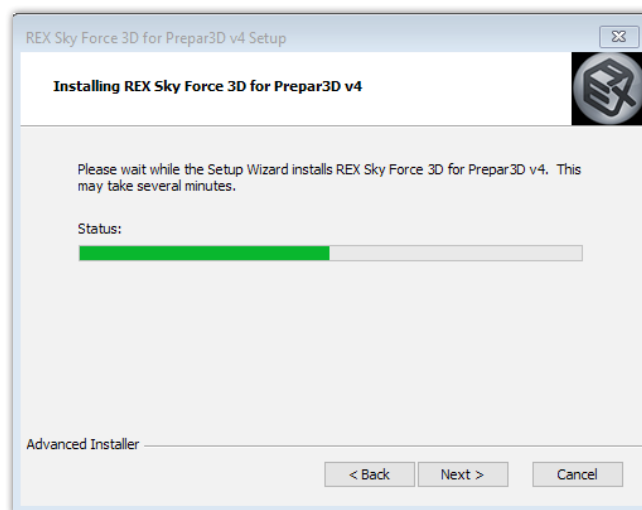


Figure 1.6 – Installation Process Window

Step 7 – Please give the installation process several minutes to complete (Fig 1.6).



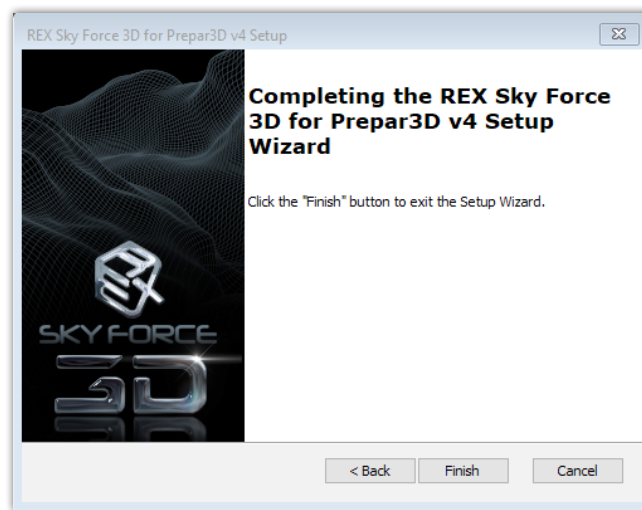


Figure 1.7 – Finish Installation Window

Step 8 – After installation is complete, click "Finish" to finalize installation (Fig 1.7).
Although you may not be required, it is always recommended to reboot your computer after installing software.



The following is the procedure on how to startup, register, and setup Sky Force.

Before Startup

The following is **STRONGLY RECOMMENDED** before you start Sky Force.

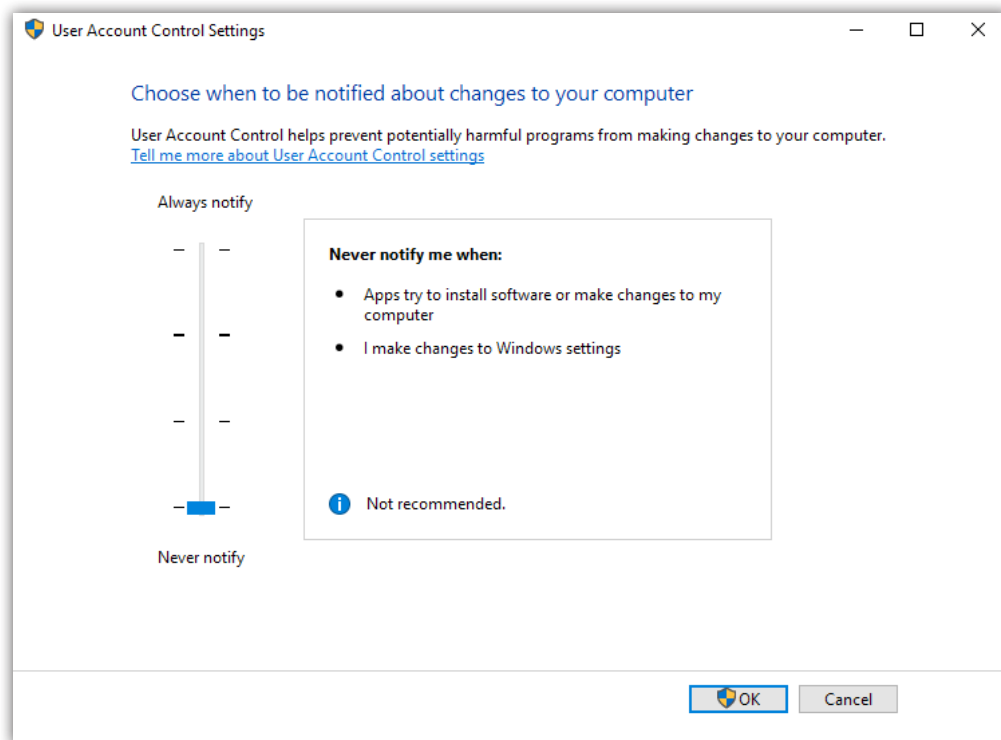


Figure 2.0 – UAC (User Account Control) Screen

1. **Please set your UAC (User Account Control) to “Never Notify” (Fig 1.0).** This will prevent Windows from stopping Sky Force from moving files to and from your simulator and system.
2. **Please turn off your Antivirus software.** All REX files are safe and have been inspected prior to upload and while they sit on the server. After Sky Force is installed, please give the REX Sky Force 3D folder “exclusion” rights.
3. **Make sure flight simulator is not running. For proper installation of files, it is important that you do not have your flight simulator running.**



Startup Operations

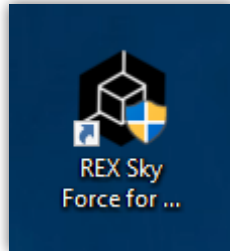


Figure 2.1 – Desktop Icon

If using Windows 7:

Step 1 – To start, right click on the Sky Force icon and select “Run As Administrator” (Fig 2.1).

If using Windows 8, 8.1, 10:

Step 1 – To start, click on the Sky Force icon (Fig 2.1).



Figure 2.2 – Splash Screen Window

Step 2 – After the icon is clicked, the application splash screen appears during startup and initialization (Fig 2.2).

AUTHOR’S NOTE: No action is needed during this step.



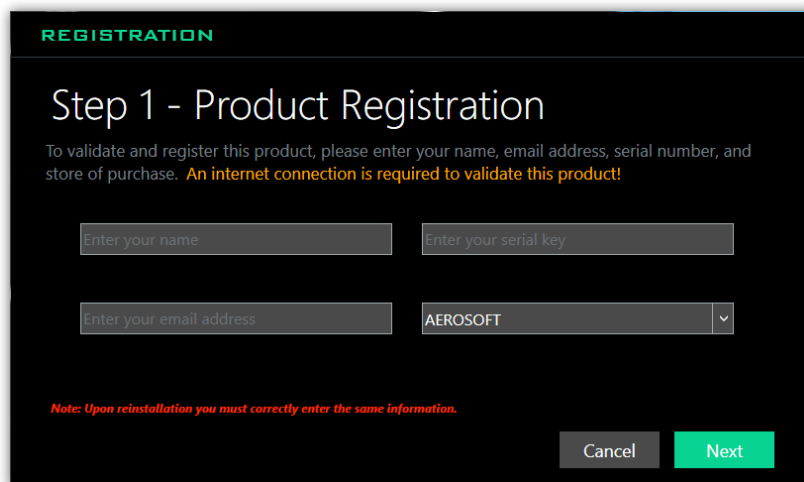


Figure 2.3 – Registration Window

Step 3 – On first startup of Sky Force you will be required to register your product (Fig 2.3). This will only be required one time. Please fill out the fields accordingly. Click “NEXT” to continue.

IMPORTANT NOTE: Upon re-installation of Sky Force, you will need to register again using the **SAME EXACT** information. Otherwise your registration process will fail. Please keep your registration information in a safe place for future use.

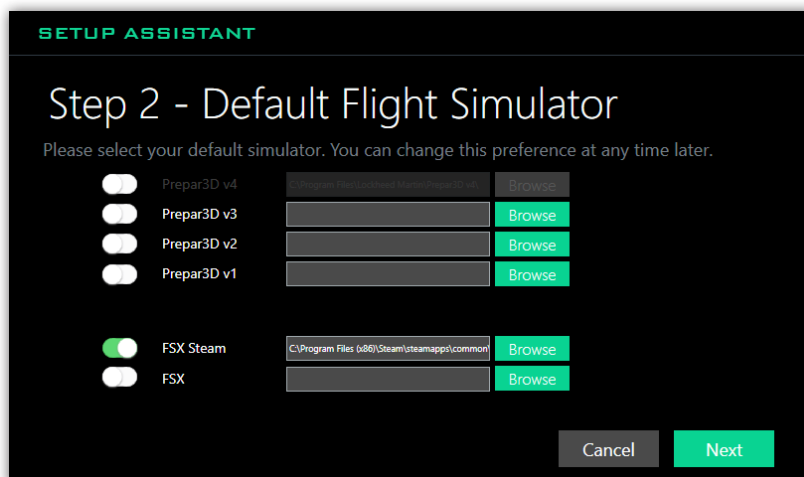


Figure 2.4 – Setting the Default Flight Simulator Window

Step 4 – Click the toggle button next to the flight simulator you would like to use (Fig 2.4). Click “NEXT” to continue.

AUTHOR’S NOTE: This procedure may be changed later within the Settings Windows.

IMPORTANT: Sky Force is able to read the system registry to recover the locations of your installed flight simulator(s). If nothing is found, click “BROWSE” next to the simulator you plan to use, then select the main folder of that flight simulator.



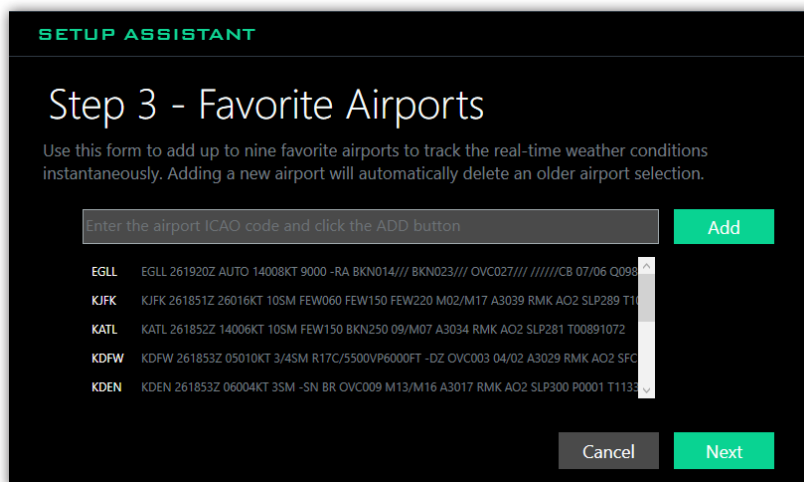


Figure 2.5 – Favorite Airport Setup Window

Step 5 – (Optional) Enter an airport ICAO code to add to your Favorite Airports list for fast access (Fig 2.5). Click “NEXT” to continue.

AUTHOR’S NOTE: This procedure is optional and may be changed later within the Settings Windows.

IMPORTANT NOTE: If you have trouble locating a specific ICAO, it’s because the airport doesn’t contain current valid metar data.

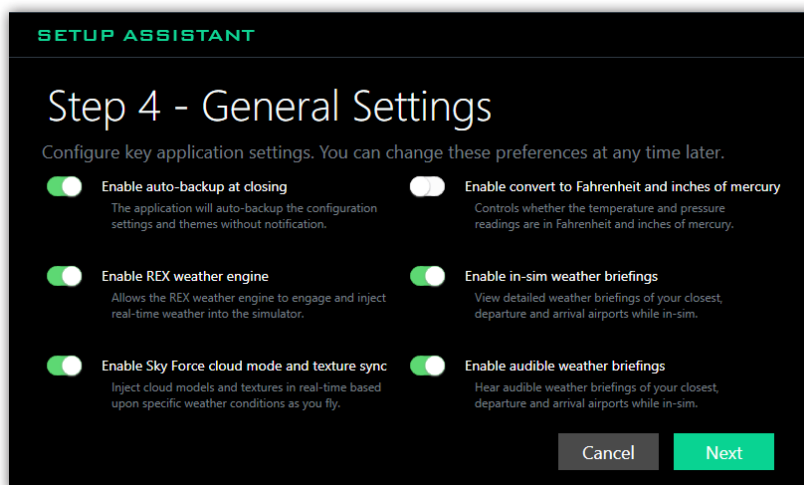


Figure 2.6 – General Settings Window

Step 6 – (Optional) Enable/Disable any of these settings by adjusting toggle buttons (Fig 2.6). Click “NEXT” to continue.



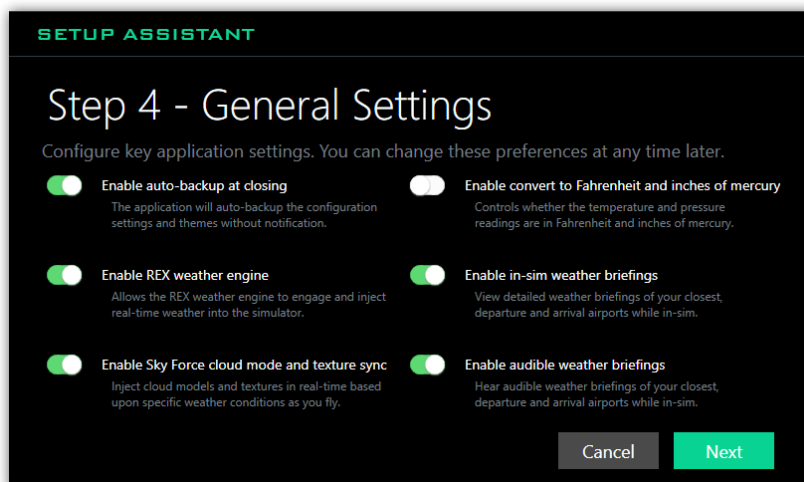


Figure 2.6 – General Settings Window

CONTROL	FUNCTION	REQUIRED
Enable auto-backup at closing	Enabling this will allow the application to auto-backup the configuration settings and themes without notification.	Recommended
Enable REX Weather Engine	Enabling this feature will set the REX weather engine as the default weather engine and will inject real-time weather into the simulator.	No
Enable Sky Force cloud mode and texture sync	Enabling this feature will allow Sky Force to inject cloud models and textures in real-time. This is based upon real-time weather specific conditions. The REX weather engine is not required for this function.	Recommended
Enable convert to Fahrenheit and inches of mercury	Enabling this feature will cause all temperature and pressure reading to be reported in Fahrenheit and inches of mercury.	No
Enable in-sim weather briefings	Enabling this feature will allow a detailed list of real-time weather data to be viewable while in-sim.	No
Enable audible weather briefings	Enabling this feature will cause an audible version of the detailed weather data to be available while in-sim. This feature requires the "Enable in-sim weather briefing" to be enabled.	See Notes

AUTHOR'S NOTE: This procedure is optional and may be changed later within the Settings Windows.



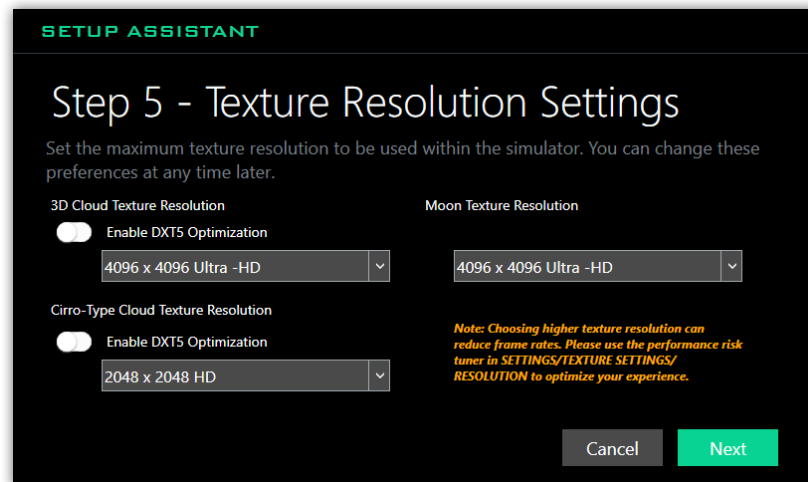


Figure 2.7 – Texture Resolution Settings Window

Step 7 – (Optional) Enable/Disable and/or change texture options here (Fig 2.7). Click "NEXT" to continue.

AUTHOR'S NOTE: This procedure is optional and may be changed later within the Settings Windows.

IMPORTANT NOTE: Choosing higher texture resolutions will always affect frame rates. It is recommended that you use the Texture Resolution Optimization Engine in the General Settings section to optimize your texture settings.

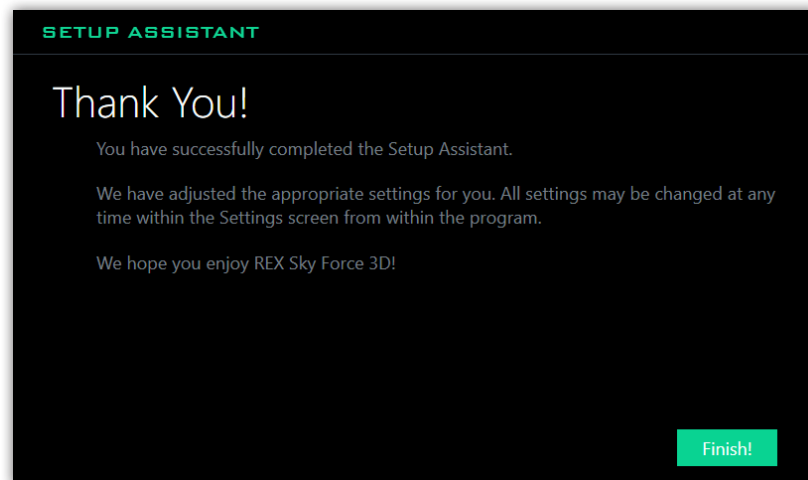


Figure 2.8 – Thank You Window



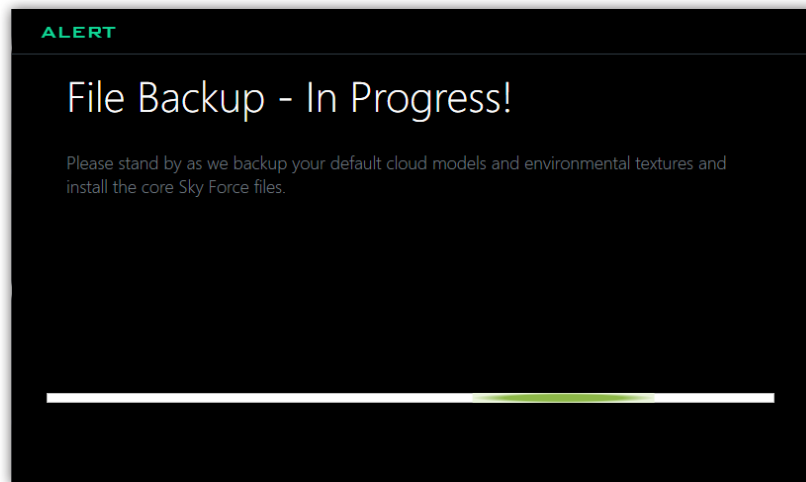


Figure 2.9 – File Backup Process Window

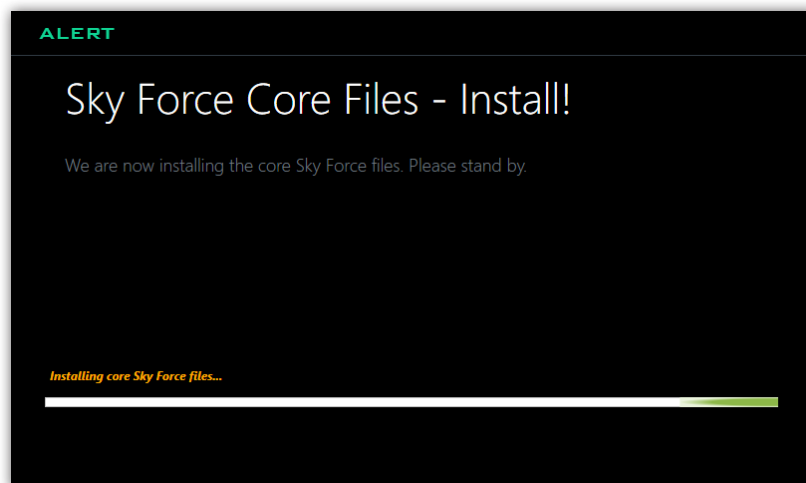


Figure 3.0 – Install Core Sky Force Files Process Window

Step 8 – Click “FINISH” to finalize the registration and setup procedures (Fig 2.8). During finalization, Sky Force will backup your default flight simulator files (Fig 2.9) and install core files required for use with Sky Force. (Fig 3.0).

