

A seaplane with yellow and white stripes is flying over a lush green fjord landscape. The plane is viewed from a low angle, showing its landing gear and pontoons. The background features rolling green hills and a blue body of water.

TONGASS FSX FJORDS

The ultimate landscape experience for FSX

by Holger Sandmann
and Bill Womack

Published by FSAddon Publishing

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In a **note to other scenery designers**, authors, tinkerers and other aficionados:

Tongass Fjords includes a number of object libraries, containing custom 3D objects and textures our team made for placement throughout the coverage area, such as cabins, docks, houses, marine signals, and airport buildings. Object placement utilities, like the one included with the FSX SDK tool or Flight1's Instant Scenery, will provide easy access to these libraries and the objects can be relocated, or any number of copies placed in different locations. The resulting object placement files can then be shared with others so that any registered owner of Tongass Fjords will be able to enjoy additional cabins, docks, etc. in new locations.

While we encourage the use of our object libraries for making and sharing enhancements to Tongass Fjords or nearby areas, we'd like to point out very clearly that **redistribution of the library files themselves** or their textures, whole or in part, without the written consent of FSAddon, **is not permitted**.

Also, we would ask anyone working on object placements to not add to or otherwise edit any of the existing placement files. Instead, please create your own placement files with descriptive names.

Finally, when sharing placement files that use Tongass Fjords object libraries please point out in your documentation that they require a licensed copy of Tongass Fjords to be visible and that the objects and textures themselves are copyrighted to the individual FSAddon authors.

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From the publisher



For various reasons, I feel compelled to write a few words to start off this manual.

First of all because I want to **THANK** all those thousands of customers who have bought our Misty Fjords and Tongass Fjords FS2004 products and provided us with so much pleasure in their feedback!

You are all GREAT people !

I am also grateful for your patience, waiting for the first 'X-version' of our Alaska products. I know it has been a LONG WAIT, for all of us here at FSAddon and for you out there, wanting to experience your favorite place to fly again!

Secondly to **thank YOU** who are now reading this, for purchasing Tongass Fjords X. I am absolutely 100% certain that you will like it even better than the FS2004 versions and we are again looking forward to your comments, remarks and questions. **Communicating** with our customers, making you happy, and enjoying this hobby **WITH** you is **the #1 item** on FSAddon Publishing's 'goals list'!

Tongass Fjords X has been extremely long in the making.... I don't even want to calculate how many hours ALL contributors together have poured into it. And without a lot of **voluntary work** it could not have been done at any affordable price! So a **THANK YOU** especially to all those people behind the scenes who have donated their time, knowledge, free products and skills to help us make this one happen again!

Connoisseurs will notice the absence of a 'story' this time. Although I would truly have loved to have written one again, the truth is that I simply do not have the time for it. And to be brutally honest, with the current global financial crisis bestowed upon us, we really need to get this title out in the shops and make a few bucks to fill the very empty treasure chests of all involved. I am sure you can relate ! ;-)

I wish you LOADS of fun with Tongass Fjords X !!!

François A. 'Navman' Dumas
Publisher and Creative Director
FSAddon.com

So what have you just purchased?

With Tongass Fjords X you have bought a whole new Flight Simulator world!!! Nope, we're not exaggerating one little bit, as you will soon see after installing it. Tongass Fjords X really is what FSAddon.com Publishing is all about: enhancing your immersion in the wonderful world of Flight Simulation.

Tongass Fjords X will give you the feeling of "being there" more than ANY other product currently on the market. Sure, sure, marketing speak, right!? We are convinced that you will agree with us after installing Tongass Fjords X and all its additional scenery and objects.

You have purchased an addition for Microsoft's Flight Simulator X that will turn a large part of Southeast Alaska and northwestern British Columbia (some **80,000 square kilometers!**) into the beautiful piece of nature that it really is!

You have purchased **a flying environment** that will put you in the pilot seat flying around some of the most stunning landscapes you may find in the real world.

You not only get the REAL coast lines, lakes, islands, roads, rivers and glaciers (!) installed on your FSX, but in addition some very talented people have added "things to see and things to find" for you in that rugged area of fjords, mountains, lakes and sea.

You will be able to visit many of the **US Forestry Service cabins** used by hunters, fishermen and hikers hidden near the many lakes and fjords. These cabins are meticulously recreated by Bill Womack.

What is Alaska without shipping!? We have added moving ships and boats, created by **Mitsuya Hamaguchi** and **Larry Silsbee** in many different locations, not just in harbors. Spot and then follow them with your Beaver!



And then there are the many scenery additions by **Bill Womack** who recreated **Sitka and Petersburg airports** as well as **landmark objects** of Sitka and along the Sitka and Petersburg harbor front.

New to the FSX version are **17 settlements and scenic areas** that have fully seasonal photoreal ground and water textures, which makes them look even more life-like.

There's much more: please visit the **"Features" pages**.

You have really acquired a **true-to-life part of Alaska** that will astound you every time you take off and fly "into"! This is so far from the default FSX rendition of the area that once you have installed and used it, **you can NEVER go back** and use the default landscapes. Guaranteed!!



New in the FSX version of Tongass

If you're familiar with the FS9 version of Tongass Fjords you may be wondering what's different or new. Well, **almost all of the content** of Tongass Fjords has been adjusted, edited, expanded, etc., in some form for the FSX version but there are a number of things that are completely new. Among them are:



- we've **extended the eastern (British Columbia) portion** of Tongass Fjords by about 8,000 square kilometers to include the Spectrum Range and areas around Bob Quinn Lake airstrip (CBW4). Previously, flying from Telegraph Creek south to Bronson Creek would mean looking out over the default landscape; that's no longer the case and it is now a beautiful area well worth exploring.
- **4 additional unlisted airstrips** have been added in the British Columbia mountains: two mining strips at the proposed Galore Creek mine, one mining strip at Schaft Creek, and a small airstrip at Yehiniko Lake. All four airfields have unimproved, sloped runways with dirt or gravel surfaces. See the list of "Destinations" for their location or select the corresponding flight situation included with Tongass Fjords X.
- Bill has provided us with **additional custom buildings and structures** for the Petersburg and Sitka harbor areas.
- Tongass FS9 included 20 of the U.S. Forest Service cabins; for the FSX version we've **added another 11** of these in their real-world location.
- probably most obvious are the **17 local photoreal areas** that cover settlements and bays inside the Tongass Fjords X coverage area. Using 1-m aerial imagery allowed us to place buildings and structures in their correct locations and also highlight the beautiful mudflats and tidal areas that cannot really be portrayed with generic textures. Each photoreal area includes **all seasonal variants as well as night lights**, and blends seamlessly with the surrounding landscape. Again, our "Destinations" list points out where these photoreal areas are.

- while the FS9 version has generic textures for the **glaciers** the **FSX version uses a semi-photorealistic approach** (actually, a hybrid between generic and photoreal). You won't see every crevasse but the main features of each glacier, especially the dark bands of sediment, make for a nice enhancement. Moreover, the **number of glaciers** shown in detail has vastly increased and stands at **more than 250!**
- FSX allows for the placement of ambient sounds, with some limitations. While we didn't create a complete "sound environment" we did include **appropriate sounds in several locations** so keep your ears "tuned"...
- all main paved roads now have moving car traffic.
- and last but not least **lakes and rivers now freeze automatically** based on the season !

And, in the spirit of full disclosure ;-)) we also **decided to let go of a few things** that were present in the FS9 version:

- we had placed a simple airstrip at Bradfield River that was actually in the Misty Fjords area and is going to be included with the FSX version of Misty Fjords.
- a small section of the Coast Mountains east of Wrangell was also re-allocated to the Misty Fjords project area.
- a number of made-for-FS2002 models, including the two custom lighthouses and a few barges and tugboats, unfortunately were too dated to successfully make the transition to FSX.
- two of the FS9 AI models - a small USCG motor life boat and the sea kayaks - didn't work well in FSX and thus are no longer present. However, we are looking into adapting the kayak as a user steerable vessel and, if successful, will offer it as a free download from FSAddon.

Installation



Installing Tongass Fjords X is a breeze thanks to the automatic installation routine and the configuration panel. (That's what you'd expect us to tell you, wouldn't you!?)

You basically just click on the downloaded .exe file (names differ depending on where you buy the product), and the installer will guide you through all the steps.

For the download version you will have received a Registration Key that looks something like this example: FSADTF-999-999999-X9999-999999. You receive the key from our distributor, in an email, and it will also be available from your regular Customer Area ("Your account") where all your orders are listed (if purchased from simMarket.com). When you run the installation file, it will prompt you for this registration key. Just copy and paste it!

If you have any problems with the installation or specific questions don't hesitate to post in our support forum at

<http://forums.fsaddon.eu/viewforum.php?f=30>

After installation, you will be presented with the Tongass Fjords X **Configuration Panel**.

