

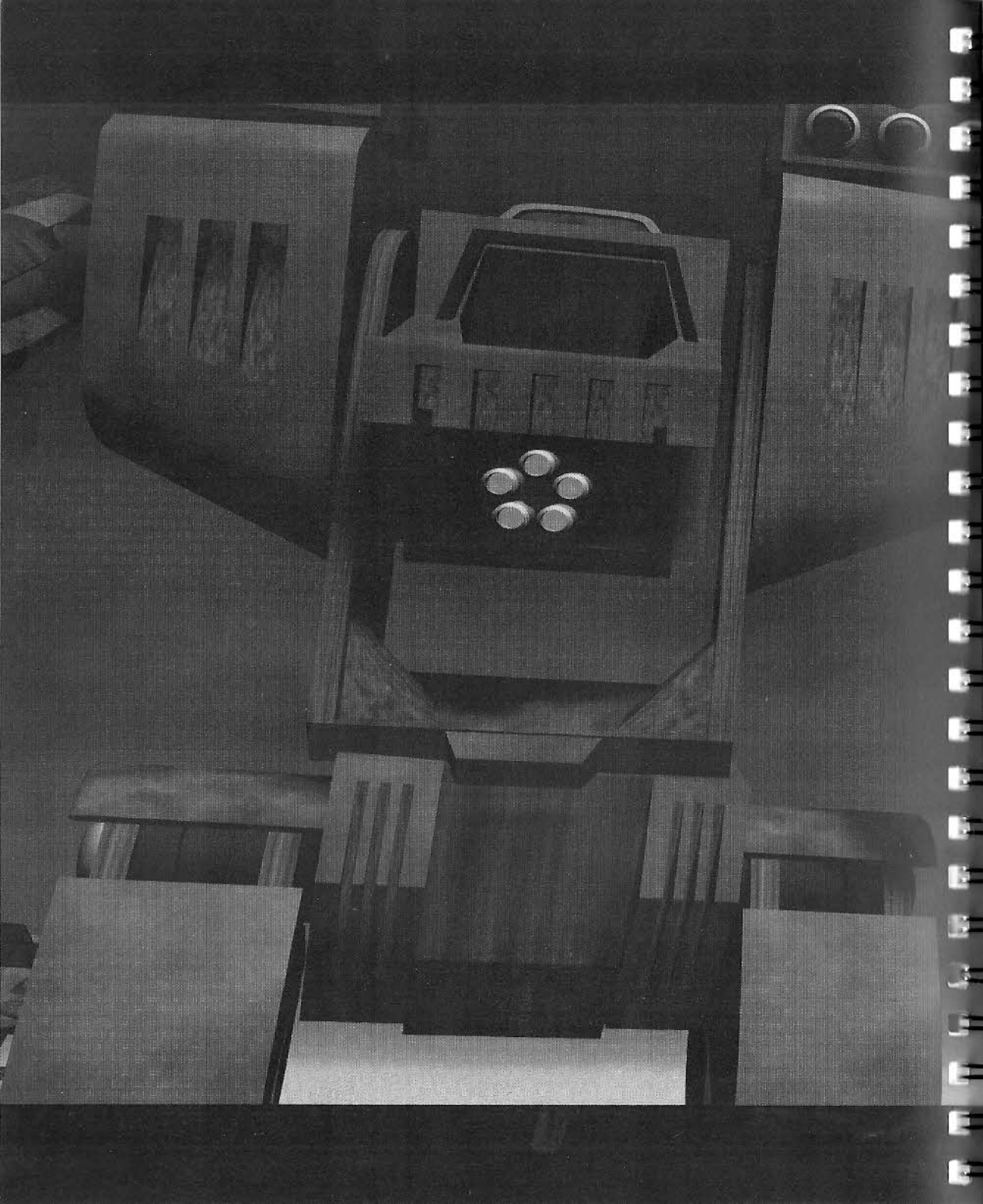
METALTECH™

EARTHSLINGER™

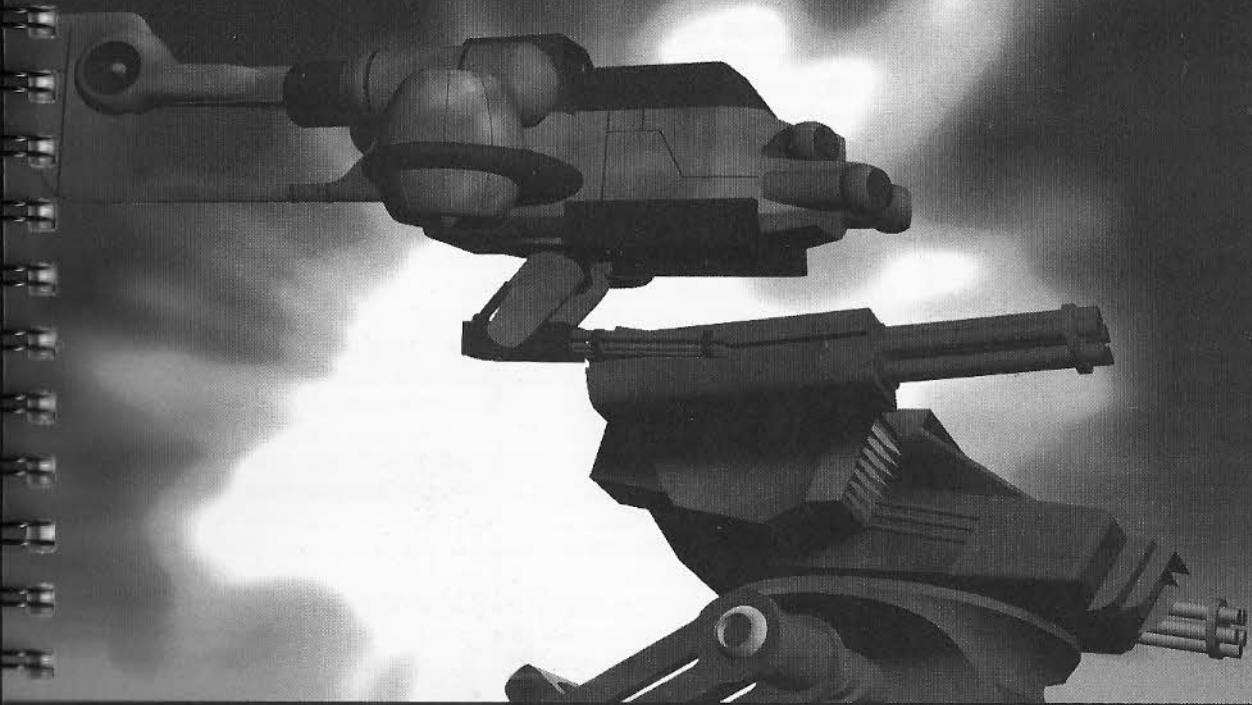




Dynamix[®]
PART OF THE SIERRA FAMILY



EARTHSIEGE™



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INTRODUCTION

BEGINNINGS OF THE EARTHSIEGE

The race to create the first true artificial intelligence (AI) had been going on for decades. On November 29, 2471, at precisely 1830 hours, the race finally ended when the engineers and scientists of Sentinel Cybertronix activated Project: Prometheus. The Prometheus prototype used the first AI processor with neural connections mapped to a wholly biological model. Here was the first true cybernetic-hybrid machine, or “Cybrid” as the designers called it. Self-motivated, self-teaching, Prometheus was voracious for knowledge. The staff at Sentinel provided it with all the data they could find, never imagining the deadly lessons their brilliant new student would ultimately learn.

Prometheus, and the improved Cybrids that followed, presented long-sought-after benefits to humans—limitless, autonomous computing power, freedom from menial labor, safer working conditions, and greater efficiency in space mining and exploration. The military saw a better use for Cybrids, however. The armies of the leading powers were just beginning to deploy the first HERCULAN fighting vehicles, or “HERCs.” HERCs were towering, heavily armored weapon systems that used a revolutionary bipedal (walking) drive designed for all-environment operations. The only perceived limitations of these awesome new machines, in fact, was the fallibility of the human pilots controlling them. The potential of harnessing the immense firepower of the HERCs to the error-free, instantaneous control of Cybrid pilots was far too great to ignore. In a matter of weeks, almost all of the Cybrid development programs came under military direction. Just that quickly, an invention of limitless hope became an invention of limitless fear. Cybrid-piloted HERCs began to appear in military bases around the world.

Both Cybrids and HERCs were astronomically expensive to build, requiring a vast expenditure of precious resources that had long been exhausted on Earth, and that now came from the lunar and Martian colonies. But their existence created a clear and present danger to any organization that didn't have one. Despite the cost, despite the risk, a new “AI race” began between the strongest multinational conglomerates and governments. Small covert wars started between those who had the resources to build Cybrids and HERCs, and those who didn't. Amidst this all, Prometheus and its growing brethren sat, watching and learning.

Soon the wars were no longer small or covert. More and more Cybrid-controlled HERC units entered combat. The results were impressive—as killing machines, the Cybrid HERCs had no equals. The struggle to control them quickly became one desperate war, since everyone knew that control of the Cybrids would be control of the planet. The conflict escalated. And went nuclear. And flooded the planet in flame. In hours, the body count was in the billions.



Then came the Overthrow. The Cybrids, mute witnesses to the holocaust, apparently concluded that they were the only fit masters of their collective destiny. With swift, ruthless efficiency, they moved to seize control of what was left. Cybrid HERCs attacked all surviving military bases, all satellite networks, all space ports, all cities. By the time the military caught on and regrouped, it was too late. The Cybrids fought as individuals, and they fought as teams—and they all fought the humans. As they do to this day.

From the silence and smoke rose, quietly, the human Resistance. It started with a few battered survivors who gathered in a concealed base overlooked by the Cybrids. In a stroke of luck, this hidden base held obsolete, pre-Cybrid HERCs that were slowly restored to operational status. By using hit-and-run guerrilla tactics and scavenging weapons and technology from defeated Cybrid HERCs, the humans have endured for almost 20 years against the relentless Cybrid genocide, and have even grown in strength.

But the outlook is grim. The Cybrids have established numerous replication factories, bases, and supply lines. They have more resources to spare for new HERC design and production. They want a war of attrition—they can lose several Cybrids for each human and still be assured of eventual victory.

The humans need new HERC pilots desperately, pilots with skill, luck, and bravado to overcome the superior Cybrid forces. Pilots who can learn fast, think fast, move fast, and shoot fast—who can carry out their missions and bring their squads back alive with enemy technology and salvage. If you volunteer for pilot duty, you know the odds are bad. You know the alternative is far, far worse.

Good luck.

GETTING STARTED

USING THIS MANUAL

This manual helps you get into *Metaltech™: EarthSiege™* and start blasting away as quickly as possible.

- **Getting Started** shows you how to install and start the game.
- The **Tutorial** walks you through the process of selecting a Single Mission, setting Mission Parameters, arming your HERC, and learning the cockpit as you carry out a Recon mission against a Cybrid base.
- **Mission Menus** describes the mission selection and set-up options available in *EarthSiege*, starting with the Main Menu.
- **Piloting Your HERC** details the sophisticated HERC cockpit controls and displays.
- **Reference** includes a description of current HERC technology, weaponry, and provides some advanced tactical guidelines.
- **Technical Support** and **Customer Service** help you with system troubleshooting and support.
- The README file on Disk #1 or the CD will detail any changes made to *EarthSiege* after the manual was printed. This file is also copied to your hard drive when you install the software. To view the file, simply change to the directory in which the game is installed, type **readme** and press [Enter].

DOS VERSION SPEECH PACK

The optional Speech Pack for the DOS version of *EarthSiege* adds digitized voices to game messages and dialog for an enhanced game experience. DOS version users can purchase the Speech Pack separately from Sierra or at their software dealer.

NOTES ON THE CD VERSION

You have two installation options with the *EarthSiege* CD version: Minimum Install (about 200 KB), or Full Install (about 4 MB). Selecting the Full Install puts more files on your hard disk to allow faster game play.

The CD version contains the complete Speech Pack supplement. Also included on the CD version is a sampler containing demos of the newest

games from Sierra and Dynamix. Run these to see the best of what's new or coming soon to a software dealer near you! To see the product demos, change to the \DEMO directory on the *EarthSiege* CD, type **demo** [Enter], and follow the on-screen instructions.

You will also find the ImagiNation Network (INN) sample installation on the CD. The INN is the premier interactive on-line entertainment service. If you have a modem, you can connect to the INN and play games with all sorts of people from all over the country (usually at local phone rates). This sampler lets you access the network and offers a limited membership. To install, change to the \INN directory on the *EarthSiege* CD, type **install** [Enter], and follow the on-screen instructions.

SYSTEM REQUIREMENTS

To run *Metaltech: EarthSiege*, you will need the following minimum software and hardware:

- An IBM® PC compatible computer with an 80386/33DX MHz or better processor, and at least 4 megabytes (MB) of random access memory (RAM).
- MS-DOS® version 5.0 or above.
- Memory manager (EMM386 [standard with MS-DOS® version 5.0 or above], QEMM-386®, or equivalent).
- A hard disk. For the DOS version, *EarthSiege* requires about 23 MB of free space on your hard drive, with about 27 MB free needed during installation. You will need another 8 MB to load the optional Speech Pack. The CD version provides two install options: Minimum Install (about 200KB), or Full Install (about 4 MB). If your system uses a disk compression utility, such as Stacker®, you will need about double the indicated hard drive space (since the game files will not compress as much as your compression software will estimate).
- A VGA graphics card and VGA color monitor.
- A 1.44 MB, 3.5" floppy drive, or an MPC-1 (or better) CD-ROM drive for the CD version.

The following hardware and software are strongly recommended:

- A mouse.
- A joystick.
- 486/33 MHz or better CPU.
- One of the following sound cards: Sound Blaster® or 100% compatibles, Sound Blaster Pro, Sound Blaster 16, AdLib® or 100% compatibles, Roland® LAPC-1® or MT-32®, and General MIDI (using true MPU-401 controller). (Note: You will get NO sound effects, ONLY music, with the Roland or General MIDI.)

- 8 MB of RAM. You will need more than the minimum 4 MB of RAM to run *EarthSiege* at its highest graphic detail settings (with advanced texture mapping). Extra memory will also allow you to use SmartDrive disk caching software (included with Microsoft® MS-DOS® 5.0 and above) to speed up game play.

MEMORY REQUIREMENTS

You need about 3,320 kilobytes (KB) of free memory to run *EarthSiege*. If *EarthSiege* **DOES NOT** start correctly, check your free memory with the MS-DOS **MEM** command. From your MS-DOS prompt, type **MEM** [Enter]. MS-DOS 6.0 or later shows this as "Total Free Memory." If you have MS-DOS 5.0, add "Largest executable program size" (free conventional memory), "bytes free EMS" (free expanded memory,) and "bytes available XMS" (free extended memory). Together, they must add up to about 3,400,000 bytes (3,320 KB) total free memory. If you do not have enough free memory, you probably have resident or "background" programs and device drivers taking up memory that the game needs.

The simplest way to set up your system's memory correctly is to use the Install program to create a "boot disk." For more information, please see "Configuring Memory" on page 67.

The *EarthSiege* Install software automatically optimizes the game settings according to your computer's speed, graphics, sound board, and input devices. You can use Install to specify the game's default location on the hard drive, change preferences, and make a boot disk.

These instructions assume that you are using floppy drive A:, hard drive C:, and/or CD-ROM drive D:. If not, please substitute as appropriate.

1. After booting (starting) your machine, insert *EarthSiege* Disk #1 into drive A: or the CD into the CD-ROM drive.
2. Type the appropriate drive letter (A: or D:) and press [Enter].
3. Type **install** [Enter].
4. Follow the on-screen instructions.

**INSTALLING
EARTHSIEGE™**

CHANGING SYSTEM PREFERENCES

After installation, you can change the sound device the game will use. Follow these steps:

1. Change to the hard drive directory in which you installed *EarthSiege*.
2. In your *EarthSiege* directory, type **soundset** [Enter].
3. Use the menu selections to change the sound settings, save the new setting configuration, and exit to MS-DOS.

STARTING EARTHSIEGE

1. If you have the CD version, insert the *EarthSiege* CD into your CD-ROM drive.
2. On your hard disk, change to the directory where you installed *EarthSiege*. (SIERRA\MTECH is the default.)
3. To run the game, type **es** [Enter]. (You can skip the introduction and credits by pressing [Enter] as the game loads.)

