

DCS BEGINNERS GUIDE



12/17/25
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REFERENCES

Purpose of this Guide

The purpose of this guide is to aid those interested in trying and playing DCS. Within the Hoggit subreddit and other DCS subreddits, similar questions are asked by newcomers often and this guide attempts to answer as many of those questions as possible. I hope my efforts aid those who want to learn this great program and join its wonderful community.

This guide is just the beginning of a beginners journey and I have included resources and links to refer to when you have gained knowledge beyond this guide.

Thank you to the Hoggit community and everyone who gave their feedback and helped make the guide complete.

See you in the skies.

Update Log

DECEMBER 2025 - UPDATE

Added the MiG-29A Fulcrum, the CH-47F Chinook module, the F4U Corsair, Afghanistan, Iraq and Germany maps. Updated Chucks Guides. Removed purchasable Campaigns. Fixed smaller errors and minor updates.

AUGUST/SEPTEMBER 2024 - UPDATE

Added new Launcher info and added ShadowReaper server info. Added red box for controllers in multiple spots. Removed Beta/Stable and 50% off information. Added Feet Wet/Dry. Added JF-17 training missions. Added OH-58D Kiowa Warrior. Added DCS Web Viewer link. Fixed various errors.

MAY 2024 - UPDATE

Added F-4E Phantom II to the guide in multiple areas. Added the Kola Map. Added more information on Missions, the Mission Editor and more.

JANUARY 2024 - UPDATE

Added link to WingmanFinder subreddit in multiplayer section.

DCS Files created by Goldwolf

Find below other files online, each is clickable.

[DCS Beginners Guide](#) - This document

[Quick Reference Guide](#)

[DCS Stream Deck Profiles](#)

[A-10C HOTAS](#)

[F-16C HOTAS](#)

Box & color meaning in this guide:



IMPORTANT



QUESTION

OPTIONAL

ADDITIONAL
INFORMATION

EARLY ACCESS

FREE

Patreon

Shoadow

Semisniper117

Jake Kanning

Granite603

SHAKA

PieMuncher

Thank you to the following Patreon supporters:

Derek Speare

DCS Web Editor

Hank Wildcarde

Wander N'Gather

D

John Turner

Ravenleigh

RogueRN

DeltaNerd

Archenuh

AgileNebula

Michael P

Colonel Akir Nakesh

Major TO

Joe Walker

Aztaroth_the_berzerker

Geoff

I have started a Patreon page for those who wish to support my work. I have 3 tiers of support and those who support my work will be added to this section as a supporter and thank you.

Check out my [Patreon page](#).



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The views expressed within this guide are based on my own personal experience and/or those of Hoggit, other persons and/or other communities.

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All illustrations with the exception of some aircraft illustrations were created by Goldwolf. Some aircraft illustrations were also created by Kaboldy.

Aircraft information has been taken from DCS, in DCS aircraft manuals, online (Wikipedia for example), Chuck's guides and the Stormbirds.blog website.

All aircraft photos within the What should I buy section has been taken from the DCS website and are all in-game images. Some aircraft overviews were taken from [here](#). A post on Hoggit without a known user. If you wrote these, please let me know and I'll add your name to the guide. All product images were taken from the internet and are copyrighted to their respective owners.

Some of the text information has been taken from Chuck's guides. Throttle information was taken from [here](#) by Richardus1-1. Radar write up was written by Trematode, which can be found [here](#) and Techneatium. Thank you for the help.

Elements of this guide was taken from the Hoggit DCS World Wiki found [here](#). Also campaign information from the DCSHELIN Guide found [here](#) have been used.



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WHERE TO BEGIN	1
CAN I PLAY DCS? SOFTWARE	2
WHAT TO DO FIRST DCS INSTALLATION MODULES	3
WHAT TO DO NEXT TRAINING CHUCK'S GUIDES YOUTUBE VIDEOS	5
HARDWARE JOYSTICKS HEAD TRACKING THROTTLES HELPFUL PROGRAMS, DOCUMENTS ONLINE RESOURCES & DISCORD	8
WHAT SHOULD I BUY? CHOOSING YOUR FIRST MODULE ROLE ERA MODULE DEVELOPER AIRCRAFT AND HELICOPTER BY YEAR	14
MODULE DESCRIPTIONS WORLD WAR 2 AIRCRAFT COLD WAR AND MODERN AIRCRAFT HELICOPTERS MAPS OTHER MODULES	18
MISSIONS AND CAMPAIGNS MISSIONS DYNAMIC CAMPAIGNS	50
MISSIONS EDITOR OVERVIEW CREATING A MISSION	51
LEARN TO FLY FLIGHT CONTROLS FUEL NAVIGATION COMMUNICATION	52
LEARN TO FIGHT RADAR RADAR WARNING RECEIVERS THREATS COUNTERMEASURES MISSION TYPES REARM & REFUEL BEYOND VISUAL RANGE & WITHIN VISUAL RANGE BASIC FIGHTER MANEUVERS (BFM) COMMON MANEUVERS IDENTIFICATION, FRIEND OR FOR KNEEBOARD AOA INDEXER MAP WEAPONS	54
WHAT ARE THEY TALKING ABOUT? BREVITY	63
MULTIPLAYER JOINING A SERVER CREATING A SERVER POPULAR SERVERS	64
TROUBLE SHOOTING & FINAL WORDS	67
GLOSSARY	68

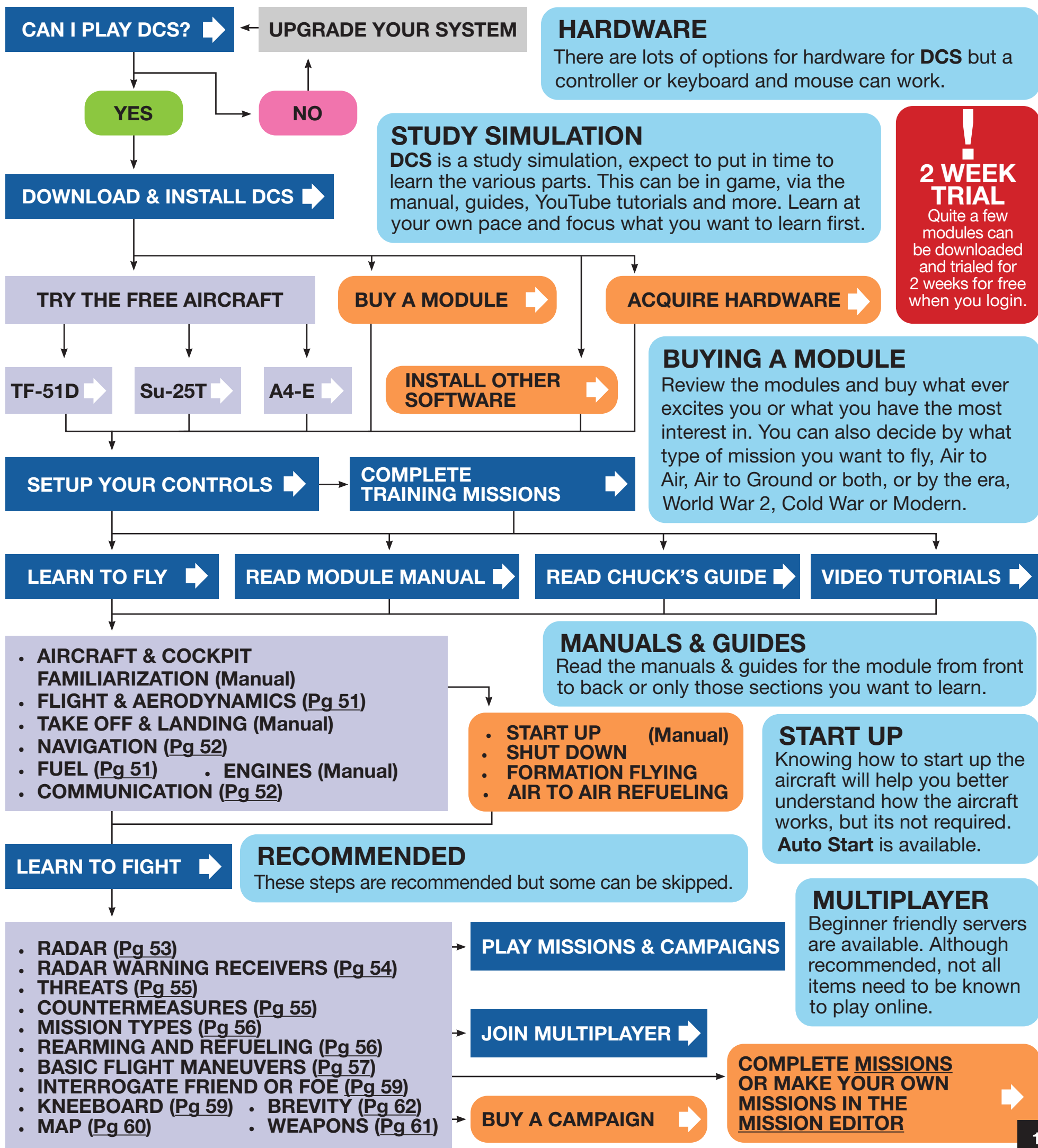
WHERE TO BEGIN

OPTIONAL

➡ - LINKS TO SECTION IN THIS GUIDE

DCS IS AMAZING BUT CAN BE OVERWHELMING AT FIRST

DCS can be very overwhelming especially for anyone new to simulations. When beginning, there are so many unknowns that you might not know where to begin. This page and guide attempts to put together a recommended workflow on what to do and when. I recommend you read this guide from beginning to end and check out the resources, information and links to find what you need. This is the first step into the world of **DCS**!



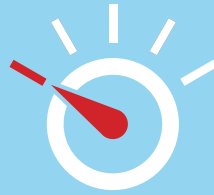
CAN I PLAY DCS?

DCS REQUIREMENTS

These specifications are taken from the **DCS** website. Disk space is the minimum amount required to install **DCS**, with the purchase of any modules or maps, much more space is required. I would personally recommend installing **DCS** on an SSD disk as this will greatly improve loading times. **An internet connection is required.** If you are not sure if **DCS** will run on your system, download it for free and test it. Don't rely on a website like Game Debate to test your system. For **multiplayer**, it is recommended to have **16 GB of RAM** or more for the best experience.

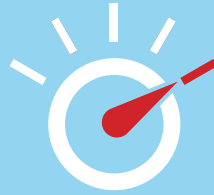
MINIMUM SYSTEM REQUIREMENTS:

CPU: Core i3 @ 2.8 GHz or AMD FX
RAM: 8 GB, 16 GB for heavy missions
OS: OS 64-bit Windows 10 - DirectX 11
VIDEO CARD: GTX 760/AMD R9 280X (4GB minimum)
DISK SPACE: 120 GB (SSD recommended)



RECOMMENDED SYSTEM REQUIREMENTS:

CPU: Core i5+ @ 3+ GHz or AMD FX/Ryzen
RAM: 16 GB, 32 GB for heavy missions or large maps
OS: OS 64-bit Windows 10 - DirectX 11
VIDEO CARD: GTX 1070/AMD RX VEGA 56 with 8GB VRAM or better
DISK SPACE: 120 GB on SSD



RECOMMENDED VR SYSTEM REQUIREMENTS:

CPU: Core i5+ @ 3+ GHz or AMD FX/Ryzen
RAM: 32 GB for heavy missions or large maps
OS: OS 64-bit Windows 10 - DirectX 11
VIDEO CARD: GTX 1080/AMD RX VEGA 64 or better
DISK SPACE: 350 GB on SSD



DCS IS FREE

DCS, at its root, is a free software with the option to purchase modules. Modules include aircraft, maps, campaigns and more. Also you have the option to trial any module for 2 weeks. **DCS** provides the following features for free:

- Fly the **TF-51 Mustang** and **Su-25T** attack jet.
- Highly detailed map of the **Caucasus** region.
- Highly detailed map of the **Mariana Islands**.
- 29+ fully-equipped operational airbases and thousands of kilometers of usable roads and railway.
- 156 free and fully operational weapons systems, 105 ground vehicles, 19 ships and 84 AI aircraft.
- **Mission Editor:** Create your own missions and campaigns for unlimited gameplay.

- **Mission generator:** Allowing rapid mission creation.
- Multiplayer to fly with friends.
- Both hardcore realistic and casual game play modes and options available.
- Play hundreds of missions and campaigns with new campaigns continually created.
- Large depository of user created items: missions, campaigns and more.
- Virtual Reality support.

STANDALONE VS. STEAM

DCS is available on **Steam** and on the **DCS** website. The **standalone** option is the better option. The **standalone** version has a **2 week trial** option and discounts throughout the year. You can transfer purchases from **Steam** to the **standalone** but not vice-versa. As a note, **Steam** can be less expensive depending on your location and currency.

FREE MAPS

The **Caucasus** and **Mariana Islands** maps are free. Other maps need to be purchased.



DCS IS FREE TO TRY

DCS can be downloaded and tested on your system for free. **DCS** includes two aircraft and two maps to use.



CONTROLLER

You can fly in **DCS** using only a controller quite comfortably. [Click Here](#) to learn more about using a controller in **DCS**.



WHAT TO DO FIRST

DCS INSTALLATION AND SETUP

Download DCS



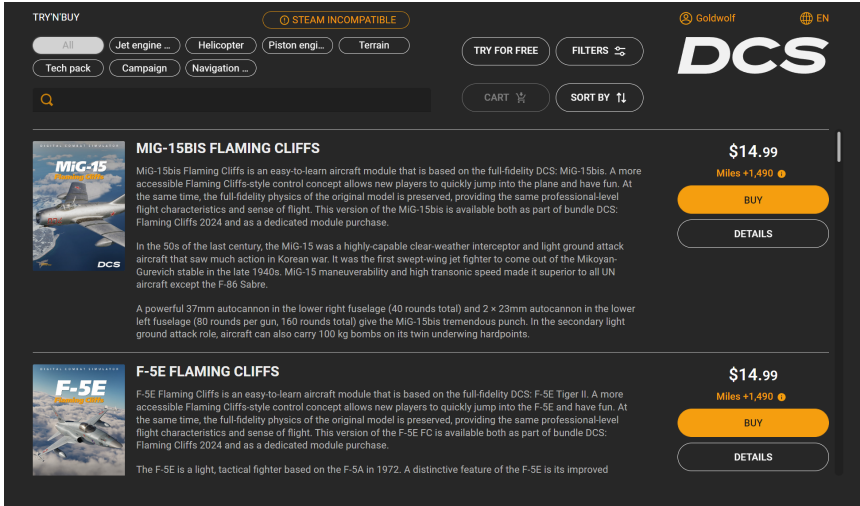
Download **DCS**. The latest version recommended as it the most up to date and used by most multiplayer servers. Once downloaded, install **DCS** and create a new account. Once installed, open **DCS**.

Open DCS

When you click the icon to open **DCS**, you are now greeted with the following launcher. The icons on the left when rolled over show the menu below. Click the Launch **DCS** on the Home page to start **DCS**.

Try'n'Buy

When you click this icon, you are shown the many different modules available to purchase. Click the **TRY FOR FREE** button at the top to sort modules for trial to try for free.



Files

This shows the various files installed on your system. In here, you can turn on and off modules. You can also **Check for Updates**, **Repair Build** and **Clean Up**.

REPAIR FILES
If you have any problems with DCS, click the Files icon and click Repair Build.

Settings

This shows the various graphical and monitor settings prior to launching **DCS**. You can also set the size of the launcher, turn on and off the launcher and save custom settings.

News

The latest updates from Eagle Dynamics. Ordered from most recent, you can check out the latest developments in DCS. Also you can see the Changelog of DCS updates, each with a link to find out what the changes were specifically.

Social

This shows links to Eagle Dynamics social channels. YouTube, X, Facebook, Discord, Instagram and the DCS Forums.

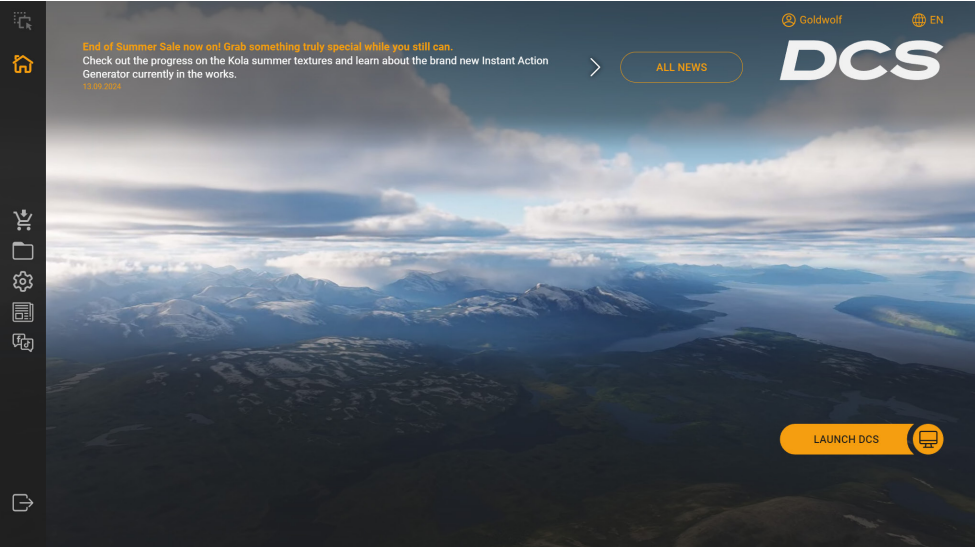
DCS World 2.9

Digital Combat Simulator World (DCS World) 2.9 is a free-to-play digital battlefield game.

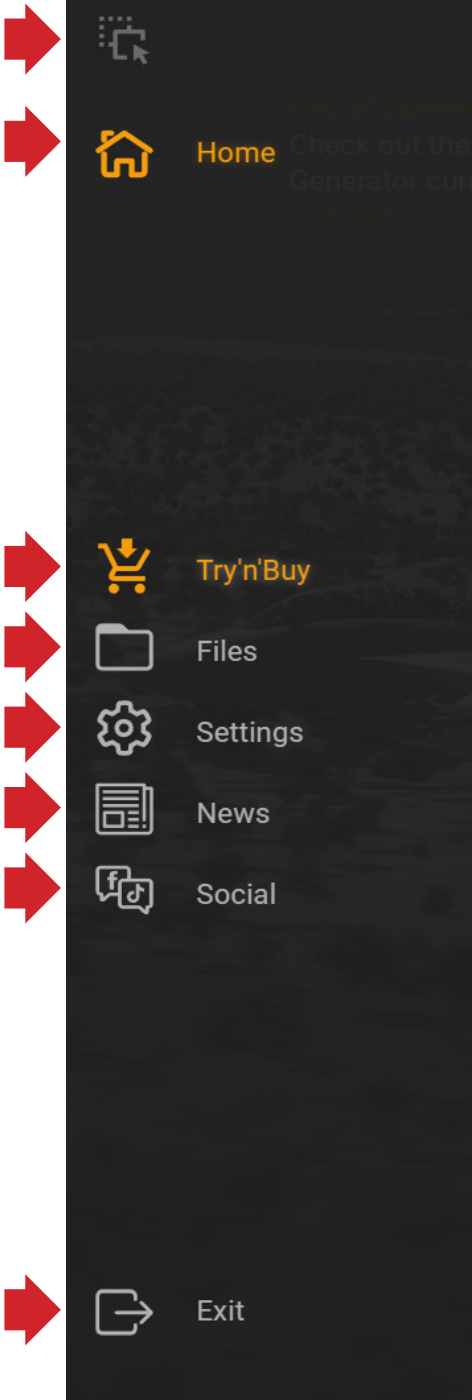
Our dream is to offer the most authentic and realistic simulation of military aircraft, tanks, ground vehicles and ships possible. This free download includes a vast mission area of the Caucasus region and Black Sea that encompasses much of Georgia. It also includes a flyable Russian Sukhoi Su-25T ground attack aircraft and the famous WWII North American TF-51D fighter. An additional more than two dozen aircraft are available for purchase.

The download comes with one of the most powerful mission planners ever designed, full network play and more than 156 AI weapons systems, 105 ground vehicles and trains, 50 air defense systems, 19 ships and 84 AI aircraft permitting you to plan and play highly sophisticated missions. DCS World is massively extensible through additional DCS modules as well as user-made add-ons and mods which you can purchase and download from our site.

[DOWNLOAD](#)



- Move**
Move the launcher window.
- Home**
Return to the opening launcher screen.



- Try'n'Buy**
Click here to purchase or trial modules.
- Files**
Shows current installed **DCS** files.
- Settings**
Edits various settings in **DCS**.
- News**
Latest **DCS** news.
- Social**
Links to **DCS** social platforms.

Exit
Quit the **DCS** launcher.

Exit

Closes the DCS launcher.

INSIDE DCS

Computer Setup

Once **DCS** is open, click the cog icon at the top left of the screen and update the settings based on your computer system and needs.

Controls Setup

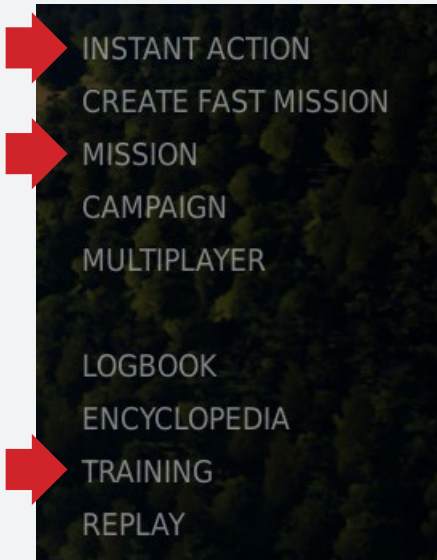
Next within the settings options, click **CONTROLS** and start setting up the module controls. A guide on what controls are recommended can be found in [Chuck's Guides](#).

Instead you could also click **INSTANT ACTION**, **MISSION** or **TRAINING** to start in the aircraft. More about each of these missions is discussed later in this guide.

Once in a mission, press **ESCAPE** and click **Adjust Controls**. In here, **DCS** will automatically choose the current module or if that doesn't work, choose the module from the list.

You can now start assigning buttons and more to specific aircraft functions. For axis movement, like on a Joystick or Throttle, choose the **Axis Commands** from the drop down menu. Double click the area you would like to update and a window will open to allow you to set the assignment. This can be easily accomplished on joysticks and other peripherals by choosing the right column on the right for the peripheral, double clicking the assignment box and then pressing the button or moving the axis. **DCS** will automatically detect the button or axis on the peripheral. This saves a lot of time and you don't need to figure out what button number is associated with each peripheral.

BACKUP CONTROLS
You can find the controls you create in your user files under Saved Games and the DCS folder inside. You can then back them up as needed.



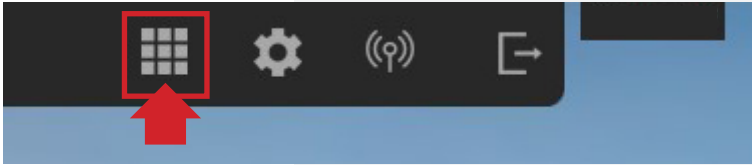
KEYBOARD SHORT CUTS
Across most modules, there are standard keyboard shortcuts. These are usually **G** for gear, **F** for flaps, **Space** for weapon fire etc.

FREE MODULES
Included with **DCS** is the **TF-51 Mustang** and the **SU-25T**. Both include training missions and more. Also available to download for free is the **A-4E Skyhawk**, which can be downloaded [here](#).

MODULES

Buy a Module

CONTROLLER
You can fly in **DCS** using only a controller quite comfortably.

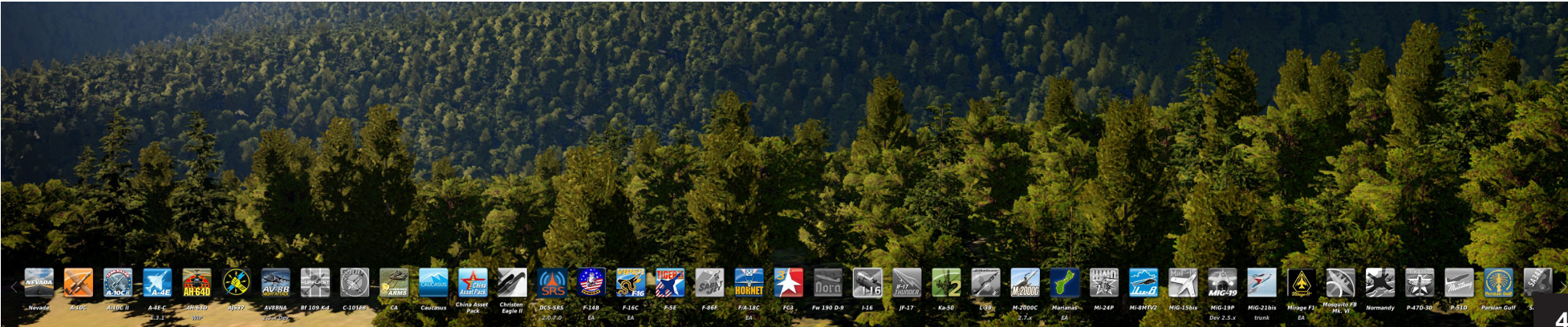


You can either click the squares icon within **DCS** to purchase a module, you can go to the **DCS** website or purchase modules from the Launcher under **Try'n'Buy**. If you use the **DCS** website, you will need to login and make the purchase. Once complete you will receive an email confirmation. Next open up **DCS**, and click the same squares icon, this time **DCS** will alert you to a new module download. Once **DCS** has downloaded the module, you will be able to use it.

Bottom Icons

The icons along the bottom of the main **DCS** screen are icons of all the modules available to purchase. Depending on the screen resolution, more or less will be shown. Full color icons are ones purchased or available to use, black and White icons have not been purchased.

2 WEEK TRIAL
Quite a few modules including maps can be downloaded and trialed for 2 weeks for free when you login.



WHAT TO DO NEXT



AUTOSTART

All aircraft have the option to autostart. When first starting, using autostart can help but learn to start the module.

TRAINING

Module Training Missions

Almost every module comes with training missions. These guide you through the process of learning the aircraft from start up and taking off, to complex subjects like specific weapon targeting and usage. It is recommended to start here when a module is first purchased.

All modules vary in the amount of training missions available. For example, the **MiG-21** includes **15** specific training missions covering key systems. The **AV-8B** includes **62** training missions covering all sorts of systems and tactics. The **UH-1H** includes only **4** training missions. The more training missions available, generally the easier it is to get up to speed on using the aircraft effectively.

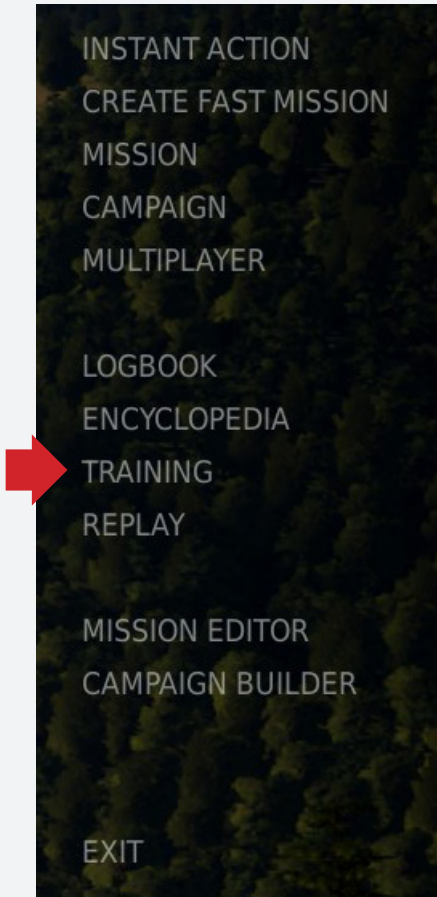
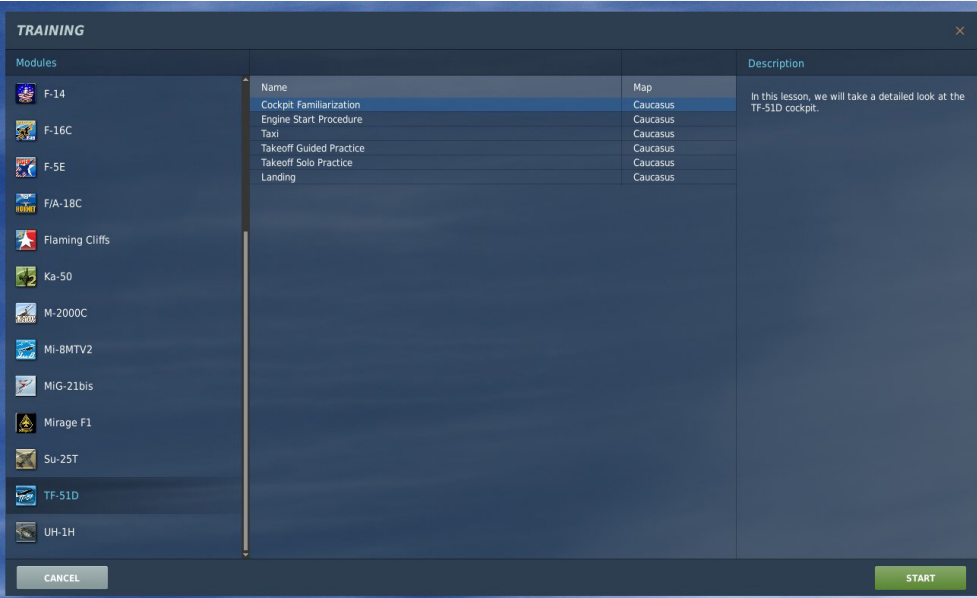
Find below a list of some modules and the number of training missions available:

MODULE	TOTAL TRAINING MISSIONS
A-10C II WARTHOG	17
AH-64D APACHE	12 (STILL IN EARLY ACCESS)
AJS-37 VIGGEN	11 (STILL IN EARLY ACCESS)
AV-8B HARRIER	62
F-14 A/B TOMCAT	15 (STILL IN EARLY ACCESS)
F-15C EAGLE	LINK
F-15E STRIKE EAGLE	13
F-16CM VIPER	21 (STILL IN EARLY ACCESS))
F-5E TIGER	10
F/A-18C HORNET	24
JF-17 JEFF	10
KA-50 BLACK SHARK	9
M-2000C MIRAGE	10
MI-8 HIP	4
MI-24P HIND	8 (STILL IN EARLY ACCESS)
MIG-29S FULCRUM	10 LOW FIDELITY
MIG-19 FARMER	10
MIG-21 FISHBED	15
MIRAGE F1	7 (STILL IN EARLY ACCESS)
MOSQUITO	7 (STILL IN EARLY ACCESS)
SU-25 FROGFOOT	8 LOW FIDELITY
SU-25T FROGFOOT	15 FREE VERSION
SU-27 FLANKER	14 LOW FIDELITY
SU-33 FLANKER-D	18 LOW FIDELITY
TF-51 MUSTANG	6 FREE VERSION
UH-1H HUEY	4

EARLY ACCESS

Early access are aircraft that are not fully complete and still have some elements missing.

Training Window showing the training available for the TF-51

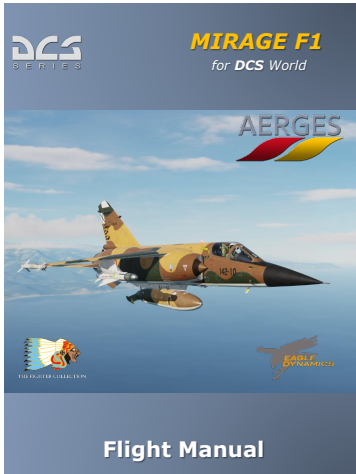
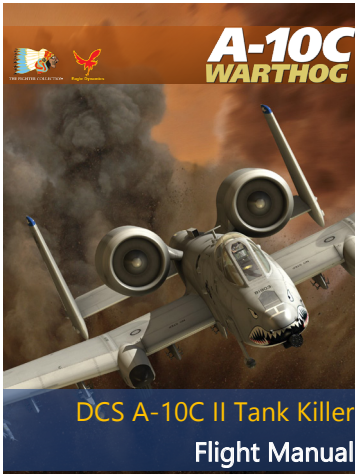
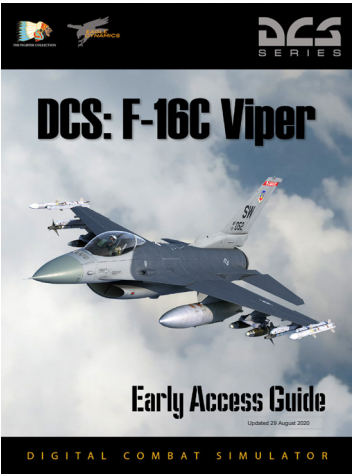


Module Documentation

Like training missions, almost all modules include documentation in PDF format. These can be found in the **DCS** installation folder, like the following:

C:\(Installation folder)\DCS World OpenBeta\Mods\aircraft\(module)\Doc\

Some module document examples:



AI AIRCRAFT

There are 84+ AI aircraft in the mission editor. Even if you don't own a module, the AI version of the aircraft is available to fight against.

CHUCK'S GUIDES

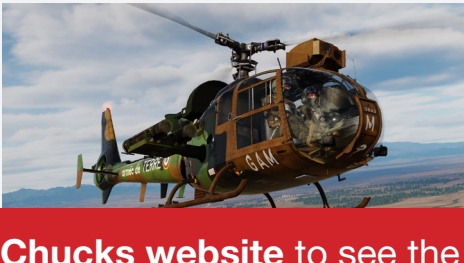
A Valuable Free Resource

Chuck's guides are an extremely valuable and popular resource and highly recommended. **Chuck Owl** provides free PDF documents for almost every aircraft and helicopter in **DCS**.

Within each document, Chuck provides key and simple to understand information to help get acclimated to the module. Items covered can include:

- Recommended Control setup
- A review of the entire cockpit
- Start up
- Taxing and take off
- Landing
- All aircraft systems
- Weapons
- Countermeasures
- Navigation
- Air to Air refueling.

Module List - Each image is a link to the website.



MISSING AIRCRAFT? Check Chucks website to see the full list.

YOUTUBE VIDEOS



Eagle Dynamics

The creator of DCS. Eagle Dynamics creates a wide range of videos including many detailed instructional videos on multiple aircraft.
Click the logo to the left to go to their YouTube channel.



Matt “Wags” Wagner

Senior Producer for DCS

Wags creates a large range of how-to videos for multiple modules.
[LINK](#)

DCS Training (Community created and alphabetical)

Aerges Creator of the Mirage F1	Bogey Dope Popular DCS video creator	Casmotv Real life AH-64D pilot	Deephack DCS tutorials creator	Dr. Jebus Flight sim tutorial creator	Eagle 7 Real life aircraft and helicopter pilot	Enigma Creator of the Cold War Server
Mirage F1	F-16, F/A-18 & more.	AH-64D, F-14 & more.	AV-8B, F-14, KA-50, M-2000C, SA-342 & more.	F-5, F-14, F-86, MiG-19, Enigma War Server & more.	AH-64D, Hardware, Mi-24, SA-342 UH-1H & more.	Enigma War Server, MiG-19, MiG-21, F-5E & more.
LINK	LINK	LINK	LINK	LINK	LINK	LINK

Fast Jet Performance Former RAF jet instructor	Got Space Game DCS in 3 minutes or less.	GVad The Pilot Civilian aircraft pilot	Growling Sidewinder Popular DCS video creator	Laobi Short DCS instructional videos	Mambo DCS enthusiast	The Ops Center Informative retired USAF	Pukin Dog DCS Tutorials and more
Navigation, real world processes & more	AV-8B, F-5, F-16, F/A-18, & more.	AV-8B, MiG-21, Mirage 2000, Mirage F1 & more.	AV-8B, Dogfighting, Hardware, Mi-24P, MiG-21 & more.	A-10C, AJS-37, F-5E, F-16C, F-14B, F/A-18C, FW-190 A-8, I-16, Mi-24P, MiG-21, Mirage 2000, P-47D, Spitfire & more.	AH-64D, F-16 and more!	Air combat, BFM, ACM, Defense, Radios & more!	A-4E, AV-8B, A-10C, F-15E, F-16, F/A-18, Warbirds & more.
LINK	LINK	LINK	LINK	LINK	LINK	LINK	LINK

Operator Drewski Popular DCS video creator	Ralfidude Popular DCS video creator	RedKite Quality DCS training creator	Reiver Aviation enthusiast & virtual pilot	Reflected Simulations DCS Campaign Creator	Spudknocker Aviation Historian and DCS enthusiast
A-10, AH-64D, Cold War, AJS37, F-14, F-15, F-16, F/A-18, Su-25 & more.	A-10C, Brevity, Hardware, SU-25T & more.	AV-8B, Campaigns, Hardware, Mirage F1, F-14, F-16CM, F/A-18, Mi-24P, & more.	AJS-37, M-2000C, Mirage F1 and more.	Campaign guide and creation, F-14, Hardware, Mission Editor, Mosquito & more.	AV-8B, F-16CM, F/A-18C, Mi-8, Mi-24P, Mirage 2000, Mirage F1, Weapons & more.
LINK	LINK	LINK	LINK	LINK	LINK

Sukhoi Gaming Tutorial creator and DCS enthusiast	Tactical Pascale Ex RAF Fighter Control Instructor.	Tom P DCS tutorial creator	TorniQuetHD DCS tutorial creator	Tricker Real life Civilian pilot	Volk DCS tutorial creator	vsTerminus Indepth DCS training creator
F-5, MiG 21, Mirage F1, Mirage 2000, Su-27, & more.	AH-64D, AV-8B, F-5E, F/A-18C, F-86, GCI, JF-17, MiG-21, Mosquito, P-51D, Weapons & more.	AH-64D, M-2000C & more	AH-64D, F/A-18, Su-25 and more	AH-64D, AV-8B, F-5E, F-16CM, F/A-18, IFF Guide & more.	Ka-50 Black Shark	AH-64D, AV-8B, SA-342, Mi-8 & more.
LINK	LINK	LINK	LINK	LINK	LINK	LINK

? WANT TO BE ADDED TO THIS GUIDE?
Feel your videos or content should be added to this guide, let me know.

HARDWARE

Find below various hardware options that are available for **DCS**. **DCS** can accommodate many different peripherals. Not all are needed at all but generally the list below is in order of importance. There are many more options available beyond what is shown here.

! CONTROLLER
You can fly in **DCS** using only a controller quite comfortably.



A Joystick

It is recommended that **DCS** should be played with a joystick or game controller. **See next section for more on joysticks.**

Product	Cost	Pros	Cons
Extreme 3D Pro	\$	Good start, twist rudder	Few buttons
T.16000M		Decent option and twist rudder. Can last.	Poor internals
X-52*	\$\$	Decent amount of buttons.	
X-55*, X-56*		Many buttons and switches, twist rudder. (Author has the X-56 and it has lasted a long time)	Can be hit or miss
VKB Gladiator NXT		High quality, many buttons, twist rudder	Not many
Warthog	\$\$\$	Popular but there are better options	Expensive
VKB Gunfighter, WinWing or Virpil	\$\$\$\$	High quality, many buttons	

* comes with throttle

B Headtracking

Headtracking will track your head movements in **DCS** so you can freely look around the cockpit and outside while flying without the need to use buttons to look around. **See next section for more on Headtracking.**

Product	Cost	Pros	Cons
DIY	\$	Cheapest option	Make yourself
AITrack, OpenTrack, Smoothtrack, ViewTracker		Low cost, various options	Harder to setup
AimXY, Delanclip, Grass Monkey		High quality	
TrackHat	\$\$\$	Highest quality, overall best responsiveness and easy setup	Expensive
Track IR, Tobii Eye Tracker	\$\$\$\$		

C Throttle

There are many on the market and some come with the joystick included. This would be a **Hands On Throttle And Stick** or **HOTAS** setup. **See next section for more on Throttles.**

Product	Cost	Pros	Cons
Asian Games	\$	Cheapest option	Basic and poor quality
TWCS		Quite a few buttons	Poor internals
VKB SEM, THQ		Small imprint, good quality	Small, limited buttons
X-55, X-56	\$\$	Many buttons and switches	Can be hit or miss
Warthog	\$\$\$	Better made than previous options	Expensive
Winwing			
VKB OMNI/STECs			
Virpil	\$\$\$\$	High quality, many buttons	

D Rudder Pedals

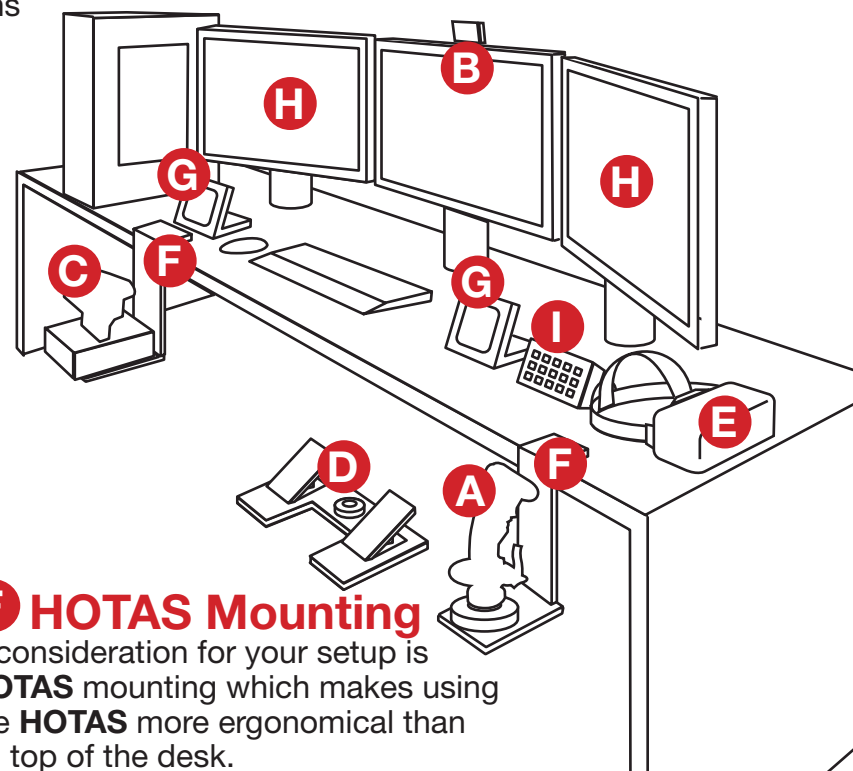
Next would be rudder pedals. Not really needed to get the most out of **DCS** but makes life easier, especially for helicopters where a rudder is used far more extensively.

