

COCKPIT

BATTLETECH

OPERATIONS MANUAL

CREDITS

This product is dedicated to the tens of thousands of loyal Virtual World players for your constant support and endless patience.

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THE BATTLETECH EXPERIENCE

The BattleTech experience is brought to you by the Virtual Geographic League (VGL).

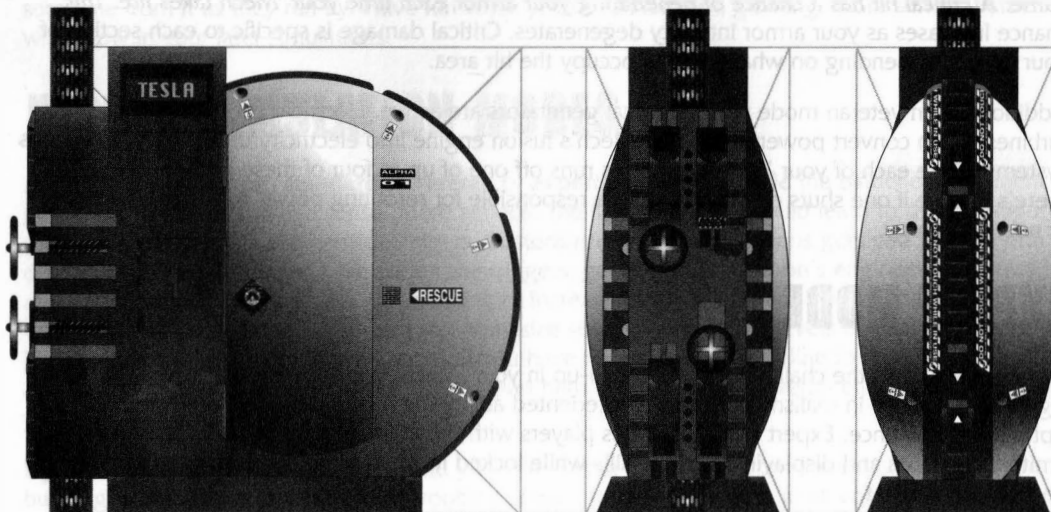
WELCOME TO THE BATTLETECH UNIVERSE

We at VGL Labs are very proud of the new **Tesla VR4 System** and the BattleTech Universe that it translocates you to. The Virtual Geographic League has been working for almost 100 years in the pursuit of interdimensional travel. The fascinating and deadly world of BattleTech was the first alternate universe we discovered.

When the technicians translocate you, your Tesla cockpit will morph into a gigantic walking tank called a **BattleMech**. These monsters of the battlefield average 10 meters in height and carry enough firepower to level a small city. As the pilot (MechWarrior) of one of these amazing machines, you will go into combat against other VGL pilots. Blast away at your opponents with missiles, autocannons and lasers. Our technicians are constantly monitoring your battle. If they determine that your life is in danger at any time, they will pull you out of a critically damaged 'Mech just before it is destroyed. You will immediately be inserted into a new one. Our track record is excellent, we lose very few pilots.

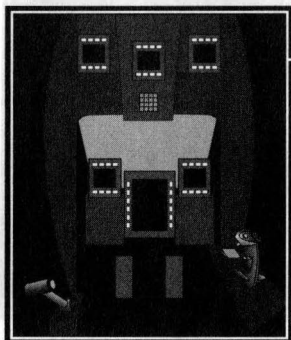
Now, for the first time, you can experience the adrenaline rush of BattleMech combat and get your hands on the internal organs of these huge machines. You now have the ability to eke out every last bit of energy and performance from your 'Mech; just the edge you'll need to survive on the battlefield of the 31st century.

Good luck, and good hunting!



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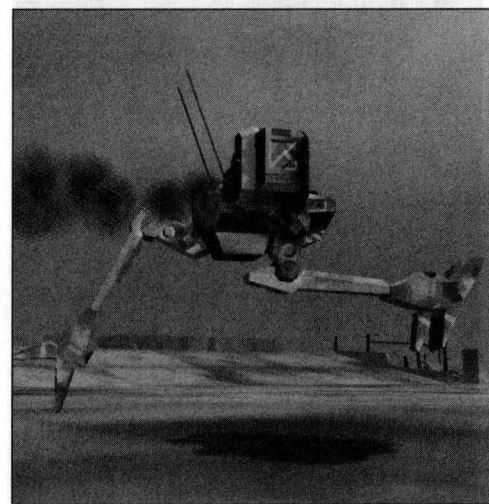
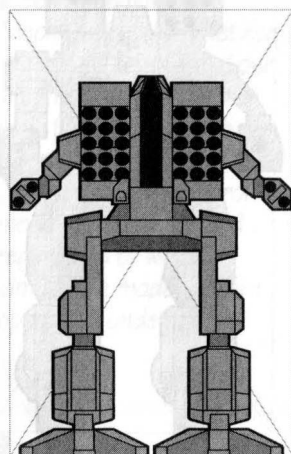


Systems Used:

All

Perhaps the best advice you can get for improving your skills on the battlefield is to talk to other pilots. If they've got experience, they can pass important tips and information on to you. After speed and weapons, information is your most deadly tool.

VULTURE



SCORING CHART

Points	Scoring Event
+1000	Starting the game.
+1	Each damage point scored on opponent's armor.
+10 to +30	Destroying an opponent's internal system.
+500	Destroying an opponent's 'Mech.
-1	Each self-inflicted point of armor damage.
-10 to -30	Knocking out one of your own 'Mech's internal systems.
-500	Destroying your own 'Mech by an ammo explosion.
-1000	Destroying your own 'Mech by ejecting.

TACTICS / SCORING

"My favorite tactic is to score the most points."

TOP FIVE TACTICAL TIPS

1) CONCENTRATE YOUR FIRE. Regardless of your simulation mode, this law of battle will always hold true. In a general sense, this means to keep firing at one enemy 'Mech until it blows up, and if you're playing in teams, ganging two or more 'Mechs on one will almost guarantee a kill. More specifically, though, it's best to concentrate your fire on one part of an enemy 'Mech, like a leg. When you're in close enough, your targeting crosshairs will let you pick out one part of the opponent to fire on. Repeatedly doing this is much more effective than scattering your fire all over the enemy 'Mech's armor.

2) KEEP MOVING. Unless you're crouching behind an obstacle that gives you a great field of fire while shielding most of your 'Mech, keep moving. A moving target is tough to hit, especially if you're crossing perpendicular to an enemy's field of view. A good idea is to jink left and right while running forward. This throws off your opponents' targeting and keeps your enemies guessing which way you're going. Only hold a straight course when you're lining up your own shot.

3) GET ON YOUR ENEMY'S TAIL. Although these are 'Mechs, they act a lot like fighter planes. It's tough to shake an enemy that's following you, so get behind your opponent. To reinforce this idea, the armor on the rear of a 'Mech is weaker than on the front. You'll kill an enemy more quickly if you fire on it from behind. Conversely, try not to let anyone get behind you.

4) LOOK FOR DARK ARMOR PANELS. As a 'Mech's armor weakens, the panels appear darker. They may even smoke and flame. Firing at these damaged panels means you've got a better chance of seriously damaging your opponent.

5) DEVELOP SITUATION AWARENESS. Situation awareness is a term that describes the ability of a pilot to have a vision of the unfolding battle in his head. With this awareness, you can maneuver into the most advantageous position and know when to fire your weapons to pick up an easy kill. Your best source of information for this is your radar display. It will tell you where the action is, and where the best places to hide are.

SCORING

In the final reckoning, your BattleTech simulator is a game, albeit, a complex and sophisticated one. As in all games, there is a way to determine a winner, and in the simulator it's by points. Each player starts the game with 1000 points. You earn extra points by damaging and killing other 'Mechs, and you lose points when you damage yourself. The **scoring chart** shows how points are accumulated. Damage points are delivered by weapons in the same way their BattleTech boardgame counterparts do.