It allows you to uncheck files that may impact performance on slower computers, select the AI traffic you'd like to see, and choose whether you want rivers and lakes to be "frozen" or not. Also, the configurator gives you easy access to this manual, our custom set of maps, and the FSAddon Tongass Fjords FSX support forum.

Once you have made your choices, click on "OK" and the configurator will make the necessary file changes and exit. Start FSX and go flying!

Be sure to read the TECHNICAL NOTES AND TIPS too ! It contains important information for set up !!
Specifically, the **configurator options** are:

Optional scenery elements

- **Static boats** at Sitka and Petersburg marinas. The harbors as Petersburg and Sitka have many of these small boats and they may have an impact on your computer's performance. Using this check box you can remove these boats.
- **Marine navigational lights**. Their impact on performance is pretty small but if you don't care much about 530 blinking buoys and other marine markers then you can use this check box to deactivate them.
- **Ambient sounds**. In several locations we've placed sound loops, like sea gulls, water surf, or machine noises in harbors. Again, they don't have much impact on performance but if you don't care for these sounds feel free to turn them off.
- **Water textures** and their spatial distribution. Some of you may prefer to use one of the many available global replacements textures for water bodies. Un-checking this box will remove our custom water textures. Note, however, that you'll also lose the realistic coloring of glacial lakes and rivers and other inland water bodies provided by our spatially accurate placement files.
- **Automatic seasonal ice** on inland lakes and rivers. We've found a method to make inland lakes and rivers to automatically "freeze" during the winter months. There are a few minor issues with this approach (see Known Issues) and if you prefer the water bodies to remain unfrozen you can uncheck this option.

Optional flight situations

Saved flight situations at cabins, airstrips, glaciers and other destinations. We have prepared a large number of ready-to-fly situations (not missions!) for you, which are meant to help you exploring the many beautiful and often hidden features of the area. However, since FSX doesn't allow for sorting flight situations in separate folders, like FS9 did, we decided to make these flights optional should you prefer not to "clutter" you FSX flights folder with many additional files.

Optional AI traffic

While it is great fun to be surrounded by computer-controlled airplanes and ships their presence can be pretty demanding on computer resources, particularly the detailed larger ships. Moreover, you may have other GA traffic you prefer. Thus, we provide the option to select only the specific types of AI you'd like to see or your system can handle. Note that some of our AI models are FS9 port-overs and thus not compatible with the DX10 Preview option of FSX (their textures will appear white); the text next to the checkboxes point out those that are not DX10 compatible.

- **DHC-2 Beaver floatplanes.** They operate on irregular schedules between the 28 listed seaplane bases included with Tongass X.
- **DHC-3 Otter and DHC-6 Twin Otter floatplanes.** Similar flight operations as the Beavers but less common.
- **General aviation.** Flightplans for the default land-based GA aircraft (C172, Mooney, Maule, Baron, King Air, Lear45, Grand Caravan, Piper Cherokee) flying at and between the six listed airfields in the Tongass Fjords X area.
- **Dash 7 freighters.** Local flightplans for Milton Shupe's Dash-7 Cargo in a customized AI version.
- **B206L helicopters.** The helicopters are modeled as STOL airplanes so don't expect realistic take-off and approach procedures. They operate on two routes throughout Tongass, one based in Sitka running lighthouse supplies, the other based in Wrangell on a sightseeing tour up the Stikine River.
- **Cruise ships** (MV Veendam and MV Dawn Princess)
- **Alaska State ferries and U.S. Coast Guard vessel** (MV Leconte, MV Matanuska, USCG 1335 Anacapa)

- Purse seiner **fishing boats** (5423 Lake Bay and 3588 Zetuesemce)
- **Small boats** (22', 30', and 40' pleasure craft)
- Please see the section "Where do the ships go?" for specific information on the routes and departure times of the AI vessels.



Setting up your scenery library

Before you can begin exploring Tongass Fjords X you need to ensure that the two scenery library entries are positioned correctly. Since everyone's scenery library is different an auto-installer cannot do this task for you. Thus, please start up FSX and go into the **Settings > Scenery Library** menu.

You should see the "**Tongass_Fjords_Higher_Priority**" and "**Tongass_Fjords_Lower_Priority**" entries at the top of your scenery library, with "**Higher Priority**" above "**Lower Priority**". The two Tongass Fjords X entries don't need to stay at the top of your scenery library menu but they always need to remain in this order!

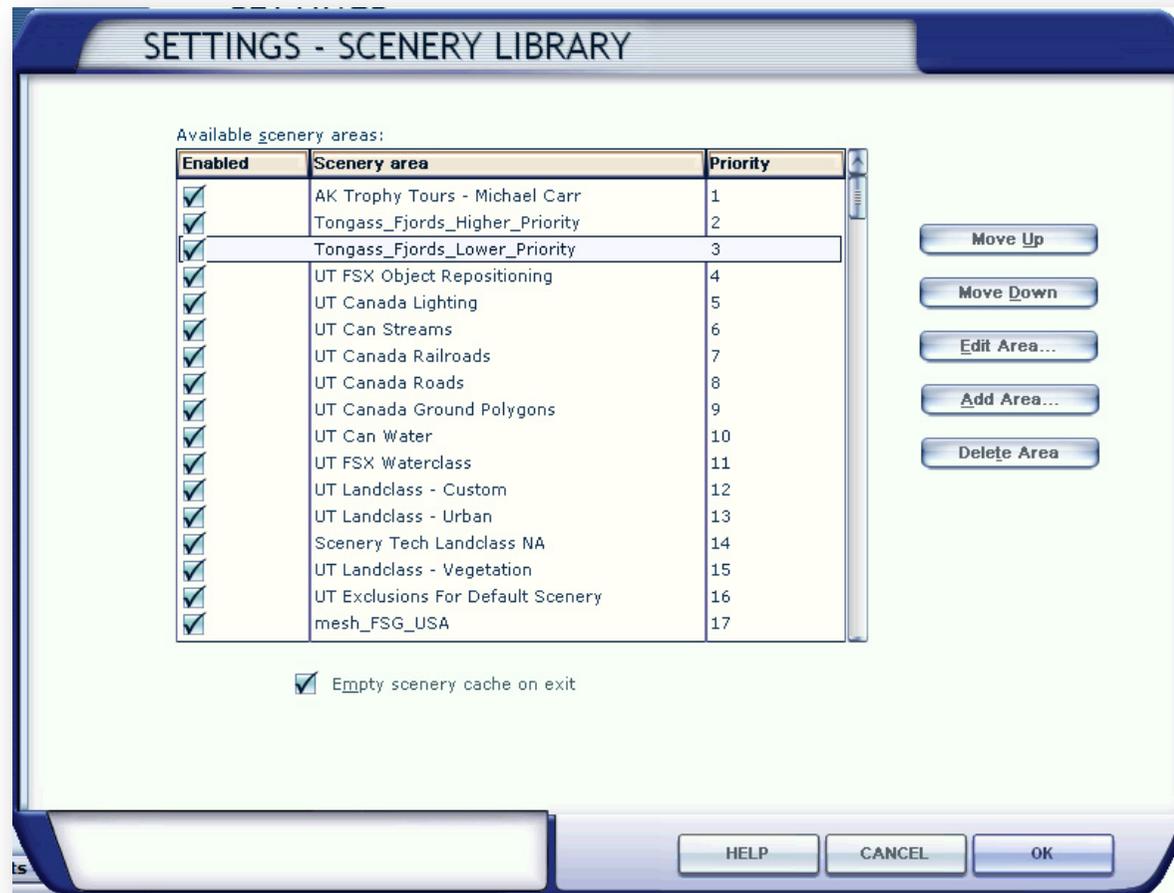
If Tongass Fjords X is the only scenery, terrain mesh, or land class add-on you have installed for western North America then you can **start your flights**. If that is not the case please read on.

Have a look at the screenshot on the next page. It shows an ideal order of entries in your scenery library menu. You may not have all these entries or they may have different names but the general order, from bottom to top is:

- any add-ons that use Tongass Fjords X as a base, like the "Alaska Trophy Tours" example in our screenshot, should reside above the two Tongass Fjords X entries unless mentioned otherwise by the add-on's manual.
- all Ultimate Terrain X entries should be below the two Tongass Fjords X entries (the order of the various UT-X entries might be different in your scenery library and isn't fixed).
- any land class add-on for North America, like those published by Cloud9 or Scenery Tech, should always be below the two Tongass Fjords X entries (if you're also using Ultimate Terrain X you'll probably use a "sandwich" arrangement similar to the "Scenery Tech Landclass NA" entry in our screenshot).
- add-on terrain mesh compiled at the same or higher resolution than ours (we use 38 meters grid spacing, also called LOD10) may locally override the custom Tongass Fjords X terrain mesh, which may lead to incorrect elevations of water bodies, unsightly steps in the landscape, and other visual issues. Therefore, please make sure that any add-on terrain mesh has its library entry below the two Tongass Fjords X entries. Moreover, if the add-on mesh has a higher resolution, like 19m or 10m, we suggest you deactivate its entry should you notice any of the issue listed above. Note that some third-party terrain mesh files, like FS Genesis' products, may be placed in \Scenery\World\scenery by their auto-installer and therefore not have a scenery library entry of their own. In that

case we suggest you make a new scenery folder, like the "mesh_FSG_USA" example in our screenshot, create a "scenery" subfolder in it, move the add-on mesh ".bgl" files from \Scenery\World\scenery into it (for FS Genesis the file names would be "FSGdem***.bgl"), and add that entry to the scenery library below Tongass Fjords X.

