

US Cities X: Niagara Falls/Buffalo





Contents

Introduction.....	3
Copyrights	3
Credits	4
System requirements	4
Contact support	4
Heliports:.....	5
Closed Airports	7
Airport Charts:	7
Scenery Density Tool.....	8
Advised Display settings	9
Scenery settings.....	9
Traffic menu:	10
System overload	11
Sound Effects	11
Optional Fall Effects	11
Compatibility with other add-ons	12

Introduction

US Cities X is a series of city scenery that should be positioned between the high end city scenery like Manhattan X and the default scenery. It is intended to give the user who likes to explore the world new destinations. Fully aimed at daytime VFR flights it does not include seasons and night textures (this would make the product too large for comfort as well).

Truth to be told Niagara Falls/Buffalo is not a 'US City' only as it also covers quite a bit of Canada. Being one of the world's greatest tourist attractions on the borderline between Canada and the United States, Niagara Falls will amaze you! The scenery comes with unprecedented detail in effects, animations (did you expect Orcas here?) and awe inspiring views. There are three helipads in the scenery, the major one for sightseeing flights on the Canadian side, a smaller one very close to the Falls on the US side of the river and a medical rooftop pad on the Women and Children's Hospital in Buffalo. Furthermore the package includes a few international airports and small airfields in the area in nice detail.

Copyrights

The manual, documentation, video images, software, and all the related materials are copyrighted and cannot be copied, photocopied, translated or reduced to any electronic medium or machine legible form, neither completely nor in part, without the previous written consent of AEROSOFT. THE SOFTWARE IS FURNISHED «AS IS» AND IT DOES NOT COME FURNISHED WITH ANY GUARANTEE IMPLICIT OR EXPRESS. THE AUTHOR DECLINES EVERY RESPONSIBILITY FOR CONTINGENT MALFUNCTIONS, DECELERATION, AND ANY DRAWBACK THAT SHOULD ARISE, USING THIS SOFTWARE.

Copyright © 2010 AEROSOFT & LimeSim. All rights reserved. Microsoft Windows, and Flight Simulator are registered trademarks or trademarks of Microsoft Corporation in the United States and/or other Countries. All trademarks and brand names are trademarks or registered trademarks of the respective owners. Copyrights are serious stuff. If you find any pirated copies of this software please notify us at support@aerosoft.com. We will make sure reports of copyrights violation are rewarded.

Aerosoft GmbH
Lindberghring 12
D-33142 Büren
Germany
www.aerosoft.com

Credits

Concept:	LimeSim
Programming:	LimeSim
Project Management:	Lime Sim, Mathijs Kok
Manual, documentation:	Mathijs Kok, Lime Sim
Installer:	Andreas Mügge
Testing:	Several good folks who will all be getting a copy
Airport and Lower Niagara aerial images:	U.S. Geological Survey

System requirements

- Intel Core 2 Duo E6850 CPU (Core 2 Quad advised)
- 2 GB RAM
- Direct X 9 compatible Graphics Card with minimal 512 MB
- Microsoft FSX (with SP2 or Acceleration)
- Windows XP, Windows VISTA, Windows 7 (fully updated)
- Adobe Acrobat® Reader 8 minimal to read and print the manual ⁽¹⁾

⁽¹⁾ Available for free, download at: <http://www.adobe.com/prodindex/acrobat/readstep.html>

Contact support

Support for this product is done by Aerosoft. We prefer to do support on the support forum for one simple reason, it is fast and efficient because customers help customers when we are sleeping.

Aerosoft forums: <http://www.forum.aerosoft.com/>

We feel strong about support. Buying one of our products gives you the right to waste out time with questions you feel might be silly. They are not.

Airports and heliports

There are 5 published heliports and 14 airports covered in the scenery, you will find them in the Google Earth file and in the Goto Airport menu in FSX (search on city). Check out the Google Earth file at *Start -> Aerosoft -> US Cities X Niagara Falls/Buffalo* to get an overview of all the airports and heliports as well as some sights.