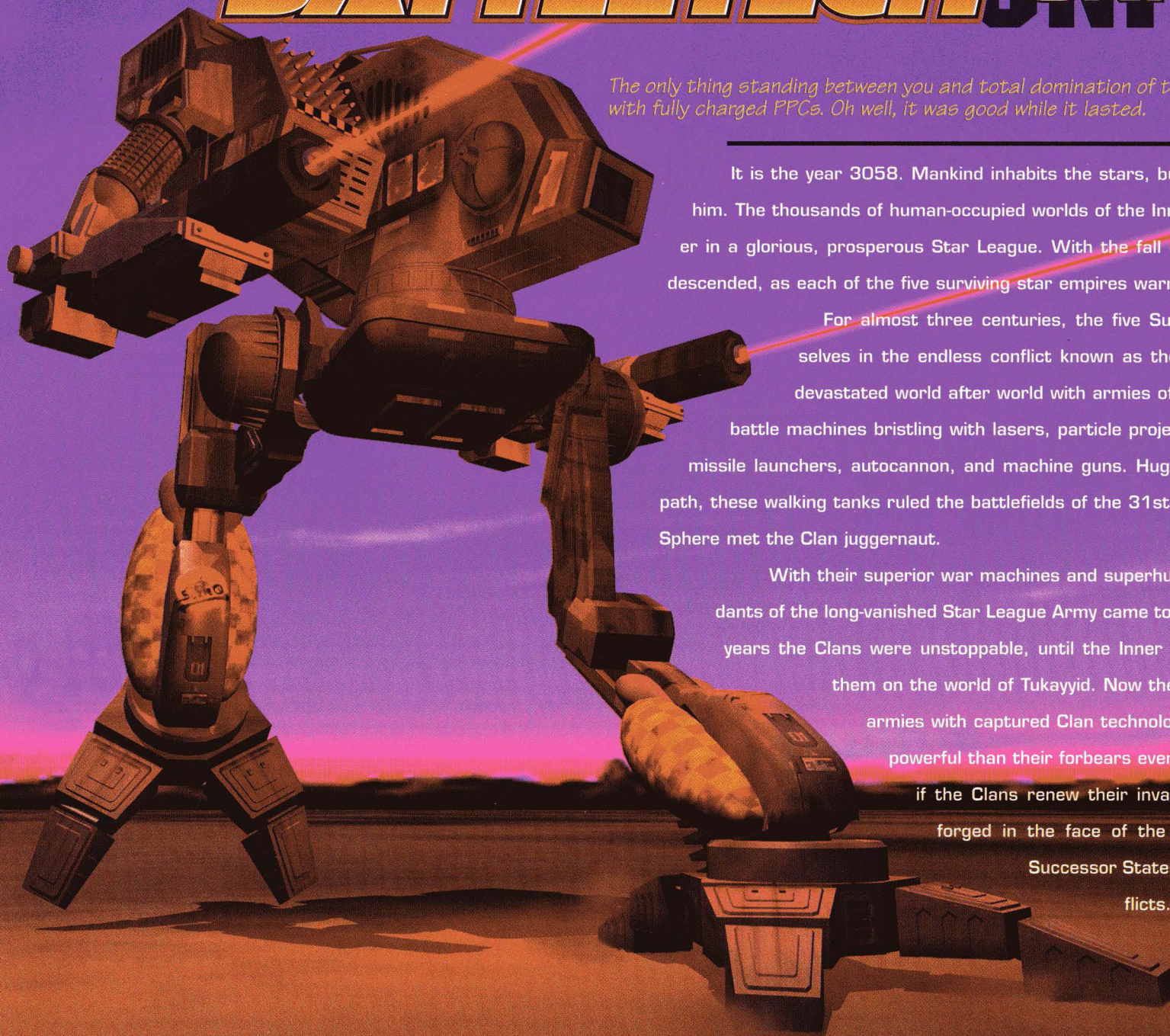
BATTLETECH[®] UNIVERSE

The only thing standing between you and total domination of the battlefield is a 75 ton Marauder with fully charged PPCs. Oh well, it was good while it lasted.

It is the year 3058. Mankind inhabits the stars, but has taken his warlike nature with him. The thousands of human-occupied worlds of the Inner Sphere were once bound together in a glorious, prosperous Star League. With the fall of the League in 2781, a Dark Age descended, as each of the five surviving star empires warred for dominion.

For almost three centuries, the five Successor Lords fought among themselves in the endless conflict known as the Succession Wars. Opposing sides devastated world after world with armies of BattleMechs: gigantic, humanoid battle machines bristling with lasers, particle projection cannons, long- and short-range missile launchers, autocannon, and machine guns. Huge enough to crush anything in their path, these walking tanks ruled the battlefields of the 31st century until 3049, when the Inner Sphere met the Clan juggernaut.

With their superior war machines and superhuman infantry, these warrior descendants of the long-vanished Star League Army came to reclaim the Inner Sphere. For three years the Clans were unstoppable, until the Inner Sphere's forces battled and bested them on the world of Tukayyid. Now the Successor Lords have rebuilt their armies with captured Clan technology. Armed with war machines more powerful than their forbears ever imagined, they stand ready to fight if the Clans renew their invasion. But the precarious unity they forged in the face of the Clan threat is evaporating as the Successor States seek any excuse to reopen old conflicts. From border skirmishes to punitive raids to secessionist strife, the wars of the Inner Sphere seem destined never to end.



THE COCKPIT

"I spent the first two minutes looking at my 'Mech's feet. Then I realized that if I pushed the throttle forward instead of the joystick, I'd start moving."

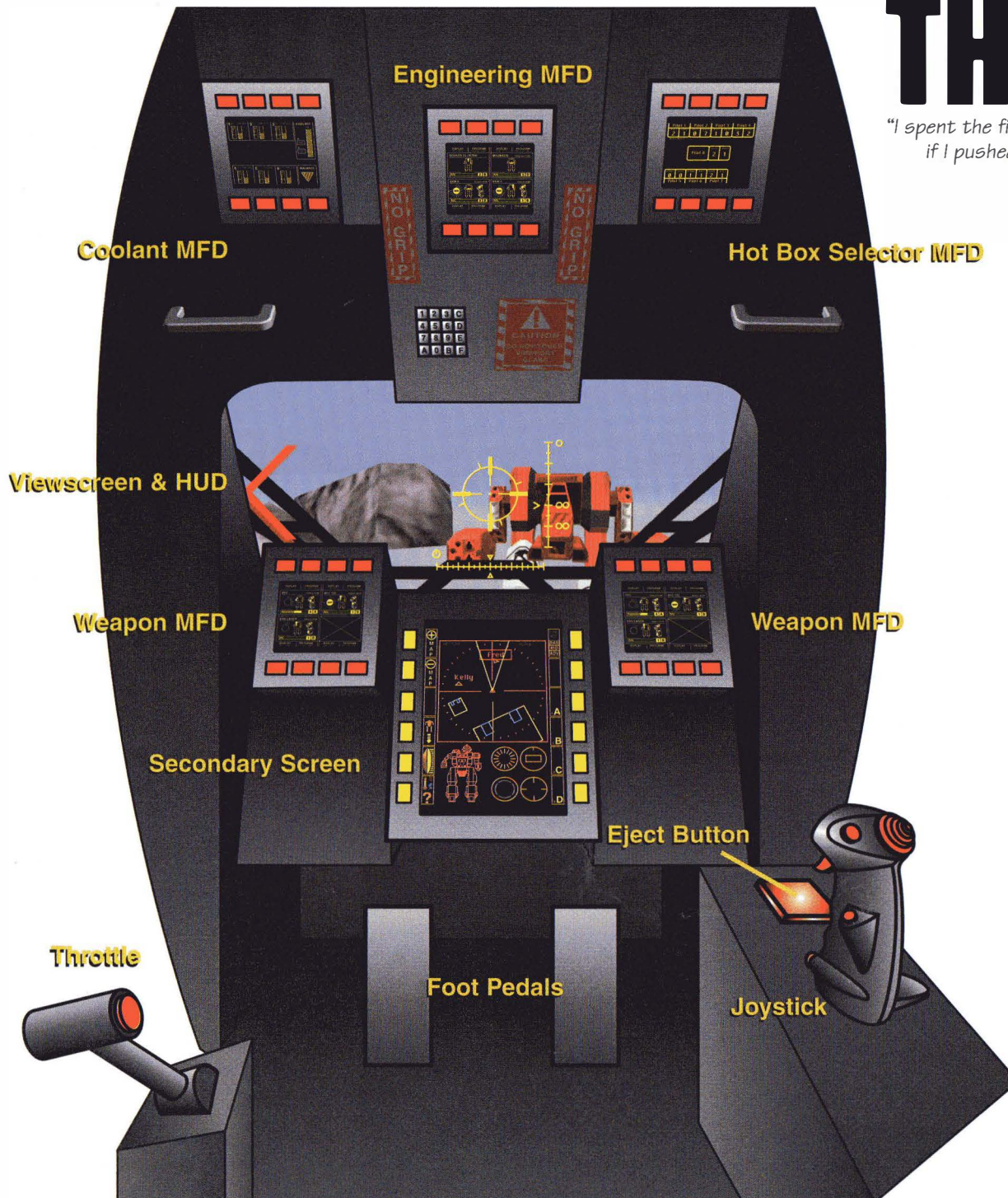
A QUICK TOUR

Your first view of your 'Mech's cockpit might be a bit intimidating, but all those controls will start to make sense after you get familiar with them.

