

MILITARY VISUALIZATIONS INC.

MVAMS & HOW TO CREATE A C&D DEFAULT FLIGHT USER GUIDE

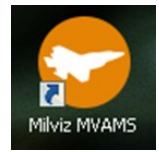
The following pages are applicable to most of the previously released Milviz aircraft, and all of the future Milviz releases.

It includes a guide on how to bring your Flight Simulator Platform back to a Cold & Dark default condition, (begins on Page 9).

That procedure may even correct some issues you've been experiencing with your sim so check it out.

Milviz Add-on Management System (MVAMS)

After you install a *compatible* Milviz aircraft† you'll find an Icon like the one here, has been added to your desktop. When you double-click this icon it will open a panel like the one in *Figure A*.



This panel is first presented to you immediately following the Milviz aircraft installation procedure.

You don't have to configure your aircraft at that moment and can close it if you wish.

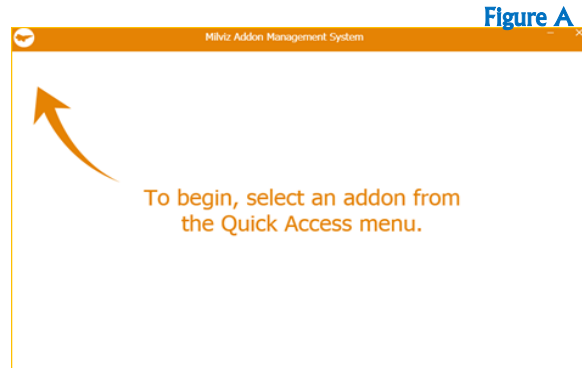


Figure A

The *sweeping arrow* points to your next click point which in turn, opens a panel much like the one in *Figure B*.

You may see some icons different than are shown here. The panel will contain whatever Milviz aircraft you have installed†.

After you click the icon of the aircraft you wish to configure, you'll be presented with a panel of available options only applicable for that individual model.

Therefore, if there isn't an option to select, the panel won't be cluttered with it.

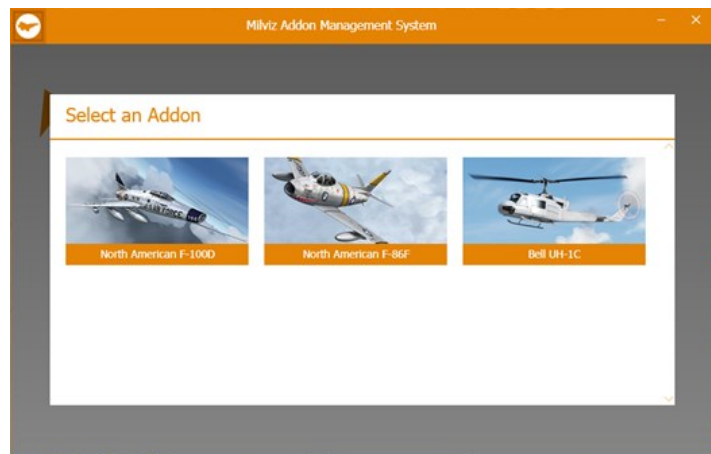


Figure B

In *Figure C*, the panel shown is a result of selecting the **Milviz Huey UH-1**. In this case it offers 4 different categories to configure. For the **Huey**, you can assign a button on your control stick to operate the **Force Trim** button located on the cyclic. *You must first have your HOTAS system plugged in and active in order to see it as an available option in this panel.*

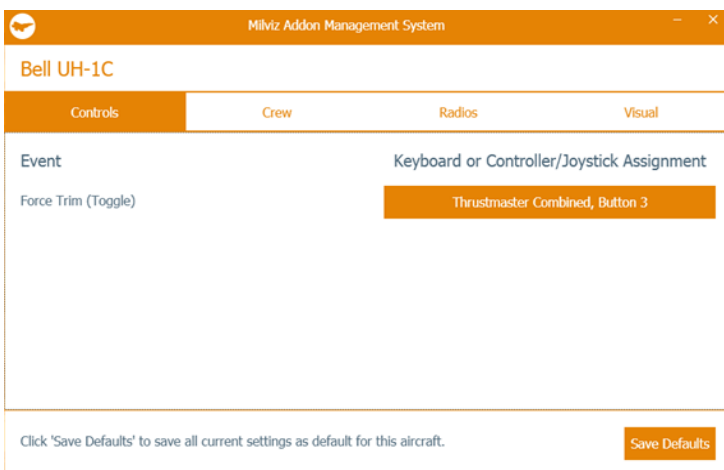


Figure C

From this point on in the *MVAMS Guide*, the **Milviz F100D** will be the aircraft used as an example for demonstration purposes. Because of the additional complexity of the F100D instruments, the panel in *Figure C* will appear very different.

Generally speaking, the more complex the aircraft, the more selections are made available.

The **MVAMS** makes configuring any selected aircraft easy and fast. This 7-page guide will demonstrate how intuitive it truly is!

† Not all Milviz products you may have installed will appear in the MVAMS panel. Some of those products will not appear because they'd have no need for the MVAMS system. Other Milviz aircraft may not appear because they were released previous to the creation of the MVAMS. In either case, those products that didn't show up have alternative management systems.