Quick Start Procedures

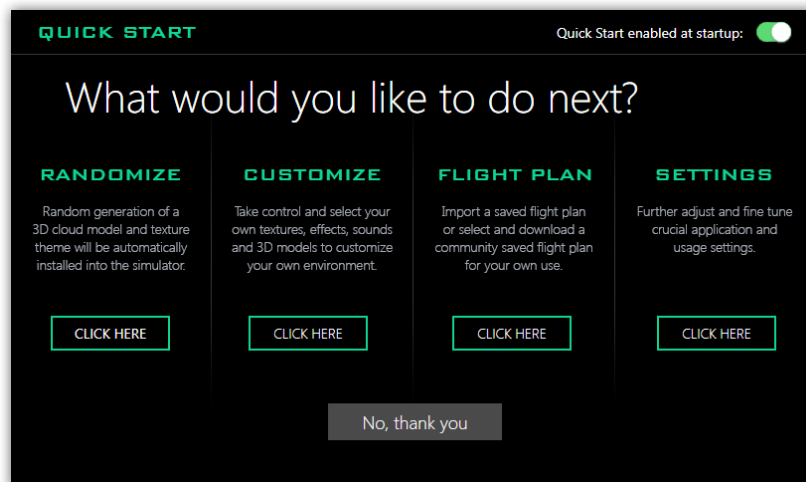


Figure 3.1 – Quick Start Window

Operating Sky Force is very simple and doesn't require a lot of effort. However, it does offer a lot of features to customize your experience within flight simulator (Fig 3.1).

CONTROL	FUNCTION	REQUIRED
Randomize	This will automatically randomize a model, texture, effects and sound theme and install it into the flight simulator.	No
Customize	This will direct you to take control and select your own textures, effects, sounds, and 3D cloud models.	No
Flight Plan	This will allow you to import a saved flight plan or download a community shared flight plan. You can use this information to view real-time weather conditions during your flight.	No
Settings	This will allow you to fine tune crucial application features and settings.	No



THE FOLLOWING ARE SUGGESTIONS FOR QUICK OPERATING PROCEDURES AFTER SKY FORCE HAS BEEN CONFIGURED.

OPTION 1 JUST START YOUR SIM AND FLY

With the REX weather engine:

Step 1 – Start REX Sky Force and minimize.

Step 2 – Start your flight simulator and enter flight. The REX weather engine will automatically engage during your flight.

Without the REX weather engine or using a 3rd-party weather engine:

Step 1 – Start Sky Force. Click the Settings “gear” icon on the navigation bar. If the REX weather engine has been disabled, skip to Step 4.

Step 2 – Click on the engine button and disable the weather engine.

Step 3 – Close Sky Force.

Step 4 – Start your 3rd-party weather engine.

Step 5 – Start your flight simulator.

OPTION 2 TRACKING YOUR IN-FLIGHT WEATHER

With OR without the REX weather engine:

Step 1 – Start Sky Force and navigate to the Flight Center.

Step 2 – Either import a flight plan or click on the Community Shared Flight Plans to import.

Step 3 – Once a flight plan has been imported, start your flight simulator.

Step 4 – Once the simulator is setup properly click the “Follow Aircraft” toggle on the Interactive Map window to track your flight in real-time.

IMPORTANT NOTE: If you want Sky Force to automatically import your flight plan into your flight simulator you will need to engage the REX weather engine. Otherwise, this will need to be manually done if using a 3rd-party weather engine.

OPTION 3 3D CLOUD SYNC DURING FLIGHT

With OR without the REX weather engine:

Step 1 – Start Sky Force and minimize.

Step 2 – Start your flight simulator and fly. The 3D cloud model sync function will automatically engage during flight.

IMPORTANT NOTE: If you want the clouds to adjust based upon weather conditions within the simulator, you must make sure the “Enable real-time 3D cloud model (structures) sync mode and texture sync” function is enabled in the Cloud Sync settings.



The following is an overview of each section within Sky Force as well as how to operate the Latest Shared Themes and Real-Time Airports panels within the Dashboard.

Hamburger and Nav Bars

To navigate throughout Sky Force you will utilize the Navigation Bar located along the left side of the application. To view what each icon represents, click the hamburger icon.



This expands the navigation bar (Fig 4.0) containing more information about each icon.

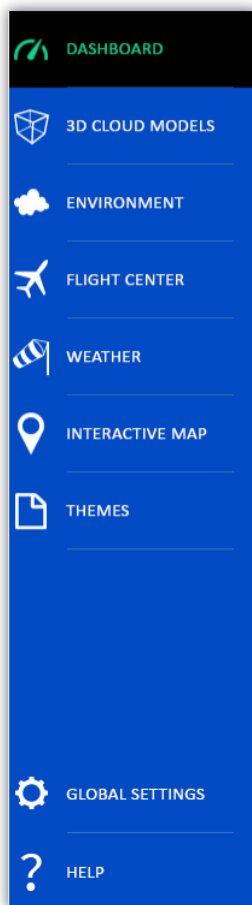


Figure 4.0 – Navigation Bar

AUTHORS NOTE: It is not required to expand the Navigation Bar to navigate.



Dashboard

The Dashboard (Fig 4.1) allows a general jump off point to key areas of the application. It also provides a quick highlight of valuable information about the application as well as other facets to your flight simulation experience.

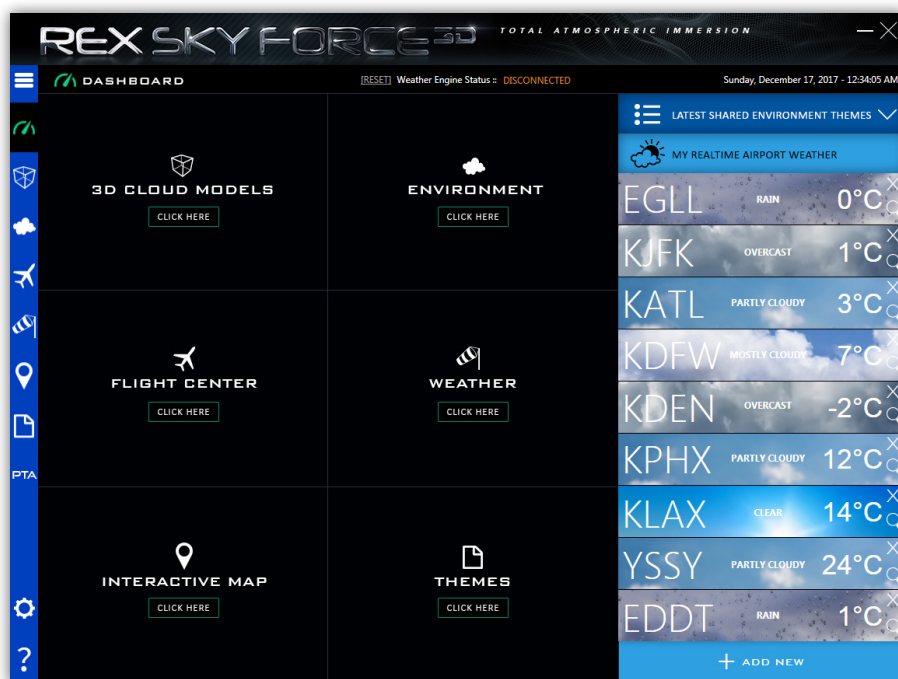


Figure 4.1 – Dashboard Window



Weather or Not

This section of the Dashboard informs you if the Sky Force weather engine is currently communicating with your flight simulator (Fig 4.1a). The "[RESET]" button allows you to manually reset the weather engine.

[RESET] Weather Engine Status :: DISCONNECTED

Figure 4.1a – Weather Engine Status Bar

The following is a list of status messages and their meanings:

STATUS	DEFINITIONS
Disabled	The REX weather engine is disabled and will not operate.
Disconnected	The REX weather engine is enabled, however the flight simulator is not in operation.
Weather on stand by	The REX weather engine is enabled, and the flight simulator is operating. This indicates the weather is waiting to be injected shortly.
Weather injection in process	The REX weather engine is currently injecting weather into the flight simulator.
Weather injection completed	The REX weather engine has completed its cycle of injecting weather into the flight simulator and is awaiting the next cycle to start.
Resetting weather engine	The REX weather engine is cycling through a manual reset and will inject new weather shortly.



Buttons to Push

There are six primary areas of Sky Force that are represented by large buttons on the Dashboard (Fig 4.1b). Clicking a button will bring you to that area.

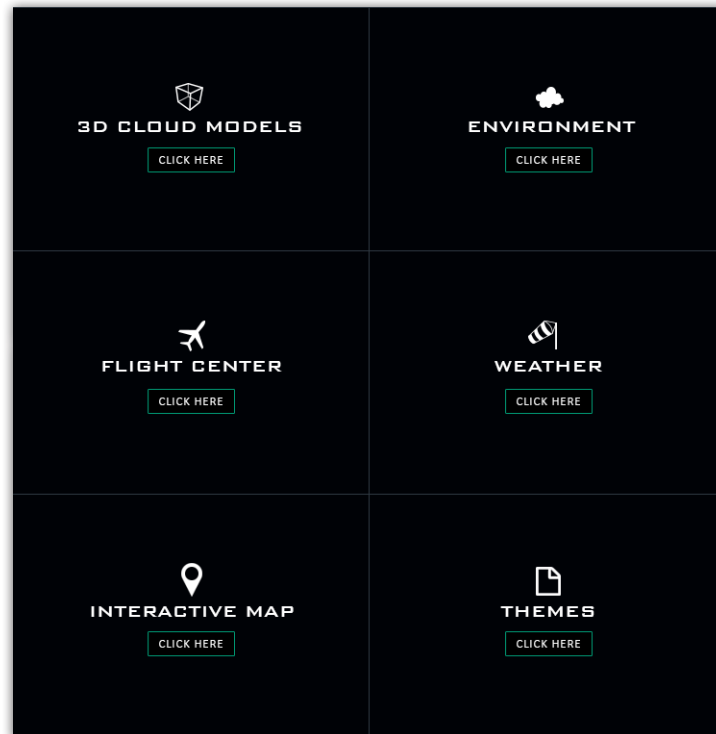


Figure 4.1b – Dashboard Buttons

BUTTON	FUNCTION
3D Cloud Models	Navigates to the 3D cloud models screen, where you can manage 3D cloud model specific settings.
Environment	Navigates to the Environment screen where you can select which environment variables to install or add to environment themes.
Flight Center	Navigates to the Flight Center, where you can import a flight plan from your local drive or download/import a flight plan from the REX community 'cloud' server.
Weather	Navigates to the Weather Center, where you can view a detail report of specific airport weather or search for specific weather conditions.
Interactive Map	Navigates to the Interactive Map, where you can view crucial flight, weather and navigational information.
Themes	Navigates to the Themes screen where you manage your own personal environment themes or import and install many shared community themes from the REX community 'cloud' server.



Latest Themes and Airport Weather

The panel on the right of the Dashboard provides a wealth of information.

This panel (Fig 4.1c) allows you access to the latest shared environment themes from the community, as well as your favorite airports and a high-level view of their weather conditions.



Figure 4.1c – Dashboard Panel



Latest and Greatest Themes

The Latest Shared Environment Themes panel (Fig 4.1d) displays all the latest created community themes. You can view the details of them by clicking “VIEW”, or immediately install that theme into your simulator by clicking “INSTALL”. This is a great way to change up your environment for different looks.

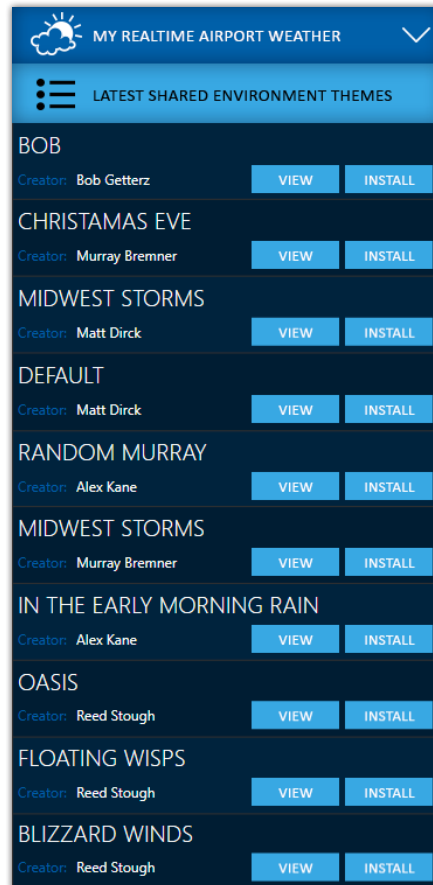


Figure 4.1d – Latest Shared Environment Themes Panel

CONTROL	FUNCTION
View	Navigates you to the My Saved Themes screen to display which environmental variables are a part of that community theme.
Install	This will immediately install the environmental theme into the flight simulator.



Favorite Airports

This panel (Fig 4.1e) provides a snapshot view of the current weather conditions at your favorite airports.



Figure 4.1e – My Real-time Airport Weather

View More Information or Delete

Each airport label provides the airport ICAO, current weather, and current temperature.

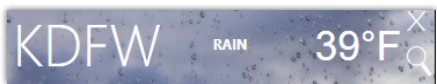


Figure 4.1f – Specific Airport Label

CONTROL	FUNCTION
"X" icon	Removes the airport from your favorite airport list as well as from this panel.
Magnifying Glass icon	Opens a detailed view of the airports weather conditions inside the Weather Center.

Add a New Airport



Figure 4.1g – Add New Button

Step 1 - To add a new airport to the Real-time Airport Weather list, click the Add New button (Fig 4.1g) at the bottom of the list.

Figure 4.1h – Add Favorite Airport Popup Window

Step 2 – Enter your favorite airport ICAO code and click “OK” to add it to the list. Once complete you should see your new airport added to the list with its latest weather conditions (Fig 4.1i).

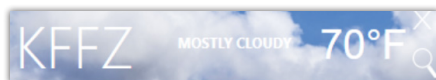


Figure 4.1i – New Favorite Airport



3D Cloud Models

The following is the procedure on how to control, install, and sync the 3D Cloud Models.



Figure 5.0 – 3D Cloud Models Button

Step 1 – Click the 3D Cloud Models button to enter the 3D Cloud Models manager. (Fig 5.0)

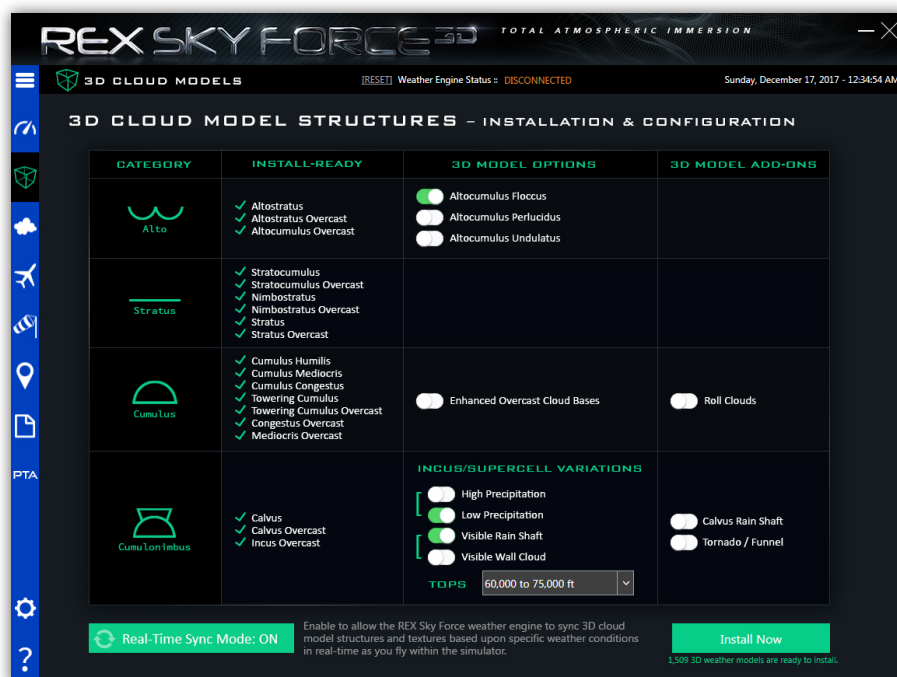


Figure 5.1 – 3D Cloud Models Window



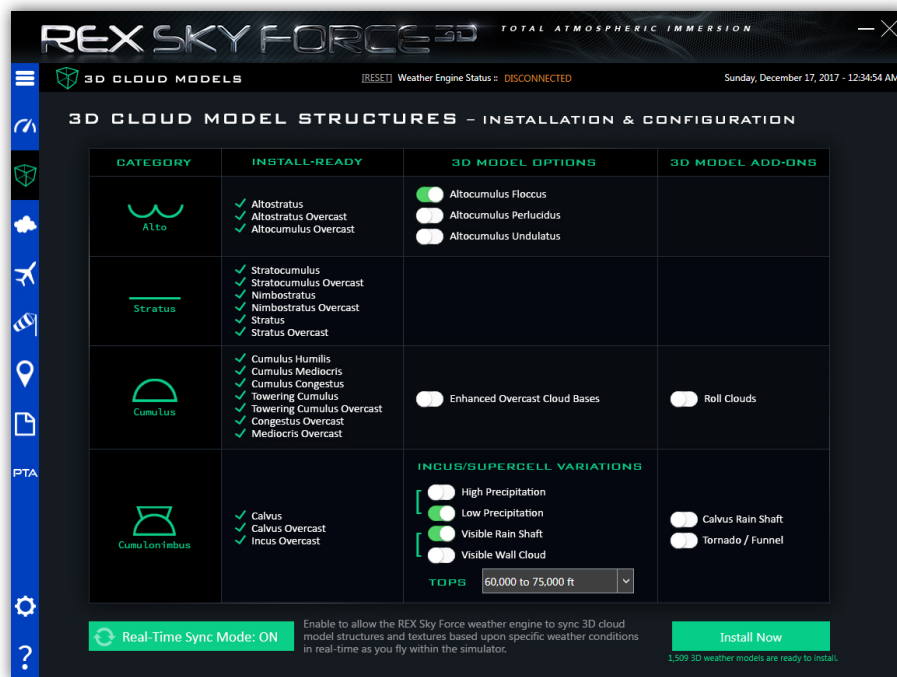


Figure 5.1 – 3D Cloud Models Window

HOW TO INSTALL 3D CLOUD MODELS

- Step 1** – Select the 3D Model Options you want to install (Fig 5.1).
- Step 2** – Select which additional 3D Model Add-Ons you want to install.
- Step 3** – Click “INSTALL NOW” to install the 3D Cloud Models.
- Step 4** – Minimize Sky Force and start your flight simulator.

HOW TO ENABLE REAL-TIME SYNC MODE

Running the Real-Time Sync Mode WITH the REX weather engine

- Step 1** – Enable Real-Time Sync Mode.
- Step 2** – Make sure the REX weather engine is enabled via the settings window.
- Step 3** – Start your flight simulator and minimize Sky Force.

Running the Real-Time Sync Mode WITHOUT the REX weather engine

- Step 1** – Enable Real-Time Sync Mode.
- Step 2** – Make sure the REX weather engine is disabled via the settings window.
- Step 3** – Start your flight simulator and minimize Sky Force.

AUTHOR’S NOTE: The REX weather engine is not required to use real-time sync mode.

IMPORTANT NOTE: Sky Force must remain open during flight operations so that Real-Time Sync Mode will operate.



IMPORTANT INFORMATION ABOUT THE SKY FORCE 3D CLOUD MODEL STRUCTURES

3D MODEL OPTIONS VS. 3D MODEL ADD-ONS

Prior to Sky Force there were only four cloud types for flight simulation. With Sky Force we can cover most true world cloud classifications. Most of these cloud types are automatically installed into the simulator as a part of the Sky Force core install.

In addition, we have provided the option to include additional variations of these cloud types to be installed and synced.

The 3D Model options are required models to be installed, but you can select different variations of each cloud section – except for stratus type clouds.

Incus/Supercell thunderstorms provides a few more options to select from.

You can experience high/low precipitation storms and/or visible rain shafts or visible wall clouds. In addition, you can select a range of top heights of storms. There are two levels: 45,000 to 60,000 feet or 60,000 to 75,000 feet tops.