The main feature of your cockpit interior is the viewscreen. This shows your surrounding environment. Superimposed on it is your Heads Up Display (HUD), and through the viewscreen you can see the battlefield terrain and other 'Mechs as they move around. Below the viewscreen is the secondary screen. The secondary screen houses your radar display, along with several important supplementary controls, activated by buttons running down each side.

Above the viewscreen and to each side of your secondary screen are five multi function displays (MFDs). The MFD in the upper left corner of your cockpit is your coolant MFD. This displays data on your 'Mech's coolant loops. Directly above the viewscreen is your engineering MFD. This shows data on your myomers and sensors, and may contain missile launcher info depending on which 'Mech you're in. In the top right corner of your cockpit is the hot box selector MFD. This shows the call signs of the other pilots you're fighting, and allows your computer to single one out for hunting. To each side of your secondary screen are weapon MFDs. These show crucial information on each of your 'Mech's lasers, PPCs, and other cannon. Each MFD is capable of controlling system functions like weapon trigger linking, and may allow you to see supplementary screens of information, like engineering data.

When you sit in the cockpit, place your right hand on the joystick, your left hand on the throttle, and place your feet on the pedals. If you are in basic control mode (as selected by you in the top right corner of the secondary screen), your pedals will be inactive, and you will turn your 'Mech with the joystick. If you switch from basic to middle or advanced control modes, your pedals will steer your 'Mech, and your joystick will only be used for targeting your weapons on the viewscreen. You can change your control mode at any time, depending on what you are comfortable with. Good luck, the battle is about to begin!



MOVING

Speed is your greatest ally on the battlefield. Move it or lose it...

SPEEDS

The primary attribute of your BattleMech is its ability to move, and move quickly. Your speed is controlled by the **throttle**. Pushing the throttle forward accelerates your 'Mech. Pulling the throttle back will slow your 'Mech to a stop. Note that your 'Mech is incredibly massive, and it takes a while to accelerate and decelerate due to inertia.

To move in reverse, hold in the red button while accelerating. To switch back to forward motion, release the red button. If your 'Mech's legs are damaged, your maximum forward speed will be reduced, and you will not be able to move in reverse.

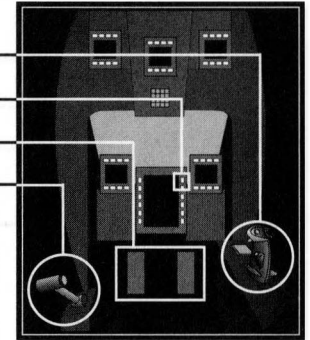
TURNING

Steering your 'Mech around the battlefield is accomplished using either your joystick or foot pedals. Which method you use depends on which **control mode** you currently have selected on the secondary screen. To change control modes, punch the control mode button at the top right corner of the secondary screen. This will shift the selector from BAS (basic) to MID (middle) or ADV (advanced) modes.

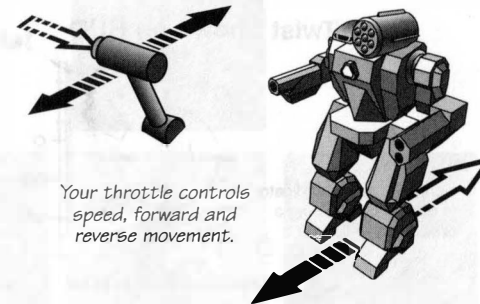
CONTROL MODES	
B A S	While operating in basic control mode , your joystick turns your entire 'Mech to the left or right. If you are moving fast when you initiate a turn, your computer will automatically slow your 'Mech down in order to get the tightest turning radius possible.
M I D	While operating in middle control mode , the foot pedals turn your entire 'Mech to the left or right. If you are moving fast when you initiate a turn, your computer will automatically slow your 'Mech down in order to get the tightest turning radius possible.
A D V	While operating in advanced control mode , the foot pedals turn your entire 'Mech to the left or right. Unlike mid control mode, your computer will not automatically slow your 'Mech down when you turn. Instead, the faster you're moving, the wider your turn radius will be.

Systems Used:

- Joystick
- Control Modes
- Foot Pedals
- Throttle

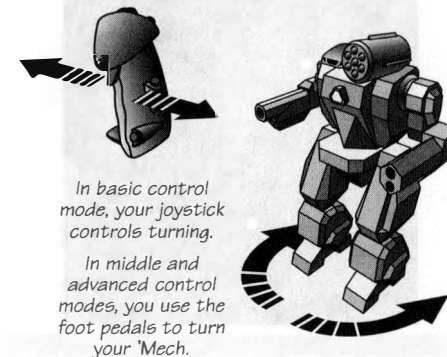


Using The Throttle



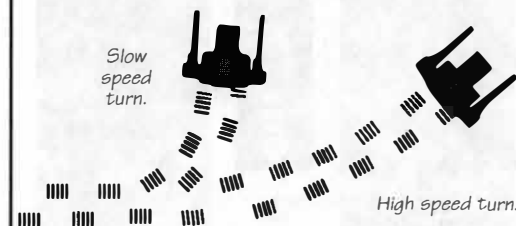
◆ Speed is life; keep moving. If you do come to a stop, try to keep your legs shielded by walls, slopes or rocks.

Basic Control Mode Turning

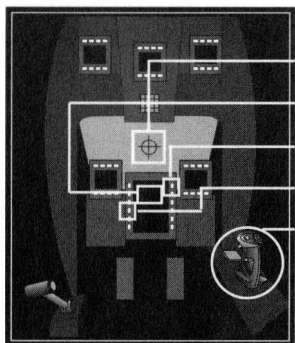


◆ Changing your **control mode** from BAS to either MID or ADV, changes the steering control of your 'Mech from the joystick to the pedals.

Expert Mode Turning Radii



◆ Moving your 'Mech generates heat when you're in **expert simulation mode**. Note that accelerating and decelerating generates more heat than maintaining a constant speed.



Systems Used:

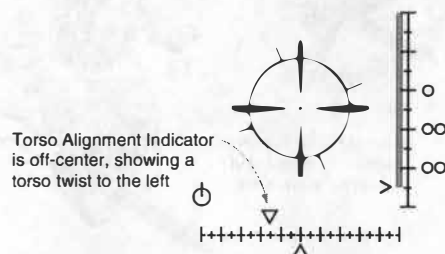
- HUD
- Radar Display
- Control Modes
- Crouching Button
- Joystick

♦ All **torso twisting** 'Mechs are limited to a traverse angle of about 120°. Each 'Mech is different, so when you begin piloting a new model, take a minute to rotate the torso to find out just how far it can spin around.

♦ Your **HUD** and **radar display** are explained in more detail on the following pages.

♦ **Crouching** is often referred to as becoming "hull down" if a piece of terrain is protecting your lower body.

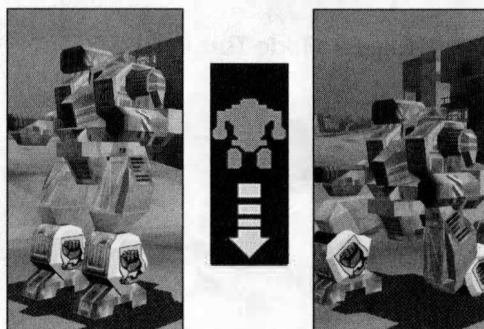
Torso Twist Shown on HUD



Torso Twist Shown on Radar



Crouch Command



MANEUVERING

"Sure, pointing my 'Mech's torso one way while running full speed in another direction was tough, 'till I got my first kill."