The MVAMS, (or AMS for short), offers a framework to select and execute multiple MilViz aircraft specific configuration modules. The MVAMS provides three separate but related functions in a single tidy window:

- Setting the default configuration of various MV aircraft visuals, states, presets and weapons load out.
- Dynamic update of weapons load out during a simulation session
- Setting aircraft specific keyboard and USB controller button mappings

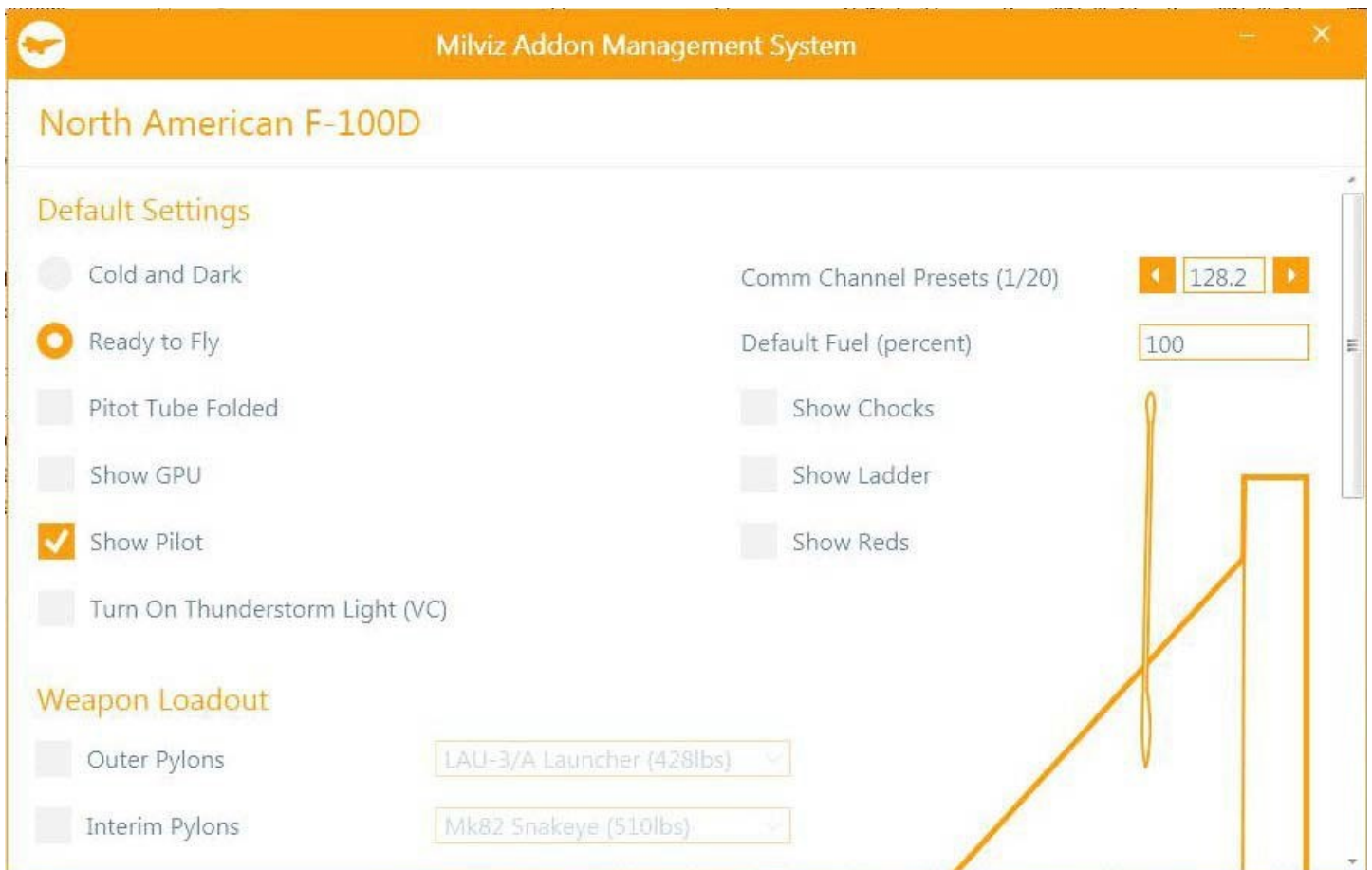
MVAMS.exe is a stand-alone windows application that executes on your Windows desktop. It is installed (typically) under: (C:)Users\\AppData\Local\MVAMS\

A desktop shortcut is created during installation.



In the following pages, the Milviz F100D will be used as an example. Some Milviz aircraft, (such as the Milviz UH-1C or MD 530F), aren't equipped with systems that may be offered in more complex MV aircraft. The MVAMS will not offer options if they are not available to the selected aircraft for configuration.

Click on the MVAMS.exe application or shortcut to open it. If no other modules are installed, it will directly open & reference the only Milviz aircraft available to the AMS. Otherwise, select the model you wish to configure. In this example, the F100D is selected from the quick access menu icon. You should be presented with the following screen:



Configuration settings are organized into three sections:

Default settings: Desired aircraft settings or conditions asserted when the aircraft is loaded into the simulator.

Weapon Loadout: Settings specific to the aircraft weapons (if any) compliment. These are separated from the Default Settings because they can be dynamically updated during simulation (using the 'Send Loadout to Sim' button) and further, because they are shared with VRS TacPack (if active in your simulator).

Keyboard Assignments: Mappings for specific key presses (Keyboard input) or game controller buttons (Direct Input) for aircraft specific functions.

It's important to mention that any changes made to your aircraft configuration will not be saved or reflected in your aircraft unless you **press the 'Save Defaults' button**. Further details are described below.

"" Indicates standard selections. Additional, specific, selections are offered when applicable to the selected aircraft, (in this example; the F100D)

Default Settings:

These are settings that are asserted when the aircraft is initially loaded into the simulator.

***Cold and Dark:** Loads the aircraft with all systems and switches in their OFF state. If your default flight is set with engines running, you'll likely hear shut-down sounds when the aircraft is loaded.

***Ready to Fly:** Once the aircraft is loaded, it runs through an automated start-up sequence. Although you can manipulate switches manually during the start-up, it's not recommended to interrupt the engine starting itself.

