

Bahamas Scenery Pack 2-3

Northern and Western Bahamas and Turks and Caicos

Developer Notes



In August of this year, Hurricane Dorian devastated the Bahamas. Abaco and Grand Bahama were especially hard hit. The destruction caused by this storm is unbelievable and the human suffering it caused is just heartbreaking. If you have not already, please consider donating to a charity that benefits the survivors of this storm.

Like a lot of you virtual pilots, I have always been surprised by the lack of good-quality scenery for the Bahamas. Part of the problem I think is that it is a large region and really good quality payware and freeware scenery has so far only addressed small regions or airports across the Bahamas (e.g., Photosimlabs and Nassau X). The problem with this state of affairs is that pilots have to fly over the dreadful default scenery that covers most of the Bahamas to get to those oases of high-quality scenery. It's not a very immersive experience.

To address this problem, I have set out to create a much better baseline scenery for the Bahamas. By having a much more realistic and immersive scenery for the whole Bahamas, I am hoping that more virtual pilots will want to spend time flying around this beautiful part of the world. And hopefully this will create a demand and inspire more developers to create even better scenery for this area, whether it is one airport or island at a time.

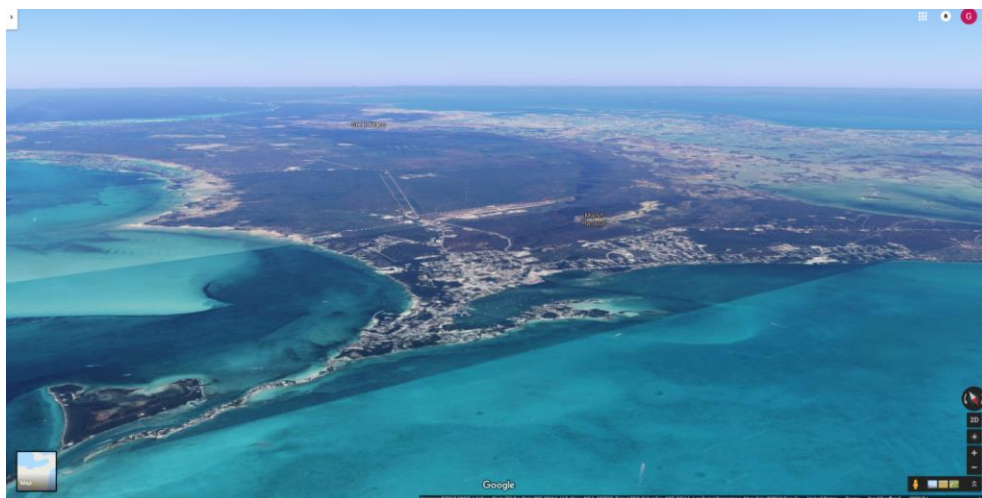
This scenery is all done using several software tools including SBuilderX by Luis Sá & Ptsim (freeware available at: <https://www.ptsim.com/index.php/sbuilderx1>), Airport Scenery Designer by ScruffyDuck (freeware available at: <http://www.scruffyduck.org/airport-design-editor/4584106799>), and Instant Scenery (payware available through <http://www.flight1.com/products.asp?product=iscen3>). The Bahamas scenery is completely free to the community. Please make donations to Louis and ScruffyDuck to thank them for their wonderful free tools if you feel so inclined, I have!

This scenery pack includes new vector data (coastlines, polygons, roads) aligned to satellite imagery, new base land class and base water class, new airports, and new scenery objects like boats, docks, buildings, etc.). I explain all of this in more detail below.

Below is a view of the default scenery showing Abaco Island looking south towards Marsh Harbour airport.