TORSO TWISTING

One of the characteristics that makes BattleMechs so versatile is their ability to **torso twist**, allowing them to move in one direction while looking and firing in another. Most 'Mechs can twist their torsos. Notable exceptions include the Blackhawk and Owens. However, these non-twisting 'Mechs make up for their deficiency with increased speed. All torso twists are restricted to an arc of about 120°; you can't spin your torso all the way around.

Twisting your torso causes your cockpit view to differ from your direction of travel. Check your HUD's **torso alignment indicator** or your radar display's vision wedge to determine how far off your cockpit view is from your movement vector. The use and control of torso twisting is determined by your current control mode setting.

CONTROL MODES

B
A
S

While operating in **basic control mode**, you cannot torso twist your 'Mech. Think of torso twisting as being deactivated while in basic control mode.

M
I
D

While operating in **middle control mode**, your **joystick** twists your 'Mech's torso. Pulling the joystick to the left causes your 'Mech's torso to twist to the left, while pulling your joystick to the right torso twists your 'Mech to the right.

A
D
V

Advanced control mode works just like mid control mode for torso twisting your 'Mech.

CROUCHING

All 'Mechs have the ability to **crouch** down while standing still. To crouch, make sure your 'Mech isn't moving, then punch the crouch button next to the secondary screen. Your 'Mech will hunker down, presenting a smaller target, particularly if you are behind the wall of a ruined building or hiding next to a boulder. While crouching, you will be unable to move forward or backward, but if you have a torso twisting 'Mech and are in mid or advanced control mode, you will be able to twist your torso, giving you a wide angle of fire. To stand up once more, just punch the crouch button again.

MANEUVERING

A fighter pilot's first and most important rule is "Check Six." MechWarriors are well advised to do the same.

VIEWS

The standard view out of your cockpit's viewscreen shows what appears out of the front of your 'Mech. You can change this view by moving the hat control on the top of your joystick. Pulling the hat back with your thumb changes the view on your viewscreen to the rear of your 'Mech. Manipulating the hat to the left or right shows views to the left and right of your 'Mech. Pushing the hat forward produces a special feature; doing so will center the torso of your 'Mech to line up with your 'Mech's feet.

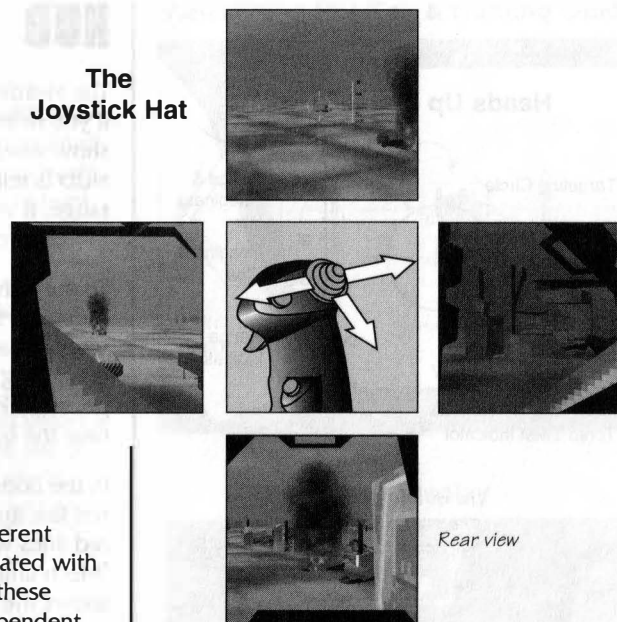
You cannot fire your weapon's while looking to the left or right, and only non torso rotating 'Mechs have rear-firing weapons that can shoot while you're looking backwards.

NON TORSO ROTATING 'MECHS

Most 'Mech models have torsos that rotate, allowing your view and weapons to face a different direction from the one you are moving in. A few 'Mechs, however, have their torsos integrated with their chassis. 'Mechs like the Blackhawk and Owens cannot rotate their torsos. Controlling these unique 'Mechs is somewhat different than standard models. How these 'Mechs react is dependent on the control code you set on the secondary screen.

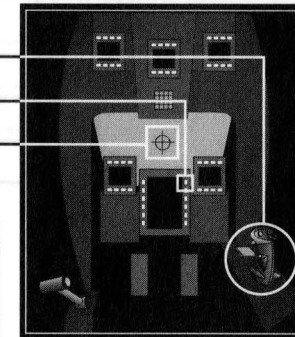
CONTROL MODES	
B A S	While operating in basic control mode , your non torso rotating 'Mech is turned by using the joystick. Your targeting crosshairs are locked in the center of your main screen and can only be elevated up and down, again, by using the joystick.
M I D	In middle control mode , your foot pedals turn your 'Mech. Additionally, your 'Mech will automatically slow down while you are turning in order to get the tightest turn radius possible. The joystick moves your targeting crosshairs all around your main screen.
A D V	Advanced control mode works just like mid control mode for steering your 'Mech and moving your crosshairs. The only difference is that the 'Mech does not automatically slow down while turning. The faster you are moving in a turn, the wider the turn radius will be.

The Joystick Hat



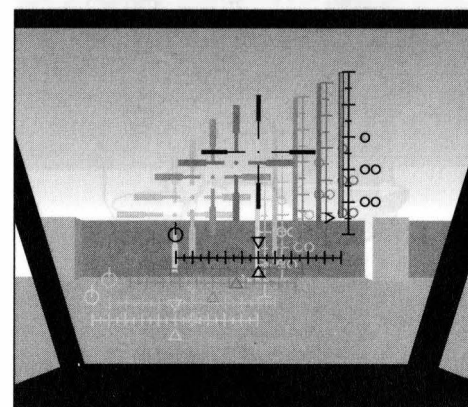
Systems Used:

Joystick
Control Modes
HUD

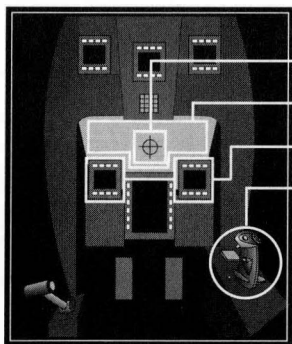


Pushing your joystick's hat forward will center your 'Mech's torso. This is good to know when you've become disoriented and need a simple way to re-orient your 'Mech.

Non Torso Rotating 'Mech
HUD Movement
in MID or ADV Control Mode



In **middle** or **advanced control mode**, your non torso rotating 'Mech's targeting crosshairs are not locked to the center of your viewscreen—you can move the crosshairs all over the main screen.



Systems Used:

HUD
Viewscreen
Weapon MFDs
Joystick

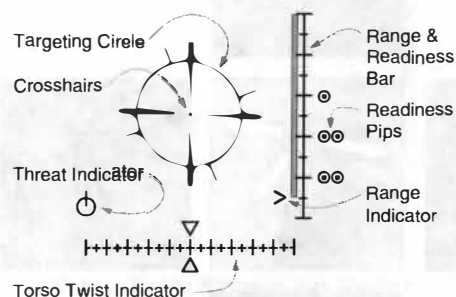
♦ The **HUD**, in combination with the sounds you hear during a battle, should give you most of the information you need to fight effectively.

♦ The **readiness pips** on your HUD's **range and readiness bar** are color coded to the various weapons on your 'Mech.

PPC = Blue
AFC = Orange
Laser = Red
LRM = Green
SRM = Brown
Gauss = Grey

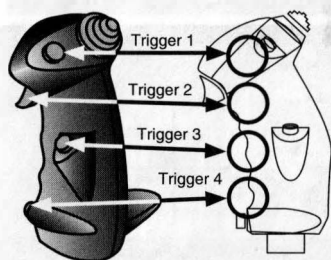
♦ For simplicity's sake, when you are playing in **standard simulation mode** with the starter 'Mech, the Loki, all of your missile launchers will be automatically linked to trigger button 1, while all other weapons are linked to trigger 2.

Heads Up Display (HUD)



The HUD appears in the middle of your viewscreen.

Joystick Triggers



Each trigger on your joystick corresponds with a trigger indicator in each Weapon MFD screen.

TARGETING/FIRING

"No orbital bombardments, no rear echelon missile strikes. Today you'll be dishing out all the firepower yourselves."

