

# **CYQQ (2010)**

**for FS9/FS2004 and FSX**

**(CYQQ Version 1.00)**

## **USER MANUAL**

**An Add-On Covering CFB Comox, the Comox Valley Air  
Terminal and Surrounding Area.**

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### **\*\*\*\*\* CAUTIONARY NOTE \*\*\*\*\***

During beta testing of CYQQ (2010), one of the testers had difficulty with certain of the vintage AI aircraft. FSX refused to start. (FS9 displayed the AI properly.) The cause of the difficulty has not been found and no one else has reported such difficulties. So, it is assumed the problem was due to his system configuration. Should you experience similar difficulties, you should delete/disable the *file traffic\_CYQQ (Museum)\_FSX.bgl* in your CYYJ\scenery or AI\scenery (as applicable) folder.

## **1. INTRODUCTION**

CYQQ (2010) of a Microsoft® Flight Simulator (“MSFS”) add-on that portrays Canadian Forces Base Comox (Vancouver Island, British Columbia, Canada) (CYQQ), the Comox Valley Air Terminal and surrounding area. CYQQ (2010) operates with both Flight Simulator 2004 (FS9) and Flight Simulator X (FSX).

### **Features - CYQQ (2010) features:**

- an airport definition (AFCAD) based on high-resolution aerial photos that:
  - accurately places all runways and taxiways,
  - displays realistic taxiway and apron markings, and
  - precisely places all airfield facilities,
- drive-through parking for all AI,
- more than one hundred very detailed buildings - including every significant structure on the airfield - all modeled with GMax and “painted” with hand-drawn textures,
- 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 aircraft and associated flight plans including:
  - representative military traffic,
  - vintage aircraft parked at the Comox Air Force Museum, and
  - when the BC Regional AI package (freeware available from Avsim, Flightsim and elsewhere) is loaded, airline traffic based on actual schedules.

Compatibility - CYQQ (2010) is fully compatible (once the necessary compatibility files are configured - see below) with:

- Ultimate Terrain Canada/Alaska for FS9 and Ultimate Terrain X - Canada for FSX (generally referred to as "Ultimate Terrain" or, simply, "UT"), and
- ORBX's FTX NA Blue USA Canada Pacific Northwest (ORBX FTX NA).

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 CYQQ. Without attention, there would be discontinuities at the boundaries of CYQQ where, for example CYQQ's roads meet those generated by whatever add-on is controlling the roads in the surrounding area.

CYQQ's compatibility files are small files that allow the features of CYQQ (2010) to integrate seamlessly with other add-ons that control the "environment". These files reside in a series of sub-folders entitled *Enable for ...* in a folder imaginatively entitled *Compatibility Files*.

Compatibility files may be used in either of two ways:

- If you always use CYQQ with the same set of add-ons, the simplest way is to copy the corresponding compatibility files into the *CYQQ\scenery* folder. The installer will do this for the add-on you specify at install-time.
- However, if you want the ability to quickly reconfigure compatibility for several add-ons, the installer will create a Scenery Library entry for each *Enable for ...* folder of interest – and you can enable or disable these Scenery Library entries as necessary depending on the particular add-on in use at the time. The *Enable for ...* folder(s) **must be of lower priority than CYQQ**. (Please be aware that, depending on prior configuration of the Scenery Library, the installer may place the "Enable for .." entries at a priority higher than CYYQ; you must correct this manually.

## **2. INSTALLATION**

Folder Configuration – Proper installation of CYQQ (2010) will result in the following sub-folders/files in the "installation folder", i.e., *CYQQ (2010)* – or whatever you choose to call it:

- *CYQQ* – the main scenery folder, containing the usual *\scenery* and *\texture* subfolders,
- *AI* – containing:
  - a *\scenery* subfolder which holds the installed traffic files.
  - a *\Flight Plans* subfolder which holds the AI flight plan files in TTools-style text format, and
  - two traffic files folders, one for FS9, the other for FSX, holding all the compiled traffic files for all the AI,
- *Compatibility Files* – containing the compatibility *Enable for ...* folders described above,
- *Optional Scenery* - containing the files for a variety of optional scenery (for further details, please refer to Section 7, RECONFIGURATION AND CUSTOMIZATION), and
- a .pdf version of this user manual.