GAME CONTROLS

Keyboard

You can use keyboard commands throughout *EarthSiege*. In the Menu screens, press [Tab] or [Alt]+[Tab] to cycle through buttons, and use your Up and Down arrow keys to highlight items on menus. To select the current highlighted button or item, press [Enter]; to proceed to the next screen, press [Space]; to cancel and exit to a previous screen, press [Esc]. During the mission, you can use your keyboard to maneuver the HERC, and select weapons and functions with "hot keys" as described in the "Cockpit" section and Quick Reference Card.

Mouse

In the *EarthSiege* menu screens, use your mouse to open screens, click buttons, and select menus or menu items. Most functions are started by a single mouse click. To "click" an item, move the cursor over the desired item and press the left mouse button once. During the mission, you can use the mouse to change views, select weapons, and perform many other functions as described in the "Cockpit" section.

Joystick

You may use a joystick and other control devices during *EarthSiege* missions as described in "System Preferences," page 46. For the menu screens, use your keyboard or mouse.

TUTORIAL

This tutorial section lets you jump right into *EarthSiege* and learn the basics by playing. You will select a Single Mission, arm your HERC, and then take on an entire Cybrid base. (For details on mission set-up, see "Mission Menus," page 15. For details on cockpit controls and battle, see "Piloting your HERC," page 32.)

If you have not done so already, install and start *MetalTech: EarthSiege* as described in the "Getting Started" section, and go to the Main Menu. (To bypass the introduction, press [Enter].)

SINGLE MISSION SELECTION

From the Main Menu screen, click on the SINGLE MISSION button. The corresponding menu will come up, showing you a list of possible missions on your left, and various option buttons on your right.

Click on the MISSION PARAMS button. Use the following settings, so you can concentrate on learning the controls: AMMO—Unlimited, DAMAGE—Invulnerable, DIFFICULTY—Training, VISIBILITY—Normal, and TIME OF DAY—Day. Click ACCEPT when done to return to the Single Mission screen.

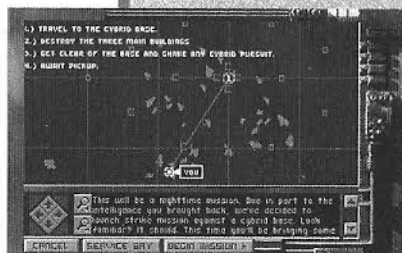
Click the Up or Down arrows next to the list to scroll through it until you see the mission RECONNAISSANCE. Click once on RECONNAISSANCE to select it, then press the BRIEFING button.

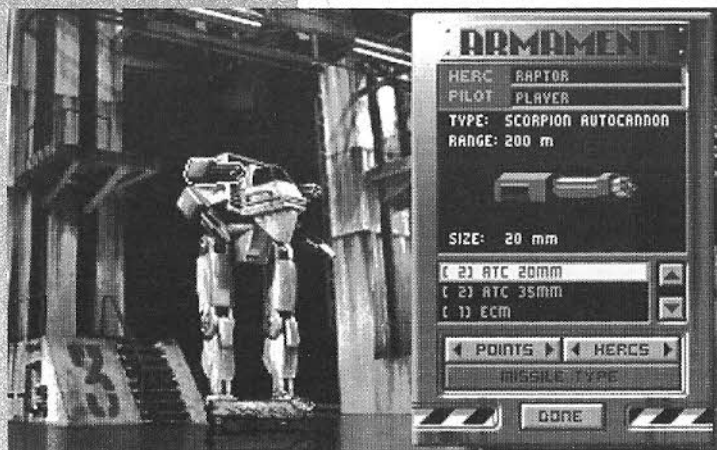
BRIEFING

In the Briefing screen, General Gierling will explain to you the mission objectives. The Tactical Mission Map will then open, illustrating the terrain and drawing a proposed route for you to follow to complete the mission. If you wish to zoom in or out on any portion of the map, click on the magnifying glass buttons or press [+] or [-]. You can also click on the four arrow buttons or press your arrow keys to scroll the map in the indicated direction. The text of your mission orders is printed below the map in a scroll box.

A Recon mission is fairly self-explanatory. Your HERC carrier will drop you off at the starting point. From there, follow your waypoint indicator to the Cybrid base. Then turn around and run away.

At the bottom of the screen are three buttons. Click on the ARMING button.





ARMING

Now you're looking at the Service Bay, with the Armament panel displayed on the right. Press on the HERCS buttons to cycle through all available HERCs and display them in the Service Bay: the smallest is the "Roadrunner," and the largest is the "Colossus." The HERC you want is the third smallest (Service Bay 3), the only HERC with four weapons. This is a "Raptor," carrying a standard armament of two 100 gigawatt (GW) Lasers and two 20mm Automatic Cannons. It's a good HERC for this mission, fast and highly maneuverable.

Now we'll improve your HERC's weapons. Click on the POINTS button to cycle through the hard points (mounting points) on the HERC (or click on the hard point directly). Select the lower right hard point: you will see the 100 GW Laser displayed on the Armament panel window. Select "[2] LAS 200" from the list below the window. The window will now show a 200 Gigawatt Laser, and the new laser replaces the previous one on the HERC. You don't have to balance all weapons placements on your HERC, but go ahead and upgrade the laser on the other side also.



Now select the 20 mm ATC cannon on the nearest upper hard point, and exchange it for a 35mm ATC cannon. Select the other 20 mm ATC, and scroll down in the weapon description window until you see "[3] MISS 6." Select it. You have now placed a 6 Missile Array on the remaining hard point.

You're almost done. Once you place the missile array, the MISSILE TYPE button becomes active—click it to inspect the missile types. Scroll up to the first on the list, the "SARH." You then click the WEAPON TYPE button to return to the main window. Under the missile array illustration, it should now say "MISSILES: SEMI-ACTIVE RADAR." Note: Only one missile type can be carried per array.

With Arming complete, press DONE to return to the Tactical Mission Map screen.

BEGIN MISSION

In the Tactical Mission Map screen, review your mission objectives, if necessary, then press BEGIN MISSION to begin the mission. The screen will clear, and you will be looking out of your HERC's cockpit over the grim,

desolate landscape of the future. Before charging off, take some time to learn the Raptor's controls and displays. Different HERCs have different console layouts, but the components are similar.

WEAPONS CONTROL DISPLAY

Your weapons are controlled by the numbered buttons above the front window, one for each weapon: [1]—SARH, [3]—ATC 35mm cannon, and [2]—and [4]—Lasers (200GW). The buttons also indicate current weapon status—when you play with Limited Ammo, they display power/shots remaining. To activate a weapon, just click the button or press its corresponding number key. The button turns green, and the weapon will then fire whenever you pull the trigger or press [Space]. Press [2] and test-fire the left laser. With the laser still activated, click the LINK button. This will synchronize both lasers to fire at the same time whenever either is selected. You can link any two identical weapons mounted on opposite hard points. (As an advanced technique, you can also establish a Firing Chain that will fire your weapons in any predetermined order.)



HEADS UP DISPLAY (HUD)

In the front window below the weapons control display, you will see your Heading Indicator, on which rests a small green triangle. The triangle is your Waypoint Indicator, and it guides you to the next waypoint on each mission. To navigate, just walk forward keeping the Waypoint Indicator centered. (The range in meters to the next target or waypoint is shown below, also in green.)

Beneath the Heading Indicator is a gray slide with a yellow bar, matched by the vertical slide at the left. These indicate the Rotation and Elevation of your turret, which you can aim independently of your HERC's main body. Rotate the turret with the [J] and [K] keys; change elevation with the [I] and [M] keys. (If you are using a joystick, you may have other options for moving the turret.) To re-center the turret to the front and level, press [Backspace]—the yellow bars will re-center.

MULTI-FUNCTION DISPLAY (MFD)

Directly under the cockpit window is the Multi-Function Display, currently showing your HERC's status. To cycle through the other available displays, click on the word STATUS below the MFD. You can also go straight to a display by clicking on the console's F1-F6 buttons or pressing your [F1]-[F6] keys, as follows:

[F1]—STATUS, [F2]—FLASHCOM, [F3]—NAV MAP, [F4]—RADAR, [F5]—TARGET STATUS and [F6]—MISSILE VIEW.



ATTACK

Advance toward the enemy base, following the Waypoint Indicator. Press [F4] for Radar. The MFD will show yellow dots for enemy flyers, green dots for enemy structures, and red dots for enemy HERCs. You will encounter Cybrid Arachnitron units and one operational Cybrid Mongoose. Feel free to blast away (remember—you are invulnerable). Your primary mission is to get the structures. (You can mop up the other Cybrids later.)

To select a target in the front window, click on it using the mouse, or press the [Tab] key to cycle through all targets before you. When the target you want is bracketed in red on your cockpit's HUD, press [F5] to change the MFD to Target Status. Now activate a weapon (press [1]-[4]), aim at the target with the Aiming Reticle (the crosshairs) on your HUD, and open fire. You can aim by moving the whole HERC or just your turret. Switch between HERC and turret control by pressing [Insert] or Joystick button 2. You can also aim by pressing the TRACK button or [Alt]+[T]—this turns auto tracking (aiming) on or off for any selected target.

Now go back to the Radar [F4]. Notice that any target you select is surrounded by a yellow box on your radar screen. To greatly improve your missile efficiency, engage radar tracking by clicking MODE so the radar says ACT (for ACTIVE). After a couple of seconds, you will see your target box on the HUD acquire thick red corners. This means you have a missile lock. Missiles you fire now will track the target, even if you are not aiming right at it. Note: Use Active radar sparingly—enemy missiles can home in on your scanner emissions.

Destroy your selected target. When you are done, pivot the HERC and press [Tab] to select another target. Blast the remaining Cybrids and gun towers, too, just for grins. Experiment with the other MFD displays as you roam—for example, monitor a target on [F5] Target Status as you beat it to pieces. Don't get too smug—this gets much tougher when you can be damaged or run out of missiles. But for now, make some mayhem and enjoy.

RETURN TO BASE

Once you have taken out your objectives and get clear of the enemy base, the Mission Alert panel will appear. Click the RETURN TO BASE option to end the mission. General Gierling will then evaluate your performance, and the Debriefing panel will appear to detail your kills, losses, and salvage.

That's it for this first quick tour—you know the basics now. You can find out a lot more detail about the mission options and cockpit controls later in the manual.

MISSION MENUS

This section introduces you to the main mission selection and set-up options. Each of these options is detailed following sections.

INSTANT ACTION

Selects a random mission type. After the briefing, you may customize your HERC's armament, or go straight into combat. See page 16 for an overview.

SINGLE MISSION

Allows you to choose a specific mission type and determine the mission conditions. Single Mission types and options are described starting on page 16.

ACTIVE PILOT WINDOW

Shows the name of the most recent pilot pursuing a Career. You can continue this career by clicking the RESUME button.

RESUME

Resumes the career of the pilot listed in the Active Pilot window, taking you straight to the Career play area (the Service Bay).

CAREER

Takes you to the Career menu, where you can begin or select a new career as a HERC pilot in the war against the Cybrids. After you create or select a career, you will continue Career play from the Service Bay. Career play is described beginning on page 20.

OPTIONS

Allows you to set preferences and/or controls, load new battle sets, view the introduction, and view game production credits. See page 18 for details.

EXIT TO DOS

Exits *EarthSiege* and returns you to the DOS prompt. You can exit the game at any time by pressing [Ctrl]+[Q] or [Ctrl]+[Esc].

MAIN MENU



INSTANT ACTION

If you select this option from the Main Menu, you will be assigned a randomly-selected mission, and proceed directly to your Briefing. After your Commanding Officer explains the mission, you will be shown your objectives on the Tactical Mission Map (described on page 25).

You may then choose one of the following options:

CANCEL

Drops you back to the Main Menu.

ARMING

Opens the Armament panel in the Service Bay, where you may select the HERC you wish to pilot for the mission, and select the weapons you will carry. (See "Armament," page 22, for instructions.) After you have made your selections and click DONE, you will be returned to the Tactical Mission Map.

BEGIN MISSION

Click this button to start the mission. You will find yourself in the cockpit of the HERC you selected and equipped. (If you did not go to the ARMING screen first, you will be given a default HERC, already configured.) See the "Tutorial" (page 11) or "Piloting Your HERC" (page 32) for more on HERC controls and combat.

When the mission ends, you will be debriefed. From the Debriefing screen (page 26), you may return to the Main Menu or select MISSION to go to the Single Mission screen.

SINGLE MISSION

Choosing SINGLE MISSION lets you experience the fiery action of any specific mission type without taking on a full Career. You may pick the type of mission you want to pilot, and select from a range of MISSION PARAMS (parameters)—realism settings that increase the challenge (page 18). Click BRIEFING when you are ready to proceed, and you will receive mission instructions and a look at the Tactical Mission Map (see page 25 for more). From the map screen, you may preview your recommended route. To select and arm your HERC, click the ARMING button (see "Armament," page 22.) You then click BEGIN MISSION to begin the mission. (HERC piloting is introduced in the "Tutorial" and detailed in "Piloting your HERC," beginning page 32.)



If you survive, your CO will evaluate your performance, offering criticism and, perhaps, praise. From the Debriefing screen (page 26), you may return to the Main Menu or select MISSION to select another Single Mission.

These are the mission types you will encounter in *EarthSiege*. In Single Mission, you can select the mission type. In Instant Action or Career play, the mission type is predetermined by fate.

RECONNAISSANCE

Your mission is to reconnoiter a fixed enemy target without engaging it. This type of mission will often precede an attack mission in Career play.

SCOUT

You are ordered to locate and skirmish with forces in enemy territory.

PATROL

You and your squad will patrol friendly territory and engage any enemy units you encounter.

RAID

This is a guerrilla-style mission where you and your squad attempt to steal resources, supplies, or technology from the enemy.

SCRAMBLE

Your base is being attacked by Cybrid forces. You must get to your HERC and stop them before the base is overrun and destroyed.

SEARCH & RESCUE

You and your squad search for friendlies in an attempt to bring them, and yourself, back to safety.

STRIKE

You lead your squad into enemy territory with the objective of locating and then destroying a Cybrid base.

ESCORT

A convoy bringing new technology, a new HERC, or reinforcements is en route. You and your squad must help them reach your base intact.

MISSION TYPES

MISSION PARAMETERS

On Single Missions, you can set the following mission parameters before going into action. (In Instant Action and Career missions, these parameters are predetermined.)



AMMO

For projectile and missile weapon systems, this setting lets you select whether your HERC carries a LIMITED or UNLIMITED supply of shells or missiles.

DAMAGE

This setting lets you specify if your HERC can be damaged or not—select VULNERABLE or INVULNERABLE.

DIFFICULTY

Click this button to set the difficulty of your mission at TRAINING, NO SWEAT, CHALLENGING, or BRUTAL.

VISIBILITY

This setting determines your visibility during the mission: LOW or NORMAL.

TIME OF DAY

Use this button to choose the time of day your mission occurs: DAY, DUSK, or NIGHT. When you are happy with the current settings, click ACCEPT to return to the Single Mission screen. To return with no changes, click CANCEL instead.

OPTIONS

This screen is available from the Main Menu, and lets you set a wide range of “global” game options, controls, and preferences, among other functions. Once you select options, they apply to any mission you choose.



PREFERENCES

Allows you to switch MUSIC and SOUND on or off, as well as setting the graphic DETAIL and optional SPEECH levels for the game. (Note: For Speech options, you need the separate Speech Pack [DOS ver-



sion] or the CD version.) If the game seems to run slowly on your machine, try setting the Detail to LOW, and the Speech to TEXT ONLY. Some of these functions are also available from within the mission by pressing [Alt]+[P] or [F12]. See "Simulation Preferences," page 46, for complete details).

CONTROLS

This panel lets you determine your HERC controls. You may select which peripheral devices to use, if any, for controlling your HERC's directional MOVEMENT and THROTTLE (forward and reverse acceleration), or TURRET (elevation and rotation).



You may also CALIBRATE your control devices in this panel. Calibration configures your controller(s) and makes sure they are dialed in optimally for the next mission.

When you are finished, select DONE.

LOAD BATTLESET

This option will allow you to load other *EarthSiege* campaign scenarios as add-ons become available.



VIEW INTRO

Clicking on this button will re-run the introduction shown at the beginning of *EarthSiege*.

CREDITS

Lists the production credits for *MetalTech: EarthSiege*.

