# GCI CAP User Guide

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## Contents

## Decisions to make:

- ***Which countries will be selected for each coalition?***
    - Which countries are assigned to a coalition influences which units are available to the coalition. For example because the mission calls for a EWR radar on the blue side the Ukraine might be chosen as a blue country so that the 55G6 EWR radar unit is available to blue. Some countries assign different tasking to aircraft, for example Germany assigns the CAP task to F-4E Phantoms but the USA does not. Therefore if F4s are wanted as a coalition's CAP or GCI aircraft Germany will need to be assigned to that coalition.
- ***Area of red and blue territories?***
    - According to the tactical and strategic design of the mission broadly decide the shape and extent of red and blue territories. They should be laid out such that a border area is created between the two coalitions.
- ***Is it a hot or cold war?***
    - A cold war is one where CAP aircraft patrol their territory but will not attack enemy aircraft or launch GCI aircraft unless enemy aircraft enter their territory. In other words the ground radar may detect an enemy aircraft but will only send aircraft to attack it if it crosses the border.
    - A hot war is one where CAP aircraft will intercept any detected enemy aircraft and GCI aircraft will launch against detected enemy aircraft without regard for territory. In other words if the ground radar can detect the enemy aircraft then it will send CAP and GCI aircraft to attack it.
    - If it's a cold war then the borders of red and blue territory need to be defined using late activation helicopter units (see Getting the script to work in a mission). **Set the noborders parameter to 0.**
    - If a hot war is chosen then no borders actually need to be defined using the helicopter units other than it makes it easier sometimes for the mission maker to envisage where the red and blue territories roughly are. In a hot war the borders are effectively defined by the ground based radar coverage of a coalition. **Set the noborders parameter to 1**
- ***Which airfields will be used by each coalition within their territory?***
    - Of a coalition's airfields which will be used by the script to launch CAP and GCI flights and which airfields will not be?
        - The airfields not used by the script might be used by other scripts or be exclusively human player bases if the mission designer chooses not to have players operate out of the same bases as the CAP and GCI flights.

- ***Will CAP & GCI aircraft logistics be used?***
    - If logistics is used. **Set the limitedlogistics parameter to 1**
    - If logistics is not used. **Set the limitedlogistics parameter to 0**
    - If logistics is used decide how many CAP and GCI aircraft will be assigned to each coalition in total. Ideally due to the way CAP and GCI flights are spawn the number of aircraft assigned should be a multiple of 4. **Set the bluegroupsupply and redgroupsupply to a number divisible by 4 of your choice.**
    - A coalition's pool of available aircraft is decreased each time a CAP or GCI aircraft spawns into the mission
    - A coalition's pool of available aircraft is increased each time a CAP or GCI aircraft lands or in the event one of the CAP or GCI aircraft spawns into the mission and gets stuck in a traffic jam on the taxi ways and is subsequently de-spawned to clear the jam
    - Planes lost to combat or other reason result in permanent reduction in a coalition's pool of aircraft and therefore once the pool is reduced to less than 1 no further CAP or GCI aircraft will spawn for that coalition.
    - If logistics is not used an infinite amount of CAP and GCI aircraft is available.
- ***Number, type and location of ground based radars?***
    - Currently only 55G6 EWR, 1L13 EWR, Hawk sr and Patriot str ground based radar units are enabled in the script. These radars have different ranges and 55G6 EWR and 1L13 EWR radars are Eastern Bloc units (eg Russia, Ukraine, Georgia) while the Hawk and Patriot radars are Western (eg US)
    - Position of these units is very important as they need to provide enough coverage to pick up enemy aircraft as they approach so that CAP and GCI flights can be tasked to intercept them. Additionally in a hot war situation where the border is no longer respected the placement of radars has a big effect on how fast the war escalates. For example if they are a long way forward and can detect enemy planes on the ground and taking off they will start to vector CAP and GCI flights to attack them straight away which will immediately draw a response from the other coalition. Having the radars further back will mean a slower escalation because fewer targets will be detected and therefore less CAP and GCI flights will spawn and this will tend to make just the border area active rather than a melee over the whole map. It all depends on what the desired effect is.

- ***How many CAP zones will be required and where will they be located?***

    - CAP zones are patrol areas where Combat Air Patrol (CAP) flights loiter until they either return to base due to low fuel or are assigned an interception task by ground control.

    - As the CAP flights wander around within the zone waiting to be tasked these zones need to be large enough that the aircraft are not constantly turning but do not have to be big and numerous enough to completely cover a border.

    - Typically 20000-50000 metres radius is used and they are spaced so that aircraft in the zone waiting for tasks don't have to far to travel to protect their coalitions important targets. These targets are chosen as part of the mission design and might be an important airfield or town etc. Zone size is also determined somewhat by territory size, plane types (eg WW2 aircraft might mean smaller zones or more zones because they are slower and take longer to intercept enemy aircraft)

    - In a cold war it is important to make sure a CAP zone doesn't intrude into enemy territory as otherwise CAP flights will likely cross borders and spark a full scale conflict which will escalate rapidly.

    - CAP flights must travel to a CAP zone before they are "on station" and ready for tasking. Therefore if their airfield is in their CAP zone they are on station immediately. You might not do this though if having the airfield in the CAP zone allows it to be attacked easily so might position the CAP zone closer to the border and accept the period of time a CAP flight will be unavailable for tasking while they travel to their zone.

    - Typically if a CAP flight is tasked and therefore leave their zone empty while they go off and intercept their target another CAP flight will spawn to take their place.

    - Eventually a trigger zone will be created in the mission editor to define each zone and the number of zones for a coalition should match the number of trigger zones for the coalition's CAP zones (see Getting the script to work in a mission)

    - A different number of CAP zones can be assigned to red and blue. **Set the numberofredCAPzones and numberofblueCAPzones parameters to a number of your choice.**

- ***Number of CAP flights for each side?***

    - Again this depends on what the mission design is hoping to achieve but also this affects performance of the game. That is, if you have lots of CAP zones and CAP flights expect lower specification servers to not run the mission well.

    - A different number can be assigned to red and blue. **Set numberofredCAPgroups and numberofblueCAPgroups to a number of your choice. Note allowing large numbers of active CAP flights can adversely impact mission performance on low or medium specification hosts/servers.**

- ***How many aircraft in a CAP flight for each side?***

    - Choices are 2, 4 or randomized (either 2 or 4 aircraft) when the flight spawns **Set the CAPgroupsize parameter to "2", "4" or "randomized". Note that the quotes are required as the parameter is actually character not numeric. The default is "randomized"**

- ***What is the minimum and maximum altitude for CAP flights?***
    - A minimum and maximum altitude in metres is chosen by the designer and for each CAP flight waypoint generated a random altitude between these two values will be chosen for the aircraft to fly. The heights consider terrain at the waypoint location so the CAP flight altitude will be a random height between minimum and maximum plus the land height at that point. This avoids flights impacting high terrain. **Set the cap_min_alt and cap_max_alt parameters to numbers of your choice, cap_min_alt should be less than or equal to cap_max_alt. The default is 4500 and 7500**

- ***How many aircraft in a GCI flight for each side?***

    - Choices are 2, 4, randomized, dynamic. Randomized is between 1 and 4 aircraft chosen at the time the flight spawns. Dynamic is the number of planes is chosen at time of the flight spawning to match the number of planes in the enemy flight being intercepted. **Set the GCIgroupsize parameter to "2","4","randomized" or "dynamic". Note that the quotes are required as the parameter is character not numeric. The default is "randomized"**

- ***Number of spawned and active GCI interceptor flights for each coalition?***

    - Essentially this controls how many flights of GCI aircraft can be active at any time (see notes about taskinginterval values later on)

    - A different number can be assigned to red and blue. **Set the numberofspawnedandactiveinterceptorsRED and numberofspawnedandactiveinterceptorsBLUE parameters to a number of your choice. Note allowing large numbers of active GCI flights can adversely impact mission performance on low or medium specification hosts/servers.**

- ***Country, type, load out, skill and skins for CAP and GCI aircraft?***
    - Note these can be from any countries within the coalition but must be an aircraft with one of the main tasks being “CAP”.
    - Obviously skins which are selected must be available to all players that join the mission otherwise they will see a default skin.
    - Load outs should be appropriate to a CAP mission eg perhaps drop tanks for CAP flights and extra missiles for GCI flights.
    - These decisions will eventually lead to template aircraft units being placed as late activation units that the script will use as templates for spawning CAP and GCI flights. Up to 4 different CAP aircraft configurations can be chosen for each coalition and up to 4 different GCI aircraft configurations can be chosen for each coalition. The spawned aircraft will inherit the characteristics of the template aircraft.
    - The selected aircraft type **must** be able to perform the **CAP** tasking for the chosen country.
- ***Display alert messages giving bearing range and altitude from the bullseye to enemy flights?***
    - The designer can choose to display these messages or not according to their needs. By default the messages are displayed
        - To display the messages **set the nomessages parameter to 0.**
        - To not display the messages **set the nomessages parameter to 1.**
- ***The length of time in seconds each alert message is displayed for?***
    - The designer can choose the length of time each message is displayed. Caution and play testing should be used if increasing the value above the default 3 seconds as higher values can result in players being irritated by too many messages filling their screen. Too low a value can result in the message not being around long enough to read making it pointless to display them at all **Set the dspmsgtime parameter to a number of seconds of your choice.**
- ***Which unit of measurement is used in the alert messages?***
    - Metric - **set the dspmsgunits parameter to 1**
    - Nautical miles for range and feet for altitude - **set the dspmsgunits parameter to 0.** (this is the default)

