

ARMORED FIST™

Armored Battlefield Simulator

USERS MANUAL

Note: For easier navigation, this on-line electronic manual has **hypertext links**. Clicking on red-colored text will take you to a page with a related subject or section. Clicking on the double back arrow icon (◀◀) on the menu bar will return you to the previous page viewed. The **T.O.C.** and the **Index** icons, at the lower left corner of most pages, bring up the first page of the *Table of Contents* and the first page of the *Index*, respectively. Each topic in the *Table of Contents* and the *Index* is hypertext-linked.

NOVA
LOGIC™

INTRODUCTION



Dear **Armored Fist** Player:

Thank you for purchasing **Armored Fist**. This product marks a milestone in armored warfare simulations. The game delivers two of the most important elements previously missing in other tank games: accurate terrain representation and smoke obscuration.

Tank warfare is all about armor, a tank placed behind a hill benefits from the massive armor that the hill provides. Tank commanders spend days positioning and digging-in tanks before a battle. It won't take you days, but you will be able to dig-in and position your tanks on the most accurate ground available on PCs thanks to our *Voxel Space* (patent pending) technology.

Realism has been one of the prime design criteria. You can use smoke grenades to obscure your position, yet with the thermal night sights you can see through your smoke and still target the enemy. Armor is much stronger in the front of the vehicles than on the sides with very little protection at the back.

This game contains over 200,000 lines of computer assembly code compiled by humans. It took

over 8 man years to program **Fist**, with David Seeholzer putting in a superhuman effort in bringing it all together. John Butrovich and Kyle Freeman provided groundbreaking algorithms almost on demand. Joby Otero is responsible for the ultra-real animation.

Voice, music and truly interactive game play make this game one of the few real interactive multimedia products.

We are very proud of the product that we created for you, we hope you like it as much as we do.

Sincerely,

A handwritten signature in black ink, appearing to read 'John A. Garcia', with a long horizontal flourish extending to the right.

John A. Garcia
President

CUSTOMER SUPPORT & INFORMATION

If you have any questions or comments about this program or any of our other exciting products, feel free to contact us at our Technical Support Line by calling (818) 878-0325 between 9 AM and 5 PM Pacific Coast Time. You may also visit our website at <http://www.novalogic.com>.

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First Contact...

Minutes before dawn at Hill 203. Hull down. A rather anonymous place to die should it come to that.

You pop the hatch of the CCV and observe the valley below, paying special attention to the ridge three clicks north and to the east. The wind shifts momentarily and you choke on the fumes from the idling turbine. The heat from the CCV's exhaust plumes luminesces in your display, then vanishes, leaving a foul, coppery taste in your mouth.



According to ELINT and J-STARS, you'll be facing an armored force of no fewer than four units. Three T-80s and at least one BMP are confirmed. Your orders are simple: **advance, locate, engage.**

You remind yourself that at least the odds are about equal. You've got two Abrams each escorting two Bradleys, inverted wedge, heading

north. The Abrams are riding the safe side of the ridge on their respective sides of the valley, with the Bradley at the north-east tip of the wedge on Recon. Hell, no problem at all, you kid yourself.

The other Bradley is hanging back and moving straight and slow down that alley for all the world to see. You're hoping the other side is hungry enough to take the bait. Jones volunteered for that one. Should he draw first contact, he'll have to move like hell to avoid going home the hard way. Optimally, he'll tag the objective with TOWs from a standoff while the remaining units flank and...

You catch yourself from reviewing the scenario yet another time and drop back down into the CCV, button down. You signal the driver to get rolling. "Bravo 2, Contact - 320," comes the urgent squawk in your ear moments later. It's Rodriguez in the Recon track. The reconnaissance is good.

First contact.

About ARMORED FIST

By combining sophisticated battlefield artificial intelligence with NovaLogic's patent-pending Voxel Space technology, **ARMORED FIST** brings the intense experience of modern armored combat to your computer screen. While full of adrenaline-pumping action, **ARMORED FIST** is more than a game of action. It will stump you with its tenacious combat stratagems and will constantly demand that you tap every ounce of your creative problem-solving skills in order to emerge victorious.

In **ARMORED FIST**, you are given the role of Task Force Commander. In various campaigns and battles, you will command from one to four platoons. Each platoon, in turn, can consist of one to four vehicles, giving you a company of up to sixteen vehicles which you must coordinate effectively in order to meet your objective. You orchestrate and observe the overall strategic side of your operations from your **Command and Control Vehicle (CCV)**.

At any time you can jump into any one of the armored vehicles under your command and experience the heat of the battle first hand, then jump back to the CCV for an overall picture of the action.

There are two vehicle types which you can directly deploy and operate: **Main Battle Tanks (MBTs)**, which offer brute firepower and survivability, and **Infantry Fighting Vehicles (IFVs)**, which carry troops, perform reconnaissance and can move more quickly than their heavily armored brethren. You can also call in air and artillery support to assist you in completing your task force objective.

In **ARMORED FIST**, you can choose to fight with U.S. or Russian hardware. While the geopolitical landscape has undergone an upheaval of epic proportions since the collapse of the Soviet Union, one of the legacies of the decades long Cold War arms buildup is that for the foreseeable future, mechanized combat will involve U.S. machines pitted against Soviet-built machines.

Western forces are equipped with **M1A2 Abrams** Main Battle Tanks and the **M3 Bradley Cavalry Fighting Vehicles (CFVs)**. If you choose to fight from the Eastern perspective, you'll have the Russian-built **T-80** MBTs and **BMP-2** IFVs to work with.

The Western and Eastern systems chosen for **ARMORED FIST** represent battle-proven technologies which saw action in Desert Storm, the Soviet-Afghan conflict, and the Arab-Israeli wars. As a senior military officer observed, "The Abrams MBT, the Bradley

NOTE: For purposes of simplicity both IFVs and CFVs will be referred to as IFVs in this manual.

vehicle and the T-80 and BMP-2 systems will be 'tomorrow's metal centurions,' serving armies in trouble spots around the world."

ARMORED FIST comes with several built-in *Campaign Scenarios*. Each campaign is comprised of a variable number of missions. For each mission there are set objectives. Successfully accomplish the mission objectives and the overall campaign will be won.

Introductory and training campaigns are also included with **ARMORED FIST**. This manual is laid out to give players an orderly and thorough introduction to **ARMORED FIST**. It is strongly recommended that players read on and learn the features and functions sequentially. Players who just can't wait to get started can jump ahead to the "Quick Start" section.

In addition to the included campaigns, **ARMORED FIST** also lets you design your own missions using a sophisticated mission editor. This gives you the ability to test various strategies and play out "what if" scenarios. Using the editor you can see what it takes to win when hopelessly outnumbered. Conversely, you can tilt the odds in your favor to get a flavor for total battlefield supremacy.

INSTALLATION & TECHNICAL NOTES

CD INSTALLATION

Before you can run **ARMORED FIST** you need to install a few game files onto your hard drive. First insert the **ARMORED FIST**-CD into your CD-ROM drive. At the DOS prompt, enter the letter of that drive followed by a colon (“:”) and press **ENTER**. For example, if your CD-ROM unit is your E: drive, type “**E:**” at the DOS prompt and press **ENTER**.

Type “**CDINSTAL**” at the new prompt and press **ENTER**. Follow the on-screen installation instructions to proceed.

You first will be asked to provide a destination path for the Armored Fist files. The default path is C:\FISTCD\. You can change the path to any valid path description. You must include the drive letter in any path you give. For example, if you keep your games in a separate directory on your D: drive, your path description would be D:\GAMES\FISTCD\

Sound Hardware Configuration

The first time you run **ARMORED FIST** a file called SOUNDSET will

automatically run for you. SOUNDSET creates the sound configuration file used by **ARMORED FIST**. SOUNDSET will prompt you for the type of devices to use for sound effects and music.

If you subsequently run **ARMORED FIST** after altering your sound hardware, SOUNDSET must be run before running **ARMORED FIST** again. To run SOUNDSET manually, simply type in SOUNDSET from the program directory.

SOUNDSET first prompts you for the digital sound device. **ARMORED FIST** supports Sound Blaster compatible sound cards for digital sounds. If you choose to have digital sounds, you will then be prompted for the PORT number, IRQ number, and DMA channel used by your sound card. SOUNDSET will then prompt you for the type of music device to use.

In all cases, SOUNDSET will try to recommend the correct and best choice for you. It does this by looking for the environment string set when you installed your sound card. SOUNDSET will also show you the current selection if the configuration file already exists.

If, in the future, you change the sound hardware in your computer, you will need to run SOUNDSET again.

HARD DISK MEMORY USAGE

To install the CD version of Armored Fist you will need at least 1 megabyte of free space on your hard drive.

To run **ARMORED FIST**-CD your machine must meet the following minimum requirements:

- A fast 386 or better processor
- An IBM compatible VGA card
- Microsoft compatible mouse
- DOS 3.3 or later
- Microsoft CD-ROM extensions 2.21 or later
- Free conventional (DOS) memory: **512k**
- Free extended (XMS) memory: **2500k**
- 1 megabyte of free hard disk space.

QUICK START

The Introductory Campaign included with **ARMORED FIST** will take you step-by-step through many of the various game features. **ARMORED FIST** is a comprehensive battle-field simulation, but the following walk-through of the Introductory Campaign will get the player up to speed as quickly as possible.

When you first run **ARMORED FIST**, the game will display an opening animation sequence. At any time you can skip the



animation and get to the *Main Game Menu*, by pressing **ESC**.

The *Main Game Menu* presents you with several options.

Using the mouse, click on the **CAMPAIGNS** menu choice and the SELECT PLAYER dialog box will appear.

If this is the first time that you are playing the game you should type in your name and click on "OK." If you have played before you can click on your name in the selection window and then click on "OK." The next dialog box that will be displayed is SELECT A CAMPAIGN.



A "bullet" indicates a campaign that has been won.

Select **TRAINING** with the mouse pointer and then click on "OK" and the *Training Campaign Menu* will appear.

Click on any of the four Mission choices and then on the **ACCEPT** button and the Mission will start.



CONTROLLING THE GAME

The entire game can be played with a mouse. This manual concentrates on mouse commands. However, note that a joystick and keyboard may also operate along with the mouse and in some situations all three can be used at the same time.

*The **joystick alternatives** are discussed in pages 23–26 and **keyboard alternatives** are covered in **Appendix C**, pages 136-139.*

MOUSE

Clicking and Dragging



Certain passages will instruct you to “click” on an on-screen element with the mouse. Simply move the on screen pointer over the desired element and press the **left** mouse button. If you are instructed to “DRAG,” click on the relevant on screen element and **HOLD DOWN** the left button. “Drag” the on-screen element to the appropriate location while continuing to depress the left button, then release.

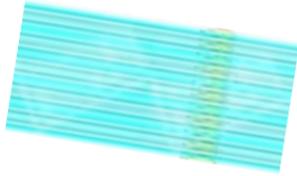


NOTE: Sometimes you will be asked to click on the right mouse button while making a selection. Clicking on the right button will often execute a variation of the command chosen with the left mouse button.

When you are asked to “click” without mentioning which button, you should click on the left button.

KEYBOARD

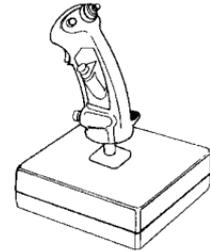
Shortcut Keys



The keyboard can be used along with the joystick and mouse. See the **Keyboard Commands** on page 136. For example, pressing “**C**” when the **Main Menu** is up takes you directly into the **Campaigns Menu**. Sometimes you will be asked to press two keys. For example, pressing the “**Alt**” key first and then the “**S**” key will bring up the **Settings Menu** during game play.

JOYSTICK

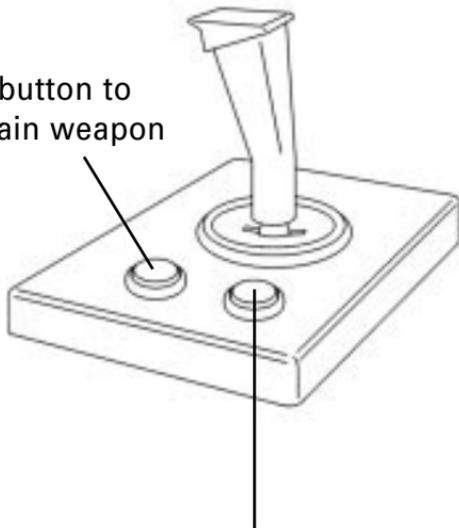
Driving and shooting the vehicles can also be done with a joystick. See **Input Devices** on pages 23-26 for instructions on using various joysticks. *ThrustMaster* and *CH Flightstick Pro* users should pay close attention to the standard joystick commands. *Thrustmaster* and other enhanced joystick users should look for specific instructions on using alternate controls.