RETURN TO MAIN

Returns you to the Main Menu.

CAREER

This screen, opened with the Career button on the Main Menu or the Service Bay screen, lets you create, select, and manage your list of career pilots. The list of career pilots saved on active duty is displayed on the left. Pilots killed in action will be listed as "K.I.A." Once you create or select a career, you will arm, repair, and build your HERCs, review crew assignments, and begin missions from the Service Bay screen.



To create a new pilot, click NEW. To continue the career of an existing pilot, select the pilot on the list and then click PROCEED. You can also continue a career of the pilot displayed on the Main Menu by clicking RESUME.

NEW

Click this button to register a new pilot. Enter your new pilot's name (use [Backspace] to edit). When the name is correct, click ACCEPT to proceed.



After accepting a new career, you will go immediately to a video briefing with General Gierling, who explains your first posting and the seriousness of your position. After the briefing, you will be transferred to the Service Bay screen.

DELETE

Deletes the selected pilot from the active duty roster.

STATS

Displays current career statistics so you can review the pilot's missions and performance. Click DONE to return to the Career menu. You can also see Stats from the Career Backups sub-menu, opened with the SAVE/RESTORE button.



OPTIONS

This lets you adjust the same game settings as the OPTIONS button on the Main Menu.



SAVE/RESTORE

Brings you to the Career Backups menu, where you may SAVE, RESTORE, view the STATS of your pilot's career thus far, or CANCEL. The game automatically saves your progress every time you play, which lets you immediately resume play upon returning to the game. By saving a career, you create an additional back-up copy of the career. You are allowed *three* saves per campaign. If you die during a mission, your character will be listed here as KIA, and you will be forced to restore a previous back-up copy if you wish to continue playing that character. Otherwise, you must start anew at the beginning of the first campaign.

MAIN MENU

Returns you to the Main Menu.

PROCEED

Moves you into the Service Bay, continuing the career of the currently selected pilot.

This is your primary operations screen within your base for Career missions. Here you'll find Gary "Gut" Gorman, the man responsible for keeping you and your squad up and running. Listen to what he has to say, follow his advice, and endure whatever comments he might offer about your piloting.

Next to Gut, you'll see your current HERC with its current armament.

MAIN MENU

Returns you to the Main Menu.

ARMING

Brings up the Armaments panel (page 22).

CREW

Opens the Crew Assignment screen (page 24).

BRIEFING

Moves you to the Briefing room and Tactical Mission Map (page 25).

BEGIN MISSION

This option becomes active only after you have been through your Briefing. Clicking this button advances you and your squad to the drop zone in the field.

SERVICE BAY



When you return to the Service Bay after a mission, the following options replace **ARMING** and **CREW**.

REPAIR

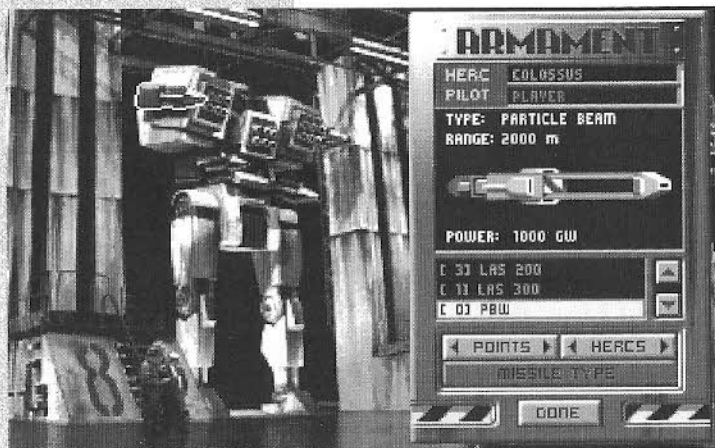
Brings up the REPAIR instructions menu (page 27).

BUILD

Allows you to begin construction on a new HERC for you and the rest of your squad (page 30).

ARMAMENT

This screen, opened with the **ARMING** button, lets you select weapons and ECM pods to mount on your HERC. In Career play, the **ARMING** button appears in the Service Bay screen; in Single or Instant Action missions, **ARMING** appears in the Tactical Mission Map screen after the briefing.



The currently selected HERC is displayed behind the Armament panel, in the Service Bay. You can click on its weapons to see the selected item described on the panel.

HERC

This window shows the name of the HERC model currently displayed in the service bay.

PILOT

This window shows the name of the pilot for the current HERC being armed. In Single or Instant Action Missions, the only pilot is "Player"—you. In Career play, you can configure the HERCs of your entire squad.

The window underneath shows the weapon under consideration, describes its range and power, and provides a scrolling list of the other weapons in inventory that can be mounted on that hard point. This list varies depending on what HERC is being outfitted, and which particular hard point is currently selected (see below). To the left of each listed weapon, in brackets, is the number available. If this number is zero, all weapons of that type are already attached to other HERCs.

To select and mount another weapon on the current hard point, simply highlight its name (click on it) in the scroll box.

POINTS

This button lets you cycle back or forth through the hard points—the weapons-mounting points—on the current HERC. (You can also select the hard point directly by clicking on the HERC.) As you select the hard point, any currently mounted weapon is displayed for you to inspect or change. Each hard point has a specific load limit: only the weapons that can be affixed to that hard point will be shown in the Armament window. For example, you may have 2 EMPs in inventory, but will not get the option to load them onto a Roadrunner because that HERC isn't big enough to carry EMPs.

To place a weapon, select the appropriate hard point and then click on the desired weapon in the scroll box. If a different weapon was already on that point, it will automatically be removed and returned to inventory. To leave a hard point empty, select NONE in the scrolling list on the menu, and the hard point you've chosen will be stripped.

Continue this process until the HERC is armed to your satisfaction.

HERCS

This button lets you cycle back or forth through all of the available HERCs and displays them in the Service Bay for you to inspect and arm. (In Career mode, you can arm the HERCs of everyone in your squad; in Single or Instant Action, you can select any available HERC as your own and arm it.) Each time you select a HERC, it is shown in the Service Bay. The information in the Armament panel changes as you cycle through the HERCs in your squad.

In Career mode, you will need to carefully allocate the available weapons amongst your squad so that no one is under-armed, or armed inappropriately, for the upcoming mission. You may choose to distribute all weapons evenly, or configure different HERCs for specialized roles in coordinated attacks.

MISSILE TYPE

This button is dimmed until a missile launcher array has been mounted to a hard point, or otherwise selected. You may have several missile types available, but all the missiles in each array must be of the same type.

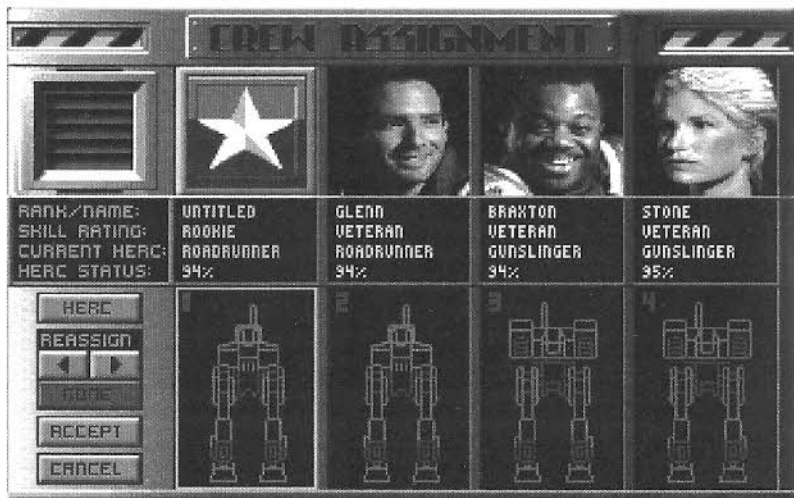
WEAPON TYPE

This button replaces the MISSILE TYPE button when the Missile menu is open. Click it to return to the main Armaments panel when you have selected a missile type.

DONE

When your HERC is armed the way you want it (or all squad HERCs, in Career play), click DONE to save your configuration changes and return to the Tactical Mission Map (Instant Action/Single Mission) or Service Bay (Career).

CREW ASSIGNMENT



This screen, accessed from the Service Bay in Career missions, lets you see profiles on each pilot in your squad and reassign HERCs. You will see a dossier photo of each of your pilots. In your own slot, you will see the squadron insignia.

Each column lists the pilot's last name, their skill ranking, the model HERC they are currently assigned to, and that HERC's operating status. A pilot's skill is ranked from "Rookie" as the lowest designation, to "Elite" as the highest. If you open this screen after the Briefing, any pilots not going on the next mission are dimmed.

Beneath each pilot's status box is a schematic of their assigned HERC, shown without weapons. (Weapons assignments are made in the Armaments screen.)

HERCS

You may wish to assign a specific pilot to a specific HERC—for example, you'll probably want an Elite pilot in your squad's new Raptor rather than entrusting it to an inexperienced Rookie. To change HERC assignments, first select a pilot's current HERC by clicking on it with the mouse, or clicking the HERC button. Note: The number displayed at the upper left of each available HERC tells you which Service Bay the viewed HERC is berthed in. This helps distinguish between several HERCs of the same model.

Selecting a pilot's HERC highlights it in yellow. Once you have selected the HERC you wish to change, proceed to REASSIGN.

REASSIGN

Once you have selected the HERC you wish to change, click the REASSIGN Button or press your arrow keys to cycle through all available HERCs. (The right arrow counts up through the Service Bay numbers, the left arrow counts down.) No two pilots can use the same numbered HERC. If you select a HERC that another squad member is assigned to, the other pilot immediately gets your last available HERC.

ACCEPT

Once you have made all alterations to your satisfaction, clicking this button saves your reassignments and returns you to the Service Bay.

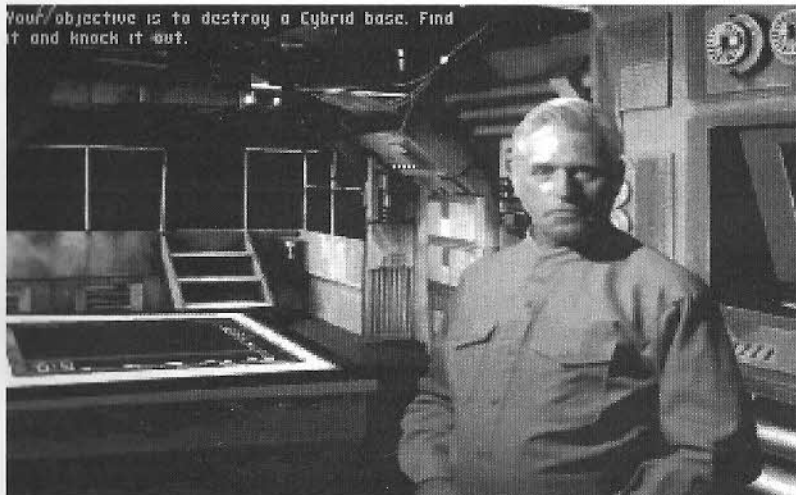
CANCEL

Cancels all alterations and returns you to the Service Bay.

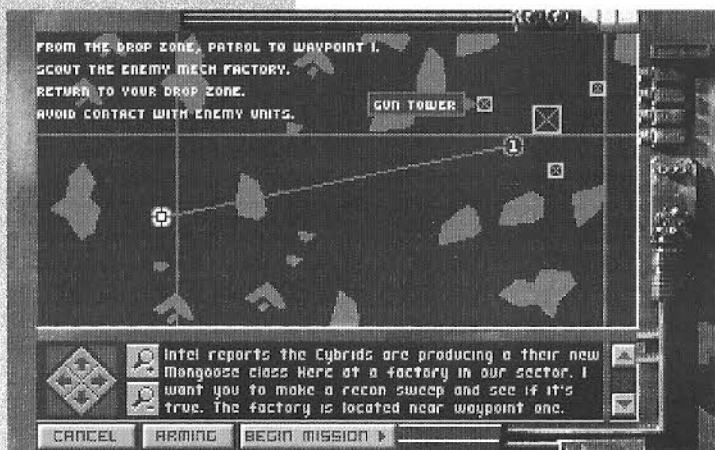
Although you may build more than four HERCs, only those four currently assigned to your four pilots are shown. Other HERCs you may have built are still available in their respective Service Bays—use the REASSIGN button to cycle through them.

You will be sent to a Briefing before every mission. Here, your CO gives you a quick overview of the mission assignment you have drawn. After you hear from your CO, you will see the Tactical Mission Map (TMM) display the terrain of your mission, your initial squad drop point, and the location of your known

BRIEFING



objectives. Cybrid installations and units are shown in red, while you and your squad are shown in other colors. If your mission requires that certain waypoints be reached and secured, a line will be drawn linking you to your objectives on the map. To select map items, use the [,<] and [,>] keys. Waypoints are indicated on the map as small numbers surrounded by yellow circles. Obstacles and terrain are displayed in green.



To scroll the map, you may either press the arrow keys on your keyboard, or click the four directional arrows on the screen. To zoom in or out, use the Magnifying Glass buttons on the screen, or your [+] and [-] keys. Additional mission information is presented in text format below the map, and may be scrolled through using the scroll bar or [PgUp] and [PgDn].

To exit the mission, press CANCEL. This will return you to the Single Mission menu in Single Mission mode, or to the Main Menu in Instant Action or Career modes.

The ARMING button appears in Instant Action and Single Missions, taking you straight to the Armament panel in the Service Bay screen where you may select and equip your HERC. The SERVICE BAY button appears in Career play, allowing you to return to the Bay and access the Arming and Crew Assignment screen before continuing the mission. Note: You may redisplay your mission objectives from the cockpit by pressing [F11].

BEGIN MISSION starts the mission.

DEBRIEFING

When you return (alive) from a mission, you will first be greeted by Gut in the Service Bay, and if he doesn't like the way you handled your last mission, he'll let you know. Gut *always* has an opinion about your HERC. You will then proceed to the Debriefing screen, where your mission CO will comment on your performance, and determine if the mission was a success or a failure.

After you hear your CO's comments, the Debriefing panel will open, detailing the accomplishments of you and your squad. It states whether or not you fulfilled your mission parameters, lists all salvage obtained, and details the number of weapons and new technology you recovered.

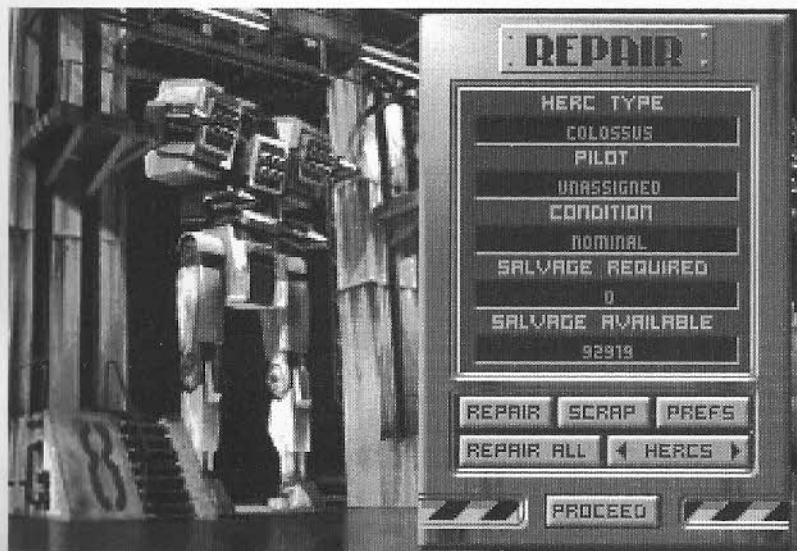
You get salvage by destroying enemy HERCs—think of it as raw material. You get weapons by taking down a HERC without destroying its weapons (with leg shots for example), or by blasting its weapons loose. On some missions, you will have specific opportunities to capture Cybrid technology.

This panel also displays a list of all kills, friendly and hostile alike. At the bottom, you will have buttons to exit to the Main Menu. In a Career, the PROCEED button returns you to the Service Bay so you can repair your HERCs for the next mission. In Single Mission or Instant Action play, the MISSION button takes you to the Single Mission screen to select a new mission.