- ***How will CAP and GCI aircraft spawn?***
    - Choices being:
        - Parking – the aircraft spawn in engine off on the ramp and will start up and taxi out to take off. This is the default. **Set the Spawnmode parameter to "parking", note that the quotes are required.**
        - Take off – the aircraft spawn in on the runway ready to take off. **Set the Spawnmode parameter to "takeoff", note that the quotes are required.**
        - Air – the aircraft will spawn in the air low over their airfield. **Set the Spawnmode parameter to "air", note that the quotes are required.**
    - Note that DCS World differences between single player and multiplayer affects how these modes work in practice. This is to avoid having AI aircraft spawn into the same locations as player aircraft in multiplayer.
    - This is a global setting affecting both coalitions
- ***Will the very first CAP flights spawn in the air in their CAP zones?***
    - If the designer chooses "yes" to this option then the initial CAP flights will spawn in on station in their zones and subsequent flights will spawn according to the spawn mode chosen. **Set the startairborne parameter to 1**
    - If the designer chooses "no" to this option then all CAP flights spawn according to mode chosen. This is the default. **Set the startairborne parameter to 0**
- ***Will CAP and GCI aircraft always be hidden on the map?***
    - The mission designer can choose that the flights will spawn with the "hidden" attribute set on. This means regardless of the servers map options the units will not be displayed on the map. **Set the hideenemy parameter to true.**
    - Otherwise to let map options control visibility **Set the hideenemy parameter to false.** (this is the default)
- ***Will a coalition only use GCI flights?***
    - It is possible to decide that a coalition will only spawn GCI interceptors rather than the usual CAP and GCI flights. **Set either or both the noblueCAPs and noredCAPs parameters to 1 to turn off CAP flights. Set either or both the noblueCAPs and noredCAPs parameters to 0 to turn on CAP flights. CAP flights are on by default for both red and blue.**
    - This choice can be made individually for red and blue.

## Getting the script to work in a mission:

1. Work through the decisions section and using an editor like Notepad++ to edit the GCICAP script and set the parameters to the values needed to suit the mission being built. Do a “Save As” to leave you with a default version of the script and save the script somewhere easy to find.

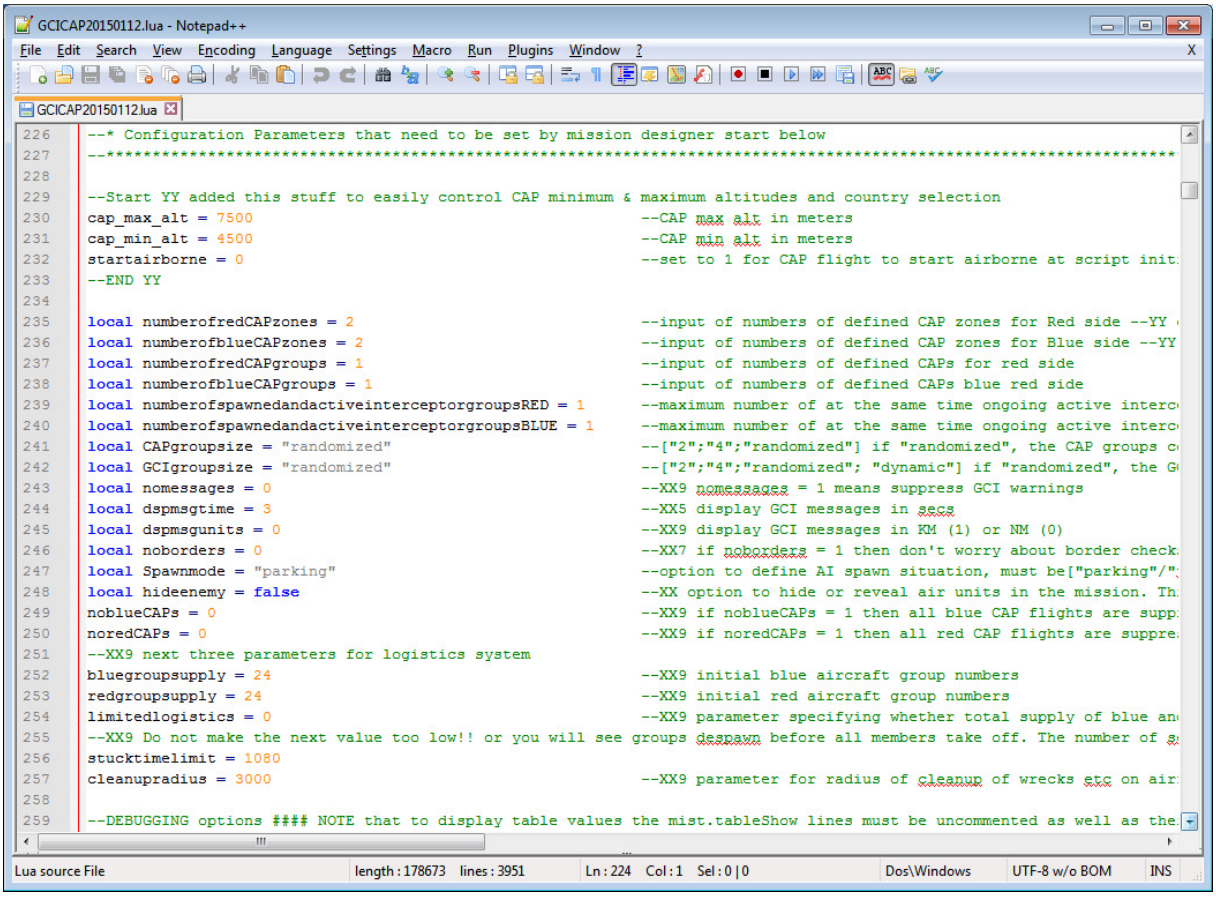


Figure 1 – Set up parameter values

2. Select the countries for each coalition in the mission editor

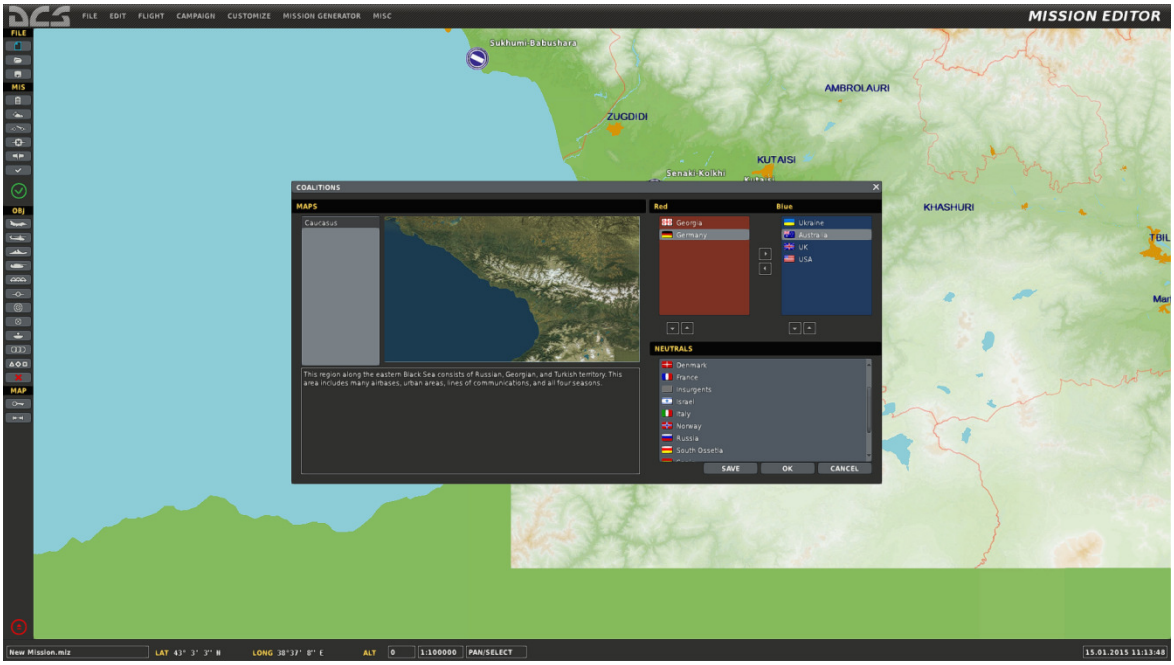


**Figure 2 – Choose countries for each coalition**

3. If borders are required or desired then:

   - Select a helicopter for a red country.
   - Add it to the map and then make it a late activation unit by ticking the late activation box. Because the trigger condition is never set up this helicopter unit will be part of the mission definition but never actually spawn.
   - From the starting point plot out a series of waypoints such that the flight path of the helicopter encompasses the red territory. Ensure that the last waypoint is over the unit marker so that it forms a closed “loop” – you may need to zoom right in to make this happen.
   - Name this unit ‘redborder’ without the quotes. If this is not done then the script will not interpret the unit’s flight path as the red border and the red territory will not be defined and a cold war scenario will not work correctly.
   - Repeat for a blue country but this time name the unit ‘blueborder’ without the quotes. If this is not done then the script will not interpret the unit’s flight path as the blue border and the blue territory will not be defined and a cold war scenario will not work correctly.

