

Moving Dogfight Server

MDS

Il-2 Sturmovik: 1946
v.4.10m

Introduction to MDS

Moving Dogfight Server is a change for the online dogfight playing mode. MDS introduces moving AI units, targets and many other features for dogfight server. In other words, MDS makes the dogfights more co-op like object oriented playing mode. MDS was originally released as un-official modification for IL-2 by Zuti.

Main feature of the MDS is the moving AI units in dog fight mission. These work exactly like AI units in single or coop mission. AI planes, ships and ground units can have multiple waypoints which they follow during the dog fight mission. It is also possible to drop home base over moving aircraft carrier and have human players & AI planes take off from the carrier.

New MDS parameters can be found from three different places:

- Generic mission MDS parameters found under "Configure" menu.
- Homebase parameters found from old homebase object parameters.
- NET parameters in conf.ini file.

Fog of War (FoW)

Fog of War is intermediate solution between no map icons and full map icons. FoW represent the situational awareness of what your own units can see (visually or with radar) . This can be seen as information relayed to player via radio and all spotted enemy unit icons are shown in player's mini map. However only three type of units can act as FoW spotters and relay the enemy position information to player. Ship's radars spot enemy planes, ground radar spots enemy planes and recon aircraft spots enemy planes and ground units.

FoW
✕

☒ FoW in ADVANCED mode

☒ Ships are FoW spotters

	MAX range	MIN height	MAX height
Big Ships	100 [km]	100 [m]	5000 [m]
Small Ships	25 [km]	0 [m]	2000 [m]

☒ Recon planes are FoW spotters

Scan MAX range: [km]
 Scan delta height: [m]
 Scan alpha: [°]

RED Recon Planes

BLUE Recon Planes

☐ Only recon AC complete recon target

FoW refresh interval: [s]

The FoW dialog contains general FoW parameters and also parameters related to ships and recon planes. Ground radar FoW parameters are found under homebase options, since the radar needs to be located inside homebase radius.

FoW dialog parameters:

- *Fow in ADVANCED mode*: if this option is enabled, ALL FoW spotters on the map will show only those planes that are inside assigned range & height limits. Range parameters are set for each home base object individually under home base *Base FoW* tab. If this is not ticked, player's side will see units icons as long as it has at least one live radar.

- *Ships are FoW spotters*: makes ships spot enemy planes with their radars. Ships are divided into two groups. "Big Ships" that have powerful, long range radars and "Small Ships" that have less powerful, short range radars. If you want only big ships to act as FoW spotters, set **ALL** small ship settings to **0**. Or vice versa.

Note:

"Big Ships" with powerful, long range radar:

All CVs (aircraft carriers), all battleships and all cruisers.

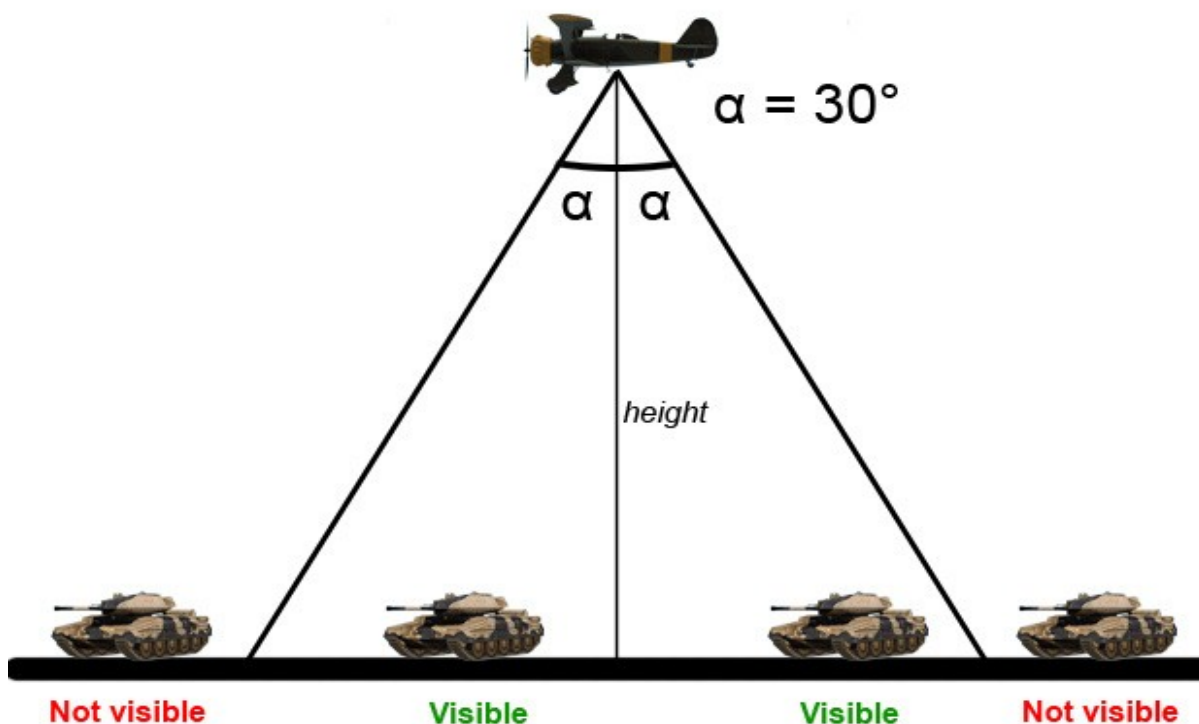
"Small Ships" with less powerful, short range radar:

