

ballistic
ADDON STUDIO



H-60

BLACKHAWKS

160TH SOAR

Blackhawks

by Ballistic Addon Studios 7 August 2003

BAS_Blackhawks version 1.00

BAS_SOAR version 2.00

Models by SelectThis

Textures by Ebud

Scripts by TJ, rom

Special thanks to Deadmeat and Evis

Testing by BAS beta team

Custom Theme music by Cassandra-G

MH-60K, MH-60L, AH-60L DAP, UH-60L, UH-60L wreck
SOAR pilots and crew

REQUIRED ADDONS:

BAS_SOAR (Version 2)

JAM_Magazines*

These addons are required for use of the MH60K and AH60L DAP.
The UH60L uses the SoldierWPilot.

This addon is for OFP: Resistance only.
There are no plans to make a 1.46 version.

Ballistic Addon Studios
<http://www.ballistic-studios.com/>

*JAM is an initiative between various mods to create a Joint Ammo and Magazines addon, It's purpose is to enable a player to use units and weapons from different authors and mods while retaining the ability to share magazines eg a M4 from BAS would use the same magazine as a M4 from DigitalGrenades Mod. (see separate Readme files for JAM)

This addon is not to be altered or edited for any purpose without the express permission of the authors. Nor should it be distributed except in the form provided.

*****Disclaimer:*****

This is NOT an official Addon. You know the drill! Use at your own risk.

INSTALLATION:

The following files are included in this package:

ADDONS:

bas_mah60.pbo
bas_soar.pbo
bas_soar185.pbo
bas_soarpilots.pbo
JAM_Magazines.pbo

FOLDERS:

Ballistic (this is the SP mission folder)

The addon pbo files should be located in your ofp/res/addons folder (though no ill effects have been noticed putting them in ofp/addons or in a @mod folder)

The new blackhawks will be available under a vehicle class called BAS – Vehicles, the SOAR Pilots and Crew under BAS – Men, and the Default JAM units in JAM - Men

The demo mission:

Place the "Ballistic" folder inside your "operationflashpoint/missions" folder.

If you already have a BAS missions folder you can overwrite the overview.html and bas.paa, or leave them.

ADDED UNITS:

BLACKHAWKS

MH-60K - Current top-of-the line Spec Op Blackhawk

classname: bas_mh60k
weapons: BAS_60M134
magazines: BAS_60M134

MH-60L - Spec Op Blackhawk

classname: bas_mh60l
weapons: BAS_60M134
magazines: BAS_60M134

AH-60L DAP - Direct Action Penetrator

classname: bas_ah60l
weapons: BAS_60M134, BAS_60M230, bas_60zuni38, bas_ah60helllauncher
magazines: BAS_60M134, BAS_60M230, bas_60zuni38, bas_ah60helllauncher

UH-60L - Utility blackhawk

classname: bas_uh60l
weapons: bas_60m60
magazines: bas_60m60

Wrecked UH-60L

classname: bas_uh60lwreck1

weapons: n/a

magazines: n/a

SOAR

ADDED UNITS:

Woodland Pilot (MP5): -Classname: bassoarpilot (the pilot from SOAR v1)

Woodland Pilot: -Classname: bassoarpilotw (new)

Woodland Crew: -Classname: bassoarcreww (new)

Desert Pilot: -Classname: bassoarpilotd (new)

Desert Crew: -Classname: bassoarcrewd (new)

each new unit is equiped with:

Weapons: BAS_M4SOA, JAM_M9, NVGoggles

Magazines: JAM_W556_30mag x 6, JAM_M9mag x4, HandGrenade x4

ADDED WEAPONS:

M4 SOA with Eotech Holo sight



Classname: BAS_M4SOA

magazines: JAM_W556_30mag, JAM_W556_30HDmag

MP5

Classname: bas_mp5

magazines: bas_mp5mag, JAM_MP5SBASDmag

SPECIAL FEATURES:

QUICK REFERENCE:

BLACKHAWKS	
Custom island map:	this setObjectTexture [0,"<your_texture_in_here>"]
Custom island size	bas_60mapsize = <yourmapsize> eg 512, 1024
Open Pilot Doors	this animate ["pilotdoorl", 1]; this animate ["pilotdoorr", 1]
Close Pilot Doors	this animate ["pilotdoorl", 0]; this animate ["pilotdoorr", 0]
Open Side Doors	this animate ["sidedoorl", 0]; this animate ["sidedoorr", 0]
Close Side Doors	this animate ["sidedoorl", 1]; this animate ["sidedoorr", 1]
AI Waypoint Fastrope	CHOPPER exec "\BAS_mah60\FX\BAS_AIRope.sqs"
Desert Dust	BAS_DESDUST = true
Windblown Snow	BAS_WINDUST = true
Remove the dust and other effects	BAS_60Effects = 0
Halve the dust and other effects.	BAS_60Effects = 0.5
Remove Dust coughing/blinking	BAS_noPPE = true
Cabin Lighting effects	CHOPPER exec "\BAS_MAH60\FX\Cabin.sqs" = Cabin Lighting
Landing Lighting effects	CHOPPER exec "\BAS_MAH60\FX\Landing.sqs" = Landing Lights
CAS scripting	[Chopper,Player] exec "\BAS_MAH60\FX\BAS_CAS.sqs"
HMMWV cargo in WPs	[CHOPPER NAME] exec "\bas_mah60\fx\BAS_AiSling.sqs"
MP init line full effects	BAS_mpgame = true;This exec "\bas_mah60\mpfx\bas_mprotorwash.sqs";[this] exec "\bas_mah60\mpfx\bas_mpx.sqs";[this] exec "\bas_mah60\mpfx\bas_mpppe.sqs";[this] exec "\bas_mah60\mpfx\bas_mpxfire.sqs"
Disable Auto Facemask	BAS_Mask = false
SOAR	
Add Facemasks	this setObjectTexture [1,"\bas_soar\basfaceshield.paa"]
Remove Facemasks	this setObjectTexture [1,""]
Lower Visor	this animate ["goggles", 1]; this setObjectTexture [0,{\BAS_SOAR\cmn\visord.paa}]; this setObjectTexture [2,{\BAS_SOAR\cmn\visor.paa}]
Raise Visor	this animate ["goggles", 0]; this setObjectTexture [0,""]; this setObjectTexture [2,""]
Lower NVGs	this animate ["ngoggles", 1]; this action ["NVGoggles"]
Raise NVGs	this animate ["ngoggles", 0]; [this] exec "\bas_soar\scripts\nvg_off.sqs"
Turn off obscuring smoke grenades	jam_smokeblockoff = true NOTE: this not enabled for the MP5 equipped SOAR Pilot

JAM info is in a separate readme file.

SOAR Details:

To place face shield, all you need to do is to put the following line into the unit's init line.
`this setObjectTexture [1,"\bas_soar\basfaceshield.paa"]`

To remove faceshield
`this setObjectTexture [1,""]`

To lower visor
`this animate ["goggles", 1]; this setObjectTexture [0,{\BAS_SOAR\cmn\visord.paa}]; this setObjectTexture [2,{\BAS_SOAR\cmn\visor.paa}]`

To raise visor
`this animate ["goggles", 0]; this setObjectTexture [0,""]; this setObjectTexture [2,""]`

To lower NVGs
`this animate ["ngoggles", 1]; this action ["NVGoggles"]`

To raise NVGs
`this animate ["ngoggles", 0]; [this] exec "\bas_soar\scripts\nvg_off.sqs"`

(Credit to Jackal326 for coming up with the operational NVGs idea)

NOTES:

User Actions:

When you start as pilot or gunner in a helicopter, the custom useractions (eg Lower Visor, Lower NVG Goggles) are not activated. You need to exit the vehicle then reenter for them to appear.

Alternately, start with an empty vehicle and use the moveindriver and moveingunner commands to move your pilot and gunner in (this will also allow you to use the pilot and crew models provided in this addon)

Obscuring Smoke Grenades:



This is a feature of JAM which has been implemented where possible on the SOAR Pilots and Crew. It was not possible to add it to the MP5 equipped SOAR (which is non-JAM) due to problems with compatibility with older missions. (see the JAM Readme for info on this feature and also about to add it to non-JAM units).

BLACKHAWK DETAILS

1) Moving map display:

-The addon comes with inbuilt support for all BIS islands, Ia Drang and possibly a new BAS island, (yet to be released as of this date)

a) Custom Maps: Mission makers can make custom mission maps for either new custom islands or, by using alpha textures, just mission specific elements.

these custom maps can be added to the display via the following init line command.

```
this setObjectTexture [0,"<your_texturename_in_here>"]
```

The texture should be a 256x256 paa file and saved in your mission folder.
(note: due to the nature of setObjectTexture, larger texture files will not make the map appear clearer)

b) Larger Island Support

-There is also manual support for larger island sizes than the default 256x256 islands. It will be up to the island maker or mission maker to create the underlying texture but the location crosshairs will correctly indicate your position.

