

CYYJ (2011)

for FS9/FS2004 and FSX

(CYYJ version 5.05)

USER MANUAL

**An Add-On Covering the Victoria, British Columbia, Canada International Airport
and Surrounding Area as it Appeared in early 2011.**

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1. INTRODUCTION

CYYJ for Microsoft® Flight Simulator (“MSFS”) portrays the Victoria (British Columbia, Canada) International Airport (CYYJ) and surrounding area, including the Coast Guard complex at nearby Pat Bay. CYYJ (2011) is Version 5 of an add-on that was first introduced in 2006 and has been continually updated since then. CYYJ operates standalone with both Flight Simulator 2004 (FS9) and Flight Simulator X (FSX) and will update the earlier version of CYYJ incorporated in Jon Patch’s and Holger Sandmann’s Victoria+ FSX.

Features - CYYJ features:

- an airport definition (AFCAD) based on high-resolution aerial photos that:
 - accurately places all runways and taxiways,
 - displays realistic taxiway and apron markings,
 - precisely places all taxiway, runway and approach lights and other airfield facilities,
 - drive-through parking for all AI except those at the main terminal that use the jetways (which now push-back in real-life),
- a main passenger terminal with optional animated gateways and more than seventy other very detailed buildings - including every significant structure on the airfield - all modeled with GMax and “painted” with hand-drawn textures,
- realistic terrain profiles at both ends of Runway 09/27 and on the Runway 13 approach,
- taxiway and apron signage accurate as to both position and content,
- optional low-FPS-impact, multi-LOD, ground-hugging perimeter fencing (8’ high chain link with bent top), and
- AI and static aircraft and associated flight plans including:
 - representative military and GA traffic,
 - vintage aircraft parked at the BC Aviation Museum
 - the Victoria Flying Club C152s and C172s custom painted in their actual “colors, and

- when the BC Regional AI package (freeware available from Avsim, Flightsim and elsewhere) is installed, airline traffic based on actual schedules which parks at their normal gates.

What's New in CYYJ (2011)? – CYYJ (2011) provides even greater detail on the airfield and several other new features, including:

- "wig-wags" at all Runway 09/27 intersections (as now at the real CYYJ),
- animated jetways at the main terminal,
- models for individual taxiway, runway and approach lights (including supporting structures),
- updated apron markings,
- static scenery models to replace earlier static AI (vintage aircraft, military helicopters and VFC Cessnas) for better FPS efficiency and two helicopters at VIH,
- updated installer and simplified manual installation, and
- an update checker and an application to add/remove the mipmaps to/from textures.

Compatibility - CYYJ is fully compatible (once the necessary compatibility files are configured - see below) with:

- ORBX FTX NA Blue USA Canada Pacific Northwest ("ORBX FTX NA"),
- Ultimate Terrain Canada/Alaska for FS9 and Ultimate Terrain X - Canada for FSX (generally referred to as "Ultimate Terrain" or, simply, "UT"),
- Jon Patch's and Holger Sandmann's Victoria+ for FS9 (*vicenh06.zip*) and with their payware add-on Vancouver+ for both FS9 and FSX,
- Joel Gill's BC Roads for FS9 (*british_columbia_road_system.zip*),
- Harvey Janszen's East Vancouver Island and Gulf Island Coastlines and Landclass, or EVI Shorelines, for short, (*evi04_v13.zip*), and
- of course, Victoria+ FSX (all versions).

All these add-ons generate roads, shorelines and/or landclass that may differ in position and textures from one another and from the corresponding features in CYYJ. Without attention, there would be discontinuities at the boundaries of CYYJ where, for example CYYJ's roads meet those generated by whatever add-on is controlling the roads in the surrounding area.

Victoria+ for FSX – At time of writing, a new version of Victoria+ FSX compatible with ORBX FTX NA is planned. (Let's call it Version 8, though it may be called something else when its released.) CYYJ will be removed from this new version for technical reasons. So, it will be necessary for Version 8 users to install CYYJ as standalone. However, CYYJ and Victoria+ FSX Version 8 will still be fully compatible.

With Victoria+ FSX Version 7, you now have a choice. You may update it as before with this version of CYYJ. **But, if you do and later have occasion to "repair" it, its CYYJ reverts to the original (2008) version. So, the repair must be followed by a re-installation of CYYJ (2011).** To avoid this potential issue, install CYYJ (2011) standalone with VicPlus compatibility. Following standalone installation, you will be given the opportunity to delete the CYYJ files from Victoria+ FSX, thereby saving system overhead.

Viva Base – CYYJ is compatible with VIVA (Vancouver Island Virtual Airlines) Base, both the original version by Lars Hoyer, Jesse Wheeler and Ken Peters (*viva_cyyj.zip*) and the more

recent version by Peter Ham and Sidney Schwartz. (Please note, however, certain portions of the original VIVA Base offering are not compatible with FSX.) Information on configuring VIVA Base is given in Section 7.

2. INSTALLATION AND UPDATES

Automatic Installation - CYYJ includes an installer. This installer is a Microsoft NET.Framework 2.0 application. If NET.Framework 2.0 or a later version is not already installed on your computer, the latest "redistributable" can be downloaded from the Microsoft website at no charge.

For those users who cannot, or choose not to, use the installer, a manual installation procedure is detailed below. FS9 users who update from an earlier version of CYYJ please note that, whichever method you use, FS9 may complain of missing landclass tiles (because there used to be four of them and now there's only one). You'll have to open and resave the Scenery Library entry to resolve this.

Vista and Windows 7 users must have and, depending on circumstances, others may require, administrator privileges when running the installer. If you need, but do not have, administrator privileges, the installer will "complain" when you attempt to install. To run the installer with administrator privileges, right-click on *CYYJ Installer.exe*, select "Run As ..." and select "administrator".)

Windows 7 users who do not run the installer in the XP compatibility mode will receive a "this program may not have installed correctly" message upon closing the installer. Despite the error message, the installation completes normally and the message may be safely ignored.

When updating a previous installation of CYYJ or Victoria+ FSX, the installer backs-up the previous version before overwriting it. If the installation procedure does not complete normally, the previous installation will be restored. As well, any AI traffic files (*traffic*.bgl*) in the existing *CYYJscenery* folder will be retained. (If you intend to install the AI included with CYYJ, you should delete any existing traffic files for CYYJ AI first.)

If you retain an earlier version of CYYJ by installing CYYJ to a new folder, ensure only one of them is enabled in the Scenery Library at a time.

Installation is performed as follows. (It will take you far longer to read this than to do it! Buttons and other controls are enabled only when they can be used. Hence, they are progressively enabled as you make prerequisite selections.)

