

AI Mortar Teams (Static) – User Guide

Script: Mortar_Deploy_AI_static_v2.9.lua

1. Overview

This script automates the insertion, combat behavior, rearm, logistics resupply, and extraction of three BLUE mortar teams in DCS, using the MOOSE framework. Each team uses its own logistics helicopter template (MTR_LOGI_1/2/3).

- Spawn mortar teams by placing map markers named MTR1, MTR2, or MTR3 at the desired LZs.
- Mortars deploy slightly offset from the landing heading, then go HOT after a short stabilization delay.
- Teams auto-engage nearby RED ground units; if a target is close, they use FireAtPoint, otherwise they receive an engage-zone task (combined arms)
- Local rearm pool per team (default 2). When pool hits 0, call a logistics helo to reset the pool at the LZ.
- Extraction helos recover the team, clean up ammo props, remove markers, and RTB (auto-despawn after landing).
- State is persisted to CSV. On mission start, deployed teams/heading/rearm counts are restored.

2. AI Helos

All deployments, extraction and resupply of the teams is via AI Helos. Where the script works nicely to deploy/extract and resupply, the AI helo's can sometimes be a bit weird in their behavior..! For the most part they do work extremely well, but can sometimes to the "AI dance" when coming into land or taking off – as in they will spin around and do a few circuits before landing..

3. Requirements

- DCS World (tested with current stable/OB builds).
- MOOSE framework loaded before this script (MOOSE.lua).

<https://github.com/FlightControl-Master/MOOSE/releases>

- Mission uses BLUE coalition for the mortar teams and logistics assets.
- Late-activated, properly named templates (see setup).

4. Files, Persistence, and Save Location

The script writes a simple CSV to persist team state between mission runs (slot, state, x, z, heading, and remaining rearms). Adjust the path to suit your machine if needed.

```
local SAVE_DIR = "C:/Users/<user_name>/Saved Games/DCS/Missions/Saves/"
local SAVE_FILE = SAVE_DIR .. "Mortar_AI_Teams.csv"
```

Change the <user_name> to your own directory

- On reloading a mission, deployed teams are respawned at their saved coordinates and heading, the read-only map marker is recreated (offset ~250 m to the team's right), and ammo watching resumes.
- If you want a clean slate, delete the CSV before starting the mission.

5. Mission Editor Setup

1. Add MOOSE: ensure MOOSE.lua is loaded BEFORE this script (via DO SCRIPT FILE).
2. Create/verify the following late-activated helicopter templates (BLUE, Uncontrolled):

INSERT_TEMPLATES: (These are the AI Helo's for deploying the team)

```
LZ1 -> "MTR_HELO_LZ1"
LZ2 -> "MTR_HELO_LZ2"
LZ3 -> "MTR_HELO_LZ3"
```

EXTRACT_TEMPLATES: (These are the AI Helo's for extracting the team)

```
LZ1 -> "MTR_REC_LZ1"
LZ2 -> "MTR_REC_LZ2"
LZ3 -> "MTR_REC_LZ3"
```

LOGISTICS (one per team): (These are the resupply helo's for the team)

```
LZ1 -> "MTR_LOGI_1"
LZ2 -> "MTR_LOGI_2"
LZ3 -> "MTR_LOGI_3"
```

Mortar tubes group template (ground group): (this is what is spawned for team)
"Mortar" (name must match TUBES_TEMPLATE)

3. Place an airbase named "Akrotiri" (or change AIRBASE_NAME in the script) to serve as the staging/RTB base for helos.

```
local AIRBASE_NAME = "Akrotiri"
```

4. Load the script with DO SCRIPT FILE after MOOSE. No additional triggers required.
5. Optionally adjust parameters (speeds, delays, radii) in the Config section to suit your mission scale.

6. Using It In Mission

6. Open the F10 map and place a map marker named MTR1, MTR2, or MTR3 at your desired LZ. The script accepts the marker when placed or edited.
7. An insertion helo for that team launches from the configured base, flies to the LZ, slows, and lands briefly.
8. When on the ground, mortar tubes spawn slightly behind the helo's heading. The helo RTBs and auto-despawns after landing.
9. The team initially holds fire for a short stabilization delay, then goes HOT. They will attack the nearest RED ground unit (FireAtPoint). If none in immediate range, they receive an engage-zone task.
10. Ammo props (static cargo) appear behind the team for immersion; these are removed on extraction.
11. To rearm locally: F10 – Rearm (local stock) Each rearm consumes 1 from the local pool (default 2). The local pool can be increased as required in the script.
12. If the pool is empty, dispatch the team's logistics helo to reset the pool at the LZ. After touch-down near the team, the pool is reset and the helo RTBs.
13. To extract a team, call the extraction helo. Blue smoke marks the LZ when the helo is within ~1 km. On boarding, the team despawns, props are cleared, the map marker is removed, and the helo RTBs/despawns.