Name	Cost	Pros	Cons
Thrustmaster TFRP	\$	Entry level option	Poor internals
Logitech Pro Flight, VKB	\$\$	Generally great internals	Expensive
MFG Crosswind, Virpil		High quality and adaptable	
Thrustmaster TPR, SLAW	\$\$\$	Highest quality	Extremely expensive

E VR Headset

A VR headset is an option for **DCS**. If your system can comfortably run VR, it can be a great option and is extremely immersive.

Product	Cost	Pros	Cons
PICO 4	\$	Decent quality, controllers included	Could be expensive, depending on budget
Meta Quest 3	\$\$	Great quality product with controllers	
Pimax Vision 8K	\$\$\$	High resolution screens	Very expensive



F HOTAS Mounting

A consideration for your setup is **HOTAS** mounting which makes using the **HOTAS** more ergonomic than on top of the desk.

Product	Cost	Pros	Cons
DIY	\$	Custom made to your needs	Need to make yourself
Foxx*, J-PEIN, Predator	\$\$	Solid construction and high quality	None
Monstertech	\$\$\$	High quality	Can be more expensive depending on shipping

* Recommended over Monstertech

G Accessories

There are many different accessories that work with **DCS**.

Product	Cost	Pros	Cons
Cougar MFDs*	\$	MFD buttons x2	No screen
Cougar Screens	\$\$	Add screens to above	Expensive
WinWing MFDs	\$\$\$	Quality buttons and screens	

* Can be used with a cheap monitor

H Extra Monitors

DCS has the ability to span multiple monitors. This can be great for added immersion if you are not pursuing VR.

I Button Boxes

A possible upgrade is the Button box. There are options to make your own, purchase a pre-made one or buy something like a StreamDeck.

Product	Cost	Pros	Cons
DIY	\$	Custom made to your needs	Need to make yourself
VKB items like GNX-SEM	\$\$	Well made, lots of layouts/options	Can be hard to choose, can be expensive
Stream Deck	\$\$\$	Very customizable	Expensive
Virpil / WinWing	\$\$\$\$	Great quality	

Cost Definition

Cost is relative to the category. Some items are inherently more expensive than other items. For example, the cheapest joystick, the Extreme 3D Pro is around **\$30**, while the VKB Gunfighter is **\$565**. Search online for the item to find out their current price in your country.

\$ = Lowest cost in category.

\$\$ = Second lowest cost in category.

\$\$\$ or \$\$\$\$ = Highest cost in category.

! KEYBOARD AND MOUSE
DCS can be played successfully with just a keyboard and mouse. It will be more difficult but it is possible.

JOYSTICKS

NOTE: These joysticks are the most common, but others are available.

Extreme 3D Pro

A great beginner joystick with 12 programmable buttons, a twist axis for a rudder, another axis at the base and a single hat switch. Limited buttons, made of light plastic and no easy option to mount the joystick, make this joystick good beginner option for the price but will become severely lacking very quickly.



T.16000M

This joystick includes 16 programmable buttons, a twist axis for a rudder, another axis at the base and a single hat switch. Fully plastic, overall poor internals and no easy mounting option, make this a better beginner option, but will be quickly lacking. A bit more expensive than the Extreme 3D Pro but still reasonable.



Saitek/Logitech X52

Sold with the throttle, the joystick has 9 programmable buttons and 2 hat switches. Option to mount it is also available. Fully plastic with some hit and miss on the internals, this joystick along with the throttle is a significant price increase over those previous.



Saitek/Logitech X55/X56

Neither is sold separately, the X-55 and X-56(blue) have a lot more buttons than previous joysticks. 6 programmable buttons, 3 hat switches (4 on the X-55), a mini-stick on the X-56 and a twist axis. A much larger stick than earlier models with the option to mount it. Fully plastic with some hit and miss on the internals, this joystick along with the throttle is a significant price increase over those previous but does not lack in inputs at all. This stick also includes programmable LED lighting.



VKB Gladiator

A great, well made joystick with decent internals. Available with multiple options, this joystick has 12 programmable buttons, 3 hat switches, a mini-stick or fourth hat switch, a twist axis, 3 additional axis in the base and a dual stage trigger. Decently priced, expandable, mountable with few negatives. Also includes programmable LED lighting.

A highly recommended stick and reasonably priced.



Warthog

A popular joystick with metal externals and some what decent internals. Based on the real life A-10C joystick (also used in the F-16C), this stick has 6 programmable buttons, 4 hat switches and a dual stage trigger. The stick offers multiple mounting options with a solid metal base. Much more expensive than previous sticks and can be viewed as a solid option, however there are better sticks on the market now.



VKB Gunfighter

This full metal ergonomic joystick has a lot to offer for a higher price. 12 programmable buttons, 5 hat switches, a mini-stick, dual stage trigger, folding trigger, twist axis (as an option), an extra axis and more. Extremely well made with great internals and many mounting options. This joystick has everything needed and more for any aircraft. An expensive stick but one of the best available and will last a long time. VKB also offers other sticks that can attach to the base.



WinWing

A full metal ergonomic joystick with a true to life layout. Based on the F/A-18 stick, this includes 8 programmable buttons, 4 hat switches and a dual stage trigger. Very well built with great internals and multiple mounting options. A great option if the price is accessible. WinWing also offers add ons and different sticks that can attach to the base. Be careful with ordering one though as they are shipped directly from China which can result in long shipping times and high shipping costs, customs, import tax, etc but not always. WinWing also offers grip alternatives as well.

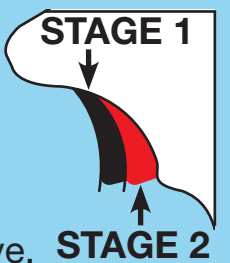
Virpil

A very high quality stick. Multiple stick options, full metal construction and great internals. Depending on the model of stick, most have lots of buttons, hat switches, everything ever needed for a stick. Expensive but will last forever. Virpil also offers other grip options.



DUAL STAGE TRIGGER

A common feature on real fighter aircraft, a dual stage trigger is a trigger that has two separate stages, one for the initial partial press and a second for full press down of the trigger. It is not a requirement but a nice to have.



POWERED USB

On occasion and depending on the peripheral being used and if you have any other USB peripherals attached, it might be needed to use a powered USB hub rather than connecting directly to your computer.

HAT SWITCH

A hat switch is made up of four buttons arranged in a cross, up, down, left and right. Some also include a press down button.



HEADTRACKING

Headtracking tracks your head turn and position and translates that into movements in the cockpit of the aircraft. You can also tune the turn so that a slight turn of a head can move the camera significantly in **DCS**. For example, a small turn of the head to the right or left could swing the camera to look behind the aircraft. If VR is not an option for you, headtracking is highly recommended for much better situational awareness while flying. If you intend to use VR instead, there is no need for headtracking. **There are now options for using a webcam to track.**



DIY:

It is quite possible to make a headtracking setup with various parts. More complicated than purchasing an option below but cheaper. Find to the left a link to a website that covers building a headtracker and on the right, another website with a video link.

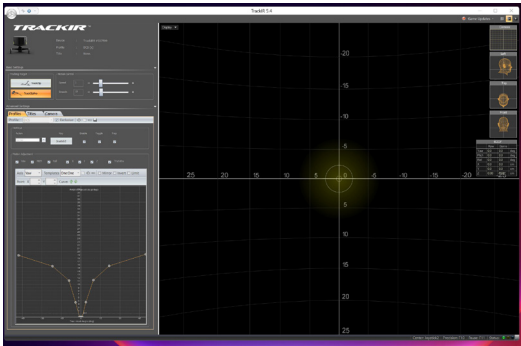
To track your head, you need a camera to see your head, a way to track the heads position and software to interpret the information in a way that **DCS** can use. The camera can be a mobile phone, a web camera or a custom IR camera. The head position tracking is often completed with IR lights but some options use face information. Finally, software needs to be used that connects with **DCS**. Another possible option is using an Aruco marker for headtracking. Here is a [link](#) to a video on using this method.



CAMERA (TRACK IR)



IR LIGHTS (GRASS MONKEY)



SOFTWARE (TRACKIR 5)

LOW COST

LINKS Titles and images below are links to their respective website.

AITrack

AITrack is a tool exclusively to track your face and send that data via UDP to another program. The face tracking algorithm is very good, but tends to be more jumpy. Unfortunately, like ViewTracker, it consumes a lot of CPU... and a 2nd program is still needed to do the rest of the work.



OpenTrack

OpenTrack has plenty of input sources which include Oculus, Valve VR, IR Cameras, Point trackers and an Aruco Paper Tracker! OpenTrack now includes its own AI headtracker.

Smoothtrack

Like AITrack, Smoothtrack will track your face and send that data via UDP. Smoothtrack uses your mobile devices camera from tracking. The cost of Smoothtrack is \$12.99 USD.



ViewTracker

ViewTracker, although not free, is quite affordable at around \$12 USD, but there is a free 7-day trial to make sure it works for you. The head tracking is very good, but has the big disadvantage of very high CPU usage, which could impact **DCS**.

MID COST



AimXY

A higher cost at \$153 USD this option provides everything you need with a custom camera and system.



DELANCLIP

Declanclip

Using a modified PS3 Camera, Declanclip is a tracking system for a reasonable price (around \$68 USD). This includes all hardware needed to setup tracking. The base model uses a wire to the IR lights on your head, for extra, you can purchase a wireless one with a rechargeable battery.



Grass Monkey

Similar to Declanclip in some ways, Grass Monkey sells all of the hardware needed for head tracking. A bit more expensive starting at \$80 USD, Grass Monkey provides its own camera rather than a PS3 one. All provided IR lights are battery operated with no need for wires.

HIGH COST



TrackHat

Similar to the Mid Cost options, TrackHat provides all of the necessary items for head tracking. At a higher cost than previous options at around \$110 USD, TrackHat provides many different options for the IR lights, including a unique hat with the lights attached (both wired and wireless). These items are recommended to be used with OpenTrack.



TrackIR

The most expensive option for headtracking at around \$150 USD, but the easiest to use. Comes with a high quality IR camera and various IR light options, including a hat clip or wired. You can also purchase IR lights from a different vendor that works well. TrackIR also provides great software that can be used by some of the other options shown here.



Tobii Eye Tracker

The most expensive option at over \$250 USD, this tracking device is capable of tracking both head and eye movements for **DCS** interaction. A unique piece of hardware in a bar format, unlike the other options, and comes with its own software. A high quality product that is compatible with other games besides **DCS** but very expensive.

HIGHLY RECOMMENDED BUT NOT NECESSARY

Headtracking is highly recommended for **DCS** but is not 100% necessary. A hat switch on the joystick or keyboard buttons can be used instead to look around when flying but this will limit your situational awareness especially in multiplayer.

VR GUIDE

Check out this [website](#) for a beginners guide to using VR with **DCS**.

THROTTLES

Asian Games Throttle

Sold under Titanwolf, Flashfire, PXN, FR-Tec and other rebranding companies. It's made in china, it's cheap and it kinda sucks. Little more than a cheaped-down Saitek X52 throttle with all the "excess" features cut out and replaced with cheap buttons.



COLLECTIVES

Although not in this guide, there are helicopter collectives available from various vendors including VIRPIL.



Thrustmaster TWCS

Cheap, quite a few inputs. Requires a slider mod or a little dab of Nyogel to smooth out the sliding movement. Good for the price, but not indestructible, the rudder flapper thing is known to give out over time due to cheap potentiometer. Can be sold paired with the T.16000M.

VKB SEM

More of a buttons box than a real **HOTAS**, but you do get two axis controllers. May or may not be sufficient, but VKB has outstanding build quality so it's worth at least a look.



VKB THQ

A throttle quadrant. Decently put together and you can modify it a bit, but the inputs are all on the base instead of the throttles, so not a true **HOTAS**.



Saitek/Logitech X-52

Not for sale separately, but you may be able to find one secondhand. Little thumb mouse pointer isn't much use and the two detents are awkward, but overall the throttle is at least usable. The Pro version has a few extra inputs on the base. The dials are known to develop jitter.



Saitek/Logitech X55/X56

Neither is sold separately, may be found secondhand. The X-55 is the earliest version with a mouse pointer and reliability issues, the BLUE X-56 received a usable slow minystick, the GRAY X-56 is the Logitech production with internal improvements. Plenty of inputs for just about any scenario, but the dials tend to develop jitter and ghosting issues are common without a powered USB hub. Joystick has twist axis for a rudder.

Thrustmaster Warthog

A mid-range throttle with metal externals and not a whole lot more. The slow cursor has been updated so there is no longer a need to upgrade that component. Internal quality is not the best. If found for cheap it may be worth it, but new prices tend to be high due to shortages.



Winwing Orion

F/A-18 Hornet replica. Mostly equal to the Warthog in terms of inputs and external build quality, but internally it is a big improvement. Like the stick, be careful with ordering one though as they are shipped directly from China which can result in long shipping times and high shipping costs, customs, import tax, etc but not always. WinWing also offers other throttles.

VKB ST>ECS

Newly released, VKB offers a modular throttle with a lot of features and upgrade options. There are four base options with a lot a buttons, custom detents, multiple addons and much more.



Virpil Mongoose CM3

All hail the king, pretty much the top of the throttle food chain. Solid, loads of inputs, designed and built by people who care about their product, but the price definitely matches the status. On the other hand it is a case of "buy once, cry once". Virpil also offers other throttle options.



HOTAS

An acronym of **H**ands **O**n **T**hrottle-**A**nd-**S**tick, is the concept of placing buttons and switches on the throttle lever and flight control stick in an aircraft's cockpit. By adopting such an arrangement, pilots are capable of performing all vital functions as well as flying the aircraft without having to remove their hands from the controls.



Thrustmaster Warthog shown to the right.

INPUT GHOSTING

If you find that inputs on your peripheral are randomly being pressed, it might be because of the USB port the peripheral is plugged into. It might need a powered USB, a USB 3.0 or a USB 2.0. Try different ports to see if the problem stops.

HELPFUL PROGRAMS AND DOCUMENTS

Find below other programs that can help improve your experience in **DCS**.

Simple Radio Standalone (SRS)



Simple Radio Standalone (SRS) is a **free** communications program for **DCS** that ties into the in-game radios and allows realistic multiplayer voice communications using the frequencies and capabilities of the radios in whichever aircraft you are currently using.

It works with multiple radios so, for example, in a large multiplayer flight you and your wingmen can use one radio frequency for yourselves for intra flight communication, and tune another to a frequency that all players are connected to so you can effectively communicate across a large number of players without stepping on one another.

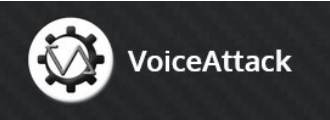
If you plan on playing on multiplayer servers, it is recommended to download and install the **Simple Radio Standalone (SRS)** program. Some servers will even **not** allow you to join if you do not have **SRS** installed.

TacView



TacView is a universal flight analysis tool for **DCS**. TacView once installed records flight information from **DCS** that can be opened in **TacView** and reviewed. This can be helpful to see what happened during a mission. Many Multiplayer servers also use **TacView**. **TacView** is free to download and use, with the option to buy a license to access more advanced features. **Click the icon above to go to the website.**

VoiceAttack & Vaicom Pro



With a free trial version, this program allows you to control **DCS** and other programs with your voice. Used with **VAICOM PRO**, a specific **DCS** voice communications plugin for **VoiceAttack**, this system, once setup, will allow almost any action to be completed via voice. This includes any radio call outs, rearming and more without the need to press a button. All that is needed is set the mic push-to-talk button and state the request. **VAICOM PRO** is now free to download. Both websites have guides on how to setup the software. **VoiceAttack** is not free for full functionality. **VoiceAttack** is \$10.00 USD.

OpenKneeboard



OpenKneeboard is a free program that shows reference information and gives the ability to take notes in games - especially flight simulators - including in VR. Taking notes requires a wintab-compatible graphics tablet.

Click the images to the right to download.

Tech's Checks

These free guides offer kneeboard style check lists for various aircraft and processes. The latest is the F-16C check list covering start up, weapon delivery and more. The F-14 A/B Tomcat check list includes start up, take off, landing, flight systems, radar and much more. Currently there are check lists from the F-14 A/B Tomcat, AH-64D Apache and the F/A-18C. Check out this great resource.

Click the images to the right to download.

DCS Quick Reference Guide

This free guide offers a comprehensive reference to **DCS**. As well as a PDF, kneeboard images are included. Within the guide is information about:

- **Weapons** - All types, variants, aircraft usage, weapon purpose, range, guidance and more.
- **Defensive Systems** - RWR guide, threats, threat ranges and more.
- **Aircraft/Helicopters** (not including **Warbirds**) - Weights, landing and take off speeds, maximum speed, maximum range, radar range (if applicable) and every weapon available to the aircraft and more.
- **Maps** - Airfields, radio frequencies, location, runway direction and more.

Click the images to the right to download.

MOST OF THESE ARE FREE



SRS IS NEEDED

SRS is needed to login to some multiplayer servers. While some servers do not need **SRS**, it is a recommended program to use when playing **DCS** multiplayer.

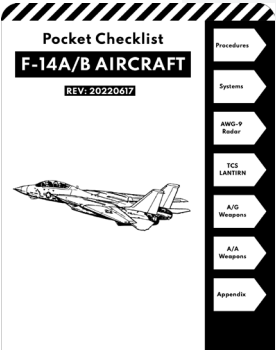
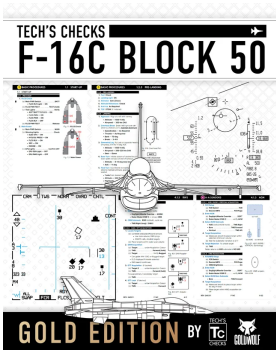
TACVIEW IMPACT

In some instances, **TacView** can cause some system issues especially in very busy scenarios.

VOICE ATTACK



VAICOM PRO



AIR TO AIR WEAPONS			
WEAPON	TYPE	IMAGE	NAME
AIM-7	INFRARED		SPARRROW
AIM-9	INFRARED		SIDEWINDER
AIM-120	ACTIVE		AMRAAM
AIM-162	ACTIVE		METEOR
AIM-260	ACTIVE		JATC
AIM-54	ACTIVE		PHOENIX
AIM-76	ACTIVE		STARBURST
AIM-9X	INFRARED		SIDEWINDER
AIM-132	ACTIVE		ASRAAM
AIM-177	ACTIVE		METEOR
AIM-260J	ACTIVE		JATC
AIM-260J2	ACTIVE		JATC
AIM-260J3	ACTIVE		JATC
AIM-260J4	ACTIVE		JATC
AIM-260J5	ACTIVE		JATC
AIM-260J6	ACTIVE		JATC
AIM-260J7	ACTIVE		JATC
AIM-260J8	ACTIVE		JATC
AIM-260J9	ACTIVE		JATC
AIM-260J10	ACTIVE		JATC
AIM-260J11	ACTIVE		JATC
AIM-260J12	ACTIVE		JATC
AIM-260J13	ACTIVE		JATC
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AIM-260J15	ACTIVE		JATC
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AIM-260J100	ACTIVE		JATC

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HELPFUL PROGRAMS AND LINKS

HELIOS



Helios is a virtual cockpit simulator system for aircraft in **DCS**. With Helios, you can create virtual cockpits, which allow you to increase your immersion in your favourite combat aircraft. Helios profiles can be created to allow you to simulate switches, knobs, gauges and more complex instruments which can then be mapped into **DCS** to give you a much improved combat pilot experience. Many people use a touch screen monitor with their virtual cockpits. It is also possible to run the Helios cockpit on a remote PC.

IKARUS



Like Helios, Ikarus is a solution for virtual cockpits for **DCS**. Ikarus can display many gauges of the **DCS** aircrafts and helicopters. With the help of the ExportScript, data can be displayed on monitors including gauges. Easily customizable for modules, so that you can show only the information you want. Unfortunately, while this works great, it has not been updated in some time and so some newer modules are not available.

Kneeboard Builder



Quickly and easily convert all kinds of .pdf files to kneeboard images. Converted images are grouped into folders, allowing for effortless swapping between kneeboards. The website has extensive tutorials on getting up and running.

BriefingRoom



BriefingRoom allows you to create complete scenarios in just a few clicks. While BriefingRoom is designed to be easy to use and to allow the creation of missions in mere seconds, it is also heavily moddable and will give many options to power users ready to tackle with its most advanced features.

ONLINE RESOURCES

DCS User Files



DCS has a lot of user created files available for free to download. These include documents, missions, campaigns, mods, skins and much more. With an easy to use search, you can find items for specific modules and more. Check out the link to the left.

DCS Documentation



Here you can find the manuals for most **DCS** modules. A great option if you want to learn about a module before purchasing.



HOGGIT Wiki



A great website for beginners, covering many topics associated with **DCS** including items in this guide. Highly recommended.

HOGGIT Subreddit



A great location on Reddit to find out more about **DCS**, ask questions and more. Most people are friendly and will offer advice and more.

DCSWorld.pro



A great website that allows you to see liveries, loadouts, weapons and more.

DCSWORLD Subreddit



Another great location on Reddit to find out more about **DCS**. Like HOGGIT, you can ask questions and more. Most people are friendly and will offer advice and more.

TACTICAL DCS COMMUNITY



A great resource for **DCS**. An active community website with training, free courses and lectures, kneeboards, liveries and much more.

DCS Web Viewer



Another great online resource for DCS. A map editor and reviewer covering every map available. Airport information, map editing capabilities and more are featured.

DISCORD

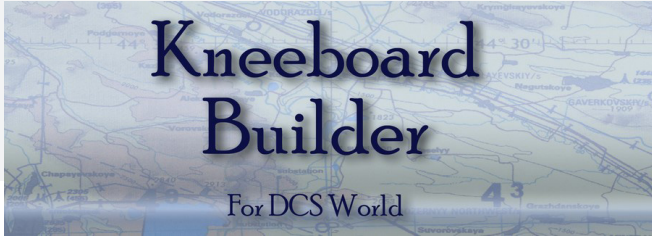
Another great resource are the many Discord servers online where you can again ask questions and find out more.



DCS World by Eagle Dynamics



HOGGIT Discord



MANY RESOURCES

There are many websites and Discord servers on **DCS**. The ones on this page are a great starting point.

WHAT SHOULD I BUY?

YOUR FIRST AIRCRAFT

This section splits aircraft into different types and eras but ultimately pick the one that excites or interests you.

CHOOSING YOUR FIRST MODULE

DCS provides the **SU-25T Frogfoot** and the **TF-51 Mustang** for free. The **TF-51 Mustang** provided does not include any weapons however. The **A-4E** is an externally created free module that can be downloaded. After you register with DCS, you have the option of trying most aircraft and maps for free for two weeks. Use this time to try out any of the modules to see what you like.

Next find charts to help you choose based on the role or the era. As a note, **low fidelity aircraft** do not have fully clickable cockpits and simplified flight systems. All other aircraft are fully clickable and have complex flight systems.









ROLE  **LOW FIDELITY AIRCRAFT**  **FREE AIRCRAFT**  **EARLY ACCESS**

AIRCRAFT

SIMPLE AIR TO AIR & AIR TO GROUND

 **F-86F SABRE**  **MiG-15 FAGOT**  **MiG-19 FARMER**

AIR TO AIR AIR TO GROUND LIMITED

 **F-5E TIGER II**  **MiG-21 FISHBED**
 **F-14 A/B TOMCAT**  **MiG-29 FULCRUM**
 **M-2000C MIRAGE**  **SU-27 FLANKER**
 **MIRAGE F1**  **SU-33 FLANKER**









TRAINER

 **CHRISTEN EAGLE II**
 **MB-339**  **YAK-52**






AIR TO AIR ONLY

 **F-15C EAGLE**










AIR TO GROUND AIR TO AIR LIMITED

 **A-10A WARTHOG**  **AJS-37 VIGGEN**  **L-39ZA ALBATROS**
 **A-10C II WARTHOG**  **AV-8B HARRIER**  **SU-25 FROGFOOT**
 **A-4E SKYHAWK**  **C-101C AVIOJET**

MULTIROLE

 **F-4E PHANTOM II**
 **F-16CM VIPER**
 **F/A-18C HORNET**
 **JF-17 THUNDER**
 **F-15E EAGLE**

WARBIRDS WW2

 **BF-109**  **MOSQUITO**
 **FW-190 A-8**  **P-51 MUSTANG**
 **FW-190 D-9**  **SPITFIRE**
 **I-16**  **P-47 THUNDERBOLT**
 **F4U-1D CORSAIR**

HELICOPTER

AIR TO GROUND

 **AH-64D APACHE**


AIR TO AIR & GROUND

 **KA-50 BLACK SHARK**  **SA-342 GAZELLE**
 **OH-58D KIOWA**

AIR TO GROUND & TRANSPORT

 **MI-8 HIP**  **UH-1H HUEY**
 **CH-47F CHINOOK**

AIR TO AIR, AIR TO GROUND & TRANSPORT

 **MI-24 HIND**

EARLY ACCESS

Aircraft that have not been fully released. Further information is on **page 14**.

SIMPLE

Aircraft with relatively simple weapons in both air to air and air to ground.

AIR TO AIR

Aircraft ideally suited for attacking other aircraft.

AIR TO GROUND

Aircraft ideally suited for attacking ground targets.

TRAINERS

Although placed under air to ground, the C-101C and L-39ZA are also trainer jets.

COUNTRY OF ORIGIN

 **CZECH**  **FRENCH**  **GERMANY**
 **ITALY**  **PAKISTAN**  **SPANISH**
 **SWEDEN**  **SOVIET UNION/RUSSIA**
 **UK**  **US**

AIR TO GROUND LIMITED

Aircraft that generally have access to basic air to ground weapons such as bombs, rockets and simple missiles.

AIR TO AIR LIMITED

Aircraft that have access to limited air to air weapons, usually close range Infrared missiles such as the **AIM-9 Sidewinder** or the **R-73 Archer**.

MULTIROLE

Aircraft that have access to air to air and air to ground weapon usually including advanced smart weapons such as the AGM-65 Maverick and others. These aircraft can often complete multiple missions in one single flight.

WARBIRDS

Aircraft that were flown in World War 2. These aircraft primarily use guns, bombs and rockets.

2 WEEK TRIAL Most modules including maps and trialed for 2 weeks for free.

AIRCRAFT

WORLD WAR 2

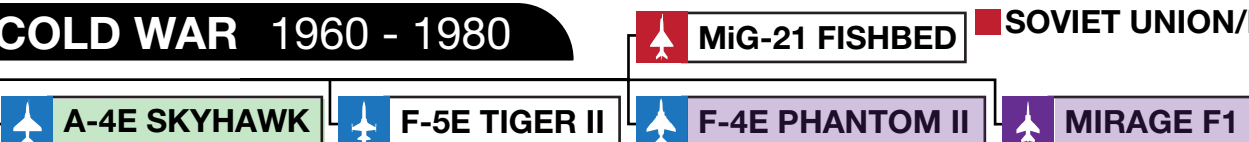


COLD WAR 1950 - 1960

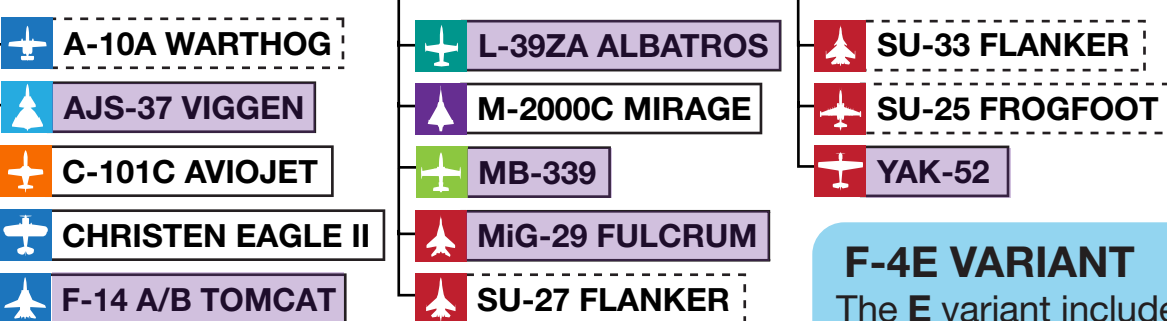


COUNTRY OF ORIGIN
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■ GERMANY ■ ITALY
■ PAKISTAN ■ SPANISH
■ SWEDEN ■ UK ■ US
■ SOVIET UNION/RUSSIA

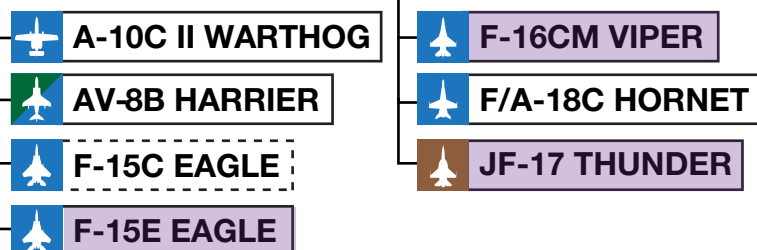
COLD WAR 1960 - 1980



COLD WAR 1980 - 1990



MODERN 1990+



FW-190

There are two versions of the Focke-Wulf-190, each with its own characteristics.

COLD WAR 1950 - 1960

These aircraft are the first jets and often use simple weapon systems. Used in both Korea and Vietnam.

COLD WAR 1960 - 1990

These aircraft are the more advanced and utilize more complex weapons, flight systems and radars (if applicable). Aircraft in this section could technically fall into a later era depending on variant and weapons.

F-4E VARIANT

The **E** variant includes an internal gun as well as other differences.

F-14 VARIATIONS

Both variants are included, with the difference between the **A** & **B** being the engine.

A-10 VARIATIONS

The **A** version is low fidelity and limited in weapon systems. The **C II** version is the most modern with a helmet mounted cueing system (HMCS) and laser guided rockets & more. The original **C** version has been removed as it is no longer available to purchase.

HELICOPTER

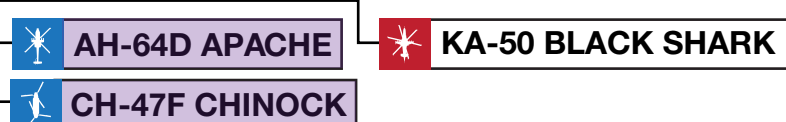
COLD WAR 1950 - 1970



COLD WAR 1970 - 1990



MODERN 1990+



AV-8B

Although designed in the **UK**, the model available in **DCS** is the **McDonnell Douglas AV-8B Harrier II Night Attack** utilized by the **US Marine Corps**.

TRAINERS

Although some of the aircraft here are technically trainers (**L-39ZA** and **C-101C**), they have weapon systems available and can be used in combat.

MULTICREW

Some aircraft available have the option of multiple crew stations. This can mean in multiplayer, you can join another person within the aircraft. In single player, you can switch between stations. The **AH-64D** has two positions, the pilot and co-pilot gunner or **CPG**. Other multicrew aircraft include the **C101C**, **F-14 A/B**, **L-39ZA**, **MI-8**, **MI-24**, **Mosquito** and **UH-1H**.

DCS SALE EVENTS
 Eagle Dynamics has sale events throughout the year.
 Modules, maps and campaigns can be 20% to 50% off.

? WHAT IS FLAMING CLIFFS 3?

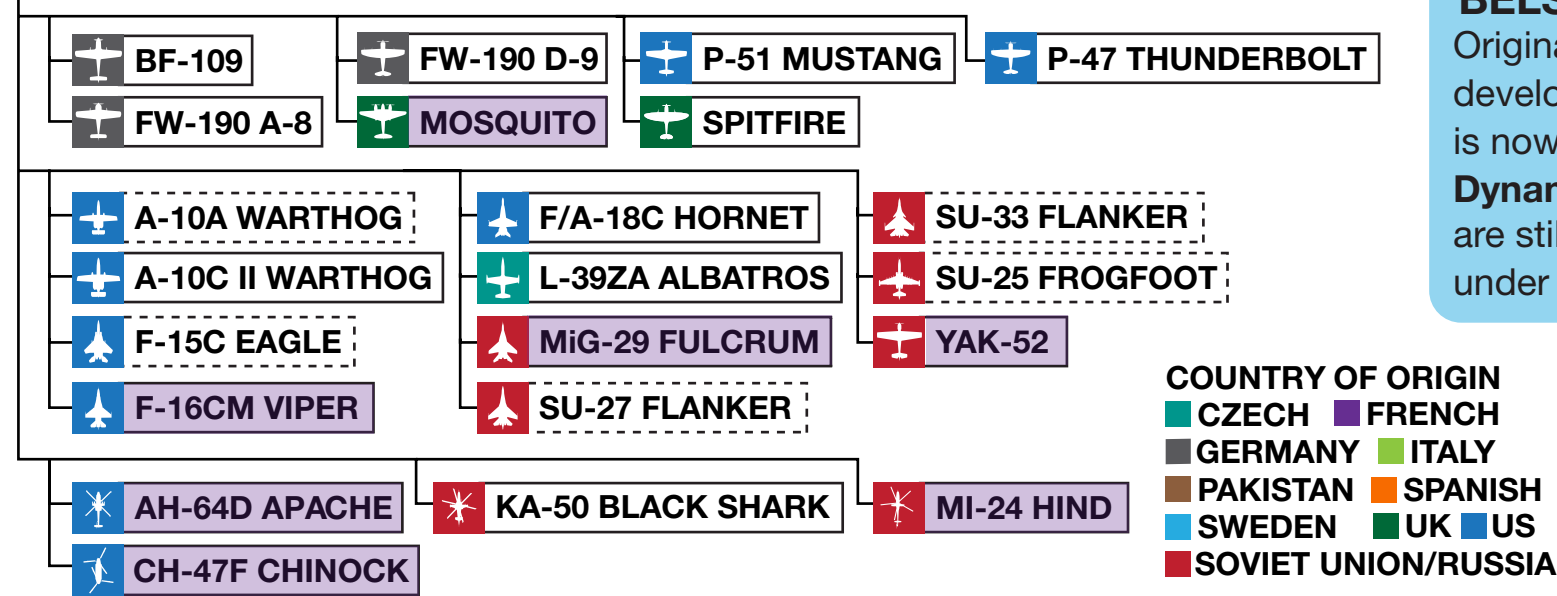
There is the option to purchase multiple low fidelity modules in a single package called Flaming Cliffs 3. This includes the A-10A, F-15C, MiG-29A, MiG-29S, SU-25, SU-27 and the SU-33. Low fidelity aircraft provide an easy learning curve for new players. However these aircraft do not have clickable cockpits.

MODULE DEVELOPERS

Although **DCS** is developed by **Eagle Dynamics**, there are many third-party developers that create amazing modules for **DCS**. Find below the list of all **DCS** developers and the modules they create. Almost all modules are updated regularly with some more frequently than others. The order below is based on how many modules they produce and then alphabetically.

LOW FIDELITY AIRCRAFT **FREE AIRCRAFT** **EARLY ACCESS**

EAGLE DYNAMICS



IN TWO WEEKS

A common joke around **DCS** is that a module will be released in two weeks. This is rarely the case.

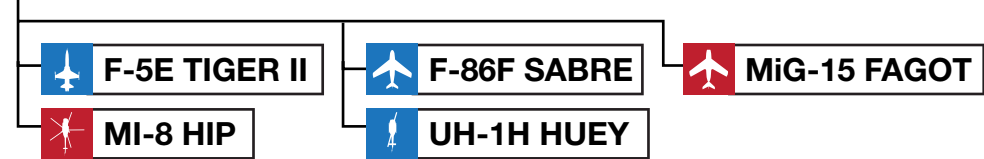
BELSIMTEK

Originally a separate developer, **Belsimtek** is now a part of **Eagle Dynamics**. Their modules are still continually updated under **Eagle Dynamics**.

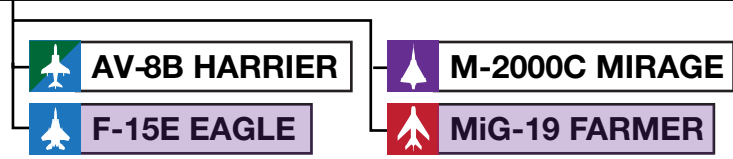
RAZBAM

Besides modules, **RAZBAM** created the South Atlantic Map.

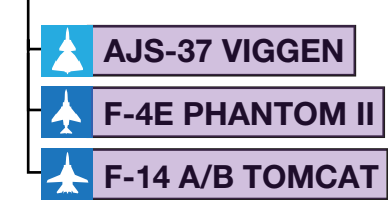
BELSIMTEK



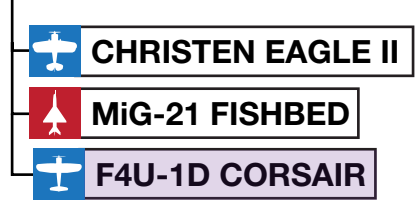
RAZBAM



HEATBLUR



MAGNITUDE 3



UPCOMING MODULES

Developers have new modules on the way and as they are released, this guide will be updated. New modules include the CH-47F Chinook, the Kiowa, the Eurofighter and more.

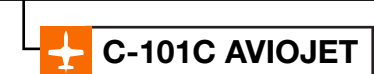
POLYCHOP SIM.



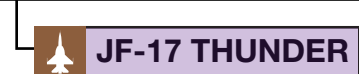
AERGES ENG.



AVIODEV



DEKA IRONWORK SIM.



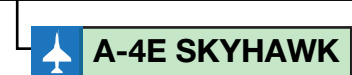
INDIAFOXTECHO VIS. SIM.



OCTOPUSG



COMMUNITY



COMMUNITY

Created by various **DCS** community members, the free **A-4E Skyhawk** is often updated. There are too many amazing free modules and additions to **DCS** to realistically include all of them in this guide.

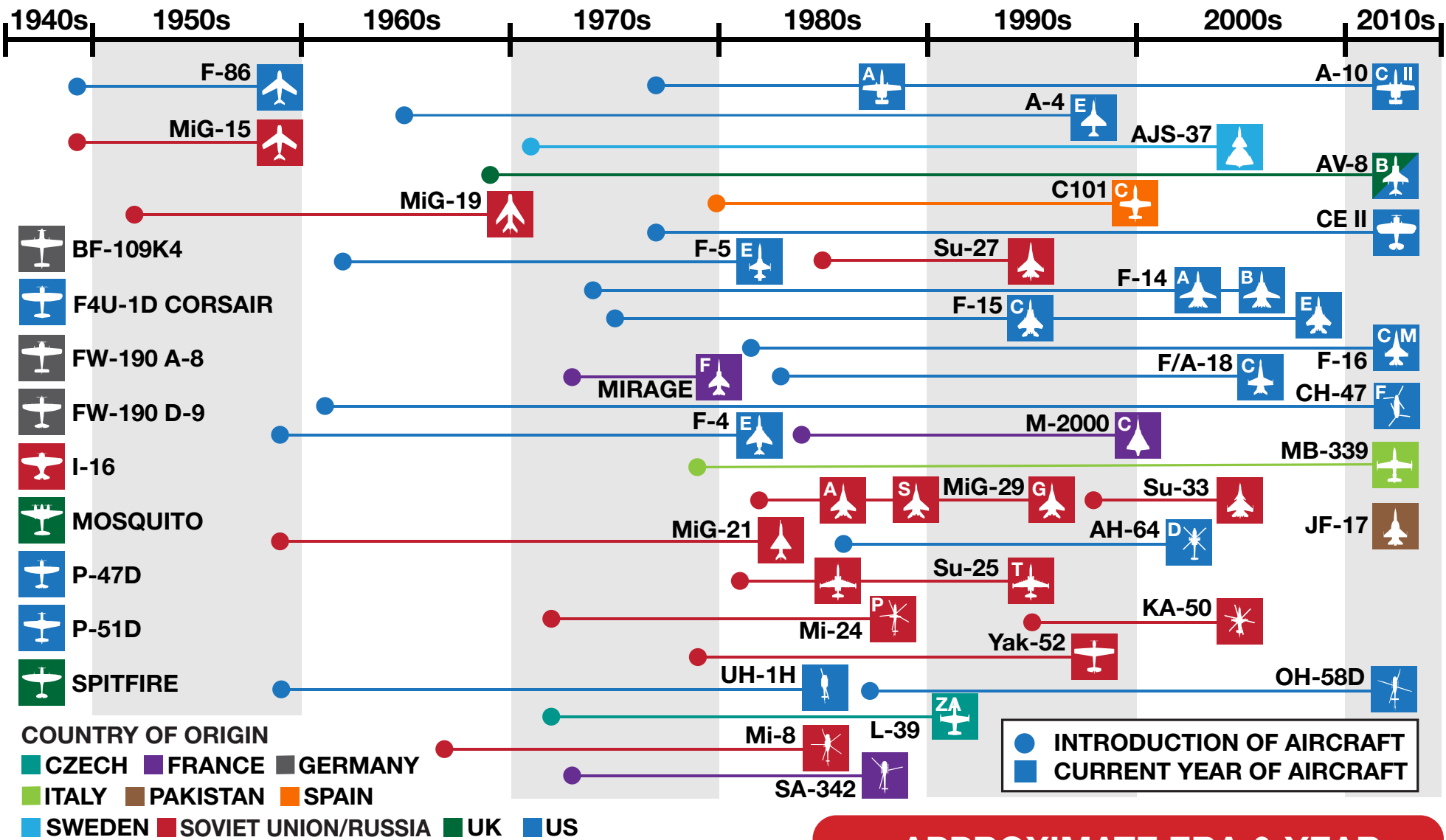
MAPs

Not included are developers that produce maps. **Urga Media** created the Syria Map, while **OnReTech** created the Sinai Map.