- (a) Unzip the file *CYYJ_5nn.zip* to a temporary folder ("folders" option enabled). DO NOT UNZIP TO THE INSTALLATION FOLDER and DO NOT REMOVE ANY FILES FROM THE TEMPORARY FOLDER. (Depending on your operating system, you may be able to omit the "unzip" and run *CYYJ Installer.exe* directly from the *.zip* file.
- (b) Run (double-click on) *CYYJ Installer.exe*. An installation dialog will appear.
- (c) Select the target MSFS version (FS9 or FSX), whereupon the installer attempts to locate the main folder for that version. If successful, the path is shown in the FS Base Folder text box. If not, you must locate it manually using the FS Base Folder "Select" button before installation can proceed. If you plan to install for both FS9 and FSX, perform a separate procedure for each.

- (d) Select the type of installation (New Installation, Update Existing Version of CYYJ or Update Victoria+ FSX.) If you select New Installation, the installer “recommends” *Addon Scenery\CYYJ (2011)* as the installation folder. However, you may install to any folder. If updating an earlier version of CYYJ, the installer scans the *Addon Scenery* folder in an attempt to locate any previously installed versions. (The scan may take a few seconds, depending on the number of installed add-ons on your system.) If the installer finds more than one previous installation, it will present each in turn asking if that is the version you wish to update. When you select Update Victoria+ FSX, the installer attempts to locate a version in the *FSX\FSAddon* folder that includes CYYJ. If you installed Victoria+ FSX elsewhere, you must locate it manually and enter that location into the Install Folder.
- (e) Revise the Optional Scenery and Static Aircraft selections as you wish. Details for each optional item will be found in Section 4 of this manual.
- (f) Select the add-on(s) with which you want CYYJ to be compatible. If you plan to use CYYJ with:
 - only one compatible add-on, select the checkbox for the add-on, or
 - several compatible add-ons (at different times), select Compatibility: Multiple and check the relevant add-ons. (Please note, these compatibility files must be independently enabled in the Scenery Library. Please refer to Section 7, RECONFIGURATION AND CUSTOMIZATION. The installer will, however, create the corresponding Scenery Library entries for you if Update Scenery Library is checked.)

If you do nothing, CYYJ will be installed compatible with the default Flight Simulator.

- (g) If you wish to install the custom AI, check the desired categories:
 - GA - a selection of “biz-jets” that will park at the Aerocenter
 - Military – military aircraft seen at CYYJ that park on the 443 Sqn apron
 - Courier – representative AI in the livery of couriers who have facilities at CYYJ
 - VFC - (Victoria Flying Club) – if you own the HTAI Single-Prop Cessna package, 5-C152s and 7- C172 painted like their real counterparts. Otherwise, 5-C172s (freeware) in a variety of paint schemes are shown. Check the applicable TNG checkbox(s) if you want these AI to perform touch-‘n-gos. This selection is disabled if you have chosen to install the VFC Cessnas static aircraft.

The installer will display the path to the base aircraft folder in the textbox labelled Install Aircraft in. If that’s not where you want the aircraft installed, feel free to update it (but, for FSX, if you do, ensure there is a FSX.cfg entry for the destination folder so FSX can “see” the AI). If you do not want the AI aircraft to be installed, leave Install Aircraft in unchecked.

The AI traffic files are saved to *CYYJ\scenery*. You may move them to *Scenery\World\scenery* or elsewhere as you wish.

- (h) If you intend to use VIVA Base in association with CYYJ, check the Install checkbox for VIVA Base, click the Select button or enter the path to the VIVA base add-on folder and check the applicable version of VIVA Base. If you don’t already have it, you should install the VIVA Base add-on before CYYJ; otherwise, you’ll have to manually delete files from the add-on (see Section 7, VIVA Base).
- (i) To have the installer create a Scenery Library entry for the installation, check Update Scenery Library and enter or edit the name in the Name textbox. If, for some reason you do not wish a backup file of the Scenery Library to be made, uncheck Backup Scenery Library.

When all selections have been made, click the “Install” button. The installer will ask you to confirm the installation folder and compatibility selections, whereupon it will install and configure CYYJ accordingly. Should you change your mind about an option or wish to change any aspect of the installation, simply select the desired new parameter and click the “Install” button again.

When finished, close the dialog. If you have checked the Delete Temporary files checkbox, all the temporary files will be permanently deleted without putting them in your Recycle Bin.

If the installer encountered difficulties and was unable to fully restore a previous installation, a folder named *CYYJInstall_bak* will also remain in the installation folder. In that folder is a copy of the installation folder prior to the installer being run.

Manual Installation - Users who do not wish to use the automatic process or who otherwise have difficulty in using the installer may manually install and configure standalone CYYJ as follows. It is recommended you not attempt manual updating of CYYJ in Victoria+ FSX, since a number of files must be removed depending on the currently-installed version of CYYJ.)

- (a) For a new installation, create a top-folder called *CYYJ* or another name of your choice in your Flight Simulator's *Addon Scenery* folder or elsewhere. If upgrading from an earlier version of CYYJ, delete everything in the old CYYJ top-folder except any traffic files you wish to save and the VIVA Base add-on should it be installed in a subfolder there. The traffic files should be moved elsewhere temporarily.
- (b) Create a subfolder named *CYYJ* in the CYYJ top folder. Copy into it the *lscenery* and *ltexture* subfolders from the temporary *FS9* or *FSX* folder, as applicable. Most optional scenery items and static aircraft will be active. If you wish to change the default complement, please refer to Section 4.
- (c) Copy the *Compatibility Files* folder from the temporary *FS9* or *FSX* folder, as applicable, to the CYYJ top-folder. If you plan to use CYYJ with only one compatible add-on, copy the files from the *lscenery* subfolder from the relevant *Compatibility Files\Enable for ...* folder(s) into the *CYYJ\lscenery* folder. If you don't have any of the compatible add-ons, copy the files from *Enable for Default_FS-lscenery*. Otherwise, please refer to Sections 7, RECONFIGURATION AND CUSTOMIZATION.
- (d) For FS9 only, copy the *CYYJ Landclass* folder to the installation folder.
- (e) Copy the contents of the *Effects* folder to your FS9 or FSX *Effects* folder as applicable.
- (f) If you saved any AI traffic files as noted above, they may now be copied back to the *CYYJ\lscenery* folder.
- (g) If AI is to be installed, copy:
 - the desired aircraft folders from the *AI\Aircraft* to the desired MSFS aircraft folder, and
 - the necessary traffic files from the applicable temporary *AI\Traffic Files* folder to either the *CYYJ\lscenery* subfolder or another dedicated add-on *lscenery* folder. Copy only one or the other of the “*VFC-Def-172 ...*” and the “*VFC-HTAI-172 ...*” traffic files. For VFC-based AI, you may select either static or touch-'n-go traffic. The file names of the latter include “*_tng*”. Do not use both versions simultaneously.
- (h) Installation of VIVA Base, if desired, is covered in Section 7.