All destroyers.

- *Recon planes are FoW spotters*: this will enable selected recon planes to spot ground units. Only selected recon planes are able to identify ground units. Assigning plane as a recon plane is done with the RED/BLUE Recon Planes buttons.

- Scan MAX Range: determines the range in which scouts can identify other aircrafts.

- Scan delta height & Scan alpha: determines the range for which scouts can identify *ground* objects. The formula behind this is: **range = scout height * tan (alpha)**. So, **the higher the scouts are, the more area they cover.**



WARNING: the more scout planes you assign, the slower your game might run!

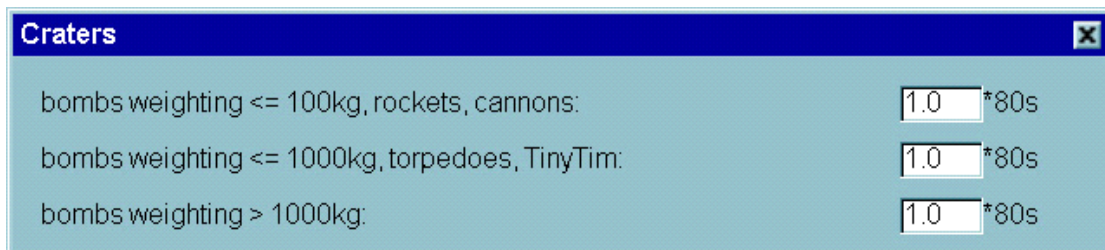
- *FoW refresh interval [s]*: this tells the game how fast positions of detected objects are refreshed. Working with or without *advanced radar mode*,

Important!

MDS FoW functions is only enabled if the difficulty option "No FoW Icons" is not selected. This is convenient way for server host to disable all FoW features without editing all mission files separately.

Craters

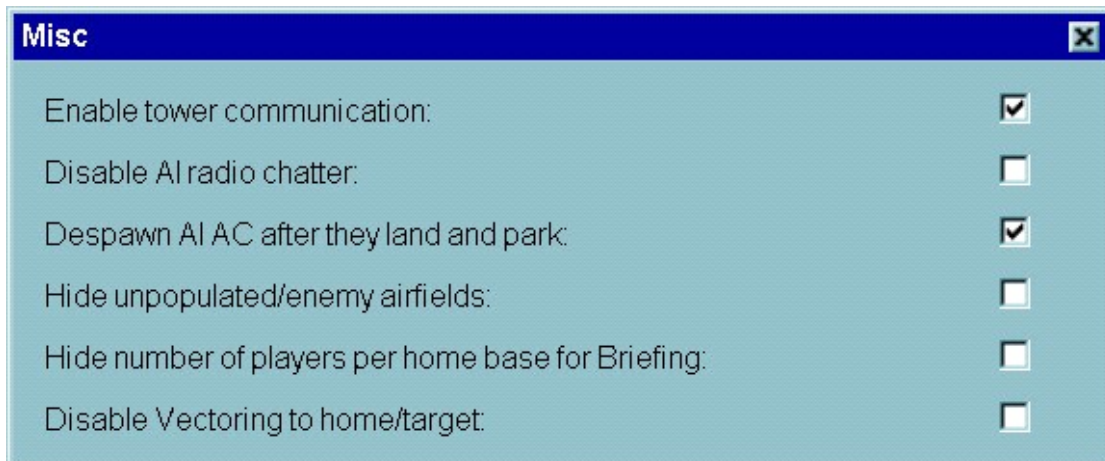
On this screen you can modify time before bomb/gun/rockets craters disappear. Default multiplier is set to 1.0 for all of them. Default times are also stated (number next to text boxes). By changing multipliers, you can make craters visible longer time. However this only works in single player mission and coop missions. Setting long crater durations in dog fight missions would cause inconsistency between players, since DF mode allows joining anytime.