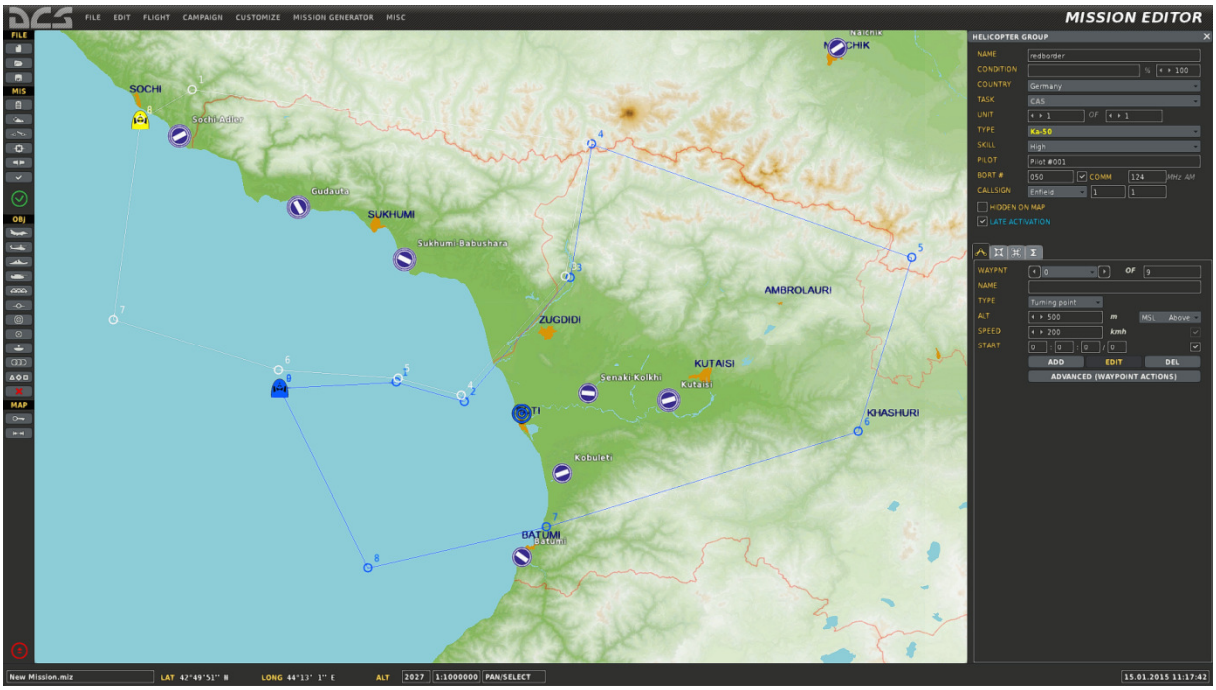


**Figure 3 – Make sure helicopter border unit is named correctly and late activation ticked.**

4. Set up the CAP Zones

   - Add trigger zones for the red side named “redCAPzone1”, “redCAPzone2” etc to match the number of CAP zones set up in the script parameter **numberofredCAPzones**

   - Add trigger zones for the blue side named “blueCAPzone1”, “blueCAPzone2” etc to match the number of CAP zones set up in the script parameter **numberofblueCAPzones**

   - Normally these are placed with a coalition’s territory and not so close to the border that the CAP aircraft detect the other side’s CAP aircraft by themselves.

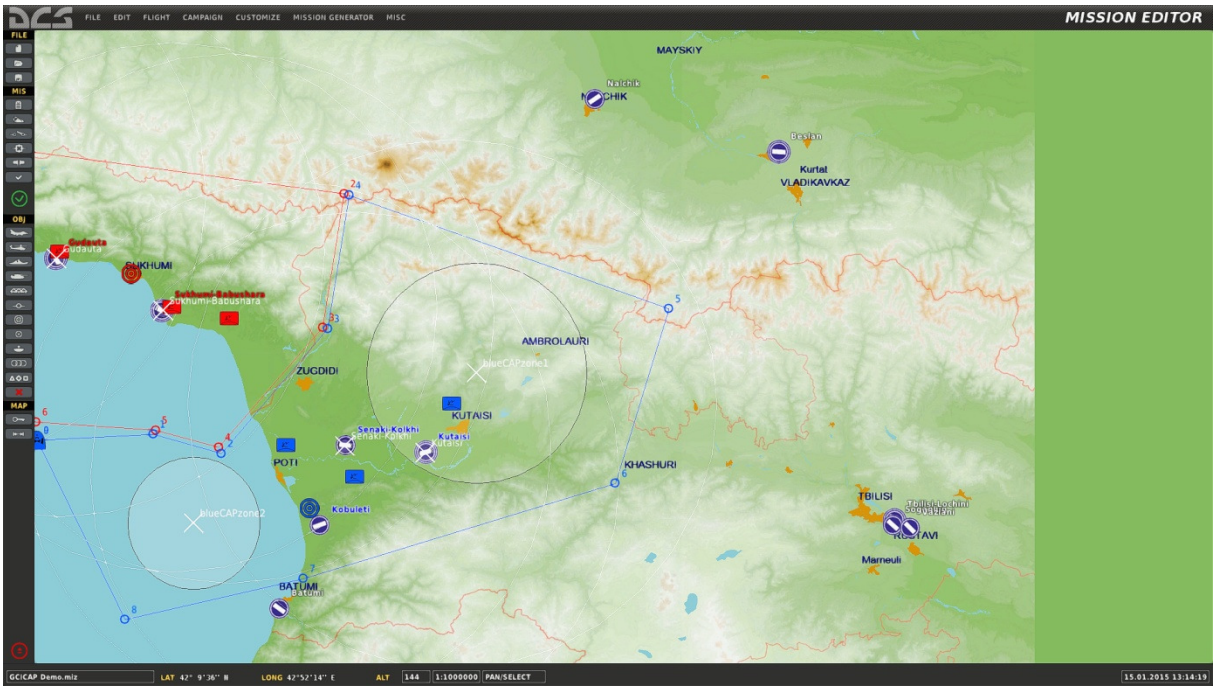


**Figure 4 - Add CAP zones for each coalition**

5. Set up the airbases:

    - For each base that will be used within a coalition's territory set the allegiance to red or blue as needed.

    - If the base will be used by the script as a place to generate CAP and GCI aircraft then place a trigger zone over the base such that the radius used creates a circle that just encapsulates the airbase (runways, taxiways, base buildings etc). Name the trigger zone ***exactly*** the same as the airbase's name in the editor. This includes upper case letters and hyphens etc.

    - If the base will only be used for player aircraft then setting the allegiance is all that is required.

    - Changing a base from player only to being one used by the script is as simple as adding or deleting the trigger zone. If the base is set back to being neutral then any associated trigger zone should be deleted.

    - Note that it is perfectly ok to have players and CAP/GCI aircraft spawned by the script use the same airbases. It is all up to what end result the mission designer wants. Obviously if you want the script to spawn CAP and GCI aircraft for the coalition at least one airbase must be set to the coalition's allegiance and a properly named trigger zone placed over the base.

    - You can select as many bases as you wish for a coalition but bases should be within their territory or zone of radar coverage (depending on whether a cold or hot war was chosen). If you put a base outside the territory in a cold war scenario it will likely still work but it may cause the mission to play out strangely as friendly ground control radar will ignore enemy aircraft near the base and likewise in a hot war scenario if the

base is outside friendly radar coverage then the ground control radar will not send interceptors to attack enemy aircraft near base.

