

CROSSFIRE

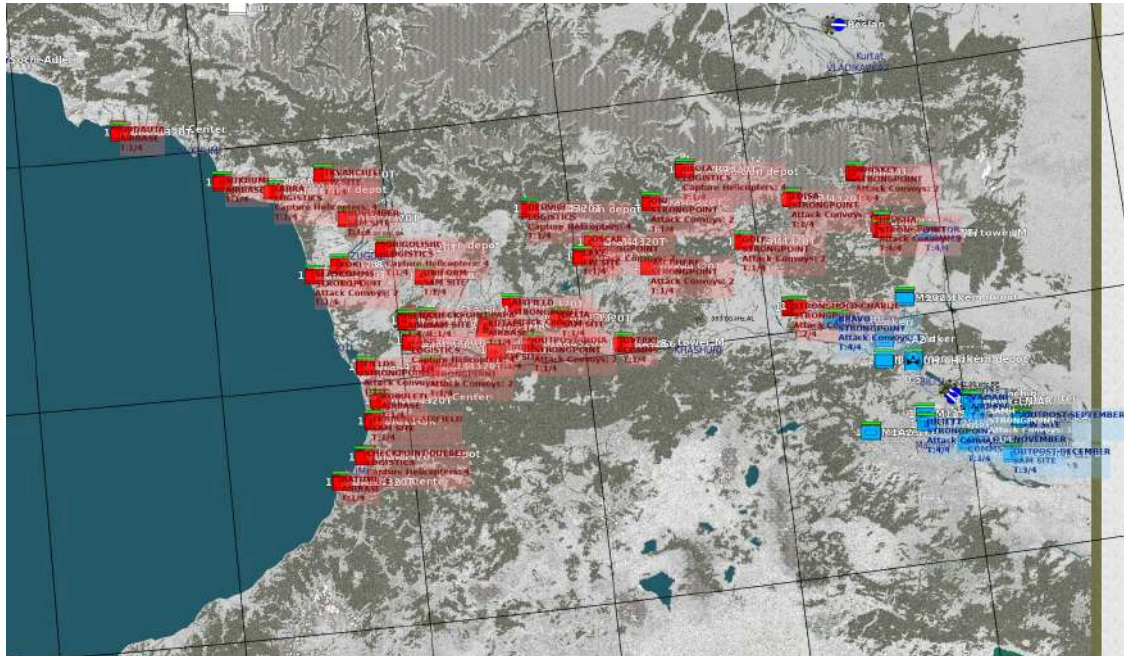
RADIANT

V4-R



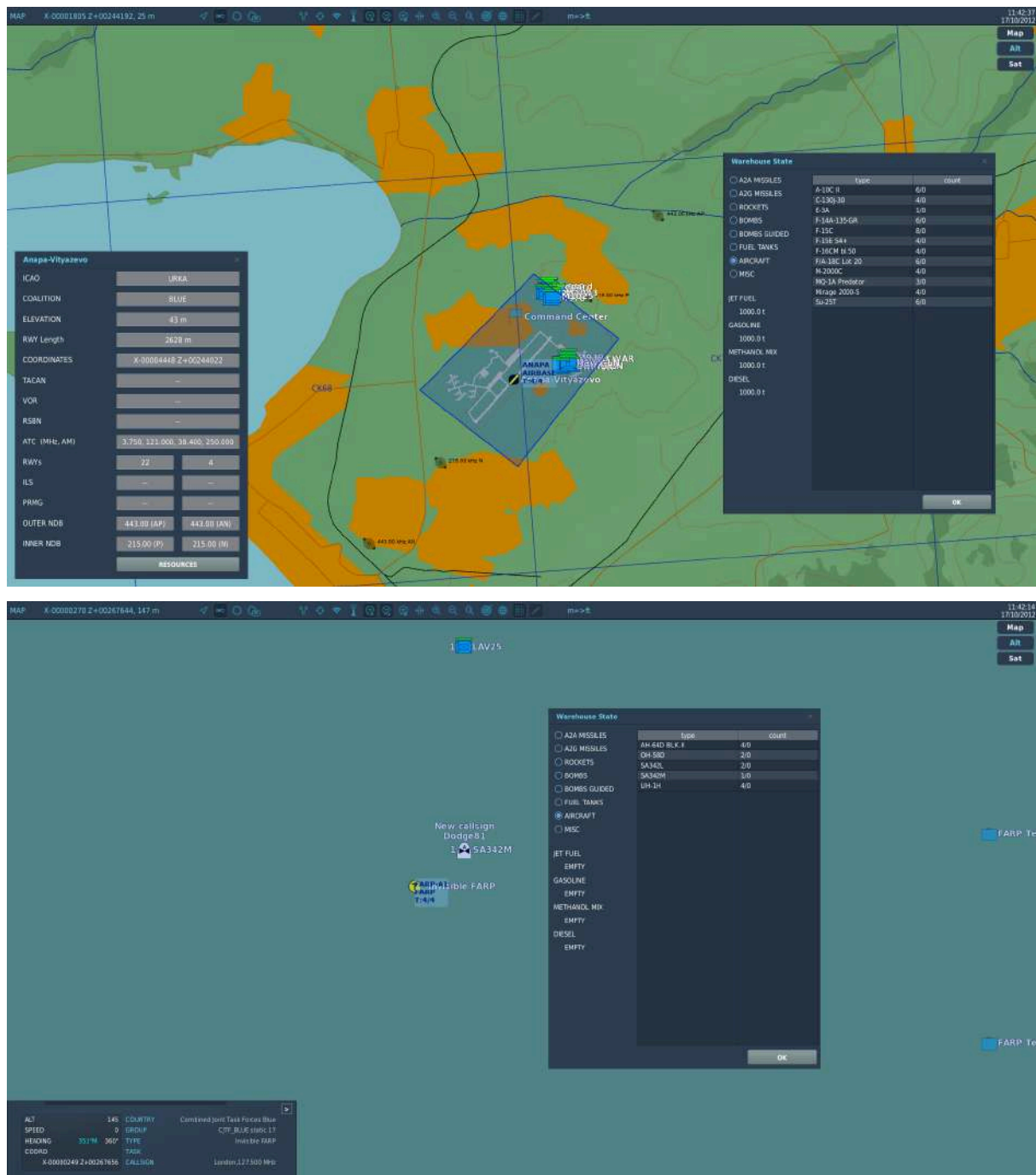
MISSION OBJECTIVE

Your objective, as a pilot, is the total neutralization of all **REDFOR** sectors. With a custom fog-of-war script, you will only be able to see areas and enemy units discovered by your coalition. Recon operations will guide you in finding undiscovered areas.



WAREHOUSE

Each coalition airbase and FARP has a warehouse that is accessible from the F10 map. Accessing the airbase warehouse is achieved by clicking on the airbase, and selecting the *Resources* option. For FARPs, click on the Invisible Farp unit placed on the map, it should be marked with a *T* and select the arrow in the bottom left corner



Each warehouse has limited aircraft and equipment. Fuel and liquids are not simulated.

Periodically, a C130J-30 is sent to a random coalition airbase to resupply aircraft or equipment.

Cargo resupply requests for specific equipment and aircraft categories are also available from the **F10/Logistics** menu.

Equipment and aircraft are obtained from: player resupply cargo requests, periodic resupply C-130J-30, and capturing a logistics zone.

User controlled C-130J-30 are able to transport equipment from different areas. Cargo crates are requested from **F10/CTLD/Load/**



EWRS



The EWRS (Early Warning Radar System) fuses data from all units with detection capabilities to create a coalition-wide database of active airborne threats. Even though this system is very reliable, low altitude flying and terrain can prevent detection.