Heliports:

- CNF9 – Niagara Helicopters
Canada. Major heliport in the area for sightseeing flights, also called “Heli Hafen” after the Swiss-born owner Ruedi Hafen. Check out Niagara Helicopter’s website for an impressive video: <http://niagarahelicopters.com/>
- INK80 – Rainbow Helicopters Niagara
Smaller sightseeing heliport than the Canadian one, but extremely close to the Falls. Impressive downtown location on stilts between the Rainbow Bridge (US/Canada customs) and some major hotels. Website: <http://www.rainbowairinc.com/>
- 7NK2 – Buffalo Women and Children’s Hospital Helipad
Medical and only helipad within Buffalo’s scenery coverage area
- CNF7 – Niagara Falls Fire Station No.1
Probably just an emergency helipad. We just found it when creating this scenery but couldn’t find out more about it.
- CNJ3 – Ft Erie Helipad (part of the airport)



Airports

We have also included detailed ground images for 14 airports in the region around both cities. Do note that there are no new detailed buildings on those airports. Because of its budgeted pricing this package isn't intended to come with extreme highly detailed airports. For airport charts and diagrams check out the next pages.

- **KBUF – Buffalo Niagara International Airport**
Major airport in the region. It's the busiest airport in upstate New York and the third busiest airport in New York State (after New York JFK and Newark) by number of boardings. While we are writing this manual, there is a well-known developer group working on a high detail version of this airport that will be compatible with US Cities X. For more info check the compatibility section in this manual.
- **KIAG – Niagara Falls International Airport**
A joint civil-military public-use airport located just east of Niagara Falls City. It handles airline services, general aviation and military aircraft of all sizes. The military base in the airport's northern part is the last major US Air Force Installation in New York, but there are only few airline flights leaving from here (Direct Air to Myrtle Beach (SC), Melbourne (FL) and Ft. Meyers/Punta Gorda (FL)).
- **D77 – Buffalo-Lancaster**
Smaller general aviation airport. Will be extended by 2010 to accommodate larger airplanes and business jets (extension not in the scenery).
- **0G0 – North Buffalo Suburban Airport**
Rural grass strip airport with a car cinema in its eastern approach path.
- **9G0 – Buffalo Airfield**
General aviation airport east of Buffalo.
- **CNJ3 – Ft Erie**
Company airport west of Buffalo on the Canadian side of Lake Erie.
- **NY49 – Mesmer**
Rural grass strip on Grand Island between halfway between Buffalo and Niagara Falls.
- **77NY – Pendleton Airpark**
Rural grass strip southeast of 79NY – Smith.
- **79NY – Smith**
Rural grass strip airport northwest of 77NY – Pendleton Airpark.
- **62NZ – Lockport Cambria**
Rural grass strip with some glider activity.
- **85N – Hollands Intl Field**
International? Well, you won't bring your airliner down in this field! ☺
- **D80 – Olcott-Newfane**
Rural airstrip with a nice river "canyon" to its east before it flows into Lake Ontario.
- **63NY – Shear**
Rural airstrip close to Lake Ontario's shore.

- NY24 – Taylor Johnson
Little grass strip right northwest of Niagara Falls International. Watch the power lines!

Closed Airports

FSX does cover some airports in the region that are most probably closed because we neither could find information about them, nor were they visible on any images. Those are marked red in the the Google Earth file and have been excluded from the default scenery:

- Hibbard's
- Cambria Airport
- Basset Field
- Flying F

Airport Charts:

KBUF – Buffalo Niagara International Airport

<http://flightaware.com/resources/airport/KBUF/APD/AIRPORT+DIAGRAM>

KIAG – Niagara Falls International Airport

<http://www.airnav.com/airport/KIAG>

<http://naco.faa.gov/d-tpp/1005/00614AD.PDF>

9G0 – Buffalo Airfield

<http://www.airnav.com/airport/9G0>

D77 – Buffalo-Lancaster

<http://www.airnav.com/airport/KBQR>

0G0 – North Buffalo Suburban

<http://www.airnav.com/airport/0G0>

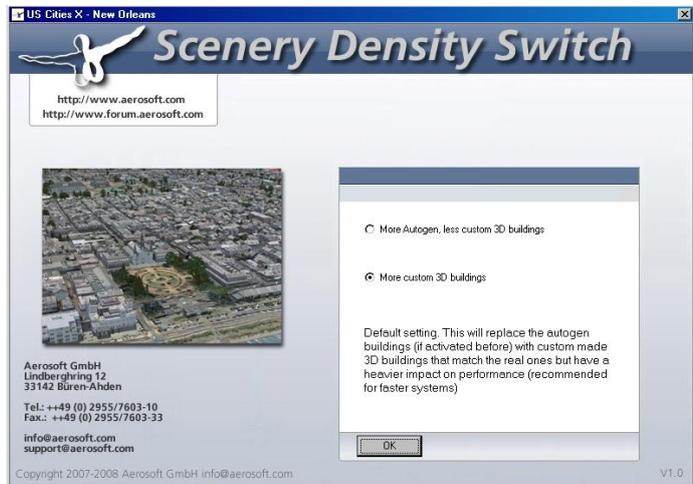
Smaller Airports (VFR Area Chart):

<http://skyvector.com/?id=KIAG&zoom=2>

Scenery Density Tool

Due to the high complexity of this scenery there is something that cannot be done with the setting options that FSX gives us. That's why we supply a so-called Scenery Complexity Switch that enables you to choose your favourite scenery complexity matching your system speed.

In Niagara Falls and Buffalo this will replace some smaller buildings and commercial flatroof buildings (e.g. shopping malls) around the city by autogen (hence the abbreviation for "auto generic") buildings if you choose the performance friendlier version. Of course those buildings would not look at good as they could why we recommend using the highest possible setting using this tool if you can afford to do so.



You will find the tool on the Windows Start Menu at: Aerosoft | US Cities X: Niagara Falls/Buffalo



Advised Display settings

To change your scenery settings, go to Settings -> Display

Note: All other settings not mentioned here are up to you. They don't actually affect the scenery very much. Keep in mind to do your settings with care otherwise you may overload your system.

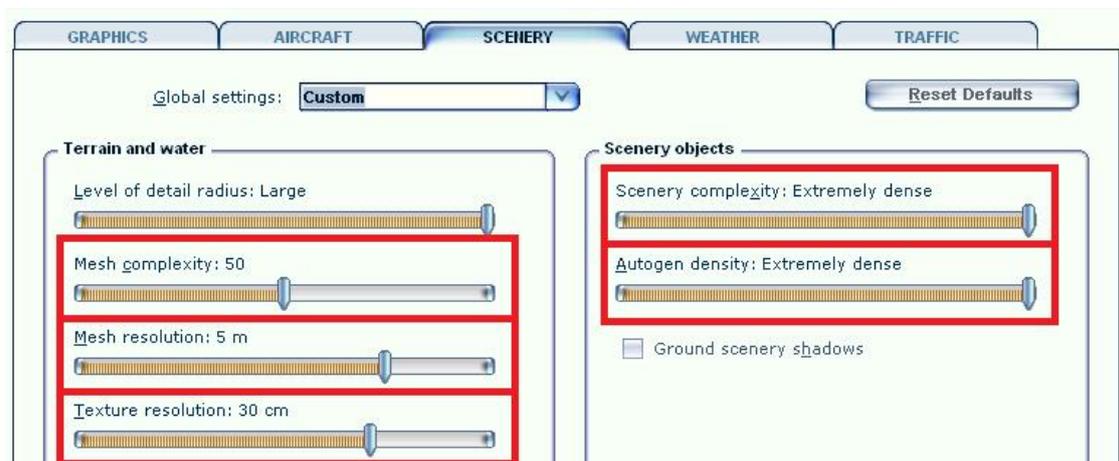
Graphics menu



Global Texture resolution should be at Very High to get the full detail in textures (aerial image, building walls etc.)

Scenery settings

- Unlike in many other sceneries the **Scenery Complexity** slider won't do much in this scenery. We recommend using the supplied tool for this (see the chapter describing our scenery complexity tool). We suggest that you always have it set at "Very Dense" or higher.
- For best results in displaying the blocks, suburbs and vegetation in between we recommend to set **Autogen Density** to **Extremely Dense**. But keep in mind not all systems can handle this much detail!
- **Mesh resolution** is an essential setting because of the high resolution mesh terrain that the falls require to flow down a steep cliff. **5m** is highly recommended, do not use 1 or 2 meter because this will create step contours.
- **Texture resolution** should be at **30cm/pix** or higher to get the best resolution of the aerial image under the 3D objects.
- **Water Effects** set to **Max 2x** look best but keep in mind that this setting requires a lot of performance, too!



