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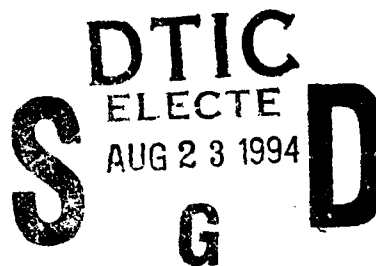
ADST/WDL/TR--93-003055

ADST
Operation Manual for the
Management Command and Control
Volume II: SIMNET/MASSCOMP Host MCC

Loral Western Development Labs
Electronic Defense Systems Software Department
Software Engineering Laboratory
3200 Zanker Road
San Jose, California 95161-9041

March 31, 1993

Contract No. N61339-91-D-0001
CDRL A00A

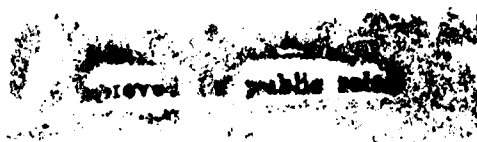


Prepared for

Simulation Training and Instrumentation Command
Naval Training Systems Center
12350 Research Parkway
Orlando, FL 328266-3275

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REPORT DOCUMENTATION PAGE			Form approved OMB No. 0704-0188
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget Project (0704-0188), Washington, DC 20503.			
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE 31 March 1993	3. REPORT TYPE AND DATES COVERED	
4. TITLE AND SUBTITLE ADST Operations Manual for the Management Command and Control Volume II: SIMNET/MASSCOMP Host MCC		5. FUNDING NUMBERS Contract No. N61339-91-D-0001	
6. AUTHOR(S) Nguyen, Dinh; Thompson, Lynn; Bright, Rick; Mitchell, Gerry; Kruck, Mary; Almanza, Joe			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Loral Systems Company ADST Program Office 12443 Research Parkway, Suite 303 Orlando, FL 32826		8. PERFORMING ORGANIZATION REPORT NUMBER ADST/WDL/TR-93-003055 CDRL A00A	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Simulation, Training and Instrumentation Command STRICOM Naval Training Systems Center 12350 Research Parkway Orlando, FL 32826-3275		10. SPONSORING ORGANIZATION REPORT	
11. SUPPLEMENTARY NOTES			
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.		12b. DISTRIBUTION CODE A	
13. ABSTRACT (Maximum 200 words) This manual provides the basic information to operate the SIMNET Management, Command and Control system, or SIMNET MCC.			
14. SUBJECT TERMS		15. NUMBER OF PAGES 213	
		16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	17. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	17. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT UL

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Scope

1 Identification

The purpose of this manual is to provide the basic information necessary to operate the MNET Management, Command and Control system, or SIMNET MCC. This system is made up of several different SIMNET elements, all of which may be started off of the BattleMaster's station SIMNET Control Console (SCC).

2 System Overview

The system needed for the SIMNET Battle Simulation includes:

- A SIMNET network like that at Fort Rucker (Site 4).

- Masscomp computer running the 1.0.0 Masscomp MCC with a Macintosh Bridge Console, a 1.0.0 SIMNET Control Console(SCC), a 1.0.0 Admin/Log Macintosh Console(ALOG), a 1.0.0 Maintenance Console(MAINT), a 1.0.0 Close Air Support Console(CAS), a 1.0.0 Fire Support Element (FSE) and a 1.0.0 Combat Engineering Console (CEC) Macintosh Consoles can also be used in AIRNET exercises.

- (Optional) A Data logger to capture the PDUs sent between the MCC's and the vehicles.

- (Optional) A PVD to see the vehicles on the SIMNET network and their positions on the terrain. The PVD is also recommended for determining the UTM coordinates on which to place the vehicles.

3 Document Overview

This manual contains the operating instructions for the SIMNET MCC, which includes the SIMNET Control Console, the Close Air Support Console, the Fire Support Element Console, the Admin/Log Console, the Combat Engineering Console and the Maintenance Console.

The remainder of this document is organized as follows:

- Section 2, Referenced Documents, identifies all of the documents that are included in this document by reference or that provide additional information to support the MCC operational procedures described herein.

- Section 3, Describes the MCC Workstation Screen conventions.

- Section 4, Describes the hardware, software and other requirements to support battle exercise simulation.

- Section 5, Describes the SIMNET Control Console (SCC).

Section 6, Describes the Close Air Support Console (CAS).

Section 7, Describes the Fire Support Element Console (FSE).

Section 8, Describes the Admin/Log Console (ALOG).

Section 9, Describes the Combat Engineer Console (CEC).

Section 10, Describes the Maintenance Console (Maint).

Section 11, Notes, provides additional information that aids in understanding the MNET MCC system described herein. It also includes a list of acronyms and definitions of rms used in this document.

Appendix A, provides the SIMNET MCC Screens flow diagrams.

Referenced documents.

The following documents are referenced in this document or provide supplementary information that will be useful in understanding the SIMNET MCC's operations.

1 MCC Related Documents

Reconfigurable MCC, BBN Report No. 7734, BBN, June 26, 1992.

The SIMNET Management, Command and Control System, Report No. 6473, Bolt, Beranek and Newman, March 1987.

The Software Requirements & Interface Specification for the AIRNET MCC Comanche Support and Digital Message/Communications Upgrade, December 18, 1992.

Combat Engineer MCC Console Operations Documentation, Perceptronics, INC. February 5, 1991.

Management, Command and Control System Operations Documentation, Illusion Engineering, INC. March 15, 1990.

2.2 SIMNET Related Documents

The SIMNET Network Protocols, Report No. 7627, Arthur R. Pope, Prepared for DARPA by Bolt, Beranek and Newman, Inc. June 1991.

MCC Console Screen Conventions

The SIMNET MCC has been designed to minimize the use of computers, and does not require you to have technical computer skills. The consoles do, however, require entry of information into the computer. You will be prompted and guided through all steps necessary in the entry of such information.

To use this system, you will need to recognize a few of the components of a Macintosh. You will use three basic pieces of equipment: 1) the computer screen display, 2) the keyboard, and the "mouse" - the hand held device used to manipulate the pointer.

As you continue through this manual, you will be instructed to "select", "click on", or "double click" using the mouse. You will find that the pointer (called a cursor) responds instantly to movements you make with the mouse. You will have the best control of the mouse if you hold the mouse with its cable pointing away from you, and your index finger on or above the mouse button. When you run out of room on the table, or want to get the mouse into a more comfortable position, simply pick it up from the surface of the table, and put it down again where you want it.

To select an item on your screen, move the mouse in exactly the same way you want the cursor to move. When you have reached the point on the screen that you want, making sure that the point of the cursor is located on the item, push the mouse button to "select" it. This action is called "clicking." Clicking once is usually required in the SIMNET operations, but sometimes you will be instructed to "double click" for a different operation. To do this, press your mouse button twice, fast.

In each one of the following sections, you will be shown pictures of the computer screens that apply to your task. Along with these figures, a step by step instruction guide will explain the procedure necessary to inform the computer of what, where, when, and how you want it to do things. Each button or blank shown on the screen will be described below the figure, and an explanation of any choices to be made will be furnished, if necessary. Follow the instructions in sequence. They will prompt you through all the steps needed to enter information.

1 Console and Screen Title

Many screens on SIMNET MCC console include a title in the title bar. This title is the name of the function that is to be performed and is worded identically to the function listed in the Overview Menu.

2 Previous Option

On the Initialization screen, each of the successive initialization screens contain a **Previous** button. Clicking this button brings back the previous screen in the current initialization sequence.

3.3 Next Option

Each of the successive initialization screens also contains a **Next** button. Clicking the **Next** button causes the MCC program to store the entries made on a screen and bring up the next screen in the initialization sequence.

3.4 OK Option

Throughout the initialization and operation phases of the simulation exercise, detailed data boxes will superimpose over various MCC screens. In each case, these data boxes offer an **OK** button at the lower right of the dialog box. The **OK** button is highlighted with a heavy outline, indicating that the function can also be performed by pressing the **RETURN** key on the keyboard. Clicking the **OK** button informs the MCC software that the user is satisfied with the data entered in the dialog box.

3.5 Data Entry into Boxes

Many MCC screens require that information and data be entered into boxes. On all such screens, as opposed to the screens where selections are made only by clicking, the MCC program brings up the screen with default data entered (if available) and with the cursor positioned in the first data box. The operator is able to enter or change data in each box successively by using either the **TAB** key on the keyboard or the mouse. Successful operations will result in completion of data entry in all boxes. The MCC console operator can position the cursor in any box with the mouse.

3.6 Help Option

Each of the successive initialization screens also contains a **Help** button. For each screen, a dialog message provides instructions for completing the screen at hand for the individual performing initialization. These dialog screens are programmed to appear superimposed over the screen at hand when the **Help** button is clicked as shown in Figure 3.6.

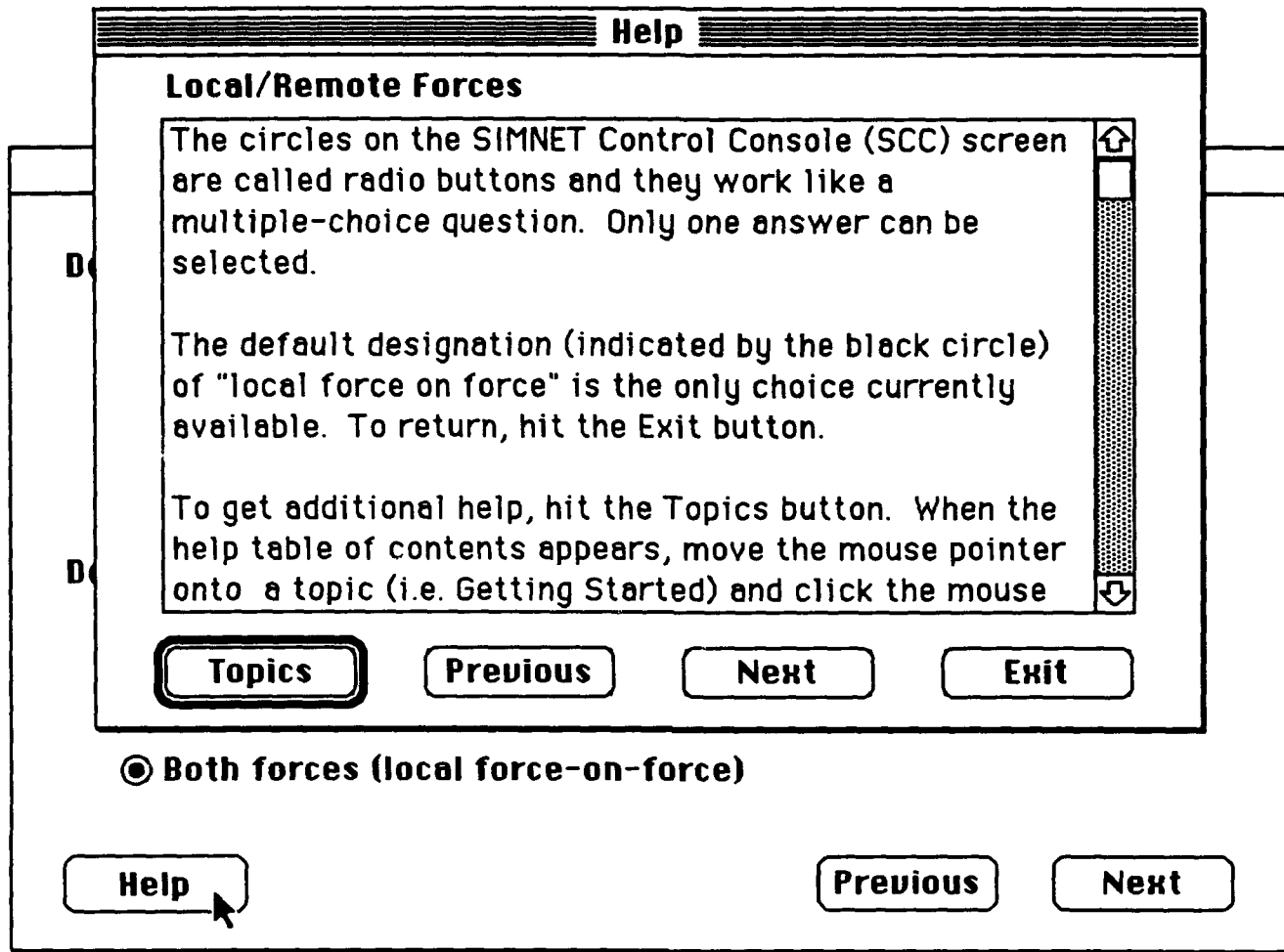


Figure 3.6 Help Screen

4. Operation Preparations.

4.1 Hardware Preparation.

Figure 4.1 shows the equipment configuration for the SIMNET MCC system.

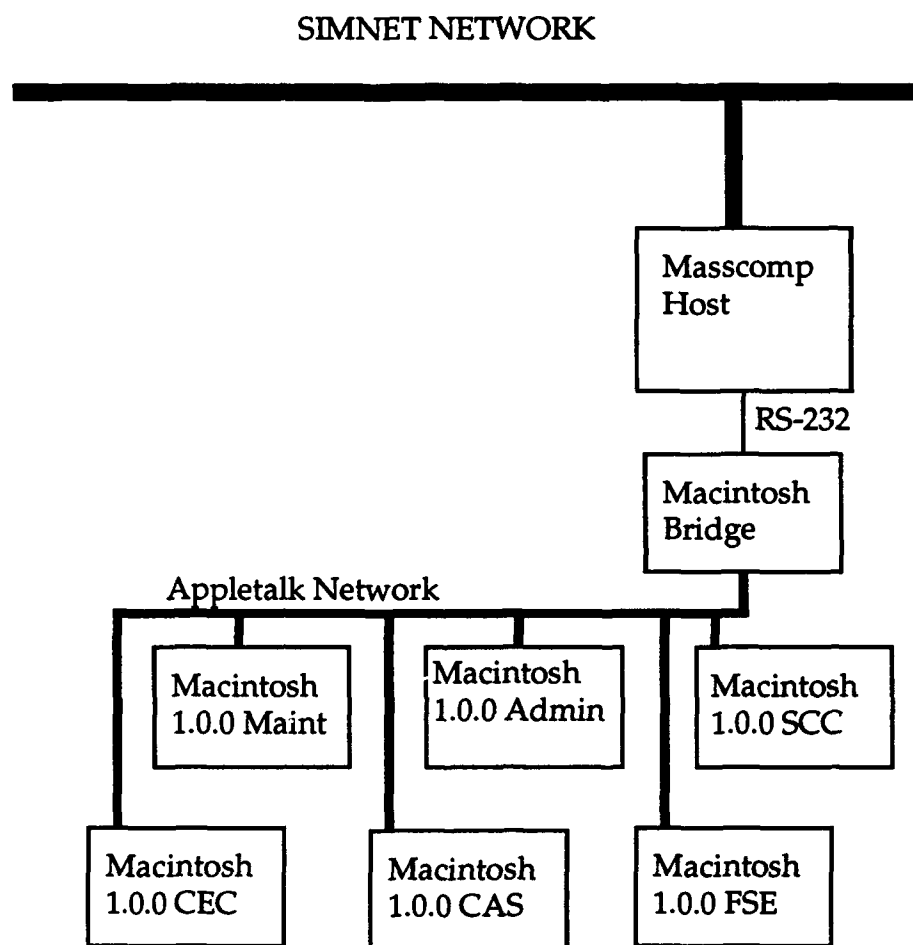


Figure 4.1 MCC System Top Level Hardware Configuration

4.2 Software Preparation.

The following Software must be specifically configured to support the SIMNET MCC Simulation:

- Macintosh SCC console software version 1.0.0
- Macintosh CAS console software version 1.0.0
- Macintosh ALOG console software version 1.0.0
- Macintosh CE console software version 1.0.0

Macintosh FSE console software version 1.0.0
Macintosh MAINT console software version 1.0.0

Macintosh OS : preferably version 6.0.5.
Shiva FastPath Manager II
Shiva K-STAR version 8.0.1

4.3 Other Preparations.

The following databases must be available to support the MCC AIRNET Simulation:

Fort Knox database - 08/14/90

Hunter-Liggett - 09/28/90

4.4 Masscomp Initialization.

The following steps must be accomplished to initialize the Masscomp:

- Start up the Macintosh SCC Console software by double clicking on the SCC AT icon.
- Start up the other Macintosh Consoles by double clicking on the "XXX" AT icon.

NOTE : All consoles should display a dialog box with This "XXX" Console is not currently used in this exercise. Where "XXX" is the name of the console.

- On the Masscomp, type `cd /simnet/bin.`
- Type `/MCC` to Execute the executable MCC which restarts ringstart and starts up all of the Masscomp MCC processes.
- The Macintosh SCC AT Initialization screen should come up after several seconds. If not, check the Masscomp MCC to insure that it is functioning.

5. SIMNET Control Console.

The SIMNET Control Console (SCC) is located at the BattleMaster station. It is used to control the initialization, allocation and placement of simulators, and the initialization of both the Administration and Logistics Center, and the Tactical Operations Center. It is also used to initialize Close Air Support, Combat Engineer, Fire Support, and Combat Service Support. All BattleMaster functions, including Displacement, Reconstitution, Resupply, Close Air Support, and allocation of gunnery targets also take place from this console.

5.1 Exercise Initialization.

"Initialization" is a structured procedure that is used to start an exercise. It is the first computerized task of a SIMNET exercise, initialization is accomplished from the SIMNET Control Console (SCC). The BattleMaster is responsible for operating this system, but he allows participating commanders and their staff to access the terminal to input required initialization information.

Before you begin the initialization procedure, you will need to know the following:

Location - the geographic area in which the exercise is to take place.

Task Organization - the assignment of offensive forces and defensive forces.

Start Location - the six-digit coordinates, with grid designators, for all participating forces/units.

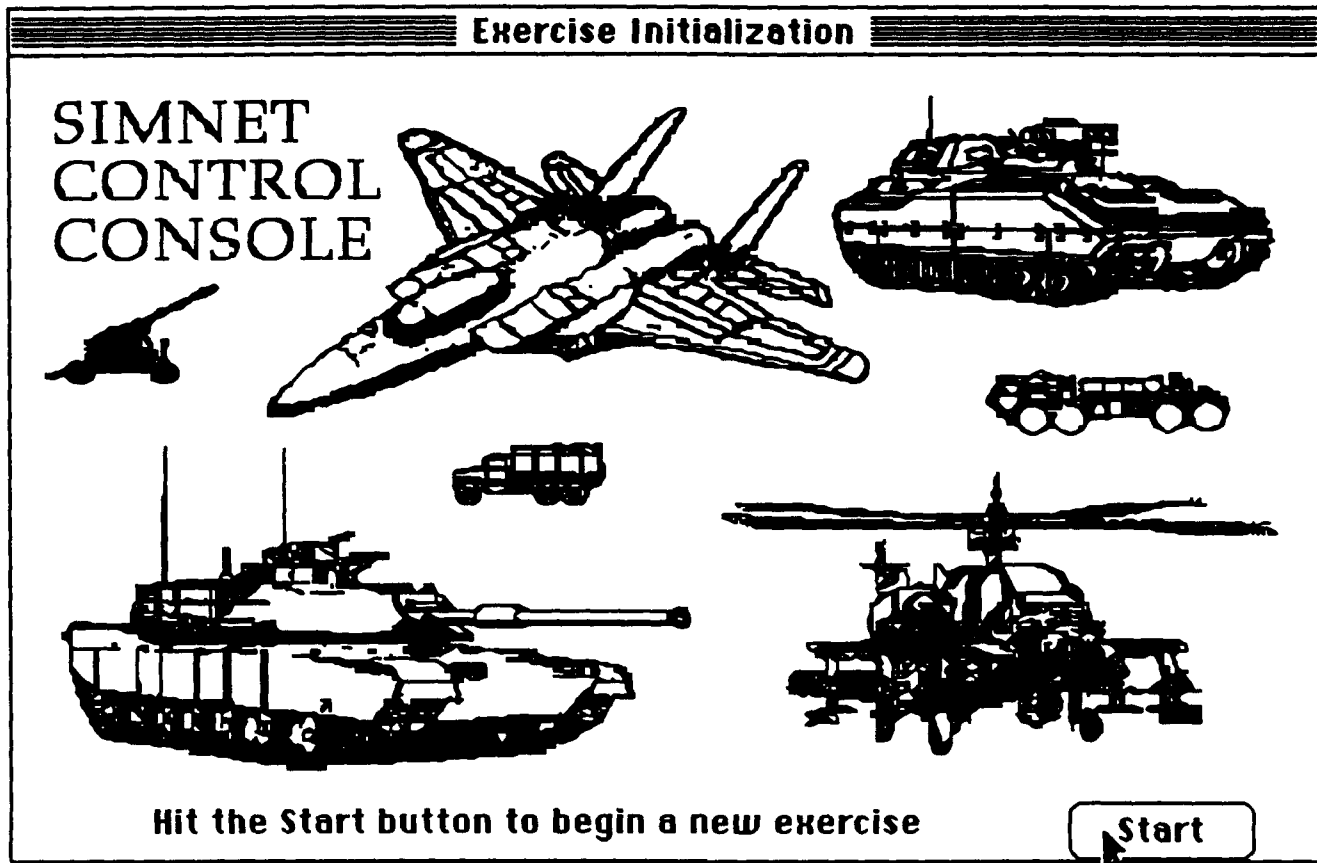


Figure 5.1 SIMNET Control Console opening screen

Figure 5.1 is the beginning screen of the initialization process.

Click on the **Start** button to begin the exercise initialization.

5.2 Designate Exercise Type.

There are two options in designating the type of exercise that is desired for training. By choosing one of these two possible exercise types, you will determine how each force sees its own vehicles and how it sees the opposing vehicles. The SIMNET concept of visibility is as follows:

Given six vehicles A, B, C, D, E and F. Of these six, A and B are designated as US, C and D are designated as Soviet, E and F are designated as Observers.

The first option: **"A force of simulated US vehicles versus a force of simulated Threat vehicles"**, there are two opposing forces (and sometimes observer vehicles that do not fight). This option requires operator selection.

A and B see each other as friendly, US vehicles. They see C and D as enemy, Soviet vehicles. They see E and F as friendly, US vehicles.

C and D see each other as friendly, Soviet vehicles. They see A and B as enemy, US vehicles. They see E and F as friendly, Soviet vehicles.

E and F see each other as US vehicles. They see C and D as Soviet vehicles. They see A and B as US vehicles.

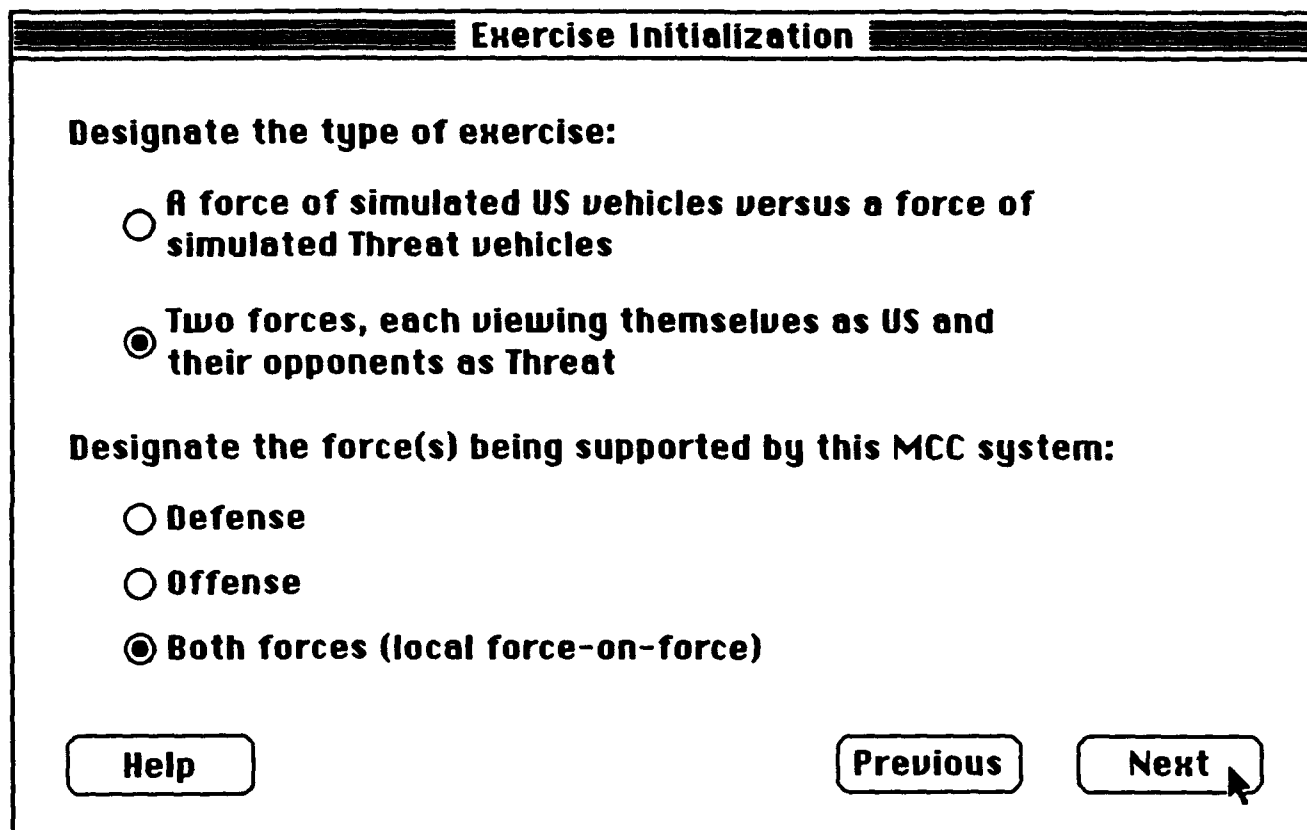
The second option (defaulted): **"Two forces, each viewing themselves as U.S. and their opponents as Threat"** allows either force to see its own vehicles as U.S. shaped vehicles and the opposing force vehicles as Threat. This situation guarantees that the U.S. troops being trained will never see U.S. vehicles as targets. In this version of SIMNET, forces are referred to as Offense and Defense, not U.S. or Threat.

A and B are designated as Offense, C and D are designated as Defense, E and F are designated as Observers.

A and B see each other as friendly, US vehicles. They see C and D as enemy, Soviet vehicles. They see E and F as friendly, US vehicles.

C and D see each other as friendly, US vehicles. They see A and B as enemy, Soviet vehicles. They see E and F as friendly, US vehicles.

E and F see each other as US vehicles. They see C and D as Soviet vehicles. They see A and B as US vehicles.

A screenshot of a graphical user interface window titled "Exercise Initialization". The window has a dark title bar. Inside, the text "Designate the type of exercise:" is followed by two radio button options. The first option is "A force of simulated US vehicles versus a force of simulated Threat vehicles" and is currently unselected. The second option is "Two forces, each viewing themselves as US and their opponents as Threat" and is selected with a filled circle. Below this, the text "Designate the force(s) being supported by this MCC system:" is followed by three radio button options. The first is "Defense", the second is "Offense", and the third is "Both forces (local force-on-force)", which is selected with a filled circle. At the bottom of the window are three buttons: "Help", "Previous", and "Next". A mouse cursor is pointing at the "Next" button.

Exercise Initialization

Designate the type of exercise:

- ☐ A force of simulated US vehicles versus a force of simulated Threat vehicles
- ☒ Two forces, each viewing themselves as US and their opponents as Threat

Designate the force(s) being supported by this MCC system:

- ☐ Defense
- ☐ Offense
- ☒ Both forces (local force-on-force)

Help **Previous** **Next**

Figure 5.2 Exercise Initialization

Option 1: "A force of simulated US vehicles versus a force of simulated Threat vehicles"

Although the second option (discussed later) will automatically appear as already chosen, the option above may be selected by operator input.

Step 1: Select the top circle to allow the vehicles to view themselves as US (brown) vehicles or Threat (green) vehicles.

Step 2: Click to select the "Designate the force(s) being supported by this MCC system".

Option 2: "Two forces, each viewing themselves as U.S. and their opponents as Threat"

Step 1: Select the second circle to allow all vehicle to view themselves as US (brown) vehicles and opponents as Threat (green) vehicles.

This option will appear as an already filled in "default" screen. It will also automatically designate force support as **Both forces** discussed below.

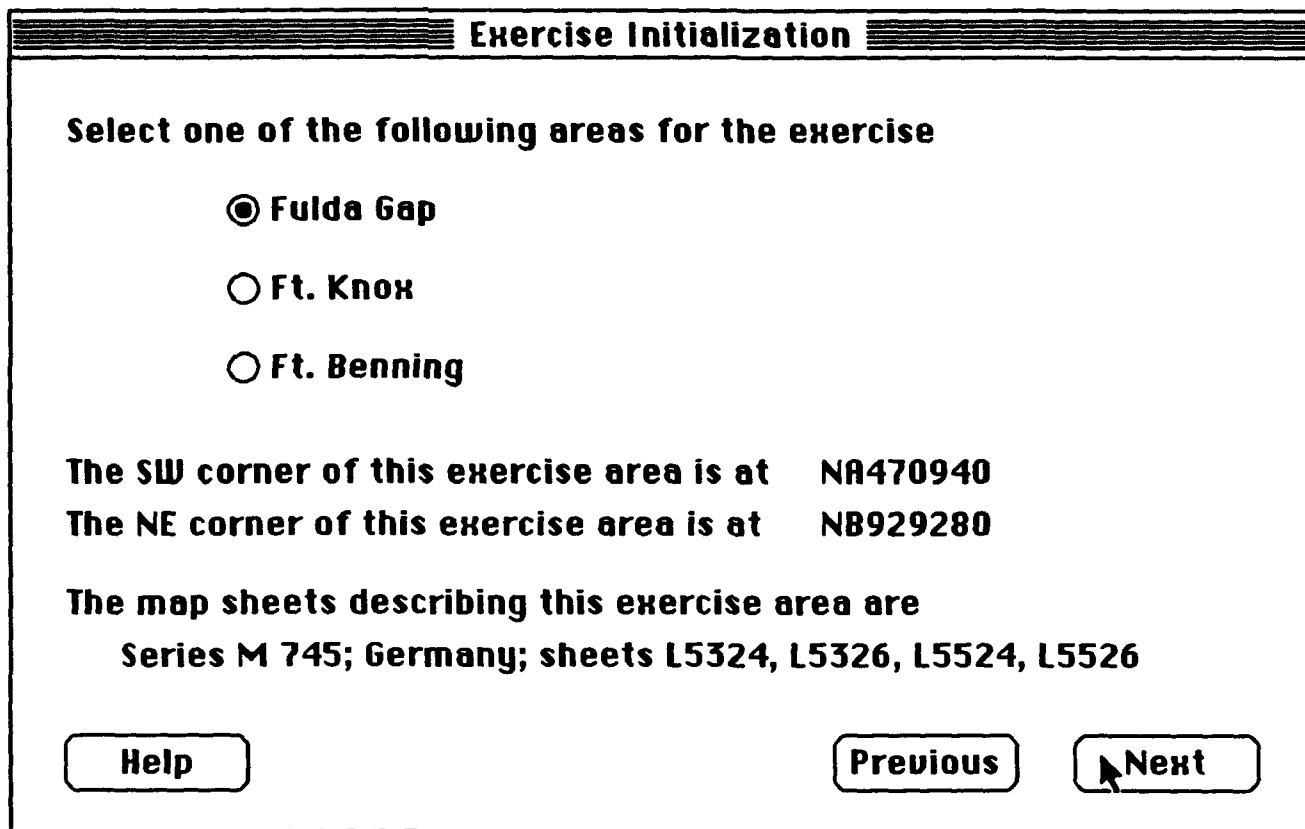
Step 2: Click to select the "Designate the force(s) being supported by this MCC system".

Click on the **Help** button to see an index of available help options on the SIMNET Control Console.

Click on the **Previous** button to see the screen shown prior to the currently displayed screen.

Click on the **Next** button to see the next screen in the initialization process. Select this button when you are ready to go on with the initialization process.

5.3 Terrain Selection.



Exercise Initialization

Select one of the following areas for the exercise

☒ **Fulda Gap**

☐ **Ft. Knox**

☐ **Ft. Benning**

The SW corner of this exercise area is at **NA470940**

The NE corner of this exercise area is at **NB929280**

The map sheets describing this exercise area are
Series M 745; Germany; sheets L5324, L5326, L5524, L5526

Help **Previous** **Next**

Figure 5.3 Terrain Selection

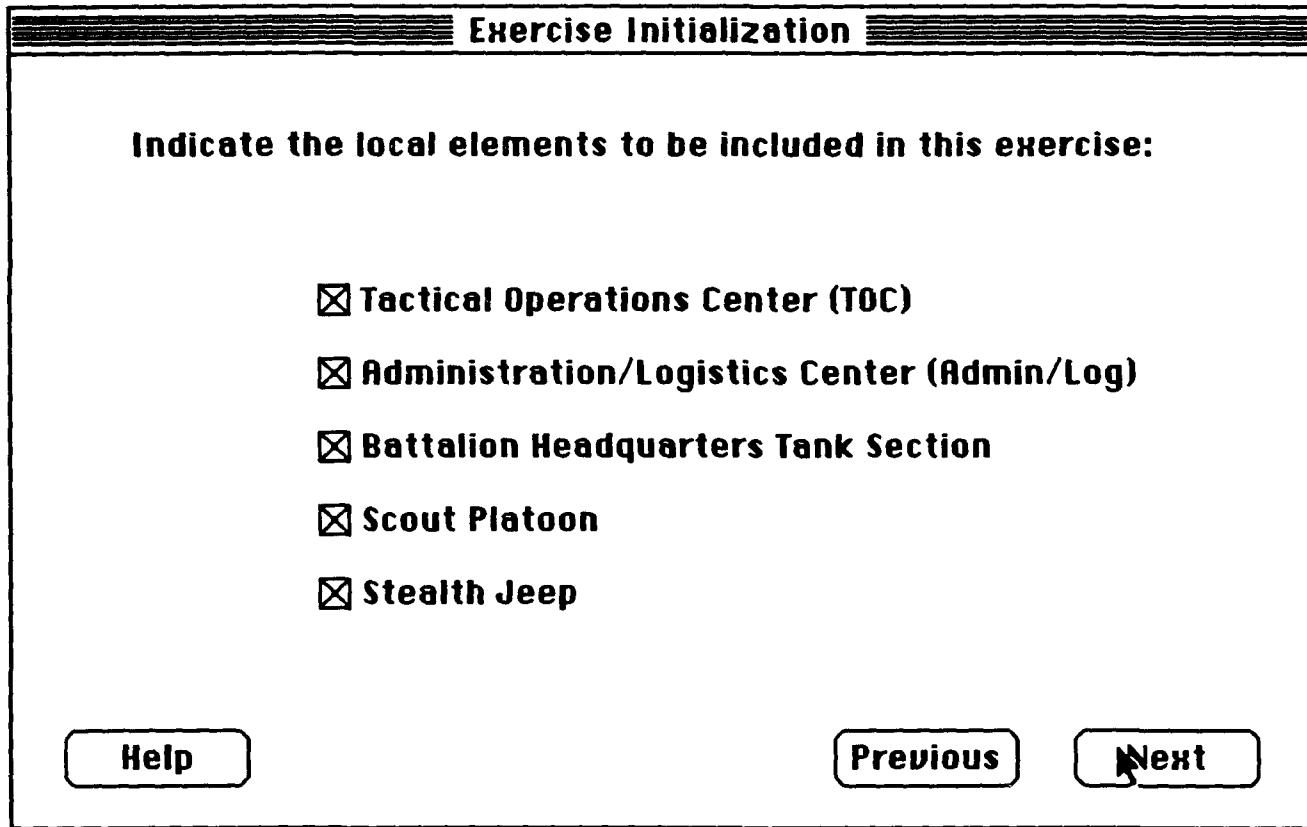
"Select one of the following areas for the exercise":

Step 1: Click to select the terrain data base for the exercise. The appropriate SW and NE corner coordinates and map sheets for the exercise will then be displayed.

Click on the **Next** button to bring up the Exercise Element initialization screen 1 as shown in Figure 5.4-1.

Click on the **Previous** button to return to Figure 5.2.

5.4 Elements Selection.



The image shows a window titled "Exercise Initialization". Inside the window, the text "Indicate the local elements to be included in this exercise:" is displayed. Below this text, there is a list of five elements, each preceded by a checked checkbox (an 'X' inside a square box). The elements are: "Tactical Operations Center (TOC)", "Administration/Logistics Center (Admin/Log)", "Battalion Headquarters Tank Section", "Scout Platoon", and "Stealth Jeep". At the bottom of the window, there are three buttons: "Help" on the left, "Previous" in the center, and "Next" on the right. The "Next" button has a mouse cursor icon pointing at it.

Exercise Initialization

Indicate the local elements to be included in this exercise:

- ☒ Tactical Operations Center (TOC)
- ☒ Administration/Logistics Center (Admin/Log)
- ☒ Battalion Headquarters Tank Section
- ☒ Scout Platoon
- ☒ Stealth Jeep

Help Previous Next

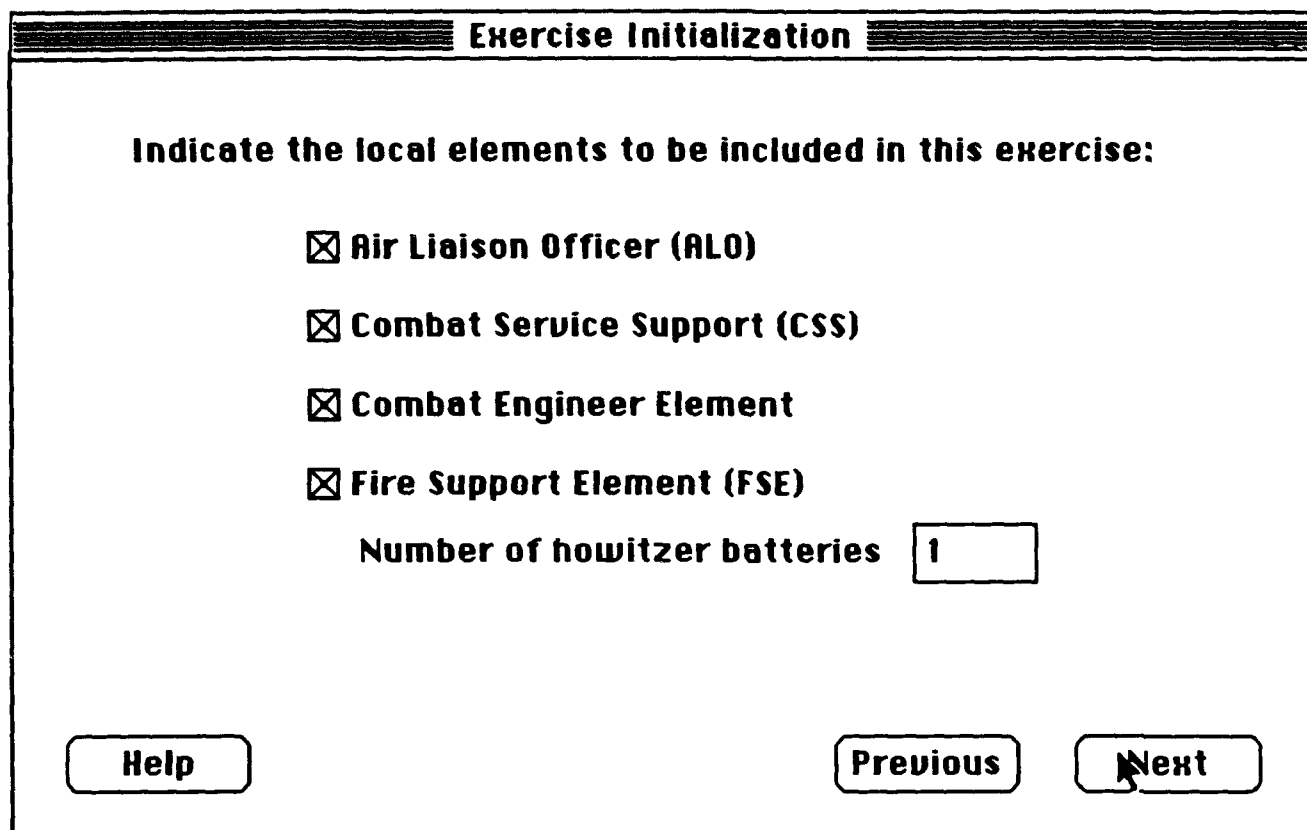
Figure 5.4-1 Exercise Elements 1

"Indicate the local elements to be included in this exercise"

Step 1: All possible options will automatically appear as selected. If you wish to eliminate one or more elements, click the box for each selection added or omitted from the exercise. The first click will eliminate the X, a second click will add the X. By selecting an item, each element with an X in the box will be available for the exercise, although you may not need it.

Click on the **Next** button to bring up the Exercise Element initialization screen 2 as shown in Figure 5.4-2.

Click on the **Previous** button to return to Figure 5.3.



The image shows a window titled "Exercise Initialization". Inside the window, the text "Indicate the local elements to be included in this exercise:" is followed by four checked checkboxes: "Air Liaison Officer (ALO)", "Combat Service Support (CSS)", "Combat Engineer Element", and "Fire Support Element (FSE)". Below these is the text "Number of howitzer batteries" followed by a small input box containing the number "1". At the bottom of the window are three buttons: "Help", "Previous", and "Next".

Exercise Initialization

Indicate the local elements to be included in this exercise:

- ☒ Air Liaison Officer (ALO)
- ☒ Combat Service Support (CSS)
- ☒ Combat Engineer Element
- ☒ Fire Support Element (FSE)

Number of howitzer batteries

Help Previous Next

Figure 5.4-2 Exercise Elements 2

"Indicate the local elements to be included in this exercise"

Step 1: All possible options will automatically appear as selected. If you wish to eliminate one or more elements, click the box for each selection added or omitted from the exercise. The first click will eliminate the X, a second click will add the X. By selecting an item, each element with an X in the box will be available for the exercise, although you may not need it.

"Number of howitzer batteries"

Step 2: The number of howitzer batteries automatically appears as 1. If you require more than 1, click the mouse twice to highlight the small window, then type in the desired number of howitzer batteries.

Note: A maximum of 3 howitzer batteries may be used.

Click on the Next button to bring up the Default Company Selection screen as shown in Figure 5.5.

Click on the Previous button to return to Figure 5.4-1

5.5 Company Selection.

Exercise Initialization				
Specify the participation of each company in this exercise:				
	Non-Participant	Defense	Offense	Mixed
A Company	☐	☐	☐	☒
B Company	☐	☐	☐	☒
C Company	☐	☐	☐	☒
D Company	☐	☐	☐	☒

Figure 5.5 Default Company Selection

The configuration shown here appears when Option 2, "Two forces, each viewing themselves as US and their opponents" and "Both Forces" has been chosen. Mixed participation allows the alignment to be selected for each simulator.

Step 1: Click to select the company participation for the exercise.

Click on the Next button to bring up the Initialization Status confirmation screen as shown in Figure 5.6.

Click on the Previous button to return to Figure 5.4-2.

5.6 Initialization Confirmation.

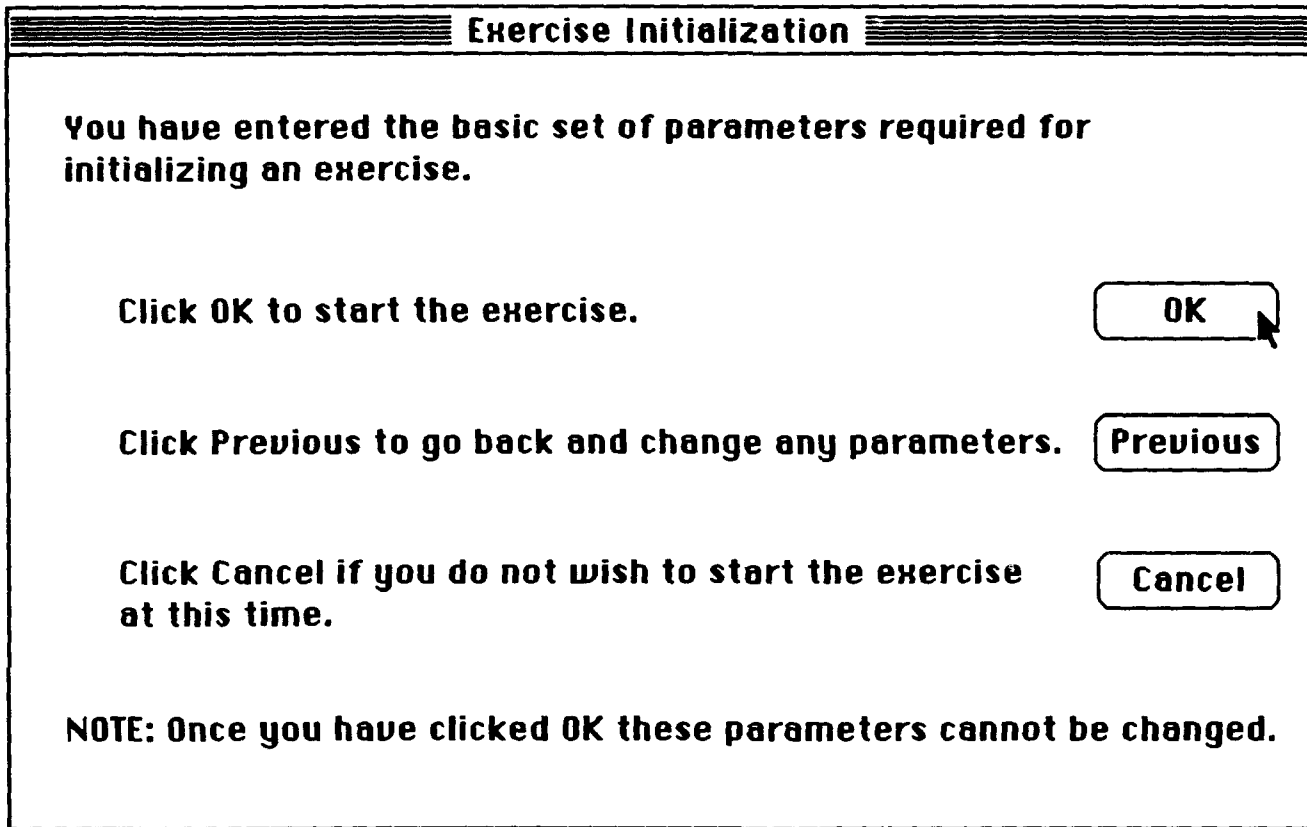


Figure 5.6 Initialization Confirmation

Click on the **OK** button to start the exercise and to bring up the Initialization Menu as shown in Figure 5.7.

Click on the **Previous** button to return to the Figure 5.5.

Click on the **Cancel** button to return to the Figure 5.1.

5.7 Complete Exercise Initialization.

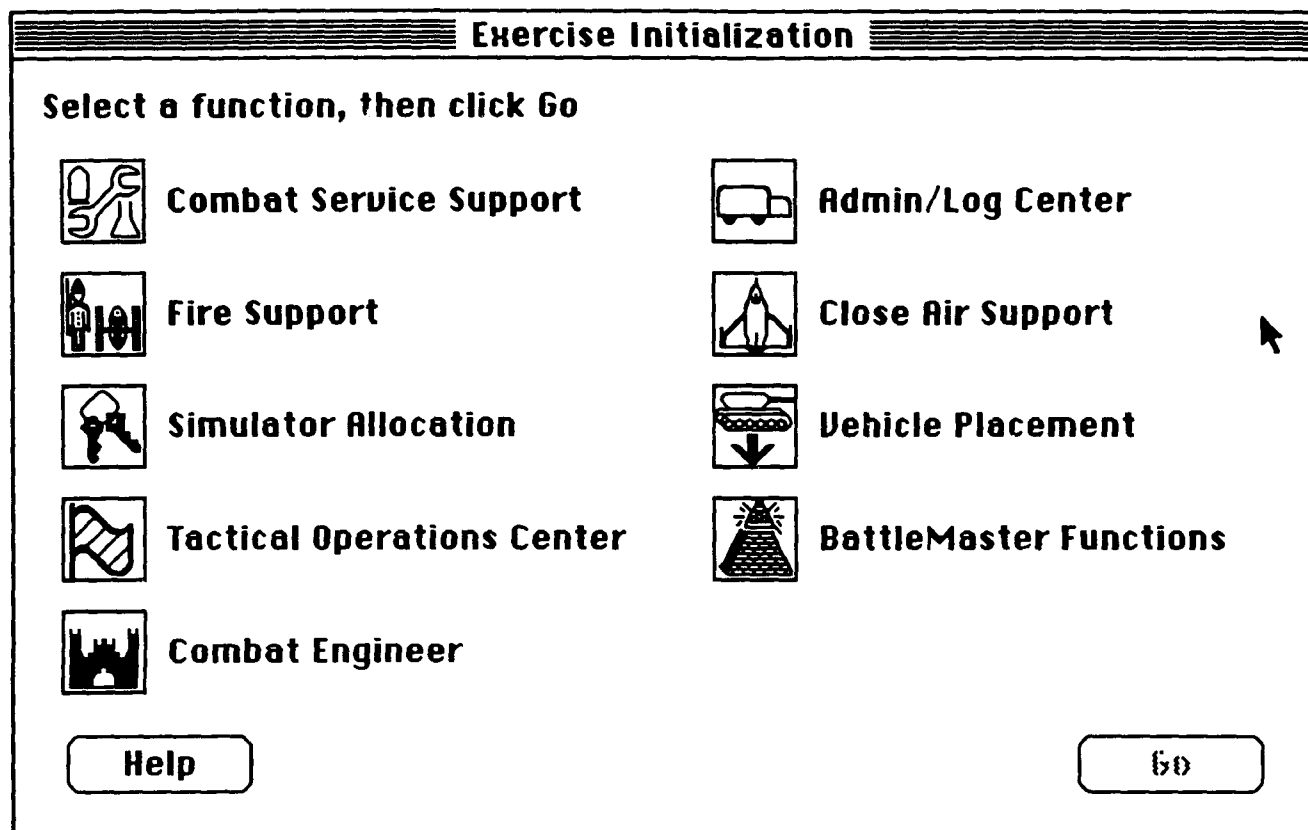


Figure 5.7 Initialization Menu

The Initialization Menu as shown in Figure 5.7 will appear at the end of the Exercise Initialization process. Its purpose is to group force element initialization into specific functional areas to assure that all data necessary for the simulation exercise is input to the SIMNET MCC program in an orderly manner. Note that the function icon is "boxed" when it has been selected. From this step, proceed on to the next Initialization sequence by clicking the cursor on the Go button.

5.8 Combat Service Support Initialization

This section describes how to initialize the "Combat Service Support" assets and how to place them in their starting positions for the training exercise.