Craters	
bombs weighting <= 100kg, rockets, cannons:	1.0 *80s
bombs weighting <= 1000kg, torpedoes, TinyTim:	1.0 *80s
bombs weighting > 1000kg:	1.0 *80s

Miscellaneous

This dialog contains various parameters that can be used to modify certain aspects of a dog fight mission.



Misc	
Enable tower communication:	<input checked="" type="checkbox"/>
Disable AI radio chatter:	<input type="checkbox"/>
Despawn AI AC after they land and park:	<input checked="" type="checkbox"/>
Hide unpopulated/enemy airfields:	<input type="checkbox"/>
Hide number of players per home base for Briefing:	<input type="checkbox"/>
Disable Vectoring to home/target:	<input type="checkbox"/>

- *Enable tower communication*: enables communications menu (tab key by default) for human players in dog fight.

- *Disable AI radio chatter*: disables radio messages sent by AI planes in dog fight.

- *Despawn AI AC after they land and park*: In dog fight mode when AI aircraft land and park, they will vanish from the map and release game resources. They will also not interfere with live players,

- *Hide unpopulated/enemy airfields*: non-friendly and unused airfields are not drawn on mini-

map.

- *Hide number of players per home base from Briefing:* this option, if enabled, will hide number of players that is displayed beside each home base object on your map on briefing screen.

- *Disable vectoring to home/target:* disables two vectoring commands from ground control orders menu. This can simulate early war scenarios where own planes couldn't be tracked by means of radar, Y-Verfahren, etc. Works also in single player & coop missions.

Respawn time (stationary units only)

This screen enables you to control how soon static objects will be reborn. Each static object type has it's own text field and respawning time in seconds.