You may only select **Cold and Dark** or **Ready to Fly**. Initial setting is '**Ready to fly**'.

Pitot Tube Folded: Set this to have the pitot boom visual placed in the folded position. Unchecked, it is straight. This may also be manually toggled for folded or unfolded from within the simulator (see **Changing Default Settings 'In-Sim'** below).

Show GPU: Presents a visual representation of a Ground Power Unit visual and fires it up (Note: GPU will not appear if aircraft is already running). The GPU is required to perform a GPU engine start. The GPU will automatically vanish after 2 minutes or once the engine starts. It may also be manually toggled on and off from within the simulator (see **Changing Default Settings 'In-Sim'** below).

***Show Pilot:** Enables the pilot in cockpit visual. Initial setting is 'On'. It may also be manually toggled on and off from within the simulator (see **Changing Default Settings 'In-Sim'** below).

Turn On Thunderstorm Light (VC): Turns on thunderstorm light so you can orient yourself in a dark cockpit at night. It may also be manually toggled on and off from within the simulator (see **Changing Default Settings 'In-Sim'** below).

Comm Channel Presets (1/20): The F100D Comm Radio enjoys 20 preset channels. If you wish to use the presets, their frequencies (in MHz) are set in the preset scroll box. The initial value for all preset channels is 128.20 MHz. It is not necessary to assign presets to use the Comm radio.

Default Fuel (Percent): Select the fuel load (by percentage) you wish to have loaded into the aircraft on start-up. Initial value is 100%. This value only applies to internal fuel. Drop tanks, if present, are always loaded full, regardless of the fuel setting.

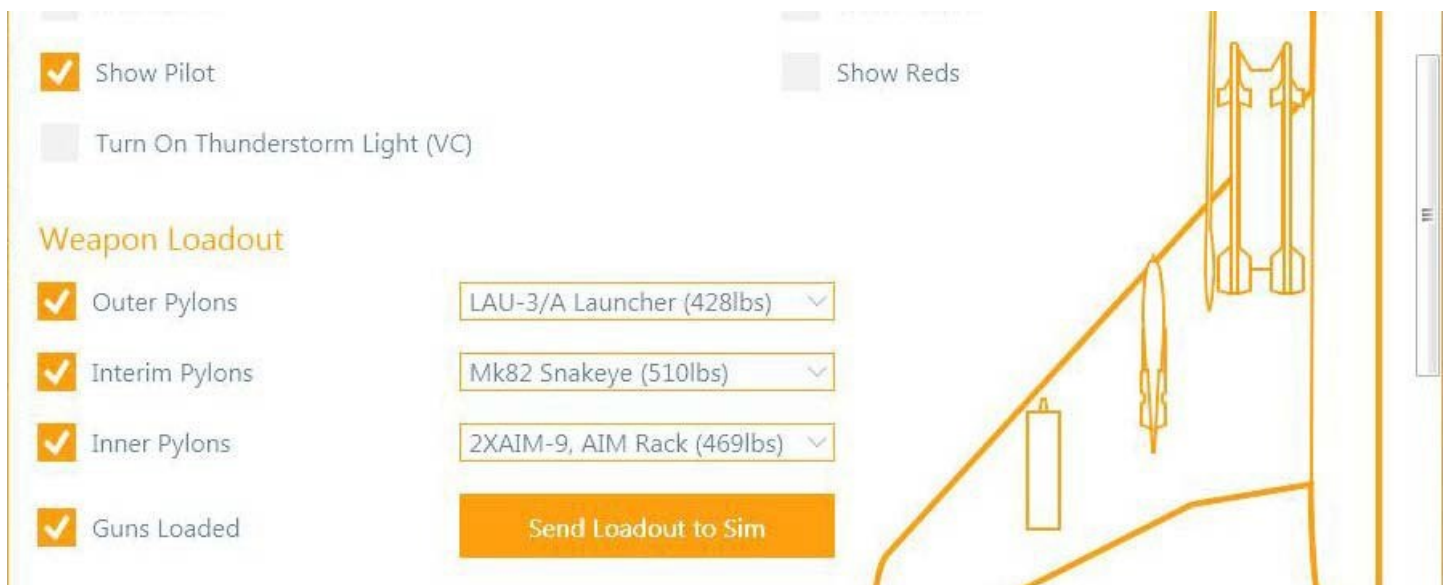
Show Chocks: Set this to have Chocks visually present at start-up. If on, also asserts the simulator parking brake. **NOTE:** To remove the chocks when you're ready to fly (otherwise, you cannot turn off parking brake), see **Changing Default Settings 'In-Sim'** below.

Show Ladder: Sets a visual for the pilot's ladder on. It may also be manually toggled on and off from within the simulator (see **Changing Default Settings 'In-Sim'** below).

Show Reds: toggles 'Reds' visual on or off. It may also be manually toggled on and off from within the simulator (see **Changing Default Settings 'In-Sim'** below).

Weapon Loadout:

The loadout that your aircraft gets equipped with is controlled by this area of the MVAMS:



Wing station loads are shown on the right with a visual representation of the current selection. Checkboxes on the left select if a specific pair of pylons is to be configured or not. If configured, the pulldown menu to the right of each pylon indicate what weapon or drop tank (if any) is to be mounted on the pylon (otherwise, it's grayed out).

The 'Guns Loaded' checkbox indicates whether or not to configure ammunition for the M39 cannons.

Once you've selected your desired default loadout, **don't forget to press the 'Save Defaults' button** at the bottom of your MVAMS screen.