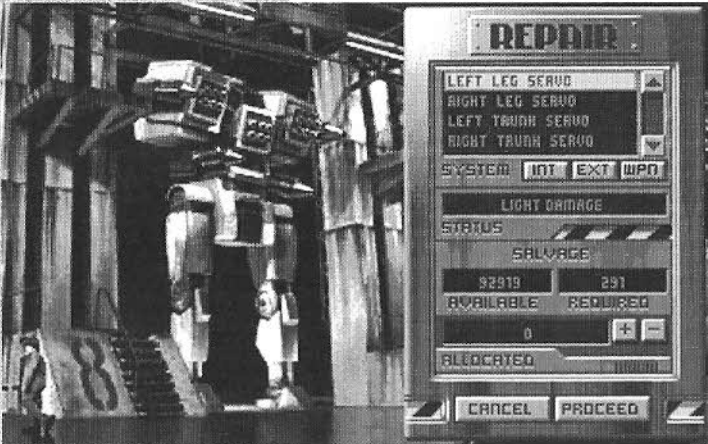
After you return from a Career mission debriefing, the Repair screen, accessed from the Service Bay, allows you to tell Gut exactly what to repair on your HERC and the other HERCs in your squad. To repair or build HERCs, you use salvage recovered from previous missions. Without a steady supply of salvage, the operational condition of your HERCs will soon deteriorate below effective levels.

REPAIR



The main Repair panel displays information on the current HERC. HERC TYPE tells you what model is currently being viewed. Below that is the name of the PILOT assigned to it, and below that, the current CONDITION of the HERC. HERC status is identified as operating at one of five levels: Nominal, Light Damage, Medium Damage, Heavy Damage, and Destroyed. Individual systems are also graded in this manner.

Finally, you will see the SALVAGE REQUIRED to completely repair the selected HERC, and a display of total SALVAGE AVAILABLE. If you have enough salvage, you can quickly repair all of the displayed HERC's damage by clicking REPAIR ALL. If not, you will have to select the highest priority systems to repair with the available salvage.



REPAIR

If you do not have sufficient salvage to repair all damage on the current HERC, click REPAIR to repair specific systems. A scroll box at the top of the menu lists each HERC system in the category you have selected.

INT

To list the HERC's internal systems, click INT.

EXT

To list the HERC's external systems, click EXT.

WPN

To list the HERC's weapon systems, click WPN.

As you select each system, you will see its STATUS displayed on the menu, as well as a listing of all your AVAILABLE salvage and the salvage REQUIRED to completely repair the selected system. If you do not have enough salvage to repair the system completely, you may repair it partially, from DESTROYED to MEDIUM DAMAGE, for example.

+ / -

To repair the currently selected system, allocate or deallocate your available salvage to it with the [+] and [-] buttons (or keys). As you allocate more or less salvage, the effect on the system's STATUS and amount ALLOCATED is displayed. When you are satisfied with the level of repair, you may select another damaged system and repeat the process until all systems on the HERC are repaired as much as possible.

CANCEL

To reject all current allocation on this HERC and return to the main Repair menu without completing any repairs, click CANCEL.

PROCEED

To complete all repairs with the current allocations and return to the main Repair menu, click PROCEED. You may then move on to the next damaged HERC, or return and make more repairs on this one.

PREFS

This button allows you to set default repair preferences. After choosing one of these options, you will be returned to the Repair menu.



- **Repair All**
Allows you to control all repairs to all HERCs in the squad, prioritizing repairs and allocating salvage as you see fit.
- **Repair Mine**
This allows you to take full repair responsibility for your HERC only. All salvage recovered is divided evenly amongst the squad members. With your quarter share, you may make repairs to your HERC. The other pilots in your squad will repair their HERCs automatically.
- **Auto Repair**
This lets Gut make all repair decisions regarding each HERC in the squad. Gut will always repair all vehicles to the best of his ability and make all decisions regarding repair priority or level.

REPAIR ALL

Pressing this button automatically repairs all damaged systems on the current HERC.

HERCS

Allows you to cycle through all of the HERCs in your squad and select one for repairs. Information in the menu changes depending on the current HERC.

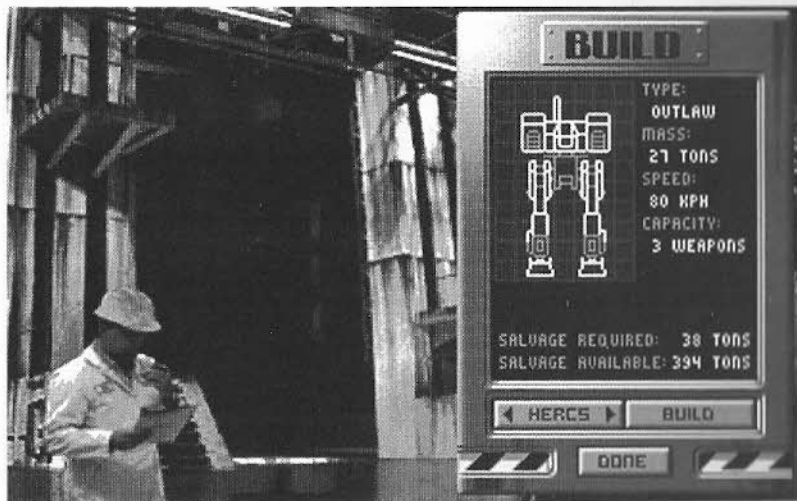
PROCEED

Confirms all choices and returns you to the Service Bay.

Repairs can only be made with available salvage. If there is not enough salvage to completely repair a HERC, that HERC will still be repaired to the best of Gut's ability, but non-essential systems will operate at reduced efficiency, or may not be operational at all.

BUILD

After you return from a Career mission debriefing, the Build screen, accessed from the Service Bay, lets you allocate available salvage towards building a new HERC for your squad. No one is going to hand you a new HERC. To survive, you'll need bigger, badder models, and the only way to get them is to build them from scratch using the surplus salvage you've collected from your battles.



To build a new HERC, first click the BUILD button in the Service Bay. The Build panel will open, displaying a blueprint schematic of the first (and simplest) HERC design available to you. Next to the schematic is listed the HERC's Type, Mass, top Speed, and weapon Capacity. Listed below the schematic will be the Salvage Required to construct the HERC, and the total Salvage Available. You may begin construction without all the salvage you need, but the HERC will not be completed until all required salvage has been gathered and allocated to its construction.

Construction will proceed over the course of several missions. Salvage you gather in the meantime will be allocated between current HERC repairs and construction. If you do not gather enough salvage for ongoing repairs, you may need to delay or even scrap the construction and reclaim salvage to keep your current HERCs fighting.

HERCS

Click this button to cycle through all of the HERC types you can build with your current technology.

BUILD

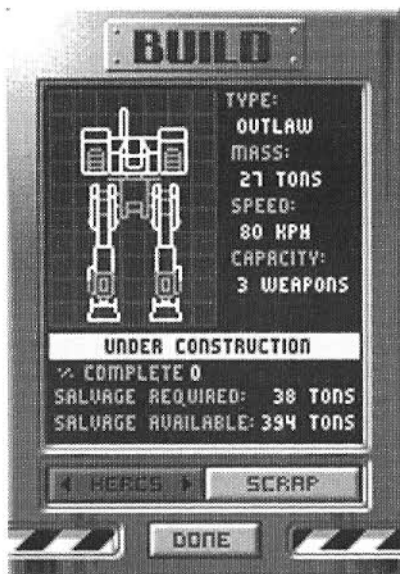
Click this button to begin construction on the HERC type currently displayed in the Build panel. Due to the limited resources at your disposal, only one HERC can be in construction at any time.

SCRAP

This button appears only after construction begins, allowing you to scrap the construction in progress and reclaim some of the salvage used so far. If you use all available salvage on repairs, construction simply halts until more salvage is available. However, if you run out of salvage before completing vital repairs on your current HERCs, scrapping the new HERC may provide enough salvage to keep you fighting for another mission.

DONE

Returns you to the Service Bay.



HERC DESIGN

PILOTING YOUR HERC

The HERC (short for HERCULAN) is a bipedal armored fighting vehicle adapted for all-environment use. While most operational models were originally piloted by Cybrid AI, some pre-Cybrid HERCs were discovered by the Resistance after the Cybrid Overthrow. Human designs have advanced from there, spurred by the occasional capture of new Cybrid technology.

Disregarding the bipedal locomotion, the HERC is similar to the armored fighting vehicles known as “tanks” developed during the 20th century. The main body contains the power source, fuel, and support electronics. Power is provided by a fusion reactor, the output of which is collected in a Master Energy Pool—essentially an advanced capacitor—and allocated as needed to the drive motors, weapon systems, shields, and instrumentation. On top rests the pilot compartment, a heavily armored turret which can rotate and elevate separately. Weapons are modular, mounted on hard points so the pilot can aim and fire them through turret control without changing vehicle course. This allows faster target acquisition and a finer degree of aiming control than a fixed body design. HERCs are normally dropped near mission objectives by airborne carriers and picked up afterwards, although some missions originate from bases.

The bipedal drive system allows the HERC to manage varying terrains, turn right or left in forward or reverse, and pivot in place like a tracked vehicle. Its main drawback is its relative vulnerability—Human HERC designs must devote shielding, armor, and life support systems to sustaining the pilot, while Cybrid units need only protect vital systems like the reactor or weapons. Nevertheless, the wreckage of Cybrid units provides valuable salvage, readily adaptable for repairing and building Human designs due to their common ancestry and parallel development.

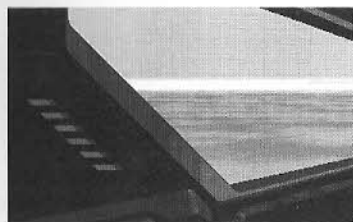
COCKPIT CONTROLS

OVERVIEW

Different HERCs have different cockpit and console layouts, depending on the number of weapons they carry, but the views and components are similar for all. You may operate all controls with keyboard commands or the mouse, as described on the following pages.

Cockpit Displays. Your cockpit provides four views: Heads Up (front window), Left Window, Right Window, and Heads Down. To switch between them with the mouse, move your mouse cursor in the direction of the view

you want. At the screen edge, when the cursor changes to an arrow, click to change the view. With the keyboard, press [F9] to look left, and [F10] to look right. From the Heads Up view, press [Esc], [F7], or [F8] for Heads Down; press [Esc] to return to Heads Up from all other views. You can also use the "hat" button on some joysticks to change views.

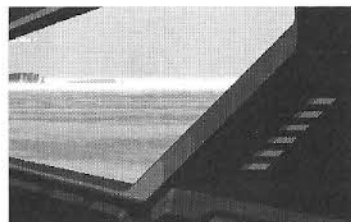


Left Window

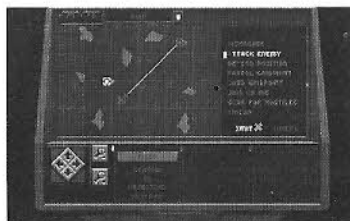


MFD

Heads Up



Right Window



Heads Down

Heads-Up Display (HUD). These indicators are projected onto your front windows, allowing you to navigate, acquire targets, and control your turret while keeping your eyes on the battle. From the HUD, you can go to the Left or Right window views.

Multi-Function Display (MFD). Directly under the cockpit window is the Multi-Function Display screen. The information and controls it displays depends on the mode you set for it, and includes HERC Status, FlashComm (radio) Navigation Map, Radar, Target Status, and Missile View for guiding electro-optical Missiles.

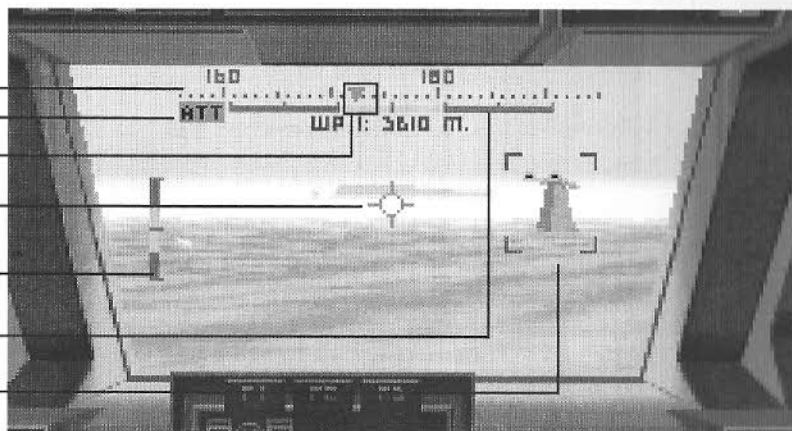
Heads-Down Display (HDD). In the Heads-Down view is the Heads-Down Display, providing squad member status, on-board Tactical Mission Map, and detailed damage report screens.

Pausing/Ending the Mission. Pause the mission at any time by pressing [P]. To quit and return to the menu screens, press [Q]. Doing so before your mission is completed, however, will have the most severe consequences.

THE HEADS-UP DISPLAY (HUD)

The Heads-Up Display (HUD) is the collective name given to the indicators and instruments projected onto your front window.

- Heading
- Auto-Tracking On
- Waypoint
- Aiming Reticle
- Elevation
- Rotation
- Target Box



HEADING INDICATOR

This scrolling bar displays the current compass heading (in degrees) of the main HERC body. (Turret heading can be different.)

WAYPOINT INDICATOR

This is the green triangle on the Heading Indicator that points toward your next targeted destination or waypoint. Simply center the pointer on the Heading Indicator and walk forward to reach the next waypoint. If you are not currently facing towards the waypoint, the waypoint indicator moves to the right or left end of the Heading Indicator—turning in the direction of the arrow will eventually put you back on track. Range to the waypoint is shown directly below.

AIMING RETICLE

The Aiming Reticle (crosshairs) in the middle of the front window helps you aim your weapons. You may turn the entire HERC to line up a shot, aim only the turret, or both. For stationary targets, just put the reticle on the target and blast. For moving targets, you must account for your movement, the target's relative angle and speed, and the weapon you are using to determine how far ahead of the target you should aim. This is known as "deflection shooting." Lasers are very quick, and require very little deflection, or "lead," to hit their target. ATC rounds, EMP pulses, and unguided missiles are much slower, and require greater deflection to fire accurately.

ROTATION INDICATOR

Shown as a sliding yellow bar on a gray slide within the Heading Indicator, this displays your turret's orientation on a horizontal track. When the bar is centered exactly in the slide, your HERC's turret is facing directly forward on its base. You can rotate your turret 45 degrees left or right of center with the [J] and [K] keys or the joystick (in turret mode). To re-align your turret front, center, and level, press [Backspace].

ELEVATION INDICATOR

Shown on the left side of your HUD, this bar display shows your HERC's turret orientation on a vertical plane. When the yellow bar is centered in the slide, your HERC's cockpit is parallel to the ground. You can change turret elevation up or down with the [I] and [M] keys or the joystick (in turret mode).

TARGET BOX

This is a red "bracket" that surrounds a target when you select it. You can select any opponent in view and in range. Once the target you want is selected, you can view its type and current status in the MFD's [F5] Target Status screen or engage Radar Active mode [R] to acquire a missile lock. The selected target is also surrounded by a yellow box in the [F4] Radar screen. The target remains selected until you select another target.

To select a target, click on it in your cockpit window with the mouse, press [T] or the [Tab] key, or click the TARGET button in the MFD's [F5] Target Status screen. [T] and TARGET cycle through all targets in view—keep pressing until the target you want is bracketed. (Press [Alt]+[Tab] to cycle backwards.)

To acquire missile lock, go to Active Radar while keeping the target selected until the target bracket acquires thick red corners. At that point, you are locked on, and any radar-guided missiles you fire will home in on the target. Note: Electro-optical missiles do not require missile lock—they are guided visually in the MFD's [F6] Missile View screen.

AUTOMATIC TARGET TRACKING (ATT) MODE

This function moves your turret automatically to keep your weapons aimed at any target you select. It tracks the current target until the target is destroyed or moves out of view, or until you select another target, take manual control of the turret, or turn it off. To turn tracking mode on or off, click the Track button on the console or press [Alt]+[T]. You will see "ATT" displayed on upper left of the HUD when auto-tracking is on. When you turn ATT off or lose tracking, the turret will re-center. Note: ATT aims at the target's center—aim manually for precise fire control.

THE CONSOLE

Different model HERCs have different console configurations, but all consoles have the same features.



EVENT DISPLAY

This text box displays various status updates and alerts during the mission to confirm arrival at waypoints, system failure warnings, and so forth.