AIRCRAFT OVERVIEW

In simple terms, there are two difficulty curves with all aircraft depending on the era, the avionics and flight characteristics. In **Warbirds** of World War 2, the avionics and cockpit layout is simple with many dials, but are often harder to fly and fight in. The aircraft of the early **Cold War** have more complex avionics and cockpit with the introduction of jet engines, many switches and dials but are slightly easier to fly and fight in. Finally **modern aircraft** have much better avionics and cockpit layouts but are far more complex in terms of what you need to learn to utilize the various aircraft and weapon systems. These aircraft are most often easier to fly but can be more difficult to fight in.

AIRCRAFT AND HELICOPTER BY YEAR



The above timeline shows, on the left end of the line, the year the aircraft or helicopter was first introduced, marked by a circle. The silhouette and square on the right side of the line is the approximate year of the current simulated aircraft or helicopter in **DCS**.

If applicable, the aircraft variant letter has been placed within the silhouette. Those aircraft in the 1940s, are all World War 2 warbirds. Those aircraft in 2010s are the most modern aircraft in **DCS**.

APPROXIMATE ERA & YEAR

The aircraft and helicopter era and year are all approximate. Variants and upgrades vary in year of launch.

DCS SALE EVENTS

Eagle Dynamics has multiple sale events throughout the year. Often modules, maps and campaigns are 20% to 50% off.

2 WEEK TRIAL

Most modules including maps can be downloaded and trialed for 2 weeks for free when you login.

EARLY ACCESS

Early access aircraft are currently not complete and continue to receive updates until Eagle Dynamics deems that it is feature complete. All early access modules are still feature rich and can be used in both single player and multiplayer. Elements that are often missing are advanced systems, some weapons and in some instances new aircraft variants, like the Mirage F1, which will receive three other variants.

FREE MODULES

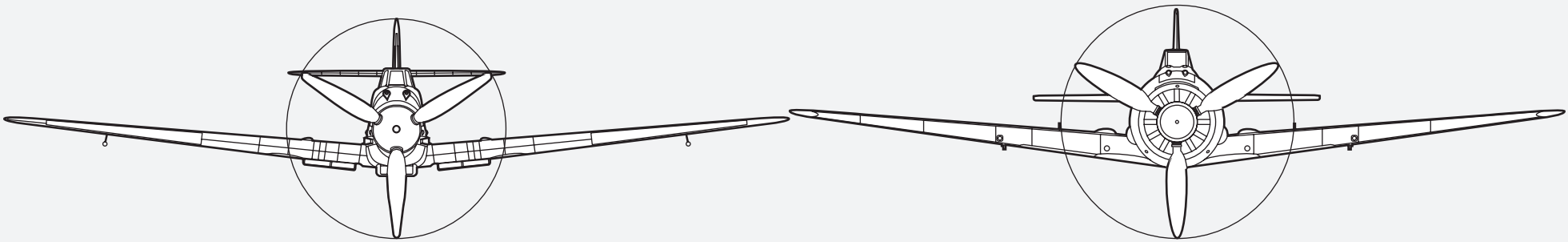
Although only the A-4E is shown in this guide, there are many other free modules available for **DCS**. These free modules are at various stages of development and are often excluded from use on multiplayer servers. Other popular free modules include the F-22 Raptor, the C-130 Hercules, the F-35 Lightning II and others. These modules are usually adapted from Flaming Cliffs aircraft which you would need to own, and are not full fidelity.


MOD WARNING

Modifications to **DCS** can potentially cause issues and bugs especially to the core game and campaigns as well as multiplayer. If an issue occurs, try removing the modification.

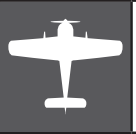
MODULE DESCRIPTIONS

WORLD WAR 2 AIRCRAFT

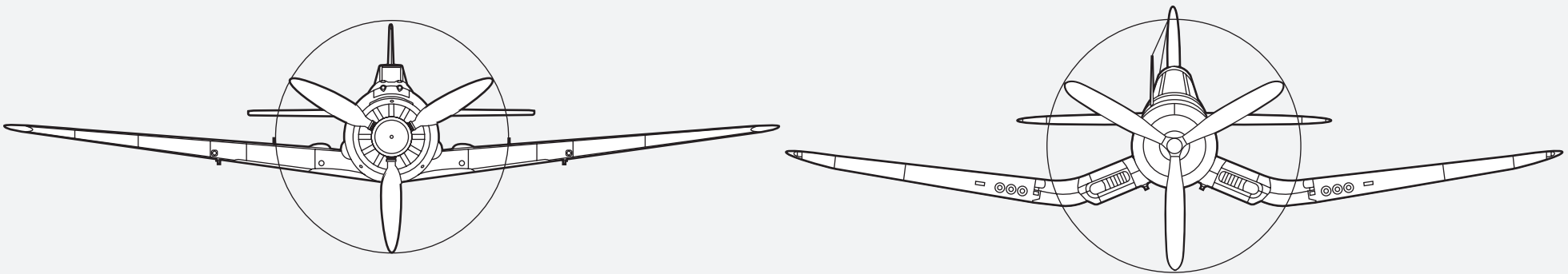



	BF-109K4 KURFURST		
DEVELOPER	Eagle Dynamics		
PRIMARY ROLE	AIR TO AIR ATTACK AND ESCORT		
YEAR	1937	MAX ALT	39,000 FT
MAX SPEED	336 KTS	MAX WEIGHT	7,496 LBS
COUNTRY	Germany		
OVERVIEW	The Kurfurst can be difficult to taxi and take off, needing adept rudder controls, but once off the ground is amazingly agile and nice to fly. It's weaponry will shred whatever it hits with is machine guns and cannon. Keep your energy state high at all times and avoid turning with an enemy.		
WEAPONS	1 cannon with 65 rounds, 2 machine guns with 300 rounds each and 2 bomb types.		
PROS	Powerful engine with great acceleration and can out climb most WW2 aircraft. Powerful cannon. To be effective, use boom and zoom tactics.		
CONS	Limited cannon rounds so weapon accuracy is a must. Difficult to use on the ground.		




	FOCKE-WULF FW-190 A-8 ANTON		
DEVELOPER	Eagle Dynamics		
PRIMARY ROLE	AIR TO GROUND ATTACK		
YEAR	1944	MAX ALT	34,000 FT
MAX SPEED	352 KTS	MAX WEIGHT	10,803 LBS
COUNTRY	Germany		
OVERVIEW	This is roughly the German equivalent of the P-47 - it excels at ground attack but can struggle at high altitudes. Compared to the D-9 variant, this has a much more firepower. Keep your energy up and use zoom and boom tactics. Concentrate on ground targets but more than capable against aircraft. High power-to-weight ratio. A more ergonomic cockpit when compared to the BF-109.		
WEAPONS	Four 20 mm cannons with 750 rounds total, 2 machine guns with 475 rounds each, 3 bomb types and an anti-air rocket.		
PROS	Better low level performance when compared to the D-9. More firepower and better air to ground characteristic than the D-9.		
CONS	Poorer high altitude performance.		



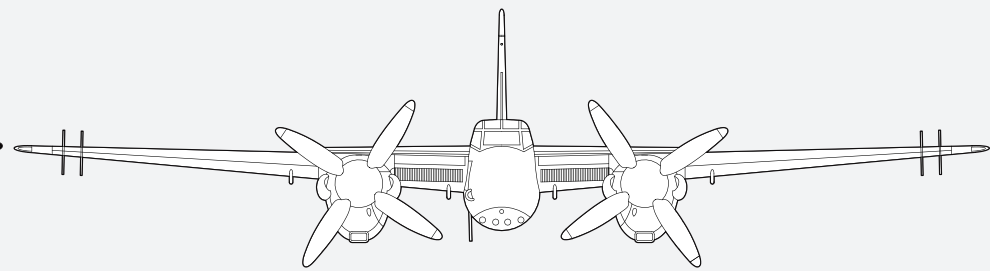
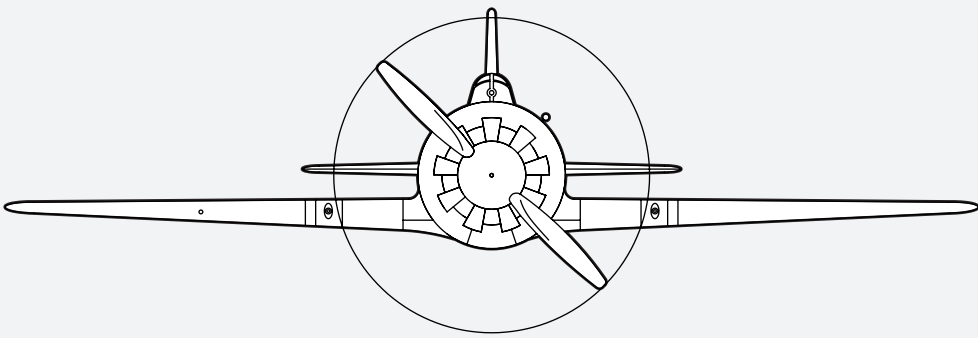


		FOCKE-WOLFE FW-190 D-9 DORA	
DEVELOPER	Eagle Dynamics		
PRIMARY ROLE	AIR TO AIR ATTACK & ESCORT		
YEAR	1944	MAX ALT	34,000 FT
MAX SPEED	352 KTS	MAX WEIGHT	10,803 LBS
COUNTRY	Germany		
OVERVIEW	More of an air-to-air focused aircraft compared to the A-8. Compared to the A-8 variant, this has less firepower. Better suited for high altitude combat. Keep your energy up and use zoom and boom tactics. Concentrate on enemy aircraft but more than capable against ground targets. High power-to-weight ratio. A more ergonomic cockpit when compared to the BF-109.		
WEAPONS	Two 20 mm cannons with 250 rounds each, 2 machine guns with 475 rounds each, 2 bomb types and 2 anti-air rockets types.		
PROS	Great high altitude performance. Overall good ergonomic cockpit.		
CONS	Less firepower than the A-8. Poorer low level characteristics.		



		F4U-1D CORSAIR	
DEVELOPER	Magnitude 3		
PRIMARY ROLE	AIR & GROUND ATTACK		
YEAR	1942	MAX ALT	41,500 FT
MAX SPEED	385 KTS	MAX WEIGHT	14,670 LBS
COUNTRY	US		
OVERVIEW	Recognized by its distinctive gull wings, the Corsair came to dominate the skies in the Pacific during World War 2 and other areas. This highly capable aircraft, great for air dominance but equally capable in bombing and ground attack, was able to outperform the primary Japanese fighter, the A6M Zero. With its powerful engine, it could outclimb, outdive and outrun the Zero. The aircraft did suffer from difficulties in low speed flying and it can be tricky when landing and take off due to its long nose. As well as the aircraft, this module also includes the Essex Class Aircraft Carrier and many Imperial Japanese ground units.		
WEAPONS	6 0.5 inch M2 browning machine guns, HVAR rockets, Tiny Tim rockets and bombs up to 4,000 lbs.		
PROS	Fast, powerful and heavily armed. Great for air dominance but also a capable at ground attack.		
CONS	Can be challenging at slow speed. Landing and Take off can be difficult with the long nose.		





I-16
ISHAK

DEVELOPER	OctopusG		
PRIMARY ROLE	SIMPLE AIR TO AIR FIGHTER		
YEAR	1933	MAX ALT	31,000 FT
MAX SPEED	284 KTS	MAX WEIGHT	4,279 LBS
COUNTRY	Russia / Soviet Union		
OVERVIEW	It's a nippy little plane with landing gear that you manually need to crank up or down for the better part of a minute. It doesn't really compete with anything currently in DCS , as it's a somewhat archaic inter-war aircraft that didn't keep up with the pace of development in the second world war.		
WEAPONS	Four machine guns with 2,800 rounds total, 1 bomb type and 1 rocket type.		
PROS	Unique warbird experience. Lots of ammunition.		
CONS	Extremely basic flight systems and controls.		

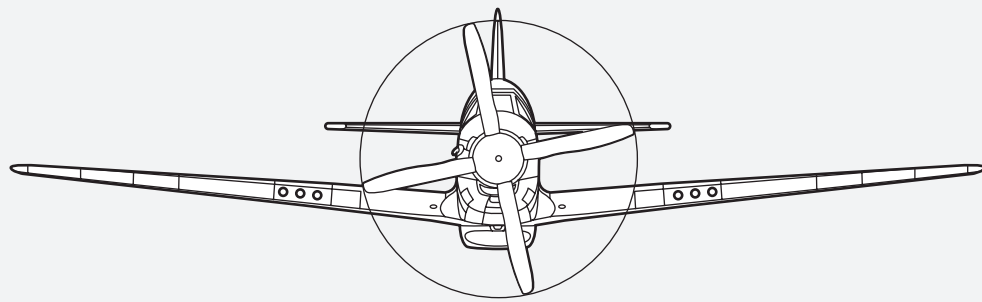
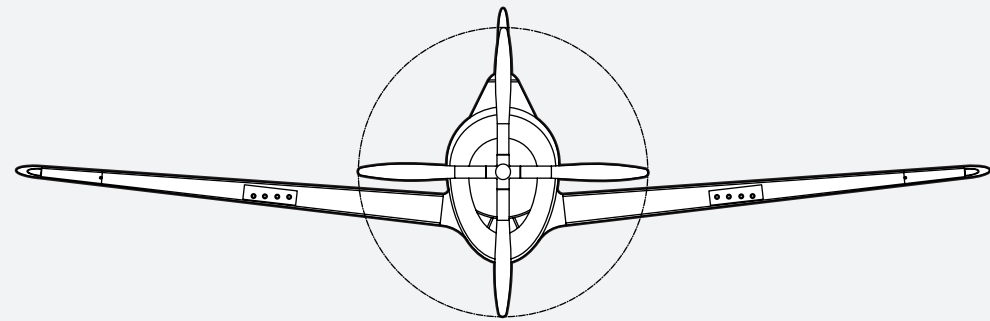



MOSQUITO FB VI
WOODEN WONDER

EARLY
ACCESS


DEVELOPER	Eagle Dynamics		
PRIMARY ROLE	HIGH SPEED FIGHTER-BOMBER		
YEAR	1941	MAX ALT	37,000 FT
MAX SPEED	361 KTS	MAX WEIGHT	25,000 LBS
COUNTRY	UK		
OVERVIEW	A radical concept at the time, the Mosquito was envisioned as a light bomber forgoing the usual defensive armament and focusing on speed as the primary defensive measure. Mosquito's exterior model looks amazing. There's no shortage of attention to detail inside the cockpit either. The texture work is excellent showing plenty of subtle wear and tear without looking like the aircraft's cockpit was put through the blender. Needles and gauges are also readable even when there's some deep contrasts due to bright sun and shadow. The aircraft supports four Browning .303 machine guns, four Hispano 20mm cannons and a compliment of 500lb bombs in the bomb bay then supplemented by a further two 500lb bombs on the wings. A fast a nimble fighter-bomber perfect for ground attack or zoom and boom fighter attacks.		
WEAPONS	3 rocket types and 10 bomb types		
PROS	Fast and nimble. A bit more survivable with two engines. Lots of fire power and weapons.		
CONS	Can be a bit twitchy. Can be harder to use as a fighter but is possible. Still in Early Access.		



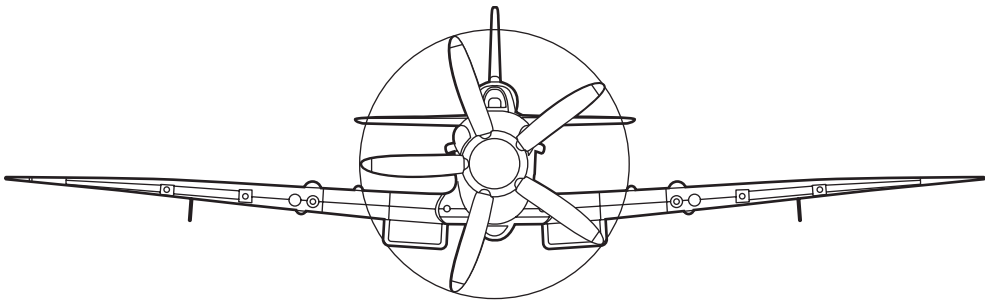


<div>  <div> P-47D THUNDERBOLT THE JUG </div> </div>			
DEVELOPER		Eagle Dynamics	
PRIMARY ROLE		FIGHTER-BOMBER	
YEAR	1942	MAX ALT	42,000 FT
MAX SPEED	370 KTS	MAX WEIGHT	17,500 LBS
COUNTRY		US	
OVERVIEW		It is the warbird equivalent of the A-10 that it lends its name to. It's also a reasonably capable fighter albeit a bit heavy. The engine management in this one can be fairly involved, but it's very stable in the air. It carries a nice complement of weaponry and is quite robust. Performs great at high altitude but also a solid option closer to the ground attacking ground targets allowing it to hold its own against fighters.	
WEAPONS		2 rocket types, 4 bomb types and 10 pod types.	
PROS		Stable and robust. Nice weapon load and powerful engine. Good low and high altitude performance. Perfect for air to ground missions.	
CONS		Heavy and sluggish compared to some other fighters. Engine management can be a challenge.	



<div>  <div> P-51D MUSTANG </div> </div> <div> TRAINER VARIANT INCLUDED FOR FREE WITH DCS </div>			
DEVELOPER		Eagle Dynamics	
PRIMARY ROLE		LONG RANGE FIGHTER	
YEAR	1942	MAX ALT	41,900 FT
MAX SPEED	383 KTS	MAX WEIGHT	12,100 LBS
COUNTRY		US	
OVERVIEW		The original DCS warbird, it's visually looking a bit dated now, but it flies excellently. If the Spitfire is like a British roadster, this thing is like a Cadillac - it's got trim for every axis, the engine's relatively easy to manage, it's fast and it likes altitude. It even has a rear-facing radar that can tell you if you're about to be shot down. It also sounds great, as it also has a Merlin engine. This is probably one of the most beginner-friendly WW2 aircraft in DCS , and it's plenty capable if you know how to use it. It's also basically just an armed version of the free TF-51D that DCS gives everyone.	
WEAPONS		1 rocket type, 1 bomb type and 1 pod type.	
PROS		Fast and capable at high altitude. Rear warning radar. Beginner friendly. Trainer variant, the TF-51D, is available for free.	
CONS		Not as good a turn fighter as the Spitfire but can hold its own. Better performance higher up instead of low.	

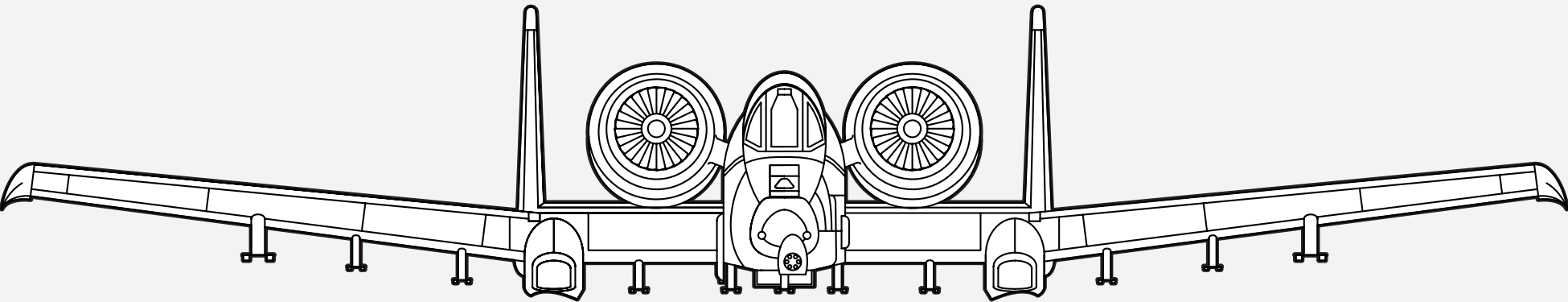





 SPITFIRE L.F. MK IX			
DEVELOPER		Eagle Dynamics	
PRIMARY ROLE		FIGHTER	
YEAR	1938	MAX ALT	36,500 FT
MAX SPEED	320 KTS	MAX WEIGHT	6,700 LBS
COUNTRY	UK		
OVERVIEW	It's a Spitfire. There's not much I can say about it that hasn't already been said. It's ascended into near mythological status in Britain, and I can't see that changing any time soon. It's a warbird that, after it's finished trying to kill you on the ground, will out-maneuver almost any WW2-era aircraft in DCS . It's not the easiest warbird to fly, but it's certainly very capable, and the cannons are very effective. Buy it if you want to be taken back to a place full of Merlin engines, Vera Lynn and the White Cliffs of Dover.		
WEAPONS	4 bomb types.		
PROS	One of the best turn fighters in DCS . Decent weapons and power. Highly maneuverable.		
CONS	Can be hard to use on the ground. Engine management can be tricky.		




COLD WAR AND MODERN AIRCRAFT

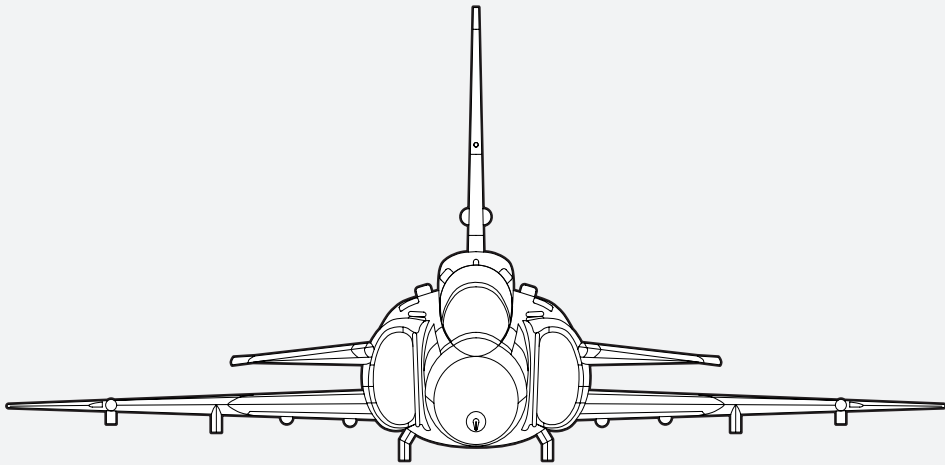
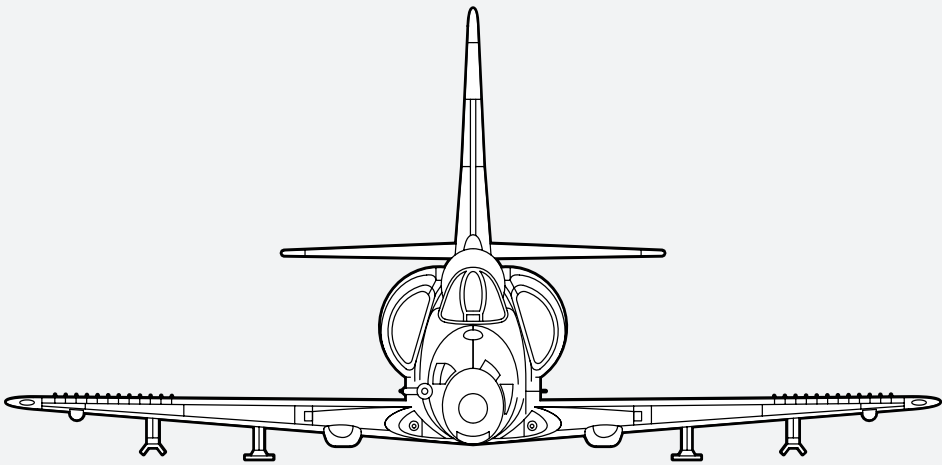






	A-10A THUNDERBOLT II HAWG		LOW FIDELITY
DEVELOPER	Eagle Dynamics		
PRIMARY ROLE	AIR TO GROUND ATTACK AND CAS		
YEAR	1977	MAX ALT	45,000 FT
MAX SPEED	450 KTS	MAX WEIGHT	46,476 LBS
COUNTRY	US		
OVERVIEW	The A-10's focus is solely on the air-to-ground role, which it absolutely excels at. It can carry a large payload comprised of guided/unguided bombs, rockets and anti-tank missiles, as well as the 30mm Gatling gun. It only has one cockpit screen for Maverick utilization and the rest are dials and gauges. Quite robust and survivable but with simplified systems as its a Low Fidelity aircraft. The A-10 A and C variants are the ultimate air to ground aircraft in DCS , however its limited in capability if SAMs or enemy aircraft are in the area.		
WEAPONS	8 missiles types, 8 rocket types, 10 bomb types and 4 pod types.		
PROS	Huge weapon load. Missile Launch Warning System. Highly survivable and very stable. Very fuel efficient. Easier to learn than the other variants.		
CONS	Basic low fidelity module. No clickable cockpit. Low speed. Vulnerable to air threats. Only AIM-9s for defense. Limited missile options compared to newer models. No SEAD weaponry. Can take time to get used to HOTAS.		





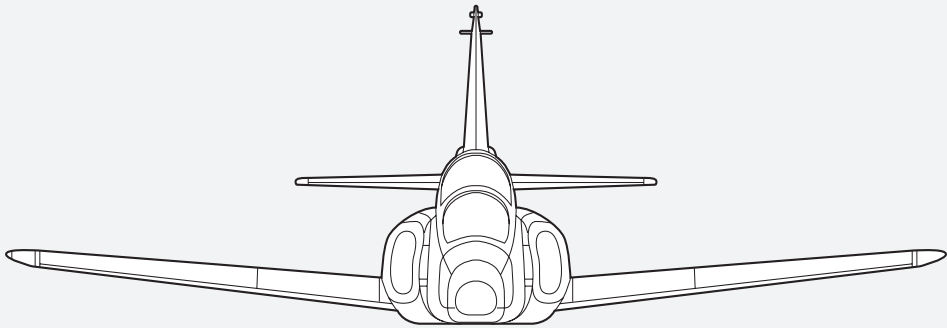
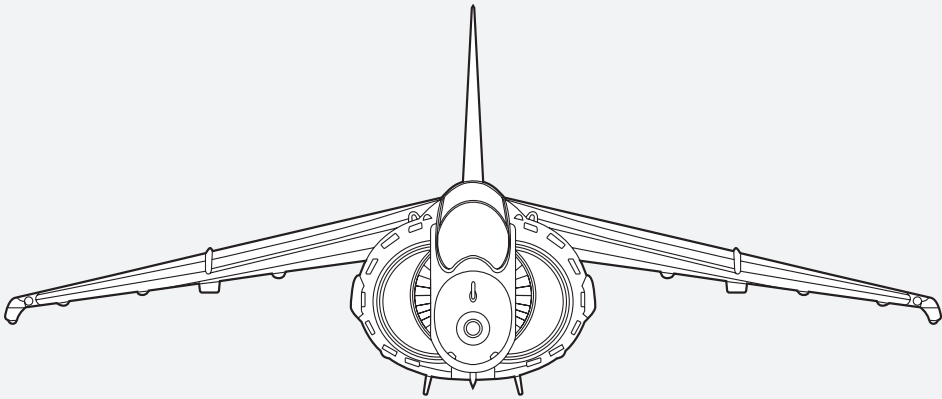
	A-10C II THUNDERBOLT II HAWG		
DEVELOPER	Eagle Dynamics		
PRIMARY ROLE		AIR TO GROUND ATTACK AND CAS	
YEAR	2007	MAX ALT	45,000 FT
MAX SPEED	450 KTS	MAX WEIGHT	46,476 LBS
COUNTRY	US		
OVERVIEW	The upgraded A-10 with the same 30mm Gatling gun. Now includes 2 Multi-Function Displays (MFDs), various system updates including navigation. Also includes more weapon options. This is a study simulation module. Recently upgraded to the A-10C II, which includes a Helmet Mounted Cueing System (HMCS), new 3D model, new HOTAS functions as well as new weapons such as laser guided rockets and the GBU-54.		
WEAPONS	9 missiles types, 8 rocket types, 17 bomb types and 5 pod types.		
PROS	Full fidelity module. Fully clickable cockpit. Huge weapon load. Missile Launch Warning System. Highly survivable and very stable. Very fuel efficient. HOTAS is well designed. More weaponry. Extensive training missions. Perfect for day or night missions.		
CONS	Very complex module. Low speed. Vulnerable to air threats. Only AIM-9s for defense. Limited missile options compared to newer models. Long start up time. No SEAD weaponry. Can take time to get used to HOTAS.		







		A-4E SKYHAWK SCOOTER		FREE	
DEVELOPER		Community Development			
PRIMARY ROLE		LIGHT AIR TO GROUND ATTACK			
YEAR		1965		MAX ALT 42,250 FT	
MAX SPEED		586 KTS		MAX WEIGHT 24,500 LBS	
COUNTRY		US			
OVERVIEW		Subsonic carrier capable light attack aircraft. A single engine aircraft with 5 hard points. Offers quite a few weapons on such a small airframe and can carry quite a lot of bombs. Small and nimble, can be quite effective in the right hands. Includes radar and other weapon systems. Free module for download			
WEAPONS		4 missiles types, 6 rocket types, 17 bomb types and 3 pod types.			
PROS		Free module. Can carry a lot of weapons. Carrier capable. Small and nimble.			
CONS		Vulnerable to air threats. Only AIM-9s for defense.			
					
					
					
WARNING		Many multiplayer servers do not allow this aircraft so please check before joining.			
LINK		The module can be downloaded here			

	AJS-37 VIGGEN THE BOLT		EARLY ACCESS	
DEVELOPER		Heatblur		
PRIMARY ROLE		FAST AIR TO GROUND WEAPON DELIVERY		
YEAR	1993	MAX ALT	65,000 FT	
MAX SPEED	MACH 2	MAX WEIGHT	44,092 LBS	
COUNTRY	SWEDEN			
OVERVIEW	A one-pass, haul-ass strike aircraft. Interesting selection of weapons from cluster munition dispensers to manually-guided missiles, this aircraft is designed to do one thing - hit a predetermined target as fast as possible then speed away. Capable of operating from road bases, with a short takeoff and landing, thanks to a thrust reverse system. Surprisingly simple to get used to, and gives you only the information you need to know at a given moment. Also has an autopilot system and a full electronic countermeasure suite.			
WEAPONS	7 missiles types, 2 rocket types, 2 bomb types and 3 pod types.			
PROS	Easy to start and get up flying. Short take off and landing. Extremely fast at low altitude. Great ground radar.			
CONS	Really needs pre-planning to use effectively with some weapons. Vulnerable to air threats. Only IR missiles for defense. Different cockpit layout compared to others. Simplistic HUD and RWR. Unable to mix weapon types.			
				

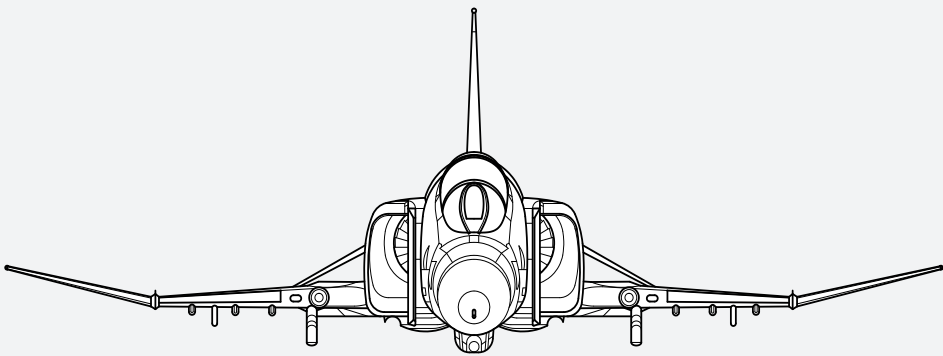
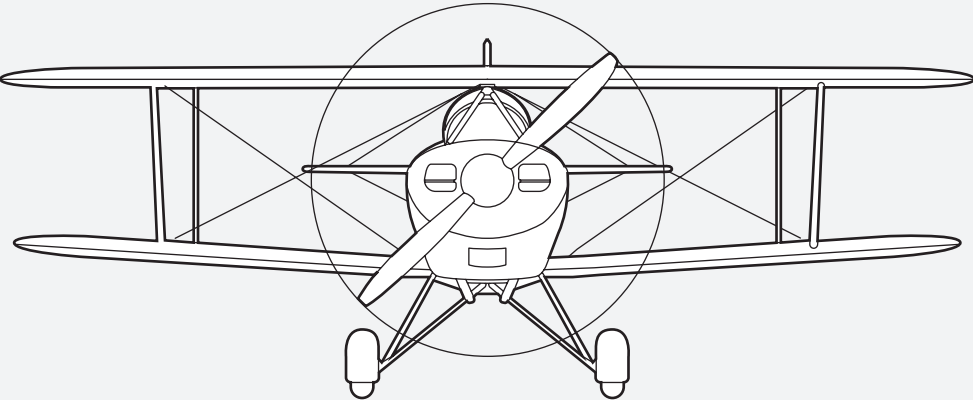



 AV-8B HARRIER II JUMP JET			
DEVELOPER	RAZBAM		
PRIMARY ROLE	VTOL AIR TO GROUND ATTACK		
YEAR	2015	MAX ALT	40,000 FT
MAX SPEED	585 KTS	MAX WEIGHT	31,085 LBS
COUNTRY	UK/US		
OVERVIEW	A jet that fits into a spot between the F/A-18 and the A-10. It's faster than the Warthog, has the ability to launch from amphibious assault ships, FARPs or pretty much anywhere else. It can operate at night using its integrated FLIR. It can't carry a huge payload, but there's plenty of variety present, from short-range anti-radiation missiles to GPS-guided smart bombs. Your air-to-air strength is limited with no radar, but the speed advantage over the A-10 gives you more ability to escape from danger and the ability to hover is unique. Great HOTAS control setup.		
WEAPONS	7 missiles types, 7 rocket types, 14 bomb types and 5 pod types.		
PROS	Nimble and fast compared to the A-10. Decent weapon options. Can accomplish SEAD missions. Ability to land anywhere. Perfect for day and night missions. Lots of countermeasures. Can utilize SMART weapons.		
CONS	Smaller payload compared to the A-10. Weight, engine and fuel management needed especially for hovering. Vulnerable to air threats. Only AIM-9 Sidewinders for defense.		




 C-101C AVIOJET			
DEVELOPER	AvioDev		
PRIMARY ROLE	TRAINER AND LIGHT ATTACK		
YEAR	1980	MAX ALT	45,000 FT
MAX SPEED	0.8 MACH	MAX WEIGHT	13,889 LBS
COUNTRY	SPAIN		
OVERVIEW	This is a two-for-one package, as you get the unarmed trainer and the armed COIN variant. Very high level of detail and I don't think enough praise is given to AvioDev for how diligently they've worked on this aircraft over the years. This is going to be a similar one to the F-5, but more back-to-basics. No radar, no afterburner, no HUD, just old-fashioned flying. The armed variant can carry a surprisingly large variety of weapons, including AIM-9s, cluster bombs and the Sea Eagle anti-shipping missile. The trainer variant even has a working IFR hood, and with multicrew support, you can do fairly substantial pilot training with this module.		
WEAPONS	4 missiles type, 4 rocket types, 9 bomb types and 2 pod types.		
PROS	Multicrew aircraft. Great for training.		
CONS	Limited flight systems. Vulnerable to air threats. Only IR missiles for defense. Few weapons.		



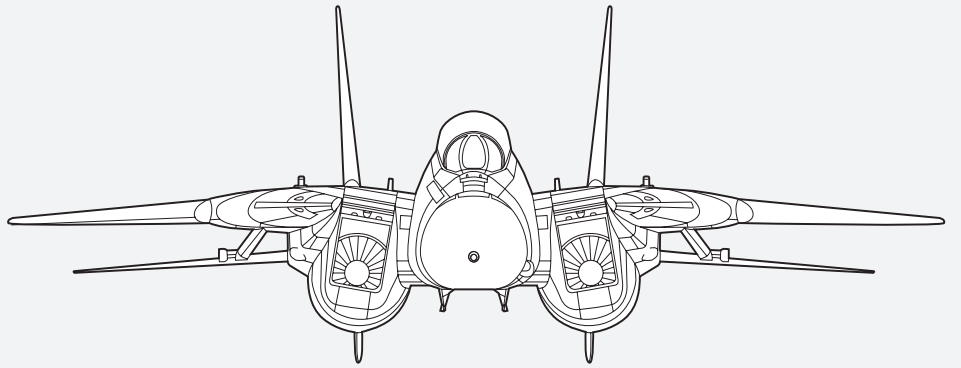
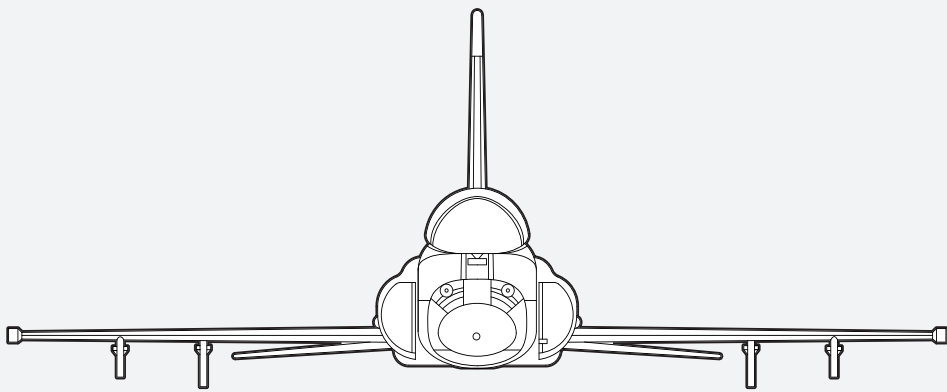


<div> CHRISTEN EAGLE II</div>			
DEVELOPER		Magnitude 3 LLC	
PRIMARY ROLE		AEROBATIC SPORT BIPLANE	
YEAR	1977	MAX ALT	17,000 FT
MAX SPEED	160 KTS	MAX WEIGHT	1,578 LBS
COUNTRY		US	
OVERVIEW		Designed by WWII P-51D pilot Frank Christen, the Christen Eagle II is an aerobatic bi-plane specialized to that single role pretty much to the exclusion of everything else. This module in DCS World is the first and only pure aerobatic aircraft so it represents a new category for the series. As an aerobatic aircraft you can do almost anything in the plane, stall turns, loops and more.	
WEAPONS		N/A	
PROS		Very capable and agile. Perfect for training and performing complex acrobatics.	
CONS		No weapons available. Limited use within the DCS simulator.	



<div><div></div><div>F-4E PHANTOM II</div><div>EARLY ACCESS</div></div>			
DEVELOPER		Heatblur	
PRIMARY ROLE		MULTIROLE FIGHTER	
YEAR	1961	MAX ALT	56,000 FT
MAX SPEED	2.23 MACH	MAX WEIGHT	61,796 LBS
COUNTRY		US	
OVERVIEW		A tandem two-seat, twin-engine, all-weather, long-range supersonic jet interceptor and fighter bomber, the F-4 Phantom II was the work horse of the US Airforce and Navy during the 60s, 70s and early 80s. The E variant utilized by the Air Force and not the Navy, added a much needed internal 20 mm vulcan gun, a new smaller radar to fit the gun, new engines and leading edge slats to improve maneuverability becoming the most numerous production version of all F-4s. This variant can carry a large payload including many different air to air and air to ground weapon systems on 13 stations, including the AGM-65 Maverick. Utilizing traditional flight systems and steam gauges, this aircraft doesn't forgive careless pilots and learning to tame this aircraft will take time and dedication, but this airframe in the right hands can handle itself in most cold war environments and even modern ones. The human or AI back-seater or WSO will help you with various tasks allowing you to better focus on flying and fighting.	
WEAPONS		16 missiles types, 3 rocket types, 20 bomb types and 5 pod types.	
PROS		Can carry a large amount of weapons allowing for multiple mission types in one flight. Fast and somewhat maneuverable. Long range with fuel tanks and extremely capable in the right hands.	
CONS		A complex aircraft with a lot to learn and understand. Little hand holding when flying and fighting. Simplified and complex systems.	







F-5E TIGER II

REMASTERED VERSION
NOW AVAILABLE

DEVELOPER	Belsimtek		
PRIMARY ROLE	SUPERSONIC LIGHT FIGHTER		
YEAR	1972	MAX ALT	54,000 FT
MAX SPEED	MACH 1.63	MAX WEIGHT	24,553 LBS
COUNTRY	US		
OVERVIEW	A lightweight, small and agile fighter aircraft that is great for people who want a more challenging experience. The radar is relatively low-capability, air-to-air ordnance is limited to a pair of older AIM-9s and you can carry limited quantities of ground attack ordnance, including laser-guided bombs that you'll need a friend or the AI to guide for you. You'll find no digital displays, this is a back-to-basics aircraft, that while more capable than DCS selection of trainers, is not really designed to be a high-capability multirole fighter. If you feel like the F/A-18 is getting too easy, and you want to learn how to fight well with fewer tools, this is the aircraft for you.		
WEAPONS	3 missiles types, 11 rocket types, 12 bomb types and 3 pod types.		
PROS	Small, agile and fast. Simple and stable flying characteristics. Easy and simple to use. Decent RWR for the time. Stable and with good cockpit visibility.		
CONS	Small weapon payload. Can only carry 2 AIM-9 Sidewinders at one time. Poor radar range. Underpowered.		