Folder Configuration – Following proper installation of CYYJ, the following sub-folders/files will exist in the “installation folder”, i.e., *CYYJ* – or whatever you choose to call it:

- *CYYJ* – the main scenery folder, containing the usual *lscenery* and *ltexture* subfolders,

- *CYYJ Landscape* (FS9 only) – containing a *lscenery* subfolder which holds a single landclass tile (use is optional),
- *Compatibility Files* – containing the files that allow the features of CYYJ to integrate seamlessly with other add-ons that control the "environment" collected into a series of sub-folders entitled *Enable for ...* ,
- *AI* – containing the compiled traffic files for all the AI - whether or not installed,
- *Update Checker* - containing the Update Checker application and associated files,
- *Mipmap Manager* - containing the Mipmap Manager utility and associated files,.
- *halo.bmp* - a file to adjust the size of airfield light "dots" (see Section 7),
- *EULA.txt* - the end user license agreement, and
- a .pdf version of this user manual.

You may move *Update Checker* and *Mipmap Manager* anywhere convenient.

Any other files/folders/subfolders existing after an update of a previously-installed standalone version of CYYJ belong to that previously-installed version and are no longer required.

Mipmap Manager - Mipmap Manager is a utility to add or remove mipmaps from a set of textures. It is a VB NET.Framework 3.5 application. (If NET.Framework 3.5 is not already installed on your computer, the "redistributable" can be downloaded from the Microsoft website at no charge.) Mipmap Manager does not affect the system registry. Nonetheless, Vista and Windows 7 users may need to run as administrator to use it. Mipmap Manager uses Martin Wright's *mwgfx.dll* and *mwdds.dll*, which are the same files required by DXTbmp and other of Martin's utilities. (If you have not previously installed these.dlls, you may obtain them at no charge from <http://mnwright.btinternet.co.uk>.)

The operation of Mipmap Manager is straightforward. Execute *Mipmap Manager.exe*. Specify the source folder (i.e., the folder where the textures to be processed reside), either check Update Source Folder or specify a destination folder, indicate whether mipmaps are to be added or deleted and click Process Textures. If you wish to process only a single file or a subset of the files in the source folder, also specify a mask (using standard Windows wildcard characters) to define the file(s) of interest.

Update Checker - To check for updates for CYYJ at any time, simply run *CheckForUpdate_CYYJ.exe* from the *Update Checker* folder. Each update will include a new version of the file *Version_CYYJ.txt* which should replace the previous *Version_CYYJ.txt* following installation of that update.

Uninstalling CYYJ - The installer only installs the files as noted above. It does not write to the Windows Registry or anywhere else. To uninstall CYYJ, simply delete the CYYJ folder from the Flight Simulator *Addon Scenery* folder (or wherever else you installed it).

Car Spinning on Front Bumper - One of the standard Rwy12 libraries contains three demo files named *ExtraObjects_demo.bgl*, *ExtraObjects_demo_A16N.bgl* and *ExtraObjects_demo_FS9.bgl* which display a large number of vehicles (including one car spinning on its front bumper) and other objects in the area just east of the CYYJ main terminal. This demo serves no useful purpose. CYYJ excludes all objects in this area.

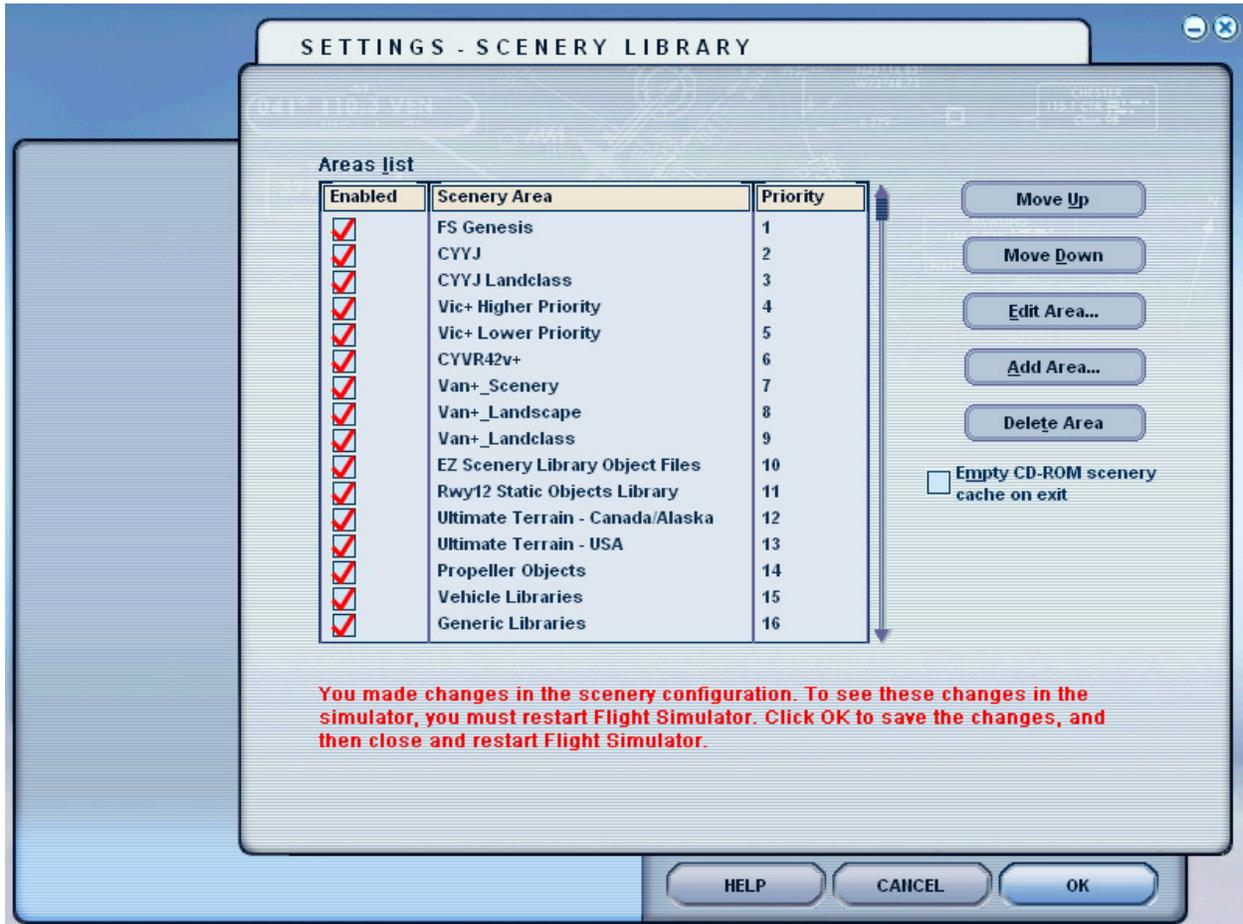
However, certain other add-ons incorporate a library containing these files including, reportedly, VOZ and Southern California Scenery Enhancements v2.0. CYYJ must be of higher priority in the Scenery Library than such add-ons, otherwise this nuisance scenery will not be excluded.

