
vVF 161 FIGHTIN' STINGRAYS

STANDARD OPERATING PROCEDURES





Contents

1	Introduction to Digital Combat Simulator.....	3
2	DCS Versions.....	3
3	Modules.....	4
4	Utilities and add-ons.....	4
4.1	DCS Simple Radio Standalone (SRS)	4
4.2	Tacview	7
4.3	LotATC 4 DCS	8
4.4	OvGME.....	8
5	Peripherals	9
5.1	Head Trackers.....	9
5.2	Virtual Reality	10
5.3	Joysticks and Throttles	10



1 Introduction to Digital Combat Simulator

1. Digital Combat Simulator World (DCS World) is a free-to-play digital battlefield game.
2. Our dream is to offer the most authentic and realistic simulation of military aircraft, tanks, ground vehicles and ships possible. This free download includes a vast mission area of the Caucasus region and Black Sea that encompasses much of Georgia. It also includes a flyable Russian Sukhoi Su-25T ground attack aircraft and the famous WWII North American TF-51D fighter. An additional more than two dozen aircraft are available for purchase.
3. DCS is a true "sandbox" simulation that is also designed to cover multiple time periods of interest such as WWII, Korean War, Vietnam, Gulf War, and others. Current regions to battle include the Caucasus, Nevada Test and Training Range, and Normandy 1944. New maps in development include the Persian Gulf, Syria, and others.
4. DCS World is fundamentally a deep, authentic, and realistic simulation designed also to offer a more relaxed gameplay to suit the user and his/her particular level of experience and training. The ambition is to hand hold users from novice pilot all the way to the most advanced and sophisticated operator of such complex weapons systems as the A-10C Warthog or the F/A-18C Hornet. The only next step is the real thing!

2 DCS Versions

- i. Steam
 - ii. DCS World Standalone Stable
 - iii. DCS World Standalone Open Beta*
1. How do I move to the Open Beta Branch?
 - a. From standalone "Stable"
 - i. Open File Explorer and navigate to your DCS World install
 - ii. Hold LShift + Right click on bin folder and press "Open command prompt here" or "Open PowerShell window here"
 - iii. Type or paste
 - iv. ".\DCS_updater.exe update @openbeta"
 - v. If using PowerShell, wrap '@openbeta' in single quotes.
 - b. Transfer from steam to standalone
 - i. Download open beta standalone from the [open beta page](#) on the DCS website
 - ii. Install as usual
 1. Follow instructions from the [FAQ page](#) to transfer steam keys

* Required for vVF-161



3 Modules

“Modules” is the collective term for all manners of add-on content in DCS World. Be they the planes or terrains or general expansion gizmos, free or for pay, or even much of the community-made stuff, they all qualify as modules and will soon start piling up in the list at the lower edge of the DCS main screen. Below is a very much not comprehensive list of modules, focusing on the ones that current squadron members own and use on non-official nights.

Aircraft	· A-10C II Tank Killer · AJS-37 Viggen · AV-8B NA Harrier · Bf 109 K-4 Kurfürst · Christen Eagle II · F-5E-3 Tiger II · F-14A & B Tomcat · F-16C Viper · F/A-18C Hornet · F-86F Sabre · Fw 190 A-8 · Fw 190 D-9 Dora · JF-17 Thunder · Mirage M-2000C · P-47D Thunderbolt · P-51D Mustang · Spitfire L.F. Mk. IX ·
Helicopter	· Ka-50 Black Shark 2 · Mi-8MTV2 Magnificent Eight · Mi-24P Hind · SA342L, M, Mistral, Minigun Gazelle · UH-1H Huey · AH-64 Apache Longbow ·
Terrain	· Caucasus* · The Channel · Mariana Islands · Nevada Test and Training Range (NTTR) · Normandy 1944 · Persian Gulf · Syria ·
Add-On	· Combined Arms · Supercarrier · WWII Assets Pack ·