Once your scenery library is arranged properly left-click on "OK" and the library database will be updated and you can start your flights.



Finding documentation

Now that you have your setup in order you really want to go flying. We understand.... BUT.....

Before you do, please click quickly on Start (bottom left of your Windows desktop) and select **Programs > FSAddon > Tongass Fjords X** there.

It will reveal a list of things you might be interested in:

Support forum.....	YESSSS !!
Uninstall Tongass Fjords X	nah ! ;-)
Configurator.....	you might need this to tweak !
Manual	already reading it.....
Maps	AHA ! You will like these !

Repair

If at any time your installation becomes corrupted, because of accidental deletions of files or other reasons, you can use the Windows Start menu entry to initiate a repair: **Start menu > Programs > FSAddon > Tongass Fjords X > Repair**.

Uninstalling

Now who in his right mind would want to un-install this software !!??
Alright, alright.... You can if you want to.... ;-)

Here is how :

Either go to 'Start'
Click on 'FSAddon'
Click on 'Tongass Fjords FSX'
Click on 'Uninstall'

or

Locate the original downloaded Tongass .exe file, run it, and then choose the "Remove" option

Normally, the uninstaller should remove the two Tongass Fjords X entries from your scenery library. If it doesn't, please remove them manually **in FSX** via **Settings > Scenery Library > Remove Area**.



Features of the product

Here are some of the many, many features that you will encounter in this add-on:

Spatial extent

approximately N56°15' to 58°00', W130°00' to 136°50' (northern section) and N54°30' to 56°15', W132°40' to 135°30' (Prince of Wales Island section), totaling about 80,000 sq km or 30,000 sq mi.

Major settlements included are Wrangell, Petersburg, Sitka, Klawock, and Telegraph Creek (B.C.).

Minor settlements are Craig, Kake, Hydaburg, Pelican, and Angoon.

Landscape features

- accurate ocean and fjord shorelines, based on 1:63,360 (AK) and 1:50,000 (BC) hydrographic data, with custom seasonal shoreline textures
- accurate position of all lakes greater than ~65ft/20m in diameter, with custom seasonal shoreline textures all lakes have flat water surfaces
- all ocean and lake islands greater than ~65ft/20m in diameter
- all major rivers are depicted as FS water and are coded as sloped polygons, braided rivers (shallow rivers with multiple channels) also have sand and gravel bars added where appropriate
- additional small rivers and streams are placed to best fit the terrain mesh, very steep stream sections have a special "whitewater" texture
- 38-m grid resolution terrain mesh file, based on USGS NED, SRTM, and CDED1 data with extensive modifications to fix issues with the source data
- highly accurate land class file (i.e., land use types), hand made based on recent satellite imagery and other data; all classes utilize custom seasonal ground textures made from local satellite and aerial imagery
- all settlements are recreated with custom and suitable default buildings, according to recent satellite imagery and aerial photos
- 17 settlements and scenic areas with photoreal ground and water textures, including seasonal variants and night textures, seamlessly blended with the surrounding landscape
- complete road and trail network including logging roads



- accurate position of forestry operations (clear cut logging areas and roads) using US and BC Forest Service data\
- custom water class file for accurate placement of different water colors and wave patterns; all classes utilize custom water colors
- special seasonal textures that reflect the long persistence of snow at higher elevations and in forestry cutblocks
- custom seasons file, which governs the spatial distribution of seasonal textures in the coverage area on a monthly basis
- lakes and rivers can be made to "freeze" (i.e., become landable ice surfaces). This requires manual activation with our configurator tool
- all mountain and fjord glaciers are represented with semi-photorealistic textures; glaciers that reach lakes or fjords have 3D icebergs floating in front of them

Custom static objects

- accurate rendition of Sitka (PASI) and Petersburg (PAPG) airfields; we collected our own data and photography to provide lots of detail
- all other listed airfields in the coverage area (PAFE, PAWG, PAKW, CBM5, CBW4) have been adjusted to reflect their real-world location and layout
- custom buildings and structures at Sitka and Petersburg harbors as well as in many other settlements and at the 28 listed seaplane bases and 16 unlisted docks
- 31 of the famous US Forest Service cabins, accurately located using photographs and USFS data
- about 530 listed marine navigational lights (with custom flash effects), placed in their accurate positions using current US Coast Guard tables
- 6 unlisted or abandoned airfields are modeled as simple dirt or gravel strips with wind socks and other appropriate objects

Custom dynamic objects

- Mitsuya ("Hama") Hamaguchi modeled several real-world ships and boats in great detail that travel as AI vessels on various routes throughout the coverage area; these include the Alaska State ferries Matanuska and LeConte, the 110-foot US Coast Guard patrol boat Anacapa, two large cruise ships (Dawn Princess and Veendam), and a couple of fishing vessels.
- Larry Silsbee modeled several smaller AI watercraft and also a set of static and dynamic birds.
- Milton Shupe kindly provided us with a special AI model of his Dash7 cargo aircraft; Bill Womack and Bjørn Erik Henriksen added custom repaints and these fly as AI aircraft to several airfields within the area.
- custom DHC-2 Beaver AI aircraft, by Ronald Zambrano, with 17 different liveries, operate between the 28 listed floatplane bases in the Tongass Fjords X coverage area.
- custom DHC-3 Otter and Turbo Otter and DHC-6 Twin Otter AI aircraft, by Lars Hoyer, in various liveries, also operate from these floatplane bases.
- custom Bell 206L AI helicopters, by Ronald Zambrano, operate between a number of AI ready helipads throughout the coverage area.



Technical notes and tips

Suggested FSX settings

Generally, you are free to use whichever setting in the FSX menus work best for you. The only settings we do recommend at specific levels - and they don't have a major impact on performance - are "Mesh resolution" at 5m and "Texture resolution" at 15cm or 7cm; both are in the "Scenery" tab of the "Settings - Display" menu. The high mesh resolution setting makes the harbor areas of Sitka and Petersburg look much better and the high texture resolution will give you maximum detail of the shoreline, stream, and road textures.

Performance tuning

If you experience a drop in frame rates or increasing stutters while flying over the Tongass Fjords X area you may need to adjust your scenery display and AI traffic slider settings. Our Beta testing revealed that the custom objects don't have much impact on system performance. Instead, it is primarily the autogen trees and custom AI traffic which have a noticeable impact, especially on slower systems.

Compared to the FSX default Southeast Alaska, which in many places resembles a dry steppe, Tongass Fjords X gives you the correct amount of forest coverage (see screenshot on next page). If that proves too much for your system you can regulate autogen density in the display settings menu and find a setting that works for you. However, reducing tree density also reduces autogen building density in places like Sitka, Klawock, Craig, etc., which you may not like. The alternative is to keep the autogen slider at "Very Dense" or even "Extremely Dense" and regulate tree density directly with the help of two parameters in the FSX config file.

The **FSX.cfg file** is hidden by default so you first need to check the "show hidden files and folders" option in Windows Explorer's "Folder Options > View" menu. For Windows XP users the FSX.cfg file is located in \Documents and Settings\{your user name}\Application Data\Microsoft\FSX (FSX can be any folder name YOU chose) and for Vista users in \Users\{your user name}\AppData\Roaming\Microsoft\FSX.

Alternatively You can use '%APPDATA%\Microsoft\FSX' on both Vista and XP, it will resolve to the right location. Type this into Start->Run or the address bar of Explorer.



Make a backup copy of the existing fsx.cfg file, then open it with Notepad or Wordpad. Scroll down to the **[TERRAIN]** section and insert the following two lines:

```
TERRAIN_MAX_AUTOGEN_TREES_PER_CELL=2000  
TERRAIN_MAX_AUTOGEN_BUILDINGS_PER_CELL=1700
```

The default value for both entries is 4500 and FSX does accept values up to 6000. The numbers refer to the maximum number of autogen objects placed per each QMID15 raster cell, which is a section of FSX ground of approx. 1.4 square kilometers.

Even the most densely packed urban area will not have more than 1500-2000 autogen buildings per QMID15 cell. Thus, using 1700 will give you full building density with an autogen setting of Dense to Extremely Dense. On the other hand, tree density will reach much higher, which is why we recommend to cap it at 2000 or less. While 2000 may sound small compared to 4500 it actually is still very dense and your view from the cockpit will easily include more than 50,000 individual trees! For example, all of Holger's preview screenshots here - <http://forums.fsaddon.eu/viewtopic.php?t=1608> - were taken with a value of 2000 and the autogen density slider at Very or Extremely Dense.