EW areas each contain an EWR unit. Area-level upgrades will respawn the EWR unit if lost.



EWRS is enabled from the F10 menu under **F10/EWRS**

OPERATIONS

Initiated by players from **F10/Operations**, operations are priority-based. You may choose to use this system or not; keep in mind that completing operations rewards players with XP, which is used to request tasking.

CO-OP is available and provides bonuses compared to completing an operation solo.



Recon

Recon operations will provide approximate coordinates where enemy contact is expected. The goal of this operation is to overfly these coordinates for a limited time; if succeeded, the units in contact will appear for the coalition on the F10 map.

Airdrop

Assigned only to cargo aircraft, the goal of this operation is to airdrop CDS Crates inside a coalition area. Airdrop success will result in an area upgrade, especially interesting for airbases and strategic areas.

CAP

Combat Air Patrol, this operation will assign players a target area that they will have to patrol within a certain radius.

Progress is displayed to the player.

Intercept

This operation requires the player to destroy a number of aircraft or helicopters.

CAS

Close Air Support; this operation will assign players a target area in which all units within should be destroyed, including structures if present.

DEAD

Destruction of Enemy Air Defenses; this operation will assign players a target area in which all units within a SAM site should be destroyed. This operation is similar to CAS but due to the high stakes associated with it, more XP and tokens are attributed to players who complete this operation.