This feature has to be enabled manually by a mission maker by declaring the variable "bas_60mapsize".

This should be set to the size of the island.

eg `bas_60mapsize = 512`, or `bas_60mapsize = 1024`.

If using a standard 256x256 island then there is no need to do anything.

Thanks to DKM for permission to use their scripts for island identification.

2) Pilot Door animation

The pilot doors can be animated in scripts using the following commands.

Open Pilot Doors

```
this animate ["pilotdoorl", 1]; this animate ["pilotdoorr", 1]
```

Close Pilot Doors

```
this animate ["pilotdoorl", 0]; this animate ["pilotdoorr", 0]
```

3) Sidedoors

These are enabled in the action menu with certain conditions based on number of cargo places used (due to legs hanging out the door).

Commands to open and close them in scripts are as follows:

Open Side Doors

```
this animate ["sidedoorl", 0]; this animate ["sidedoorr", 0]
```

Close Side Doors

```
this animate ["sidedoorl", 1]; this animate ["sidedoorr", 1]
```

4) Facemasks on SOAR

For BAS_SOAR (v2) units on the MH-60L (no pilot doors version) the pilot and gunner will automatically equip their facemasks when the engine is started.

These are designed in real life to protect against the wind from the open doors.

To disable this feature all you need to do is to put **BAS_Mask = false** in the init line of the heli.

5) Custom Music/Sound

As a little bit extra we have included a custom music track , "Spacetime_remix", by the talented artist Cassandra-G. This a specially version of her "Spacetime" track especially edited for BAS.

The track has been coded as music and sound.

Sounds: name: Spacetime (Cassandra-G)
classname - bas_spacetime_s

Music: Spacetime (Cassandra-G)
classname - bas_spacetime

6) Custom scripts

We are pleased to introduce several features for the BAS MH60K/ UH60L/AH60 DAP.

These have been designed to make your game as enjoyable and functional as possible, and to vastly increase the usefulness of the helicopters in OFP, especially where the AI is concerned.

These include;

Fast rope insertions

Rooftop/Ladder extractions and pickup

Customised rotorwash and damage effects

Subdued Cabin and Landing lights

Shell Casing effects

CAS option

IR strobes for night extraction

Countermeasures

In Detail;

MULTIPLAYER NOTES

To enable the whole range of effects in MP (fire/exhaust/rotordust) you can use the following line in the INIT field of the choppers.

```
BAS_mpgame = true;This exec "\bas_mah60\mpfx\bas_mprotorwash.sqs";[this] exec  
"\bas_mah60\mpfx\bas_mpfx.sqs";[this] exec "\bas_mah60\mpfx\bas_mpppe.sqs";[this]  
exec "\bas_mah60\mpfx\bas_mpfire.sqs"
```


You can try some of these scripts on other vehicles too if you like, for instance the fire on a bmp or tank.

To prevent conflicts with other variables in the scripting, you should avoid using BAS_ as a prefix to your variables where possible.

FAST ROPING

You and your squad will be able to insert quickly without landing the helicopter, via a variety of fast rope insertion options. As **Team Leader** you will have control.

When you select FAST ROPE INSERTION from the action menu, you will have 30 seconds to decide which units to deploy, and where. Select your units in the normal manner using the F1-F12 keys, then simply click on the MAP Screen on the position you would like to insert. In practice, clicking the map just short of your desired insertion point is better, as the helicopter may take some time to slow down.

If you select NO units, you will be inserted alone, with the option to deploy your squad in different locations.

You may also insert from a helicopter which is not in your group in the same manner.

As the Leader and Pilot you will be able to insert your team at your chosen place, simply stop the helicopter at an appropriate height, and Use the action menu HOLD POSITION.

In a **Multiplayer** setting, the human driver must prepare the helicopter for fast roping, and when he is ready, other human players will be presented with the option to fast rope. Human players must be prepared and ready to insert with the team (ie they do not automatically fastrope).

It is recommended to play on CADET mode, to benefit from the HintBox explanations, until you are aware of the possibilities.

You will soon learn how to insert quickly at your chosen place. For appearance reasons a level area is preferable.

As an extra bonus, it is also possible to allow a AI piloted helicopter to insert another AI squad via fast rope, at the chosen Waypoint.

To do this;

- 1) Place a helicopter on the map with its Waypoints.
- 2) Place the AI squad on the map as a separate group and with its Waypoints.
- 3) On the Waypoint at which you wish to insert the squad, use this line;

CHOPPER exec "\BAS_mah60\FX\BAS_AIRope.sqs"

Replacing "CHOPPER" with the name of your helicopter.