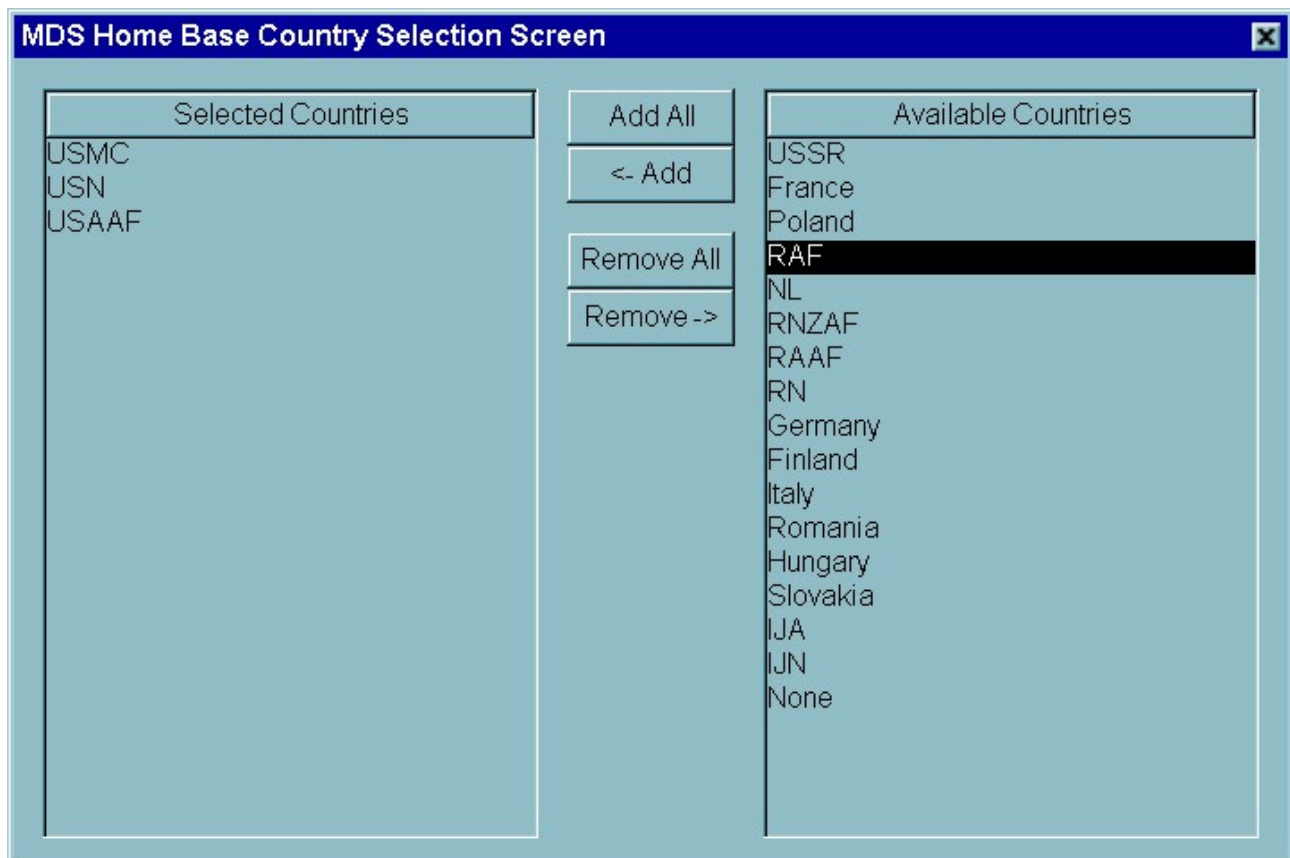
Respawn Time		
Big ship:	<input type="text" value="1800"/>	[s]
Small ship:	<input type="text" value="1800"/>	[s]
Balloon:	<input type="text" value="1800"/>	[s]
Artillery:	<input type="text" value="1800"/>	[s]
Searchlight:	<input type="text" value="1800"/>	[s]

Home base properties

Object	
Type	Properties Aircraft AirSpawn Base FoV
<div> <div>Properties</div> <div> Radius: <input type="text" value="3000"/> [3000m] Army: <input type="text" value="Blue"/> Parachute: <input checked="" type="checkbox"/> Enable Friction for this home base: <input type="checkbox"/> Friction: <input type="text" value="0.0"/> Disable spawning on this home base: <input type="checkbox"/> Render HB icon at default position: <input type="checkbox"/> MAX allowed pilots: <input type="text" value="0"/> <input type="button" value="Modify Countries"/> </div> </div>	
<div> <div>Aircraft Limitations</div> <div> Enable Aircraft Limitations: <input checked="" type="checkbox"/> Home base loses planes as they get destroyed: <input checked="" type="checkbox"/> Static planes also affect this function: <input checked="" type="checkbox"/> </div> </div>	

Properties tab existed already before 4.10, but now it has several new parameters.

- *Enable Friction for this home base*: this option sets "friction" of ground on the area of the radius that this home base covers. Friction basically means how smooth or bumpy the ground is. Smaller values means smoother ground. Default value is 3.8.
- *Disable spawning on this home base*: this option disables selected home base to that nobody can spawn from it.
- *Render HB icon at default position*: this option allows you to hide the movement of those home bases that are placed on the carriers.
- *MAX allowed pilots*: this option determines how many pilots can select the home base as their spawn point. If the value is set to **0** the number of allowed pilots is **limited by actual home base spawn points**.
- *Modify Countries*: pressing this button will open a new window, where it is possible to limit countries available for pilots.



Aircraft Limitations

These options can be used to enable a pool of available planes for home base. Number of available planes is reduced always when plane takes off. Number of available planes can be set to be reduced when plane fails to return to home base or when a static plane inside home base radius is destroyed.