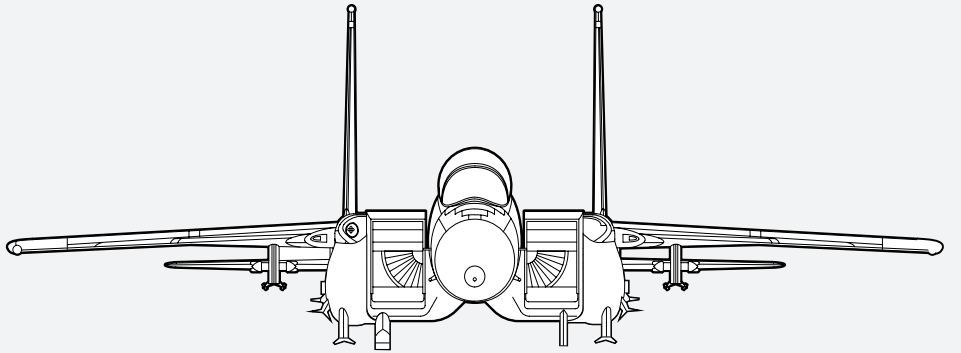
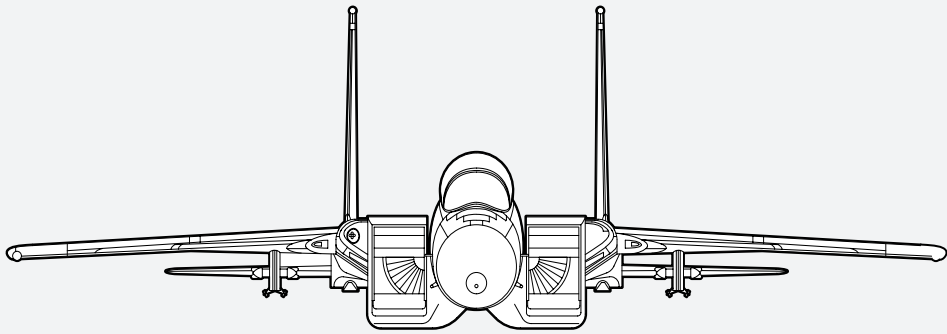



F-14 A/B TOMCAT
TURKEY

EARLY
ACCESS


DEVELOPER	Heatblur		
PRIMARY ROLE	INTERCEPTOR, AIR SUPERIORITY, MULTIROLE		
YEAR	1974	MAX ALT	53,000 FT
MAX SPEED	MACH 2.38	MAX WEIGHT	74,349 LBS
COUNTRY	US		
OVERVIEW	The Tomcat is an icon in the fighter jet world, and has transcended beyond our niche hobby in a way that few other planes have. In DCS , the Tomcat is brought to you by Heatblur, who have lovingly recreated not one but two different versions of this famous fighter - with two more in the pipeline. There are no fancy computers helping you fly this plane. It's also one of a few multicrew aircraft, in that you and a buddy can share one aircraft, each taking on different responsibilities and roles within the jet. In terms of capability, the Tomcat is primarily a carrier-based air-superiority fighter, armed with the long-range AIM-54 Phoenix missile that can splash targets at ranges beyond any other air-to-air missile. However, it can also carry a surprisingly large bomb load, including laser-guided ordnance, making it more versatile. The flight characteristics of the Tomcat are not the friendliest to new players and demands a certain level of respect from the pilot - it's possible to rip your own wings off if you aren't careful. In closing, the Tomcat is a fantastic (if demanding!) experience for one person, and an even better one when shared with a friend.		
WEAPONS	10 missiles types, 1 rocket type, 15 bomb types and 3 pod types.		
PROS	Amazing radar and decent air to air weapon systems. Extremely capable air to air fighter. Module includes both A and B variant.		
CONS	Demanding flight characteristics. Weathered cockpit makes some items hard to read. No fly-by-wire system and so airframe is not as forgiving as others. Complex aircraft with pilot and RIO positions to learn.		



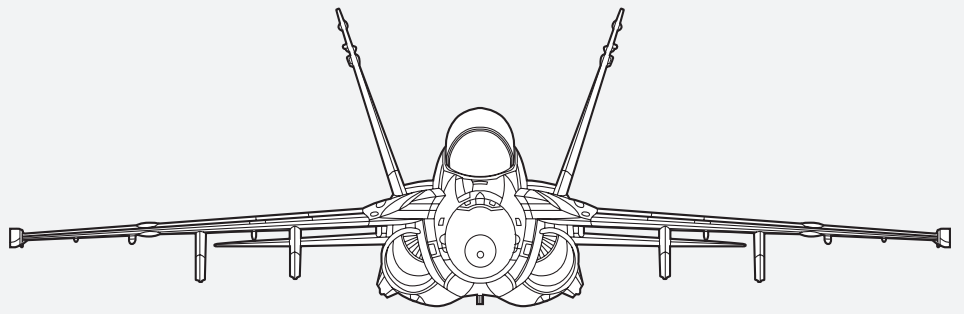
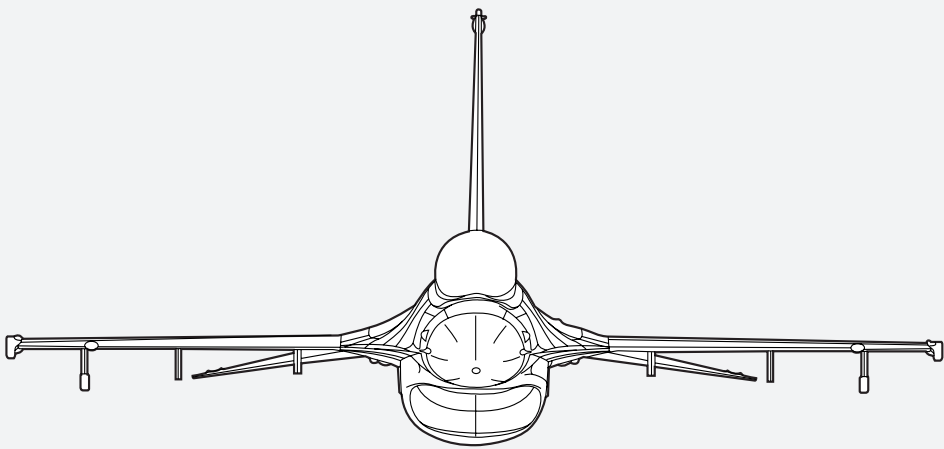



<div>  <div> <div>F-15C EAGLE</div> <div>LOW FIDELITY</div> </div> </div>			
DEVELOPER		Eagle Dynamics	
PRIMARY ROLE		AIR SUPERIORITY FIGHTER	
YEAR	1994	MAX ALT	58,000 FT
MAX SPEED	MACH 2.5	MAX WEIGHT	68,002 LBS
COUNTRY		US	
OVERVIEW		A pure air superiority fighter in the truest sense. Very agile with a high thrust to weight ratio. It is among the most successful modern fighters with many victories in aerial combat. As its a low fidelity model, the start up, systems and weapons are easier to utilize but lack clickable buttons. This is currently one of the best air to air fighters available in DCS .	
WEAPONS		10 missiles type and 2 pod types.	
PROS		Easy to fly. Highly maneuverable and impressive performance. Great radar with a large suite of air to air weapons. One of the most capable air to air aircraft in DCS .	
CONS		Basic low fidelity module. No air to ground weapons. Poor situational awareness when compared to the F-16 and F/A-18.	




<div>  <div> <div>F-15E STRIKE EAGLE</div> <div>MUDHEN</div> </div> <div>EARLY ACCESS</div> </div>			
DEVELOPER		RAZBAM	
PRIMARY ROLE		MULTIROLE FIGHTER	
YEAR	2002	MAX ALT	60,000 FT
MAX SPEED	MACH 2.5+	MAX WEIGHT	81,002 LBS
COUNTRY		US	
OVERVIEW		Take the original F-15, add conformal fuel tanks, a second seat, lots of weapon hard points and air to ground systems and you get the F-15E Strike Eagle. While it keeps its air superiority roots, the aircraft now excels in the air to ground theatre. Although heavier than the C variant, it is still agile with a high thrust to weight ratio. Its larger fuel capacity allows it to extend its range and time significantly. The back seater maximizes the F-15E's utility as a ground pounder. The APG-70 radar boasts synthetic mapping capabilities allowing for strikes regardless of visibility. It is still among the most successful modern fighters and has seen combat in many different theaters and is still in service today.	
WEAPONS		10 missiles types, 19 bomb types and 4 pod types.	
PROS		Can carry a lot of weapons. Fully capable of completing air to air and air to ground sorties without the need to rearm and refuel. The larger fuel capacity gives you long legs and long linger times. A very fast aircraft.	
CONS		A very complex aircraft with pilot and WSO positions to learn. No helmet mounted targeting system, making ground attack harder. When fully loaded with fuel and weapons, the aircraft can be quite sluggish.	



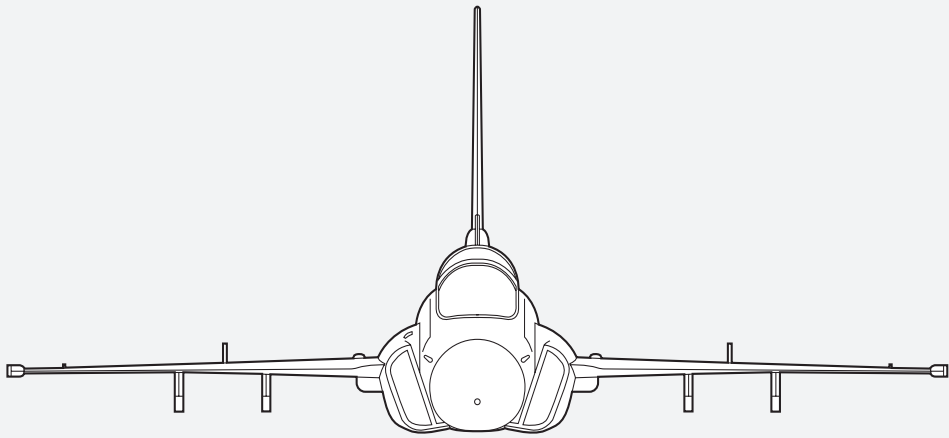
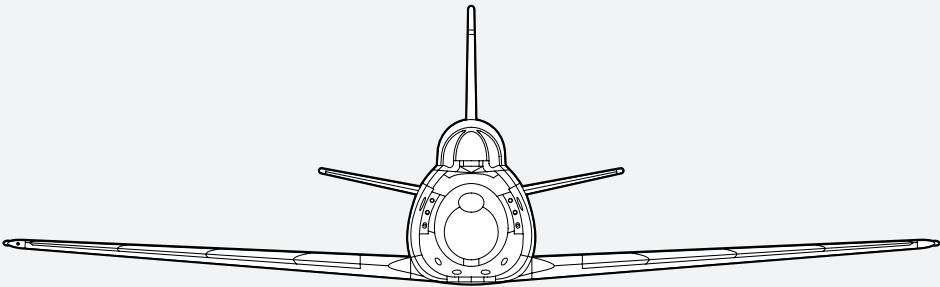



<div>  <div> F-16CM FALCON VIPER </div> <div> EARLY ACCESS </div> </div>			
DEVELOPER		Eagle Dynamics	
PRIMARY ROLE		MULTIROLE FIGHTER	
YEAR	2007	MAX ALT	59,000 FT
MAX SPEED	MACH 2.05	MAX WEIGHT	48,000 LBS
COUNTRY	US		
OVERVIEW	<p>A modern multirole aircraft, with a small but more than adequate payload, no carrier capability and only one engine. The F-16 is very capably powered and extremely agile. It features a fly-by-wire system and some consider the F-16 to be one of the best aircraft for air-to-air duties in DCS, in both BVR and WVR engagements. With the addition of the HARM Targeting System (HTS), it is also one of the best SEAD platforms in the sim. The bubble canopy gives you fantastic visibility and all important information is easily seen. Start up is relatively easy compared to some others. Almost all major inputs can be accomplished via the intuitive HOTAS. In summary, a well-rounded aircraft that offers a lot of weapons and mission types.</p>		
WEAPONS	12 missiles types, 5 rocket types, 15 bomb types and 5 pod types.		
PROS	Highly agile and powered. A joy to fly. Large selection of weapons both air to air and air to ground. Seamless and well thought out HOTAS system. HMCS system. Large uninterrupted canopy. Can hold its own against multiple aircraft. Best option in DCS for SEAD missions. Modern screens and systems.		
CONS	Cannot carry as many weapons as some other aircraft. Only one engine and so not as survivable as a two engine aircraft. Not as easy to land as some aircraft with the need to use aero braking.		




<div>  <div> F/A-18C HORNET BUG </div> </div>			
DEVELOPER		Eagle Dynamics	
PRIMARY ROLE		MULTIROLE FIGHTER	
YEAR	2005	MAX ALT	69,800 FT
MAX SPEED	MACH 1.85	MAX WEIGHT	51,899 LBS
COUNTRY	US		
OVERVIEW	<p>The F/A-18C represents the pinnacle of multirole aircraft in DCS. It can do almost anything in the simulator, from flying combat air patrols against enemy fighters to performing precision strikes on ground targets. It can do all this surprisingly well for a jack-of-all-trades, and has sufficient payload capability to perform several different tasks in one flight. As it's a Navy jet, you get the added flexibility of flying from aircraft carriers, which adds another dimension to the experience you get for your money. It also features a complex fly-by-wire system, that makes flying the aircraft easier and more approachable. It can feel a little underpowered, especially when fully loaded with stores. Almost all major inputs can be accomplished via the intuitive HOTAS. Start up is a little more complex than an F-16 but still relatively easy. This module is almost feature-complete, and is relatively well polished. Overall, a very well rounded aircraft that will give you a very good selection of tools to attempt almost any mission type in DCS.</p>		
WEAPONS	19 missiles types, 3 rocket types, 20 bomb types and 6 pod types.		
PROS	Agile and capable. Large selection of weapons both air to air and air to ground and can carry a lot. Carrier ops. Two engines improves survivability. Modern screens and systems. Once learned, quite easy to land. Built in electronic countermeasure (ECM) system. HMCS system.		
CONS	Carrier landings can be challenging. Landing is different compared to other non-navy aircraft. A lot to learn.		



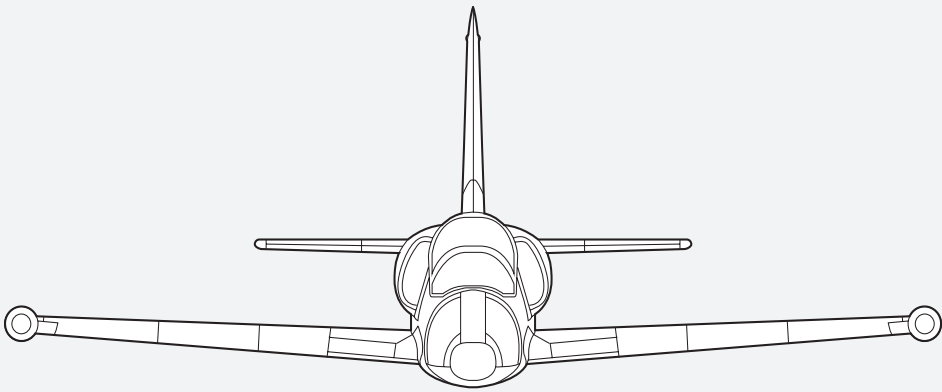



	F-86 SABRE		
DEVELOPER	Belsimtek		
PRIMARY ROLE	TRANSONIC FIGHTER JET		
YEAR	1949	MAX ALT	52,000 FT
MAX SPEED	600 KTS	MAX WEIGHT	20,611 LBS
COUNTRY	US		
OVERVIEW	Primarily a gun fighter with the ability to carry very early IR-guided missiles, as well as a small selection of ground attack weapons. Used heavily in the Korean war against it's primary rival the MiG-15. Lots of dials and basic flight instruments, almost like a WW2 aircraft but with a jet engine.		
WEAPONS	1 missiles type, 1 rocket type, 2 bomb types and 1 pod type.		
PROS	Great fighter for the time. Option for early missiles. Faster when compared to the MiG-15.		
CONS	Limited weapon options. Basic flight instruments. Not as agile as the MiG-15.		

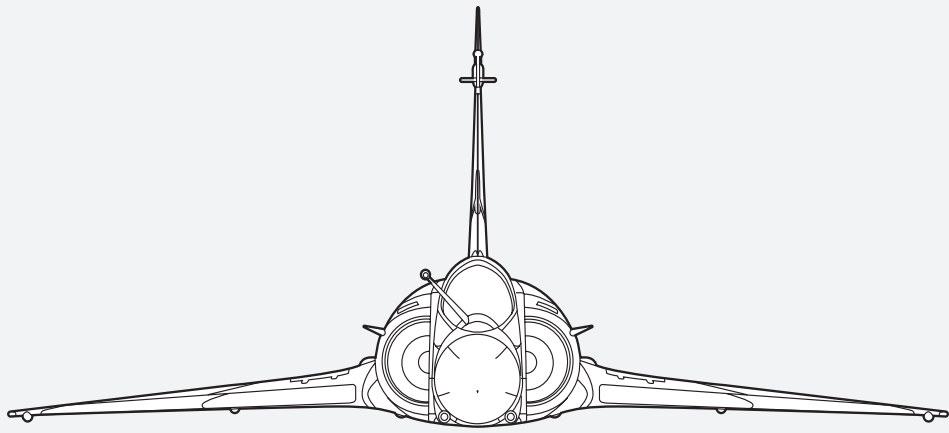



	JF-17 THUNDER JEFF		EARLY ACCESS
DEVELOPER	Deka Ironwork Simulations		
PRIMARY ROLE	LIGHT MULTIROLE FIGHTER		
YEAR	2010	MAX ALT	52,000 FT
MAX SPEED	1.6 MACH	MAX WEIGHT	27,558 LBS
COUNTRY	PAKISTAN		
OVERVIEW	<p>This is one of the most modern aircraft in DCS, with the real thing only entering service in 2010. This is a joint Pakistan-China venture into producing a lightweight multirole fighter - think of an F-16 but smaller. It has some of the most advanced technology in any DCS aircraft, with 3 huge flat screen displays showing you the resulting information in unparalleled clarity. The weapons are an interesting factor, it features a lot of similarly capable weaponry to the F/A-18, but with Chinese-designed weapons providing interesting differences in functionality. It's got a smaller payload than both the Hornet and Viper, however, meaning that you have to focus more on one specific target type or mission. This aircraft adds new levels of detail such as canopy fogging, electronic overheating, and vapor cones. It's a fantastic module that gets overlooked - at first glance, it might appear to be a knockoff F-16, but it's definitely got plenty of character of its own.</p>		
WEAPONS	11 missiles type, 3 rocket types, 9 bomb types and 4 pod types.		
PROS	Easy to learn and fly. Very modern cockpit. The most modern aircraft in DCS currently. Lots of weapons to choose from and a variety of roles. Small and nimble.		
CONS	Carries a smaller amount of weapons compared to the F-16 or F/A-18.		



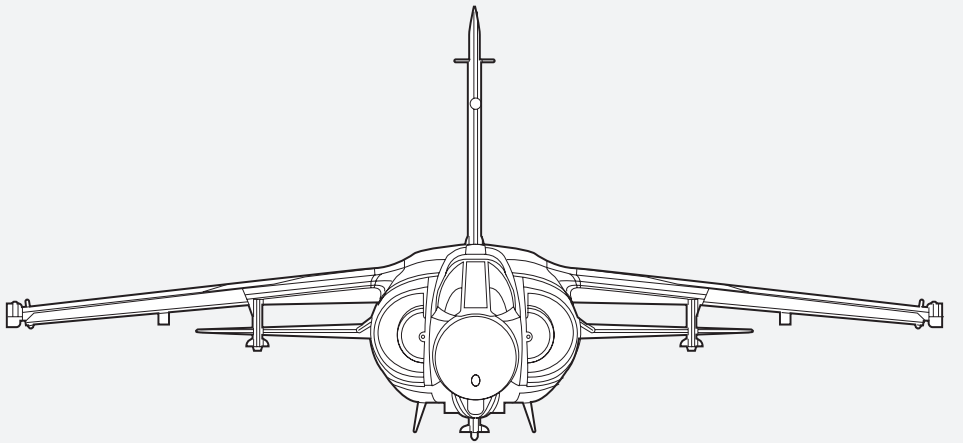
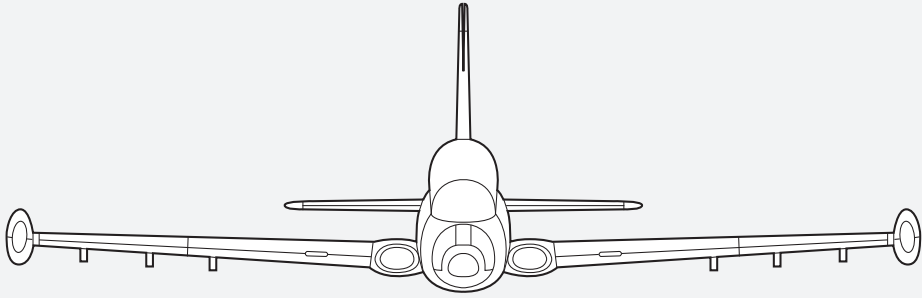


	L-39ZA ALBATROS		
DEVELOPER	Eagle Dynamics		
PRIMARY ROLE	TRAINER AND LIGHT ATTACK		
YEAR	1980	MAX ALT	37,729 FT
MAX SPEED	379 KTS	MAX WEIGHT	12,346 LBS
COUNTRY	CZECHOSLOVAKIA		
OVERVIEW	Similar to the C-101, with both an unarmed and armed variant offered, but with a Warsaw Pact background rather than a NATO one, with all the differences that usually results in. Probably one for those who want a trainer but not a NATO one.		
WEAPONS	2 missiles types, 1 rocket type, 5 bomb types and 2 pod types.		
PROS	Multicrew aircraft. Great for training.		
CONS	Limited flight systems. Vulnerable to air threats. Only IR missiles for defense. Few weapons.		



	M-2000C MIRAGE		
DEVELOPER	RAZBAM		
PRIMARY ROLE	AIR SUPERIORITY & MULTIROLE		
YEAR	1984	MAX ALT	59,000 FT
MAX SPEED	MACH 2.2	MAX WEIGHT	36,376 LBS
COUNTRY	FRANCE		
OVERVIEW	The Mirage is a French interceptor aircraft with limited ground attack capability. It's not quite as capable as the more modern US fighters, but it turns on a dime and is really quite rapid. You'll be using French-designed missiles that, while capable, haven't got the fire-and-forget capability that something like the AIM-120 has, so some well-drilled flying is required to get the best out of this jet. It's one of the only aircraft that I know of in DCS (along with the F-5) that can carry a laser-guided bomb, but cannot self-designate a target for it, so you'll have to work in tandem with a ground-based JTAC or another aircraft in order to strike targets with it. You've also got some excellent anti-runway weapons to use. Possibly not the first aircraft I'd recommend to a new player, but it's definitely a capable fighter in the right hands. Plus, there are numerous NATO Tiger Meet liveries for the plane, the use of which will definitely increase your prowess on the battlefield.		
WEAPONS	2 missiles types, 1 rocket type, 9 bomb types and 3 pod types.		
PROS	Extremely agile and relatively easy to fly. Easy to use autopilot. Very capable in the right hands. Internal guidance to an enemy unlike any other aircraft.		
CONS	No option for self-lasing. Missiles are shorter range than other radar missiles, requiring you to get much close to the enemy.		





MB-339

EARLY
ACCESS

DEVELOPER	IndiaFoxtEcho Visual Simulation		
PRIMARY ROLE	TRAINER		
YEAR	1980	MAX ALT	46,000 FT
MAX SPEED	950.8 KPH	MAX WEIGHT	13,007 LBS
COUNTRY	ITALY		
OVERVIEW	Similar to the C-101 and L-39ZA, this multi-crew trainer has some offensive ground attack options. Limited in usage but perfect for training various aircraft systems. Includes 2 variants, the PAN or aerobatic version, capable of performing the Lomcovák manoeuvre and the A version used by various air forces for training.		
WEAPONS	7 missiles types, 8 rocket types, 9 bomb types and 4 pod types.		
PROS	Multicrew aircraft. Great for training.		
CONS	Limited offensive ability. Basic systems and no radar. Limited flight systems. Vulnerable to air threats. No air defense weapons. Few weapons.		

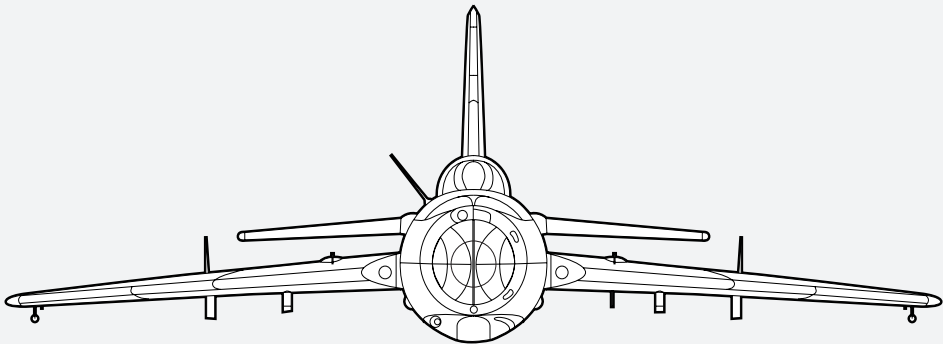
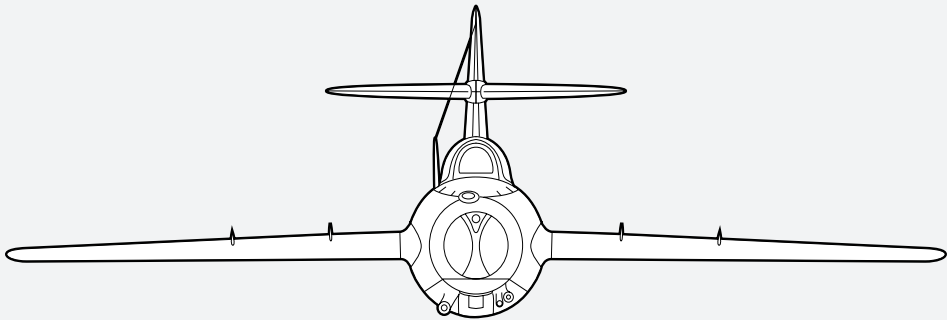


MIRAGE F1 CE, EE & BE

EARLY
ACCESS


DEVELOPER	Aerges Engineering		
PRIMARY ROLE	FIGHTER AND INTERCEPTOR		
YEAR	1973	MAX ALT	50,000 FT
MAX SPEED	MACH 2.1	MAX WEIGHT	35,715 LBS
COUNTRY	FRANCE		
OVERVIEW	A great addition to the DCS line up. A very capable fighter with an assortment of air to air and air to ground weapons. One of the best radars in the era at 60 nautical miles and able to lock on at 35 nautical miles, however there is no IFF so be sure you have an enemy locked before firing. No GPS so navigation is much more rudimentary. Fast and agile, and in the right hands, a very capable air to air platform with 4 air to air missiles plus cannons. Can be flown on either BlueFor or RedFor depending on the server. This aircraft is still in early access but will eventually include 4 variants; the current 1970s era jet, a two-seat trainer, and two more modern variants.		
WEAPONS	7 missiles types, 10 rocket types and 12 bomb types.		
PROS	Great radar for the time. Good turn rate with auto flaps. Good speed and decent acceleration and climb. Has a dog fight mode. Air to air weapons are effective and able to carry 4. Module will eventually include 4 variants.		
CONS	No IFF at all. Limited air to ground weapon options (currently). Basic RWR. Cockpit visibility could be better.		



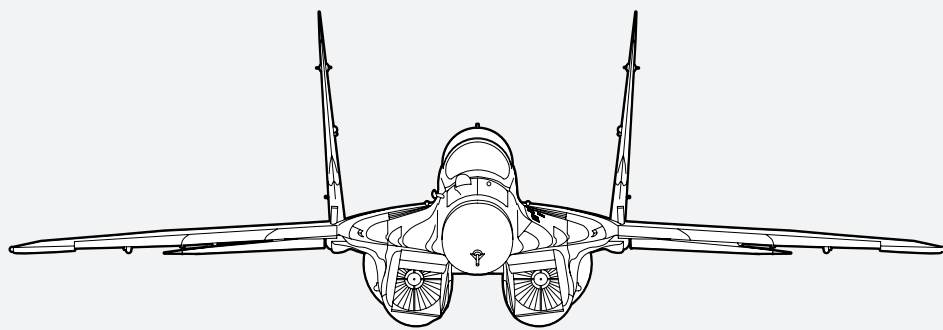
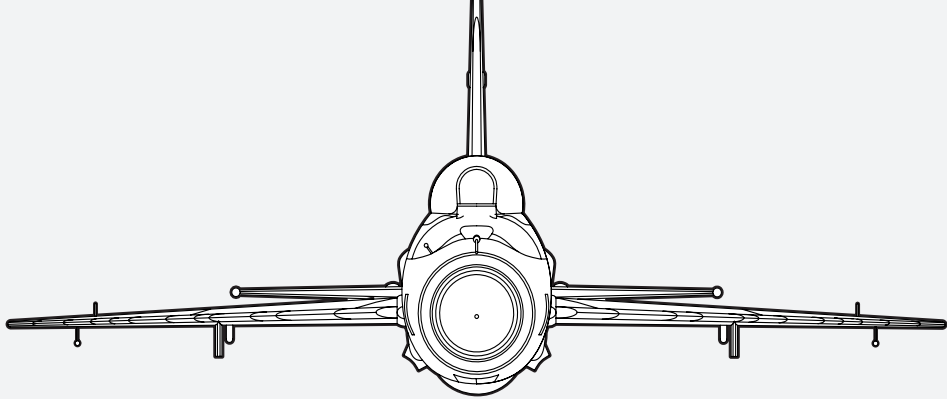


<div></div> <div><div>MIG-15 BIS</div><div>FAGOT</div></div>			
DEVELOPER		Belsimtek	
PRIMARY ROLE		FIGHTER	
YEAR	1949	MAX ALT	51,016 FT
MAX SPEED	581 KTS	MAX WEIGHT	13,461 LBS
COUNTRY		SOVIET UNION	
OVERVIEW		<p>This is a fairly similar story to the F-86 - another Korean war era classic jet, Compared to the Sabre, this aircraft is more agile but less speedy. It has no missile capability, but it does have some terrifyingly effective cannons, as well as limited air-to-ground munitions. It's a bit of a pig to steer on the ground, especially if you're not used to the differential brakes found in most early Cold War MiGs. Navigating with the old radio direction finder equipment is fairly rewarding when done well. If you're a single-player pilot, I'd actually recommend this over the F-86, because you're more likely to have a fair fight against AI Sabres than you are against this.</p>	
WEAPONS		2 bomb types and 200 rounds of cannon.	
PROS		Agile compared to the F-86. Powerful cannon. Small airframe.	
CONS		Ground steering and braking can be difficult. Not as fast as the F-86. No option for missiles. Harder to navigate.	




<div></div> <div><div>MIG-19</div><div>FARMER</div></div> <div>EARLY ACCESS</div>			
DEVELOPER		RAZBAM	
PRIMARY ROLE		FIGHTER	
YEAR	1955	MAX ALT	57,000 FT
MAX SPEED	MACH 1.1	MAX WEIGHT	19,264 LBS
COUNTRY		SOVIET UNION	
OVERVIEW		<p>The MiG-19 is an evolution of the MiG-17, itself a faster version of the MiG-15. It seems to be mostly feature-complete, it's well modeled and it's plenty of fun to fly. I'd probably recommend this module to those looking for a bit more of a niche aircraft to try. It's not a bad aircraft at all and is perfect for Cold War servers. Very agile and powerful, but limited in weapon options, with only two simple air to air missiles, but a powerful cannon. Includes a limited Radar but is a beast in a close quarter dogfight if you know how to fly and fight in it. Compared to other cold war aircraft, has a lot of fuel and can out rate and out climb most cold war aircraft it faces, except the F-86. An amazing module.</p>	
WEAPONS		1 missiles type, 1 rocket type, 3 bomb types and 1 pod type.	
PROS		Very capable in good hands. Decent fuel, extremely agile and fast. Can out rate most enemies.	
CONS		Limited weapon options. Poor Radar functionality and general SA.	



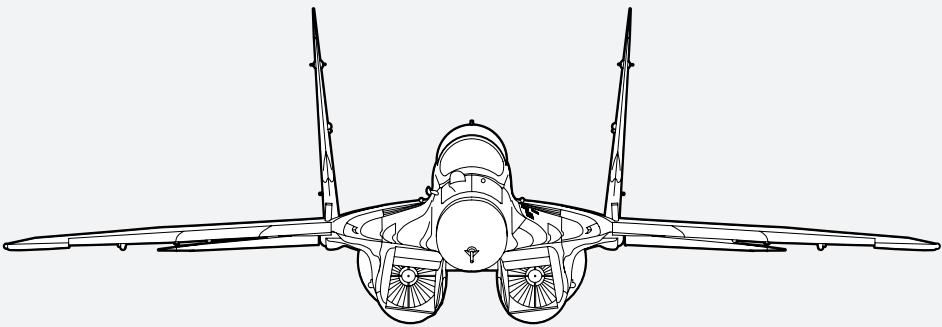


<div></div> <div><div>MIG-21 BIS</div><div>FISHBED</div></div>			
DEVELOPER		Magnitude 3 LLC	
PRIMARY ROLE		FIGHTER AND INTERCEPTOR	
YEAR	1975	MAX ALT	61,000 FT
MAX SPEED	MACH 2.05	MAX WEIGHT	22,928 LBS
COUNTRY	SOVIET UNION		
OVERVIEW	The MiG-21 is one of the most widely-produced aircraft in the world, with over 11,000 being built over its very lengthy life - with some countries still using modernized variants to this day. This is the Soviet Union's fighter of the 60s, and is surprisingly versatile, even considering its age. It can carry a variety of early air-to-air missiles, a good selection of air-to-ground munitions, and it's very, very fast. Furthermore, this aircraft is currently the only aircraft in DCS that is capable of unleashing nuclear weapons on our virtual battlefields. The aircraft is not for the faint of heart - the delta wings may give you immense speed, but they will try to kill you if you dare slow down, and landings are notoriously tricky with this jet. I'd recommend this module if you want a versatile experience and a good level of challenge, but fancy a change from the ever-expanding stable of US aircraft in DCS .		
WEAPONS	9 missiles types, 4 rocket types, 11 bomb types and 5 pod types.		
PROS	Fast with great acceleration. Lots of power. IFF system. Powerful cannon. R-60Ms are agile and decent for the time.		
CONS	Poor cockpit visibility. Almost no rear visibility. Engine can flame out if not careful. R-60Ms are very short ranged. Likes to try and kill you.		




		MIG-29 A FULCRUM		EARLY ACCESS	
DEVELOPER		Eagle Dynamics			
PRIMARY ROLE		FIGHTER			
YEAR		1982	MAX ALT		59,005 FT
MAX SPEED		MACH 2	MAX WEIGHT		43,431 LBS
COUNTRY		SOVIET UNION			
OVERVIEW		The classic Redfor fighter jet, designed to take on the F-16. This aircraft was designed to work with the larger Su-27, having limited range and capabilities. This aircraft was intended as a air superiority fighter over air to air and air to ground platform. The MiG-29 relies on gauges and dials over screens, with the only screen in the cockpit, essentially repeating the HUD. Because of this, the radar and IR system is controlled through the HUD, keeping the pilots eyes outside rather than looking at screens. The MiG-29 is equipped with a passive IR Search and Track sensor that allows the Fulcrum to detect and target enemy aircraft based on infrared emissions. This highly maneuverable and greatly powered fighter, paired with a helmet mounted sight, makes this aircraft very deadly in the right hands. However, the lack of displays and a western style RWR can make SA harder to maintain. This aircraft should be used primarily as an air superiority platform especially in Cold war scenarios.			
WEAPONS		7 missiles types, 4 rocket types, 11 bomb types and 1 pod type.			
PROS		Quite easy to fly and startup. A highly manuevable aircraft with two powerful engines. Radar and IR system is on the HUD rather than a screen.			
CONS		Limited range and weapon options (no air to ground missiles). Radar capabilities are more limited when compared to the F-16 or F/A-18. The RWR and situational awareness is limited.			