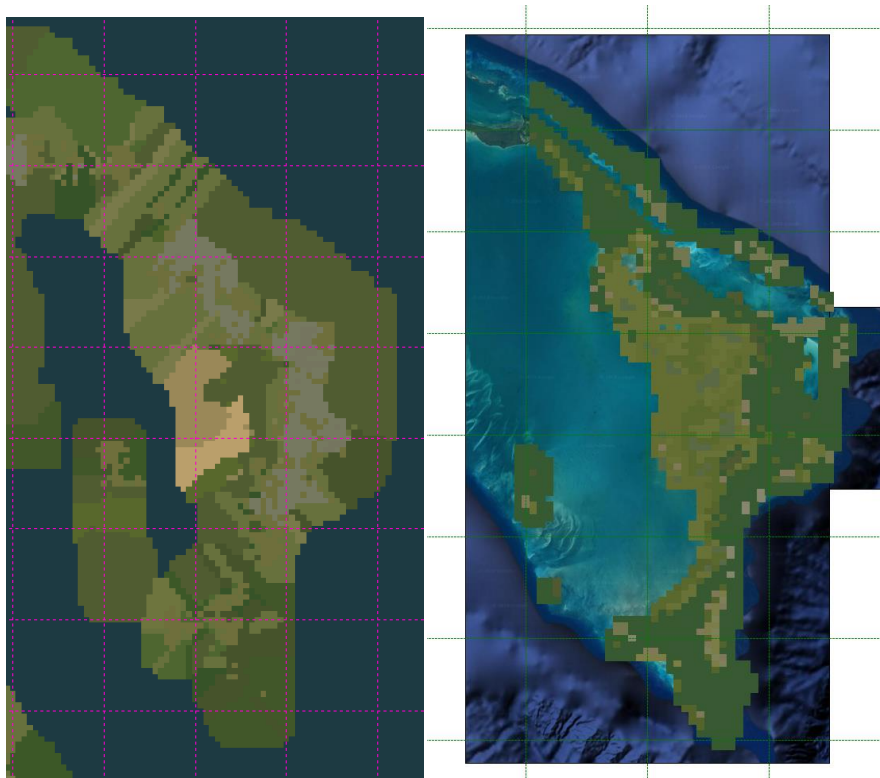
Compare default scenery above to the satellite image below. You can see that the coastline is quite crude, and the land class does not come close to reality.



Below is the same view with my replacement vector, land class, and water class Bahamas Scenery. You can see how I have improved the coastlines and land classes over the default scenery.



Land Class Updates



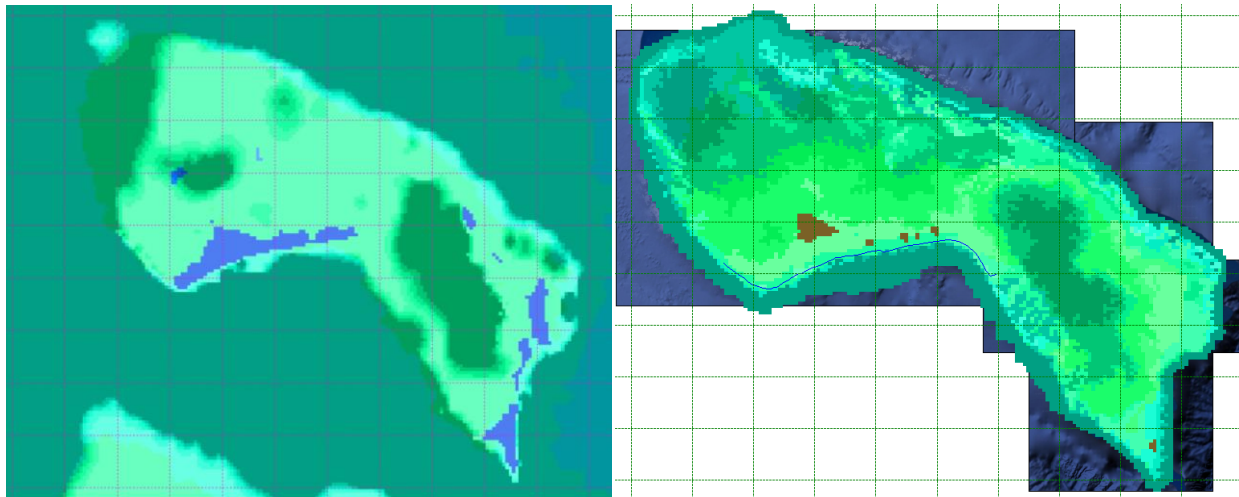
The first layer of scenery in the FSX/P3D world is comprised of land class data. The world is divided into 1.2 km squares that are represented by any one of over a hundred different land classes based on the Olson land class system (for a more in depth discussion refer to <http://www.prepar3d.com/SDKv3/LearningCenter/LearningCenter.php>).