INPUT DEVICES

Normal Joystick AUTO TURRET CONTROL

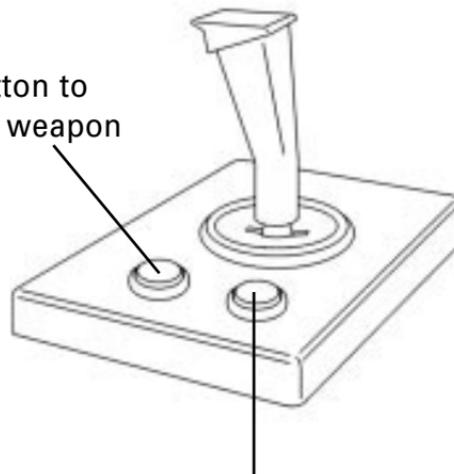
Press button to
fire main weapon



Press button once to lock on nearest target
Press button again to center turret

Normal Joystick MANUAL TURRET CONTROL

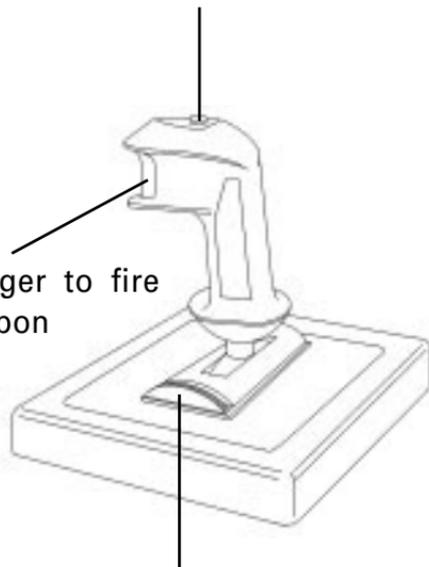
Press button to
fire main weapon



Press button to lock on nearest target

CH Joystick with Throttle AUTO TURRET CONTROL

Press button once to lock on nearest target
Press button again to center turret



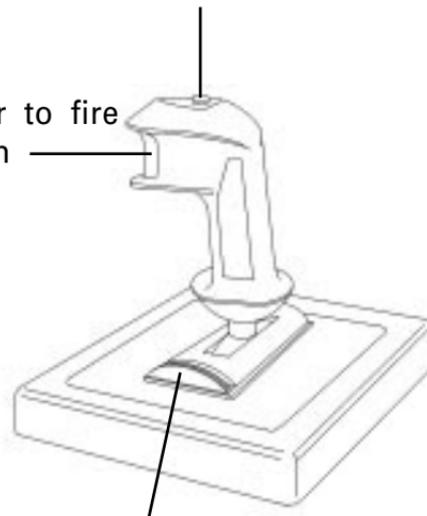
Press trigger to fire
main weapon

Rotate wheel to zoom Tacti-
cal Map

Joystick with Throttle MANUAL TURRET CONTROL

Press button to lock on nearest target

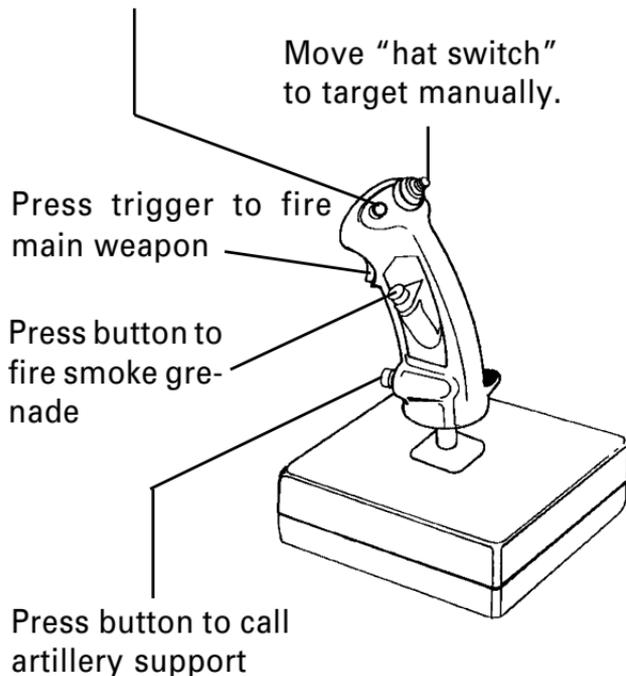
Press trigger to fire
main weapon



Rotate wheel to zoom Tac-
tical Map

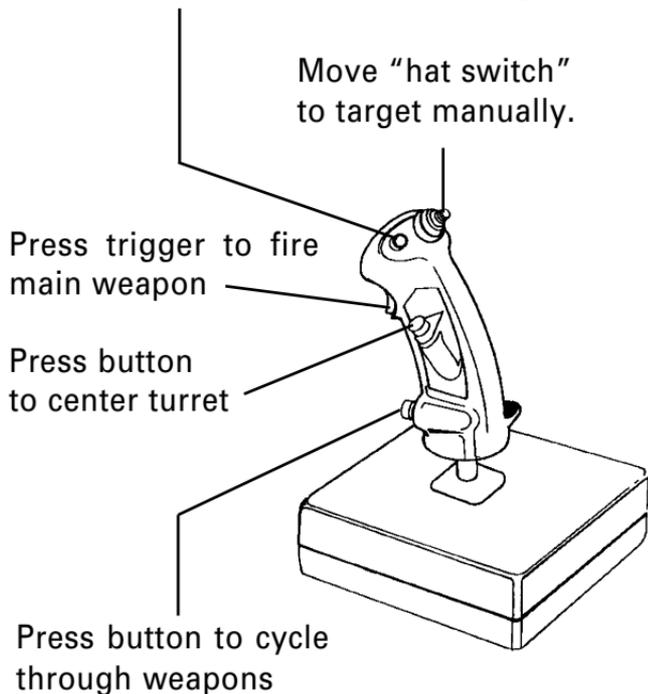
Thrustmaster FCS AUTO TURRET CONTROL

Press button once to lock on nearest target
Press button again to center turret

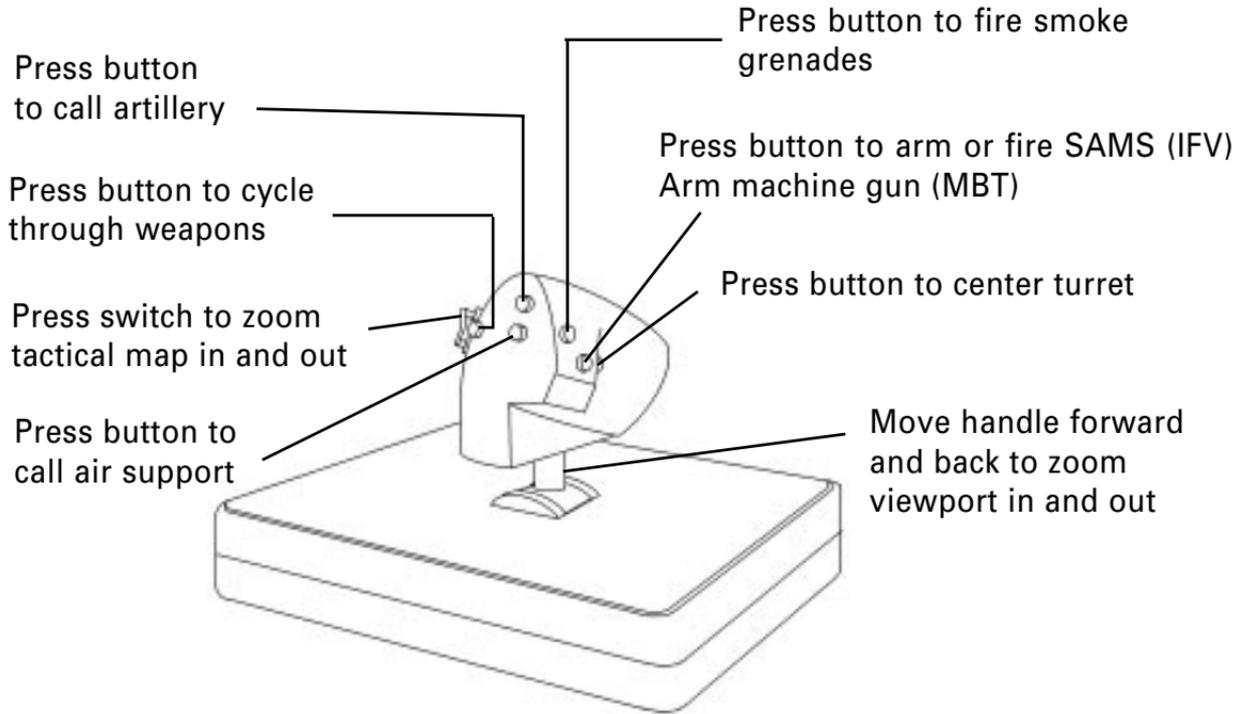


Thrustmaster FCS MANUAL TURRET CONTROL

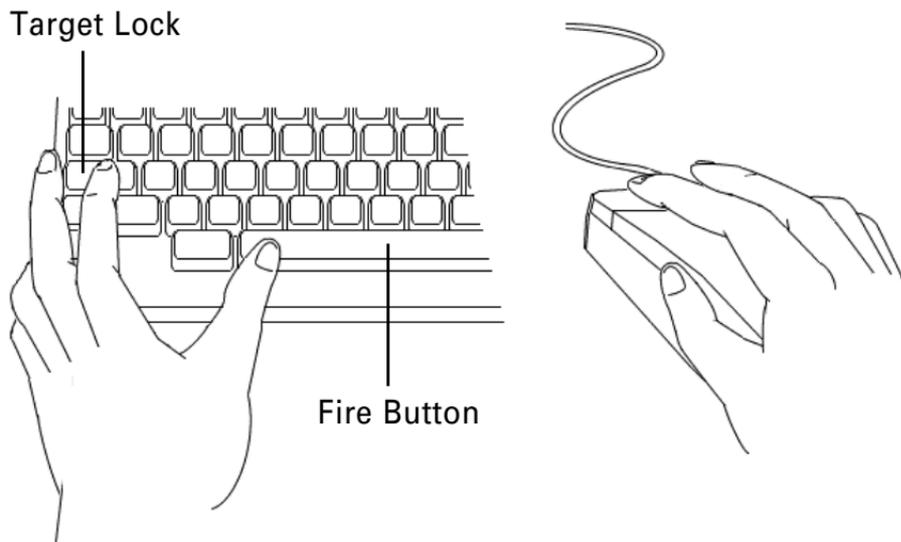
Press button to lock on nearest target



Thrustmaster WCS Mark I



Playing with Keyboard and Mouse



A really good way to play the game with a mouse and keyboard is to place the index finger of your left hand on the “Target Lock” (**Caps Lock** key) and the thumb on the “Fire Button” (**Spacebar**). Use your right hand to operate all other functions with the mouse.

PLAYING THE GAME

Vehicle Controls and Displays

Many of the weapons and control functions are common between all units and they have been standardized to get players up to speed with **ARMORED FIST** as quickly as possible. Though placement and results of these various controls and functions will vary from vehicle to vehicle, the functional aspect of interacting with them is generally the same.

Refer to the illustrations of the various vehicles below as you learn about weapons controls and displays particular to a given vehicle.

Switching Vehicles

In many battles in **ARMORED FIST** you are in control of several vehicles. You can be in charge of up to four platoons (a **Company**) each comprised of up to four vehicles.

Each platoon has a **Platoon Leader**. The rest of the units in the

platoon follow their leader in a pre-determined formation which can be reviewed and changed in the Company Status Screen (see Company Status Screen below for more options and information). If the Platoon Leader vehicle gets destroyed, then another vehicle in the platoon will automatically become Platoon Leader.

You can jump from vehicle to vehicle by pressing **TAB**. This will move you from vehicle to vehicle across all of your active platoons. Press "**Alt TAB**" to cycle through the vehicles in reverse order.

If the unit that you are in is currently under User Control and the Prompts Mode is on, you will be asked: "Do you wish to re-engage Auto Control?" If you do, either click on the "**Yes**" button or press **TAB** again. Any of these actions will make sure that the AI takes over control before you leave the unit.

Taking Command

Taking command of an operational field unit places you inside the MBT or IFV you've selected. When the simulation starts, the unit that you are placed in will be the 1st Platoon Commander and the auto control logic will be on. If you do nothing, you will go along for

NOTE: If you prefer to be prompted when switching vehicles, you can enable this automatic prompt by clicking on "Prompts" from the Selection Menu.



the ride and you can let the Artificial Intelligence (AI) do all the work. If you do this, you are likely to see some interesting action, but you will probably lose the battle. The battles have been set-up in such a way that they usually need some intervention from you in order to win.

You can take control of your unit in a variety of different ways. You can click on the Auto/User Control switch/indicator and it will alternately change from Auto Control to Manual. Clicking on any control button (e.g. Targeting Button) will also force your unit into manual control. If you are using a joystick, pressing on the target button will also put you into the **User Control** mode.

Once in the User Control mode, you have full control of your unit. You can set any of the units to Auto or Manual control. Any units left in the Auto mode will follow the platoon leader whether he is set to Auto or User mode.

Movement and Control

When you first “take command” of a unit, the first thing you will need to know is how to “drive” the vehicle. Movement and control commands are essentially normalized within **ARMORED FIST** regardless



Click on Auto/User switch to select either Auto or Manual control of vehicle.

NOTE: Many times you will not want to revert to Auto control even if you leave the unit. This way you can position and control your platoon more effectively in demanding situations.

of the type of unit engaged. This means that learning how to pilot an M1 will enable you to easily adjust when you later take command of a Bradley or T-80 in another battle.

The illustrations below will acquaint the user with the mouse operation of the various movement related controls and functions particular to a given unit. Again, while the screen placement of certain elements will change from one vehicle type to the next, all movement and control functions are consistent between vehicle types.

DRIVETRAIN CONTROLS

Gas and Brake Pedals



Brake



Accelerator

Although they look different in all the vehicles, the left pedal is always the brake and the right pedal is the accelerator.

When operating the game with a mouse, click on the gas pedal

(right pedal) to set the vehicle's speed. Once the tank has reached a certain speed, it will try to maintain that speed until something "changes its mind," be it brakes, a hill... or an enemy missile. Simply taking your foot off the accelerator won't bring your vehicle to a halt. You need to use the brakes (left pedal) to slow down quickly and to make these heavy vehicles come to a stop.

Steering



Click on either the left or right side of the steering control in order point the vehicle in that direction.

Click on the left side of the Steering Controls to turn the vehicle left and hold down the button as long as you want the steering action to continue. Release when you are heading in the desired direction. Use the right Steering Controls to turn right. When you're done changing the direction of the tank, the steering controls will center themselves and the tank will continue onward in the new direction in a straight line. Works just like

NOTE: The Drivetrain sub-systems, along with the Fire Control systems explained in this section are more intuitively worked with a joystick. The Joystick takes over the functions of the Gas and Brake Pedals, Steering, Target Lock and Fire Button. With enhanced joysticks such as the Thrustmaster FCS, the Manual Turret Features and some weapons selections can also be controlled from the joystick.

To avoid conflicts between joystick control and mouse/keyboard control, the mouse/keyboard controls related to some of these features such as steering are disengaged when a joystick is selected.

a car... a 70-ton, heavily-armored, fire-breathing car.

Keyboard Command: Hold down the **LEFT ARROW** key to turn left and hold it as long as you want the steering action to continue. Use the **RIGHT ARROW** key to turn right.

Gear Shift



The gear shift controls effect the kind of changes you'd expect of them. There is *Drive*, *Low*, *Neutral* and *Reverse*.

Click on the *Gear Shift Indicator* and hold down the button to "grab" the control. Drag the gear shift to the desired gear and release. *Drive* is the normal forward gear and works similarly to that of an automatic transmission in a car. If the vehicle encounters a hill that is too steep, the transmission will shift into *Low* and proceed. The transmission will upshift into *Drive* if conditions change. Shifting into *Neutral* will disengage the engine from the tracks, and shifting into *Reverse* will cause the vehicle to move

backwards when the accelerator is depressed.

Keyboard Command: Press **D** to shift into DRIVE; press **L** to shift into LOW; press **U** to shift into NEUTRAL; press **R** to shift into REVERSE.

NOTE: When using a joystick, the transmission will operate in full automatic mode and the gearshift knob will act only as a feedback indicator.



Speedometer

The speedometer display indicates the current speed of the vehicle.



Fuel Gauge

The fuel gauge indicates the level of fuel in the vehicle.

Viewport Display

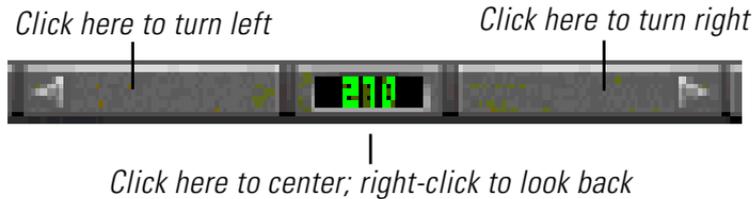


The viewport display is your window to the outside world. For ease of game play, it integrates the various vision and targeting systems available to the vehicle's crew. It enables you to view the world at various magnifications and to see at night using the **Viewport Magnify** and **TTS** or **IIT** controls. It is important to remember that this view is of the direction the turret is pointing and is not necessarily the direction the tank is moving.

(See the **AUTO / MANUAL TURRET CONTROL** Section on page 48.)

Viewport Slew Left / Right

While in User mode, you can use this control mechanism to rotate the turret to the left and right. You can watch the effect of this rotation in the Viewport Angle display. Click on to the right of the turret angle indicator on Viewport Slew control area and hold it down to rotate the turret right.



To rotate the turret left, click on the Viewport Slew control to the left of the angle indicator and hold down as described. This control is proportional. The closer to the Viewport Angle indicator that you click, the slower the rate of rotation. Release when the turret is pointing where you want it.

Keyboard Command:

Press "**Alt** →" (Alt + right arrow) to SLEW RIGHT.

Press "**Alt** ←" (Alt + left arrow) to SLEW LEFT.



Viewport / Turret Angle

Located at the bottom center of the Viewport display, the Viewport Angle is both an indicator and a control. The number in the viewport angle indicates the current viewing angle in degrees of rotation of the turret and viewport display from the centerline of the vehicle. In other words, 000° means the turret is pointing straight forward, while at 090° the turret is pointing at a right angle from the centerline, and so on.

If you click on the Viewport Angle control with the left mouse button you will center the turret and bring it to a 000° heading. Clicking on the same spot with the right mouse button will rotate the turret to the 180° mark and you will be looking straight back.



Viewport Magnify

Use the Viewport Magnify controls to set the level of magnification as seen through the viewport. You can choose 1x for an eye-normal view, or 3x or 10x magnification levels. To select, click on the magnification setting of your choice.

Keyboard Command: Press "+" (PLUS) to increase magnification and Press "-" (MINUS) to decrease magnification.

Night Vision

In U.S. tanks, the technology is called *Thermal Targeting System* (TTS) and in Russian tanks it is *Image Intensified Targeting* (IIT). TTS uses thermal sensing technology to generate an image even in the absence of visible light. Russian IIT uses light amplification/gathering to see in the “dark” by amplifying ambient light. The thermal technology of the U.S. has advantages in that it can see in utter darkness and can acquire target locks even if the enemy is using smoke grenades to obscure itself. The U.S. system creates a motion blur effect due to latent heat in the imaging optics. An additional advantage of TTS imaging is that even during the day it can see through visual obstructions such as smoke grenades.

The Russian-made optical technology offers sharper images, but has some noise associated with its use and can't distinguish between warm targets (tanks) and cool ones (boulders). **ARMORED FIST** faithfully reproduces the particular visual “quirks” of each system.

Mouse Command: Click on the TTS or IIT screen element to toggle thermal “night” vision on and off.

Keyboard Command: Press **F5** to toggle night vision ON and OFF.



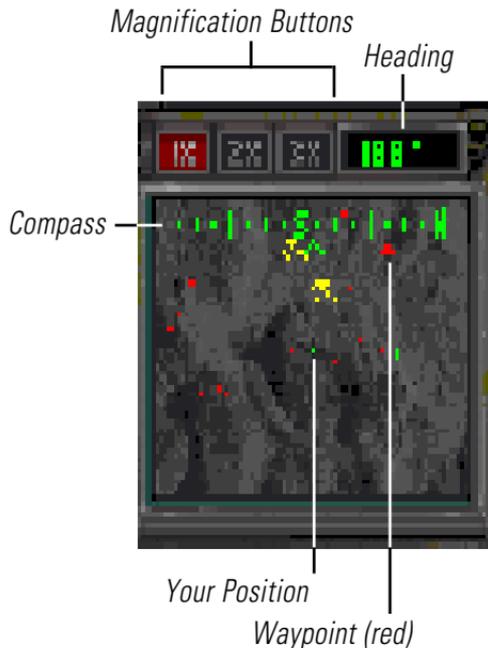
American Thermal Vision



Russian Light Intensification

Tactical Map

The Tactical Map or *Spin Map* gives you an overhead display of your current location and the surrounding topography. The Tactical Map display moves as you move, always keeping you in the center of the map (as a green dot). The front of your vehicle is always oriented with the top portion of the display. There is a compass at the top of the Tactical Map. Lining up the small red triangle with the “^” will keep the vehicle headed towards the next way-point. In the absence of a way-point, the red triangle is replaced with a yellow triangle. Lining up the yellow triangle with the green “^” will point the way to the nearest mission goal.



