

THE INFAMOUS H2/3 MISSION EDITOR – PART I

Scripting the behavior of friendly and enemy AI-controlled units

By Michael Mykytyn

This is the first of a number of articles I have planned to discuss the art of scenario writing for Harpoon 2/3. My hope is to perhaps shed some light on the game as well as spark new interest in creating scenarios. I hope you enjoy the articles and contribute some of your own as well.

This first article is on the infamous Mission Editor. This is perhaps the most valuable tool for all scenario writers but unfortunately has a steep learning curve. I hope to flatten that curve out a bit and perhaps shed some light on the behaviors it invokes. I also will include several tips and tricks I have come across while exploring the art of writing scenarios. I do hope this all is extremely helpful and please let me know if I miss anything or something is in correct.

Finally, this article was written in late 2002 and the game is still in development. Jesse Spears is still working hard to work out some of the pre-existing bugs and new bugs which have come with the development of Harpoon 3. Some of these bugs exist in the mission editor and may be worked out in the future. This article will be updated to reflect the changes made by Jesse's bug work.

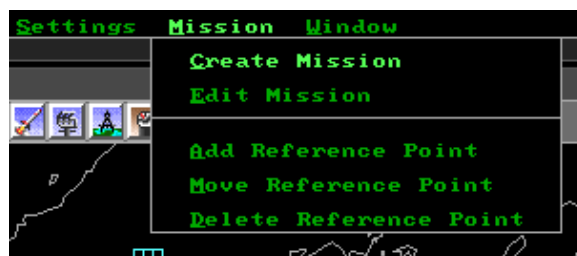
Lesson: 1 Understanding the Mission Editor

What is the Mission Editor?

The Mission Editor was an interface the developers provided in the scenario editor to get the AI to assign platforms to a range of behaviors. It is the principle tool the scenario editor/player uses to get his/her job done. It is also one of the biggest mysteries of the game.

Where is the Mission Editor?

The Mission editor is found under the basic tool bar provided in the Editor/Game interface. You simply click the Mission selection and a small menu opens up. In this menu are all the tools you need to create your missions and all are intuitive. Some missions require reference points or for you to select certain units. Please read the mission descriptions below to explain what missions need what.



Opening up the mission editor

Player Usage of the Mission Editor:

This is kind of a “tomato or tomatoe” type issue. Some players use it and some don't. You must remember that the AI is constricted to the do what the code tells it to do. So you may not get “what you would do” out of it. I personally use it to handle some of the menial or routine/repetitive tasks such as AEW patrols or ASW work. I micromanage the rest myself using the normal toolbar. On occasion, I will assign a strike package through it if conditions will allow, but this is only in a “lets see what will happen” kind of situation.

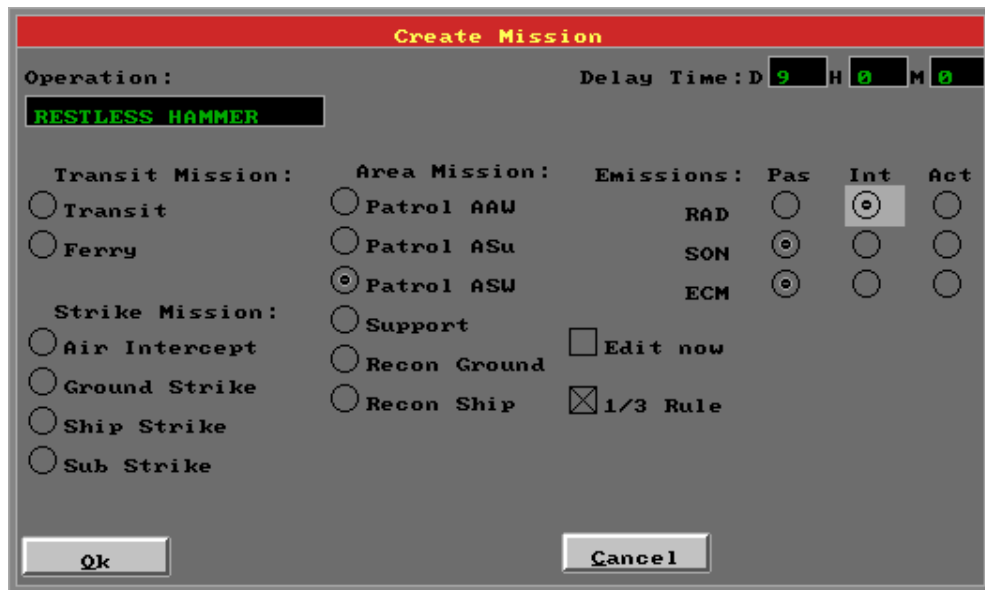
Scenario Writer Usage of the Mission Editor:

This is a must for any scenario writer, to get the friendly & enemy AI to do anything besides sitting there. Learning the usage of it opens up a new world for the writer, giving him the tools to create a challenging and realistic environment for the player. It is the only way to get the AI to fight well and create a fun game for players to enjoy. I hope this article assists in this process.

Lesson 2: Basic Operation of the Mission Editor:

Okay, I'm going to assume you learned how to get to the editor through the preceding sections and you've read through the official documentation, which should get you there and give some basic knowledge of the mission editor. You now have the big gray Create Mission Menu in front of you. How does this thing work? I'll give you the crash course section by section so we can move on to the good stuff.