Alternately, you should locate and delete these troublesome files from those libraries since they are unlikely to be of any use.

Replacement of AI Aircraft with Static Models - To conserve disk space, you may wish to delete the following aircraft used by previous versions of CYYJ (if you installed them) but no longer required:

- CAF-AI_CH-146 (Static)
- CAF-AI_CH124 SeaKing (Static)
- CYYJ-AI_Douglas A26 Invader (Static)
- CYYJ-AI_Sikorsky s55 (Static)
- CYYJ-AI_Super DC-3 (Static)
- CYYJ-AI_T33 Silver Star (Static)
- CYYJ-AI_Vickers Viscount (Static)

With the exception of the 737 which is no longer in the CYYJ custom AI scenario, these previously-static AI aircraft have all been replaced with more efficient scenery models (courtesy of SAMM).



Recommended Scenery Library Configuration

3. SCENERY LIBRARY

Add to your Scenery Library the folder *CYYJ (2011)\CYYJ* (if necessary) and, for FS9 only, if desired, *Landclass*, and enable this/these entries. (If you're happy with your current FS9 landclass or you use Victoria+ for FS9, you don't need *CYYJ Landclass*. But, if you keep it, it must remain separate from the rest of the CYYJ scenery in a folder without a *texture* subfolder.)

The recommended Scenery Library configuration for FS9/FS2004 is shown above. The FSX Scenery Library configuration should be similar.

The CYYJ Scenery Library entry(ies) **must** be placed above those for Victoria+ and Vancouver+ if either is installed. You must also place them above any entries for Ultimate Terrain, ORBX FTX NW or any other scenery that includes terrain, roads and/or shorelines. If you have other Victoria-area add-ons, their position in the Scenery Library relative to CYYJ will depend on what they do. Please refer their documentation. In general, unless they are intended to affect CYYJ specifically, they should be of lower priority than, i.e., be below, CYYJ.

4. OPTIONAL SCENERY

Whether or not you use the automatic installer, all optional scenery and associated textures are installed. (The automatic installer simply deactivates unselected items.) This allows you to fully explore the optional scenery without having to install anything else.

Earlier versions of CYYJ made use of Flight Simulator's scenery density settings to configure optional scenery. This version enables all scenery at the NORMAL setting.

FPS impact is controlled by activating or not the various optional scenery placement files and, in some cases, also disabling a companion file. Generally, optional features are deactivated by disabling (suffixing the filename and extension with ".xxx".) or deleting the files which place them. Except where otherwise noted, all files to be enabled or disabled are in the folder *CYYJ\scenery*. To save storage and reduce load time, the noted textures may be deleted. However, unless your computer is very anemic, you'll probably want to keep most or all the optional scenery.

Airfield Lighting (Custom) - Each runway and taxiway edge light and approach light is individually simulated; the light fixtures are modeled (including support structures for approach lights) as are PAPI and wig-wag housings. This adds a good deal of realism, but also some overhead. In low visibility conditions, custom lighting may be turned on by selecting transponder code 0066. (Enable *ADE_CYYJ_nnn_Custom_FSx.bgl* and disable *ADE_CYYJ_nnn_Stock_FSx.bgl*.)

Animated Gates in Fences (FS9 only) - The six static gates in the base fence and the two in the perimeter fence operate when the "user aircraft" (which may be simulating a road vehicle) comes within about 100m (~325') of the gate. (Enable *obj_Fence-Gates (Operating).bgl*; disable *obj_Fence-Gates.bgl*.)

Animated Jetways (FSX Only) - The four jetways at the main terminal are animated. The jetway heads will connect to user aircraft following entry of Ctrl-J from the keyboard and automatically to AI whose *aircraft.cfg* file contains a specification of the main door coordinates in the *[exits]* section. (Enable *obj_Jetways_Animated.bgl* and disable *obj_Jetways_Static.bgl*.)

Airport Vehicles - Shell and Esso fuel trucks parked at their respective depots and several fire/crash trucks and the Fire Chief's van parked at the Ops center. (Enable *obj_AirportVehicles*

(R7-R8).bgl and *obj_AirportVehicles (wo R7-R8).bgl.*) Textures whose names begin with "vehicle_" or "fuel_truck_" are used only by this scenery.

Cars/Trucks - A selection of vehicles parked (sparsely) in various parking lots. (Enable/disable *obj_Cars-Trucks.bgl.*) Textures whose names begin with "car_" or "truck_" are used only by this scenery.

Ground Handling Equipment - A selection of baggage handling equipment, APU carts, etc on the main terminal apron. (Enable *obj_GroundHandling_x.bgl.*)

Full Perimeter Fencing - FenceBuilder Pro fencing from the slope just east of VI Helicopters hangar/workshop around the east, north and west boundaries of the airport and terminating near the Airside Operations Center. (Perimeter fencing for the remainder of the airport is a standard feature.) (Enable *obj_Fence_Gates_Perimeter.bgl.*)

People - Pedestrians near the main terminal. (Enable *obj_People.bgl.*) The textures *peeps01* and *peeps02* are used only by this scenery.

Static Aircraft - CYYJ includes several collections of static aircraft:

- Vintage Aircraft at Museum - aircraft on outdoor display at the BC Aviation Museum and a Baron parked in a hangar in East Camp (enable *sa_Museum and Baron.bgl*),
- Helicopters (433 Sqn & VIH) - Sea Kings and Griffon helicopters on 433 Squadron ramps and a AS350 and Bell 205 in VIH livery beside VIH hangars (enable *sa_Helicopters.bgl*),
- Cessnas at VFC - nine Cessna 152s and 172 in their actual colors on the ramp in front of the Victoria Flying (enable *sa_VFC Cessnas.bgl*), and
- other Static Aircraft - several other small private aircraft at the Victoria Flying Club and near the Pacific Sky hangars (*obj_StaticAircraft.bgl*).