4 Utilities and add-ons

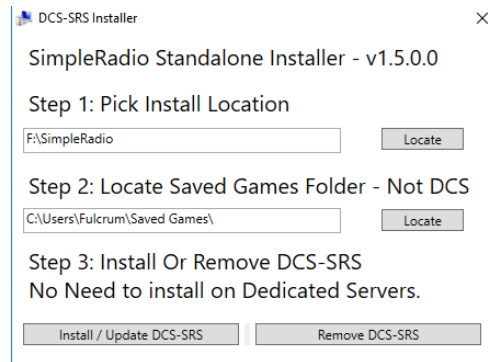
4.1 DCS Simple Radio Standalone (SRS)

1. Required for VF-161 membership
2. The Standalone is meant to be a compliment for TS, allowing players to use Full Radio voice comms if they want with the eventual goal of the program automatically connecting when connecting to a multiplayer server. TS is then used as a fall back to establish frequencies or for those that do not have the radio.
3. DOWNLOAD - Unzip all files and Run the Installer: [Click Here](#) or use the One Click Auto Updater to install and / or update
4. Prerequisite steps:
 - 4.1 You must have .NET Version 4.6.2 installed on your machine. Most people should already have this, but we note it just in case you need it. You can check to see if you have it installed by navigating to add / remove programs and looking for “Microsoft .NET Framework X”. If you do not have it download .NET 4.6.2 from this link [HERE](#)
 - 4.2 If you happen to have a Windows N version, you will need to download the media packs for your version of Windows located [HERE](#). You will need to find this out on your own, however, if you do not have Windows Media Player, that is a good indicator that you have an N version. If you do need to install the media packs then you need to find your Windows build number; you can go to “About your PC” in Windows 10 and it will display the current build number, you are running.

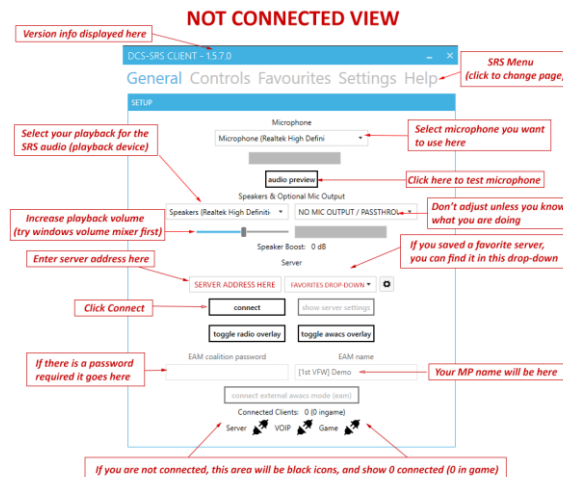


5. The Install Process

- 5.1 Download the latest release by clicking on the zip file link located [HERE](#). Create a folder on your desktop or location of your choosing to unzip the files into. Upon unzipping the file, you will find a file called “Installer.exe” – Double Click it and you will be greeted with the following screen.



- 5.2 Pick Install Location – This is the arbitrary install path for SimpleRadio Standalone, typically something like C:\Program Files\DCS-SimpleRadio-Standalone Note this path, so you can navigate to the program folder after installation.
- 5.3 Locate your Saved Games folder. For most users this will be C:\Users%\userprofile%\Saved Games. After navigating to these two locations, click Install / Update DCS-SRS.
- 5.4 Launch the simple radio client by clicking on “SR-ClientRadio.exe” where you installed Simple Radio (Tip: Right-click and make a shortcut of this exe and place it on your desktop for easier use in the future). When you launch the Simple Radio client, you will see the screen below:



- 5.5 The first thing you want to do is confirm your microphone is working. For most, it should default to your headset and work right away. You can test it by clicking the Preview Audio button and making sure it is registering your voice. You will hear what others will hear on the server.



- 5.6 To connect to a Simple Radio server, enter a known IP address into the ip box above the “connect/disconnect” button, or join a DCS server that is SRS autoconnect enabled.