We encourage you to experiment with different values (you need to re-start FSX each time so you may want to save a flight situation to be able to make direct comparisons) and you should be able to find a number that works for you both outside and inside the Tongass Fjords X coverage area.

To regulate AI traffic density you can use the two sliders in the FSX Traffic settings menu - most of our custom AI will become visible at a minimum slider setting of 10% - or individually select/deselect AI groups in our control panel. Note that the big AI vessels - cruise ships, Alaska State ferries, and the USCG patrol boat - will have more impact on system performance than the smaller boats. Similarly, the default GA aircraft can be pretty hard on frame rates if a whole bunch of them are in view at larger airfields like Sitka and Klawock.

Known issues

Unfortunately, some aspects of landscape, scenery, and AI design don't have a perfect solution and thus require compromises. Below is a list of these kinds of issues in Tongass Fjords X we know of:

- abrupt changes of textures and shorelines along the edges of the coverage area. Our project boundaries are largely determined by the FSX fixed landscape grid raster system (QMID11), which precludes "blending" of terrain features. If you're using Ultimate Terrain X Canada the transition on the eastern and northeastern border of Tongass should be much less apparent.
- the glaciers lack detail when flying close to their surface. The best photoreal source we had available were Landsat ETM+ satellite imagery, which we compiled at 5m resolution. To improve on this a bit we've made the textures semitransparent so that some of the details of the underlying generic textures show through.
- during the winter months, with the frozen lakes and rivers option active, the low contrast of the ice textures makes elevation steps in the rivers stand out. Also, the line where "ice" and open water meet on the Stikine River and elsewhere is sharp and often straight. If you find this too distracting you have the option of deactivating the automatic "freezing" in the Tongass X control panel. Also the program 'REX' may negatively influence the looks of your frozen lakes.
- all of our AI flightplan files are in FSX native code. If you have even a single FS9-format AI traffic file in your active FSX scenery library folders none of our AI will show up. If that is the case you can use Don Grovestine's AI Flight Planner Tool to find any FS9-format flightplan files and convert them to FSX native format. See <http://www.fsdeveloper.com/forum/forumdisplay.php?f=100>
- our DHC-2 Beaver AI Floatplanes are DX10 Preview compatible but the DHC-3, DHC-6, and Dash-7 are converted FS9 models and thus will show white textures. They can be deactivated in the Tongass Fjords X control panel if you prefer to use DX10.
- when starting a flight at a seaplane base and selecting the active runway (instead of a specific runway direction or a parking spot) FSX will place the user at the start location of the default seaplane base's location, which may be on land. Thus, please always select a parking spot or specific runway direction at any of the seaplane bases within Tongass Fjords X.
- all seaplane bases are set up for AI floatplane traffic. Due to the special requirements for AI floatplanes each seaplane base shows two runways in the GPS/map window and GoTo Airport menu: an invisible concrete runway meant for AI only and a parallel water

runway meant for user floatplanes. Try to avoid taxiing over the AI runway as it will likely make your floatplane bounce and show sparks.

- AI floatplane flights are coded as VFR flight plans but FS will switch those to IFR if weather situation doesn't permit for VFR. There are no means to prevent AI flights from commencing under IFR conditions.
- depending on wind direction and flight type (VFR or IFR) some AI aircraft may fly into mountains during takeoff and landing in places with steep terrain and disappear (or reappear on the other side).
- the special methods we used to guide the AI floatplanes in the water doesn't always work reliably and you may find the odd plane taxi through a dock or park at an odd angle.
- smoke effects of the AI ships and aircraft may disappear behind distant clouds. This is a known bug of FSX.
- our AI ships are technically AI aircraft taxiing on the water. The AI ship's "airports" show up in the GPS/Map, the "Go To Airport" menu, and the nearest airport list in the ATC window. Also, the ships show the AI information tags if enabled for AI aircraft in general.
- all AI will push back a few meters from their parking position, including the AI vessels and floatplanes. When they start moving forward they may "shudder" briefly.
- the lake that contains the Telegraph Creek floatplane base (CAH9) freezes during the winter months, which makes the AI floatplane operations look odd. We have set the AI flightplans that use CAH9 to 99% so you can suppress flights to and from this lake by moving the GA traffic density slider, in the FSX Settings – Display – Traffic menu, to 98% or less.
- the speed of the cars on the road is globally fixed to about 100 km/h, which looks odd on the smaller roads in Southeast Alaska. It is possible to manually decompile and edit the configuration file that regulates traffic speed and reduce it to 60km/h or whichever value you prefer. The process is discussed here: <http://www.fsdeveloper.com/forum/showthread.php?p=85400>

Compatibility with other add-ons

Support files for third-party scenery add-ons

The combination of accurate terrain and lake/ocean shorelines throughout the Tongass Fjords X coverage area usually leads to compatibility issues for any scenery add-on based on the default mesh and shorelines. Often, these add-ons end up wedged into mountain sides or have their seaplane docks on dry land.

Ideally, the original author of these add-ons would move the individual objects to more suitable locations. However, this isn't always easy to do and sometimes the add-on would then "collide" with our Tongass Fjords X objects.

Nevertheless, if there is something we can do to improve compatibility we will be happy to provide patches that improve on the situation. Thus, if you have a request for a specific patch please post the details in our support forum:

<http://forums.fsaddon.eu/viewforum.php?f=30>

Addon sceneries that are NOT compatible with Tongass Fjords X

At the point of this writing (April 2009) we're aware of only one scenery package that partially covers the Tongass Fjords X area and is not compatible with it. The add-on is named "MoCat's Snow Dog Tours", by Chris Carel – <http://library.avsim.net/eseach.php?CatID=fsxscen&DLID=119739/> - and it adds buildings and objects to airfields and seaplane bases in the Tongass Fjords X area that don't fit with our landscape and objects. (At the time of writing this Avsim's library was not available anymore, but they expected the library to be brought back on-line).

However, if you already have Chris' add-on series installed and want to keep using it for its locations outside of the Tongass Fjords X coverage area, there is an easy fix: make sure that its two scenery library menu entries, probably named "Ketchikan Alaska" and "SDT_Objects" are below the two Tongass Fjords X entries, meaning at lower display priority. That way our excludes will remove Chris' objects within Tongass while all of his enhancements outside our coverage area will remain visible.

Finding your way around



Now this is not so easy. And not explained in a few words in a manual. FSAddon's Tongass Fjords X covers an area larger than the size of Switzerland. A 'little' bit more than your average FS scenery package. It also is made up of so many different things: landscape, with custom landclass, mountains, fjords and rivers, glaciers (!), settlements, cabins to find, airstrips, ships to spot, forestry operations visible, harbors, new textures.... The list goes on!

So the message is: **EXPLORE !!!**

But, to help you get started, we have prepared two things for you: a set of detailed maps with hotlinks to real-world information and a detailed list of interesting destinations.

Tongass Fjords X maps

Please access the main map page through either the Windows Start menu (**Start > Programs > FSAddon > Tongass Fjords > Map**) or the Configurator panel's "Map" button.

The main map page shows an overview map of the coverage area and the seven listed airfields (PAKT and CZST are part of "Misty Fjords", which hasn't been released at the time of writing this manual). Clicking on the airport icons will bring up the corresponding website with current real-world information (you'll need an active Internet connection for this feature).

Clicking on other map areas anywhere inside the Tongass Fjords X coverage area will bring up one of the four detailed maps. These maps can also be accessed through the list on the left side of the page. Our detailed maps are aviation sectional maps with additional information relevant to Tongass Fjords X. Initially you'll see a smaller version of a map section for quick reference. Clicking on it brings up the fully detailed version in a separate browser window.

All seaplane bases on the sectional maps (the anchor symbols) are included with Tongass Fjords X. Also, you'll find push pin symbols pointing to the locations of the 31 US Forest Service cabins.

If you are looking for a specific cabin please use the "Cabin List" list on the main page. Clicking on a cabin's name or the website link to its right will bring up the corresponding US Forest Service information page. Alternatively, clicking on a region (e.g., "Admiralty Island") will bring up a website with a map of the cabins in that region (please note that Tongass Fjords X only includes a selection of all the real-world cabins)

Last but not least, the main map page provides direct links to the FSAddon website and the specific Tongass Fjords X support forum.



Tongass Fjords X "destinations"

In addition to the many natural wonders of Tongass Fjords X we have included a large and diverse set of man-made locations that can serve as bases or destinations of explorations in the coverage area.

1. Listed airfields (7)

These seven airfields have been repositioned and remodeled according to maps and airphotos. PASI and PAPG are fully modeled based on current photographs. PAWG and PAKW use "generic" hangars which closely resemble the real-world types and configuration. PAFE and CBM5 don't have any structures, as in reality. All airfields except CBW4 have AI GA traffic using the FSX default GA planes as well as our custom Dash-7 Cargo.