NOTE: Neither of the “^” indicators assures that you are following the best path to your destination. There may be obstacles such as mines or enemy patrols that can be avoided by selecting a different route. A good look at the Strategic Map in the CCV and experience with a particular mission will be the best way to complete the mission.

NOTE: You can select your own way-points before or during a battle from the CCV to sometimes execute a more effective attack. The new way-points will then guide you in the Tactical Map view.

Different units and game elements are indicated on the Tactical Map

by the following colors:

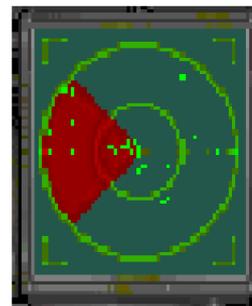
Enemy land vehicles & Artillery	Red
Friendly land vehicles & Artillery	Green
Mines	Yellow
Goals	Red Blinking
Friendly air support	Green Blinking
Enemy air support	White Blinking
Exploding Artillery	Fading Gray



You can set the Tactical Map to three different levels of magnification using these controls at the top left of the Tactical Map. The current magnification level is illuminated. Click on the level of magnification that you desire.

Threat Indicator Display

The threat indicator display differs from the tactical map in that it only displays enemy units. A “pie slice” indicates your turret facing relative to your hull. As in the Tactical Map, you are located in the center and the **front of the vehicle** is always oriented with the **top of the display**.



Weapon Select

Use the Weapon Select and Ammo controls to choose from the various ordnance available in the selected vehicle. The illuminated ordnance button indicates the ordnance currently selected for firing and loading, and displays the number of remaining rounds of that type of ordnance.



IMPORTANT: Ordnance changes are not instantaneous! Loading can, however, be monitored with the Weapons Status Indicator.

If a player selects a weapon other than the main weapon, the standard ordnance for that weapon is used. For example, the player does not need to “select” or “load” the machine gun since it does not fire out of the main weapon.

*NOTE: See the key reference chart for **weapon selection and activation keys** on page 138.*

Weapon Status Indicator



This display situated at the top of the Weapons Select buttons indicates when ordnance is being LOADED and when it is READY to fire.

ORDNANCE

■ **M1A2** and **T-80 tank commanders** have the following ordnance available for their main gun:

1. Sabot/APDS: Also known as an *Armor Piercing Disposable Sabot* (APDS), this round consists of an extremely heavy depleted uranium arrow-like bullet. It is contained in a shell “Sabot,” which guides it out the smooth *Main Battle Tank* (MBT) barrel and then falls behind, allowing the hard projectile to travel with incredible force to its destination where it will penetrate any armor currently devised. This is the best weapon to use to take out an MBT, but like the heat round described below, is not very effective against large soft targets. But perhaps the best reason not to use this weapon all the time is that you should save them for MBTs.

2. Heat: A shaped charge explosive round which is designed to melt a relatively small hole through the armor and then “inject” the interior of the vehicle with lethal fragments. The heat round is very effective against Infantry Fighting Vehicles (IFVs) and somewhat effective against MBTs. Because of its small diameter blast, it is not a particularly good weapon against large targets such as satellite dishes.

Main Battle Tanks: M1A2 Abrams for Western forces and T-80 for the Eastern forces.

Infantry Fighting Vehicles: M3 Bradley Cavalry Fighting Vehicles for Western forces and BMP-2 for the Eastern forces.

3. HEP: *High Explosive Plastic* used in the M1 is especially useful against “soft targets” such as infantry, lightly-armored vehicles and mission objective targets such as bunkers and satellite dishes. The high explosive round can take out an IFV and do real damage to an already disabled T-80.

4. HE: *High Explosive* used in the T-80 is functionally similar to the HEP round used in the M1.

5. MG: *Machine gun*. This is the co-axial machine gun for the various vehicles. It is a good weapon for soft targets such as fuel tanks and LPG tanks. Since it is an independent weapon from the main gun, it can be used while the main gun is loading without disturbing the process.

NOTE: The machine gun is also useful against enemy air targets.

■ The **IFVs main weapon system** has the following ordnance available:

1. TOW and AT-6: *Anti-Tank Missiles* (TOW for the Bradley and AT-6 for the BMP)—Armor-piercing explosive missiles suitable for either MBT or IFV targets. These weapons are extremely effective against all ground targets and with luck even helicopters. Their main limitation is that you carry very few of them.

2. HEI: *High Explosive Incendiaries* are particularly effective against IFVs and are the weapon of choice against all ground targets except MBTs. These weapons are devastating against enemy air support, if you can hit them.

3. SAM: *Surface-to-Air Missiles*. These missiles are the best way to take out enemy air support. If you get a lock on a helicopter you can be sure of a kill. Generally, an IFV left on Auto Control will automatically lock and kill enemy aircraft and defend its platoon. So take care of your IFVs, they will take care of you in case of an air attack. To use them manually with a mouse you must first ready them by clicking on the safety cover and after you have acquired lock, click on the SAM fire button.



*NOTE: Be prepared.
"Keep your caps up."*

Target Lock



The Target Lock control activates the vehicle's laser range finder and, if a target is found, locks on that target in the viewport display. The computer will maintain lock and adjust rotation and elevation automatically as long as line of sight with the acquired target remains unobstructed. Once target lock has been

broken, the target must be re-acquired in order to deliver ordnance to the target with any accuracy.

Mouse Command: Click on the **Target** Lock control to activate the laser range finder and lock on to available targets.

Keyboard Command: Press **ENTER** or **CAPS LOCK** to acquire a target.

Manual Aiming

Under some circumstances, it may be preferable to fire some weapons without getting a lock first. For instance, one can sweep across a field of fuel tanks with the machine gun rather than individually targeting every tank and then firing a single round. Another possibility is to call artillery on to a field of land mines and clear a path for your vehicles to get through.

To aim the weapons manually with the mouse, adjust the right/left position of the reticule by either Steering Left or Steering Right as explained above or by slewing the turret right or left. Move the reticule up or down by clicking above or below it in the

NOTE: For Thrustmaster joystick users, the reticule can be moved directly by using the "hat" switch.

Click above or below center of viewport to move turret up or down



Click to slew turret right or left

Viewport area. This motion is proportional, the reticule movement will be faster the further you click from the current position of the reticule.

There is one drawback to aiming manually. Since it is sometimes difficult to estimate distances in a computer monitor, there may be some trial and error involved in precise aiming. In the case of targeting artillery to blow up mine fields, keep an eye on the Tactical Map and see where the artillery shells hit relative to your target and adjust accordingly.

Keyboard Commands:

To slew turret sideways:

Press "**Alt** → " (Alt + right arrow) to SLEW RIGHT.

Press "**Alt** ← " (Alt + left arrow) to SLEW LEFT.

To slew turret vertically:

Press "**Alt** ↑ " (Alt + up arrow) to SLEW UP.

Press "**Alt** ↓ " (Alt + down arrow) to SLEW DOWN.

Firing Weapons



Bradley fire button



M1 fire button

The fire button fires the main weapon of the current vehicle. Generally, you should have a target lock before you fire the main weapon, but alternate

systems such as the Machine Gun and Artillery can be fired effectively without a target lock (see *Manual Aiming* section above).

Mouse Command: To fire the main weapon of the current vehicle, click on the FIRE button.

Keyboard Command: Press SPACEBAR to fire the selected weapon.

Joystick: Press the main button.

Smoke Grenades



Firing a smoke grenade has a similar effect as engine smoke, except that it is generally more effective and works better against TTS. Salvos of smoke grenades can be effective at eluding the enemy.

Keyboard Command: Press “9” to launch a smoke grenade.

NOTE: Smoke grenades need no target lock.

AUTO / MANUAL TURRET CONTROL

There are two ways that the Target Lock function can operate in the game. They are selected from the Settings screen:

Auto Turret Control

With Auto Turret Control once you have achieved a target lock your turret and main gun automatically track your target regardless of what direction your target is moving. The turret will automatically align itself with the direction of the tank travel as soon as you “break lock” either manually or if the target moves out of range.

This mode works particularly well if you are playing the game with a normal joystick. Pressing the target button will lock on the nearest target (if one is available). Pressing the target button again will break lock, center your gun and allow you to re-position your vehicle so that a different target can be acquired.

Manual Turret Control

When Auto Turret Control is turned off, the automatic repositioning of the turret is disabled. This means that you must keep track of the direction of

your turret (same as your view) and the direction that you are moving. This feature is useful for the sort of “on-the-fly” targeting that occurs when a number of enemy units are present, but is harder to manage, particularly for the beginner.

When the Manual Turret Control Feature is activated, do either of the following to align the turret to zero:

Mouse Command: A LEFT click on the turret degree indicator will automatically center turret forward at 000°, and a RIGHT CLICK will center the turret to the rear at 180°.

Keyboard: Press “*” or “/” to center the turret to a direction of 000°. Press “**Alt ***” or “**Alt /**” to look straight back at 180°.

Turret Control Settings

When you first enter **ARMORED FIST**, the turret control mode for the MBTs and IFVs is set to *Auto*. To change the setting to Manual Turret Control you must select the Settings Button on the Main Menu by either clicking on the icon with the mouse or pressing “**S**” on your keyboard (You can also access this menu from inside a vehicle at any time by pressing “**Alt S**”).

Engine Smoke



Engine Smoke (ENG SM) sprays fuel into the exhaust system of the vehicle, creating a cloud of viscous smoke which makes the vehicle harder to see at night. However, this makes your vehicle more visible during the day. Engine smoke is not very effective against vehicles equipped with night vision. To activate on the T-80, you can click on the engine smoke icon. When the control is illuminated, engine smoke is on. On other vehicles you can turn on/off engine smoke with the "**F7**" key.

Keyboard Command: Press "**F7**" to toggle *ENG SM* ON and OFF.

CCV



Move the cursor to the upper left hand corner of the vehicle screen and it will change to "CCV". If you now click the mouse, you will select the Command and Control Vehicle.

Pause

To temporarily pause the game, press "**F1**". To resume the simulation, press "**F1**" again.

AIR SUPPORT AND ARTILLERY

Air Support and Artillery are two additional external weapons systems that can sometimes be requested from your vehicle to great advantage.

Air Support

All battles have air bases although air bases may or may not have helicopters available. Helicopters are called in as follows:



With a target lock, you may request *Air Support* by either clicking on the *air support icon* in your vehicle or by pressing the “**8**” key. If air support is available, the helicopter will fly in from its base and will attack the location designated by the target lock. Once the target has been destroyed, the helicopter will attack other nearby enemies until it depletes its ammunition. If you ask for air support and you do not have a target lock, the helicopter will fly towards your location and then attack enemy targets in your vicinity.

The position of the air base relative to the helicopter’s destination will determine how long it takes for the help to get to the target. If you

are constructing a battle, you should take Air Base distance into consideration.

Helicopters will return to their base once they have finished their run and re-load. However, if the helicopter is shot down during a sortie, it will no longer be available. There may also be a delay before choppers are ready to be called. If air support is not available when you call it, it may become available later, so keep trying.

Keyboard Command: Press "**8**" to request Air Support.

Enemy helicopters work similarly, except that they are trying to destroy you. If, for example, you are playing the Western side and you hear "Hind, Hind, Hind...", it means that a Russian Hind is on its way towards your area. If you are in an MBT, you should fire a smoke grenade, try to get a target lock and then fire the machine gun until he either retreats or you take him down. If you take him down, that particular helicopter will not fly again.

IFVs will try to take helicopters down for you when in *Auto* mode. If you are in an IFV in *Manual* mode, you should try to get a lock on the chopper and fire a SAM at it. (See **SAM** on page 44.)

Artillery Support



Artillery is one of the most powerful weapons systems available to a commander and can be used to great advantage. A battle may have up to three artillery bases available. Artillery is “called in” similarly to helicopters. Get a target lock and either click on the Artillery icon or press “7”. If artillery is available, you will get confirmation and soon the shells will start falling. Make sure you are not too close to your target when calling for artillery support, or you could take a hit from “friendly fire”.

You may also call in artillery without a target lock. Shells will be directed through the manual aiming method. (See [Manual Aiming](#) page 45 for further information.) There may also be a delay before artillery is available. If at first it’s not available, keep on trying.

Artillery is carried on large trucks. If you get a target lock on an enemy artillery unit, you should destroy it so that it can no longer be called in. Likewise, you should protect your own artillery units from the enemy.

Keyboard Command: Press “7” to request Artillery Support.

MAIN MENU

After the opening animation sequence you are presented with the main menu and have several choices to consider. You may select a menu choice by clicking on it with the mouse, or by pressing the first letter of the menu choice on the keyboard.



Select Player



Player selection menu

Select Player allows the user to select a player from the **existing roster** of logged-on players or log-on as a **new player**. Logged-on players may continue campaigns at the last battle played.

Campaigns

In Campaign mode, you are choosing to embark on a series of interrelated battles which have an overall outcome that is dependent on your success in each mission.

Click on the CAMPAIGNS button. If you have not previously chosen or logged-in as a new player in the Select Player Menu, you will now see the *Select Player* menu where you select from a list of previously created players or you can log-on with a new name. Once you click the **OK** button, the *Select A Campaign* menu will appear.



Note: A "bullet" in front of a campaign name indicates a campaign that has been won.

Select A Campaign menu

If you have already selected a player, clicking on the CAMPAIGNS button will take you directly to the Select a Campaign Menu, where you can sign up for a new campaign or resume one already in progress. Make sure you have also selected the side, WESTERN or EASTERN, that you wish to call your own. Select a side by clicking on the WESTERN or EASTERN selections in the dialog box. Your selected side will glow red when active.

Battles

Battle selection menu

Battle mode is one good place for novice commanders to learn the ropes. In the Battle mode, you fight a stand-alone mission instead of an ongoing campaign. The battle menu choice takes you to the Select Battle Screen where you can load up individual battles. Select Battle lets you load any of the Campaigns you have in your FISTDATA directory.

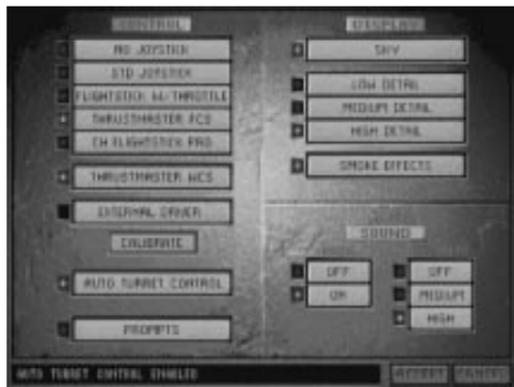
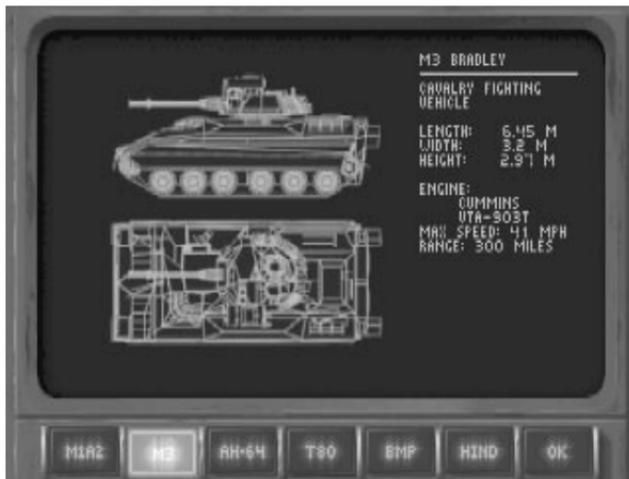


Battle selection is the only way to access battles that you have constructed using the Edit mode. (See *Edit Mode* section on page 79.) It is also from here that you can load pre-existing unlocked battles so that you will be able to use them as a starting point for your own battle designs.

Through this menu, you may also access battles which might otherwise require the successful completion of other battles were they accessed via the Campaigns menu selection. This menu also lets the player select between Eastern and Western hardware.

Review

REVIEW lets you inspect the various hardware you will encounter as a Task Force Commander. You can also read up on the technical specifications of these deadly war machines in the *Vehicles Description* section on page 141.



Settings

SETTINGS takes you to the Settings Menu, where you can adjust numerous game and hardware variables.

NOTE: Pressing both the "Alt" and "S" or "F12" keys during game play will also bring up the Settings screen.

About Fist

Shows the game credits screen and additional information about ARMORED FIST.

Quit

QUIT exits the ARMORED FIST program and returns you to the operating system.

SETTINGS MENU

The various selections described below let you tailor ARMORED FIST to your particular hardware and preferences. When you are comfortable with the adjustments you've made to the game settings, use the mouse and click on ACCEPT. To abort the changes you've made and return to the main menu, simply click on CANCEL.