Traffic menu:

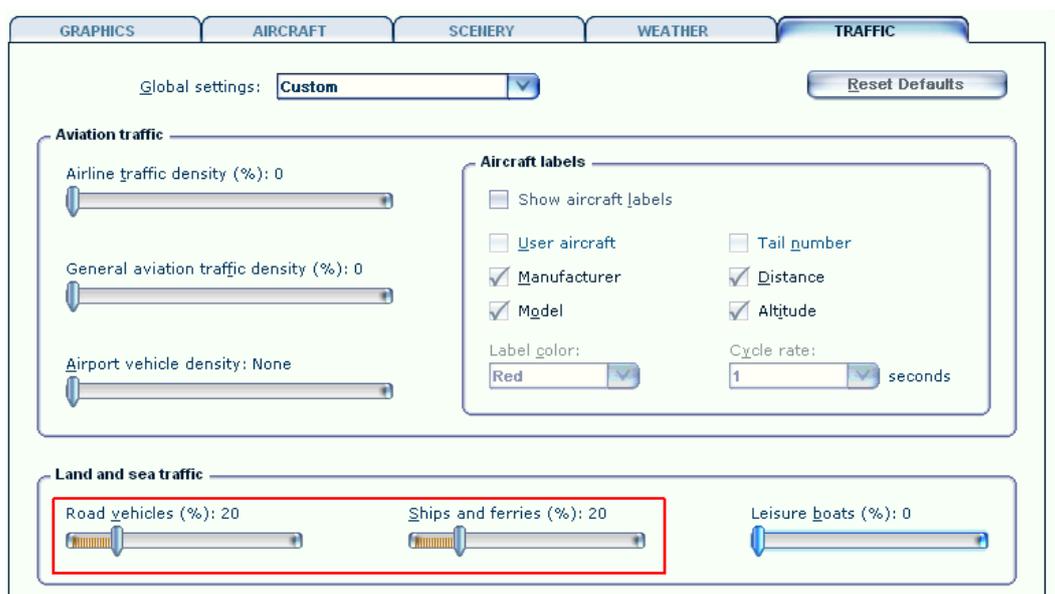
Road Vehicles: To get some life in the scenery set them to **20%** or higher. This will bring you animated car and truck traffic along the major roads, freeways and bridges. For more information about ground traffic see the traffic chapter.

Some major roads within the city boundaries were equipped with additional road traffic. This will bring you a better real-world feeling when flying over the scenery, but: FSX only knows freeway traffic, meaning that the traffic doesn't stop at intersections and other obstructions.

If you don't like this do the following to remove the road traffic: Go to folder *FSX\Aerosoft\USCitiesX-NiagaraFallsBuffalo\Scenery* and remove the file *Chicago_Traffic.bgl* from this folder.

Ships and ferries should be set at 50% or higher to see the two tourist boats called "Maid of The Mist" going up and down to the falls. Each of them leaves once an hour and goes up and down for half an hour, meaning the US one leaves when the Canadian one is coming back and vice versa.

Leisure boats: It is extremely important to deactivate those! Unfortunately FSX doesn't offer an option to exclude them without deactivating them on customer (your) side and lets them jump up and down the falls. Looks rather funny, but not very realistic...



System overload

Because of the extremely high complexity of this scenery it can happen that weaker systems have to struggle with system overloads resulting in blurry textures and a non-readable FSX menu bar and ATC and “out of memory” crashes. This usually happens with 256MB video cards, which is the reason why we recommend a minimum of 512MB memory on your video card (see system requirements). Although we haven’t had any reports of problems with 512MB video cards some people may still encounter problems with budget video cards or the like.

Sound Effects

There are sounds (falls, ship engines, Marineland’s Skyscreamer, highway traffic, city traffic) around the airports, helipads and downtown. We decided to make the sound volume a bit higher as in real world for a better show-effect. If you don’t like this, just go to settings -> Sound and decrease the environment sound volume.