In the image above, you can see the default land class scenery for Abaco Island on the left and my revised land class scenery on the right, created in SbuilderX. Each land class is represented by a different color (these colors are not what you see in the sim). The small squares that look like “pixels” represents 1.2 km squares in the P3D world. In the default scenery, the default land class layer is poorly matched to the actual terrain. My approach to creating a new land class layer was to focus on matching the appearance of the land class to satellite images. I find that when terrain land classes are chosen so that they blend well together, the effect is very close to the actual terrain.

The included scenery files simply instruct P3D on which land class scenery files to place across the Bahamas. If you have replacement land class scenery from ORBX (ORBX Global Base), P3D will use those land class scenery files instead of the default land class scenery files.

Water Class Updates

There is also a water class layer. There are far fewer water class types than land class types so it is more difficult to create realistic tropical water using this system. Nevertheless, the default water class maps are very crude. The two images below show the water class map for the region around Grand Bahama and Abaco islands. On the left below is the default water class map and the right is the updated water class in this scenery pack. As you can see I have tried to add much more detail based on the appearance of the satellite images.

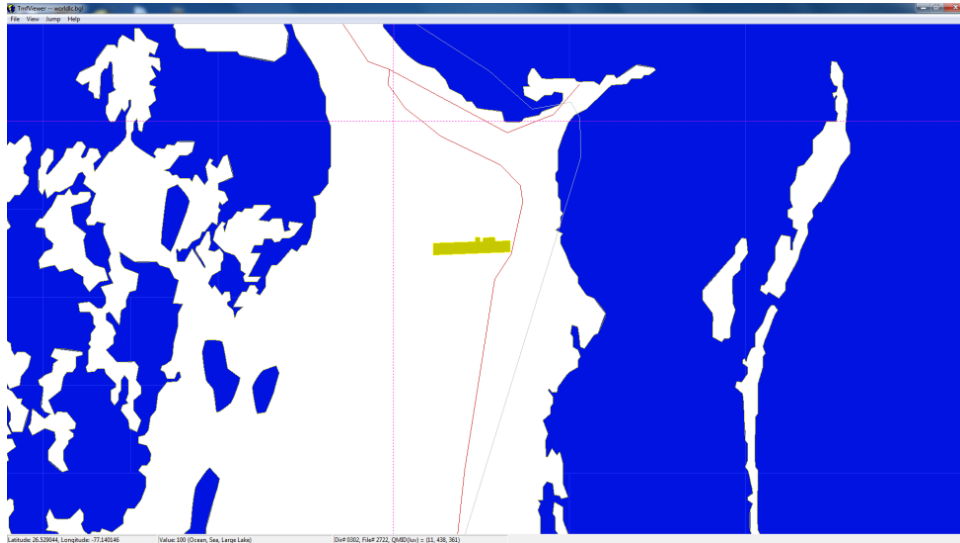


Blending the different tropical water classes together produces some nice effects and I think the overall result is good especially at lower altitudes. However, the default water classes do not yet come close to capturing the spectacular beauty of these waters in the way that photoscenery does.