HUD

The Heads Up Display (**HUD**), which appears in the center of your viewscreen (and in your rear view if you're in a non torso rotating 'Mech), is your main source of combat information. The **crosshairs** show where your weapons are targeted. If the **targeting circle** appears around the crosshairs, your HUD is telling you that you're pointed at a legitimate target, and you'll hit it if you shoot within range. If your target is another pilot's 'Mech, your opponent's call sign will appear when the targeting circle flashes on.

To the right of the targeting crosshairs is your **range and readiness bar**. The sliding yellow **range indicator** shows range to the target, while the colored dots (called **readiness pips**) indicate ready weapons and the range they are effective out to. If a weapon's readiness pip is within the span of the sliding yellow bar, the weapon is within range of the target. If a weapon fires, its readiness pip goes blank until it recharges or reloads and is able to fire again. Short range weapon pips appear near the bottom of the bar while long range weapon pips are near the top of the bar.

In the bottom left corner of the HUD is the **threat indicator**. Every time you receive incoming fire, a red line appears in the threat indicator circle showing the direction that the fire came from. These red lines will age to yellow, then eventually disappear. If you want to face an attacker, turn your 'Mech until the red threat indicator swivels up to the top of circle. The green line in the indicator shows the direction of true north.

Your **torso twist indicator** appears along the bottom of the HUD. The top triangle (called the **torso alignment indicator**) shows how far off the 'Mech's centerline your torso is currently rotated. When your torso is aligned precisely with the direction your feet are pointing, the two triangles of the indicator will be stacked one over the other.

FIRING

Your **joystick** houses four trigger buttons. When you begin a battle, each of your weapons is linked to one of these four triggers. To determine which trigger fires a given weapon, look at one of your **weapon MFDs** (multi function displays). Each weapon box shows a schematic of your joystick and four circles. These circles correspond to the four triggers on your joystick. When a circle is highlighted, the corresponding trigger will discharge that weapon. You have the option to change trigger assignments, and you can even assign a weapon to be fired by multiple triggers. See the section on **weapon configuration**.

Once a weapon is fired, it takes time to recharge (if it's an energy weapon) or reload (if it's a ballistic weapon). The rearming daisywheel on each weapon's display gives you its rearming status. When the daisywheel's central circle is highlighted, the weapon is ready to fire again.

HUNTING

Our weapons are hot / We're loaded for bear / We're makin' a drop / With no time to spare / 'Mechs, 'Mechs, 'Mechs!

HOT BOX

The battlefield can be a pretty confusing place, with 'Mechs running around and missile salvos flying thick and heavy. Picking out an enemy pilot and keeping track of his location can be difficult. To assist you, your cockpit is fitted with a **hot box selector MFD**. By punching the button associated with your intended prey, you will have handy guides on your viewscreen and radar display to track that pilot down. When a battle begins, your computer automatically selects a target for you to hunt, but you can change this selection at any time. Just punch the button of the call sign for the target you want to hunt.

If you just want the hot box to select the nearest MechWarrior, punch the button labeled **closest** in the lower right corner of the MFD.

When you are in **standard simulation mode**, a selected target will always be framed by a red **hot box** on your viewscreen. If your selected target does not appear in your forward 60° field of vision, a red **hunting guide** arrow will appear on your viewscreen to tell you if your prey is off to the left or right. The viewscreen hot box and hunting guides do not appear in your viewscreen if you are in veteran or expert simulation mode. However, in all simulation modes, your selected target will be framed by a red hot box enveloping his location and call sign on your radar display.

RADAR DISPLAY

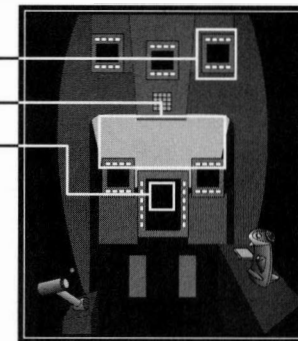
The main feature of your secondary screen is the **radar display**. This display shows an overhead view of the battlefield, and you are always shown in the center of the display. The top of the radar display is always oriented with your direction of travel. The light-colored wedge radiating from your location shows your 60° field of vision. This wedge will sweep to the left or right when you twist your torso. A red hot box appears around the 'Mech you are currently hunting. To bring your opponent into your field of vision, rotate your 'Mech or torso until your vision wedge sweeps onto your target's location. Look out your viewscreen and you should be able to see the hot box framing your target.

Using your radar display in conjunction with what you see out of your viewscreen will help you develop **situation awareness**, the ability to create a picture of the unfolding battle in your head. Having situation awareness is one of a MechWarrior's greatest assets.

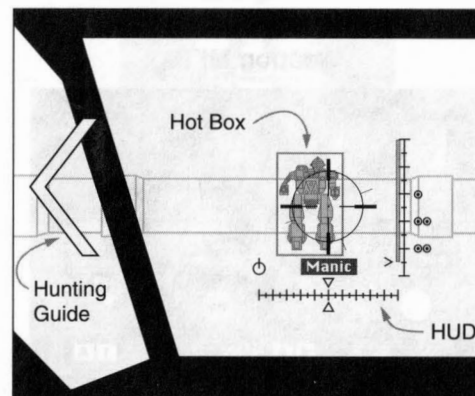
If you feel that you're not seeing enough of the battlefield on your radar display, punch the **zoom out** button next to the secondary screen. To get a more detailed view of your surroundings, punch the **zoom in** button.

Systems Used:

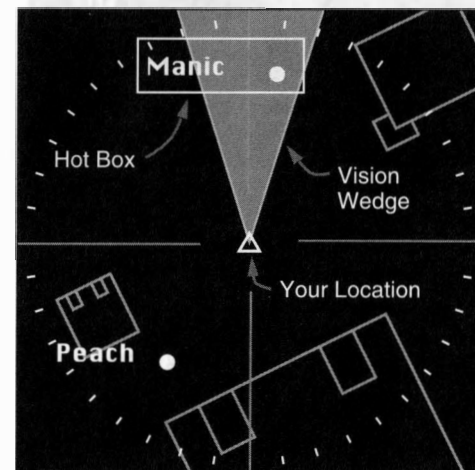
Hot Box Selector MFD
Viewscreen
Radar Display



Viewscreen Hot Box & Hunting Guide



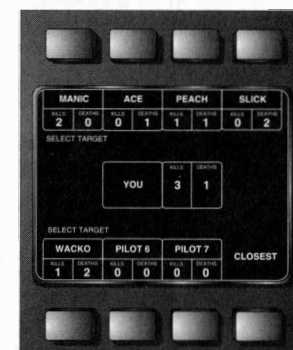
Radar Display



Zoom In and Zoom Out

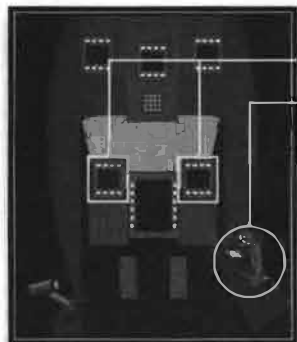


Hot Box Selector MFD



♦ MFD stands for **multi function display**. There are five of them arrayed around your viewscreen and secondary screen.

♦ Use the zoom in and zoom out buttons on the left side of your secondary screen to focus on your immediate area, or get a general overview of the battle.



Systems Used:

Weapon MFDs

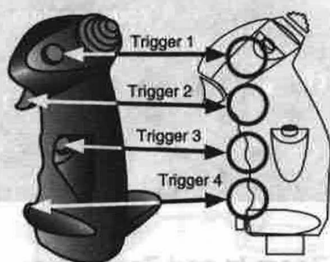
Joystick

Weapon MFD

Weapon Type
Recharging Daisywheel
Temperature Gauge
Remaining Ammunition
Weapon's Trigger Configuration
Weapon's Cooling Loop
Weapon's Current Generator



Joystick Triggers



To link a weapon to a trigger, hold down the Program Trigger Config button and pull the trigger on the joystick that you want to link that weapon to.

♦ The trigger donut rings on your weapon MFD joystick schematics are coded by status.

- This trigger is unlinked.
- ◐ Other weapon is on this trigger.
- ◑ This & another weapon are on this trigger.
- Only this weapon is on this trigger.

WEAPON CONFIG

"Now where did I put that autocannon?"

LINKING WEAPONS TO JOYSTICK TRIGGERS

As already mentioned, your weapons are linked to certain joystick triggers at the beginning of a battle. However, you have the option at any time to alter these firing configurations. Maybe you want all your long range weapons on one trigger, with short range weapons on another. Alternately, you might prefer your long-term recycling weapons on a different trigger than your fast recycling weapons. Or maybe you want your limited ammunition ballistic weapons on a trigger that's different from your unrestricted energy cannons. Whatever your strategy, here is how you link a weapon to a given trigger.