CONNECTED VIEW

DCS-SRS CLIENT - 15.7.0

General Controls Favourites Settings Help

SETUP

Microphone (Realtek High Defini)

Speakers & Optional Mic Output (NO MIC OUTPUT / PASSTHRO)

Speaker Boost: 0 dB

Server: srs.radio.1stvfw.com | 1st VF/W SRS

Buttons: disconnect, show server settings, toggle radio overlay, toggle awacs overlay

EAM coalition password | EAM name: [1st VF/W] Demo

connect external awacs mode (eam)

Connected Clients: 47 (26 ingame)

Server VOIP Game

When you are connected, these icons will turn green and display how many clients are connected and in game.

- Green server icon means you are connected to the SRS server
- Green VOIP icon means your VOIP is connected and working (if it isn't green, check your firewall)
- Green Game icon means SRS is connected to the mission you are in (i.e. changing radios in aircraft will change SRS channel)

Note: If you connected to a SRS server but aren't in a mission yet, the Game icon will stay black.

If you are having issues using SRS in game, check these icons first to narrow down the issue.

6. Controls

- 6.1 Here is where you set up your Key Bindings for SimpleRadio Each radio slot functions the same; they will be combined below. You click on SET and then push the keypress on your stick that you want to assign to it. Most people use radios 1, 2, and 3 only. In the Hornet, you will use radios 1 & 2 (COMMS 1 & 2), as well as radios 3 and 4 (MIDS 1 & 2).

DCS-SRS CLIENT - 19.8.0

General Controls Favourites Settings Help

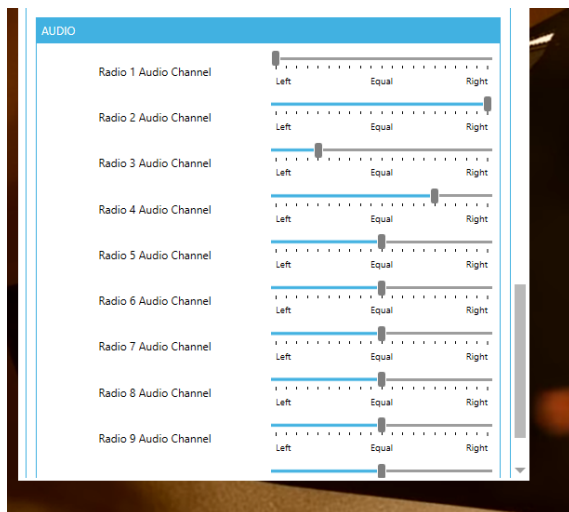
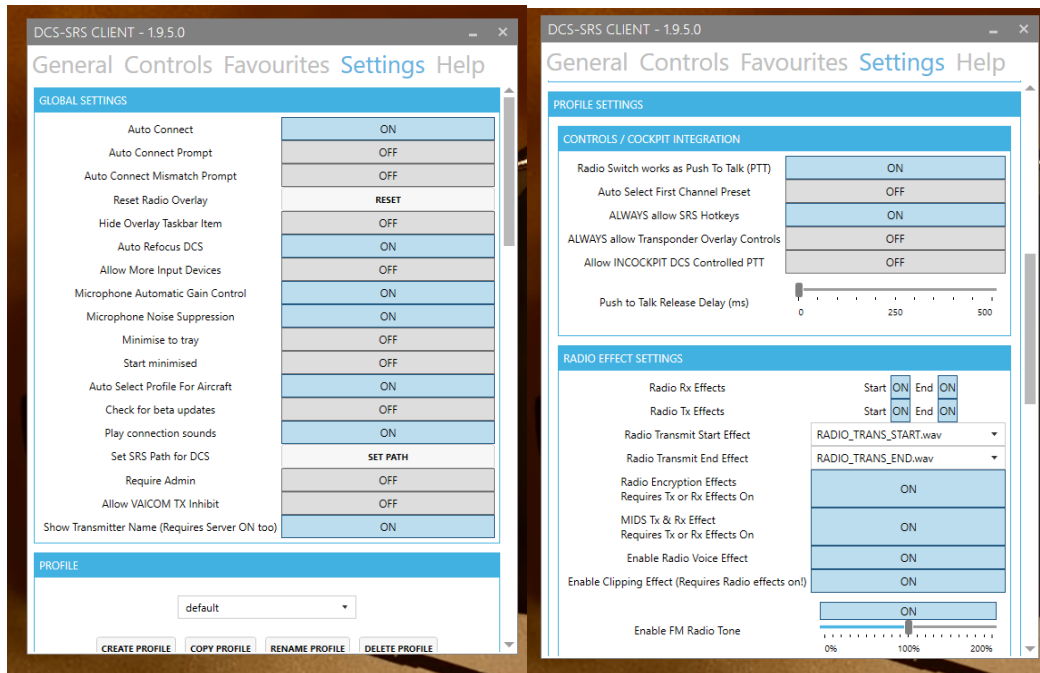
CONTROLS