3D Model Add-on clouds are clouds models that can be added for additional variation and special weather phenomena such as roll clouds, funnel clouds, and tornadoes.

REAL-TIME SYNC MODE

Some 3rd-party weather add-ons require additional textures to be synced to cover the cloud classifications. But because they are not able to change the models in real-time, you will notice repeat after repeat of textures with patterned cloud bottoms to the horizon. But because of the new Sky Force cloud models, this process is no longer necessary, as we are able to cover all cloud specifications within the new model structures.

IMPORTANT NOTE: THE REX WEATHER ENGINE IS NOT REQUIRED TO RUN TO ENJOY REAL-TIME MODEL SYNC CAPABILITIES.

The real-time sync mode of Sky Force is more tied to certain key weather conditions. For example, other 3rd-party weather engines may read a thunderstorm at an airport and then display that via the flight simulator injected weather. To that weather engine a thunderstorm is a thunderstorm, nothing more.

Utilizing real-time model data and our weather engine we can generate weather at a whole new level. From this data, we can determine the atmosphere's stability. This allows Sky Force to sync the correct 3D cloud models and weather to generate the proper thunderstorm structures.

The beauty of Sky Force is that you can still receive the benefit of close to real-world cloud classification and key weather elements even without the use of the REX weather engine being enabled.

For example, if the weather conditions report a wall cloud or funnel cloud, then Real-Time Sync Mode will automatically inject the models that support those conditions while you are sim – no matter which weather engine you use.



Environment

The following is the procedure on how to operate the Environment section of Sky Force.

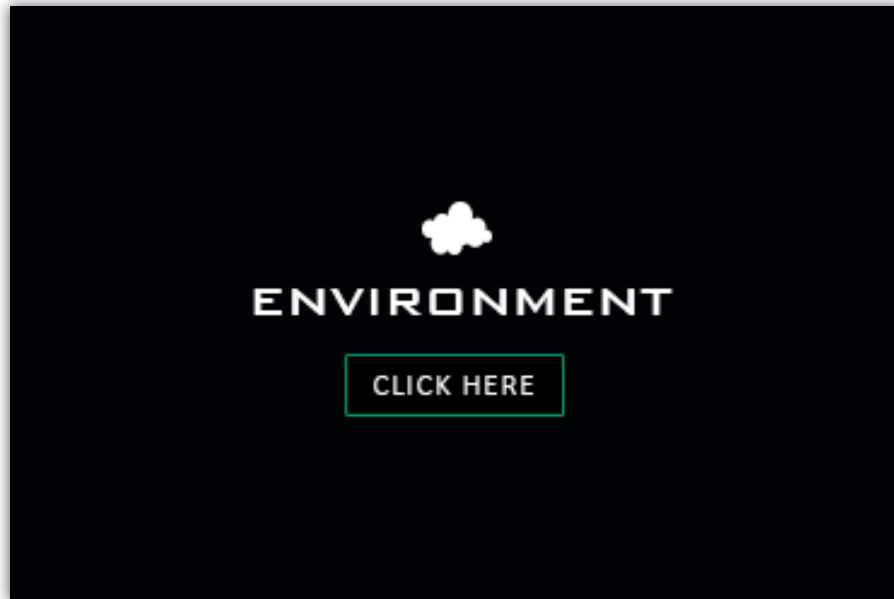


Figure 6.0 – Environment Button

Step 1 – Click the Environment Button on the dashboard window.

ENVIRONMENT CATEGORIES



Figure 6.1a – Environment Categories



Figure 6.1b – Environment Sub-Categories

Step 1 – In the Environment section, navigate to different categories via the buttons at the bottom of the screen (Fig 6.1a).

Step 2 – Some categories contain sub-categories, separated by tabs. (Fig 6.1b).



NAVIGATING CATEGORY SETS

This is the procedure on how to navigate through environment category sets.

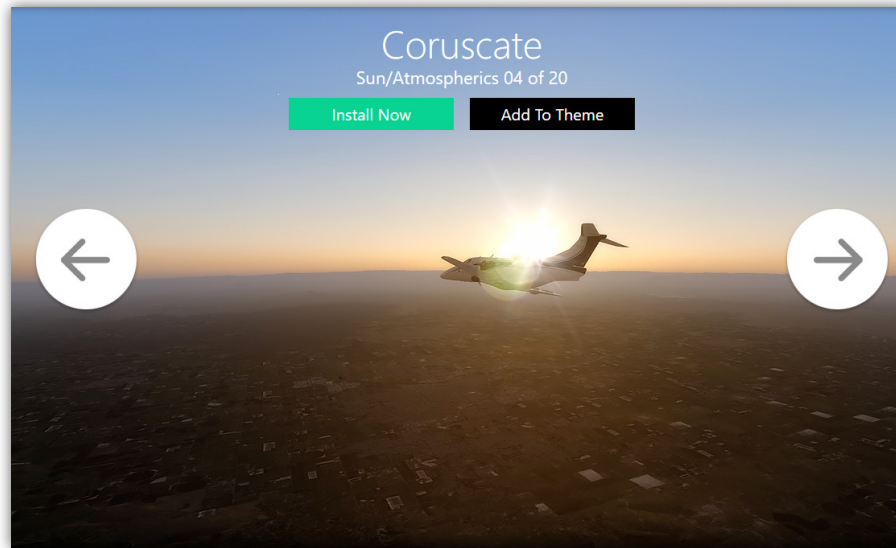


Figure 6.2 – Environment Category Sets

Step 1 – Use the left/right buttons to navigate through the different sets (Fig 6.2).

IMMEDIATE INSTALL

Step 1 – Once you have decided on a set to try, click “INSTALL NOW” to immediately install this set into the flight simulator (Fig 6.2).

AUTHOR’S NOTE: A log file named `installindividualtextures.txt` can be found in the main Sky Force folder. This file confirms if the file(s) were in fact installed.

ADD TO THEME

Creating an environmental texture theme is customary practice and easy to do.

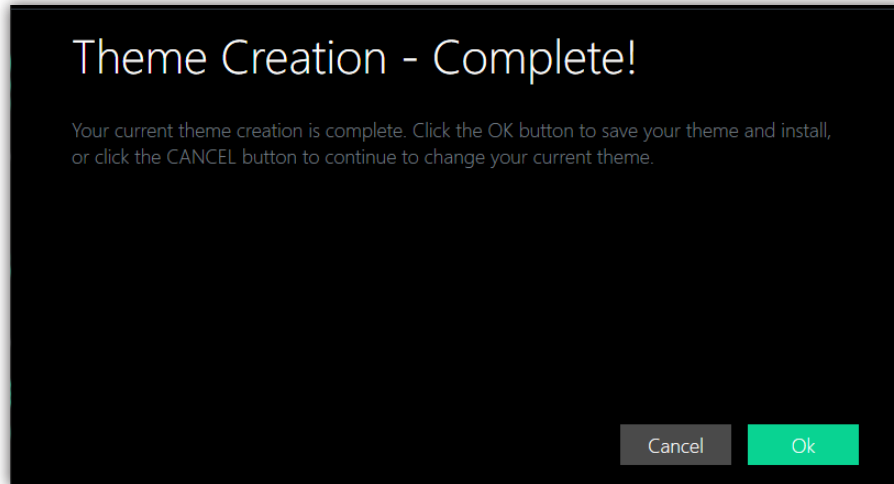


Figure 6.2a – Theme Creation Complete Popup

- Step 1** – Navigate through each Environmental category and sub categories. While navigating through each set, click "ADD TO THEME" to add that set to a Theme (Fig 6.2).
- Step 2** – Once you have selected all the required sets for a theme, you will be alerted by a popup window that the theme is complete (Fig 6.2a). Click "OK" to continue.

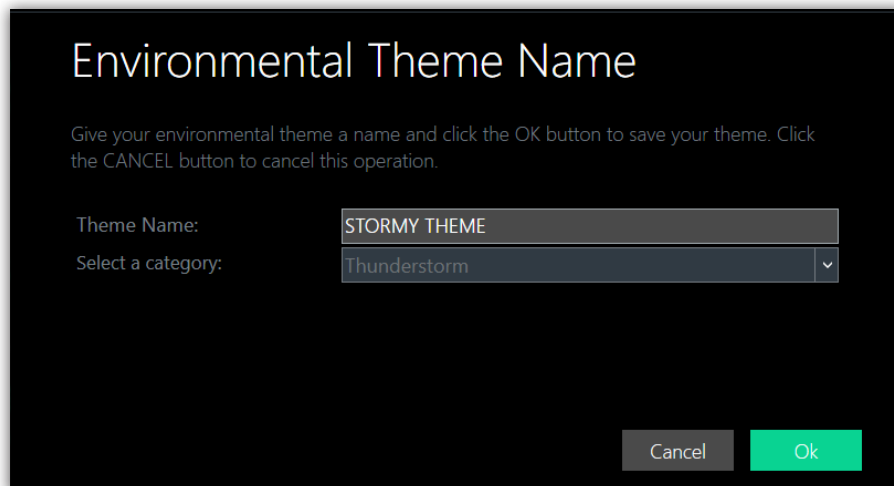


Figure 6.2b – Environmental Theme Name Popup

- Step 3** – Once an environmental theme has been created you will be asked to give the theme a name (Fig 6.2b). Enter a name for your theme as well as select a category for your theme. Click "OK" to create your theme.



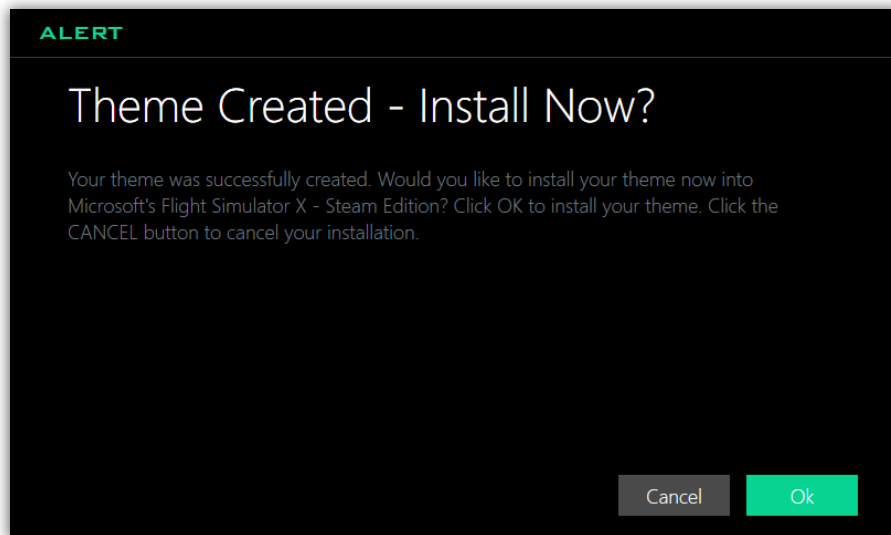


Figure 6.2c – Install Created Environment Texture Theme Popup

Step 4 – Once the theme has been created, you will be asked to install your theme into your flight simulator. Click "OK" to install the theme or click "CANCEL" to cancel this process (Fig 6.2c).

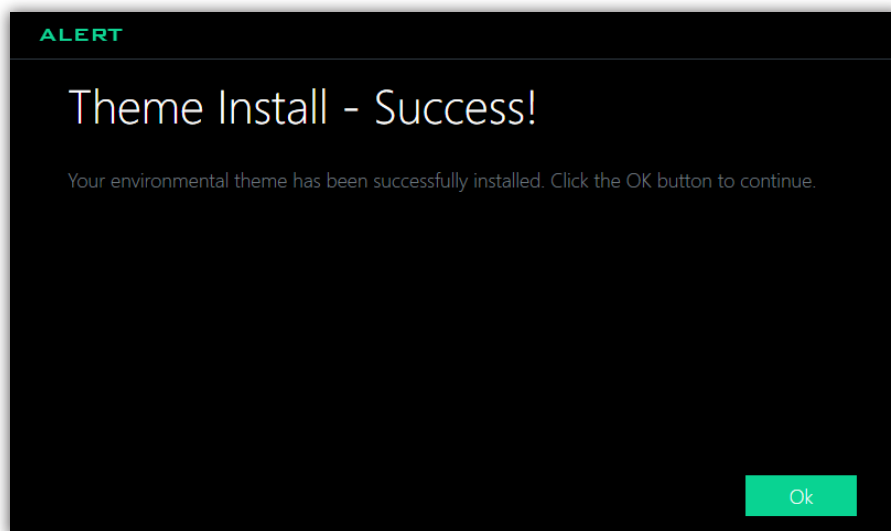


Figure 6.1d – Environment Texture Theme Install Success Popup

Step 5 – After the theme has been installed you will receive an install success popup. Click "OK" to continue.



ADDITIONAL INFORMATION ABOUT ENVIRONMENTAL TEXTURE SETS

NO TEXTURES ARE THE SAME

In this current age of flight sim, we have seen an explosion of both freeware and payware texture sets on the market.

However, the Environmental Texture Sets within Sky Force are unique and a huge advancement over previous REX products and other 3rd-party products on the market.

SAME CLOUDS HARD TO FIND

Even with 3rd-party products currently on the market, it's easy to notice repeated textures on clouds, massive repeating cloud bottoms to the horizon, and the dreaded upside down clouds.

Now, with the introduction of our new cloud model system we can double the texture sheets on the cloud model structures in ONE scene. No 3rd-party program can do this. Sure, they can add more 'textures', but not in a given scene. They are stuck with one texture per scene.

This new technology allows us to cover all cloud classifications, and also dramatically reduce the number of cloud repeats in a given scene. Also, this eliminates the upside down clouds and repeated cloud bottoms!

VBLEND AND VAPOROUS SKIES

New techniques create a smoother, realistic and natural sky color blending at dawn and dusk as well as newly improved visibility and fog. With VBlend have achieved more realistic horizontal and vertical day, dawn and dusk fog generation and sky visibility blending.

In addition, the sky is not always a palate of straight hues. This can be broken up by different layers of water vapor that slightly condense, but not enough to form a cloud. Thus, we have introduced into our skies the ability to model this vapor. This creates what we call "Vaporous" skies.



Flight Center

The following are the procedures on how to utilize the Flight Center.

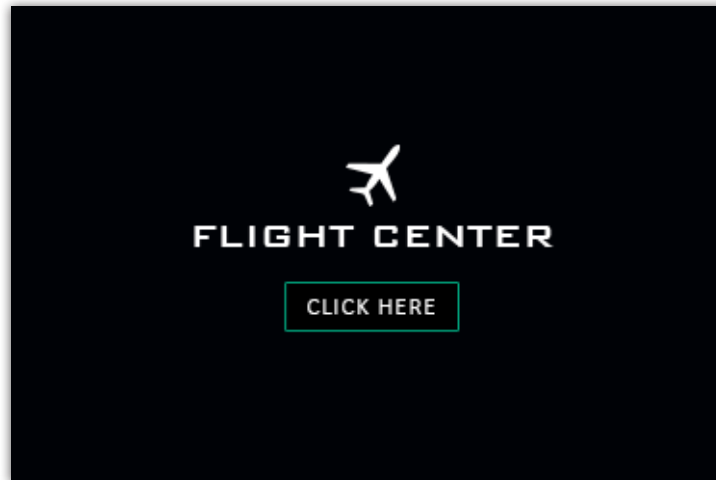


Figure 7.0 – Flight Center Button

Step 1 – Click the Flight Center button on the dashboard (Fig 7.0).

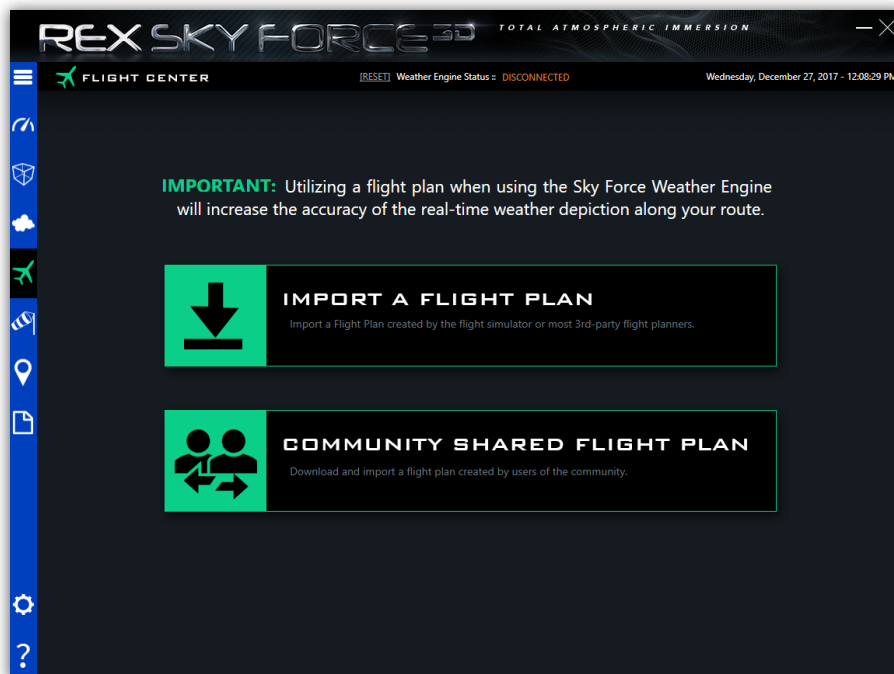


Figure 7.1 – Flight Center Main Window

You can either import a (LOCAL) flight plan or select a community shared flight plan to import (Fig 7.1).



IMPORTING A FLIGHT PLAN

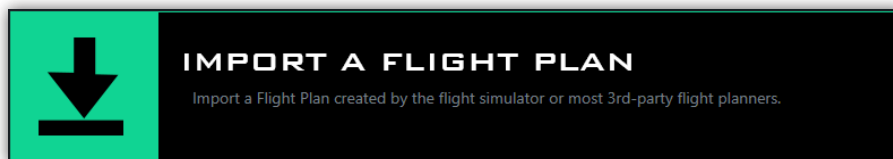


Figure 7.1a – Import A Flight Plan button

Step 1 – Click “Import a Flight Plan” (Fig 7.1a).

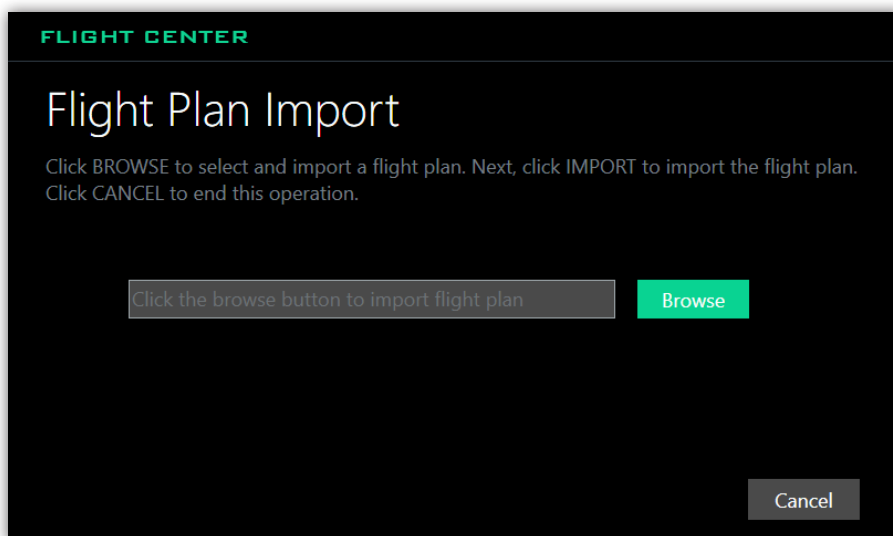


Figure 7.1b – Flight Plan Import Popup

Step 2 – A popup window will display (Fig 7.1b). Click “BROWSE” to select a standard format flight plan to import (Fig 7.1.c). Once the flight plan has been selected it will be imported into Sky Force and formatted for the application.