The textures used by the first three categories are in dedicated sub-folders in the *CYYJ\texture* folder. The textures for the last category all begin with "sk_" or "static".

5. MESH/TERRAIN/TMVL SETTING

For FS9, Victoria+ includes 19m. mesh that covers the CYYJ area. If you don't have Victoria+, you may obtain the Vancouver Island portion of FS Genesis' Cordillera Canada 38 m. mesh at no charge from http://files.fsgenesis.net/freefiles/dem38m_can_vancouver.zip. (Victoria+ must be enabled in your Scenery Library for its mesh to be used.) The standalone version of CYYJ for FSX includes 19m. mesh for the northern portion of the Saanich peninsula; you may, however, see a small discontinuity in terrain elevation across the peninsula a couple of miles north and south of the airport. Victoria+ FSX includes a high-resolution mesh.

With FS9, if you use 38m. mesh, you should set the *fs9.cfg* TERRAIN_MAX_VERTEX_LEVEL (TMVL) entry to 20. If either Victoria+ or Vancouver+ is installed or other 19m. mesh for the general area is used, set TMVL to 21. (The default setting is 19.) CYYJ will run irrespective of which TMVL setting you use. However, unless you use the recommended setting, the terrain profiles - especially on the approaches to Runways 09 and 31 and around the CCGS complex - may not be very realistic. (In Windows XP, *fs9.cfg* is located in the folder *C:\Documents and Settings\<user name>\Application Data\Microsoft\FS9*. In Vista and Windows 7, it's at *C:\Users\<user name>\AppData\Roaming\Microsoft\FS9*. To change TERRAIN_MAX_VERTEX_LEVEL, **close FS9** and,

- locate *fs9.cfg* and open it with Notepad or another text editor,
- find the section named [TERRAIN],
- change the TERRAIN_MAX_VERTEX_LEVEL setting as appropriate,
- save the file, and
- restart FS9.)

For FSX, all terrain controls are available under “Settings”.

If you do use FS Genesis' or any other medium-resolution third-party mesh, you should include an entry for it at the top of your Scenery Library, i.e., at the highest priority. This will ensure it is automatically replaced by any higher-resolution mesh covering that area that might also be loaded as part of an add-on (such as the 19m mesh in Victoria+ or Vancouver+).

As well, CYYJ for both FS9 and FSX includes a custom flattening file that "sculpts" the airfield in a realistic manner. But it too is subject to your terrain resolution - the higher in FS9 (but not so high as to generate artifacts) and the lower in FSX, the better.

6. LIBRARY-BASED SCENERY / STATIC DISPLAYS

CYYJ uses library-based scenery for ground and baggage handling equipment, vehicles, certain airfield facilities and some of its static aircraft. In addition to Flight Simulator's generic libraries, these static-display objects come from the following third-party libraries:

- *add_SeevKahn.bgl*, contained in *rwyl2_lib1_v1.2.zip*, by Seev Kahn (also available in EZ_Scenery format under the filename *ga_planes-01.zip*),
- *206B.bgl* and *500D.bg*, contained in *rwyl2_lib1_v1.2.zip*, by Chris O'Donnell and M. Allen Richards,
- *FinneyGround_VERT_GSE.bgl*, contained in *fg_vert_gse.zip*, by Robert Finnegan and Gary Mills,
- *gw_People*, contained in *rwyl2_lib2_v1.2.zip*, by Geoff Williams and Martin Strong,
- *extra_objects.bgl*, contained in *rwyl2_lib3_v1.2.zip*, by Lars Hoyer and Irvin McIntyre, and
- *Agex_XTrees_lib9_2.zip* and *GGv3_XTrees_lib9_0.zip* by GianP, with a single texture file from Gerrish Gray's *trees_v3.zip* (FS9 version only).

With the permission of their authors or under the terms of the respective license, all the required models and textures from these libraries are incorporated in CYYJ, so you need not have those libraries installed on your system. (But, no problem if you do.) The resolution of many of the associated textures have also been reduced to improve performance. Thanks to the various library providers for allowing this.

7. RECONFIGURATION AND CUSTOMIZATION

Management of add-on compatibility files - Compatibility files may be used in either of two ways:

- If you always use CYYJ with the same set of compatible add-ons, the simplest way to configure the necessary compatibility files is to copy the files from the relevant CYYJ (2011)\Compatibility Files\Enable for ...\scenery into the CYYJ\scenery folder. If you are using FS9 and either but not both BC Roads and EVI Shorelines, you will also need to copy the default shorelines or roads file, respectively from *Enable for Default_FS9\scenery*. This is the same as using the Compatibility: Single mode during installation.
- However, if you want the ability to quickly reconfigure compatibility for various add-ons (e.g., sometimes you'll have UTX Canada enabled and at other times you'll want to be compatible with Orbx's FTX PNW), you should not copy anything into the CYYJ\Scenery folder and,

instead, create a Scenery Library entry for each *Enable for ...* subfolder of interest in *CYYJ (2011)/Compatibility Files*. These entries may be enabled or disabled as necessary depending on the particular add-ons in use at the time. This is sometimes referred to as the “Scenery Library method” of compatibility. For FS9, the priority of these Scenery Library entries is unimportant. For FSX, the *Enable for ...* folder(s) **must be of lower priority than CYYJ**.

If you plan to switch to the “Scenery Library method” to manage add-on, it will be necessary for you to delete from your *\CYYJ\scenery* folder any files named:

for FS9: *0_CYYJ_Roads (...)_VTPX.BGL*
0_CYYJ_Shoreline (...)_VTPX.BGL
CYYJ_Roads (...)_VPTL.bgl
CYYJ_Shoreline (...)_LWM2.BGL
CYYJ_Shoreline (...)_VTPL.BGL

for FSX: *CVX_CYYJ_Base (...).BGL*
CVX_CYYJ_Roads (...).BGL
CVX_CYYJ_Shoreline (...).BGL

where (...) is the name of the (abbreviated name of the) add-on to which they apply.

VIVA Base – VIVA Base utilizes the previously-vacant northeast corner of the airport lands. This area is gradually becoming industrial park which is represented in the base CYYJ (but excluded when VIVA Base is installed). Both versions of VIVA Base are supported. The VIVA Base add-on itself must be installed in its own folder - which may be a dedicated subfolder in CYYJ. If you are performing a manual install of CYYJ or adding the VIVA Base add-on at a later date, delete from the VIVA Base add-on *\scenery* subfolder any “afcad”, including:

- the original “afcad” (probably named *AF2_CYYJ.bgl* or *AF2_VIVA.bgl*), and
- the VIVA Base afd from CYYJ (2008) or any earlier version (if present, it will be named *ADE_CYYJ (Viva Base-...).bgl*).