When the squad has been inserted the helicopter will continue on its waypoints.

ROOFTOP & LADDER EXTRACTIONS

We are very pleased to introduce another realistic feature of the Blackhawk, Rope ladder extractions.

With this feature you will be able to extract your team (human & AI) from otherwise inaccessible areas, mountain tops, rooftops etc.

You are also able to call in an AI Pilot to pick you up, please prepare your position first and THEN call the request, as the Pilot will head to the position where the request was called. STAND IN THE CENTRE OF THE ROOF if you are on top of a building.

If you fly too fast with the ladder deployed the warning box will flash and beep. If you continue to accelerate the ladder will be lost, and you will be unable to use it for the remainder of the mission.

The effect is best when used properly, ie. with a stationary chopper, The BAS Blackhawk will reward the efforts of the player to be realistic in his actions.

Also, you can make provision for the AI to pick up another AI squad if you desire, for cutscenes etc.

To do this you need to use this line;

```
[<choppername>,<leader groupname>,<marker to move to after pickup>] exec  
"bas_mah60\fx\AiPickup.sqs"
```

Choppername is the name of the helicopter.

LEADER Groupname, you must specify the group to be picked up. eg. LEADER Alpha. Put the name of a GameLogic or other object as the marker name, and the chopper will move to that position after picking up the AI.

HOLDING POSITION

As the Pilot you will sometimes need to hold the position of the helicopter almost motionless, to allow others to get out or in.

In real life this takes great skill and training. To assist with this you can choose the option to HOLD POSITION (see below), but you will still maintain fine control of the chopper, by moving your controls accordingly. With practice you will become a master Pilot, very useful to you comrades in Multiplayer, and to the AI in Single player mode. In practice, using AUTO-HOVER to slow and stop, and THEN using the option to HOLD POSITION works very well. The game's FreeLook key (Numpad *) can be useful to help you stop.

ROTORWASH

The rotorwash has been customised for the chopper, and has been based upon expert reports and documents, within the realms of OFP.

It now works hand in hand with DKM' s excellent Cockpit MFD Map scripts to work with all of the popular islands, including Ia Drang and a new BAS Island (unreleased at the time of writing).

On Nogova you will notice the dust automatically adjusting to suit the surface below. (Try flying over the mountains and desert areas.)

You are able to specify winter dust or desert dust for other custom islands, using the following variables.

`BAS_DESDUST = true` (for desert dust)
`BAS_WINDUST = true` (for winter blown snow)

You can also turn OFF the dust completely or REDUCE the amount with these variables.

`BAS_60Effects = 0` (no dust and other FX)
`BAS_60Effects = 0.5` (Half dust)

To disable the effects of dust around the choppers, (which is blinking and coughing), you can use the following line;

`BAS_noPPE = true`

(BAS Soldier/Pilot units have Goggles/Visors which prevent the coughing, these must be lowered)

To enable the dust in a multiplayer game, see the MP notes section.

AH60 DAP CAS MISSION

As a benefit of using BAS soldier units, mission makers have the option of providing a AH60 DAP for Close Air Support reasons.

This feature requires that at least one unit of the squad has a **BAS SATCOM** radio.

The BAS Rangers and BAS Deltas both have a Radio operator.

To use this feature, simply place a AH60 DAP on the map, on the ground, as a standalone unit, no waypoints or groups etc, and within the **viewdistance setting** on the mission to the team who may need to call in the CAS Mission. (NOTE: The Range at which this will work is dependant on your Viewdistance settings in OFP Options. Bear in mind when creating missions, that others may not have matching hardware, and so the lowest anticipated setting should be used.)

The team Leader will have an added option in his action menu, to call in the chopper.

Use of this feature is especially nice against missions with random armour etc, the support is there if you need it. This feature has been added to assist mission makers in providing a simple means of CAS without complicated scripting (on their part!).

The chopper will assist you for about 5 mins, before it returns to where it came from. If there is space on your team, it will join you for this duration, and you can assign targets etc.

You can also use the CAS scripting provided in your own scripts, for instance in a Radio Command you may use this line;

```
[Chopper,Player] exec "\BAS_MAH60\FX\BAS_CAS.sqs"
```

CUSTOM LIGHTS

It is also possible to use the lighting effects on AI choppers. Simply use this line for each chopper;

Cabin Lighting

```
CHOPPER exec "\BAS_MAH60\FX\Cabin.sqs"
```

Landing Lights

```
CHOPPER exec "\BAS_MAH60\FX\Landing.sqs"
```

CARGO HMMWV

As in reality, the Blackhawks (not DAP) can transport one HMMWV as a slung load. To enable this feature, simply hover low over a HMMWV on the ground, and the option to attach it will appear.