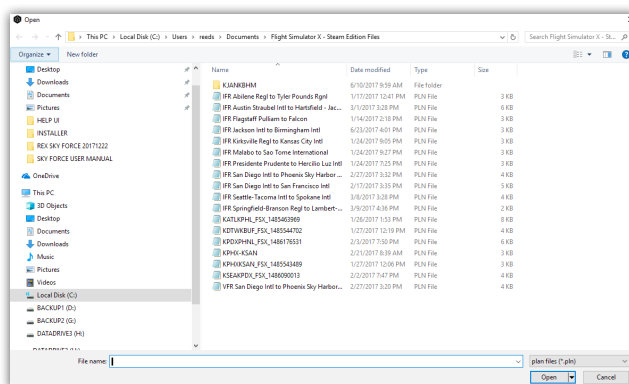


Figure 7.1c – Flight Plan Selection Popup



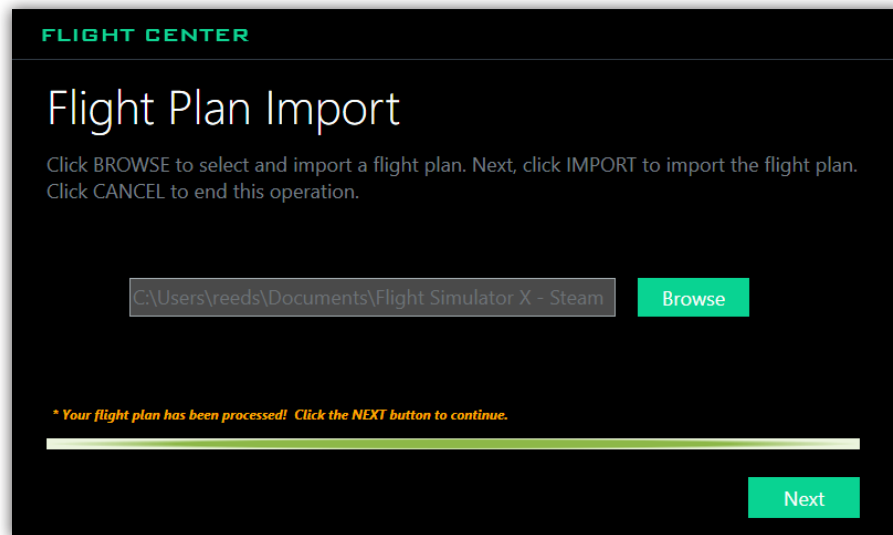


Figure 7.1d – Flight Plan Import Success Popup

Step 3 – Once the import of the flight plan is completed (Fig 7.1d), click “NEXT” to continue.

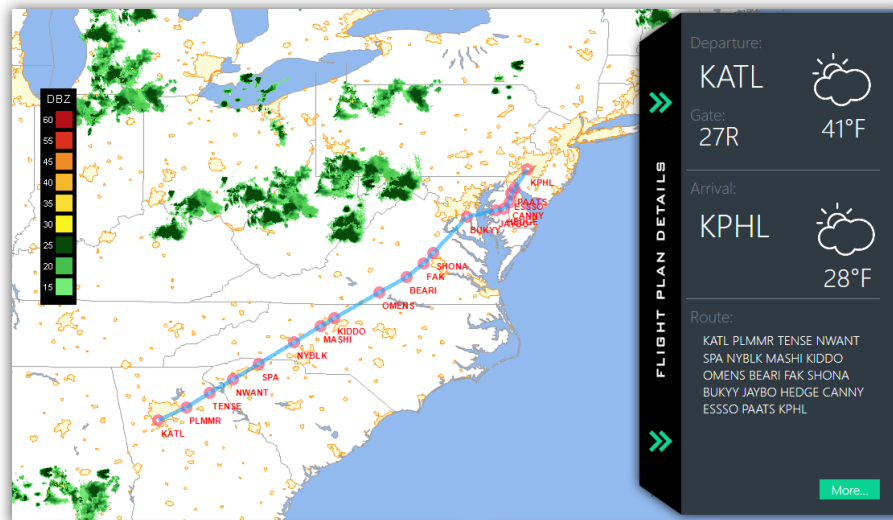


Figure 7.1e – Visual Flight Plan Window

Step 4 – (Optional) If you want to view a detailed overview of your imported flight plan with its waypoints, click the “FLIGHT PLAN DETAILS” panel and click “MORE” (Fig 7.1e).

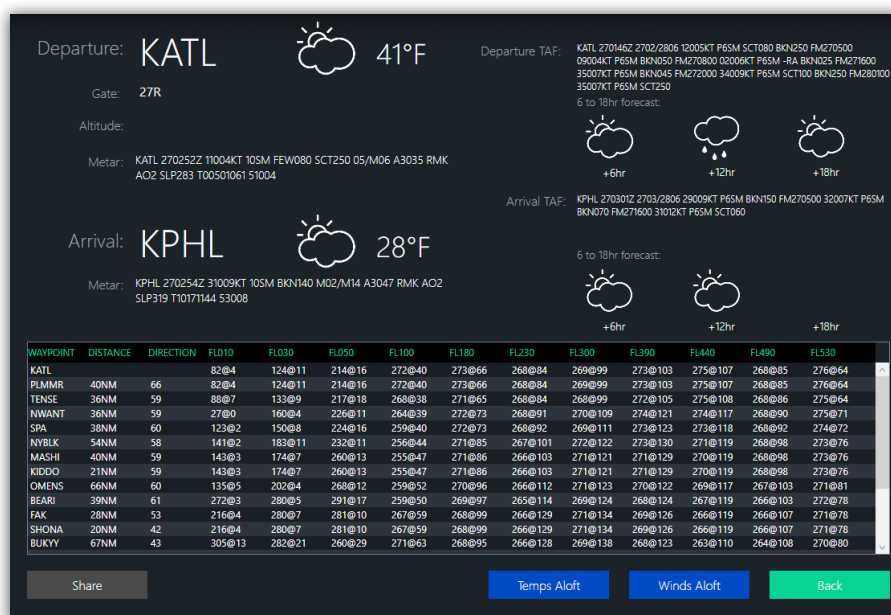


Figure 7.1f – Flight Plan Details Window

The Flight Plan Detail's window offers a detailed view of the entire flight with its waypoints (Fig 7.1f). You can view the temperatures and winds aloft from departing airport, to each waypoint to your arrival airport.

In addition, (*if available*) you can view a complete forecasted view of the departure and arrival airport weather conditions.



SHARE A FLIGHT PLAN WITH THE COMMUNITY

You might want to share your adventure with a friend or another virtual pilot.

Step 1 – Click “SHARE” on the Flight Plan Details window (Fig 7.1f).

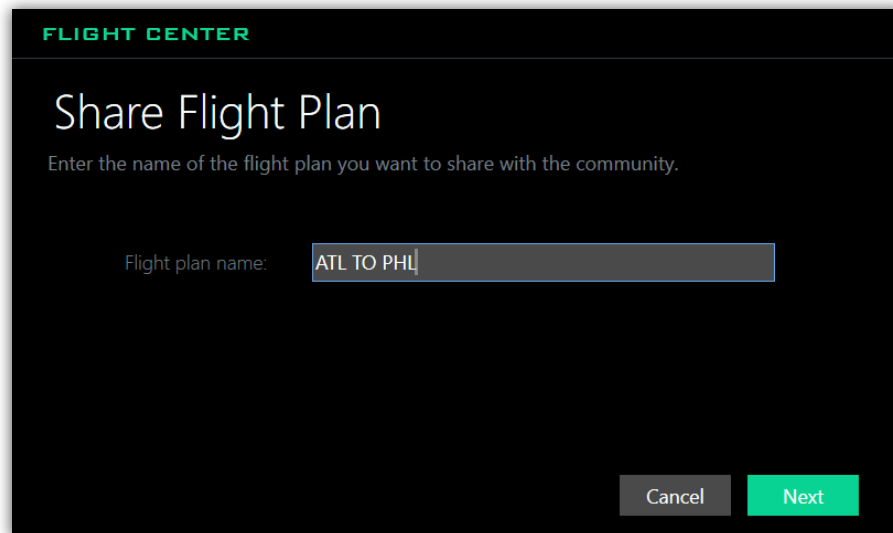
A dark-themed popup window titled "FLIGHT CENTER" in green. The main heading is "Share Flight Plan" in white. Below it, a subtitle reads "Enter the name of the flight plan you want to share with the community." There is a text input field labeled "Flight plan name:" containing the text "ATL TO PHL". At the bottom right, there are two buttons: a grey "Cancel" button and a green "Next" button.

Figure 7.1g – Share Flight Plan Enter Name Popup

Step 2 – Assign a name to the flight plan (Fig 7.1g). Click “NEXT” to continue.

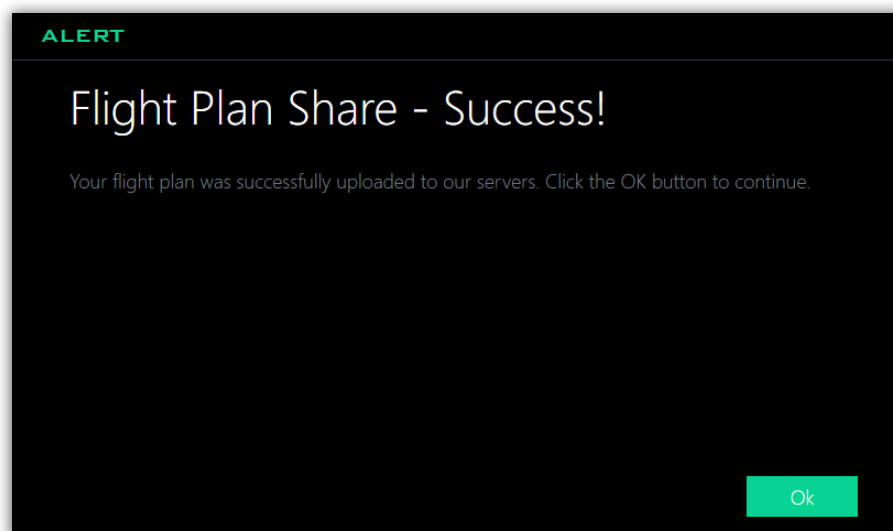
A dark-themed alert popup window titled "ALERT" in green. The main heading is "Flight Plan Share - Success!" in white. Below it, a subtitle reads "Your flight plan was successfully uploaded to our servers. Click the OK button to continue." At the bottom right, there is a green "Ok" button.

Figure 7.1h – Shared Flight Plan Success Popup

Step 3 – Once the flight plan has been uploaded to the REX ‘cloud’, an alert will display advising of a successful upload. Click “OK” to continue.

IMPORTING A SHARED COMMUNITY FLIGHT PLAN

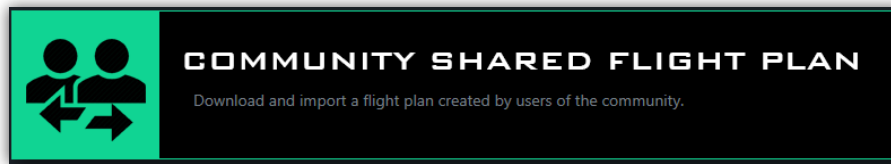


Figure 7.2 – Community Shared Flight Plan Button

Step 1 – Click “Community Shared Flight Plan” (Fig 7.2) to view the listed flight plans available for import (Fig 7.2a).

COMMUNITY FLIGHT PLANS

Shared Flight Plans

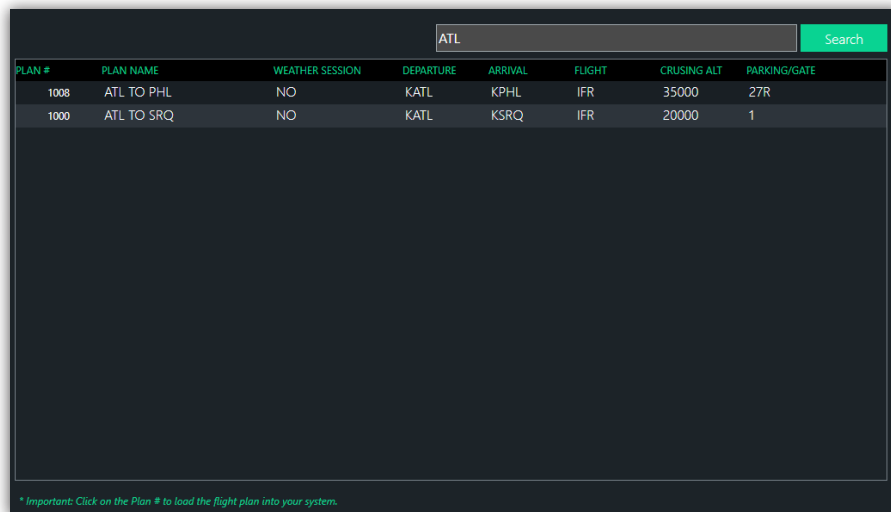
The following is a list of the latest community shared flight plans. Click on the Plan # to load a flight plan into REX Sky Force.

PLAN #	PLAN NAME	WEATHER SESSION	DEPARTURE	ARRIVAL	FLIGHT	CRUISING ALT	PARKING/GATE
1008	ATL TO PHL	NO	KATL	KPHL	IFR	35000	27R
1007	KATL TO KMIA	NO	KATL	KMIA	IFR	35000	GATE D 28
1004	IFR KENNEDY INTL TO CLEVE	NO	KJFK	KCLE	IFR	18000	4L
1005	KMSP ORD	NO	KMSP	KORD	IFR	31000	4
1006	MURRAY FP	NO	CBD5	CAP3	IFR		30
1002	KDEN-KMCI	NO	KDEN	KMCI	IFR	35000	08
1003	CONNECTION TO PRINCE RUF	NO	CZMT	CYZP	IFR		PARKING 3
1000	ATL TO SRQ	NO	KATL	KSRQ	IFR	20000	1
1001	JAN TO BHM	NO	KJAN	KBHM	IFR	25000	16R

* Important: Click on the Plan # to load the flight plan into your system.

Figure 7.2a – Community Shared Flight Plan Window






PLAN #	PLAN NAME	WEATHER SESSION	DEPARTURE	ARRIVAL	FLIGHT	CRUISING ALT	PARKING/GATE
1008	ATL TO PHL	NO	KATL	KPHL	IFR	35000	27R
1000	ATL TO SRQ	NO	KATL	KSRQ	IFR	20000	1

* Important: Click on the Plan # to load the flight plan into your system.

Figure 7.2b – Search Community Shared Flight Plans

Step 2 – (Optional) Enter a flight plan name, departure, or arrival airport into the search field to search for a specific flight plan to import (Fig 7.2b). Click “SEARCH” to activate your search.



PLAN #	PLAN NAME	WEATHER SESSION	DEPARTURE	ARRIVAL	FLIGHT	CRUISING ALT	PARKING/GATE
1008	ATL TO PHL	NO	KATL	KPHL	IFR	35000	27R
1000	ATL TO SRQ	NO	KATL	KSRQ	IFR	20000	1

Figure 7.2c – Flight Plan #

Step 3 – Click the Plan # to import the community flight plan into Sky Force (Fig 7.2c).



Weather Center

The following are the procedures on how to operate the Weather Center.

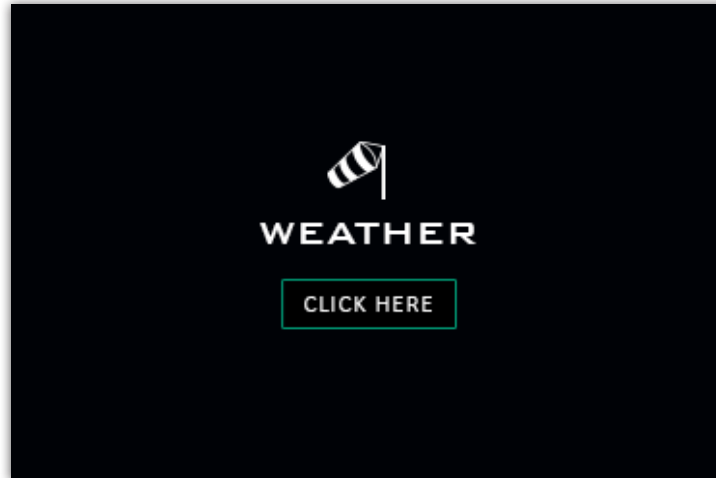


Figure 8.0 – Weather Center Button

Step 1 – Click the Weather Center button on the dashboard (Fig 8.0).

DETAILED VIEW OF THE WEATHER CONDITIONS

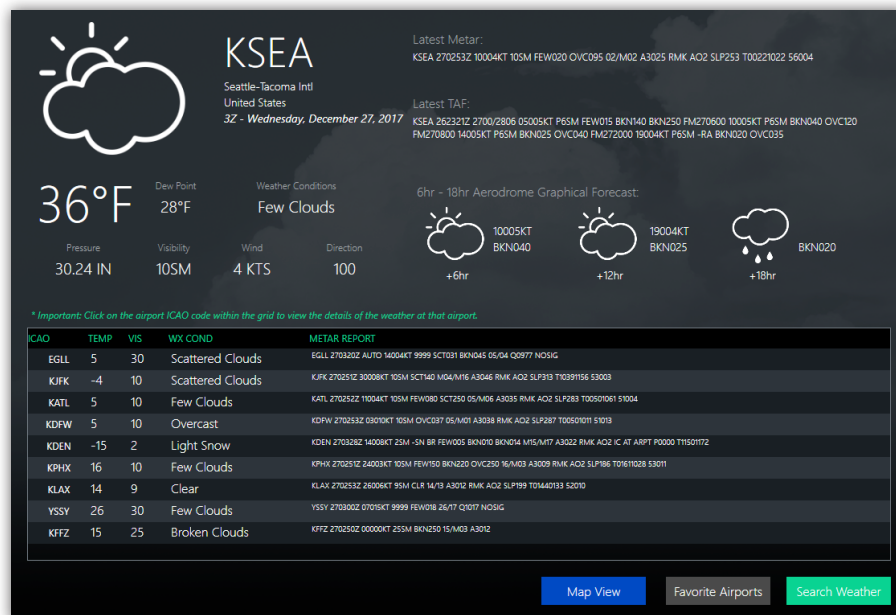


Figure 8.1 – Detailed Weather Conditions Window

Here, you can view detailed weather conditions for a specific airport, enter the interactive weather mapping, pull up your favorite airport weather, and search for more specific weather conditions (Fig 8.1).



VISUAL VIEW OF THE AIRPORTS WEATHER

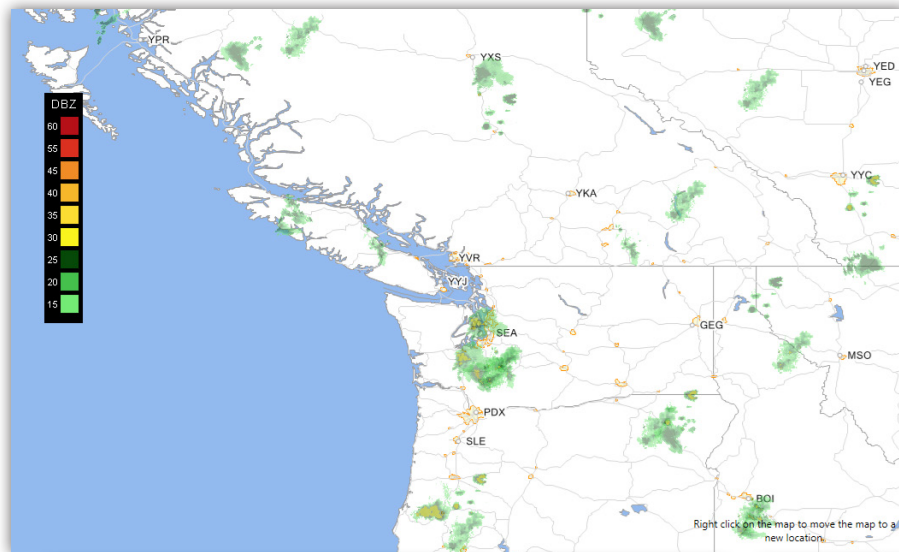


Figure 8.1a – Interactive Map View of the Airports Weather

Step 1 – Click “MAP VIEW” to view the airport’s location and surrounding weather conditions on the Interactive Map (Fig 8.1a).