Controls

In the controls column, you can choose from keyboard, joystick, enhanced joysticks and other input devices by clicking on the button with the name of your selection. Choose the input device connected to your system that you wish to use.

Check the *Input Devices* section, pages 23-26, for notes concerning specific joystick types.



Note: The red and black boxes to the left of the menu buttons indicate your selection. Using the mouse, you select from the available options by clicking directly on the button of your choice.

No Joystick

This is the default setting the first time that you play the game. Choose this selection when you are going to use the game with a keyboard and mouse only.

STD Joystick

Choose this selection when you have a standard IBM-type, two-button joystick attached to your computer.

Flightstick w/ Throttle

Choose this selection when you have a CH Products Flightstick with throttle control attached to your computer. This selection may also work with similar throttle-type joysticks.

Thrustmaster FCS

Choose this selection when you're using a Thrustmaster FCS.

CH Flightstick Pro

Choose this selection when you have a CH Products Flightstick Pro attached to your computer.

Thrustmaster WCS

Choose this selection when you have a Thrustmaster Weapons Control System (WCS) attached to your computer configured in its default DIP switch settings (Dip Switch Position 1 is ON – towards the numbers or towards the top of the joystick – with all other Dip Switches OFF).

External Driver

This button enables your computer's BIOS (Basic Input/Output System) to read the joystick. You would activate this feature when using non-standard joystick devices like those available for laptop and notebook computers. This button will toggle between the internal ARMORED FIST joystick code and the joystick support code in your computer's BIOS. For normal operation, the internal driver code is set as the default. For use of a non-standard joystick interface, refer to the manufacturer instructions for driver installation and enable the external driver type.

Calibrate

Regardless of which joystick type you have connected to the system, follow the on-screen instructions to calibrate your joystick for use with ARMORED FIST prior to playing the game.

NOTE: Remember to calibrate your joystick after choosing a new joystick or driver type.

Auto Turret

For advanced players, turning off this selection allows for independent turret and hull control (e.g., you can drive in one direction while looking at another) for all units. When this setting is turned off, the turret will function completely independently of the hull of any of the vehicles. (See the section on *Auto/Manual Turret Control* on page 48.)

Prompts

With the Prompts selection turned on, you will see this message whenever you attempt to jump from one vehicle to another. (See the section on *Switching Vehicles* on page 28.)



Display

The display settings let you set the level of visual realism that **ARMORED FIST** will utilize during game play. With slower computers it may help to turn off the sky display or lower the detail to achieve a faster graphics frame rate.



Sky

This selection toggles sky details, such as clouds, ON or OFF.

Low, Medium, High Detail

These selections adjust detail to best match the speed of your computer.

Smoke Effects

This selection allows for full use of translucent smoke effects in the game. It can be turned off if your computer runs too slowly.

SOUND SETTINGS

Music On / Off

Turns music on or off.

Sound FX Off, Medium, High

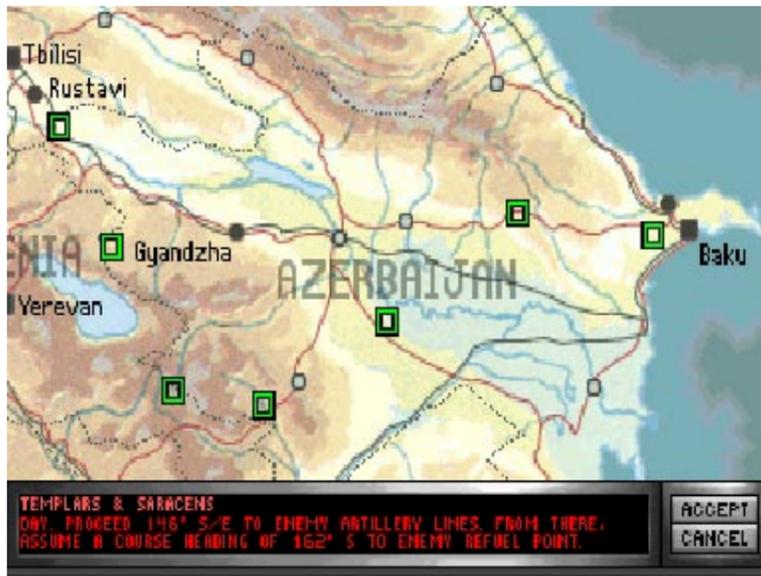
Sets sound effects volume or turns them off completely.



CAMPAIGN MAP

After selecting a new campaign or continuing an old one, you are brought to the *Campaign Map*. The green squares indicate the various missions or battles that you will face in the overall campaign.

The currently selected battle area will be blinking. You may click on each battle area on the map and read some general information about the mission in the *Campaign Map Display* at the bottom of the screen. Having read about the various missions, you should then choose one of them by clicking on the **ACCEPT** button on the lower right hand corner of the screen. Depending upon the campaign, access to certain battles may be restricted until you have successfully completed other battles in the campaign.



The colors of the battle selection boxes indicate the following:

COLOR	STATUS
Flashing	<i>Current selection</i>
Green	<i>Not completed but ready to play</i>
Blue	<i>Won and available for re-play</i>
Red	<i>Not currently available</i>

Clicking on the **ACCEPT** button will bring you to the Mission Orders screen.

Mission Orders

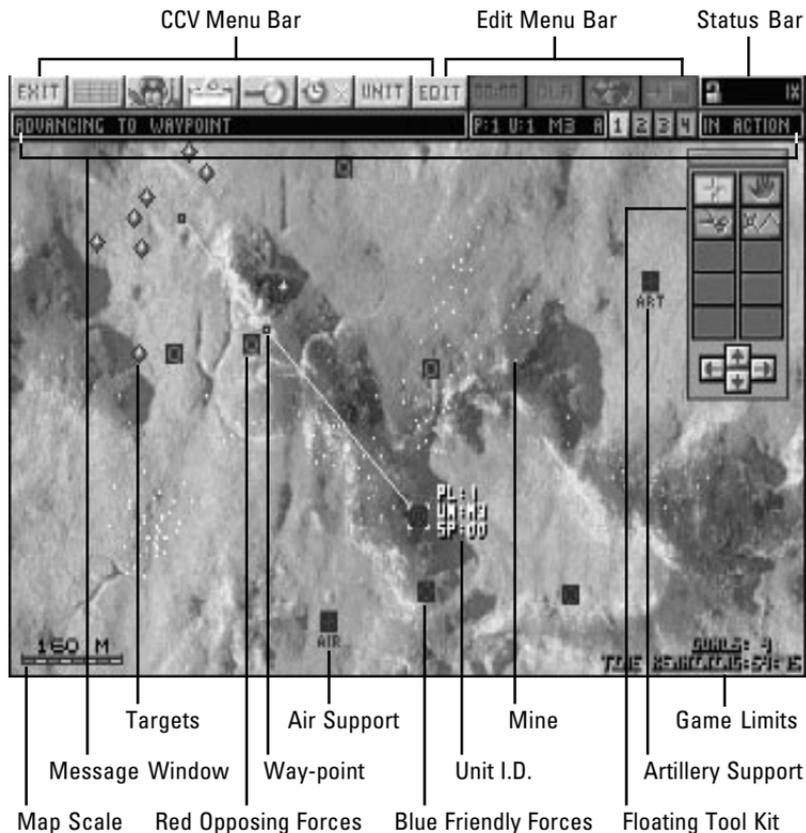
You will get the specific orders and any last minute intelligence in the Mission Orders Screen.

When you are ready to begin the campaign, click on **ACCEPT**. Otherwise, click on **CANCEL** to return to the Campaign Map.

Command & Control Vehicle (CCV)

After you have started a mission, you can at any time enter the Command and Control Vehicle (CCV) by either clicking on the upper left hand corner of the screen or by pressing the “**Esc**” key. The main feature of the CCV is a large overhead *Strategic Map* or *CCV Map* shown at right. Also in the CCV, you will find various menus, controls and displays.

The CCV remains behind friendly lines and out of “the action.” Unlike the tanks and personnel carriers, you cannot drive the CCV battle. From your enemy’s perspective, however, the CCV is just as deadly; it provides the “command and control” with which you orchestrate the entire operation.



The CCV operates in two modes: *CCV* and *Edit*. The CCV Mode allows you to change mission parameters for your side while the simulation remains running. The Edit Mode allows you to have total control of all available mission parameters for either side. The Edit Mode is fully described in the *Edit Mode-Advanced Features* section on page 84.

CCV Help

Because the CCV screen provides many features, a help function has been provided. Clicking on any CCV screen icon while holding down the “**Alt**” key will display a description of the selected function in the text area.

Strategic Map

The Strategic Map or CCV Map consists of a large area overhead map which can be zoomed in and out. It uses icons to represent the various battlefield elements. Blue icons always represent the side you are playing whether Western or Eastern, and red icons always represent the enemy.



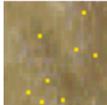
indicates **Main Battle Tank** or **IFV**



indicates an **artillery unit**



indicates an **air support base**



indicates a **known mine field** in CCV mode



indicates **other enemy targets**

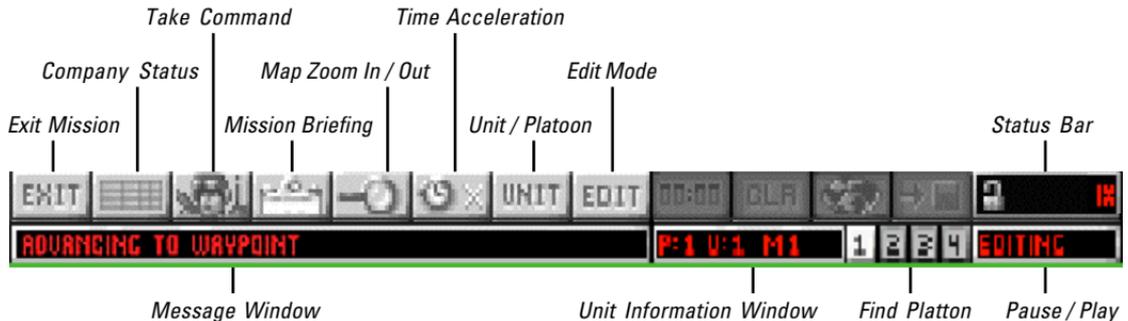
Being in the CCV does not make you omniscient. As a commander, it is important to remember that what you see on the CCV is only a representation of the battlefield based upon available reconnaissance. Updating of the field intelligence is handled automatically, but you are

dependent upon your field units to provide a constant flow of information.

If your units make no visual contact with the enemy, and no new information is provided to confirm or deny enemy positions, the data is eventually considered dated and these dated enemy positions will disappear from the map. Unfortunately, this does not mean that units have been destroyed, but have merely been “forgotten.” In the end it is up to you to maintain a mental assessment of the number and type of opposing forces.

CCV Menu and Status Bar

At the top of the CCV Map screen is a series of icons which make up the CCV Menu and Status Bar. From left to right the functions are as follows:



Exit Mission



Click on the Exit Mission icon to leave the CCV and terminate the current campaign or mission. A dialog box will appear asking the user to confirm the decision to leave. Click on YES to leave or NO to cancel. Upon exiting, you are shown the current mission statistics. Once you have read the stats you are taken back to the Main Menu.

To exit using the keyboard, press "**Alt Q**".

Company Status Screen

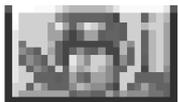


The Company Status button takes you to the Company Status Screen. Company Status lets you look at the roster of commanders and equipment in each platoon. It is also the place where you can specify the formation, movement and behavior patterns of your troops. (See *Company Status Screen* section on page 98 for details.)

Click on the Company Status button to enter the Company Status Screen. To get back to the CCV, click on the same button again.

NOTE: Your progress in the mission is not automatically saved while in Battle mode. In Campaign mode, your progress in the ongoing Campaign is automatically saved as of the last won mission. This enables you to continue the Campaign at any time.

Take Command



Click on this button to take you out of the CCV and into the midst of the action, placing you immediately into the MBT or IFV that is currently selected in the Strategic Map window below it.

To take command utilizing the keyboard, press the **SPACEBAR**.

Mission Briefing



The Mission Briefing button takes you to the *Mission Orders Screen* (see page 65) where you can review the standing mission orders.

To access Mission Briefing utilizing the keyboard, press "**Alt B**".

Map Zoom In/Out



The Zoom button zooms you in and out of the strategic map. Watch the legend in the lower left corner of the map for a numerical indication of the current scale in meters. Left-click on the Zoom button to zoom in. Right-click on the Zoom button to zoom out. There are 3 levels of magnification each zooming in and out.

For keyboard use, press the **PLUS** key to Zoom In. Press the **MINUS** key to Zoom Out.

Time Acceleration Switch



The time acceleration toggle tells you the current “rate” at which the simulation is running and lets you set that rate. “**1x**” is the normal simulation “real time.” Arm-chair generals who are impatient to see the outcome of their master strategy can accelerate the simulation up to 8 times the normal speed and watch it play out on the strategic map.

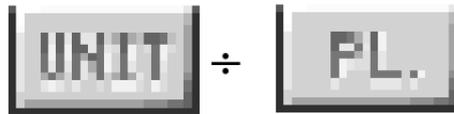
Left-click on the Acceleration button to accelerate the simulation. Right-click on the Acceleration button to decrease the setting.

Keyboard: press “**Alt +**” to increase time (faster) or press “**Alt -**” to decrease time (slower).

Unit / Platoon Switch

The *Unit / Platoon* icons switch between the UNIT view, where all

the units in a platoon are shown individually, and the grouped PLATOON view where only the platoon leader is shown.



NOTE: The various speeds at which the simulation executes will depend upon the speed of your system. Additionally, if you take command of a unit, or a shot is fired by anyone, the acceleration level is automatically reduced to normal time.

NOTE: This icon is a toggle. It reads “PL.” when in platoon mode and “UNIT” when in unit mode.

The UNIT view reveals the locations of every vehicle, while the PLATOON view shows only the location of the lead unit of each platoon.

Mouse Command: click on the Unit/Platoon Toggle to select between Platoon and Unit views of the strategic situation.

Keyboard Command: press “**Alt P**” to toggle between UNIT and PLATOON.

Editing Mode Button



The Editing/CCV switches between CCV Mode and Editing Mode. The CCV Mode is the one in which you play missions. The Editing Mode lets you access the EDIT-specific functions of the strategic Map (See *Edit Mode – Advanced Features* on page 84 for details on mission editing). If the mission is “locked”, you will be denied access to the Editing Mode while the current mission is loaded.

Keyboard Command: Press “**Alt E**” to toggle between Editing and CCV Modes.

NOTE: Since knowledge of the enemy's position and strategy is so important to a battle's outcome, many missions are locked so that the player can not look at how the mission is laid out.

Status Bar



At the far top right hand side of the Menu Bar, you find the Status Bar.

The lock symbol on the Status Bar lets you know whether the mission is locked or unlocked. Alternately, you can lock an unlocked mission by clicking on the lock icon. If you are in Edit Mode, you can then save the mission in the locked state.

The number on the right side of the Status Bar indicates the current time acceleration factor. It ranges from **1x** to **8x**. (See the *Time Acceleration Switch* section on page 72.)

Beneath the row of tactical map controls are three status displays which help you both in CCV Mode and in Editing Mode.

NOTE: Once a game is saved as locked, it can never be unlocked again.

Message Window



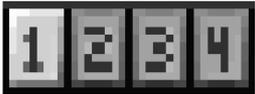
On the lower row of the Menu Bar, the left most display area is the Message Window. It is here that you will receive information related to the selected unit's status as well as other important information.

Unit Information Window



The Unit Information Window is provided as a handy reference which tells you the platoon and unit numbers, type of vehicle and control status (**A** for Auto and **U** For User) of the unit selected in the Strategic Map Window.

Find Platoon



Clicking on any of the highlighted buttons will center the platoon leader on the Strategic Map. The number of brighter buttons indicates the number of platoons in play at this time.

Pause/Play Indicator



When this indicator reads IN ACTION, the simulation and mission are underway. If it reads PAUSED or EDIT, it means the simulation is paused or in Edit mode, respectively. The simulation is always paused in both of these modes.

Floating Tool Kit (in CCV Mode)

The “Floating” Tool Kit provides tools for working on the Strategic Map. The Tool Kit can be picked up and moved to any convenient location within the Strategic Map Window. To move the Tool Kit, click on the bar at the top of the Tool Kit, hold down the button and then drag the Tool Kit to the desired location.

(See pages 89–97 for details of using its other tools accessible only in the Edit mode.)

In the **CCV** mode, the Tool Kit includes the following tools:

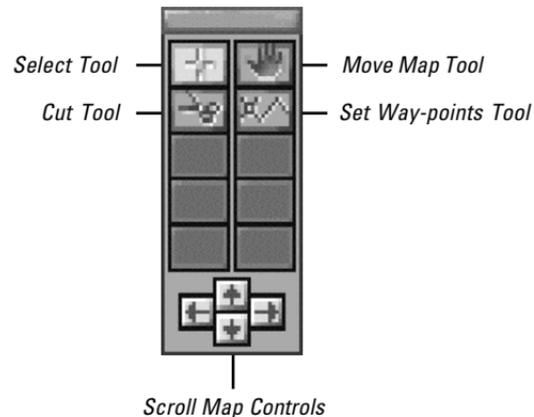
Select



Use the selector to select units and items in the Strategic Map display.