RESCAN INPUT DEVICES

	Device	Button		
Radio 1	LEFT VPC Throttle MT-50CM3	26	set	clear
Radio 1 Modifier	None	None	set	clear
Radio 2	LEFT VPC Throttle MT-50CM3	27	set	clear
Radio 2 Modifier	None	None	set	clear
Radio 3	LEFT VPC Throttle MT-50CM3	28	set	clear
Radio 3 Modifier	None	None	set	clear
Push To Talk - PTT	None	None	set	clear
Push To Talk - PTT Modifier	None	None	set	clear
Intercom Select	LEFT VPC Throttle MT-50CM3	25	set	clear
Intercom Select Modifier	None	None	set	clear
Overlay Toggle	None	None	set	clear
Overlay Toggle Modifier	None	None	set	clear
Radio 4	LEFT VPC Throttle MT-50CM3	29	set	clear
Radio 4 Modifier	None	None	set	clear
Radio 5	None	None	set	clear
Radio 5 Modifier	None	None	set	clear
Radio 6	None	None	set	clear
Radio 6 Modifier	None	None	set	clear
Radio 7	None	None	set	clear



7. Settings SOP

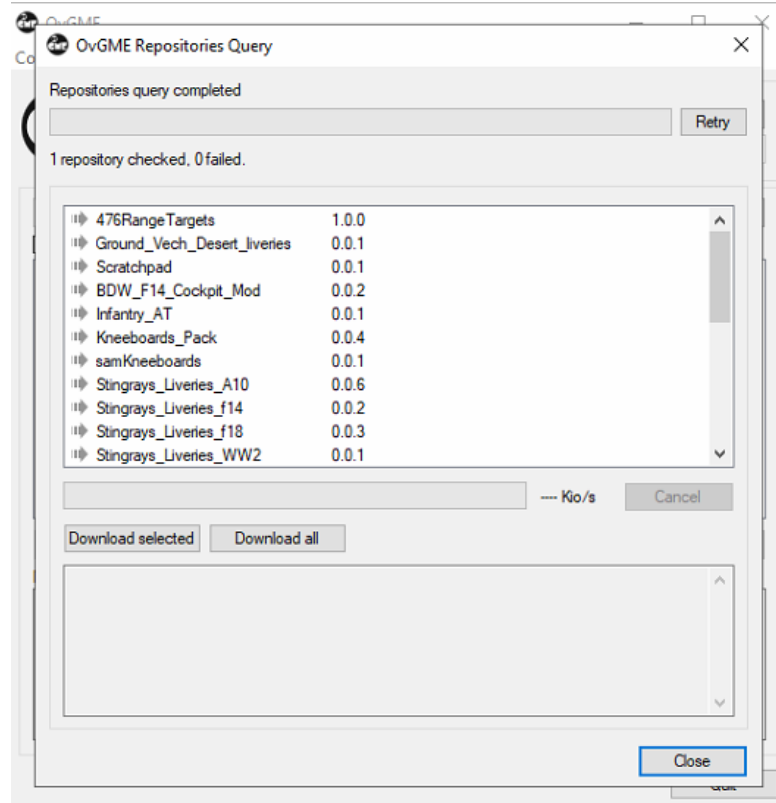


4.2 Tacview

1. One part of Tacview is an in-game data recorder for everything that moves in the game, and the other part is a playback application (that also works with BMS ACMI files) that lets you study that flight data after the fact.
2. Using Tacview with DCS World is straightforward. In most of the cases, this is a smooth and fully automated process. When you install Tacview, all the necessary scripts and settings are automatically installed so you are ready to record your first flight right away!
3. [Download Here](#)