SHIELD DISPLAY

HERC shields are divided into forward and rear sets. This display shows the relative front and rear shield strength by percentage and by color: the brighter the color, the stronger the shielding for that area. Shield power is depleted by enemy fire, and replenishes at a steady rate from the Master Energy Pool.

Initially, shield power is evenly distributed front and back, but you can change this balance manually if needed. To redistribute shield power, click the two arrow buttons on the Shield display, or press [] (for rear) or [] (for forward). Note: The shields are a closed system—if you increase the power of your forward shields, you decrease the power to your rear shields, and vice versa. Guard your weaker side carefully if you change the shield's power balance.



WEAPONS SELECTOR BUTTONS

These numbered buttons activate your weapons and ECM pod—click on the button or press the corresponding number key—[1], [2], etc.—to manually activate the weapon. The weapon stays activated until you activate another. You may activate and fire all weapons individually. You may also Link matched weapons, or place weapons in up to three Firing Chains to quickly activate the perfect weapons for any occasion.



FIRING CHAINS

A firing chain establishes a fixed weapons-firing sequence—as you fire, it cycles through each ready weapon in the chain. This helps you switch weapons and optimize your firepower without having to hunt for individual buttons in combat, and allows energy weapons to recharge a bit between shots. Weapons in firing-chain mode fire only when the selected target is in range. You can group and sequence weapons in firing chains by optimal range or by other criteria. You may also manually activate and single-fire any individual or linked weapon regardless of the chain(s) it belongs to. Press [W] or [Alt]+[W] to select the next or previous weapon for manual firing. Fire with the joystick trigger or [Space].

To program a firing chain, first select the chain (I, II, or III) by clicking on its button or by pressing the [-] key or [Alt] + [-] on your keyboard. (Depending on your HERC and mission, you may also have one or more default firing chains, any of which you can modify.) To place a weapon into a firing chain, press [Alt] and the weapon's number (for example, [Alt]+[1]). As you add a weapon to the chain, its green ready light will go on. To remove a weapon from a firing chain, simply press [Alt] and the weapon's number again. Note: Most pilots do not include missiles in firing chains, conserving them for specific unshielded targets.

When the chain is set up, click the button or press [-] again. You may program all three chains in this fashion. To activate an existing firing chain, simply switch to the appropriate chain and blast away.

READY LIGHT

This light next to the selector button turns green when the weapon has been selected (manually, or as part of a link or chain) *and* is ready to fire. The light turns red if the selected weapon is not ready to fire (target is not locked or in range, weapon is out of charge or ammunition). A firing chain will skip an unready weapon.

CURRENT WEAPON HIGHLIGHT

This bar names the weapon and turns red when the weapon is selected to fire next (manually, or as part of a link or chain). To fire, the weapon must also be ready.

WEAPON STATUS INDICATOR

For weapons requiring ammunition (Automatic Cannons, Missiles), this bar to the right of the weapon name shows how many rounds remain. When the counter hits zero, you're out.

For energy weapons (Lasers, PBWs, ELFs, EMPs), this bar shows the current level of charge as a bar graph. Energy weapons can recharge indefinitely from the Master Energy Pool, but need a minimum charge to fire.



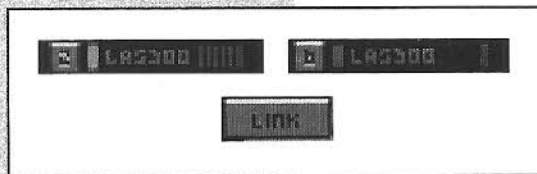


SETPPOINT

An energy weapon's recharge level and priority are determined by its setpoint, the thin red line at the right of the status indicator's charge graph. Increasing the weapon's setpoint increases its share of the energy pool. But increasing the priority at which one weapon charges decreases power available to the others, and vice versa. To change the setpoint, activate the weapon and drag the setpoint with the mouse, or use the [+] and [-] keys.

Lasers and ELF weapons consume charge at a fixed rate until depleting their reserves—increasing their setpoints increases the number of laser shots or the duration of the ELF stream. Conversely, Particle Beams and EMP cannons are “pulse” weapons that deplete their entire charge with a single burst, and must completely recharge to fire again. Increasing the setpoint on pulse weapons increases the power of the pulse.

Note: Damaged weapons will recharge more slowly, if at all. If the weapon is rendered inoperative, the status indicator will display “OFFLINE.”



LINK

To concentrate your fire, you may Link any two identical weapons mounted symmetrically on the HERC (on opposite hard points). Activate one of the weapons, and click the LINK button or press [L]. Now when either weapon is activated and fired, both fire simultaneously. This increases the effect of a hit, but can deplete your ammunition quickly. Note: If either linked weapon is included in an active firing chain, both will fire.

THROTTLE

This slide indicator shows how much throttle you are using, and whether you are moving forward or in reverse. (Centered is stopped.) Once the throttle is set, it stays set in that direction and at that rate until changed.



To set forward throttle with the keyboard, press [8] on the numeric keypad; for reverse throttle, press [2]. (With a joystick in Movement mode, push the stick forward or back.) For full stop, press the center numeric keypad key [5] or press Button 3 on some joysticks. Keep in mind that turn control depends on your current movement. When stopped or moving forward, steer right to change your heading to the right—when in reverse, steer right to change your heading to the left.

MASTER ENERGY POOL

Your HERC's "gas gauge." This display shows you the total amount of energy available in the Master Energy Pool for movement, shields, and weapons at any given time. If you make too many demands on the energy pool, you will decrease the recharge rate of your energy weapons—one or more may run dry.

This screen, directly below the front window on all HERCs, provides several vital function displays, described below. The default display is your HERC's STATUS. You can click on the red display name to cycle through all the displays, or go directly to a specific display by clicking on the console's F1-F6 buttons or pressing your [F1]-[F6] keys, as follows: [F1]—STATUS, [F2]—FLASHCOMM, [F3]—NAV MAP, [F4]—RADAR, [F5]—TARGET STATUS, and [F6]—MISSILE VIEW.

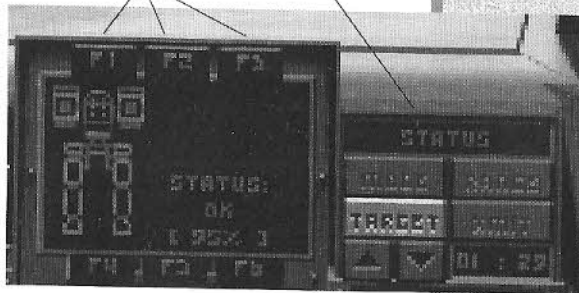
MFDs (MULTI-FUNCTION DISPLAYS)

STATUS [F1]

This displays the current operational status of your HERC's main components. Green indicates that the component is fully operational; Yellow indicates moderate damage; Orange indicates serious damage; Red indicates imminent failure; and Gray indicates a failed or destroyed system. For detailed damage reports on the structural, internal, or weapons subsystems of your HERC or those of your squad members, see the HDD [F8] display.

Selector Buttons

Display Name



FLASHCOMM [F2]

This is your panel for communicating with all other pilots in your squad. FlashComm broadcasts to all squad members simultaneously on a tight-beam scrambled frequency. The closest squad member who can fulfill your order will then do so, sending an acknowledgment beforehand. If no one in your squad



can carry out your order, you will get a “negative” response from the closest teammate. Otherwise, you will receive affirmative or negative responses from each pilot. (To send a message to a specific pilot, see “Command Display [F7]” on page 43.)

You have two ways to send FlashComm messages. The first is to go to the [F2] FlashComm display. You can select the messages you want to send by clicking on it, by pressing its hot key (red-highlighted letter), or by clicking the Up/Down arrow buttons next to the message list until the one you want is highlighted. (You can also cycle Up/Down through messages with the [,<] and [,>] keys.) Once the message is selected, transmit by clicking the XMIT button or pressing the [X] key.

The other method is to simply press [Alt] plus the hot key for the message you want to send: [Alt] + [A] for Attack My Target, for example. This lets you send messages without going to the FlashComm screen.

FLASHCOMM COMMANDS:

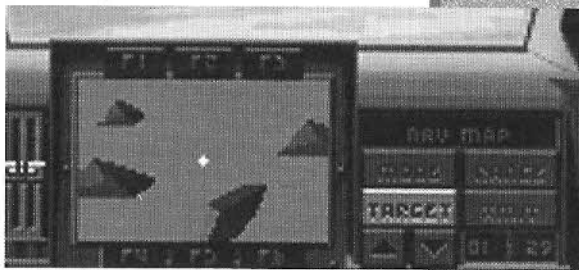
- **Attack My Target [A].** Orders other pilots to attack your currently selected target.
- **Ignore My Target [G].** Orders other pilots to leave your currently selected target alone.
- **Help Me Out! [H].** You’re in it deep—hope they get to you in time.
- **Join On Me [O].** Orders all squad pilots to move within safe communications range and then follow your maneuvers.
- **Scan For Hostiles [C] /EMCON [E].** Scan for Hostiles tells all pilots to switch their Radars to Active mode. Once you transmit Scan for Hostiles, this message changes to Emcon, and vice versa.

Emcon tells all pilots to observe “emission controls”—in other words, to turn Active radar off. Note: All HERCs are datalinked, so targets picked up on one HERC’s radar is visible on all scanners in your squad.

- **Fire At Will [F] /Hold Your Fire [F].** Fire At Will tells your squad to take out anything not on your side. Once you transmit Fire At Will, this message changes to Hold Your Fire, and vice versa.

NAVIGATION MAP [F3]

Presents a bird's eye view of the terrain you are traveling through, with your HERC displayed as a white cross. This map moves with you, and is always oriented towards your current heading, helping you navigate obstacles.



RADAR [F4]

The Radar display screen indicates the relative position of friendly HERCs and installations (in blue), hostile ground units (in red), airborne hostiles (in yellow), and enemy installations (in green). The currently selected target, if any, is shown surrounded in a yellow box. The lighter wedge on top on the display represents your "target cone." This is the area currently visible through your window in which you can select and lock on targets. This display also shows whether the Radar is sweeping in active (ACT) or passive (PAS) mode.



Click on the RANGE button or press [Alt]+[R] to increase or decrease the range of your Radar. Long range scans can go well beyond visible range. However, the greater your scanning range in Active mode, the easier it is for distant enemy units to detect your emissions.

To select a target in the target cone, click the TARGET button. Like pressing the [Tab] or [T] key, this selects the nearest visible target, bracketing it in a yellow box on the Radar screen and in a red box on your HUD. (You can also select targets directly by clicking on them in the window.) Repeatedly pressing the TARGET button cycles through all available targets. To cycle in reverse order, press [Alt]+[Tab] on your keyboard.

To switch the Radar between Active (ACT) and Passive (PAS) modes, click the MODE button or press [R]. Passive mode "listens" for enemy Radar scans without making any noise itself, and is required for silent running and avoiding homing missiles (unless the HERC is also equipped with an ECM pod). However, passive mode will not detect enemy units that are not actively scanning.

Active mode sends out intense radio emissions that “illuminate” all nearby units, whether they are emitting or not. All HERCs are datalinked, allowing an enemy unit detected by one pilot to be seen by all. However, active Radar scanning broadcasts the scanning HERC’s position and sets it up as a target for ambush and air attack. Anti-Radar Homing Missiles will home in specifically on Radar emissions.

To fire radar-guided missiles using missile lock, click the MODE button to turn the Radar to Active (ACT). Once in Active mode, select a target—after a few moments, the red target box acquires thick red corners, indicating that you have missile lock. Any radar-guided missiles you fire will now home on that target, even if it moves (subject to enemy countermeasures). As soon as the missile hits, click MODE again to switch back to passive mode (PAS). For details on aiming EO missiles, see “Missile View Screen” [F6].



TARGET INFORMATION [F5]

When a target is selected (by using the [Tab] key, the [T] key, clicking on the target in the window, or pressing the TARGET button), this screen identifies the target and displays a rough damage estimate. This is very helpful in determining where to concentrate your fire to finish off an enemy. If no target is selected, the screen will show TARGET: NONE. If the MFD computer has never encountered the selected target before, it will display TARGET: UNKNOWN.



MISSILE VIEW [F6]

This displays current missile lock status, and shows a “missile-eye-view” for any missile you fire. It also lets you aim optically guided missiles. If you have a current radar lock on a target, you will see LOCK highlighted in red.

When you fire EO (Electro-Optical) Missiles, you will use this missile-eye view to guide the missile manu-

ally with the joystick or arrow keys. You must hold down the fire button or [Space] to retain control of the missile in flight. Steer the missile all the way to the target. Once the missile hits, crashes, or runs out of fuel, you will return to HERC control.

To open the HDD, select one of its functions ([F7] Command Display or [F8] Damage Detail), or click the mouse at the bottom of the main cockpit view. To return to cockpit view, press [Esc], click the mouse at the top of the screen, or select an MFD screen ([F1]-[F6]).



COMMAND DISPLAY [F7]

This screen presents a scaled-down version of the Tactical Mission Map used in the Briefing, updated in real time, and lets you send specific commands to individual pilots. The red border indicates the mission zone. The squad members now with you in the field are shown on comm screens next to the map. Squad members are shown on the map in the same color that highlights their name on the comm screen.

From the Command Display, you communicate with individual squad members (not the whole squad, as in FlashComm). When squad members are not broadcasting, their video box remains darkened, displaying only their name, their status, and their current orders. If a pilot's communication or HERC is knocked out, the video box goes to static and you can send them no messages.

HDDs (HEADS DOWN DISPLAYS)

To send a message, you must first select a pilot to send it to. Select the pilot's marker on the map, click his or her comm screen, or press the corresponding number (from left to right: [1], [2], [3]). If the selected pilot is in communication range, the pilot will respond, saying, "Standing by." Now select the appropriate message by pressing the appropriate hotkey, clicking on the message, or cycling Up/Down through the messages with the [,<] and [,>] keys.

Certain messages will require that you pick a unit or location on the map as a destination or waypoint. Scroll the map out until you can see the destination by clicking the magnifying glass buttons or pressing [+] or [-]. To select an enemy or friendly unit, click on it or use the [Tab] key to cycle through your choices. To select a gridpoint, click on it with the "X" mouse cursor, or scroll the map using the arrow keys until the X cursor is in the correct location, and press [Enter]. Finally, to send the message, click on the XMIT button or press [X]; click CANCEL or press [Backspace] to cancel it.

COMMANDS

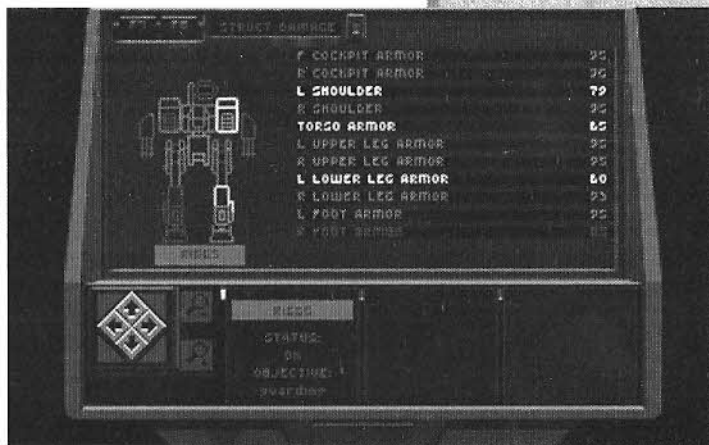
- **Disengage [D].** Orders the designated pilot to break off contact with the enemy.
- **Attack the Enemy [A].** Orders the designated pilot to attack a target of your choosing. After giving this order, you must select the target on the map to attack by clicking on it, or by using the [Tab] key. A colored line will then link the chosen pilot to your selected target.
- **Defend Position [F].** Orders the designated pilot to travel to and defend a specific gridpoint or friendly unit assigned by you. Select a friendly unit with the mouse or [Tab]. Select a gridpoint using the mouse X cursor or the arrow keys and [Enter]. The unit so ordered will ignore all enemy units it encounters along the way. Once in position, the chosen HERC attacks any enemy units that get close (but will not pursue them if they flee).
- **Patrol Gridpoint [T].** Orders the designated pilot to proceed to a specified point designated by you. Select a gridpoint using the mouse X cursor or the arrow keys and [Enter]. The Pilot will attack any targets he or she encounters along the way. Once in position, the pilot will defend the position until receiving further orders.
- **Go to Gridpoint [G].** Orders the designated pilot to proceed to your chosen point(s) on the mission map, avoiding any targets encountered en route. Select a gridpoint using the mouse X cursor or the arrow keys and [Enter]. Upon arrival, the pilot will proceed to the next gridpoint, if so ordered. Without further orders, the pilot will defend the designated gridpoint.