Mouse Command: Click on the Selector tool, then click on the unit or item you want to select with the Select cursor.

Keyboard Command: Press **U** to activate the tool, then use the Mouse as instructed above.



Move Map



The hand-shaped *Move Map* tool lets you quickly “slide” the map around to achieve the vantage you desire.

Mouse Command: Click on the Move Map tool, then click on the Strategic Map Display and hold down the left mouse button. You can “slide” the map in any direction while holding down the button. Release the mouse button when the display is where you want it.

Keyboard Command: Press **H** to activate the hand tool, then use the mouse as instructed above.

Set Way-points



When in Auto mode, the platoon leaders follow paths determined by way-points to get them to their destination. While in User mode, the red compass mark also points to the next way-point in a path. In most battles, when you look at the Strategic Map, you will see *paths* connecting small green squares. The *green squares* are known as *way-points*.

If you select the way-point tool, you can add points and paths by clicking on the destination. This will extend the path up to this new point. The platoon

leader will now follow this path if he is in Auto mode, or the next way-point will always appear as a green pointer on the vehicle's Tactical Map compass.

Cut

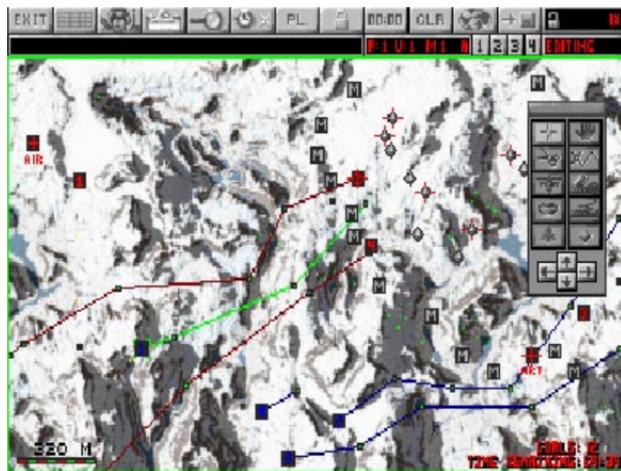


You can alter the paths that your vehicles will follow by cutting the way-points which link the paths. A left click will cut out an individual point. A right click on any of the inside points will clear all of the points.

You can use this tool along with the Set Way-point tool described above to create new paths and movement tactics in any battle. Experiment with this feature to get a feeling for it. It is a very powerful tool and its use can make some battles easier to win.

You can direct each of four individual platoons by going between the vehicle views and the CCV map. Re-direct the platoons by cutting and adding way-points. It's easy once you get the hang of it.

NOTE: Examine a battle from the CCV before you play it. You may find that some of the pre-set paths take you right through the middle of a mine field or some bad guys. You may want to cut out existing paths and lay down new ones that avoid the problem areas.



NOTE: In the Edit mode, the Cut tool will also cut tanks, all path points, targets, artillery, trees and mine fields.

EDIT MODE – Introduction

The Edit Mode provides many advanced features that let the user either edit pre-existing unlocked missions or create new missions.

To use the Edit Mode, you work within the CCV. You can enter Edit Mode by either clicking on the Edit button on the CCV Menu Bar after loading any unlocked mission or by loading any battle from either Battle or Campaign mode and then pressing “**Alt N**” to create a new mission.

Some major features distinguish the **Edit Mode** from the **CCV Mode**:

1. You can **place and edit enemy vehicles** along with their movement paths and battle strategy.
2. You can **set goals, air support, artillery** and even plant different types of trees.
3. You can **select different terrain** and determine whether the battle will take place in day, dusk or night.

*NOTE: In **Edit Mode** you use the CCV screen, along with a selection of additional tools which let you design your own missions. Mission design and use of the tools associated is covered in detail in the “**Edit Mode – Advanced Features**” section on page 84.*

CREATING AND MODIFYING BATTLES

ARMORED FIST gives the player total control over mission building. The built-in editor allows you to create everything from an extremely sophisticated battle to a small scenario.

Creating Your Own Battle:

Enter a battle either through the BATTLES or CAMPAIGNS selections of the Main Menu. Immediately select the CCV by pressing the **Esc** key. From the CCV press "**Alt N**". This clears the units on the map and unlocks the Edit Mode.



Click on the EDIT button once you have cleared the previous mission. This will make available all the Edit features.

Edit Features



Use the Edit features from the *Floating Tool Kit* and Menu bars to set up a battle.

After you have placed all of the friendly and enemy units, select the

Company Status Screen by pressing the **Tab** key or clicking on the *Company Status Screen Button* in the CCV Menu Bar. You can now set all of the platoon attributes for your side.



Company Status Screen Button

See the section on *Company Status Screen* on page 98 for details.

To set the other side's platoon attributes, press "**Ctrl S**". You will hear

a beep and you will see all of the other side's platoon attributes. Set them to your preference and exit the Company status. Make sure that you are in Edit mode and in the Company Status Screen before you press "**Ctrl S**".



Mission Save Button

You can now save your new battle by using the Mission Save feature in the Edit Menu Bar. The battle can now be selected through the BATTLES menu selection in the Main Menu.

I CMDR: STANDARD		ADV: ADV	TO CONTACT	FORM: COLUMN	SPEED: MAN
UNIT	DAMAGE	FUEL	CONTROL	AMMUNITION	
ABRAMS	000%	079%	AUTO	HEAT: 15, AFDS: 25, HEP: 20	
ABRAMS	000%	081%	AUTO	HEAT: 12, AFDS: 20, HEP: 15	
BRADLEY	070%	087%	AUTO	TOW: 2; HEI: 225; AP: 75; SAM: 2	
ABRAMS	006%	086%	AUTO	HEAT: 15, AFDS: 25, HEP: 20	
II CMDR: STANDARD		ADV: ADV	TO CONTACT	FORM: DIAMOND	SPEED: MAN
UNIT	DAMAGE	FUEL	CONTROL	AMMUNITION	
BRADLEY	000%	087%	AUTO	TOW: 2; HEI: 204; AP: 66; SAM: 2	
(BRADLEY)					
(ABRAMS)					
(ABRAMS)					
III CMDR: STANDARD		ADV: ROAD MARCH	FORM: WEDGE	SPEED: FAST	
UNIT	DAMAGE	FUEL	CONTROL	AMMUNITION	
BRADLEY	000%	091%	USER	TOW: 1; HEI: 214; AP: 68; SAM: 2	
ABRAMS	000%	090%	AUTO	HEAT: 15, AFDS: 25, HEP: 20	
BRADLEY	054XM	093%	AUTO	TOW: 2; HEI: 225; AP: 75; SAM: 2	
(BRADLEY)					
IV CMDR:		ADV:	FORM:	SPEED:	
UNIT	DAMAGE	FUEL	CONTROL	AMMUNITION	

Modifying an Existing Battle:

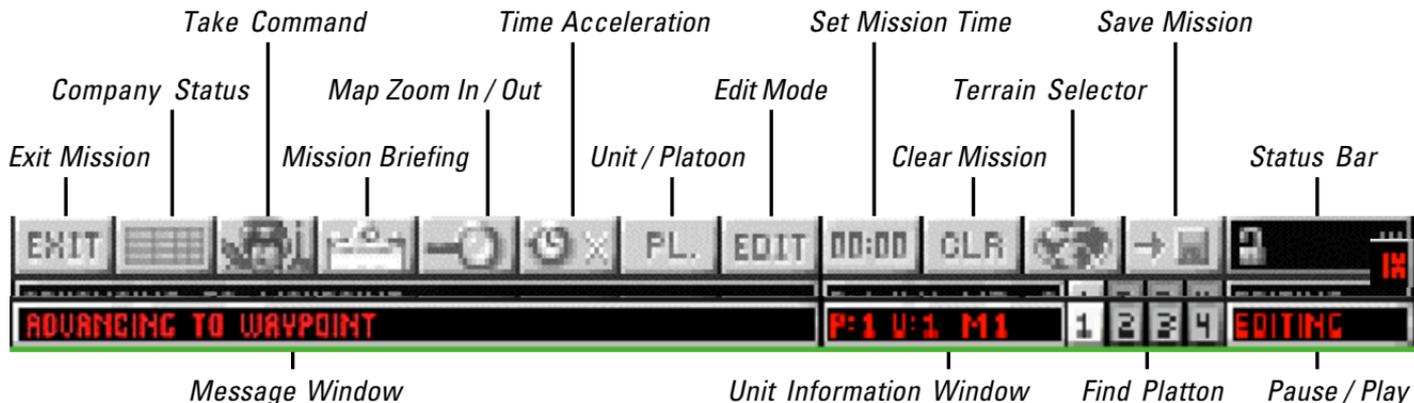
Enter a battle either through the BATTLES or CAMPAIGNS selections of the Main Menu. Immediately select the CCV by pressing the **Esc** key. The battle must be unlocked for you to be able to edit it. Check the CCV Status Bar to see if the lock icon is open. If the icon is in the closed position, the battle is not suitable for editing.



NOTE: You can lock the mission before saving it by clicking on the LOCK icon. Once you have saved a battle that is locked, however, you will never be able to edit it again.



Click on the EDIT button. This will make available all the Edit features from CCV Menu/Status bar below and the Floating Tool Kit shown on next page.



Use the Edit tools to set-up a battle.



Company Status Screen button

After having placed all of your units and your enemy's units, select the Company Status Screen by pressing the **Tab** key. You can now set all of the platoon attributes for your side. See the section on *Company Status Screen* on page 98 for details.

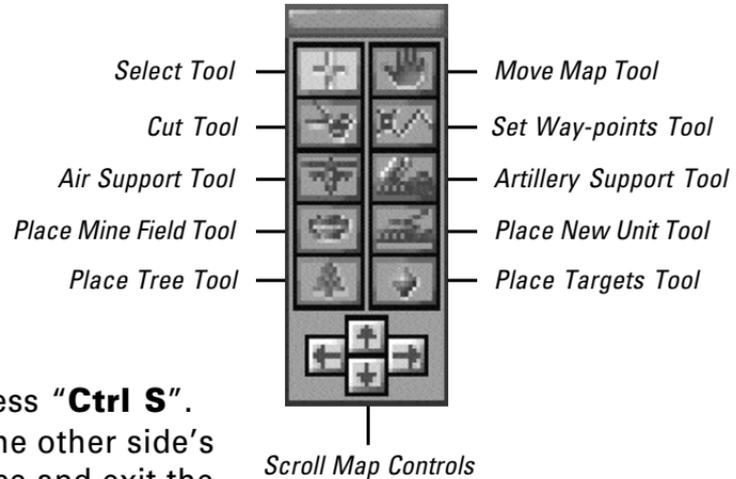
To set the other side's platoon attributes, press "**Ctrl S**". You will hear a beep and you will see all of the other side's platoon attributes. Set them to your preference and exit the Company status. Make sure that you are in Edit mode and in the Company Status Screen before you press "**Ctrl S**".



Mission Save Button

You can now save your new battle by using the Mission Save feature in the Edit Menu Bar. The battle can now be selected through the BATTLES menu selection in the Main Menu.

Floating Tool Kit (Edit Mode)



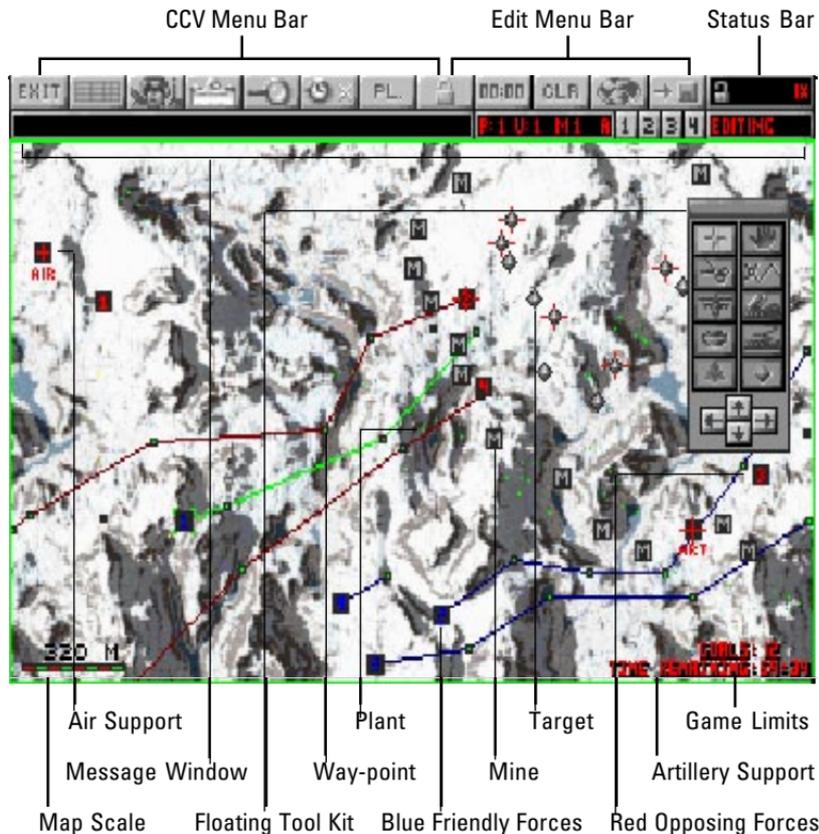
NOTE: You can lock the mission before saving it by clicking on the lock icon.

EDIT MODE – Advanced Features

The advanced edit features let you play field commander, playing out countless scenarios and giving you the capability of exchanging them with your friends. It is up to you to decide where to place the battlefield elements, and then set the battle in motion. When creating your first battles, it is advisable to start with a small number of elements and experiment. Experimenting with the powerful mission tools and playing with smaller scenarios will familiarize you with the fine points of **battle building**.

Entering Edit Mode

First, go to the CCV by entering a battle through either the BATTLES or CAMPAIGNS selections in the Main Menu.



Once you are in a vehicle, press **Esc**. This will put you inside the CCV with the game still running. Press **F1** to pause the game.

Depending on whether you want to build a new mission or modify an existing mission you will want to do one of the following:

- ▶ **To build a new mission:** You should clear the existing mission by pressing "**Alt N**".
- ▶ **To modify an existing mission:** The battle that you selected must be unlocked. You can verify that it is unlocked if the Lock Icon in the Status Bar is in the open position.



*NOTE: You can always start a new battle by pressing "**Alt N**". This will cause all items except the current terrain to be cleared.*

Lock Icon in open position



You are now ready to enter Edit mode. Click on the EDIT Icon or press "**Alt E**". The game will stop running and you will be able to edit all battle parameters.

Edit Icon



The Edit Icon switches between CCV Mode and Edit Mode. The CCV Mode is another way of watching and manipulating a battle while in progress. The Edit Mode lets you access the edit-specific functions of the CCV. If the battle is “locked” you will be denied access to the Edit Mode while the current mission is loaded.

Mouse Command: Click on the Edit Icon to switch between Edit and CCV Modes.

Keyboard Command: Press “**Alt E**” to toggle between Edit and CCV modes.

Set Mission Time



Time limit button

This dialog box lets you set a time limit for an edited mission. If a time limit is set, the battle must be completed before the time expires. Otherwise, the battle will have no time limit.

Clear Battle



Clear button

If you want to create a battle from scratch, use the Clear Mission (**CLR**) button. Clearing a mission will only remove the battle elements and terrain features that you chose. It will not clear the terrain itself.

Clicking on **CLR** deletes some or all of the units and features from the current map. A dialog box will appear asking you what elements you wish to clear. Proceeding will leave the terrain map plus whatever elements you chose not to clear.



Mouse Command: Clicking on the Clear Mission (**CLR**) button brings up a dialog box which asks what items you want to clear. Click on your choice.

Keyboard Command: Press "**Alt C**" to Clear Mission.

Terrain Selector



Terrain button

One of your first decisions in creating a battle is what type of terrain this battle will take place in. Choose using the Terrain selection tool,

located in the Edit Menu Bar along the top of the screen.

Clicking on the Terrain button lets you choose from the various topographies that are included with **ARMORED FIST**. Click on the Map icon and a dialog box will appear presenting you with a selection of possible maps upon which to base your mission. In the dialog box, use the scroll buttons to find the map you are interested in, then click to select it. When you have the map you want selected, click on **OK** to load it. The button in the upper right hand of the dialog box lets you select day, dusk or night.



Keyboard Command: Press "**Alt M**" to bring up the dialog box which will let you select various terrain maps upon which to lay out your mission.

Save Battle



Save Battle button

The Save Battle button brings up a dialog box which lets you save your current battle. Once you have saved a battle, it may be played from the Battle Menu like any other battle.