SEARCH FOR SPECIFIC WEATHER CONDITIONS

WEATHER CENTER

Search Weather Conditions

Use the following options below to search for specific weather conditions:

☒ Search by Airport (ICAO) code:

OR

☒ Enable range search from ICAO:

☐ Search by parameters:

Type of weather:	<input type="text"/>	Cloud base:	<input type="text"/>
Weather intensity:	<input type="text"/>	Wind speed:	<input type="text"/>
Visibility:	<input type="text"/>		

Figure 8.1b – Search By Airport ICAO Code

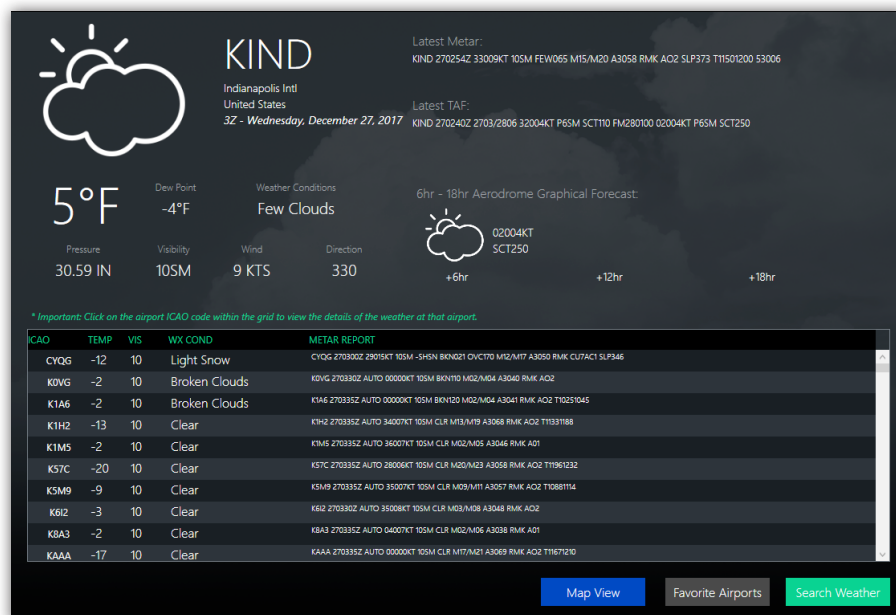


Figure 8.1c – Airport ICAO Search Results

Step 2 – (Optional) You can search for weather at a specific airport ICAO or up to a radius of 400nm from an airport ICAO (Fig 8.1b). The results will include the main airport and list of airports weather conditions (Fig 8.1c).

WEATHER CENTER

Search Weather Conditions

Use the following options below to search for specific weather conditions:

☐ Search by Airport (ICAO) code:

OR

☐ Enable range search from ICAO:

☒ Search by parameters:

Type of weather:

Cloud base:

Weather intensity:

Wind speed:

Visibility:

Cancel Search

Figure 8.1d – Search By Specific Weather Condition

Step 3 – (Optional) You can also search by a specific weather condition by using the filters provided by the Search Weather screen (Fig 8.1d).



** Important: Click on the airport ICAO code within the grid to view the details of the weather at that airport.*

CAO	TEMP	VIS	WX COND	METAR REPORT
FOOL	26	5	Moderate Storm	FOOL 270330Z VRB03KT 8000 TS FEW012 FEW020CB 26/25 Q1008 BECMG NSW
HTMW	21	30	Moderate Storm	HTMW 270330Z 00000KT 9999 TS FEW019 FEW020CB 21/19 Q1013 NOSIG
KPAM	13	10	Moderate Storm	KPAM 270255Z AUTO 0405KT 10SM -DZ SCT080 BKN100 13/07 M RPK A03 SLPN0 P0000 50000 T01380066 T2NO
RPVP	25	2	Moderate Storm	RPVP 270300Z 20005KT 4000 TS -SHRA FEW017CB SCT018 OVC080 25/24 Q1012 RPK A2988 CB SSW/MNWLE
SAOC	18	3	Moderate Storm	SAOC 270330Z 1810G20KT 5000 TSRA FEW020 FEW040CB BKN050 18/17 Q1016
UAAA	-2		Moderate Storm	UAAA 270330Z 24007G15KTS 5000 -SHSN BR BKN029CB OVC100 M02/M04 Q1031 R23R/4/2037 R23L/4/2034 NOSIG
UASP	-4	1	Moderate Storm	UASP 270330Z 18004KTS 1300 SHSN OVC016CB M04/M04 Q1002 R21/790526 NOSIG RPK QFET40/0987
UCFL	0		Moderate Storm	UCFL 270330Z 30019G19KTS 9000 BKN025CB BKN036 00/MIS Q1015 R07/CLR070 RPK V/GCH/Z

Figure 8.1e – Specific Weather Search Results

Step 4 – Once the search is complete, a list of airports reporting the specific weather conditions will be displayed in a list (Fig 8.1e). Click the ICAO code to view the details of that specific airport.



Interactive Map

The following are the procedures on how to operate the Interactive Map.



Figure 9.0 – Interactive Map Button

Step 1 – Click on the Interactive Map button on the dashboard (Fig 9.0).

WEATHER OVERLAYS

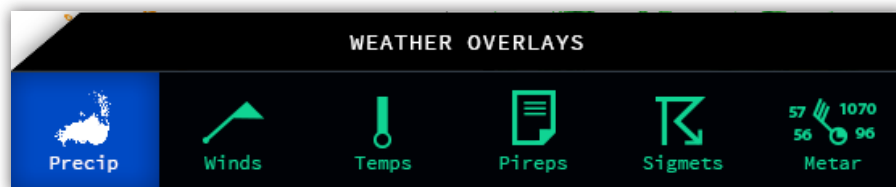


Figure 9.1 – Weather Overlay Buttons

To display different weather overlays on the Interactive Map, click the corresponding button to initiate the overlay. The following is a list of the optional overlays and their functions.

Each overlay can be turned on/off by clicking its corresponding button. The "Precip" button is one overlay that can remain on with each other weather overlay.



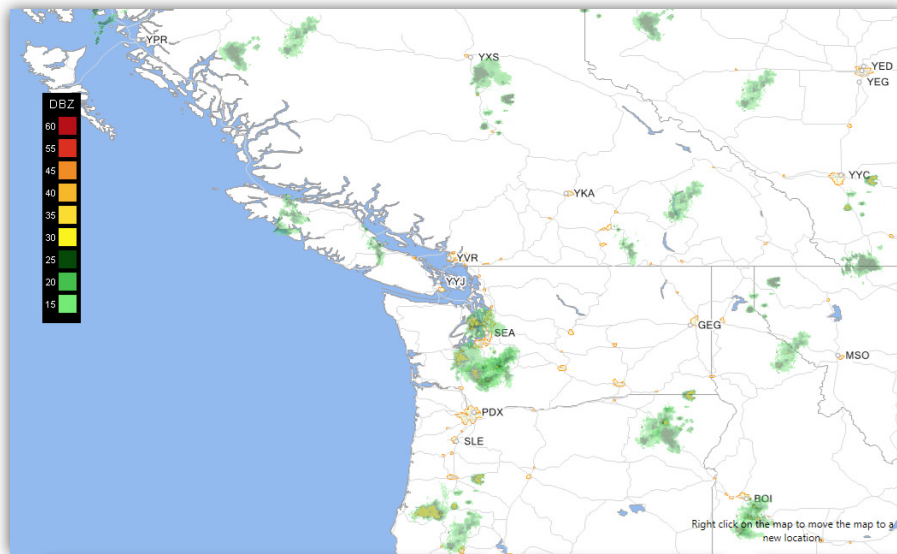


Figure 9.1a – Precip Overlay

WEATHER OVERLAY	FUNCTION
Precip	This overlay displays a data-link radar view of the various weather echoes and their intensity levels (Fig 9.1a).
Winds	This overlay displays the wind direction and speed at heights of the atmosphere (Fig 9.1b).
Temps	This overlay displays the temperatures at different heights of the atmosphere (Fig 9.1c).
Pireps	This overlay displays a visual view of various pilot reports and their location (Fig 9.1d).
Sigmets	This overlay displays multiple airmets/sigmets areas (Fig 9.1e).
Metar	This overlay displays a graphic view of metar data at various airports across a region. This includes cloud coverage, temperature, dewpoint, wind direction, wind speed, pressure, and weather condition (Fig 9.1f).

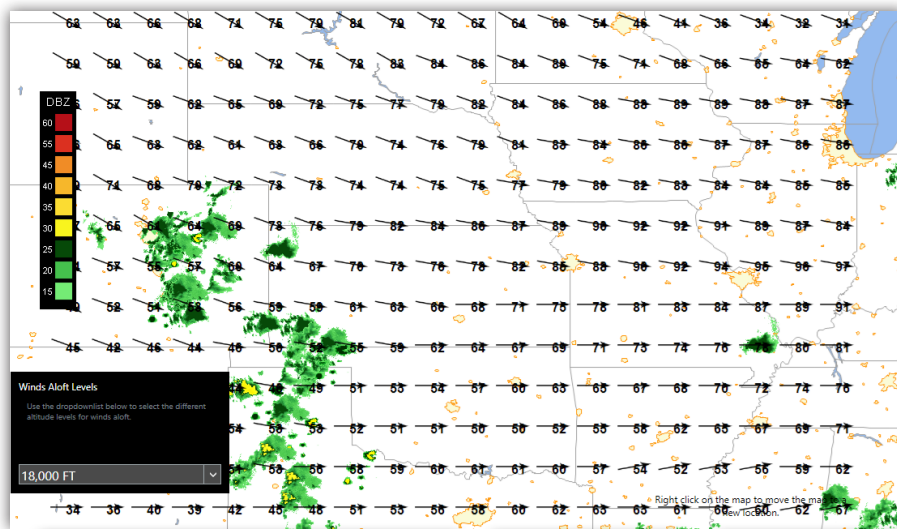


Figure 9.1b – Winds Overlay

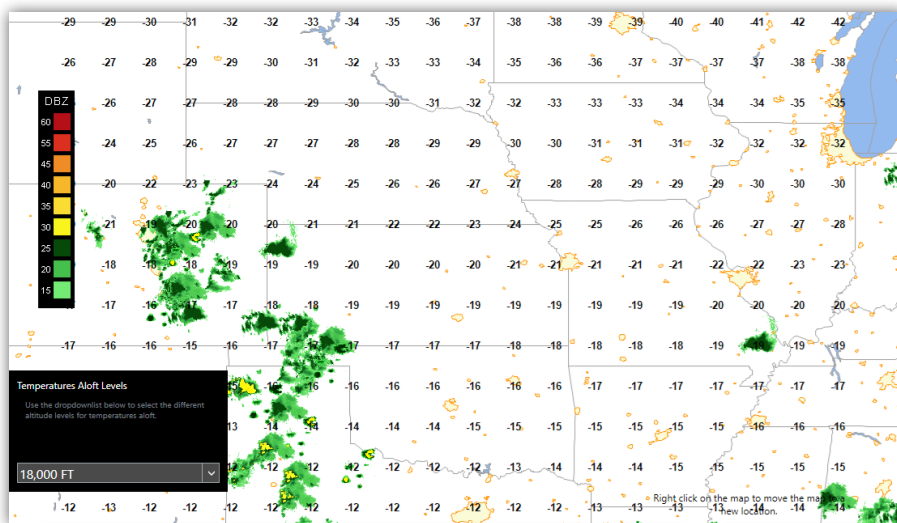


Figure 9.1c – Temperature Overlay

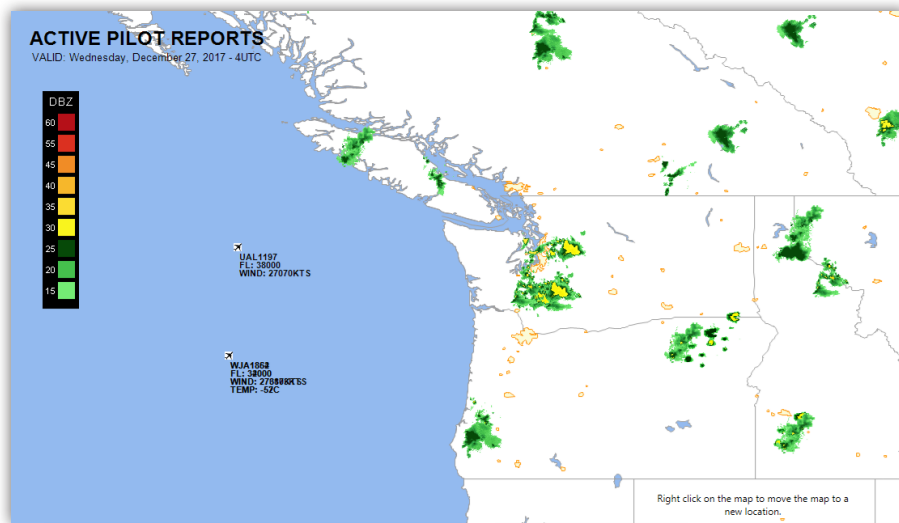


Figure 9.1d – PIREPS Overlay

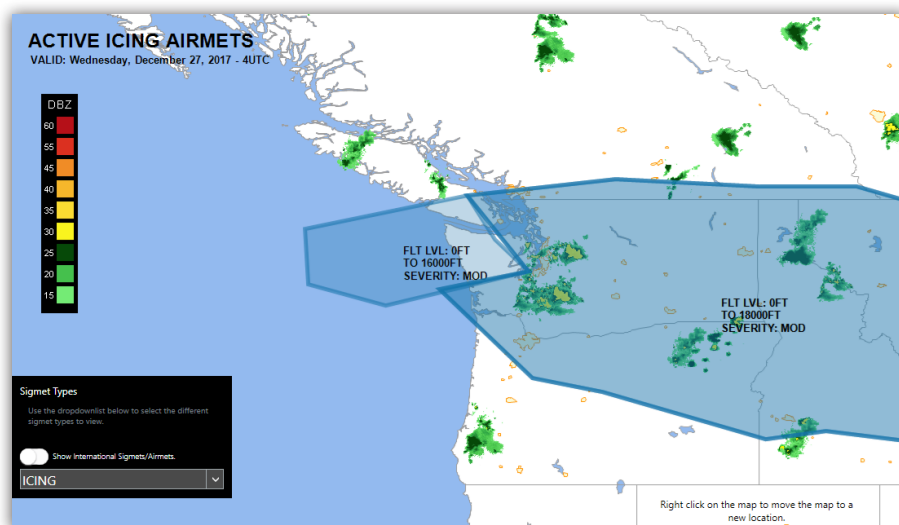


Figure 9.1e – SIGMETS Overlay

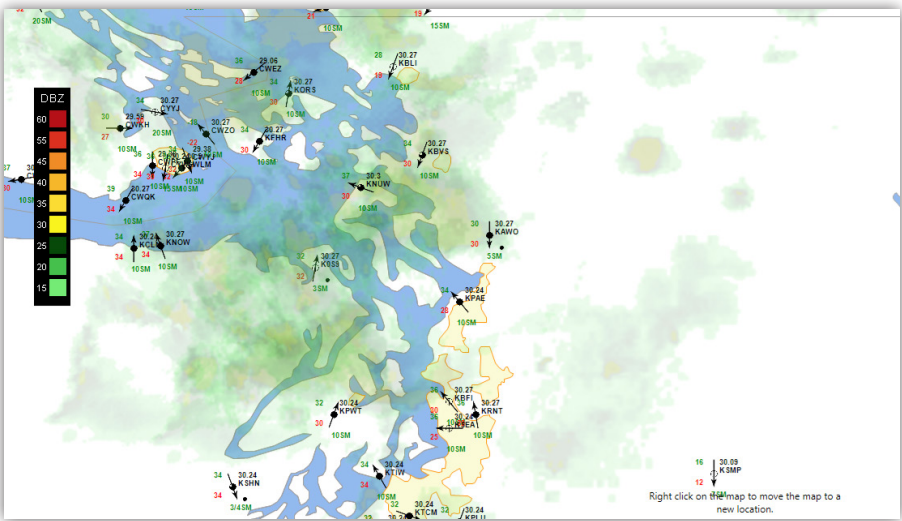


Figure 9.1f – METAR Overlay

MAP OVERLAYS

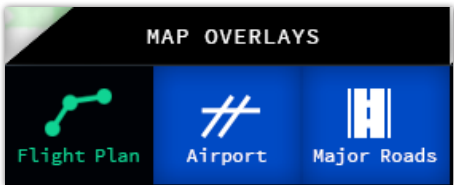


Figure 9.2 – Generic Map Overlays

The map overlays help with point of reference within the map. These overlays can be enabled or disabled and can co-exist with weather and map overlays.

MAP OVERLAY	FUNCTION
Flight Plan	This overlay displays an imported flight plan with its waypoints on the map.
Airport	This overlay displays all major airports across the world on the map (Fig 9.2a).
Major Road	This overlay displays all major highways or water ways across the world on the map (Fig 9.2a).

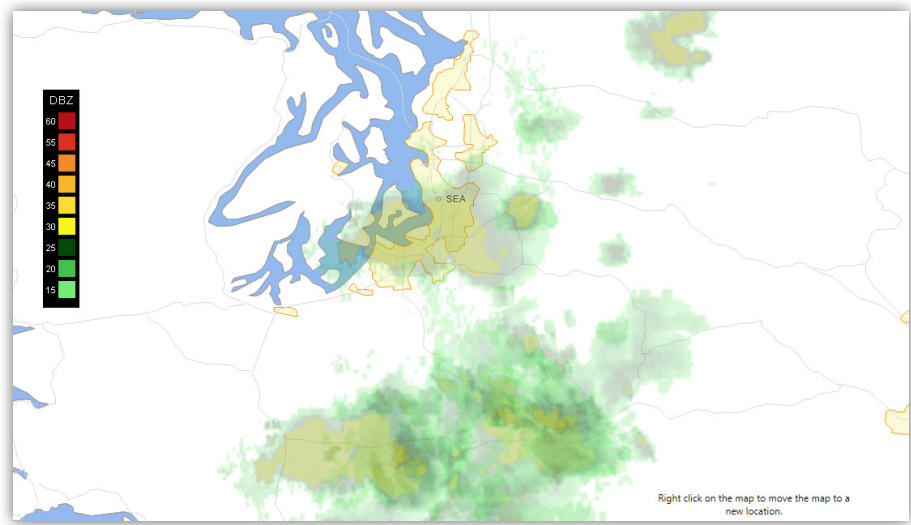


Figure 9.2a – Airport and Major Road Overlays

MAP CONTROLS



Figure 9.3 – Map Controls

The Map Controls allow you to modify the mapping system for better viewing or tracking needs.

MAP CONTROL	FUNCTION
Zoom	The Zoom control enables zooming in/out of a region on the map (Fig 9.3).
Precip Opacity	The Precip Opacity control enables the ability to change the opacity of the precipitation echoes on the map (Fig 9.3).
Follow Aircraft	The Follow Aircraft control enables the map to follow the aircraft while in flight (Fig 9.3).

Themes

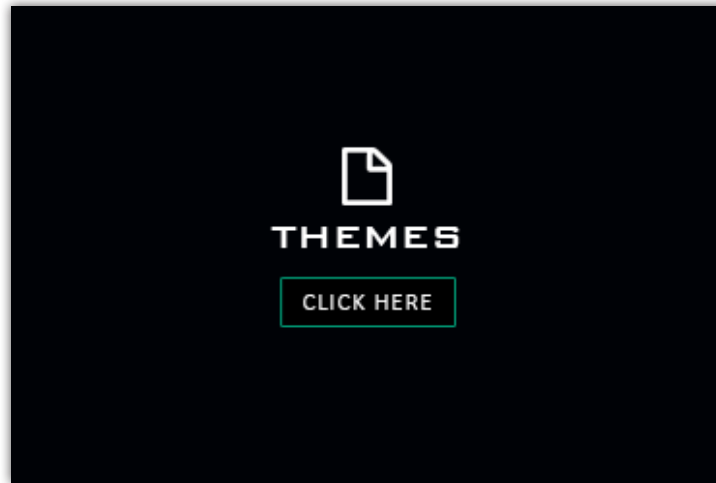


Figure 10.0 – Themes Button

Step 1 – Click on the Themes button on the dashboard (Fig 10.0).

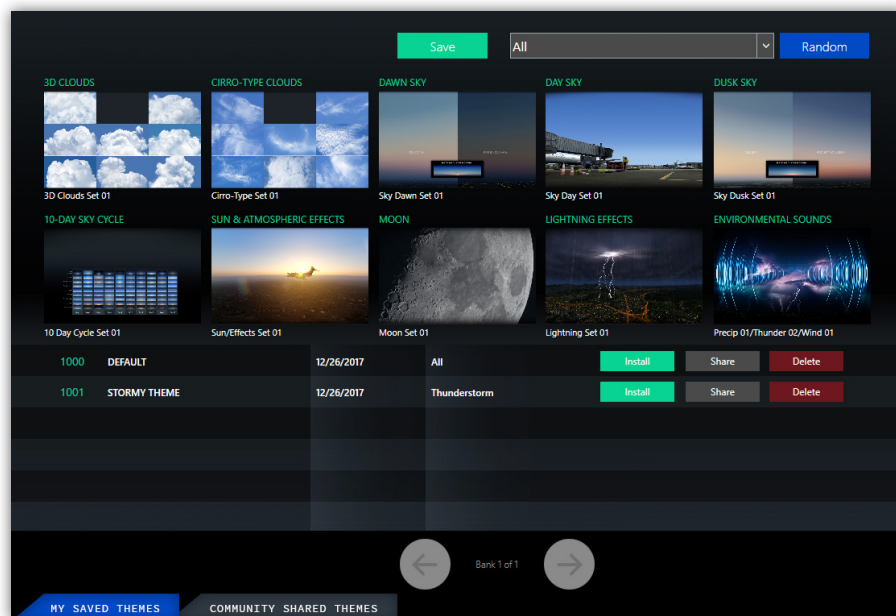


Figure 10.1 – Main My Saved Themes Window



HOW TO RANDOMLY CREATE A THEME

Step 1 – Click “RANDOM” on the top right side of the “My Saved Themes” window (Fig 10.1). This process will create a new “Temp” theme set.