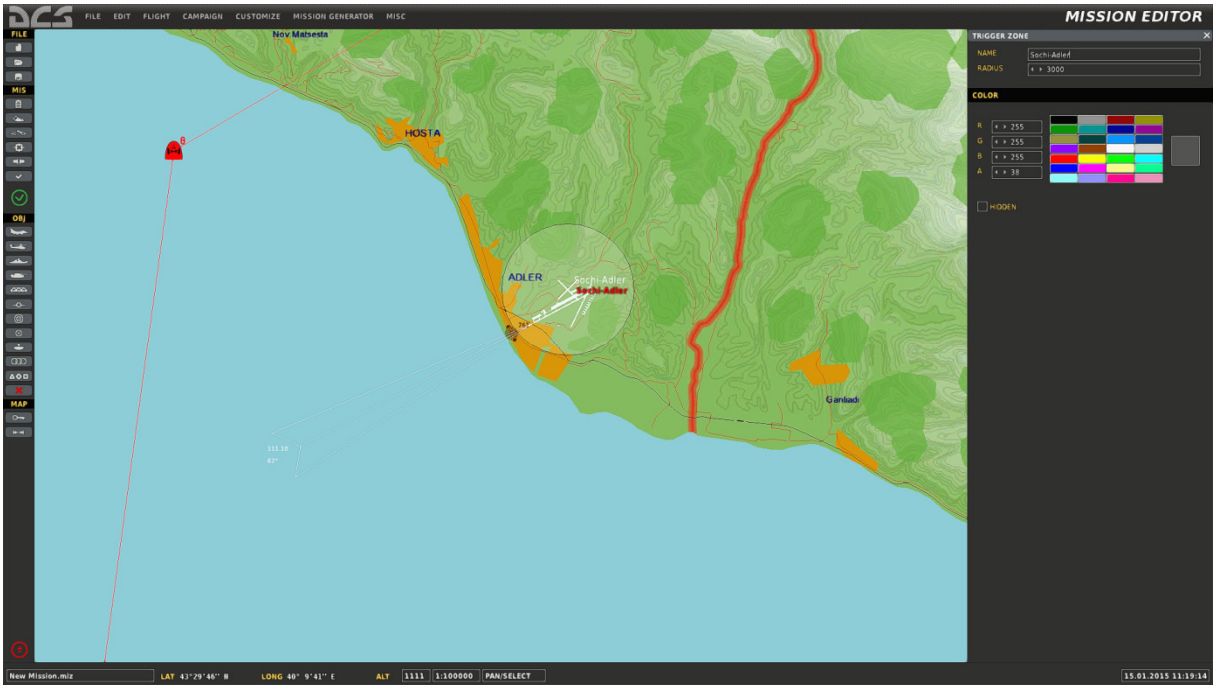


Figure 5 - Trigger zone named same as airbase

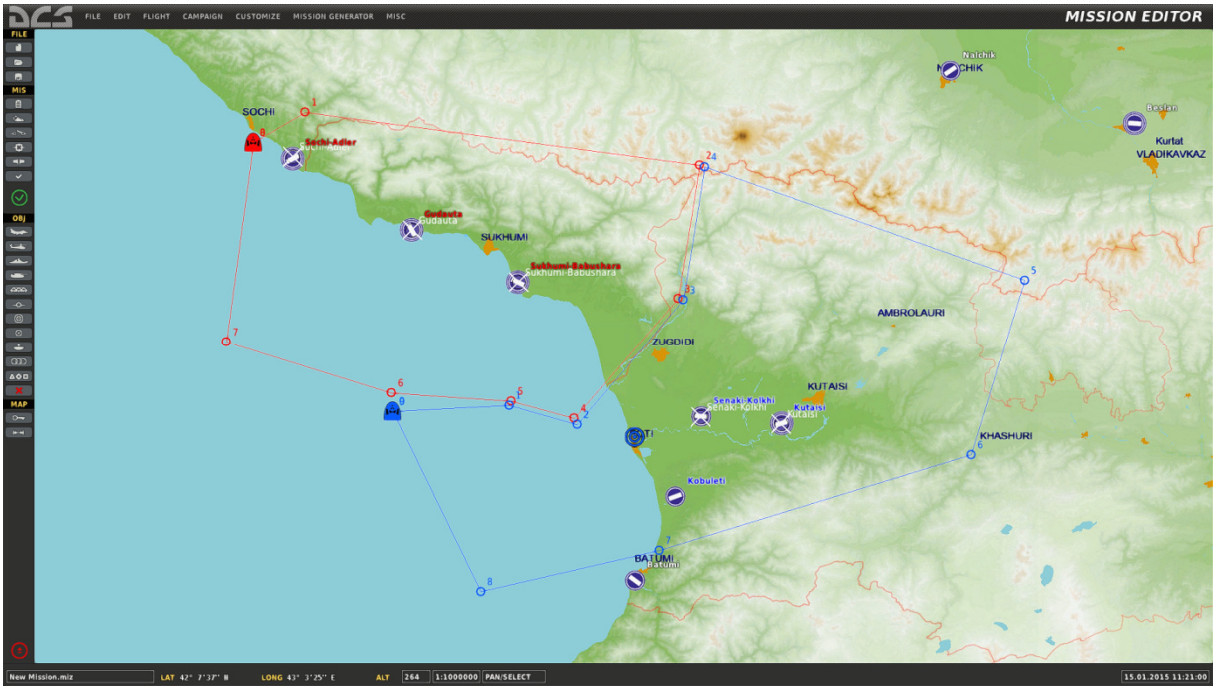


Figure 6 – Player only airfield at Kobuleti

6. Set up the ground control radars:

    - The available ground control radar units are 55G6 EWR, 1L13 EWR, Hawk sr and Patriot str. Each of these units has different detection ranges.

    - Choose and place the radar units according to the design of the mission. DCS World models terrain masking etc and therefore this should be considered when placing the radars. A suggestion is to name these units in a consistent fashion (eg redradar1, blueradar1 etc) as it is likely their position will need to be adjusted during testing of the mission and it will make life easier if they are easy to spot in the unit list in the mission editor.

    - Remember that these units are responsible for co-ordinating the launch and vectoring of CAP and GCI aircraft to intercept enemy aircraft once they are detected by ground radar units. Therefore these ground radar units will be high on the list of ground targets for human pilots as destroying one will create a hole in the enemy's defences just as in real life. If may be worth having multiple radars cover important areas or bases so there is redundancy as well as adding ground based air defences later in the process of building the mission after it has been confirmed that the GCI CAP script is working correctly.


Figure 7 - Add red and blue ground radar

7. Position the bullseye for each coalition

    - This is completely for the benefit of human pilots. The ground radar alert messages give the bearing, range and altitude of detected enemy flights relative to the bullseye, therefore it can help human pilots if the bullseye is positioned near their base or over an easy to find from the air terrain feature or town. That way it is less difficult for them to visual the location of the enemy from the alert message information.

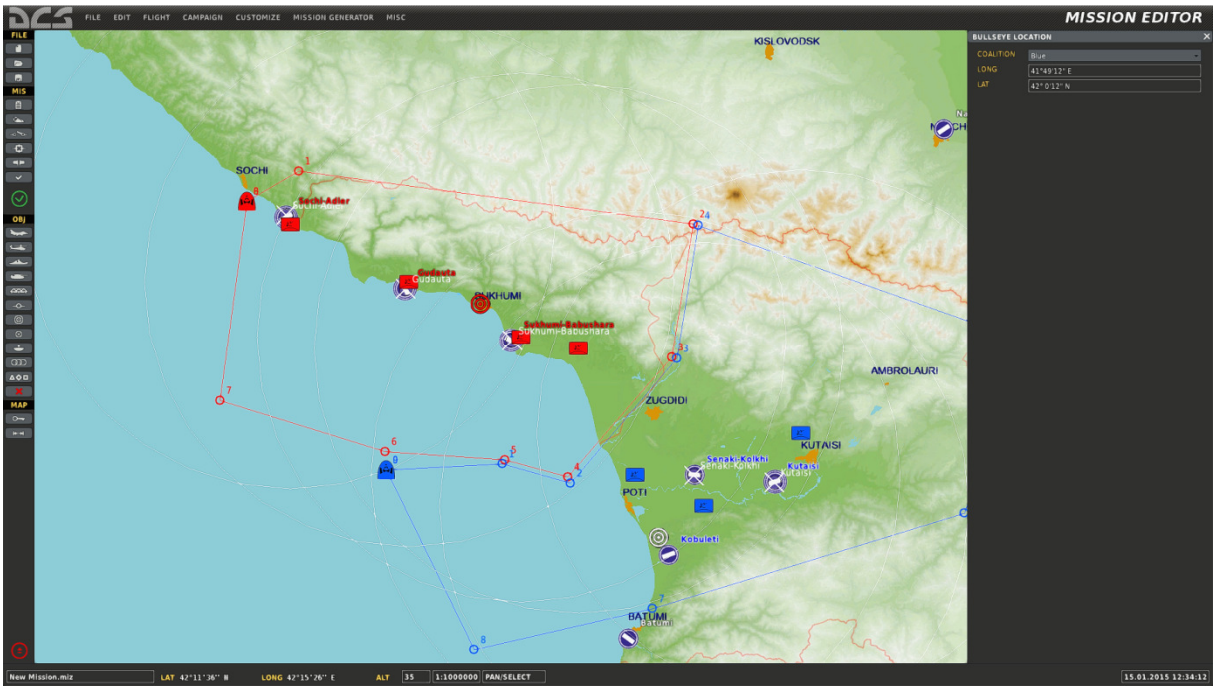


Figure 8 - Position the bullseye

8. Set up the CAP template aircraft

    - Select up to 4 different aircraft types (e.g. F-4E) for each coalition from those available to the coalition's countries.