Optional Fall Effects

We put a lot of effort in creating some unique effects for the falls that look as realistic as possible and hope that you share our enthusiasm about what could be done. However some beta testers didn’t like to have so too much spray around the falls blocking their view on the actual falls. Therefore we have created an optional set of spray effects that is also more performance friendly. If you would like to try it out, copy the two FX files from
FSX\Aerosoft\ USCitiesX-NiagaraFallsBuffalo\
to
FSX\Effects\
but don’t forget to do a backup copy of the existing ones in the effects folder in case you want to switch back to the original ones later!

Compatibility with other add-ons

There are 3 other products covering the same area we know about:

Ultimate Terrain X (UTX) USA and Canada:

We put a lot of effort in making the popular UTX series compatibly with US Cities and both work quite well together. Keep in mind that US Cities X – Niagara Falls/Buffalo has to have a higher priority in your scenery library, which is particularly important if you installed UTX after US Cities X. Known issue: There are some mesh peaks in UTX south of the Niagara Falls coverage area. We informed the developers.

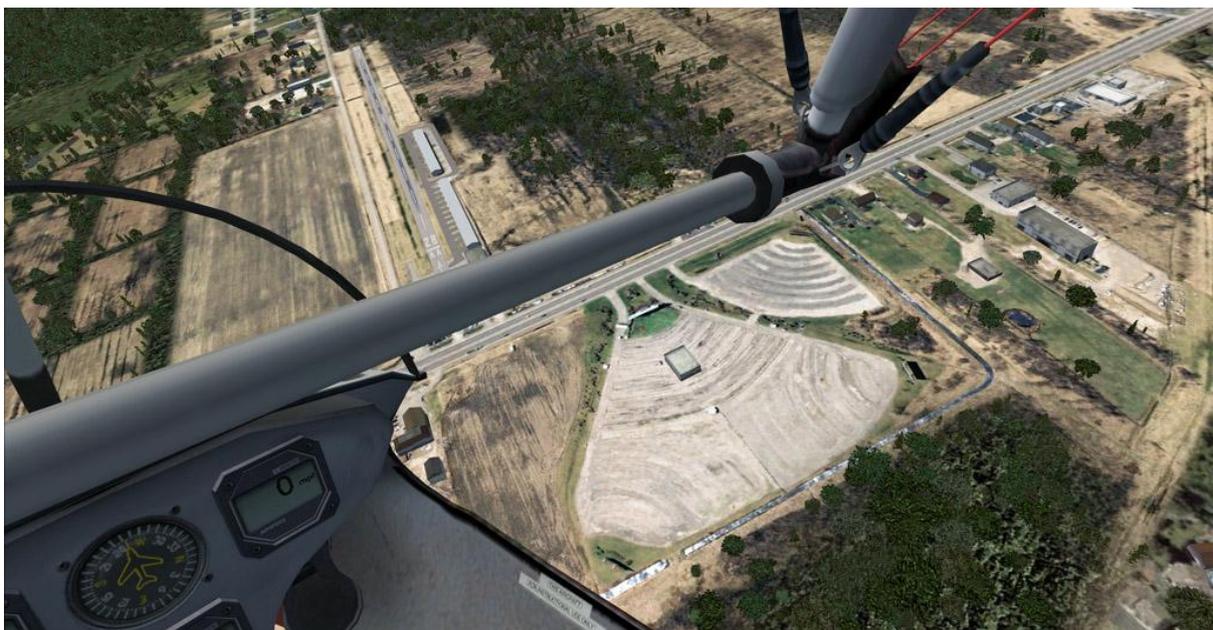
Newport Buffalo Niagara X:

Both sceneries work well together except for some minor duplications. Same applies here: Please ensure that you have “US Cities X – Niagara Falls/Buffalo” set at a higher priority level in your scenery library, which is usually the case because Newport copies all the files to the low priority “Addon Scenery” folder without adding its own entry to the Scenery Library.

Known issue: The water in Newport’s scenery is very bright, so that you will see a clear border between both sceneries near Niagara Falls.