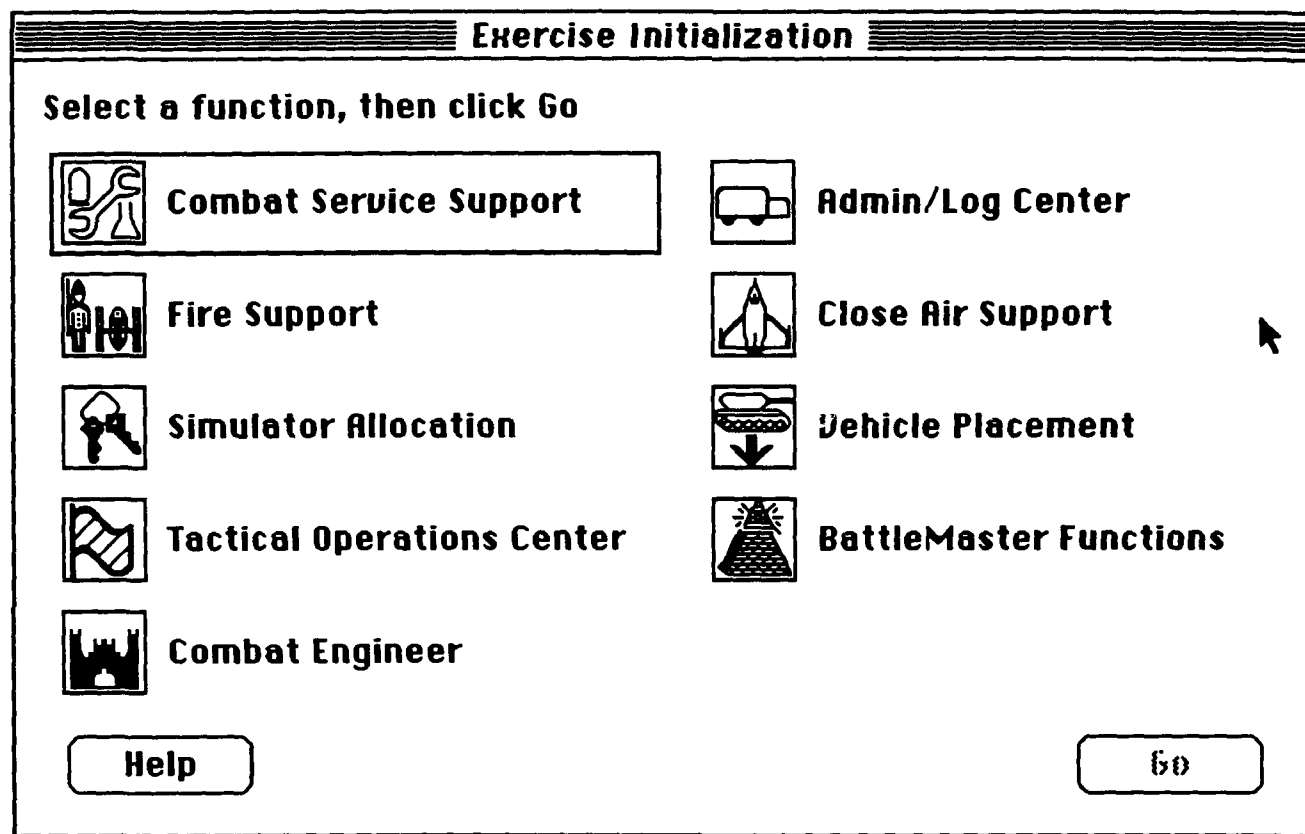
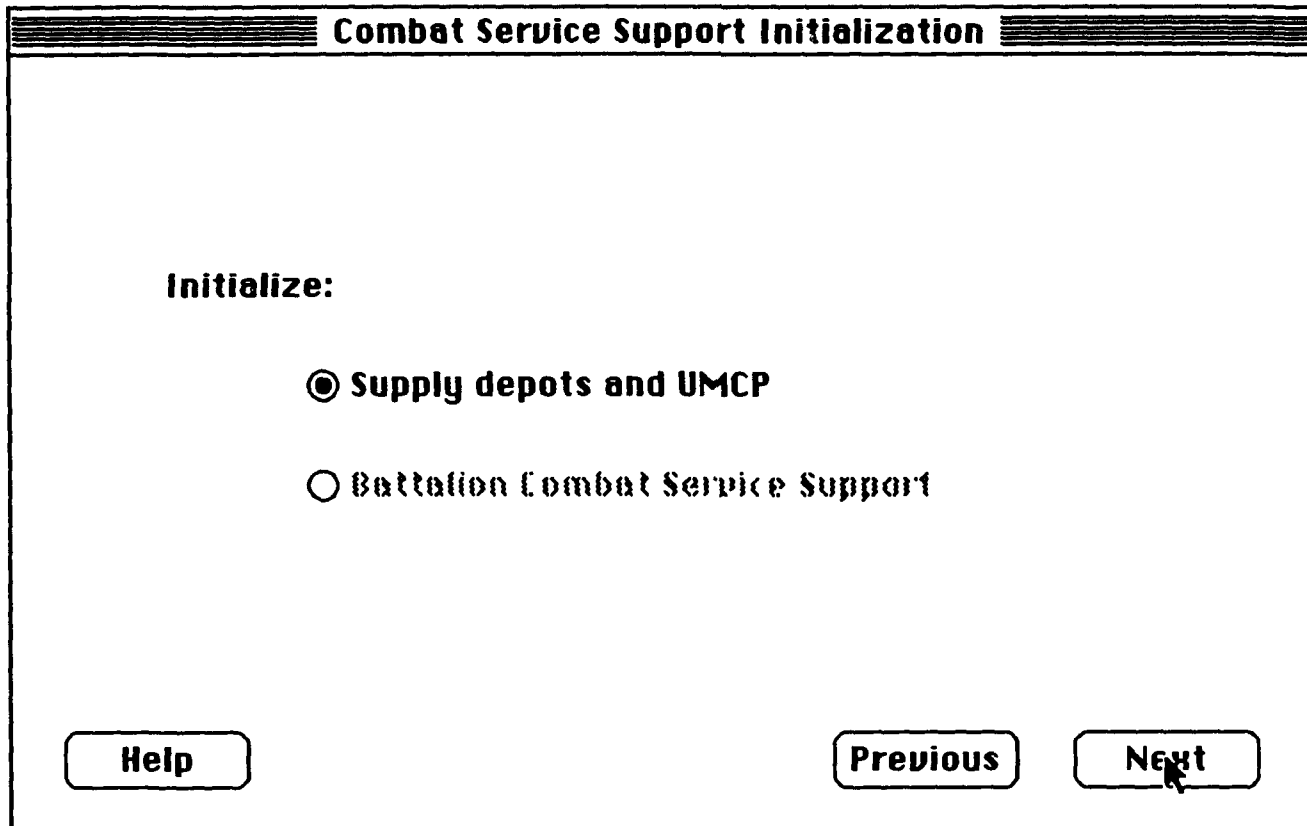


Figure 5.8 Combat Service Support Selection

On Figure 5.8, select the **Combat Service Support** icon and click on the **Go** button to start the Combat Service Support Initialization process.



Combat Service Support Initialization

Initialize:

☒ **Supply depots and UMCP**

☐ **Battalion Combat Service Support**

Help **Previous** **Next**

Figure 5.8-1 Supply Depots and UMCP

Figure 5.8-1 will automatically appear with the dot filled in for **Supply depots and UMCP**. Battalion Combat Service Support cannot be selected now but will be available later.

Click on the **Next** button to bring up the Division and Brigade Support Areas screen as shown in Figure 5.8-2.

Click on the **Previous** button to return to the Figure 5.8.

Combat Service Support Initialization		
Division and Brigade Support Areas		
Class III Supply Locations		
Class III Supply Point	NB530033	(in DSA)
Class III Distribution Point	NB606088	(in BSA)
Class V Supply Locations		
Ammo Supply Point	NB530033	(in DSA)
Ammo Transfer Point	NB606088	(in BSA)
Unit Maintenance Collection Point	NB635085	
Help	Previous	Next

Figure 5.8-2 Division and Brigade Support Areas

Step 1: Enter the six-digit grid coordinates for all class III and V supply locations for the start of the exercise. After you have entered one set of coordinates, fill in the next line. Be sure to include the grid zone designator with all the coordinates.

Click on the Next button to bring up the Supply Depots Initialization confirmation screen as shown in Figure 5.8-3.

Click on the Previous button to return to the Figure 5.8-1.

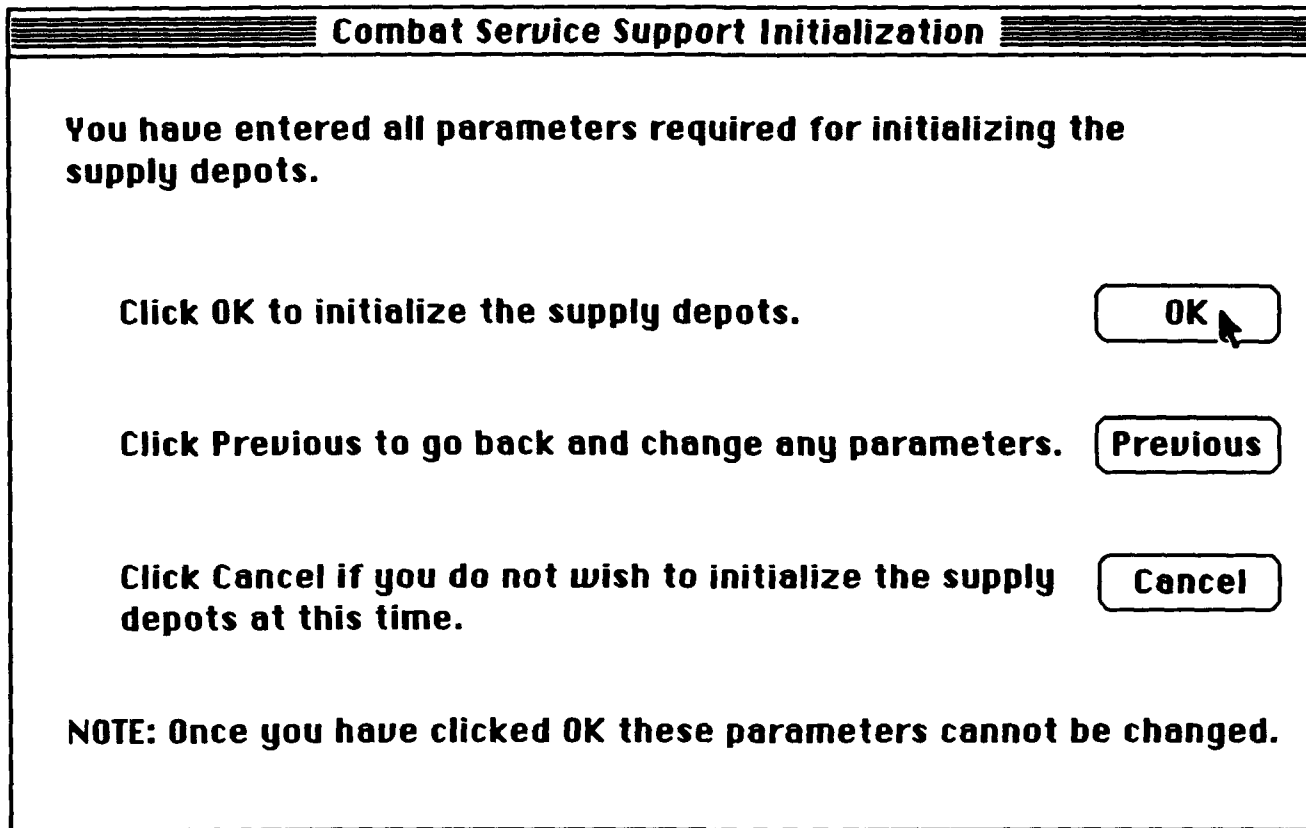


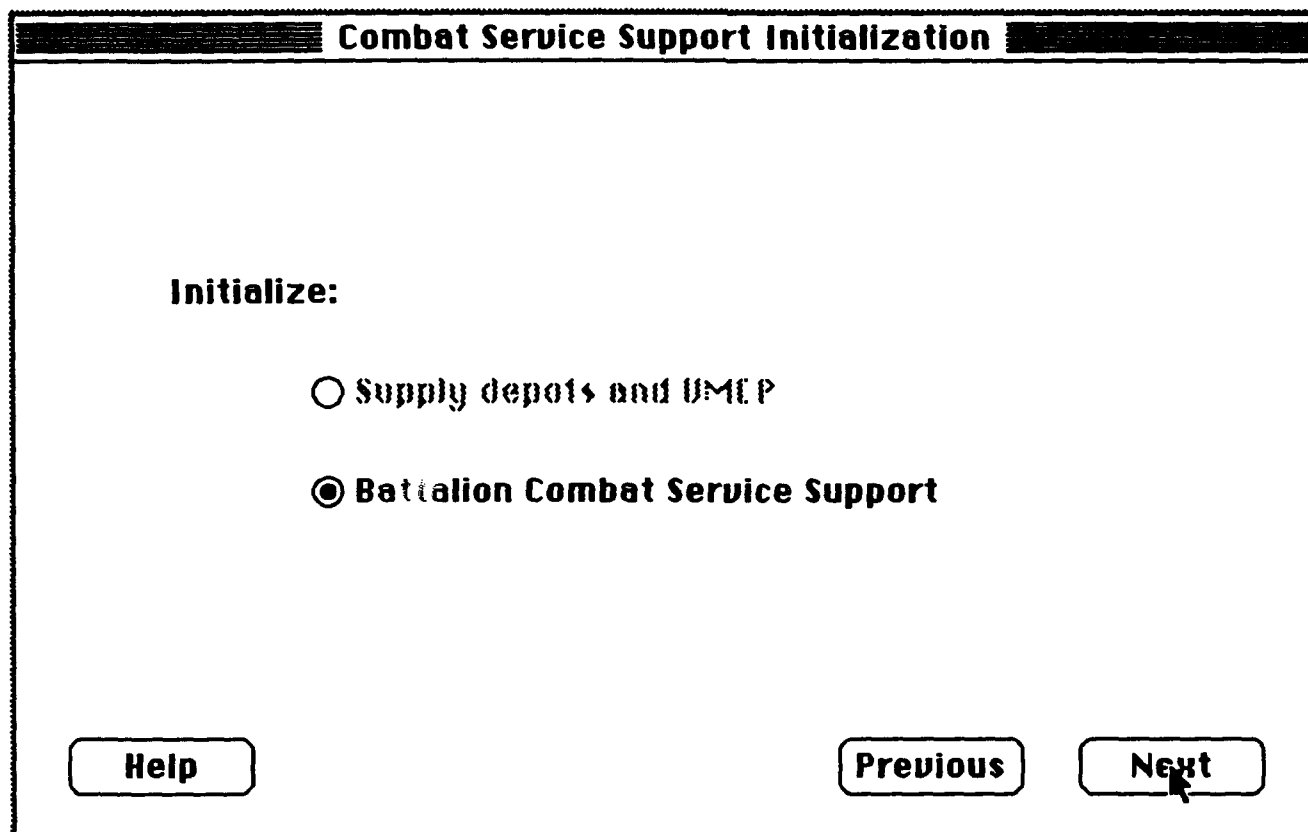
Figure 5.8-3 Supply Depots Initialization confirmation

Click on the **Previous** button to go back and change any Combat Service Support initialization data.

Click on the **Cancel** button to delay the start of the Combat Service Support initialization.

Click on the **OK** button to initialize the Supply depots and UMCP and to bring back Figure 5.8. After clicking **OK**, only the BattleMaster Function of "Reconstitution" will be allowed to change parameters.

To complete the "Combat Service Support" initialization, select the **Combat Service Support** icon for a second time and click the **Go** button.



Combat Service Support Initialization

Initialize:

☐ Supply depots and UMCP

☒ **Battalion Combat Service Support**

Help **Previous** **Next**

Figure 5.8-4 Battalion Combat Service Support initialization

Figure 5.8-4 will automatically appear with the dot now filled in for **Battalion Combat Service Support**. Supply depots and UMCP cannot be selected now, since they were initialized earlier.

Click on the **Next** button to bring up the Combat Service Support vehicle organization screen as shown in Figure 5.8-5.

Click on the **Previous** button to return to the Figure 5.8.

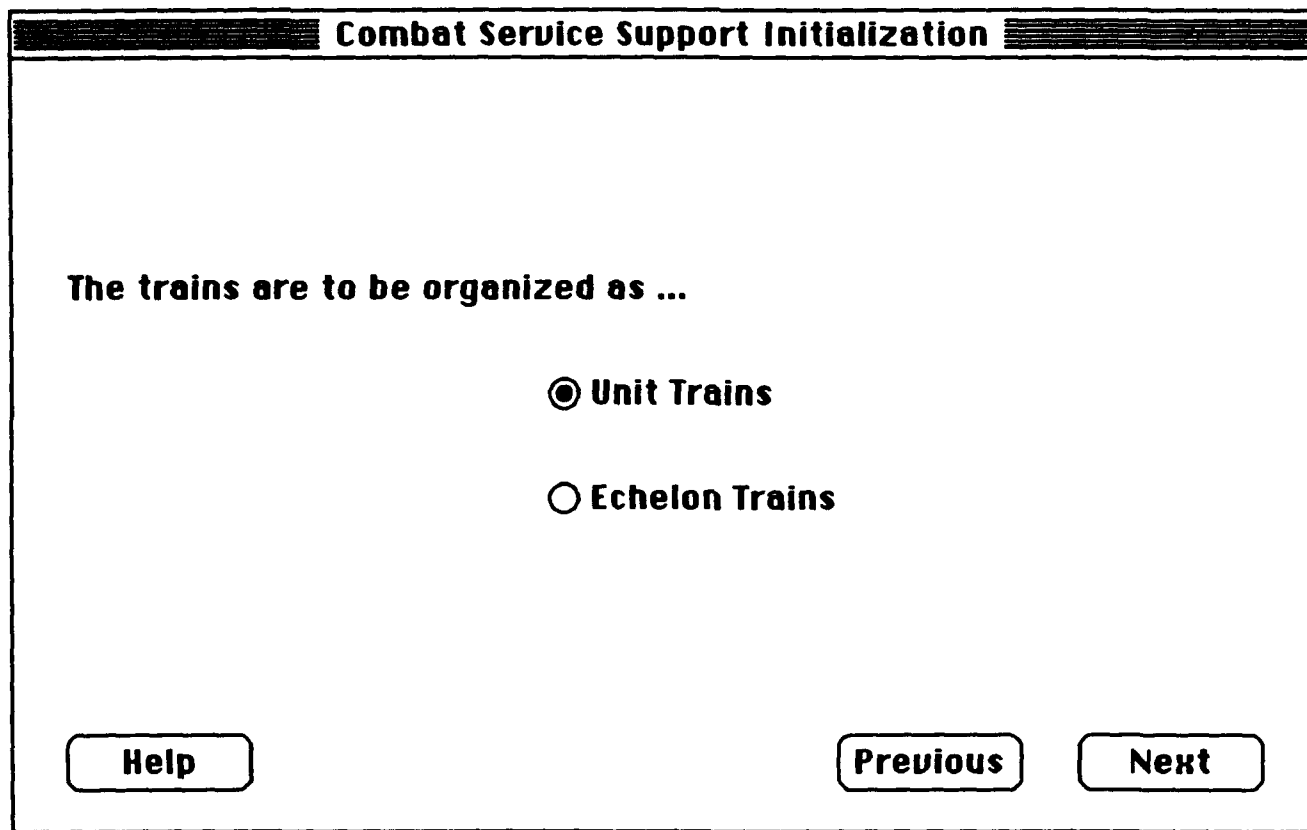


Figure 5.8-5 Combat Service Support vehicle organization

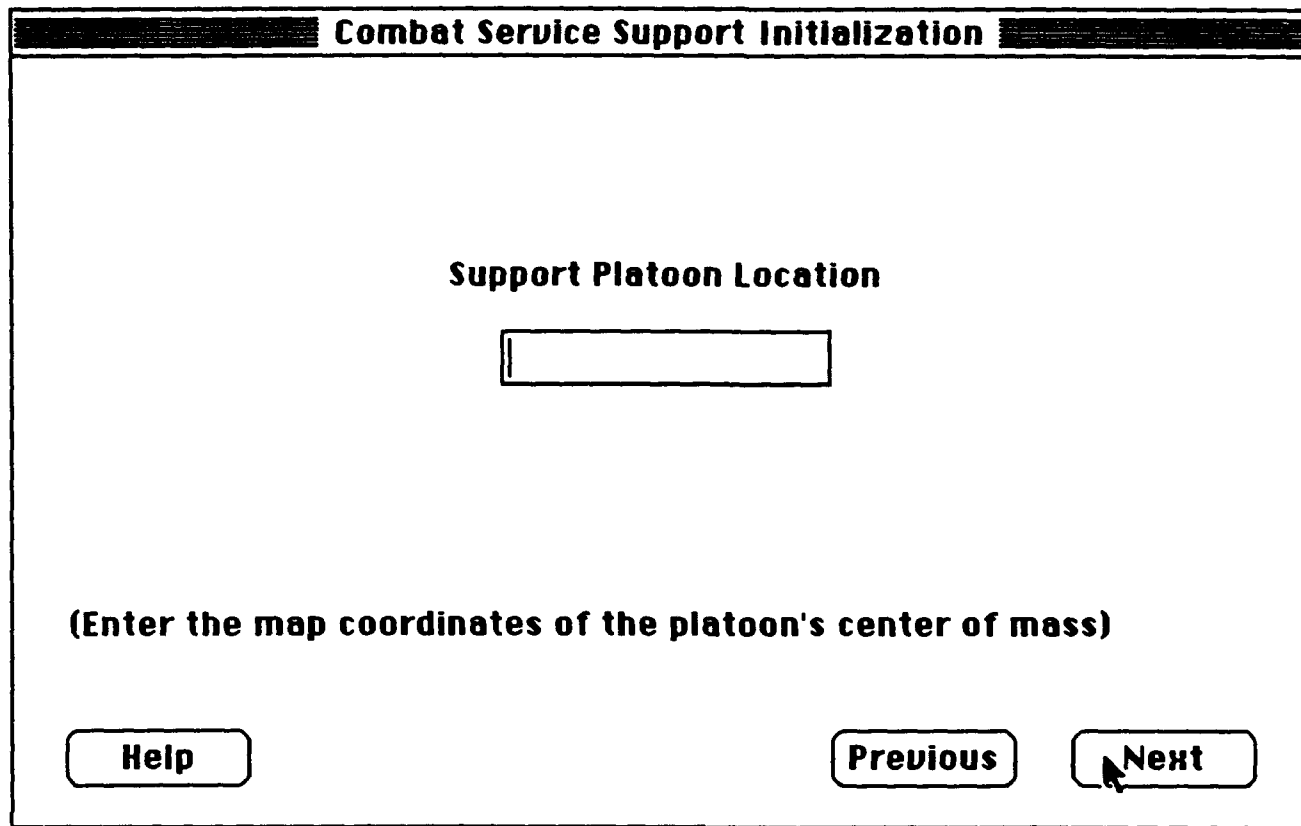
There are two ways to organize and place the Combat Service Support MCC vehicles for the start of the exercise. The Unit Train organization and the Echelon Train organization.

The Unit Trains

Step 1: From Figure 5.8-5, select the **Unit Trains** circle. This puts the "Support Platoon" under Battalion control and places them in one general location for the beginning of the exercise.

Click on the **Next** button to initialize the Support Platoon as "Unit Trains" and to bring up the Support Platoon Location screen as shown in Figure 5.8-6.

Click on the **Previous** button to return to the Figure 5.8-4.



Combat Service Support Initialization

Support Platoon Location

(Enter the map coordinates of the platoon's center of mass)

Help **Previous** **Next**

Figure 5.8-6 Support Platoon Location

Step 1: In the Support Platoon Location box, enter the six-digit grid coordinates for where the Support Platoon is to be placed at the start of the exercise. Include the grid zone designator.

Click on the **Next** button to bring up the M977 Ammunition Carriers screen as shown in Figure 5.8-8.

Click on the **Previous** button to return to the Figure 5.8-5.

The Echelon Trains

Step 1: From Figure 5.8-5, select the **Echelon Trains** circle.

Click the **Next** button to initialize the Combat Service Support MCC vehicles as "Echelon Trains" and to bring up the Echelon Trains Location screen as shown in Figure 5.8-7.

Click on the **Previous** button to return to the Figure 5.8-5.

Combat Service Support Initialization	
Battalion Trains Locations	
Class III - Fuel Supply	NB634084
Class V - Ammo Supply	NB636086
Company Trains Locations	
A Company	NB635055
B Company	NB634052
C Company	NB636055
D Company	NB636057
(Enter the map coordinates of each item's center of mass)	
Help	Previous Next

Figure 5.8-7 Echelon Trains Location

Figure 5.8-7 allows the assets of the "Support Battalion" to be split out with a portion given to Battalion, and a portion to each of the companies engaged in the exercise.

Step 1: In each of the boxes, enter the six-digit grid coordinates for all class III and V and Companies train locations for the start of the exercise. After you have entered one set of coordinates, fill in the next line. Be sure to include the grid zone designator with all the coordinates.

Click on the **Next** button to bring up the M977 Ammunition Carriers screen as shown in Figure 5.8-8.

Click on the **Previous** button to return to the Figure 5.8-5.

Combat Service Support Initialization				
M977 Ammunition Carriers				
Vehicle	Assignment	Location	Load	
1	BN (S)	NB300202	21368 lbs.	702 cu. ft.
2	BN (S)	NB301202	21368 lbs.	702 cu. ft.
3	BN (S)	NB301202	21368 lbs.	702 cu. ft.
4	BN (S)	NB302201	21368 lbs.	702 cu. ft.
5	BN (S)	NB302201	21368 lbs.	702 cu. ft.
6	BN (S)	NB302200	21368 lbs.	702 cu. ft.
7	BN (S)	NB302200	6251 lbs.	696 cu. ft.
8	BN (S)	NB302199	6251 lbs.	696 cu. ft.
9	BN (S)	NB302199	17059 lbs.	624 cu. ft.
10	BN (S)	NB301198	6690 lbs.	695 cu. ft.

Display Load By ☒ Weight and Volume ☐ Ammo Type 

Help **Previous** **Next**

Figure 5.8-8 M977 Ammunition Carriers
(weight & volume display)

Figure 5.8-8 shows the M977 Ammunition Carriers' initial locations. This information is based on the coordinates set in the previous screen. The screen automatically shows their load by weight and volume.

Step 1: To view the load by Ammo Type, click the **Ammo Type** circle. The screen will appear as shown below in Figure 5.8-9.

Click on the **Next** button to bring up the Pallet Ammunition Carriers screen as shown in Figure 5.8-12.

Click on the **Previous** button to return to the Figure 5.8-7.

Note: the process for varying the load or location of each truck will be addressed later in this section.

Combat Service Support Initialization			
M977 Ammunition Carriers			
Vehicle	Assignment	Location	Load
1	BN (S)	NB300202	105mm
2	BN (S)	NB301202	105mm
3	BN (S)	NB301202	105mm
4	BN (S)	NB302201	105mm
5	BN (S)	NB302201	105mm
6	BN (S)	NB302200	105mm
7	BN (S)	NB302200	25mm, missiles
8	BN (S)	NB302199	25mm, missiles
9	BN (S)	NB302199	25mm, 105mm
10	BN (S)	NB301198	25mm, missiles

Display Load By ☐ Weight and Volume ☒ Ammo Type

Figure 5.8-9 M977 Ammunition Carriers
(Ammo Type display)

Figure 5.8-9 shows the Ammunition Carriers' initial locations. This information is based on the coordinates set in the previous screen.

Step 1: To view the load by Weight and Volume, click the **Weight and Volume** circle. The screen will appear as shown above in Figure 5.8-8.

Step 2: To set parameters individually for each vehicle, click the cursor on the line of the vehicle to be set. This will cause a new window to appear on top of the one currently shown. An example is shown in Figure 5.8-10.

Click on the **Next** button to bring up the Pallet Ammunition Carriers screen as shown in Figure 5.8-12.

Click on the **Previous** button to return to the Figure 5.8-7.

Vehicle 1

Assigned To ☐ A Co ☐ B Co ☐ C Co ☐ D Co ☒ Bn

Alignment ☐ Defense ☐ Offense ☒ Shared

Initial Location

Initial Load

Ammo Type	Quantity	lbs.	cu. ft.	
105 mm HEAT	160	10958	360	
105 mm APDS	122	8355	274	
20 mm HEI	15	1089	19	
20 mm PIE	15	1089	19	

Totals: 21492 lbs., 673 cu. ft.

Figure 5.8-10 Ammunition Carriers detail

- Step 1: Click an Assigned To circle to select the desired company or Battalion.
- Step 2: Click an Alignment circle to select the desired alignment (Offense/Defense, US/Threat, or Shared).
- Step 3: In the Initial Location box, enter in the new six or eight-digit grid coordinates.
- Step 4: Determine the "Initial Load" that you want in this vehicle. To vary the load or mix level, click anywhere on the selected Initial Load line. The Ammo Transfer Function screen as shown in Figure 5.8-11 will appear.

Click on the OK button to save the data and to return to the previous screen.

Click on the Restore Defaults button to restore the ammunition load and mix for that vehicle back to its initial state.

Click on the Cancel button to return to the previous screen.

Depot					Vehicle 1				
Ammo Type	Quantity	lbs.	cu. ft.		Ammo Type	Quantity	lbs.	cu. ft.	
APF Scat mine	--	--	--	 	105 mm HEAT	120	10958	320	 
20 mm HEI	--	--	--		105 mm APDS	122	8355	274	
20 mm PIE	--	--	--		20 mm HEI	15	1089	19	
Hydra70 101b	--	--	--		20 mm PIE	15	1089	19	

Weight: 21492 lbs.
Volume: 673 cu. ft.

Transfer Quantity
Transfer
Done

Figure 5.8-11 Ammo Transfer Function

Step 1: Click anywhere on the selected Ammo Type line to be transferred. That line will turn black.

Step 2: Click on the left arrow to add ammunition to the truck from the depot, or click on the right arrow to remove ammunition from the truck and put it into the depot. Note: The truck cannot be overloaded.

Step 3: Enter the quantity to be transferred: number of rounds for 105mm, and number of boxes for 25mm.

Click on the **Transfer** button. Repeat steps three and four for each type of ammunition.

Click on the **Done** button to return to the Ammunition Carriers detail Figure 5.8-9.

Combat Service Support Initialization				
Pallet Ammunition Carriers				
Vehicle	Assignment	Location	Load	
1	BN (S)	NB300202	600 lbs.	637 cu. ft.
2	BN (S)	NB301202	600 lbs.	637 cu. ft.
3	BN (S)	NB301202	600 lbs.	637 cu. ft.
4	BN (S)	NB302201	600 lbs.	637 cu. ft.
5	BN (S)	NB302201	600 lbs.	637 cu. ft.
6	BN (S)	NB302200	3630 lbs.	679 cu. ft.
7	BN (S)	NB302200	3630 lbs.	679 cu. ft.
8	BN (S)	NB302199	3630 lbs.	679 cu. ft.
9	BN (S)	NB302199	3630 lbs.	679 cu. ft.
10	BN (S)	NB301198	3630 lbs.	679 cu. ft.

Display Load By ☒ Weight and Volume ☐ Ammo Type

Figure 5.8-12 Pallet Ammunition Carriers
(weight & volume on carriers)

Figure 5.8-12 shows the Pallet Ammunition Carriers' initial locations. This information is based on the coordinates set in the previous screen. The screen automatically shows their load by weight and volume.

Step 1: To view the load by ammo type, click on the Ammo Type circle. The screen will appear as shown below in Figure 5.8-13.

Click on the Next button to bring up the M978 Fuel Carriers screen as shown in Figure 5.8-14.

Click on the Previous button to return to the Figure 5.8-9.

Note: the process for varying the load or location of each pallet will be addressed later in this section.

Combat Service Support Initialization			
Pallet Ammunition Carriers			
Vehicle	Assignment	Location	Load
1	BN (S)	NB300202	mines
2	BN (S)	NB301202	mines
3	BN (S)	NB301202	mines
4	BN (S)	NB302201	mines
5	BN (S)	NB302201	mines
6	BN (S)	NB302200	mines
7	BN (S)	NB302200	mines
8	BN (S)	NB302199	mines
9	BN (S)	NB302199	mines
10	BN (S)	NB301198	mines

Display Load By ☐ Weight and Volume ☒ Ammo Type

Help **Previous** **Next**

**Figure 5.8-13 Pallet Ammunition Carriers
(Ammo Type on carriers)**

Figure 5.8-13 shows the Ammunition Carriers' initial locations. This information is based on the coordinates set in the previous screen.

Step 1: To view the load by Weight and Volume, click on the **Weight and Volume** circle. The screen will appear as shown below in Figure 5.8-11.

Click on the **Next** button to bring up the M978 Fuel Carriers screen as shown in Figure 5.8-14.

Click on the **Previous** button to return to the Figure 5.8-9.

Note: the same procedure is used to set parameters for M977 Ammunition Carriers and Pallet Ammunition Carriers.

Combat Service Support Initialization			
M978 Fuel Carriers			
Vehicle	Assignment	Location	Load (Gallons)
1	BN (S)	NB300202	2500
2	BN (S)	NB301202	2500
3	BN (S)	NB301202	2500
4	BN (S)	NB302201	2500
5	BN (S)	NB302201	2500
6	BN (S)	NB302200	2500
7	BN (S)	NB302200	2500
8	BN (S)	NB302199	2500
9	BN (S)	NB302199	2500
10	BN (S)	NB301198	2500
11	BN (S)	NB301198	2500
12	BN (S)	NB300198	2500

Help Previous Next

Figure 5.8-14 M978 Fuel Carriers

Figure 5.8-14 shows the M978 Fuel Carriers' initial locations. This information is based on the coordinates set earlier. The screen automatically shows their load in gallons.

Step 1: To set parameters individually for each vehicle, click anywhere on the selected vehicle line. This will cause a new window to appear on top of the one currently shown. An example is shown in Figure 5.8-15.

Click on the **Next** button to bring up the Maintenance Team screen as shown in Figure 5.8-16.

Click on the **Previous** button to return to the Figure 5.8-12.

M978 Fuel Carriers

Vehicle 1

Assigned To ☐ A Co ☐ B Co ☐ C Co ☐ D Co ☒ Bn

Alignment ☐ Defense ☐ Offense ☒ Shared

Initial Location

Initial Load (Gallons)

Figure 5.8-15 Fuel Carriers details

- Step 1: Click an **Assigned To** circle to select the desired company or Battalion.
- Step 2: Click an **Alignment** circle to select the desired alignment (Offense/Defense, US/Threat, or Shared).
- Step 3: Click on the **Initial Location** box to change this information. Type in the new six or eight-digit grid coordinates.
- Step 5: In the **Initial Load** box, enter the desired number of gallons, not to exceed 2500.
- Click on the **Restore Defaults** button to restore the original displayed data except for the Initial Load.
- Click on the **OK** button to store the data and to return to Figure 5.8-14.
- Click on the **Cancel** button to return to Figure 5.8-14.

Combat Service Support Initialization		
Maintenance Teams		
Vehicle	Assignment	Location
1	BN (S)	NB635087
2	BN (S)	NB636087
3	BN (S)	NB636087
4	BN (S)	NB637086
5	BN (S)	NB637086
6	BN (S)	NB637085
7	BN (S)	NB637085
8	BN (S)	NB637084
9	BN (S)	NB637084
10	BN (S)	NB636083

Help

Previous

Next

Figure 5.8-16 Maintenance Teams

Figure 5.8-16 shows the Maintenance Team's initial locations. This information is based on the coordinates set earlier.

Step 1: To set parameters individually for each vehicle, click anywhere on the selected vehicle line. This will cause a new window to appear on top of the one currently shown. An example is shown in Figure 5.8-17.

Click on the **Next** button to bring up the Combat Service Support initialization confirmation screen as shown in Figure 5.8-18.

Click on the **Previous** button to return to Figure 5.8-14.

Maintenance Teams

Vehicle 1

Assigned To ☐ A Co ☐ B Co ☐ C Co ☐ D Co ☒ Bn

Alignment ☐ Defense ☐ Offense ☒ Shared

Initial Location

Figure 5.8-17 Maintenance Teams details

- Step 1:** Click an **Assigned To** circle to select the desired company or Battalion.
- Step 2:** Click an **Alignment** circle to select the desired alignment (Offense/Defense, US/Threat, or Shared).
- Step 3:** In the **Initial Location** box, enter the new six or eight-digit grid coordinates.
- Click on the **Restore Defaults** button to bring back the default values.
- Click on the **Cancel** button to return to Figure 5.8-16.
- Click on the **OK** button to save the data and to return to Figure 5.8-16.

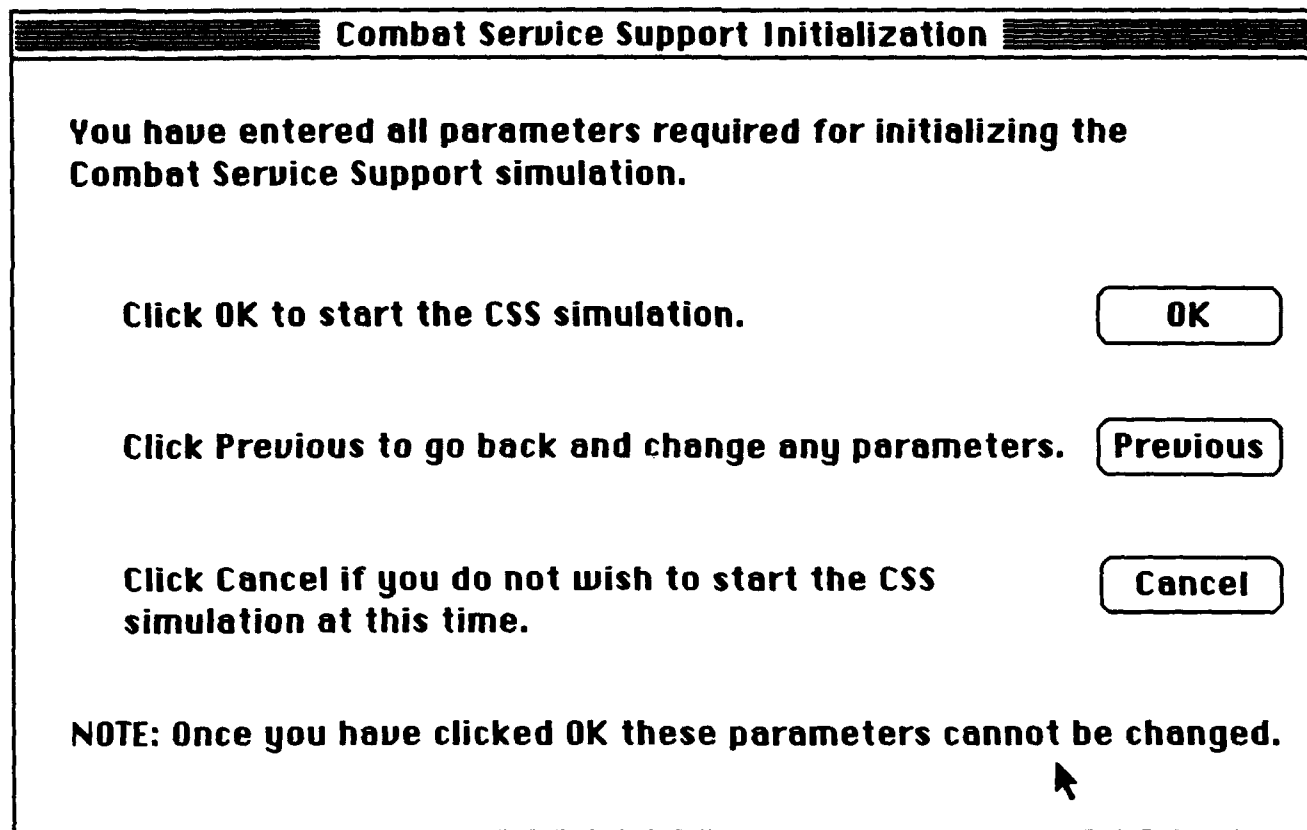


Figure 5.8-18 Combat Service Support Initialization confirmation

Click on the **Previous** button to go back and change any Combat Service Support initialization data.

Click on the **Cancel** button to delay the start of the Combat Service Support initialization and to return to the Initialization Menu Figure 5.8.

Click on the **OK** button to initialize CSS simulation, to activate the Admin/Log console, to activate the Maintenance console, and to return to the Initialization Menu Figure 5.8.

5.9 Fire Support Initialization.

This section describes how to activate both the allocated Howitzer Batteries, and the Mortar Platoon. It also describes how to set the ammunition supply and controlled supply rate at the batteries or platoon. This section includes the ammunition supplies and controlled supply rates for Combat Engineer ammunition.

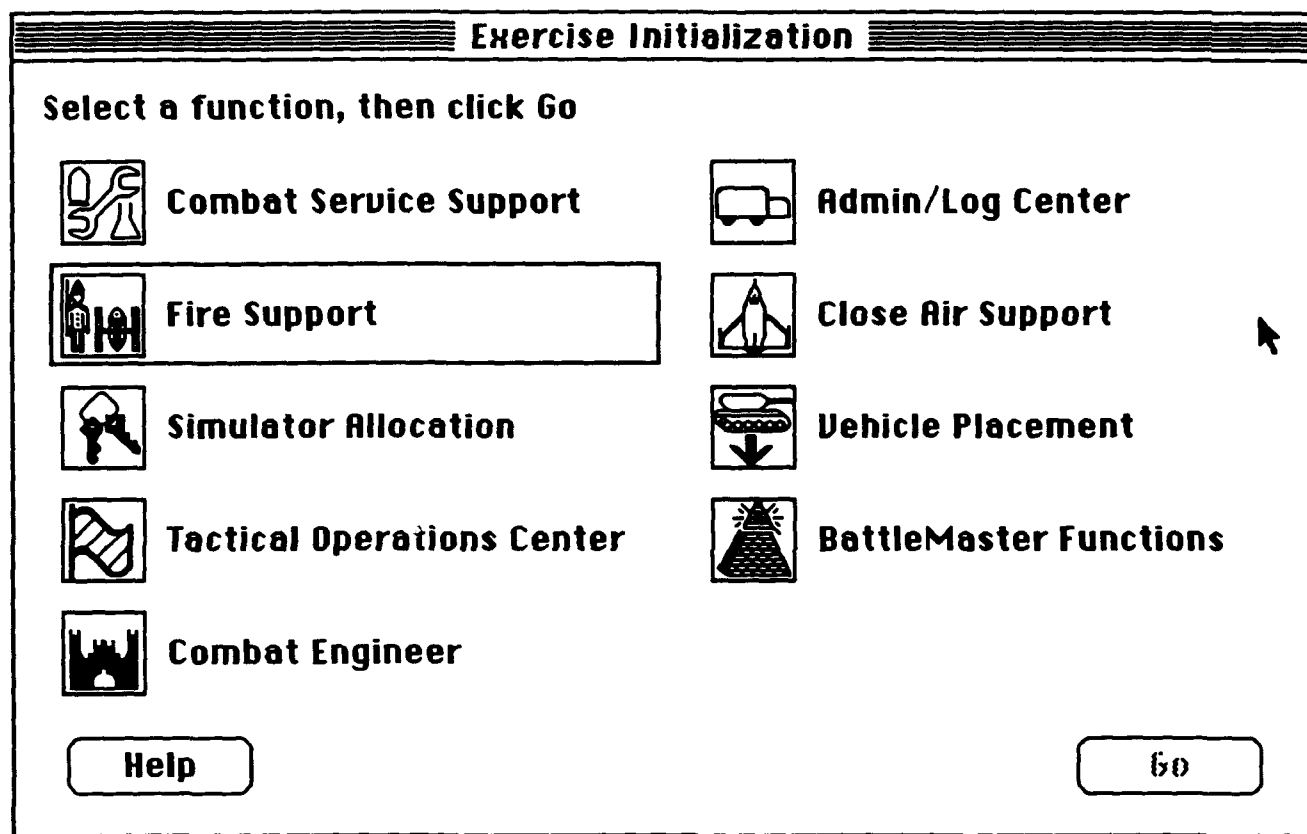


Figure 5.9 Fire Support Selection

From Figure 5.9 select the **Fire Support** icon and click the **Go** button to start the Fire Support Initialization process.

Fire Support Element Initialization			
Enter parameters for the battery of eight 155mm howitzers			
Battery Location (Center of Mass)	NB65600315		
Azimuth of Fire (in Mils from Grid North)	0		
Initial ammunition supply at gun site (rounds per gun):			
HE Quick	150	ADAM	200
HE Var	200	RAAMS	200
Controlled Supply Rate (rounds per gun per day):			
HE Quick	75	ADAM	32
HE Var	75	RAAMS	24
Help		Previous	Next

Figure 5.9-1 Howitzer Battery initialization

- Step 1: In the Battery Location box, enter the six-digit grid coordinates of the location where the battery is to be placed. Include the grid zone coordinates.
- Step 2: In the Azimuth of Fire box, enter the Azimuth of Fire in mils(range 0-6400).
- Step 3: In the HE Quick box, enter number of initial rounds of HE Quick ammunition.
- Step 4: In the ADAM box, enter number of initial rounds of ADAM ammunition.
- Step 5: In the HE Var box, enter number of initial rounds of HE Var ammunition.
- Step 6: In the RAAMS box, enter number of initial rounds of RAAMS ammunition.
- Step 7: In the CSR HE Quick box, enter number of rounds per gun per day for controlled supply rate of HE Quick ammunition.
- Step 8: In the CSR ADAM box, enter number of rounds per gun per day for controlled supply rate of ADAM ammunition.

Step 9: In the CSR HE Var box, enter number of rounds per gun per day for controlled supply rate of HE Var ammunition.

Step 10: In the CSR RAAMS box, enter number of rounds per gun per day for controlled supply rate of RAAMS ammunition.

Step 11: Repeat the above steps for additional Howitzer Battery.

Click on the **Next** button to continue entering parameters for the platoon of six 107mm mortars as shown in Figure 5.9-2.

Click on the **Previous** button to return to Figure 5.9.

Fire Support Element Initialization		
Enter parameters for the platoon of six 107mm mortars		
Platoon Location (Center of Mass)	NB67500820	
Azimuth of Fire (in Mils from Grid North)	1800	
Initial Ammunition Supply at Gun Site		
HE Quick	30	Rds / Gun
HE Var	25	Rds / Gun
Controlled Supply Rate		
HE Quick	20	Rds / Gun / Day
HE Var	20	Rds / Gun / Day
Help Previous Next		

Figure 5.9-2 Mortar Platoon initialization

Step 1: In the Platoon Location box, enter the six-digit grid location coordinates where the platoon is to be placed. Include the grid zone coordinator.

Step 2: In the Azimuth of Fire box, enter the Azimuth of Fire in mils.

Step 3: In the HE Quick box, enter number of rounds of initial ammunition at the HE Quick.

Step 4: In the HE Var box, enter number of rounds of initial ammunition at the HE Var.

Step 5: In the CSR HE Quick box, enter number of rounds per gun per day for controlled supply rate at HE Quick.

Step 6: In the CSR HE Var box, enter number of rounds per gun per day for controlled supply rate at HE Var.

Click on the **Next** button to bring up the Fire Support Element Initialization confirmation screen as shown in Figure 5.9-3.

Click on the **Previous** button to return to Figure 5.9-1.

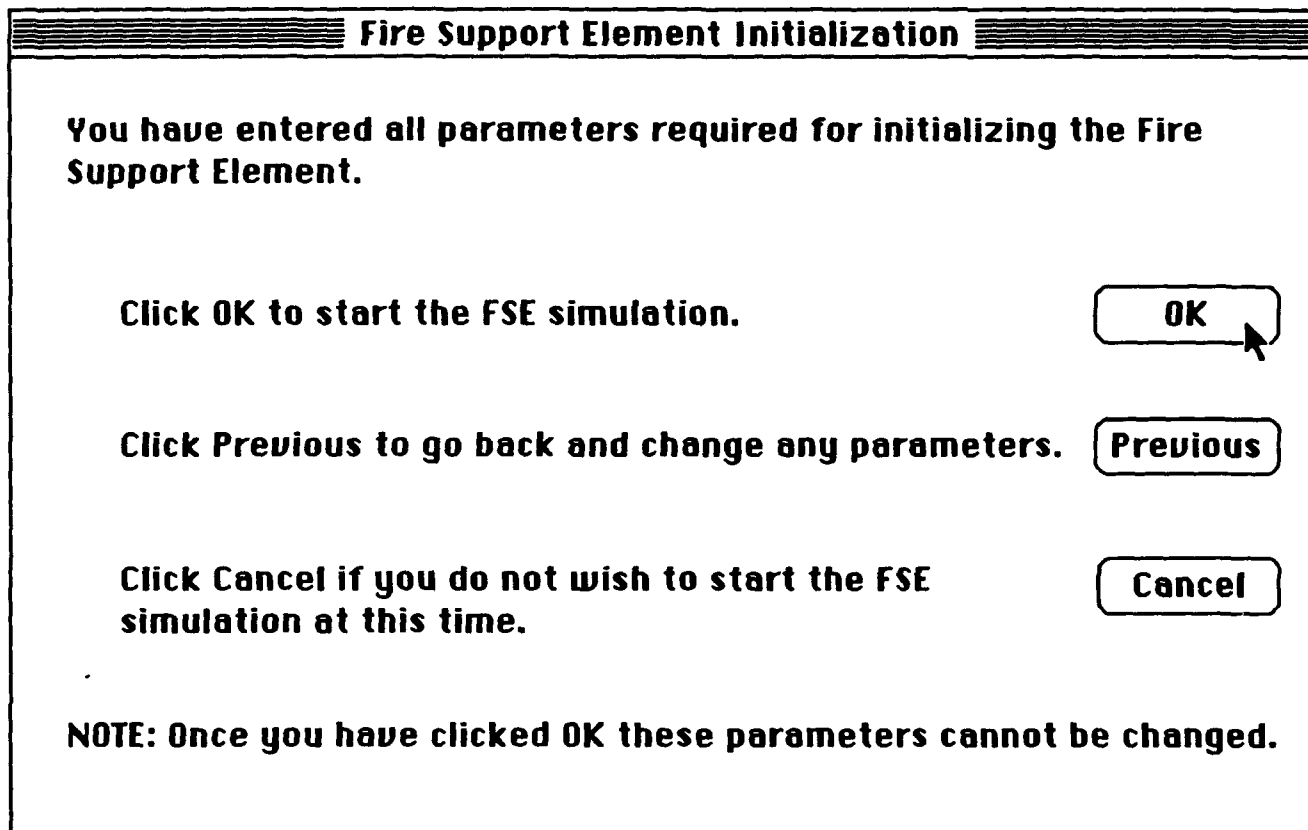


Figure 5.9-3 Fire Support Element Initialization confirmation

Click on the **Previous** button to go back to change any Fire Support Elements (FSE) initialization data.

Click on the **Cancel** button to delay the start of the FSE initialization and to return to the Initialization Menu Figure 5.9.

Click on the **OK** button to start the FSE simulation and to return to the Initialization Menu
Figure 5.9.

5.10 Simulator Allocation Initialization

This section describes the operations necessary to perform the Simulator Allocation Initialization process.

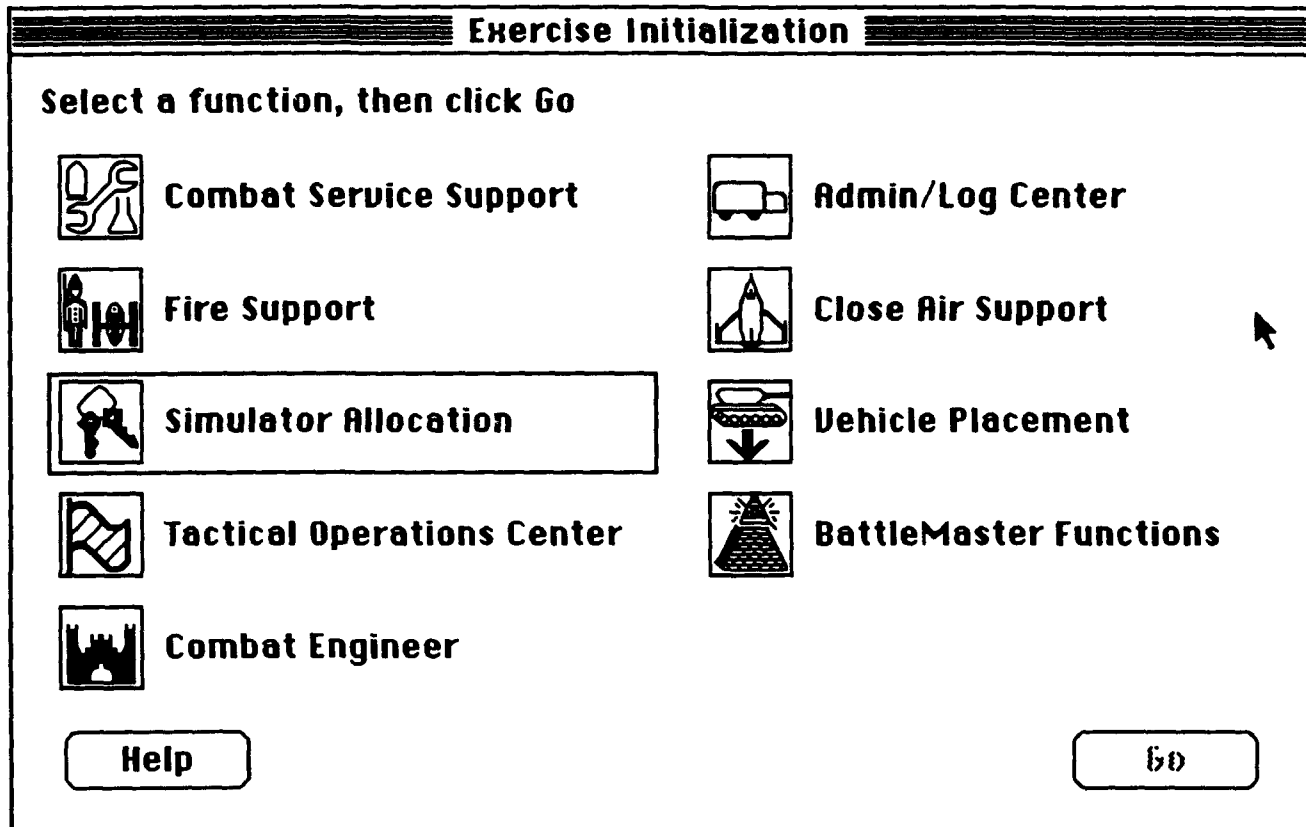


Figure 5.10 Simulator Allocation Initialization

From Figure 5.10, select the **Simulator Allocation** icon and click the **Go** button to start the Simulator Allocation Initialization process. The user can begin to allocate the simulator to an echelon. Figure 5.10-1 shows the Simulator Allocation Worksheet as it appears when first brought up, the screen is scrollable and lists all the simulators installed.

SIMNET Control Console 08 1606 Mar

Vehicle Simulator Allocation

Simulator	Type	Unit	Placed
7A	M1	Unassigned	
7B	M2/3	Unassigned	
9A	FRED	Unassigned	
9B	FRED	Unassigned	
9C	M2/3	Unassigned	
9D	M2/3	Unassigned	
10A	M1	Unassigned	
10B	M1	Unassigned	
10C	FRED	Unassigned	
10D	M2/3	Unassigned	

Help**Overview**

Figure 5.10-1 Simulator Allocation Worksheet

The user can select a simulator for allocation by clicking anywhere on the line relating to the desired simulator. This will cause a new window to appear on top of the one currently shown. An example is shown in Figure 5.10-2.

Click on the **Overview** button to return to the Initialization Menu Figure 5.10.

SIMNET Control Console 08 1606 Mar

Vehicle Simulator Allocation

Simulator: 10C Type: FRED

Specify which unit may use this simulator:

☐ Battalion Headquarters Tank Section

☐ A Company ☐ B Company

☐ C Company ☐ D Company

☐ Scout Platoon ☐ Air Liaison Officer

☒ Unassigned (spare)

Help OK

HelpOverview

Figure 5.10-2 Simulator Allocation

Step 1: Click a circle to Specify which unit may use this simulator.

Click on the **OK** button to return to the Simulator Allocation Worksheet Figure 5.10-1.

5.11 Tactical Operation Center Initialization.

This section describes the operations necessary to perform the Tactical Operation Center Initialization process.