*NOTE: Periodically, and when you have completed your battle, you can save your work using the **Save Battle** button.*

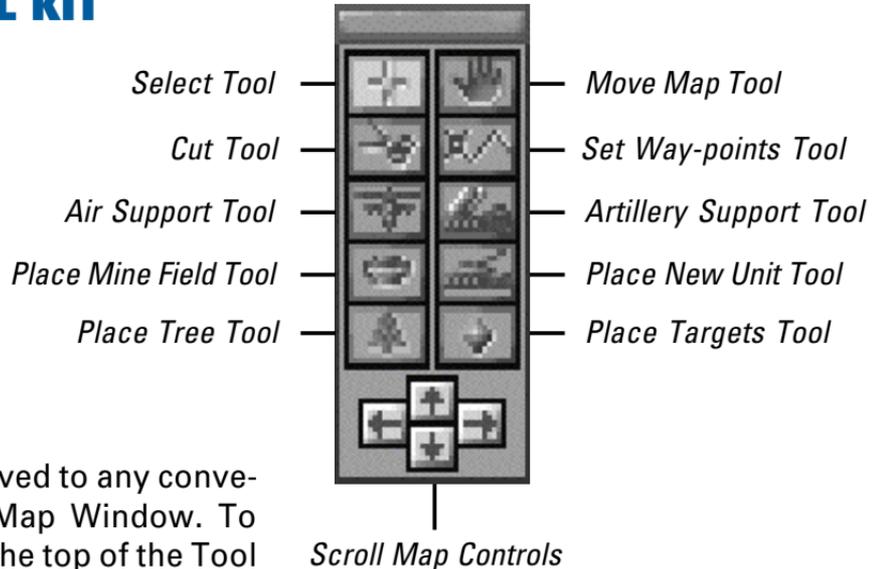
Click on the Save Battle icon and a Save dialog box will appear. Type in the name of the battle in the name field and click on **SAVE** to save your mission. Click on **CANCEL** to exit the process.

Keyboard Command: Press "**Alt W**" to bring up the Save Battle dialog box.

EDIT MODE FLOATING TOOL KIT

The Floating Tool Kit has limited functionality when in the CCV Mode. But in the Edit mode, six new tools become available along with new functionality for the existing tools. Most of the tools that you need to construct your battle scenario can be found in this Floating Tool Kit and the Edit Menu Bar.

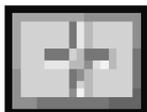
The Tool Kit can be picked up and moved to any convenient location within the Strategic Map Window. To move the Tool Kit, click on the bar at the top of the Tool



Kit, hold down the button and then drag the Tool Kit to the desired location.

In *Edit Mode*, in addition to the normal tools described earlier, the Floating Tool Kit includes the following additional functions and tools:

1. Select Mission Goal



Select Mission Button

While in Edit mode, the Select Tool has an additional function. Once selected in the normal fashion, you can *control-click* on any vehicle, artillery base or target and this will set them as Mission Goals. Mission Goals must be destroyed in order to successfully complete the mission.

You can tell that you have turned an object into a goal when a flashing cross appears over the object. Mission Goals also show up as flashing dots in the Unit Tactical Map and the Threat Indicator during game play. If you control-click on an item that is already a Mission Goal, it will no longer be a goal.

*NOTE: To “**control-click**” Hold down the “**Ctrl**” key while clicking on the left mouse button.*

2. Set Way-points (Enemy)



Set Way-points Button

In Edit mode, the *Set Way-points* works the same as in CCV Mode but now it allows you to also set points for the enemy.

Click on the desired enemy platoon leader unit with the Select tool. Click on the Set Way-points tool and lay down paths as described in the [Set Way-points section](#) on page 77.

NOTE: You must have at least one Mission Goal to have a mission that can be won.

3. Cut (Edit Mode)

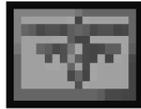


Cut Tool Button

In Edit Mode, the *Cut tool* allows you to cut not only your Way-points, but also the enemy's. It will now also cut out any vehicle, Target, Artillery Base, Trees or Mine Fields.

The Cut tool will cut whatever element is closest to the position of the click. If there are several cuttable elements close together, it may be wise to zoom in on the map as close as possible to avoid accidentally cutting the wrong thing.

4. Air Base Placement



Air Base Placement Button

Use the Air Base Placement icon to place Apache or Hind anti-armor gunship bases of operation. You may call in air support from any vehicle. Each side can only have one air base per battle. Placement can affect the outcome of a battle because it will impact the response time for air units to vector in on requested coordinates. Note that the Air Base Placement tool moves the Western or Eastern air base, it does not create a new one.

NOTE: Air bases are only visible in the Strategic Map map while in Edit Mode.

Mouse Command:

For **Western** air-base placement only, click on the Air Support Placement tool to select it, then *click* on the map to place the base.

For **Eastern** air-base placement only, click on the Air Support Placement tool to select it, then *right-click* on the map to place the base.

Keyboard Command: Press "**C**" to activate the tool, then use the Mouse as instructed above.

5. Artillery Base Placement



Artillery Placement button

This tool lets you place a standoff MRLS and anti-armor artillery unit in the battle zone. Each side is allowed up to three artillery bases per battle.

Mouse Command: For **friendly** artillery placement only, click on the Artillery Base Placement tool to select it, then *click* on the map to place the base.

Mouse Command: For **enemy** artillery placement only, click on the Artillery Base Placement tool to select it, then *right-click* on the map to place the base.

Keyboard Command: Press "**C**" to activate the tool, then use the Mouse as instructed above.

6. Place Mine Field



Place Mine Field button

This allows you to place mine fields on the map display. While mine damage will rarely permanently knock an MBT or IFV out of commis-

sion it will usually throw a track which will take some time to repair.

Click on the *Place Mine Field* button to select the tool then click on the terrain in the Strategic Map in which you want the mine field placed.

Right-click on the *Place Mine Field* button to choose the type of mine that you will be placing from the *Choose Mine* dialog box.

Chose Mine Dialog Box



NOTE: Track repair is done automatically, but it will take time.

There are three types of mines. They are:

<u>Mine Type</u>	<u>Description</u>
------------------	--------------------

Enemy	You cannot see it on your maps but it will explode if you go over it.
--------------	---

Friendly	You can see them but they will not damage your side.
-----------------	--

Rogue	You can see them and they will damage either side.
--------------	--

Keyboard Command: Press "**M**" to activate the tool, then use the mouse as instructed above.

NOTE: Mines are deadly and can be very frustrating particularly if you cannot see them. When creating your own missions, consider using only Rogue or Friendly mines.

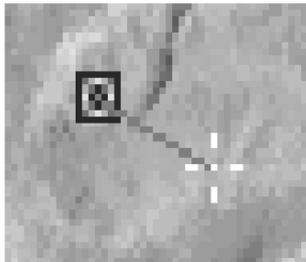
7. Place Vehicle



Place Vehicle Button

This tool lets you place new units into the Strategic Map. It's a good idea to have the location, type and side of the unit in mind before you select the tool.

Click on the *Place Vehicle* tool, then click on the map location to place the unit. When you place the new unit on the map, keep holding down the mouse button and drag away from the unit, a line will appear extending out from the unit in the direction you select. When the line indicates the direction you want the unit to face, release the mouse button.



When you release the button, a small dialog box appears offering the choice of vehicle type and whether to dig the vehicle in or not. Now use the pointer to make your selection and the vehicle will be positioned. If the buttons for either Western or Eastern tank types are dark and unselectable, it means that side is full and addi-

"Dug-in" Box 



New Vehicle
Dialog Box

NOTE: Once you have positioned the vehicle, you may want to set way-points for it using the Set Way-points Tool.

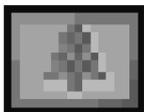
NOTE: Remember M1s and M3s are for the Western side and T80s and BMPs are Eastern.

NOTE: When placing vehicles, you may select the units to be placed in highly defensible Dug-in positions by clicking on the box in the upper right hand corner of the New Vehicle Dialog Box before selecting a vehicle.

tional units may not be added.

Keyboard Command: Press “N” to activate the tool, then use the Mouse as instructed above.

8. Place Tree



Place Tree Button

This tool lets you enhance the terrain features with trees, cacti and bushes.

Right-click on the Place Tree icon to select the tool. A dialog box will appear allowing you to select the desired flora from a short list. Click on the type of tree that you want to plant.

Tree Type Dialog Box



Click on the Place Tree icon to select the tool then click on the terrain in the Strategic Map in which you want a tree placed.

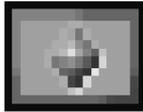
Keyboard Command: Press “T” to activate the tool, then use the mouse as instructed above.

NOTE: Dug-in vehicles are harder to hit, but the advantage goes away if the unit drives out of this location.

NOTE: A Dug-in vehicle will not follow his platoon leader unless you drive him out of the hole manually.

NOTE: Placing too many trees can slow down the simulation.

9. Place Target



Place Target Button

This tool lets you place various battlefield targets which can add variety to your battle. They also can be designated as Mission Goals to add objectives to a given battle design.

Mouse Command: Right-Click on the Place Target icon to select the tool. A dialog box appears allowing you to select a type of target from a short list.



Target Selection Dialog Box

Click on your selection, then click on the terrain location in the Strategic Map in which you want your target placed.

Keyboard Command: Press "T" to activate the tool, then use the mouse as instructed above.

COMPANY STATUS SCREEN

Management of the battlefield includes not only knowing where your troops and those of the enemy are deployed, but giving specific field orders to the various platoons under your control. The Company Status screen lets you issue standing orders and also enables you to quickly survey the status of your platoons by group and by unit.

Units which are 100% operational are displayed in white text. Units which have been destroyed or are otherwise out of commission appear in red text.

Aside from the platoon information available in this screen, you can also set platoon formation, advance orders, speed, even the level of competency of your platoon leaders.

Unit Type	% Of Damage	% Of Fuel	Formation	Individual Platoons
<div style="display: flex; justify-content: space-between; font-size: small;"> EXIT UNIT EXIT </div>				
I CMDR: STANDARD ADV: ADV TO CONTACT FORM: COLUMN SPEED: MAX				
UNIT	DAMAGE	FUEL	CONTROL	AMMUNITION
ABRAMS	000%	073%	AUTO	HEAT: 15, APDS: 25, HEP: 20
ABRAMS	000%	081%	AUTO	HEAT: 12, APDS: 20, HEP: 15
BRADLEY	070%	087%	AUTO	TOW: 2, HEI: 225, AP: 75, SAM: 2
ABRAMS	006%	086%	AUTO	HEAT: 15, APDS: 25, HEP: 20
II CMDR: STANDARD ADV: ADV TO CONTACT FORM: DIAMOND SPEED: MAX				
UNIT	DAMAGE	FUEL	CONTROL	AMMUNITION
BRADLEY	000%	087%	AUTO	TOW: 2, HEI: 204, AP: 66, SAM: 2
(BRADLEY)	-----	-----	-----	-----
(ABRAMS)	-----	-----	-----	-----
(BRADLEY)	-----	-----	-----	-----
III CMDR: STANDARD ADV: ROAD MARCH FORM: WEDGE SPEED: FAST				
UNIT	DAMAGE	FUEL	CONTROL	AMMUNITION
BRADLEY	000%	091%	USER	TOW: 1, HEI: 214, AP: 68, SAM: 2
ABRAMS	000%	090%	AUTO	HEAT: 15, APDS: 25, HEP: 20
BRADLEY	054XM	093%	AUTO	TOW: 2, HEI: 225, AP: 75, SAM: 2
(BRADLEY)	-----	-----	-----	-----
IV CMDR: ADV: FORM: SPEED:				
UNIT	DAMAGE	FUEL	CONTROL	AMMUNITION

The Currently Selected Unit

Control Status

Weapons Load

Speed

COMMANDER



This toggle lets you select from four different Commander types. You can select **Experienced**, **Standard**, **Rookie** or **No Action**. This selection affects the way this platoon leader will behave when engaging the enemy.

Picking one of the commander types will greatly influence the level of experience and thus the effectiveness of the particular platoon. For example, a Rookie will not find target locks as quickly as an Experienced or Standard Commander. An IFV operating under and Experienced Commander may be more effective against enemy air support.

In general, more experienced Commanders are also more adventurous. An Experienced Commander is more likely to let one of his units go out and chase a target than a Rookie who will keep all the units in as tight a formation as possible.

Mouse Command: Click on the CMDR window repeatedly until the desired setting appears.

NOTE: The No Action Commander will never take any action. This is a good way to have a platoon wait out of the way in reserve or to set up the enemy for some target practice.



This gives the platoon its basic “marching orders” for this battle. There are four settings, which include: *Road March*, *Advance to Contact*, *Opportunity* and *Patrol*.

Road March: Units will proceed along the way points dictated to them in Edit mode without deviation.

Advance to Contact: Units proceed along defined way points but will break formation to take opportunity targets. When targets are eliminated, units will resume original course.

Opportunity: Useful for dug-in units, these units will take shots of opportunity but will not move to pursue those targets.

Patrol: Useful for defensive missions, the units will proceed along a defined path in a loop. This can be used to have one platoon secure a perimeter around a particular area. This setting differs from the other three in that the tanks will keep circling from way-point to way-point.

Mouse Command: Point to the Advance window and click on it repeatedly until your desired setting appears.



Formation tells the platoon which Strategic formation to assume during its advance. There are six formations available, each appropriate for a different battle situation. They include:

Diamond: Traditionally, the Diamond formation is used as an “all around” formation. When advancing toward an objective, this formation gives each of the vehicles a clear line of fire in each quadrant. In ARMORED FIST, this formation can be used to protect the M-3 Bradley or BMP-2 while it acts in the air defense role. By putting the Bradley or BMP in the center rear, it can provide anti-helicopter cover to all of the other vehicles in the platoon.

Line: This formation is used when attacking or defending over relatively flat terrain. If the axis of enemy threat is known, using this formation allows the platoons’ maximum firepower to be placed on the enemy.

Column: This formation is used to move a platoon through a restricted area such as a mine field or mountain pass. It hinders offensive action and increases the likelihood of fratricide (Blue on Blue kills). While not the best formation for fighting, it is one of the best for moving your troops from here to there.

NOTE: When choosing a formation, pay special attention to the terrain, mines, surrounding hills, etc.

Wedge: This formation is used, like the line formation, to advance against an enemy when the threat direction is known. It provides a rapid and effective defense against an attack from the flank while still allowing effective fire in the forward quadrant.

Refuse Left / Right: A variation on the Wedge formation, Refuse Left / Right provides an even more effective defense from an attack from the flank while still allowing the platoon to effectively engage enemies in the frontal arc.

Mouse Command: Point to the “Form” window and click on it repeatedly until your desired setting appears.

SPEED



Speed gives the platoon orders as to the speed of the advance... or retreat for that matter. There are four speed settings from Slow to Maximum.

Mouse Command: Point to the Speed toggle window and click on it repeatedly until your desired setting appears.

SETTING THE ENEMY'S PARAMETERS

When constructing or modifying battles in Edit Mode, you can set the other side's platoon parameters by pressing "**Ctrl S**". You will hear a beep and you will then see all of the other side's platoon attributes. Set them to your preference. Make sure that you are in *Edit mode* and in the *Company Status Screen* before you press "**Ctrl S**".

ARMORED COMBAT STRATEGIES

When it comes to winning battles, it is not so much the tactics employed but how they are executed. Especially when well-equipped and technically-skilled units engage each other. This is what the game of chess and warfare have in common. Sound tactics are derived from “doctrine” based on experience and from understandings of a fighting unit’s capabilities. Simply put, it’s important to know what your units can and cannot do.

ARMORED FIST demands all of the above from the moment its players begin to organize their combined fighting elements. It is helpful for

ARMORED FIST players to understand the basics of “tactics and techniques” for combined armor and mechanized infantry forces, especially as they relate to commanders charged with employing MBTs and IFVs together against a formidable enemy.



ARMORED FIST players should desire knowledge of the following combat categories:

- *Preparation for combat*
- *Command, Control, Communications and Intelligence (C3I)*
- *Offensive Operations*
- *Defensive Operations*
- *Retrograde Operations*
- *Combat Support*
- *Combat Service Support*

While not all aspects which affect a modern combat scenario are left to the player to control and execute in **ARMORED FIST**, a sense of the real world tactical concerns and understanding of the above categories will enrich the player's ability to win and will place the **ARMORED FIST** experience in the larger framework of combat theory.

Preparation for combat includes the deployment of equipment and the setting up of pre-operational assembly areas. It also includes rehearsals, deception plans, and the conduct of reconnaissance and surveillance missions and of counter-reconnaissance. On a most grand scale, "Desert Shield" was a preparation phase for the combat that became "Desert Storm."

Command, Control, Communications and Intelligence (C3I) involves command and control via inter- and intra-unit communications, and also electronic warfare (EW) measures and, when possible, the development and updating of information about the enemy through electronic means.

