Area Defending System (ADS)

by Enigx

Area Defending System (ADS) is a simple, stable and powerfull script that allows mission makers to generate a cycle of random infantry attacks on an area positioned on map from editor.
You can specify the number of attacks and the time between each one.
It is sufficient to define two concentric areas from editor. The enemies will be created between the two areas in such way that the internal one is free from enemies and used as defending zone from attacks.
Enemy spawning position is random. They will attack the center of the internal area, with a range of 25m, following random directional waypoints.
You can start, stop and restart the cycle at will. You can also start two at the same time.
It works both in SP and MP.

Procedure to define the ADS system:

1. Copy all the folder “ADS_system\“ into the mission folder

2. Create the file “***init.sqf***“ in mission folder and copy into it the following string:

```
null = [] execVM "ADS_system\functions\initADS.sqf";
```

3. Define from editor TWO marker areas on map, more or less concentric. The internal one will be the zone to be defended from attacks, and where enemy will not be created.
   The external one identifies the spawning limit edge. Enemies will be randomly spawned in the space between the two areas and will converge to the centre of the internal one.
   It is not necessary to hide the area with a transparent color. The areas will be hidden automatically when the mission starts

4. Name the two areas in editor (ie: ADSint, ADSext)

5. Compile the “ADS_OpenMe.sqf“ file to generate the cycle of attacks by the following two strings

   *) Units array ** _arrayUnitsADS **
   Define the infantry units classname to be used. The script chooses random units from this array
   Example:

_ arrayUnitsADS = ["I_C_Soldier_Bandit_8_F", "I_C_Soldier_Bandit_5_F" ,...,"I_C_Soldier_Bandit_1_F"];

Classnames in double quotes " " separated by commas

Note: The last element is without a final comma !!

   *) the string with the parameters of the cycle of attacks

```
null = [FACTION,_arrayUnitsADS,[MAX_UNITS_PER_TEAM,_RANDOM_NUM],
["MARKER_AREA_EXT","MARKER_AREA_INT"],NUM_ATTACKS,TIME_PER_ATTACK] execVM
"ADS_system\functions\launchADS.sqf";
```

Arguments:

0 - **FACTION**: side faction to be used < **east / west / civilian / independent** >

1 - _arrayUnitsADS: leave this array element name as it is !!! ***DON'T CHANGE THIS NAME !***

2 - **MAX_UNITS_PER_TEAM**: Max number of units per fire teams - <NUMBER>

3 - **RANDOM_NUM** (true o false): use random number for units with MAX_UNITS_PER_TEAM (true), or create all fire teams having MAX_UNITS_PER_TEAM of units (false) - <BOLEAN>

4 - **"MARKER_AREA_EXT"**: Name of the external marker area in editor - <STRING>

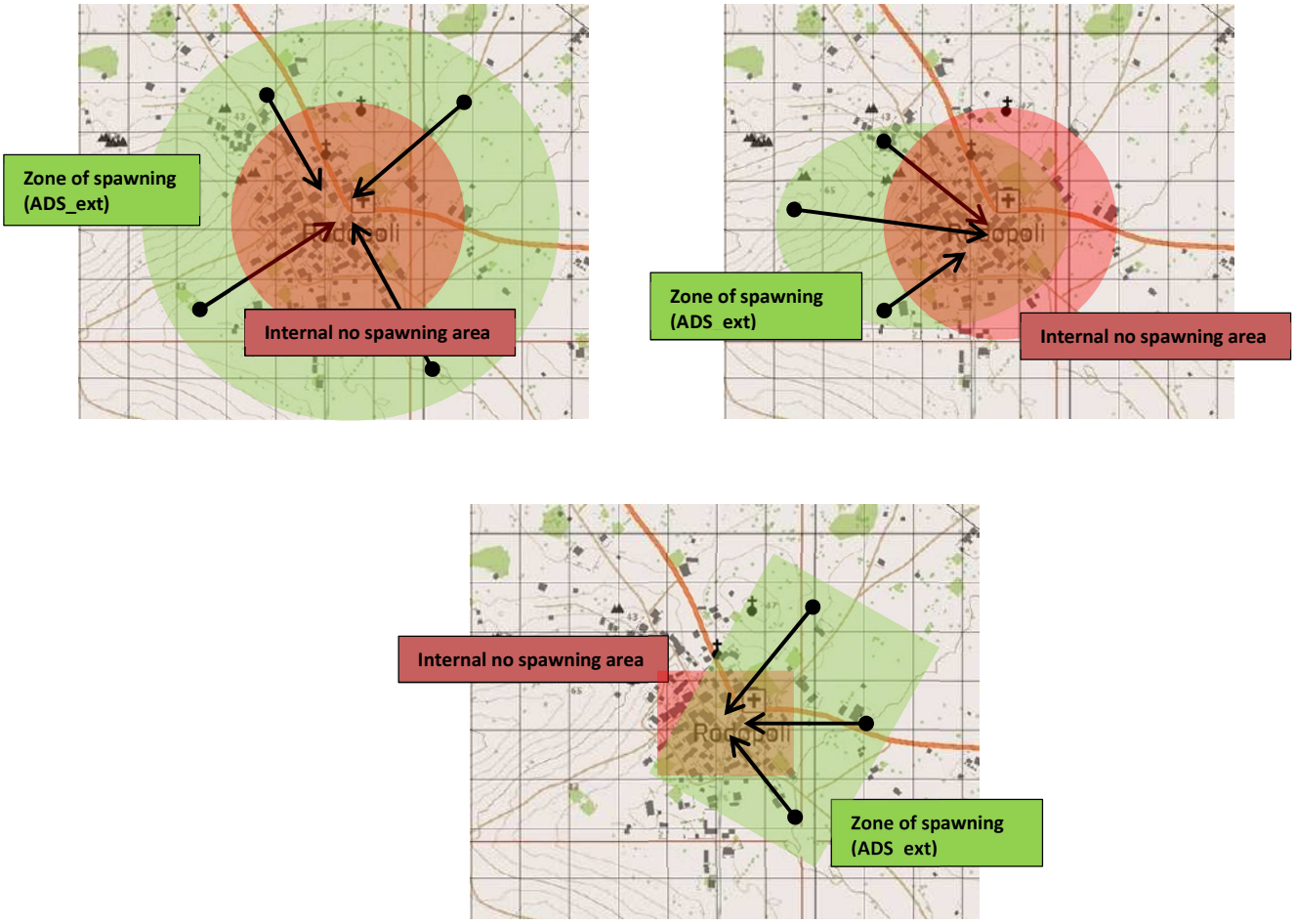
5 - **"MARKER_AREA_INT"**: Name of internal marker area in editor - <STRING>