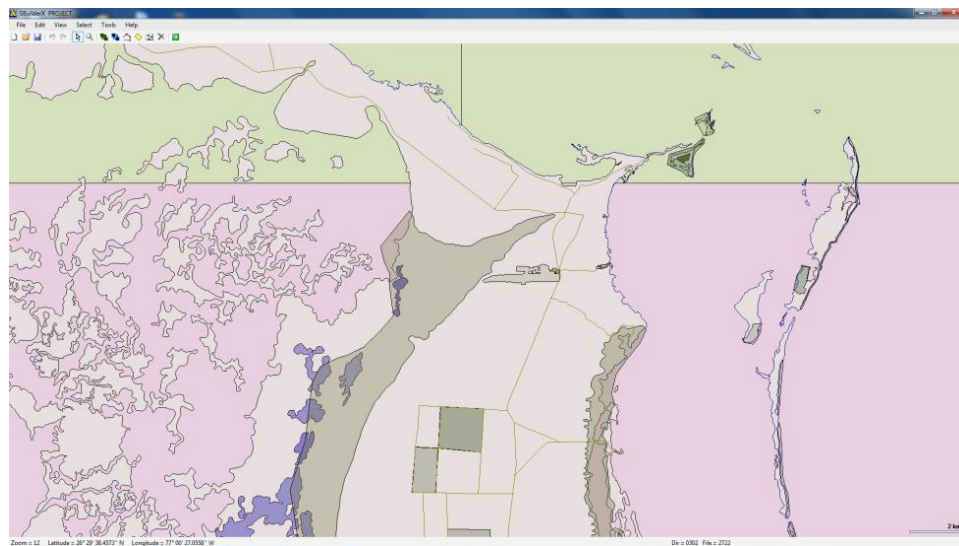
From higher altitudes, you are more likely to notice the checkerboard appearance of water class tiles. If you notice a checkerboard pattern in the water class, the best way to mask this effect is by limiting visibility in the weather system or by playing around with the waterclass shaders with an app like P3D Tweak Assistant or Tomatoshade.

Vector Scenery Updates

Vector data (lines and polygons) allow for a very precise definition of the shapes and boundaries of land and water class textures. These are laid down on top of the land class. Coastlines, roads, bodies of water, and anywhere else where you want to define a specific shape for a land class texture is done using vector scenery (like a patch or woods or a field or a sandy beach). Below is the default vector scenery for Abaco Island around Marsh Harbour airport. This is the same scenery shown in the screenshot on page 2.



And below is a view of the vector data I created in SBuilderX. It was drawn by hand directly from satellite imagery.



Creating vector scenery is the most time-consuming part of developing custom island scenery. I would estimate it took me about 15-20 hours to create all the vector scenery for Abaco and the surrounding islands. I find that doing this by hand produces much better results than using pre-existing

databases of coastlines and land class, at least from what I can see in the commercial world. Many of the Bahamas islands are too small for digital databases to accurately render.

Airports

I am very excited to announce that with the release of the Western Bahamas Scenery Pack, the magnificent Airports and Objects created by Art Poole are now included! Take a look at some of Art's work below.



In the image above: Top Left – S Bimini, Top Right – Andros Town; Bottom Left – Marsh Harbour; Bottom Right – Nassau International

As you can see, Art has done a masterful job of modeling many of the Airports found throughout the Bahamas – 24 in all (a map showing all of his airports is included with this release). These airports enhance the experience of Flying around the Bahamas immeasurably. All of his airports are included in this release, even for the Islands that I have not yet updated. For the islands that I have completed, I am, with Art's permission, tweaking them to make sure that they blend in well with the background scenery.

As I work my way through the Bahamas, I am redoing All 60+ airports using ScruffyDuck's ADE. I would estimate that at least half of the airports in the Bahamas are mis-located to some degree. If you use an app like FltPlan GO (<https://www.fltplan.com/>) to navigate in P3D, you are probably aware of these errors.