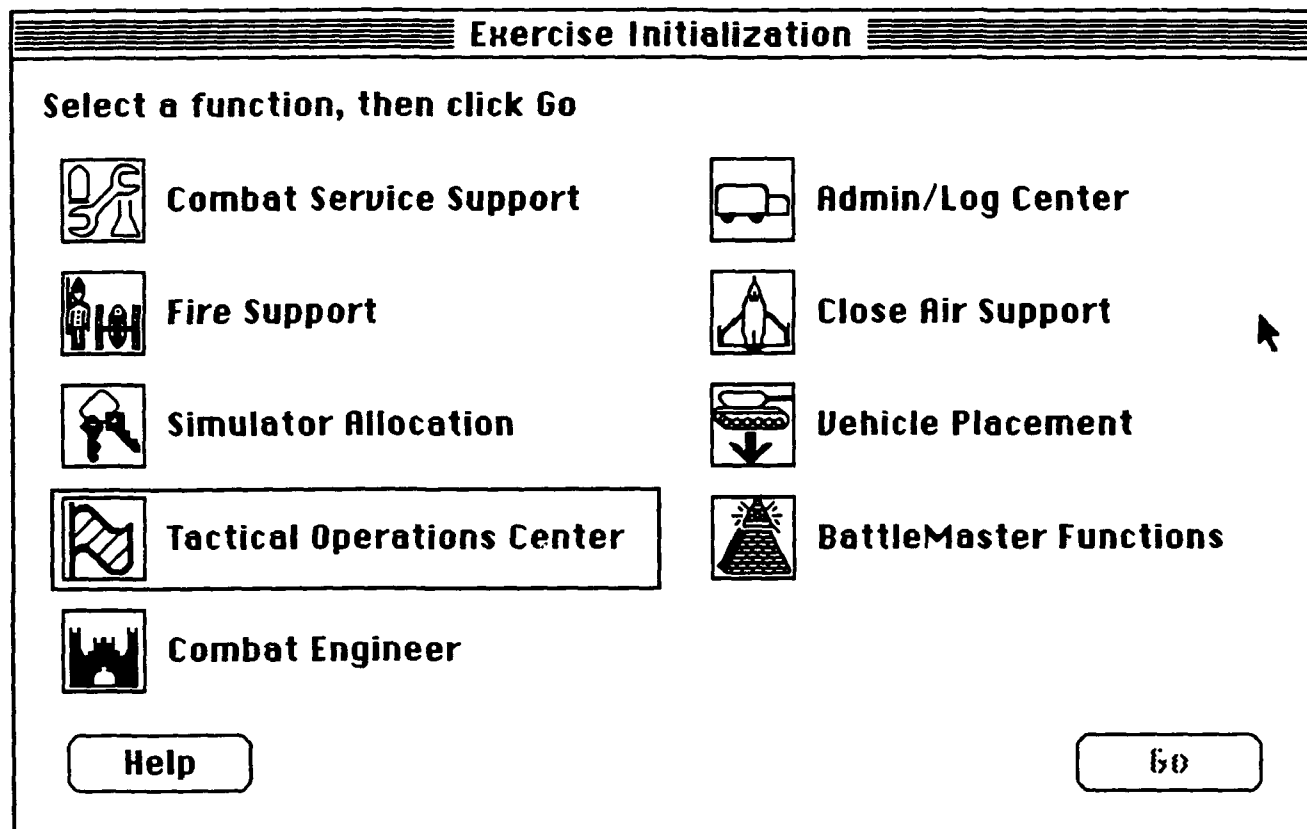


Figure 5.11 Tactical Operation Center Initialization

From Figure 5.11, select the Tactical Operation Center (TOC) icon causes a box to form around it and enables the Go button. Clicking the Go button then brings up the Alignment of Tactical Operation Center screen as shown in Figure 5.11-1.

Tactical Operations Center Initialization

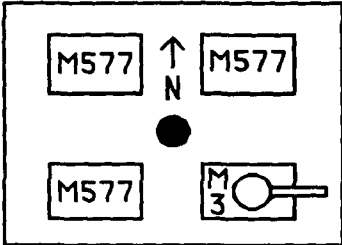
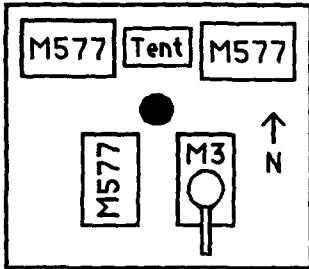
Role of the TOC

☐ Defense ☐ Offense
☒ Shared for a local force-on-force exercise

TOC Location

NB635084

TOC Arrangement

☒  ☐ 

NOTE: Clicking OK will position the TOC and render it visible.

Help

Cancel

 OK

Figure 5.11-1 Alignment of Tactical Operation Center

On the Alignment of Tactical Operation Center screen as shown in Figure 5.11-1.

Step 1: In the TOC Location box, enter the six-digit grid coordinates including the zone designator where the TOC is to be located.

Step 2: In the Role of the TOC and the TOC Configuration by which the TOC will function may be designated at this stage by placing the cursor over and click one of the circles designated as Defense, Offense or Shared then select an applicable Configuration.

Click on the **OK** button to place the TOC and to return to the Initialization Menu Figure 5.11. The Tactical Operation Center icon will be grayed out.

Click on the **Cancel** button to return to the Initialization Menu Figure 5.11.

5.12 Combat Engineer Initialization.

This section describes how to activate the "Combat Engineer" console and describes how to select the Combat Engineer assets to be used in an exercise.

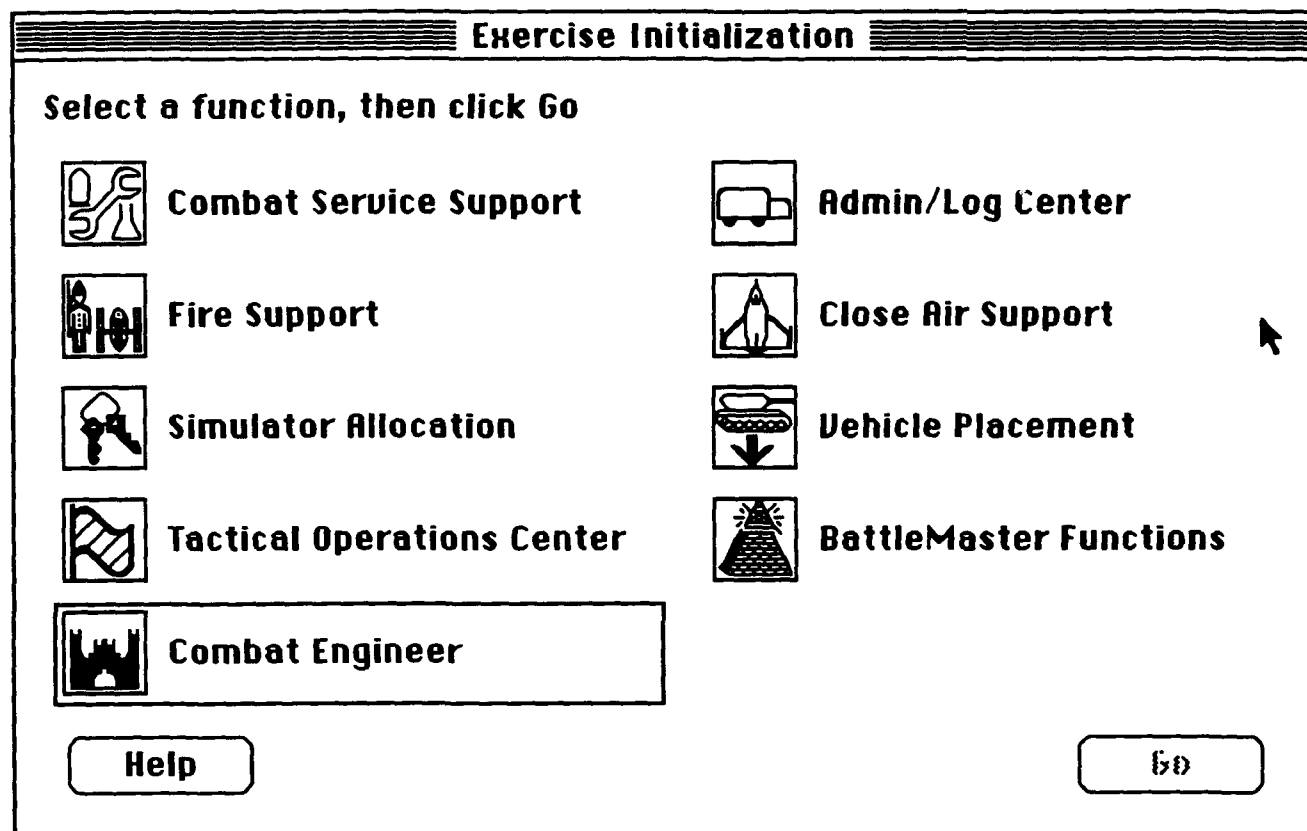


Figure 5.12 Combat Engineer Selection

From Figure 5.12 select the **Combat Engineer** and click the **Go** button to start the Combat Engineer Initialization process.

Combat Engineer Initialization	
Specify the resources available to the Combat Engineering element.	
Number of engineering platoons available	3
Number of M128 GEMSS available	3
Number of M57 available	4
Number of M58-A1 MICLIC available	4
Default starting location	NB100100
Help Previous Next	

Figure 5.12-1 Combat Engineer Resources Selection

The default numbers of Combat Engineer assets are displayed in each of the boxes as shown in Figure 5.12-1. To change any of these numbers, proceed as follows:

Step 1: In the Number of engineering platoons available box, enter the total number of Combat Engineer platoons available for the exercise in the top box (maximum number = 5).

Step 2: In the Number of M128 GEMMS available box, enter the number of M128 GEMSS mine scattering trailers available for the exercise (maximum number = 5).

Step 3: In the Number of M57 available box, enter the number of M57 mine dispensing trailers available for the exercise (maximum number = 5).

Step 4: In the Number of M58-A1 MICLIC available box, enter the number of M58A1 Line Charge trailers available for the exercise (maximum number = 5).

Step 5: In the Default starting location box, enter the six or eight-digit coordinates of the starting location.

Click on the **Previous** button to return to Figure 5.12.

Click on the **Next** button to bring up the Locate Combat Engineer Asset screen as shown in Figure 5.12-2.

Combat Engineer Initialization

If you would like to change the starting location of a vehicle, click on the vehicle.

Resource	Location
CE A/1/1	NB100100
CE A/1/2	NB100100
CE A/1/3	NB100100
CE A/1/4	NB100100
CE A/2/1	NB100100
CE A/2/2	NB100100
CE A/2/3	NB100100
CE A/2/4	NB100100
CE A/3/1	NB100100

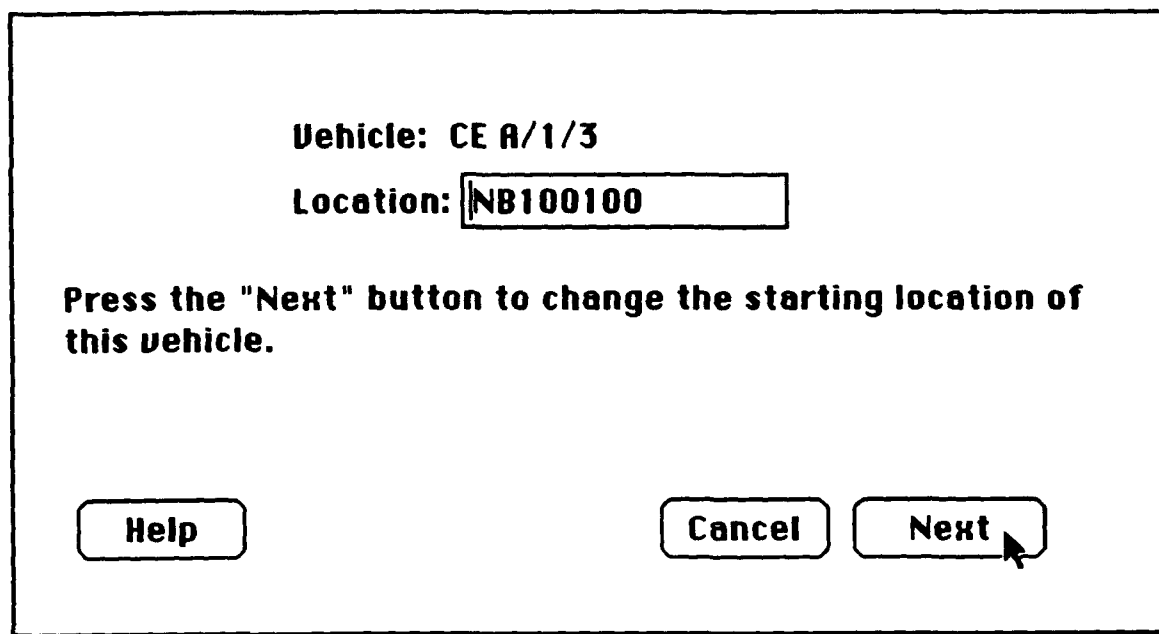
Help**Previous****Next**

Figure 5.12-2 Locate Combat Engineer Asset

Step 1: To change the starting location of any asset, click anywhere on the line associated with the asset that need to be changed. The Combat Engineer Location input dialog box as shown in Figure 5.12-3 will appear.

Click on the **Previous** button to return to Figure 5.12-1.

Click on the **Next** button to save the displayed data and to bring up the Combat Engineer Initialization confirmation as shown in Figure 5.12-4.



Vehicle: CE A/1/3

Location:

Press the "Next" button to change the starting location of this vehicle.

Help **Cancel** **Next**

Figure 5.12-3 Combat Engineer Asset Location dialog box

Step 1: In the Location box, enter the six or eight-digit grid coordinate for the starting location for the selected asset.

Click the **Cancel** button to return to Figure 5.12-2.

Click the **Next** button to change the starting location and to return to the Figure 5.12-2 with the updated location.

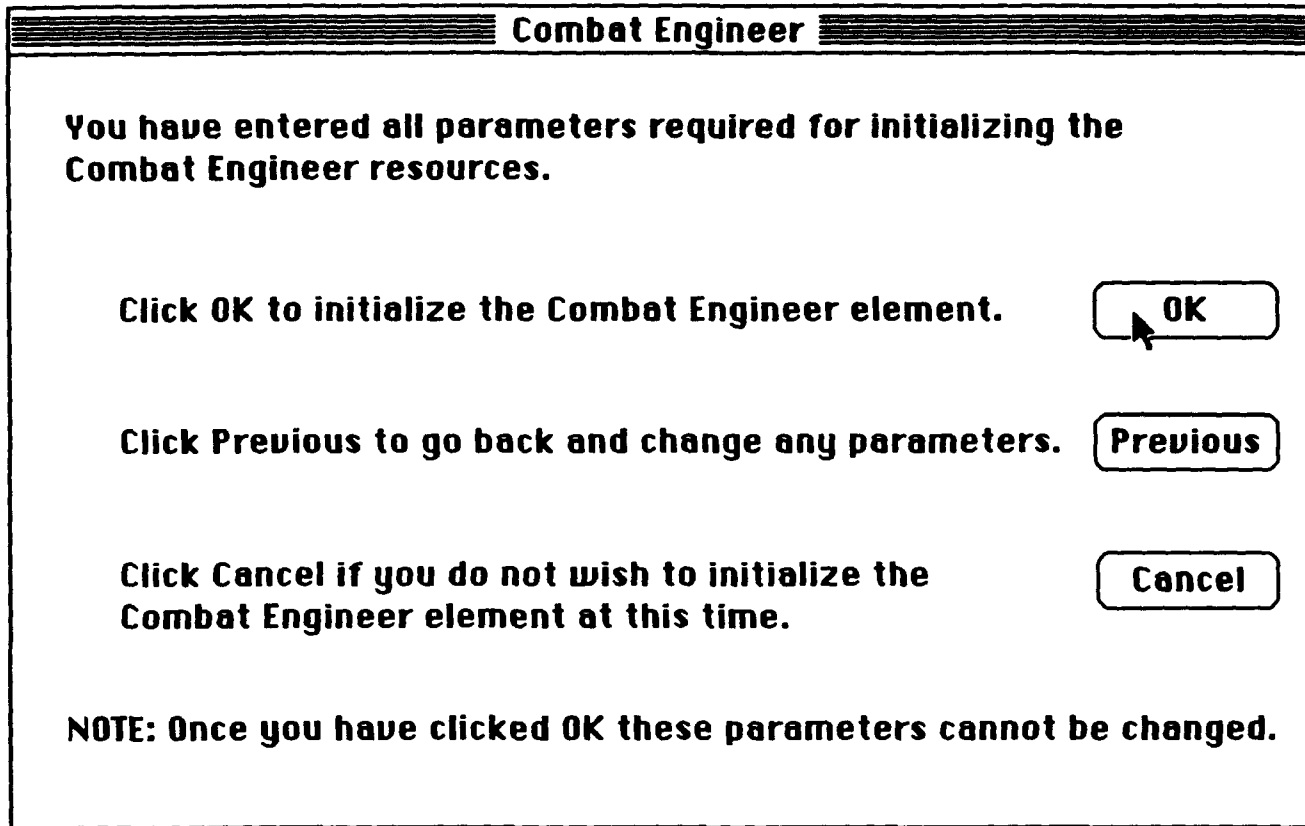


Figure 5.12-4 Combat Engineer Initialization confirmation

Click on the **Cancel** button to delay the activation of the Combat Engineer Console and to return to the Initialization Menu Figure 5.12.

Click on the **Previous** button to go back to change the resource selection options.

Click on the **OK** button to activate the Combat Engineer console and to return to the Initialization Menu Figure 5.12.

5.13 Admin/Log Center Initialization.

This section describes the operations necessary to perform the Admin/Log Center Initialization process.

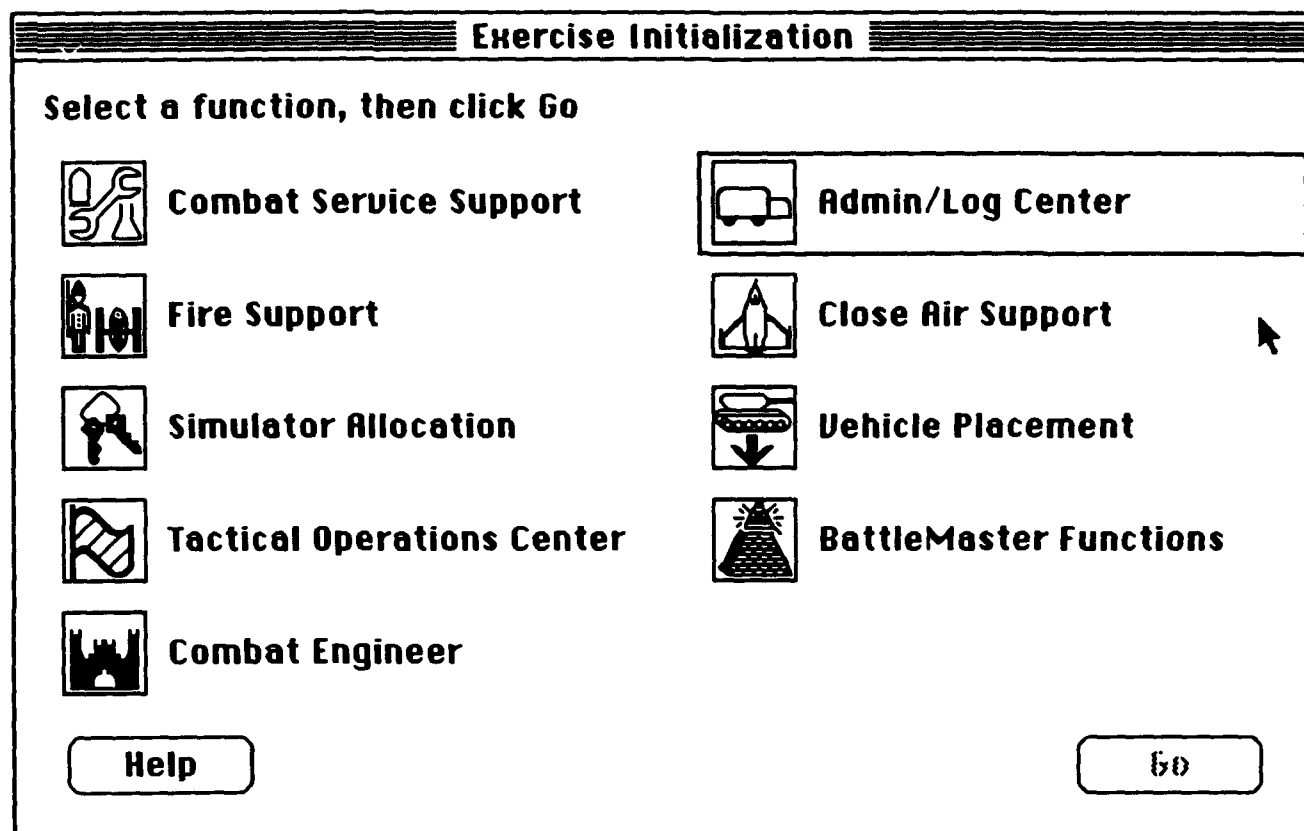
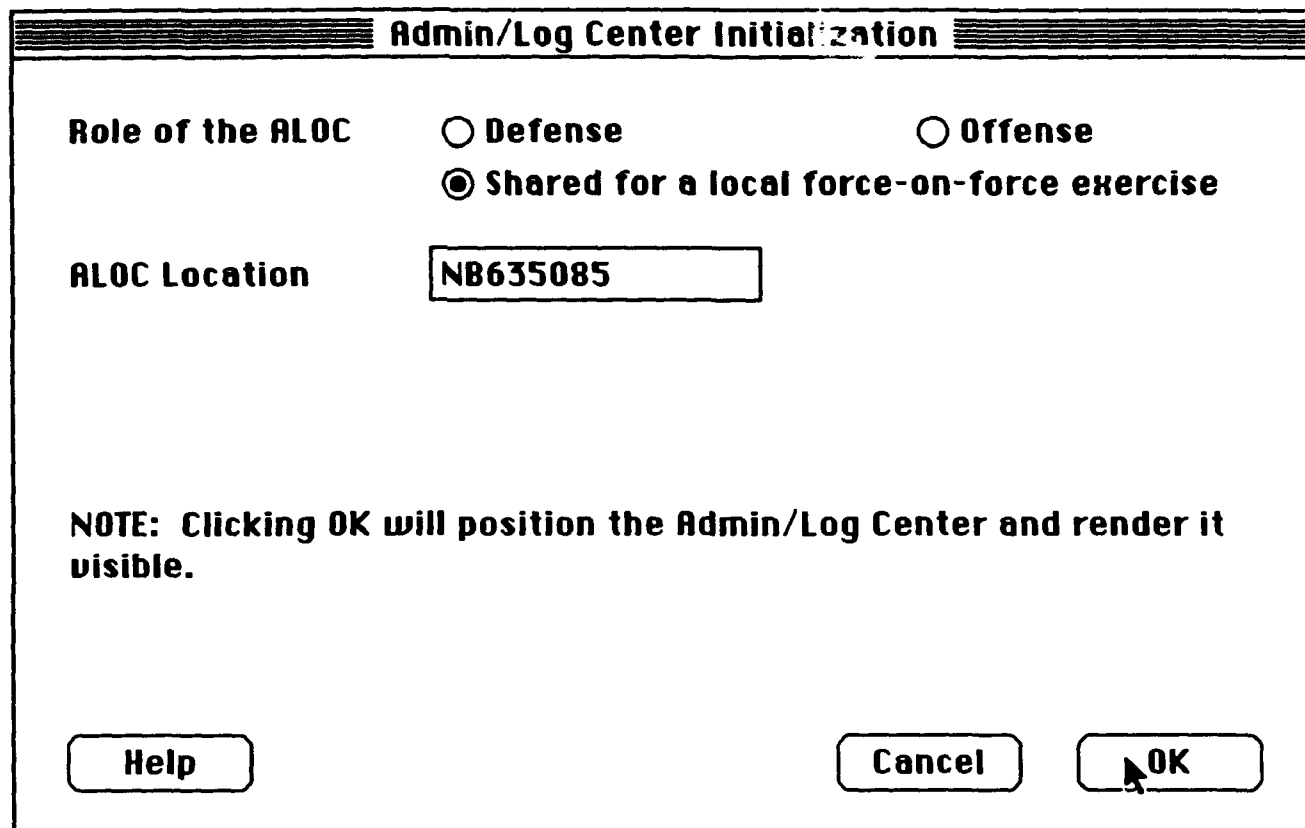


Figure 5.13 Admin/Log Center Selection

From Figure 5.13, select the Admin/Log Center icon causes a box to form around it and enables the Go button. Clicking the Go button then brings up the Alignment of Admin/Log Center screen as shown in Figure 5.13-1.



The image shows a dialog box titled "Admin/Log Center Initialization". It contains two sections. The first section, "Role of the ALOC", has three radio button options: "Defense", "Offense", and "Shared for a local force-on-force exercise". The "Shared" option is selected. The second section, "ALOC Location", has a text input box containing "NB635085". Below these sections is a "NOTE" stating: "Clicking OK will position the Admin/Log Center and render it visible." At the bottom of the dialog are three buttons: "Help", "Cancel", and "OK". A mouse cursor is pointing at the "OK" button.

Admin/Log Center Initialization

Role of the ALOC ☐ Defense ☐ Offense
 ☒ Shared for a local force-on-force exercise

ALOC Location

NOTE: Clicking OK will position the Admin/Log Center and render it visible.

Help **Cancel** **OK**

Figure 5.13-1 Admin/Log Center Initialization

On the Admin/Log Center Initialization screen as shown in Figure 5.13-1.

Step 1: In the ALOC Location box, enter the six-digit coordinates including the grid zone designator where the ALOC is to be placed.

Step 2: In the Role of the ALOC box, select the role for which the ALOC will function by placing the cursor over and click one of the circles designated as Defense, Offense or Shared.

Click on the **OK** button to place the ALOC and to return to the Initialization Menu Figure 5.13. The Admin/Log Center icon will be grayed out.

Click on the **Cancel** button to return to the Initialization Menu Figure 5.13.

5.14 Close Air Support Initialization.

This section describes the operations necessary to perform the Close Air Support Initialization process.

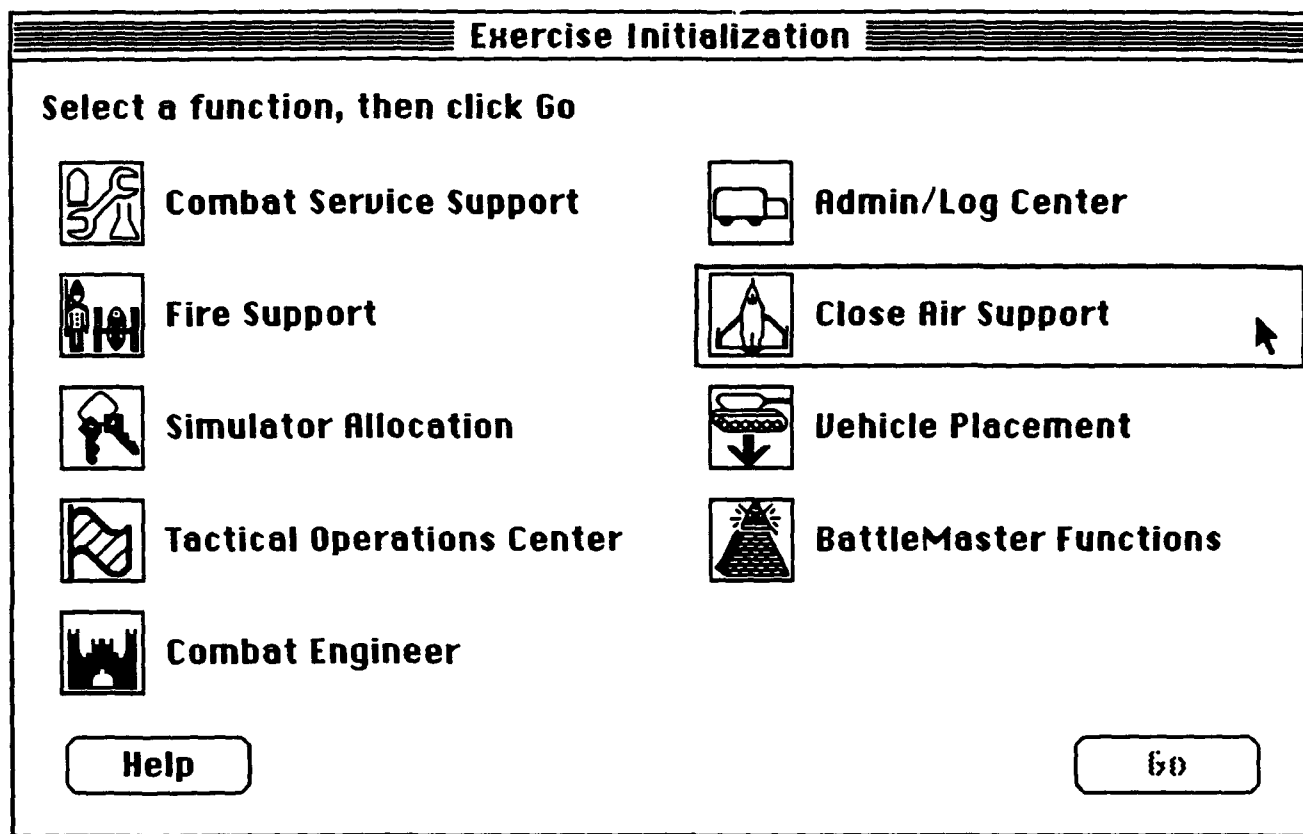
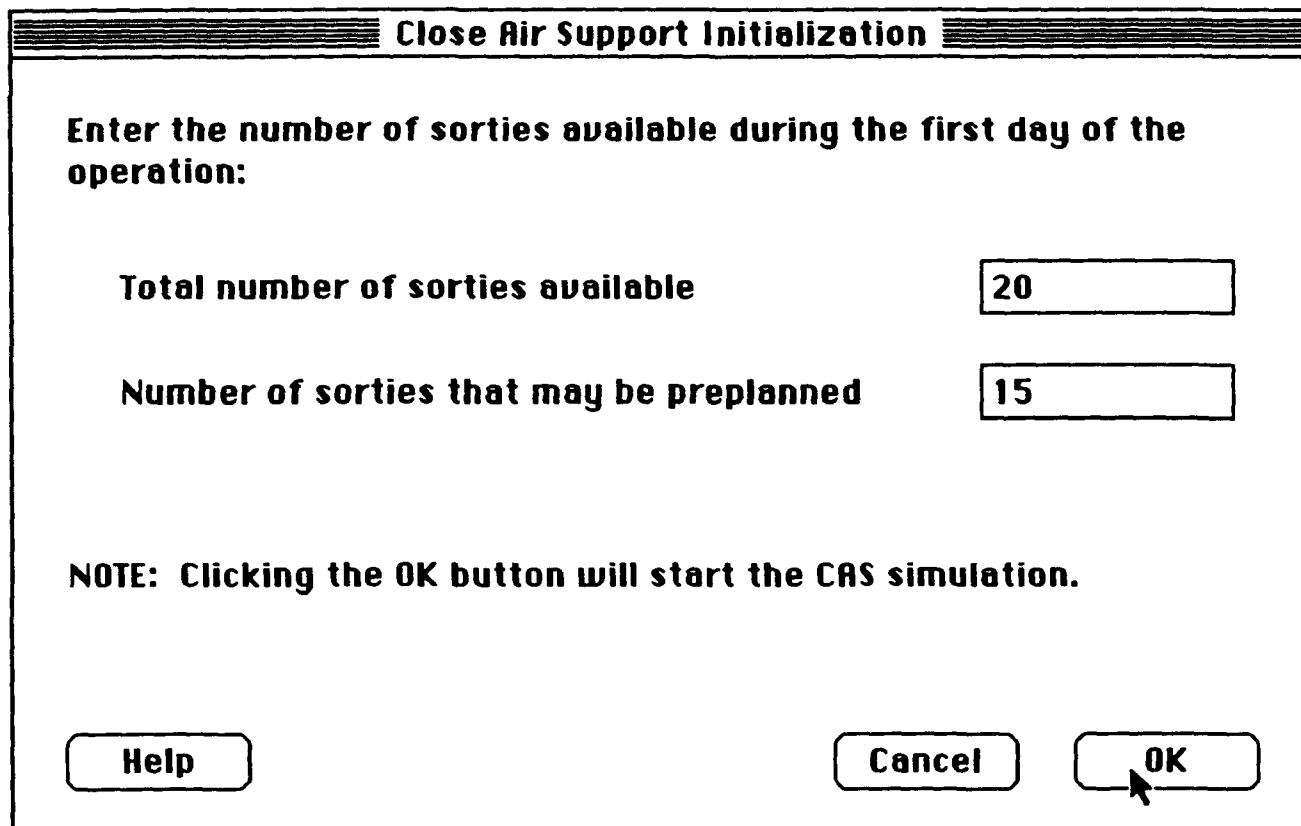


Figure 5.14 Close Air Support Initialization

From Figure 5.14, select the Close Air Support icon causes a box to form around it and enables the Go button. Clicking the Go button then brings up the Close Air Support Sorties Initialization screen as shown in Figure 5.14-1.



Close Air Support Initialization

Enter the number of sorties available during the first day of the operation:

Total number of sorties available

Number of sorties that may be preplanned

NOTE: Clicking the OK button will start the CAS simulation.

Help **Cancel** **OK**

Figure 5.14-1 Close Air Support Sorties Initialization

Each sortie consists of one A10 Fighter Bomber carrying 12 Anti-armor Cluster Bomb Units (CBU), a total of 40 daily sorties may be allocated. Preplanned sorties in excess of 25 and sorties scheduled to strike outside the terrain base will not be accepted by the MCC. Preplanned sorties will be executed at the time requested and the CBU will be delivered exactly on the coordinates specified. On-call sorties are available during the course of an exercise. Response time for on call sorties is 25 minutes from the time of input at the CAS workstation.

Step 1: In the Total Number of Sorties Available box, enter the total number of sorties available for the exercise.

Step 2: In the Number of sorties that may be preplanned box, enter the number of sorties that may be preplanned.

Click on the **OK** button to activate the CAS and to return to the Initialization Menu Figure 5.14.

Click on the **Cancel** button to delay the activation of the CAS and to return to the Initialization Menu Figure 5.14.

5.15 Vehicle Placement Initialization.

Each vehicle must be individually placed on the selected terrain base before the exercise can begin.

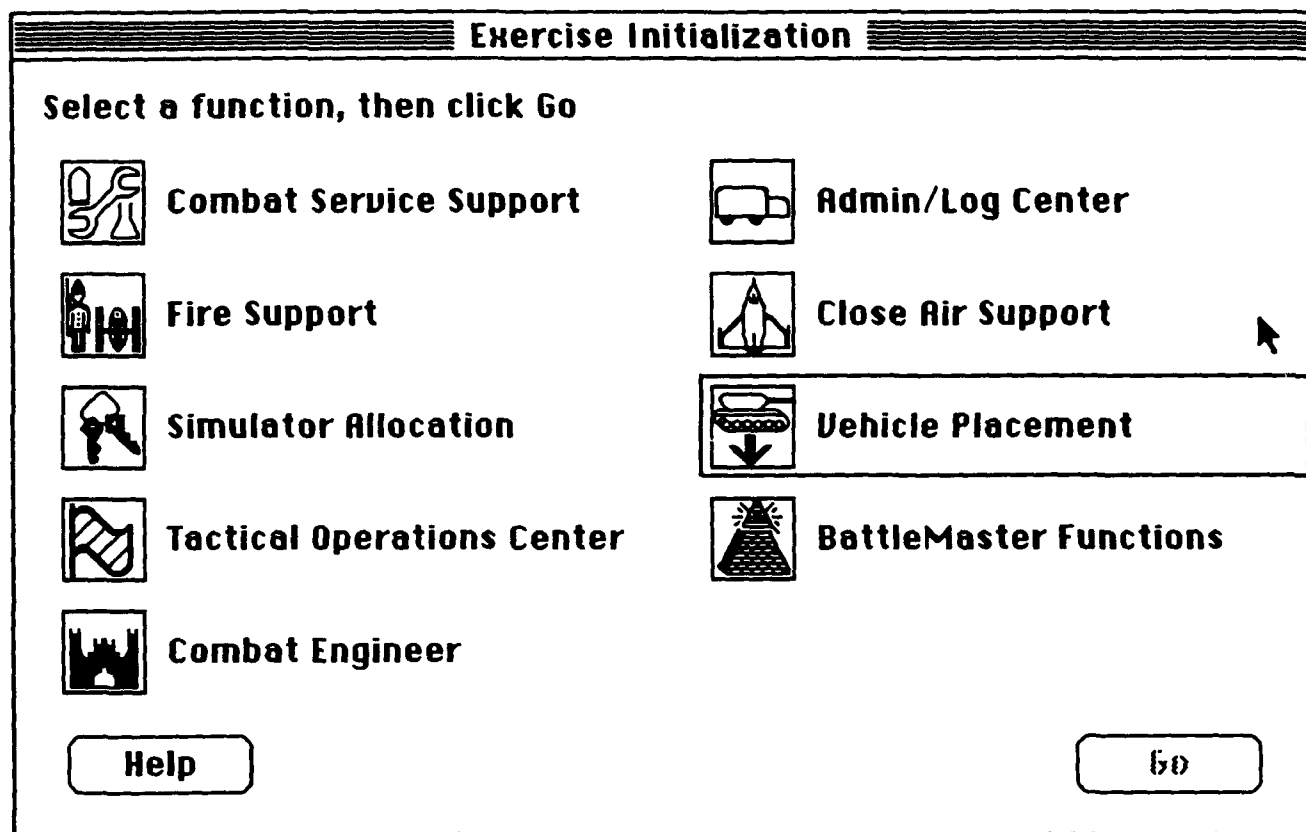


Figure 5.15 Vehicle Placement Selection

From Figure 5.15, select the Vehicle Placement icon causes a box to form around it and enables the Go button. Clicking the Go button then brings up the Vehicle Placement Menu as shown in Figure 5.15-1.

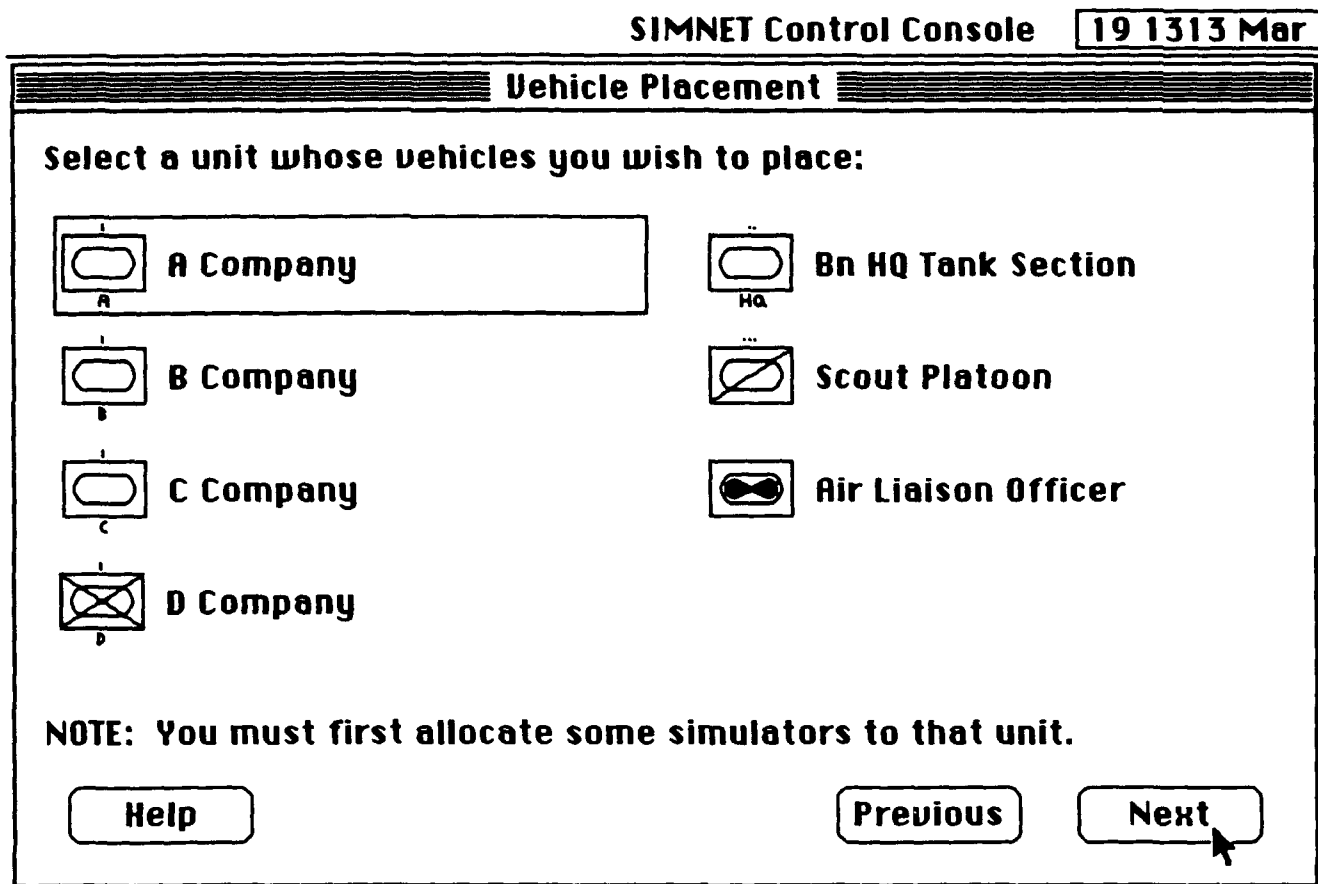


Figure 5.15-1 Vehicle Placement Menu

From Figure 5.15-1, select the company, platoon, or section that is ready to be placed. Click the selected icon causes a box to surround it and enables the Next button.

Click on the Next button will brings up the Vehicle Simulator Initialization screen as shown in Figure 5.15-2.

Click on the Previous button to return to the Initialization Menu Figure 5.15.

Vehicle Simulator Initialization

A Company

Simulator	Type	Side	Bumper	Location
9A	FRED			
9C	M2/3			
10A	M1			

Help**Overview**

Figure 5.15-2 Simulator Worksheet

Figure 5.15-2 displays all the simulators allocated to the selected unit. To place a simulator, click anywhere on the line contain the selected simulator to bring up the Simulator Placement dialog for an individual simulator as shown in Figure 5.15-3.

Click on the **Overview** button to return to Figure 5.15-1.

FRED Simulator: 9A A Company

Helicopter Type ☒ Attack ☐ Scout ☐ Defense ☐ Offense ☒ Observer

Bumper No.

Location

Azimuth (Mils)

Fuel Load (Lbs.)

Hellfire Missiles

Stinger Missiles

30 mm HEI (Rounds)

Help **Cancel** **Place**

Figure 5.15-3 FRED Simulator Placement dialog

- Step 1: Click to select the Helicopter Type as either Attack or Scout.
- Step 2: In the Bumper No. box, enter the Bumper Number for this simulator. This number should be between 0 and 99.
- Step 3: In the Location box, enter the six or eight-digit coordinates including the grid zone identifier where the simulator is to be placed.
- Step 4: In the Azimuth box, enter the heading that the simulator is to face. This number should be between 0 and 6400 Mils.
- Step 5: In the Fuel Load box, enter the amount of fuel in Lbs.
- Step 6: In the Hellfire and Stinger Missiles boxes, enter the amount of missiles the simulator will carry.
- Step 7: In the 30 mm HEI box, enter the number of rounds the simulator will carry.

Step 8: In the Alignment box, select the alignment by clicking one of the circles to specify Offense, Defense, or Observer.

Click on the **Place** button to place the simulator and to return to Figure 5.15-2.

Click on the **Cancel** button to cancel the input and to return to Figure 5.15-2.

Vehicle Simulator Initialization			
A Co	M1 Simulator:	10A	A Company
Bumper No.			☐ Defense ☐ Offense ☒ Observer
Location			
Bow Azimuth		(Mils)	
Fuel Load	505	(Gallons)	
105mm APDS-T	35	(Rounds)	
105mm HEAT	20	(Rounds)	
Maint. Status	☒ New ☐ ... ☐ ... ☐ ... ☐ Old		
Help Cancel Detail Place New			

Figure 5.15-4 M1 Simulator Placement dialog

Step 1: In the Bumper No. box, enter the Bumper Number for this simulator. This number should be between 0 and 99.

Step 2: In the Location box, enter the six or eight-digit coordinates including the grid zone identifier where the simulator is to be placed.

Step 3: In the Bow Azimuth box, enter the heading that the simulator is to face. This number should be between 0 and 6400 Mils.

Step 4: In the Fuel Load box, enter the amount of fuel in gallons.

Step 5: In the ammo boxes, enter the amount of ammunition the simulator will carry.

Step 6: In the Maint. Status box, select the age and mileage of the combat vehicle. This selection impacts random maintenance malfunction during the exercise.

Step 7: In the Alignment box, select the alignment by clicking one of the circles to specify Offense, Defense, or Observer.

Click on the **Detail** button to allow the turret to be offset from the hull, to vary the fuel load for each tank, and to vary and assign the ammunition by type. The Simulator Detail dialog is shown in Figure 5.15-5.

Click on the **Place** button to place the simulator and to return to Figure 5.15-2.

Click on the **Cancel** button to cancel the input and to return to Figure 5.15-2.

Vehicle Simulator Initialization

Turret Azimuth (Mils From Bow Azimuth)

Fuel Load By Tank		Capacity
Left Front Tank	107	107
Right Front Tank	150	150
Rear Tank	248	248

Ammunition By Rack	APDS-T	HEAT	Capacity
Ready Rack	11	11	22
Semi-Ready Rack	13	9	22
Turret Floor & Hull	11	0	11

Figure 5.15-5 M1 Simulator Detail dialog

Clicking the **Detail** button on Figure 5.15-4 causes the Simulator Detail dialog to appear as shown in Figure 5.15-5. Displayed data on this screen may be changed as required.

- Step 1: Change the Turret Azimuth.
- Step 2: Change the fuel distribution.
- Step 3: Change the ammunition distribution.

Click on the **OK** button to return to Figure 5.15-4.

Click on the **Cancel** button to leave the simulator in its current status and to return to Figure 5.15-4.

Note: samples of Simulator Placement dialog and Simulator Detail dialog for different type of simulators are shown in Figure 5.15-6, and 5.15-7.

M2/3 Simulator: 9C A Company

Bumper No.

Location

Bow Azimuth (Mils)

Fuel Load (Gallons)

AP Bin Load **Rounds Of** ☒ APDS-T ☐ HEI-T

HE Bin Load **Rounds Of** ☐ APDS-T ☒ HEI-T

Stowed APDS-T **TOW Missiles**

Stowed HEI-T **DRAGON Missiles**

Maint. Status ☒ New ☐ ... ☐ ... ☐ ... ☐ Old

Configuration ☒ M2 ☐ M3

Figure 5.15-6 M2/3 Simulator Placement dialog

M2/3 Simulator: 9C A Company

Turret Azimuth **(Mils From Bow Azimuth)**

Fuel Load By Tank

		Capacity
Top Tank	30	30
Bottom Tank	145	145

TOW Launcher ☒ **Tube 1 Loaded**
☒ **Tube 2 Loaded**

Stowed Missiles

		Capacity
TOW Missiles	5	5
DRAGON Missiles	0	0

Help **Cancel** **OK**

Figure 3.15-7 M2/3 Simulator Detail dialog

5.16 Battlemaster Functions

This section describes the BattleMaster functions. Some of these functions are duplicates of those found in the Initialization menu. The advantage of the BattleMaster function menu is that an entire training exercise, or a portion of an exercise, may be reset without having to end the exercise and to reinitialize. This allows one unit to be reset while other units continue their training. The user may select the BattleMaster icon from this screen any time during initialization and the conduct of the battle exercise.

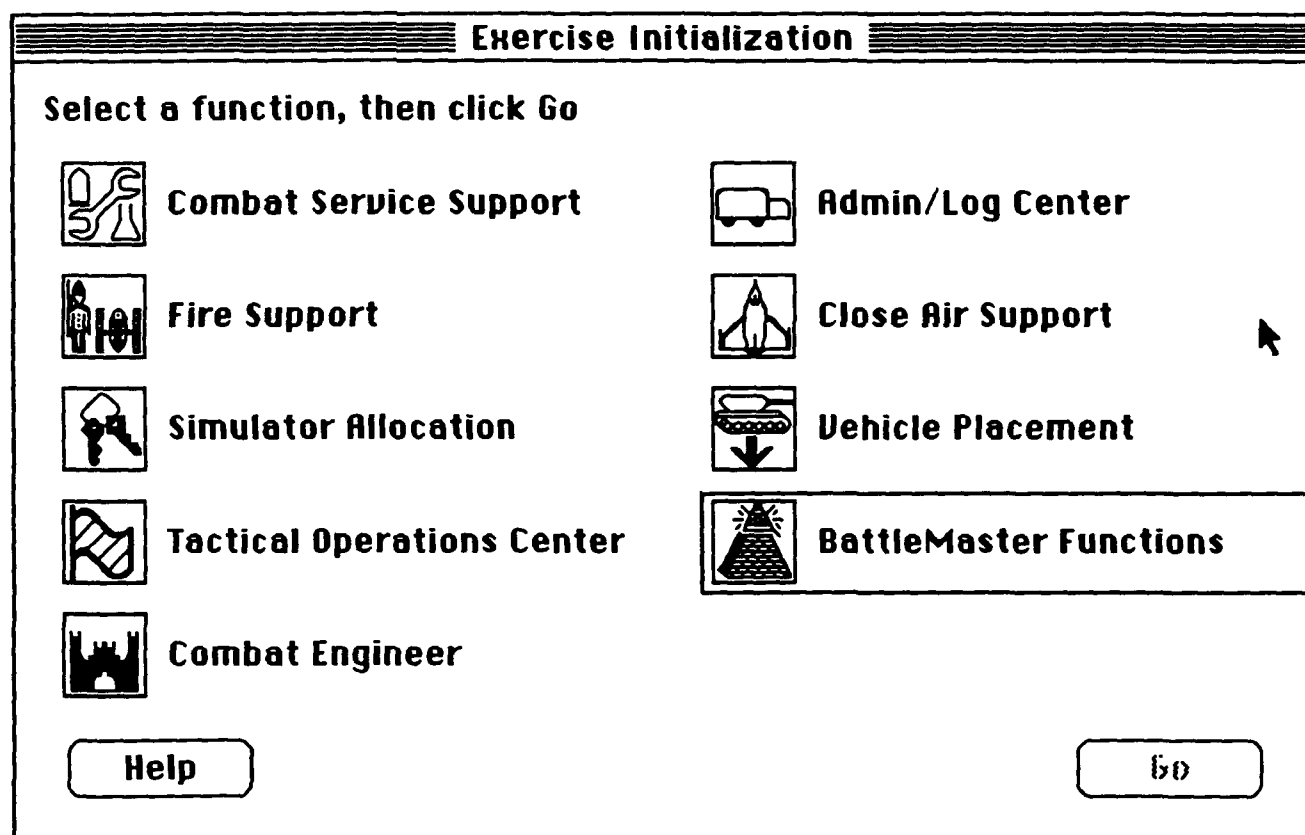
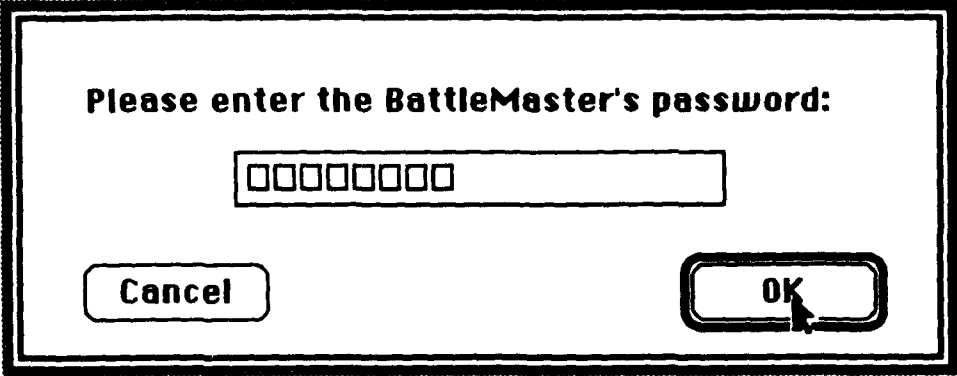


Figure 5.16 BattleMaster Selection

Clicking the GO button on the Initialization Menu with the BattleMaster icon selected as shown in Figure 5.16 causes a password box (Figure 5.16-1) to appear. With the proper password entered, clicking the GO button on the entry box will open the BattleMaster Functions menu as shown in Figure 5.16-2. Incorrect password will produce a dialog box reflecting that fact.

A rectangular dialog box with a double border. Inside, the text "Please enter the BattleMaster's password:" is centered at the top. Below it is a password input field consisting of a row of eight small square boxes. At the bottom left is a button labeled "Cancel". At the bottom right is a button labeled "OK" with a mouse cursor icon pointing at it.

Please enter the BattleMaster's password:

□□□□□□□□

Cancel OK

Figure 5.16-1 BattleMaster password

The BattleMaster Functions menu as shown in Figure 5.16-2 allows the BattleMaster to perform the functions shown on the screen. As in earlier initialization phases, selecting a function will cause that function to be enclosed in a box, and then clicking the GO button will open the follow-on screens that allow input of data necessary to execution of the function.

5.16.1 Displacement.

This function allows the displacement of exercise elements as shown in Figure 5.16.1-1 during the course of the battle simulation. Selecting the Displacement icon and clicking the GO button on the BattleMaster Functions menu as shown in Figure 5.16.1 brings up the Elements Displacement screen as shown in Figure 5.16.1-1.