First we will explore the "fill in" fields which are: Mission Name, Delay Time and Variation. The Mission Name field is fairly intuitive, as you just need to fill in the mission name. The developers did you give a hand by automatically filling it in with a generic mission name. I tend to create my own as these mission names are so generic that I often forget what each one is when looking at them. You will also notice a pair of menu items that are named: Delay Time and Variation. These are key tools designed for dealing with timing. Filling in these fields (Day, Hour, Second) gives you total control



Creating a new mission

of when things happen. The Delay Time fields are intuitive as you set the time when your mission shall occur. Variation is a neat little feature allowing you to change your timing a little bit as missions are undertaken. Most players recognize that the AI is a creature of habit and by changing your 10 p.m. strike to 10:10 p.m. the next day may challenge the player's expectations a bit. Remember how that F-117 was said to have been shot down over Serbia?

Next, we'll look at the radio buttons and check boxes provided in the interface. They are the mission selector radio buttons; the "Emissions" radio buttons; the "Edit Now" check box and the "1/3 Rule" check box. The mission selector buttons are intuitive as you just select the button of the mission you would like to create. The emissions control buttons are intuitive as well, as you just select the emission status (passive, intermittent, active) of each sensor type (radar, sonar, ECM). You simply select the button in each field.

Selecting the intermittent setting in this editor creates another set of steps that I will explain later in detail.

The "1/3 Rule" check box activates a rule that allows you to divide your in-place assigned forces by three. This is very valuable in auto-rotating your aircraft on repetitive patrol missions (CAPs, ASW patrols etc.), something very boring to do manually. You probably don't want to have all 12 interceptors in your inventory in the air at once, for example; the



The "Edit Missions" menu

enemy will simply wait for them to land for refuel/rearm and then catch you with your pants down. Instead, by checking the "1/3 Rule" box, only 4 will launch initially, then be replaced by another 4 etc. This way you'll always have at least 4 aircraft in the mission area, another 4 getting there or returning, plus 4 in the base being turned-around. (Of course, there are cases in which you do desire all your aircraft to launch at once, e.g. strikes. In this case you simply leave the "1/3 Rule" box unchecked). This feature only works for aircraft platforms.

Finally, the edit now check box. You check this box to

bring you to the next menu to activate your mission. You then click okay which will bring you to the next menu, the "Edit Missions" Menu.

The "Edit Mission" Menu is slightly intimidating at first look. Once you get the idea of how it works however, it becomes very simple. You have three large black fields to work with. From left to right they are Mission Name, Assigned Units and Unassigned Units. You also have a large collection of buttons at the bottom as well as some radio buttons.

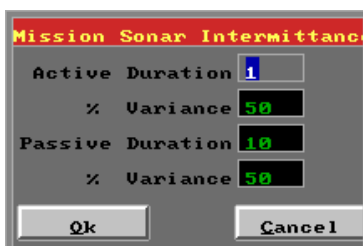
The large black fields work this way: You select your desired mission by clicking on its name on the left column (it will be highlighted when you do), then look on the far right hand for the listing of units to choose from. When you find the unit you would like to assign you double click it and it will then move to the "Assigned Units" field. This is the method to assigning a ship, submarine or a facility to a mission and you may assign more than one. If you wish to assign an aircraft, you simply click the Add AC button. This will bring up an inventory of your aircraft on a new menu. You then select the aircraft you would like and follow that by selecting the number you would like to assign and click "OK". When you return you will see the aircraft you assigned listed in the assigned units field in the assigned unit field and you are done.

The "Mission Sensor Settings" are there to allow you to change your EMCON status of the mission if you choose to do so. Selecting the intermittent setting on any sensor will call a small menu called Mission Sensor Intermittence. This is where you set up your timings and variances for your sensor settings. I will include a small section strictly dealing with this right below, as it is one of the bigger brain-busters in the game.

The rest of the buttons and radio buttons are fairly straightforward. They basically give you the ability to go back and change anything you set in the prior mission, or delete the mission altogether. When you are ready click okay and you have created a mission. You can always return to this menu to edit mission by selecting the edit mission selection under the Harpoon editor and game task bar at the top of your screen. Just remember to click the actual mission you would like to change before enacting your changes as you may inadvertently make changes to the first mission on the list.

Now, on to the aforementioned Mission Sensor Intermittence:

Harpoon 3 allows you to set your sensor settings to intermittent. What this means is, you are able to automatically shuffle between passive and active modes, and set your own time intervals for each. This is accomplished with the Mission Sensor Intermittence Menu, which is found by clicking the INT Radio button within the Edit Mission Menu.



**The mission sensor
intermittence menu**

When you do so, you see a small menu open up with four values to fill in which are paired. The first two are: Active Duration and Percent Variance and the second pair are: Passive Duration and Percent Variance. The Active Duration field is where you put the value for the number of minutes you would like this sensor to be active. The associated Percent Variance is the percent value change you would like your active value to change after each cycle. So if you entered 10 minutes active and a 20% variation. Your sensor will go active for 8 to 12 minutes (2 is 20% of 10). The Passive Duration field and its associated percent variance work the same way. You then click okay and you are complete. Not to bad is it?

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