7. Behavior & Logic Details

- Threat Scan: counts RED ground units within 5 km; information banner available via API (Threats).
- Targeting: nearest enemy within 6 km -> FireAtPoint (radius 30 m). Otherwise, EngageTargetsInZone around the team.
- Retasking: optional periodic retask (default every 60 s) to chase closer targets (RETASK_ENABLED/RETASK_INTERVAL_S).
- ROE & Alarm: Holds after spawn; switches to WEAPON_FREE when 'hot'. Alarm state RED vs AUTO controlled by KEEP_CREW_STANDING.
- Ammo Watch: per-team watcher detects transition from >0 to 0 shells; displays "Team X Req Reload".
- Persistence: CSV restores deployed teams with heading and remaining rearms; re-creates read-only marker offset to the team's right.

Key tunables (defaults):

_TIME_S=20, FIRE_RADIUS_M=30,
RECCE_RADIUS_M=5000, ENGAGE_ZONE_M=6000, REARMS_PER_POOL=2

8. Map Markers

- Place or edit a marker with the exact text: MTR1, MTR2, or MTR3.
- The script accepts the marker once and launches the matching team insert helo. This can be closed as the position is automatically remembered
- Once the team has been deployed, the map marker will remain close to the team and cannot be removed or deleted. It will automatically be deleted when the team is extracted.
- When restored from persistence, a read-only coalition marker “MTRx — Deployed” is created offset ~250 m to the team’s right.

9. Naming Checklist (must match)

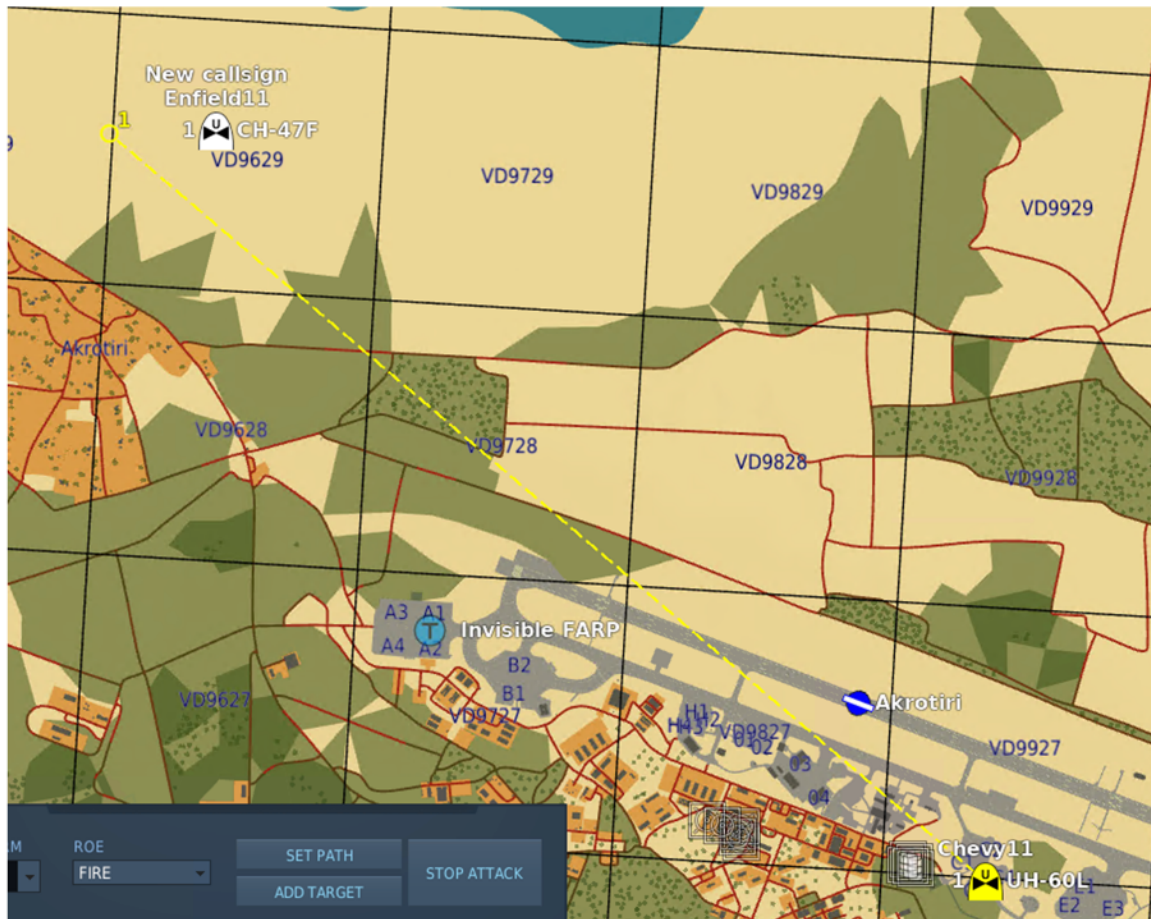
- Mortar tubes group template: "Mortar"
- Insert helos: "MTR_HELO_LZ1", "MTR_HELO_LZ2", "MTR_HELO_LZ3"
- Extract helos: "MTR_REC_LZ1", "MTR_REC_LZ2", "MTR_REC_LZ3"
- Logistics helos: "MTR_LOGI_1", "MTR_LOGI_2", "MTR_LOGI_3"
- Airbase name (staging/RTB): "Akrotiri" (or edit AIRBASE_NAME)