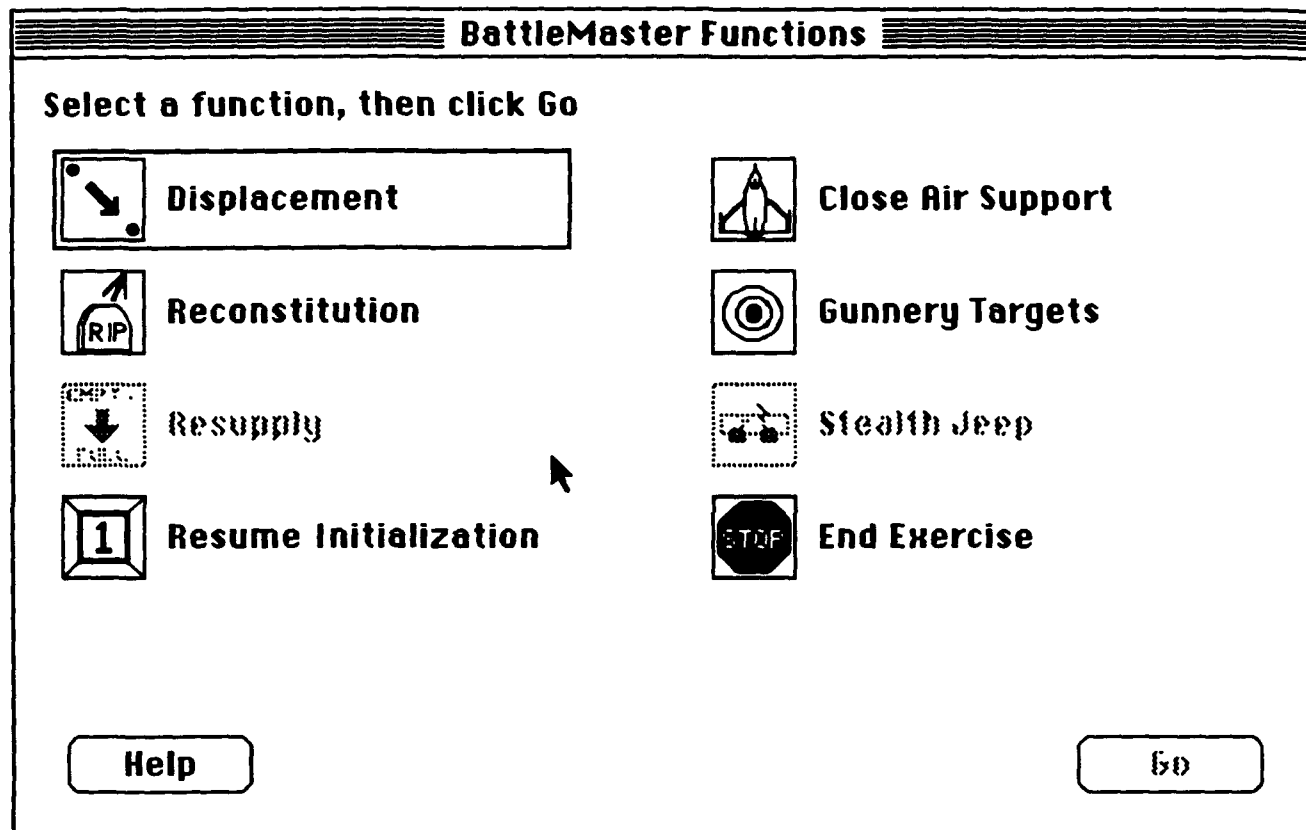


Figure 5.16.1 Displacement selection

Displacement

Select one of the following elements to displace or halt

Type	Unit	Status	ETA
Howitzers	Battery 1 (L)	Located at NB65600315	
TOC	Battery 1 (R)	Located at NB65600315	
ALOC			
UMCP			
Depots			

Help Overview Next

Figure 5.16.1-1 Element Type/Unit Selection

Figure 5.16.1-1 allows the selection of an Unit from a chosen Type to be displaced.

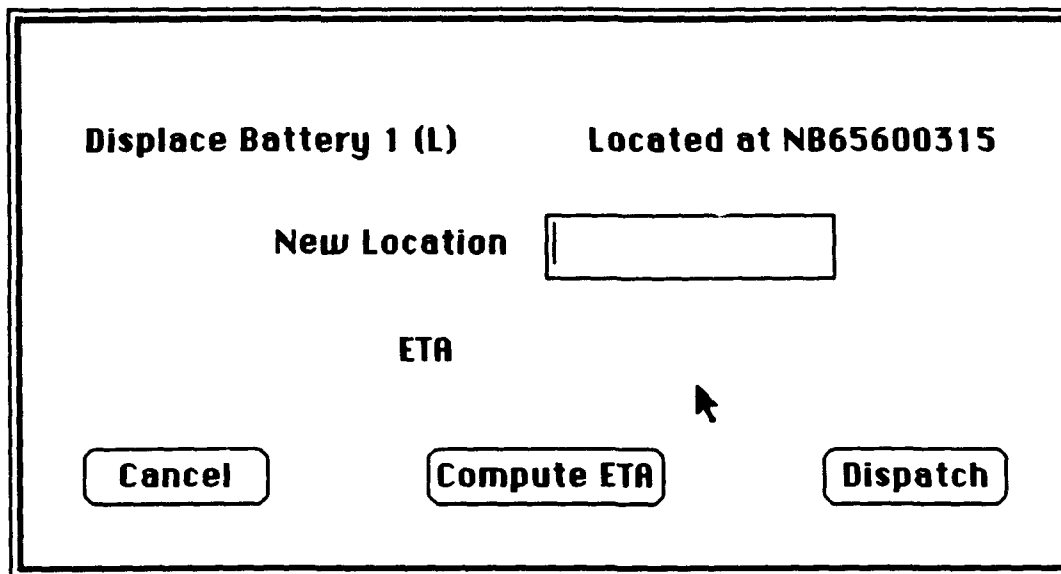
The list of displayed Units associated with an element Type is automatically updated when another element Type is selected.

Step 1: Click on a line in the Type box to select the element Type.

Step 2: Click on a line in the Unit box to select the Unit of the selected element Type to be moved.

Click on the Next button to bring up the Displacement dialog as shown in Figure 5.16.1-2 if the Unit is not in transit. If the Unit is in transit, the In Transit dialog will appear as shown in Figure 5.16.1-3.

Click on the Overview button to return to the BattleMaster Functions menu Figure 5.16.



Displace Battery 1 (L) **Located at NB65600315**

New Location

ETA

Cancel **Compute ETA** **Dispatch**

Figure 5.16.1-2 Displacement dialog

In the New Location box, enter the six or eight-digit coordinates of the new location.

Click on the **Compute ETA** button to calculate and to display the Estimated Time of Arrival.

Click on the **Dispatch** button to dispatch the unit and to return to the BattleMaster Functions menu Figure 5.16.1.

Click on the **Cancel** button to return to the BattleMaster Function menu Figure 5.16.1.

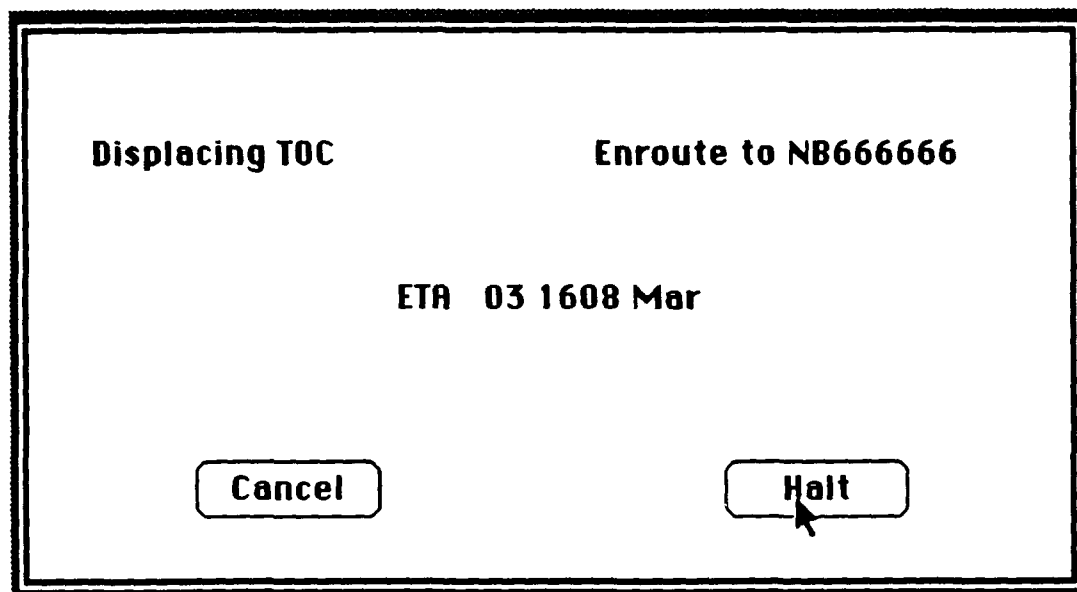


Figure 5.16.1-3 In Transit dialog

Click on the **Halt** button to halt the unit in transit and to return to the BattleMaster Function menu Figure 5.16.1.

Click on the **Cancel** button to return to the BattleMaster Function menu Figure 5.16.1.

5.16.2 Reconstitution.

The SIMNET Control Console gives the BattleMaster the ability to restore to full operation any previously initialized simulated elements, be it a crewed combat vehicle or a MCC computer-controlled vehicle.

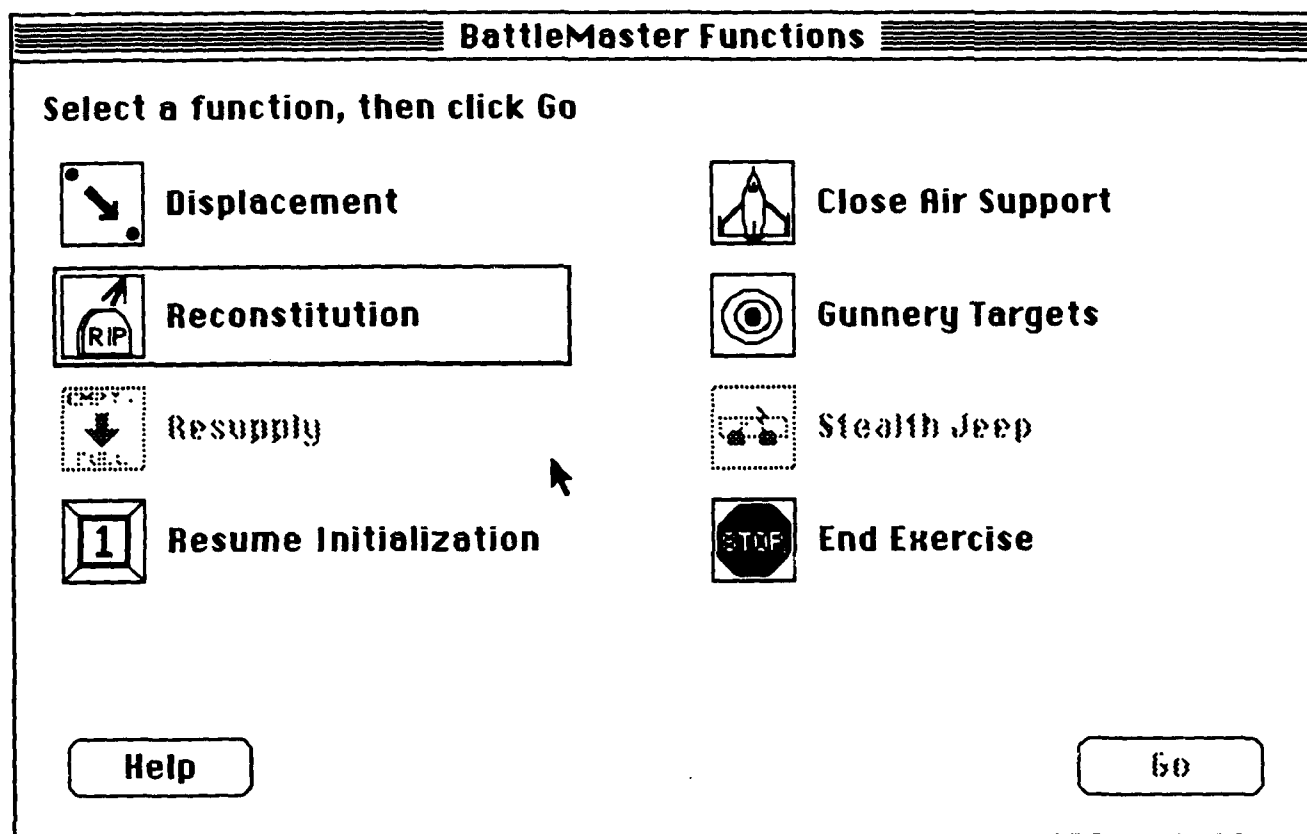


Figure 5.16.2 Reconstitution selection

Selecting the Reconstitution icon and clicking the **GO** button on the BattleMaster Functions menu brings up the Reconstitute Elements screen as shown in Figure 5.16.2-1.

5.16.2.1 Reconstitute Simulators

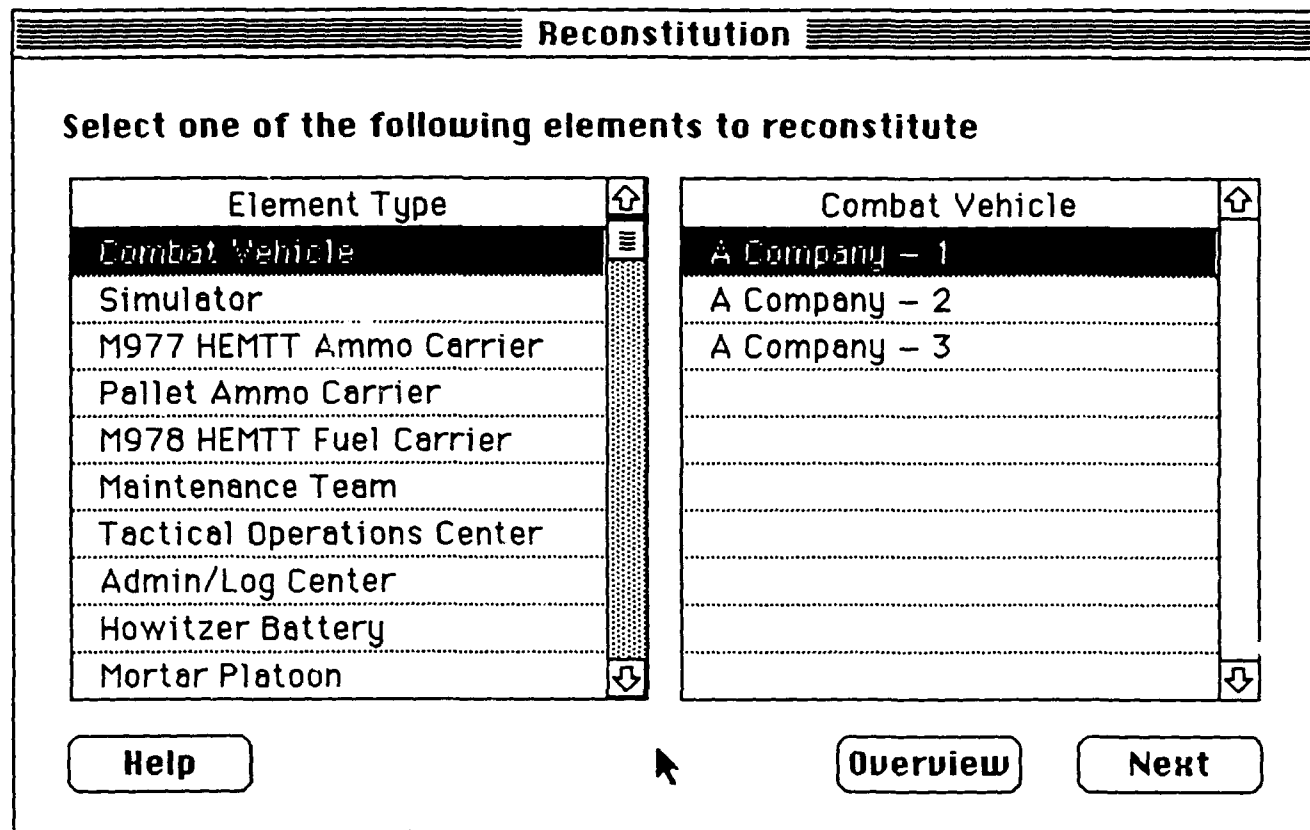


Figure 5.16.2.1 Reconstitute Simulators selection

Select the Combat Vehicle or Simulator Element Type to be reconstituted as shown in Figure 5.16.2.1.

Step 1: Click to select the Simulator from the Element Type column. The right column will then display all simulators that have been placed by company and bumper number.

Step 2: Click to select the Unit to be reconstituted.

Click on the Next button with a selected element brings up a subsequent screen as shown in Figure 5.16.2.1-1 appropriate to the Element type selected .

Click on the Overview button to return to the BattleMaster Function menu Figure 5.16.

Reconstitution		
FRED Simulator:	9A	A Company
Helicopter Type	☒ Attack ☐ Scout	
Bumper No.	1	☐ Defense ☐ Offense ☒ Observer
Location		
Azimuth	(Mils)	
Fuel Load	2444 (Lbs.)	
Hellfire Missiles	16	
Stinger Missiles	4	
30 mm HEI	1200 (Rounds)	
Help Cancel Reconstitute		

Figure 5.16.2.1-1 FRED Simulator Status

This is identical to the vehicle placement screen and accomplishes the same functions. The screen appears with the current location, azimuth, fuel and ammunition status of the identified simulator.

Step 1: Click to select the Helicopter Type to be either Attack or Scout.

Step 2: To change any data, click on the selected data box then type the new information.

Click on the **Cancel** button to leave the simulator in its current status and to return to Figure 5.16.

Click on the **Reconstitute** button to place the simulator based on the displayed information and to return to Figure 5.16.

Repeat the procedure for each simulator to be reconstituted.

Reconstitution			
M1 Simulator:	10A	A Company	
Bumper No.	3	☐ Defense ☐ Offense ☒ Observer	
Location			
Bow Azimuth	(Mils)		
Fuel Load	505	(Gallons)	
105mm APDS-T	35	(Rounds)	
105mm HEAT	20	(Rounds)	
Maint. Status	☒ New ☐ ... ☐ ... ☐ ... ☐ Old		
Help Cancel Detail Reconstitute			

Figure 5.16.2.1-2 M1 Simulator Status

This is identical to the vehicle placement screen and accomplishes the same functions. The screen appears with the current location, azimuth, fuel and ammunition status of the identified simulator.

Step 1: To change any data, click on the selected data box then type the new information.

Click on the **Cancel** button to leave the simulator in its current status and to return to Figure 5.16. .

Click on the **Detail** button to bring up the Simulator Detail as shown in Figure 5.16.2.1-3.

Click on the **Reconstitute** button to place the simulator based on the displayed information and to return to Figure 5.16.

Repeat the procedure for each simulator to be reconstituted.

Turret Azimuth	0	(Mils From Bow Azimuth)	
Fuel Load By Tank			
		Capacity	
Left Front Tank	107	107	
Right Front Tank	150	150	
Rear Tank	248	248	
Ammunition By Rack			
	APDS-T	HEAT	Capacity
Ready Rack	11	11	22
Semi-Ready Rack	13	9	22
Turret Floor & Hull	11	0	11
Help		Cancel	OK

Figure 5.16.2.1-3 M1 Simulator Detail dialog

Clicking the **Detail** button on Figure 5.16.2.1-2 causes the Simulator Detail dialog to appear as shown in Figure 5.16.2.1-3. Displayed data on this screen may be changed as required.

- Step 1: Change the Turret Azimuth.
- Step 2: Change the fuel distribution.
- Step 3: Change the ammunition distribution.

Click on the **OK** button to return to Figure 5.16.2.2.

Click on the **Cancel** button to leave the simulator in its current status and to return to Figure 5.16.2.2.

Note: Samples of Simulator Reconstitution dialog and Simulator Detail dialog for different type of simulators are shown in Figure 5.16.2.1-4 and 5.16.2.1-5.

Reconstitution			
M2/3 Simulator:		9C	
		A Company	
Bumper No.	2		
Location		☐ Defense ☐ Offense ☒ Observer	
Bow Azimuth		(Mils)	
Fuel Load	175	(Gallons)	
AP Bin Load	70	Rounds Of ☒ APDS-T ☐ HEI-T	
HE Bin Load	230	Rounds Of ☐ APDS-T ☒ HEI-T	
Stowed APDS-T	300	TOW Missiles	7
Stowed HEI-T	300	DRAGON Missiles	0
Maint. Status	☒ New ☐ ... ☐ ... ☐ ... ☐ Old		
Configuration	☒ M2 ☐ M3		
Help		Cancel	Detail
		Reconstitute	

Figure 5.16.2.1-4 M2/3 Simulator Status

Turret Azimuth	0	(Mils From Bow Azimuth)
Fuel Load By Tank		Capacity
Top Tank	30	30
Bottom Tank	145	145
TOW Launcher	☒ Tube 1 Loaded	
	☒ Tube 2 Loaded	
Stowed Missiles		Capacity
TOW Missiles	5	} 5
DRAGON Missiles	0	
Help		Cancel
		OK

Figure 5.16.2.1-5 M2/3 Simulator Detail dialog

5.16.2.2 Reconstitute TOC

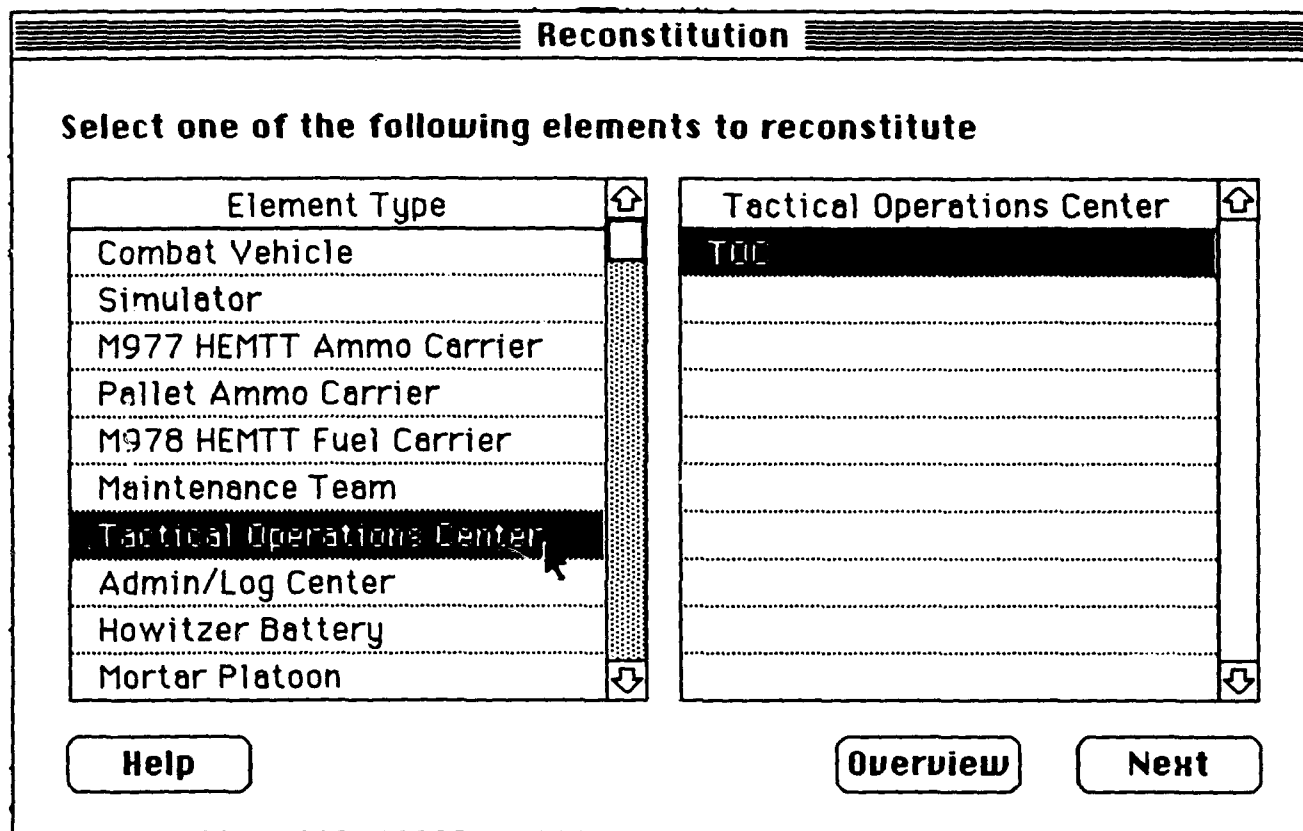


Figure 5.16.2.2 Reconstitute TOC selection

Select the TOC for reconstitution as shown in Figure 5.16.2.2.

Step 1: Click to select the Tactical Operation Center from the Element Type. The right column will then display all TOCs that have been placed.

Step 2: Click to select the TOC Unit to be reconstituted.

Click on the **Next** button with a selected element brings up a subsequent screen as shown in Figure 5.16.2.2-1.

Click on the **Overview** button to return to the BattleMaster Function menu.

Reconstitution

Role of the TOC ☐ Defense ☐ Offense
 ☒ **Shared for a local force-on-force exercise**

TOC Location

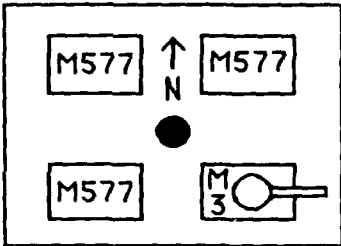
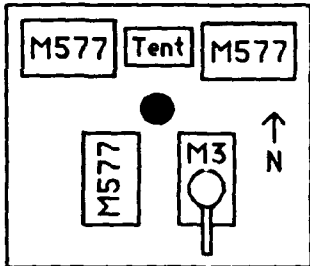
TOC Arrangement ☒  ☐ 

Figure 5.16.2.2-1 Reconstitute TOC Detail

On the Reconstitute TOC Detail screen as shown in Figure 5.16.2.2-1.

Step 1: In the TOC Location box, enter the six or eight-digit grid coordinates including the zone designator where the TOC is to be located.

Step 2: In the Role of the TOC and the TOC Arrangement by which the TOC will function may be designated at this stage by placing the cursor over and click one of the circles designated as Defense, Offense or Shared then select an applicable Arrangement.

Click on the **Reconstitute** button to place the TOC and to return to Figure 5.16.2.2.

Click on the **Cancel** button to return to Figure 5.16.2.2.

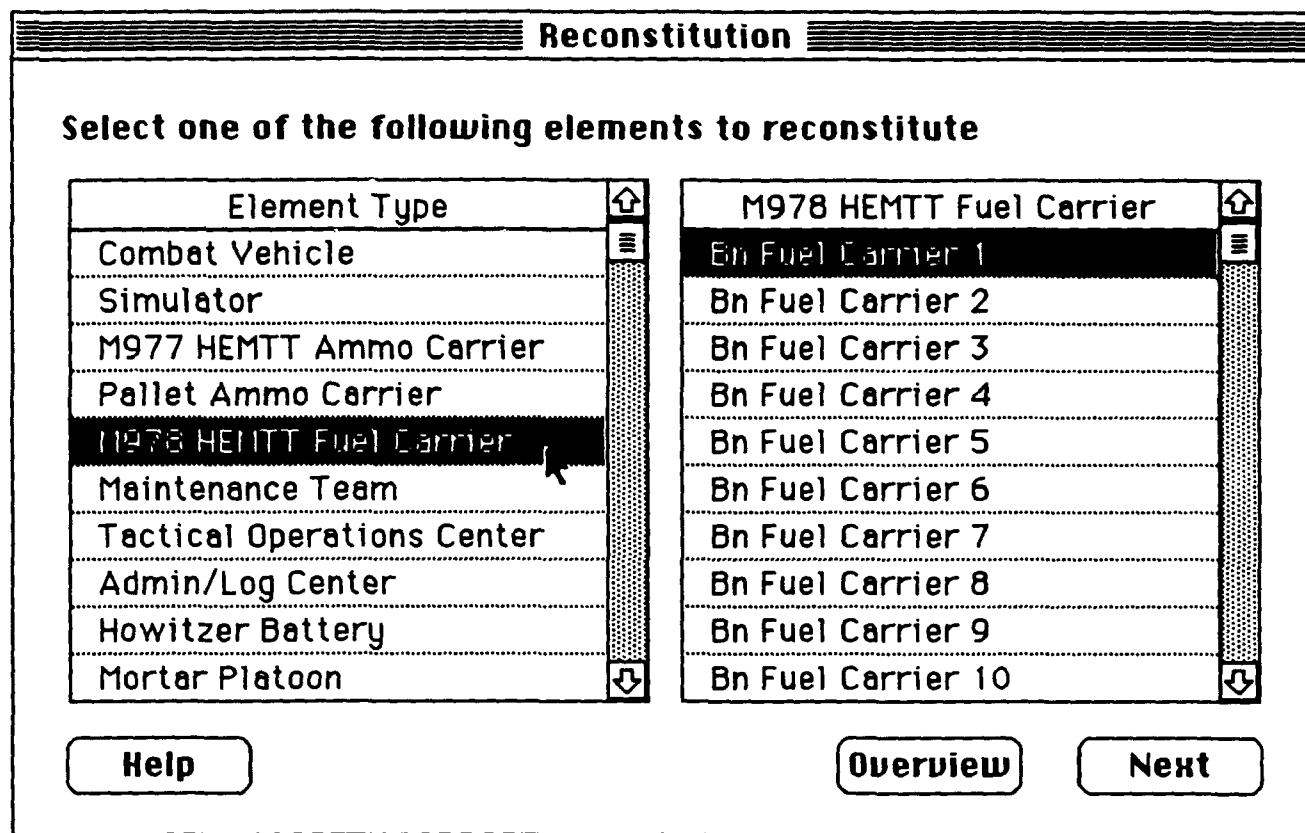
5.16.2.3 Reconstitute Fuel Vehicles.

Figure 5.16.2.3 Reconstitute Fuel Carrier selection

Select the M978 HEMTT Fuel Carrier for reconstitution as shown in Figure 5.16.2.3.

Step 1: Click to select the M978 HEMTT Fuel Carrier from the Element Type. The right column will then display all Fuel carriers that have been placed.

Step 2: Click to select the Fuel carrier Unit to be reconstituted.

Click on the **Next** button with a selected element brings up a subsequent screen as shown in Figure 5.16.2.3-1.

Click on the **Overview** button to return to the BattleMaster Function menu.

The screenshot shows a dialog box titled "Vehicle 1". It contains the following fields and controls:

- Assigned To:** Radio buttons for "A Co", "B Co", "C Co", "D Co", and "Bn". The "Bn" option is selected.
- Alignment:** Radio buttons for "Defense", "Offense", and "Shared". The "Shared" option is selected.
- Initial Location:** A text box containing the value "NB300202".
- Initial Load:** A text box containing the value "2500", followed by the label "(Gallons)".
- Buttons:** "Cancel", "Restore Defaults", and "OK". The "OK" button has a mouse cursor pointing at it.

Figure 5.16.2.3-1 Fuel Carrier Detail

On the Reconstitute Fuel Carrier Detail screen as shown in Figure 5.16.2.3-1.

Step 1: Click to assign the fuel carrier to one of the companies or the Battalion.

Step 2: Click to select the Alignment.

Step 3: In the Initial Location box, enter the six or eight-digit grid coordinates including the zone designator where the Fuel carrier is to be located.

Step 4: In the Initial Load box, enter the amount of fuel desired. Do not exceed 2500 gallons.

Click on the **OK** button to activate the Fuel Carrier and to return to BattleMaster Functions menu.

Click on the **Restore Defaults** button to automatically place 2500 gallons in the vehicle and to return to Figure 5.16.2.3.

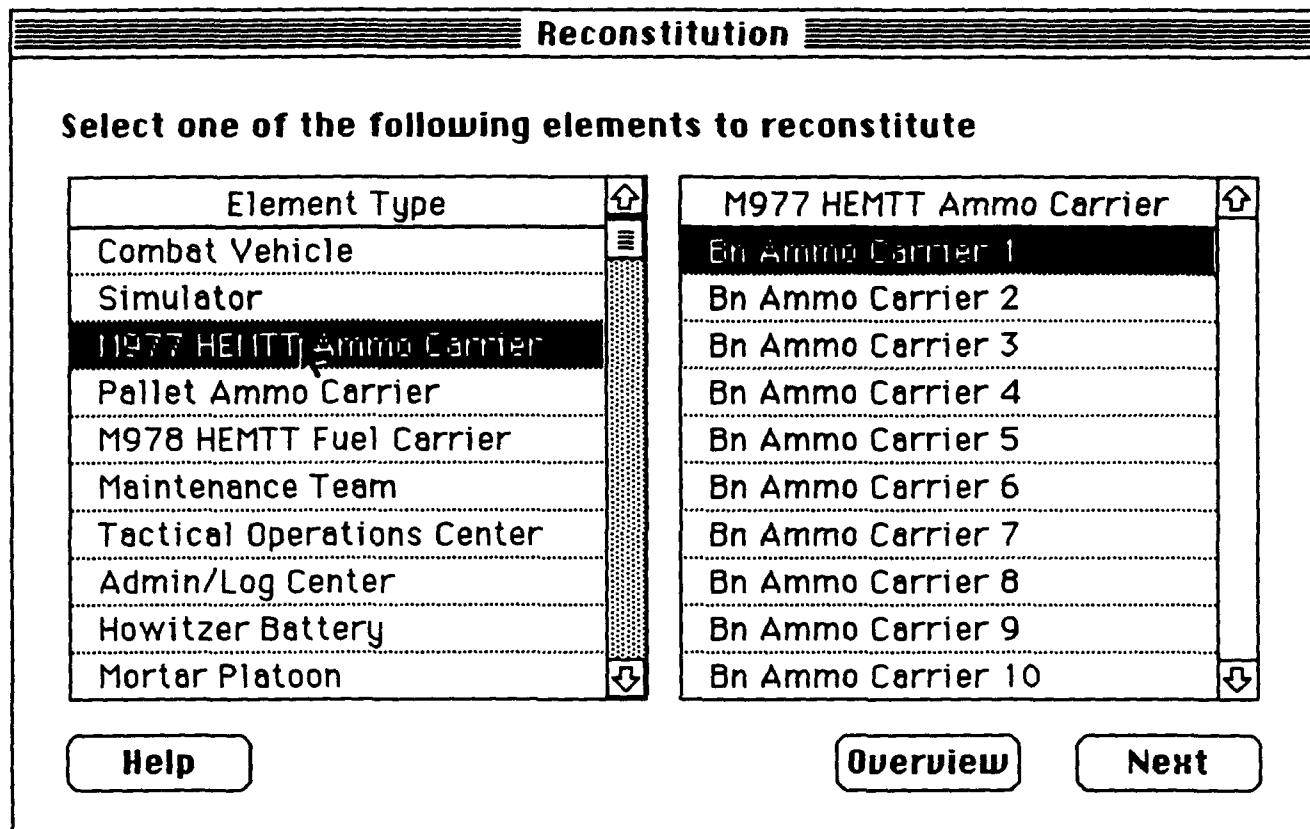
5.16.2.4 Reconstitute Ammo Vehicles.

Figure 5.16.2.4 Reconstitute Ammo Carrier selection

Select the M977 HEMTT Ammo Carrier for reconstitution as shown in Figure 5.16.2.4.

Step 1: Click to select the M977 HEMTT Ammo Carrier from the Element Type. The right column will then display all Ammo carriers that have been placed.

Step 2: Click to select the Ammo carrier Unit to be reconstituted.

Click on the **Next** button with a selected element brings up a subsequent screen as shown in Figure 5.16.2.4-1.

Click on the **Overview** button to return to the BattleMaster Function menu.

Vehicle 1

Assigned To ☐ A Co ☐ B Co ☐ C Co ☐ D Co ☒ Bn

Alignment ☐ Defense ☐ Offense ☒ Shared

Initial Location

Initial Load

Ammo Type	Quantity	lbs.	cu. ft.	
105 mm HEAT	160	10958	360	
105 mm APDS	122	8355	274	
20 mm HEI	15	1089	19	
20 mm PIE	15	1089	19	

Totals: 21492 lbs., 673 cu. ft.

Figure 5.16.2.4-1 Ammo Carrier Detail

On the Reconstitute Ammo Carrier Detail screen as shown in Figure 5.16.2.4-1.

- Step 1: Click to assign the Ammo carrier to one of the companies or the Battalion.
- Step 2: Click to select the Alignment.
- Step 3: In the Initial Location box, enter the six or eight-digit grid coordinates including the zone designator where the Fuel carrier is to be located.
- Step 4: Click on the Initial Load box to bring up the Ammo Transfer dialog as shown in Figure 5.16.2.4-2.

Click on the **OK** button to reconstitute the Ammo Carrier and to return to BattleMaster Functions menu.

Click on the **Restore Defaults** button to restore the full, original load of ammunition to the vehicle and to return to Figure 5.16.2.4.

Depot					Vehicle 1				
Ammo Type	Quantity	lbs.	cu. ft.		Ammo Type	Quantity	lbs.	cu. ft.	
APF Scat mine	--	--	--	↑	105 mm HEAT	120	10956	320	↑
20 mm HEI	--	--	--		105 mm APDS	122	8355	274	
20 mm PIE	--	--	--		20 mm HEI	15	1089	19	
Hydra70 101b	--	--	--	↓	20 mm PIE	15	1089	19	↓

Weight: 21492 lbs.
Volume: 673 cu. ft.

Transfer Quantity

Figure 5.16.2.4-2 Ammo Transfer

On the Ammo Transfer screen as shown in Figure 5.16.2.4-2.

Step 1: Click on the type of ammunition to be transferred.

Step 2: Click the left arrow to add ammunition to the truck from the depot, or the right arrow to remove the ammunition from the truck and put it into the depot..

Step 3: Enter the quantity of ammunition to be transferred: number of rounds for 105mm, and number of boxes for 25mm.

Click on the **Transfer** button to begin the transfer. Repeat steps 1 - 3 for each type of ammunition.

Click on the **Done** button to return to Figure 5.15.2.4-1.

5.16.2.5 Reconstitute Maintenance Team

The screenshot shows a window titled "Reconstitution". Inside, it says "Select one of the following elements to reconstitute". There are two side-by-side lists. The left list, titled "Element Type", includes: Combat Vehicle, Simulator, M977 HEMTT Ammo Carrier, Pallet Ammo Carrier, M978 HEMTT Fuel Carrier, Maintenance Team (highlighted with a mouse cursor), Tactical Operations Center, Admin/Log Center, Howitzer Battery, and Mortar Platoon. The right list, titled "Maintenance Team", includes: Bn Maintenance Team 1 (highlighted), Bn Maintenance Team 2, Bn Maintenance Team 3, Bn Maintenance Team 4, Bn Maintenance Team 5, Bn Maintenance Team 6, Bn Maintenance Team 7, Bn Maintenance Team 8, Bn Maintenance Team 9, and Bn Maintenance Team 10. At the bottom are three buttons: "Help", "Overview", and "Next".

Element Type	Maintenance Team
Combat Vehicle	Bn Maintenance Team 1
Simulator	Bn Maintenance Team 2
M977 HEMTT Ammo Carrier	Bn Maintenance Team 3
Pallet Ammo Carrier	Bn Maintenance Team 4
M978 HEMTT Fuel Carrier	Bn Maintenance Team 5
Maintenance Team	Bn Maintenance Team 6
Tactical Operations Center	Bn Maintenance Team 7
Admin/Log Center	Bn Maintenance Team 8
Howitzer Battery	Bn Maintenance Team 9
Mortar Platoon	Bn Maintenance Team 10

Buttons: Help, Overview, Next

Figure 5.16.2.5 Reconstitute Maintenance Team selection

Select the Maintenance Team for reconstitution as shown in Figure 5.16.2.5.

Step 1: Click to select the Maintenance Team from the Element Type. The right column will then display all Maintenance Teams that have been placed.

Step 2: Click to select which team to be reconstituted.

Click on the **Next** button with a selected team brings up a subsequent screen as shown in Figure 5.16.2.5-1.

Click on the **Overview** button to return to the BattleMaster Function menu.

Vehicle 1

Assigned To ☐ A Co ☐ B Co ☐ C Co ☐ D Co ☒ Bn

Alignment ☐ Defense ☐ Offense ☒ Shared

Initial Location

Figure 5.16.2.5-1 Maintenance Team Detail

On the Maintenance Team Detail screen as shown in Figure 5.16.2.5-1.

Step 1: Click to assign the Maintenance Team to one of the companies or the Battalion.

Step 2: Click to select the Alignment.

Step 3: In the *Initial Location* box, enter the six or eight-digit grid coordinates including the zone designator where the Maintenance Team is to be located.

Click on the **OK** button to activate the Maintenance Team and to return to Figure 5.16.2.5.

Click on the **Restore Defaults** button to restore the default data and to return to Figure 5.16.2.5.

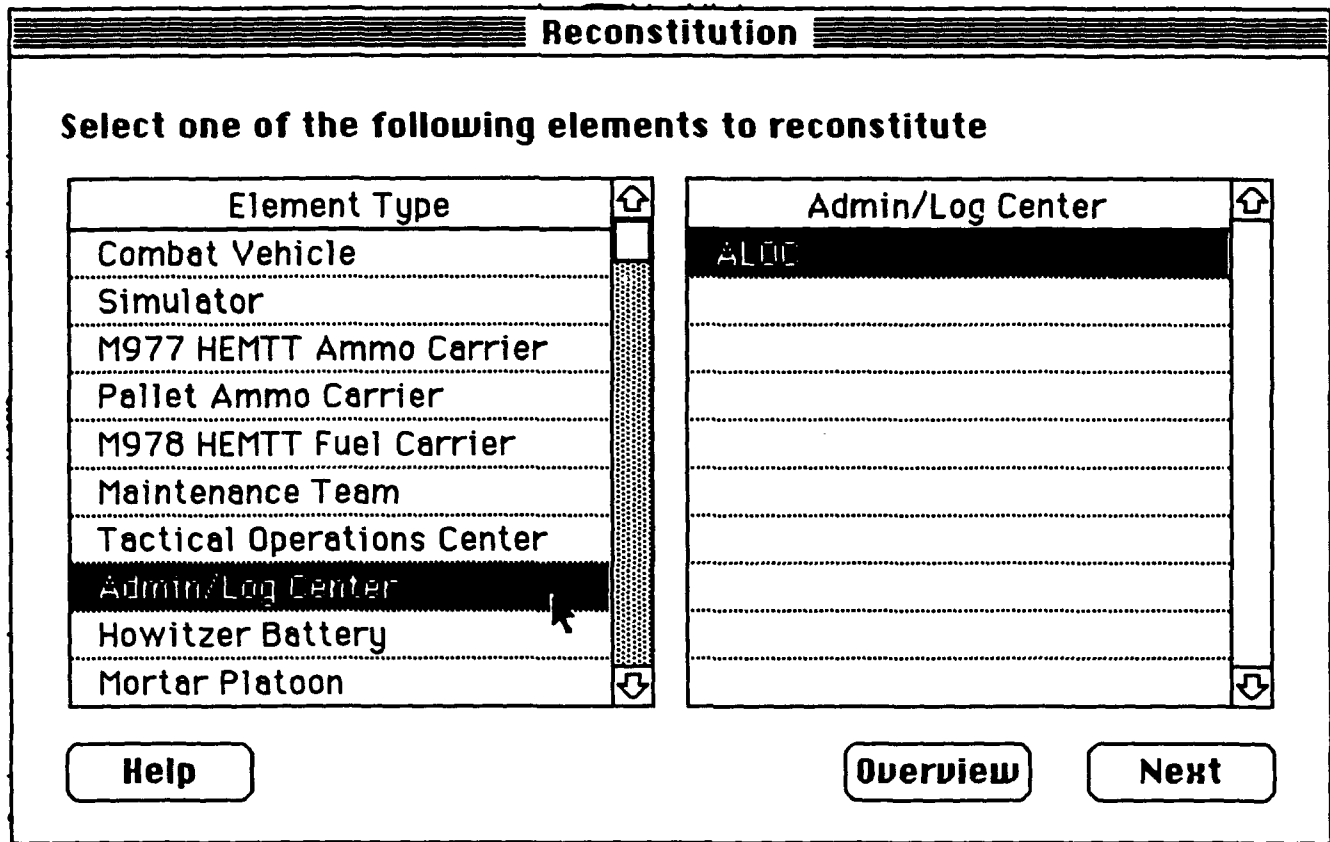
5.16.2.6 Reconstitute Admin/Log Center

Figure 5.16.2.6 Reconstitute Admin/Log Center selection

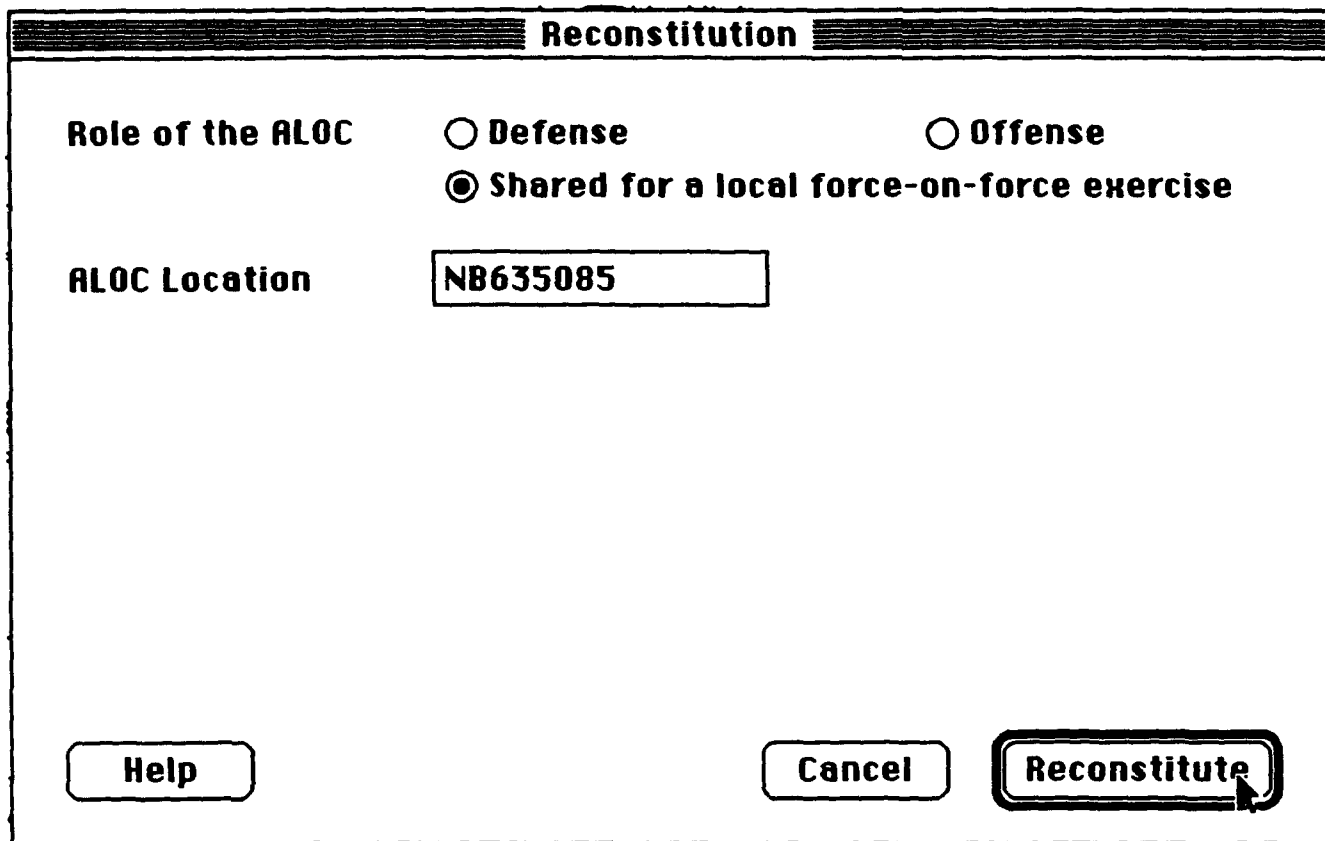
Select the Admin/Log Center for reconstitution as shown in Figure 5.16.2.6.

Step 1: Click to select the Admin/Log Center from the Element Type. The right column will then display all ALOC that have been placed.

Step 2: Click to select which ALOC to be reconstituted.

Click on the Next button with a selected team brings up a subsequent screen as shown in Figure 5.16.2.6-1.

Click on the Overview button to return to the BattleMaster Function menu.



The image shows a graphical user interface window titled "Reconstitution". Inside the window, there are three radio buttons under the heading "Role of the ALOC": "Defense", "Offense", and "Shared for a local force-on-force exercise". The "Shared" option is selected with a filled circle. Below this, there is a label "ALOC Location" followed by a text input box containing the value "NB635085". At the bottom of the window, there are three buttons: "Help", "Cancel", and "Reconstitute". The "Reconstitute" button is highlighted with a thick border and a mouse cursor is pointing at it.

Reconstitution	
Role of the ALOC	☐ Defense ☐ Offense ☒ Shared for a local force-on-force exercise
ALOC Location	NB635085
Help Cancel Reconstitute	

Figure 5.16.2.6-1 Admin/Log Center Detail

On the Admin/Log Center Detail screen as shown in Figure 5.16.2.6-1.

Step 1: Click to select the Alignment.

Step 3: In the ALOC Location box, enter the six-digit grid coordinates including the zone designator where the ALOC is to be located.

Click on the **Reconstitute** button to activate the ALOC and to return to Figure 5.16.2.6.

Click on the **Cancel** button to return to Figure 5.16.2.6.

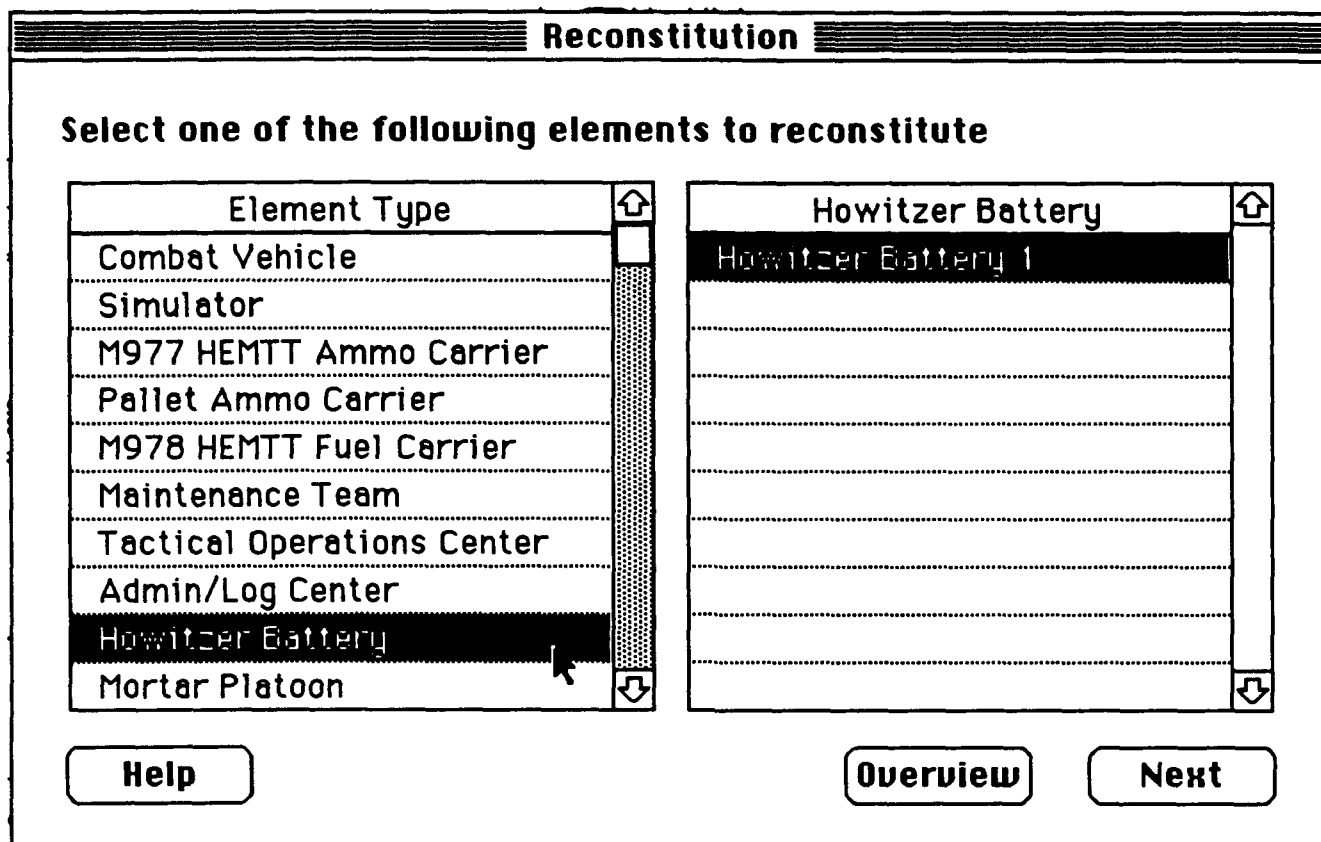
5.16.2.7 Reconstitute Howitzer Battery

Figure 5.16.2.7 Reconstitute Howitzer Battery selection

Select the Howitzer Battery for reconstitution as shown in Figure 5.16.2.7.

Step 1: Click to select the Howitzer Battery from the Element Type. The right column will then display all Howitzer Battery that have been placed.

Step 2: Click to select which Howitzer Battery to be reconstituted.

Click on the Next button with a selected team brings up a subsequent screen as shown in Figure 5.16.2.7-1.

Click on the Overview button to return to the BattleMaster Function menu.

Reconstitution		
Enter new parameters for the battery of eight 155mm howitzers		
Battery Location (Center of Mass)	NB65600315	
Azimuth of Fire (in Mils from Grid North)	0	
New Ammunition Supply at Gun Site		
HE Point Detonating	150	Rds / Gun
HE Variable Time	200	Rds / Gun
Help Cancel Reconstitute		

Figure 5.16.2.7-1 Howitzer Battery Detail

On the Howitzer Battery Detail screen as shown in Figure 5.16.2.7-1.