AUTHOR’S NOTE: You may modify any theme texture set by clicking on a specific image preview. This will take you to that texture set to make your changes.

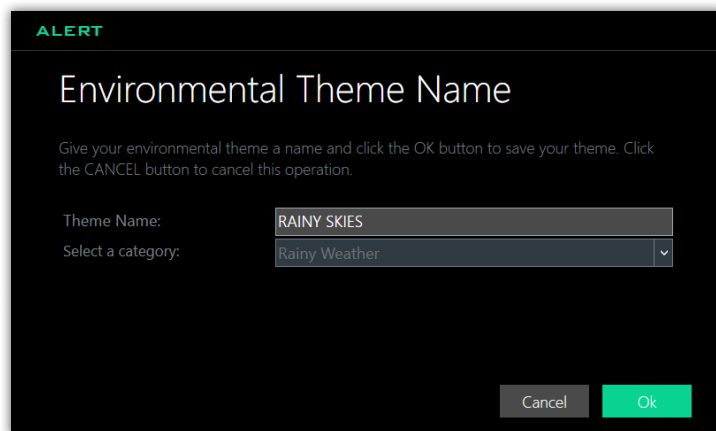


Figure 10.1a – Theme Name Popup

Step 2 – Click “SAVE” and give your randomized theme a name (Fig 10.1). You will be presented with a popup window to give your theme a name and assign it to a category (Fig 10.1a). Click “OK” to continue.

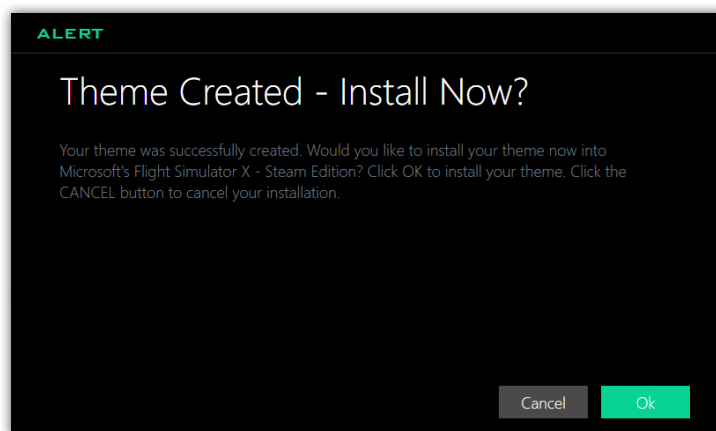


Figure 10.1b – Install Created Theme Popup

Step 3 – (Optional) You will be presented with the option to install your theme or cancel. Click “OK” to install and “CANCEL” to cancel the installation (Fig 10.1b).



FILTER MY SAVED THEMES BY CATEGORY

To filter your list of themes that you created, you can use the category filter provided at the top of the screen.

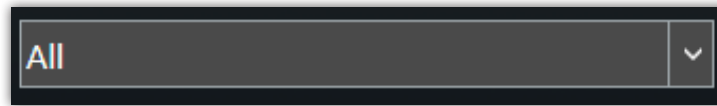


Figure 10.2 – Filter your saved themes by category

Step 1 – Use the category drop down list to filter your My Saved Theme list (Fig 10.2).

FURTHER ACTIONS WITH YOUR SAVED THEMES

You can do several things to your “My Saved Themes”. You can view the contents, install them into your simulator, share them with the community, or delete them.

1000	DEFAULT	12/26/2017	All	Install	Share	Delete
1001	STORMY THEME	12/26/2017	Thunderstorm	Install	Share	Delete

Figure 10.2a – List of My Saved Themes

VIEW THE CONTENTS OF A SAVED THEME

Step 1 – Click on the Theme # to view the contents of your saved theme (Fig 10.2a).

AUTHOR’S NOTE: You may modify any theme texture set by clicking on a specific image preview. This will take you to that texture set to make your changes. Then you will need to click the “SAVED” button to save your newly modified theme.

INSTALL YOUR SAVED THEME

Step 1 – Click “INSTALL” on the line of the theme you want to install into your flight simulator (Fig 10.2a).

SHARE YOUR SAVED THEME WITH THE COMMUNITY

Step 1 – Click “SHARE” on the line of the theme you want share. This will allow you to upload your theme to the REX ‘cloud’ to share with the community (Fig 10.2a).



DELETE YOUR SAVED THEME

Step 1 – Click “DELETE” on the line of the theme you want to delete from your saved theme list (Fig 10.2a).

COMMUNITY SHARED THEMES

Sometimes you may not feel as creative and would like to install a friend’s or another virtual pilot’s creation.



Figure 10.3 – Themes Tabs

Click on the “COMMUNITY SHARED THEMES” tab at the bottom of the Themes window to access the various uploaded themes.

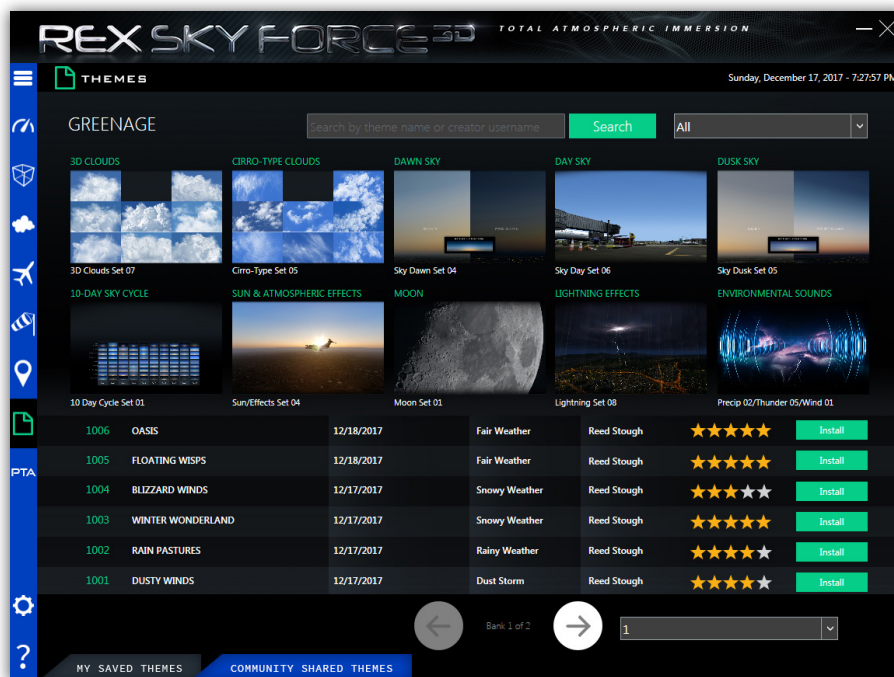


Figure 10.3a – Community Shared Themes Window

The Community Shared Themes window is very similar to the My Saved Themes window, but with some differences (Fig 10.3a).

SEARCH FOR A COMMUNITY SHARED THEME

You can search for a community shared theme by theme name or theme creator name.

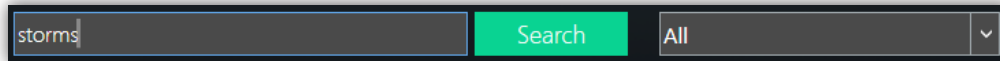


Figure 10.3b – Search Function of Community Shared Themes

Step 1 – (Optional) Type in a theme name or creator name and then click “SEARCH” to activate your search of the community database.

Step 2 – (Optional) OR use the drop-down list to the right of the “SEARCH” button to filter the Community Theme list by category.

1011	MIDWEST STORMS	12/19/2017	Thunderstorm	Matt Dirck	★★★★★	Install
1008	MIDWEST STORMS	12/18/2017	Thunderstorm	Murray Bremner	★★★★★	Install

Figure 10.3c – View, Rate, and/or Install a Theme

VIEW THE CONTENTS OF A COMMUNITY THEME

Step 1 – Click on the Theme # to display a preview of the community theme (Fig 10.3c).

AUTHOR’S NOTE: You may modify any theme texture set by clicking on a specific image preview. This will take you to that texture set to make your changes. Then you will need to click the “SAVE” button to save your newly modified theme.

RATE A COMMUNITY THEME

Step 1 – Click the appropriate star to rate a theme (Fig 10.3c).

INSTALL A COMMUNITY THEME

Step 1 – To install a community shared theme, click “INSTALL” (Fig 10.3c). This procedure will immediately install the content of that theme into your simulator.



PAGING THROUGH MULTIPLE COMMUNITY THEMES



Figure 10.4 – Community Bank Paging or Filter

Over time, the list of community themes will grow. To page through either the full list or even a filtered list of themes, use the left/right arrow buttons to navigate.

Or, use the drop-down bank filter list to access the bank of community themes immediately.

Settings

The following is a general overview of each setting and their functions provided within Sky Force.



Figure 11.0 – General Settings Window

SETTING	FUNCTION	REQUIRED
Flight Simulator Folder Location	This is where you select your default simulator and main folder location.	Yes
Backup / Restore Configuration Settings	This is where you manually backup your current configuration settings or manually restore you last configuration settings, saved themes, and flight plans.	Yes
Enable application sounds	This turns on/off sounds within the application. IMPORTANT: Does not affect sounds within the simulator.	No
Enable community notifications	This turns on/off notifications of new community themes or flight plans uploaded to the REX 'Cloud'.	No
Enable internal logging	This turns on/off internal logging of files that are being moved between Sky Force and the simulator. This is helpful for debugging possible errors.	No
Enable auto-backup at closing	This turns on/off the auto backup function of the current saved themes list, flight plans, and configuration settings.	No
Enable network usage	This turns on/off the feature to set the Sky Force weather engine into a network setup mode.	No
Enable quick start pop-up	This turns on/off the Quick Start pop-up window at start up of Sky Force.	No





Figure 11.1 – Profile Settings Window

SETTING	FUNCTION	REQUIRED
Serial Key	This is the serial key you received from the vendor that is locked to your account.	Yes
Name	This is the username you have tied to your account profile and serial key.	Yes
Email Address	This is the email address you have tied to your account profile and serial key.	Yes
Store	This is the store you have tied to your account profile and serial key.	Yes

IMPORTANT NOTE: You may only make changes to the Name, Email, and Store fields on this window and update them on our servers. These changes will be associated with the serial key you received. Please review EULA for licensing policies.





Figure 11.2 – Updates Setting Window

SETTING	FUNCTION	REQUIRED
Enable auto update at startup	This turns on/off the ability to start the download and update process of the application at startup.	No
Enable update notification	This turns on/off the notification at start up to alert of a new update for the application.	No
Update manually	This will cause the application to check the REX Edge servers for any new application updates available.	No





Figure 11.3 – Favorite Airports Management Window

SETTING	FUNCTION	REQUIRED
Add Button	This enables you to add a new airport to your favorite airport list.	No
Delete Button	This deletes the corresponding airport from your favorite airport list.	No



11.4 – Weather Engine Settings Window

SETTING	FUNCTION	REQUIRED
Enable REX Sky Force Weather Engine	Turning this on/off will enable/disable the REX weather engine injection process into the flight simulator.	No
Enable in-sim weather briefings	Turning this on/off will enable/disable detailed textual weather briefings while in-sim.	No
Enable audible weather briefings	Turning this on/off will enable/disable detailed audible weather briefings while in-sim.	Requires Enable In-Sim Weather Briefings to be enabled.
Enable auto-load flight plan	Turning this on/off will enable/disable the ability for Sky Force to automatically load the flight plan into the simulator. NOTE: This does not work with FSX Steam.	No
Enable convert to Fahrenheit and inches in mercury	Turning this on/off will enable/disable all temperatures and pressure to be reported in F and IN.	No
Enable in-sim green bar alert	Turning this on/off will enable/disable the green bar alert of the weather injection process while in-sim.	No
Enable minimum altitude injection limit	Turning this on/off will enable/disable the weather injection process above a minimum altitude.	Dependent upon the weather engine being enabled.



Figure 11.5 – Cloud Model Sync Setting Window

SETTING	FUNCTION	REQUIRED
Enable real-time 3D cloud model (structures) sync mode and texture sync.	Turning this on/off will enable/disable the means to sync cloud models in real-time while in-sim.	No
Sync rain shaft renderings	Turning this on/off will enable/disable the ability for the engine to sync cloud models with rain shafts.	REX Sync Engine Required
Sync super cell thunderstorm renderings	Turning this on/off will enable/disable the ability for the engine to sync supercell thunderstorm cloud models.	REX Sync Engine Required
Sync tornado cloud renderings	Turning this on/off will enable/disable the ability for the engine to sync cloud models with various tornado formations.	REX Sync Engine Required
Sync roll cloud renderings	Turning this on/off will enable/disable the ability for the engine to sync roll cloud formations.	REX Sync Engine Required



Figure 11.6 – Cloud Setting Window

SETTING	FUNCTION	REQUIRED
Enable maximum cloud turbulence rendering	Turning this on/off will enable/disable the maximum level of turbulence within clouds.	REX Weather Engine Required
Enable maximum thunderstorm turbulence rendering	Turning this on/off will enable/disable the maximum level of turbulence within thunderstorm clouds.	REX Weather Engine Required
Enable model maximum cloud icing rendering	Turning this on/off will enable/disable maximum icing levels within cloud structures.	REX Weather Engine Required
Enable global cumulus cloud rendering	Turning this on/off will enable/disable a global cumulus field outside of the weather injection region.	REX Weather Engine Required
Enable global cirrus cloud rendering	Turning this on/off will enable/disable a global cirrus field outside of the weather injection region.	REX Weather Engine Required
Enable extended length lightning effects	Turning this on/off will enable/disable the length which the lightning shows during thunderstorms.	No



Figure 11.7 – Wind Settings Window

SETTING	FUNCTION	REQUIRED
Enable wind turbulence rendering	Turning this on/off will enable/disable setting maximum levels of wind turbulence.	REX Weather Engine Required
Enable wind shear rendering	Turning this on/off will enable/disable setting maximum levels of wind shear.	REX Weather Engine Required



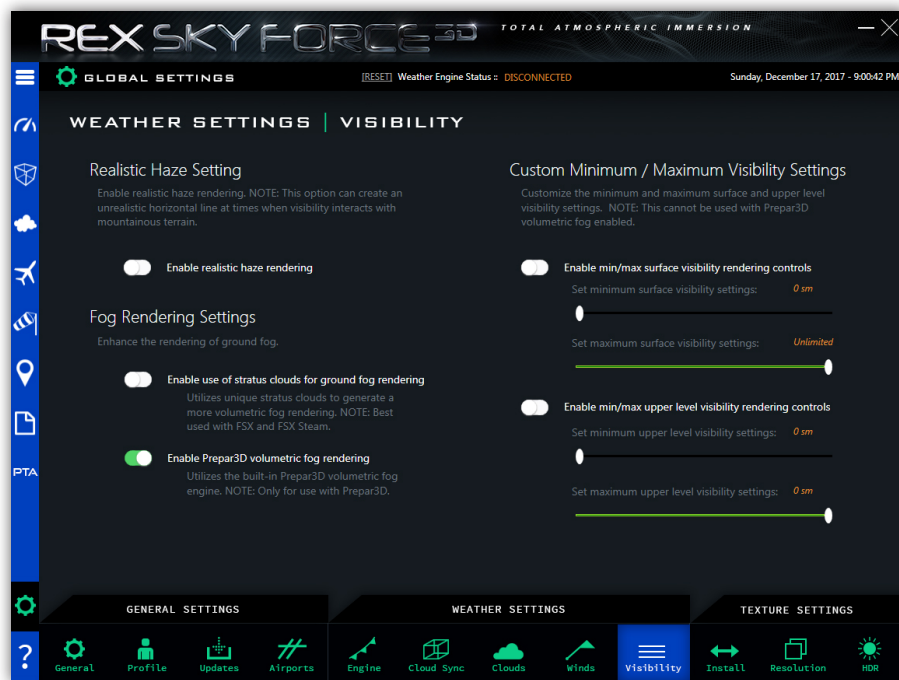


Figure 11.8 – Visibility Settings Window

SETTING	FUNCTION	REQUIRED
Enable realistic haze rendering	Turning this on/off will enable/disable the haze effect in the simulator. However, this will cause a harsh line in the mid to upper atmosphere.	No
Enable use of stratus clouds for ground fog rendering	Turning this on/off will enable/disable the use of stratus clouds to render ground fog.	REX Weather Engine Required
Enable Prepar3D volumetric fog rendering	Turning this on/off will enable/disable the ability for fog to be rendered properly by the REX weather engine for Prepar3D only.	REX Weather Engine Required
Enable min/max surface visibility rendering controls	Turning this on/off will enable/disable the ability to set the minimum/maximum levels for surface visibility.	REX Weather Engine Required
Enable min/max upper level visibility rendering controls	Turning this on/off will enable/disable the ability to set the minimum/maximum levels of upper-level visibility.	REX Weather Engine Required

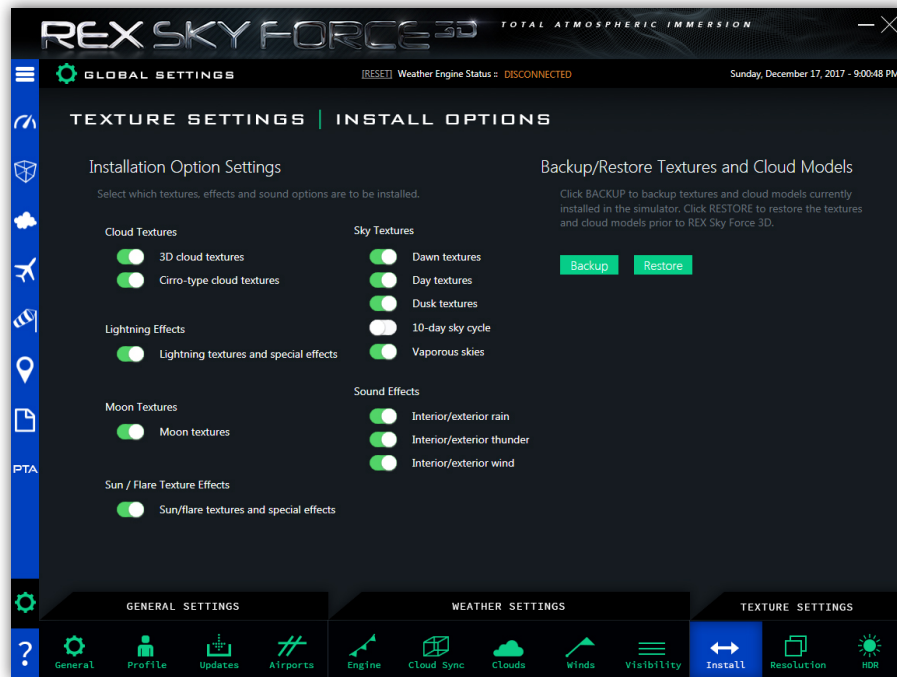


Figure 11.9 – Install Texture Settings Window

SETTING	FUNCTION	REQUIRED
Install Options Settings	Turning on/off the various texture options will enable/disable the ability for the textures to be installed into the simulator.	No
Backup / Restore Textures and Cloud Models	<p>Clicking the Backup button will manually backup the current textures and cloud models from your flight simulator.</p> <p>Clicking the Restore button will manually restore your textures and cloud models to your flight simulator from the backup that was created.</p>	No