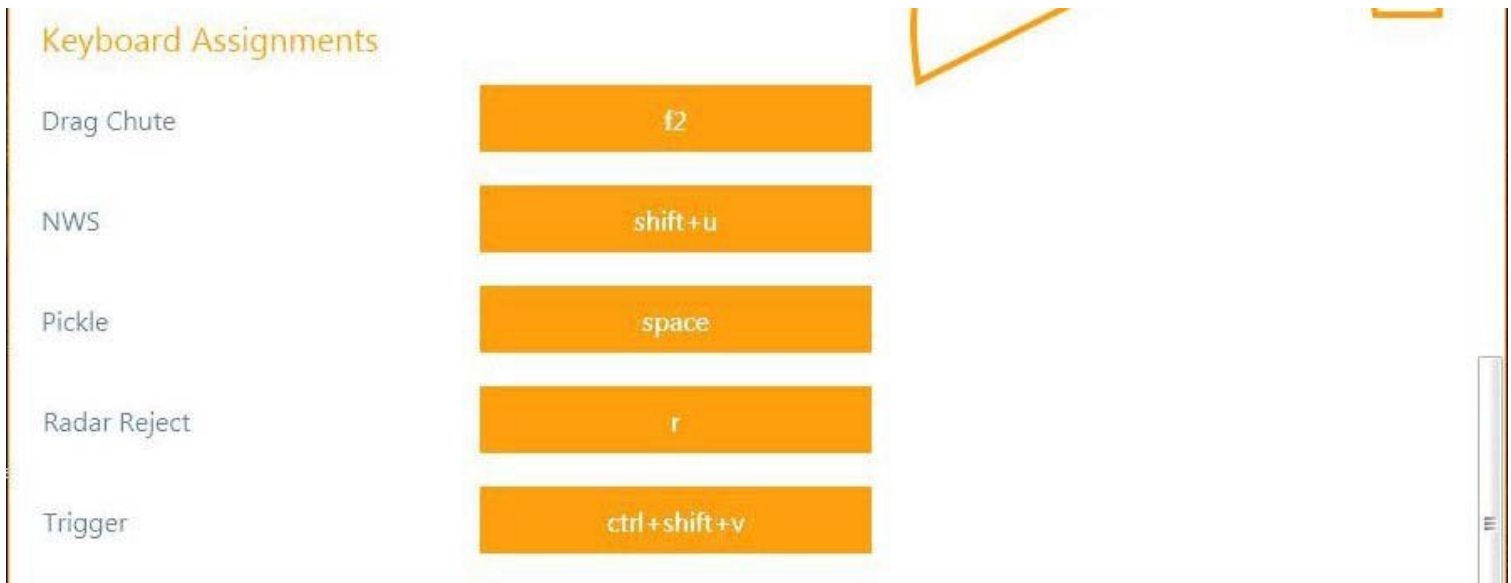
'Send Loadout to Sim' is NOT a save button! It has a different function: **This button is used when you wish to alter you loadout ON THE FLY** (i.e during a simulation session). Saved defaults are only loaded when the aircraft is loaded/reloaded. However, it's sometimes desirable to alter you loadout during a flight. **To perform an update dynamically**, it is necessary to suspend (pause) your simulator session, activate the MVAMS screen, set the desired loadout and press the **'Send Loadout to Sim'** button. It is convenient (though certainly not necessary) to have the MVAMS active during

the session if you anticipate altering your loadout during a flight. To alter the loadout, select the MVAMS from toolbar (or start it from your desktop, which may require you to pause the simulator and minimize the window). When you resume your flight, the loadout will be updated. This may sound a bit awkward, but it works nicely in practice.

Note that when you update your weapon loadout, you also refresh (reload) the weapons. However, if you simply wish to reload your weapons without altering the loadout, a more direct method is available. (See **Changing Default Settings 'In-Sim'** below.)

Keyboard Assignments:

The Keyboard Assignments section is used to configure mappings for specific key presses (Keyboard input) or USB game controller buttons (Direct Input) for aircraft specific functions. They are set in this area of the MVAMS:



These settings are examples only. Most simulator recognized Keyboard Shortcuts (eg. KEY (including function keys and some special keys), SHIFT + KEY, CONTROL + SHIFT + KEY) or Direct Input (eg. 'Saitek Joystick Controller Button 1') can be used in MVAMS as a shortcut assigned to the Milviz aircraft of your choice.

MVAMS uses SIMCONNECT to register the assignments. This has the advantage of overriding and intercepting the simulator Control Settings. This allows you to avoid conflicts if you assign a shortcut normally used by the simulator for some other function, without having to worry about it or changing default simulator assignments. This means that, for example, you could assign the 'b' key for Pickle (bomb button) and as long as you're in your chosen aircraft, the 'b' key will control pickle, not say 'Altimeter (reset)'. If you move to a different aircraft, the 'b' key will revert to controlling 'Altimeter (reset)' (or whatever keyboard assignment may have been set in your simulator). Of course, care must be taken to not override a simulator keyboard shortcut you might already be using to fly your Milviz aircraft!

When the MVAMS is first activated, all controller assignments will be set to **[unassigned]**. To make an assignment, click the orange button to the right of the function and this pop-up should appear:



If there's an assignment setting already there, first press 'Clear'. When the string [ENTER KEY...BUTTON] is showing, it's waiting for input. Press the desired keyboard sequence or USB controller button (the controller button itself may have been programmed with a key sequence) to input the assignment. The captured assignment should replace the [ENTER..] string. If it looks good, press 'Save'. Use 'Clear' to try again. Use 'Cancel' to abandon the operation (the last saved assignment is retained). If you enter your input and no assignment occurs, the sequence is invalid (eg. using 'ALT'). Select a different assignment.

If you're a **TacPack user**, it's recommended that in order to keep all the assignments consistent for all your various TacPack enabled aircraft, that the Trigger and Pickle be left [Unassigned] in the MVAMS and instead use the TacPack TRIGGER assignments (see below) to set them. In particular, avoid duplicating these assignments in both MVAMS and TacPack!

