

HABO – Help A Brother Out

Create powerful AI support-networks easily

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Content

1.	What is HABO?	1
2.	Quickstart	1
2.1	Via Module	1
2.2	Via init line of unit or group	1
2.3	Via script	1
3.	Advanced usage.....	2
4.	Nice-To-Knows.....	2
5.	Advanced command list	3

Demo mission:

<https://bit.ly/3qoOPSx>

1. What is HABO?

HABO allows for the easy creation of complex AI-support behavior. AI groups can be clustered in **metaGroups** which in turn can either be "Defender", "Support" or "Both". If a "Defender" or "Both" metaGroup gets attacked, it starts evaluating its own forces against KNOWN attacking forces based on a fairly complex weighing. If a metaGroup sees itself overpowered, it will request an available "Support" or "Both" metaGroup that fits the current threat the best. If no fitting single supporting metaGroup can be found, there is a chance that multiple metaGroups will be called in for support.

Important: In this document, we differentiate between regular **Arma groups** and **HABO metaGroups**.

2. Quickstart

MetaGroups can be of one of three types, those being "Defender", "Support" and "Both". "Defender"-types can call in "Support"-types for aid in combat and the type "Both" can request AND provide support.

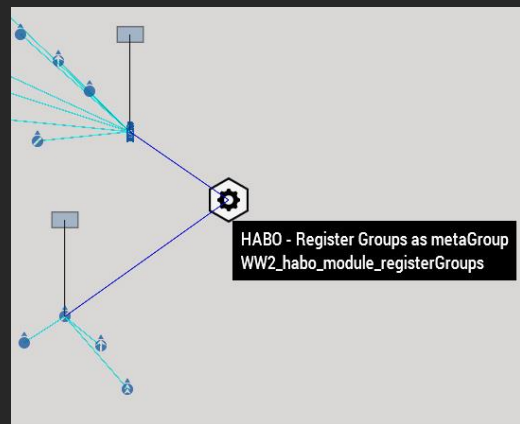
MetaGroups can be set up in three basic ways:

2.1 Via Module

The simplest way to set up a metaGroup. Simply place the **"HABO – Register Groups as metaGroups"** module and sync all units whose group should be part of the metaGroup to the module.

Inside the module, you can then set the metaGroup's name, it's role(s) and more.

Note: If you enter the same metaGroup name in multiple modules, all synced groups will still be registered to the same metaGroup. Only one set of other information (like the metaGroup's type) will be taken, though.



2.2 Via init line of unit or group

Groups can be directly registered into a metaGroup via the init line of them or one of their members. To do so, simply call the register function from the init line of the group or one of its members:

```
[this,"someMetaGroupName","Defender"] call WW2_habo_fnc_registerGroups;
```

2.3 Via script

Registering groups to a metaGroup in a script is the same as doing it via an init line, but you have to replace **this** with the variable name of the group or its leader:

```
[groupName,"someMetaGroupName","Support"] call WW2_habo_fnc_registerGroups;
```

3. Advanced usage

- You can register multiple groups by providing an array of groups instead of the variable name of a single group:
`[[group1,group2],"metaGroupName","Support"] call WW2_habo_fnc_registerGroups;`
- You can assign a maximum distance in which a unit may ask for or provide support by providing a third argument:
`[someGroup,"metaGroupName","Support",3000] call WW2_habo_fnc_registerGroups;`
- You can add groups to a metaGroup mid-game by just providing two elements:
`[[group1,group2],"metaGroupName"] call WW2_habo_fnc_registerGroups;`
- After registering the role of a metaGroup for the first time, it's fixed. Calling the register command again with a different role won't change the metaGroup's role. In order to change a metaGroup's role mid-game, use:
`["metaGroupName","Defender"] call WW2_habo_fnc_setMetaGroupType;`
- Vehicles added via `assignVehicle` or `addVehicle` will be taken into consideration when calculating the combat rating. When supporting, groups will board and use their assigned vehicles! E.g.: Assign an empty helicopter to two pilots inside a building. When another group requests them, the pilots will run to the helicopter, board and use it!

4. Nice-To-Knows

- **HABO automatically cancels the dynamic simulation.** Meaning you can enable dynamic simulation to save performance - The group will be enabled if required!
- **HABO tries to use the most well-fitting group to the known enemy threats.** Meaning when attacked by Helicopters, groups with AA in them will be preferred.
- **HABO won't send supports which have no chance against the known enemy threat.** If a group gets attacked by tanks and only non-AT infantry support is available, it won't be requested.
- When a unit is assigned to a vehicle, **HABO will calculate with the vehicle and disregard the actual unit** (since the unit will use and board the vehicle when requested. Excludes units assigned to cargo space.)
- Registering a group to two or more metaGroups will generally work, but may result in undesired behavior. **It's best to register a group to one metaGroup only.**

5. Advanced command list

WW2_habo_fnc_registerGroups

```
[arrayWithGroups or single group/unit,"metaGroupName","Defender",2000,5] call WW2_habo_fnc_registerGroups;
```

Full syntax - Registers a defending metaGroup which can request up to 5 support metaGroups within 2km.

```
[[Group1,Group2],"metaGroupName"] call WW2_habo_fnc_registerGroups;
```

Adds Group1 and Group2 to an **existing** metaGroup.

WW2_habo_fnc_setMetaGroupType

```
["metaGroupName","Both"] call WW2_habo_fnc_setMetaGroupType;
```

Changes the **role** of a metaGroup to "Both".

WW2_habo_fnc_setMetaGroupMaxDistance

```
["metaGroupName",6000] call WW2_habo_fnc_setMetaGroupMaxDistance;
```

Sets the **maximum distance** in which a metaGroup can ask for or provide support to 6000m.

WW2_habo_fnc_deleteMetaGroup

```
["metaGroupName"] call WW2_habo_fnc_deleteMetaGroup;
```

Deletes a metaGroup.

WW2_habo_fnc_getRoughMetaGroupDistance

```
["metaGroupName1","metaGroupName2"] call WW2_habo_fnc_getRoughMetaGroupDistance;
```

Calculates the **rough distance** between two metaGroups (based on the closest distance between their group leaders).

WW2_habo_fnc_isMetaGroupInReach

```
["metaGroupName1","metaGroupName2"] call WW2_habo_fnc_isMetaGroupInReach;
```

Returns whether or not two metaGroups are within their defined **maximum reach** (BOOL).