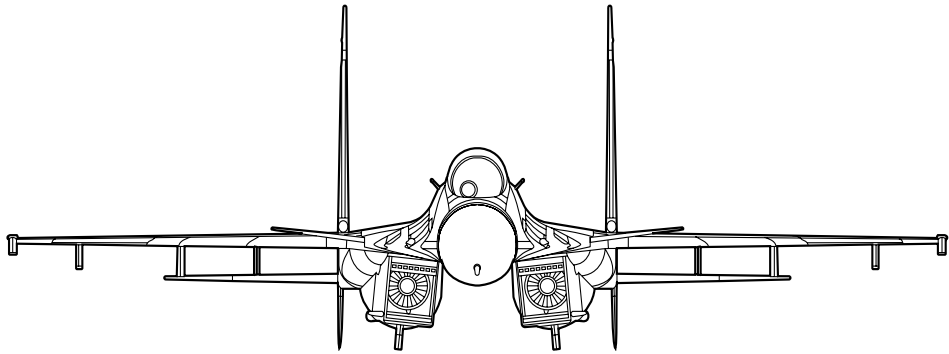
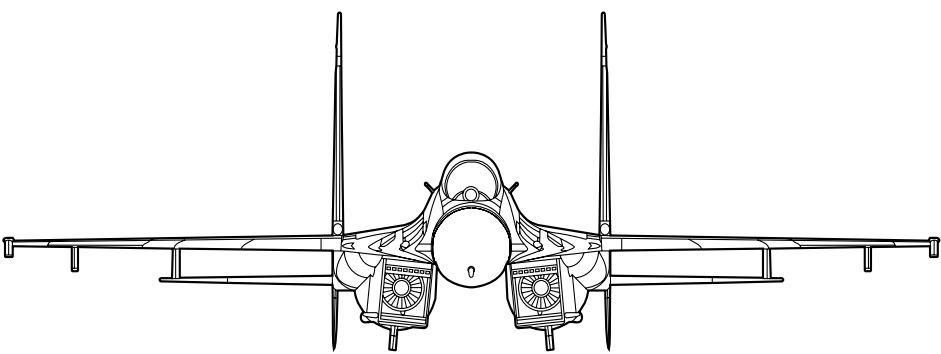
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	MIG-29 A & G & S FULCRUM		LOW FIDELITY
DEVELOPER		Eagle Dynamics	
PRIMARY ROLE		FIGHTER	
YEAR	1982	MAX ALT	59,005 FT
MAX SPEED	MACH 2	MAX WEIGHT	43,431 LBS
COUNTRY	SOVIET UNION		
OVERVIEW	A classic Redfor fighter jet, the Russian F-16C as some describe it. Designed to work in concert with the Su-27, this light fighter but deadly fighter is armed with a wide range of weapons. As well as the pulse Doppler Radar, the MiG-29 is equipped with a passive Search and Track sensor that allows the Fulcrum to detect and target enemy aircraft just based on infrared emissions. A highly maneuverable fighter and paired with a helmet mounted sight, this aircraft is very deadly in the right hands. However, the lack of clickable cockpits can make it harder to use, as you are either required to use an HOTAS with a lot of buttons or remember lots of keybinds to operate them fully.		
WEAPONS	7 missiles types, 4 rocket types, 10 bomb types and 1 pod type.		
PROS	Easier to fly and startup. Good radar and passive infrared sensor. Helmet mounted sight a boon in close range dog fights.		
CONS	Low fidelity model and systems. No clickable cockpit		




	SU-25 & T FROGFOOT		LOW FIDELITY
DEVELOPER		Eagle Dynamics	
PRIMARY ROLE		AIR TO GROUND ATTACK AND CAS	
YEAR	1981	MAX ALT	23,000 FT
MAX SPEED	513 KTS	MAX WEIGHT	42,990 LBS
COUNTRY	SOVIET UNION		
OVERVIEW	The Su-25 & T variant is designed as a close air support aircraft. It prioritizes firepower and survivability over all other considerations. The pilot sits encased in an armored tub (similar to the A-10) and the aircraft is built to be sturdy. The engines are enclosed within the fuselage and the Su-25T comes with multiple system redundancy. Combine that with the many pylons on the wings that can take a hit and bring a ton of firepower to a situation. The Su-25 has some advantages over the A-10. Chiefly, it is faster and that makes ingress and egress from a target area much quicker reducing the time that the jet is exposed to enemy fire. Also unlike the A-10, the Su-25 has anti-radiation missiles so can effective attack SAMs in SEAD missions.		
WEAPONS	10 missiles types, 7 rocket types, 14 bomb types and 6 pod types.		
PROS	The Russian A-10 and just as capable. Many weapon options and a large weapon carrying capacity. Capable of SEAD missions. Faster and easier to utilize than the A-10. Easier to fly and startup.		
CONS	Limited gun ammunition. Not as technologically advanced as the A-10. Low fidelity model and systems. No clickable cockpit		



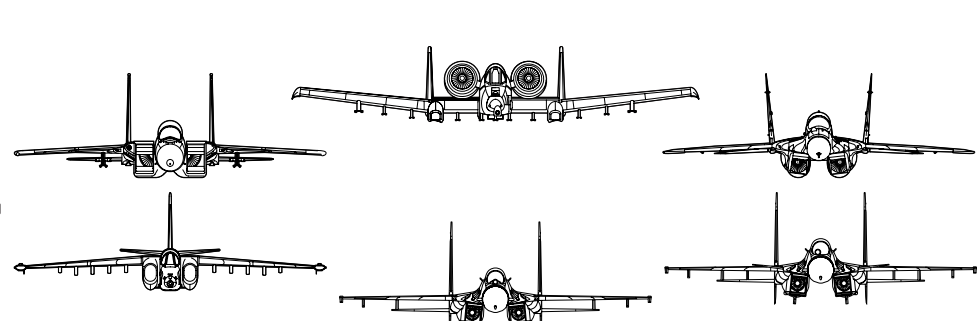
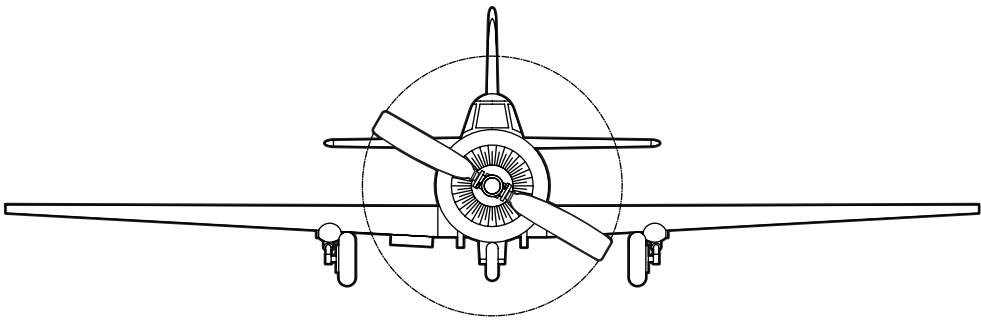



	SU-27 / J-11 FLANKER		LOW FIDELITY
DEVELOPER	Eagle Dynamics		
PRIMARY ROLE	AIR SUPERIORITY FIGHTER		
YEAR	1985	MAX ALT	60,695 FT
MAX SPEED	MACH 2.35	MAX WEIGHT	72,753 LBS
COUNTRY	SOVIET UNION		
OVERVIEW	The pillar of modern day Russian air combat. Built to counter the F-15, the Flanker is a highly maneuverable air superiority fighter. Capable of engaging in beyond visual range, it is also well suited to in close fighting with its amazing slow speed and high angle of attack maneuverability. Like the MiG-29, the SU-27 is equipped with a powerful Doppler Radar and stealthy infrared search and track system. Also equipped with a helmet mounted sight which allows you to simply look at a target to lock it up. The Flanker is armed with a wide range of missiles, rockets, bombs and more. However, the lack of clickable cockpits can make it harder to use, as you are either required to use an HOTAS with a lot of buttons or remember lots of keybinds to operate them fully.		
WEAPONS	6 missiles types, 5 rocket types, 13 bomb types and 2 pod types.		
PROS	Easier to fly and startup. Good radar and passive infrared sensor. Helmet mounted sight a boon in close range dog fights.		
CONS	Low fidelity model and systems. No clickable cockpit		



	SU-33 FLANKER D		LOW FIDELITY
DEVELOPER	Eagle Dynamics		
PRIMARY ROLE	AIR SUPERIORITY FIGHTER		
YEAR	1998	MAX ALT	55,774 FT
MAX SPEED	MACH 2.17	MAX WEIGHT	72,753 LBS
COUNTRY	RUSSIA		
OVERVIEW	The naval version of the SU-27, this is the backbone of the Russian Aircraft Carrier fleet. Equipped with similar equipment on the SU-27, like the Doppler Radar, infrared search and track system and helmet mounted site, this version also adds a more robust landing gear, folding wings, more powerful engines and canards. A highly capable fighter aircraft armed with a wide ranger of weaponry. However, the lack of clickable cockpits can make it harder to use, as you are either required to use an HOTAS with a lot of buttons or remember lots of keybinds to operate them fully.		
WEAPONS	5 missiles types, 5 rocket types, 12 bomb types and 2 pod types.		
PROS	Easier to fly and startup. Good radar and passive infrared sensor. Helmet mounted sight a boon in close range dog fights.		
CONS	Low fidelity model and systems. No clickable cockpit		





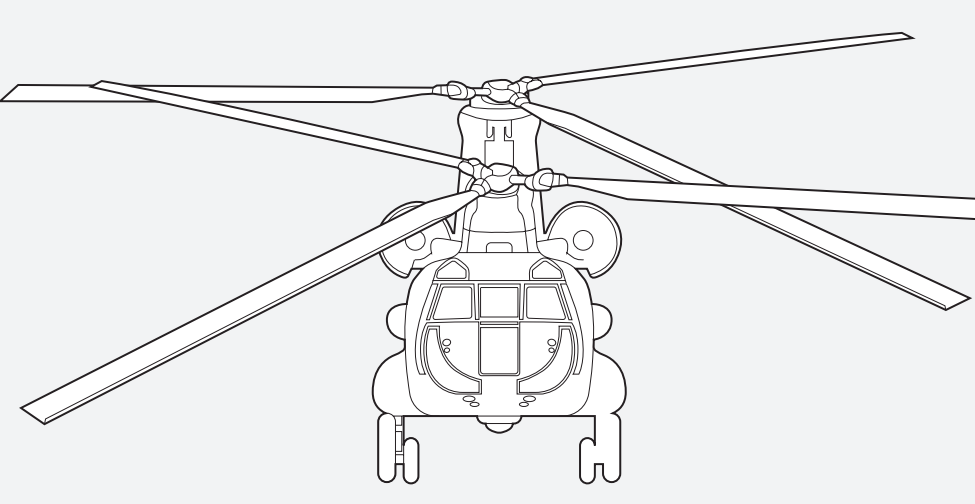
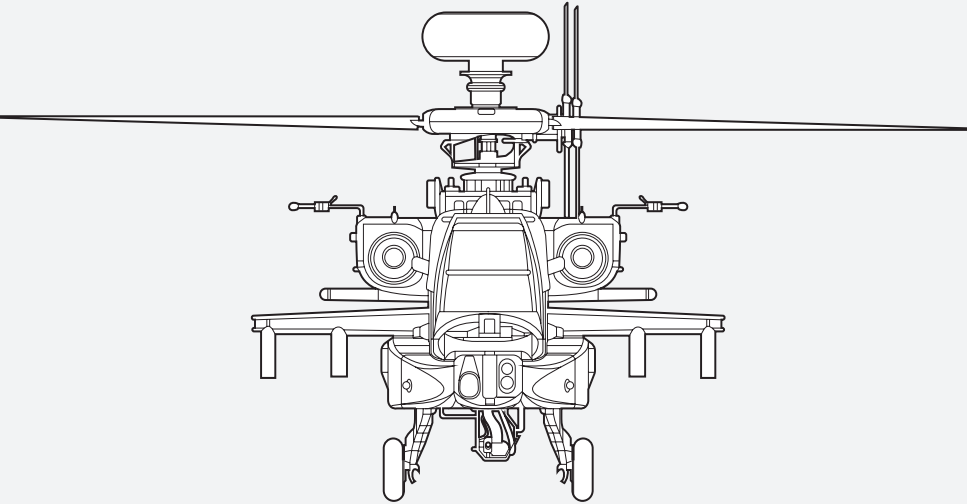
<div> YAK-52 EARLY ACCESS</div>			
DEVELOPER		Eagle Dynamics	
PRIMARY ROLE		TRAINER	
YEAR	1979	MAX ALT	13,000 FT
MAX SPEED	154 KTS	MAX WEIGHT	2,877 LBS
COUNTRY		SOVIET UNION	
OVERVIEW		An old Russian trainer that's also rated for aerobatics. For anyone that's used to flying light GA in real life, this is basically a massively overpowered Cessna C-150, it's agile and incredibly easy to fly. Some say it doesn't have it's place in DCS as it's only combat capability is as a kamikaze, but it's arguably the best fixed wing bush flying aircraft in DCS ! An added bonus is that the flight model is really good so you can do practice circuits to keep current during the pandemic and call it sim time.	
WEAPONS		N/A	
PROS		Great aircraft to learn how to fly in. Easy to fly and understand. Surprisingly agile and perfect for practicing flight maneuvers.	
CONS		Trainer with no weapon options. Limited usage within the DCS simulator especially multiplayer.	




FLAMING CLIFFS 3 LOW FIDELITY			
DEVELOPER		Eagle Dynamics	
PRIMARY ROLE		AIR TO AIR, AIR TO GROUND	
YEAR	VARIOUS	MAX ALT	RUSSIA/US
MAX SPEED	VARIOUS	MAX WEIGHT	VARIOUS
COUNTRY		US / RUSSIA / SOVIET UNION	
OVERVIEW		Flaming cliffs 3 is a package available for purchase. The package includes the following aircraft; F-15C, A-10A, Su-27, Su-33, MiG-29A, MiG-29S, Su-25T, and Su-25. All aircraft are low fidelity, meaning they have no clickable cockpit components.	
WEAPONS		Many depending on the aircraft.	
PROS		Lots of varying aircraft, both Bluefor and Redfor. Easier to fly and use.	
CONS		All aircraft are low fidelity.	




HELICOPTERS

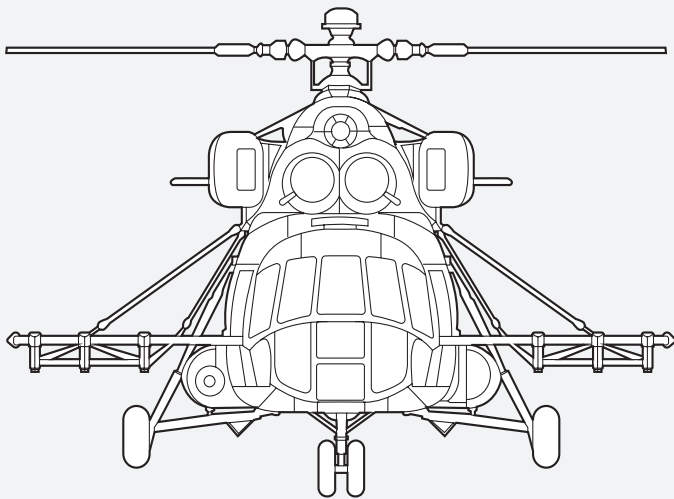
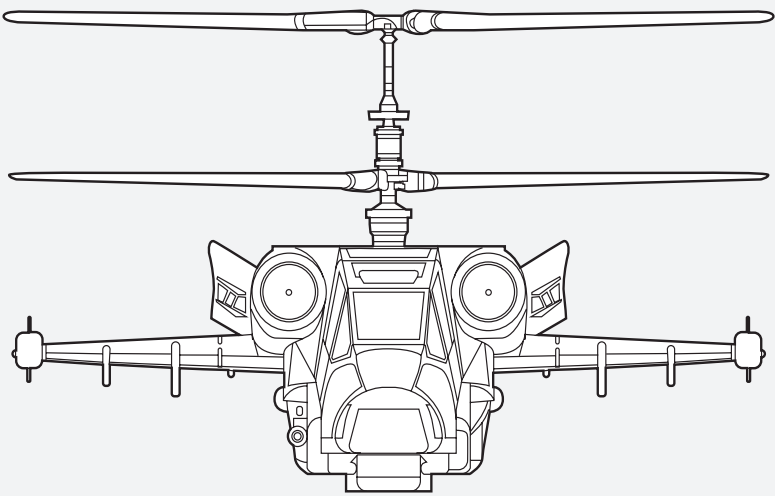



	AH-64D APACHE LONGBOW EARLY ACCESS		
DEVELOPER	Eagle Dynamics		
PRIMARY ROLE	MODERN ATTACK HELICOPTER		
YEAR	2003	MAX ALT	20,000 FT
MAX SPEED	158 KTS	MAX WEIGHT	23,000 LBS
COUNTRY	US		
OVERVIEW	<p>If you flew the A10-C and wanted the same thing but slower, with more of those fancy guided missiles and a buddy to come along for the ride then this is the Aircraft for you. With plenty of modern avionics and navigation equipment you'll be able to sneak up, hunt down and destroy those pesky main-battle tanks with your choice of guided hellfire missiles, rockets, or if you wanna make it personal; a 30mm chain gun. Although a challenge, it is possible to target and hit aircraft with a Hellfire.</p> <p>Note: Module is still in early access, content such as the longbow radar along with the radar guided hellfire and more are still to come.</p>		
WEAPONS	1 missile type and 6 rocket types.		
PROS	Powerful helicopter with few cockpit switches. Tons of missiles to keep you on the battlefield. You can bring a friend. State of the art technology. Land pretty much anywhere.		
CONS	Can be harder to control, especially if coming from aircraft. Slow maneuvering with complex avionics. Rudders are really needed to utilize. Vulnerable to air threats. No missiles for defense against aircraft. Works better if deployed in groups.		




	CH-47F CHINOOK EARLY ACCESS		
DEVELOPER	Eagle Dynamics		
PRIMARY ROLE	MODERN TRANSPORT HELICOPTER		
YEAR	2001	MAX ALT	20,000 FT
MAX SPEED	170 KTS	MAX WEIGHT	21,000 LBS
COUNTRY	US		
OVERVIEW	<p>It's big, it's powerful, and can transport almost anything! The CH-47F is the premier multi-mission multi-rotor rotary wing aircraft used by the US army and many nations. Exceptionally stable and agile, the CH-47F offers straightforward loading and unloading with the rear ramp access. Equipped with a state-of-the-art digital cockpit, with automatic flight control systmes, enhancing cargo-handling efficiency while still boosting mission performance and all-weather situational awareness. Extended ranges are possible with the addition of fuel tanks. The perfect helicopter for any and all transportation and cargo needs.</p> <p>Note: Module is still in early access, content such as some avionics, multi-crew features and more are still to come.</p>		
WEAPONS	3 mounted machine guns		
PROS	Powerful tandem-rotor helicopter with state of the art cockpit and displays. Perfect for all cargo and troop transport missions. Stable and agile making loading and unloading much easier. You can bring a friend. Land pretty much anywhere.		
CONS	Can be a bit trickier to maneuver, especially if coming from aircraft. Large and slow making for an easier target. Rudder pedals are really needed to fully utilize. Extremely vulnerable to air threats. Limited defense options. Works better if deployed with support.		



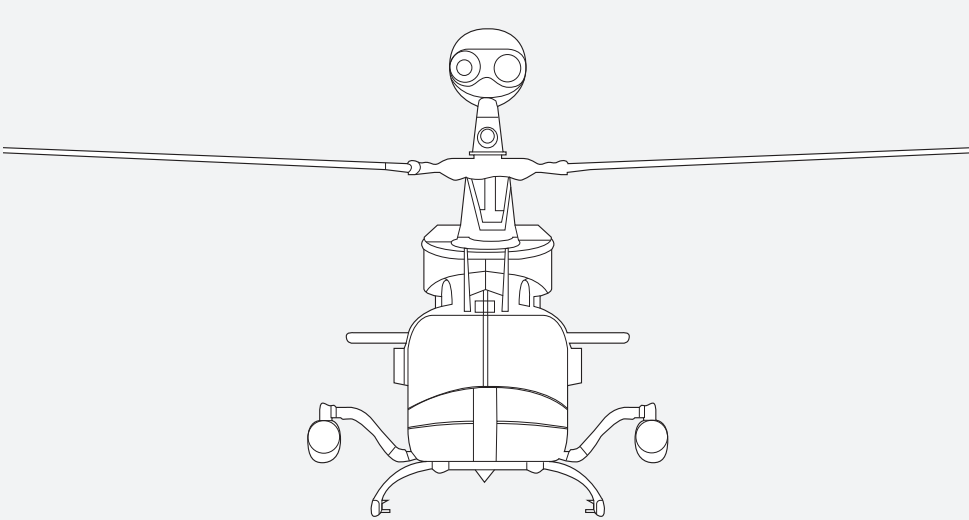
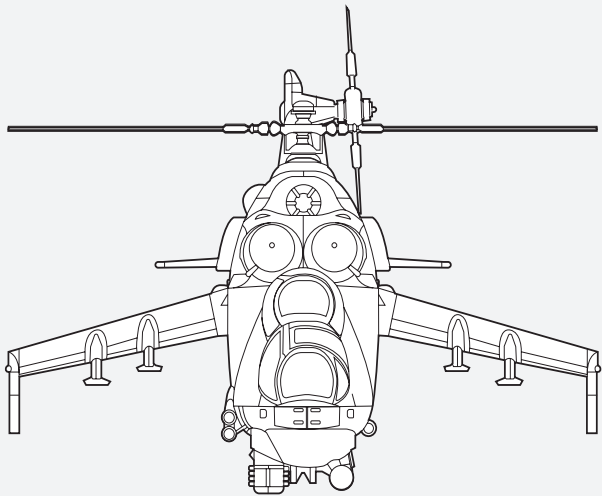



	KA-50 BLACK SHARK 3		
DEVELOPER	Eagle Dynamics		
PRIMARY ROLE	MODERN ATTACK HELICOPTER		
YEAR	1990	MAX ALT	18,000 FT
MAX SPEED	162 KTS	MAX WEIGHT	26,235 LBS
COUNTRY	SOVIET UNION		
OVERVIEW	This is the scalpel to the Mi-24 Hind's hammer. Imagine a helicopter, with the fly-by-wire ease and agility of the F/A-18 or F-16, the precision-guided lethality of the A-10. Your typical load out is twelve anti-tank missiles, a pair of rocket pods, and a scarily accurate 30mm chain gun, plus with the updated version, anti-air missiles. Combine this with an autopilot system that can hold the thing in a hover and automatically turn to aim at targets as you look at them, and you've got yourself a very capable ground attack helicopter. It has an impressive display that can show GLONASS (Russian GPS) data, co-axial rotors that produce no torque to worry about, and even a helicopter-capable ejection seat. The latest version also now has a missile launch warning system, integrated directional infrared countermeasures and more.		
WEAPONS	3 missiles types, 5 rocket types, 4 bomb types and 1 pod type.		
PROS	Single seat, no need to switch seats to use weapons etc. Wide range of weapons and great cockpit screens. Agile and more survivable. Counter-rotating rotors makes it slightly easier to fly. The latest version has anti-air capability and a missile launch warning system.		
CONS	Poor cockpit visibility. No night capability.		



	MI-8 MAGNIFICENT EIGHT HIP		
DEVELOPER	Belsimtek		
PRIMARY ROLE	TRANSPORT AND LIGHT ATTACK		
YEAR	1970	MAX ALT	18,000 FT
MAX SPEED	124 KTS	MAX WEIGHT	28,660 LBS
COUNTRY	SOVIET UNION		
OVERVIEW	A big, ugly beast of a helicopter, this thing is considered one of the best-simulated helicopters in any flight sim, ever; the flight model has been praised as very accurate by real pilots, which is always a challenge with helicopters. It's surprisingly fast, unsurprisingly not overly agile, and can carry more rockets than you will ever need, as well as bombs, gun pods, and a pair of door gunners. It has a relatively robust autopilot system that can help the pilot manage the aircraft, as well as aids to help you hover. It's also capable of carrying significant amounts of cargo. The module could perhaps do with a little bit of graphical polish, as the Hind shows what can be achieved by the art team in 2023. Hopefully, it will also receive the Huey's multicrew design at some point. A very good helicopter for those wanting to play Euro Truck Simulator in the skies!		
WEAPONS	4 rocket types, 4 bomb types and 5 pod types.		
PROS	Powerful engine and robust helicopter. Can carry a lot of weight. Can carry a wide range of weapons.		
CONS	Can be a challenge to fly and use effectively. Weapon options are limited to simple munitions only. Effectively utilizing weapons can be challenging.		








MI-24P
HIND

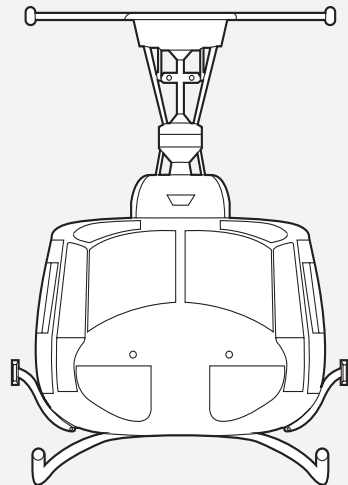
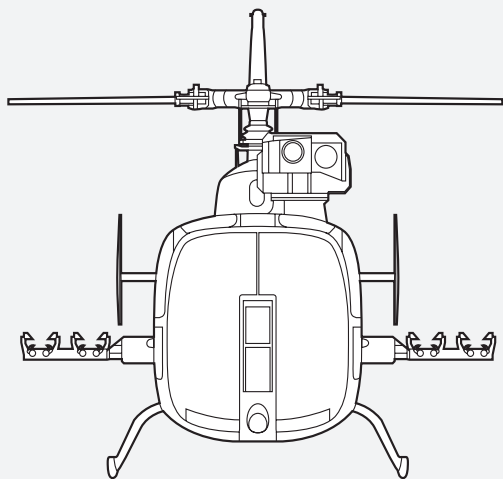
EARLY
ACCESS

DEVELOPER	Eagle Dynamics		
PRIMARY ROLE	ATTACK AND TRANSPORT		
YEAR	1989	MAX ALT	14,764 FT
MAX SPEED	180 KTS	MAX WEIGHT	25,353 LBS
COUNTRY	SOVIET UNION		
OVERVIEW	<p>It's one of the most iconic helicopters ever made. It's often referred to as the Flying Tank. It's incredibly fast for a rotary-wing aircraft. The model is incredibly detailed, the sounds are great, and the flight model has been praised by several as one of the most accurate simulations of a helicopter available on the consumer market today. The AI is sufficient for controlling the ATGM-firing front-seat, though it still needs a little work for back-seat duties. The weapons that are currently in the game are reasonably versatile, and you will find yourself doing a lot of high-speed strafing runs, and very little hovering. It even comes with two fans! Recommended if you like helicopters, especially ones that aren't afraid to get up close and personal instead of hovering behind a hill 4 miles away.</p>		
WEAPONS	5 missiles types, 7 rocket types, 10 bomb types and 2 pod types.		
PROS	Fast and agile attack helicopter. Can also carry troops into combat. Best used in high speed attacks. Anti-Air weaponry available. Large map in cockpit helpful.		
CONS	Big and easy to spot with its distinct silhouette. Limited RWR.		



		OH-58D KIOWA WARRIOR		EARLY ACCESS
DEVELOPER		Polychop Simulations		
PRIMARY ROLE		OBSERVATION AND RECONNAISSANCE HELICOPTER		
YEAR	1983	MAX ALT	15,000 FT	
MAX SPEED	129 KTS	MAX WEIGHT	5,500 LBS	
COUNTRY	US			
OVERVIEW	A single engine light weight helicopter with the distinctive mast-mounted sight, the Kiowa Warrior fills the observation and recon role extremely well. The added addition of very capable weapon systems allow the Kiowa to not only observe but eliminate enemies on the battlefield. The distinctive mast holds a large suite of sensors from TV and FLIR, laser and radar detectors to an IR jammer and missile warning system, its location high above the helicopter allows the helicopter to scan and observe from relative safety. The Kiowa also has multicrew, allowing one player to focus on flying while the other focuses on sensors and weapon system delivery.			
WEAPONS	2 missile types, 1 rocket type, 6 smoke grenades and 1 pod type.			
PROS	Multiple weapon options including Anti-Tank and Anti-Air. Small, agile with a powerful sensor suite. Multi-crew availability.			
CONS	Limited range and limited weapon amount.			





SA-342 GAZELLE

DEVELOPER	Polychop Simulations		
PRIMARY ROLE	LIGHT MULTI-USE ATTACK HELICOPTER		
YEAR	1973	MAX ALT	16,400 FT
MAX SPEED	167 KTS	MAX WEIGHT	4,640 LBS
COUNTRY	FRANCE		
OVERVIEW	The Gazelle is a fantastic package on paper - it gives you several variants of an incredibly lightweight and nimble helicopter, with a mixture of anti-tank, anti-infantry and even anti-air capability. There's multicrew, that allows one player to focus on flying this twitchy little machine while the other focuses on slinging anti-tank missiles down range.		
WEAPONS	2 missile types, 1 rocket type, and 2 pod types.		
PROS	Multiple variants within one package, including an anti-air version. Can be utilized for a number of different missions. Agile and relatively fast.		
CONS	Can be a bit twitchy and tricky to use effectively.		

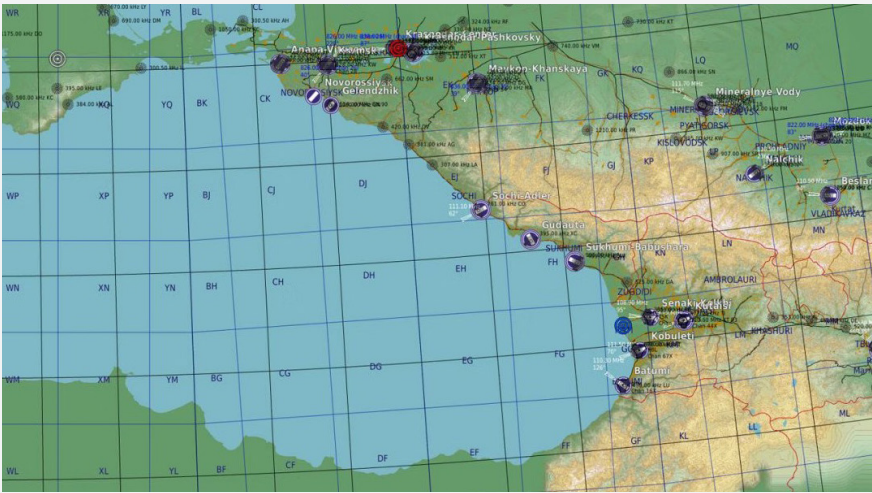
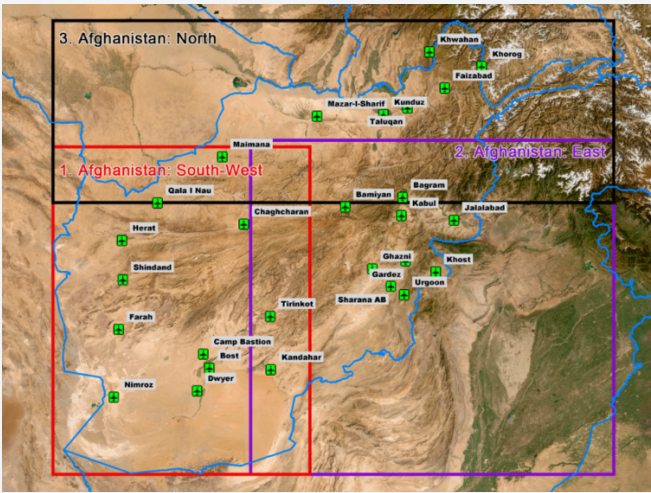


UH-1H HUEY

DEVELOPER	Belsimtek		
PRIMARY ROLE	TRANSPORT AND LIGHT ATTACK		
YEAR	1959	MAX ALT	14,200 FT
MAX SPEED	90 KTS	MAX WEIGHT	9,502 LBS
COUNTRY	US		
OVERVIEW	This is personally my favorite module to just jump in and fly around with no planning or preparation. This is a helicopter that anyone who's ever seen a Vietnam film will be familiar with, and it's a tonne of fun to fly - not too fast, but plenty agile, with characteristics such as mast bumping that will bite inexperienced helicopter pilots. It's capable of carrying 4 miniguns, a pair of rocket pods, and 3 of your friends into combat, and while it's not really going to set the world (or an enemy convoy) on fire, you'll definitely have a good time trying. Strongly recommended for anyone looking to fly helicopters, especially if you don't care about bells and whistles, but just want a relatively raw experience.		
WEAPONS	6 rocket types and 3 pod types.		
PROS	Simple but effective. Relatively easy to fly when compared to other helicopters. A decent array of weapons and can carry troops. Perfect starting helicopter to get your feet wet.		
CONS	Slow and easily damaged. Carrying too many weapons can cause issues.		



MAPS





AFGHANISTAN

EARLY ACCESS

AREA	290,000 km ²	COUNTRIES	Afghanistan
AIRFIELDS	28		

OVERVIEW

This map covers all of Afghanistan and the 28 airfields found across the country. Unlike other maps, you can purchase the entire country or an East version or a Southwest version for a lower cost. The Afghanistan map includes the rugged mountain ranges of the Hindu Kush, the vast deserts of the Dasht-e Kavir and Dasht-e Lut, and the fertile valleys and river basins. High-resolution aerial imagery has been utilised to enhance the realism and accuracy of the map. Great efforts have been dedicated to accurately portraying the unique cultural and urban features of Afghanistan. The map features detailed modelling of rivers, roads, vegetation, rocks, small stones, ground clutter, and geological formations enhance immersion and realism at low altitude. A great option for recreating military exercises in the Afghanistan theatre spanning multiple decades.


PROS

Great high quality map with a lot of differing terrains. Multiple mountain ranges, deserts and more. Multiple purchase options if you don't need the full map.

CONS

Can be sparse in areas, just like the real country.





CAUCASUS

FREE

AREA	250,000 km ²	COUNTRIES	Russia, Georgia
AIRFIELDS	21		

OVERVIEW


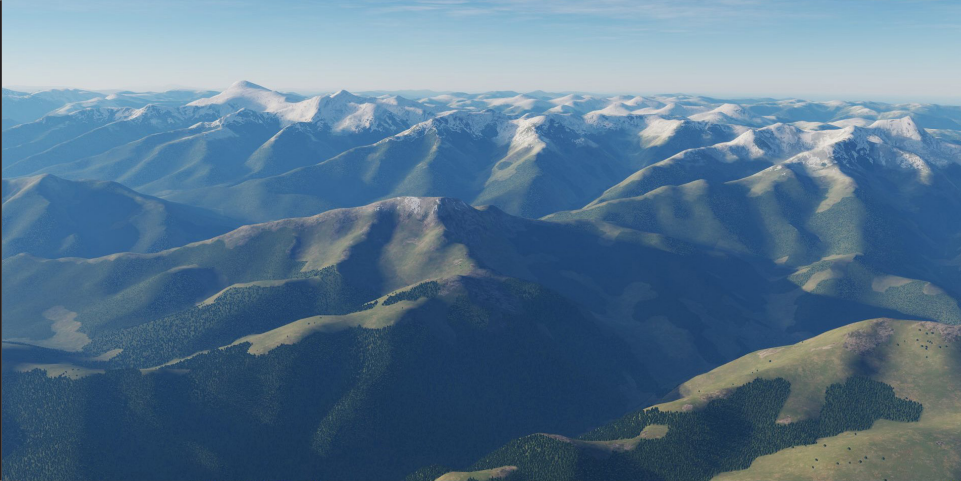
The base and main map provided for free in **DCS**. Used by most multiplayer servers and often provides the backdrop for aircraft training, campaigns and other missions. This map is decently large and offers a lot of water perfect for carrier based operations. As well, there are numerous topographies from low lands, mountains and everything in between. Lots of varying airfields from the large to the small. Overall a great and diverse map that could use some texture and model updates. You will be flying on this map a lot regardless of the module.

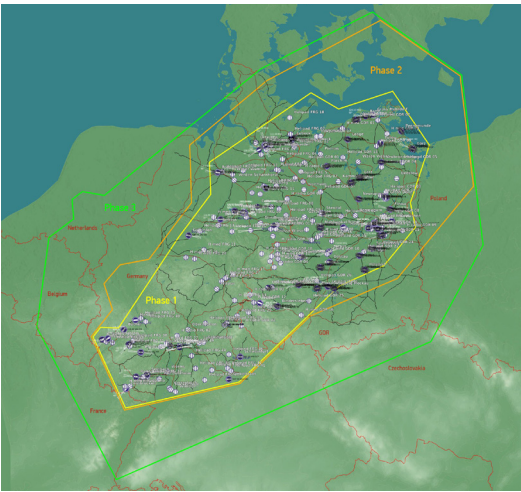
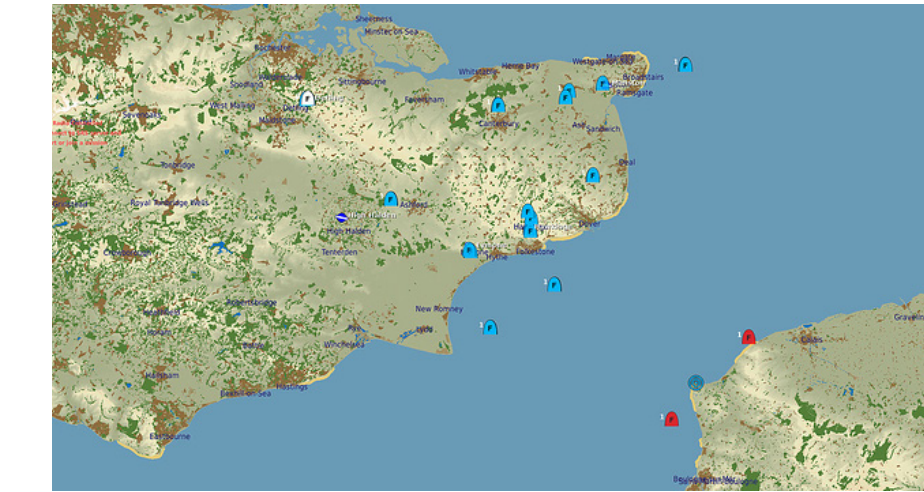
PROS


Great map that generally works well on systems that can run **DCS**. Used often in multiplayer. Great sea component for carrier or ship operations. Lots of varying topographies and areas. Free map.

CONS

Dated textures and models overall. Could do with a refresh.








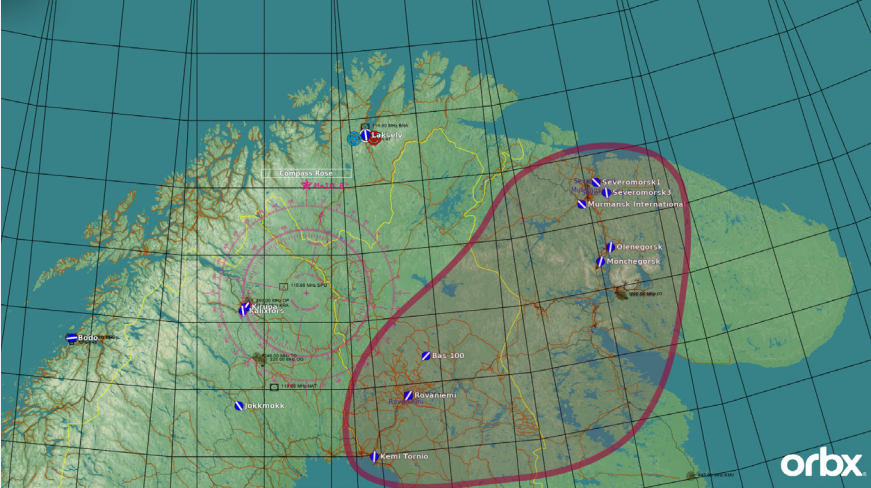
THE CHANNEL MAP


AREA	50,000 km ²	COUNTRIES	England, France
AIRFIELDS	12		
OVERVIEW	As of the end of June 1940, the Third Reich was preparing to initiate Operation Adlerangriff (Eagle attack), set sail from France across the Channel and invade England. Since 1066 no foreign power had ever breached the shores of the British Isles. This map of the South East of England and North Eastern France encompasses historical airfields, urban areas, roads and railways, ports and other features that make it the perfect setting for the World War II air war in Europe between 1940 and 1945. This highly detailed map will also provide a wonderful opportunity to mass deploy ground assets, re-enact epic air battles and enjoy ground operations not yet seen in DCS World.		
PROS	High overall quality with lots of quality models and textures. Perfect for any WW2 missions, especially Battle of Britain.		
CONS	Generally limited to WW2 missions and online servers. Smaller area than the other WW2 map.		



		GERMANY MAP		EARLY ACCESS
AREA		784,000 km ²	COUNTRIES	Germany, Poland, Czechoslovakia and more.
AIRFIELDS		100		
OVERVIEW		Set in the 80s Cold war, this map recreates the Fulda Gap, the location where Russia and NATO would potentially turn the cold war hot. The map includes many countries, airfields and cities perfect for recreating an 80s cold war or hot war campaign. The map features over 100 highly detailed military airfields and heliports such as Ramstein, Spangdahlem, Hahn, Bitburg, Sembach and large civil airfields like Tegel, Schönefeld, Tempelhof, Frankfurt, Hamburg, and Hannover. Numerous army bases, listening posts, naval bases, training grounds, weapon storage facilities, and the militarized frontier between East and West Germany. The perfect option for almost every mission type and location.		
PROS		High overall quality with lots of quality models and textures. Huge map area with so many airfields. Perfect for Cold War missions including maritime ones.		
CONS		Huge map needing a lot of hard drive space and a beefy computer to run.		










IRAQ MAP



AREA	1,820,000 km ²	COUNTRIES	Iraq, Kuwait, Syria, Iran, Qatar, Turkey & Saudi Arabia
AIRFIELDS	28		
OVERVIEW	Fly over the entire country, from the deserts of the south to the mountains of the north, and immerse yourself in a landscape that has been the backdrop for some of the most significant air campaigns in history. With exclusive high-quality ground objects and textures, DCS: Iraq offers unparalleled realism and detail. Engage in extensive missions and campaigns that cover various historical periods, and take advantage of the enhanced environmental effects that bring the region to life like never before.		
PROS	Large area covering all of Iraq plus parts of neighbouring countries		
CONS	A lot of empty areas.		

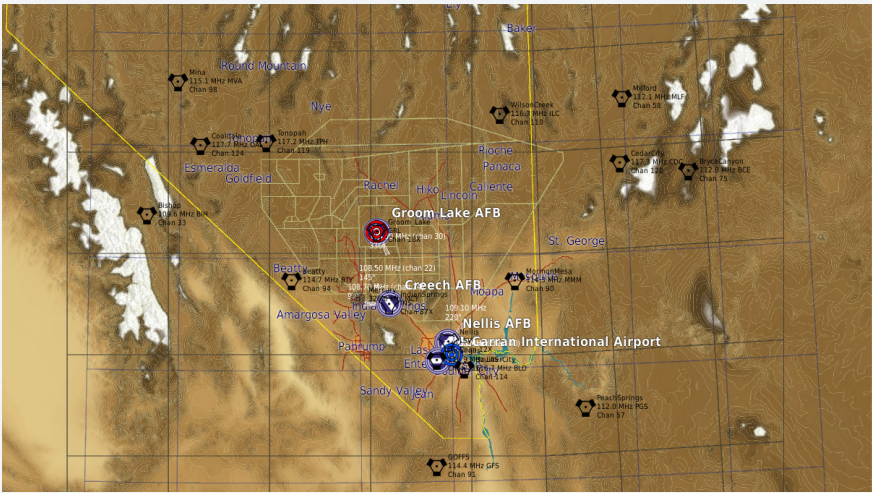





KOLA MAP


AREA	1,350,000 km ²	COUNTRIES	Sweden, Norway, Finland & Russia
AIRFIELDS	9		
OVERVIEW	Kola map covers northern Norway, Sweden, Finland, and the Russian Murmansk Oblast and parts of the Karelia region. The map also includes large areas of the Barents Sea and Norwegian Sea to the north and west, ideal for aircraft carrier operations. The Orbx DCS: Kola map is represented in its current-day state, with some allowance for late-Cold War military features and functionality. The Kola map spans about 1,400 km east-west by 1,000 km north-south, with more than 575,000 sq km of land and a total coverage area of ~1,350,000 sq km. Its southern boundary roughly aligns with 65 degrees latitude, meaning most of the map area falls within the Arctic Circle. The Kola map covers various natural landscapes, from the dramatic fjords and island chains to vast forested areas with myriad lakes and wetlands, to rugged mountains, to the Arctic tundra. Cities, towns, mines, ports, and infrastructure corridors, all have unique characteristics determined by their location and cultural association.		
PROS	Large area covering Norway, Sweden, Finland and Russia.		
CONS	A lot of empty wilderness areas.		

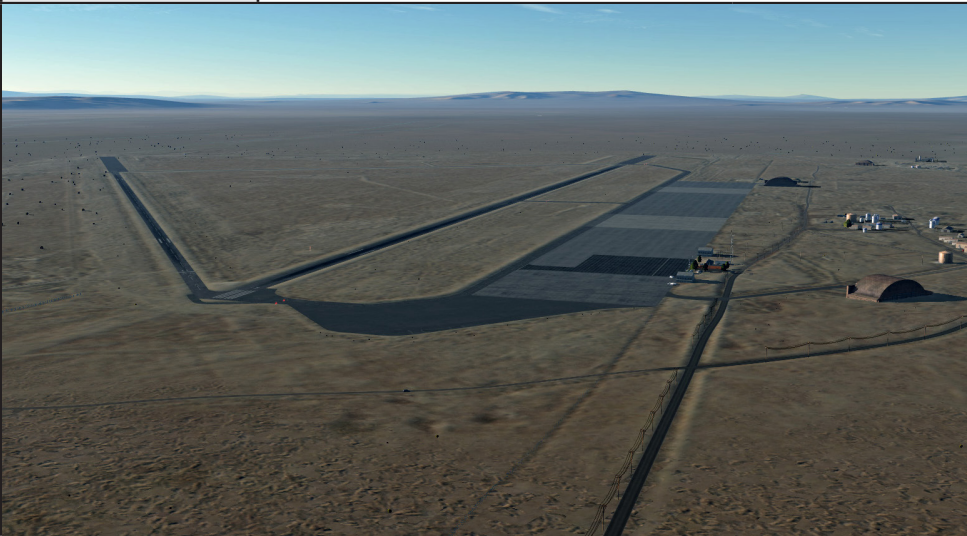


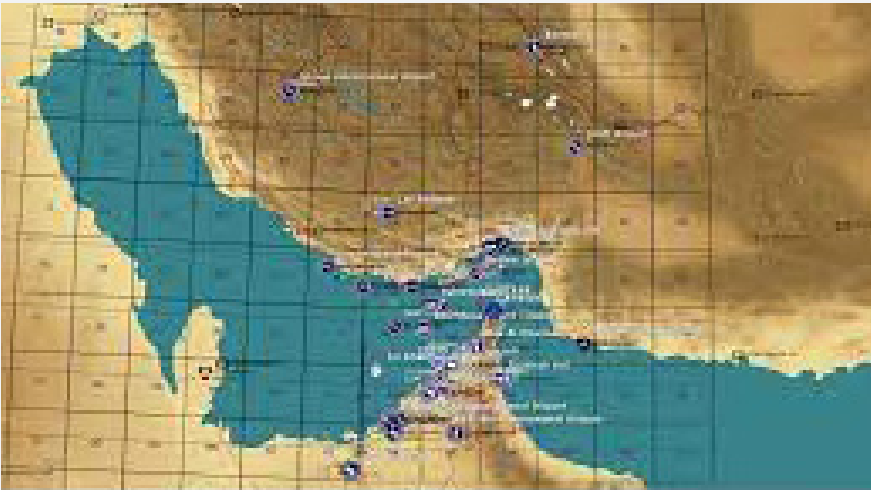



	MARIANA ISLANDS		FREE	
	AREA	200,000 km²	COUNTRIES	Guam, Rota, Tinian, Saipan.
AIRFIELDS	8			
OVERVIEW	The Marianas archipelago is approximately 2,000 km south of Japan, and includes Guam, Rota, Tinian, Saipan, and a score of lesser islands. Home to Andersen Air Force Base on Guam, the Marianas serve as the key US strategic asset in the western Pacific. DCS: Marianas is a free map set in the present, with large airfields on each of the primary islands which consist of rocky and beachy shorelines, scenic cliffs, large cities, towns and villages, with dense jungle and open grasslands. The map also boasts unique ports, buildings and structures. The Marianas was also home to historic World War II battles between the United States and Japan, the most famous of which was the Battle of the Philippine Sea, with the Great Marianas Turkey shoot as the main aerial battle.			
PROS	Great detail on all islands. Low overall graphical content as the map is almost entirely water so generally runs well on systems. Perfect for carrier or ship operations. This free map is now in 2 variations, a modern version and a WW2 version.			
CONS	The map is almost entirely sea with sporadic islands and airfields.			