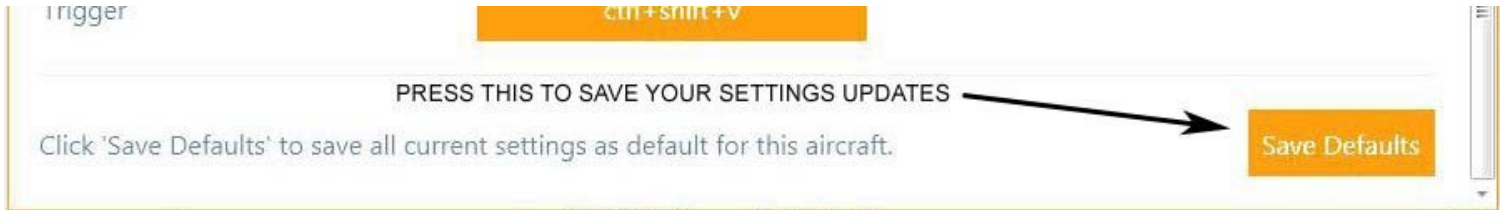
One caution: While it's advantageous to register the assignments with SIMCONNECT, it has one small idiosyncrasy when multiple key press sequence assignments are used - 'SHIFT + b' for example. Oddly, SIMMCONNECT expects the keys to be released in the reverse order that they were pressed. This is important for the TRIGGER and PICKLE since the F-100D, (for example), is concerned with both controller button Press and Release events (i.e. to continue firing the guns as long as the trigger is held). Please ensure that if you've programmed a multi-key sequence into your controller, that it releases the keys in the reverse order that they are sent. eg. If a button pressed on the controller sends **SHIFT + b**, then when released, ensure it returns "**b**", and then "**Shift**". Some controllers don't do this and require a macro to specifically indicate what happens on button release. So, if you've used a multi-key sequence for your TRIGGER and you find that once you press the trigger, the guns never stop firing, this is probably why.

Propeller Axis -> Manual Radar Ranging

In addition to the MVAMS shortcut keys, some Milviz aircraft, (like the F100D), use a Simulator Axis directly in the aircraft: Propeller (Pitch) axis is used to control the **Radar Range** when in manual mode. (On the real aircraft, this control is offered by a twist grip on the control stick which is not typically available on a USB joy stick). To take advantage of this capability, please map one of your USB game controller axes or rotary controls to the Propeller Axis. In FSX, for example, this is accessed in FSX -> SETTINGS -> CONTROLS->CONTROL AXES. Select the appropriate Controller type in the pulldown and in the Assignment List event 'Propeller axis', set your Axis assignment.

Saving Your Configuration Settings:

If you make any changes to the aircraft settings in the MVAMS screen, in order to save them (and consequently have them applied to the aircraft you've configured when you start a flight), you need to **press the 'Save Defaults' key at the bottom right of the MVAMS screen. OTHERWISE, ALL IS LOST!** (Note that the 'Save Defaults' button may not be visible unless you scroll down to the bottom of the screen.)



Once you've made your selections, settings are saved (committed to the aircraft's ".ini" file in the 'MVAMS\Configurations' folder) by pressing the 'Save Defaults' button. ALL settings (Default settings, Keyboard assignments and Weapon Loadout) are saved. Settings are retained on your computer and are read whenever the aircraft is loaded (or reloaded) into the simulator. If configuration updates are made during a flight, they will not be reflected in the current session but will appear the next time the aircraft is loaded.

Changing Default Settings 'In-Sim'

The following 'convenience' functions are accessed via the 'in-flight' simulator **Menu Bar** under **Add-ons > (active Milviz aircraft)**

Attach/Disconnect GPU: toggles a Ground Power Unit visual and fires it up (Note: GPU will NOT appear if aircraft is already running and disappears automatically once it is running)

Set/Remove Reds: toggles the exterior view 'Reds' visual on or off

Set/Remove Chocks: toggles the exterior view chocks visual on or off - if on, also asserts the parking brake

Show/Hide Ladder: toggles the exterior view ladder visual on or off

Show/Hide Pilot: toggles the exterior view of the pilot figure in cockpit visual on or off

Fold/Unfold Pitot Tube: toggles the pitot boom visual to be folded or straight.

Toggle Thunderstorm Light: Turns on thunderstorm light. Very useful at night in a cold and dark cockpit to orient yourself.

Refresh Loadout: Resets all weapons, drop tanks & fuel, ammo and pylons to their state prior to any 'consumption'.

Note: To save valuable machine cycles so they can be used to enhance overall performance, there is minimal checking to validate the 'appropriateness' of a particular visual setting for a particular flight mode. If you want to fly at 300 knots with 'reds' showing, we won't stop you!

The MVAMS Guide information are the partial contents from the pages of the Milviz F100D User Guide written & permitted for use here by Brian Alexson

To obtain permission to post in the Milviz forum please send a request to: roadburner440@milviz.com