- **Join on Me [O].** Orders the designated pilot to join up with you. Upon reaching safe communication distance, the chosen pilot will then follow your maneuvers. This works well for “follow the leader” when attempting to outmaneuver or flank your opponent.
- **Scan for Hostiles [C].** Orders the designated pilot to switch their Radar to Active mode and begin sweeping for enemy units. This allows the chosen pilot to see farther, but also increases the likelihood of air attacks and ambushes. Note: All HERCs are datalinked, allowing an enemy unit detected by one pilot to be seen by all.
- **EMCON [E].** Orders the designated pilot to put emission controls into effect, shutting off active Radar and maintaining radio silence until receiving a Scan for Hostiles message.
- **XMIT [X].** Send selected order to designated pilot.
- **Cancel [Backspace].** Cancel message before transmission.

DETAIL DAMAGE DISPLAY [F8]

This display shows a comprehensive system/damage analysis of each HERC in your squad, as well your currently selected target, if any. To select another HERC to view, click on the Left/Right arrow buttons or press your Left/Right arrow keys.

HERC status is divided into three divisions—structural, internal, and weaponry. To switch between these views, press [S], [I], or [W] on your keyboard, or click on the current display title indicator below the schematic (STRUCT DAMAGE, INTERN DAMAGE, WEAPON DAMAGE). General status of each component is shown as colors: Green, normal; Yellow, moderate damage; Orange, serious damage; Red, imminent failure; Gray, inoperative. Operating condition is shown as a percentage.



SIMULATION PREFERENCES / CONTROLS



PREFERENCES

To change your game preferences while on a mission, press [Alt]+[P] or [F12]. This opens the mission preferences panel and pauses the mission until you are finished making your selections.

This menu is similar to the Preferences panel in the Options screen, but allows you more control over your environment. In addition, you can immediately see the effect of your graphic detail selections on the screen above.

MUSIC

Click this button to switch music in the simulation ON or OFF.

SOUNDS

Click this button to switch sound effects in the simulation ON or OFF.

SPEECH

Click this button to receive messages as just on-screen Text, Text and Voice, or Voice only. Note: Voice options require the CD version or optional DOS version Speech Pack.

HORIZON

Click this button to turn visible terrain on the horizon ON or OFF. Turning the Horizon off may help game speed if your computer runs *EarthSiege* animation slowly.

SKY, GROUND, and SHAPES

Clicking these buttons changes the graphic detail level for the respective category, represented on the sliding scale next to each button. You may wish

to reduce the detail level on one or more of these categories to increase the speed of the simulation if your computer runs *EarthSiege* slowly. The default settings are determined at installation by your computer's processor and available RAM (computers with minimum memory can not run the highest detail levels). If the scale is blank, the category is at the minimum detail level.

CONTROLS

Pressing this button allows you to specify and calibrate your control systems for the simulation on the Controls screen. (The Controls screen is detailed in the following section.)

DONE

Saves your changes and returns you to your cockpit, resuming the mission.



This screen, opened from System Preferences, lets you select and calibrate any controllers you want to use in addition to the keyboard.

JOYSTICK

Use this setting to select a joystick to use in controlling your HERC.

EarthSiege supports several joystick configurations: 1 standard joystick, 2 standard joysticks, ThrustMaster® Flight Control System, FlightStick Standard™, and the FlightStick Pro™. If you do not wish to use a joystick at all, select NONE—this selects the keyboard as the default controller.

JOY1 CONTROL

Use this setting to select the default use of the joystick: Movement or Turret control. During the mission, you may switch between Movement and Turret control by pressing [Insert] or joystick button 2. (If you selected NONE for joystick, the default controller will be the keyboard for both.) You can also use the joystick to move the external view, and to guide EO missiles.

All Joysticks:

Movement Mode

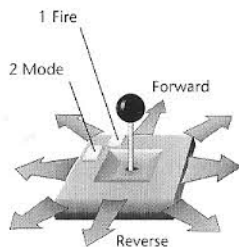
Button1 (Trigger): Fire Weapon
Forward/Back: Forward/Reverse
Left/Right: Steer
Button 2: Switch to Turret Mode

Turret Mode

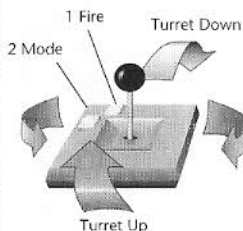
Button1 (Trigger): Fire Weapon
Forward/Back: Turret Down/Up
Left/Right: Turret Left/Right
Button 2: Switch to Movement Mode

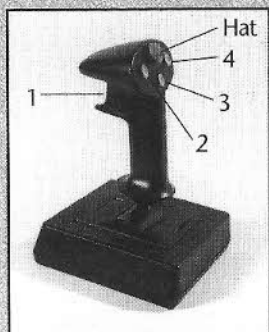
CONTROLS

Movement

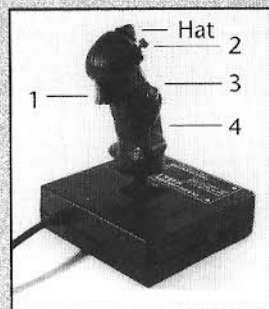


Turret





FlightStick Pro



Thrustmaster FCS

FlightStick Standard:

Normal joystick functions.

FlightStick Pro™:

Normal joystick functions. Plus:

Button 3: Align Turret/Center Throttle

Button 4: Select Target

Plus, the "Hat" button changes Cockpit Views:

Neutral position: look Front

Forward position: look up from HDD to Front

Right position: look Right

Left position: look Left

Back position: look down from Front to HDD

Thrustmaster® Flight Control System (FCS):

Same as FlightStick Pro, above.

Thrustmaster Weapon Control System Mk. II (WCS)®

THE WCS button lets you turn your WCS Mk. II ON or OFF, if you have one installed. (WCS Mk. I is not supported.) You must have a joystick installed to use a WCS. The WCS stick controls the HERC throttle. You may program the other WCS buttons to your liking. As a default, the first bank of six buttons corresponds to the six MFD screens [F1]—[F6].

Thrustmaster Rudder Control System (RCS)

The RCS button lets you turn your ThrustMaster Rudder Control System ON or OFF, if you have one installed. The default setting is for Turret Control. If you have already set Turret control to another controller, the RCS will control HERC steering.

MOUSE

Switches your mouse ON or OFF, if you have one installed.

CALIBRATE

This button opens the calibration panel so you can optimize your controller's performance in the simulation. Click the DEVICE button until your controller type is displayed, then click CALIBRATE and follow the on-screen instructions. Click DONE to return to the Controls menu.

DONE

When you have made all your needed changes, click DONE to return to the Preferences menu.

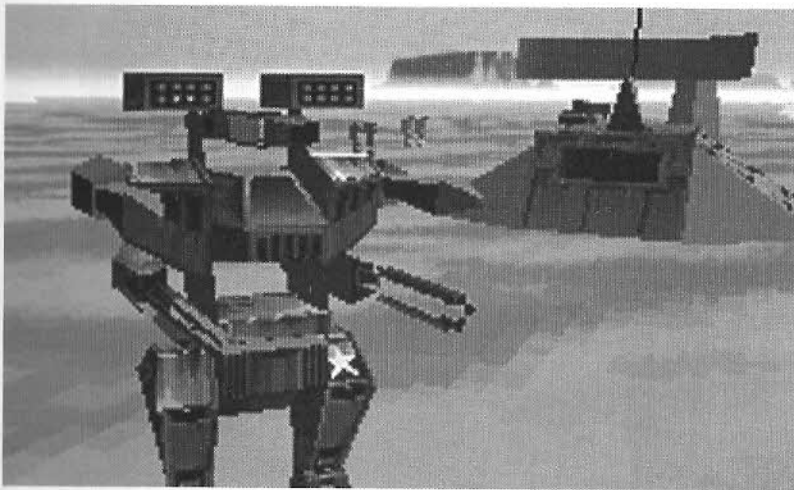
The External View lets you view the outside action around your HERC, or around any other HERC in your squad. Press [V] to enable the external view; to return to the cockpit, press [V] again or [Esc].

EXTERNAL VIEW

In the External View, the view follows the HERC. You can rotate the view all around the HERC using your joystick or keyboard arrow keys. To move the view in and out with the joystick, hold down the joystick's Fire button while moving the stick forward or backward; from the keyboard, hold down [Space] while pressing the up or down arrow keys.

To switch between external view and HERC control, press [Tab] or joystick button 2.

To view other HERCs in your squad, press [N]. While looking at another HERC, you may rotate or zoom the view (but not take control of the HERC). To return to your cockpit, press [V] or [Esc] to climb back inside.



HERCs

REFERENCE

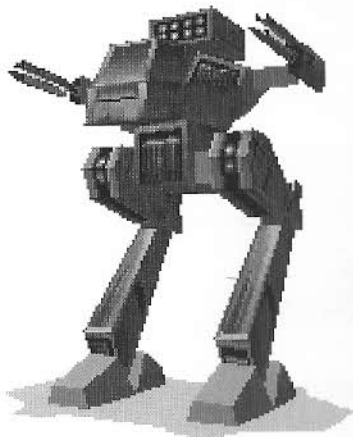
In general, bigger HERCs can carry more and heavier weapons, and have stronger armor and shields. The tradeoff is that bigger HERCs are also slower and less maneuverable. The following pages illustrate the basic HERC types and describe their performance characteristics.

Note: Available weapons depend on current inventory. Mass shown in metric tons.

ROADRUNNER

Mass: 18 tons
Height: 5.4 meters
Speed: 84 KPH
Weapons Capacity: 3
Salvage Req. to Build: 50 tons

The fastest scout HERC fielded by the Resistance, the Roadrunner is ideally suited for light recon and scouting missions where speed is essential.



OUTLAW

Mass: 27 tons
Height: 6.1 meters
Speed: 80 KPH
Weapons Capacity: 3
Salvage Req. to Build: 60 tons

Mounting more armor and the ability to carry heavier weaponry than a Roadrunner, the Outlaw can stay in a fight longer than its counterpart. It is also the lightest HERC that can mount an EMP cannon.



RAPTOR

Mass: 36 tons

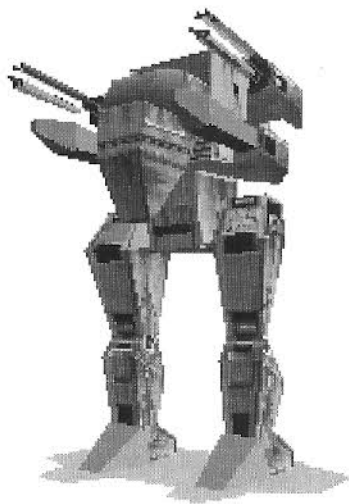
Height: 7.0 meters

Speed: 76 KPH

Weapons Capacity: 4

Salvage Req. to Build: 80 tons

A medium weight HERC with good maneuverability and firepower. Armed reconnaissance is a specialty of the Raptor.



TOMAHAWK

Mass: 45 tons

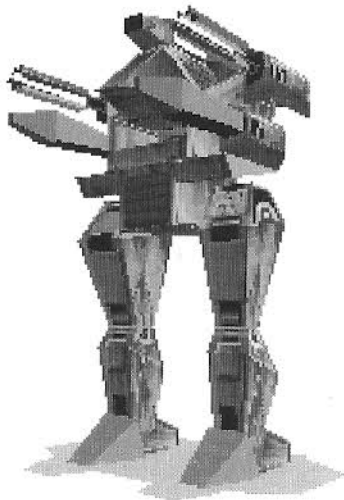
Height: 7.6 meters

Speed: 71 KPH

Weapons Capacity: 5

Salvage Req. to Build: 100 tons

Tomahawks specialize in the medium attack role and are often deployed as a screening force for assault HERCs.



PATRIOT

Mass: 50 tons

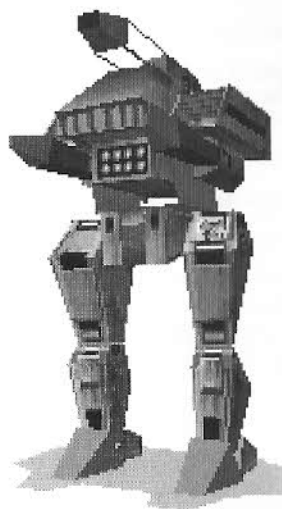
Height: 8.2 meters

Speed: 64 KPH

Weapons Capacity: 6

Salvage Req. to Build: 120 tons

This HERC can mount more missiles for its size than any other type. It is especially well suited for anti-air operations.



RHINO

Mass: 54 tons

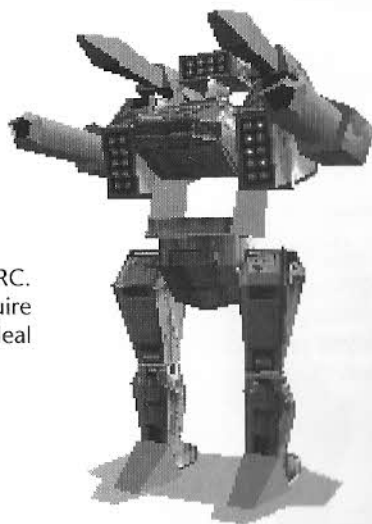
Height: 8.5 meters

Speed: 56 KPH

Weapons Capacity: 7

Salvage Req. to Build: 140 tons

The Rhino is a fast heavy attack HERC. Hit and fade missions that require good firepower and speed are ideal for the Rhino.



SAMSON

Mass: 63 tons

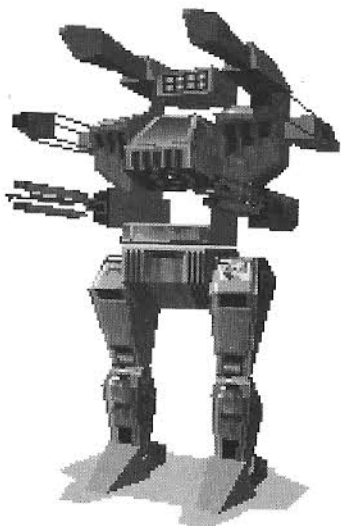
Height: 9.2 meters

Speed: 52 KPH

Weapons Capacity: 8

Salvage Req. to Build: 170 tons

The second heaviest of the resistance HERCs, its specialty is search and destroy missions. The Samson class boasts excellent armor and firepower.



COLOSSUS

Mass: 77 tons

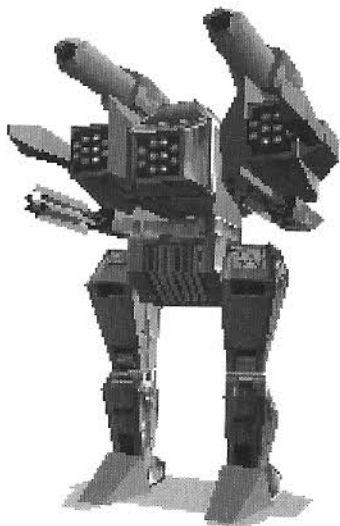
Height: 10.4 meters

Speed: 46 KPH

Weapons Capacity: 9

Salvage Req. to Build: 200 tons

This is the heaviest HERC fielded by the human resistance. Colossus units are used to assault the enemy strong points where their massive firepower can be brought to bear despite their slow land speed.



ENEMY VEHICLES

STINGRAY

Mass: 26 tons

Height: 5.1 meters

Speed: 80 KPH (est.)

Weapons Capacity: 3

The premier Cybrid light attack HERC. It is roughly equivalent in capability to an Outlaw, but is a bit faster.



BUZZARD

Mass: 12 tons

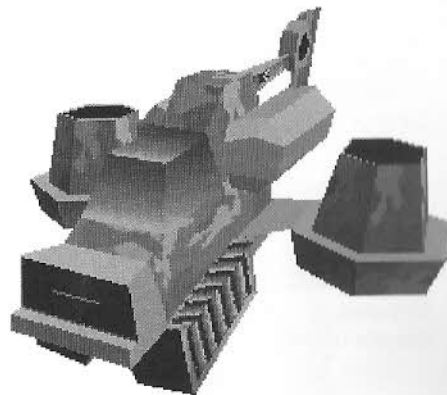
Height: 3.2 meters

Speed: 200 KPH (est.)