    - These aircraft must have CAP as one of their main tasks in the mission editor. For example a B1 bomber will not have CAP as one of their main tasks but an F16 will. Some countries will allow a certain aircraft to perform the CAP task while other countries may not. For example, USA F-4E's cannot perform CAP but German ones can.

    - Place the chosen aircraft in the mission editor somewhere out of the way on the map. You must place 4 aircraft units. They can be all the same type or a mix of up to 4 different types. They can be from different countries as long as they come from the same coalition.

- For each aircraft placed tick the late activation box so they become late activation aircraft. These aircraft will be part of the mission definition but will never actually spawn but instead will be used as templates to create CAP aircraft for the coalition.

- For each aircraft placed change the group name (at the top of the unit information box in the editor) to be something easy to find in the unit lists (eg. CAP_Blue1)

- For each aircraft placed change the pilot name (shown as the unit name in the editor) to be exactly like the format __CAP__blue1, __CAP__blue2, __CAP__blue3, __CAP__blue4 for the blue coalition and __CAP__red1, __CAP__red2, __CAP__red3, __CAP__red4 for the red coalition. You need to end up with 4 red aircraft and 4 blue aircraft placed on the map, all late activation, and the pilot name must be set as above for the script to work. That is the first blue aircraft with pilot name __CAP__blue1, 2nd blue aircraft with pilot name __CAP__blue2 etc until the 8 aircraft are marked as late activation and correct pilot names.

- For each aircraft choose the unit skill. This must be one of the AI skill levels not Player or Client.

- For each aircraft choose the skin. You can have a different skin on each CAP aircraft for the coalition or the same or a mix.

- For each aircraft choose the load out. You must give the aircraft internal fuel otherwise the CAP flight will spawn and either not take off or will crash. Remember the load out should be appropriate for CAP missions. That is, internal gun ammo, A-A missiles, drop tanks etc. Don't load them up with bombs!

- **NOTE YOU MUST GET THE PILOT NAMES CORRECT FOR THE SCRIPT TO WORK AND MAKE SURE THERE ARE NO LEADING OR TRAILING SPACES (A PROBLEM WHICH IS VERY HARD TO FIND) IN THE NAME.**

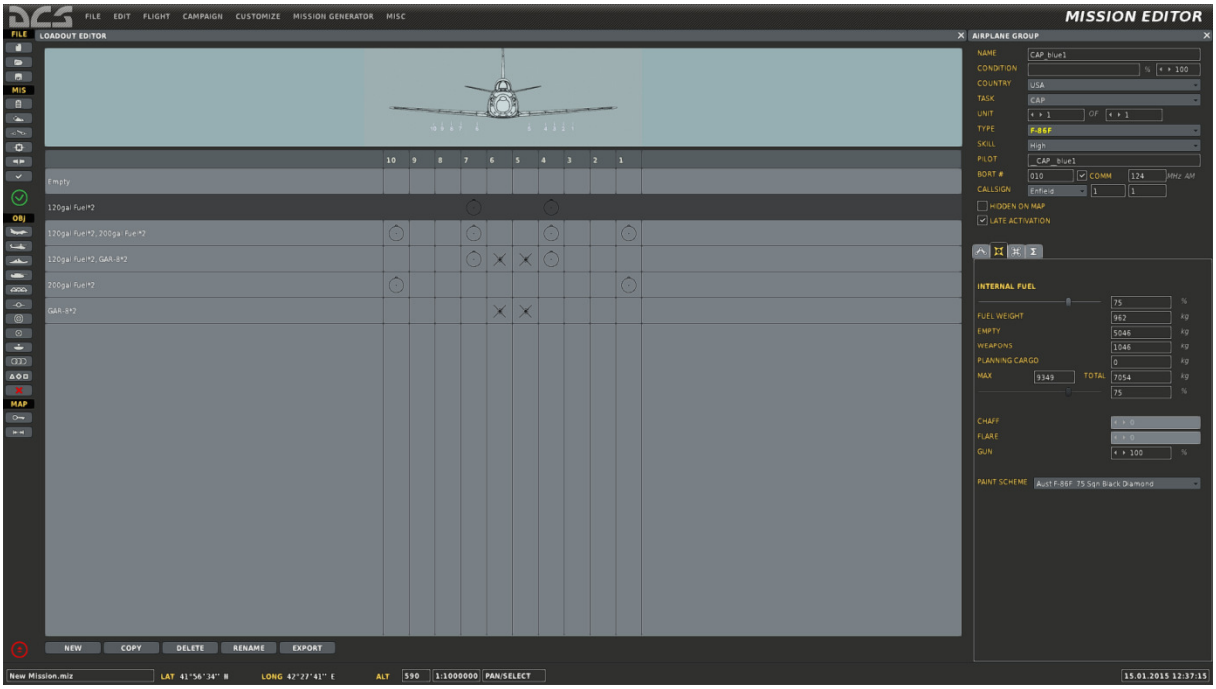


Figure 9 - Set up CAP aircraft

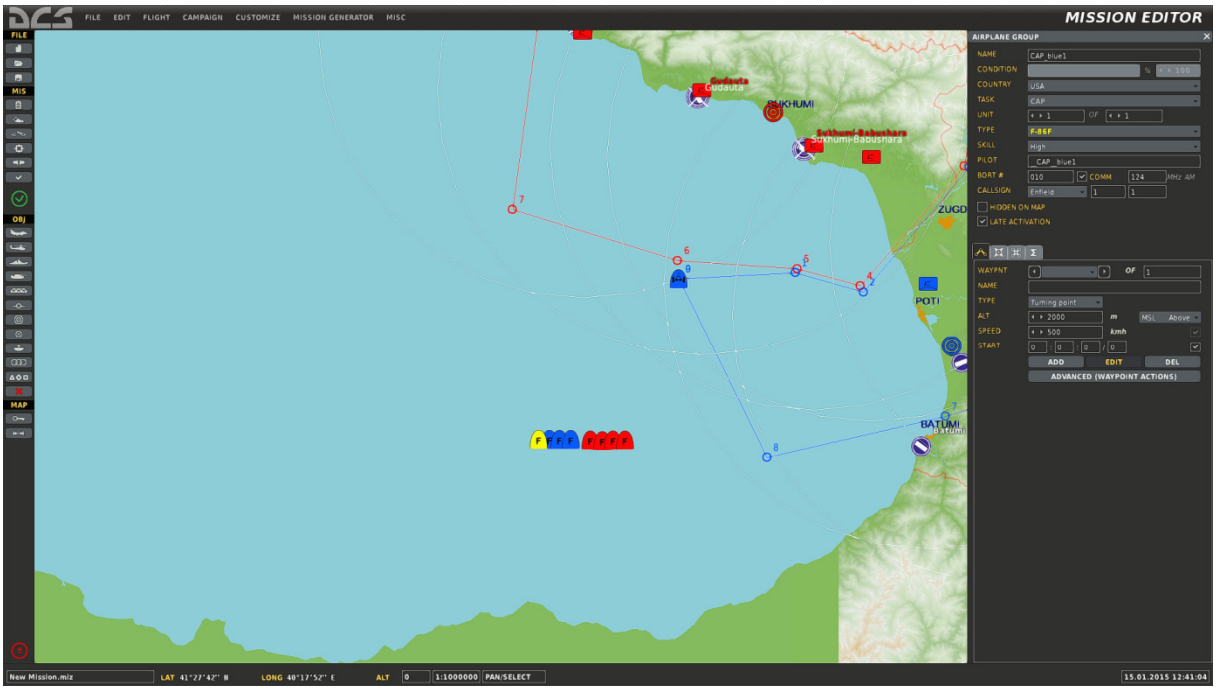


**Figure 10 - 4 CAP template aircraft for each side**

9. Set up the GCI template aircraft

    - Select up to 4 different aircraft types (e.g. F-4E) for each coalition from those available to the coalition's countries.

    - These aircraft must have CAP as one of their main tasks in the mission editor. For example a B1 bomber will not have CAP as one of their main tasks but an F16 will. Some countries will allow a certain aircraft to perform the CAP task while other countries may not. For example, USA F-4E's cannot perform CAP but German ones can.

    - Place the chosen aircraft in the mission editor somewhere out of the way on the map. You must place 4 aircraft units. They can be all the same type or a mix of up to 4 different types. They can be from different countries as long as they come from the same coalition.

    - For each aircraft placed tick the late activation box so they become late activation aircraft. These aircraft will be part of the mission definition but will never actually spawn but instead will be used as templates to create GCI aircraft for the coalition.