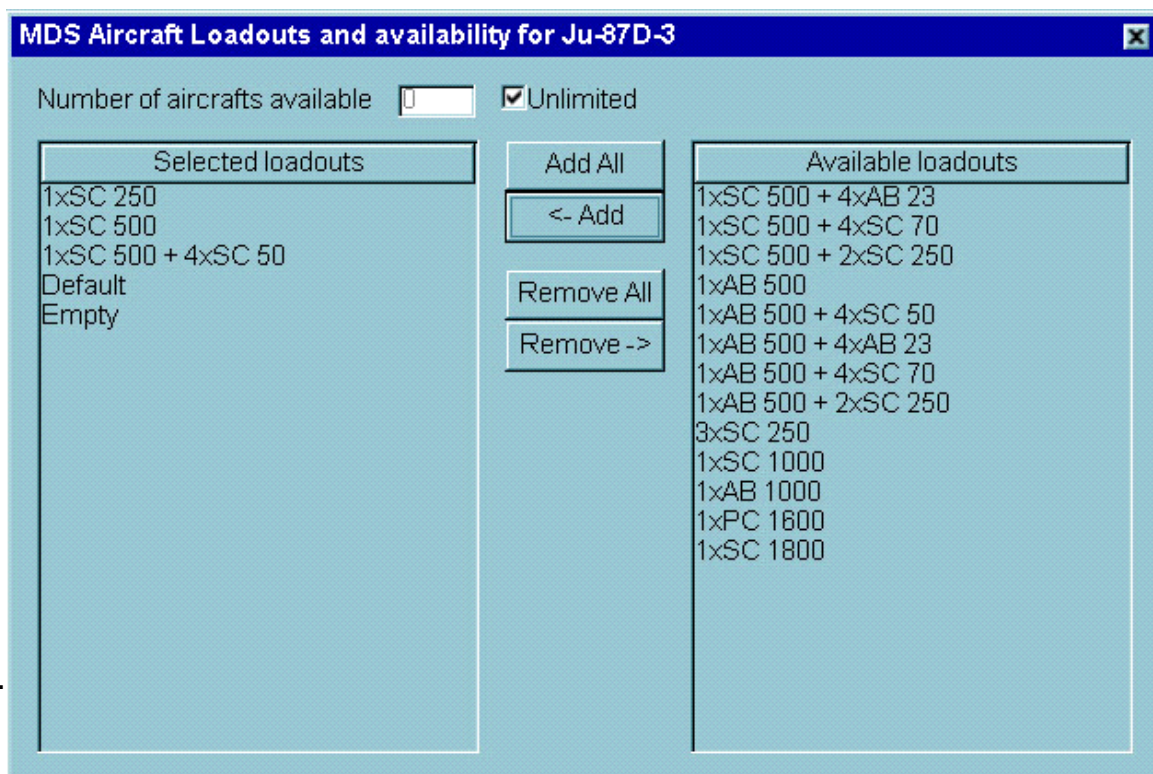
- *Enable Aircraft Limitations*: enabling this option will enable *Modify* button in *Aircraft* tab of home base object.
- *Home base loses planes as they get destroyed*: when this option is enabled, each plane that

took off from this home base and failed to return reduces the available plane count of that particular plane type. Landing a plane safely and in airworthy condition to the home base returns it to the pool of available planes. Plane can be landed to home base which is not the same that it took off from. In this case the plane is added to the pool of available planes of this particular home base IF the base has this same plane type available.

- *Static planes also affect this function*: this is additional parameter that you can set and with it enabled, plane limitations are also affected by static planes positioned inside selected home base circle. When static planes is destroyed, it reduces the available plane count of this particular plane type.

Aircraft

The old Aircraft tab had a new additional button called Modify. Selecting a plane from the left hand side list and pressing the Modify button opens the following dialog.



This dialog shows all the possible loadouts and the selected loadouts that the plane is allowed to have in dog fight mission. Only the loadouts listed under "selected loadouts" are available for the player during mission in the plane's arming dialog.

This dialog also has the number of available aircrafts in this home base. The given number indicates how many aircrafts of the selected type are available in this home base. See "Aircraft Limitations" above for more details.