6 - **NUM_ATTACKS**: Number of attacks to be generated in the cycle - <NUMBER>

7 - **TIME_PER_ATTACK**: time in second between each attack - <NUMBER>

6. Open the file ADS_HideAreas.sqf and compile it inserting the names of the two areas (see below for details).

Example of Areas



Example

- Cycle of attacks to internal area called "A_int" from external one called "A_est", both defined in editor, using:
    -) Units with classnames in _arrayUnitsADS
    -) Faction defined as EAST
    -) Random number of units per team with maximum 5 units
    -) 5 attacks timed of 1 minute each one

_ arrayUnitsADS = ["I_C_Soldier_Bandit_8_F", "I_C_Soldier_Bandit_5_F","I_C_Soldier_Bandit_1_F"];
null = [east,_arrayUnitsADS,[5,true],["A_ext","A_int"],5,60] execVM "ADS_system\functions\launchADS.sqf";

FILE "ADS_HideAreas.sqf.sqf"

This file allows to set transparent colour for the two marker areas when the mission starts.
Simply insert in the string below

```
_MKAreas =["MARKER_AREA_EXT","MARKER_AREA_INT"];
```

the exact names of the two markers used for the two areas as already defined in "ADS_OpenMe.sqf".
That means this part of the above string in point 5.

```
null = [...,...,[...,...],["MARKER_AREA_EXT","MARKER_AREA_INT"],...,...] execVM
"ADS_system\functions\launchADS.sqf";
```

Previous example

The string will be:

_MKAreas =["A_ext","A_int"];

HOW TO RUN THE SYSTEM

a) By ACE self-interaction menu.
NOTE: OF COURSE YOU NEED THE ACE MOD LOADED IN YOUR MISSION TO USE THIS METHOD.
Initiate the commands for the execution of the ADS system from ACE self interaction menu following these steps:

1) create "initPlayerLocal.sqf" in mission folder (if not already present)
2) Add these strings in initPlayerLocal.sqf

```
authPlayers = ["XXXXXXXXX"]; // <-- ADD HERE THE STEAM ID OF THE PLAYER/S ENABLED TO ACTIVATE THE CYCLE
OF ATTACKS BY ACE COMMANDS
_uidP = getPlayerUID player;
if (_uidP in authPlayers) then {
_actionP = {execVM "ADS_system\ADS_OpenMe.sqf";};
_EnemyADSAttacks = ['AreaDefendingSystem', 'Activate ADS', '', _actionP, {true}] call
ace_interact_menu_fnc_createAction;
[player, 1, ["ACE_SelfActions"], _EnemyADSAttacks] call ace_interact_menu_fnc_addActionToObject;

_actionStop = {execVM "ADS_system\functions\Stop_ADS.sqf";};
_StopADSAttacks = ['StopEnemyAttacksADS', 'Stop ADS', '', _actionStop, {true}] call
ace_interact_menu_fnc_createAction;
[player, 1, ["ACE_SelfActions"], _StopADSAttacks] call ace_interact_menu_fnc_addActionToObject;
};
```

NOTE: For obvious reasons not all players will be enabled to activate the cycle, but only the mission master with the specified ID

b) By Triggers in editor
Alternatively, the cycle can be activated or stopped using triggers with the following instructions:

null = execVM "ADS_system\ADS_OpenMe.sqf"; // TO START THE CYCLE
null = execVM "ADS_system\functions\Stop_ADS.sqf"; // TO STOP THE CYCLE

c) By debug console
Digit one of the two strings in bullet b) from Arma debug console when in game

HOW TO FIND UNIT CLASSNAMES FOR THE ADDON (MOD)

The easiest way to find the Classnames of the specific MOD elements (units, vehicles, static, objects ...) is to use the EDITOR directly.

Once the editor is opened with the MOD loaded:

1. Place on map the units whose classnames you want to find and select all

2. Right mouse button and select the "Log" submenu in the window

3. Select "copy class to clipboard"

4. Open the Notepad (or the text editor used) and paste.

   You will have something like this (example):

O_SoldierU_SL_F — **The classname identifies a unit of the game, complete with the default loadout and all its "characteristics".**
O_soldierU_repair_F
O_soldierU_medic_F
O_sniper_F
O_Soldier_A_F

5. Modify by adding the double quote, the commas, putting them on a single line

"O_SoldierU_SL_F","O_soldierU_repair_F","O_soldierU_medic_F","O_sniper_F","O_Soldier_A_F"

6. Copy and paste into the array "arrayUnitsADS" in ADS_OpenMe.sqf

Special thanks:
Special thanks to Shuko for sharing his SHK_pos - Random position generator system.