    - For each aircraft placed change the group name (at the top of the unit information box in the editor) to be something easy to find in the unit lists (eg. GCI_Blue1)

    - For each aircraft placed change the pilot name (shown as the unit name in the editor) to be exactly like the format __GCI__blue1, __GCI__blue2, __GCI__blue3, __GCI__blue4 for the blue coalition and __GCI__red1, __GCI__red2, __GCI__red3, __GCI__red4 for the red coalition. You need to end up with 4 red aircraft and 4 blue aircraft placed on the map, all late activation, and the pilot name must be set as above for the script to work. That is the first blue aircraft with pilot name __GCI__blue1, 2nd

blue aircraft with pilot name __GCI__blue2 etc until the 8 aircraft are marked as late activation and correct pilot names.

- For each aircraft choose the unit skill. This must be one of the AI skill levels not Player or Client.
- For each aircraft choose the skin. You can have a different skin on each GCI aircraft for the coalition or the same or a mix.
- For each aircraft choose the load out. You must give the aircraft internal fuel otherwise the GCI flight will spawn and either not take off or will crash. Remember the load out should be appropriate for CAP missions. That is, internal gun ammo, A-A missiles, drop tanks etc. Don't load them up with bombs!
- **NOTE YOU MUST GET THE PILOT NAMES CORRECT FOR THE SCRIPT TO WORK AND MAKE SURE THERE ARE NO LEADING OR TRAILING SPACES (A PROBLEM WHICH IS VERY HARD TO FIND) IN THE NAME.**

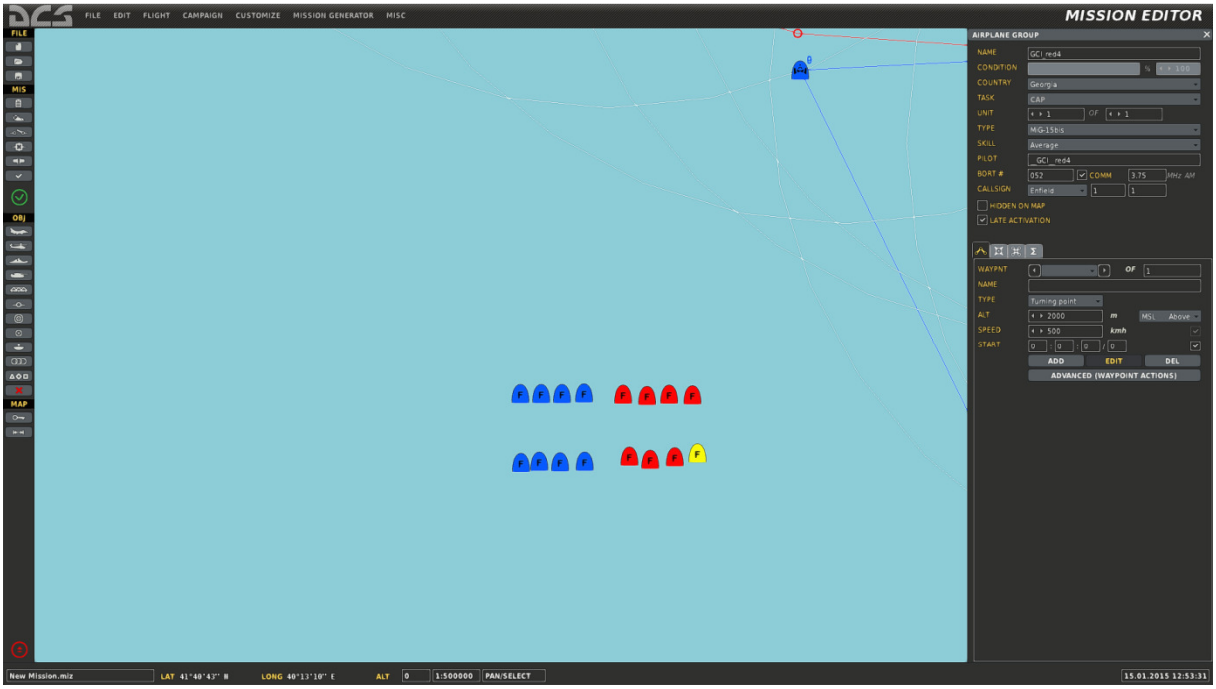


Figure 11 - 4 GCI template aircraft for each side

10. Set up the triggers

- For this script to work the following trigger and associated trigger actions need to be created in the mission editor
  - Save the mission at this point
  - First click on the trigger button in the mission editor (looks like an old fashion circuit breaker or switch).You will see a panel with 3 columns appear.
  - At the bottom of the leftmost column there will be a button to create or add a new trigger. Select "4 Mission Start" for the type of trigger and then create the

trigger. You will see it appear in the leftmost column. From good practice you should name the trigger something sensible like Start Actions etc rather than leave it the auto generated number.

- At the bottom of the rightmost panel there will be a button to create or add a trigger action. Select DO SCRIPT FILE in the list of action types and create the action. When this is done an entry box with a browse button will appear. Click the browse button and navigate in the usual Windows way and locate Mist.lua (you should download this from https://github.com/mrSkortch/MissionScriptingTools/releases/tag/3.5.37 and save it somewhere easy to find) and select it and click the ok button. This will create a new DO SCRIPT FILE action that will run Mist.lua

- Repeat this for the copy of GCICAP script you made back in step 1 to create a new DO SCRIPT FILE action that will run the GCICAP script with the configured parameters.

- Save the mission.