Airfield Elevation adjustment - The default version of CYQQ places the airfield at too low an elevation in relation to the surrounding area. To correct this, CYYJ (2010) places a small file named *CYQQ\_elevation\_adjustment.bgl* in the Flightsim *Scenery\World\scenery* folder.

But CYQQ (2010) may not be the only add-on to place such a file there. Prior to installing CYQQ (2010), you should examine the *Scenery\World\scenery* folder for a similarly-named file and, if found, disable or delete it. Often, these files are prefixed with "AF2\_", "AFX\_" or "ADE\_", perhaps supplemented with "FS9" or "FSX" and/or an add-on name. In any case, any file whose name includes "CYQQ" should be disabled or deleted when CYYJ (2010) is in use.

Because of the uncertainty of the file name, this task is not performed by the installer.

Automatic Installation - CYQQ (2010) includes an installer. This installer is a Microsoft NET.Framework 3.5 application. If NET.Framework is not already installed on your computer, the "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.

Vista and Windows 7 users of the automatic installation routine 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 *CYQQ Installer.exe*, select "Run As ..." and select "administrator".)

Windows 7 users may wish to run the installer in the XP compatibility mode. Running it otherwise results in 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 CYQQ, 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 *CYQQ\scenery* folder will be retained. (If you intend to install the AI included with CYQQ (2010), you should delete any existing traffic files for CYQQ AI first.)

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 *CYQQ\_1nn.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 *CYQQ Installer.exe* directly from the .zip file. If this is not possible on your system, you will be met with a "missing files/folders" or "archive corrupt" error message.)
- (b) Run (double-click on) *CYQQ Installer.exe*. An installation dialog will appear.
- (c) Select the target MSFS version, 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 successful, 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 installation for each.

- (d) Select the type of installation (new installation or update an e existing version of CYQQ.) If you select a new install, the installer “recommends” *Addon Scenery\CYQQ (2010)* as the installation folder. However, you may install to any folder. If updating an earlier version of CYQQ, 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 it finds more than one previous installation, it will present each in turn asking if that is the version you wish to update.
- (e) Select the desired optional scenery by checking the applicable boxes. For details of each option, please refer to Section 7, RECONFIGURATION AND CUSTOMIZATION.
- (f) If you plan to use the “Scenery Library” method for configuring add-on compatibility (as discussed in Section 1), check "Use the Scenery Library method". Otherwise, check the add-on with which you want CYQQ (2010) to be compatible. If you don't check any, CYQQ will be compatible with the default Flight Simulator.
- (g) To install the AI aircraft and associated flight plans and traffic files, check the categories of AI to be installed and then the "Install aircraft" and/or "Install traffic files" checkboxes. When you selected the target version of MSFS, the installer displays the path to the base aircraft folder in the Aircraft Folder text box. If that's not where you want the AI aircraft installed, feel free update it (but be sure there is a FSX.cfg entry for the folder so FSX can "see" it). As well, specify whether the traffic files are to be installed in the main scenery folder or in a separate folder that will be controlled by a dedicated Scenery Library entry

The available categories of AI are:

- Military – typical military aircraft at CYQQ (some are static, others will come and go)
- Helicopters - a variety of military helicopters on static display, and
- Vintage - vintage aircraft at Comox Air Force Museum that are normally on outside static display

Only the checked categories of AI aircraft are installed. So, if you want them all, check them all. All the flight plan and traffic files are installed; however, only the checked categories are configured for use.

- (h) If you would like to have the necessary Scenery Library items created by the installer, check Update Scenery Library. When this item is checked, and existing items "pointing" to the installation folder will be deleted. You may also specify a name to be used for the scenery Library entry if you want other than "CYYJ (2010)". If you want the existing Scenery Library to be backed-up before it is changed, check Backup Scenery Library. Please note if you are using the Scenery Library method for compatibility control, none of the "Enable for ..." items will be enabled by the installer. You must select one before running CYQQ (2010).
- (i) 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 CYQQ (2010) accordingly
- (j) 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. (However, if you are having the installer update the Scenery Library, you should only back-up the Scenery Library on the first install.)

- (k) 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.

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 CYQQ (2010) as follows.