Offensive, Defensive and Retrograde Operations are ways by which commanders employ combat personnel and equipment respectively in an attack, in a defense or during a deliberate withdrawal, respectively, so as to prevail against enemy forces.

Combat Support includes the artillery, fixed wing and helicopter close air support (CAS), plus the airborne and ground intelligence, air defense, engineer and special operations elements that commanders call upon for added firepower, enemy information and protection during combat operations.

Combat Service Support comprises the logistics that make it possible for things to work in combat; for instance, fuel and water, ammunition, and tank and IFV recovery vehicles, and forward maintenance units.

ARMORED FIST includes elements of *preparation for combat*, *C3I*, and *combat support*. As commander, you can utilize these elements in offensive, defensive or retrograde operations or missions.

PREPARATION FOR COMBAT

In the U.S. Army, the armor units and the mechanized infantry where IFV's exist comprise, within a Corps jurisdiction, first **divisions**, then **brigades/regiments**, followed by **battalions**, **companies** and **platoons**. Armies using the old Soviet military organizational concept organize their armor and mechanized infantry into tank and motorized rifle divisions, brigades/regiments, battalions, companies and platoons.

As the U.S./coalition force's swift and successful Desert Storm armor and mechanized infantry attack against Iraqi forces showed in 1991, it is the company-size task force, essentially a combined force element, that closes with the enemy as a cutting edge and brings about the decisive win in armored fighting. A task force of this type could include a command element, that is, a commander and his tank, and a mix of up to five armor and mechanized infantry (IFV) platoons. In **ARMORED FIST**, you are given control of a task force of up to four platoons.

Only if an Army has cargo/troop aircraft the magnitude of which equals that of the U.S. Air Force C-5 and C-17 planes and their former Soviet Union counterpart aircraft, can heavy tanks and IFVs be brought to a



*In **ARMORED FIST**, you are given control of a task force of up to four platoons.*

scene of battle across the oceans quickly in significant numbers. That is why the U.S. military preferred to pre-position armor units in Europe during the Cold War, and why sea-lift became so important during preparation for the Persian Gulf War.

Tactical Assembly Areas are pre-operational locations for any size combat unit forward of a Corps or regional warfare command headquarters. Ideally, a Tactical Assembly Area should provide:

- **Concealment from enemy air and ground observation**
- **Cover from direct enemy fire**
- **Terrain masking of electromagnetic signals** (Signatures)
- **Wide dispersion of units and their vehicles within the area** (Width between elements should be in accordance with knowledge of enemy capabilities and type of tactical operation to be executed)
- **Accessible and suitable entranceways and exit paths, but concealed from enemy observation**
- **Terrain allowing for the best possible forward observation of avenues of approach into the assembly area**
- **Best possible soil conditions and good drainage**

“Tactical Assembly Areas are pre-operational locations for any size combat unit forward of a Corps or regional warfare command headquarters.”

Generally, company-size combined MBT/AFV forces would occupy an assembly area in either of two ways— as *three platoons **abreast and properly dispersed**, with the company command element in the rear*, or as *three platoons occupying a circular perimeter, in “**wagon-train style**,” with the company command element in the center*. In almost all cases, the type assembly area chosen would be determined by both enemy and terrain conditions.

Using **ARMORED FIST**'s mission editing capabilities, you can lay out your units' initial positions in a formation which approximates the real-world requirements and conditions found in a “tactical assembly area.”

Rehearsals have been appreciated more by commanders who have had their share of combat than by commanders in peacetime armies. Unfortunately, in warfare there is often no time for the ideal rehearsal, which would occur on terrain similar to that where action is expected and involve all the units that would be required to participate in that action. Under time and geographical limitations, a different kind of rehearsal can occur.

As an example, simulations with either electronic or crude assets, even pebbles on the ground are used to symbolize tanks or IFVs and enemy

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positions. Also, tank and IFV commanders and gunners can practice operational requirements together or alone, while a company commander rehearses with platoon leaders as each leans over a map. **ARMORED FIST** players have the luxury of rehearsing maneuvers and analyzing problems through trial-and-error, counting early forays as “simulations” until they are ready to commit to the “real” encounter.

Deception planning should awaken a player’s shrewdness and knowledge of the enemy. It is designed to cause an enemy to believe that which isn’t there, really IS... and that which isn’t going to happen, WILL... and vice-versa.

However, “the deceiver is often the person deceived,” claims an experienced commander. “Especially,” he adds, “when a player allows deception to be the key element of a tactical operation, or when the time to execute a deception plan eats into the extra time that should be given the primary operational tactic, or when a player has failed to have a plan to execute should the deception activity fail.”

A deception activity might be the deliberate deployment of forces forward so that, while a retrograde operation or “retreat” operation is executed by some of the units, an enemy would expect an assault and move forces into a defense position from which the enemy would have to

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regroup in order to exploit his opponent's retrograde maneuverings. Or, a player could feint a defense or retrograde operation, when, in reality, an attack is planned.

Reconnaissance, Surveillance and Counter-Reconnaissance missions are planned and executed to provide a commander with information about the enemy. They can be active or passive measures. Active execution might involve the sending of units forward in advance of the main offensive force to observe the enemy visually or to patrol a unit's flanks. Passive means would include ground and/or airborne radar, *signal intelligence* (SIGINT) technologies and airborne *electro-optics* (EO).

In **ARMORED FIST**, the player will often want to designate a particular unit in a reconnaissance role by sending it forward of other units. Remember that all battlefield intelligence in **ARMORED FIST** is acquired by line-of-sight acquisition of your own units.

Counter-reconnaissance involves active and passive means as well. Sending units forward to "screen" the major force moving in the rear and to simultaneously identify, engage and destroy enemy reconnaissance elements, fits the active mode. Electronic interceptors which distort the enemy's technical reconnaissance and



data communications means, lies within the passive category.

In most armies, only battalions and higher echelon units have dedicated reconnaissance elements, for example, scout platoons. However, it is not uncommon for company-size combined forces to obtain scout elements and passive means for specific operations.

COMMAND CONTROL COMMUNICATIONS & INTELLIGENCE (C3I)

Command and Control (C2) of tactical operations is a process that consists first of planning and coordination, then direct and indirect oversight of the management and implementation of operational activity. It is a process carried out through effective leadership, effective communications and viable communications equipment and the gathering and dissemination of information about the enemy.

In **ARMORED FIST**, all C3I operations which the player has control over are accessible from within the **Command and Control Vehicle (CCV)**. At the company-sized, combined armor/fighting vehicle force level, the C2 element would comprise the commander's tank, the executive officer's tank and the fire support officer's tank, each equipped with state-of-the-art radio and other electronic communications and intelligence gathering systems and sub-systems. So effective are the electronic systems of

“In most armies, only battalions and higher echelon units have dedicated reconnaissance elements, for example, scout platoons.”

the modern age, that C2 and C3I have become synonymous with all military exploitation of the electromagnetic system. Without tank and IFV platoons/companies and higher echelon units having the ability to communicate via radio and other electronic means, defeat would be in the making.

Proper prior planning has been called, “the precursor of all achievement.” When a combat commander receives operational orders, he can begin his planning with the acronym, **METT**, for:

- **Mission** - What is it the commander’s unit has been told to accomplish?
- **Enemy** - Who and what it is that must be engaged or can impede operations?
- **Terrain and climate** - Which are the avenues of approach, or the best positions, that will lead friendly forces to the accomplishment of a mission?
- **Troops and Time** - *Which* friendly units are available for the mission, *when* must the mission be accomplished, and *how* should milestones and intermediate objectives be scheduled?

“Proper prior planning has been called, ‘the precursor of all achievement.’”

By using METT and finding and analyzing answers to the related questions, a commander can more easily decide on those actions that need to be performed. **ARMORED FIST** players can use METT to help them effectively assess the variables of a mission and also to help them design challenging missions. In **ARMORED FIST**, use the principles of METT before pressing the “**ACCEPT**” button.

OFFENSIVE OPERATIONS

Armor and IFV Offensive Operations include the following:

- *Movement to contact, and actions upon contact*
- *Attack to seize key objective*
- *Hasty attack*
- *Overwatch/support by fire*

Movement to Contact requires that the unit assigned the mission “gain and maintain” contact with the enemy. This usually occurs to prevent the enemy from interfering with the larger purpose of a parent unit and/or adjacent fighting elements.

*“**ARMORED FIST** players can use METT to help them effectively assess the variables of a mission and also to help them design challenging missions.”*

Attack to Seize Key Objective is used to neutralize a strong enemy position or mobile unit. It differs from the hasty attack in that the nature and power of the target is such that considerable planning and preparation must occur, followed by deliberate and phased actions.

Hasty Attacks amount to the taking advantage of opportunities, for example, the unexpected sighting of enemy forces that can be overrun with immediate action. Such tactics require very fast advance planning, or the automatic implementation that comes from a unit's well understood *standing operational procedures* (SOPs).

Overwatch/Support by Fire missions require that the assigned unit engage and "fix" the enemy, so that another organization can maneuver to attack a particular objective. In essence, it is the application of "back up" for a maneuver element.

Offensive Operations find combined MBT and IFV forces maneuvering from a tall list of options. Depending on terrain, the distance to an objective, time and enemy firepower, a commander may order all friendly vehicles to move in a single line, all abreast or some forward and others back, that is, echeloned. In the attack, armored systems

could leap frog, echelon to the right or left, or move scattered and independently as they exploit enemy weaknesses.

In **ARMORED FIST**, use the *Company Status Screen* to select various “Advance” and “Form” options as described in this manual.

Important for both real commander and **ARMORED FIST** players is that the offensive operation’s “scheme of maneuver” insure that it exploits existing terrain and bypasses or neutralizes natural and man-made obstacles, allows for rapid closing with the enemy, maintains attack momentum, takes advantage of enemy weak points, and protects friendly flanks and rear while weakening the enemy’s flanks and rear.

DEFENSIVE OPERATIONS

Defensive Operations include:

- *Defending within a sector*
- *Defending a battle position*
- *Defending a strong point*

Defending in a Sector asks that a unit fill gaps within a larger unit's defense area and also prevent forces from passing a defense area's rear boundary. In addition, the assigned unit secures portions of flanks and maintains contact with friendly units right and left, and front and rear.

Defending a Battle Position (BP) has armor and IFV units concentrating their fires against an enemy in order to maintain advantageous terrain—ground from which an attack or counterattack could ensue.

Defending a Strong Point means that the assigned unit must remain "in position" until ordered away by a higher unit commander. It is a tactic that is almost static in nature, requiring that commanders limit the mobility of their tanks and or IFVs only to actions that can help guarantee holding onto occupied terrain.

Defensive Operations have a bottom-line purpose: the positioning of weapon systems in ways that maximize firepower and prevent the enemy from dissipating and penetrating the friendly sector. It is therefore necessary that commanders consider a defense in depth, long range and close-in fires along obvious avenues of approach, alternate firing positions, and the uses of interlocking and supporting fires— all compatible with vehicle

“Defensive Operations have a bottom-line purpose: the positioning of weapon systems in ways that maximize firepower and prevent the enemy from dissipating and penetrating the friendly sector.”

dispersions and cover and concealment favoring survivability during enemy assaults and mortar, artillery and missile attacks.

In **ARMORED FIST**, players should use the mission editing features to designate selected units as “dug in” to assist in defensive operations.

RETROGRADE OPERATIONS

Retrograde Operations include:

- *Delaying in Sector*
- *Withdrawal*
- *Retirement of Forces*

Delaying in Sector has fighting units “trading space for time,” in effect, allowing the enemy to move it backwards but to a more advantageous position where it could engage the enemy long enough for other friendly units to execute a counterattack.

Withdrawal is conducted so that a friendly unit can “free” itself from any engagement with enemy forces until ordered back to battle by

a higher unit commander.

Retirement of Forces is an administrative move to the rear, where disengagement from the enemy is complete and engagement is perhaps taken up by a different friendly unit.

The intelligent application of the “Dug In” option, as well as hull-down defensive positions will assist the **ARMORED FIST** player in successful retrograde operations. Additionally, a “**diamond formation**” for re-treating units may prove useful in retrograde operations.

COMBAT SUPPORT

Combat Support, as a tactic, becomes a unit’s on-call and far-reaching extension of firepower. In every lateral and vertical direction, a unit’s firepower envelope expands from surface-to-surface, surface-to-air, air-to-ground and air-to-ground long-range guns, mortars, artillery and rockets, missiles and bombs. In addition, engineer units provide anti-mine support for armor and IFV forces. Without question, maneuvering a unit too far forward of fast access to indirect fire and aviation assets, puts it at risk in the combat environment.

Therefore, when developing a “scheme of maneuver” for the offense,

defense or retrograde, commanders are well advised to make certain of when and how *fire support* becomes immediately available. *Ground support fires* could come from a large assortment of weapons— 60 mm and 80 mm mortars, and 105 mm, 107 mm and 155 mm Howitzer artillery systems.

In the close air support (CAS) category alone, there could be made available A-7, A-10, F-16 and F-111 aircraft, depending on minimum ceiling conditions, target acquisition, the needed *time over target* (ToT), range requirements and enemy surface-to-air weapons. For even closer support, there may be AH-64 Apache helicopters firing Hellfire missiles, and for close-in and hasty air reconnaissance the Kiowa OH-58 helicopter.

In **ARMORED FIST**, the intelligent application of the air support and artillery support units made available in a particular mission constitute the *Combat Support* options available to the player. Failure to utilize *Combat Support* elements will likely lead to defeat.

COMBAT SERVICE SUPPORT

Combat Service Support elements operate well to the rear of forward units and include what could rightly be called life-supporting at-

tributes, among them ammunition storage and delivery, a fuel and oil storage delivery site, a weapons system/components replacement function, and communications equipment storage, maintenance and delivery; plus, vehicle engine replacement and maintenance facility, medical and hygiene services, food and beverage service, also a *prisoner of war* (POW) processing location and graves registration.

Being cut off from and losing the services provided by these brigade and battalion “logistics trains,” endangers company size elements by hastening the depletion of their combat effectiveness.

ARMORED FIST focuses its game play on the more exciting, forward operations aspect of the modern battlefield.

Conclusion

ARMORED FIST encompasses an extremely detailed rendering of the modern battlefield. **ARMORED FIST** emphasizes certain aspects of the grand set of equations which is modern armored combat, providing the player an exciting mix of strategy and real-time action. In a real war no part of this equation is insignificant, and every participant in a just conflict, a hero.

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Appendix A: VEHICLES DESCRIPTION

M1A2 Abrams

The M1 Abrams was named after **Creighton Williams Abrams** (1914-74) who served as deputy commander of the U.S. forces in Vietnam and later as U.S. army chief of staff from 1972-74. The Abrams was the first tank in history to be powered by a turbine engine. It is also equipped with advanced

Chobham ceramic armor, making it impervious to infantry HEAT

weapons. The A2 replaced the A1's 105mm gun with the 120 mm weapon and added numerous other improvements. The M1A2 variant is considered the best tank the U.S. Army has fielded to date.

The Abrams is, first and foremost, **a tank buster**. A fast, agile tank, **ARMORED FIST** commanders would do well to concentrate their Abrams resources against enemy heavy armor (T-80s) whenever possible, and leave the BMPs to Bradleys and opportunity situations.



M1A2 WEAPONS LOADOUT

- 120 mm smoothbore main gun with laser range-finding and target-tracking system
- 18 rounds of armor-piercing SABOT rounds for use with main gun
- 22 rounds of chemical explosive heat rounds for use with main gun
- Smoke grenade launchers (defensive only)
- 50 cal. machine gun with 2000 rounds

T-80

The T-80 reveals the efforts by the former Soviet Union to begin to field vehicles based on advanced technology, as opposed to overwhelming numbers, in response to advances introduced by the U.S. The T-80, like its Abrams nemesis, incorporates both a turbine engine and improved armor. It is also equipped with a laser range-finding mechanism and stabilized sights which automatically super-elevate the gun and which makes firing the main gun while moving a viable endeavor. The T-80's predecessor, the T-72, must stop to acquire and fire on a target, a disastrous shortcoming which proved itself such in the Gulf War - the first time modern U.S. and Soviet armor met in battle.



The same rule applies to Russian commanders as it does to American: use your T-80s to kill Abrams first, then Bradleys. Leave the soft targets to your BMPs.

T-80 WEAPONS LOADOUT

- 125 mm main gun with laser range-finding and target-tracking
- 10 armor-piercing rounds for use with main gun
- 13 chemical heat rounds for use with main gun
- 13 high explosive rounds for use with main gun
- 12.7 mm machine gun with 300 rounds

Bradley IFV

The Bradley Infantry Fighting Vehicle was originally created to provide a highly mobile, defensible means of getting infantry to the battlefield. The system was also designed to be highly adaptable, with two main variants. The M-2 IFV and the M-3 model. The M-3 is used as a scouting vehicle, replacing the infantry squad with 10 extra reloads for the potent TOW-2 heavy anti-tank missile.