SEAD

Suppression of Enemy Air Defense; players are assigned a target SAM site in which: search radars, track radars and IR SAM launchers should all be destroyed.

CSAR

Combat Search And Rescue operations are initiated for downed pilots, utilizing rotary aircraft to fly to and recover the pilot.

COMMS ANTENNAS

Situated within COMMS areas, they allow or prevent certain AI missions from being sent (tasked).



They are a key asset for both coalitions, as losing all of them will cease tasking.

Lost COMMS Antennas are brought back up after some time.

LOGISTICS

Logistics areas are made up of ammunition depots and support units; upon capture, equipment is transferred into the coalition's airbases.



Ammo depots are also responsible for producing [supplies](#) for the coalition, [supplies](#) production is multiplied by the number of ammo depots the coalition controls.

[supplies](#) are stored inside command centers, situated within Airbases. [supplies](#) are divided equally into each command center. Loss of all command centers will prevent the use of all [supplies](#) entirely.

Capture helicopters are stored in logistics areas, and when a zone is neutralized, the coalition will attempt to capture it by sending a helicopter from the closest logistics zone.

Capture helicopters have a limited range. Users can task capture helicopters that ignore range limits using tokens.

Losing all logistics posts will cease future helicopter capture tasks, and halt [supplies](#) production.

STRONGPOINTS

A well-defended area and commonly found throughout the theatre. Strongpoints have the ability to send attack convoys if an enemy area is nearby.



SAM SITES

Ranging from medium to long range, SAM (Surface to Air Missiles) should be a high cause of concern when approaching the frontline.



XP AND RANKS

| Action | XP Reward |
|-----------------|-----------|
| Infantry Kill | 5 XP |
| Vehicle Kill | 15 XP |
| SAM/AD Kill | 50 XP |
| Helicopter Kill | 75 XP |
| Aircraft Kill | 100 XP |

| | |
|-------------------------|--------|
| Ship Sunk | 300 XP |
| Intel Report | 50 XP |
| Mission Complete | 500 XP |

Claiming XP and Tokens is achieved by landing at a coalition airbase (and not crashing).

CO-OP bonus is set to **+25% XP**.

Almost all AI support flights (CAS, SEAD, CAP, Strike) physically spawn and take off from the nearest Airbase zone that has the required assets in stock.

FARPS



Rotary-wing support and forward staging.

FARPs allow helicopter pilots to spawn closer to the frontline, provided the FARP warehouse has stock.

FARPs do not receive supply drops like Airbases. They must be manually resupplied by players or via a specific **FARP Resupply** command using supplies within the **F10/Logistics** radio menu.

Capturing an enemy FARP requires all units and structures within to be destroyed.

Custom CTLD

Crossfire uses a custom variation of Cribob's CTLD script.

CTLD (Complete Troops and Logistics Deployment) is a system that allows helicopters and specific cargo aircraft (C130J-30) to build SAM sites, deploy troops and vehicles using a crate system.

The C130J-30 can load and unload cargo, therefore loading and unloading will be achieved using physical crates.

F10/CTLD/Load

Load will either load the part directly into your aircraft, or it will appear as a crate near your aircraft. Each part loaded consumes coalition [supplies](#)

F10/CTLD/Unload

Unload will physically place the last loaded crate in front of the user as a packed crate.

F10/CTLD/Unpack

Unpack will transform the packed crates nearby into units or statics. Certain parts require multiple crates (Heavy Vehicles), others require a collection of specific parts to unpack (SAMs).

F10/CTLD/Unit Attack

Unit Attack will task the nearest unit to attack the nearest enemy area.

F10/CTLD/Load Nearby Crate

Load Nearby Crate will load the nearby crate into the aircraft if capable

PERFORMANCE OPTIMIZATIONS

Areas that are far from the front line are scaled down (lower tier) to just a few units in order to prevent lag and reduced performance. SAM sites however, are not scaled down.

The mission itself also handles spawning and AI logic using scripting.
Note that waypoints are not inserted into each aircraft.

This makes most areas far from the frontline vulnerable - strategic deep strikes can seriously cripple the enemy...

JTAC

As part of tasking requests, players can request JTACs to already discovered enemy areas. They excel in locating nearby units and displaying them on the F10 map.

Players can ask the JTAC to laze a specific category of units: priority targets.

JTACs are tasked using the **F10/Request Tasking** menu, no rank is required but a handful of **supplies** are.

CARRIER

Certain scenarios allow Carrier spawn for carrier-able aircraft such as the F14 and FA18.

JUPITER

Intended for development only, this could also serve users who desire more control over the mission or even resolve issues directly within the mission.