11. Troubleshooting

- Boot message shows “ERROR: MOOSE not detected”: Ensure MOOSE.lua is loaded before this script.
- No insert after placing MTR1/2/3: Check the template names match exactly and are late-activated & uncontrolled.
- Mortars not firing: They hold for stabilization first; ensure RED ground targets exist within engagement radius, or reduce ENGAGE_ZONE_M.
- No local rearm: Pool may be 0. Call logistics helo (per team) to reset the pool.
- Persistence didn’t restore: Verify the CSV path exists and is writable. Delete CSV to reset state.
- Helos not despawning after RTB: Ensure the base name matches and that they are actually landing (not hovering).

The following are a series of screenshots that show the flow to deploy, rearm, resupply and extract a team

The Mortar Team AI helo will be spawned at the airbase – It starts cold, so will take a short while to start and begin its transit to the marker location



The AI Helo will automatically get the direction to fly to the landing point



AI Mortar Deployment Helo enroute to the landing zone



After landing, the AI Mortar team will be deployed on the ground.

4. Main. Other. AI Mortar Teams Team 1 (MTR1)

F1. Status: Undeployed (Team 1)

F2. Rearm (Local Stock)

F3. Ammo Resupply

F4. Extract (recover)

F5. Abort Insertion

F6. Threats

F11. Previous Menu

F12. Exit

MTR LZ1: Rearming... 20s (after rearm: 1 left)

On selecting Rearm (local stock) the rearming process will start and display the onscreen message