- (a) For a new installation, create a top-folder called *CYQQ (2010)* or another name of your choice in your Flight Simulator's *Addon Scenery* folder or elsewhere. If upgrading from an earlier version of CYQQ, delete everything in the old CYQQ top-folder except any traffic files you wish to save. The traffic files should be moved elsewhere temporarily.
- (b) Create a subfolder named *CYQQ* in the *CYQQ* top folder. Copy into it the *lscenery* and *ltexture* subfolders from the temporary *FS9 Unique* or *FSX Unique* folder, as applicable.
- (c) Copy the files from the temporary *Common\lscenery* and *Common\ltexture* folders to the *CYQQ\lscenery* and *CYQQ\ltexture* folders respectively.
- (d) The folder *Optional Scenery* contains several sub-folders, one for each optional feature. Please refer to Section 7, RECONFIGURATION AND CUSTOMIZATION for details on the features and instructions for manual installation.
- (e) Copy the *Compatibility Files* folder from the temporary *FS9 Unique* or *FSX Unique* folder, as applicable, to the *CYQQ* top-folder.
- (f) Unless you plan to use the "Scenery Library" method for configuring add-on compatibility, copy the files from the *lscenery* and *ltexture* subfolders from the relevant *Compatibility Files\Enable for ...* folder(s) into the *CYQQ\lscenery* folder (see section (f) under Automatic Installation above). If you don't want compatibility with any add-on, copy the files from the applicable *Enable for Default* *lscenery* and *ltexture* folders.
- (f) For FS9, copy the contents of the *FS9 Unique\Effects* folder into your *FS9\Effects* folder. For FSX, copy the file *Effects\fx\_obsight2.fx* and rename it *fx\_ObsLight\_CYQQ.fx*.
- (g) If you saved any AI traffic files as noted above, they may now be copied back to the *CYQQ\lscenery* folder.
- (h) Copy the *Common\Special\CYQQ\_elevation\_adjustment.bgl* from the temporary folder to FS9 or FSX (as applicable) *Scenery\World\lscenery*.
- (i) 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 *CYQQ\lscenery* subfolder or another dedicated add-on *lscenery* folder.

If you install the vintage AI, copy the file *Common\Special\ai\_ArgusEnds.bgl* into the *CYQQ\lscenery* folder. It adds the nose radar cone and the anomaly detector to the Argus model. If you later decide not to display the vintage aircraft, you will want to delete that file.

Uninstalling CYQQ (2010) - The installer only installs the files as noted above. It does not write to the Windows Registry or anywhere else. To uninstall CYQQ (2010), delete:

- the CYQQ (2010) folder from the Flight Simulator *Addon Scenery* folder (or wherever else you installed it),
- the corresponding Scenery Library items, and

- the file *CYQQ\_elevation\_adjustment.bgl* from the *Scenery\World\scenery* folder.

### **3. SCENERY LIBRARY**

The CYQQ (2010) Scenery Library entry(ies) **must** be placed above Ultimate Terrain, Orbx PNW or any other scenery that includes terrain, roads and/or shorelines affecting CYQQ.

If you use the Scenery Library method for controlling add-on compatibility, the Scenery Library entries for the *Enable for ...* folders must be at a lower priority than CYYJ (2010) and only one should be enabled at a time.

### **4. MESH/TERRAIN/TMVL SETTING**

CYYQ (2010) includes accurate terrain mesh for the Comox area. For the wider area, you may obtain the Vancouver Island portion of FS Genesis' Cordillera Canada 38 m. mesh for FS9 at no charge from [http://files.fsgenesis.net/freefiles/dem38m\\_can\\_vancouver.zip](http://files.fsgenesis.net/freefiles/dem38m_can_vancouver.zip).

With FS9, if you use 38m. mesh, you should set the *fs9.cfg* TERRAIN\_MAX\_VERTEX\_LEVEL (TMVL) entry to 20. If higher resolution mesh is installed, set TMVL to 21. (The default setting is 19.) CYQQ (2010) will run irrespective of which TMVL setting you use. However, unless you use the recommended setting, the terrain profiles - especially on the approaches to Runway 30 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 another 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 another add-on (such as Orbx PNW).

### **5. RECONFIGURATION AND CUSTOMIZATION**

Optional scenery - The folder *CYQQ (2010)\CYQQ\Optional Scenery* contains two (future versions may contain more) sets of files for scenery that you may have elected not to install initially or that replace other scenery.

Except where noted otherwise, in the top folder of every optional scenery item there is a *\scenery* subfolder which contains the scenery files that implement the scenery. If different files are required for each of FS9 and FSX, the unique files will be contained in *scenery\_FS9* and *scenery\_FSX* sub-folders. If additional texture files are necessary, they are contained in a *\texture* subfolder. If the optional scenery replaces any base files, the top folder will contain a file entitled *cache.txt* which is a list of base scenery files that the optional scenery replaces.