CBM5, Telegraph Creek, B.C.,	N57*54' W131*05'	971ft	
PAFE, Kake,	N56*57' W133*54'	144ft	
PAKW, Klawock,	N55*34' W133*04'	56ft	
PAPG, Johnson Petersburg,	N56*48' W132*57'	92ft	
PASI, Sitka Rocky Gutierrez,	N57*02' W135*22'	10ft	
PAWG, Wrangell,	N56*28' W132*22'	26ft	
CBW4, Bob Quinn Lake,	N56*58' W130*15'	1960ft,	converted to sloped runway, no AI

2. Unlisted airfields (6)

These six airstrips exist in reality though they are unlisted. We include them as challenging strips in beautiful locations.

CAB5, Bronson Creek,	N56*40' W131*07'	350ft	(sloped runway, two windsocks, several buildings including the mine camp, no AI traffic)
			URL: http://www.flickr.com/photos/cdnv8r/tags/bronsoncreek/
CAB6, Scud River Mine,	N57*17' W131*50'	230ft	(fictitious ICAO, small hangar, windsock, Dash7 Cargo AI)

Schaft Creek	N57*21' W131*01' 2850ft	(sloped runway, windsock, unmarked helipad, several structures, no AI traffic)
	URL: http://www.flickr.com/photos/jimbob_malone/sets/72157600723414260/	
Yehiniko Lake	N57*34' W131*19' 2770ft	(sloped and curved runway, windsock, small dock, no buildings, no AI traffic)
	URL: http://cwillett.imathas.com/scud/col.html	
Cirque, Galore Creek	N57*07' W131*28' 2840ft	(strongly sloped runway, windsock, simple hangar, helipad, no AI traffic)
	URL: http://www.engsoc.org/~webhead/gallery/album04?page=5	
Portal, Galore Creek	N57*08' W131*27' 2365ft	(sloped, windsocks, no buildings, no AI traffic)
	URL: http://content.edgar-online.com/edgar_conv_img/2004/08/16/0001062993-04-001257_AREPORTC2X1X1.JPG	

3. Listed seaplane bases (28)

At all seaplane bases you'll find at least a dock and in many cases much more, like boats, static or dynamic birds, settlements, and floatplane AI traffic with prototypical repaints. Wherever possible, we modeled and placed structures and objects based on photographs and maps; several locations actually use a photoreal ground texture. Please note: When starting a flight at a seaplane base and selecting the active runway (instead of a specific runway direction or a parking spot) FS will place the user at the start location of the FSX default seaplane base's location, which may be on land. Thus, please always select either a parking spot or a specific direction of the water runway at any of the seaplane bases listed below.

16K, Port Alice,	N55*48' W133*36'	
19P, Port Protection,	N56*19' W133*37'	photoreal area
2Z1, Entrance Island,	N57*25' W133*26'	
2Z6, False Island,	N57*31' W135*13'	
57A, Tokenen,	N55*55' W133*20'	
63A, Petersburg,	N56*48' W132*58'	
68A, Wrangell,	N56*28' W132*24'	
96Z, North Whale,	N56*06' W133*07'	photoreal area
A23, Saginaw,	N56*53' W134*09'	
A29, Sitka,	N57*03' W135*21'	photoreal area

AGN, Angoon,	N57*29' W134*34'	photoreal area
AHP, Port Alexander,	N56*15' W134*39'	photoreal area
AK62, Nichin Cove,	N55*51' W133*13'	photoreal area
AQC, Klawock,	N55*33' W133*06'	photoreal area
BNF, Warm Spring Bay,	N57*05' W134*49'	
CAH9, Telegraph Creek,	N57*55' W131*11'	
CGA, Craig,	N55*28' W133*09'	photoreal area
CYM, Chatham,	N57*30' W134*57'	
HYG, Hydaburg,	N55*12' W132*50'	photoreal area
KAE, Kake,	N56*57' W133*57'	photoreal area
KCC, Coffman Cove,	N56*00' W132*50'	photoreal area
KPB, Point Baker,	N56*21' W133*37'	
KWF, Waterfall,	N55*17' W133*15'	
PEC, Pelican,	N57*57' W136*14'	photoreal area
PWR, Port Walter,	N56*23' W134*39'	
TKE, Tenakee,	N57*46' W135*13'	photoreal area
WSB, Steamboat Bay,	N55*32' W133*38'	
Z71, Cape Pole,	N55*58' W133*48'	photoreal area

4. Unlisted floatplane/boat docks (16)

Most of these docks are used by the U.S. Forest Service for logging operations. Thus, features are usually pretty simple and include small boats, dolphins, log rafts, and static or dynamic birds.

Biorka Island,	N56*51' W135*31'	
Cape Decision LH,	N56*00' W134*08'	lighthouse dock
Corner Bay,	N57*44' W135*08'	
Edna Bay,	N55*58' W133*37'	several docks in
the bay, photoreal area		
Five Finger LH,	N57*16' W133*38'	lighthouse dock



Labouchere,	N56*19' W133*37'	
Naukati Bay,	N55*52' W133*13'	photoreal area
Papkes Landing,	N56*41' W132*56'	photoreal area
Portage Bay,	N57*00' W133*19'	
Rowan Bay,	N56*40' W134*16'	active logging camp with many objects
Saginaw West,	N56*52' W134*11'	
St. Johns,	N56*26' W132*58'	
Thomas Bay,	N56*58' W132*49'	
Tonka Mountain,	N56*43' W132*57'	
View Cove,	N55*05' W133*01'	
Frederick Point,	N56*48' W132*49'	

5. U.S. Forest Service cabins (31)

The cabins are usually accessed by floatplane or boat. Those located on lakes can be accessed on planes equipped with tundra tires or skis when the "frozen lakes" option is activated in the Tongass Fjords X configurator. The cabins can be difficult to spot but we added smoke effects, trails, and a few additional objects to them to make the task a bit easier. The first altitude value is that of the adjacent water body and the second that of the cabin.

a. Admiralty Island area

Little Shaheen,	N57*42' W134*16'	269/270ft	http://www.fs.fed.us/r10/tongass/cabins/admiralty/lshaheen.shtml
Church Bight,	N57*26' W133*56'	0/85ft	http://www.fs.fed.us/r10/tongass/cabins/admiralty/churchbight.shtml
Jims Lake,	N57*35' W134*16'	223/225ft	http://www.fs.fed.us/r10/tongass/cabins/admiralty/jimslk.shtml
Pybus Bay,	N57*21' W134*10'	0/0ft	http://www.fs.fed.us/r10/tongass/cabins/admiralty/pybus.shtml

b. Prince of Wales Island area

Black Bear Lake,	N55*32' W132*51'	1690/1738ft	http://www.fs.fed.us/r10/tongass/cabins/pow/blackbearlk.shtml
Essowah Lake,	N54*48' W132*52'	40/40ft	http://www.fs.fed.us/r10/tongass/cabins/pow/essowahlk.shtml
Barnes Lake,	N56*01' W132*59'	33/95ft	http://www.fs.fed.us/r10/tongass/cabins/pow/barneslk.shtml
Control Lake,	N55*42' W132*52'	37/370ft	http://www.fs.fed.us/r10/tongass/cabins/pow/controllk.shtml

Point Armagura,	N55*27' W133*22' 0/400ft	http://www.fs.fed.us/r10/tongass/cabins/pow/ptamargura.shtml
Red Bay Lake,	N56*14' W133*19' 20/20ft	http://www.fs.fed.us/r10/tongass/cabins/pow/redbaylk.shtml
Shiple Bay,	N56*05' W133*30' 0/0ft	http://www.fs.fed.us/r10/tongass/cabins/pow/shiplebay.shtml

c. Petersburg area

Swan Lake,	N57*02' W132*42' 1510/1510ft	http://www.fs.fed.us/r10/tongass/cabins/petersburg/swanlake.shtml
Kah Sheets Lake,	N56*33' W133*11' 145/145ft	http://www.fs.fed.us/r10/tongass/cabins/petersburg/kahlake.shtml
Petersburg Lake,	N56*52' W133*10' 72/72ft	http://www.fs.fed.us/r10/tongass/cabins/petersburg/pburg.shtml
Devil's Elbow,	N56*38' W133*43' 0/0ft	http://www.fs.fed.us/r10/tongass/cabins/petersburg/devils.shtml
deBoer Lake,	N57*06' W132*57' 1410/1414ft	http://www.fs.fed.us/r10/tongass/cabins/petersburg/deboer.shtml