To take a weapon off its current trigger, hold down the **program trigger config** button for the weapon as shown on the **weapon MFD** and pull the currently highlighted trigger on the joystick. The highlighted circle on the MFD will go out. To link the weapon to any trigger, hold down the **program trigger config** button for the weapon and pull the trigger that you want it to be linked to. You may link a weapon to multiple triggers if you wish, or lock-out a weapon by not linking it to any trigger. Re-linking weapons can be done at any time in any simulation mode.

CONFIGURATION OF FIRE

The best way to knock out an opponent's 'Mech is to concentrate your fire on one portion of that machine. Concentrating fire in one location allows you to knock out the armor in that location and get more of your weapon damage into internal systems. Linking all of your weapons to one trigger, or firing all available weapons in one blast will help to concentrate your fire, but such a strategy can also be very heat and range inefficient.

When you see a 'Mech on your viewscreen, darkened armor panels indicate that the armor in those areas has become weakened. Concentrating your fire on these darkened armor panels gives you a better chance of knocking that 'Mech out, or at least crippling it. Besides darkened panels, if you see sections of a 'Mech on fire or billowing smoke, he's in big trouble; concentrate your fire there.

HOW TO KILL AN ENEMY 'MECH

'Mechs are destroyed when one of the following things happens:

- ♦ When one of the four torso areas is destroyed (they can be hit from the front or rear).
- ♦ When one leg is completely destroyed.
- ♦ When both legs of the 'Mech are severely damaged.
- ♦ In veteran or expert simulation mode, a critical hit can kill a 'Mech.

INCOMING DAMAGE

"Ouch! Did you see that? Believe me, it looked very painful."

RECEIVING DAMAGE

While you are hunting down enemy MechWarriors and pummeling them with your weapons, you can bet a few pilots out there are probably hunting you too. When you hear explosions and your cockpit view shakes unexpectedly, you are being hit. To check on the damage status of your armor, internal systems and heat, punch up the schematics of your 'Mech in the **'Mech status info center** found in the bottom left corner of your secondary screen. The way that your 'Mech responds to incoming damage depends on the simulation mode you are operating under.

Standard Simulation Mode

When your 'Mech is operating under **standard simulation mode**, you will simply be taking damage to your armor. No critical internal damage is dealt to your 'Mech in this mode. When all of the armor on one section of your Mech is destroyed, that whole section is destroyed. In this mode, weapons may be knocked out and you will be slowed down as you take damage to your legs.

Veteran Simulation Mode

While operating under **veteran simulation mode**, you become susceptible to critical hits. Critical hits can occur anytime you take damage, and as a result, armor protection is not absolute; some destructive power from the incoming shot goes directly to an interior system in the area hit. As an area's armor degrades, the likelihood of taking critical damage in that area increases.

Additionally, in this mode your generators can take damage and go offline, denying power to each system linked to that generator. As if that weren't bad enough, your ballistic weapons can jam. Fortunately, you can reroute power and clear jams, but you've got to keep a clear head to perform these actions properly.

Expert Simulation Mode

In **expert simulation mode** heat is an added, and deadly, concern. Incoming fire can cause coolant leaks to systems, generators, and entire coolant loops. The heat that your 'Mech generates can also cause ammo bay fires, a very serious problem. Later in this manual you will find out how to shut down coolant loops and eject hot ammunition before it cooks off.

SPLASH/COLLISION DAMAGE

Besides setting your simulation mode, your site technician determines whether your battle will be run using the **splash/collision damage** setting. While battling with splash/collision damage enabled, all 'Mechs become susceptible to proximity damage (called splash damage) from exploding 'Mechs and missile salvos, and crash damage from running into solid objects, like rocks, walls and other 'Mechs.

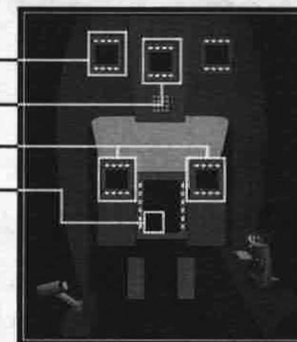
Systems Used:

Cooling MFD

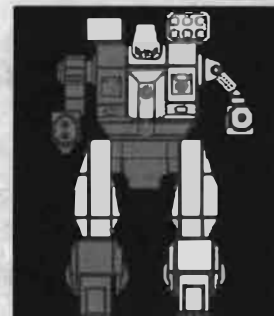
Engineering MFD

Weapon MFDs

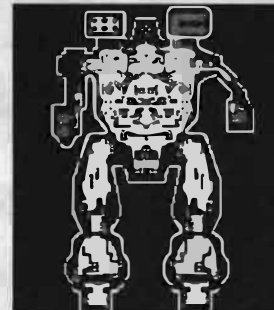
'Mech Status Info Center



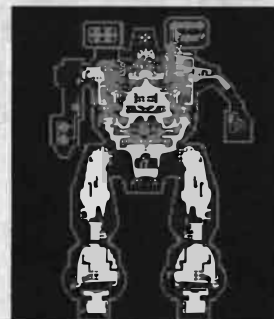
Armor Damage Schematic



Critical Damage Schematic



Heat Damage Schematic

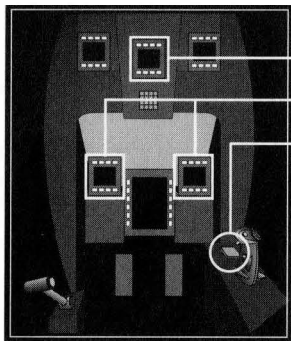


Here is a list of everything that can be damaged in a 'Mech:

- Ammo Bay (magazine)
- Avionics* (radar, HUD, gyro & searchlight)
- Ballistic Weapon (missiles & AFCs)
- Coolant Loop (transfers heat to heat sinks)
- Energy Weapons (lasers & PPCs)
- Generator (routes electricity to systems)
- Gyroscope* (stabilizes pilot)
- Heat Sink* (bleeds heat from loop to atmosphere)
- HUD (displays viewscreen combat information)
- Myomer (powers movement)
- Searchlight* (enables extended vision at night)
- Torso* (rotates the 'Mech's torso)

* You can't do anything about damage to these systems.

Ramming other 'Mechs with splash/collision damage enabled will cause damage to them, and your own 'Mech too.

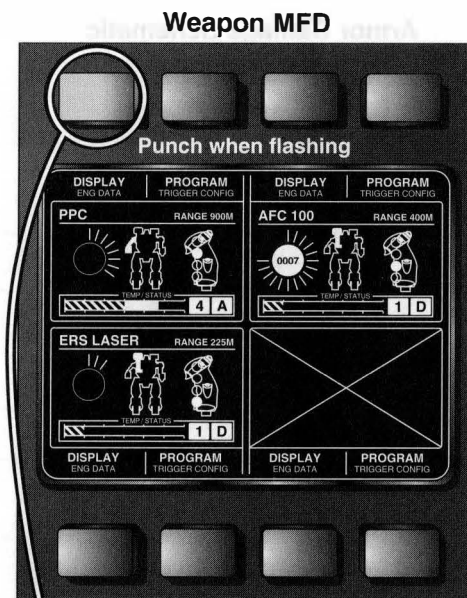


Systems Used:

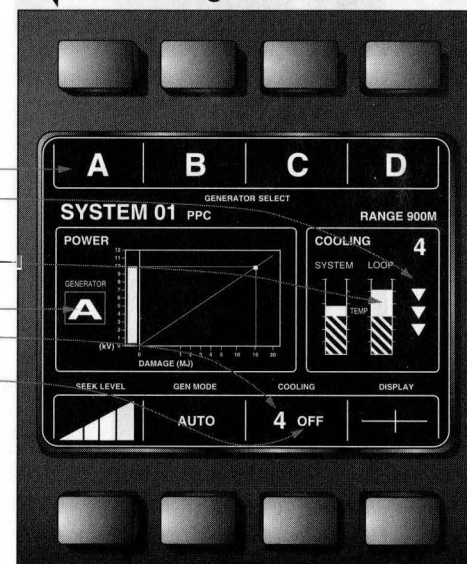
- Engineering MFD
- Weapon MFDs
- Eject Button

◆ In **standard simulation mode**, the only **MechTech** warning you receive is an audio message telling you when you've received serious leg damage. All other audio warnings and smart buttons activate in veteran and expert simulation modes.