Step 1: In the Battery Location box, enter the six-digit grid coordinates including the zone designator where the Battery is to be located.

Step 2: In the Azimuth of Fire box, enter the firing azimuth in mils.

Step 3: In the HE Point Detonating box, enter the number of rounds.

Step 4: In the HE Variable Time box, enter the number of rounds.

Click on the **Reconstitute** button to activate the Howitzer Battery and to return to Figure 5.16.2.7.

Click on the **Cancel** button to return to Figure 5.16.2.7.

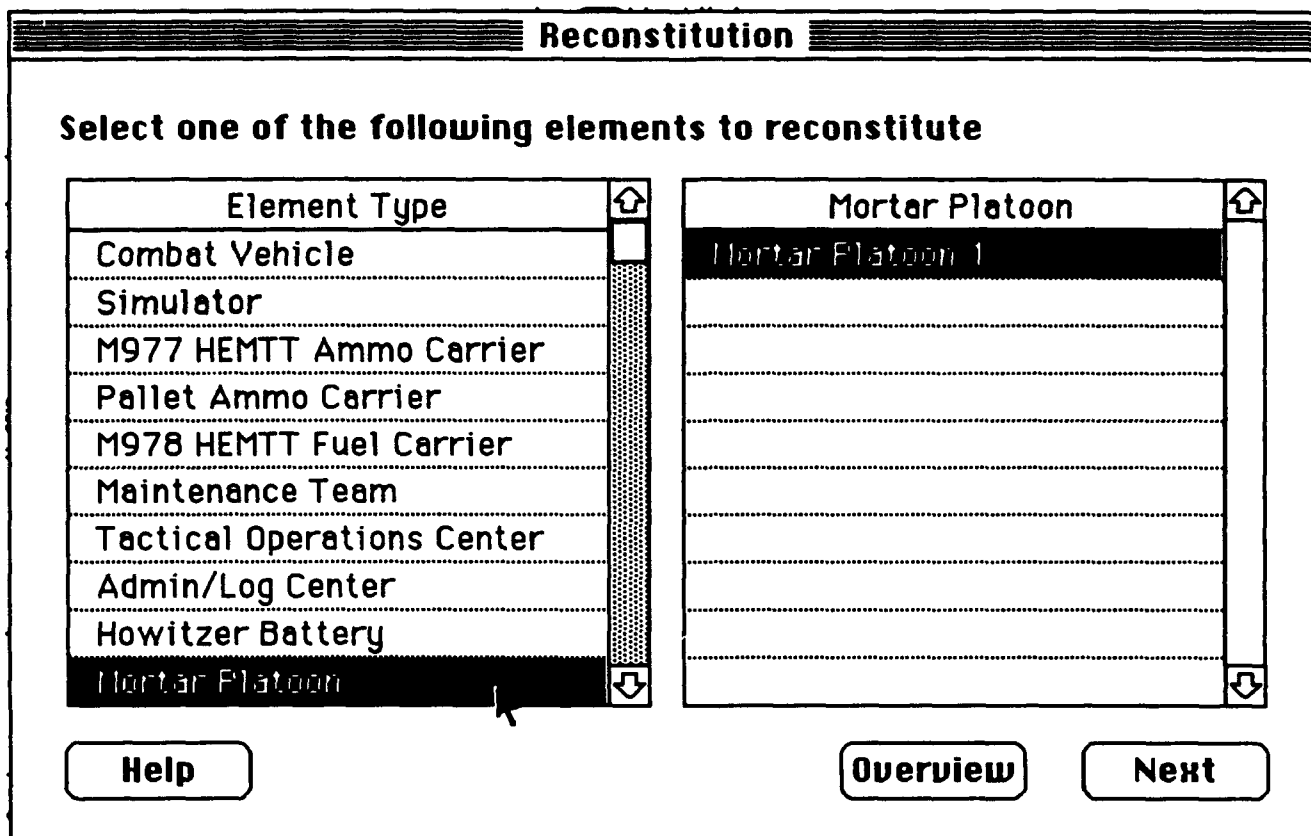
5.16.2.8 Reconstitute Mortar Platoon

Figure 5.16.2.8 Reconstitute Mortar Platoon selection

Select the Mortar Platoon for reconstitution as shown in Figure 5.16.2.7.

Step 1: Click to select the Mortar Platoon from the Element Type. The right column will then display all Mortar Platoon that have been placed.

Step 2: Click to select which Mortar Platoon to be reconstituted.

Click on the **Next** button with a selected platoon brings up a subsequent screen as shown in Figure 5.16.2.8-1.

Click on the **Overview** button to return to the BattleMaster Function menu.

Reconstitution		
Enter new parameters for the platoon of six 107mm mortars		
Platoon Location (Center of Mass)	NB67500820	
Azimuth of Fire (in Mils from Grid North)	1800	
New Ammunition Supply at Gun Site		
HE Point Detonating	30	Rds / Gun
HE Variable Time	25	Rds / Gun
Help Cancel Reconstitute		

Figure 5.16.2.8-1 Mortar Platoon Detail

On the Mortar Platoon Detail screen as shown in Figure 5.16.2.7-1.

Step 1: In the Platoon Location box, enter the six-digit grid coordinates including the zone designator where the Platoon is to be located.

Step 2: In the Azimuth of Fire box, enter the firing azimuth in mils.

Step 3: In the HE Point Detonating box, enter the number of rounds.

Step 4: In the HE Variable Time box, enter the number of rounds.

Click on the **Reconstitute** button to activate the Mortar Platoon and to return to Figure 5.16.2.8.

Click on the **Cancel** button to return to Figure 5.16.2.8.

5.16.2.9 Reconstitute Combat Engineer Asset

Reconstitution

Select one of the following elements to reconstitute

Element Type	Combat Engineer Asset
Simulator	CE A/1/1
M977 HEMTT Ammo Carrier	CE A/1/2
Pallet Ammo Carrier	CE A/1/3
M978 HEMTT Fuel Carrier	CE A/1/4
Maintenance Team	CE A/2/1
Tactical Operations Center	CE A/2/2
Admin/Log Center	CE A/2/3
Howitzer Battery	CE A/2/4
Mortar Platoon	CE A/3/1
Combat Engineer Asset	CE A/3/2

Help Overview Next

Figure 5.16.2.9 Reconstitute Combat Engineer Asset selection

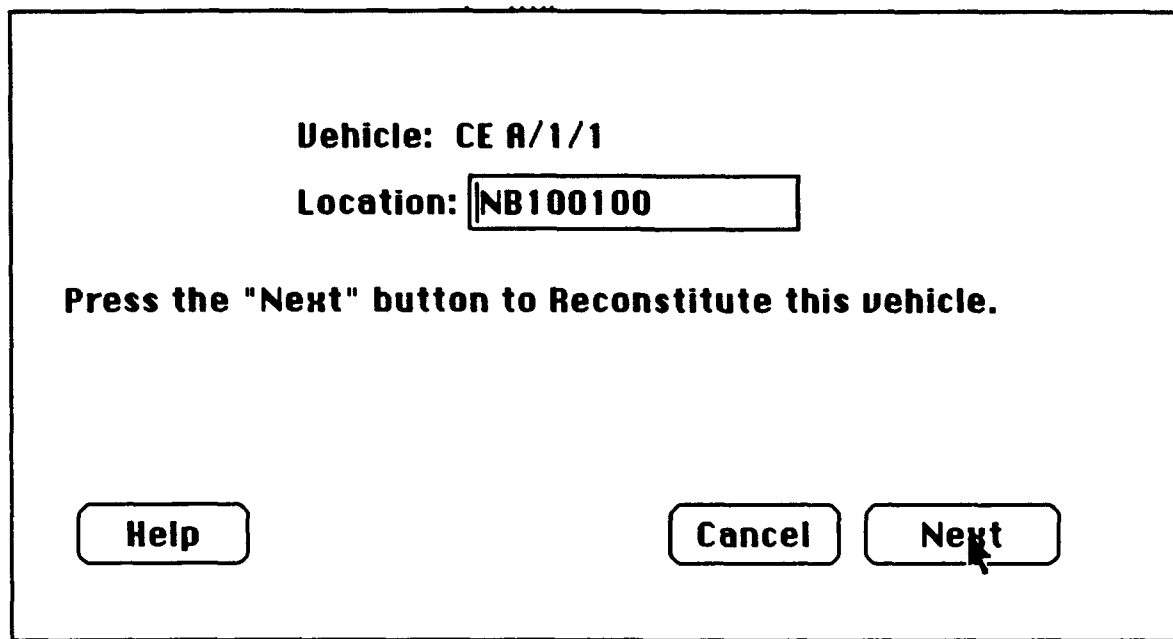
Select the Combat Engineer Asset (CEA) for reconstitution as shown in Figure 5.16.2.7.

Step 1: Click to select the CEA from the Element Type. The right column will then display all CEAs that have been placed.

Step 2: Click to select which CEA to be reconstituted.

Click on the **Next** button with a selected CEA brings up a subsequent screen as shown in Figure 5.16.2.9-1.

Click on the **Overview** button to return to the BattleMaster Function menu.



The screenshot shows a rectangular window with a black border. Inside, the text "Vehicle: CE A/1/1" is displayed above a text input field containing "NB100100". Below the input field, the instruction "Press the 'Next' button to Reconstitute this vehicle." is shown. At the bottom of the window, there are three buttons: "Help", "Cancel", and "Next". A mouse cursor is pointing at the "Next" button.

Vehicle: CE A/1/1

Location:

Press the "Next" button to Reconstitute this vehicle.

Help Cancel Next

Figure 5.16.2.9-1 CEA Detail

On the CEA Detail screen as shown in Figure 5.16.2.9-1.

Step 1: In the Location box, enter the six-digit grid coordinates including the zone designator where the CEA is to be located.

Click on the Next button to activate the CEA and to return to Figure 5.16.2.9.

Click on the Cancel button to return to Figure 5.16.2.9.

5.16.3 Resume initialization

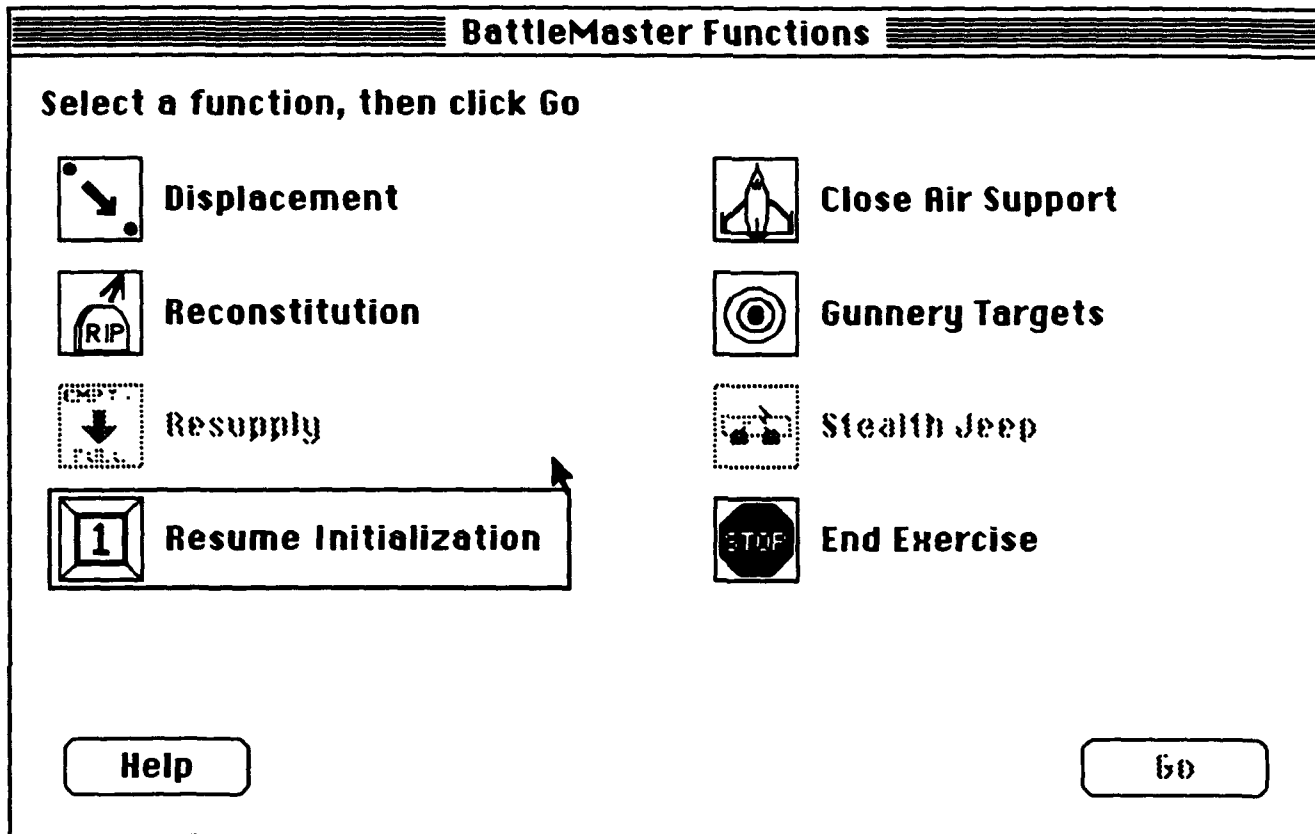


Figure 5.16.3 Resume Initialization selection

The Resume Initialization function provides the BattleMaster with the capability to add elements that were not originally initialized to a simulation exercise. Selecting the Resume Initialization icon and clicking the GO button on the BattleMaster Function menu as shown in Figure 5.16.3 brings up the Initialization Menu. This function can be activated as many time as necessary during a given simulation exercise.

The only selections available at this point in an exercise are:

- 1) Simulator Allocation
- 2) Vehicle Placement
- 3) BattleMaster Functions

5.16.4 Close Air Support

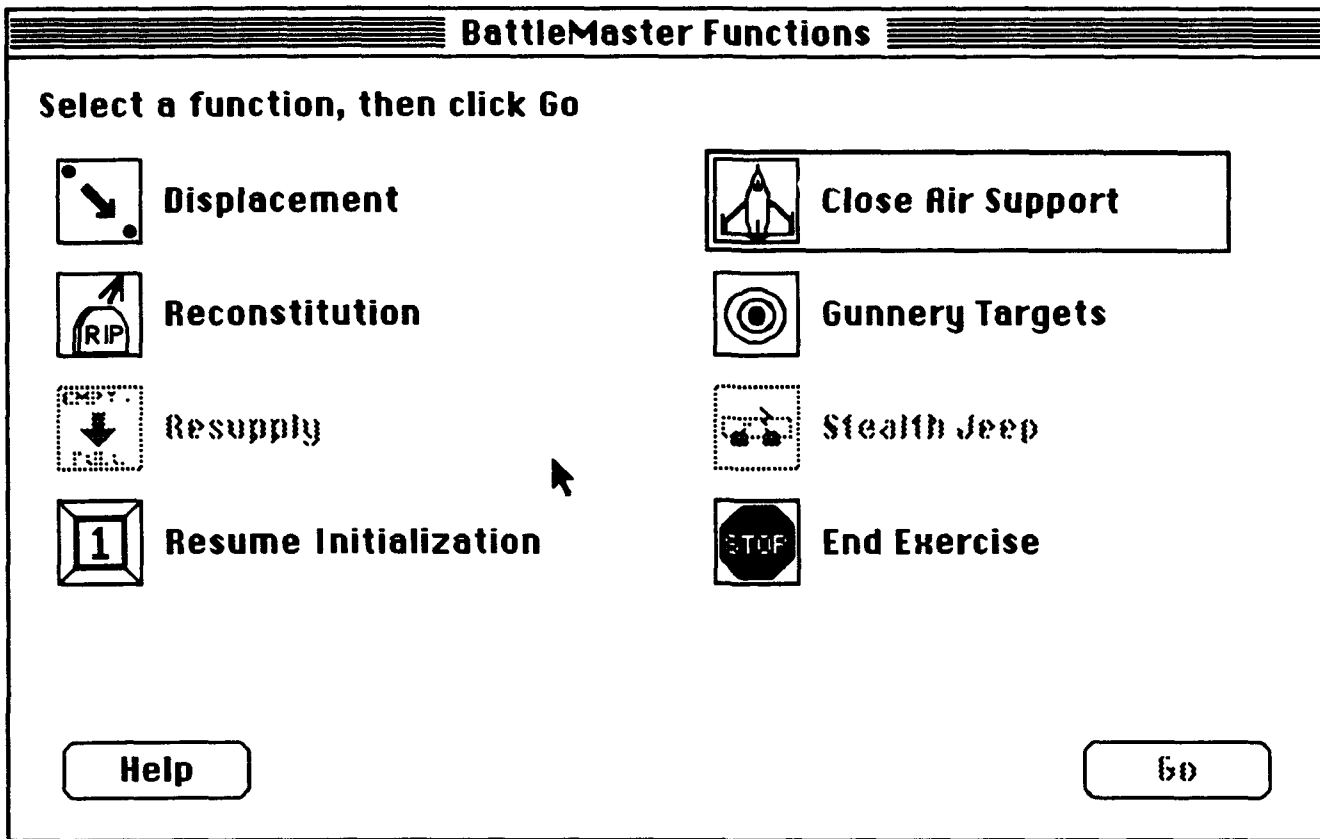
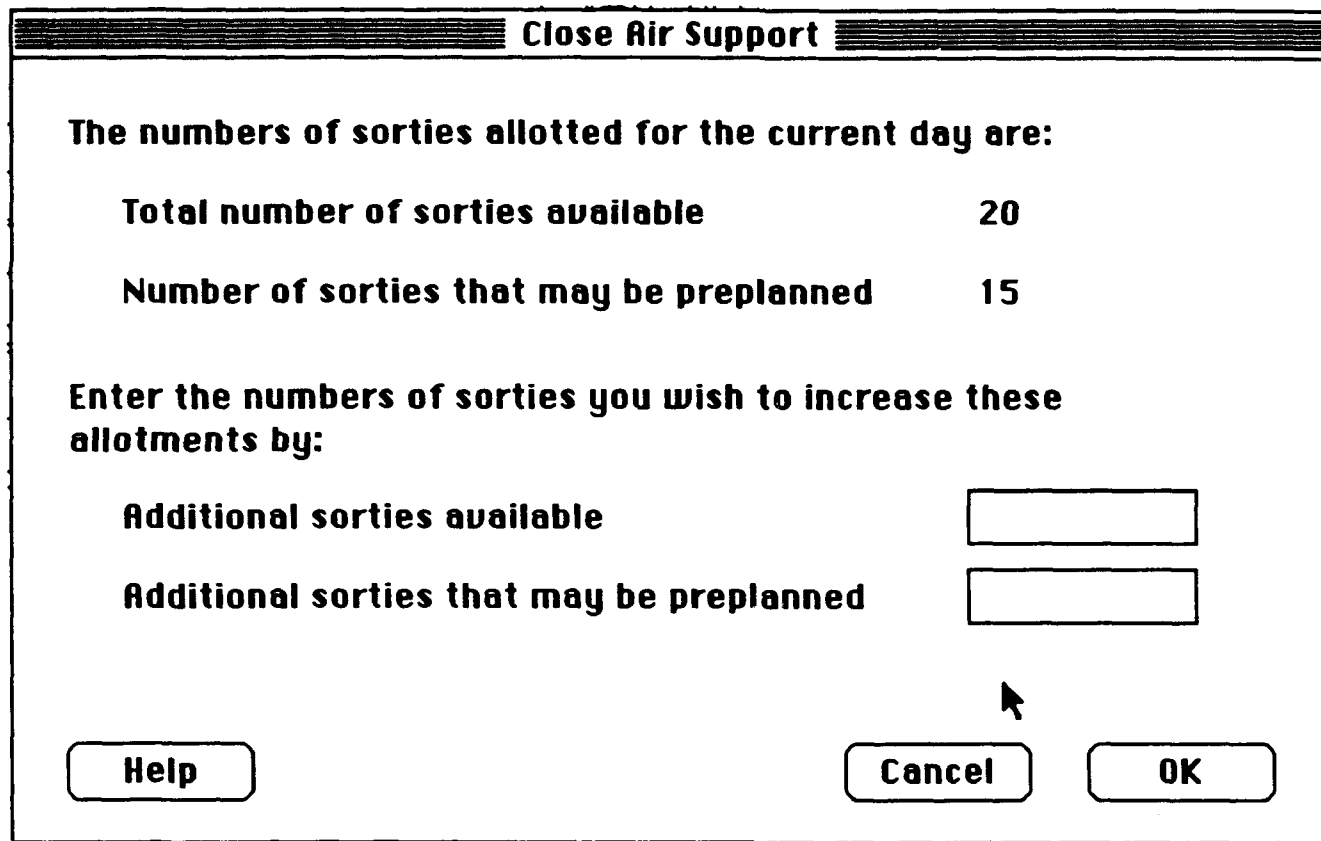


Figure 5.16.4 Close Air Support selection

Selecting the Close Air Support (CAS) icon and clicking the GO button on the BattleMaster Functions menu brings up the Close Air Support screen as shown in Figure 5.16.4-1.



The numbers of sorties allotted for the current day are:

Total number of sorties available	20
Number of sorties that may be preplanned	15

Enter the numbers of sorties you wish to increase these allotments by:

Additional sorties available	
Additional sorties that may be preplanned	

Buttons: Help, Cancel, OK

Figure 5.16.4-1 Close Air Support Detail

On the Close Air Support Detail screen as shown in Figure 5.16.4-1.

Step 1: In the Additional Sorties Available box, enter the number of sorties to be added to the exercise.

Step 2: In the Additional Sorties that may be preplanned box, enter the number of sorties that may be preplanned. This amount can not exceed the number of sorties added.

Click on the **OK** button to activate the CAS and to return to Figure 5.16.4.

Click on the **Cancel** button to return to Figure 5.16.4.

5.16.5 Gunnery Targets.

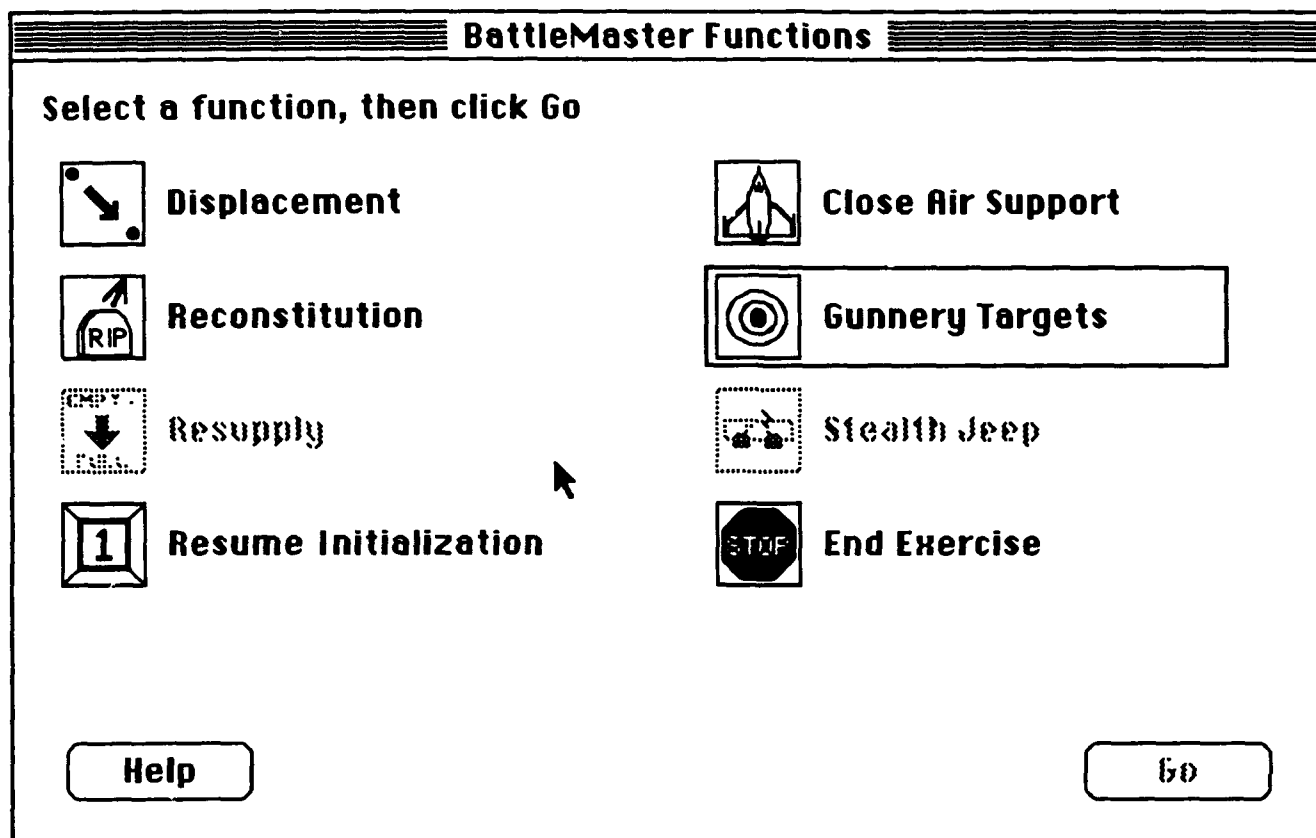
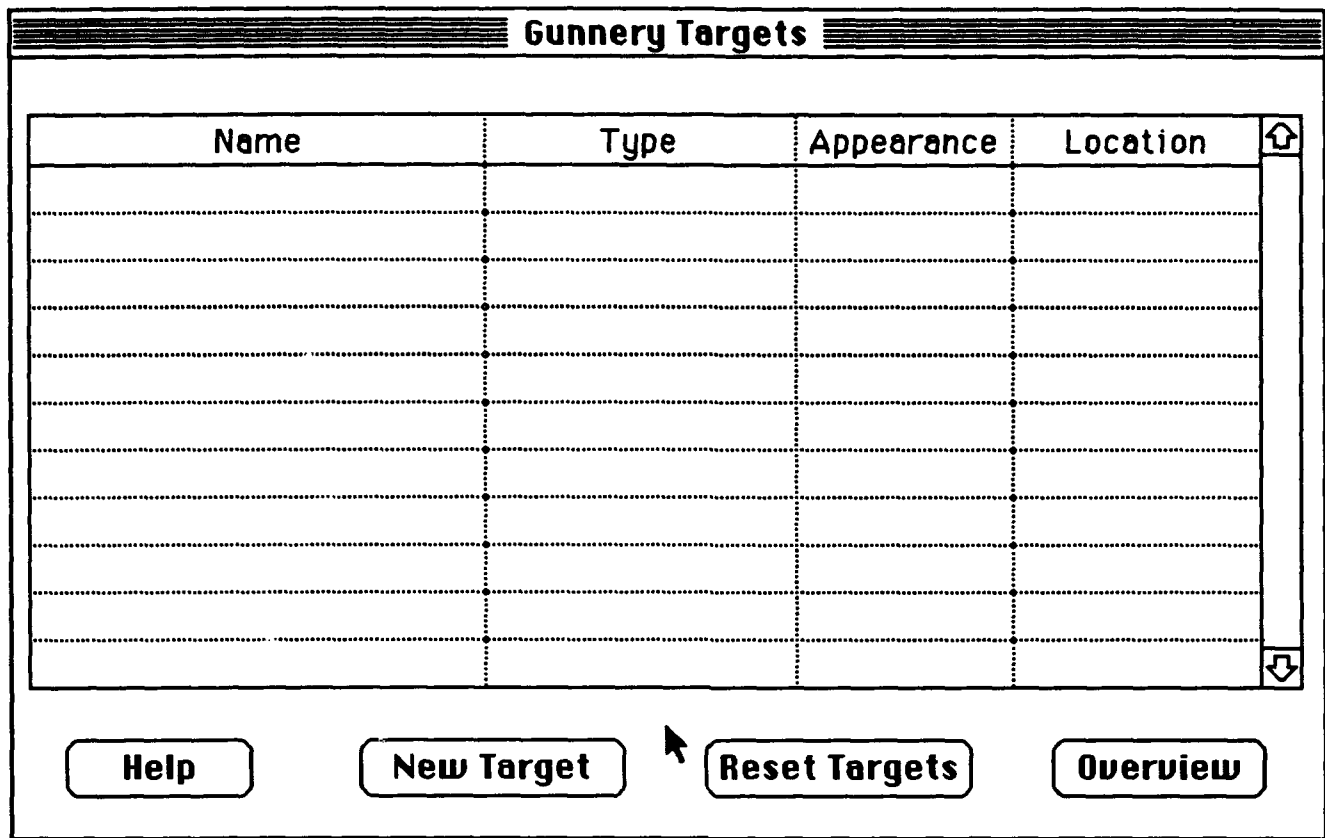


Figure 5.16.5 Gunnery Targets selection

The BattleMaster is the authority to place unmanned stationary targets on the terrain database to more readily support a particular training requirement. Selecting the Gunnery Targets icon and clicking the GO button on the BattleMaster Function menu as shown in Figure 5.16.5 brings up the Gunnery Target Worksheet (Figure 5.16.5-1).



Name	Type	Appearance	Location

Help New Target Reset Targets Overview

Figure 5.16.5-1 Gunnery Targets Worksheet

The Gunnery Target Worksheet screen displays all current gunnery targets by name, assignment, appearance and location. Grayed out targets indicate known kills.

Click on the selected target line to change or remove it.

Clicking the **Reset Targets** button reactivates all targets listed on the Gunnery target screen.

Clicking the **New target** button brings up a screen that allows the selection and placement of a new target vehicle.

Clicking the **Overview** button to return to the BattleMaster Functions Menu.

Gunnery Targets	
Name	
Type	☒ Main Battle Tank ☐ Armored Personnel Carrier ☐ 2-1/2 Ton Truck ☐ Recovery Vehicle ☐ Mortar Carrier ☐ SP Howitzer ☐ Fuel Truck ☐ Ammunition Truck
Appearance	☐ Defense ☐ Offense ☐ Observer ☒ Target
Location	
Azimuth	Mils From Grid N
Help Cancel Changes Remove Target OK	

Figure 5.16.5-2 Gunnery Target Detail

Clicking the **New target** button or selecting a target that need to be changed from Figure 5.16.5-1 causes the Gunnery Target Detail screen as shown in Figure 5.16.5-2 to appear. This screen provides the basic format for generating or changing all type of targets.

Step 1: In the Name box, enter the name or title of the target.

Step 2: Click to select the target Type.

Step 3: Click to select the target Appearance.

Step 4: In the Location box, enter the six or eight-digit grid coordinates including grid zone designator.

Step 5: In the Azimuth box, enter the direction that the target is to face in mils.

Click on the **OK** button to place the target.

Click on the **Cancel Changes** button to leave the target at its original location.

Click on the **Remove Target** button to delete the target that has been placed.

Note: The following commands are provided as "short cut". The user is suggested to use them with cautions.

Press Apple+Shift+Option keys and also press one of the following keys simultaneously:

- C to save the presets.*
- D to load the presets.*
- G to save Gunnery targets.*
- L to lock the SCC console.*
- Q to quit.*
- T to load saved Gunnery targets.*
- V to show the console version ID.*
- X to immediately displace simulator.*

5.16.6 End exercise.

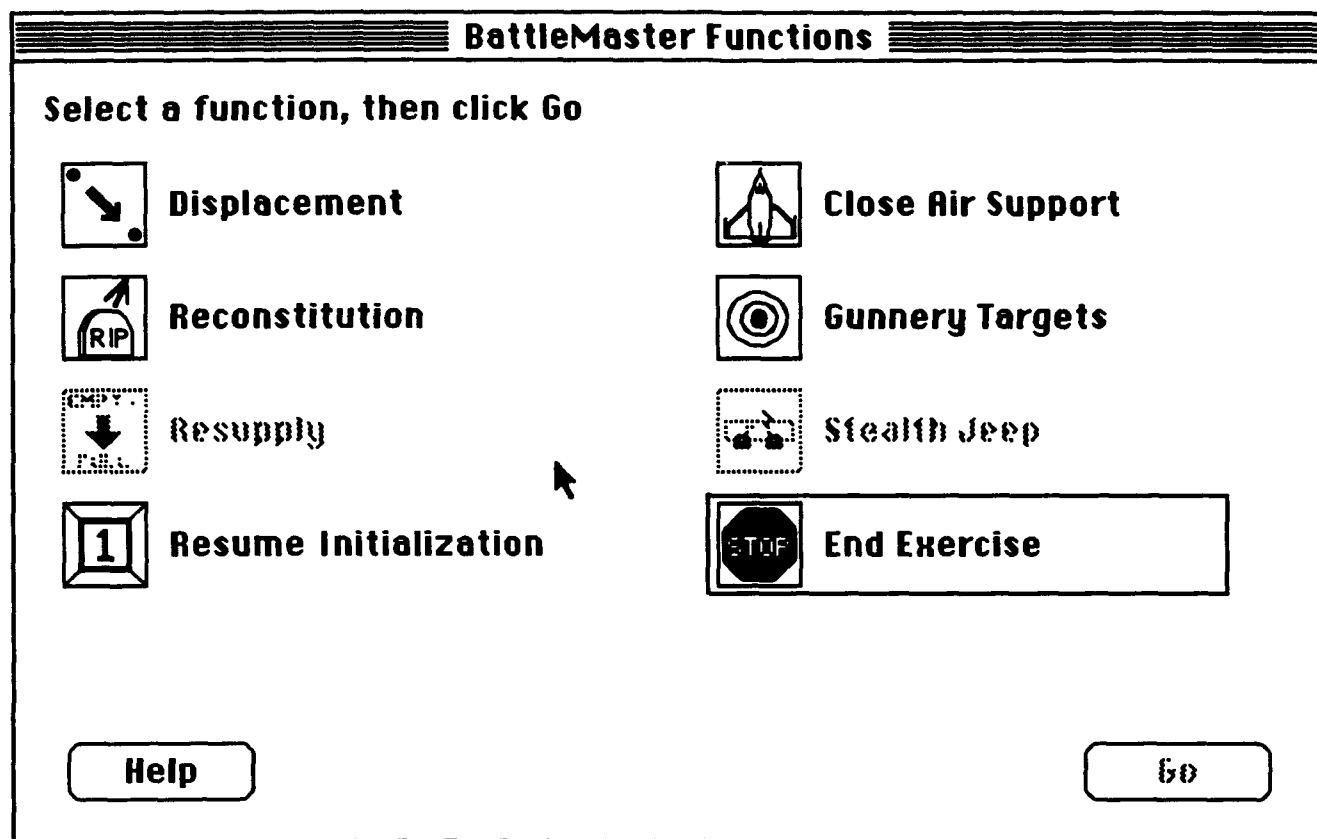


Figure 5.16.6 End Exercise selection

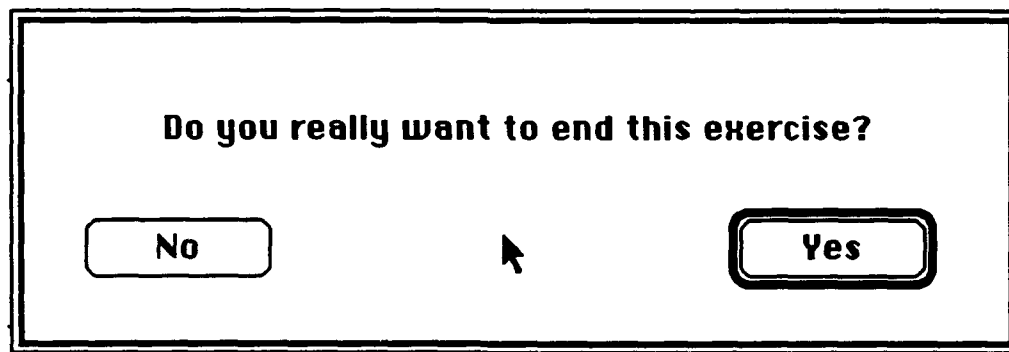


Figure 5.16.6-1 End Exercise confirmation dialog

Only the BattleMaster can formally end a simulation exercise. Clicking the GO button with the End exercise icon selected on the BattleMaster Function menu (Figure 5.16.6) brings up a confirmation dialog box as shown in Figure 5.16.6-1 to preclude an inadvertent ending of the simulation exercise.

Click on the **Yes** button on the End Exercise confirmation dialog box to confirm the termination. The SCC will send shut down messages to the Masscomp Host and all of the SIMNET Consoles, then reboot itself.

Click on the **No** button to return to the BattleMaster Functions menu.

6. Close Air Support Console

This section describes the operation of the Close Air Support Console. This console must be initialized from the SIMNET Control Console with the total number of sorties allocated, and of those sorties, how many may be pre-planned.

01 1509 Mar

Schedule Of Missions						
Type	TOT	Location	Description	Sorties	Results	Status
PP	01 1509 Mar	NB690104	Tanks	4		Held
PP	01 1509 Mar	NB687105	ATMs	3		Held
PP	01 1509 Mar	NB708103	APCs	1		Past
PP	01 1509 Mar	NB700109	Bunkers	2		Past
PP	01 1519 Mar	NB690104	Tanks	2		Future
PP	01 1519 Mar	NB687105	APCs	4		Future
PP	01 1519 Mar	NB708103	Bunkers	2		Future
PP	01 1519 Mar	NB700109	ATMs	1		Future
PP	01 1529 Mar	NB690104	Tanks	3		Future
PP	01 1529 Mar	NB687105	Tanks	2		Future
PP	01 1529 Mar	NB708103	Bunkers	2		Future
PP	01 1529 Mar	NB700109	APCs	2		Future
PP	01 1539 Mar	NB690104	Tanks	2		Future
PP	01 1539 Mar	NB687105	Bunkers	2		Future
PP	01 1539 Mar	NB708103	Tanks	2		Future

Help
Summary
New Mission...
Preplanned
On Call

Figure 6-1 Schedule of Missions

Figure 6-1 shows a partially completed close air support Schedule of Mission with mission's status noted as "Past", "Held", or "Future".

To change the displayed schedule of mission, click anywhere on the line containing the mission to be changed. A sub-screen containing the desired data will be available to accept the changes.

Click on the **Preplanned** button to choose the option of adding a "pre-planned" mission to the Schedule of Missions table. Note that the preplanned mission has a Type marked "PP" on the Schedule of Missions table.

Click on the **Summary** button to obtain the Sorties Allocation Status as shown in Figure 6-3.

*Note: There is no **Help** available, clicking the **Help** button causes a warning dialog to appear as shown in Figure 6-2.*

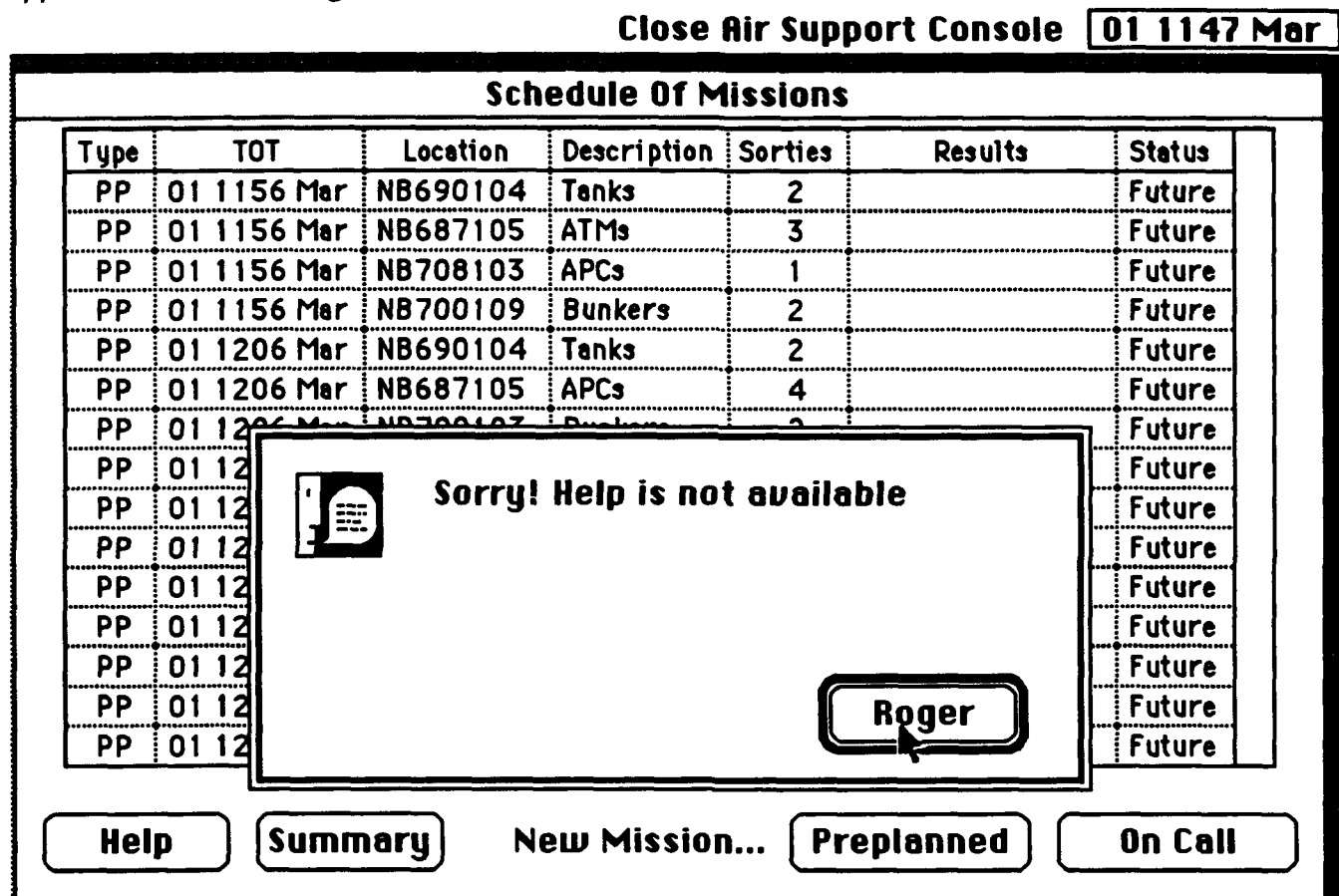


Figure 6-2 Warning dialog

Type		Sortie Allocation - Jun 2		Status	
PP	02 1	Allotted For Use Today		Future	
PP	02 1	Total Sorties	100	Future	
PP	02 1	Maximum Preplanned Sorties	60	Future	
PP	02 1	Currently Scheduled Or Completed		Future	
PP	02 1	Total Sorties	34	Future	
PP	02 1	Preplanned Sorties	34	Future	
PP	02 1	On Call Sorties	0	Future	
PP	02 1	Remaining		Future	
PP	02 1	Total Sorties	66	Future	
PP	02 1	Maximum Preplanned Sorties	26	Future	
PP	02 1			Future	
PP	02 1			Future	

Figure 6-3 Sorties Allocations Summary

Figure 6-3 shows the summary of allocated and remaining sorties.

Click on the **OK** button to remove this screen.

6.1 Preplanned Mission

Schedule Of Missions

Type	Preplanned Mission	Status
PP	Call Sign Of Requestor	re
PP	Target Location Map Coordinates	re
PP	Run-In Heading (Degrees)	re
PP	Target Description	re
PP	Number Of Sorties	re
PP	Time On Target	re
PP		re
PP		re
PP		re
PP		re
PP		re
PP		re
PP		re
PP		re

Target Description

☒ Tanks ☐ Anti-Tank Missiles

☐ APCs ☐ Bunkers

Buttons: Help, Undo Changes, Cncl Mission, OK

Bottom Bar: Help, Summary, New Mission..., Preplanned, Un Call

Figure 6.1-1 Preplanned Mission details

Figure 6.1-1 allows the user to input the information required to request a "pre-planned" airstrike.

- Step 1: In the Call Sign of Requester box, enter the requester call sign.
- Step 2: In the Target Location Map Coordinates box, enter the six-digit coordinates including the grid zone designator.
- Step 3: In the Run-In Heading box, enter the Run-in heading in degrees.
- Step 4: Click to select the Target Description.
- Step 5: In the Number of Sorties box, enter the number of sorties desired for this mission.

Step 6: In the Time On Target box, enter the date and time group of the Time on Target. This time must be in the fixed format (i.e. 25 0607 DEC). The time must be at least twenty-five minutes in the future.

Click on the **OK** button to activate the airstrike.

Click on the **Cncl Mission** to cancel the mission.

Click on the **Undo Changes** button to restore the original information.

6.2 On-Call Mission

Schedule Of Missions		
Type	On Call Mission	
PP	Call Sign Of Requestor	
PP	Target Location Map Coordinates	
PP	Run-In Heading (Degrees)	
PP	Target Description	☒ Tanks ☐ Anti-Tank Missiles ☐ APCs ☐ Bunkers
PP	Number Of Sorties	
PP	Time On Target	02 1555 Jun
PP	Help Undo Changes Cncl Mission OK	
PP	Help Summary New Mission... Preplanned On Call	

Figure 6.2-1 On-Call Mission details

Figure 6.2-1 shows the On-Call Mission detail. The On-Call Mission screen is completed in the same manner as the Pre-planned Mission with one exception. The Time on Target must be at least twenty-five minutes later than the current time.

To complete the On-call Mission:

Click on the **OK** button to add the airstrike as an option on the Schedule of Mission.

Click on the **Cncl Mission** to allow the sorties to be used for another mission.

Click on the **Undo Changes** button to restore the original information.

Close Air Support Console 01 1156 Mar

Schedule Of Missions						
Type	TOT	Location	Description	Sorties	Results	Status
PP	01	Aircraft On Station				uture
PP		Call Sign Of Requestor				ure
PP		A52				ure
PP	C	Target Location Map Coordinates				ure
PP		NB690104				ure
PP	T	Run-In Heading (Degrees)				ure
PP		45				ure
PP	R	Target Description				ure
PP		Tanks				ure
PP	T	Number Of Sorties				ure
PP		2				ure
PP	N	Time On Target				ure
PP		01 1156 Mar				ure
PP		Help				
PP		Undo Changes				
PP		Cncl Mission				
PP		Hold				
PP		Clear Hot				
PP		He				Call

Figure 6.2-2 Aircraft On Station details

Figure 6.2-1 Aircraft On Station detail automatically appears on the console when the aircraft is on station.

- Step 1: In the Call Sign of Requester box, enter the optional requester call sign.
- Step 2: In the Target Location Map Coordinates box, enter the optional six-digit coordinates including the grid zone designator.
- Step 3: In the Run-In Heading box, enter the optional Run-in heading in degrees.

Click on the **Hold** button to hold the mission. The mission may then be held and released anytime within fifteen minutes of the time the aircraft came on station.

Click on the **Cncl Mission** button to decrease the sorties by the amount requested.

Click on the **Undo Changes** button to restore the original information.

Click on the **Clear Hot** button to run the mission. Simulators in the area will see six, 500 pound bomb explosions, but will not see the aircraft.

Close Air Support Console

01 1226 Mar

Schedule Of Missions

Type	TOT	Location	Description	Sorties	Results	Status
PP	01		Bingo Fuel			ast
PP	01		Call Sign Of Requestor		A52	ast
PP	01		Target Location Map Coordinates		NB690104	eld
PP	01		Run-In Heading (Degrees)		123	eld
FF	01		Target Description		Tanks	uture
			Number Of Sorties		3	
			Time On Target		01 1216 Mar	

Help

Undo Changes

Cncl Mission

Clear Hot

Help

on Call

Figure 6.2-3 Bingo Fuel details

Figure 6.2-3 Bingo Fuel detail screen automatically appears on the console if the mission has been held in excess of fifteen minutes. This mission must be Cleared Hot, Canceled, or Diverted. The sorties will be lost whether or not the mission is cleared.

Close Air Support Console 01 1157 Mar

Schedule Of Missions

Type	TOT	Location	Description	Sorties	Results	Status
PP	01		Past Mission			Past
PP	01					Past
PP	01		Call Sign Of Requestor		B16	Past
PP	01		Target Location Map Coordinates		NB700109	Future
PP	01		Run-In Heading (Degrees)		45	Future
PP	01		Target Description		Bunkers	Future
PP	01		Number Of Sorties		2	Future
PP	01		Time On Target		01 1157 Mar	Future
			Results			

Help
Help
Undo Changes
OK
Call

Figure 6.2-4 Past Mission details

Click anywhere on a line containing a "Past" status mission to bring up Figure 6.2-4 Past Mission detail.

In the Result box, type in the result of the mission. This must be a Bomb Damage Assessment (BDA) reported by an observer of the airstrike. The system will not produce a BDA automatically.

7. Fire Support Console

This section describes the operation of the "Fire Support Console". This console allows either the "Fire Support Officer" or FIST to support the units training with indirect fires. The system can be initiated with one to three 155 SP batteries and the 107 mm mortar platoon, the FSO can fire from a "Target List", from that "Final Protective Fire", or a "Schedule of Fires". This console can also "Displace" the mortar platoon by sections.

This console utilizes "pull down" menus as shown in Figure 7-1 across the top of the screen. To operate a pull-down menu, point the cursor on the desired operation and click the mouse button. While continuing to hold the button down, slide the cursor down until the desired selection is highlighted, then release the mouse button.

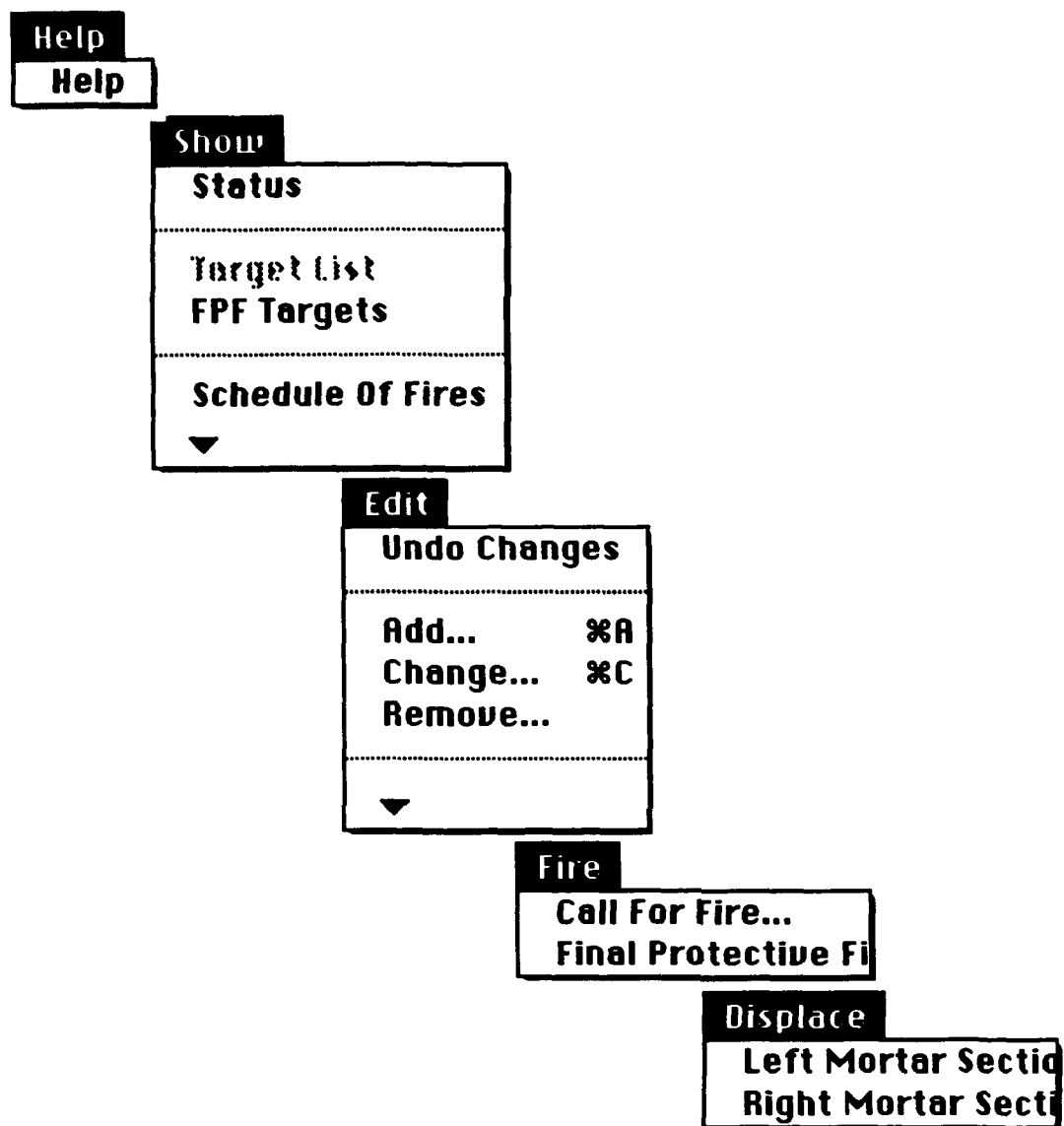


Figure 7-1 Fire Support Console pull-down menus

Help Show Edit Fire Displace		26 1406 Feb	
Fire Units			
 107		 155	
Mortar Plt		Battery 1	
Ready	Ready	Ready	Ready
		 155	
		Battery 2	
		Ready	Ready
Missions			
Observer:			
Target:			
Status:			
Observer:			
Target:			
Status:			

Figure 7-2 Fire Support Status

Figure 7-2 shows the status of firing units and missions. To select this screen, use the "Show" pull down menu and slide the cursor down to select the "Status" option.

Click on one of the symbol to select the desired firing unit (platoon or battery).