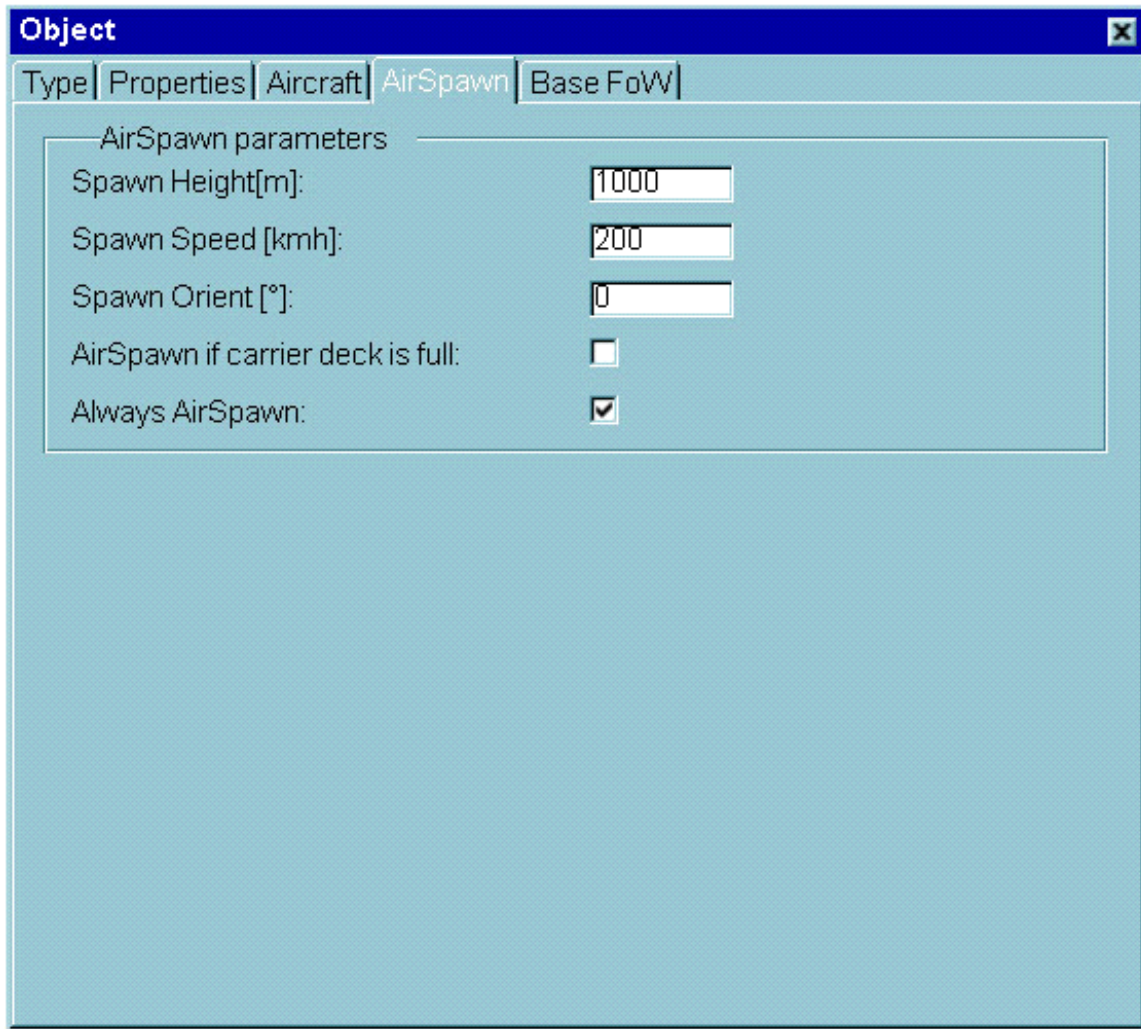
AirSpawn

AirSpawn parameters are used to specify how planes spawn in air. Normally planes spawn on airfield or on carrier, but in sometimes air spawn might be needed for example if carrier deck is full. In this dialog you can specify if air spawn height, speed and orientation for selected

home base. Two check boxes controls when spawning in air happens.

AirSpawn if carrier deck is full: allows player to spawn in air if there is no room on carrier deck. If not enabled, player needs to wait until the carrier deck has room.

Always AirSpawn: forces all planes to spawn in air always.