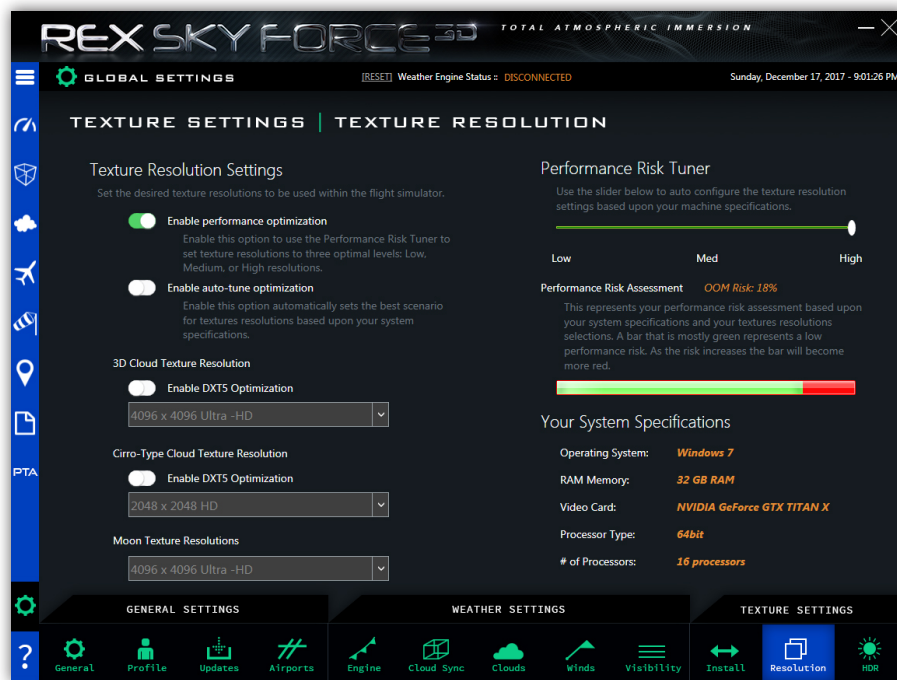


Figure 11.10 – Texture Resolution Settings Window

SETTING	FUNCTION	REQUIRED
Enable performance optimization	Turning this on/off will enable/disable the ability for Sky Force to allow you to fine tune your Performance Risk by using the slider to the right.	No
Enable auto-tune optimization	Turning this on/off will enable/disable the ability for Sky Force to automatically determine and set the best settings for Texture resolutions based upon your computer specifications.	No
Enable DXT 5 Optimization	Turning this on/off will enable/disable the ability to install DXT5 optimized 3D Clouds and Cirro-Type Cloud textures.	No

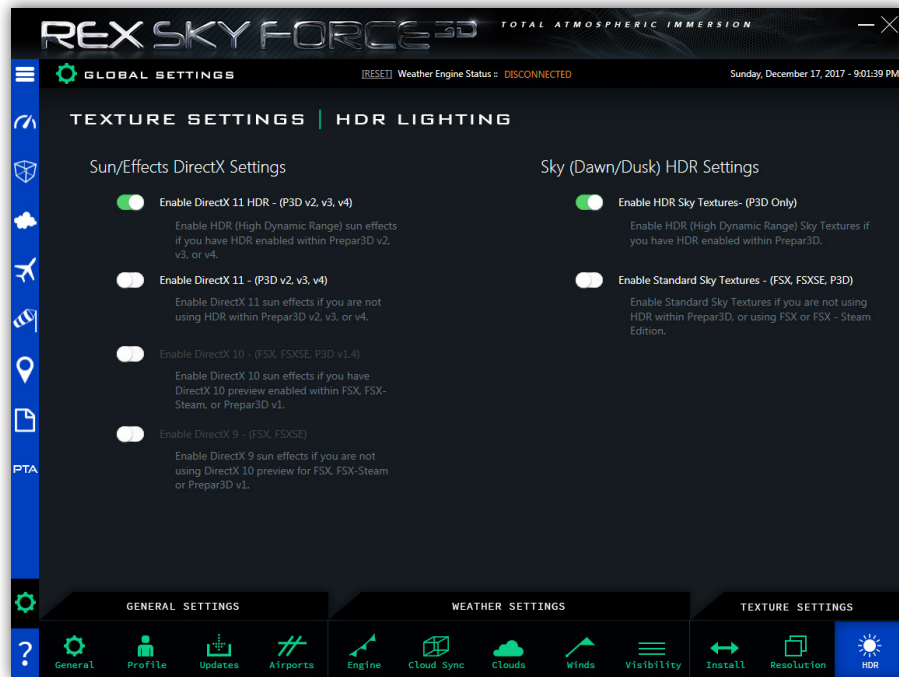


Figure 11.11 – HDR Settings Window

SETTING	FUNCTION	REQUIRED
Enable DirectX 11 HDR	Turning this on/off will enable/disable the ability to install Direct X 11 HDR textures into the simulator.	P3D v2, v3, v4+
Enable DirectX 11	Turning this on/off will enable/disable the ability to install DirectX 11 textures into the simulator.	P3D v2, V3, V4+
Enable DirectX 10	Turning this on/off will enable/disable the ability to install DirectX 10 textures into the simulator.	ALL
Enable DirectX 9	Turning this on/off will enable/disable the ability to install DirectX 9 textures into the simulator.	FSX, FSXSE
Enable HDR Sky Textures	Turning this on/off will enable/disable the ability to install HDR sky textures.	P3D
Enable Standard Sky Textures	Turning this on/off will enable/disable the ability to install standard sky textures.	ALL



PTA Integration

The following is the procedures on how to operate the PTA integration within Sky Force.



Figure 12.0 – PTA Integration Button

Step 1 – Click the PTA button on the main Navigation Bar to open the PTA Integration window (Fig 12.0).

IMPORTANT NOTE: PTA Integration is only available for use with Prepar3D v4.

INITIAL SETUP AND OPERATION FOR PTA

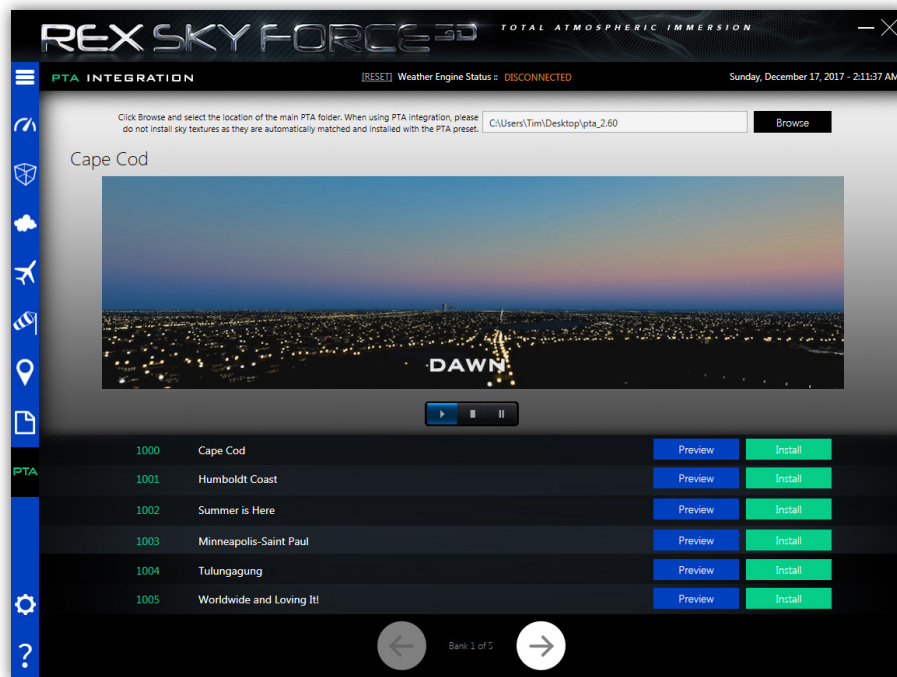


Figure 12.1 – PTA Integration Main Window

Before you can use the Sky Force PTA presets, you must first setup Sky Force to transfer its presets to the PTA application.

Step 1 – Click "BROWSE" to locate the PTA application main folder (Fig 12.1).



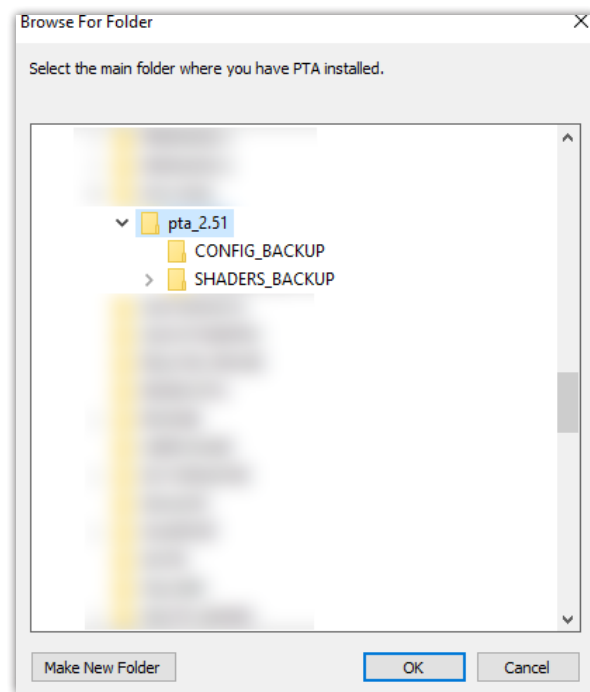


Figure 12.2 – Browse for main PTA application folder

Step 2 – Select the main PTA folder (Fig 12.2).

Step 3 – Click “INSTALL” of the PTA preset you want to install (Fig 12.1).

Step 4 – Start the PTA application and load the preset transferred by Sky Force.

Step 5 – Apply the PTA preset. After PTA injects the shader presets, close PTA and start your flight simulator.

IMPORTANT NOTE: When installing a PTA preset, Sky Force automatically installs the associated sky texture sets into Prepar3D v4.

HOW TO PREVIEW THE DIFFERENT PRESETS WITHIN THE SIMULATOR

1000	Cape Cod	Preview	Install
1001	Humboldt Coast	Preview	Install
1002	Summer is Here	Preview	Install
1003	Minneapolis-Saint Paul	Preview	Install
1004	Tulungagung	Preview	Install
1005	Worldwide and Loving It!	Preview	Install

Figure 12.3 – PTA Preset List

Step 1 – Click “PREVIEW” next to each preset located in the preset list (Fig 12.3). This will load the preview video.

AUTHOR’S NOTE: Each preview video cycles through from dawn to dusk showing the different effects the PTA preset has within the simulator.

PAGING THROUGH MULTIPLE PTA PRESET BANKS

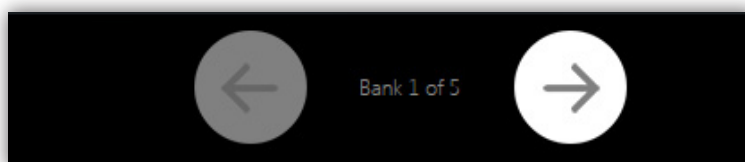


Figure 12.4 – Community Bank Paging or Filter

There are multiple pages of PTA presets. To page through the list, use the left/right arrow buttons to navigate (Fig 12.4).

IMPORTANT NOTE: We purposely developed the PTA presets for a refined and balanced appeal, not to overly affect the environment in an unrealistic way. The cloud tweaks are very important in that they fix the many shortcomings from the flawed Prepar3D shader code. WE HIGHLY SUGGEST NOT ALTERING THE CLOUD TWEAKS, BUT MAY TWEAK OTHER VARIABLES TO YOUR LIKING.

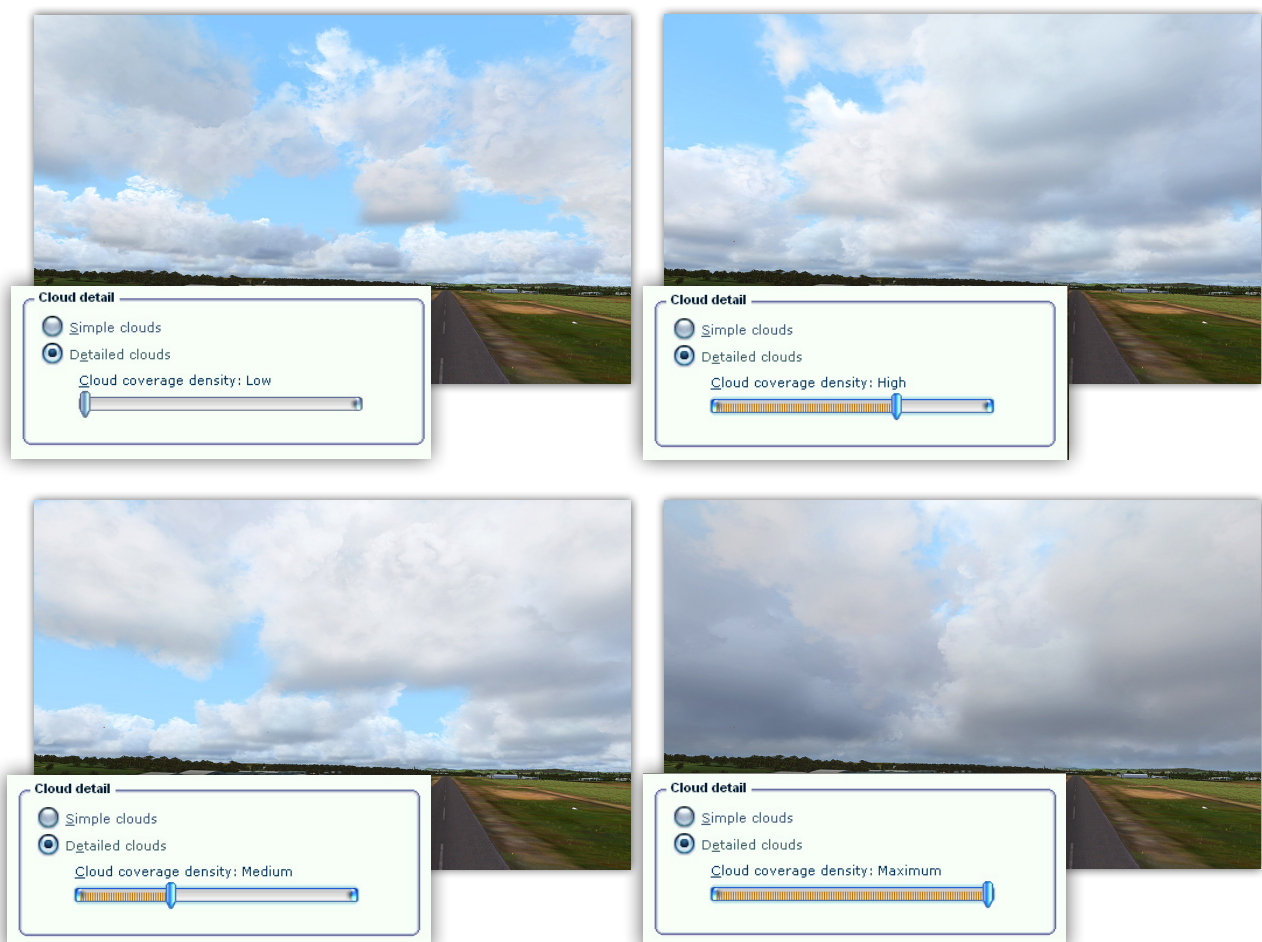


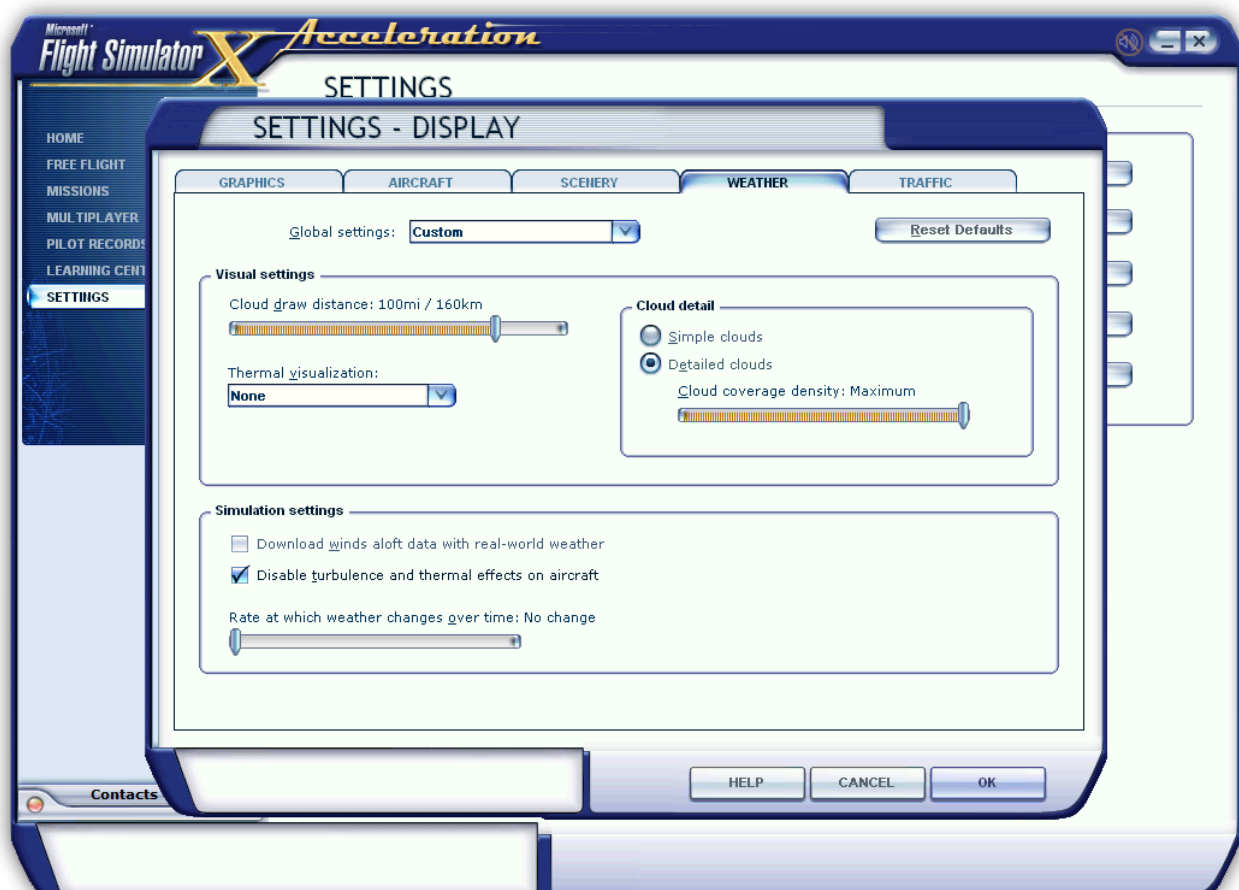
Important Simulator Settings

Cloud Detail is the single most important setting in regards to cloud visuals. If **Simple clouds** is checked ON within the simulator, the simulator will NOT correctly utilize the REX texture and cloud SDK. **Select Detailed clouds for full functionality!**

The **Cloud coverage density** slider presents a VERY important roll in terms of visuals. Below is a visual demonstration of what each setting represents. Each screenshot represents the same exact weather, the only difference is the **Cloud coverage density** slider setting.

IMPORTANT NOTE: Since the Sky Force 3D cloud models have been highly optimized, you can use full density settings with little to no affect.





The most critical settings within FSX in regards to REX interaction is the SETTINGS / DISPLAY / WEATHER screen.