Buffalo Airport by (confidential): 😊

A well-known developer group is currently working on a highly detailed scenery of Buffalo International Airport. Both installers will take the necessary measures to ensure compatibility. US Cities’ version of Niagara International Airport will be deactivated in favour of the more detailed one if it is found on your system.



FAQs

Q: Why are there no night and seasonal textures?

A: We wanted to keep the price of this whole series as low as possible and the development process as simple as possible so that we can cover as many cities as possible. The VFR flights over these cities is mostly a daytime affair anyway. Still all autogen buildings and airports in the series will have night illumination and autogen vegetation will change with the season.

Q: Even after the loading process has reached 100% there are still some objects not loaded!

A: Due to the extreme scenery density some computers (mainly those with only 256MB video memory, slower hard disks etc.) take a little longer to load everything. This can last up to 2-3 additional minutes. Still the frames per second should be pretty good after everything becomes visible.

Q: When selecting Downtown or one of the rooftop helipads I'm beneath the terrain!

A: Unfortunately this is a very bad FSX simulation which doesn't support starting a flight on a 3D object. You can circumvent this by selecting the same helipad a second time or using the slew mode of FSX to move the aircraft at the desired level (Y to activate and deactivate slew mode, F1-F4 keys to go up and down).

Q: I just started FSX but after selecting one of the cities helipads/airports everything stands still for a long while!

A: This can happen on slower systems because FSX actually starts loading the scenery after the airport has been selected - before you even started the flight. If you have one of those systems, do it as follows: First select the desired aircraft, time and weather and last select the airport/helipad in the city and start the flight.

Q: Are there any extensions for this city planned? I'm missing a certain 3D object, newly constructed building or more coverage!

A: There might be updates for possible bugs or additional missions, but extensions are not planned once a city is finished and released.

Q: Some of the 3D buildings or autogen's positions are slightly shifted on the aerial image

A: This can happen on the corners of the covered scenery and is due to different coordinate system used. Although in a very limited scale.

Q: Some 3D buildings seem to have misplaced textures!

A: Please note that to create a dense scenery like this for a low price was only possible with some automatic processes and images couldn't be taken from every angle of a cities building (for this scenery alone there are about 850 unique buildings!)

Q: The roofs of some autogen storage buildings show residential buildings!

A: An – unfortunately – well known bug in the FSX object library we can't do much about because FSX chooses the buildings and textures it wants to display on autogen buildings.

Q: Why is the volume traffic etc. so high? Can I do something about this?

A: Yes, you can! We decided to make the sound volume a bit higher as in real world for a better show-effect. If you don't like this, just go to settings -> Sound and decrease the environment sound volume.

Q: There are some strange peaks in around the river south of Niagara Falls!

A: Most likely you are using Ultimate Terrain X, see the compatibility chapter for more information.

Q: My performance is dropping when I'm getting very close to the Falls!

A: FSX seems to have some problems displaying huge effects from up close. If you encounter performance problems and still want to get close to the Falls, we suggest you to use an alternative set of effects as described in the chapter "Optional Fall Effects".

Q: Cliff in mesh terrain around Niagara Falls when using FS Genesis mesh terrain.

A: Unfortunately a known issue between both sceneries, but only something very minor you see when you get very close.

Q: The aerial image at Niagara and Buffalo International Airports doesn't reload to full resolution

A: That's because aerial image sources of airports and other strategically important areas in NY have been blurred.

Q: There are sailboats and yachts jumping up and down the Falls!

A: See the traffic settings chapter in this manual.

Q: When flying in from further away, I see some hovering autogen buildings around Niagara Falls.

A: Sometimes FSX seems to have some problems in reloading autogen buildings when not loading the initial flight in the area. When you fly in, it first loads a lower resolution version of the mesh terrain and a few autogen buildings in it. The closer you get, the more detailed FSX will display the mesh terrain, but sometimes simply "forgets" to bring autogen buildings up to the newly loaded terrain level. Kind of "FSX hickups". After we encountered this problem and turned around to research, those hovering buildings were usually back where they belong: On the ground.

Q: There's a strange metal wall on the southern railway bridge in Niagara!

A: The bridge is closed and a wall has been put in its centre to prevent illegal border crossings.