The VIVA Base compatibility files are installed in the *VIVA Base\scenery* subfolder, not *CYYJ\scenery*. If a separate Scenery Library doesn’t exist for this folder, create one, placing it above (i.e., higher priority than) CYYJ. When installing either VIVA Base, only one of the two ADE files placed in the *VIVA Base\scenery* folder should be enabled at a time. (See OPTIONAL SCENERY, Airfield Lighting (Custom). As well, to clear the VIVA Base apron, you should disable or delete the files *obj_NECorner.bgl* and *FBP_Fence_Perimeter_FSn.bgl* in/from *CYYJ\scenery*.

Textures - Supplied textures for the scenery are mipmapped. However, the textures for the static aircraft models are not. In some instances where two scenery add-ons are in close geographic proximity, undesirable effects have been reported if one uses mip-maps and the other does not. As well, some users may simply prefer textures without mipmaps. Mipmaps can be added to/removed from some or all the textures using the supplied utility Mipmaps Manager. Instructions for its use can be found in the Installation section of this manual.

Fuel Triggers - The whole of the main terminal apron, the apron at the Aerocenter and the small apron north of the fuel station at Victoria Flying Club are fuel-trigger areas. MSFS does not permit user aircraft doors to remain open in fuel trigger areas. If you want your aircraft automatically refuelled, enable *obj_FuelTriggers.bgl*. If you want to leave the user a/c doors open while parked in these areas, disable *obj_(Opt)_FuelTriggers.bgl* (but keep an eye on your fuel gauge).

Hangar 11 and Nearby Shed - At time of this release, Hangar 11 was still standing. However, reportedly it is to be demolished. Therefore, Hangar 11 has its own placement file, *obj_EastCamp_Hgr11.bgl* - enabling you to demolish it as well (by deleting that file). In the same area, there is a large pre-fab aluminum shed that may be moved once Hangar 11 is demolished. This shed is placed by the file, *obj_EastCamp_VikingShed.bgl*. If it is moved, you may either remove it by deleting this file from the *CYYJ\scenery* subfolder or, should you feel so inclined, decompile the file, relocate the shed and re-compile the file.

Airfield Light Size - Some (including me) think the stock lights used to represent taxiway and runway lights in both FS9 and FSX are too big. The CYYJ archive includes a file (*halo.bmp*) that will reduce the size of those lights. Please note, however, using this file will affect the lights at all airports, not just CYYJ. If you want to try it, copy this file to your *FSn\texture* folder - after backing-up the current *halo.bmp* so you can easily revert to the original if necessary. (I obtained the file from an attachment to a fsDeveloper.com post. Unfortunately, I have been unable to find that post again in order to give proper credit. So, thank you, whoever you are.)

Other Customization - The design of CYYJ is highly partitioned. All "standard" scenery is compiled into a single library file - one for FS9, another for FSX, and placed using regional .bgl files with names such as *obj_NorthCamp.bgl*. The .bgl files whose names start with *gp_* are ground polys at the indicated priorities. Their filenames suggest their location. Ground illumination for FS9 night flying is contained in the files named *gi_bgl* - one for each lighted building. The application of each file is usually apparent from its name. For FSX, ground illumination is included with the relevant model.

Several areas of the CYYJ design required significant compromise. Generally, these compromises are "hard-wired" and not adjustable by users. One that is, however, and that will be of interest to night flyers is the size of the obstruction lights. In order for the obstruction lights to be seen at a realistic distance, they had to be very large – appearing quite artificial close-up. Making them of a size that looked reasonable (to me) close-up significantly limited their visible range. If you don't like my choice of light diameter (1.5m), feel free to adjust it by changing the *X Scale* and *Y Scale* values under the header *[Particle.0]* in the included effects file *fx_ObsLight_CYYJ.fx*. (Note: the new value must be entered twice, separated by a comma.) You should back-up the file before changing it.

Some users may be tempted to modify the airport definition files (*ADE_CYYJ_50_....bgl*). I strongly recommend against that since, regardless of your skill level, any changes you make will have to be re-done if they are to be used with any future versions of CYYJ. Instead, unless you must change the runway/taxiway/apron configuration (I can't image why you'd need to), implement your changes as a separate add-on, placed above CYYJ in the Scenery Library.

8. AI AND STATIC AIRCRAFT

Previous versions of CYYJ contained both operating and static AI. In this version, all the static AI has been replaced with static scenery models generated by Static Aircraft Model Maker (SAMM) by the author. As noted in the installation section, the aircraft files associated with this static AI may be removed.

The operating AI is unchanged from the previous version of CYYJ, except for the re-instatement (in the GA package) of the Thompson family B737-500 which once again uses CYYJ as its base.

Please see Appendix “A” for details of the individual aircraft.

For the apron in front of the Victoria Flying Club, you have a choice of either static models (*sa_VFC Cessnas.bgl*) or AI. If you choose the static models, please recognize that the parking for AI is still there. So, even though it will be the last to be assigned, if you have a lot of small GA AI active, you may find some of them competing with the static models for parking.

If you want to remain with AI and own the HTAI Cessna Single Props package (unfortunately, no longer available), all twelve of the Victoria Flying Club Cessna 152s and 172s in accurate repaints will be parked on the apron. If you don't have that package, default C172s will be substituted. If you wish, these aircraft will do touch-and-gos for three one-hour periods each day - one aircraft in each period. At other times, they are in static display.

General aviation aircraft include several small-to-medium-size corporate jets parking at the Aerocenter, a couple of Mooneys which park near VFC and the Thompson family jet. The bizjets are always active, the Mooneys show up at an activity level of 30% and the Thompson jet at 60%. The Courier package contains two variations of the Purolator B727s and a Cessna 208 in FedEx colors that visit visit daily. With the Military package, the apron in front of the 443 Maritime Squadron hangar will, at an activity level of 30%, feature one or more of: C-130E Hercules, CC-150 Polaris, CC-115 Buffalo, a CP-140 Aurora, CC-177 GlobeMaster and a pair of CF-18 Hornets.

Except for the Thompson jet which is effectively stationary, the AI arrives in the morning - the bizjets from Vancouver, Calgary and other major western airports, the military aircraft from Comox - stick around for the rest of that day, or perhaps a day or two, and then depart.