 <h1>NEVADA TEST AND TRAINING RANGE (NTTR)</h1>				
AREA		366,000 km ²	COUNTRIES	US
AIRFIELDS		17		
OVERVIEW		The Nevada Test and Training Range (NTTR) has the largest contiguous air and ground space available for peacetime military operations in the free world. The NTTR land area includes simulated air defense systems, mock airbases, and several target ranges. The NTTR was also used for nuclear testing. Today, it is home to RED FLAG and other military exercises that include countries from around the world. The NTTR map for DCS includes Nellis AFB, Creech AFB and the infamous Groom Lake AFB (aka Area 51). This map also includes the city of Las Vegas, McCarran International Airport, and Hoover Dam.		
PROS		Highly detailed map of Las Vegas and the actual US air force testing and training areas. A lot of Red Flag campaigns.		
CONS		Limited combat option with no water. Not many multiplayer servers use this map.		



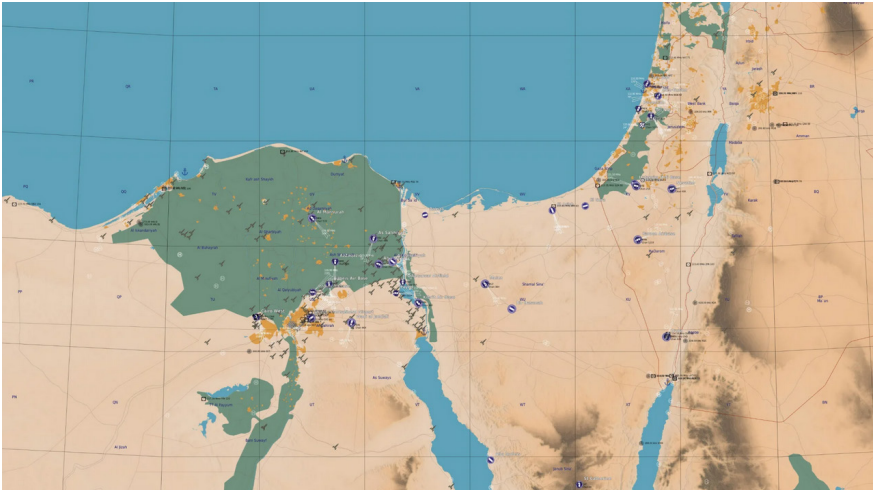



 <div>NORMANDY 1944</div>				
AREA		93,000 km ²	COUNTRIES	England, France
AIRFIELDS		38		
OVERVIEW		The DCS : Normandy 1944 Map is centered on the World War II battlefield of Normandy, France and is specifically created to depict the period after the D-Day landings and the establishment of several allied airfields in Normandy to support the beachhead breakout in late June 1944. The map measures 267 x 348 kilometers and includes airfields in both Normandy and southern England. The map includes the famous D-Day landing beaches and the “Atlantic Wall”, rolling bocage fields of Normandy, large cities like Caen and Rouen, ports of Cherbourg and Le Havre, and 30 airfields. The map also includes multiple seasons and more detail and accuracy than any previous DCS World map by utilizing new map technologies.		
PROS		Relatively large WW2 area with great airbases on both sides.		
CONS		Generally limited to WW2 missions and online servers.		



 <div>PERSIAN GULF</div>			
AREA		302,000 km ²	COUNTRIES Iran, UAE and Oman.
AIRFIELDS		29	
OVERVIEW		The Persian Gulf Map for DCS World focuses on the Strait of Hormuz, which is the strategic choke point between the oil-rich Persian Gulf and the rest of the world. Flanked by Iran to the North and western-supported UAE and Oman to the south, this has been one of the world’s most dangerous flash points for decades. The region also includes the vast Arabian Sea that is well-suited for combat aircraft carrier operations, and it will be an amazing area of operations for the upcoming Hornet and Tomcat. Be it from land bases in Iran, UAE and Oman, or from the deck of an aircraft carrier, the Persian Gulf Map offers a wide array of combat mission scenarios to prove your mettle.	
PROS		Large map with many different areas and topographies. Beautiful textures and models throughout. Quite a few multiplayer servers use this map. Perfect for carrier missions.	
CONS		Can be taxing on lower level computer systems. Some areas are very sparse.	








SINAI

EARLY
ACCESS

AREA	1.5M km ²	COUNTRIES	Egypt, Israel, Jordan, Saudi Arabia, Gaza
AIRFIELDS	29		
OVERVIEW	Situated between the Gulf of Suez and the Gulf of Aqaba with eastern Egypt to the west and southern Israel to the east. Since ancient times, it has been a strategic location rich in resources, nature, religion, and history. The map includes a variety of landscapes from deserts and mountains in the south to oasis and coastlines in the north. A significant point of interest is the Suez Canal - an artificial waterway connecting the Mediterranean Sea and the Red Sea that provides a shorter route between Europe and Asia. It marks a conditional border between Africa and Asia, which makes it politically significant for regional security and stability.		
PROS	Large, beautiful map perfect for multiple mission types. Quite a few multiplayer servers use this map.		
CONS	Really needs a lot of RAM(32GB minimum, 64GB recommended) to run well, especially in multiplayer.		

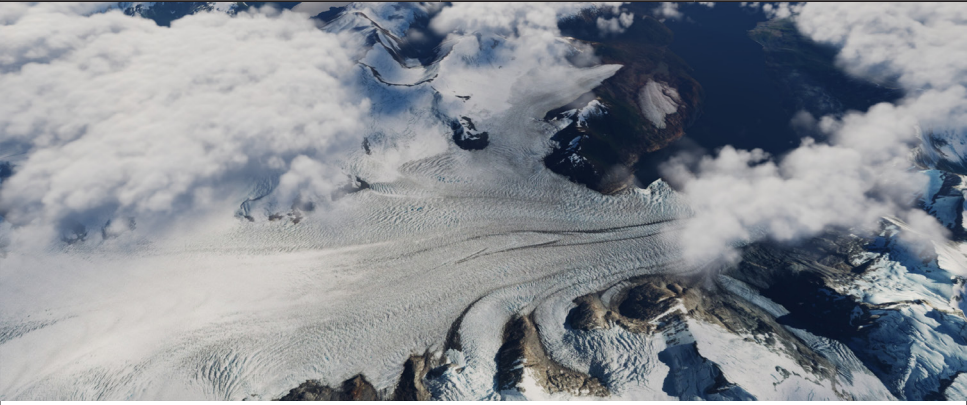


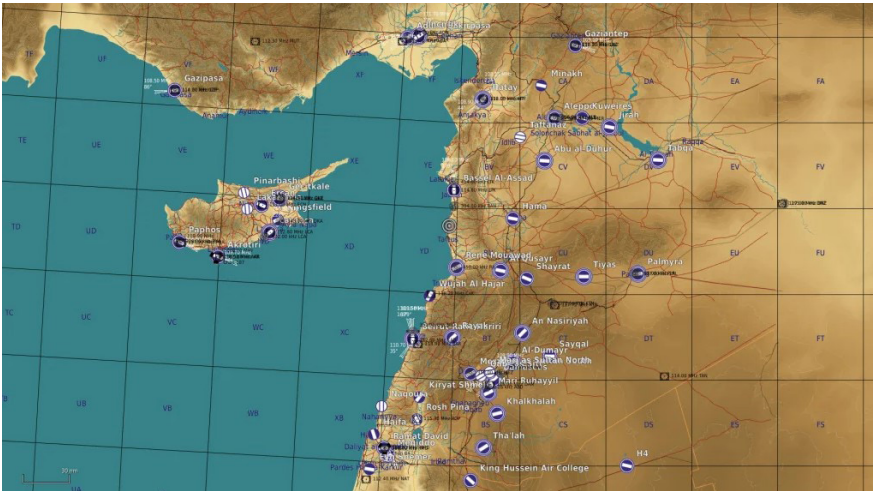



SOUTH ATLANTIC

EARLY ACCESS

AREA	3.1M km ²	COUNTRIES	Falkland, Argentina, Chile
AIRFIELDS	26		
OVERVIEW	It is a beautiful, majestic combination of Argentina, Chile, and the Falkland Islands based on the present day. The topography includes the beautiful and rugged Andes mountains of Chile, the vast and colorful Patagonian plains of Argentina, and the windswept islands of both West and East Falklands/Malvinas islands. Covering an area of 3.1 million square kilometers, the goal has been to give DCS content creators and customers the opportunity to develop missions that reflect the scale and complexity of modern-day operations in the South Atlantic.		
PROS	Large, beautiful map perfect for multiple mission types.		
CONS	Still in Early Access and some areas still need work.		

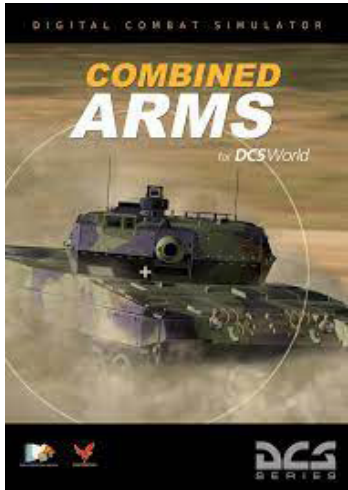




	SYRIA		
AREA	450,000 km ²	COUNTRIES	Cyprus, Lebanon, Syria, Israel, Turkey, Jordan
AIRFIELDS	51		
OVERVIEW	The 450,000 km ² map covers most of the eastern Mediterranean and includes the island of Cyprus, Lebanon, a large part of Syria up to the border with Iraq, parts of Israel, Turkey, and Jordan. Geographically, the map covers moderately humid coastal areas in the west and mountains and arid desert landscapes in the east. The map recreates more than 200 historical and original structures in detail, as well as meticulously reproduces the military infrastructure - more than 100 military bases, training grounds, and checkpoints. Especially for aviation fans, 51 airfields and heliports, including the international airports of Beirut Damascus and Larnaca, as well as the military airbases of Incirlik, Ramat David, Hmeymimim, Naqoura, and Akrotiri, are displayed at the highest level of detail.		
PROS	One of the most detailed and largest maps in DCS . Lots of mission options and many different areas and topographies. Quite a few multiplayer servers use this map.		
CONS	Really needs a lot of RAM(32GB minimum, 64GB recommended) to run well, especially in multiplayer.		



OTHER MODULES



COMBINED ARMS

DEVELOPER	Eagle Dynamics
OVERVIEW	Combined arms lets you control almost any ground vehicle in DCS. This includes all tanks, artillery, anti-air vehicles and more. You can be a Joint Terminal Attack Controller (JTAC) in multiplayer and designate targets for allies to attack. Supported in both single and multiplayer environments.
PROS	A unique DCS experience. You can control most vehicles. Can be used in some multiplayer environments.
CONS	Limited usage. Controlling vehicles can be a challenge. Allied AI can be hit or miss, especially with navigating. Some terrain and objects can make maneuvering difficult.

AZIMUTH:360
SPEED: 0mph
GEAR:0
AMMO:23 120mm AP

AZIMUTH:360
SPEED: 0mph
GEAR:0
AMMO:500 12.7mm

SUPER CARRIER

EARLY ACCESS

DEVELOPER	Eagle Dynamics
OVERVIEW	DCS: Supercarrier is the most detailed and realistic simulation of a Nimitz-class aircraft carrier ever created. A Nimitz-class aircraft carrier is a nuclear-powered fortress at sea with a crew of over 6,000 sailors and airmen. The angled flight deck with arrestor wires and four steam-powered catapults support air wing operations of up to 90 aircraft. The ship also includes a formidable air defense system that includes the RIM-7 Sea Sparrow Missile and RIM-116 Rolling Airframe Missile (RAM) missiles, and Close-In Weapon System (CIWS) gun system. A Nimitz-class aircraft carrier is the ultimate power projection weapon.
PROS	Great option for carrier missions and operations. Great crew animations and adds a lot to overall mission immersion.
CONS	Still in Early Access and so areas are not complete yet. Only really useful for Navy aircraft like the F-14, F/A-18. Needed for some campaigns.

VFA-37

49

INSTANT ACTION
CREATE FAST MISSION
MISSION
CAMPAIGN

Instant Action

Instant action missions place you immediately in a mission. First choose the module and then the mission. Missions can vary depending greatly, from as simple as taking off or cold starting the aircraft to dogfighting, air to air refueling and more. After the type of mission is chosen, next choose the map the mission will take place. This defaults to the **Caucasus** map but others can be chosen. As soon as you press the type of mission in the middle of the box, **DCS** will immediately start the mission.

Create Fast Mission

When this is pressed, the following box appears. You then pick the aircraft you want to fly first, then the country. Where you start from, this can be Airborne, Runway, Ramp or Random. Next choose the Enemy AI Skill level from Average to Excellent or Random. The map, season and weather can also be chosen as well as the start time, being Random or at a specific time. Finally Historical can be toggled. If you wish for more options, click the **ADVANCED MODE** button. This opens up a new box with more options such as enemy types, allied types and how many.

Mission

Similar to Instant Action, the mission button brings up the following box. Here you can pick the module you own and the box will show the various missions available for that module. At the top of the left column is the option for My Missions. These are missions you have either created in the Mission Editor or downloaded and saved on your system. DCS defaults the mission folder to **C:\Users\{name}\Saved Games\DCS.openbeta\Missions**

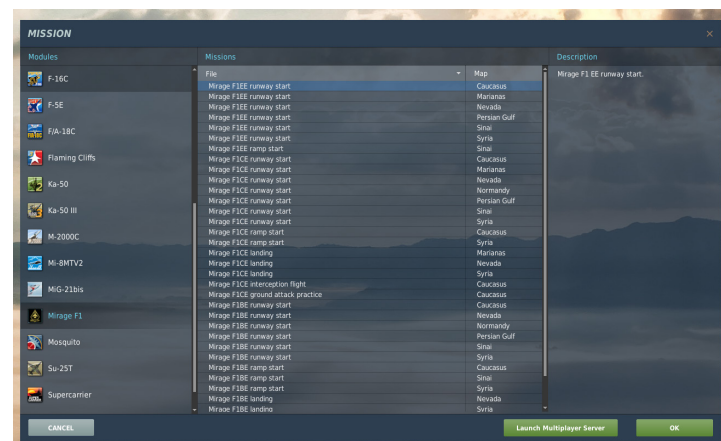
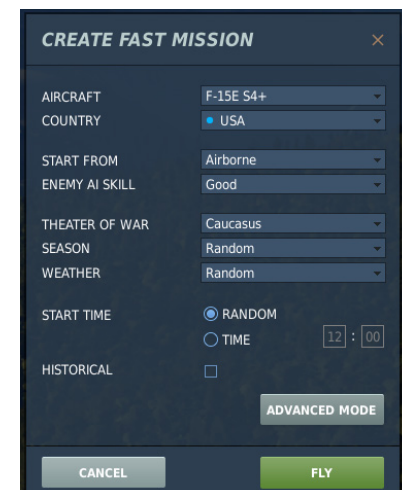
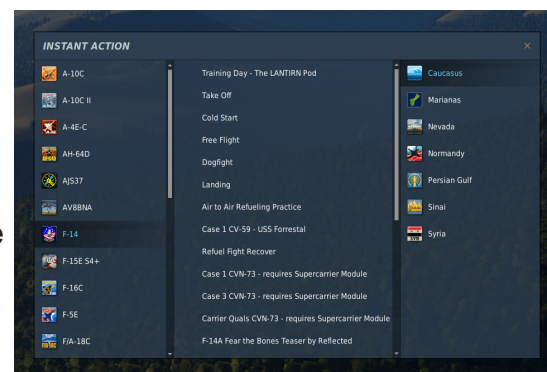
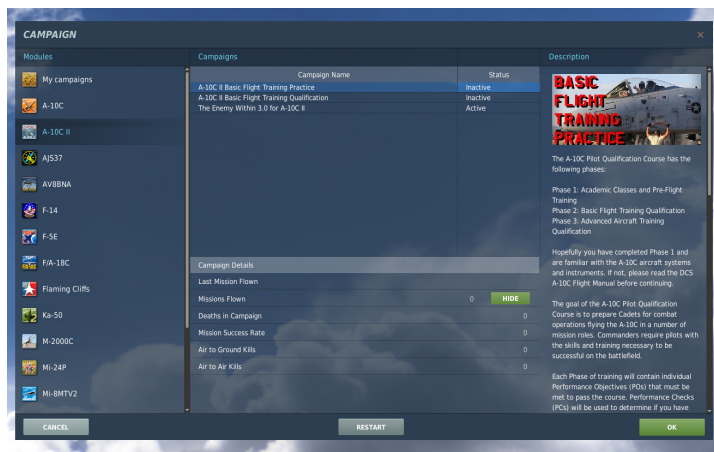
Campaign

Again similar to Instant Action and Mission, pressing Campaign opens up a box showing the modules you own on the left and Campaigns available for those modules. Some modules

have multiple campaigns and you can see the status of the Campaign in the screen shown, whether it is inactive or active. At the bottom of the middle box, details information on the campaign, if you have completed missions and more.

Campaigns purchased for a specific aircraft will be found in that modules campaign page.

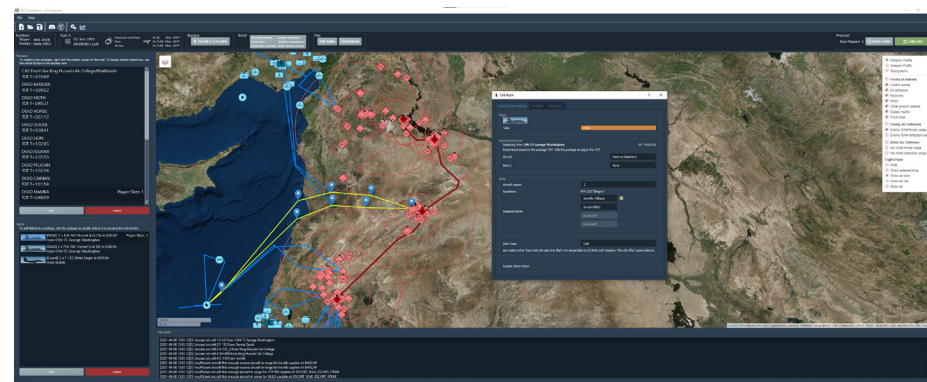
There are also free campaigns available online.



**BOTH THE AIRCRAFT AND MAP
NEED TO BE PURCHASED TO
ACCESS THE CAMPAIGN.**

DCS Liberation

DCS Liberation is a free turn-based single-player or co-op dynamic campaign. It is an external program that generates full and complex **DCS** missions and manages a persistent combat environment which can then be loaded in **DCS** to play.



Through the Inferno

Through the inferno or **TTI** is an open-world scenario for multiplayer and single player that creates a dynamic and procedural gameplay scenario. You can fly any aircraft and engage air to air and/or air to ground threats. Besides the online servers, you can also download the campaigns for each of the maps available in **DCS**.



MISSION EDITOR

HOT / COLD

An aircraft can be **Hot** meaning everything is up and running, ready to taxi, or **Cold**, meaning the aircraft is cold and dark and you need to follow the start up procedure (or choose automatic startup).

OVERVIEW

The **Mission Editor** can be quite easy to create training missions to suit any and all needs. You can create a mission with any module or modules (even ones you do not own) and add targets or other items geared to what you want to learn and do. **You do need to own the module if you want to be the pilot.** You can set the weather, the time of day, you can even set your aircraft to be invincible and/or have unlimited fuel and weapons also, which can help for training purposes.

Find below a sample table on just some of the missions you could create:

Type of Mission	Threat	Goal	An Example Mission
Air to Air (A2A)	Enemy aircraft (armed, unarmed)	Destroy threats	BARCAP, CAP, DCA, Escort, HAVCAP, Intercept
Air to Ground (A2G)	Enemy vehicles (armed, unarmed)		SEAD, DEAD, Strike, CAS
A2A & A2G	Both enemy aircraft and vehicles		CAS, Strike, CAP
Utility	Practice taking off and/or landing, air to air refueling, carrier landing, patterns and more.	Complete task	Air to air refueling, Flight familiarization, Startup, Flight patterns, Carrier landing

You need to decide on the **starting location** for your module. This can be in the air, at a specific altitude, on the ground **Hot** or **Cold** at an airfield. Starting in the air is faster for you to get into action but be sure to set your weapons prior to starting.

You can also add allied aircraft to be a wingman or to serve another role. Allied vehicles attacking enemy vehicles in a minor skirmish or large battle. There is almost no scenario that you cannot create in the **Mission Editor**.

CREATING A MISSION

To start, click the **Mission Editor** button. Next a window with **NEW MISSION SETTINGS** will be shown (shown in the image to the right). Here you can choose the map. Although not needed when you start, you can also edit country sides, the year and more.

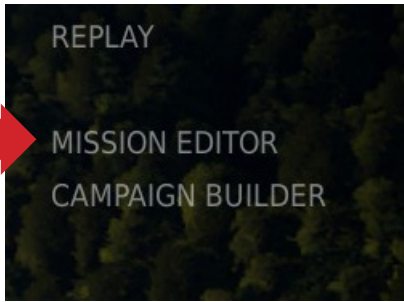
- A.** First start by placing the aircraft you want to use by clicking the **Add Airplane** icon or pressing **A** and then clicking on the map.
- B.** Next choose the aircraft from the **TYPE** drop down menu. If the aircraft is yellow, then you can fly it. Next under the **SKILL** drop down menu, you choose **Client** or **Player**. If you don't the aircraft will be piloted by AI.
- C.** Next choose where under the **TYPE** drop down menu. This can be **Turning point** or **Fly over point** at a specific altitude and speed, **Takeoff from runway** or **Takeoff from parking hot** with an aircraft ready to fly on the ground, **Takeoff from ramp** with the aircraft cold and dark or finally **Landing** with the aircraft coming into land. The **Mission Editor** will move the aircraft automatically to the closest airfield.
- D.** If applicable, choose the weapons you would like on the aircraft by pressing the icon shown.



- E.** Once complete, next choose to add enemy or allied vehicles, ships, aircraft.
- F.** Under the **CUSTOMIZE** drop down menu, click **MISSION OPTIONS**. Here you can set your aircraft to be **Immortal**, have **Unlimited Fuel** and **Unlimited Weapons** by checking the box on the left side. Other options can also be toggled here.
- G.** Next press the **SAVE MISSION FILE** button and save your mission on your system.
- H.** Finally press the **FLY MISSION** Green icon to fly the mission.

Enjoy your first **DCS** mission!

To watch a video about the **Mission Editor**, check out the guide created by **Spudknocker** by clicking [here](#) or clicking the **SpudKnocker** circular icon.



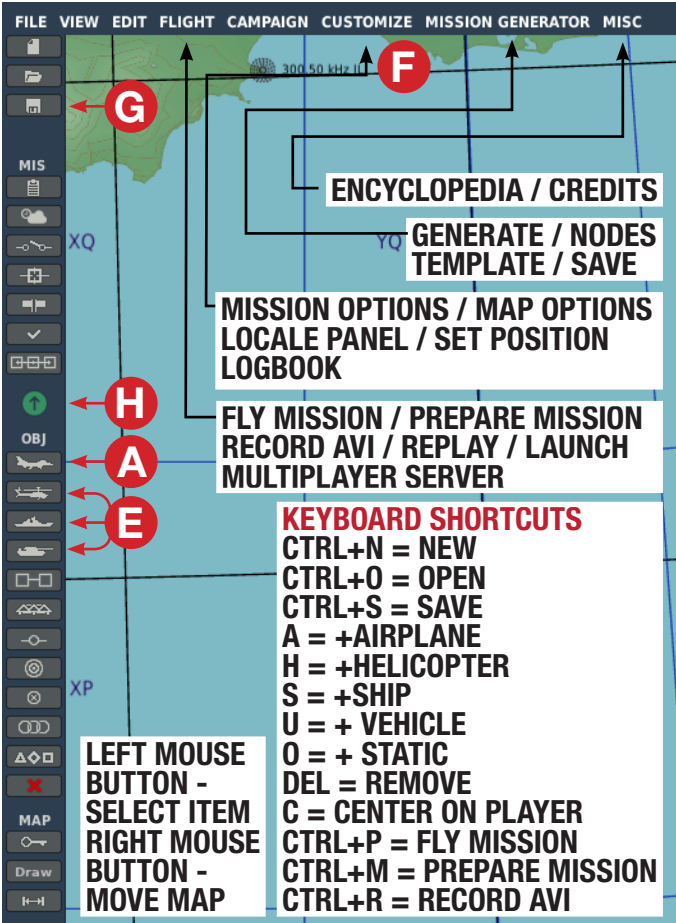
MAP SCREEN

METRIC / IMPERIAL /
ICONS NATO / RUSSIAN
BEACONS INFO
NEW / OPEN /
SAVE / SAVE AS /
OPEN BACKUP / EXIT



+AIRPLANE / +HELI / +SHIP / +VEHICLE
+STATIC / +TEMPLATE / LOAD TEMPLATE
/ REMOVE / SAVE TEMPLATE / CENTER
ON PLAYER
CAMPAIGN / CAMPAIGN BUILDER

- CREATE NEW MISSION
OPEN FILE
SAVE MISSION FILE
CREATE MISSION
BRIEFING
DATE, TIME, WEATHER
SET RULES FOR TRIGGER
DEFINE MISSION GOALS
BATTLEFIELD COMMANDERS
SET MISSION OPTIONS
CHANGING COALITIONS
FLY MISSION
ADD AIRPLANE
ADD HELICOPTER
ADD SHIP
ADD GROUND UNIT
CREATE/MOD TEMPLATES
ADD STATIC OBJECT
INITIAL POINT OBJECT
BULLSEYE
CREATE TRIGGER ZONE
VIEW TRIGGER ZONES
VIEW UNIT LIST
REMOVE OBJECT/GROUP
SET MAP OPTIONS
DRAW TOOL
USE RULER



COMPLEX MISSIONS

This is just a quick start guide on mission creation. You can spend a lot of time learning everything possible which can allow you to create large, dynamic, very involved and realistic missions and even campaigns. More information can be found online in multiple locations.

LEARN TO FLY

FLIGHT

Thrust

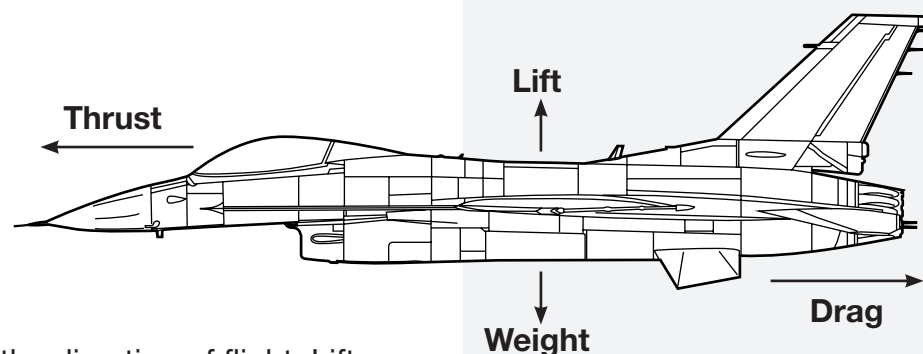
Thrust is what pushes an aircraft forward to generate airflow over the wings. This can be done in several ways including by the spinning blades of a propeller, or a rotating fan pushing air out from the back of a jet engine.

Lift

Lift is the component of the aerodynamic force that is perpendicular to the direction of flight. Lift results when the wing causes the surrounding air to be deflected downward, the air then causes a force on the wing in the opposite direction or upward.

Drag

For a solid object moving through air, drag is the component of the force acting opposite to the direction of the movement. Drag opposes the motion of the object and must be overcome by thrust. The process which creates lift also causes some drag.



SIMPLE DESCRIPTION

Aerodynamic flight is a complex process and this is a rudimentary overview. Find out more online.

CONTROLS

All aircraft controls can be summarized to **Pitch**, **Roll** and **Yaw**. The throttle controls speed and acceleration.

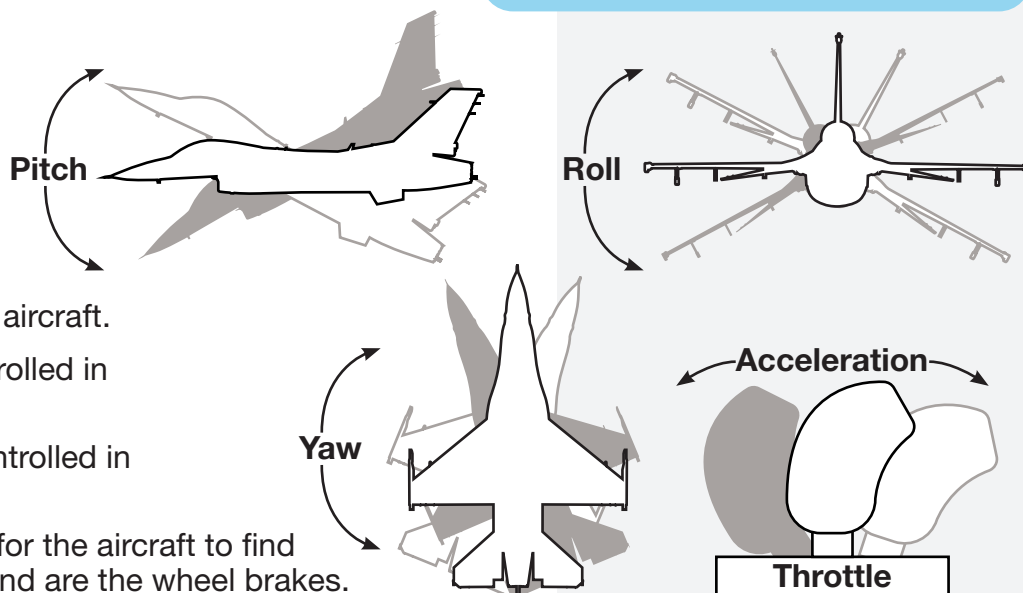
Pitch is mechanically controlled by the aircraft elevators and is controlled in the cockpit via the joystick.

Roll is mechanically controlled by the aircraft ailerons and is controlled in the cockpit via the joystick. Roll is motion of raising and lowering the wings, **bank** is the angular displacement of the aircraft.

Yaw is mechanically controlled by the aircraft rudder and is controlled in the cockpit via the rudder pedals.

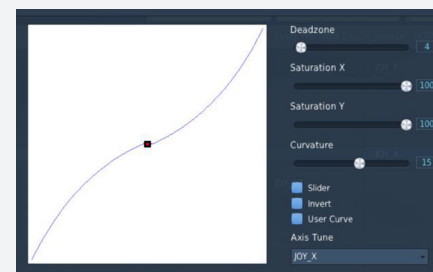
Acceleration is mechanically controlled by the engine and is controlled in the cockpit via the throttle.

When setting up your controls in **DCS**, go into the **Axis** controls for the aircraft to find the **Pitch**, **Roll**, **Thrust**, **Rudder** binds. Another important axis bind are the wheel brakes. If you have rudder pedals, they often have another axis besides Yaw for wheel brakes. Used to slow down and stop an aircraft when on the ground.



Deadzones

A small deadzone in the **Pitch** and **Roll** axis must be set via the **Axis Tune** menu. This is because the autopilot will not be able to engage if the stick is not completely centered, and most sticks are not completely zeroed by definition. If you don't set a deadzone, you run into the risk of not being able to engage your autopilot since your stick will always be detected as "not completely centered" even if the position offset is negligible.



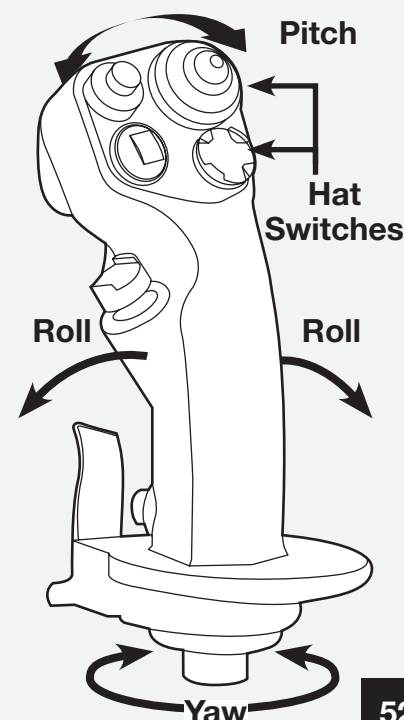
Trim

While flying an aircraft it is recommended to always trim the aircraft. To "trim" an aircraft is to adjust the aerodynamic forces on the control surfaces so that the aircraft maintains the set attitude without any control input. While all axes of rotation are affected by aerodynamic forces, not all aircraft types are capable of being trimmed in all three axes. This is most often accomplished by binding a **hat switch** on your joystick.

Joystick

Your joystick might vary from the image but most control the aircraft the same way. Pushing the joystick forward and backwards controls the pitch, moving the joystick left or right controls the roll. Some joysticks have a twist axis which can be used to control yaw instead of rudder pedals.

Joysticks usually have multiple buttons and hat switches on them for various aircraft functions, for firing weapons, trimming the aircraft and others. Be sure to check out [Chuck's Guides](#) for the aircraft you have to see how best to setup your joystick.



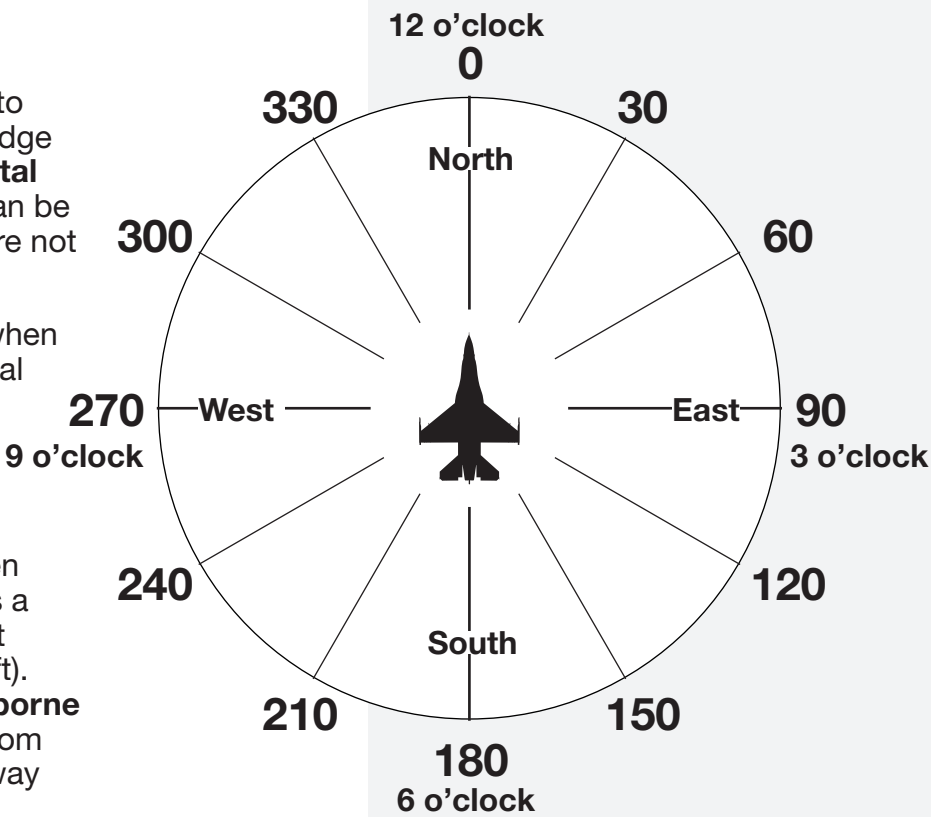
FUEL

Aircraft have multiple fuel tanks and often have the option to carry additional fuel tanks. Understanding fuel consumption is key to flying an aircraft. Understanding how throttle position, altitude and stores impact fuel consumption needs to be understood so that you don't run out of fuel while flying. Manuals and various guides cover this information.

NAVIGATION

All maps in **DCS** have the orientation with North being up. In the image to the right, your aircraft is flying directly North. Each number around the edge refers to degrees of direction. Within the aircraft, there will be a **Horizontal Situation Indicator** or **HSI** which looks similar to the image. This **HSI** can be mechanical or digital depending on the aircraft. Also note, some **HSIs** are not always orientated North, in the F-16 for example.

In radio calls, the clock numbers refer to the direction you should look when searching for a target or other point of interest, when given by an external source like a wingman or **GCI**.



COMMUNICATION

Within **DCS** communications, a **BRAA** callout or a **Bogey Dope** are often heard. This can be true in both single and multiplayer. A **BRAA** callout is a communications format that provides you with information on an aircraft either friendly or enemy (**Bogey Dopes** are specifically for enemy aircraft). This is given to you by a **Ground Controller Intercept(ion)** (**GCI**) or **Airborne Warning and Control System** (**AWACS**) and can be from a human or from the games AI. This information includes the aircrafts direction, how far way they are, how high or low they and what direction they are going.

WHAT IS BRA or BRAA?

A tactical control format providing target Bearing, Range, Altitude, or Bearing, Range, Altitude, and Aspect, relative to a friendly aircraft or bullseye.

EASY COMMS

If you select **Easy Comms** in the settings, **DCS** will automatically set the correct radio frequency and channel for you.

A typical **BRAA** call out can look like this:

For who

From

What

Range in miles

Dodge 1-1, Darkstar, BRAA, 230, 60, 4,000, Hot.

Your callsign

AWACS Callsign

BRAA Callout

Direction

Altitude in feet

Aspect

So what does this mean?

- **Dodge 1-1** is your callsign. This could be Enfield 1-3 or a number of other call signs.
 - **Darkstar** is the callsign for the **GCI/AWACS**. This could also be **Magic**, **Overlord**, or some another call sign. Usually its one of these however.
 - **BRAA Callout** is informing you that what is about to follow is **BRAA** information. **BRAA** stands for Bearing, Range Altitude and Aspect. As a note, Aspect is sometimes omitted in a callout.
 - **Bearing** is the direction to the aircraft for you to turn towards. In the above case, you would need to turn your aircraft to the direction **230** to head towards the aircraft.
 - **Range** is the distance to the aircraft. In this case, 60 miles away.
 - **Altitude** is the height the aircraft is flying at, 14,000 feet in the above case.
 - **Hot** is the direction of the aircraft. **Hot** meaning coming towards you.
- The aspect for an aircraft can also be the following: **Cold** or **Drag + direction** (moving away from you), **Beam + direction**, or **Flanking + direction** (between beam and hot). What is said for Aspect can depend on if the GCI/AWACS is AI or human.

When calling for a **Bogey Dope** or **BRAA** call, specifically on a multiplayer server with a real **GCI/AWACS**, you would say the following:

Darkstar, Dodge 1-1, Request Bogey Dope

SIMPLE RADIO STANDALONE (SRS)

Simple Radio Standalone(SRS) is a **free** communications program that ties into the in-game radios and allows realistic multiplayer voice communications using the frequencies and capabilities of whichever aircraft you are currently using. Learn more [here](#).

RECOMMENDED

For continued training, read the manual and Chuck's Guide for the specific aircraft. You can also learn: Start up and shut down procedures formation flying, air to air refueling and more.

RADIO REQUEST

Always start radio communications with who you are contacting, immediately followed by your call sign.

LEARN TO FIGHT

RADAR (RADio Detection And Ranging)

BASIC INFORMATION

At it's core, radar only measures one thing: range. By transmitting bursts of radio energy, and then recording how much and when energy is returned it can *detect* a target and determine its range.

However, if the aircraft additionally controls the transmitted energy into a tight beam with an antenna and then measures where the antenna is pointing, it can find the direction and elevation of targets. Of course now the radar can only see within it's beam, and sweeping the antenna across the sky will take time. This is a general concept in radar, the more information needed, the slower the search will become.

Pulse

Arguably the simplest form of airborne radar works by simply sending out pulses of radar waves, and then waiting to "listen" for return pulses. This technique was used on many early radar sets due to it's simplicity but has several drawbacks:

- Returns coming back from the ground are difficult to distinguish from actual target returns. These extraneous returns are referred to as ground clutter and allow a target to hide simply by flying below you.
- Without advanced processing techniques the range of a pulse radar is fundamentally limited due to "range ambiguity".
- The only information we get is direction and range, target velocity can be interpreted watching the movement of a return over multiple pulses.
- In order to launch missiles we have to enter a "single-target track" (STT) mode where the radar continually illuminates a single target. Otherwise the missile would not receive updates on the target's position often enough to guide to impact. Aircraft are often equipped with equipment to warn when they're being "locked", allowing them to defend against incoming missiles.

These issues can be mitigated using signal processing, however, this proved difficult with early electronics.