We recommend the following settings:

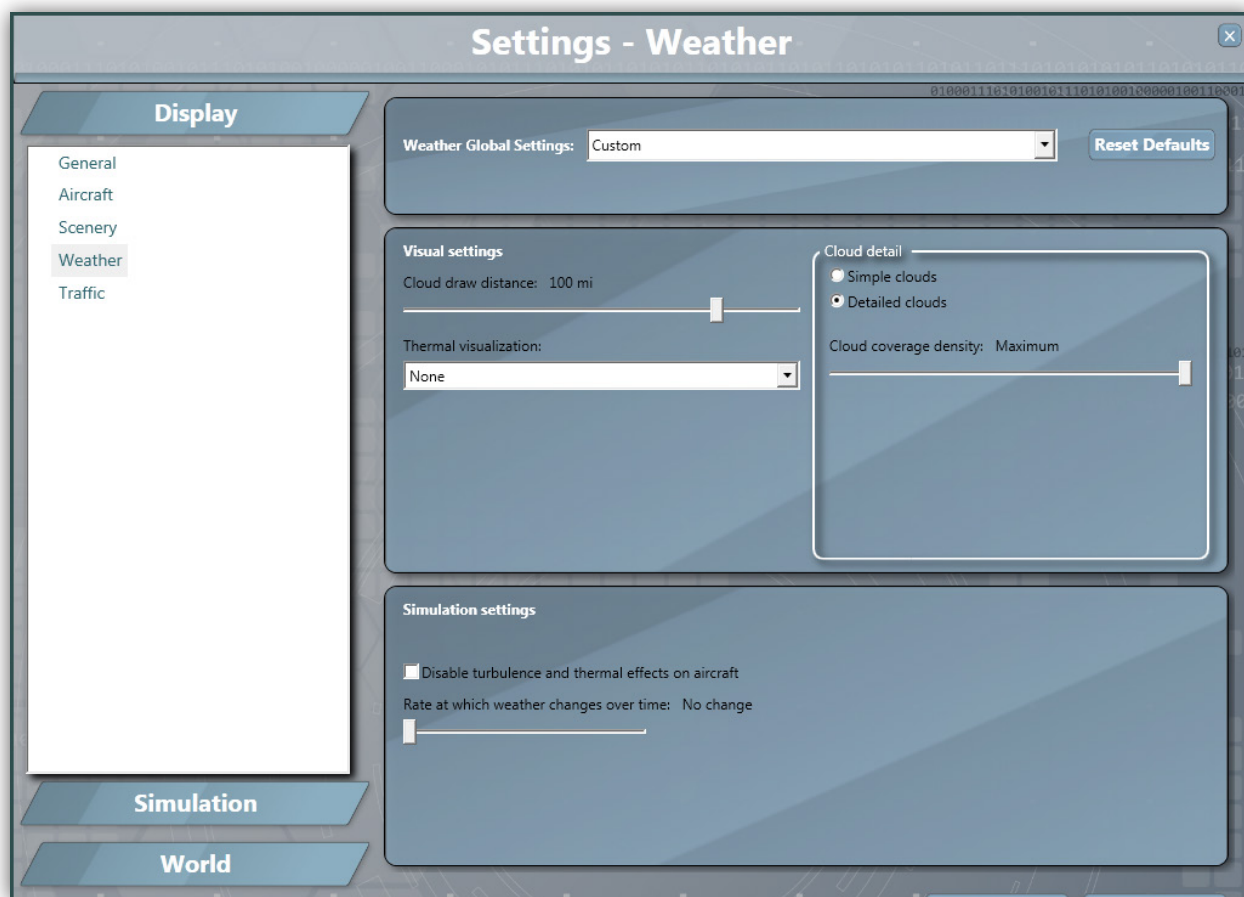
Cloud draw distance instructs FSX how far to draw clouds. If the setting is set to full-right (110mi), the cirrus clouds will appear cut-off in the distance. Backing this off to 100mi will rectify this issue, still giving a great distance to view clouds.

Cloud Detail is the single most important setting in regards to cloud visuals. If **Simple clouds** is checked ON within the simulator, the simulator will NOT correctly utilize the REX texture and cloud SDK. **Select Detailed clouds for full functionality!**

The **Cloud coverage density** slider presents a VERY important roll in terms of visuals. Page 75 displays a visual demonstration of what each setting represents. Each screenshot represents the same exact weather, the only difference is the **Cloud coverage density** slider setting.

IMPORTANT NOTE: Since the Sky Force 3D cloud models have been highly optimized, you can use full density settings with little to no affect.





The most critical settings within Prepar3D v.1 in regards to REX interaction is the SETTINGS/DISPLAY/WEATHER screen.

We recommend the following settings:

Cloud draw distance instructs Prepar3D how far to draw clouds. If the setting is set to full-right (110mi), cirrus clouds will appear cut-off in the distance. Backing this off to 100mi will rectify this issue while still giving a great distance to view clouds.

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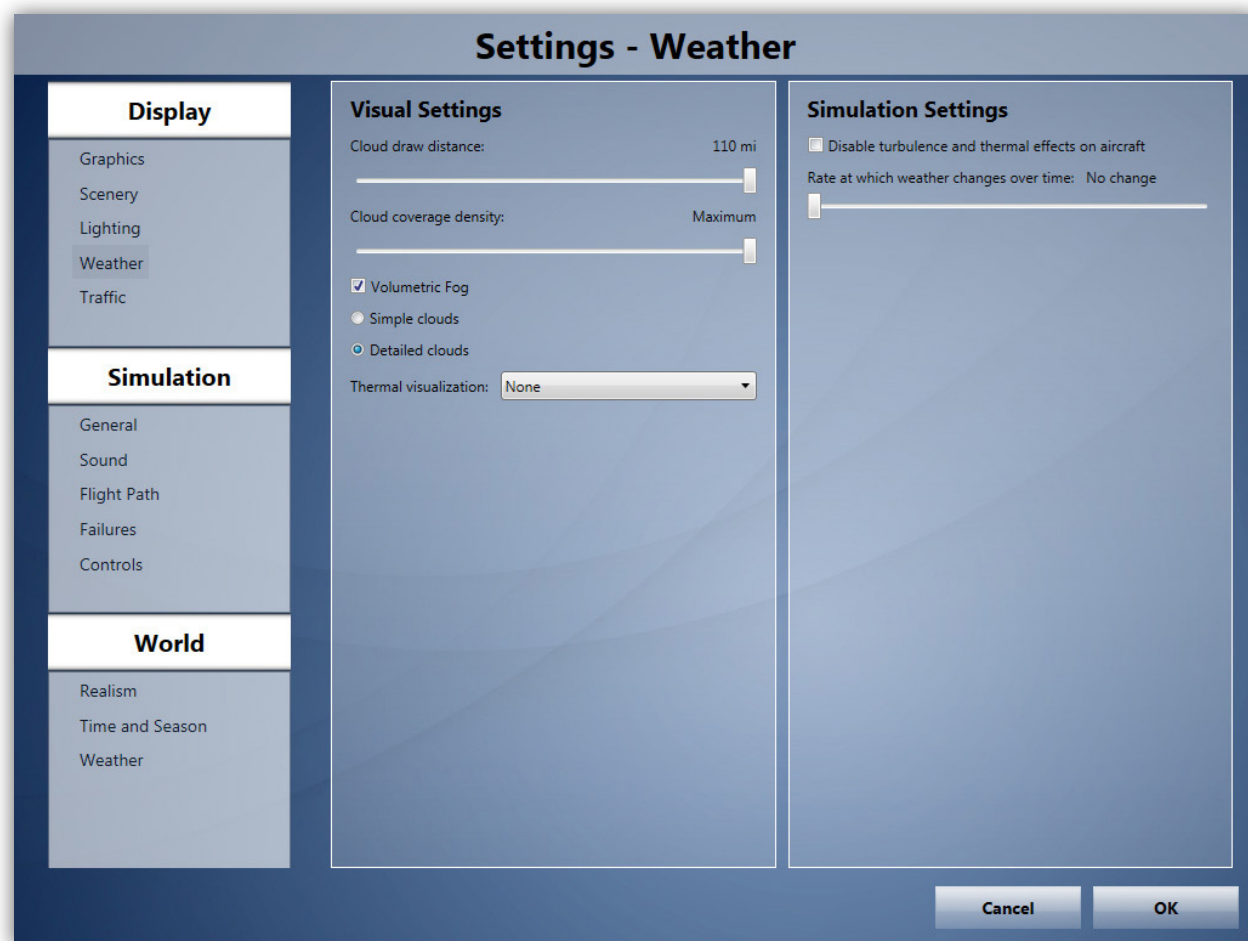
IMPORTANT NOTE: Since the Sky Force 3D cloud models have been highly optimized, you can use full density settings with little to no affect.





HDR Lighting - Whether to use HDR lighting is down to user choice, however make sure to use the **HDR Textures** option in REX when using HDR.

Lens Flare - Whether to display the lens flare is down to user choice, we strongly advise turning this option **ON** to experience the enhanced realism of the REX atmospheric effects.



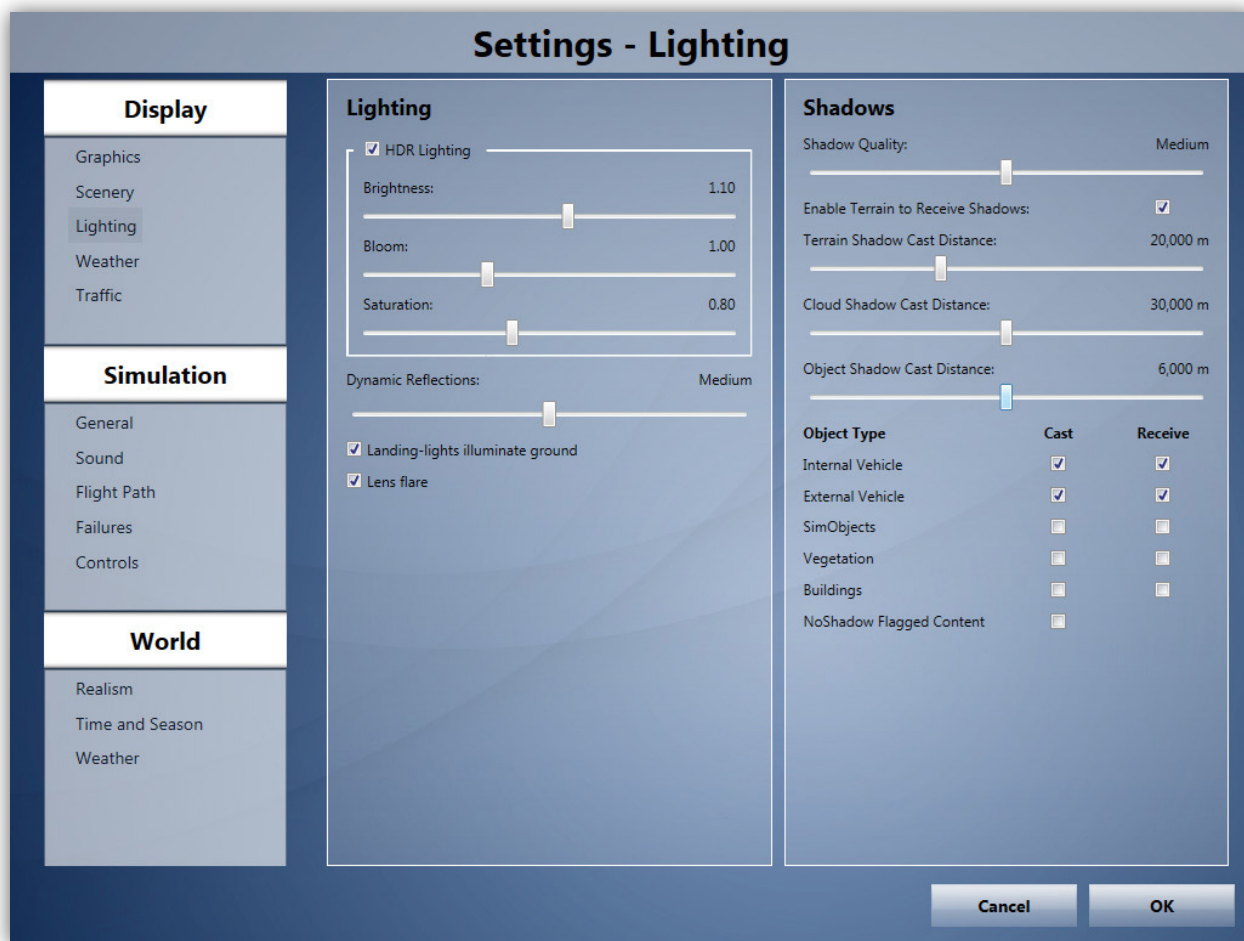
We recommend the following settings:

Detailed Clouds is the single most important setting in regards to cloud visuals. If **Simple Clouds** is checked ON, the simulator will NOT correctly utilize the REX texture and cloud SDK. **Select Detailed Clouds for full functionality!**

The **Cloud coverage density** slider presents a VERY important roll in terms of visuals. Page 75 displays a visual demonstration of what each setting represents. Each screenshot represents the same exact weather, the only difference is the **Cloud coverage density** slider setting.

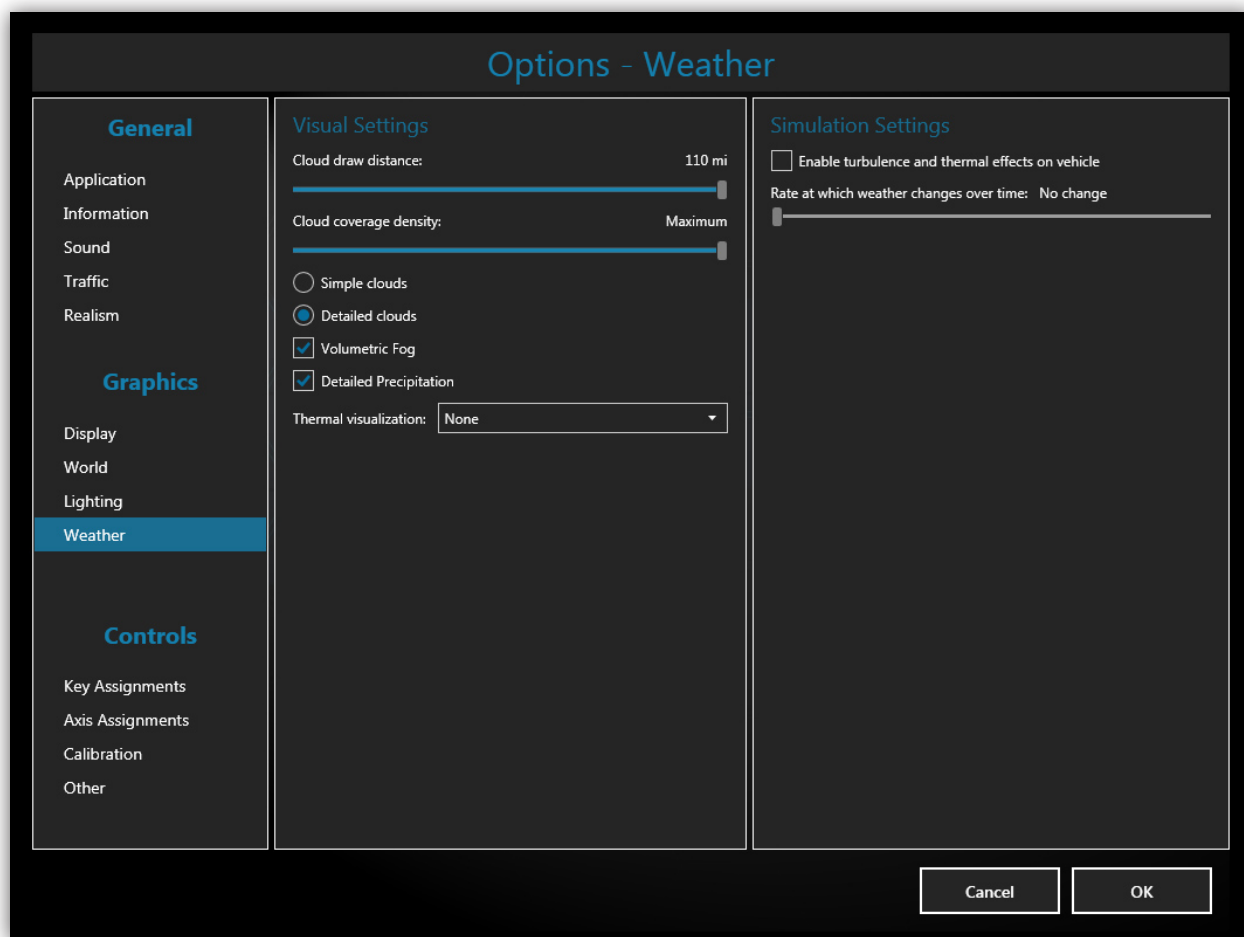
IMPORTANT NOTE: Since the Sky Force 3D cloud models have been highly optimized, you can use full density settings with little to no affect.





HDR Lighting - Whether to use HDR lighting is down to user choice, however make sure to use the **HDR Textures** option in REX when using HDR.

Lens Flare - Whether to display the lens flare is down to user choice, we strongly advise turning this option **ON** to experience the enhanced realism of the REX atmospheric effects.



We recommend the following settings:

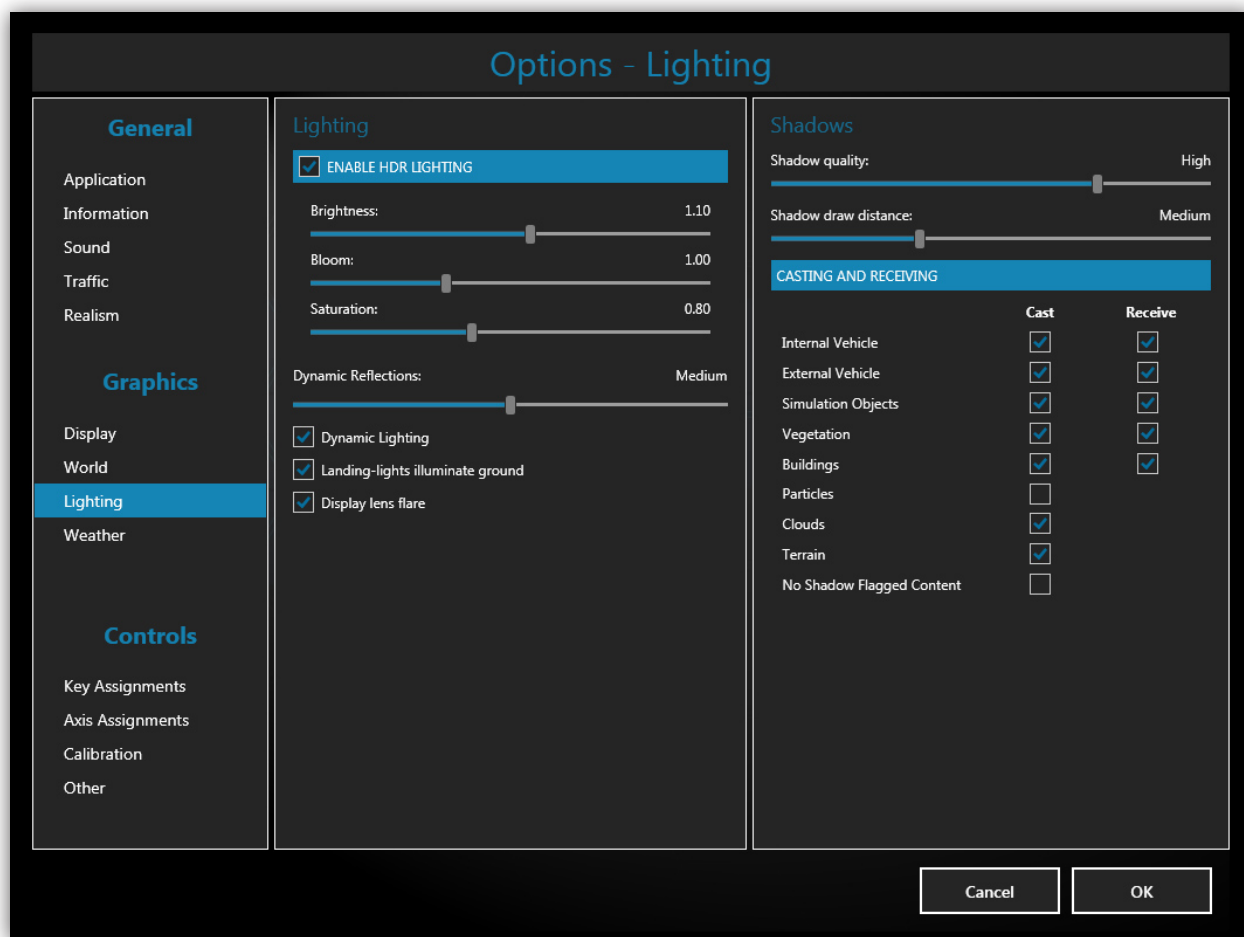
Detailed Clouds is the single most important setting in regards to cloud visuals. If **Simple Clouds** is checked ON, the simulator will NOT correctly utilize the REX texture and cloud SDK. **Select Detailed Clouds for full functionality!**

The **Cloud coverage density** slider presents a VERY important roll in terms of visuals. Page 75 displays a visual demonstration of what each setting represents. Each screenshot represents the same exact weather, the only difference is the **Cloud coverage density** slider setting.

IMPORTANT NOTE: Since the Sky Force 3D cloud models have been highly optimized, you can use full density settings with little to no affect.

IMPORTANT NOTE: Volumetric fog must be checked ON. P3D4 has an inherent flaw with Volumetric Fog turned OFF and will force zero visibility sky textures, and you will not experience any color in the skies.





Lighting - Whether to use HDR lighting is down to user choice, however we advise using the **HDR Textures** option in REX when selecting this option ON.

Display Lens Flare - Whether to display the lens flare is down to user choice, we strongly advise turning this option **ON** to experience the enhanced realism of the REX atmospheric effects.

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<http://www.realenvironmentxtreme.com/forums>

We ask that you please search and read through similar help topics **BEFORE** you post a support question. Often you may find that a certain question has already been asked by someone else and the issue has been resolved.

To receive support on our forum, you must be a verified member. Sign-up on the forum, and reply to the post with your order number (not serial number), and the store of purchase into the following thread:

<https://www.realenvironmentxtreme.com/forums/index.php?/topic/36479-support-verification>



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