Most of the included AI and static aircraft and many of the texture files are proprietary to others (who have given me permission, either expressly or through compliance with their licenses, to redistribute those files). Those other authors are acknowledged, with my thanks, in Appendix “A”. A special thanks also to David “Opa” Marshall who spent many hours watching AI land, taxi and take-off to make sure I'd “done it right” and to Rob Nieuwenhoven who customized his SH-3 Sea King model to better represent the Canadian Forces CH-124 Sea King.

The corresponding compiled traffic files are in *CYYJAI\Traffic Files*.

Mixed FS9/FSX Traffic Files - FSX Traffic_xxx.bgl files have a different format from their FS9 counterparts. FSX will accept either FS9- or FSX-format files, but not a mix. If there is a FS9-format Traffic_xxx.bgl in any enabled add-on, all FSX-format Traffic_xxx.bgl files will be ignored.

You will often find that traffic files in add-ons designated for use with FSX are actually in FS9 format. In particular, at time of writing, traffic files installed directly from packages from MAIW and WoAI are in FS9 format – even if you select the FSX installer option. These must be converted to FSX format prior to use with FSX if you want any other FSX traffic to be displayed.

BC Regional AI (another popular add-on by this author) traffic files that are intended for FSX are in FSX format. If you are using FSX and the BC Regional AI still does not display, chances are you've got a FS9-format *Traffic_xxx.bgl* file somewhere that FSX is “seeing”. That/those files must be found and either deleted/disabled or converted to FSX format.

AI Flight Planner (AIFP), by this author, will perform any necessary conversions and may be used to edit the flight plans/traffic files to suit your specific needs. AI Flight Planner is available from Avsim, Flightsim and elsewhere.

HTAI Models - Due to HTAI licensing restrictions, the data provided for HTAI aircraft is limited to the AI-portion of the aircraft.cfg file. So, if you use the AI from the HTAI Cessna Single Prop aircraft package, you will need to complete the corresponding CYYJ aircraft folders as follows:

- (a) From the HTAI Cessna Single Prop aircraft package *Aircraft\HTAI Cessna 152* folder, copy the sub-folder *Model* and the files *aircraft.cfg* and *HTAI Cessna 152.air* into the *CYYJ-AI_Cessna 152 (HTAI)* folder.
- (b) Similarly, from the HTAI Cessna Single Prop aircraft package *Aircraft\HTAI Cessna 172 Skyhawk* folder copy the *Model* and *Model.wheel_pants* folders and the files *aircraft.cfg* and *HTAI Cessna 172 Skyhawk.air* into the *CYYJ-AI_Cessna 172 (HTAI)* folders
- (c) In the *aircraft.cfg* files copied in the previous steps, delete all the sections headed by *[fltsim.n]* (i.e. everything beginning with the *[fltsim.n]* header down to but not including the next section header, i.e., *[General]*) from. Replace the deleted sections with the contents of the corresponding *CYYJ-AI_aircraft.cfg* file.
- (d) If you have both FS9 and FSX, copy the newly-completed *CYYJ-AI_C152 (HTAI)* and *CYYJ-AI_C172 (HTAI)* folders into the *Aircraft* or *SimObjects\Airplanes* folder, as applicable, of the other version, overwriting the folders of the same name.

Naming of AI - All the AI aircraft provided in CYYJ have titles that are prefaced with, and are stored in folders whose name starts with "CAF-AI" or "CYYJ-AI". Hence, there should be no conflict with any aircraft already in, or that you may add, to your "stable". None of them will appear in your Select Aircraft list.

9. IDIOSYNCRACIES / KNOWN ISSUES

Design/performance considerations dictated the following intentional omissions or operating idiosyncracies in CYYJ:

- Lamp standards for streetlights, for the floodlights at the fuel tank farm or for the vehicle parking illumination in the main terminal parking lot have not been modeled. I felt that the FPS impact of including realistic models for these lamp standards would far outweigh the marginal benefit of the extra scenery in the daytime.
- There is a significant discontinuity in ground elevation in the CCGS area in Pat Bay along the eastern edge of the large paved area. This is unavoidable, being required to minimize flickering/shimmering of the very large ground poly in the area.
- As at the real CYYJ, most AI aircraft parking is "drive-through", implemented using two invisible, overlay taxiway networks - one for arriving traffic, the other for departures. Consequently, even though arriving and departing AI traffic in close proximity may appear to be on the same taxiway and you would expect one to give way, they are not on the same taxiway as far as MSFS is concerned. Hence, they may appear to collide. This is the price for drive-through parking.

10. SUPPORT

CYYJ is freeware. Hence, support will be limited. Nonetheless, I would like to be made aware of any problems you discover in CYYJ and will make reasonable effort to respond. As well, I welcome your comments suggestions for improvements and, where warranted, your criticisms.

The website <http://members.shaw.ca/cyyj4fs> is the primary mechanism for delivering support for CYYJ. Among other things, it documents known problems with the most current release and, where available, provides workarounds and patches. Please check the site before reporting any problems or suggesting new features.

11. ACKNOWLEDGEMENTS

In addition to the library authors already mentioned and the aircraft designers, thanks (in no particular order) to Lee Swordy for AFACD 2.21 and TTools, Luis Sa for SBuilder and SBuilderX, Jim Keir for LWM Viewer, Jon Masterson for ADE, Jim Vile for his advice on many aspects of airport design, Tom Hiscox for SceneGenX, Martin Wright for DTXBmp, Arno Gerretsen for MDL Tweaker, CAT and for the animated windsocks, Richard Ludowise for TCalc and TCalcX and his excellent LWM Tutorial, and Jon Masterson and Christian Stock for their SBuilder and TMF tutorials – all of which were used in the development of CYYJ.

Thanks also to British Columbia's Capital Regional District for their CRD Natural Areas Atlas website from which I accessed the high-resolution air photos, to the District of North Saanich who provided me with ground elevation data, to the Victoria Airport Authority who provided me detailed airport information and allowed me airside access for photos, and lastly to Jon Patch and Holger Sandmann. Jon contributed the Pat Bay jetty/breakwater complex to the project, and both were a valuable source of guidance and inspiration.

Enjoy,
Don Grovestine

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Website: <http://members.shaw.ca/cyyj4fs>

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APPENDIX A – CYYJ AI and STATIC AIRCRAFT

The following table identifies the aircraft used in the CYYJ AI and static aircraft scheme. Most of these files are proprietary to others. They are included as CYYJ Custom AI with the permission of their authors and are provided solely as a convenience to users. Under no circumstances are these files to be decompiled or reverse engineered, or uploaded to any file distribution system except as expressly permitted by their authors. Terms of distribution for these files may be found in the “readme.txt” files included in noted archives (.zip file).