Usage: Place a marker on the F10 map and type the command into the text box.

Management Commands

- **-save**: Force a manual persistence save immediately.
- **-clearctldassets**: Clears all cached units, prevents CTLD unit persistence.
- **-dispatch**: Force the AI commander to evaluate and launch tasks immediately.
- **-sendresupply**: Forces a resupply flight for both coalitions.
- **-addsuppliesblue [amount]**: Adds supplies for the blue coalition, works also for red.

Zone Manipulation

- **-levelup**: Increases the tier of the zone nearest to the marker.
- **-setlevel [1-4]**: Sets the nearest zone to a specific tier.
- **-capture [blue|red]**: Force captures the nearest zone for the specified side.
- **-discover**: Reveals zones within 10km of marker.
- **-discover all**: Reveals **all** zones on the map.

Asset Spawning & Tasking

- **-sendcas [blue|red]**: Spawns a CAS flight targeting the nearest zone.
- **-sendstrike [blue|red]**: Spawns a Strike flight.
- **-sendsead**: Spawns a Blue SEAD flight.

- `-sendintercept`: Spawns a Blue Intercept flight.
- `-sendjtac`: Spawns a JTAC drone over the nearest zone.

Player Management

- `-addxp [amount]`: Gives XP to all players within 500m of the marker.
- `-addtokens [amount]`: Gives Tokens to all players within 500m.

FX & Utility

- `-smoke [color]`: Spawns colored smoke (red, green, white, orange, blue).
- `-flare [color]`: Fires a signal flare.
- `-destroy [radius]`: Destroys all units within X meters (default 5000).
- `-explosion [power]`: Creates an explosion of specified power (default 100).

EXTRAS

UPCOMING FEATURES AND IMPROVEMENTS

- A couple more scenarios for the Caucasus map
- Improved warehouse equipment
- Crossfire: Syria
- Naval units integration
- Cold War equivalent
- Realistic weather

In-depth dev logs in [Crossfire Discord Server](#).

TECHNICAL NOTES

EDITING CONFIG

Crossfire's `config.lua` is currently embedded in the compiled script. A specific Discord Application (bot) is in the works to provide a hassle-free config.

Crossfire uses two files that define how the mission behaves and how the theatre is set up: `config.lua` and `scenarios.lua`

For performance considerations, these files are compiled into one script. Below are the steps to configure your mission nonetheless.

1. Unzip the crossfire `.miz` file using WinRAR or similar
2. Enter the `I10n` folder, then `DEFAULT`
3. Locate `crossfire_script.lua`
4. Edit the file as you like (edit a copy of the file outside of the mission folder)

5. Save the file
6. Enter the DCS Mission Editor
7. Open the crossfire .miz file, go into triggers (a menu with three very large columns)
8. First row, left column, find the second action in the third column, which is a **DO FILE**, and click **OPEN**
9. Select your edited file by double-clicking it
10. Save the mission and move dirt
11. Note that you will have to repeat steps 8-10 each time you edit the file.