d. Wrangell area

Marten Lake,	N56*17' W131*51' 170/190ft	http://www.fs.fed.us/r10/tongass/cabins/wrangell/marten.shtml
Shakes Slough,	N56*43' W132*06' 0/40ft	http://www.fs.fed.us/r10/tongass/cabins/wrangell/shake1.shtml
Steamer Bay,	N56*10' W132*41' 0/94ft	http://www.fs.fed.us/r10/tongass/cabins/wrangell/steamer.shtml
Virginia Lake,	N56*29' W132*09' 109/123ft	http://www.fs.fed.us/r10/tongass/cabins/wrangell/virginialk.shtml
Mallard Slew,	N56*43' W132*33' 0/0ft	http://www.fs.fed.us/r10/tongass/cabins/wrangell/mallard.shtml
Garnet Ledge,	N56*35' W132*22' 0/0ft	http://www.fs.fed.us/r10/tongass/cabins/wrangell/garnet.shtml

e. Sitka area

Allan Point,	N57*15' W135*24' 0/10ft	http://www.fs.fed.us/r10/tongass/cabins/sitka/allanpt.shtml
Goulding Lake,	N57*49' W136*10' 278/280ft	http://www.fs.fed.us/r10/tongass/cabins/sitka/gouldinglk.shtml
Avoss Lake,	N56*42' W134*56' 755/780ft	http://www.fs.fed.us/r10/tongass/cabins/sitka/avoss.shtml
Plotnikof Lake,	N56*35' W134*52' 279/332ft	http://www.fs.fed.us/r10/tongass/cabins/sitka/plotnikof.shtml
Salmon Lake,	N56*58' W135*09' 23/158ft	http://www.fs.fed.us/r10/tongass/cabins/sitka/salmonlk.shtml
Suloia Lake,	N57*25' W135*43' 273/273ft	http://www.fs.fed.us/r10/tongass/cabins/sitka/suloia.shtml
Kook Lake,	N57*40' W135*01' 40/40ft	http://www.fs.fed.us/r10/tongass/cabins/sitka/kooklk.shtml
Lake Eva,	N57*24' W135*06' 3/3ft	http://www.fs.fed.us/r10/tongass/cabins/sitka/lkeva.shtml
Shelikof,	N57*10' W135*45' 0/0ft	http://www.fs.fed.us/r10/tongass/cabins/sitka/shelikof.shtml

6. Helipads (11)

Five Finger Lighthouse,	N57*16' W133*38' 0ft	
Cape Decision Lighthouse,	N56*00' W134*08' 1ft	
Tenakee Dockside,	N57*47' W135*13' 1ft	
Wrangell Town,	N56*28' W132*22' 118ft	fictitious, base for AI helicopters
Biorka Island,	N56*51' W135*32' 178ft	fictitious, base for AI helicopters
Sitka, U of Alaska Pier,	N57*03' W135*21' 13ft	fictitious, base for AI helicopters
Reids Quarry, Petersburg,	N56*47' W132*57' 346ft	staging area for helicopter logging operations
Galore Creek Cirque airstrip,	N57*07' W131*28' 2840ft	
Schaft Creek airstrip,	N57*21' W131*01' 2850ft	
Rowan Bay logging camp,	N56*40' W134*16' 25ft	
Bob Quinn Lake airstrip,	N56*58' W130*15' 1970ft	staging area for supplying materials and supplies to the Galore
Creek mine; see http://www.novagold.com/section.asp?pageid=4079		

7. Miscellaneous structures and areas of interest (6)

Biorka Island base/antennae,	N56*51' W135*32'
Horn Cliffs antennae,	N56*51' W132*47' 2485ft
Point Macartney log rafts,	N57*02' W134*02'
Exchange Cove photoreal area,	N56*10' W133*06'
High voltage power lines Petersburg - Wrangell - Bradfield,	N56*43' W132* 6' to N56*15' W131*58'

Where do the ships go !?

Alaska would not be Alaska without shipping. The main means of transport in that wild and remote country is the airplane. And along its coastlines and many fjords and islands: ships!

We have been fortunate to have **Mitsuya "Hama" Hamaguchi** of Japan build us some really lifelike ships. They have moving radar, night lighting, exhaust fumes, and spray and wake effects. And they use the same routes as their real-world equivalents do and also respect the marine signals. This is particularly interesting to watch in the narrow channels south of Petersburg (Wrangell Narrows, approx. N56°40' W132°56') or north of Sitka (Neva Strait, approx. N57°15' W135°34'). Have fun AI vessel spotting in your Beaver, Piper or other plane of choice!

Ships and boats included in this particular title are the Alaska State ferries MV Matanuska and MV LeConte, a US Coast Guard 110-foot Island Class patrol boat, a couple of purse seiner fishing vessels, and the cruise ships **MV Veendam** (Holland America Line) and **MV Dawn Princess** (Princess Cruises). In addition you'll see several small watercraft, made by **Larry Silsbee**, moving back and forth near the main settlements.



Specifically, the routes are:

(Please note that the route "codes", like "PAF1", are the fictitious "airport" ICAO references that the AI vessels require to operate. Also see the "Known Issues" section on limitations of the AI vessels)

1. Alaska Marine Highway Ferry MV LeConte, made by Mitsuya (Hama) Hamaguchi

Both the MV LeConte and the MV Matanuska (see below) travel along their real-world routes but split into three different route segments. Also, instead of coding their real-world time tables we decided to have them start their trip several times a day (every 90 minutes) at each location to make it more likely that you will see the vessels moving. MV Leconte and MV Matanuska will be visible **at 20% GA traffic density**.

PAF1: Petersburg ferry terminal to Kake ferry terminal

PAF2: Kake ferry terminal to Angoon ferry terminal (south of town)

PAF3: Tenakee Springs ferry terminal to near Hoonah (outside of Tongass Fjords X, in Glacier Bay project area)

2. Alaska Marine Highway Ferry MV Matanuska, made by Mitsuya (Hama) Hamaguchi

PAW1: Clarence Strait (off Thorne Bay) to Wrangell ferry terminal

PAP2: Wrangell ferry terminal to Petersburg ferry terminal, through Wrangell Narrows

PAS1: Sitka ferry terminal (north of town) to Chatham Strait off Angoon, through Olga Strait, Neva Strait, and Peril Strait

3. US Coast Guard 110' Patrol Boat 1335 Anacapa, made by Mitsuya (Hama) Hamaguchi

Similar to the ferries, we placed three instances of the Anacapa in different areas. These vessels operate 24 hours a day and will start their patrols sometime within 30 minutes of a user's plane arrival in the active AI area. USCG Anacapa will be visible at 20% GA traffic density.

PAW2: Petersburg berth to Shoemaker Bay south of Wrangell, through Wrangell Narrows

PAS2: Sitka harbor Coast Guard dock to Redoubt Bay, SW of Sitka, traveling around Kruzof Island in clockwise direction

PAC1: San Alberto Bay W of Craig to Bucareli Bay S of Craig, traveling N through San Cristoval Channel, Gulf of Esquibel, Tuxekan Passage (past Naukati), El Capitan Passage (past Token), and then back S through Davidson Inlet, Sea Otter Sound, Gulf of Esquibel, and Portillo Channel.

4. Fishing boats 5423 Lake Bay and 3588 Zetuesemce, made by Mitsuya (Hama) Hamaguchi

These two purse seiners often use the same "tracks" (except PAW3 and PAC2) but usually start in different locations and at different times (except PAS5). At each location, one boat will be visible at 10% GA traffic density, the other at 50% traffic density.

PAS5: Sitka harbor canneries to Sitka Sound (off Kasiana Island) with a fishing session (moving in circles) near Deep Inlet

PAW3: both seiners end in Wrangell harbor, with one vessel starting in Blake Canal at N56*15' W131*57' and the other in Wrangell Narrows at N56*43' W132*57'

PAP1: Petersburg harbor to Stephens Passage east of Five Finger Lighthouse

PAC2: Craig harbor to St. Nicholas Channel W of Lulu Island, with one vessel taking a southern route (Port Real Marina) and the other a northern route (San Cristoval Channel)

5. Cruise Ship MV Veendam (Holland America Lines), made by Mitsuya (Hama) Hamaguchi

MV Veendam will be visible at 20% GA traffic density. Departure times are 16:00, 18:00, 20:00, 22:00, 00:00, and 02:00 ZULU.

PAS3: Sitka cruise ship anchoring area (south of town) to the southern tip of Baranof Island

6. Cruise Ship MV Dawn Princess (Princess Lines), made by Mitsuya (Hama) Hamaguchi

MV Dawn Princess will be visible at 20% GA traffic density. Departure times are 16:00, 18:00, 20:00, 22:00, 00:00, 02:00, and 04:00 ZULU.

PAP3: from Stephens Passage, Holkham Bay (N57*46' W133*41'), round trip through Tracy Arm to Sawyer Glacier, then north along Stephens Passage to end point off Grand Island, SE of Juneau.

7. Small boats, made by Larry Silsbee

Similar in appearance to the static boats in FSX these small vessels occur in the harbor areas of Sitka and Petersburg. Four boats in each area operate on staggered time tables with a 2-hour repeat cycle during daylight hours. All boats will be visible **at 20% GA traffic density**.