Mortar Plt		OK	
Ammunition	HE Point Detonating	450	Rds
	HE Proximity	450	Rds
	RAAMS Mine	0	Rds
	ADAM Mine	0	Rds
Left Sect		Right Sect	
4 Tubes Operational		4 Tubes Operational	
NB656031, 800 Mils		NB656031, 800 Mils	
Ready		Ready	

Figure 7-3 Fire Support Mortar Platoon status

After selecting the desired firing unit, a sub-screen of that selection will appear as shown in Figure 7-3. This sub-screen shows the operational status of the mortars and the amount of ammunition on hand.

Click on the **OK** button to remove this screen.

Battery 1		OK	
Ammunition	HE Point Detonating	450	Rds
	HE Proximity	450	Rds
	RAAMS Mine	450	Rds
	ADAM Mine	450	Rds
Left Plt		Right Plt	
4 Tubes Operational		4 Tubes Operational	
NB656031, 800 Mils		NB656031, 800 Mils	
Ready		Ready	

Figure 7-4 Fire Support Battery status

Figure 7-4 shows the operational status of the selected artillery battery and the amount of ammunition on hand.

Click on the **OK** button to remove this screen.

7.1 Target List operations

Target List			
Number	Location	Description	Remarks
201	NB606128	EN AT Co (-)	Group A1B
202	NB622133	EN Tank Co (-)	Group A1B
203	NB615122	EN MRB CP	Group A1B
204	NB631112	EN Tank Co (-)	Group A2B
205	NB626104	EN Tank Co (-)	Group A2B
206	NB618099	EN Tank Co (-)	Group A2B
207	NB657142	Hill, Possible Loc EN RAG	Group A3B
208	NB668140	Possible Loc EN RAG	Group A3B
209	NB664131	Possible Loc EN RAG	Group A3B
210	NB642100	EN Tank Co (-)	Group A4B
211	NB659108	Road Junction	TRP
212	NB655095	EN Tank Co (-)	Group A4B
213	NB645092	EN Tank Co (-)	Group A4B
214	NB684088	Hill, EN Tank Co (-)	Group A5B
215	NB692095	EN Tank Co (-)	Group A5B
216	NB690104	EN Tank Co (-)	Group A6B

Figure 7.1-1 Target List

To select this screen, use the "Show" pull down menu and slide the cursor down to select the "Target List" option.

To add a target to the target list, use the "Edit" pull down menu and slide the cursor down to "Add". The Target Edit screen will appear to define the target.

To change a target on the target list, click anywhere on the line containing the target to be changed, the selected target will be high-lighted. Use the "Edit" pull down menu and slide the cursor down to "Change". The Target Edit screen will appear to allow changes to the target.

To remove a target from the target list, click anywhere on the line containing the target to be removed, the selected target will be high-lighted. Use the "Edit" pull down menu and slide the cursor down to select the "Remove" option.

Target List

Number	Location	Description	Remarks
201	NB606128	EN AT Co (-)	Group A1B
202	NB622133	EN Tank Co (-)	Group A1B
203			
204			
205			
206			
207			
208			
209			
210			
211			
212			
213			
214	NB684088	Hill, EN Tank Co (-)	Group A5B
215	NB692095	EN Tank Co (-)	Group A5B
216	NB690104	EN Tank Co (-)	Group A6B

Target Number

Location

Description

Remarks

Remove Target **OK**

Figure 7.1-2 Target Edit screen

Figure 7.1-2 allows the addition or deletion of a target.

Step 1: In the Target Number box, enter the Target Number.

Step 2: In the Location box, enter the four, six or eight-digit coordinates including the grid zone designator of the target.

Step 3: In the Description box, enter the optional description.

Step 4: In the Remarks box, enter the optional remark.

Click on the **OK** button to register the changes and to return to the Target List.

Click on the **Remove Target** button to remove the target from the Target List.

7.2 Scheduled Fire Missions operations

[illegible]

Figure 7.2-1 Scheduled Fire Missions

To select this screen, use the "Show" pull down menu and slide the cursor down to select the "Schedule of Fires" option.

To add a Schedule of Fires target to the list, use the "Edit" pull down menu and slide the cursor down to select the "Add" option.

Help Show Edit Fire Displace 08 1647 Mar

Scheduled Fire Missions

Time On Target		
Target Location	(Tgt Number or Grid)	
Mortar Ammunition	☒ HE PD	☐ HE Ut
Mortar Plt	☐ Left Sect	☐ Right Sect
Battery Ammunition	☒ HE PD	☐ HE Ut
	☐ ADAM	☐ RAAMS
Battery 1	☐ Left Plt	☐ Right Plt
Battery 2	☐ Left Plt	☐ Right Plt
Volume		Rounds Per Tube
Don't Schedule		OK

Figure 7.2-2 Scheduled Fire Mission Edit screen

Figure 7.2-2 allows the addition or deletion of a Scheduled Fire mission.

Step 1: In the Time On Target box, enter the date time group using format (23 0913 DEC).

Step 2: In the Target Location box, enter the four, six or eight-digit coordinates including the grid zone designator.

Step 3: Click to select the ammunition type to be fired.

Step 4: Click to select the Fire Unit to fire the mission.

Step 1: In the Volume box, enter the number of round per tube to be fired.

Click on the OK button to enter the changes and to return to the Scheduled Fire Missions List.

Click on the **Don't Schedule** button to delete the Schedule of Fire mission.

Note: All data blocks must be completed on this screen. The Schedule of Fire mission will automatically fire at the designated time if the target is in range of the firing unit, and the firing unit is not otherwise committed.

[illegible]

To select this screen, use the "Show" pull down menu and slide the cursor down to select the "FPF Targets" option.

Page 126

The screenshot shows a window titled "Final Protective Fire Targets". Inside, there is a table with four columns: "Number", "Left Boundary", "Right Boundary", and "Description". The table has several rows, some of which are shaded. Overlaid on the table is a dialog box titled "FPF Target Assignment". The dialog box contains four input fields: "FPF Number", "Left Boundary", "Right Boundary", and "Description". Below these fields are two buttons: "Delete Target" and "OK". A mouse cursor is pointing at the "Right Boundary" input field.

Figure 7.3-2 FPF Target Assignment

Figure 7.3-2 allows the addition or deletion of a target.

Step 1: In the FPF Number box, enter the FPF Number.

Step 2: In the Left Boundary box, enter the four, six or eight-digit coordinates including the grid zone designator of the Left Boundary.

Step 3: In the Right Boundary box, enter the four, six or eight-digit coordinates including the grid zone designator of the Right Boundary.

Step 3: In the Description box, enter the optional description.

Click on the **OK** button to enter the changes and to return to the FPF Target list.

Click on the **Delete Target** button to remove the target and to return to the FPF Target list.

7.4 Firing Missions

To fire a Call for Fire mission from the Target List, use the "Fire" pull down menu and slide the cursor down to select the "Call for Fire" option.

The form is titled "Call for Fire detail 1". It contains the following fields and controls:

- Observer:** A text input box.
- Tgt Location:** A section with two radio buttons: ☒ **Grid or Tgt Number** and ☐ **Polar Plot**. The "Grid or Tgt Number" option is selected.
- Observer's Location:** A text input box.
- OT Direction:** A text input box.
- OT Distance:** A text input box.
- Shift From A Known Point:** A section with four radio buttons: ☐ **Left**, ☐ **Right**, ☐ **Add**, and ☐ **Drop**. The "Shift From A Known Point" option is selected.
- Known Point:** A text input box.
- Tgt Description:** A text input box.
- Buttons:** "OK" and "Cancel" buttons are located on the left side of the form.
- Units:** The labels "Mils" and "Meters" are placed next to the OT Direction and OT Distance input boxes, indicating the units for those values.

Figure 7.4-1 Call for Fire detail 1

Figure 7.4-1 offers three options to fire a mission from the target list or an on call mission:

- 1) **Grid or Tgt Number**
- 2) **Polar Plot**
- 3) **Shift From A Known Point**

Step 1: In the Observer box, enter the optional Observer call sign.

Step 2: Select an option.

Option 1 Grid or Tgt Number:

Click to select the Grid or Tgt Number option.

In the Grid or Tgt Number box, enter the four, six or eight-digit grid coordinates including the grid zone designator.

Option 2 Polar Plot:

Click to select the **Polar Plot** option.

In the Observer Location box, enter the four, six or eight-digit grid coordinates including the grid zone designator.

In the OT Direction box, enter the Observer/Target direction in mils from grid north.

In the OT Distance box, enter the Observer/Target distance in meters.

Option 3 Shift From A Known Point:

Click to select the **Shift From A Known Point** option.

In the Known Point box, enter the four, six or eight-digit grid coordinates including the grid zone designator.

In the OT Direction box, enter the Observer/Target direction in mils from grid north.

Click to select the Left or Right circle. In the box, enter the number of meters to the Left or Right of the Known Point that fires must be moved.

Click to select the Add or Drop circle. In the box, enter the number of meters that fires must be moved.

Step 3: In the Tgt Description box, enter the optional target description.

Click on the **OK** button to bring up the Call for Fire detail 2 as shown in Figure 7.4-2.

Click on the **Cancel** button to cancel the Call for Fire.

Help Show Edit Fire Displace		26 1559 Feb	
Target	Observer	a1 EN AT Co (-)	
	Target	201 - NB606128	
	OT Direction	Mils From Grid N	
	Mortar Ammunition	☒ HE PD	☐ HE Ut
	Mortar Pit	☐ Left Sect	☐ Right Sect
	Battery Ammunition	☐ HE PD	☒ HE Ut
		☐ ADAM	☐ RAAMS
	Battery 1	☐ Left Pit	☐ Right Pit
	Battery 2	☐ Left Pit	☐ Right Pit
		Status	Ready
	End Of Mission	Adjust Fire	
	Record As Tgt	Fire For Effect	OK

Figure 7.4-2 Call for Fire detail 2

Figure 7.4-2 links to the Call for Fire detail 1 as shown in Figure 7.4-1.

- Step 1: In the Observer box, enter the optional Observer call sign.
- Step 2: In the OT Direction box, enter the Observer/Target direction in mils from grid north.
- Step 3: Click to select the Ammunition.
- Step 4: Click to select the Fire Unit that will fire the mission.
- Click on the OK button to fire the mission.
- Click on the End Of Mission button to cease firing the mission.

Click on the **Record As Tgt** button to record this mission on the Target List.

Click on the **Adjust Fire** button or on the **Fire For Effect** button to bring up the Adjusting Fire screen as shown in Figure 7.5-1.

7.5 Adjusting Fire Missions

Help Show Edit Fire Displace 26 1600 Feb

Target	Observer	Target
201	a1	EN AT Co (-)
202		201 - NB606128
203		
204	OT Direction	Mils From Grid N
205	Correction	
206	☐ Left	☐ Right
207	☐ Add	☐ Drop
208		Meters
209		Meters
210		
211		
212		
213		
214		
215		
216		

Figure 7.5-1 Adjusting Fire

Figure 7.5-1 Adjusting Fire is activated by selecting the **Adjust Fire** button from Figure 7.4-2.

Step 1: In the OT Direction box, enter the optional Observer/Target direction in mils from grid north.

Step 2: Click to select the Left or Right circle. In the box, enter the number of meters to the Left or Right that fires must be moved.

Step 3: Click to select the Add or Drop circle. In the box, enter the number of meters that fires must be moved.

Click on the **Fire** button or on the **Fire For Effect** button to fire the mission.

Click on the Cancel button to cancel this mission.

Help Show Edit Fire Displace		26 1601 Feb		
Target Number 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216	Observer	a1	EN AT Co (-)	
	Target	201 - NB606128		
	OT Direction		Mils From Grid N	
	OT Direction		Mils From Grid N	
	Correction	☐ Left ☐ Right ☐ Add ☐ Drop	 	Meters Meters
	Volume		Rounds Per Tube	
	Control	☒ Fire When Ready ☐ At My Command		
	Cancel		Fire	

Figure 7.5-2 Fire for Effect

Figure 7.5-2 is activated by clicking the Fire For Effect button from Figure 7.4-2.

Step 1: In the OT Direction box, enter the optional Observer/Target direction in mils from grid north.

Step 2: Click to select the Left or Right circle. In the box, enter the number of meters to the Left or Right that fires must be moved.

Step 3: Click to select the Add or Drop circle. In the box, enter the number of meters that fires must be moved.

Step 4: In the Volume box, enter the number of rounds per tube.

Step 5: Click to select the Control to be either Fire When Ready or fire At My Command.

Click on the Fire button to fire the mission.

Click on the Cancel button to cancel this mission.

Help Show Edit Fire Displace		26 1601 Feb	
Target	Observer	a1	EN AT Co (-)
	Target	201 - NB606128	
	OT Direction		Mils From Grid N
	Mortar Ammunition	☒ HE PD	☐ HE UT
	Mortar Pit	☐ Left Sect	☐ Right Sect
	Battery Ammunition	☐ HE PD	☒ HE UT
		☐ ADAM	☐ RRAMS
	Battery 1	☐ Left Pit	☒ Right Pit
	Battery 2	☐ Left Pit	☐ Right Pit
201	Status Firing For Effect, 1 Rounds		
202	End Of Mission Check Firing Record As Tgt OK		
203			
204			
205			
206			
207			
208			
209			
210			
211			
212			
213			
214			
215			
216			

Figure 7.5-3 Fire When Ready

Figure 7.5-3 appears showing the Status as "Firing for Effect" if the Fire for Effect button was selected on Call for Fire detail 2 screen(Figure 7.4-2), then executed the Fire - Fire When Ready control option selected on Fire for Effect screen(Figure 7.5-2).

Click on the Check Firing button to stop the mission prior to completion.

Help Show Edit Fire Displace		01 0926 Mar
Fire Unit	Observer	al EN AT Co (-)
	Target	201 - NB606128
	OT Direction	Mils From Grid N
Mission	Mortar Ammunition	☒ HE PD ☐ HE UT
	Mortar Plt	☐ Left Sect ☐ Right Sect
	Battery Ammunition	☐ HE PD ☒ HE UT
		☐ RDM ☐ RRAMS
	Battery 1	☒ Left Plt ☐ Right Plt
	Battery 2	☐ Left Plt ☐ Right Plt
Observer: Target: Status:	Status	Awaiting Command To Commence Firing
Observer: Target: Status:	End Of Mission	Commence Firing
	Record As Tgt	Cncl At My Command
		OK

Figure 7.5-4 Fire At My Command

Figure 7.5-4 appears showing the Status as "Awaiting Command To Commence Firing" if Fire - At My Command option was selected and executed.

Click on the OK button to hold the mission.

Click on the Commence Firing button to fire the mission.

Click on the Cncl At My Command button to cancel this mission.

Click on the End of Mission button to cease firing this mission.

Click on the Record As Target button to add this mission to the target list.

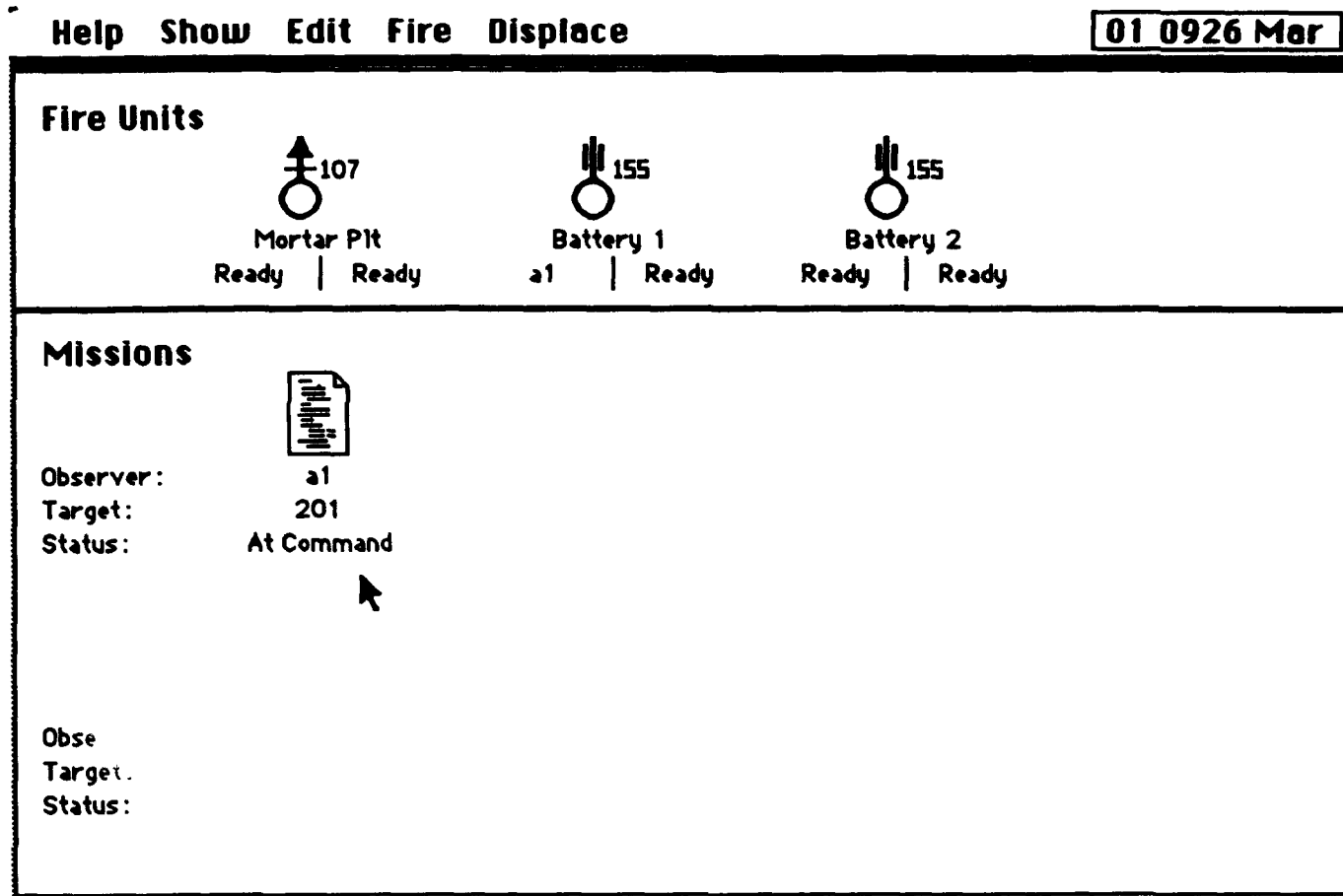


Figure 7.5-5 Committed Mission

Figure 7.5-5 shows a committed mission appeared as a document on the Status Screen.

Click on the mission document to fire or cancel the mission.

7.6 Firing Final Protective Fire

To fire a Final Protective Fire mission from the Final Protective Fire Target List, use the "Fire" pull down menu and slide the cursor down to select the "Final Protective Fire ..." option.

Help Show Edit Fire Displace 01 1000 Mar

Final Protective Fire Targets

Number	Left Boundary	Right Boundary	Description
501	NB60508822	NB60708822	

Observer

FPF Number

Fire Units

Mortar Plt	☐ Left Sect	☐ Right Sect
Battery 1	☒ Left Plt	☒ Right Plt
Battery 2	☐ Left Plt	☐ Right Plt

Figure 7.6-1 FPF Target selection

To fire a FPF target:

Step 1: In the Observer box, enter the observer call sign.

Step 2: In the FPF Number box, enter the selected FPF number from the FPF target list.

Step 3: Click to select the Fire Units to fire the mission.

Click on the **Fire** button to fire the mission.

Click on the **End of Mission** button to cease firing the mission.

Click on the OK button to remove the FPF Target selection screen.

Help Show Edit Fire Displace

04 1556 Mar

Final Protective Fire Targets

Number	Left Boundary	Right Boundary	Description
1	NB60508822	NB60708822	

Observer

a1

FPF Number

2

Fire Units

Mortar Plt

Battery 1

Battery 2

☒ Left Sect

☐ Left Plt

☐ Left Plt

☐ Right Sect

☐ Right Plt

☐ Right Plt

End Of Mission

Check Fire

OK

Figure 7.6-2 FPF Check Fire

Click on the Check Fire button to suspend firing. The mission will fire until a Check Fire is called or until the firing unit/units run out of ammunition.

Click on the End of Mission button to cease firing the mission.

Click on the OK button to document the mission on the Status screen.

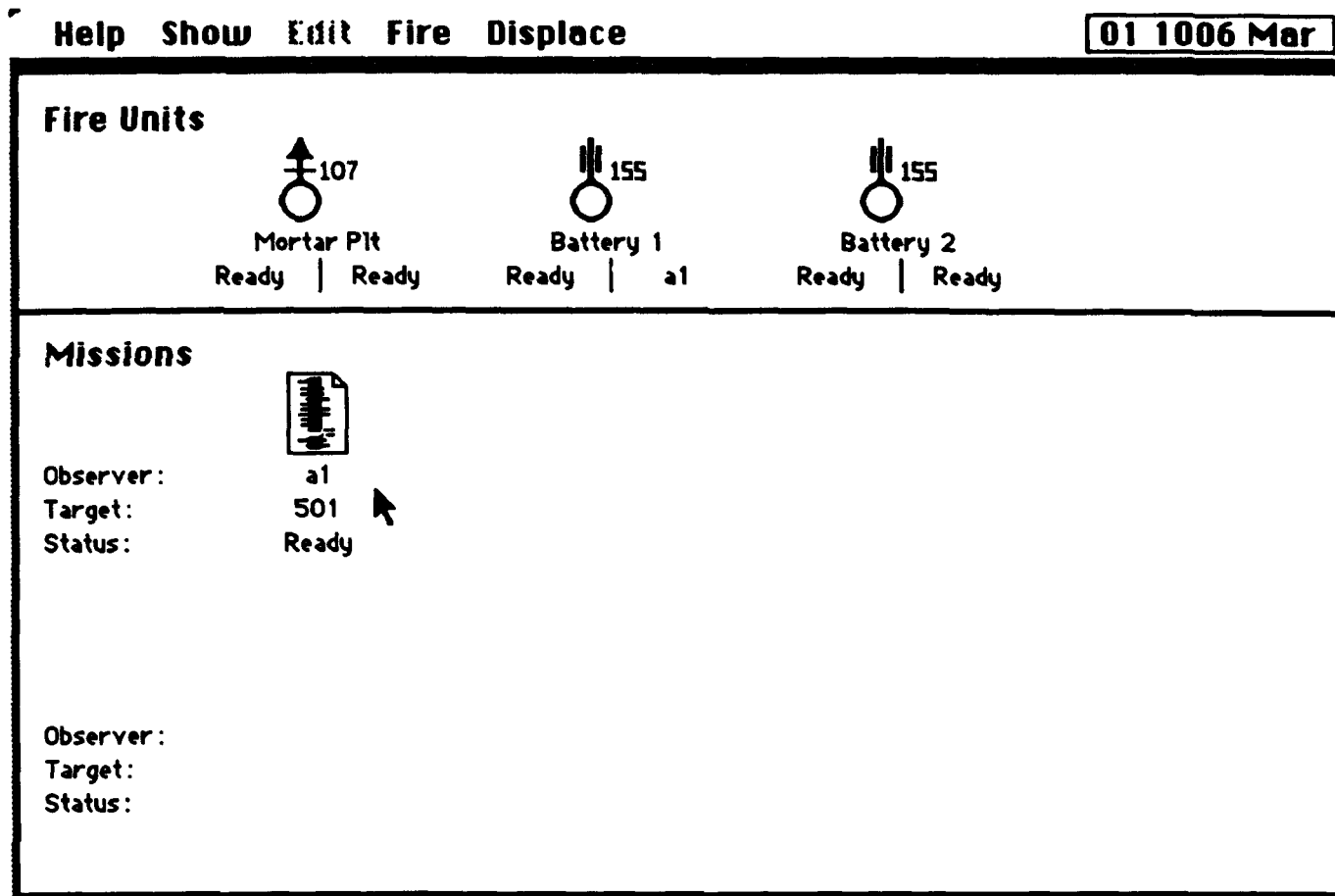


Figure 7.6-3 FPF Status

Click on the Mission document to change/fire/or end the mission.

7.7 Mortar Platoon Displacement Operations

To displace a mortar platoon, use the "Displace" pull down menu and slide the cursor down to select either the "Left Mortar Section..." option or the "Right Mortar Section..." option.

File Edit View Special

Fire Unit

Missile

Observer
Target:
Status:

Observer:
Target:
Status:

DISPLACEMENT		Left Sect
Current	Location	NB656031
	Azimuth of Fire	800 Mils From Grid N
Destination	Location	
	Azimuth of Fire	Mils From Grid N
Times	Start Point	
	Release Point	
Cancel		OK

Figure 7.7-1 Displacement Detail

Step 1: In the Destination Location box, enter the four, six or eight-digit coordinates including the grid zone designator for the new location for the section.

Step 2: In the Azimuth of Fire box, enter the azimuth of fire in mils from the grid north.

Step 3: In the Start Point box, enter the date and time group for the section to leave the Start Point. Note that the date and time group for the section to arrive at the Release Point will be computed automatically.

Click on the OK button to displace the section.

Click on the **Cancel** button to cancel the displacement.

8. Administration and Logistics Console

This section describes the operation of the Admin/Log Console. This console operates the dispatching and loading of the M977 Ammunition HEMMTs, the M978 Fuel HEMMTs, and the Ammunition Pallets.

In this console, dots appearing on the status line of a vehicle indicate that the vehicle is disabled and may not be dispatched. HEMMT vehicles will be randomly disabled for a short period of time. At the end of the randomly assigned failure, that same vehicle will come back up on the system, again available for use. This availability will be announced by the sudden appearance of a dialog, noting that the disabled vehicle is now enabled.

8.1 Fuel Truck operation

Fuel Truck Status					
Veh	Assign	Load (Gallons)	Status	Location	ETA
1	A (A)	2500	Ready at	NB50015001	
2	A (A)	2500	Ready at	NB50015001	
3	B (A)	2500	Ready at	NB50015001	
4	B (A)	2500	Ready at	NB50015001	
5	C (R)	2500	Ready at	NB50015001	
6	C (R)	2500	Disabled at	NB50015001	
7	D (R)	2500	Disabled at	NB50015001	
8	D (R)	2500	Ready at	NB50015001	
9	BN (S)	2500	Ready at	NB50015001	
10	BN (S)	2500	Ready at	NB50015001	
11	BN (S)	2500	Ready at	NB50015001	
12	BN (S)	2500	Ready at	NB50015001	

Figure 8.1-1 Fuel Truck Status

To dispatch the fuel truck:

Step 1; Click anywhere on the line containing the fuel vehicle to be dispatched. If the status is "Ready at", the selected line will be high-lighted and the **Dispatch** button will be enabled.

Click on the **Dispatch** button to bring up the Dispatch Fuel Truck screen as shown in Figure 8.1-2.

Click on the **Show Ammo** button to bring up the Ammunition Truck Status screen as shown in Figure 8.1-3.

Note: There is no Help available in this console.

Dispatch Fuel Truck

Fuel truck 4 at NB50015001

Load on Vehicle 2500 gallons

Assigned To ☐ A Co ☒ B Co ☐ C Co ☐ D Co ☐ BN

Destination ☒ Supply Point NB60016001

☐ Coordinates

Estimated Time of Arrival

Compute ETA **Dispatch** **Cancel**

Figure 8.1-2 Dispatch Fuel Truck

The Load on Vehicle line in Figure 8.1-2 shows the amount of fuel in the vehicle.

Step 1: Click to select the Assigned To.

Step 2: Click to select either the Supply Point or the Coordinates depending upon where the vehicle is to be dispatched. If the Coordinates option was selected, enter the six or eight-digit coordinates including grid zone designator.

Click on the **Compute ETA** button to obtain the Estimated Time of Arrival.

Click on the **Dispatch** button to dispatch the vehicle and to return to the **Fuel Truck Status** screen showing the vehicle with an "Enroute to" Status and an ETA value as shown in Figure 8.1-3.

Click on the **Cancel** button to cancel the dispatch.

Fuel Truck Status					
Veh	Assign	Load (Gallons)	Status	Location	ETA
1	A (A)	2500	Ready at	NB50015001	
2	A (A)	2500	Ready at	NB50015001	
3	B (A)	2500	Ready at	NB50015001	
4	B (A)	2500	Enroute to	NB60006000	22 0951 Jun
5	C (R)	2500	Ready at	NB50015001	
6	C (R)	2500	Disabled at	NB50015001	
7	D (R)	2500	Disabled at	NB50015001	
8	D (R)	2500	Ready at	NB50015001	
9	BN (S)	2500	Ready at	NB50015001	
10	BN (S)	2500	Ready at	NB50015001	
11	BN (S)	2500	Ready at	NB50015001	
12	BN (S)	2500	Ready at	NB50015001	

Figure 8.1-3 Fuel Truck Status (show Enroute status)

Figure 8.1-3 shows the dispatched vehicle is enroute to the new destination and the ETA.

Click on the **Halt** button will halt the vehicle at the current location and brings up the Halt Fuel Truck dialog as shown in Figure 8.1-4 to confirm the action.

Halt Fuel Truck	
Fuel truck 4 near NB50015001	
Load on Vehicle	2500 gallons
Enroute to	NB60006000
Estimated Time of Arrival	22 1056 Jun
Halt Vehicle	Don't Halt

Figure 8.1-4 Halt Fuel Truck dialog

Click on the **Halt Vehicle** button to leave the Fuel vehicle at the current location.

Click on the **Don't Halt** button to cancel the Halt command.

8.2 Ammunition Truck operation

Ammunition Truck Status					
Veh	Assign	Load	Status	Location	ETA
1	A (A)	105mm	Ready at	NB50005000	
2	A (A)	105mm	Ready at	NB50005000	
3	B (A)	105mm	Ready at	NB50005000	
4	B (A)	105mm	Ready at	NB50005000	
5	C (R)	105mm	Disabled at	NB50005000	
6	C (R)	105mm	Ready at	NB50005000	
7	D (R)	25mm, missiles	Ready at	NB50005000	
8	D (R)	25mm, missiles	Ready at	NB50005000	
9	BN (S)	25mm, 105mm	Ready at	NB50005000	
10	BN (S)	25mm, 105mm, missiles	Ready at	NB50005000	

Display Load By ☐ Weight and Volume ☒ Ammo Type

Figure 8.2-1 Ammunition Truck Status

Figure 8.2-1 displays the 10 Ammunition HEMMTs, with their load identified by Weight and Volume.

Click to select the load by Ammo Type screen as shown in Figure 8.2-2.

Step 1: Click anywhere on the line containing the vehicle to be dispatched. If the status is "Ready at", the selected line will be high-lighted and the **Dispatch** button will be enabled.

Click on the **Dispatch** button to bring up the Dispatch Ammunition Truck screen as shown in Figure 8.1-2.

Click on the **Show Pallets** button to bring up the Pallets Status screen as shown in Figure 8.3-1.

Note: There is no Help available in this console.

Dispatch Ammunition Truck

Ammo truck 3 at NB50005000

Load on Vehicle

Ammo Type	Quantity	lbs.	cu. ft.
105 mm HEAT	160	10958	360
105 mm APDS	122	8355	274
20 mm HEI	15	1089	19
20 mm PIE	15	1089	19

Assigned To ☐ A Co ☒ B Co ☐ C Co ☐ D Co ☐ BN

Destination ☒ Supply Point **NB60006000**

☐ Coordinates

Estimated Time of Arrival

Figure 8.2-2 Dispatch Ammunition Truck

The Load on Vehicle line in Figure 8.2-2 shows the current load of the vehicle.

Step 1: Click to select the Assigned To.

Step 2: Click to select either the Supply Point or the Coordinates depending upon where the vehicle is to be dispatched. If the Coordinates option was selected, enter the six or eight digit coordinates including grid zone designator.

Click on the **Compute ETA** button to obtain the Estimated Time of Arrival.

Click on the **Dispatch** button to dispatch the vehicle and to return to the **Ammunition Truck Status** screen showing the vehicle with an "Enroute to" Status and an ETA value as shown in Figure 8.2-3.

Click on the **Cancel** button to cancel the dispatch.

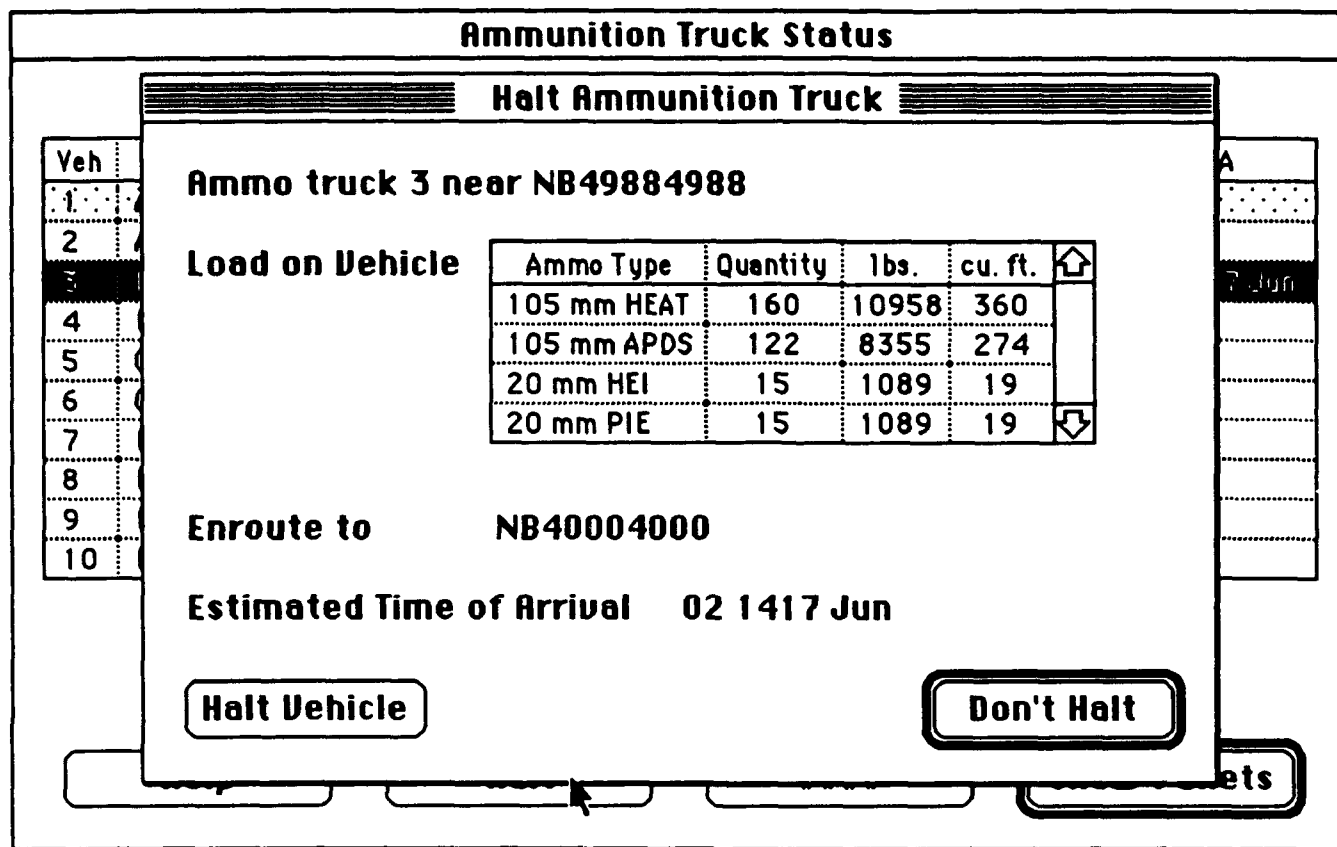
Ammunition Truck Status						
Veh	Assign	Load		Status	Location	ETA
1	A (A)	21368 lbs.	702 cu. ft.	Disabled at	NB50005000	
2	A (A)	21368 lbs.	702 cu. ft.	Ready at	NB50005000	
3	B (A)	21368 lbs.	702 cu. ft.	Enroute to	NB40004000	02:14:17 Jun
4	B (A)	21368 lbs.	702 cu. ft.	Ready at	NB50005000	
5	C (R)	21368 lbs.	702 cu. ft.	Ready at	NB50005000	
6	C (R)	21368 lbs.	702 cu. ft.	Ready at	NB50005000	
7	D (R)	6251 lbs.	696 cu. ft.	Ready at	NB50005000	
8	D (R)	6251 lbs.	696 cu. ft.	Ready at	NB50005000	
9	BN (S)	17059 lbs.	624 cu. ft.	Ready at	NB50005000	
10	BN (S)	4509 lbs.	575 cu. ft.	Ready at	NB50005000	

Display Load By ☒ Weight and Volume ☐ Ammo Type

Figure 8.2-3 Ammunition Truck Status (show enroute status)

Figure 8.2-3 shows the dispatched vehicle is enroute to the new destination and the ETA.

Click on the **Halt** button to halt the vehicle at the current location and brings up the Halt Ammunition Truck dialog as shown in Figure 8.2-3 to confirm the action.



Click on the **Halt Vehicle** button to leave the Fuel vehicle at the current location.

Click on the **Don't Halt** button to cancel the Halt command.

8.3 Ammunition Pallet operation

Pallet Status					
Veh	Assign	Load		Status	Location
1	A (A)	29 lbs.	5 cu. ft.	Unhitched at	NB50025002
2	A (A)	29 lbs.	5 cu. ft.	Unhitched at	NB50025002
3	B (A)	29 lbs.	5 cu. ft.	Unhitched at	NB50025002
4	B (A)	29 lbs.	5 cu. ft.	Unhitched at	NB50025002
5	C (R)	29 lbs.	5 cu. ft.	Unhitched at	NB50025002
6	C (R)	29 lbs.	5 cu. ft.	Unhitched at	NB50025002
7	D (R)	33 lbs.	29 cu. ft.	Unhitched at	NB50025002
8	D (R)	33 lbs.	29 cu. ft.	Disabled at	NB50025002
9	BN (S)	50 lbs.	20 cu. ft.	Unhitched at	NB50025002
10	BN (S)	33 lbs.	26 cu. ft.	Unhitched at	NB50025002

Display Load By ☒ Weight and Volume ☐ Ammo Type

Figure 8.3-1 Pallet Status

Ammunition is delivered on pallets that are carried on trailers hitched to ammunition trucks. To deliver ammunition, first hitch a pallet to an ammunition truck, and then dispatch that ammunition truck to the intended location. Figure 8.3-1 displays the 10 pallets, with their load identified by Weight and Volume.

Click to select the load by Ammo Type screen.

Step 1: Click anywhere on the line containing the pallet to be hitched to an ammunition truck. If the status is "Unhitched at", the selected line will be high-lighted and the **Hitch** button will be enabled.

Click on the **Hitch** button to bring up the Hitch Pallet screen as shown in Figure 8.3-2.

Click on the **Show Fuel** button to bring up the Fuel Truck Status screen as shown in Figure 8.1-1.

Note: There is no Help available in this console.

Hitch Pallet

Pallet truck 3 at NB50025002

Load on Vehicle

Ammo Type	Quantity	lbs.	cu. ft.	
AT Conv mine	1	25	2	↑
AT Scat mine	1	4	3	

Assigned To ☐ A Co ☒ B Co ☐ C Co ☐ D Co ☐ DN

Hitch to:

Hitch **Cancel**

Figure 8.3-2 Hitch Pallet

The Load on Vehicle line in Figure 8.3-2 shows the current load of the pallet.

Step 1: Click to select the Assigned To.

Step 2: In the Hitch to box, enter the one-digit number of the ammunition truck.

Click on the **Hitch** button to dispatch the vehicle and to return to the Pallet Status screen showing the vehicle with a "Hitched to" Status as shown in Figure 8.3-3.

Click on the **Cancel** button to cancel the dispatch.

Note: An ammunition pallet must be within 200 meters of the ammunition truck to which it is to be hitched. If the distance is greater than 200 meters, a warning dialog will appear.

Pallet Status					
Veh	Assign	Load		Status	Location
1	A (A)	29 lbs.	5 cu. ft.	Hitched to 1	NB50025002
2	A (A)	29 lbs.	5 cu. ft.	Unhitched at	NB50025002
3	B (A)	29 lbs.	5 cu. ft.	Unhitched at	NB50025002
4	B (A)	29 lbs.	5 cu. ft.	Unhitched at	NB50025002
5	C (R)	29 lbs.	5 cu. ft.	Disabled at	NB50025002
6	C (R)	29 lbs.	5 cu. ft.	Unhitched at	NB50025002
7	D (R)	33 lbs.	29 cu. ft.	Unhitched at	NB50025002
8	D (R)	33 lbs.	29 cu. ft.	Unhitched at	NB50025002
9	BN (S)	50 lbs.	20 cu. ft.	Unhitched at	NB50025002
10	BN (S)	33 lbs.	26 cu. ft.	Unhitched at	NB50025002

Display Load By ☒ Weight and Volume ☐ Ammo Type

Figure 8.3-3 Pallet Status (show Hitched status)

Figure 8.2-4 shows the selected pallet hitched to a ammunition truck.

Click on the **Unhitch** button to unhitch the selected pallet from the ammunition truck. If the ammunition truck is not moving at that time, the Unhitch Pallet dialog screen as shown in Figure 8.3-4 will appear to confirm the action. A warning dialog will appear if the ammunition truck is moving.

Pallet Status

Unhitch Pallet

Pallet truck 1 at NB50025002

Load on Vehicle

Ammo Type	Quantity	lbs.	cu. ft.	
AT Conv mine	1	25	2	↑
AT Scat mine	1	4	3	
				↓

Hitched to: 1

Unhitch vehicle **Don't unhitch**

help unhitch load show fuel

Figure 8.3-4 Unhitch Pallet dialog

Click on the **Unhitch vehicle** button to unhitch the pallet at the current location and to return to the Pallet Status screen showing the pallet "Unhitched at" status.

Click on the **Don't unhitch** button to cancel the Unhitch command.

9. Combat Engineer Console

The first Combat Engineer Console screen appears to allow the user to define new mission or monitor on-going missions with the use of messages and requests for information. Before a mission can be completed, several steps must be taken by the user to guide the system through the movement of assets, the emplacement of mines, or the breaching of minefields.

In all missions, the user is allowed to select between a Warn mission status and an Execute mission status. For the Warn mission, the first 15 minutes of planning are performed immediately. During this period, the mission status screen will show Planning in the status column. Following the first 15 minutes of planning, the mission status screen shows Warned until 15 minutes before the scheduled move-out time. At that time (15 minutes before move-out), a dialog box will appear asking if the mission should be executed, changed, or canceled.

Combat Engineer Missions					
Mission	Type	Location	Move Out	Mission Complete	Status
1	Movement	NB00050005	03 1030	03 1030	Moved
2	Movement	NE00010001	03 1031	03 1031	Travelling
3	Emplace	NB123456	03 1035	07 1446	Cancelled
4	Movement	NB01230123	03 1040	03 1044	Preparing
5	Movement	NB22223333	03 1059	03 1235	Warned
					
New mission Asset status					

Figure 9-1 CEC Mission Status

Figure 9-1 shows the CEC Mission Status.

Click on the **New mission** button to select the type of mission and to define a new mission.

Click on the **Asset status** button to bring up the Assets' Status screen as shown in Figure 9.4-1.

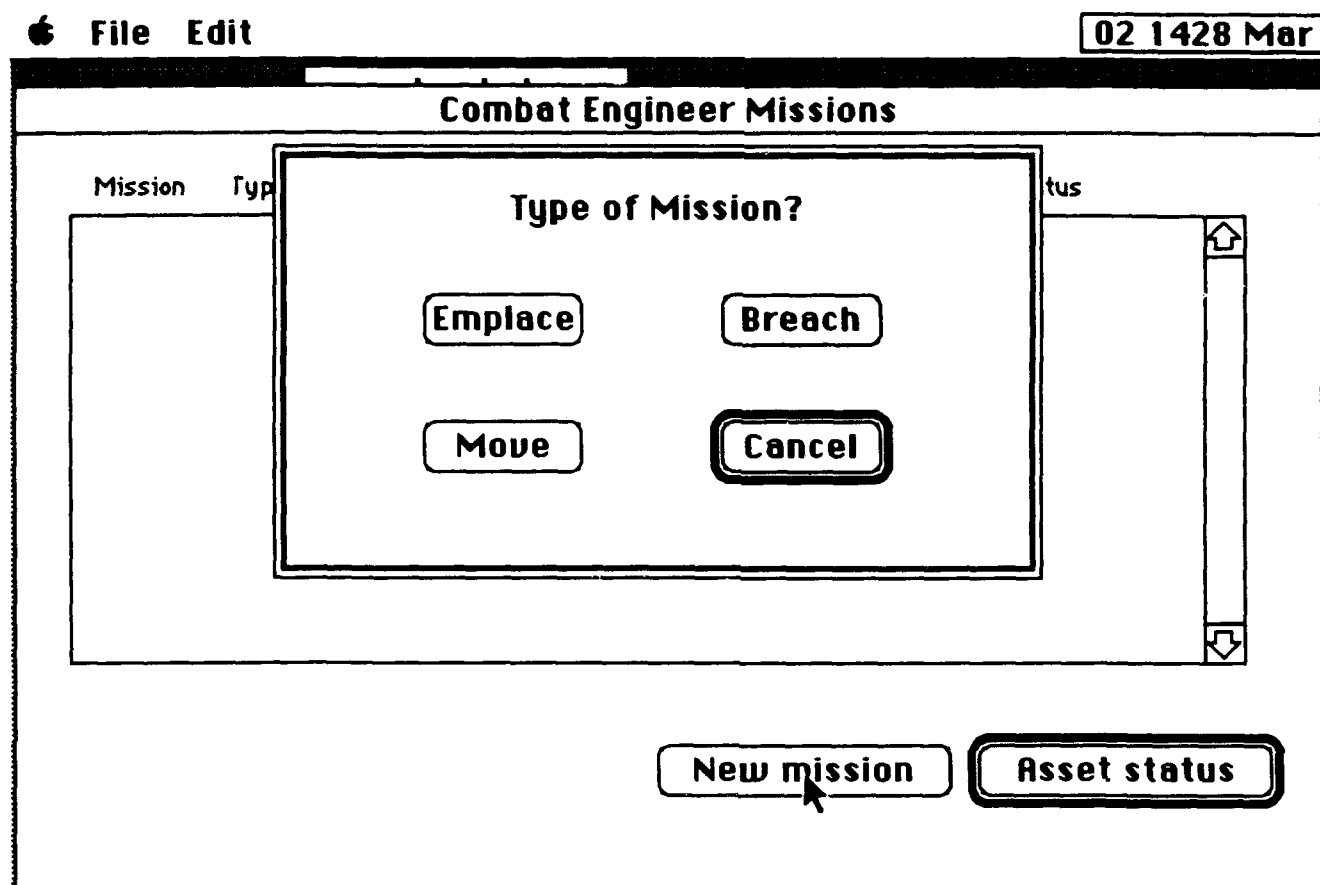


Figure 9-2 Type of Mission selection

By clicking the **New mission** button, the Type of Mission selection sub-screen will appear as shown in Figure 9-2. This sub-screen allows the user to choose the operation needed next.

Click on the **Move** button to move engineering resources.

Click on the **Emplace** button to start the emplacing a minefield process.

Click on the **Breach** button to start breaching a minefield process.

Click on the **Cancel** button to return to Figure 9-1.

9.1 Moving Engineering Resources

Click on the **Move** button on the Type of Mission screen as shown in Figure 9-2 to begin Moving Engineering Resources. The Movement Missions Details screen as shown in Figure 9.1-1 will appear.

File Edit 02 1429 Mar

Movement Mission Details

Mission: 1 ☒ Warn ☐ Execute

To location:

Assets:

- ☐ CE A/1/1
- ☐ CE A/1/2
- ☐ CE A/1/3
- ☐ CE A/1/4
- ☐ M128/1
- ☐ M128/2
- ☐ M-57/1
- ☐ M-57/2

Move Out: 02 1459 Mar

Arrive NLT: 02 1459 Mar

No changes Cancel mission OK

Figure 9.1-1 Movement Mission Details

Figure 9.1-1 shows the movement mission details and allowing the user to review or change mission information.

Step 1: Click to select the Warn or Execute mission.

Step 2: In the Location box, enter the six or eight-digit coordinates including the grid zone to which the selected assets are to be moved.

Step 3: Click to select the assets to be moved.

Step 4: In the Move Out box, enter the optional time for the assets to move out. The time is automatically calculated by the system, the Arrive NLT time will be calculated based on the Move Out time entered.

Step 5: In the Arrive NLT box, enter the required Arrive NLT time if the Move Out time was not changed. Otherwise, the Arrive NLT time is optional, the Move Out time will be calculated automatically based on the Arrive NLT time entered.

Click on the **OK** button to store the information and to remove this screen.

Click on the **Cancel mission** button to cancel the mission and to return to Figure 9-1.

Click on the **No changes** button to restore the original displayed information.

9.2 Emplacing Minefields

This section describes the sequence of operation for emplacing mines. The minefields can be emplaced by hand or mechanically by:

- 1) Establishing a minefield's location and boundaries.
- 2) Specifying the density of the minefields.
- 3) Assigning resources.
- 4) Coordinating the movement of resources to the minefield location.
- 5) Laying mines.

In case of the artillery-delivered scatterable minefields, the Fire Support Console operator will execute the fire mission on request provided the requested number and type of rounds.

The M128 GEMSSs or the M57s and the Combat Engineer platoon that uses them can be assigned to lay a minefield if the resources are still available.

Click on the **Emplace** button on the Type of Mission screen as shown in Figure 9-2 to begin the emplacement sequence. The Emplacement Missions Details screen as shown in Figure 9.2-1 will appear.

File Edit 02 1429 Mar

Emplacement Mission Details

Mission: 1 ☒ Warn ☐ Execute

Shape: ☒ Area ☐ Linear of depth 0 m.

From location: []

To: []

To: []

To: []

To: []

Emplacement party location: []

Density: 0.005,0.005

Mines: 0 AT

0 APF

0 APB

Assets:

- ☐ CE A/1/1
- ☐ CE A/1/2
- ☐ CE A/1/3
- ☐ CE A/1/4
- ☐ M128/1
- ☐ M128/2
- ☐ M-57/1
- ☐ M-57/2

Move Out: 02 1458 Mar

Start emplacing: 02 1458 Mar

Emplace NLT: 02 1458 Mar

Cleared lane No changes Cancel mission OK

Figure 9.2-1 Emplacement Missions Details

- Step 1: Click to select the Warn or Execute Mission.
- Step 2: Click to select the Shape of the mine field. If the Linear of depth option was selected, enter the depth of the minefield in meters.
- Step 3: In the From Location box, enter the six or eight-digit coordinates that the assets will start from.
- Step 4: In the To boxes, enter the six or eight digit coordinates that define the perimeter for the area minefield (at least 3 grid coordinates must be provided) or the centerline for the linear minefield (at least 2 grid coordinates must be provided).
- Step 5: In the Emplacement party Location box, enter the six or eight digit coordinates where the supply of mines to be sent.
- Step 6: In the Density box, enter the minefield density. A density of 0 indicates a phony minefield.
- Step 7: In the Mines boxes, enter the number for each type of mines.

Step 8: Click to select the assets to be used.

Step 9: In the Move Out box, enter the optional time for the assets to move out. The time is automatically calculated by the system, the Start Emplacing time and the Emplace NLT time will be calculated based on the Move Out time entered.

Step 10: In the Start Emplacing box, enter the optional Start Emplacing time. The Emplace NLT time and the Move Out time will be calculated automatically based on the Start Emplacing time entered.

Step 11: In the Emplace NLT box, enter the optional Emplace NLT time. The Start Emplacing time and the Move Out time will be calculated automatically based on the Emplace NLT time entered.

Click on the **Clear Lane** button to place a clear lane through the minefield, a sub-screen will appear to specify the clear lane detail.

Click on the **OK** button to store the information and to return to the Mission Status screen.

Click on the **Cancel mission** button to cancel the mission and to return to Figure 9-1.

Click on the **No changes** button to cancel the changes.

File Edit 02 1429 Mar

Emplace Mission Details

Mission: 1

Minefield location:

Emplacement party location:

Cleared lane:

From:

To:

To:

To:

To:

Width: m.

OK

Figure 9.2-2 Clear Lane Details

Figure 9.2-2 shows the Minefield Location and the Emplacement Party Location as a reminder.

Step 1: In the From and To boxes, enter the four, six or eight-digit coordinates including the grid zone designator to define the Clear Lane. Up to five coordinates are allowed.

Step 2: In the Width box, enter the width of the Cleared Lane in meters.

Click on the **OK** button to define Clear Lane and to return to Figure 9.2-1.

9.3 Breaching Minefields

This section describes the sequence of operation for breaching minefields. The minefields can be breached by assigning resources, coordinating the movement of resources to the minefield location, and then clearing lanes.

The M58A1 and the Combat Engineer platoon that uses it can be assigned to breach a minefield if the resources are still available.

Click on the **Breach** button on the Type of Mission screen as shown in Figure 9-2 to begin the breaching sequence. The Breaching Missions Details screen as shown in Figure 9.3-1 will appear.

Breach Mission Details

File Edit 02 1430 Mar

Mission: 1 ☒ Warn ☐ Execute

From location:

To:

Breaching party location:

Charges required: 0

Assets:

- ☐ CE A/1/1
- ☐ CE A/1/2
- ☐ CE A/1/3
- ☐ CE A/1/4
- ☐ M128/1
- ☐ M128/2
- ☐ M-57/1
- ☐ M-57/2

Move Out: 02 1500 Mar

Start Breaching: 02 1500 Mar

Breach NLT: 02 1500 Mar

No changes Cancel mission OK

Figure 9.3-1 Breaching Mission Details

Step 1: Click to select the Warn or Execute Mission.

Step 2: In the From Location box, enter the six or eight-digit coordinates that the assets will start from.

Step 3: In the To box, enter the six or eight digit coordinates.

Step 5: In the Breaching party Location box, enter the six or eight digit coordinates where the line changes to be sent.

Step 6: Click to select the assets to be used.