Aircraft Type	AI Title (prefixed by "CYYJ-AI" except where noted "CAF-AI")	M	T	Archive File	Available From	Author(s)	.mdl Radius (m.)	aircraft.cfg Wingspan (ft.)
AS 350	N/A - SAMM scenery model	x	x	nd_fs9as350.exe	Nemethdesigns.com	Tamas & Peter Nemeth Don Grovestine	n/a	n/a
Bell 205	N/A - SAMM scenery model	x	x	Huey_FS2004.exe	hovercontrol.com	Jordan Moore Don Grovestine		
Boeing 727-200	Boeing 727-200 Purolator- <i>n</i>	x	x	aia722p2.zip CYYJ	ai-aardvark.com	David Rawlins Don Grovestine	18* (26)	115* (108)
Boeing 737-500	Boeing 737-500 (C-FPHS)	x	x	aia735bl.zip CYYJ	ai-aardvark.com	David Rawlins Don Grovestine	17* (20)	100* (94.75)
Bombardier CL-604	Challenger CL-604-1 Challenger CL-604-2 Challenger CL-604-3 Challenger CL-604-4	x	x	corporate_challenger_c-fund.zip corporate_challenger_c-gawh.zip corporate_challenger_c-gdpf.zip corporate_challenger_c-gwll.zip ai_cl601.zip (drag scalars reduced to 0.65 to eliminate porpoising)	avsim.com avsim.com avsim.com avsim.com	Hrvoje Kovacevic Gregory Putz Gregory Putz Gregory Putz	10* (13)	64.4
Canadair T-33	N/A - SAMM scenery model	x	x	T-33A.zip CYYJ	avsim.com	Tim Conrad Don Grovestine	n/a	n/a
CC-115 Buffalo	CAF-AI CC-115 Buffalo	x	x	comox042.zip (comment out station_load.2 in .cfg)	avsim.com	Vern Opperman	16	96.0
CC-177 GlobeMaster	CAF-AI CC-117 GlobeMaster	x	x	sc17.zip eddy27.zip	flightsim.com	Mike Stone Ed DesRoches Brent Robillard	51*	165.0
CC-150 Polaris	CAF-AI CC-150 Polaris	x	x	ai_airbus_complete_120685.zip canforce_a310.zip	avsim.com avsim.com	FS Painter AI Percy	25* (32)	144.0
Cessna 152	VFC C152 (C-FLDB) VFC C152 (C-GUZR) VFC C152 (C-GZSC) VFC C152 (C-GIMH) VFC C152 (C-GJTM)	o	x	htaicsep12.exe All textures CYYJ	htaimodels.com	Henry Tomkiewicz Don Grovestine	7	36.1

Cessna 172 FS9 only	VFC C172 (C-GGSN)	o	x	htaicsep12.exe	htaimodels.com	Henry Tomkiewicz Don Grovestine	7	36.1
	VFC C172 (C-GTQQ)							
	VFC C172 (C-GPFW)							
	VFC C172 (C-FMEK)							
	VFC C172 (C-GKMY)							
	VFC C172 (C-GZXP)							
VFC C172 (C-GLJR)								
VFC C172 (C-GGSN)	x	x	c172_blue&yellow.zip	avsim.com	Gunes Karatepe Gunes Karatepe Gunes Karatepe Gunes Karatepe Gunes Karatepe			
VFC C172 (C-GTQQ)			c172_burgundy_gold.zip	avsim.com				
VFC C172 (C-GPFW)			c172_green.zip	avsim.com				
VFC C172 (C-FMEK)			c172_red.zip	avsim.com				
VFC C172 (C-GKMY)			c172sp_navy_charcoal_nr.zip	avsim.com				
Cessna 208B	Cessna 208B-CP Fedex	x	x	ai_cessna_c208b_grand_caravan.zip aic208fe.zip	htaimodels.com avsim.com	Henry Tomkiewicz Tony Fosler	8	52.1
Cessna Citation II	Cessna Citation-1 Cessna Citation-2 Cessna Citation-3	x	x	ultimate_citation550_ai.zip aicitii.zip	avsim.com	Dee Waldron Michael Carr	8* (11)	52.2
CH-124_Sea King	N/A - SAMM scenery model	x	x	AI_SH-3D.zip CYYJ	militaryaiworks.com	Rob Nieuwenhoven Don Grovestine	n/a	n/a
CH-146 Griffon	N/A - SAMM scenery model	x	x	Hovercontrol_412_PE_v1.exe griffon_146438.zip	hovercontrol.com avsim.com	Jordan Moore Rob Pracic	n/a	n/a
CF-18 Hornet	CAF-AI CF-18 Hornet	x		caf_ai.zip	avsim.com	Mikko Maliniemi & Kari Virtanen Brian Burger	10	37.5
			x					
CP-140 Aurora	CAF-AI CP-140 Aurora	x	x	comox042.zip	avsim.com	Vern Opperman	16	99.6
Douglas A26 Invader	N/A - SAMM scenery model	x	x	a26-soh.zip a26bms.zip	sim-outhouse.com sim-outhouse.com	Milton Shupe Damian Radice	n/a	n/a
Super DC-3 (Static)	N/A - SAMM scenery model	x		CYYJ		Rey Lopez & Guenter Kirschstein Don Grovestine	n/a	n/a
			x					
Gulfstream GIIIB	Gulfstream G-IIB-1 Gulfstream G-IIB-2 Gulfstream G-IIB-3	x	x	ai_gulfstream_g-iib.zip gii-gen.zip	htaimodels.com avsim.com	Henry Tomkiewicz Ralf Maylin	11	68.8
Gulfstream GIV	Gulfstream G-IV	x	x	ai_gulfstream_g-iv.zip aussiegiv.zip	htaimodels.com avsim.com	Henry Tomkiewicz David Carter	13	77.8
C-130 Hercules	CAF-AI CC-130E Hercules	x	x	ai_lockheed_c-130e.zip htai_cc130h_cfc_435.zip	htaimodels.com avsim.com	Henry Tomkiewicz Graham King	21	132.6
Sikorsky S55	N/A - SAMM scenery model	x	x	s_br55.zip CYYJ	avsim.com	JR Lucariny Don Grovestine	n/a	n/a

Vickers Viscount	N/A - SAMM scenery model	x	x	Visc700.zip fs9v757tcawhite.zip	simviation.com avsim.com	Rick Piper Garry Russell	n/a	n/a
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* - adjusted aircraft radius/wingspan for better operation of AI scheme