ADVANCED INFORMATION

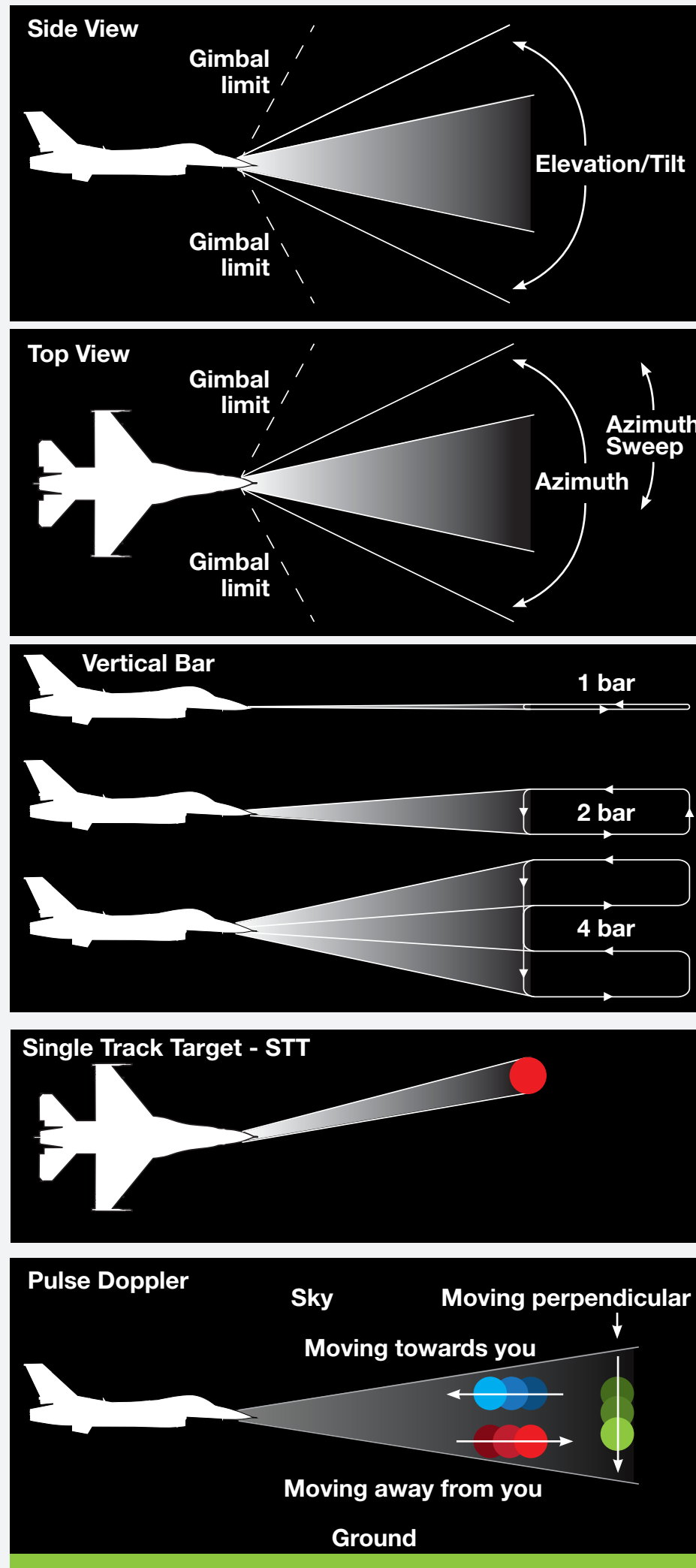
Pulse Doppler

Introduced into airborne radars in the 1960s, Doppler Radars use the same effect noticeable when an ambulance drives past with the siren on: the change in pitch with relative velocity. Just as sound waves change pitch when the ambulance is driving towards vs away from you, the radio waves change frequency when they bounce off a moving target. This frequency shift of the return pulse can be measured and compared with the transmitted pulse to determine target velocity.

This is slightly more complex to accomplish but essentially *eliminates the problem of ground clutter*. Since the earth is not moving we can now simply filter out any returns which are not moving, allowing us so called "look-down shoot-down" capability. Also typically, these can operate at longer ranges.

Unfortunately pulse Doppler radars have their own disadvantages:

- It is now only measuring target velocity (and direction), or rather "relative" target range-rate, how fast the target is coming towards the radar. To obtain range information from a pulse Doppler radar, it will need more complex methods.
- Since it is only measuring relative target velocity, if the target turns perpendicular to the radar, it will appear to not be moving at all, just like the earth and will be filtered out as ground clutter. This is known as "notching" and is a common anti-radar tactic.
- Just like for pulse radars, the radar must enter a **Single Track Target (STT)** mode for weapon employment. If the radar is looking down at the ground, which is also green, the target can vanish off the scope, because it's very hard to see a green object against a green background. If the target is above, the target is green against the black of the sky, and therefore can still be seen.



RADAR SIMPLIFICATION

This outline of how radar and its types works is very simplified. Real life radars have multiple techniques to address the weaknesses mentioned. Radar is not a perfect beam but rather a cone with soft edges, a lot of filtering happens to work.

Track While Scan (TWS)

Track While Scan is a yet more advanced type of processing for pulse Doppler radars. By giving the radar a “memory” it will “remember” each return’s direction, range, and velocity. Now it can predict where that target will be in-between observations, i.e when the radar is scanning elsewhere. Such remembered returns are referred to as “tracks”.

The most noteworthy feature of track while scan is the ability to launch missiles at multiple targets simultaneously. Since the radar can now predict where a target will be in-between returns, it can guide weapons towards this predicted point. Missiles designed for such use typically have their own small radars that activate once close enough for precision terminal guidance. Because the target aircraft is not **STT’d**, it cannot detect the launch of a missile from **TWS**. This has significant tactical ramifications.

Due to gathering yet more information for the tracks, the scan time/range is generally reduced in **TWS** modes, at least in **DCS**. Also **TWS** inherits the general weakness of pulse Doppler to notching.

RADAR WARNING RECEIVERS

In modern aircraft, including many helicopters, a **RADAR WARNING RECEIVER** or **RWR** is installed. This system has multiple receivers positioned around the aircraft that interprets incoming **RADAR** signals from external Radar systems and warns the pilot of them and their direction.

Older aircraft like the MiG-21, have a simple **RWR** (shown to the right), while more modern the aircraft, usually have better **RWR** systems. The circular **RWR** graphic to the right is a common **RWR** found in quite a few BLUFOR aircraft.

Within the rings, symbols are shown and each have different meanings. For example a diamond by itself is the primary threat, a diamond surrounded by a circle means that the threat has locked on to you. Depending on the aircraft and the **RWR**, there can be different symbols and meanings. Review the specific aircraft you are in to find out more about its **RWR**.

Audio Warnings

As well as visual warnings, most **RWR** also have audio warnings. These warning vary depending on the aircraft. For example, on the most common **RWR** for BLUFOR, a single beep means a new ground or sea based emitter has been detected. A double beep means a new airborne emitter has been detected. Repeating beeps means an emitter is tracking you and finally a fast repeating beep means an emitter is guiding a missile towards you or is a missile.

Limitation of an RWR

A key limitation of an **RWR** is that it only warns the pilot of a Radar threat, whether that is an ground or air radar or a radar within a missile. An **RWR** does not warn you of an Infrared or **IR** missile launch like a **Sidewinder** or **Stinger**. These missiles track heat rather than using radar. To minimize this threat, fly high above ground based Infrared missiles launch systems and keep your eyes peeled for air launched **IR** missiles.

Missile Warning System

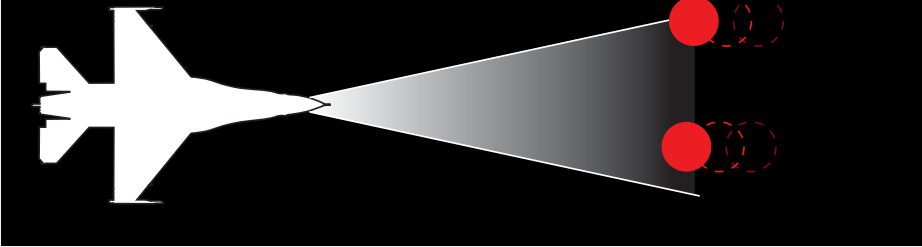
A few **DCS** aircraft have an advanced system installed called a **Missile Warning System** or **MWS**. This system alerts the pilot to any missile launch including **IR** missiles. This system can be found on the **A-10**, the **Mirage 2000** (if specific weapons are installed), the **JF-17** and the **AH-64**.

The problem with the system however, is that it will warn of any missile launch detected whether that missile is from a friendly or enemy. Keep your eyes peeled and if in doubt, launch counter measures.

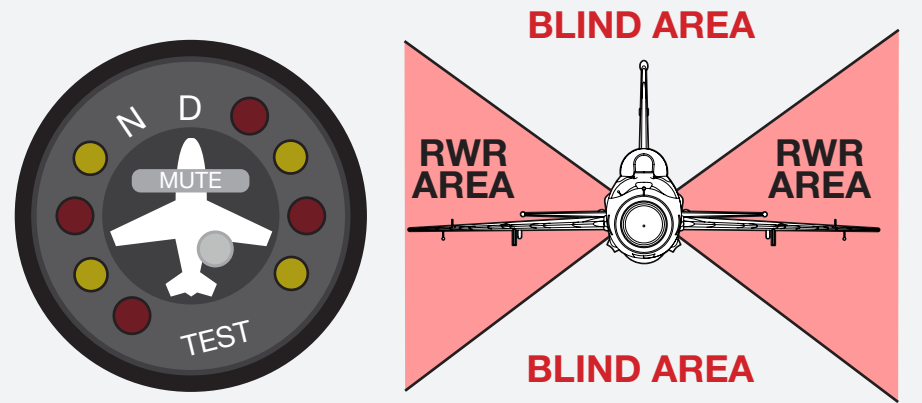
QUICK REFERENCE GUIDE

Check out the **Quick Reference Guide** [here](#) to see more information about the **RWR**.

Track While Scan - TWS



SIMPLE RWR - SPO-10 in the MiG-21

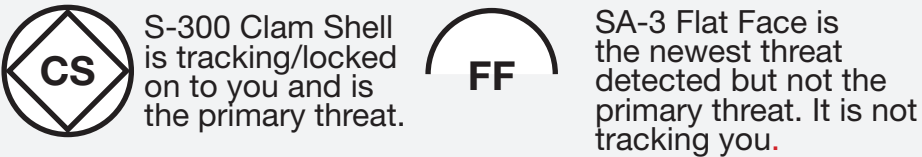


RWR FOUND IN A FEW BLUFOR AIRCRAFT*

* Some BLUFOR RWRs are inverted. Be sure to check the manual.



EXAMPLES:



AUDIBLE WARNINGS

SINGLE BEEP	A new ground or sea based emitter has been detected.
DOUBLE BEEP	A new airborne emitter has been detected.
REPEATING BEEP	An emitter is tracking you.
FAST REPEATING BEEP	An emitter is guiding a missile or is a missile.



THREATS

In **DCS** there are multiple threats to any aircraft. These threats can be separated into two main categories; Air threats and ground/sea threats.

Air Threats

Air threats are enemy aircraft and helicopters. These aircraft, depending on the model, can carry varying types of missiles and more to attack. Some aircraft can attack from long range, some only from close range, so understanding what the enemy aircraft is via the **RWR** or visually, will help to identify the severity of the threat.

For example, a **F-14**, which can potentially carry the **AIM-54 Phoenix** missile could attack theoretically at more than **80 nm** or **150 km** away at a maximum. An **AV-8B** can only carry **IR** missiles so the threat it poses is lessened, as its missiles maximum range is approximately **10 nm** or **18.5 km**.

The best way to minimize air threats is to maintain **Situational Awareness** or **SA** via the **RWR**, the **GCI/AWACS**, team members and other friendly aircraft and visually. Flying low can also minimize the threat posed by aircraft in some instances. However this can expose you to more ground threats.

Ground/Sea Threats

Ground threats consist of enemy Surface to Air Missile (**SAM**) systems, Anti Aircraft Artillery (**AAA**), Man Portable Air Defense Systems (**MANPADS**), naval vessels and armed vehicles like tanks, APCs etc. The greatest of these threats are **SAMs** which come in many varieties and are also on many larger naval vessels.

For example, one of the biggest threats in **DCS** is an **S-300** system. It is made up of different Radars, control and launch vehicles, and has a maximum theoretical detection range of **162 nm** or **300 km** and an altitude height of **150,000 ft**. There are also medium and short range **SAMs**. **AAA** are short range weapon systems that shoot guns sometimes controlled by Radar. MANPADs are short range IR missiles launched by soldiers. Finally armed vehicles can also shoot guns at you with limited range.

Like air threats, to minimize ground threats maintain **SA** via the **RWR**, visually looking outside the cockpit or with target pods, flying high to minimize exposure to short range threats or flying low, behind hills or mountains to mask from longer range threats.

COUNTERMEASURES

Depending on the aircraft, countermeasures could be available. Some aircraft have no countermeasures, some have limited or many and some include programs to automatically dispense countermeasures. Countermeasures fall into three distinct categories.

Chaff

Chaff is made up of thin pieces of aluminum which can confuse Radar guided missiles. The pieces of aluminum create a large Radar return that can in some instances trick Radar.

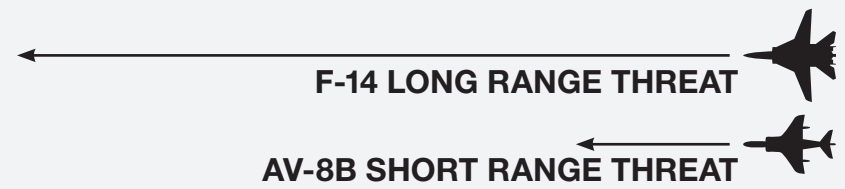
Flare

Flares are a pyrotechnic rod that burns at a high temperature usually hotter than an engine exhaust. Flares are used exclusively to defeat IR missiles.

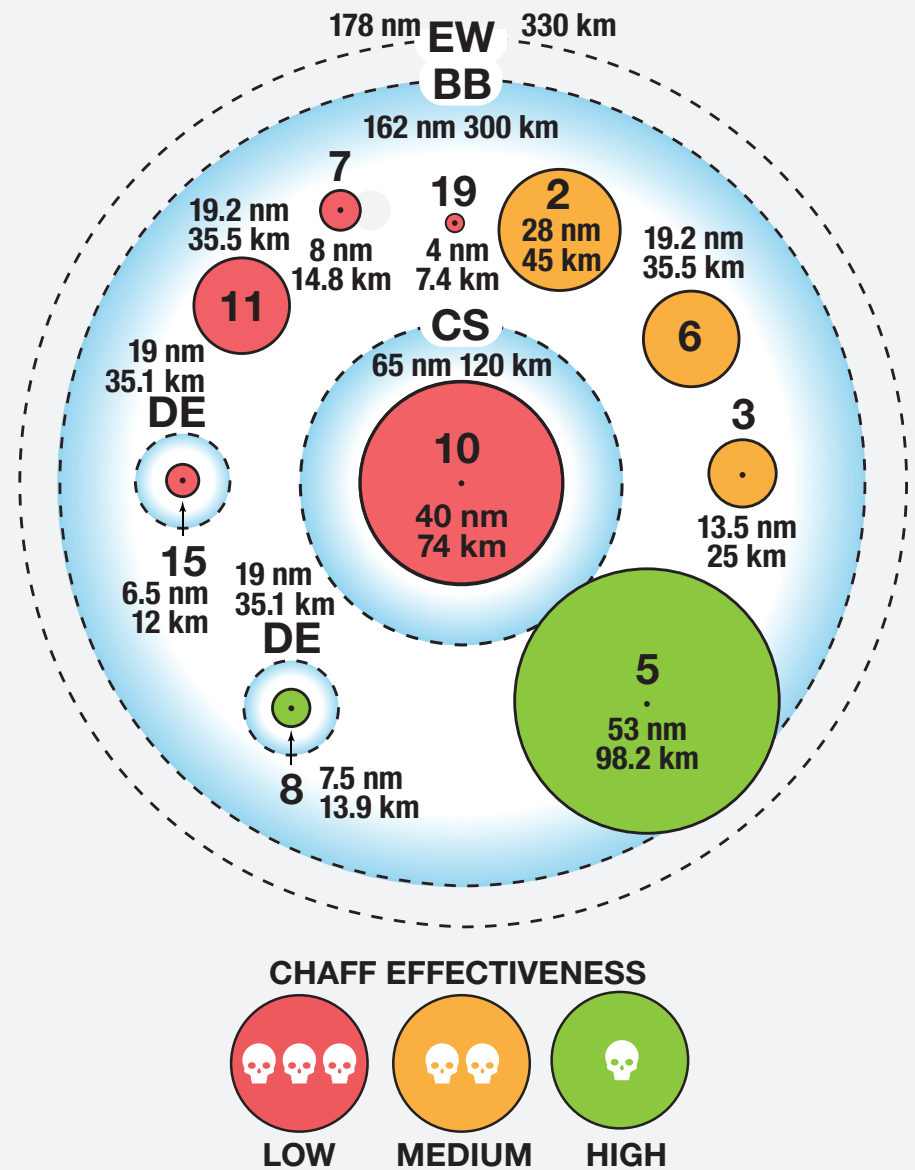
Electronic Countermeasures

Lastly, **DCS** offers limited **Electronic Countermeasure** options or **ECM**. **ECM** is designed to trick Radar. It can be used to deny targeting information to the enemy. **ECM** can include Radar jammers, self-protecting options and more. Their effectiveness in **DCS** varies greatly. **ECM** systems are carried in PODs or are internal to the aircraft.

AIR THREAT EXAMPLE



SAM THREAT EXAMPLES



How to survive?

To defeat an enemy missiles there are only a few options:

- Dispensing Chaff and/or Flares along with direction changes.
- Older IR missiles can sometimes be defeated lowering the temperature of the engine exhaust via the throttle.
- Long range missiles can be defeated by running away.
- Some older missiles can be defeated by jamming.
- Some missiles can be defeated by turning off jamming.
- Some missiles can be defeated by destroying the launcher or host RADAR
- Terrain masking
- Kinetically by making sudden direction changes

Notching

Notching is flying perpendicular to an enemy missile usually associated with trying to defeat a Pulse Doppler RADAR. When notching, launch chaff to give the threat a new larger target.

QUICK REFERENCE GUIDE

Check out the Quick Reference Guide [here](#) to see specific information about the various threats in **DCS**. This includes all SAMs, AAAs, Ships, Aircraft and more, including each of their maximum ranges, maximum heights etc.

MISSION TYPES

In **DCS** there are many different missions that aircraft can complete. Some aircraft are capable of only a few mission types, while some are capable of almost all mission types. The mission type you want to accomplish is generally based on the aircraft and weapon load out you choose. Some aircraft are suited to a few mission types, while some can accomplish almost all mission types. Find below an brief overview of the mission types available in missions, campaigns and multiplayer.

BARCAP (Barrier Combat Air Patrol)

Prevent enemy aircraft from entering an area you are tasked to defend.

CAS (Close Air Support)

Close Air Support missions against ground units. This usually entails destroying tanks, APCs and any other ground threats.

CAP (Combat Air Patrol)

Patrol an area while preventing enemy aircraft from entering an area you are tasked to defend.

CSAR (Combat Search and Rescue)

A mission where the objective is to recover a downed pilot or other asset. These are usually associated with helicopters.

DCA (Defensive Counter Air)

An air to air mission to defend a specified object (airfield, bridge, etc).

DEAD (Denial of Enemy Air Defenses)

Destroy all enemy air defences (SAMs, AAA, Manpads etc) either in an area or anywhere.

Escort

Escort and defend a friendly aircraft during its flight.

HAVCAP (High Asset Value Combat Air Patrol)

Protect a high value asset in the area, usually a AWACs, tanker or other aircraft.

Interdiction

Flown to disrupt enemy reinforcements near the front lines.

Intercept

Intercept and destroy an enemy aircraft or multiple aircraft before they can attack and/or complete their mission.

OCA Strike

An Offensive Counter Air Strike mission that targets specifically against airbases or search radars. The purpose of an OCA strike is to help gain aerial supremacy by destroying assets on the ground.

Recon / Recce

A reconnaissance mission to gather intelligence about a target or targets whether airborne or ground.

SEAD (Suppression of Enemy Air Defences)

The goal is not to destroy any specific anti air defences, but to protect a strike package as needed on the way to, or during, their mission. The package is protected by keeping defences from attacking friendly units, either by destroying them, distracting them, or forcing them to switch off targeting systems to avoid destruction.

Strike

An Air to Ground strike mission against a variety of specific and fixed strategic targets (other than airfields and radar installations).

Sweep

An aggressive Air to Air flight that has no patrol time but target steerpoints where you will attack and destroy as many enemy aircraft as possible while limiting friendly losses in your flight.

TARCAP (Target Combat Air Patrol)

An air-to-air mission that protects allied attacking aircraft over an target area. As opposed to an escort flight, which flies over the target area, then returns to base, this flight arrives before the attacking aircraft and patrols the area while the strike is conducted, then leaves.


REARM & REFUEL

Depending on the mission chosen (Training, Campaign, Instant Action, Mission or Multiplayer), you might need to **Rearm and Refuel** your aircraft before departing or when you return to your airbase. This is especially true on **Multiplayer Servers**.

To access the **Rearm and Refuel** window, press **Left Alt + ‘** or set up the key press in the settings

BOARD NUMBER: Used only in some instances, but rarely needed.

MISSION RESOURCES



DRAG THIS BOX TO REFUEL

DRAG THIS BOX TO REARM GUN

CHOOSE THE TYPE OF GUN AMMO

DRAG THIS TO CHANGE FLARE & CHAFF AMOUNT

SELECT A PREDETERMINED LOADOUT

SELECT A LIVERY

CHANGE BOARD NUMBER

PRESS TO CANCEL

CLICK THESE BOXES TO CHOOSE A WEAPON ON THAT STORE LOCATION

PRESS TO CONFIRM

FUEL 100%

GUN AMMO 100%

AMMO TYPE SAPHEI High Explosive Armor Piercing P

FLARE 60

CHAFF 60

SELECT LOADOUT:

SELECT LIVERY

011 BOARD NUMBER

TOTAL WEIGHT 27355/42300 lbs

MAXIMUM WEIGHT



OVERWEIGHT

Ensure to not overweight the aircraft else you are unlikely to take off.

QUICK REFERENCE GUIDE

Check out the Quick Reference Guide [here](#) to see what stores are available for each aircraft.

BEYOND VISUAL RANGE & WITHIN VISUAL RANGE

In air combat, **Beyond Visual Range (BVR)** and **Within Visual Range (WVR)** are regularly mentioned. **BVR** is most often referred to when using weapon systems that can attack an enemy before visual range is achieved or setting up approaches and options against an enemy. Weapons systems that are used in the **BVR** envelope include the **AIM-120 AMRAAM**, **R-77** and others. **WVR** is most often referred to when using weapon systems that can attack an enemy within visual range. These weapons include the AIM-9, R-60 and guns.

BASIC FIGHTER MANEUVERS (BFM)

When flying an aircraft, there are various **Basic Flight Maneuvers (BFM)** like loops, barrel rolls and more. Learning how and when to use specific maneuvers during an engagement with an enemy aircraft can and will help you win. Find below a brief overview of common **BFM** concepts.

Know your aircraft

You need to learn and train in the chosen aircraft. You need to know its strengths and weaknesses to take full advantage of how best to fight in it. Also knowing the enemy aircrafts strengths and weaknesses will help you decide on the best course of action to ultimate defeat them.

Situational Awareness

Key to winning any engagement is **Situational Awareness (SA)**. If you see the enemy before they see you, you can take actions to improve and win in an engagement. How to obtain **SA** is often based on the aircraft and its sensors (if it has any) and keeping your head on a swivel, continually looking outside and all around you. Communicating with **AWACS**, **GCI** and other aircraft, if available, can point you in the right direction (Check out the [Communication](#) section for more information). In a **BFM** fight, key is always keeping your eye on the enemy, and its often said, lose sight, lose the fight.

Energy Management

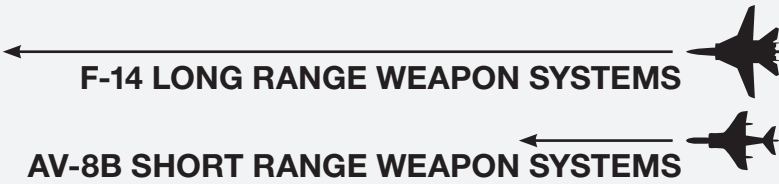
Understanding and mantaining energy is key to **BFM**. There are many factors at play on your aircraft and these can vary with speed and altitude, such as turn radius, turn rate, and the specific energy of the aircraft. You need to use **BFM** to turn these limitations into tactical advantages. A faster, heavier aircraft may not be able to evade a more maneuverable aircraft in a turning fight, but can often choose to break off the fight and escape by diving or using its thrust to provide a speed advantage. A lighter, more maneuverable aircraft can not usually choose to escape, but must use its smaller turning radius at higher speeds to evade the enemy, and to try to circle around behind. **BFM** is a constant series of trade-offs between these limitations to conserve the specific energy state of the aircraft.

The Merge

In basic terms, the merge is when you and the opponent pass each other. This can be needed for aircraft identification and other reasons, but often **BFM** maneuvers relate to the merge and corresponding aircraft positions.

One Circle

A **one circle** fight starts at the merge, when you turn towards your opponent becoming a nose to nose fight. Aircraft that have great **Angle of Attack (AOA)** capabilities often win **one circle** fights. Great **AOA** fighters include the **M-2000C**, **MiG-21** and **MiG-29**. These aircraft can bleed energy quickly and obtain one fast turn to point their nose at you to deploy weapons. After the first turn however, they often start a downward spiral to continue to maintain airspeed or end up at a energy disadvantage.



Know your aircraft

Great one circle fighters



Great two circle fighters

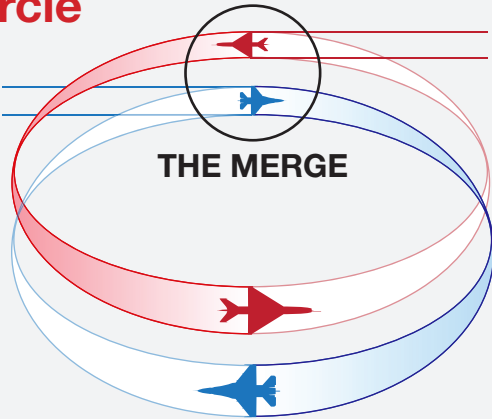


Best sustained turn rates

A-10C:	215 kts	L-39ZA:	206 kts
AJS37:	337 kts	M-2000C:	252 kts
AV-8B:	248 kts	MiG-15:	274 kts
C-101CC:	206 kts	MiG-19:	436 kts
F-5E:	466 kts	MiG-21:	229 kts
F-14A/B:	314 kts	MiG-29:	369 kts
F-15C/E:	350 kts	Su-25:	301 kts
F-16CM:	397 kts	Su-25T:	321 kts
F-18C:	361 kts	Su-27:	374 kts
F-86F:	264 kts	Su-33:	374 kts
JF-17:	355 kts		

All speeds are approximate and are based on a clean aircraft. This information and more can be found in the [Quick Reference guide](#).

One Circle



BFM Resources

- Check out the following resources to learn more about **BFM**
- [What is BFM?](#)
 - [Learning BFM Videos](#) & [Learning ACM Videos](#)
 - [Art of the Kill](#)
 - [Wikipedia](#)

Two Circle

A two circle fight starts at the merge, when you turn to chase an opponent becoming a nose to tail fight. This is often called a rate fight or using the better turning rate of your aircraft to out turn the enemy. Aircraft that are great rate fighters are the **F-5**, **F-14**, and **F-16**. You need to know the best sustained turn speed and hold it while chasing the enemy.

Patience

BFM is a game of patience. You need to know and understand your aircrafts capabilities, its strengths, its weaknesses, its **AOA** capabilities and its sustained corner speed. This is only obtained through training and practice and cannot be rushed.

Pursuit: Lead, Pure and Lag

Pursuit position is where you place your nose relative to the enemy. If your looking to gain on the enemy then you are going to need to pull enough lead to have your nose pointing in front of the target or **Lead Pursuit**. This will give you the best closure rate.

Pure Pursuit is still normally a quick rate of closure where you place the flight marker on the aircraft with lag pursuit being slower and managing where your flight path marker is behind the target aircraft. Knowing this will allow you to control your incept, speed and closure rate with the enemy.

Lag Pursuit is used to stop or reverse the closure rate. Following outside the enemy turn radius, you can maintain or increase energy while forcing the enemy to turn at an energy depleting ratebest sustained turn speed and hold it while chasing the enemy.

Air Combat Maneuvering (ACM)

Air Combat Maneuvering (ACM) or dogfighting is the tactical art of moving, turning and/or situating your aircraft in order to attain a position from which an attack can be made on an enemy. Air combat manoeuvres rely on offensive and defensive **Basic Fighter Manoeuvring (BFM)** to gain an advantage over an aerial opponent. You need to be good at **BFM** to be successful in **ACM**. **BFM** can be considered the individual maneuvers while **ACM** is applied to the tactics behind dogfighting as a whole.

COMMON MANEUVERS

Find below some common **BFM**. There are many others, be sure to check out this [Wikipedia](#) for more.

Immelman

An **Immelmann** trades airspeed for altitude during a 180 degree change in direction. The aircraft performs the first half of a loop, and when completely inverted, rolls to the upright position.

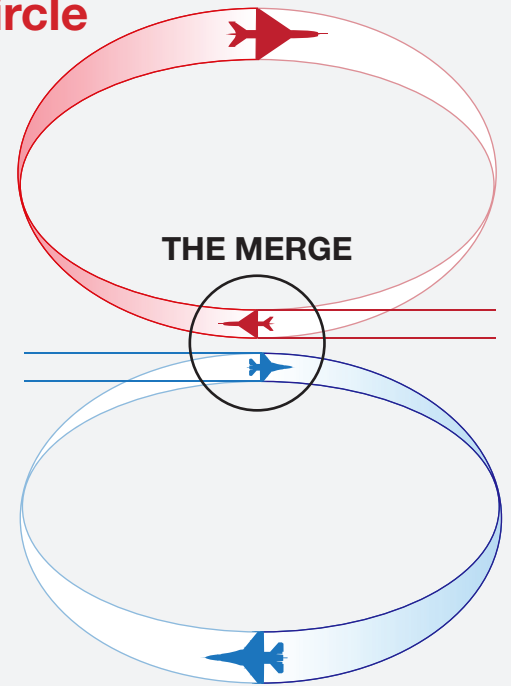
Split S

The opposite of an **Immelmann** is the **split S**. This maneuver consists of rolling inverted and pulling back on the stick, diving the aircraft into a half loop, which changes the aircraft's direction 180 degrees. The **split S** is rarely a viable option in combat, as it depletes kinetic energy in a turn and potential energy in a dive.

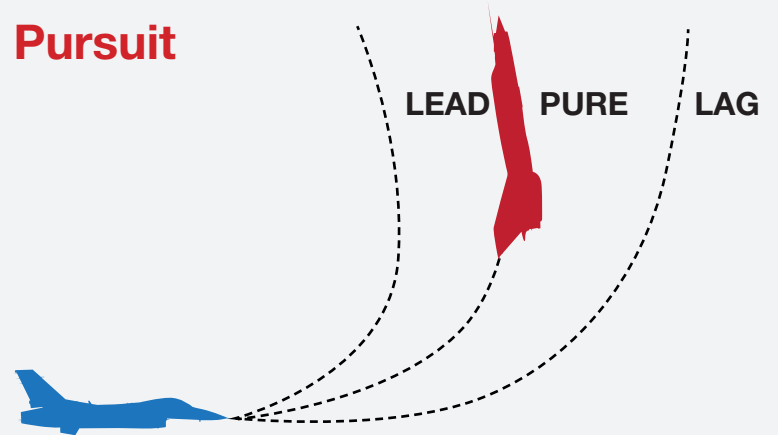
Low Yo-Yo

The **low Yo-Yo** is one of the most useful maneuvers, which sacrifices altitude for an instantaneous increase in speed. This maneuver is accomplished by rolling with the nose low into the turn, and dropping into a steeper slice turn. By utilizing some energy that was stored in the vertical plane, you can quickly decrease range and improve the angle of the attack, literally cutting the corner on the enemies turn.

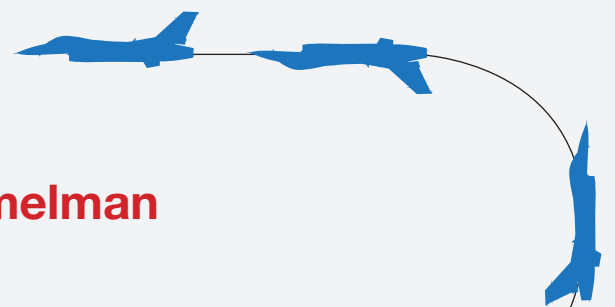
Two Circle



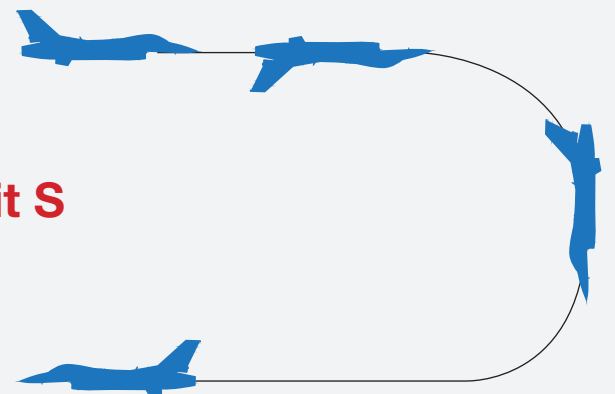
Pursuit



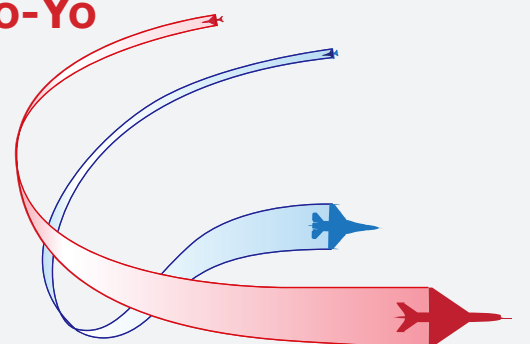
Immelman



Split S



Low Yo-Yo



High Yo-Yo

The **high Yo-Yo** is a very effective maneuver, and very difficult to counter. The maneuver is used to slow the approach on an enemy while conserving the airspeed energy. The maneuver is performed by reducing the angle at which the aircraft is banking during a turn, and pulling back on the stick, bringing the fighter up into a new plane of travel. You then roll into a steeper pitch turn, climbing above the enemy and then back down pulling behind.

Scissors

The scissors are a series of turn reversals and flight path overshoots intended to slow the relative forward motion (downrange travel) of the aircraft in an attempt to either force a dangerous overshoot, on the part of the defender, or prevent a dangerous overshoot on the attacker's part. The defender's goal is to stay out of phase with the attacker, trying to prevent a guns solution, while the attacker tries to get in phase with the defender. The advantage usually goes to the more maneuverable aircraft. There are two types of scissor maneuvers, called flat scissors and rolling scissors.

IDENTIFICATION, FRIEND OR FOE

Identification, friend or foe (IFF) is an identification system designed to interrogate an unknown aircraft and determine if it is friendly, enemy or unknown. The IFF system in **DCS** is limited to those aircraft that are modern enough to have it. Aircraft after 1960 almost always have an **IFF** system (**F-86** and **MiG-15** do not have **IFF**, but the **MiG-21** and **F-5E** do, refer to the aircraft manual or [Chuck's Guides](#) to find out more). **IFF** is most often used in concert with the aircrafts **RADAR** system.

If your aircraft has **IFF** capability, be sure to turn it on (refer to the manual), especially in **Multiplayer**. Turning on your **IFF** allow allies to interrogate you as a friendly aircraft and potentially avoid being attacked by friendly forces.

In aircraft with **IFF** systems, you often have to interrogate a **RADAR** return to determine if the contact is friendly, enemy or unknown. It is recommended in **Multiplayer** especially to visually identify an unknown or enemy aircraft before attacking to avoid destroying a friendly aircraft. Blue on Blue or friendly kills can potentially get you banned from Multiplayer servers.

KNEEBOARD

The **kneeboard** offers valuable information when seated inside the cockpit. This can be map and airbase information, weapon and INS information and more. For some aircraft, accessing the **kneeboard** pages is mandatory (the **AJS37 Viggen** for example, when setting up ground attack), especially on some multiplayer servers. Also some multiplayer servers restrict map and other information and so using the **kneeboard** is again mandatory to find out your location and more.

To access the **kneeboard**, press **R-Shift + K** or set up the key press in the settings. Press **K** for a quick glance of the Kneeboard. Also setup or know the key presses for previous and next pages and marking current location. These are helpful on multiplayer servers with limit map visibility.

Common kneeboard pages in most modules include detailed maps and airbases for the map you are currently in, weapon information and radio frequencies.

! SERVER SETTINGS

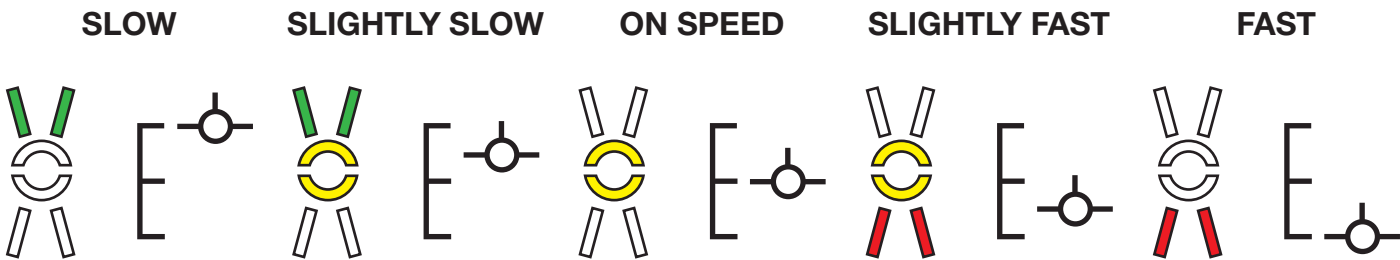
Using the Kneeboard on some servers is mandatory to understand your position and with some modules, setting up the INS, ground attackand more.

KNEEBOARD ADDITIONS

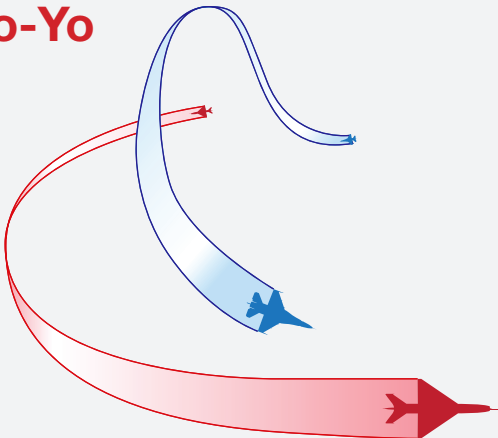
You can add more pages to the Kneeboard of a module. They added through the **Saved Games** folder on your system, under **KNEEBOARD** and the module.

AOA INDEXER

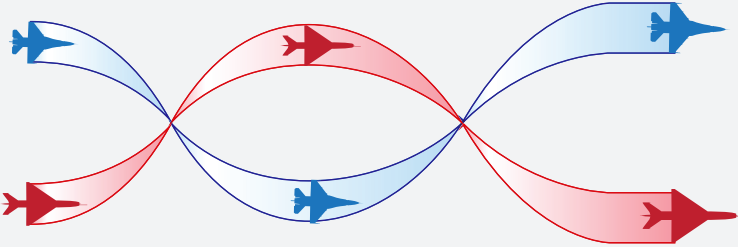
Used specifically for landing aircraft, the **AOA** (Angle Of Attack) indexer, visually represents the **AOA** of the aircraft. Understanding these will help you land at the right **AOA** and therefore speed.