Note that you can also have additional pleasure craft traffic by increasing the "Leisure boats" slider in the **Settings > Customize > Traffic menu of FSX**. However, unlike ours these AI boats don't travel longer distances.

PAS6: start locations are marinas in Crescent Bay, Sitka Harbor, Thomson Harbor, and on Japonski Island, with different routes throughout Sitka Sound to a common end point near Halibut Point (N57°06' W135°24') north of Sitka.

PAP7: start locations are docks at Frederick Point, North Shore, Tonka Mountain, and Shoemaker Bay Harbor, with different routes through Petersburg Creek, Wrangell Narrows, and Frederick Sound, to a common end point in Petersburg Harbor.

None of the ships that we provide with Tongass Fjords X can be piloted by you as this would require major changes to the configuration files and also the addition of a suitable "cockpit". However, should you feel the urge to try your vessel piloting skills in the narrow water ways of the Tongass Fjords X area we suggest you pick one of the available freeware vessels (usually with virtual cockpit) made by Hama, available at <http://f1.aaa.livedoor.jp/~rjnnhama/craft.htm>.

Alternatively, there are fine watercraft available at <http://www.fs-shipyards.org/> as well as the offerings (mostly commercial) at <http://www.deltasimstudio.com/index.htm>.



Tongass information on the web

For those of you who want to learn a little more about Tongass Fjords X and everything that goes on there, we have compiled some of the best websites. One of the 'fun' things of the internet is that nowadays there is absolutely NO subject without an abundance of information on some website or other.

A "few" interesting Internet Places (other than Google Earth, Windows Live, or World Wind)

Topographic and marine maps and aerial photos

<http://www.topozone.com/map.asp?lat=57.05306&lon=-135.33>

<http://terraserver-usa.com/image.aspx?t=2&s=14&x=149&y=1975&z=8&w=1&qz=%7csitka%7cAK%7c>

<http://www.geogratis.gc.ca/geogratis/en/collection/detail.do?id=36765>

<http://www.dec.state.ak.us/spar/perp/grs/se/home.htm>

<http://www.tongass-seis.net/roadless.html>

<http://mapserver.mytopo.com/homepage/index.cfm>

<http://www.photolib.noaa.gov/coastline/sealaska.html>

<http://www.alaskamapped.org/>

Airfields and airstrips

<http://www.alaska.faa.gov/fai/airports.htm>

<http://www.airnav.com/airports/>

<http://www.gcr1.com/5010web/>

http://en.wikipedia.org/wiki/Category:Airports_in_Alaska

<http://lostav8r.blogspot.com/2006/05/back-to-bronson.html>

http://www.copanational.org/PlacesToFly/airport_view.php?ap_id=871

<http://www.navcanada.ca/>

<http://www.ivao.ca/charts/>



http://en.wikipedia.org/wiki/List_of_airports_in_British_Columbia
<http://cwillett.imathas.com/scud/col.html>
http://www.flickr.com/photos/jimbob_malone/sets/72157600723414260/

Seaplane bases and harbors/marinas

<http://www.airnav.com/airports/>
http://en.wikipedia.org/wiki/Category:Airports_in_Alaska
http://www.poa.usace.army.mil/co/CoOrg/p_i_book/p&ione_2003.html

Local weather information

<http://akweathercams.faa.gov/sitelist.php/>
<http://aawu.arh.noaa.gov/>

Sitka

http://www.galenfrysinger.com/sitka_alaska.htm
<http://www.birkbinnard.com/photography/alaska/Sitka/index.html>
http://patrickendres.com/sitka_alaska_photos.shtml
<http://www.uas.alaska.edu/sitka/wallpaper03.html>
<http://www.well.com/~wolfy/Sitka/index.html>
<http://www.ptialaska.net/~gsmith/pics4.htm>
<http://members.tripod.com/~Mchunter1/sitkaww2.html#> (interesting but
nasty pop-ups!)
<http://www.sitka.com>
<http://www.well.com/~wolfy/Sitka/index.html>
<http://www.sitka.org/>
<http://www.ptialaska.net/~gsmith/pics4.htm>

Other settlements

<http://ci.petersburg.ak.us>
<http://www.wrangell.com/index.html>
http://www.galenfrysinger.com/klawock_prince_of_wales_island.htm
<http://home.surewest.net/hannon/#Pictures>
<http://www.klawockheenia.com/page11.html>
<http://www.britishcolumbia.com/regions/towns/?townID=3675&webregionid=2>
http://virtualguidebooks.com/BC/NorthernBC/TelegraphCreek/TelegraphCreek_TOC.html
<http://www.britishcolumbia.com/regions/towns/?webRegionID=2&townID=3992>
<http://www.princeofwalescoc.org/profiles.html>

U.S. Forest Service cabins

<http://www.fs.fed.us/r10/tongass/cabins/cabinlist.shtml>

Lighthouses and marine signals

http://www.thelighthousepeople.com/Gallery/Alaska/Cape_Decision_Alaska.html
http://www.thelighthousepeople.com/Gallery/Alaska/Five_Fingers_Alaska.html
<http://www.unc.edu/~rowlett/lighthouse/ak.htm>
<http://www.navcen.uscg.gov/pubs/LightLists/LightLists.htm>

Seaplane and boat tours, and guest lodges

<http://alaskavistas.com/Vistas>
<http://www.fishermensinn.com/picture.htm>
<http://www.floatplanes.com>
<http://www.harrisaircraft.com>
<http://www.pacificwing.com/Location.html>
<http://www.alaskavistas.com/Vistas/Adventure%20Gallery.html>
<http://www.tongasskayak.com>
http://www.wingsofalaska.com/index.php?flash_loaded=1
<http://www.wrangell.com/visitors/directory/category.cfm?Directory=4>
<http://www.southeastaviation.com/cabins.html>
<http://www.seaplanes.org/>

<http://www.flyfishalaska.com/>

<http://www.alaskafalseislandlodge.com/>

<http://www.northpacificseaplanes.com/>

Alaska Marine Highway Ferries (MV Matanuska and MV LeConte featured in Tongass Fjords X)

<http://www.dot.state.ak.us/amhs/index.html>

<http://www.karo-ent.com/marine.htm>

US Coast Guard Patrol 110' Boat (WPB 1335 Anacapa featured in Tongass Fjords X)

<http://www.uscg.mil/datasheet/110wpb.htm>

http://www.usmilitaryart.com/coast_guard.htm

<http://www.webshots.com/search?new=1&source=mdocsheader&words=coast+guard>

<http://www.uscg.mil/d17>

Fjords and glaciers

<http://www.annettedesign.com/alaska/captainslog.html>

<http://www.seakayakalaska.com/fordsterror.htm>

<http://nsidc.org/glaciers/gallery>

Geography, history and conservation - Alaska

<http://www.fs.fed.us/r10/tongass>

<http://www.tongass.com/>

<http://www.teresco.org/pics/alaska-20010606-30>

<http://www.centerforlakewashingtonstudies.com/ak/r4.htm>

<http://www.savebiogems.org/tongass>

http://www.alaskans.com/sitka_alaska.html

<http://www.sitkawild.org/content/view/33/196>

<http://vilda.alaska.edu/index.html>

<http://www.photolib.noaa.gov/coastline/index.html>

<http://www.explorenorth.com>

<http://www.ilovealaska.com>

Geography, history and conservation - B.C.

<http://www.panorama-map.com/STIKINE/stikinepg1.html>
<http://www.panorama-map.com/STIKINE/stikinemap.html>
<http://www.nbctourism.com>

Miscellaneous photo sites

<http://www.markkelley.com/site/seportstock/results.asp?Key=seport>
<http://www.stevemueller.com/docs/travelPhotography/us/alaska/indexAlaskaGallery.php>
<http://community.webshots.com/album/272285849uOkpEe>
<http://pambrucerobinson.homestead.com/Welcome.html>
<http://www.alaskaphotography.com/photos/index.html>
<http://www.asonp.org> Alaskan Society of Outdoors Photographers
<http://theinfrequentflyer.com/aviation-photo-gallery.php>
<http://cwillett.imathas.com/scud/>
http://www.flickr.com/photos/jimbob_malone/sets/72157600723414260/
<http://www.photolib.noaa.gov/coastline/sealaska.html>
<http://shaunlunt.typepad.com/shootings/>

Other aviation related sites

<http://aawu.arh.noaa.gov> aviation weather to start with !!
<http://www.everythingalaska.com/planes.html>
<http://www.alaska.faa.gov>
<http://www.seaplanes.org> The Sea Planes Pilots Association
<http://www.geocities.com/CapeCanaveral/Lab/7146/beaver.html> - Beavers !
<http://www.dhc-2.com> THE Beaver website !

Other Alaska tourist sites

<http://travelalaska.com>
<http://www.outdoorsdirectory.com/>
<http://www.airguides.com/index.htm>
<http://www.bushorder.com/page3.html>

<http://www.flyingalaska.com>

<http://www-personal.engin.umich.edu/~alanford/nancyford/photoalbums/alaskacruise/index.htm>

<http://www.explorenorth.com> Explore North – wonderful website

<http://www.ilovealaska.com> – I Love Alaska.....