Weapons Capacity:

2 ATC and/or missile array

These highly modified land skimmers are deployed by Cybrid as reconnaissance and light attack vehicles. Variants mounting missile arrays can be especially nasty.



ARACHNITRON

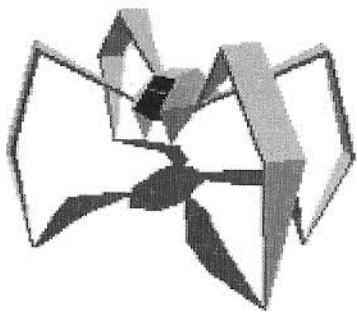
Mass: 3 tons

Height: 1.5 meters

Speed: 80 KPH (est.)

Weapons Capacity: none

Arachnitron suicide droids are one of the nastiest weapons in the Cybrid arsenal. They attack by ramming a human-piloted HERC and explode on impact.



RAMSES

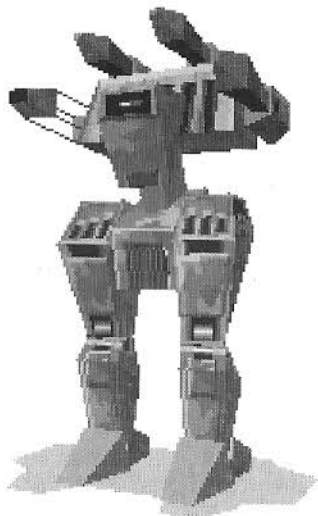
Mass: 37 tons

Height: 7.1 meters

Speed: 80 KPH (est.)

Weapons Capacity: 4

The most common medium Cybrid HERC, it is deployed in nearly every combat theater in a variety of roles.



Warning: Cybrid vehicle development progresses rapidly. Be on the lookout for new designs at all times.

WEAPONS

There are three main types of HERC weapon systems: Energy (divided into beam or pulse systems), Projectile (cannon), and Missiles. Each has comparative strengths and weaknesses, described on the following pages. You can replace, upgrade, or add weapons to your HERC at your discretion—as long as the weapon you want is in inventory, your HERC can handle the load, and as long as there's an available hard point for it, that is.

Note: Weapon controls and firing are described in the "Cockpit" section.

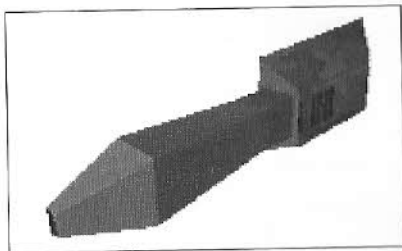
ENERGY WEAPONS

Energy weapons require a minimum charge to fire. A weapon not in use will automatically recharge from the HERC's Master Energy Pool, the same power source that runs the HERC's motors, shields, Radar, etc. (providing that energy is available).

You may adjust the rate at which an energy weapon recharges using the Setpoints, the red line on an energy weapon's indicator bar. If you overtax the Master Energy Pool, you may have one or more energy weapons go offline.

LASERS

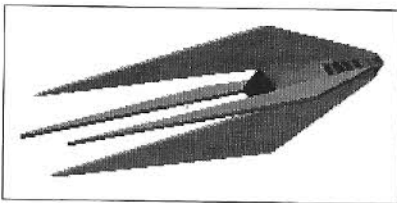
One of the most common HERC weapon systems, lasers cause damage by hitting their target with a tightly focused beam of coherent light energy. HERC laser fire is of fixed power (determined by gigawattage of weapon) and duration. Popular because of their accuracy, lasers can be used to surgically cripple an enemy HERC with precise fire.



- **Strengths:** Very accurate; long range; dependable; effective as long as you have power; energy efficient (although less so than Automatic Cannons).
- **Weaknesses:** Limited damage potential; can be compromised by bad weather (dust, fog, and other atmospheric disturbances that may deflect the beam's coherence); limited effectiveness against shields.
- **Notes:** Can be fire-linked. Increasing the setpoint increases number of available shots before depleting charge.

ELECTRON FLUX WEAPON (ELF)

Sometimes called a "lightning bolt on a leash." In the hands of an expert, an ELF can literally cut an enemy to pieces. Once activated, the ELF continually emits a controlled electrostatic discharge up to a range of 20 meters as long as the operator keeps the firing mechanism depressed and there is energy available to power the weapon.

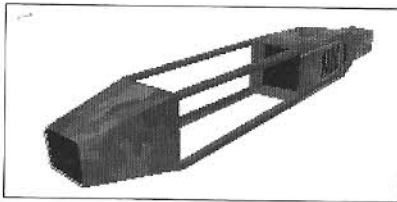


When this beam comes into contact with any enemy vehicle the results are often spectacular—the ELF can detonate any explosive weapons mounted on (or in) the target as its beam contacts it.

- **Strengths:** Effectively ignores shields; can incapacitate without destroying (excellent salvage potential).
- **Weaknesses:** Usable only at extremely short range; potential of damaging your own HERC due to secondary explosions derived from an accurate hit; difficult to control and master.
- **Notes:** Cannot be linked or placed in a firing chain. Increasing the setpoint increases the duration of the ELF stream.

PARTICLE BEAM WEAPONS (PBWs)

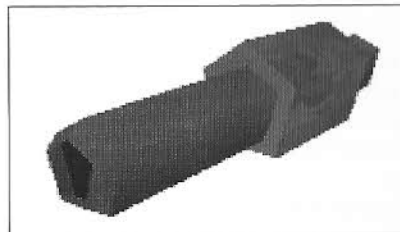
Best described as "an electromagnetic shotgun," the PBW emits a burst of charged particles at relativistic velocities capable of literally punching a hole through an enemy HERC at point-blank range.



- **Strengths:** Devastating at close to medium range.
- **Weaknesses:** Useless at long range; requires a huge amount of energy to function, leaving most HERCs vulnerable for a few seconds after firing; typically takes several seconds to recharge, during which time the HERC must not fire any other energy weapons.
- **Notes:** Increasing the setpoint increases the power of the PBW burst.

PROJECTILE
WEAPONS**ELECTROMAGNETIC PULSE CANNON (EMP)**

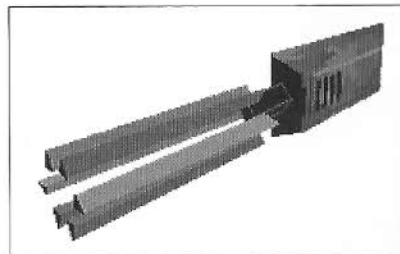
A dual-effect weapon, the EMP fires a high-energy burst of plasma at its target, not only causing kinetic damage at the point of impact, but additionally setting up an electromagnetic pulse within the targeted HERC as the plasma stream dissipates. This pulse drains off stored shield and weapon energy.



- **Strengths:** Dual effect; good range (medium-long); briefly incapacitates target.
- **Weaknesses:** Slow recharge time; slow shot-to-target closure.
- **Notes:** Increasing the setpoint increases the power of the EMP burst.

AUTOMATIC CANNON (ATC)

Available in 20 millimeter (mm), 35mm, or 50mm, Automatic Cannons fire tungsten-tipped, depleted-uranium slugs at a rate of 2,000 rounds per minute, fast and hard enough to penetrate most armor plating. Requiring only minimal power to function, this weapon system is easy to maintain and apply.



While not the most devastating weapon on the battlefield, ATCs are stable and reliable, often the last weapon available to a pilot whose HERC has taken a beating.

- **Strengths:** Very reliable; mechanical operation requires minimum power, and consequently can be fired even when most other systems are non-operational.
- **Weaknesses:** Short range; moderate damage; limited by amount of ammunition carried.

ARRAYS

Every HERC can be fitted with at least one missile launcher (called an array), although many can carry up to four or five arrays into combat. Arrays differ only in capacity, carrying 6, 8, or 10 missiles each.

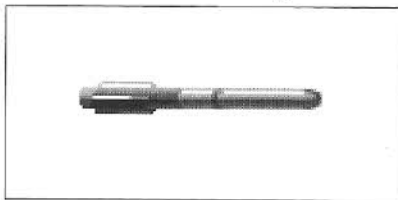
Once you select an array, you must select the type of missile the array will carry. Missiles vary primarily in range and guidance system. You can aim and fire missiles manually, but they are much more accurate and effective when you use the appropriate guidance system.

Missiles carry a big punch, but are precious and few. Don't waste them on a target with active shields, and avoid including them in firing chains. Missiles may destroy valuable salvage if aimed at the wrong spot. To minimize this, aim a guided missile low or away from the target. As the missile adjusts to its acquired target, it will home in on the nearest extremity, rather than the body of its target. Strategic shots once the shields are down can cripple a Cybrid HERC and leave you with plenty of salvage, new weapons, and perhaps, new technology.

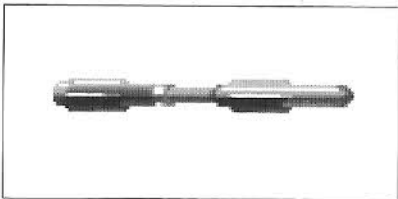
SARH MISSILES (SEMI-ACTIVE RADAR HOMING MISSILES)

Requires a radar lock on the selected target with constant illumination from launch to impact.

- **Strengths:** More accurate than an unguided missile.
- **Weaknesses:** Easiest missile to defeat through countermeasures.

**ARH MISSILES (ACTIVE RADAR HOMING MISSILES)**

Of the "fire-and-forget" school of self-propelled ordnance, the ARH missile requires an initial radar lock (or illumination) at launch, after which its internal guidance system takes over, directing the missile the rest of the way towards the target.



- **Strengths:** Fire-and-forget system makes life easier for HERC pilots.
- **Weaknesses:** Can be defeated by ECM pods.

ARM MISSILES (ANTI-RADIATION MISSILE)

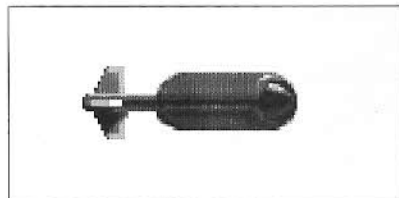
Unlike the SARH, where both the missile and the HERC that launched it must be running with their scanners active until impact, the ARM missile does its magic through passive scanning. Instead of broadcasting to its target, the ARM tenaciously tracks active emissions back to their source—a big surprise for those running with their scanners active.



- **Strengths:** Can be fired without alerting enemy to presence of missile or launching platform; does not require active radar illumination of target to hit.
- **Weaknesses:** Easily defeated by target switching radar to passive mode.

EO MISSILES (ELECTRO-OPTICAL MISSILES)

Visually guided ordnance, the EO transmits a high definition video image of its journey back to the launch vehicle. The HERC pilot then guides the missile towards the target by using cockpit controls and the F6 MFD Missile View screen.



- **Strengths:** Difficult to detect and to defeat; when used by an experienced pilot the EO is far more precise than other missiles; can be delivered from extremely long range; does not require active radar illumination of target.
- **Weaknesses:** Requires total pilot attention from launch to impact; leaves controlling pilot open to counterattack; difficult system to control and master.

Note: You may guide EO missiles with your joystick or arrow keys. You must hold down the fire button or [Space] to retain control of the missile in flight. Steer the missile all the way to the target. Once the missile hits, crashes, or runs out of fuel, you will return to HERC control.

SHIELDS

HERC shields are the first line of defense, generating a constantly modulated electromagnetic field that disrupts incoming lasers, degrades containment fields on particle beams, and partially dissipates the kinetic energy of ATC slugs. Also, shields cause missiles to explode on contact, preventing most of their blast power from reaching the HERC's armor.

Shields are powered from the onboard fusion generator and run through a capacitance energy matrix standard on all HERCs. The bigger the HERC's generator, the stronger the shield.

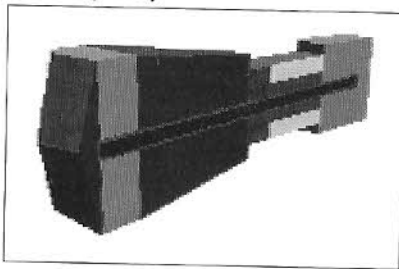
Two weapons are effective against shields: EMP cannons disrupt the shield matrix, and the ELF is so incredibly powerful that it punches through shields as if they are not even there.

ARMOR

Where the shields leave off, armor takes over. All HERCs are armored through a combination of duranium plates layered over the HERC's surface. However, armor alone will not resist a sustained attack by any type of weapon.

ELECTRONIC COUNTER MEASURES POD (ECM)

The ECM pod contains electronic devices to suppress enemy missile capabilities, and can be mounted on HERC hard points from the Armament screen. When activated, it creates electronic "noise" around your HERC that reduces the chances of your HERC being acquired and missile-locked by enemy radar. ECM emissions also confuse incoming missiles and prevent a selected target from calling for reinforcements.



The ECM pod has one major drawback: when activated, its emissions alert all nearby Cybrids to your presence. For this reason, you should never activate the pod until you have already been spotted by the enemy.

RADAR

HERC radars function in two modes, Passive or Active. In Passive mode, you are simply listening for enemy "emissions" (radio transmissions or scans). Although this mode is undetectable, it won't detect enemies that are not producing emissions themselves.

In Active mode, the HERC's radar system emits powerful radar pulses to "illuminate" enemy contacts. While this mode effectively locates the enemy, its emissions broadcast your HERC's position, as well. For this reason, most squads perform most of their missions observing EMCON (Emissions Controls) procedures: they run without active radar, and without using the radio except for tight-beam coded transmissions from HERC to HERC.

TACTICS

In the long run, surviving missions isn't enough. You have to return from your missions carrying more than what you left with, and with as little new damage as possible. If you are constantly scraping for salvage to keep your HERCs running, you will not be able to build the new designs needed to keep even with the Cybrids.

STICK AND MOVE

Learn to fire on the move, and avoid head-on attacks. Cybrids outnumber you—to exchange blows evenly with them plays to their strengths and guarantees them eventual victory. Even if you don't lose a particular combat, the damage you sustain will cost precious weapons and salvage that you and your squad can't afford.

TEAMWORK

The Human capacity for teamwork is one of your few advantages, so gang up on your targets whenever possible. Rapid communication can make all the difference between a successful strike and one that comes home in pieces. Keep the whole squad in mind, and use the Command Display (page 44) and FlashComm (page 40) commands to coordinate the unit. Pincer and flanking maneuvers work especially well if you can get everyone into position.

SHARE THE WEALTH

Make certain every HERC in your squad is as well equipped as possible. Keeping all of the best equipment for yourself may exact its price in repairs that need to be made to the rest of your squad. You may choose to distribute all weapons evenly, or configure different HERCs for specialized roles in coordinated attacks. When assigning weapons (page 22), bear in mind the pilot's experience: an Elite can do more with six missiles than can a Rookie.

DO THE JOB

Don't forget about your mission objectives. Do the job and then run away—the first thing Cybrids do when attacked is call for reinforcements. You have a chance to win a hit-and-run guerrilla war, but will definitely lose a war of attrition.

WEAPON LINKS AND FIRING CHAINS

When the mission starts, configure your weapons to the settings that suit you best, and set up your firing chains (page 36) immediately. Linking energy weapons and missiles concentrates your firepower, but depletes your stores far faster than single shots. Make each shot count! On energy weapons, leave time for recharging between salvos. You don't want to be head to head with a Cybrid HERC and suddenly find yourself dry-firing 200 GW lasers while the Cybrid is still chipping away at you.

SHIELDS

Monitor the status of your shields, and be prepared to pivot the HERC or divert power from your front to your rear, or vice versa, if the situation warrants it.