I am redoing the airports to correct these location errors, to insure that airports blend in with the background scenery, to update taxiways and runways as needed, and to generally spruce them up with additional objects and vegetation. There are also several Bahamas airports that do not come with the default scenery, so I have added those in (e.g., Cat cay, Cave Cay, Harold Charles Internatioinal airport). Thanks to Art's wonderful airport collection, I have a lot less work yet to do.

My approach to creating airports is to build runways, taxiways, aprons, taxi markers, fencing, and an occasional generic building in ADE and then all the buildings, static vehicles, and clutter are placed with Instant Scenery in a separate file that shares the ICAO title of the airport (e.g., treasure cay is MYAT so the IS scenery file is MYAT_IS_OBX.bgl) . In this way you can easily swap out my airports for better ones. The exception to this rule is the Grand Turk region.

For reference, I used satellite imagery, YouTube videos and photos I could find on the internet to try to get the right layout and feel of each airport. Some examples are in the images below.

Nassau International Airport – courtesy of Art Poole



Spanish Cay airport. Many airports in the Bahamas are small, asphalt strips that are just big enough to get GA aircraft in and out.



Unfortunately the Bahamas government does not publish detailed, authoritative, current airport information. Without definitive information about airport lighting, radio frequencies, services, and approach plates, I have done my best to find accurate airport info but I admit it is probably imperfect. Please let me know if you notice any errors and I will be sure to correct them.

Scenery Objects

FSX/P3D has an excellent set of default scenery objects yet they are rarely used in the default scenery. As you can imagine, ships and boats are moored and docked everywhere throughout the Bahamas and I have attempted to add these static elements based on satellite data. In addition to ships, I have added lighthouses, hotels, resorts, gantries, cranes, docks, and a wide assortment of other static objects wherever appropriate. All scenery objects are in files name for the region (e.g., GrandBahama_IS_OBX.bgl)

These static objects are comprised of 3-D models and textures and they are bundled together in files called libraries. The default object libraries are in the scenery\global\scenery folder under the P3D main directory. The scenery files that I am distributing tell the sim where to display different default objects in the scenery.

Ships moored near Abaco Island.



Freeport Harbor in Grand Bahama island



Cruise Ships in New Providence



Static Aircraft



Static aircraft parked at Grand Bahama (Freeport) Intl Airport.

There is a limited selection of small, private planes in the default static aircraft library (called `vehicles_aircraft.bgl`). To address this, I have included freeware static aircraft from Emerald Scenery Design with permission from the author. You will just have to download and install the freeware libraries from that site. The installer will do all the work. Note that you do not need to install the SODE (sim object display engine) application to see the static aircraft. The SODE application is a third party application that allows the environment to affect some custom scenery objects.

The link below will take you to the page where you can download the libraries. Scroll down until you see “Tools and Libraries” and click the “Download .EXE” under the Emerald Object Library V2.0

<https://emeraldscenerydesign.com/freeware/#tools>

This will download the file “EOLv2_31419.exe”. Simply double click on this file and it will install the scenery libraries. You don’t have to do anything else. Also, while you are there, check out some of the great freeware scenery by Chris Britton!

As noted in the readme file, you will see a few more static aircraft and airport vehicles if you copy the `vehicles_aircraft.bgl` and `vehicles_airport.bgl` libraries from FSX. Just copy them from the `\scenery\global\scenery` folder in FSX to the same folder in P3d. If you don’t have the FSX versions of these files, it won’t cause a problem, you just won’t see some static aircraft or vehicles at the airports.

Final Notes

This release includes all scenery in Areas 1 and 2 of the Bahamas as shown in the map below. The next area I will work on will be the Eastern Bahamas, and finally the Southern Bahamas. I estimate that it will take me about 3 months to complete each remaining set.

If anyone out there is interested in lending your talents to this project, I would love to hear from you. I know there are a lot of scenery developers far more talented than me out there. You can contact me at gregory.goodwin1@gmail.com and we can figure out ways to divide and conquer. This is a freeware project so everything is on a volunteer basis.