◆ You are never required to switch generators when playing under **standard simulation mode**.



PPC Eng Data Screen



- Generators A-D
- 3 Inverted Triangles Indicate Severe Coolant Leak
- Loop 4's Heat is Rising
- Using Generator A
- System is on Coolant Loop 4
- System has been Shut Off of the Cooling Loop

◆ Ejecting will return you to the battle in a new 'Mech, but you score -1000 points for doing it.

DAMAGE CONTROL

Warning, coolant leak...(more exploding sounds)...Warning, generator out...Warning, ammo bay fire "Aaaargh! Help!"

MECHTECH

MechTech is the name given to your 'Mech's damage warning systems. There are two main MechTech systems. The first is the **audio warning**. When you hear a message in your cockpit like, "Warning, Coolant Leak..." it's up to you to figure out where the leak is and then set about dealing with it. To help you, the second warning system gives you visual information. **Smart buttons**, which are the flashing lights on your MFDs, give you immediate prompts about systems that have been severely damaged. Punching flashing lights in the sequence they appear on an MFD will help you deal with an emergency situation.

SWITCHING GENERATORS

When one of your electrical generators shuts down, any weapon, myomer or sensor linked to that generator becomes inoperative. To get those systems operative once more, you've got to reroute power to them from one of your remaining generators. To switch a system to a new generator, punch the **display eng data** button for that system. The supplementary screen now displayed on that system's MFD has the letters A, B, C and D across the top. These letters correspond to available generators. Just punch the button of the new generator you want that system to draw power from. You can also set the generator mode for the system to **auto** by punching the **gen mode** button. While on auto, the system will automatically select an available generator to draw power from. Punch the **display** button in the bottom right corner of the MFD to return to the display's normal view. More information about generators and power can be found later in this manual.

SHUTTING DOWN SYSTEMS

It is impossible to repair a coolant leak during the course of a battle. Therefore, in order to avoid loosing all of your coolant through a leak, it's advisable to shut down cooling to the leaking system. Punch the **display eng data** button for the leaking system. On the supplementary screen, punch the **cooling** button. The indicator message will then say off instead of on. Coolant will no longer flow to this system and the leak will be contained. However, since this system can no longer cool down, you will want to avoid using it because you will quickly overheat it.

PUNCHING OUT

When all else fails, you have the option of ejecting from a critically damaged 'Mech. The large red **eject button** in front of your joystick will start flashing when your 'Mech has taken debilitating damage. Punch the button and you will be thrown clear of your dying 'Mech. Your machine will self destruct after you punch out, but it will not cause splash damage to nearby opponents.

MERCENARIES



Mechwarrior Ellen "Viper" Burke of Wolf's Dragoons poses next to her first kill marker, earned in the battle of Coventry. Viper is still wearing the main part of the MechWarrior's fighting uniform, a vest connected to the cooling system of the BattleMech to protect the pilot from the massive heat generated by the 'Mech's engine and weapon systems. The electrodes attached to her temples, arms, legs and chest connect her to the 'Mech's computer systems, allowing the pilot to communicate her sense of balance to the machine and the 'Mech to instantly inform the pilot of damage to the 'Mech by giving the pilot tiny electric shocks.

Though the five Successor States can field large numbers of regular troops, they also rely on independent mercenary outfits. These organizations vary in size and quality; the best of them are among the Inner Sphere's most talented fighting units, with skills far surpassing those of the feudal regiments of the Successor Lords.

Every House has found it necessary to hire mercenary groups at one time or another. In this age of continuous warfare, mercenaries play a vital role. As there are no dramatic causes or sweeping principles of right and wrong among potential employers, mercenaries can offer their combat services to the highest bidder, untroubled by conscience. And wherever there is war brewing in the Inner Sphere, there is money to be made by successful units for hire.

The Inner Sphere's best-known mercenary units are justly famed for their exploits. The Kell Hounds, Wolf's Dragoons, the Gray Death Legion, and Snord's Irregulars have gone down in the history of the Inner Sphere as fighting units so gifted that they can snatch victory from the jaws of certain defeat. The Kell Hounds and Wolf's Dragoons joined with the Draconis Combine's elite units to defeat the Clans on the Combine capital of Luthien. The Gray Death Legion earned its place in history through fighting prowess and its discovery of a long-lost Star League-era memory core on the planet Helm, which singlehandedly sparked a technological renaissance across the Inner Sphere. Snord's Irregulars, an offshoot of Wolf's Dragoons, has earned a reputation as an elite company of MechWarriors whose unorthodox tactics give them a battlefield edge out of all proportion to their size. These and other top-flight mercenary units have earned immense respect from employers and fellow mercenaries alike for their professionalism, innovation, and battle experience, providing prospective mercs with excellent examples of how to do well at the business of war.

Sword of Light
Officer's Club,
Luthien



HERE I AM-ONFIRE-AGAIN!!



WATCH YOUR BACK....



STELLAR
CommCard
8481 6548 985 23654
LT. MOLITOR, DUANE 8571

TO: T. PETERS
Mechbase 20, Kamer
FROM: K. DILLON
SSE Labs, Heria

QTY.	ITEM
30	SPANDER FUSES (200/BOX)
10	PPC HOUSING INTERLOCKS
60	COPPER FREE CONNECTORS (300/CR)
40	COOLING VESTS
12	ORE SAMPLES
8	LARGE LASER REFLEX LENS



BY THE CAMPFIRE



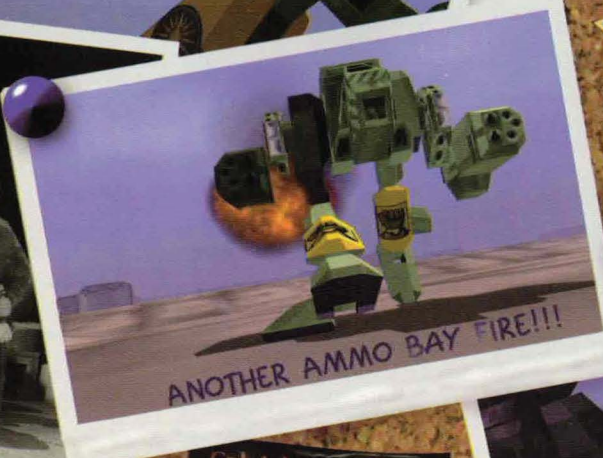
LISA ROGERS
"SPIRIT"

(WE ALWAYS GET THE SHAFT)



Remember
THE BEAT OF
THE DRUMS
-CAROL
HERMANSON

Fighting for your
Freedom
Tommorow's Success
-Gabe F-111

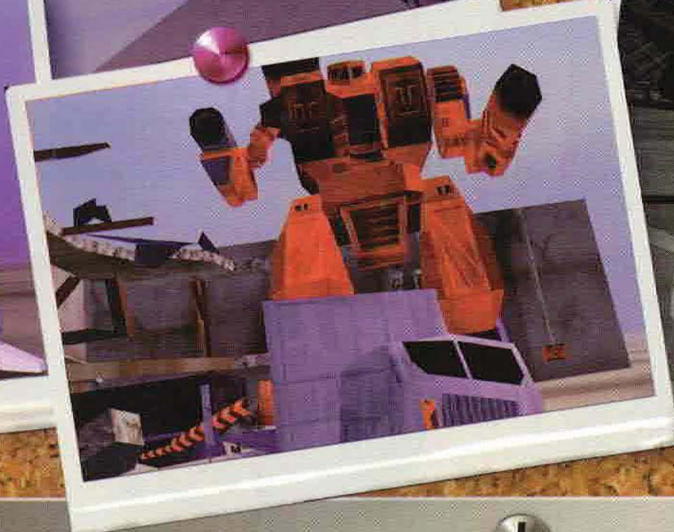
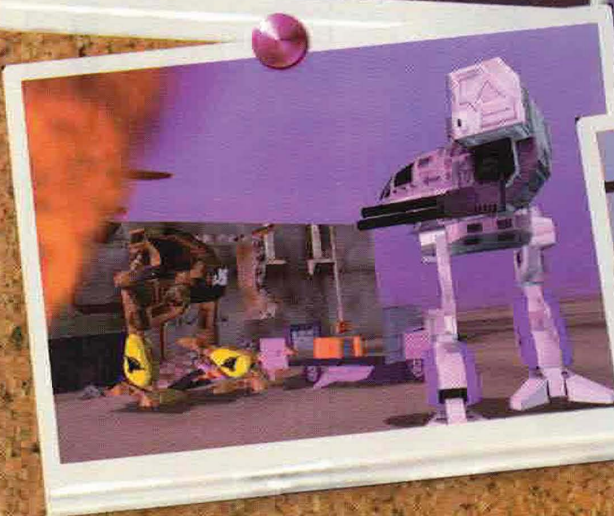
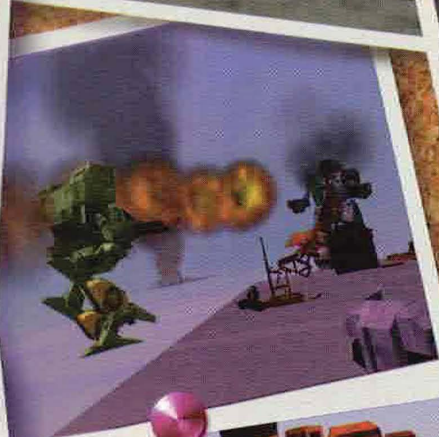