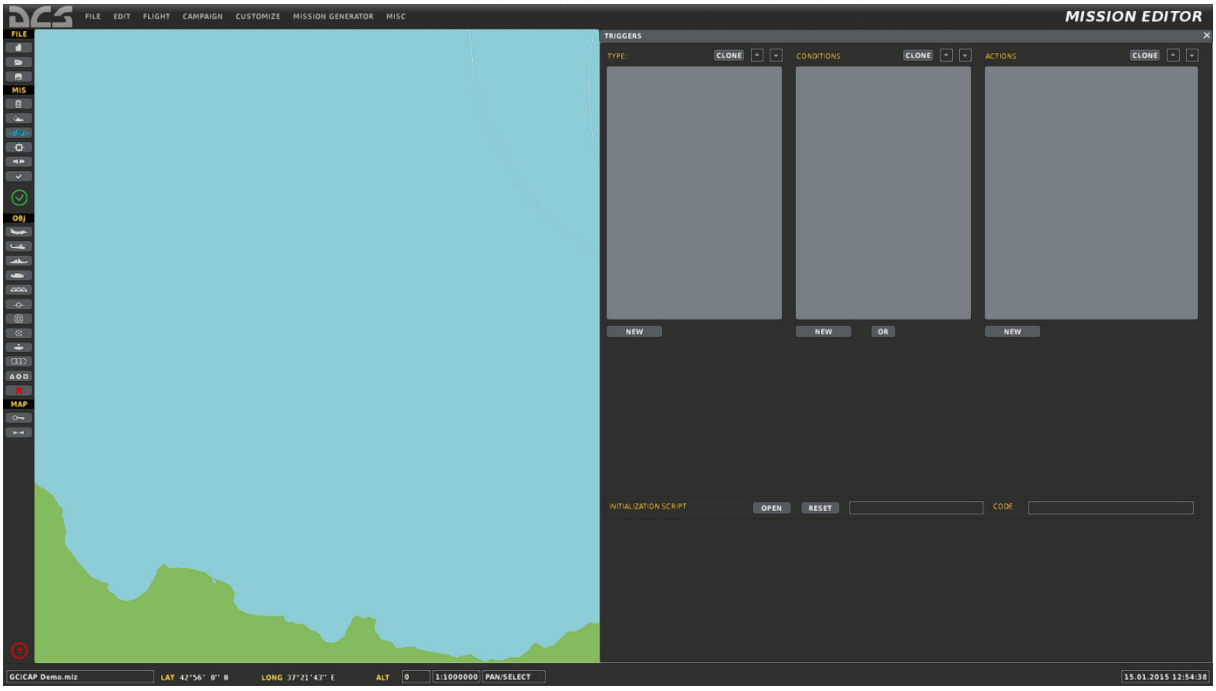


Figure 12 - Go to triggers

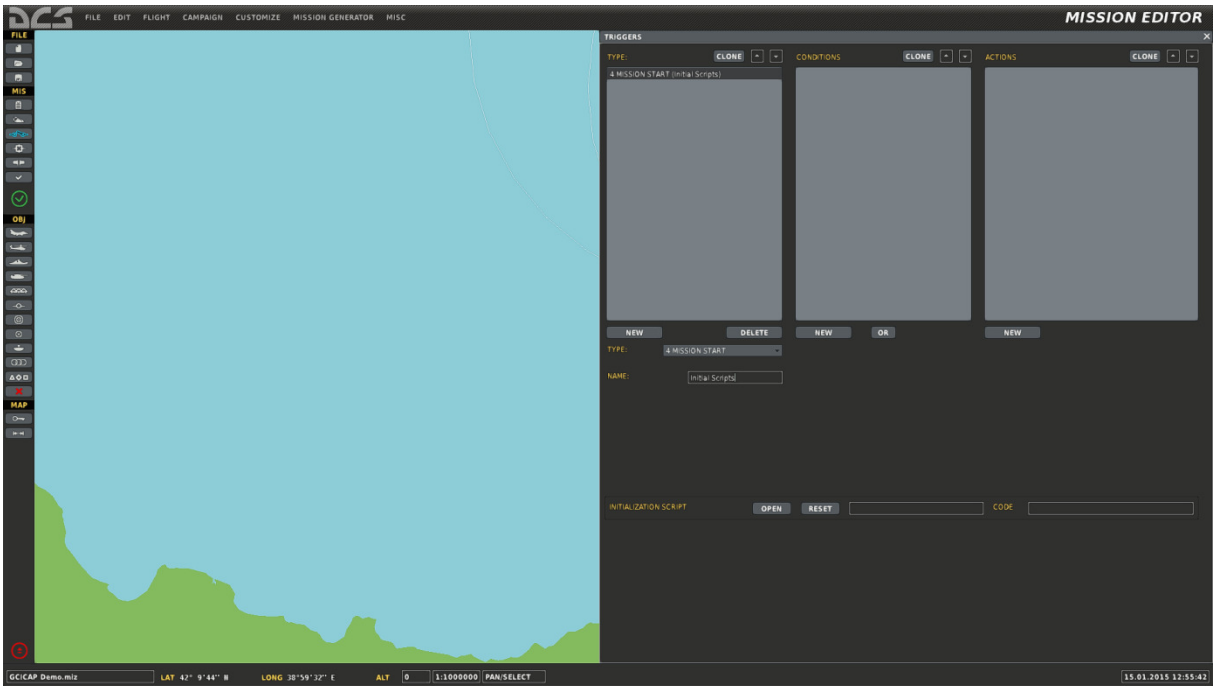


Figure 13 - Add mission start trigger

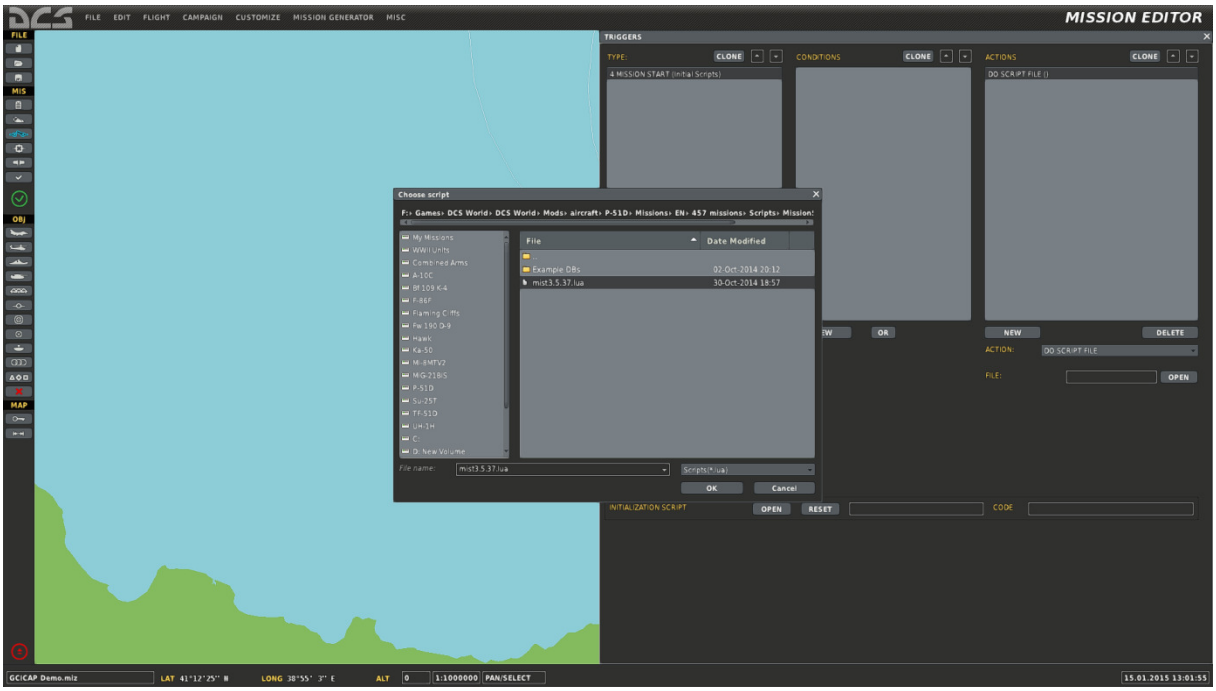


Figure 14 - Add trigger action for Mist

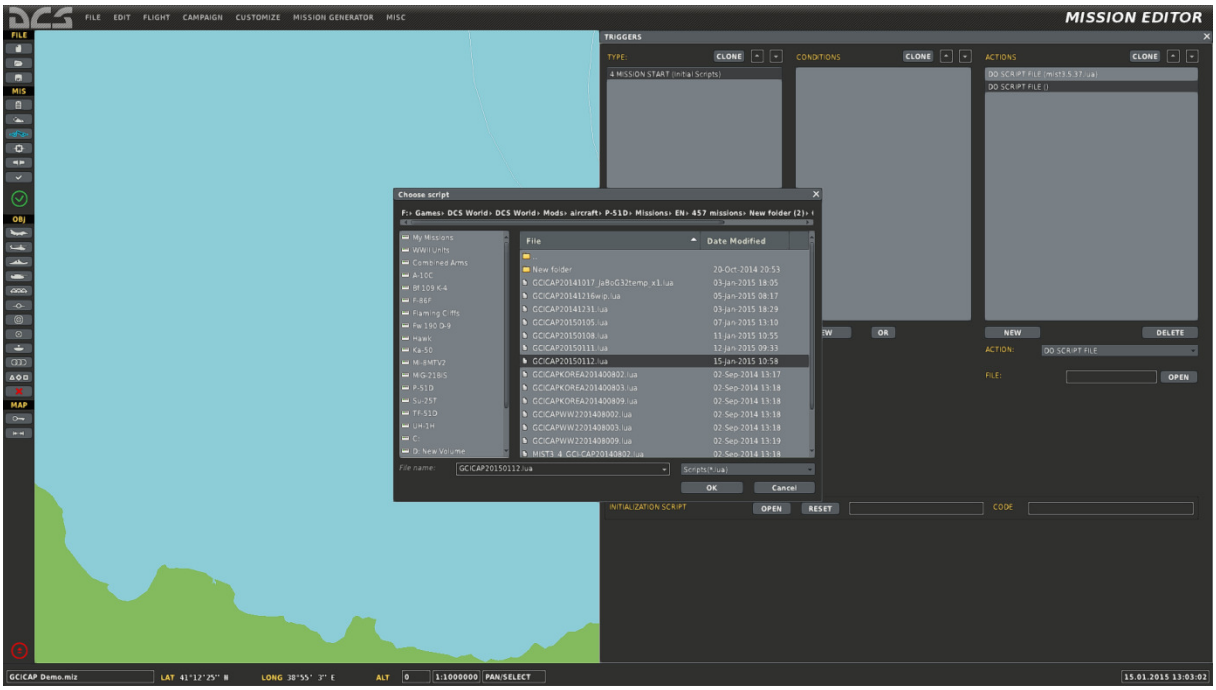


**Figure 15 - Add trigger action for GCI CAP**

11. Check it works!

    - At this point you have done enough to theoretically have a mission with working autonomous GCI and CAP defences for red and blue, however it is a good idea to test this now rather than later after all the other units and scripts are added as the extra layers make it harder to find and fix problems.

    - Some testing suggestions:

        - Add observer and game master slots to the mission on both sides as this will let you watch what happens without actually being in the mission yourself

        - After adding the above slots and saving the mission, run it from the editor and take an observer slot. Depending on what setting you gave the noborders parameter you should see CAP and perhaps GCI flights spawn and perform their tasks.

        - If you are testing a cold war then you may have to add test planes to fly across borders and check that GCI flights are working correctly. Although another method is to set noborders temporarily to 1 and rerun the mission as usually the radar units can see over the borders and will launch GCI flights when the enemy CAP flights are detected.

        - If CAP or GCI flights don't spawn or less than the expected number of CAP groups spawn it is usually because the setup of one or more of the template aircraft is wrong or one of the trigger zones over a base has a typo in the name. Particularly common bug is to only have a single "_" in the pilot name of a template aircraft rather than a "__" or some other typo like "cap" rather than "CAP". The most difficult to spot is when you accidently leave a space after the pilot name. In other words you accidently have "__CAP__blue1 ".