CREATING A DEFAULT C&D FLIGHT

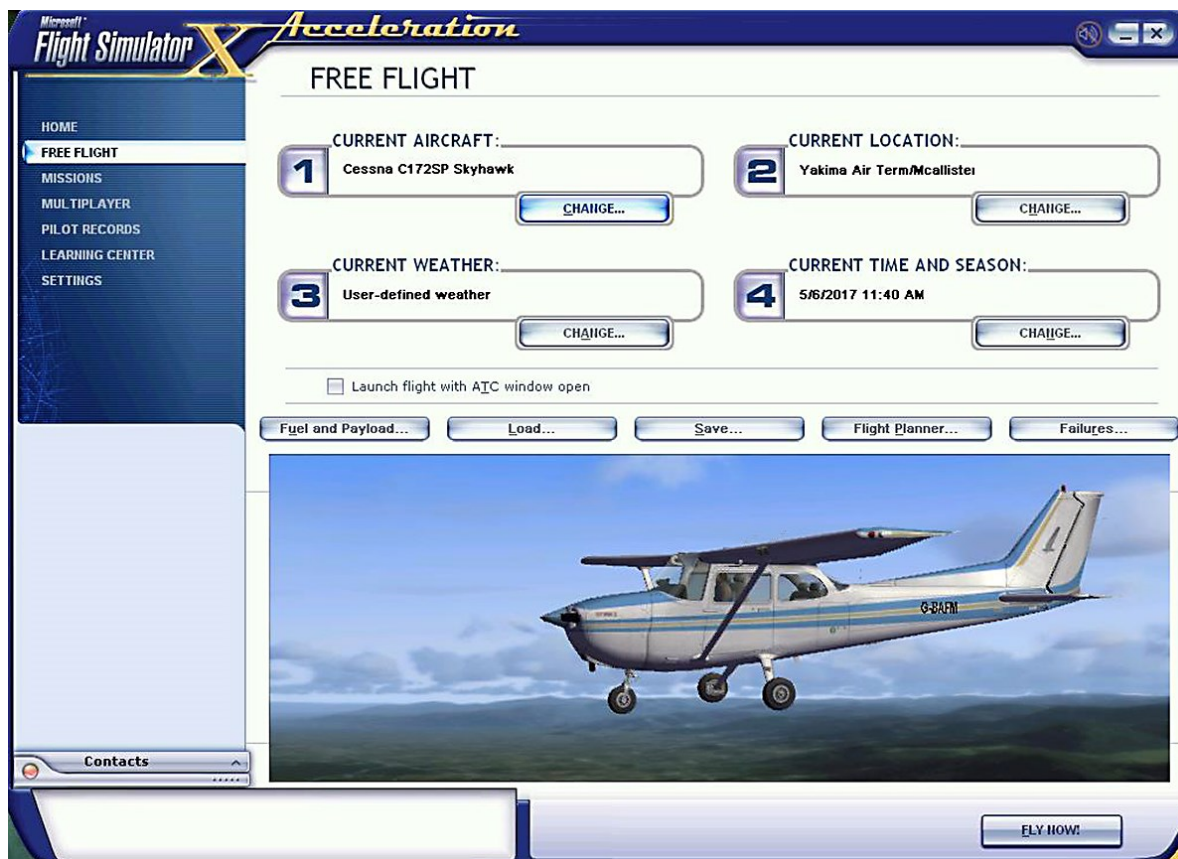
How to reset your Simulator to a *Default 'Cold & Dark' state*:

Setting up a cold and dark condition as a default flight is one way to reset your simulator platform to possibly bring an end to any anomalies and/or increasingly 'strange behavior' you may be experiencing.

This is a common suggestion often recommended by the high-end flight sim aircraft developers and that includes Milviz. Various key systems, program code, and parameters may over time, get jumbled due to unexpected sim and/or system crashes.

A few minutes of your time following the procedure below can keep you from chasing problems that could otherwise, take up hours of your time. Even if you are familiar with this procedure, we recommend that you read over these steps, especially if you haven't have done it in a while.

In order to bring your simulator to its default C&D state you should use an aircraft that's included with the base simulator platform. Most people found that reliable results can be had using a default aircraft that isn't too basic, (like the Glider or even the Ultralight), and alternatively, an aircraft that isn't too complex such as the FA/18 or P-51.



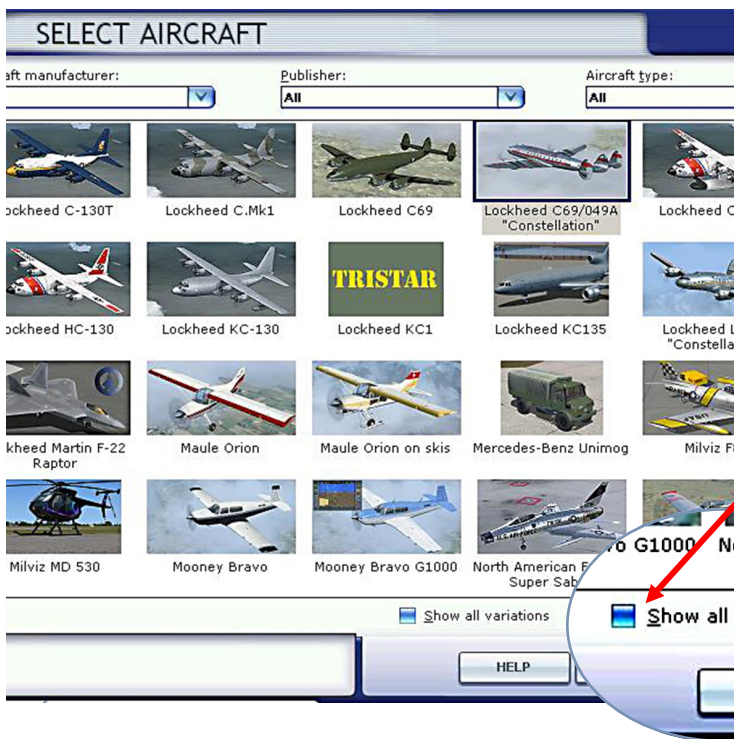
DEFAULT C&D FLIGHT

(Continued)

It's generally agreed that the default Cessna C172 (as shown on the previous page) is a good selection for this operation and we definitely concur.

Therefore, using that plane, please follow these steps:

- 1) Open the simulator to the Free Flight screen, uncheck the box that displays all the variants (liveries) of all the installed aircraft, and then select the Cessna C172 (typically, that would be a blue one and a white one with a advanced GPS option).