Step 7: In the Move Out box, enter the optional time for the assets to move out. The time is automatically calculated by the system, the Start Breaching time and the Breach NLT time will be calculated based on the Move Out time entered.

Step 8: In the Start Breaching box, enter the optional Start Breaching time. The Breach NLT time and the Move Out time will be calculated automatically based on the Start Breaching time entered.

Step 9: In the Breach NLT box, enter the optional Breach NLT time. The Start Breaching time and the Move Out time will be calculated automatically based on the Breach NLT time entered.

Note: The M58A1 carries only one line charge at a time. For breached lanes that require more than one line charge, the time to breach the minefield includes the time(s) required for the M58A1 to be towed back to the Ammunition Transfer Point and then towed out to the minefield.

Click on the **OK** button to store the information and to return to the Mission Status screen.

Click on the **Cancel mission** button to cancel the mission and to return to Figure 9-1.

Click on the **No changes** button to cancel the changes.

9.4 Monitoring Assets

This section describes the sequence of operation for monitoring the on-going mission. To monitor the mission, click on the **Asset status** button on the Mission Status screen as shown in Figure 9-1. The Assets Status screen will appear showing the current status and location of all Combat Engineer assets that have been initialized.

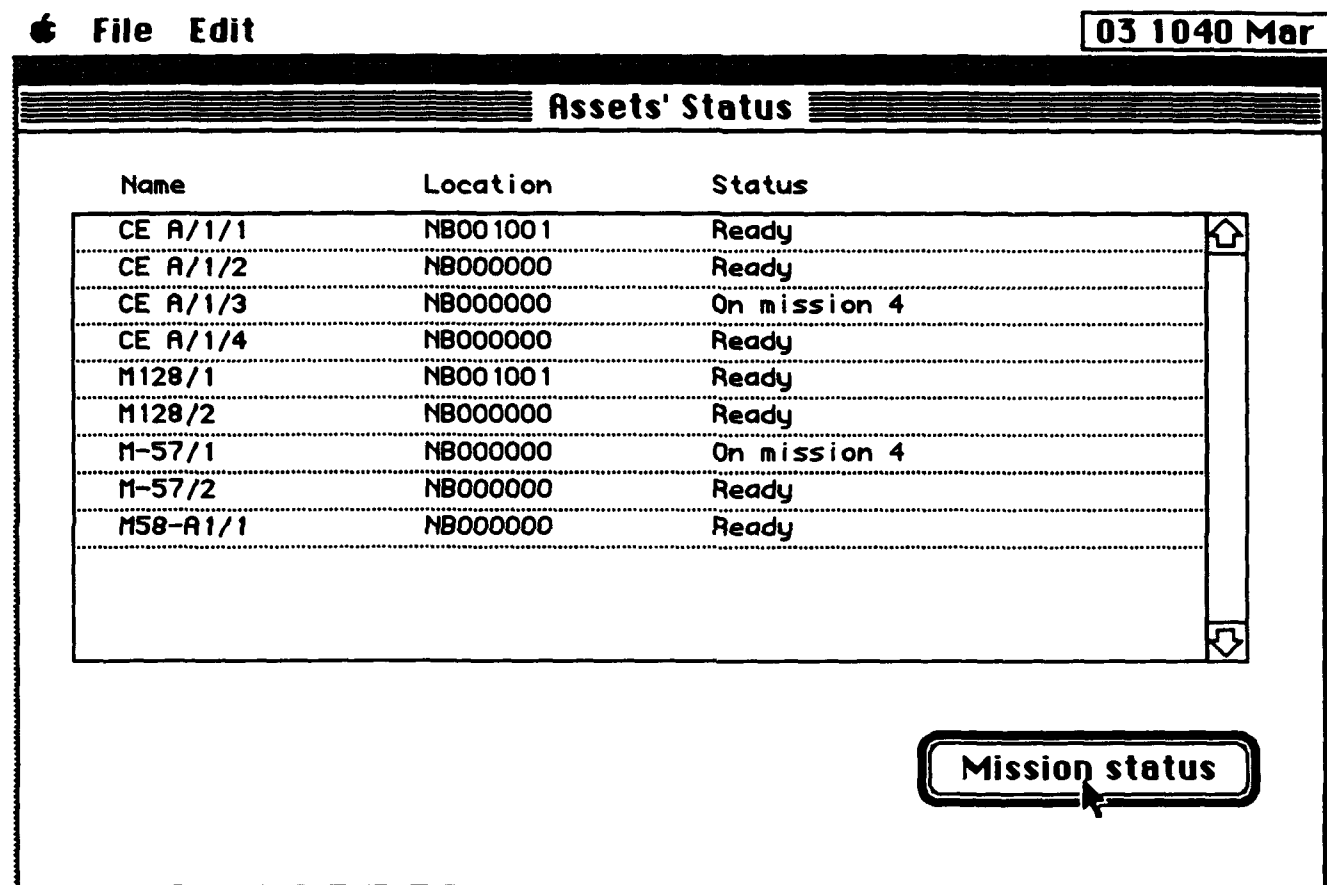


Figure 9.4-1 Assets Status

Before a mission is completed, several messages will appear in the status column of the Combat Engineer Mission screen as shown in Figure 9.5-1. Some of these messages appear automatically, informing the user with the mission status, and some appear following the user's input, requesting further information.

Figure 9.5-1 Mission Status

If the Warn mission was selected during the mission definition, during the first 15 minutes, the mission status will show "Planning" in the Status column. Following this 15 minutes period, the Status will be changed to "Warned" until 15 minutes before the scheduled Move Out time. At that time, a dialog box as shown in Figure 9.5-2 will appear requesting the user's decision to execute, change, or cancel the mission.

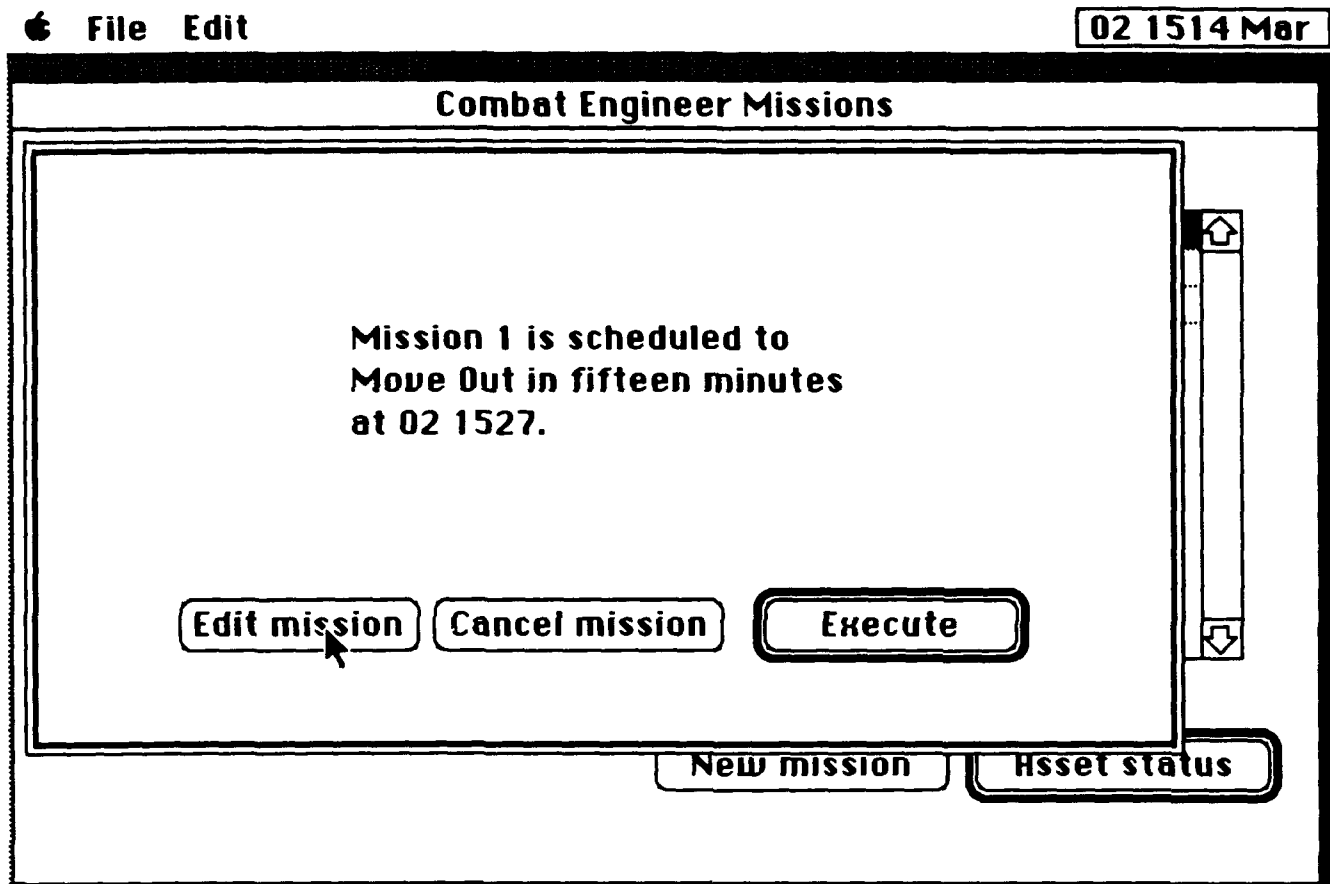


Figure 9.5-2 Move Out Warning dialog

Click on the **Execute** button to begin the mission according to the Move Out time assigned.

Click on the **Edit mission** button to bring up the Mission Details screen to make changes to the mission.

Click on the **Cancel Mission** button to cancel and remove the mission from the system and to return to Figure 9.5-1.

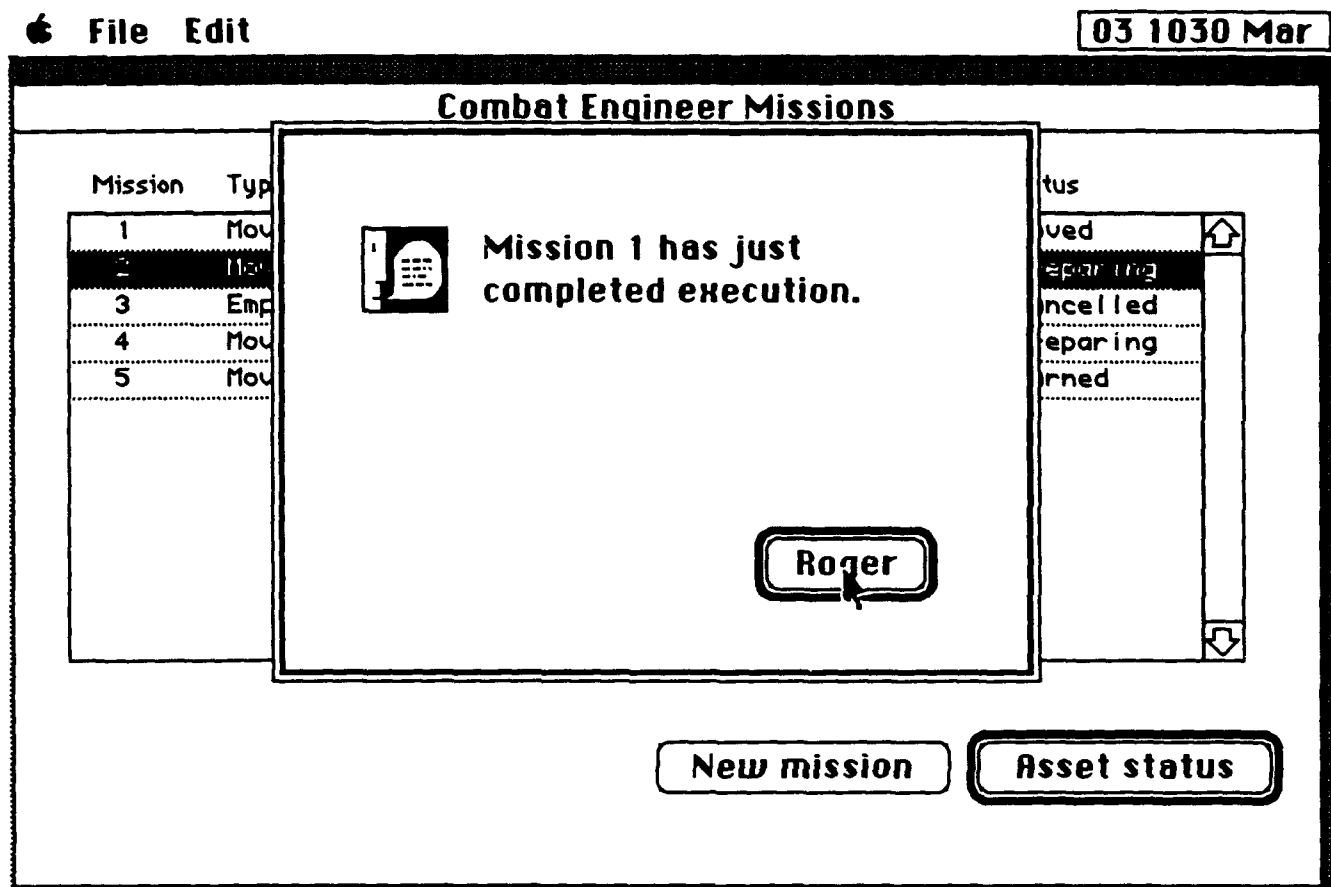


Figure 9.5-3 Mission Completed dialog

Figure 9.5-3 appears when the mission completed its execution. Click on the **Roger** button to remove this dialog. The status is changed to "Moved".

9.6 Error messages dialog

During the CEC operation, an error message will appear if the user performs action that the system is unable to interpret. The message dialog will indicate what need to be done to correct the action.

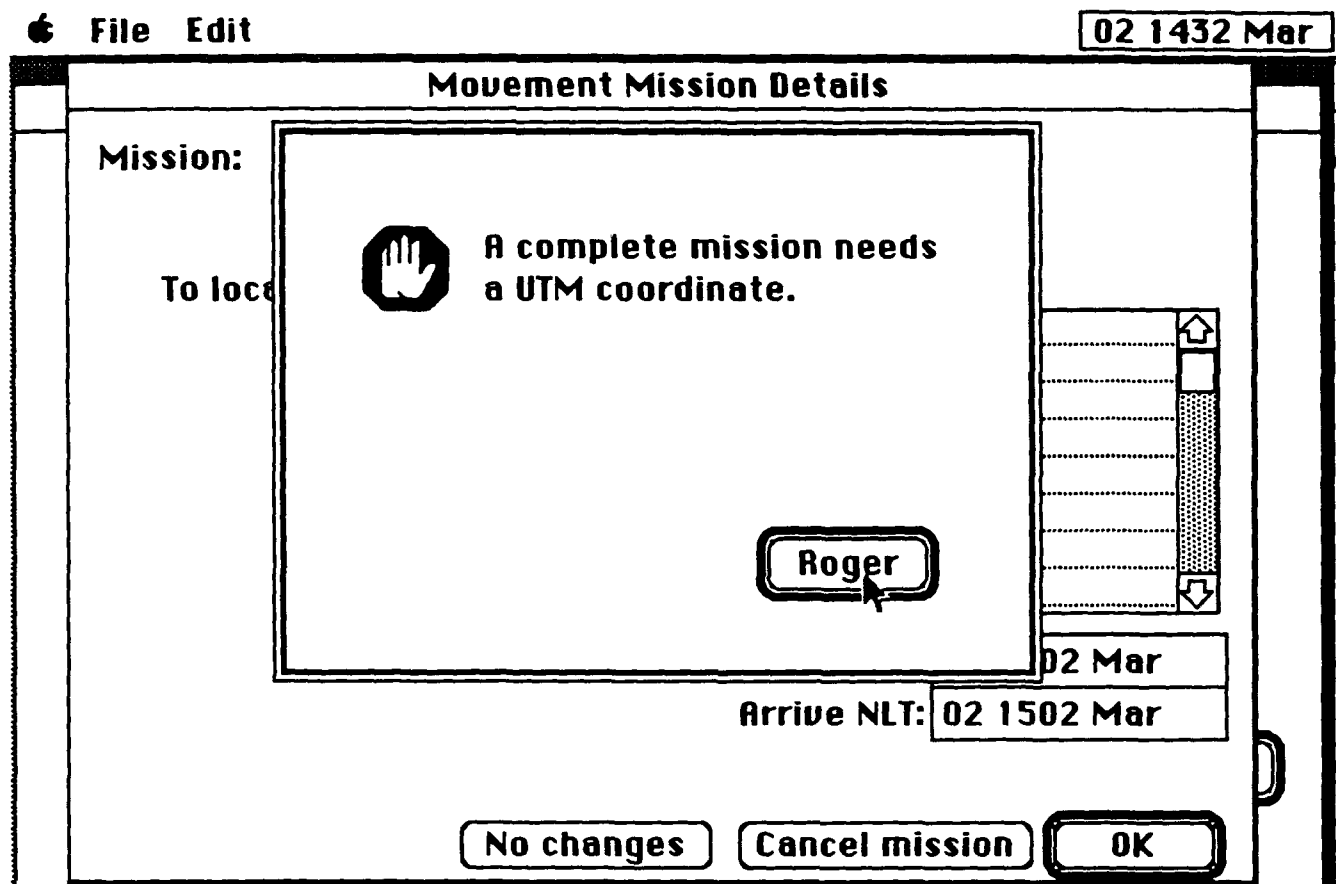


Figure 9.6-1 Sample Error dialog

Figure 9.6-1 shows a sample error message dialog, click on the **Roger** button to remove the error dialog.

Mission Definition Errors

When defining a mission (Move, Emplace, or Breach):

- All location must be specified as a 6-digit grid coordinates, with two letters followed by 6 or 8 digits. Wrong format will generate the following message:

"A map coordinate must have 2 letters followed by 6 or 8 digits"

- The following message will appear if a 6-digit grid coordinate is not provided:

"A complete mission needs a UTM coordinate"

- The following message will appear if the provided grid coordinate is not located on the exercise map sheet:

"AA' is not in a grid zone known to me"

- The following message will appear if the user did not select any asset to be used in the mission:

"No asset have been selected for this mission"

- The following message will appear if the user specified a Move Out time that is less than 30 minutes from the current time:

"There is not enough time to prepare for Move Out"

- The following message will appear if the user did not select any asset to be used in the mission:

"No asset have been selected for this mission"

Movement Mission Definition Errors

- The following message will appear if the user did not select a Combat platoon to tow each trailer that need to be moved:

"You must select a Combat Engineer vehicle for every trailer"

Emplacement Mission Definition Errors

- The following message will appear if the user did not enter at least two endpoints locations for a linear minefield:

"A complete linear minefield needs at least 2 way points"

- The following message will appear if the user did not enter at least three endpoints locations for an area minefield:

"A complete area minefield requires at least 3 endpoints"

- The following message will appear if the user did not enter the Emplacement party Location:

"A complete mission needs a valid emplacement party location"

- The following message will appear if the emplacement party location is greater than 200 meters from the minefield:

"The emplacement party must be within 200 meters of the minefield"

- The following message will appear if the user did not select an asset to emplace the minefield:

"No valid mine emplacing vehicles have been selected for this mission"

- The following message will appear if the user select an M128 GEMSS to emplace a linear minefield:

"GEMSS mine emplacing trailers can not be used for linear minefields"

- The following message will appear if the user select an M128 GEMSS and an M57 to emplace scatterable and conventional mines in the same minefield:

"You can not emplace both scatterable and conventional mines in the same minefield"

- The following message will appear if the user did not select a Combat Engineer platoon vehicle to tow the M128 GEMSS Mine Scattering trailer or the M57 Mine Dispensing trailer:

"You must select a Combat Engineer platoon vehicle for every mine emplacement trailer"

- The following message will appear if the user failed to select an extra Combat Engineer platoon vehicle to lay the AP mine after choosing an M57 to emplace the AT mine:

"The M57 can only emplace AT mines. Additional Combat Engineer platoon vehicles must be selected to emplace the AP mines"

- The following message will appear if the user selected more than the required number of Combat Engineer platoons:

"You have selected extra Combat Engineer platoon vehicles"

- The following message will appear if the user did not enter a Depth for linear minefields:

"A linear minefield must have a depth greater than 0"

Breach Mission Definition Errors

- The following message will appear if the user did not enter at least two endpoints for the location of the minefield breach:

"A complete breach needs 2 endpoints"

- The following message will appear if the user did not enter the breaching party location or if the breaching party location is greater than 200 meters from the minefield:

"A breaching party must be within 200 meters of the lane"

- The following message will appear if the user did not select one or more M58A1 Mine Charge trailers:

"No valid breaching trailers have been selected for this mission"

- The following message will appear if the user selected an M128 GEMSS or an M57 trailer in stead of one or more M58A1:

"You have selected mine emplacing trailers for a breaching mission"

- The following message will appear if the user did not select a Combat Engineer platoon vehicle to tow the M58A1 Mine Charge trailer:

"A Combat Engineer platoon vehicle must be selected for each breaching trailer"

- The following message will appear if the user selected more than the required number of Combat Engineer platoons:

"You have selected more Combat Engineer platoon vehicles than breaching trailers"

Mission Monitoring Errors

Note: The user may not edit a mission that has already begun to execute. The OK button will be "grayed out" as shown in Figure 9.6-2

File Edit 03 1042 Mar

Movement Mission Details

Mission: 2 ☒ Warn ☐ Execute

To location: NB00010001

Assets:

☐ CE A/1/1	↑
☒ CE A/1/2	
☐ CE A/1/3	
☐ CE A/1/4	
☐ M128/1	
☒ M128/2	
☐ M-57/1	
☐ M-57/2	↓

Move Out: 03 1031 Mar

Arrive NLT: 03 1032 Mar

No changes Cancel mission OK

Figure 9.6-2 Completed Mission Details
(show the OK button grayed out)

- The following message will appear if the user assigned the same resource to more than one mission. As soon as the second mission begins to execute, the resource conflict will be noted.

"Mission X has a conflict in resource utilization"



Figure 9.6-3 No Mines Available Error

The No Mines Available error dialog as shown in Figure 9.6-3 will appear if the emplacement party arrives at the emplacement party location, and no mine ammunition available within 200 meters.

Click on the **Emplace minefield and end mission now** button to emplace the minefield with the available number of mine and complete the mission.

Click on the **Check for more mine in fifteen minutes** button to advance the Start Emplacing time 15 minutes. If during that 15 minutes, enough mines arrive to emplace the minefield, the mission will be completed. If no more mines arrive within 15 minutes, the error dialog will reappear.

10. Maintenance Console

10.1 Summary

The Maintenance Console allows the operators to maintain status and control over the maintenance teams under their direction. The operators are concerned with the repair and recovery of damaged/disabled tanks in their sectors. A Maintenance Team may not, however, repair another Maintenance Team or other MCC vehicle (artillery, mortar, TOC, ALOC, or targets) that is disabled or destroyed.

This manual will give the operator, familiar with repair operations, a display oriented discussion of possible actions based on various possible scenarios. This manual is by no means exhaustive in its approach. However, even a novice will understand the rational and operation behind each display.

Maintenance Console

26 0946 Feb

Maintenance Team Status				
Team	Assign	Status	Location	ETA
1	A (A)	Ready at	NB50005000	
2	A (A)	Ready at	NB50005000	
3	B (A)	Ready at	NB50005000	
4	B (A)	Ready at	NB50005000	
5	C (R)	Disabled at	NB50005000	
6	C (R)	Ready at	NB50005000	
7	D (R)	Ready at	NB50005000	
8	D (R)	Ready at	NB50005000	
9	BN (S)	Ready at	NB50005000	
10	BN (S)	Ready at	NB50005000	

Help

Repair

Dispatch

Recover

Show Repairs

Figure 10.2.1 Status display

10.2 Maintenance Team Status Display

Figure 10.2.1 is the initial screen of the "Maintenance Console". The screen's columns, from left to right, indicate:

- 1) Team Number
- 2) Unit Assigned To
- 3) Current operational status
- 4) Location
- 5) Estimated Time of Arrival if "Enroute to"

The **Help** and **Show Repairs** boxes are darkened to indicate to the operator what functions are available. Dots in the line of a team indicate that it is disabled. The "Status" column will also indicate disabled.

Maintenance Console **26 0946 Feb**

Maintenance Team Status				
Team	Assign	Status	Location	ETA
1	A (A)	Ready at	NB50005000	
2	A (A)	Ready at	NB50005000	
3	B (A)	Ready at	NB50005000	
4	E (A)	Ready at	NB50005000	
5	C (R)	Disabled at	NB50005000	
6	C (R)	Ready at	NB50005000	
7	D (R)	Ready at	NB50005000	
8	D (R)	Ready at	NB50005000	
9	BN (S)	Ready at	NB50005000	
10	BN (S)	Ready at	NB50005000	

Help
Repair
Dispatch
Recover
Show Repairs

Figure 10.3.1 Dispatch Selection Display

10.3 Dispatch And Control of Maintenance Teams

To dispatch a Maintenance Team to a damaged or disabled vehicle;

Step 1: The operator selects the team to be dispatched by clicking the mouse anywhere on the line for that team. The entire line will turn black and the **Dispatch** box will turn from gray to black.

Step 2: Click the mouse in the **Dispatch** box and a detail screen will appear.

Figure 10.3.1 indicates that a repair team has been selected and is ready to be dispatched.

Maintenance Console

26 0946 Feb

Dispatch Maintenance Team

Team 4 at NB50005000

Assigned To

☐ A Co

☒ B Co

☐ C Co

☐ D Co

☐ BN

Destination

☒ UMCP

NB60006000

☐ Coordinates

Estimated Time of Arrival

Compute ETA

Dispatch

Cancel

Help

Repair

Dispatch

Recover

Show Repairs

Figure 10.3.2 Dispatch Detail Display

The "Dispatch Maintenance Team" detail display gives the operator the current location of the selected team, the unit the team is assigned to, the location of the Unit Maintenance Collection Point, and allows the operator to direct the team to a new location. The operator can also direct the system to compute an ETA to the desired location or cancel the request.

Figure 10.3.2 presents the layout of the dispatch detail display.

Maintenance Console 26 0948 Feb

Dispatch Maintenance Team

Team 4 at NB50005000

Assigned To ☐ A Co ☒ B Co ☐ C Co ☐ D Co ☐ BN

Destination ☐ UMCP NB60006000
 ☒ Coordinates NB50005200

Estimated Time of Arrival 26 0953 Feb

Compute ETADispatchCancel

HelpRepairDispatchRecoverShow Repairs

Figure 10.3.3 Use of Dispatch display

To dispatch a team;

Step 1: Click the mouse in the circle to the left of the unit the team is to be assigned to (if it is different than the unit the team was initialized to).

Step 2: The cursor will be positioned in the Coordinates box.

If the destination is to be "UMCP", just click the **Dispatch** box.

or

Enter the six or eight digit coordinates, with grid zone designator, of the team's destination in the Coordinates box.

Step 3: Click the **Compute ETA** box to calculate and display the travel time estimate.

or

Click the **Dispatch** box to direct the team to the new destination

or

Click the **Cancel** box to cancel the dispatch.

All of the Step 3 actions will return the operator to the status display. Figure 10.3.3 shows the result of the operator clicking the **Compute ETA** box.

Maintenance Console **26 0948 Feb**

Maintenance Team Status

Team	Assign	Status	Location	ETA
1	A (A)	Ready at	NB50005000	
2	A (A)	Ready at	NB50005000	
3	B (A)	Ready at	NB50005000	
4	E (A)	Enroute to	NB50005200	26 0954 Feb
5	C (R)	Disabled at	NB50005000	
6	C (R)	Ready at	NB50005000	
7	D (R)	Ready at	NB50005000	
8	D (R)	Ready at	NB50005000	
9	BN (S)	Ready at	NB50005000	
10	BN (S)	Ready at	NB50005000	

HelpRepairHaltRecoverShow Repairs

Figure 10.3.4 Dispatched Team

With the team dispatched (the **Dispatch** box was clicked on the Dispatch Detail display shown in figure 10.3.3), the operator is presented with an updated status display indicating that the team is "Enroute to" (Status column) and when it is expected to arrive. The **Dispatch** box has been replaced with a **Halt** box. This allows the operator stop the maintenance team should the need arise.

Figure 10.3.4 displays a maintenance team dispatched to a new location and the ETA.

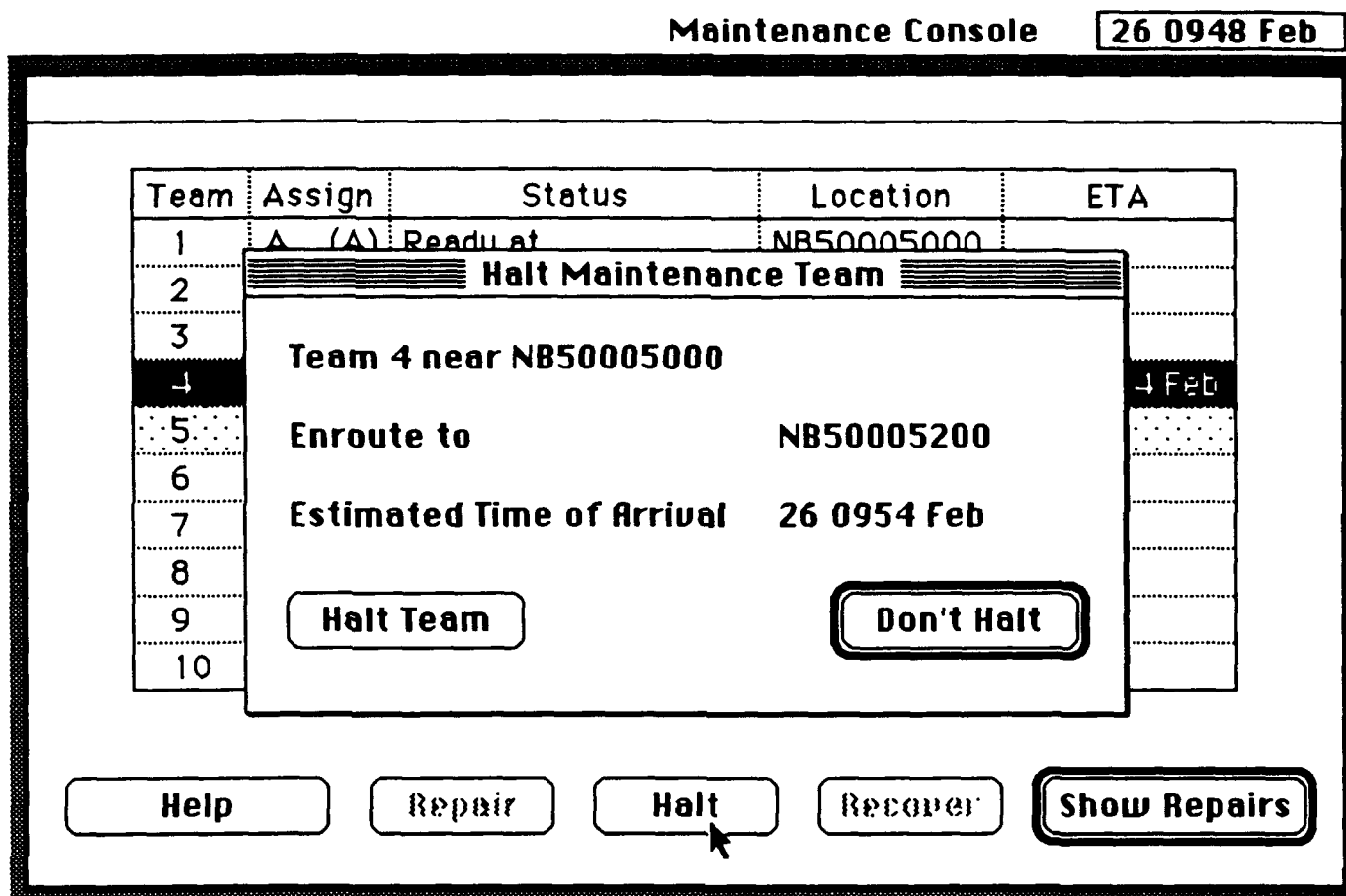


Figure 10.3.5 Halt detail display

Should the need arise, the operator can direct a dispatched team to discontinue its movement. By selecting a dispatched team and clicking the mouse on the **Halt** box, the operator is presented with the "Halt Maintenance Team" display, figure 10.3.5. The operator is shown approximately where the team is, where it is going, and when it is expected to arrive. The operator may:

- Step 1: Click the **Halt Team** box to direct the team to stop.
or
Click the **Don't Halt** to cancel the operation.

The operator is returned to the status display by either operation.

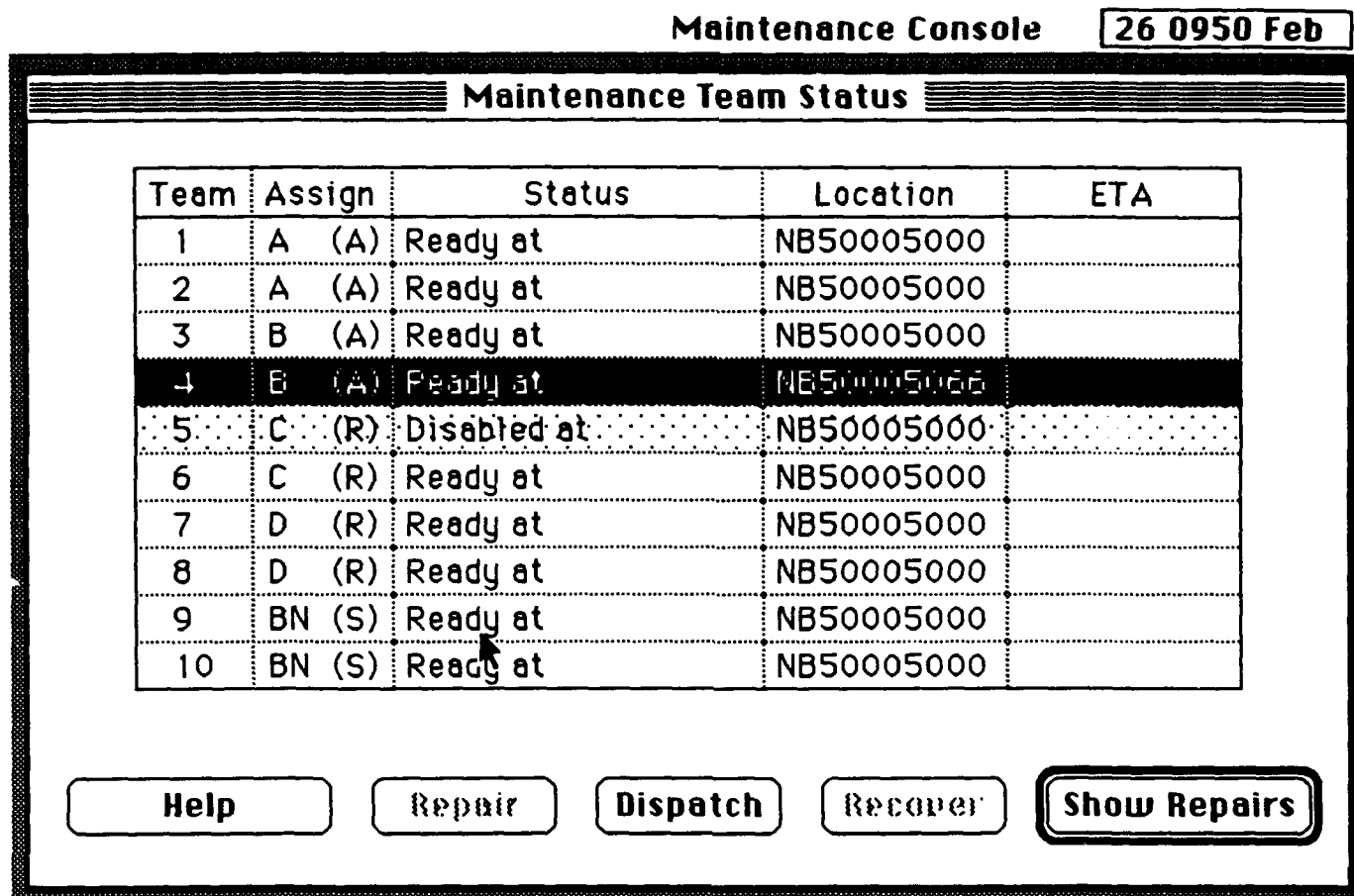


Figure 10.3.6 Result of Halt command

Should a dispatched team be directed to **Halt**, the status display will indicate the command by changing the "Enroute To" status to "Ready at" in the Status column and the Location column will display the estimated location of the team when directed to stop.

Figure 10.3.6 shows a dispatched team that has been commanded to Halt with corresponding change in the location from figure 1.

If the **Don't Halt** button was clicked, the Team Status display will continue to display "Enroute to" as the status for the dispatched team, as in figure 10.3.4.

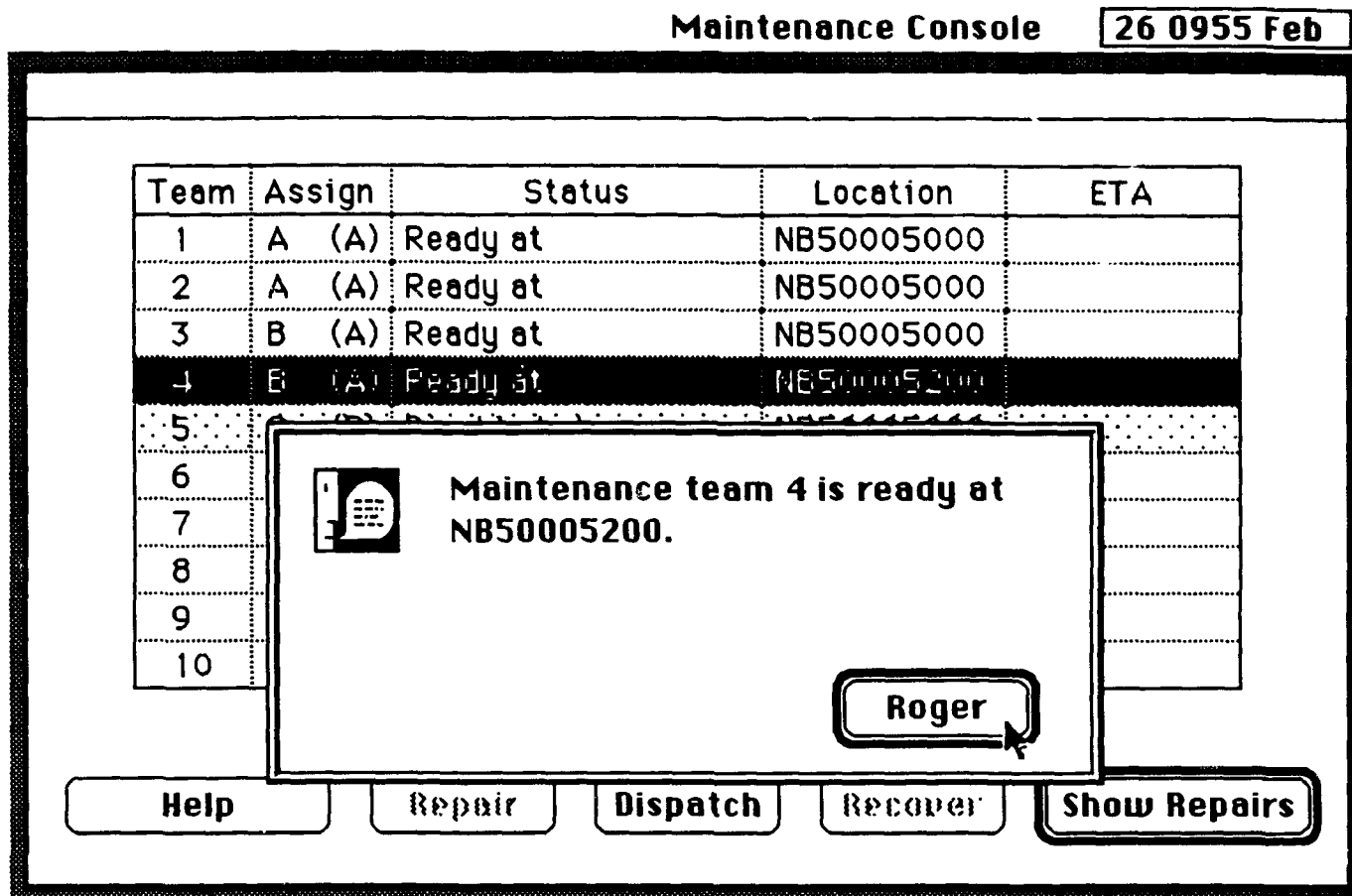


Figure 10.3.7 ARRIVAL AT LOCATION message

When a dispatched team has arrived at its assigned destination, the operator will be alerted by an audible beep and the display in figure 10.3.7. The operator acknowledges the information by clicking the **Roger** box or pressing the Return key. This message will appear over any of the displays currently being displayed to the operator. The operator must acknowledge this message to enable further actions on the Maintenance Console.

Step 1: Click the mouse on the **Roger** box to acknowledge the message.

10.4 Repair Operations

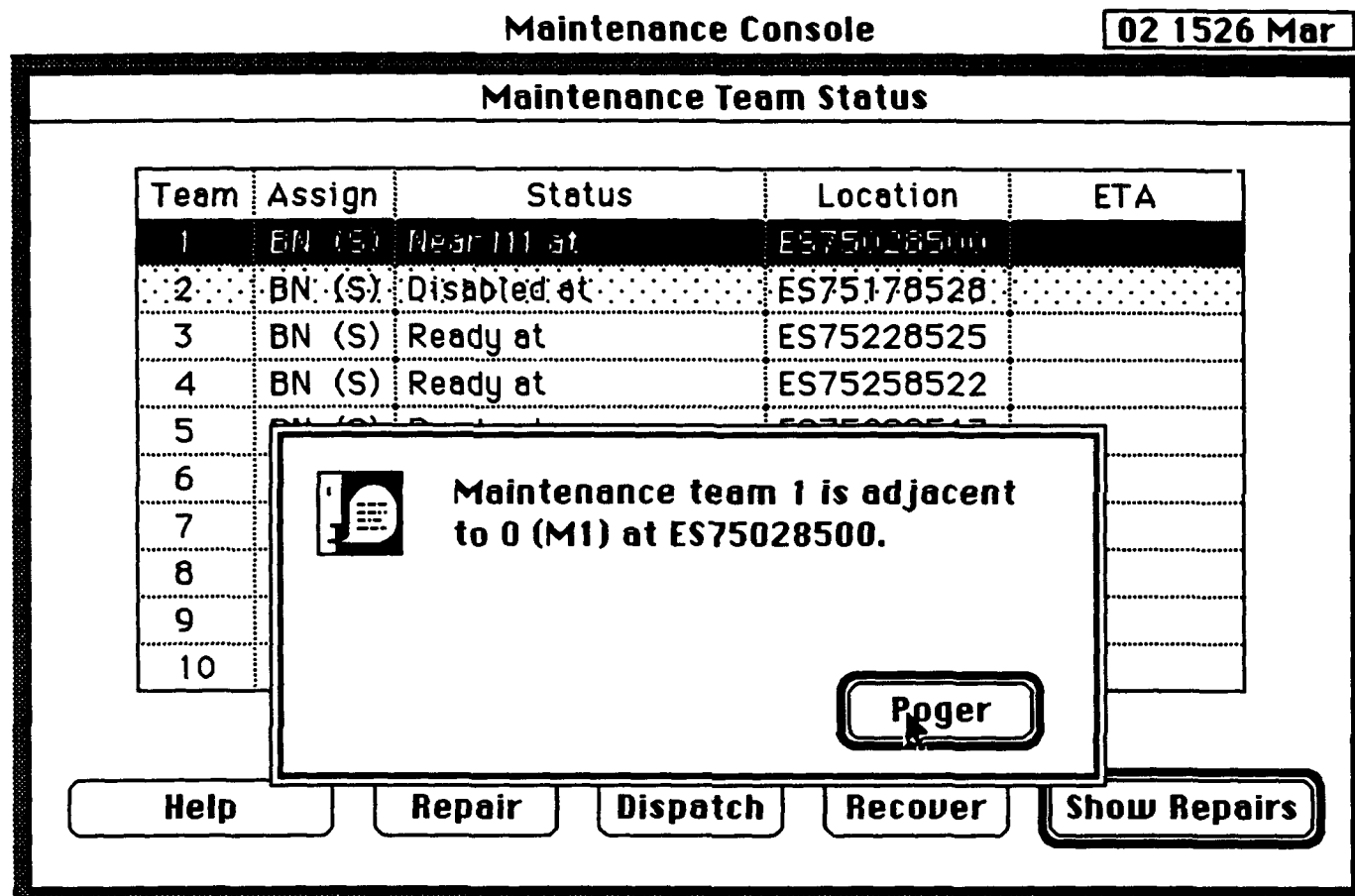


Figure 10.4.1 ADJACENT message

When the dispatched maintenance team has reached its destination, the operator is presented with an "arrival" message, as shown in Figure 10.3.7, indicating that the team has reached the commanded destination and its status is ready. If the team is within 30 meters of a damaged/disabled tank, the **REPAIR** and **RECOVER** boxes become darkened and an "adjacent" message, as shown in figure 10.4.1, is presented to the operator noting which vehicle the team is near. This message will appear over any of the displays currently being displayed to the operator. The operator must acknowledge this message to enable further actions on the Maintenance Console.

Step 1: Click the mouse on the **ROGER** box to acknowledge this information.

Maintenance Console
02 1526 Mar

Maintenance Team Status

Team	Assign	Status	Location	ETA
1	BN (S)	Near III at	ES75028500	
2	BN (S)	Disabled at	ES75178528	
3	BN (S)	Ready at	ES75228525	
4	BN (S)	Ready at	ES75258522	
5	BN (S)	Ready at	ES75288517	
6	BN (S)	Ready at	ES75298513	
7	BN (S)	Ready at	ES75298508	
8	BN (S)	Ready at	ES75288503	
9	BN (S)	Ready at	ES75258498	
10	BN (S)	Ready at	ES75228495	

Help
Repair
Dispatch
Recover
Show Repairs

Figure 10.4.2 REPAIR/RECOVERY commands

After the operator clicks the **ROGER** box in figure 10.4.1, the status display, figure 10.4.2, will show all boxes darkened for the newly arrived maintenance team. The operator will click the **REPAIR** box to start the repair cycle. For a disabled vehicle, the vehicle may be **RECOVERed** only (refer to section 10.5).

Maintenance Console

02 1527 Mar

Start Repair

Team 1 at ES75028500

Servicing 0 (M1)

Description	Class	Time	
Replace Pilot Relay and Starter	Electrical	30	↑
Replace Power Pack	Automotive	60	
Repair Service Brake	Automotive	15	
Repair Parking Brake	Automotive	15	
Repair Turret Traverse Drive	Turret	30	
Repair Turret Mount Interface	Turret	240	
Repair Gun Elevation Drive	Turret	30	
Repair Stab System	Turret	30	↓

Help **Start Repair** **Cancel**

S

Figure 10.4.3 REPAIR detail display

Maintenance teams are dispatched to a damaged/disabled vehicle with only a limited amount of tools and equipment available. They also have been dispatched with repair requests from the vehicle's crew.

A maximum of one automotive and one fire control repair can be accomplished at a time.

To repair a vehicle:

Step 1: Scroll through the possible repairs by using the arrows or slide box to display the requested repair.

Step 2: Click the mouse on the line of the requested repair.

Step 3: Click the mouse on the **Start Repair** box to start the repair. The time it will take is noted in the time column of the Start Repair display shown in figure 10.4.3.

or

Click the mouse on the **Cancel** box to return to the Status display.

Maintenance Console

02 1527 Mar

Maintenance Team Status

Team	Assign	Status	Location	ETA
1	BN (S)	Repairing M1 at	ES75028500	
2	BN (S)	Disabled at	ES75178528	
3	BN (S)	Ready at	ES75228525	
4	BN (S)	Ready at	ES75258522	
5	BN (S)	Ready at	ES75288517	
6	BN (S)	Ready at	ES75298513	
7	BN (S)	Ready at	ES75298508	
8	BN (S)	Ready at	ES75288503	
9	BN (S)	Ready at	ES75258498	
10	BN (S)	Ready at	ES75228495	

Help

Repair

Dispatch

Recover

Show Repairs

Figure 10.4.4 REPAIRING status

After starting the repair, the operator is returned to the status display where the status now shows "Repairing M1 at" in the status column as pictured in figure 10.4.4. For a selected team that is in the process of repairing a vehicle, only the **Show Repairs** and **Help** boxes are available to the operator.

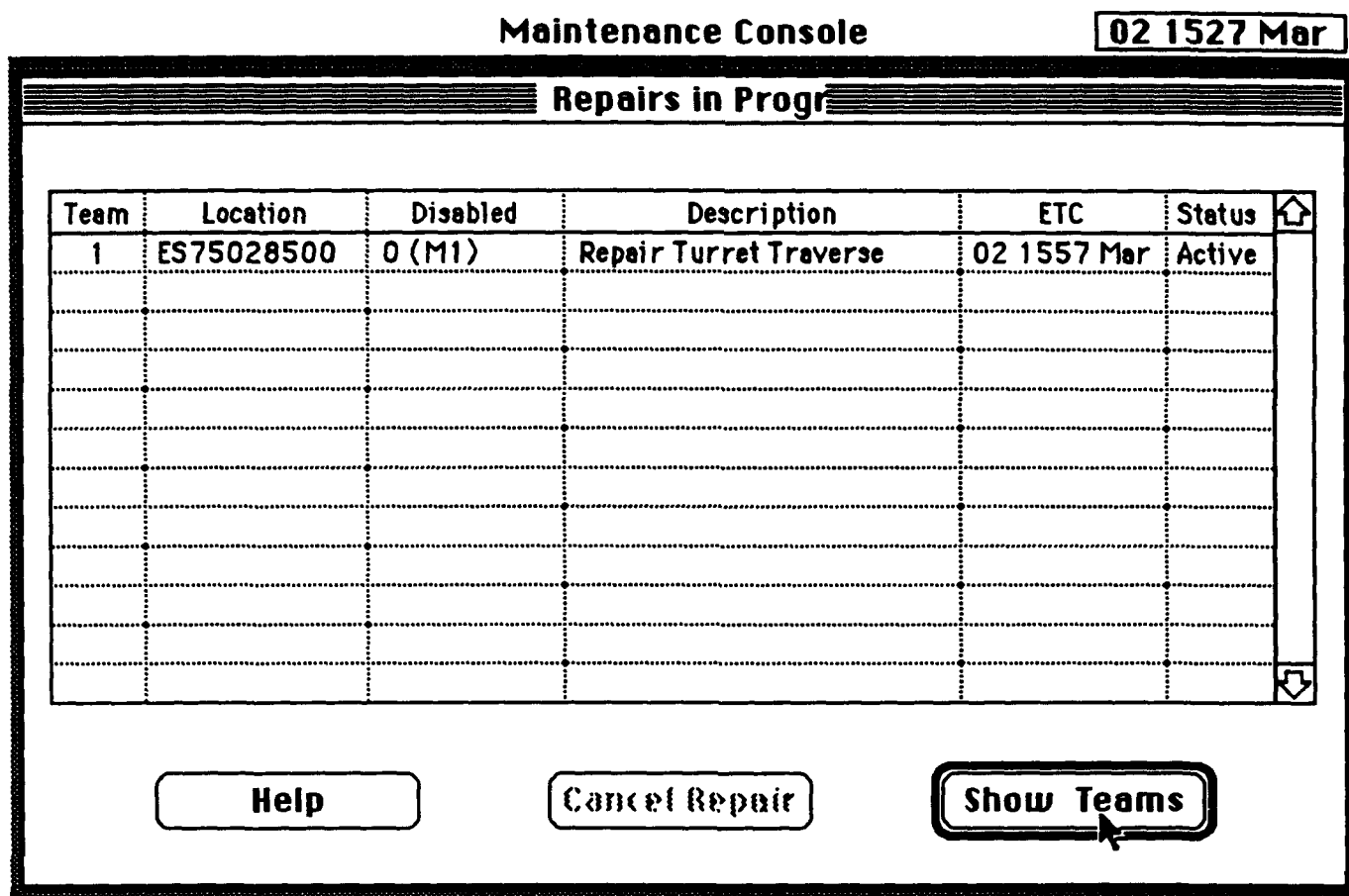


Figure 10.4.5 Show Repairs display

The operator may review the repair operations in progress. By clicking on the **Show Repairs** box on the status display, the operator is presented with the "Repairs in Progress" display shown in figure 10.4.5. The team number, location, vehicle being repaired, what is being repaired, estimated time to complete, and status are displayed for each team actively repairing vehicles.

To return to the status display:

Step 1: Click the **Show Teams** box.