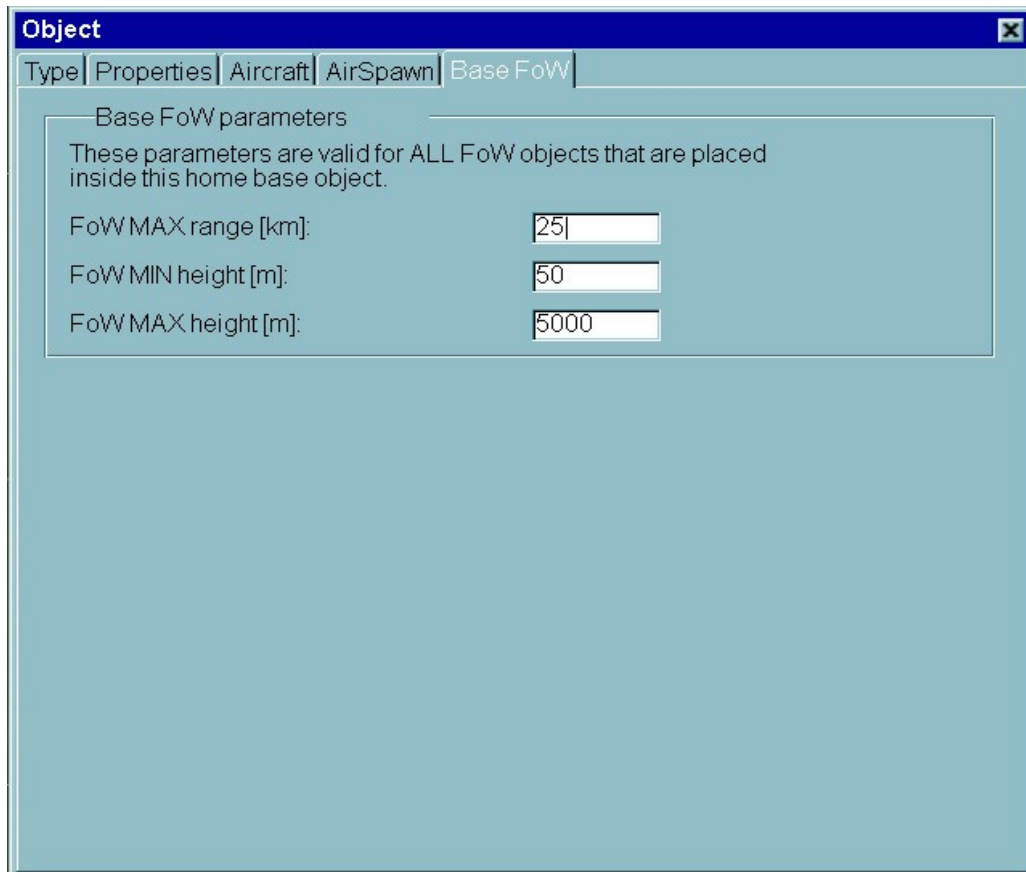


The screenshot shows a window titled "Object" with a close button in the top right corner. Below the title bar are five tabs: "Type", "Properties", "Aircraft", "AirSpawn", and "Base FoW". The "AirSpawn" tab is currently selected. Inside the tab, there is a section titled "AirSpawn parameters" which contains five settings:

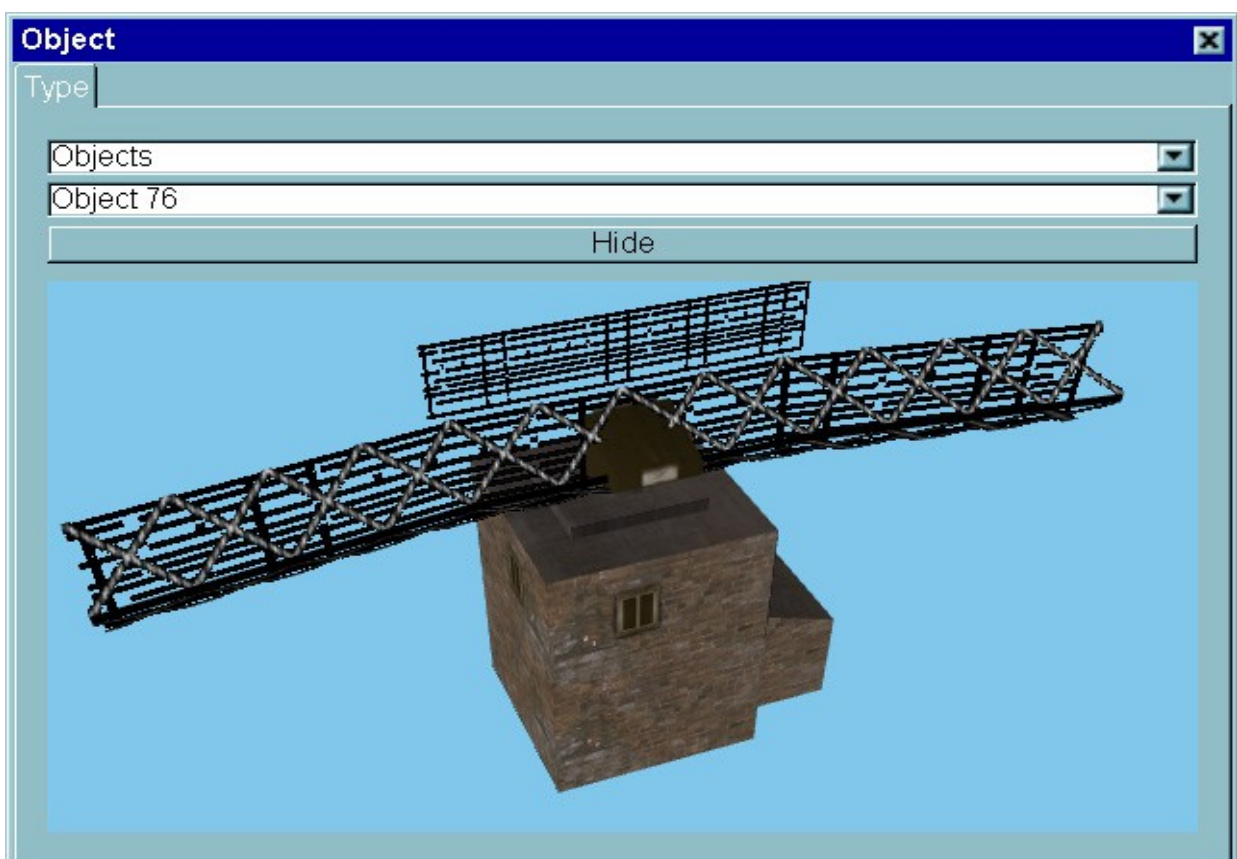
- Spawn Height[m]: 1000
- Spawn Speed [kmh]: 200
- Spawn Orient [°]: 0
- AirSpawn if carrier deck is full: ☐
- Always AirSpawn: ☒

Base FoW

Base FoW feature is part of the Fog of War feature introduced earlier. Each home base can have it's own radar(s) with unique parameters. If enemy planes flies inside the radar's range and height limits, it can be seen on mini map by all players that are on same side as the home base.



This dialog allows user to set range & height parameters for all radar objects that are placed inside selected home base radius. Radar object is the "Object 76".



Refly

ReFly parameters in conf.ini enables server to disable reflly button for predefined duration after player is killed in action (KIA). It is also possible to give player certain amount of "lives" to spend and when player has no more lives left, the ReFly button is disabled for the duration of current mission.

Following parameters can be given in conf.ini under NET:

reflyKIADelay

Length is seconds how long reflly button is disabled after player is dead.

reflyKIADelayMultiplier

Multiplier that incrases the delay each time player is killed in action.

maxAllowedKIA

Maximum allowed kill count. When reached, ReFly is disable completely for the duration of current mission. Enter "-1" to disable.

reflyDisabled

When enabled, ReFly button is completely disabled.

Example how to enter new parameters to conf.ini:

```
[NET]
reflyKIADelay=15
maxAllowedKIA=10
reflyKIADelayMultiplier=2.0
reflyDisabled=0
```

Calculation behind this is as follows:

refly penalty = reflyKIADelay + (KIA count * reflyKIADelayMultiplier).

With above settings, his time penalty after 4th dead would be:

23 seconds = 15 + (4 * 2.0). After 10th dead, player cannot reflly at all.

Online score table filtering

Dogfight server shows very detailed player score table by default. Sometimes server admin might want to hide certain details like details about players planes.

New parameters that can be added to conf.ini under "NET".

disableNetStatStatistics – disabled the score table completely if value is 1
showPilotNumber – hides pilot's number if value is 0
showPilotPing – hides pilot's ping if value is 0
showPilotName – hides pilot's name if value is 0
showPilotScore – hides pilot's score if value is 0
showPilotArmy – hides pilot's army if value is 0
showPilotACDesignation – hides pilot's aircraft designation if value is 0
showPilotACType – hides pilot's aircraft type if value is 0

Example how to enter new parameters to conf.ini:

```
[NET]
disableNetStatStatistics=0
showPilotNumber=1
```



showPilotPing=0
showPilotName=1
showPilotScore=1
showPilotArmy=1
showPilotACDesignation=1
showPilotACType=0