<http://www.akduck.com> very special tours..... in a duck..... DUKW ?

<http://www.premaircraft.com/> A great site for finding DHC floaters and others

The FSAddon Book Store

On our quest for information we went through the World Wide Web many times and found all these wonderful websites for you to peruse. In fact, we spent quite some time going through many of them ourselves.

But there is of course another wonderful source of information out there too..... still!

Things called BOOKS!

Much has been written, and photographed, about Alaska and other wilderness areas. And about aviation.

Being somewhat of a 'buff' myself, I decided to set up an '**Amazon sub-shop**' on our website. I am searching for interesting titles and putting them in the shop manually. I appreciate the strong Amazon automated programs picking out books and DVD's and such, but I rather like to read something about the titles myself, before having them displayed.

And so rather than follow the (excellent!) suggestion of one of our testers and put some book titles inside this manual, I'd like to invite you into the [FSAddon Book Store](#) and have a look around. Who knows, you might find something interesting as a nice addition to the simming!

Support

If you need any support in installing or using Tongass Fjords X, you can get it in different ways:

Register on the FSAddon.eu forums (go here: <http://forums.fsaddon.eu/index.php>) and then go to the **Tongass Fjords X Support forum** which you can find by clicking here: <http://forums.fsaddon.eu/viewforum.php?f=30>.

You can read any existing posts but you must register before you can write your own messages.

OR

Write us an email: sales@fsaddon.eu

OR

Write to simMarket support (if you bought it there) : https://secure.simmarket.com/ticket_create.php

We believe that **support of a product**, and especially products released for such a specialized audience as flight simmers, is of the **utmost importance**. Being **flightsim fans ourselves** you can be assured that support has our fullest attention.

In any case, even if you just want to tell us what you think you are welcome on the simFlight forums. There you will also find a bunch of like-minded flight simmers to chat with you about this title, and about just anything else flightsim related. Give it a try !



Credits



Holger Sandmann is the creative mind, designer and lead developer of Tongass Fjords X. As with the FS9 version of Tongass, **Bill Womack** used his magic to model several airports as well as many other custom objects. But there are many other people who helped in bringing this major project to life on your computer. We'd like to mention them here (and apologies if we've forgotten anyone!):

Milton Shupe
Mitsuya 'Hama' Hamaguchi

shared with us a custom AI version of his Dash7 aircraft
who built the wonderful AI ships and boats for us (licensed by FSAddon Publishing)

Manfred Herz

made typical Alaskan-style houses for the settlements, and also created the detailed maps

Jon Patch
Scot Fraser
Robert Gerdes
Larry Silsbee
James Keir

kindly shared some of his hangar and other airport objects
coded the autoinstaller and configurator

Lars Hoyer
Ronald Zambrano
Jun Kazama
François 'Navman' Dumas

provided us with local photography and a plethora of information
shared with us his static and dynamic birds and small AI boats
from whom we license the DynaModel module
modeled the DHC-3 Otter and DHC-6 Twin Otter AI aircraft
modeled the DHC-2 and B206L AI aircraft
helped us with the AI aircraft paintkits
the co-author and editor of this manual and project manager/publisher of Tongass Fjords X

Miguel Blaufuks

for handling our sales and administration at simMarket

Tool developers and technical assistance

Luis Sá: SBuilderX (under license)

Allen Kriesman: Radial Elevation Theory tools (under license)

Jon Masterson: Airport Design Editor

Don Grovestine: AI Flight Planner

Richard Ludowise "Rhumbaflappy": TCalcX

Microsoft FSX SDK documents and utilities, included with FSX Deluxe

Data providers

The following people and agencies provided data, either free of charge, or for compensation. Their help is appreciated. All data are used under license and may not be reproduced in any form without the express permission of the copyright holders, and/or on terms the copyright holders may specify.

Global Land Cover Facility, <http://www.landcover.org>

Alaska Department of Natural Resources, Land Records Information Section, <http://www.asgdc.alaska.gov/>

U.S. Geological Survey, EROS Data Center, Sioux Falls, SD, <http://gisdata.usgs.gov/>

GeoBase geospatial data, <http://www.geobase.ca/>

Natural Resources Canada, GeoGratis, <http://www.geogratis.gc.ca/geogratis/en/index.html>

B.C. wetlands and cutblock data, <http://geobc.gov.bc.ca/>

U.S. Airport and Seaplane Base data, <http://www.airnav.com/airports/>

Canadian Airport and Seaplane Base data, <http://www.navcanada.ca>

U.S. Coast Guard, <http://www.uscg.mil/d17/>

Tongass National Forest cabins, <http://www.fs.fed.us/r10/tongass/cabins/cabinlist.shtml>

Additional content providers

AI Kaiser: Stemme.air motor glider airfile for AI helicopter

Tom Miller: Monocoupe .air file for DHC-2 and DHC-3

Brian Gladden and Fred Choate: Volpar .air file for DHC-6

Bjørn Erik Henriksen, Dan Wambolt, Emmett McRobie, Ronald Zambrano, Brian Nuss, "Mani", Bill Womack, Lars Hoyer, Michael Carr: repaints for AI aircraft

Microsoft former ACES FSX Design Team: default library objects, including boats, radio antennae, buildings, etc.



Beta testers team

No product can be published without being tested first. And although it is impossible these days to test a project on all possible configurations, we have a team of dedicated beta testers who have done their very best to try and find any problems before you do!

We are extremely grateful for their voluntary help and enthusiasm!!

Beta Testers (in random order):

Lars Peter Hammer - "LPHammer"

Nick Lindegaard - "eyelleeye"

Michael Flahault - "FSABT"

Nick Churchill - "Nick C"

Michael Carr - "MCDesigns"

David Voogd - "davidv"

Dan Wambolt - "danno"

Dave Sybiak - "SuperPelican"

Ian Pearson - "Ian P"

Milt Chambers - "Milt"

Jaap van Hees - "Bush Flyer"

Dexter Thomas - "dexthom"

Eberhard Haberkorn - "Ebo"

Robert Gerdes - "rgerdes"

Ed Truthan - "Ed Truthan"

Jim Keir - "jimkeir"

Jun Kazama - "gallopinggoose"

Phil Cayton - "PhilC"



FSAddon.com



Since you've come this far, you must be a die-hard simmer, or at least an avid reader. Congratulations on your perseverance, not many people read manuals at all ;-) To reward you, let me tell you something about this company then.....

FSAddon.com was founded by Miguel Blaufuks and François Dumas with the main purpose of designing and publishing add-ons for the Microsoft Flight Simulator range of products. But **not just any add-ons!**

Our aim is to provide **additional immersion** in using the simulation by providing high-quality, **complete packages or series** that do more than just add an airfield, a utility or an aircraft. We are aiming to provide 'reality kits' that are a combination of additional FS software AND other things such as a story line, navigational information and tools, or even community access via the Internet.

We are also convinced that most buyers of these flight simulators only scratch the tip of the proverbial iceberg and won't use more than perhaps 10% of its capabilities. Another goal of ours therefore is providing education and information geared towards better and more satisfying usage of what you have already bought!

The company is a subsidiary of the already existing company **simMarket**, which in turn is part of the associated **simFlight Network**. SimMarket is the world largest on-line distributor of flight simulator add-ons. But up to now all products have been sold under their own name and without any (or much) guidance from the simMarket.

The simFlight Network consists of a multitude of flight simulator news sites, covering many languages and areas around the world, and also hosting a fair number of flight simulator user communities via forums and other means.

The two organizations together form a very powerful base for the newly founded FSAddon.com, providing all the basic infrastructure, skills and contacts needed to design, develop and publish flight simulator add-ons.

The company's aim is 3-tiered

- 1) To substantially expand the possibilities for beginning simpilots to use their flight simulator
- 2) To provide high-quality, extensive add-ons to the more experienced simpilots
- 3) To lower the thresholds for communicating and flying together using flight simulators and the internet.

We hope you'll enjoy our products, and above all, the pleasure of sharing this hobby with us and the hundreds of thousands of like-minded enthusiasts all over the world. If we can add just a little value to it, then we have achieved our goal.

See you in the (virtual) skies !

Other FSAddon products

If you like this product, then you will want to visit **FSAddon's website** (<http://www.fsaddon.eu>) from time to time, because we are working on a whole range of similar and other products, from very well-known authors and designers, but also from very talented new people in the flight simulator industry.

Holger Sandmann has created a number of freeware landscape add-ons as well, for FS2002, FS2004 and for FSX. They are available under his name at all major FS file library servers. He can also be reached in the **simFlight support forum** for his **freeware projects** at

<http://forums.simflight.com/viewforum.php?f=231>

Bill Womack too has started publishing with FSAddon Publishing, contributing on Tongass Fjords for FS9 but also publishing his own wonderful **Plum Island** with us.