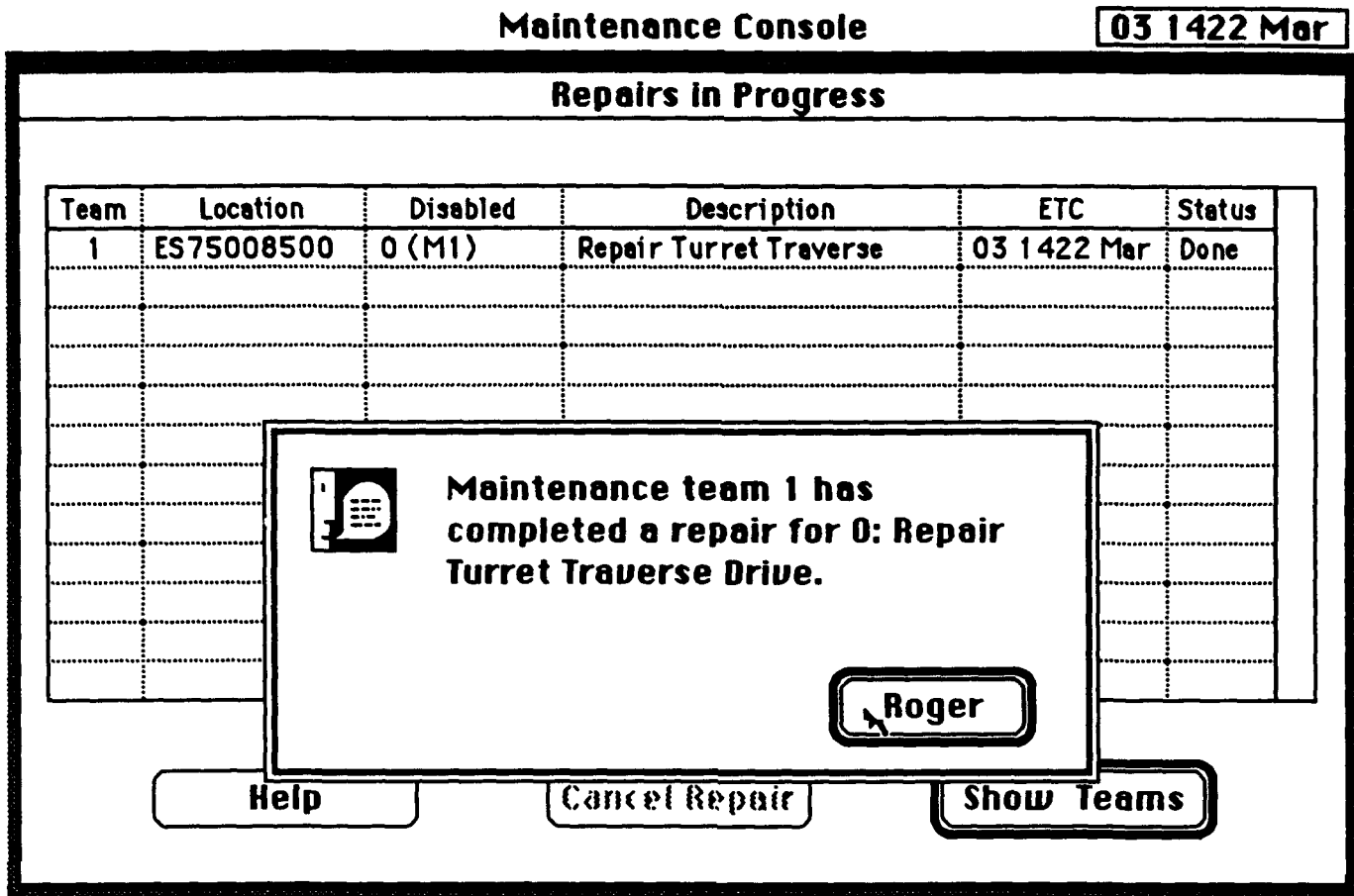


Figure 10.4.6 COMPLETION message

After a team has completed the directed repairs to the damaged vehicle, the operator will be presented with a "completion" message, figure 10.4.6, and the Repairs in Progress display will reset the status from "Active" to "Done". The Teams display will change the Status column from "repairing" to "near". This message will appear over any of the displays currently being displayed to the operator. The operator must acknowledge this message to enable further actions on the Maintenance Console.

To continue maintenance operations:

Step 1: Click on the **Roger** box to acknowledge the message.

Maintenance Console

03 1328 Mar

Maintenance Team Status

Team	Assign	Status	Location	ETA
1	()	Near 111 at	ES75028500	
2	()	Ready at	ES75378528	
3	()	Ready at	ES75428525	
4	()	Ready at	ES75458522	
5	()	Ready at	ES75488517	
6	()	Ready at	ES75498513	
7	()	Ready at	ES75498508	
8	()	Ready at	ES75488503	
9	()	Ready at	ES75458498	
10	()	Ready at	ES75428495	

Figure 10.5.1 Recovery mode selection

10.5 Recovery Operations

Should the damage to the vehicle be too great for the repair team to handle, the vehicle will be towed to a maintenance area that has the capacity to make the needed repairs, like the Unit Maintenance Collection Point, for dispensation. In this case the operator will click the mouse button on the **Recover** box, figure 10.5.1, to direct the maintenance team to tow the vehicle.

Maintenance Console

03 1329 Mar

Maintenance Team Status

Recover Vehicle

Team 1 at ES75028500

Recovering 0 (M1)

Destination ☒ **UMCP** **ES75308510**

☐ **Coordinates**

Estimated Time of Arrival **03 1335 Mar**

Figure 10.5.2 Recover detail display

After the operator has clicked the **Recover** box on the status display, the Recover Vehicle display, figure 10.5.2 is presented to the operator. The operator must enter the destination coordinates for the towed vehicle.

To direct the team to tow the vehicle;

Step 1: Enter the destination coordinates, if different than the UMCP, in the box marked by the blinking cursor.

Step 2: Click the **Compute ETA** box to calculate the estimated time of arrival at the desired coordinates.

or

Click the **Dispatch** box to direct the team to hitch up the vehicle and begin the tow function.

or

Click the **Cancel** box to terminate the beginning of Recovery mode.

The status display, shown in figure 10.5.1, will be presented to the operator after either the **Dispatch** or **Cancel** box is clicked.

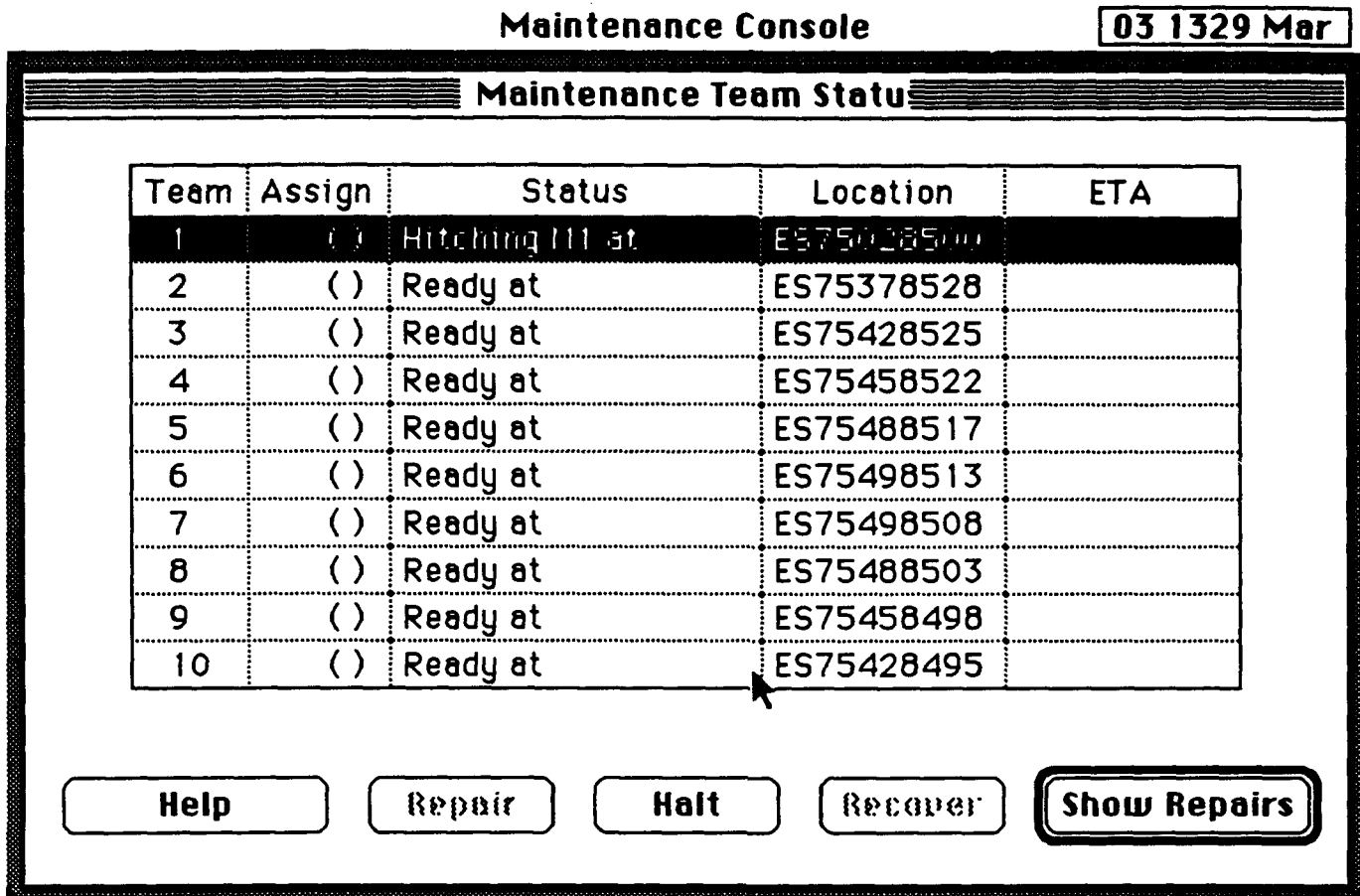


Figure 10.5.3 HITCHING status display

After the operator has clicked on the **Dispatch** box (figure 10.5.2), to direct the maintenance team to tow the vehicle, the status display is presented to the operator indicating that the maintenance team is hitching the disabled vehicle to their vehicle (Status column) in preparation of towing, as shown in figure 10.5.3. Because repair was not possible and the team is already in recovery mode, those boxes on the Status display are grayed out. The operator is given the option of asking for **Help**, **Halting** the tow direction, or **Show Repairs** being made by other teams under the operators command.

Maintenance Console

03 1332 Mar

Maintenance Team Status

Team	Assign	Status	Location	ETA
1	11	Hitchhiker 111 at	ES75028500	
2				
3				
4				
5				
6				
7				
8				
9				
10				

Halt Maintenance Team

Team 1 near ES75028500

Preparing Recovery to ES75308510

Estimated Time of Arrival 03 1335 Mar

Halt Team

Don't Halt

Help

Repair

Halt

Recover

Show Repairs

Figure 10.5.4 HALT Recovery display

Should a need arise to stop a maintenance team in recovery mode, the operator selects that team from the Status display, figure 10.5.3, and clicks the mouse on the **Halt** box. This action presents the **Halt Maintenance Team** display, figure 10.5.4, to the operator for action. The display identifies the team number, where it is, where it is scheduled to tow the vehicle to, and its ETA.

Step 1: Click the mouse on the **Halt Team** to direct the maintenance to stop towing the vehicle.

or

Click the mouse on the **Don't Halt** to allow the maintenance to continue towing the vehicle.

Either action in Step 1 returns the operator to the Status display.

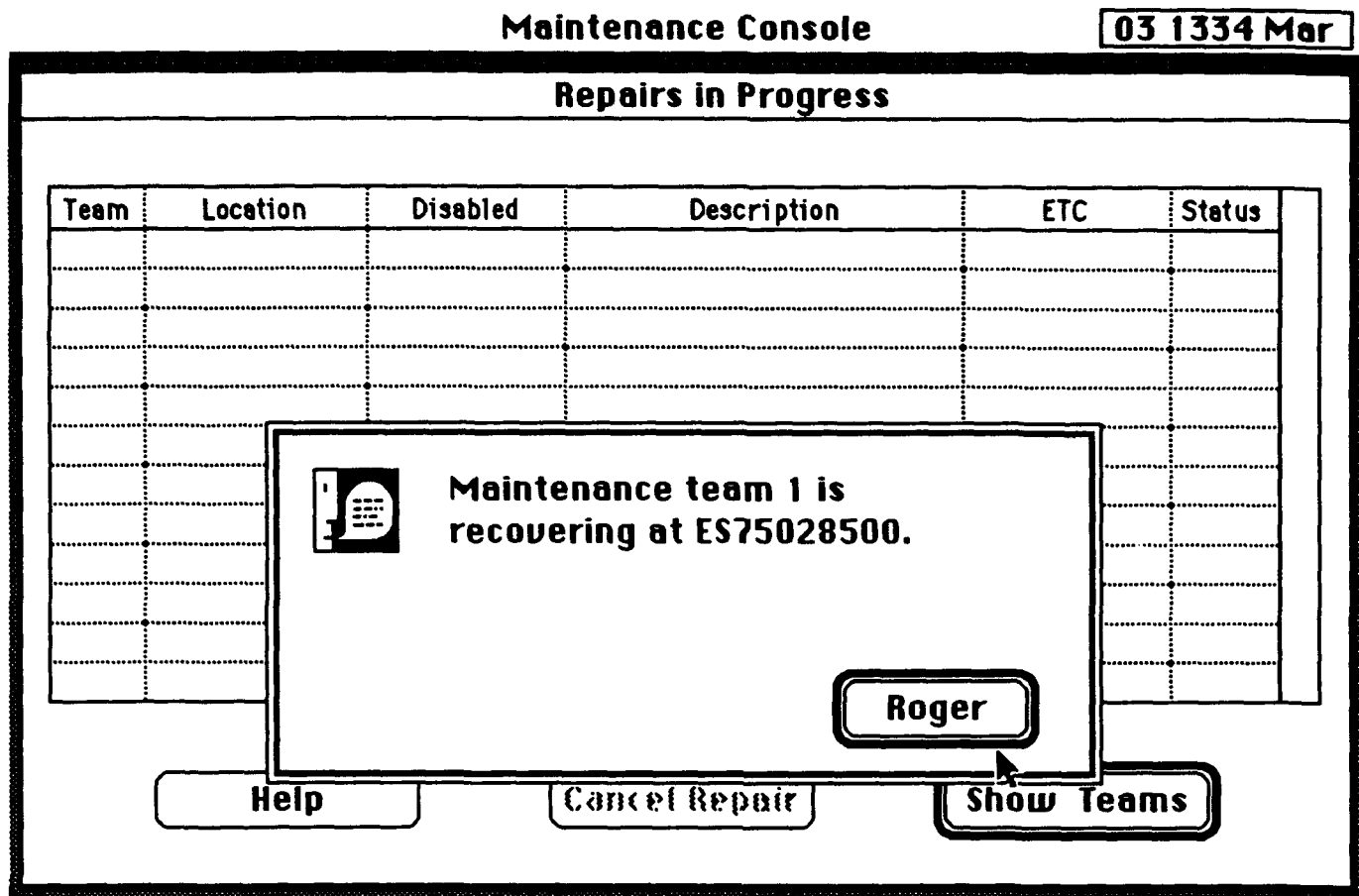


Figure 10.5.5 TOWING message

When the time allotted for the maintenance team to complete the hitching function of the disabled vehicle to their vehicle has elapsed, the operator will be alerted to that by a message indicating that the maintenance team is now towing the vehicle to the directed coordinates, figure 10.5.5. This message will appear over any of the displays currently being displayed to the operator. The operator must acknowledge this message to enable further actions on the Maintenance Console.

To acknowledge the message;

Step 1: Click the mouse on the **Roger** box. This returns the operator to the previously selected display.

Maintenance Console

03 1335 Mar

Maintenance Team Status

Team	Assign	Status	Location	ETA
1	()	Recovering to	ES75308510	03 1335 Mar
2	()	Ready at	ES75378528	
3	()	Ready at	ES75428525	
4	()	Ready at	ES75458522	
5	()	Ready at	ES75488517	
6	()	Ready at	ES75498513	
7	()	Ready at	ES75498508	
8	()	Ready at	ES75488503	
9	()	Ready at	ES75458498	
10	()	Ready at	ES75428495	

Help

Repair

Halt

Recover

Show Repairs

Figure 10.5.6 RECOVERING status

When the maintenance team is towing the vehicle, the Status display will indicate that in the Status column with the status "Recovering to" as in figure 10.5.6.

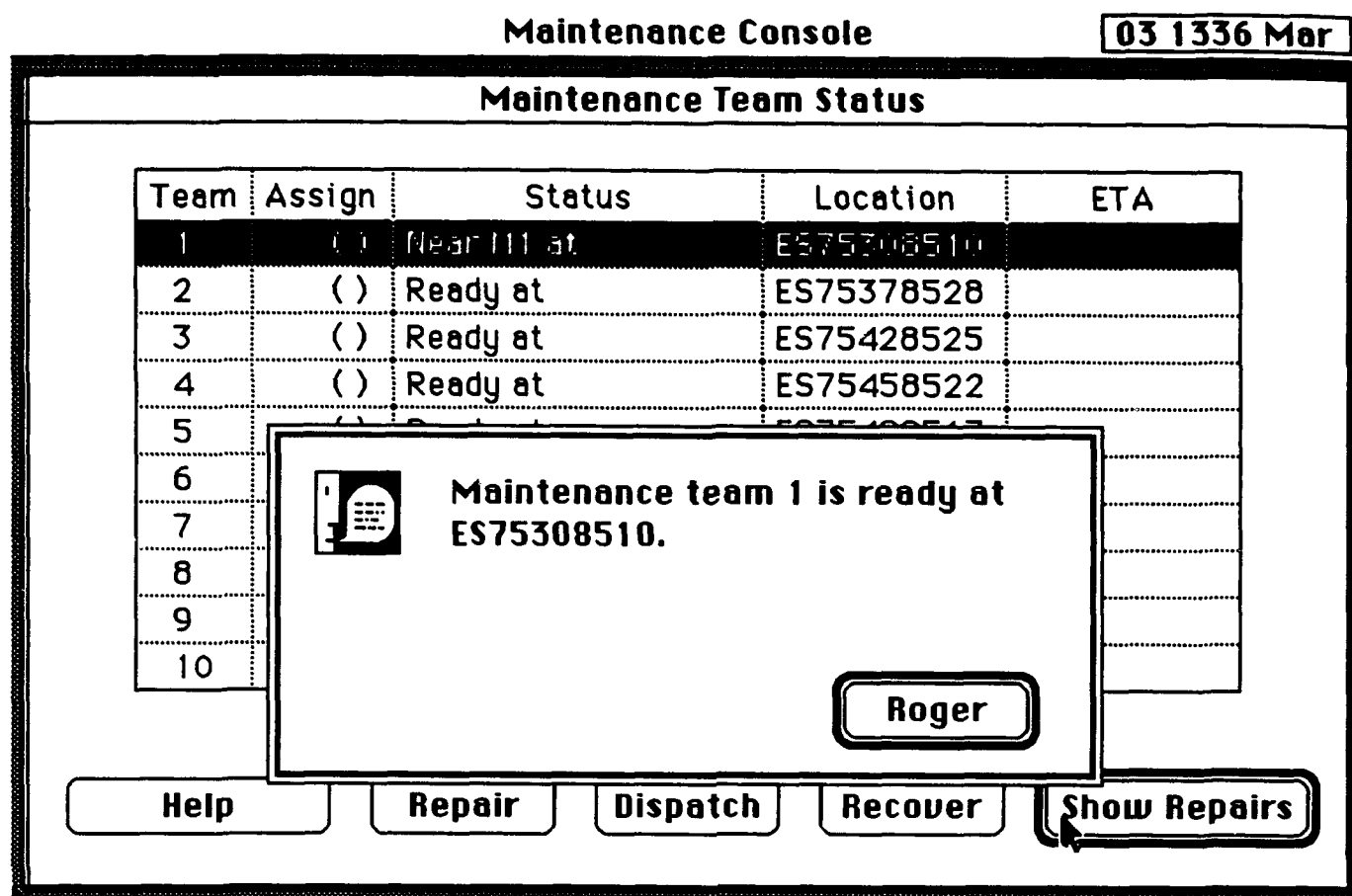


Figure 10.5.7 TOWING ARRIVAL message

When the maintenance team has arrived at the destination coordinates, the operator will be alerted with a "ready" message. Figure 10.5.7 shows the message and the Status display with the "Recovering to" status changed to the "Near M1 at" status. This message will appear over any of the displays currently being displayed to the operator. The operator must acknowledge this message to enable further actions on the Maintenance Console.

To acknowledge the message;

Step 1: Click the **Roger** box to return to the previously selected display.

11. Notes.

11.1 Abbreviations/Acronyms

ALC	Administration/Logistics (Macintosh) Console.
ALOC	Administration/Logistics (Macintosh) Console.
ATKHB	US Army Attack Helicopter Battalion
BBN	Bolt, Beranek and Newman
BDA	Bomb Damage Assessment
BSA	Brigade Support Area
CAS	MCC Close Air Support (Macintosh) Console
CBU	Cluster Bomb Unit
CEA	Combat Engineer Assets
CEC	MCC Combat Engineering (Macintosh) Console
CSR	Controlled Supply Rate
DSA	Distributed Simulator Architecture
ETA	Estimated Time of Arrival
FARE	Forward Area Refueling Equipment
FARP	Forward Area Refueling Point
FPF	Final Protective Fire
FRAGO	Fragmentary Order
FRED	Fully REconfigurable Device
FSE	MCC Fire Support (Engineering) (Macintosh) Console
FSO	Fire Support Officer
F/W	Fixed Wing
Maint	Maintenance Console
MCC	Management Command Console
MIPS	A workstation and chip vendor.
NE	North East
OPORD	Operation Order
OS	Operating System
PDU	Protocol Data Unit
PVD	Plan View Display
RWA	Rotary-Winged Aircraft (helicopter)
SCC	SIMNET Control Console
SIMNET	SIMulation NETwork (protocol)
S W	South West
TAC CP	Tactical Command Post
TOC	Tactical Operation Center
UMCP	Unit Maintenance Collection Point
UTM	Universal Transverse Mercator (map coordinates)

APPENDIX A

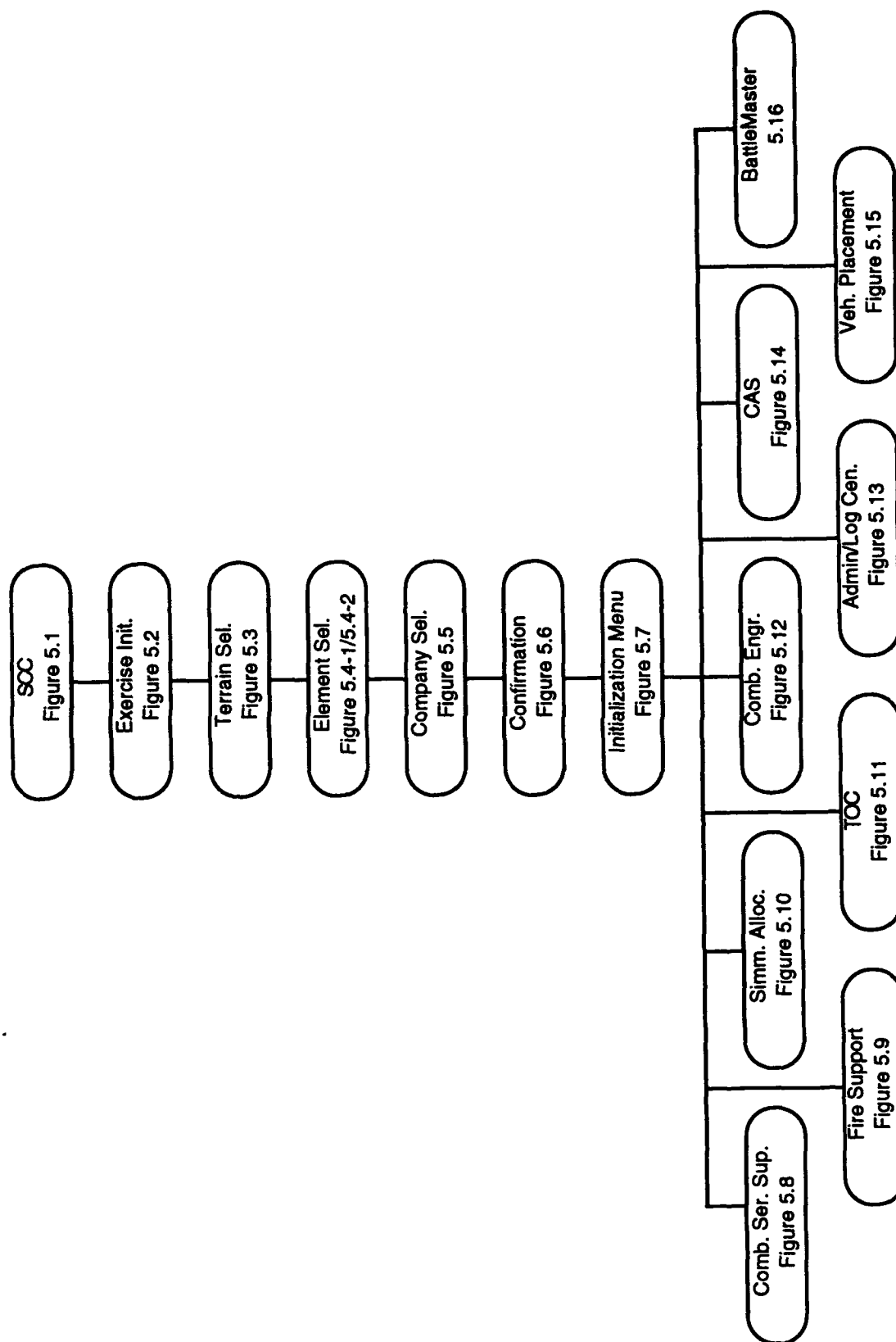


Figure A1 SIMNET Control Console Initialization

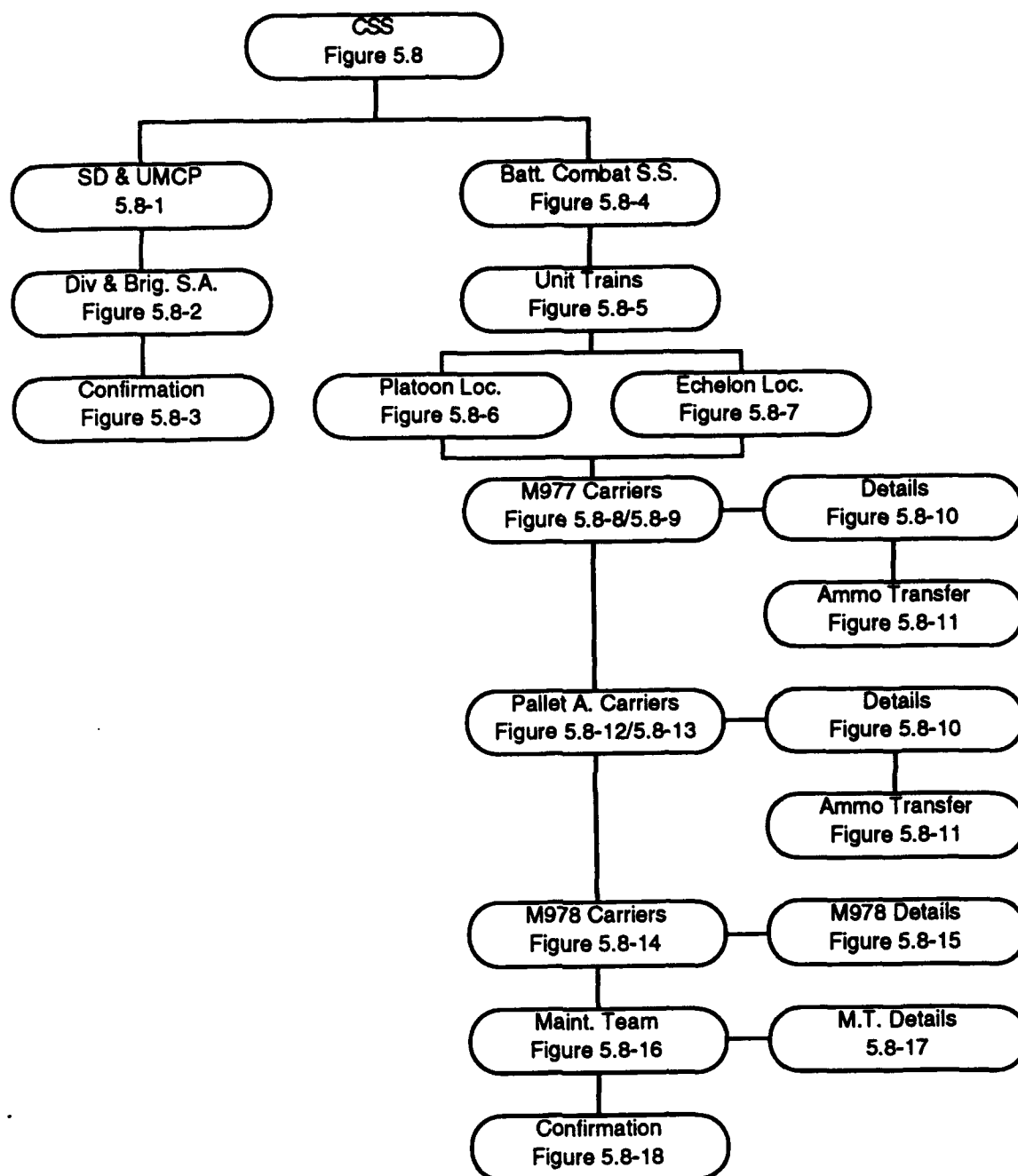


Figure A2 Combat Service Support Initialization

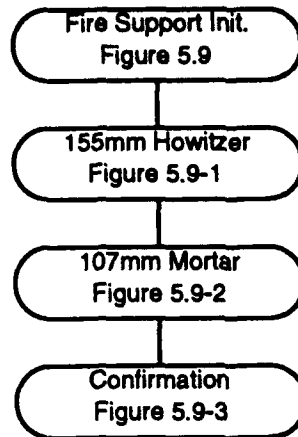


**Figure A3 Fire Support Initialization Screens
Flow Diagram**

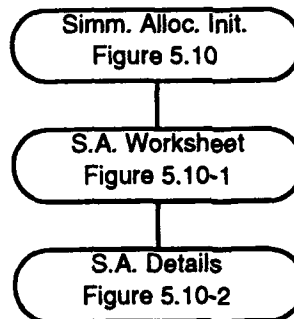


**Figure A4 Simulator Allocation Screens Flow
Diagram**

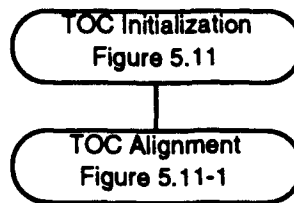


**Figure A5 Command Post Initialization Screens
Flow Diagram**

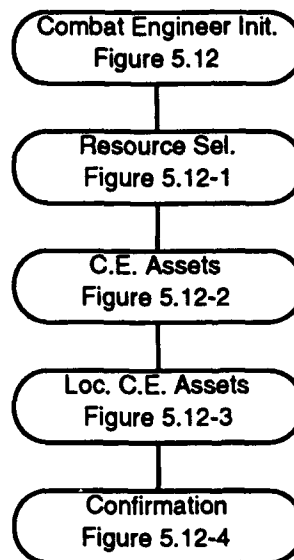


**Figure A6 Combat Engineer Initialization Screens
Flow Diagram**

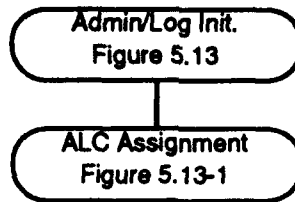


**Figure A7 Admin/Log Center Initialization
Screens Flow Diagram**

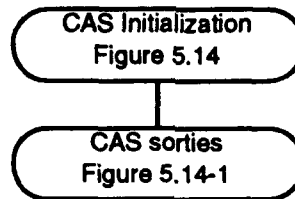


**Figure A8 Close Air Support Initialization
Screens Flow Diagram**

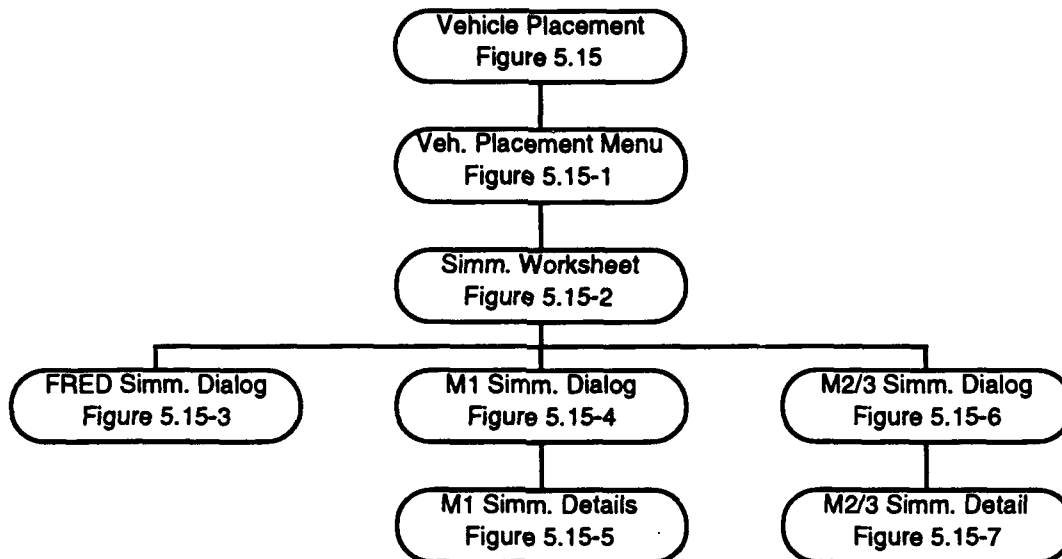


**Figure A9 Vehicle Placement Screens Flow
Diagram**

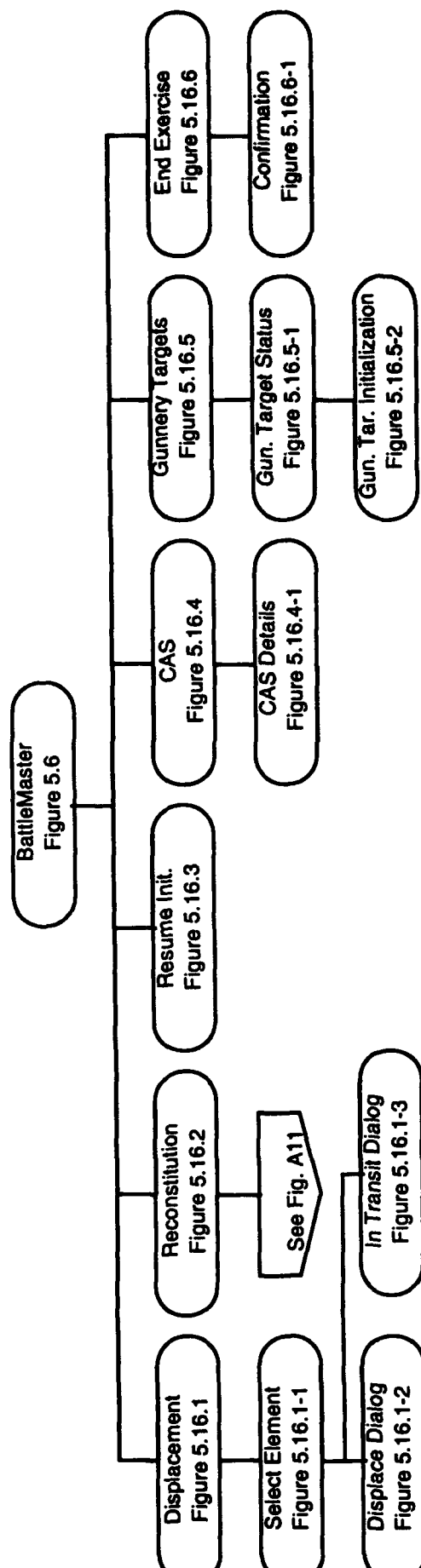


Figure A10 BattleMaster Functions Screens
Flow Diagram

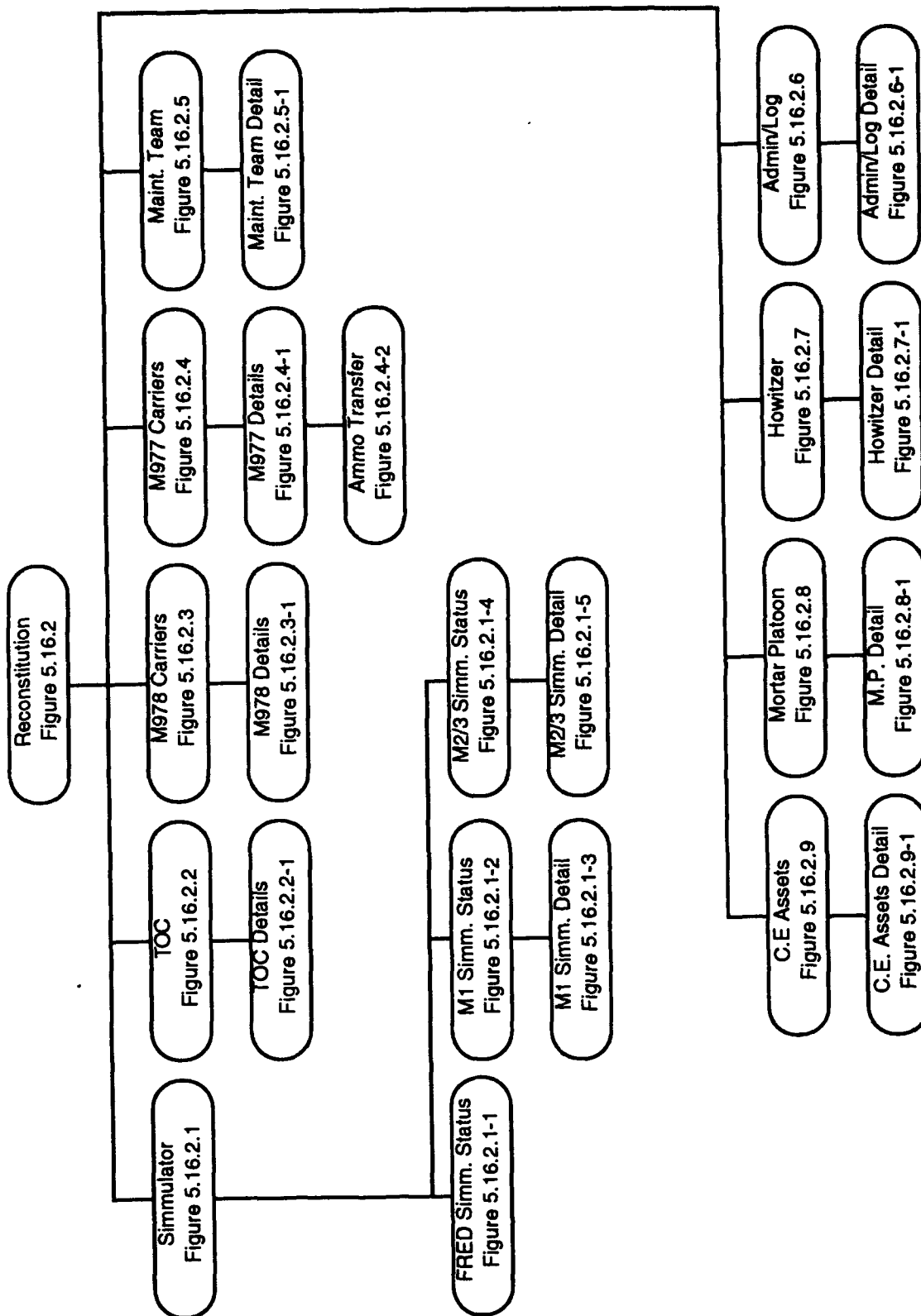


Figure A11 Reconstitution Screens Flow Diagram

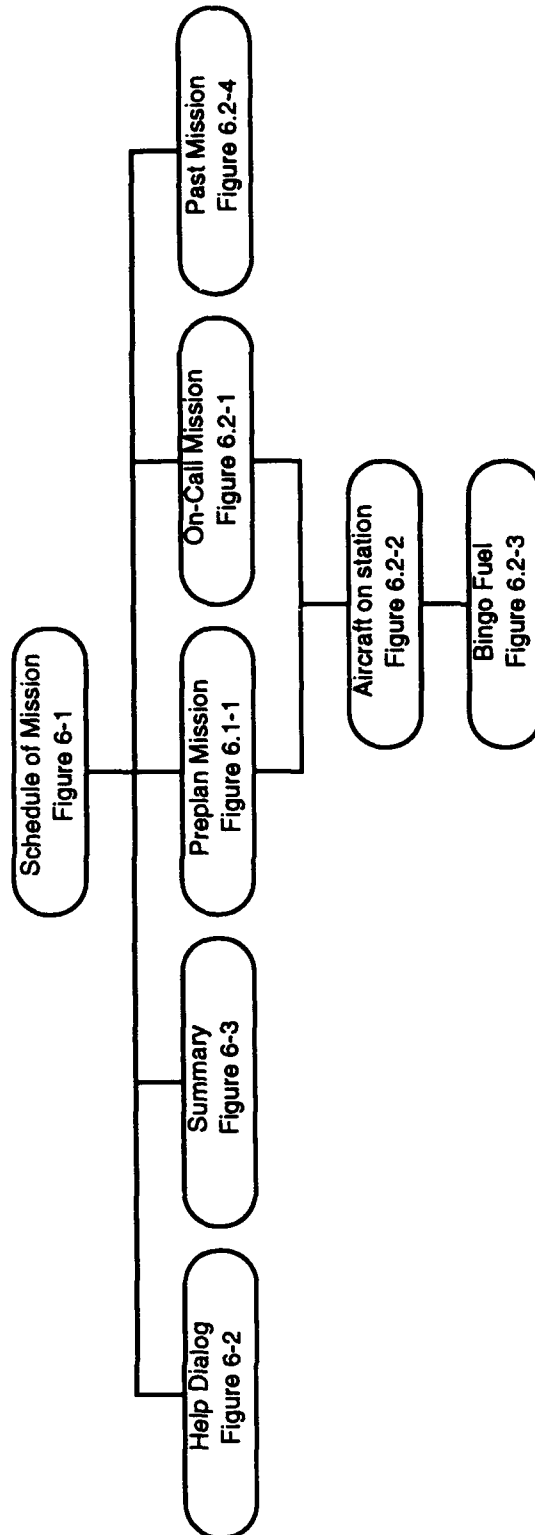


**Figure A12 Close Air Support Console Screens
Flow Diagram**

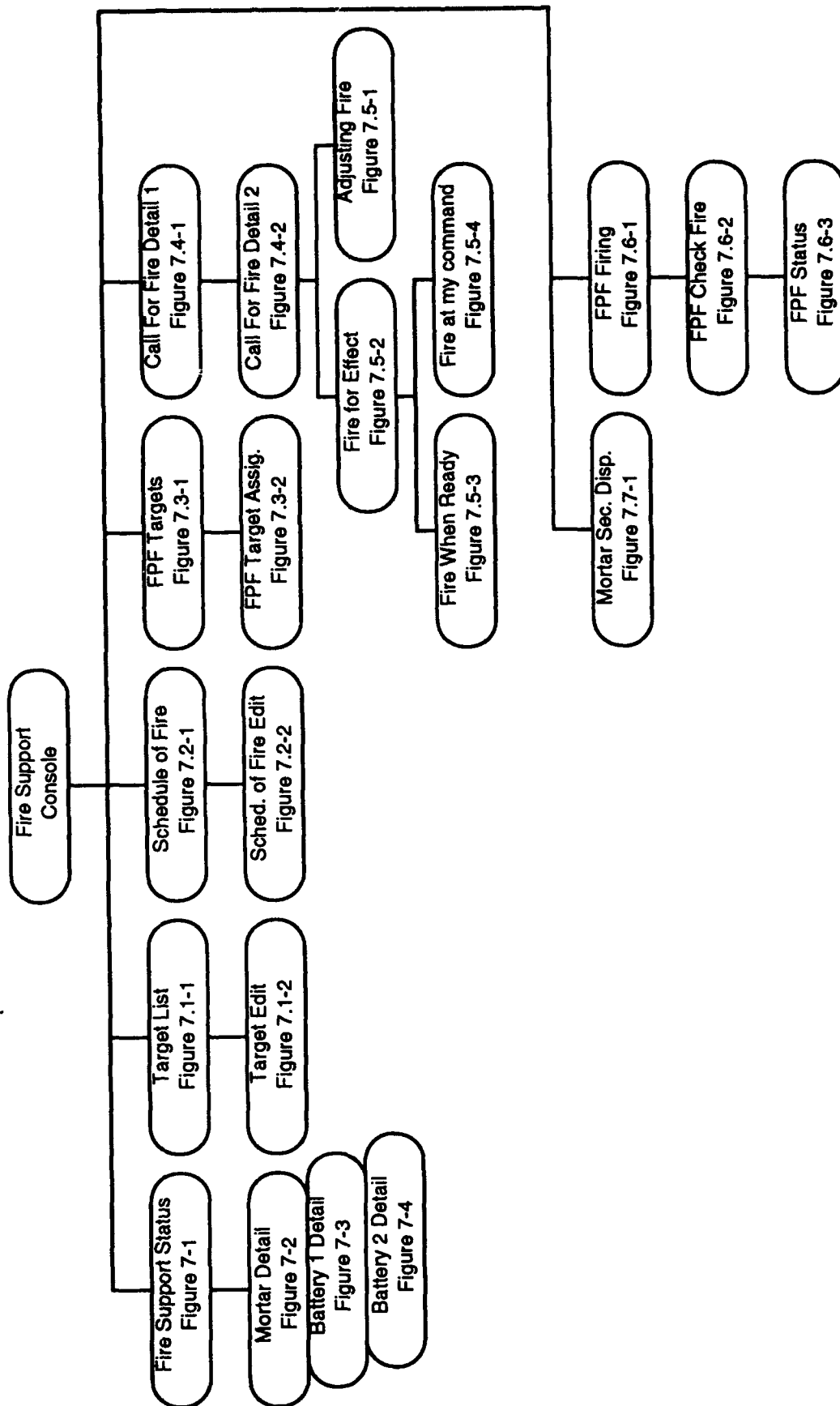


Figure A13 Fire Support Console Screens Flow Diagram

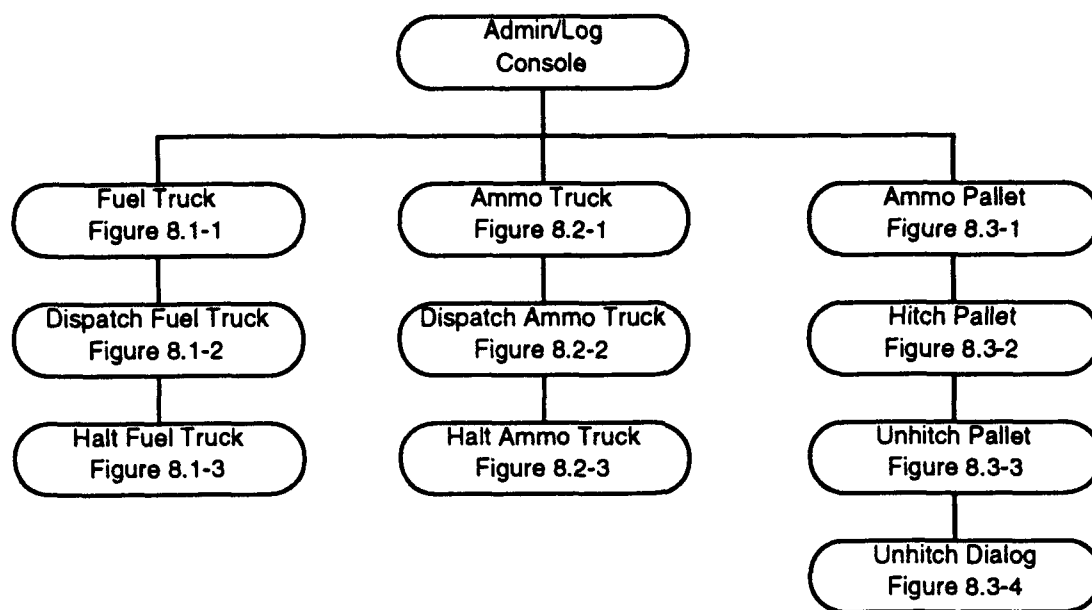


**Figure A14 Admin/Log Console Screens Flow
Diagram**

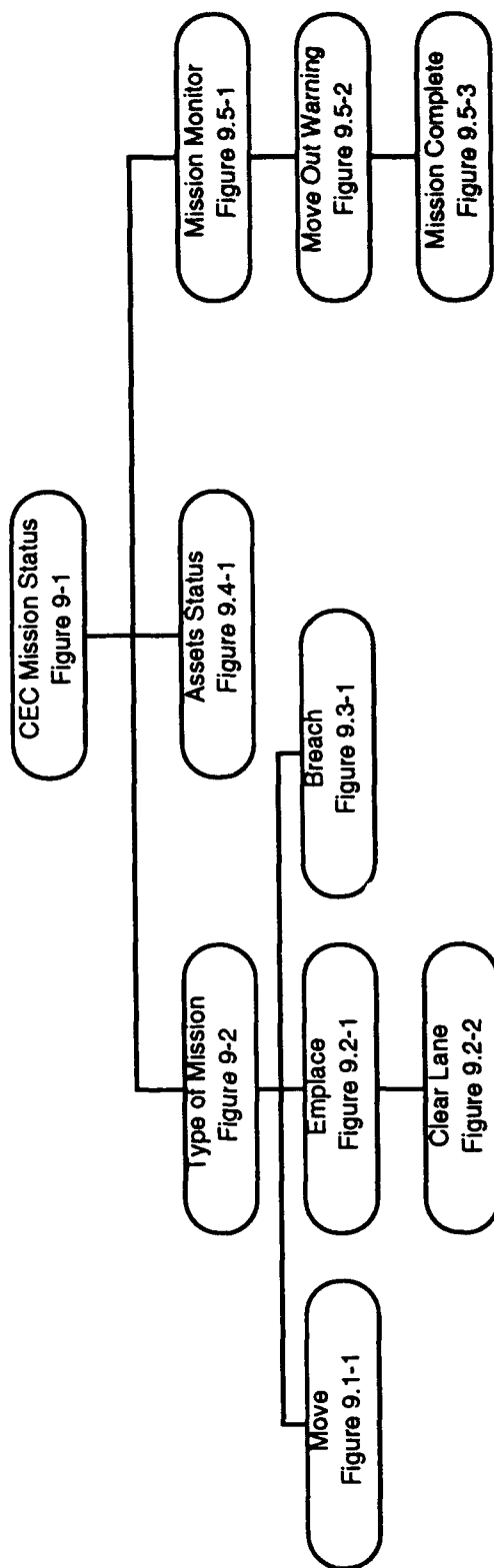


Figure A15 Combat Engineer Console Screens
Flow Diagram

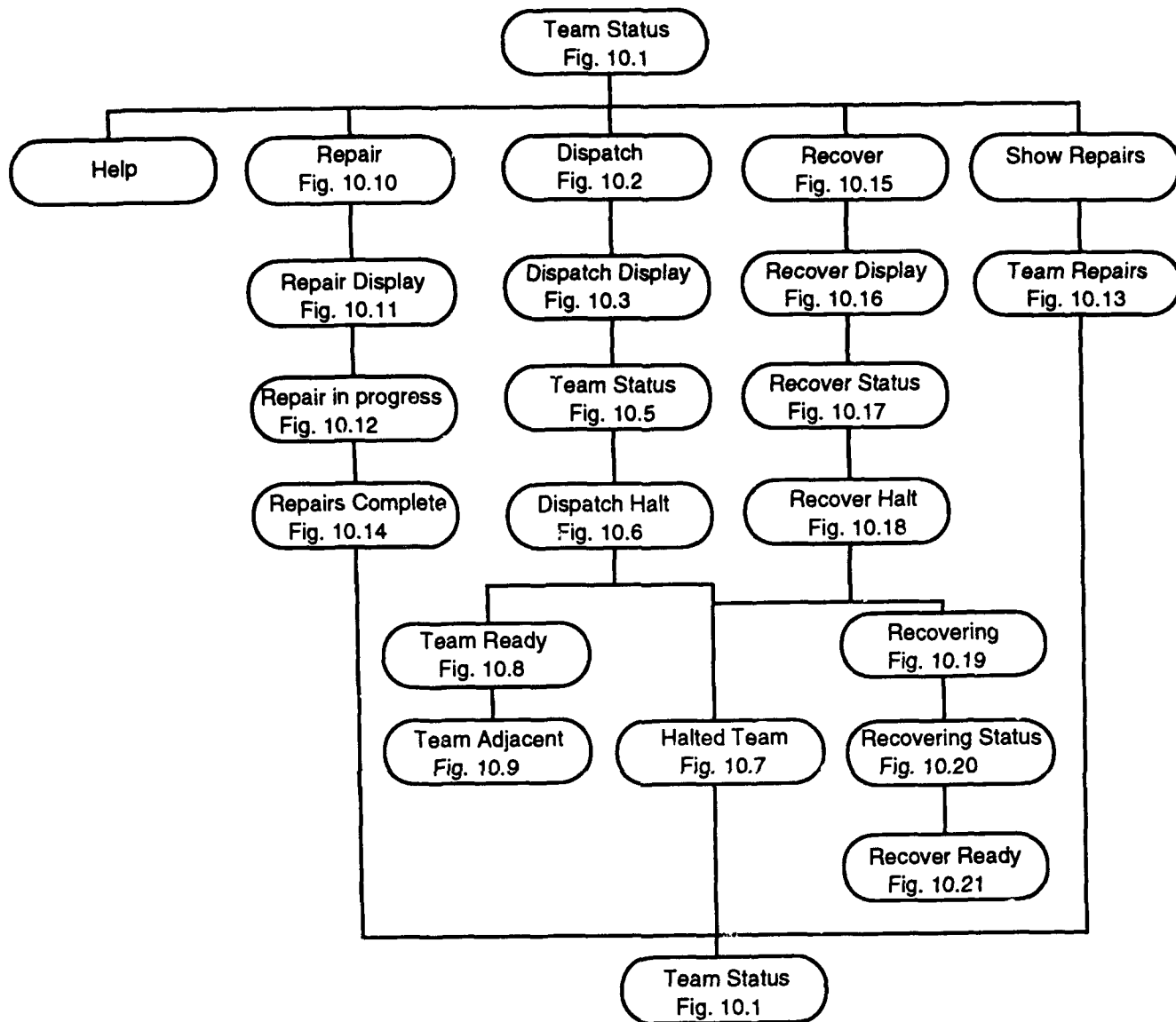


Figure A16 Maintenance Console Screens
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