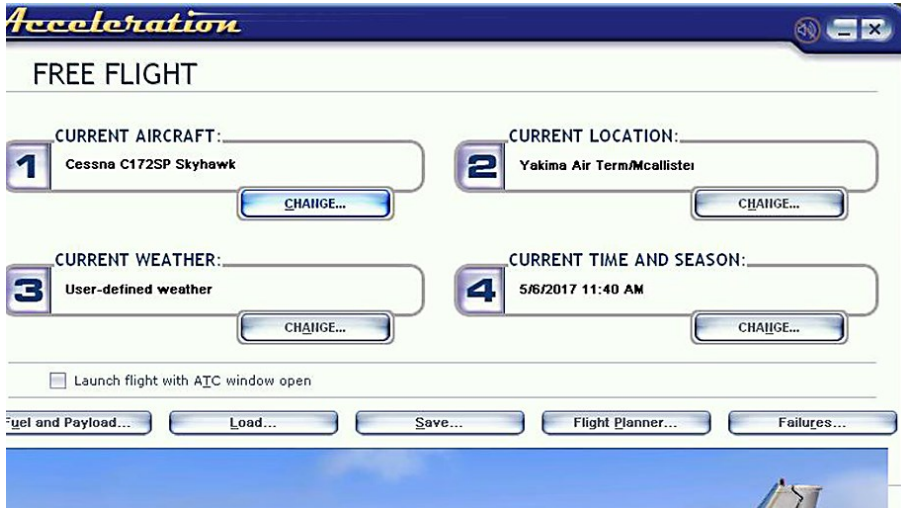


If the "Show All Variations" box is checked, uncheck it to make it easier to find and select the sim's default C172.

- 2) Choose an airport that is not enhanced with any 3rd party scenery (a simple, default, airport at or below 2500 feet altitude would be best).

DEFAULT C&D FLIGHT

(Continued)



- 4) Select a daylight time slot and set the season to spring or summer, (in short, a nice, warm, sunny, day[†]).
- 5) Start the flight and when it opens with you in the virtual cockpit, set the parking break and cycle all the instrument panel switches through their On & Off position and then to Off.
- 6) Move the throttle, propeller (if there is a control for it) and mixture controls to full and then back to closed.
- 7) Be sure the battery, generator, EVERYTHING is switched off. It may be easier and faster to do this all from the 2D Cockpit because, as in the case of the FSX default C172, most of the switches and controls are all on screen as shown below.



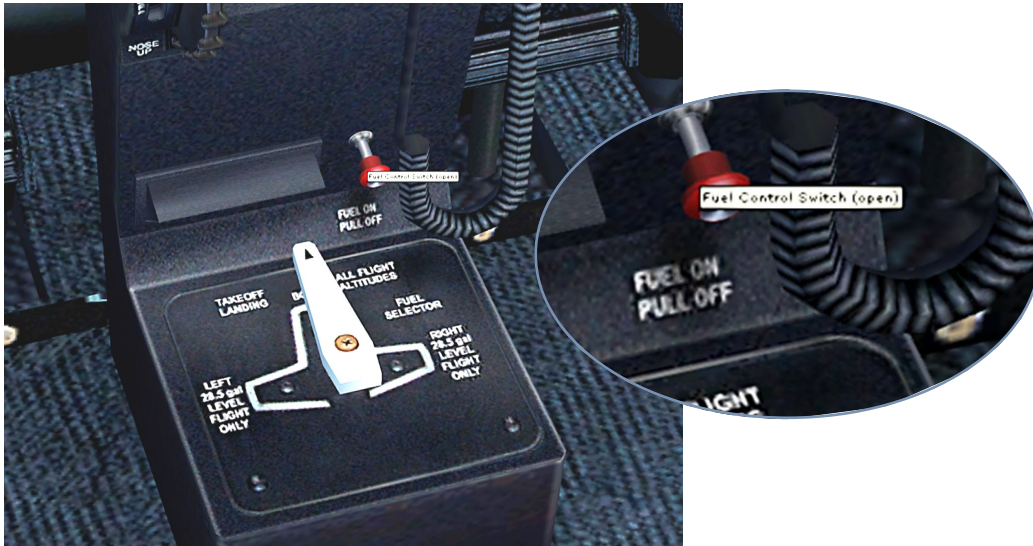
It may be easier and faster to do this all from the 2D Cockpit as shown here.

[†] The season and time of day that you select isn't terribly important, it's simply a suggested setting so that you can see and configure the aircraft clearly. The **airport altitude however, is important** because it can affect the fuel mix and idle of the aircraft.

DEFAULT C&D FLIGHT

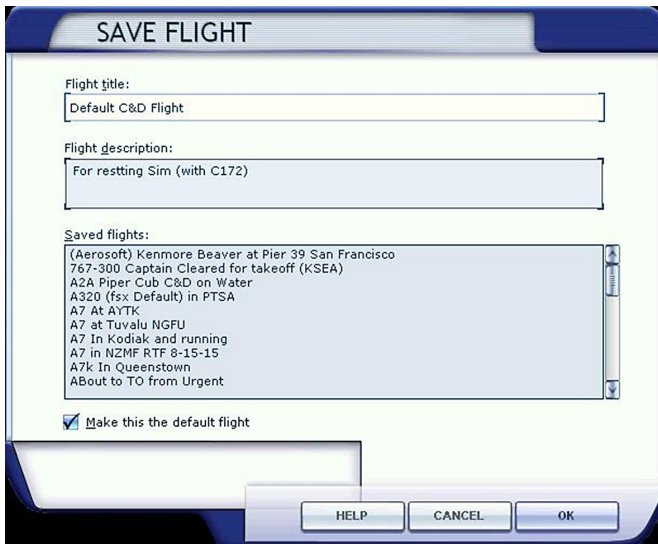
(Continued)

- 8) Make sure the Fuel Cut-Off switch is ON or “Open”[◇]. It doesn’t matter if the Fuel Selector is switched to a left, right, or auxiliary tank, just so long as it’s not switched to OFF or “Closed”.