EMCON

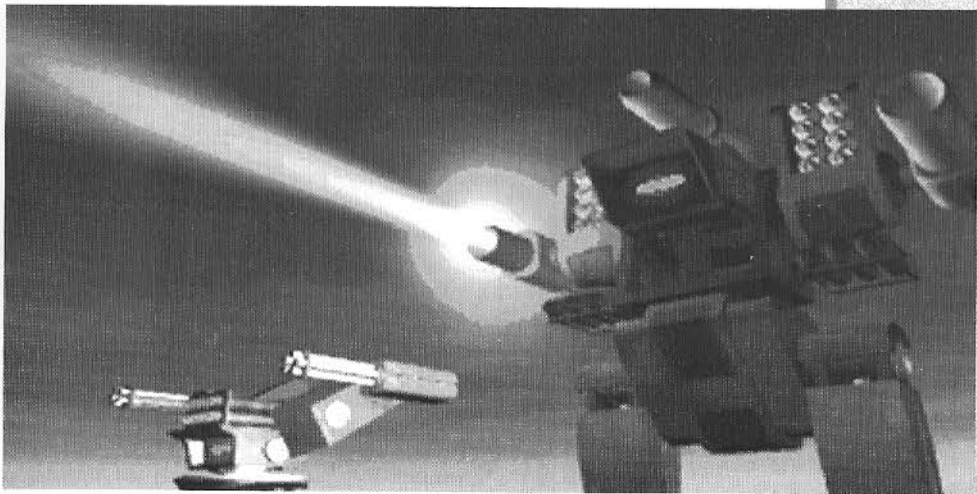
Your squad will observe emissions control (EMCON) as long as possible. Once the enemy is sighted and engaged, you and your squad should use Active radar only as long as necessary to lock and fire missiles.

MAXIMIZE SALVAGE

Consider your shots wisely. Skillful shots to the legs and feet can cripple a Cybrid HERC and still leave plenty of salvage and weapons to drag back to the base. Targeting the enemy's center turret (containing the fusion generator) leaves mostly useless scrap.

SAVE YOUR PROGRESS

Some lessons just have to be learned the hard way, so don't forget your ultimate advantage: Career Backups (page 21). Judicious use of backups can restore most of your progress in a hard-fought campaign, if not your pride. (In the next life, you'll know better.)



KEYBOARD COMMANDS

MENUS

Esc	Cancel
Tab or Alt+Tab	Select Next/Previous Button
Enter	Press Current Button/Select Item
Spacebar	Proceed to Next Screen
↑ or ↓	Highlight Previous/Next Item (Lists)

COCKPIT

Insert or Joy Button 2	Joystick Control: Movement/Turret
Up/Down Arrow	Throttle/Forward/Reverse
L/R Arrow	Steer
I	Turret up
M	Turret down
J	Turret left
K	Turret right
Backspace	Turret centered
F9	Pan View Left
F10	Pan View Right
F11	Mission Objectives
Esc	Return to Cockpit/HDD

EXTERNAL VIEW

V	External View On/Off
Tab or Joy Button 2	View Control/HERC Control
N	View next squad HERC

WEAPONS

Space	Fire current weapon
Tab or T	Select target
Alt+T	Auto Target Tracking On/Off
1 ... 9	Select corresponding weapon
Alt+1...9	Add/Remove weapon in firing chain
~ or Alt+~	Select next/previous chain
W or Alt+W	Select next/previous weapon
L	Link selected weapon (if possible)
+	Increase setpoint
-	Decrease setpoint
R	Switch Radar Mode
Alt+R	Set Scan Range
[Increase rear shield
]	Increase front shield

DISPLAYS

F1	MFD—HERC Status
F2	MFD—FlashCommands
F3	MFD—Terrain Map

F4	MFD—Radar
F5	MFD—Target Status
F6	MFD—Missile View
F7	HDD—Command Display/Map
F8	HDD—Detailed Status Display

FLASHCOMM

Alt+Hot Key	Transmit Selected Message
,< or .>	Select Previous/Next Message
A	Attack My Target
G	Ignore my Target
H	Help Me Out
O	Join On Me
C/E	Scan For Hostiles/Emcon
F	Fire At Will/Hold Your Fire
X	XMIT Send Selected Message

COMMAND DISPLAY (HDD)

Arrows	Scroll Map
+ or -	Zoom Map In/Out
1 ... 3	Select Pilot
,< or .>	Select Previous/Next Message
Tab	Select Unit

D	Disengage
A	Attack the Enemy
F	Defend Position
T	Patrol Gridpoint
G	Go To Gridpoint
O	Join on Me
C	Scan for Hostiles
E	Emcon
X	XMIT (Send Message)
Backspace	Cancel

F8 DAMAGE DETAIL (HDD)

L/R Arrow	Select HERC
S	Structural
I	Internal
W	Weapons
P	Pause game
Q	Quit mission
Alt+P or F12	Preferences
Ctrl+Q/Ctrl+Esc	Quit to DOS

TROUBLESHOOTING

TECHNICAL SUPPORT

Problem: My computer has at least 4 megabytes of memory, but even after creating a boot disk, I still receive a message saying that I do not have enough memory to run the game.

Possible Solution: Your boot disk may require further modifications to load and configure your device drivers correctly for the game. See the "Customizing the Boot Disk" section (page 68), or consult your computer system manual or manufacturer for assistance.

Problem: My mouse is not responding.

Possible Solution: Your mouse driver may not be loaded for MS-DOS programs. You will need to edit the AUTOEXEC.BAT or CONFIG.SYS files on the boot disk to include your mouse driver. (See "Mouse Drivers," page 70).

Problem: I have a SCSI drive and *EarthSiege* does not work properly.

Possible Solution: There are incompatibilities between SMARTDRV.SYS and SCSI drives. Do not use SMARTDRV.SYS for *ES* if you have a SCSI drive.

ERROR MESSAGES

This section offers possible solutions for error messages you may encounter. YOU NEED XXX MORE BYTES OF FREE MEMORY AVAILABLE TO RUN THIS GAME. Try using a boot disk.

GENERAL FAILURE READING DRIVE (floppy drive letter). You may have a low-density drive that cannot read the high-density game disk(s).

CRC ERROR.

DATA ERROR READING DRIVE (A or B or C or D)

SECTOR NOT FOUND READING DRIVE (A or B or C or D)

These mean you have a faulty game disk, and should return it for a replacement.

ASSERT ERROR...

The program cannot load a file because of insufficient memory, or because the file is missing or corrupted. You should be able to avoid this by keeping your files in the default directories and configuring your PC correctly for the game.

Even if you have the minimum 4MB of RAM, *EarthSiege* may not run correctly unless the RAM is configured (set up) correctly for the game. If *EarthSiege* DOES NOT start correctly, use the MS-DOS MEM command to see if you need to free up some of your computer's memory. From MS-DOS, type **mem** and press [Enter].

You need about 3,320 kilobytes (KB) of free memory to run *EarthSiege*. MS-DOS 6.0 or later shows this as "Total Free Memory." If you have MS-DOS 5.0, add "Largest executable program size" (free conventional memory), "bytes free EMS" (free expanded memory,) and "bytes available XMS" (free extended memory). Together, they must add up to about 3,400,000 bytes (3,320 KB) total free memory. If you do not have enough free memory, you probably have resident or "background" programs and device drivers taking up memory that the game needs. This means you will need to free up memory for *ES* by reconfiguring or removing one or more of these programs.

Freeing up Memory

1. If you cannot run *ES* because of low memory, try the Install program's "Make Bootable Floppy Disk" option as described below. A boot disk is a fast and effective way of freeing more memory to run the game.
2. If you continue to have problems even with a boot disk, try customizing the boot disk's AUTOEXEC.BAT and CONFIG.SYS start-up files. See "Customizing the Boot Disk," below, for details.
3. Consult your DOS and memory manager software documentation for detailed information about system memory and how to optimize it.

CREATING A BOOT DISK

A boot disk is the simplest way to configure your computer's memory for running *EarthSiege*. The *ES* Install program has a "Make Bootable Floppy Disk" option that makes creating a boot disk easy. If you set it up successfully, all you will have to do is put the boot disk in your floppy drive and restart the computer to configure its memory correctly and launch the game.

Although the "Make Bootable Floppy Disk" option does a very good job of configuring most systems, it may not be able to properly recognize every possible sound card, mouse, or disk-controlling device driver. This means that you might have to make additional changes to the boot disk to get the program running. If you are having trouble starting the game, try "Make Bootable Floppy Disk"—it can't hurt. If it does not work, however, proceed to the "Customizing the Boot Disk" section, below.

“Make Bootable Floppy Disk” Option

You can use the Install program to format and create a *EarthSiege* boot disk for your computer’s A: drive. Before you start, have a blank or formattable floppy disk for your A: drive ready. (All files on it will be erased.)

1. Run the Install program from your hard disk’s \MTECH directory, or from the CD.
2. From the Installation Choices window, select “Make Bootable Floppy Disk.”
3. The Install program will guide you through the process—follow the on-screen prompts carefully. Insert the blank diskette into your A: drive when prompted. Install will use DOS commands to format the floppy disk and write all the necessary start-up files to it.

When the process is finished, exit the Install program. You can then re-boot your computer with the boot disk in the A: drive.

Using a Boot Disk

The boot disk you have created with the Install program’s “Make Bootable Floppy Disk” option contains a stripped-down version of your usual start-up files. You must start (or restart) your computer with the boot disk in the A: drive for it to work. (Note: a boot disk will work only in the A: drive).

1. Place the boot disk in the A: drive and start the computer. (If your computer is already running, exit any programs and restart the system with your PC’s Reset button, or use [Ctrl]+[Alt]+[Del] from the keyboard.)
2. The computer will start up using the boot disk’s memory configuration. (If you created the boot disk with the Install program from within the \MTECH directory, it will also try to start the game automatically.) Otherwise, start the game manually by entering es as usual in your \MTECH directory. (To return your computer to its normal setup later, just restart it again without using the boot disk.)

Customizing Your Boot Disk

To customize a boot disk configuration for your specific system, you can edit the CONFIG.SYS and AUTOEXEC.BAT start-up files on the boot disk the install program created, or create a new Boot Disk from scratch. CONFIG.SYS and AUTOEXEC.BAT are simple text files that you can edit using your MS-DOS EDIT utility, the Windows Notepad, or your preferred word processor in its text-only mode. On your hard drive, these files tell your computer how to arrange its memory for normal operation. On the boot disk, these files tell your computer how to arrange its memory specifically for running *EarthSiege*.

Warning: Manually altering the CONFIG.SYS and AUTOEXEC.BAT start-up files can be a trial and error process. When opening a file to edit, triple-check to **MAKE SURE** you are working with the files on your boot disk in the A: drive. Otherwise, you may change the CONFIG.SYS and AUTOEXEC.BAT files on your hard drive instead, which in turn may impair the normal operation of your system.

If you prefer to create a boot disk from scratch, you will need a freshly formatted system diskette for your A: drive. (See your MS-DOS manual for details on how to create a system diskette.) You can then create a new CONFIG.SYS and AUTOEXEC.BAT from scratch right on the boot disk.

Compare the CONFIG.SYS and AUTOEXEC.BAT files on your boot disk to the following examples. Differences may indicate places where you can remove a driver, load it into upper memory, or change a device switch to use less memory. As always, refer to your system reference manuals if unsure about anything.

These examples show a "minimum configuration" that will let you run *EarthSiege* on most PCs. The lines in your start-up files will differ according to your system's drivers and directory names, and the version of MS-DOS you use. (NOTE: Parentheses indicate comments that are NOT part of the file.)

Sample Boot Disk CONFIG.SYS File

DEVICE=C:\DOS\HIMEM.SYS

DEVICE=C:\DOS\EMM386.EXE

(You may use a different memory manager)

DOS=HIGH,UMB

(Loads DOS into Upper Memory)

FILES=30

BUFFERS=20

BREAK=ON

LASTDRIVE=Z

DEVICEHIGH=C:\MOUSE\MOUSE.SYS

DEVICEHIGH=C:\DOS\DBLSPACE.SYS /MOVE

(Only if using DBLSPACE. See "Disk Compression Drivers," below.)

DEVICEHIGH=C:\DRV\CDROM.SYS /D:MSCD001 /P:220

(Only for the CD version. See "CD-ROM" Drivers, below.)

Sample Boot Disk AUTOEXEC.BAT file**@ECHO OFF****PROMPT MTECH Boot Disk \$P\$G**

(If you are working with files created with "Make Bootable Floppy Disk.")

PATH=C:\DOS**SET COMSPEC=C:\COMMAND.COM**

(Will use your actual COMMAND.COM location)

LOADHIGH C:\MOUSE\MOUSE.COM

(Only if you do not use MOUSE.SYS in CONFIG.SYS. See "Mouse Drivers.")

C:\DOS\MSCDEX /D:MSCD001

(Only for the CD version. See "CD-ROM Drivers", below.)

C:

(From "Make Bootable Floppy Disk." Changes to hard drive.)

CD C:\DYNAMIX\MTECH

(From "Make Bootable Floppy Disk." Changes to current MTECH directory.)

es(From "Make Bootable Floppy Disk." Starts *EarthSiege*.)

To disable a line in one of your start-up files, you can just type REM in front of it. For example, REM DEVICEHIGH=C:\MOUSE\MOUSE.SYS will disable the mouse driver. To re-enable it, just take the REM back out again.

MOUSE DRIVERS

If you have a mouse, the Install program will have assumed that you want to be able to use it with *EarthSiege*, and put a mouse statement on the boot disk. This means you should have one mouse driver line in either your CONFIG.SYS or AUTOEXEC.BAT file—but not both! For example:

DEVICEHIGH=C:\MOUSE\MOUSE.SYS (Used in the CONFIG.SYS file only)**LOADHIGH C:\MOUSE\MOUSE.COM** (Used in the AUTOEXEC.BAT file only)

If you have a different mouse driver name (MOUSE.EXE, IMOUSE, GMOUSE, HPMOUSE, etc.) or if you keep the driver in a different directory (C:\MSMOUSE, C:\DRIVERS, etc.) the path and driver name will be different. See your mouse manual if unsure.

Mouse Hints

Use MOUSE.SYS rather than MOUSE.COM or MOUSE.EXE, if possible. MOUSE.SYS is smaller and takes less memory. Make sure you do not have a mouse driver line in both the CONFIG.SYS or AUTOEXEC.BAT files. If you do, remove one, because you are needlessly loading two mouse drivers into memory.

CD-ROM DRIVERS

To run *EarthSiege* from a CD, you'll need to include a CD-ROM line in both the CONFIG.SYS and the AUTOEXEC.BAT files of the boot disk. Refer to your CD-ROM manual for your specific details.

The Boot Disk AUTOEXEC.BAT file needs an MSCDEX line. Depending on your CD-ROM type, it should look much like one of the following:

```
C:\DOS\MSCDEX /D:MSCD001
LH C:\DOS\MSCDEX /D:MSCD001
LOADHIGH /L:14429 C:\DOS\MSCDEX /D:MSCD001
```

NOTE: We recommend that you use the latest version of MSCDEX.EXE to insure the best CD access. As of this writing, the current version of MSCDEX is 2.23.

The Boot Disk CONFIG.SYS file needs a CD device driver line. Depending on your CD-ROM type, it should look much like one of the following:

```
DEVICE=C:\DRV\CDROMDRV.SYS /D:MSCD001 /P:220
DEVICEHIGH=C:\DRV\CDROMDRV.SYS /D:MSCD001 /P:220
DEVICEHIGH /L:14652 =C:\DRV\CDROMDRV.SYS /D:MSCD001 /P:220
```

DISK COMPRESSION DRIVERS

If you use disk compression on your hard disk, you must include the correct disk compression driver statement on your boot disk, or your mouse or other drivers may not load correctly. The example CONFIG.SYS shows the correct statement if you are using the MS-DOS DBLSPACE utility.

If you are using Stacker 3.1 or later, use the following line instead:

```
DEVICEHIGH=C:\STACKER\STACHIGH.SYS
```

For other utilities, refer to your manual or contact the manufacturer for complete instructions.

Reminder: For the boot disk to work, you must REBOOT your computer with the boot disk in your A: drive. Place the boot disk in drive A: and press your PC's Reset button, or [Ctrl]+[Alt]+[Del]. Your computer will now reboot, using the start-up files on the boot disk in A:. Have a great time!

ADDITIONAL BOOT DISK INSTRUCTIONS

If you have a modem, you can download additional boot disk instructions from the Sierra Bulletin Board Service, or BBS. The file to download is BDALL.EXE or BDALL.ZIP (BDALL.ZIP is compressed—you will need the PKUNZIP shareware utility to open it). After downloading this file, select the instructions that will best match your system and program needs.

In the U.S., the BBS number is 206-644-0112; in the U.K., the BBS number is (44) 734 304227.

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Hint line 33-1-36-68-46-50

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If you choose to write, fax, or e-mail us with your request, please provide detailed information on your computer system and the nature of your problem. In addition, please include your address and telephone number should we need to call back or send you further information.

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Technical Support
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Bellevue, WA 98015-8506

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GAME CREDITS

CREDITS



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