To manually install an optional scenery item, copy any files in its `ls scenery` and `ltexture` (if present) folders and in any `..._FS9` and `..._FSX` subfolders into the `CYQQ\ls scenery` and `CYQQ\ltexture` folders respectively. If the file `cache.txt` exists for the scenery, disable in the `CYQQ\ls scenery` folder any files listed by suffixing the file name(s) with `".xxx"`. Please note that `cache.txt` applies to both FS9 and FSX, so it may include filenames that exist in only one version or the other. Of course, if you use the installer, this is all done for you.

To remove a previously-installed optional scenery, delete from `CYQQ\ls scenery` all the files corresponding to those contained in the `ls scenery` folder of the scenery's top folder and any `ls scenery_FS9` or `ls scenery_FSX` subfolders and re-enable (remove the `".xxx"` suffix from) any files listed in `cache.txt` (if it exists) that were replaced in the `CYQQ\ls scenery` folder. While not necessary, you may also wish to delete the associated texture files.

Following is a brief description of each optional scenery item. (The shaded items are planned for a future release.)

- People - Pedestrians near the main terminal.
- 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 aircraft doors to remain open in fuel trigger areas. So, if you want to leave the user a/c doors open while parked in these areas, do not install this file (but keep an eye on your fuel gauge).
- Cars/Trucks - A selection of vehicles parked (sparsely) in various parking lots.
- Ground Handling Equipment - A selection of baggage handling equipment and other amenities on the main terminal apron.
- Full Perimeter Fencing - FenceBuilder PRO fencing.

Management of add-on compatibility files - If you switch to the "Scenery Library method" to manage add-on compatibility (as previously discussed), it will be necessary for you to delete from your `CYQQ (2010)\CYQQ\ls scenery` folder any files named:

for FS9: `0_CYQQ_ ... _VTPX.BGL`  
`0_CYQQ_Roads- ... _VPTX.bgl`  
`CYQQ_ ... _VTPP.bgl`  
`CYQQ_Roads- ... _VTPL.bgl`  
`CYQQ_Roads- ... _VTPP.bgl`

for FSX: `0_ObjectExcludes.bgl`  
`CVX_CYQQ_....BGL`  
`CVX_CYQQ_Roads-....BGL`  
`gp_GravelPit_5_FSX`  
`gp_RecCenter_5_FSX.bgl`  
`lib_CYQQ_Seasonal_FSX.bgl`

and for both, the following texture files - whether of `.bmp` or `.dds` file type:

`bldg_Armament.bmp` and  
`ortho_GravelPit_....bmp`  
`ortho_RecCenter_ ....bmp`  
`zAirfieldGrass_....bmp`

where (...) is either the name of the add-on or season to which they apply.



If you are not using the Scenery Library method, copy into the *CYQQ\scenery* and *\texture* folders respectively the files from the *\scenery* and *\texture* subfolders of the relevant *Enable for . . .* folder(s) (located in the *CYQQ (2010)\Compatibility Files* folder. If you later install (another) add-on for which compatibility files are available, delete all the files noted above before copying the new compatibility files. Alternately, re-run the installer to have it configure the compatibility files for you.

Other Customization - The design of CYQQ (2010) is highly partitioned. All "standard" scenery is compiled into a single library file - *lib\_CYQQ\_9.bgl* for FS9, and *lib\_CYQQ\_FSX.bgl* for FSX, and placed using regional files with names such as *obj\_FlightLine.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 CYQQ (2010) 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 FS9. 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\_CYQQ.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\_CYQQ\_10\_....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 CYQQ. 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 CYQQ in the Scenery Library.

## 6. AI

CYQQ (2010) AI includes 10 vintage aircraft usually on outside static display at the Comox Air Force Museum, a CF-101 Voodoo on a pedestal at the main gate and a selection of modern-day military aircraft typical of those at Comox. The modern-day AI are enabled at a 30% traffic setting. The vintage aircraft appear at 60%. Please see Appendix "A" for details of the individual aircraft.

All of the included aircraft and many of their texture files are proprietary to others (who have given me permission, either expressly or through compliance with their licenses, to redistribute those files). Those authors are acknowledged, with my thanks, in Appendix "A".