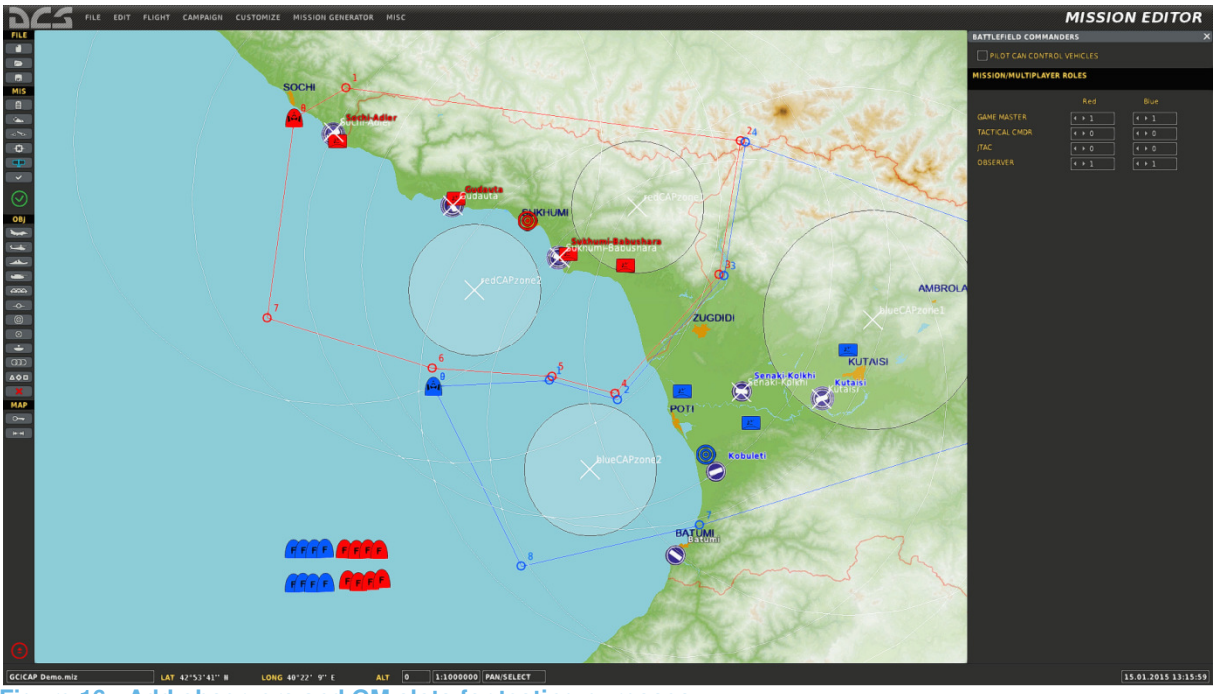


Figure 16 - Add observers and GM slots for testing purposes


Figure 17 - Pick an observer slot to watch the fun

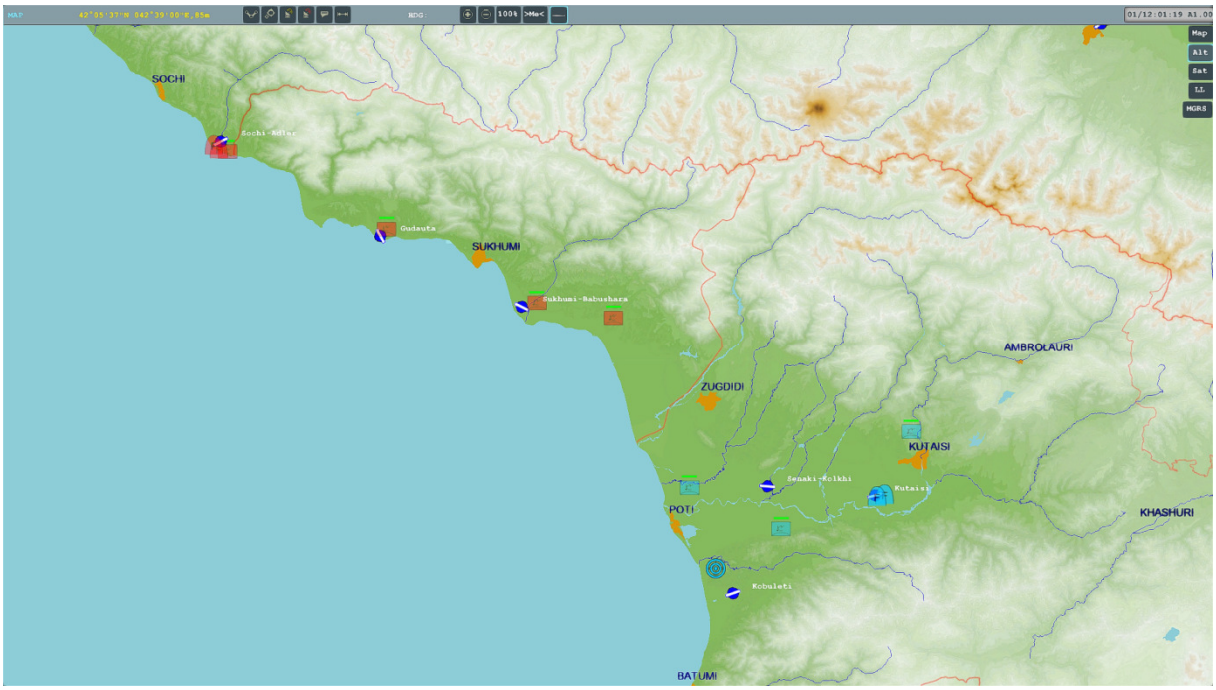


Figure 18 - CAP groups spawn in

Figure 19 - Happy Days!

## General tips and comments:

- If you need to change parameter values in the script then you need to follow the following steps to get DCS to recognise the change:
    - Go into triggers, find the Mission Start trigger and select and delete the GCICAP related DO SCRIPT FILE action leaving the DO SCRIPT FILE for Mist in place.
    - Save the mission
    - Edit the GCICAP script in Notepad ++ or similar to change the parameter values as needed. Save your changes
        1. Back in the mission go into triggers and add back the DO SCRIPT FILE action for GCI CAP. Note this must be after the one for Mist or the mission will not work. Use the up down options to make sure the actions are in the right order.
        2. Save the mission. After this is done it is ready to run.
        3. It can be a good idea to run DCS World in windowed mode to make this process easier during mission building
- If your mission is a hot war and it seems to escalate too quickly and you want to slow it down try moving the radars further back from the border and make the CAP flights

have to travel some distance before they are “on station”. The net effect of this is that the radars can’t see as far into enemy territory so can’t see all the air movements as flights take off and only pick them up when they get up to their patrol areas and additionally the travel time to the CAP zone slows down the overall response rate.

- If you notice that GCI flights seem to be spamming your mission. That is you still have all the GCI flights expected for the value of the parameters numberofspawnedandactiveinterceptorgroupsRED and numberofspawnedandactiveinterceptorgroupsBLUE in the air attacking targets but still more are spawning then try increasing the value of the parameter **taskinginterval**. It defaults to 1800 seconds which is actually 30 mins so quite a long time. This is the time between executions of the **resettask** function. As GCI flights spawn they are counted and this count is compared against the value you set in numberofspawnedandactiveinterceptorgroups parameters to see whether to allow more GCI flights to spawn. As part of the logic in **resettask** this count is reset back to zero and therefore more GCI flights can spawn even though some may still be active. By changing how often **resettask** runs you can control GCI flight spamming.

- If you notice that lots of traffic jams are happening on taxiways and the aircraft involved are not de-spawning and this is causing issues with flights spawning into the mission but not being able to take off try lowering the value of parameter **stucktimelimit.** It defaults to 1080 seconds. On the other hand sometimes it’s not traffic jams but the problem is that the airfield has limited runways and taxiways and therefore it takes a long time for a flight to take off and if several flights are queued up waiting to fly. The symptom you see of this is one or two aircraft of a flight take off but before the last ones can get in the air all of the flight de-spawns. If this happens increase the value of **stucktimelimit**. Beslan is a good example of this kind of airfield where it will take about 12-15 minutes for a flight of 4 WW2 aircraft to taxi out and take off. The default value is chosen to avoid this problem but not every airfield and situation has been tested so possibly the **stucktimelimit** parameter will need slight adjustment for a particular mission. Sometimes changing to having the very first CAP flights start airborne (parameter **startairborne**) can alleviate some of these issues as well as avoid players sharing an AI base having to wait for a chance to take off.

## Credits

This script was originally written by Snafu and further enhanced by the work of Chamleon Silk, Rivvern and Stonehouse.

Thanks also to the people who help test this script like Rivvern, Dooom and Davis079 and many others. It helps make development of the script a lot easier!

Stonehouse is the most actively involved in making changes and maintaining the script at present and he tries to provide user support via the DCS World forums at
http://forums.eagle.ru/showthread.php?t=120325

See also the GitHub site at www.xxya.com