High Yo-Yo



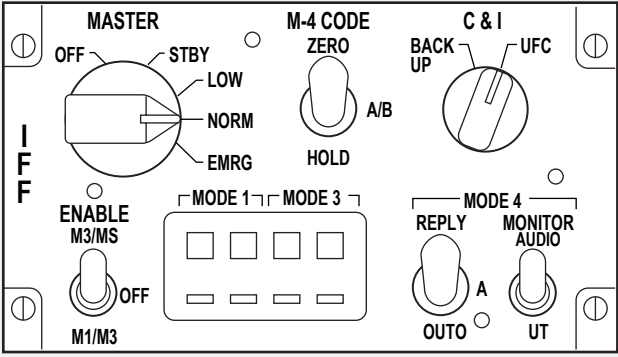
Scissors



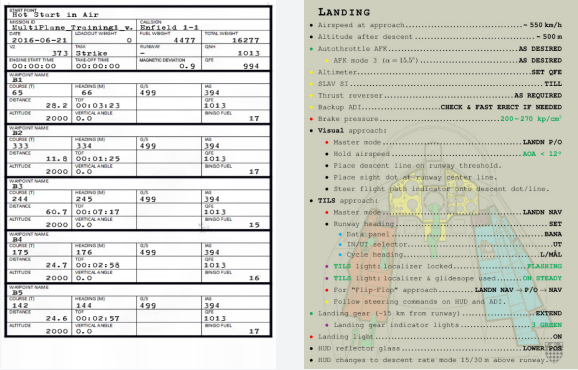
IFF Symbology in the F-16



IFF panel in the F-16



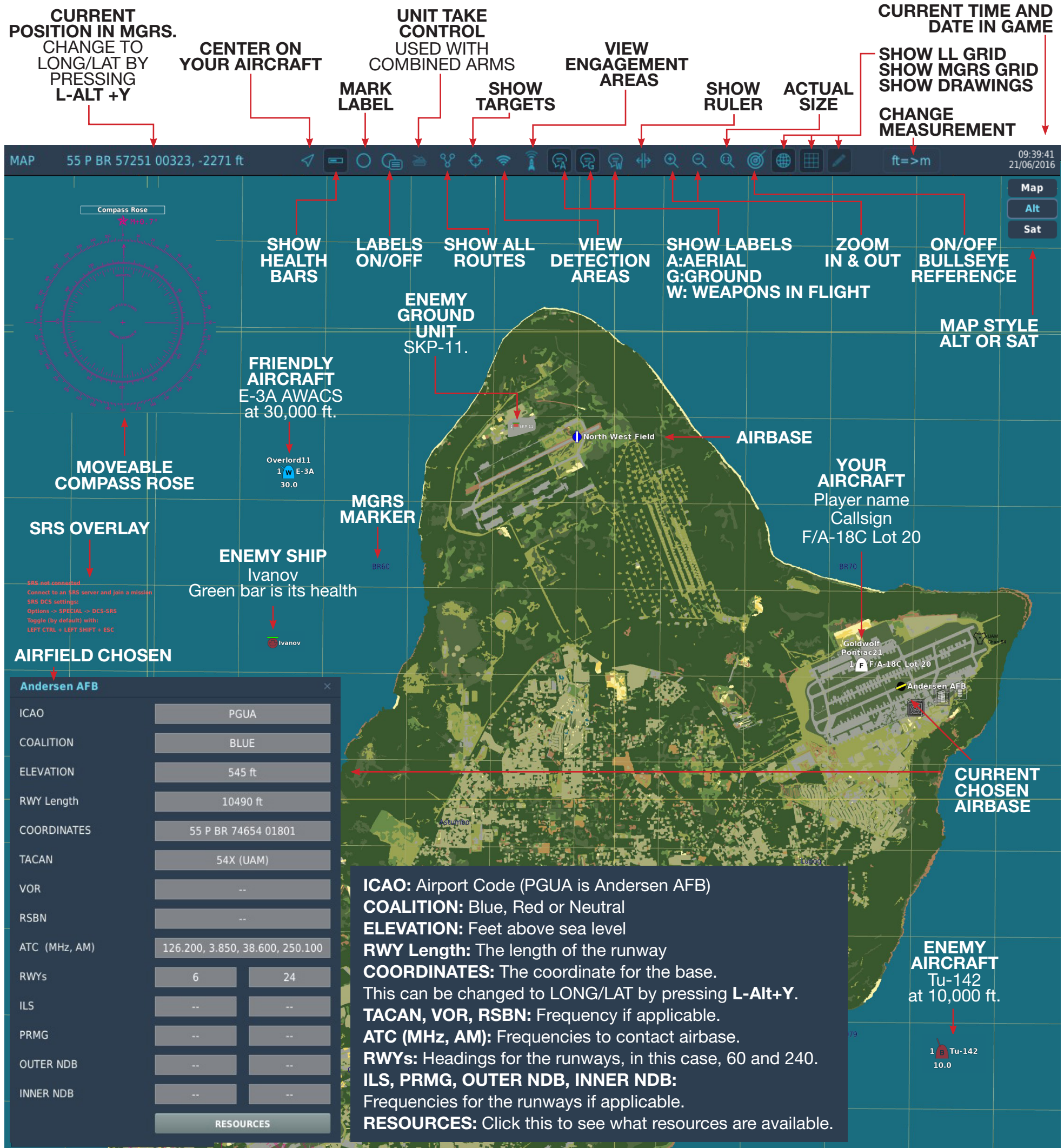
Example AJS37 Viggen Kneeboards



MAP (F10 KEY)

Understanding the **Map** is key to completing missions in **DCS**. Accessed by pressing **F10**, the map gives you all sorts of information. Your current location, the location of airbases, allied aircraft, enemy aircraft, enemy and allied ground forces and more. But depending on the mission or multiplayer server settings, some of this map information can be hidden and not shown at all.

Some multiplayer servers severely restrict what is visible on the map to make the experience more realistic. Some multiplayer servers are quite open and show a lot of information.



!

Some of the information could be hidden on the map depending on the server settings.

MARIANAS MAP

This is the Marianas map, a free map provided with **DCS**.

WEAPONS

Knowing what weapons are available and how to deploy them is crucial to completing missions in **DCS**. Not every weapon system needs to be learned but having a working knowledge of how to use them, when to use them and why is crucial. All weapons within **DCS** fall into two main categories, **Air to Air** and **Air to Ground**.

AIR TO AIR

Air to air missiles are used for the express purpose of attacking air targets. All air to air missiles in **DCS** fall under one of three categories; **infrared (IR)**, **semi-active radar** or **active radar**. **IR** missiles tracks a targets heat signature, for example the engine. **Semi-active radar** missiles need constant radar lock from the host aircraft. **Active radar** missiles have their own on-board radar and do not need a constant lock from the host aircraft. **Active radar** missiles often use the hosts own radar to initially track the target until it is in active range. Some **active radar** missiles have the option to use their on-board radar immediately after launch. The aircraft's guns or cannons are also a viable **Air to Air** weapon and also an **Air to Ground** weapon.

There are specific **brevity** codes or call outs used for each is as follows:

- Fox One:** Indicates launch of a semi-active radar-guided missile (such as the **AIM-7 Sparrow** or **R-3R**).
- Fox Two:** Indicates launch of an infrared-guided missile (such as the **AIM-9 Sidewinder** or **R-60**).
- Fox Three:** Indicates launch of an active radar-guided missile (such as the **AIM-54 PHEONIX**, **AIM-120 AMRAAM** or **R-77**).
- Maddog:** Indicates launch of a **Fox Three** missile without radar guidance from launch aircraft. The missile will rely on its own radar.
- Pitbull:** Indicates that the **Fox Three** missile is at active range and no longer requires radar input from launch aircraft.

AIR TO GROUND WEAPONS & SYSTEMS

Missiles

Air to ground missiles are used to attack various types of ground targets, including but not limited to tanks, armored vehicles, ships, structures and more. In some instances, these missiles can be used to attack air targets, like bombers. There are different types of guidance for air to ground missiles. They include radio guided, radar guided, laser guided, anti-radiation(for attacking anti-air radars), infrared, GPS/INS, and even TV guided.

Like air to air weapons, there are specific **brevity** codes or call outs used for each is as follows:

- Bruiser:** Indicates launch of an air to ship missile.
- Duck:** Indicates launch of a tactical air-launched decoy (**TALD**).
- Magnum:** Indicates the release of an anti-radiation missile.
- Pickle:** Indicates release of a bomb or munition.
- Pig:** Indicates launch of a **JSOW**.
- Rifle:** Indicates launch of an air to ground missile.

Rockets

Rockets are always unguided, self-propelled weapons with varying sizes of warhead. Like air to ground missiles, they are primarily used to attack ground targets but can be used against large air targets like bombers. Generally speaking, the smaller the warhead, the less damage it can do but the more you can carry. Smaller rockets are usually housed in rocket pods of varying amounts (some as large as 32 rockets). Larger rockets are usually mounted alone.

Bombs

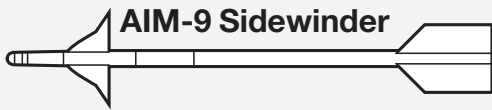
There are two main categories for bombs in **DCS**, guided and unguided. Within these two categories, bombs can have many different purposes from anti-runway, anti-armor, illumination, smoke and general destruction. Like rockets, the larger the bomb, the greater the explosive impact, but the less you can carry. Like missiles, guided bombs can be guided in multiple ways; GPS/INS, laser and TV.

PODS & FUEL TANKS

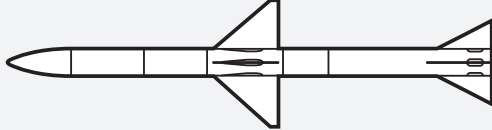
Available for most aircraft, there are different types of pods and fuel tanks. Pods can include guns (for aircraft without internal guns), targeting sensors, electronic counter measures, training aids, datalinks, jammers, munition dispensers and more. Some aircraft have multiple fuel tank options depending on the amount of fuel while some have none.

Chuck's Guides

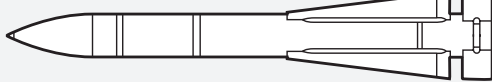
Check out the Chuck's Guide for the aircraft you are using. The guide includes all weapon systems and how to deploy them.



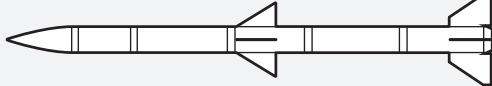
AIM-9 Sidewinder



AIM-7 Sparrow



AIM-54 PHEONIX



AIM-120 AMRAAM



R-60



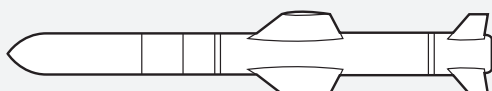
R-3R



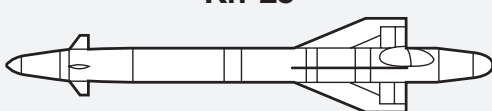
R-77



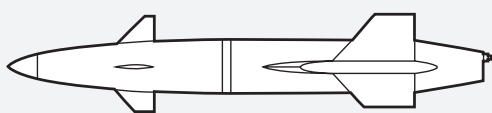
AGM-65 MAVERICK



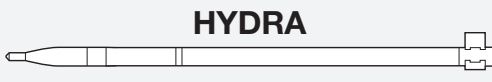
AGM-84 HARPOON



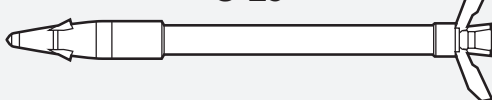
Kh-25



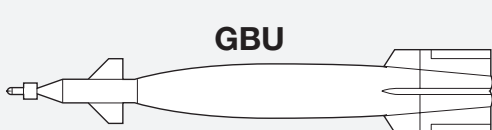
RB-04 ROBOT 04



HYDRA



S-25



GBU



RBK



WEAPON AVAILABILITY

Weapon availability is determined by the aircraft, the era or time period and, if playing multiplayer, the server settings.

WHAT ARE THEY TALKING ABOUT?

BREVITY - Find below the most commonly used and heard words in **DCS** on radio when playing in multiplayer.

A Alpha check: Request for/confirmation of bearing and range to described point.

Angels: Height of a friendly aircraft (altitude) in thousands of feet

B Bandit: An aircraft identified as enemy.

Beam: Aircraft heading perpendicular to friendly aircraft

Bingo: Minimum fuel state needed for aircraft to return to base.

Blind: No visual contact with friendly aircraft/ground position

Bogey: A radar or visual air contact whose identity is unknown.

Bogey Dope: Request for target information.

BRA, BRAA: Tactical control format providing target Bearing, Range, Altitude, or Bearing, Range, Altitude, and Aspect, relative to a friendly aircraft or bullseye.

Bruiser: Friendly air-launched anti-ship missile.

Buddy Spike: Friendly aircraft air-to-air indication on radar warning receiver (RWR); should be followed by aircraft type, position, heading, and altitude.

Bugout: Separation from that particular engagement/attack/operation; no intent to re-engage.

Bullseye: An established point from which the position of an object can be referenced; made by cardinal/range or digital format.

Buster: Directive call to fly at maximum continuous speed.

C Clean: No radar contacts on aircraft of interest.

Cold: Aircraft heading away from friendly aircraft.

Contact: Sensor contact at the stated position. Acknowledges sighting.

Crank: To maneuver beyond the range of a missile; implies illuminating target at radar gimbal limits in a beyond visual range engagement.

D Dakota: No air to ground (ATG) ordnance remaining.

Duck: Tactical air-launched decoy (TALD).

F Feet Wet/Dry: Your aircraft is currently over water (Wet) or ground (Dry).

Flank: Aircraft heading 45 degrees towards friendly aircraft.

Fox One: Launch of a Semi-active radar-guided missile

Fox Two: Launch of a Infrared-guided missile.

Fox Three: Launch of a Active radar-guided missile.

Friendly: A positively identified friendly contact.

Furball: A turning fight involving multiple aircraft with known bandits and friendlies mixed.

G Gimbal: Radar target is approaching azimuth or elevation limits. (Direction)

Guns: An air-to-air or air-to-surface gunshot.

H Holding Hands: Aircraft in visual formation.

Home plate: Home airfield or carrier.

Hot: Aircraft heading towards friendly aircraft; opposite of Cold.

I Inbound: Approximately 10-15 nautical miles out from the airport.

L Laser on: Directive to start laser designation.

Locked: Final radar lock-on.

Lost Contact/Lock: Radar or IR lock lost.

M Maddog: Indicated the launch of a Fox Three missile without radar guidance from the launch aircraft.

Magnum: Launch of friendly anti-radiation missile.

Marshal: Establish/established at a specific point

Merged: Call indicating radar returns have come together.

Mud: Radar Warning Receiver indication of ground threat.

N Nails: Radar Warning Receiver indication of an Air Intercept radar in search mode.

Naked: No radar warning receiver (RWR) indications.

No joy: No visual contact with the target, bandit or landmark; opposite of Tally.

O On station: Call that aircraft has reached assigned station.

P Pickle: Indicates the release of a bomb or munition.

Picture: Provide tactical situation status pertinent to mission.

Pig: Launch of a glide weapon (ie; JSOW)

Pitbull: Call that an active radar-guided missile is at active range and no longer requires radar input from launch aircraft.

Press: Directive to continue the attack.

Push(ing): Going to designated frequency. Departing designated point.

R Radio Check: Check that players can hear you.

Range: Distance to aircraft or bullseye.

Raygun: Indicates a radar lock-on to unknown aircraft; a request for a buddy spike reply from friendly aircraft.

Rifle: Friendly air-to-ground missile launch.

Roger: Radio transmission received; does not indicate compliance or reaction.

S SAM (Direction): Visual acquisition of a SAM or SAM launch; should include position.

Say again: Repeat last message

Shack: Ground target destroyed.

Spike: Radar Warning Receiver indication of an Air Intercept radar in track, launch, or unknown mode.

Splash: Air or ground target destroyed.

T Tally: Sighting of a target, bandit, bogey, or enemy position; opposite of no joy.

Tracking: Continuous illumination of a target.

V Visual: Sighting of a friendly aircraft/ground position; opposite of blind.

W Weeds: Indicates that fixed-wing aircraft are operating below 2,000 ft (610 m).

Wilco: Will comply.

Winchester: No ordnance remaining.

MULTIPLAYER

WingmanFinder

Want to play multiplayer with someone else or a group, check out the [WingmanFinder](#) subreddit.

Want to play multiplayer with someone else or a group, check out the [WingmanFinder](#) subreddit.

JOINING A SERVER

To join a multiplayer server, first click the multiplayer button on the main **DCS** screen. On the next screen, multiplayer servers will begin to populate the screen. You can limit the servers shown by entering specific information right below the **SERVER LIST** text. Once you have decided on a server to join, double click the server or click the server and press Join at the bottom. If the server is a grey color, you cannot join it.

Star icon: This is for favorited servers. If you have a favorite server, you can click the star icon to the left of the server and **DCS** will remember this each time you play for quick access to those servers.

Lock icon: This means the server is password protected.

Shield icon: This means the server is running protection against cheating.

Exclamation icon: This means Trial-only clients are allowed. This means the server allows players with trial modules installed. Without this icon, the server will not allow players with trial modules.

Ping: Try to choose servers that have lower Ping numbers. The lower the number the better the internet connection.

Country Flag: This is the country the server is based.

Server name: The name of the server, searchable at the top.

Map: The current map being played on the server. You need to have this map to play in the server.

Mission Name: This is the current mission in the server, this can be a wide number of missions and often alludes to what the mission entails. Some of the most popular are the **PVE Through the Inferno** and **PVE Liberation**.

Players: The amount of players varies from server to server with some having none to some being full. All servers have a minimum of 1 player, therefore if you join a server with 1 player, most likely you will be on your own. This is not the case when joining a friends server.

Elapsed Time: This is the time the mission has been played. Can be sometimes helpful to determine if a mission will end soon.

Time in mission: This is the current time in the actual mission, this is used to determine if the mission is a day or night mission.

! SRS IS REQUIRED
SRS is needed to login to some multiplayer servers. While some servers do not need SRS, it is a recommended program to use when playing **DCS** multiplayer.

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DCS Version

2.8.0.32066

Refresh list

Connect to a specific IP

Your call sign

MULTIPLAYER

2.8.0.32066

SERVER LIST

SERVICES/PLAYERS: 429/984

CONNECT BY IP

Goldwolf 1-1

Limit the servers shown by the above

Choose Map or Region

Search server by name

Only show Favorite Servers

Server Ping

Server name

Map

Mission

Elapsed time and time in mission

	Ping	Server Name	Map	Mission Name	Players	Elapsed time	Time in mission
53		Enrigmas Dynamic Cold War Campaign PVP/PVE	Caucasus	cold-war-northern-eye-production-v151_sudusk	64/70	0/2:18:30	19:18
281		Hoggt - Marianas Training Map	Marianas	MarinaraTrainingMapv0.2	5/40	0/1:22:58	8:27
150		出租DCS服务器 2 HavocCompany PG VAF	Caucasus	DCS服务器招租 (联系QQ群139135523)	1/64	0/0:01:01	8:01
280		飞友站01服 02 HavocCompany PG VAF	Persian Gulf	Weapons_Training_Freightlight_pg_v1.02.29	1/50	0/0:08:26	11:02
156		飞友站03服 03 HavocCompany PG VAF	Caucasus	武器训练_负重飞行_pg_v1.02.29	1/50	0/3:32:45	14:38
160		LA FUNDACION™ SERVER ALFA (DEDICADO 24H)	Persian Gulf	高加索训练任务图 (冬季、白天)	1/50	0/2:23:12	11:23
156		LA FUNDACION™ SERVER ALFA (DEDICADO 24H)	Nevada	Operation.Snowfox.LF.1.5-1	1/64	0/0:47:09	9:17
106		LA FUNDACION™ SERVER ALFA (DEDICADO 24H)	Caucasus	TormentaNTR_CR_2_V4	1/48	0/0:49:48	10:49
84		Through The Inferno -CB Test Server- (107th-NORCAL)	Caucasus	Magic Potion_LAUNCHER	1/64	0/0:00:00	8:00
85		Through The Inferno -Dynamic PvE- (107th-SOCAL1)	Syria	Through_The_Inferno_SYRIA_v3.1.6	1/107	0/1:26:52	6:41
83		Through The Inferno -Dynamic PvE- (107th-SOCAL2)	Caucasus	Through_The_Inferno_CCS_v2.1.5	14/107	0/0:55:37	12:35
85		Through The Inferno -Dynamic PvE- (107th-SOCAL4)	Marianas	Through_The_Inferno_MI_v1.1.6	9/107	0/0:56:03	7:11
91		Through The Inferno -Dynamic PvE- (107th-SOCAL6)	Caucasus	Through_The_Inferno_SYRIA_v1.0.5	1/107	0/3:30:10	9:30
174		GENA PILOT -TOP GEN= Heli Fitness (by Board_046)	Nevada	Through_The_Inferno_NTRTR_v2.1.4	1/107	0/2:44:22	3:14
253		++ #1 ++ (OCG) "Through The Inferno" Caucasus ++	Caucasus	Server.Fitness_trainfield_7.0	1/60	0/0:57:13	8:57
130		JG78 Training - www.jagdschwader78.com - Server 1-1	Caucasus	Through_The_Inferno_CCS_v2.1.4	1/30	0/0:00:00	9:30
126		JG78 Training - www.jagdschwader78.com - Server 1-2	Caucasus	JG78_Flugschule_Training_4.2.realweather	1/100	0/2:01:49	21:50
257		ANZUS - Operations Server	Caucasus	G_SENAKI-MOZDOCK_61527	1/100	0/2:02:26	12:02
249		ANZUS - Public Server	Caucasus	ANZUS Black Sea Campaign 2022 Weather-V 1.5.6	1/32	0/2:38:08	13:08
70		!!!PVE Server #1!!!-by Stix	Marianas	ANZUS Public Server Mission V1.26 Morning	1/32	0/2:36:42	10:11
66		#sierrahotel - Caucasus	Caucasus	PVE Caucasus -by Stix	4/40	0/4:13:09	11:13
42		*** JTF-1 Closed Beta Server ***	Caucasus	SHTM V7 - Summer	1/65	0/2:07:10	9:52
57		*** JTF-1 Dedicated Server 6 ***	Caucasus	JTF-1_No_Mod_Caucasus_Weather	1/64	0/0:29:50	15:29
51		***VCW3 Blue Water Ops***	Nevada	DSMC_Clear_Field_109	1/64	0/2:50:25	8:50
45		***VCW3 RED FLAG Server***	Syria	VAF_Air_NTRTR	1/30	0/0:00:00	7:15
408		- OIA Caucasus (Foothold Reimagined) Fox3ms com V6-95	Nevada	VCW3 - Syria Workups	1/20	0/0:00:00	14:00
249		- DCS 한국공정비행단 1st JTFW Dedicated - Free Flight -	Syria	VCW3 HP WWII Dog Fight	1/20	0/0:00:00	8:00
128		- DCS 한국공정비행단 1st JTFW Dedicated - Mercenary -	Caucasus	Caucus_Foothold Reimagined_Here_NewCTLDV5	1/40	0/1:16:01	9:41
139		- jolly Rogers - Training Server 1 -	Caucasus	Free flight mission Caucasus-v3.4.3	1/36	0/0:51:15	10:11
134		- ROG - Alpha Caucasus	Caucasus	Op Levathan v6.5 OpenBeta	1/30	0/0:40:03	14:40
134		- ROG - Foxnet TheChannel	Caucasus	Training V2.7	1/24	0/4:43:44	18:23
251		- Kirks Hangar 2 -	Caucasus	Foothold_Caucasus_1.4	1/32	0/0:10:10	8:31
232		- SAAF2 -	The Channel	Fortress_Europe_by_Belkiss_Simulations	4/32	0/2:13:10	9:13
121		- 名座中込 -	Caucasus	Kirks Freeflight autumn clouds and wind 2.1.5	10/40	0/1:23:44	14:23
121		11F	Caucasus	Caucasus_Training - All planes-Mosse_V24	1/32	0/1:57:30	8:17
138		13th Virtual Air Command	Caucasus	- 名座中込 -	1/16	0/0:01:14	12:01
138		154° Gruppo Virtuale "Diavoli Rossi"	Syria	Foothold_Syria_1.0.3	1/16	0/2:30:43	7:30
257		161 SQN-Heart of Gold	Caucasus	13HWAG_CATRA_Clear	1/16	0/2:33:34	11:33
67		16AGR Training	Syria	Palestra del 154°_v1.4	1/32	0/0:18:28	7:18
245		1688今天开里海	Caucasus	161SQN_CAUI_Confusion2	1/25	0/10:52:19	18:22
56		175th MAG Public Server-24/7 Operations	Syria	DSMC_FARP_Hollywood_AH-64D	1/32	2/1:20:11	11:20
54		1st vAEW	Syria	海训基地图新版3.1.6 附带青少年安全主机电台(Developer-T Editio	1/64	0/5:33:45	14:03
59		229th AHB Server Alpha	Caucasus	175th_MAG_Joint_Operations_Training_V2	1/16	1/7:06:11	13:41
130		229th AHB Server Bravo	Caucasus	Apache_Hunting_Ground_1stAEW	1/80	0/0:20:10	7:30
129		22nd Tactical Air Wing Spahans Server	Syria	229th Open World Krasnodar Incursion 6ds	1/32	0/0:00:00	6:00
130		28th training 4all PvE+PvP Hosted by eIdDr	Caucasus	Foothold_1.4	1/32	0/0:00:00	7:25
151		304*www.dcs304.vf.wg.s01	Syria	Template_1.82_Beta	1/30	1/21:49:12	5:49
52		304th Fighter Squadron Fox3ms com 193	Caucasus	Elddrs trainday V.22.1	4/99	0/1:51:00	9:21
73		353th Dedicated Server 1	Caucasus	Deblin Battle	4/30	0/0:47:45	14:47
127		415qnOCU	Persian Gulf	Persian Gulf Regional Conflict	1/16	0/0:34:22	5:34
127		425 Alouettes ETACy Server Foxtrok	Syria	CASCAP_SYRIA_DAY_2.6	1/24	0/0:46:45	10:46
129		476th vFG DS1	Caucasus	37902 Fujairah Ex1 V Andrew 0	5/16	0/0:03:19	9:03
129		476th vFG DS2	Nevada	ExerciceDaywalker-425-SunsetTraining_v11	1/80	0/0:00:00	16:30
165		501st Legion ArmA 3 StarSim DCS Server	Marianas	NTRTR v8.9-0530-0	2/45	0/3:05:48	8:35
147		504VFS - Caucasus - Free Flight/Training (Beta)	Caucasus	MI_Training_v4.2-0630-0	1/31	0/1:50:53	8:20
156		505th - Trainino Server	Caucasus	501st Through The Inferno (Georgian Coast) V1.2.1(Light Rain)	1/16	0/16:08:45	0:08
			Caucasus	504_BetaFreeFlight_Caucasus_RSMB339	7/45	0/0:19:01	6:19
			Caucasus	505 practice 1v1 V2.6.8		0/0:45:18	8:45

Country the server is being run from	Number of players current in the server and the maximum allowed
--------------------------------------	---

- ❗ If a server is not full white, then you cannot join that server. This can be because of various reasons, like you don't own the map, needed modules are not installed etc.

The screenshot shows the main menu of the game 'War Thunder'. The background is a dark, cloudy sky. On the left, there are two large red arrows pointing down to the 'Server Description' and 'Mission Description' buttons. On the right, there is a large red arrow pointing down to the 'Server Information' button. At the bottom, there are three buttons: 'EXIT' (red), 'NEW SERVER' (grey), and 'JOIN' (green). The 'JOIN' button has a small red arrow pointing to it.

Server & Mission Description

Server Description

Mission Description

Server Information

Cockpit Visual Recon:
Easy Flight:
Game Avionics Mode:
Paddocks:
Radio Assist:
Unrestricted SATNAV:
Mini HUD:
G-effect:
Options View:
External Views:
Easy Communication:
Unlimited Fuel:
Unlimited Weapons:
Labels:
Wake turbulence:
Integrity Check
require pure clients:
-- require pure textures:
-- require pure models:
-- require pure scripts:
Permissions
Allow object export:
Allow sensor export:
Allow player export:
Allow to change skins:
Changing Tail Number:
Allow to screenshot clients:
Allow voice chat:
Allow Players Pool:
Overlays
Battle Damage Assessment:
Cockpit Status Bar:

EXIT

NEW SERVER

JOIN

Exit Multiplayer Create a new server Join server 64

CREATING A SERVER

To start your own server, click **NEW SERVER** at the bottom.

The following information will need to be completed:

Server Name: Can be anything.

Password: If you want one, helpful to use when you only want specific people to join the server

Player limit: Limited the amount of player on the server. The more players, the slower the server will run, especially if you are not running a dedicated server.

Public IP: This is the IP address to connect to your server. This is given to specific people to join the server.

Mission list: Missions need to be added here that will be played on the server. Multiple missions can be included.

Start: Once ready, click the start button to begin the server. Once the map is loaded fully, other people can join.

If hosting only a few players, you can fly in the server you created along with other players. Internet connection speed and Ping will play a factor in the quality of the experience.

Dedicated Server

While it is possible to create a dedicated server for DCS, this is beyond the scope of this beginners guide.

Ports

To run your own server, you need to be sure that the following ports are open to accept client connections. This will need to be configured in your network and **Windows** firewall and/or router.

PORT		PROGRAM	INFORMATION
10308		DCS Client	Port that DCS needs to allow an external person to join your server.
8088		WebGUI	Port used for a dedicated DCS server.
42674	42675	TacView	Port used by TacView, if installed, to track information.
5002	5003	SRS	Port used by SRS, if installed, to connect to radio communications.

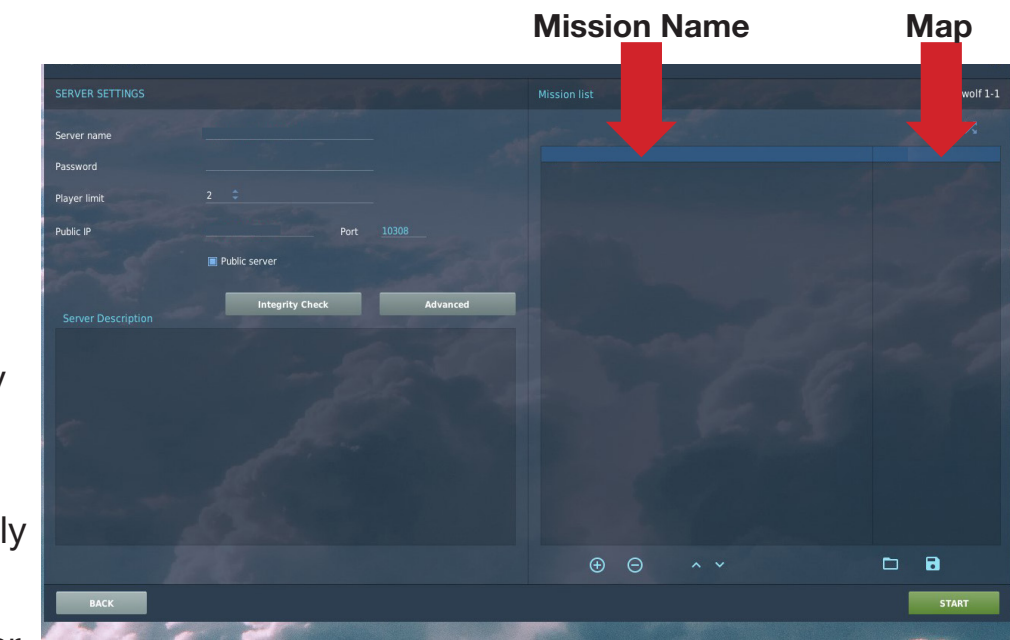
Troubleshooting

If no one can connect to the server created, check that Anti-virus software is not blocking **DCS**. Do not use a **VPN** if you are hosting.

Make sure all players are using the same version of **DCS** and have fully updated.

You can use a free tool at [CanYouSeeMe.org](https://canyuseeme.org) to check whether the ports above can be seen from outside the firewall.

For further information on setting up your own server, please check out this [website](#).

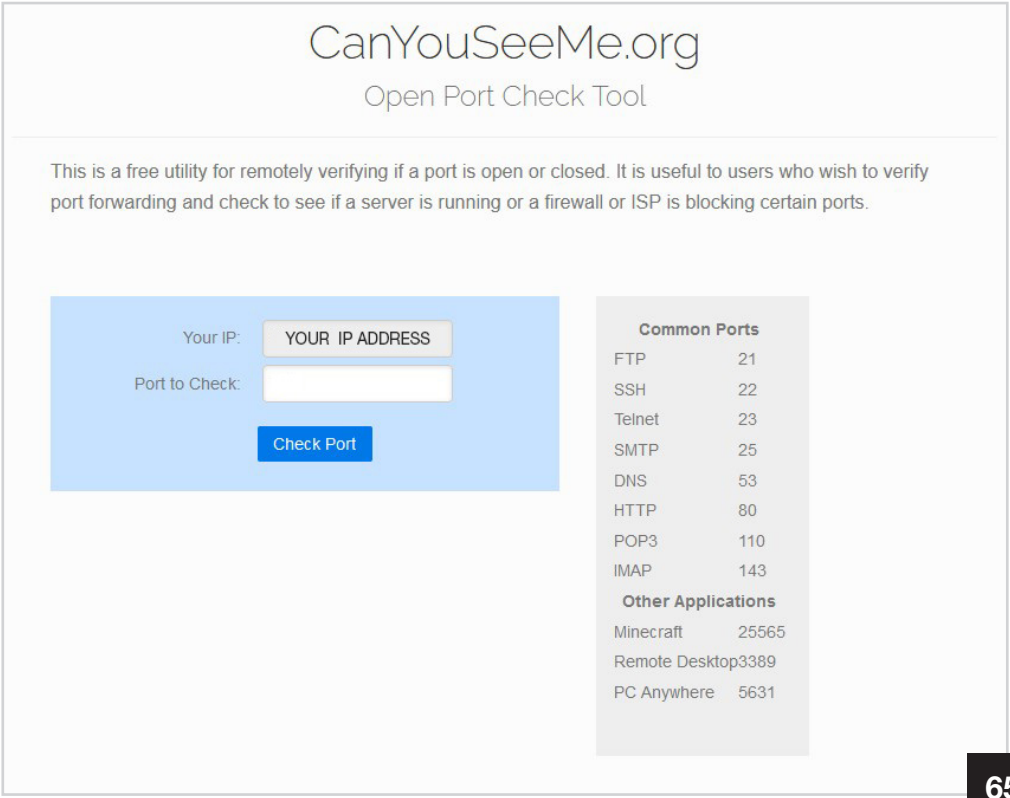


PLAY IN YOUR OWN SERVER

It is possible to play in your own server and have others join it, however your internet connection and ping will factor into the quality of the experience.

ZEROTIER

Zerotier is a program that allows you to create secure networks between anyone anywhere in the world. This program can be used in concert with **DCS**. Zerotier is free for 1 admin but for more, there is a monthly fee.



PEOPLE UNABLE TO CONNECT?

In my experience, if people are unable to connect to your server, the likely culprit is your firewall, whether that is in your internet router or Windows Firewall.

POPULAR SERVERS

Georgia At War (GAW)

A dynamic **PVE** mission that pits players against a custom-scripted AI Redfor Commander who will direct enemy forces to stop your advances. The mission set in the Caucasus map also features real world weather that is set at every restart, as well as persistent state saving between sessions. Almost all jet aircraft and helicopters are available to play. This server is password protected. Please visit: <https://discord.gg/hoggit> to learn more.

Name: Hoggit - Georgia At War

Hoggit Training Server

This is a beginner friendly training server that offers a wide variety of both static and dynamically spawnable targets. This allows you to train at your current skill-level across every module that **DCS** has to offer. This training takes place in the Caucasus map. This server is password protected. Please visit: <https://discord.gg/hoggit> to learn more.

Name: Hoggit - Training Map

Blue Flash Cold War Server - Dynamic

Made by the same team that bought you the Enigma Cold War server. This is an early modern **PVP/PVE** scenario with both sides trying to complete various missions. Again all aircraft and weapons are limited but overall much more modern than the Cold War server. While the map can be utilized, all aircraft are hidden including allies and your own location. Also again no external views are possible. For navigation help, it is recommended to use the **Kneeboard** and marking your location on it. These can be utilized by finding the key press options in the control settings. **Discord** channel at <https://discord.gg/5kqzYknuBW>



ShadowReapers Dynamic Campaign

A new and unique **PVP/PVE** cold war scenario with aircraft prominent in the 80s. This server integrates AI bots and players, with lots of different mission types.



Buddyspike Blue Flag 80s Caucasus

A **PVP/PVE** cold war scenario with aircraft prominent in the 80s, including the A-10C2, AV-8B, F-16C and more.



4YA Training Servers

Training servers with multiple maps perfect for training.

LIMITED AIRCRAFT

Some aircraft have limited access on some servers. Check the server information before joining.



SRS IS REQUIRED

SRS is needed to login to some multiplayer servers. While some servers do not need SRS, it is a recommended program to use when playing **DCS** multiplayer.

MULTIPLAYER IS HARD

From personal experience, multiplayer especially PVP is difficult. I have been shot down by almost every enemy aircraft, helicopter and anti-air system. It takes a lot of time and practice to become competent. To have a better chance of survivor, join friends online, communicate with allies and keep your head on a swivel.

JOIN A SQUADRON

If you want to improve your skills in DCS, join a squadron. There are many online squadrons that accept any skill level. Squadrons often train pilots to become more competent and flying with a squadron will improve your survivability. There are resources online to search for Squadrons.

FOLLOW SERVER RULES

While almost all servers are beginner friendly, there are universal rules to follow: No team killing at all, no taking off on taxi ways, respect all members, no racism and limited profanity, usually no spam or outside promotion. Violating one of these rules can get you banned from the server. As long as you don't do the above, you can join a server regardless of your skill level. For a more beginner friendly server, try the Hoggit Training server. The server has almost every aircraft and various targets to practice. The perfect environment for beginners, where many players will often help if asked.



TROUBLE SHOOTING

The module you purchased is not there

Be sure that the latest version of DCS is installed. Load up DCS and click the Module manager icon. A new download box should appear for your module. If still not working, reach out to the DCS creators.

The DLC/Campaign you purchased doesn't work

Be sure you have all of the required modules including maps, as some campaigns require specific maps and other DLC items.

Mission/Campaign isn't working correctly

See above item but also check your settings. Sometimes having special items turned on (like easy comms, or immortality) can cause scripts to not work correctly. Review any documentation with the mission/campaign prior to starting.

I can't join a Multiplayer Server

Be sure you are running the latest version and it is up to date. In some instances, you might need the required map, DLC and/or module(s) to join.

DCS is lagging significantly

Dial back the video quality settings and retest. Also note, wake turbulence can cause system slow down especially with formation flying. Turn this off and see if that helps.

Still having problems?

Check out the support page for **DCS** [here](#). Also you can go to the **DCS** [forum](#) to find solutions and ask questions. DCS also has a [Discord](#).

FINAL WORDS

Finally I would like to thank again my patrons, whose support helped me to build this guide:

- | | | | | |
|-----------------|-------------------|---------------|-----------------------|--------------------------|
| • Shoadow | • PieMuncher | • D | • Archenuh | • Joe Walker |
| • Semisniper117 | • Derek Speare | • John Turner | • AgileNebula | • Aztaroth_the_berzerker |
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To the members of **Hoggit** and **DCSWorld** on **Reddit** and those on Facebook for their valuable feedback and input on this guide. Without their help, this guide would not be as complete and encompassing as it now is.

If you have any additions, feedback, any input on this guide and how to make it better. Please don't hesitate to reach out to me on my [Patreon Page](#) or contact me on Discord at Goldwolf (goldwolf7063).

Last but most importantly, have fun. **DCS** is amazing and the closest you can get to actually being a fighter pilot without going through the military.

I hope to see you in the sky, all the best Goldwolf!

GLOSSARY

AAA - Anti Air Artillery.

AWACs - Airborne Warning and Control System. An aircraft with a large radar on top.

BOGEY DOPE - A radio call out requesting the locations of enemy aircraft, usually sent to an AWACS or GCI.

BRAA - Means Bearing, Range, Altitude and Aspect. This information is given via radio from an AWACs or GCI.

BLUFOR - The term used to denote NATO and allies aircraft and systems. Countries such as the US, UK, Canada, France and others.

BREVITY - The term used for the radio language used for specific radio call outs.

BULLSEYE - a reference point somewhere usually near the target area that allies can use to understand where an enemy is without revealing any single friendly location.

BVR - Beyond visual range.

BUTTON BOX - A piece of hardware with multiple physical buttons, sometimes homemade, sometimes purchased.

CHAFF - An aircraft countermeasure made up of aluminum stripes. Used to defeat Radar.

CHUCK'S GUIDES - An invaluable guide and resource for almost every aircraft in DCS. These guides cover almost every aspect of a specific aircraft.

DCS - Digital Combat Simulator.

DEADZONE - An area in a joystick, throttle or another axis that tells the system to disregard input information when in the deadzone. Most sticks, for example, are not completely zeroed and this implements a zero.

EA - Early Access. In DCS, some modules are not fully feature complete and continue to receive updates. Once all features have been implemented, the module moves out of Early Access. Quite often, Early Access modules have a price discount.

ECM - Electronic Countermeasures. A system that uses various electronic methods to jam the enemy and in some instances missiles.

GAW - Georgia At War Hoggit server

GCI - Ground Controller Incept(ion). A ground based Radar system.

HEADTRACKING - A piece of hardware that physically tracks your head movements and correlates these movements to head movements in **DCS**.

HOGGIT - The Hoggit subreddit specific servers.

HOTAS - An acronym for **Hands On Throttle-And-Stick**. A two part piece of hardware that includes the joystick and the throttle.

HSI - Horizontal Situation Indicator. Found on the instruments in the cockpit of an aircraft.

IR - Infrared. Most commonly used in DCS to refer to an IR missile. A missile that tracks a targets heat signature rather than Radar.

KNEEBOARD - A handy document that can be displayed on screen when in an aircraft. The information can include maps, airfields and more.

LOW FIDELITY - An aircraft that has no clickable cockpit and simplified flight systems. These can be easier to fly but lack the depth of other modules and the actual aircraft.

MANPAD - Man Portable Air Defense Systems. A light weight anti-air missile carried by soldiers and some vehicles. These IR missiles have limited range.

MODULE - The term used in **DCS** to denote an aircraft or map.

MULTIROLE - An aircraft that can perform a wide range of missions due to the weapon systems available. These missions include both air to air and air to ground.

MWS - Missile Warning System. A system only on a few aircraft that warn you of a missile launch, including IR missiles.

NOTCHING - To fly perpendicular to an enemy missile to defeat its Radar system.

NTTR - The Nevada Test and Training Range map.

PGAW - Persian Gulf At War Hoggit server

PING - A number representing the quality of the internet connection to a server. The lower the number, the better the connection.

PODS - A piece of equipment carried by aircraft. Pods can include guns, targeting sensors, electronic counter measures, and more. Pod availability is dependent on the aircraft and the multiplayer server.

PVE - Player Versus Environment. A multiplayer server where you attack other aircraft being controlled by AI, not real people.

PVP - Player Versus Player. A multiplayer server where you attack other aircraft being controlled by real people.

RADAR - RAdio Detection And Ranging. A system that emits energy to detect other aircraft. Sent out either from an aircraft radar or from a ground radar.

REDFOR - The term used to denote Russian and allies. Countries such Russian, China and others.

RWR - Radar Warning Receiver.

SA - Situational Awareness. A general term that refers to a pilots awareness of whats around them.

SAM - Surface to Air Missile System.

SRS - Software that integrates into the DCS communications that allows easier communications with multiplayer servers.

STREAM DECK - A piece of hardware, like a button box, that is easily customizable.

STT - Single Target Track. a type of Radar tracking.

TRAINER - An aircraft used mainly for training pilots with various systems, some can be used in an offensive capacity.

TWS - Track While Scan. A more advanced type of Radar processing.

VPN - Virtual Private Network. VPNs encrypt internet traffic and disguise your online identity.

WARBIRD - Aircraft that were flown in World War 2.

WVR - Within visual range.