7. Time to Query! Go to **Mods -> Repositories -> Query**
8. You will see a list of mods to download you can select each individual one or press "Download all"



5 Peripherals

5.1 Head Trackers

1. Head trackers are required for members of the squadron, given the huge advantage they offer over using a POV hat or mouse controls.
2. Most head trackers work by detecting a pattern of IR lights, which are then converted into the various head movements. We typically classify these movements as 6-DOF (Degrees of Freedom), i.e., the six axes in which you can move your head (registered by the head tracker): X- (horizontal, side to side), Y- (vertical, up, and down), Z- (zoom, forwards and backwards) movement, as well as X, Y, Z roll (i.e., tilting or twisting your head).
3. This movement is received by what is a (modified) webcam, typically placed on top of your screen. This webcam is following (tracking) a pattern of InfraRed (IR) lights and using these to decipher what your head is doing to represent this head movement in-game (albeit amplified, so you can still look at your screen). For this the webcam needs to have its infrared filter removed: infrared is invisible to the human eye and most cameras use a filter to block it out (as heat sources such as the sun radiate infrared waves and would thus overexpose the camera with light).



4. Once the filter is removed you can now follow a series of IR lights (placed in a pattern) to track the head movement: to still be able to look at your screen the actual head movement is amplified in the game (with your own set curves, in your headtracking software of choice). It is worth noting that the actual resolution and precision comes from the camera (although the software also plays a role) and rarely has to do with the pattern of IR lights attached to your headset / hat (head).
5. Headtracking Hardware
 - a. [TrackIR](#) is a commercial solution by [Natural Point Inc.](#) It is the costliest of all the head tracking options but is also quite simple to install and has a large (the largest) selection of games that natively support it, thanks to being the most well-established head tracking solution on the market. TrackIR is also a great option because it has a processor built into the tracking unit, which means that all data processing and head movement translation calculating is done on the device itself: this means there is no performance hit on your system as this data is streamed into the TrackIR software. Other systems such as Delanclip and Trackhat instead calculate these values on the PC itself via their software, which means there is a (minor) performance hit (somewhere around 0 ~ 5%) as the system must allocate resources to calculate these values.

5.2 Virtual Reality

1. DCS in VR takes you to a new level of immersion; it really feels like flying.
2. VR Headset
 - a. Valve Index
 - b. HP Reverb G2
 - c. Oculus Quest 2
 - d. HTC Vive Pro 2
3. Experts think motion sickness is primarily caused by a mismatch between cues sent to your brain. If your eyes see one thing and your inner ear is experiencing another, you might experience nausea. It can also happen if your frame rate is too low, which may be a problem on less powerful PCs.

5.3 Joysticks and Throttles

1. To really enjoy DCS, you most definitely need a joystick and throttle combo (collectively called HOTAS). You can start with something priced and move over time to more premium options. Or you can get the best ones right away and save cash overall. That choice is up to you.
 2. Premium HOTAS
 - a. Virpil Controls
 - b. VKB Sim
 - c. WINWING
 3. Mid-Range
 - a. Thrustmaster HOTAS Warthog
 4. Entry-Level
-



DEPARTMENT OF THE NAVY
vVF-161 Fightin' Stingrays
www.fightinstingrays.com

- a. Thrustmaster T.16000M FCS Hotas
 - b. Saitek X56
5. Rudder Pedals
- a. Depending on who you talk to rudder pedals are completely optional.
However, if you buy a joystick that does not have a twist axis for rudder control you will need a pair for control.
 - b. Premium
 - i. Virpil Controls
 - ii. MFG Crosswind
 - iii. Thrustmaster TPR
 - iv. Mid-Range
 - v. Logitech Pro Flight Rudder Pedals
6. Entry-Level
- a. CH Flight Pedals
 - b. Thrustmaster TFRP Rudder
-