There is a realistic speed limit applied to this feature.

You can also have an AI Helicopter drop off HMMWV as required, and careful use of a WP and height settings will make of a very useful HMMWV supply scenario.

To enable the AI piloted helicopter to carry HMMWV's, add this line to the INIT field or the SCRIPT field of a Waypoint or trigger etc. The HMMWV is created and attached by the script, you can get the helicopter to DROP the HMMWV by having it fly at 7m or lower.

```
[CHOPPER NAME] exec "\bas_mah60\fx\BAS_AiSling.sqs"
```

ASSORTED ITEMS

Countermeasures/flares. These are automatically released when the helicopter comes under attack from missiles, and they go some way to offering protection from the missiles. However, they are not foolproof, so as in real life hasty diversion is your best protection. There is also limited RADAR Jamming capability if the helicopter comes under fire from a Shilka. (However this relies on the distinctly dodgy HIT eventhandler)

Daylight/Night extractions. This is based upon time of day in the mission. Night is assumed between 6pm and 6am, but with seasonal ingame changes the actual days may be shorter or longer.

For a daylight extraction, an appropriate smoke grenade will be discharged, according to the combat mode of the player, either Red or Green for HOT/SAFE LZ' s.

At night time, an Infra Red strobe is laid down, which is more visible when wearing NVG. (You are all probably more than aware of the limits of the OFP lighting engine.)

Shell casings. Accurately sized shell casings are ejected from the guns on the choppers. Enjoy :)

The DAP also has a little extra smoke at missile firing time.

NEW ACTION MENU COMMANDS SUMMARY

Here is a comprehensive list of the added action menu commands that are included with the BAS Blackhawk.

Open/Close Pilot Doors = Open/Close pilot doors

Open/Close Doors = Exactly that!

ORDER: Land MH60K/UH60L/AH60I DAP = Order helicopter to land ASAP.

Cabin Light On/Off = Interior lighting switch.

Landing Light On/Off = Landing Lighting.

RADIO: Close Air Support = Call in an extra helicopter to assist you (AH60I DAP only)

Fast Rope Insertion (A,B,C,D) = Fast rope insertion. Letter varies according to circumstance.

Fast Rope Insertion (for Troops in cargo) = When player is Pilot, all AI on board will be deployed.

Cancel Fast Rope Insertion / Ladder evac = Cancels the requested operation.

Hold Position (for fast roping and pickup) = Hold the helicopter steady for deployment of troops.

RADIO: Extraction = A LZ will be marked for day/night beacon and the helicopter in your team will land nearby to pick you up.

RADIO: Ladder Evac. = Request evacuation from a location unsuited to landing the helicopter.

Rapid Insertion = The helicopter you are flying in will land immediately and deploy the troops inside.

Mount Door Gun = Switch to gunners position from the cargo area.

Move to Cargo Seat = Switch to passenger position from gunners position.

Lower/Raise Rope Ladder = Lowers/Raises the ladder to allow others to board.

ORDER: Board MH60K (AI) = Orders the nearby members of the players group to climb into the chopper.

CLIMB ABOARD = Climb into chopper from the rope ladder.

KNOWN ISSUES

With the rope ladder extended, if you fly vertically straight up over a house with a flat roof, the ladder will be displaced. This is caused by the roadway LOD in the rooftops.

Dropping the rope ladder with somebody on it may cause them to become locked in the animation. They may be embedded in the floor, but may be able to get off the ladder as normal. Careless play is to be avoided. Realistic play gives its own rewards.

Anisotropic filtering appears to cause the dust to display graphical lag effects. Possibly. If you experience problems with the dust you can turn it off or reduce it.

In a multiplayer game the effects from the cabin and landing lighting may flicker. If it causes a problem, turn it off.

On a dedicated server, the AI fast rope insertions using the script described above do not work, and Fast rope insertion type D (fast roping from a non-group chopper) does not work well in MP.

The BAS Blackhawk is a very accurately modelled and textured item. Overloading any particular area in a mission with them may cause the game to slow down, especially if it is used with other high detail units.

The AI sometimes act strangely when being picked up.

Other assorted anomalies that proved difficult to track down.

SCRIPT PROBLEMS?

For additional help with these scripts please request TJ directly, at TJfx@ballistic.com, but these are meant for ADVANCED mission makers.

Budding mission makers can find plenty of advice about script implementation in the various OFP forums and at www.ofpec.com.