(For scheduled airline traffic, use BC Regional AI or another commercial traffic add-on. As well, if you have installed the custom AI for CYYJ, you'll have additional traffic at Comox, which is the origination of all military AI traffic visiting CYYJ.)

Be aware that AI aircraft can have a significant impact on FPS (frames-per-second, the usual performance measure for FlightSim). If all CYQQ AI is operating, that's over 20 aircraft - not to mention the AI generated by BC Regional AI and/or CYYJ (2010) if installed. Unless you have a state-of-the-art computer system, you may have to be selective about which AI are enabled at any point in time.

The folder *CYQQ (2010)\AI\Flight Plans* contains the associated AI flight plan information in TTools-compatible text format. The corresponding compiled traffic files are held in the *CYQQ (2010)\AI\Traffic Files*.

Cross-wind Runways - CYQQ (2010) implements cross-wind runways (the Jim Vile method). This means that most take-offs and landings, other than for large aircraft, will be on Runway 18/36 (because the center of Runway 18/36 is significantly closer to most parking than that of the main runway 12/30).

The execution of cross-wind runways in FS9 is less "nimble" than in FSX and FS9 is slower to recognize a change in wind direction. The result is that, occasionally, FS9 AI will take-off from the wrong end of Runway 18/36. To correct this, momentarily select Simulation Rate x8, which will cause the AI to be reloaded and the current wind to be recognized.

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 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, 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.

Naming of AI - All the AI aircraft provided in CYQQ (2010) have titles that are prefaced with, and are stored in folders whose name starts with "CAF-AI" or "CYQQ-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.

Traffic Density Settings - (redo) In FSX, the GA and Courier categories are enabled at a general aviation traffic density setting of 1%. Static aircraft, being essentially scenery, are also enabled at 1%; the traffic files should be deleted/disabled if this traffic is not wanted. The Victoria Flying Club C152s and C172S will appear and do touch-and-gos at a GA setting of 30%. Military traffic is enabled at an airline traffic density setting of 30%. In FS9, the various categories are enabled at the same density settings but, of course, in FS9 there is only a single traffic slider. These activity levels are easily changed by editing the flight plan/traffic files and recompiling. (using AI Flight Planner).

## **7. IDIOSYNCRACIES / KNOWN ISSUES**

Design/performance considerations dictated the following intentional omissions or operating idiosyncrasies in CYQQ (2010):

- The representation of all structures in CYYQ (2010) is faithful as to size and location and, generally, color. However, other than the Comox Valley Air Terminal and the control tower, the building facades, especially when viewed from other than the east, includes a good bit of imagination. ( CYQQ is essentially a military facility. Understandably, I was unable to secure permission to take photographs on or of the base. Instead, I was provided with a panoramic photo of the entire base taken from above the airfield and a few other isolated shots.) Indeed, most of the buildings on the west side of Military Row contain no window/door detail at all - a situation I hope to correct in a later release.
- Lamp standards for streetlights, for the floodlights at the fuel tank farm or for the parking illumination in the main terminal parking lot have not been modeled. I felt that the FPS impact of including these lamp standards or a physical representation of the other airfield lights would far outweigh the marginal benefit of the extra scenery in the daytime.
- As at the real CYQQ, 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 fully-flexible drive-through parking.
- Parking for static AI at the Comox Air Force Museum is not connected to the taxiway system. Since each parking spot has a unique “atc\_parking\_code” and is normally occupied, no AI aircraft other than the one intended should use those spots. However, should all other available “connected” parking be occupied at start-up, the AI “engine” may assign one or more of these parking spots to other AI. This is unavoidable.

## **8. SUPPORT**

CYQQ (2010) is freeware. Consequently, support will be limited. Nonetheless, I would like to be made aware of any problems you discover in CYQQ (2010) 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/CYQQ4fs> is the primary mechanism for delivering support for CYQQ (2010). 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. (This website exists, but is empty at time of writing.)

## **9. ACKNOWLEDGEMENTS**

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Enjoy,  
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## APPENDIX A – CYQQ (2010) AI AIRCRAFT

The following table identifies the AI aircraft used in the CYQQ (2010) AI scheme. Please note Folder Names are prefixed with either "CYQQ-AI\_" or "CAF-AI\_" (military). Most of these files are proprietary to others. They are included in CYQQ (2010) 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).