- 9) Pause the simulator and press the “;” key on your keyboard and a dialog box will open as shown below.

Type in the name you want to give your saved flight. A good name may be obvious, (like “Default C&D Flight” perhaps?). The “Description” field is optional.



[◇]Please note that it’s been my experience that shutting off the fuel control in an aircraft that has one, can cause 3rd party and default aircraft that don’t have a working fuel cutoff system in their program, to be unable to start after the C&D procedure is created and saved.

This may not be everyone’s experience but I personally, recommend that the fuel cut-off be left open in this procedure.

DEFAULT C&D FLIGHT

(Continued)



- 10) Make sure the “Make this the default flight” selection box is checked and then click the “OK” button.

When the box closes, the system will return you to the flight and aircraft.

- 11) At that point, press the “ESC” key, end the flight and close the simulator completely.

Now you can open the sim and in the Free Flight box, select any aircraft, location, time etc. and when the flight opens, the aircraft will be cold & dark.

Even if you prefer that the default state of your simulator be configured for a **Ready to Fly** condition, you should still first reset the sim by following the C&D steps outlined here. In this way, you have a good chance of clearing any ‘stuck’ code in the sim’s program.

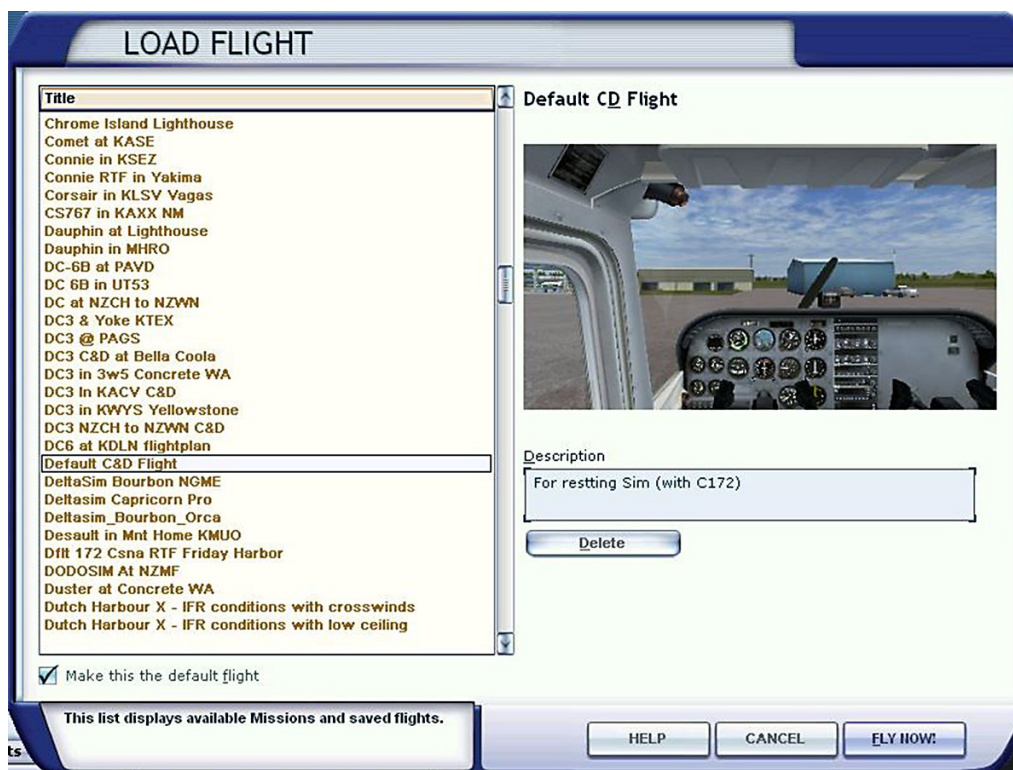
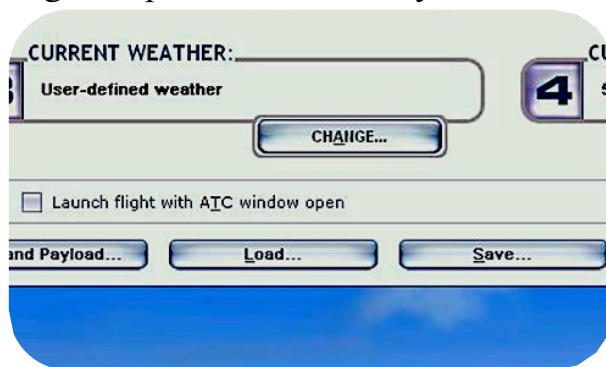
Then whenever you want, you can follow these same steps for the Ready to Fly condition except instead of ensuring that all the switches are off, simply start the aircraft and bring it all the way to the point where it’s ready to go.

Then save it and name it just as you did for the C&D condition. That’s it!

It's a good idea to load that saved default C&D flight each time you introduce a newly installed aircraft to your sim for the first time. It's as simple as clicking on the "Load" button at the bottom of the free flight screen and selecting that saved C&D flight you created.

When you select that flight the "*Make this the default flight*" option automatically be selected.

Click the "Fly Now" button and the flight will open.



The sim will be reset to it's default state. Then simply "ESC"

out of the flight and create your new free flight with the aircraft and airstrip details of your choice.

So a minute or two of going the procedure outlined here and then it only takes seconds from then on!