Mortar Team 1 - Standby

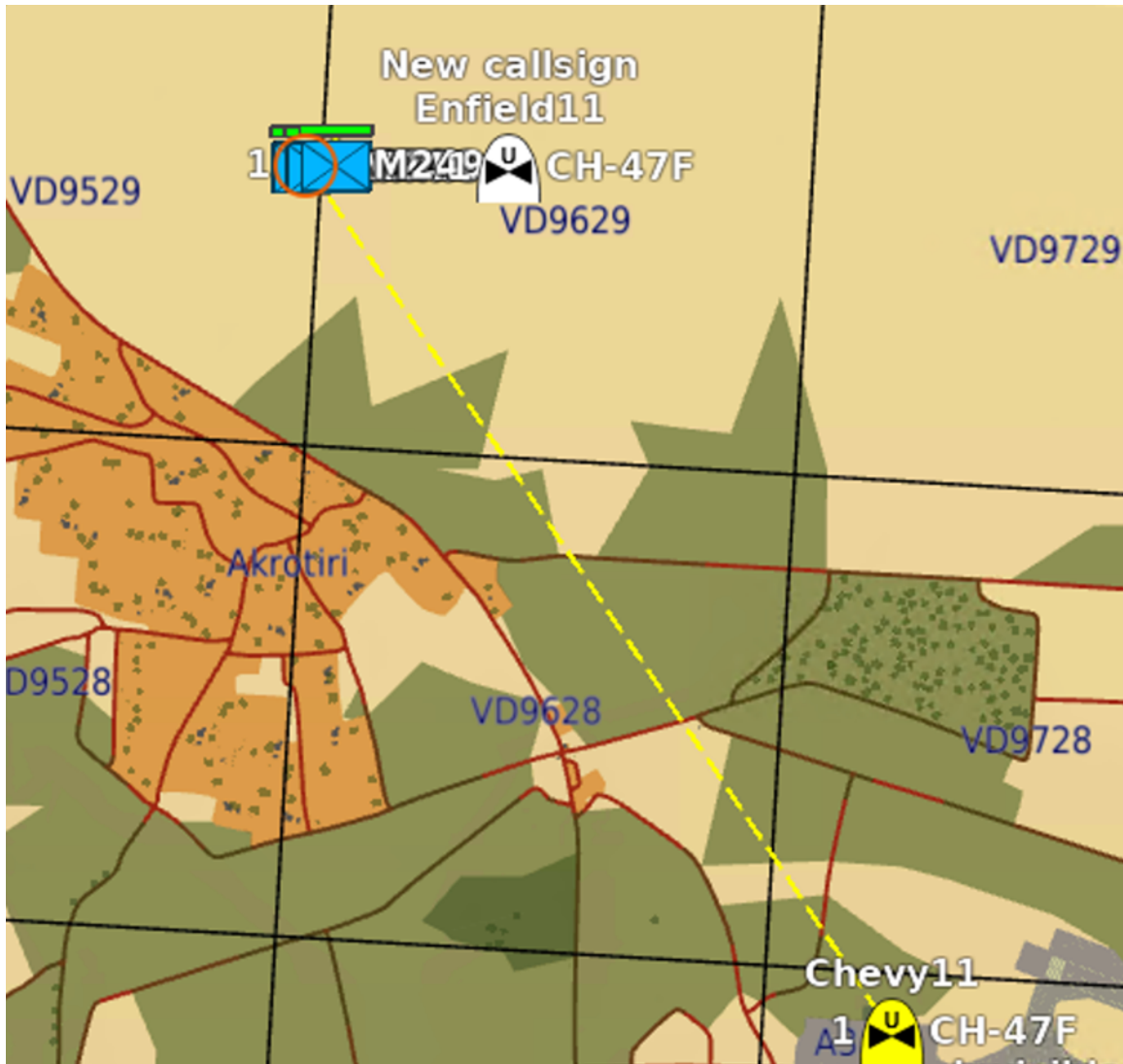
[illegible]

No local stock - Req Helo Resupply

With no local ammo stock available, you'll be requested to call the resupply helo

MTR LZ1: Logistics helo launched.

When selecting Resupply Helo via the F10, it will be acknowledged with the following message.
The resupply helo will be spawned at the airbase



Resupply AI Helo spawned and getting ready to deploy and resupply the AI Mortar Team



AI Resupply Helo enroute to AI Mortar Team



AI Resupply Helo will land close to the AI Mortar team. On touch down, it will inform you that the resupply has taken place the rearms reset to back to 2. The AI Resup helo, will take off and return to base.

MTR LZ1: Rearming... 20s (after rearm: 1 left)

After the resupply had taken place, use the F10 Rearm (local stock) to rearm the AI mortar team



The AI Mortar Team will automatically start to re-engage targets within range.

Mortar Team 1 Extraction Helo coming online

When you want to extract the team, you can do so via the F10 menu options. This will spawn the recovery helicopter from the local base and start its journey to extract the AI Mortar team



As the AI Extraction helo gets within 1km of the AI Mortar team, the mortar team will automatically deploy blue smoke to mark the LZ – this serves no purpose other than immersion!



With the team extracted, it can now be re-deployed again.

There are a few more options with the F10 AI Mortar Team menu.

- Field Status – Will tell you the status of the teams (undeployed/Deployed) and rearm state
- Abort Insertion – Will kill the process for the insertion
- Threats – Will list all targets available within a given radius of the team.
- Status – Currently work in progress. It will eventually change and give you team status