The Bradley IFVs available to you as a commander in **ARMORED FIST** are the M-3 models, carrying a standardized loadout of equipment which suit them in an anti-armor capacity. If possible, find a hull down position to fire the TOWS at long range and take out some of the enemy vehicles. Watch out however, Bradley's were never intended to engage Main Battle Tanks for any extended period.

While your Bradley's two TOW missile launchers can destroy heavy armor, ideally your Bradley's will be deployed in such a way as to gather usable reconnaissance. Smart commanders will also utilize Bradley's to take out "softer" mission objective targets, freeing up available M1A2s to focus on heavy armor and BMP's.

BRADLEY WEAPONS LOADOUT

- 25 mm main gun with 900 rounds, divided between APDS and HEI.
- TOW missile launcher with 2 missiles ready and 10 reloads.
- 300 anti-tank
- 600 high explosive total available rounds
- 50 caliber machine gun with 2000 rounds
- Stinger (IR) SAM launcher with 2 rounds loaded

BMP 2

The Soviet-built BMP 2 is a respected Infantry Fighting Vehicle and serves as a formidable foil to the Bradley IFV. Typical of Soviet cold war doctrine, the BMPs were mass produced, with Soviet commanders hoping to field ten BMPs for every one or two Bradleys encountered. When the player finds himself up against numerically overwhelming forces, chances are the player has taken the U.S. side.



The same rules apply to the BMP as they do the Bradley. Deploy your T-80s to take out the enemy armor and use the BMPs for reconnaissance and taking out softer targets. Don't be a hero... your BMP is Abrams-bait.

BMP-2 WEAPONS LOADOUT

- One Spandrel launch tube with 10 reloads
- 300 armor-piercing and 400 high explosive rounds
- 12.5 mm machine gun with 2000 rounds.
- 2 SA-14 (Gremlin) SAM launchers

AH-64 Apache

The U.S. designers also looked closely at the Vietnam experience. The definitive gunship model to come out of that conflict was the *Cobra*. The mission of the attack helicopter was defined to be one of scouting, infantry support, and primarily tank busting or anti-tank work.



The Apache retained much of the basic design concepts introduced on the Cobra; a thin fuselage equipped with a cannon, short wings-mounting missiles/rockets, and retains the crew configuration with the pilot sitting above and behind the gunner. The Apache has many improvements including: twin turbine engines with IR suppressors; thermal targeting and laser-designating systems; advanced navigation aids and FLIR for the pilot; and increased crew armor and crash protection.

AH-64 APACHE WEAPONS LOADOUT

- 30 mm chain gun with 1200 rounds
- 2.75 in. folding fin rockets: 2 / 4 pods holding 7 or 19 rockets in each pod
- Hellfire anti-tank missiles: 4 missiles per rack, up to 4 racks
- Sidewinder air-to-air missiles: 2

Mi-24 Hind

The former Soviet Union has long been in the forefront of helicopter design. Their helicopters are larger and have a greater lift capability than those of the Western alliance. The designers in the East studied the debut of helicopter gunships during the Vietnam conflict, and came up with the MI-24 Hind. This helicopter is more of a flying tank than anything else produced before or since. It is impervious to rifle and light machine-gun rounds, and has proven difficult to down with even the 50 cal. heavy machine-gun. During the Afgan war, however, it was shown to be vulnerable to anti-aircraft missiles such as the U.S.-made Stinger and the British-



manufactured Blowpipe. If you hear the warning “HIND!! HIND!!” your best defense is to pop a smoke grenade, back up and start searching the sky for the bogey. If you have a Bradley nearby, you’re in luck, as they are equipped with Stinger missiles for just such an eventuality. Again - pop smoke, back up while searching and nail him.

Mi-24 HIND WEAPONS LOADOUT

- 23 mm cannon with 300 rounds
- Various combinations of 240 mm, 210 mm, 160 mm rockets, and FAB -250 free fall bombs: total external stores weight of 1500 Kg.
- 57 mm rockets in 16 or 32 round pods
- 4/8 AT-6 Spiral laser homing anti-tank missiles
- SA-14 Gremlin air-to-air missiles

Appendix B: SCREEN QUICK REFERENCE



M1A2 Controls

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D. Support Weapons	51, 53
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T80 Controls

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E. Auto/User Control	29, 30
F. Threat Indicator	40
G. Fire Button	46
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I. Engine Smoke	50
J. Support Weapons	51, 53
K. Tactical Map Features	40, 39
L. Tactical Map	39
M. Turn Right	32
N. Accelerator	31
O. Gear Shift	33
P. Brake	31
Q. Turn Left	32
R. Speedometer	34
S. Weapon Panel	41
T. Weapon Status	41



M3 Controls

SUBJECT	PAGE
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C. Turret Control	36
D. Targeting Features	38, 44
E. Tactical Map	39
F. Fuel	34
G. Speedometer	
H. Temperature/Oil	
I. Auto/User Control	29, 30
J. Weapons Status	41
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L. Support Weapons	51, 53
M. Fire Button	46
N. Smoke Grenade	47
O. Gear Shift	33
P. Map Magnification	40
Q. Threat Indicator	40
R. Turn Right	32
S. Accelerator	31
T. Turn Left	32
U. Brake	31



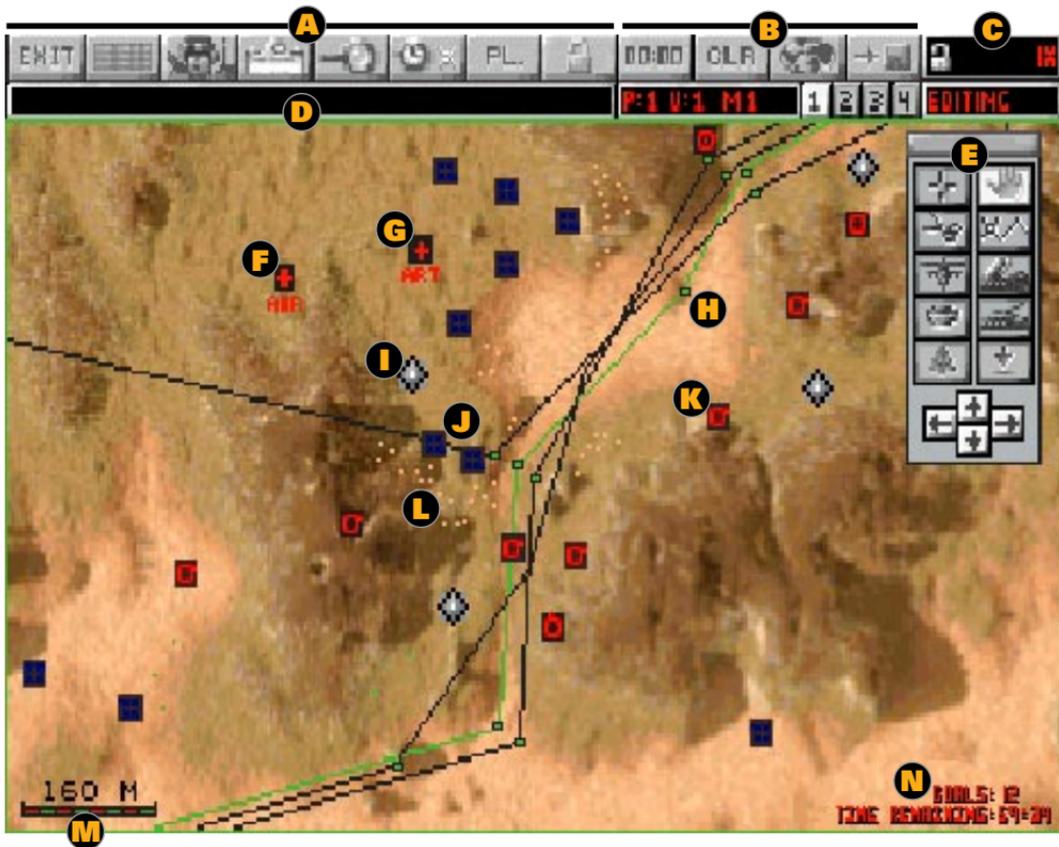
BMP2 Controls

SUBJECT	PAGE
A. Exit to CCV	66, 50
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D. Targeting Features	38, 44
E. Auto/User Control	29, 30
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O. Smoke Grenade	47
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Q. Gear Shift	33
R. Turn Right	32
S. Accelerator	31
T. Support Weapons	51, 53
U. Fire Button	46



External View Controls

SUBJECT	PAGE
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E. Tactical Map	39
F. Magnification	40
G. Support Weapons	51, 53
H. Turn Right	32
I. Speedometer	34
J. Fire Button	46
K. Accelerator	31
L. Gear Shift	33
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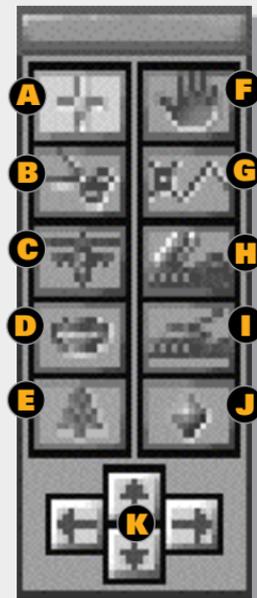
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EXIT [Grid] [Map] [Back] [Forward] [X] [UNIT] [EDIT] [0000] [CLR] [Enter] [W]					
I	CMDR:STANDARD	ADV:ADV TO CONTACT	FORM:COLUMN	SPEED:MAN	
UNIT	DAMAGE	FUEL	CONTROL	AMMUNITION	
ABRAMS	000X	079X	AUTO	HEAT:15, APDS:25, HEP:20	
ABRAMS	000X	081X	AUTO	HEAT:12, APDS:20, HEP:15	
BRADLEY	070X	087X	AUTO	TOW:2; HEI:225; AP:75; SAM:2	
ABRAMS	006X	086X	AUTO	HEAT:15, APDS:25, HEP:20	
II	CMDR:STANDARD	ADV:ADV TO CONTACT	FORM:DIAMOND	SPEED:MAN	
UNIT	DAMAGE	FUEL	CONTROL	AMMUNITION	
BRADLEY	000X	087X	AUTO	TOW:2; HEI:204; AP:66; SAM:2	
[BRADLEY]	-----	-----	-----	-----	
[ABRAMS]	-----	-----	-----	-----	
[ABRAMS]	-----	-----	-----	-----	
III	CMDR:STANDARD	ADV:ROAD MARCH	FORM:WEDGE	SPEED:FAST	
UNIT	DAMAGE	FUEL	CONTROL	AMMUNITION	
BRADLEY	000X	091X	USER	TOW:1; HEI:214; AP:68; SAM:2	
ABRAMS	000X	090X	AUTO	HEAT:15, APDS:25, HEP:20	
BRADLEY	054XM	093X	AUTO	TOW:2; HEI:225; AP:75; SAM:2	
[BRADLEY]	-----	-----	-----	-----	
IV	CMDR:	ADV:	FORM:	SPEED:	
UNIT	DAMAGE	FUEL	CONTROL	AMMUNITION	

Company Status Screen

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Appendix C: **KEYBOARD COMMANDS**

MAIN MENU SCREEN

<i>Action</i>	<i>Key</i>
<i>Select Player</i>	P
<i>Get Campaigns Menu</i>	C
<i>Get Battles Menu</i>	B
<i>Go to Unit Review Screen</i>	R

<i>Action</i>	<i>Key</i>
<i>Settings Menu</i>	S
<i>About ARMORED FIST</i>	A
<i>Quit the Game</i>	Q

BATTLE MAP SCREEN (when playing via CAMPAIGN)

<i>Action</i>	<i>Key</i>
<i>Play currently selected battle</i>	Enter
<i>Select next available battle on map</i>	Tab

<i>Action</i>	<i>Key</i>
<i>Return to the Main Menu</i>	Esc

COMPANY STATUS SCREEN

<i>Action</i>	<i>Key</i>
<i>Switch sides (when EDIT is on)</i>	Ctl + S

<i>Action</i>	<i>Key</i>
<i>Menu: Back to regular CCV screen</i>	TAB

CCV SCREEN

Action	Key
<i>Menu: Abort the Mission</i>	Alt + Q
<i>Menu: Show / Hide Company Status</i>	TAB
<i>Menu: Command Tank (jump in)</i>	Spacebar
<i>Menu: Mission Briefing</i>	Alt + B
<i>Menu: Zoom map (in)</i>	+ (plus)
<i>Menu: Zoom map (out)</i>	- (minus)
<i>Menu: Time Factor (faster)</i>	Alt + +
<i>Menu: Time Factor (smaller)</i>	Alt + -
<i>Menu: Pause / Unpause</i>	F1
<i>Menu: Show Platoon / Unit</i>	Alt + P
<i>Menu: Edit (Const. set On / Off)</i>	Alt + E
<i>Menu: Clear (Const. set feature)</i>	Alt + C
<i>Menu: Choose Map</i>	Alt + M
<i>Menu: Save Mission</i>	Alt + W
<i>Center on Platoon 1 leader</i>	1
<i>Center on Platoon 2 leader</i>	2
<i>Center on Platoon 3 leader</i>	3
<i>Center on Platoon 4 leader</i>	4
<i>Center on selected unit</i>	*

Action	Key
<i>Settings Screen</i>	Alt + S
<i>Toolbar: Unit move mode (cross)</i>	U
<i>Toolbar: Unit move mode (hand)</i>	H
<i>Toolbar: Cut mode (scissors)</i>	X
<i>Toolbar: Path mode</i>	P
<i>Toolbar: Airbase mode</i>	C
<i>Toolbar: Artillery mode</i>	A
<i>Toolbar: Minefield</i>	M
<i>Toolbar: Add Tank mode</i>	N
<i>Toolbar: Tree mode</i>	T
<i>Toolbar: Place hardened targets</i>	O
<i>Scroll map up</i>	↑
<i>Scroll map down</i>	↓
<i>Scroll map left</i>	←
<i>Scroll map right</i>	→
<i>Scroll map up / left</i>	Home
<i>Scroll map up / right</i>	PageUp
<i>Scroll map down / left</i>	End
<i>Scroll map down / right</i>	PageDown

ALL TANK CONSOLE SCREENS

Action	Key
<i>Accelerate Tank (Gas Pedal)</i>	↑
<i>Decelerate Tank (Brake Pedal)</i>	↓
<i>Turn to the left</i>	←
<i>Turn to the right</i>	→
<i>Shift into DRIVE</i>	D
<i>Shift into LOW</i>	L
<i>Shift into NEUTRAL</i>	N
<i>Shift into REVERSE</i>	R
<i>Slew turret to the left</i>	Alt + ←
<i>Slew turret to the left (alternate)</i>	Z
<i>Slew turret to the right</i>	Alt + →
<i>Slew turret to the right (alternate)</i>	X
<i>Raise the gun barrel</i>	Alt + ↑
<i>Raise the gun barrel (alternate)</i>	PgUp
<i>Raise the gun barrel (FAST)</i>	Alt + PgUp
<i>Lower the gun barrel</i>	Alt + ↓
<i>Lower the gun barrel (alternate)</i>	PgDwn
<i>Lower the gun barrel (FAST)</i>	Alt + PgDwn
<i>Center the turret and gun</i>	*

Action	Key
<i>Viewport Magnify increase</i>	+ (plus)
<i>Viewport magnify decrease</i>	- (minus)
<i>Map Magnify Increase</i>	>
<i>Map Magnify Decrease</i>	<
<i>Go to next tank</i>	Tab
<i>Go to previous tank</i>	Alt + Tab
<i>PwrKey: Go to next tank w/o prompt</i>	Ctl + Tab
<i>Acquire a target lock</i>	Enter
<i>Acquire a target lock (alternate)</i>	Caps Lock
<i>Arm 1st weapon</i>	1
<i>Arm 2nd weapon</i>	2
<i>Arm 3rd weapon</i>	3
<i>Arm 4th weapon</i>	4
<i>Arm a SAM (M3 & BMP only)</i>	5
<i>Fire a SAM (M3 & BMP only)</i>	6
<i>Request Artillery Support</i>	7
<i>Request Air Support</i>	8
<i>Fire Smoke Grenade</i>	9
<i>Select next weapon in sequence</i>	W

ALL TANK CONSOLE SCREENS Continued

Action	Key
<i>Toggle Auto Control ON / OFF</i>	Alt + A
<i>Identify current unit</i>	I
<i>Pause / Unpause Game</i>	F1
<i>Select normal tank console view</i>	F2
<i>Select full-screen view</i>	F3
<i>Select Follow-Cam view</i>	F4
<i>Turn Night Vision Optics ON / OFF</i>	F5
<i>Toggle reticle ON / OFF</i>	F6
<i>Turn Engine Smoke ON / OFF</i>	F7
<i>Turn hull to turret</i>	F8

Action	Key
<i>Jump to CCV</i>	F10
<i>Jump to Company Status Screen</i>	F11
<i>Jump to Settings Screen</i>	F12
<i>Exit to the CCV</i>	Esc
<i>PwrKey: Exit to CCV w/o prompt</i>	Ctrl + Esc
<i>Fire current weapon</i>	Spacebar

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