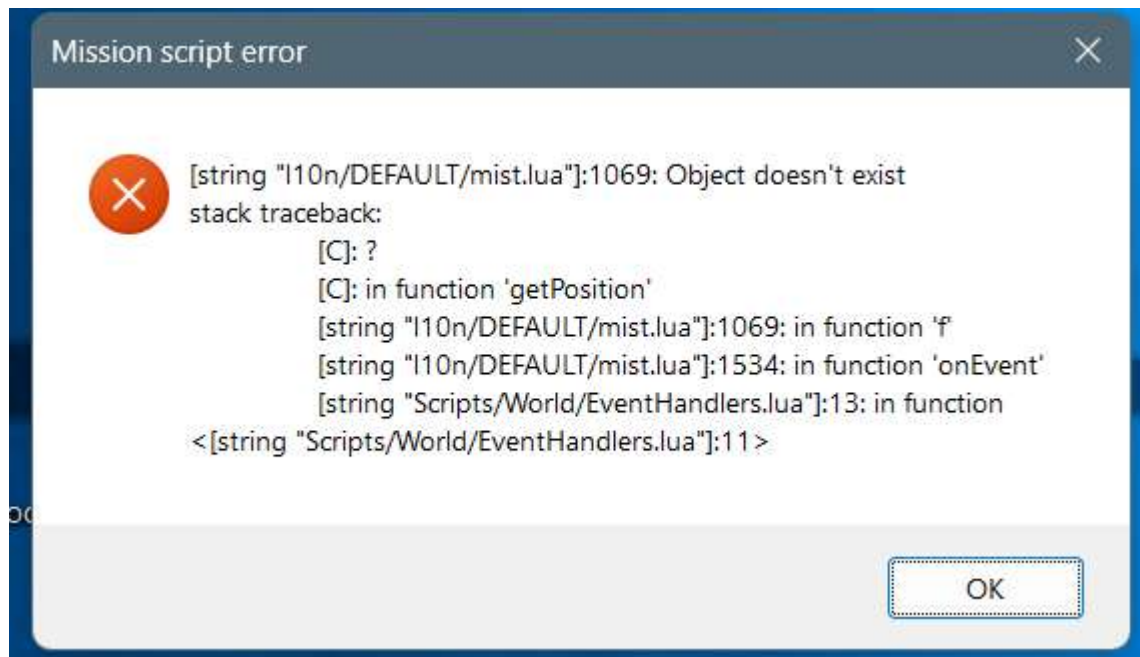
```
102  --**CONFIG**--
103
104  --[[
105      DCS CROSSFIRE MISSION CONFIG FILE
106
107      This file allows you to edit how the mission responds, how AI behaved depending on multiple variables.
108
109
110      do not remove the commas at the end of each line
111      Refer to documentation for details on each setting
112
113  ]]
114
115
116  Config = {
117      persistence = {
118          enable = true, -- enables or not persistence, has authority over everything below in this section
119          save_interval = 5*51, -- (seconds) interval at which the mission state is saved
120          save_dir = "Missions/Saves/Crossfire/", -- this is your saves directory in Saved Games
121          save_file = "mission.json", -- this is the name of the mission file
122          user_data_file = "user_data.json", -- this is the name of user data only file; note that this only records user xp, tokens and rank
123
124
125          random_scenario_selection = false, -- allows the script to randomly choose a random scenario, authority over scenario selection
126          scenario_selected = "Georgia Liberation", -- subject to the field above, choose your own scenario
127      },
128      operations = {
129          recon_minimum_altitude = 1524, -- (meters)
130          recon_duration = 120, -- (seconds)
```

Concerning scenario edits, make sure that zone names and trigger names are the exact same. You can use the scenario examples in the code.

BUG REPORTS AND CONTACT

Crossfire is currently in an early stage of development. Under development since November 2024, the project currently encompasses 14,000 lines of code and has undergone rigorous testing of every feature. However, not all potential edge cases users may encounter can be anticipated. Reliance on user feedback and suggestions is therefore essential for the continuous improvement of this mission.

If you come across an error like the one below, do not hesitate to report in the [Crossfire Discord Server](#)



PERSISTENCE

Save Location

Mission data is saved to: `Saved Games\DCS\Missions\Saves\Crossfire\`

- `mission.json`: World state (zones, units).
- `user_data.json`: Player stats (XP, Ranks, Tokens).

Enabling persistence

Crossfire uses Lua scripting to save mission-specific data such as zones, users, and scenario data. This is not yet possible using DCS' "Save Mission" feature.

Crossfire requires you to de-sanitize 'io' and 'lfs', which allows the script to write, create, and read files.

Please be aware that this removes a security feature. Proceed at your own risk.

Enabling persistence requires you to find your DCS World folder (not in Saved Games), go to the Scripts folder and `MissionScripting.lua`, from there add two dashes (to comment code) in front of `sanitizeModule('io')` and `sanitizeModule('lfs')`, the result should look like the following:

```

D: > DCS World > Scripts > MissionScripting.lua > ...
1  --Initialization script for the Mission lua Environment (SSE)
2
3  dofile('Scripts/ScriptingSystem.lua')
4
5  --Sanitize Mission Scripting environment
6  --This makes unavailable some unsecure functions.
7  --Mission downloaded from server to client may contain potential
8  --You can remove the code below and make available these functions
9
10 local function sanitizeModule(name)
11     _G[name] = nil
12     package.loaded[name] = nil
13 end
14
15 do
16     sanitizeModule('os')
17     -- sanitizeModule('io')
18     -- sanitizeModule('lfs')
19     _G['require'] = nil
20     _G['loadlib'] = nil
21     _G['package'] = nil
22 end
23

```

VERSION COMPATIBILITY

Version V4-R will remain compatible with future hotfixes and updates until stated otherwise.

As Crossfire is still in early development, new features are rolled out regularly. This means that older save files, when using persistence, will not always be compatible with newer versions. A clear sign of when this happens is when a mission scripting error appears on mission load.

Refer to the [Crossfire Discord Server](#) for additional help and guidance if this happens.