### Operating AI

Folder Name (prefixed as noted above)	AI Title (prefixed by "CYQQ-AI" except where noted "CAF-AI")	M o d	T e x	Archive File	Available From	Author(s)	.mdl Radius (m.)	aircraft.cfg Wingspan (ft.)
CC-115 Buffalo	CAF-AI CC-115 Buffalo	x	x	dhc-5.zip	avsim.com	Joakim Bernhoft	16	96.0
CC-138 Twin Otter	CAF-AI CC-138 Twin Otter	x	x	cc138w24.zip	avsim.cm	Udo Lemmob Barry Blaisdell BobMay	11	76.7
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
CF-18 Hornet	CAF-AI CF-18 Hornet	x	x	caf_ai.zip	avsim.com	Mikko Maliniemi & Kari Virtanen Brian Burger	10	37.5
CP-140 Aurora	CAF-AI CP-140 Aurora	x	x	comox042.zip	avsim.com	Vern Opperman	16	99.6
CT-135 Hawk	CAF-AI CT-135 Hawk	x	x	caf_ai.zip	avsim.com	Mikko Maliniemi Kari Virtanen Brian Burger	7	40.4
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

### Static AI

Folder Name (prefixed as noted above)	AI Title	M o d	T e x	Archive File (textures generally customized)	Available From	Author(s)	.mdl Radius (m.)	aircraft.cfg Wingspan (ft.)
Canadair EW-33 (Static)	CT-133 Silver Target (CYQQ Museum)	x	x	T-33A.zip EW-133.zip	sim-outhouse.com	Tim Conrad Don Grovestine	7	38.83
CC-129 Dakota	CC-129 Dakota (CYQQ Museum)	x	x	canc-47.zip	flightsim.com	Default DC-3 Doug Smith & Don Grovestine	15	95
CF-100 Canuck	CF-100 Canuck (CYQQ Museum)			ALPHA_CF-100_FS9.zip 18000.zip	alphasim.com	AlphaSim Ed desRoches Don Grovestine	10	10

<b>Folder Name</b> (prefixed as noted above)	<b>AI Title</b>	<b>M</b> <b>o</b> <b>d</b>	<b>T</b> <b>e</b> <b>x</b>	<b>Archive File</b> (textures generally customized)	<b>Available From</b>	<b>Author(s)</b>	<b>.mdl</b> <b>Radius</b> (m.)	<b>aircraft.cfg</b> <b>Wingspan</b> (ft.)
CF-101 Voodoo	CF-101 Voodoo (CYQQ Museum CF-101 Voodoo (CYQQ gate)	x	x	caf-101.zip	flightsim.com	Kazunori Ito Shane Strong	12	38.42
CF-104 Starfighter	CF-104 Starfighter (CYQQ Museum)	x	x	RLF104E.zip	flightsim.com	Rey Lopez Don Grovestine	10	10
CH-124_Sea King	CAF-AI CH-124_SeaKing- <i>nnn</i>	x	x	AI_SH-3D.zip CYQQ (2010)	militaryaiworks.com	Rob Nieuwenhoven Don Grovestine	10	62.0
CH-146 Griffon	CAF-AI CH-146_Griffon- <i>nnn</i>	x	x	Hovercontrol_412_PE_v1.exe griffon_146438.zip	hovercontrol.com avsim.com	Jordan Moore Rob Pracic	8	55.0
CH-149 Cormorant	CAF-AI CH-149 Cormorant	x	x	comox042.zip	avsim.com	Philip Chandler Vern Opperman	14	10
CP-107 Argus	CP-107 Argus (CYQQ Museum)	x	x	sbritannia.zip CP140_OC.zip	simviationm.com flightsim.com	Mike Stone Geoff Chambers	22	142
CP-121 Tracker	CP-121 Tracker (CYQQ Museum)	x	x	cp121.zip	flightsim.com	Tomohito Unayama Shane Strong	12	10
CT-114 Tutor	CT-114 Tutor (CYQQ Museum)	x	x	snwbrd04.zip	flightsim.com	Donald Radke Shane Strong	6	10
H-21 Piasecki	H-21 Piasecki (CYQQ Museum)	x	x	hs1c_msfs2004-mickposch_v1.zip	avsim.com	Mick Posch	14	10
MiG-21 Fishbed	MiG-21 Fishbed (CYQQ Museum)	x	x	aimig21.zip	flightsim.com	Mehlin Rainer Piotr Pachala Don Grovestime	8	10

\* - adjusted aircraft radius/wingspan for better operation of AI scheme