ANOTHER AMMO BAY FIRE!!!

Col. John M. Wood
"Lefty"
Hariah Light Irregulars



AIM FOR THE END OF THE SMOKE TRAIL



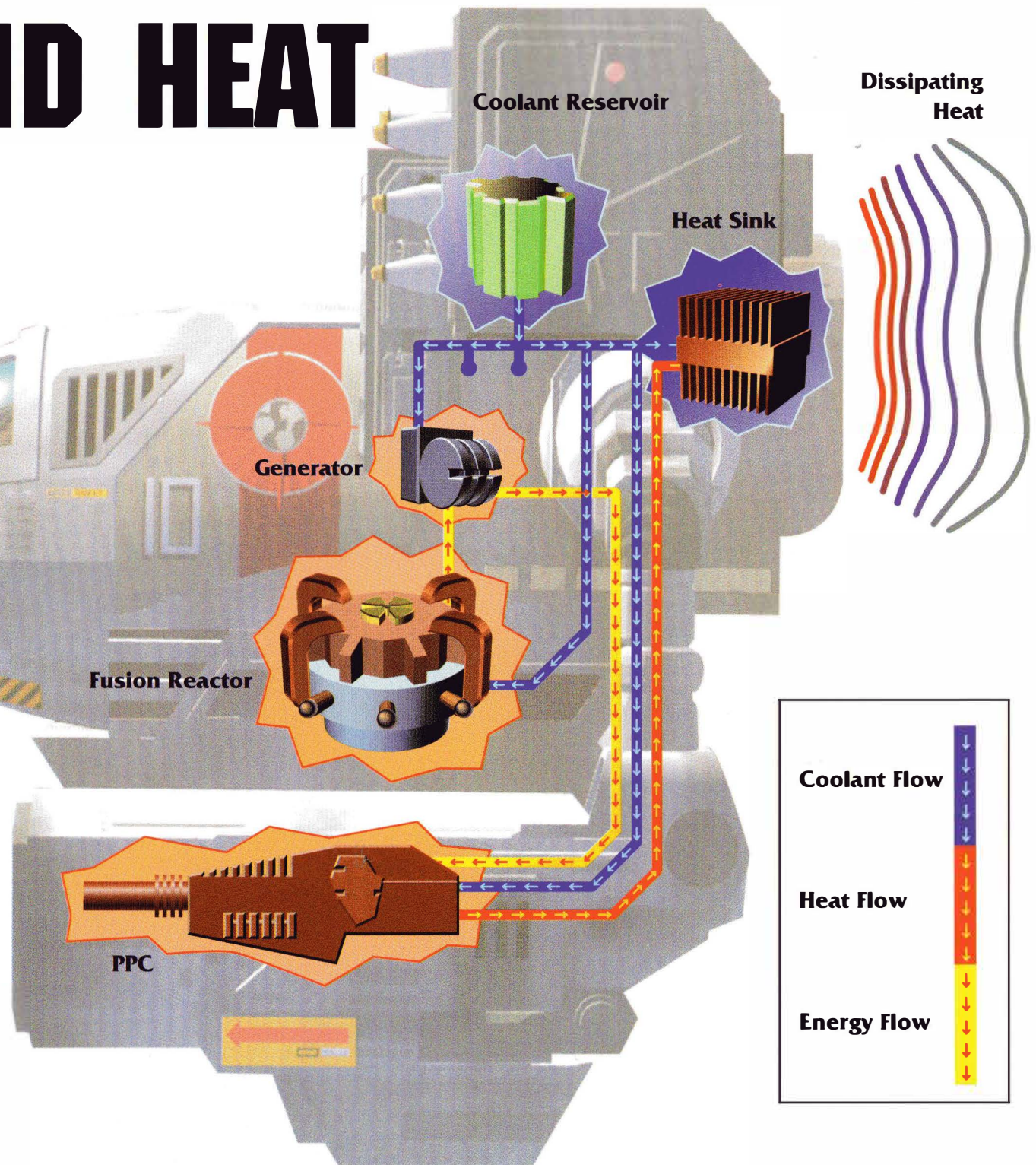
POWER AND HEAT

An example of a BattleMech's internal systems.

When a MechWarrior pulls the trigger of a Particle Projection Cannon, a complex chain of events takes place. Firing a PPC causes an enormous amount of power to flow through the weapon almost instantly, building up intense heat. The heat is transferred to the coolant loop, which in turn shunts the heat to the 'Mech's external heat sinks (illustrated by the red lines). These sinks shed the heat into the atmosphere. The colder the surrounding environment, the faster the 'Mech cools down and the better it performs.

Immediately after firing, the PPC begins to recharge its huge capacitors for the next shot. Power builds up in the 'Mech's fusion engine and is converted into electricity by a generator attached to the PPC. The generator feeds the charge into the weapon, building heat along with the power (illustrated by the yellow lines). As the generator and the PPC heat up, they become less efficient at charging. As with the PPC barrel, the generator transfers its excess heat to the heat sinks via the attached coolant loop.

As heat passes into the coolant loops from the systems attached to them, so does the coolant fluid the loops contain. Each 'Mech carries a coolant-fluid reservoir that can be used to cool off the attached systems (illustrated by the blue lines). When and how to use this reservoir is one of the important tactical decisions every MechWarrior must make.



ENGINEERING

MechWarrior's Epitaph: He left his engineering to the technician.

ELECTRICAL SYSTEM

The heart of your machine is a series of up to four **generators**. Identified by the letters A through D, these isolated power systems route electricity from your 'Mech's fusion engine to every major system in your 'Mech. Without electricity, PPCs don't recharge, auto fire cannons don't shoot, missile launchers don't reload, sensors can't sweep the battlefield and myomers won't get your 'Mech's legs moving.

Generators are indispensable components of your 'Mech, and they have their limitations. No more than six 'Mech systems can draw power from any given generator. In addition, each generator creates heat while it's being used. The greater the number of systems that draw power from a generator, or the harder those systems work, the hotter the generator gets. And when a generator overheats, it simply shuts down, which is not good news in the middle of a battle. Therefore, it's important to manage your electrical system, manually assigning 'Mech systems to individual generators, and switching overworked systems to under-utilized generators.

COOLING SYSTEM

Heat is the ultimate enemy in any BattleMech confrontation. Keeping your systems cool allows them to perform properly when called upon, and properly managing heat buildup keeps your 'Mech at optimum efficiency. There are several components to your 'Mech's cooling system, including six cooling loops, the heat sinks they're attached to, and your coolant reservoir.

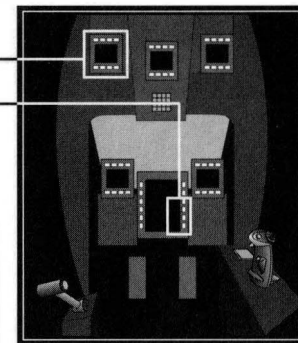
Your 'Mech's six **coolant loops** are displayed on the **coolant MFD**. Each coolant loop services all the systems residing in its section. Unlike generators, a coolant loop cannot be rerouted to service a system residing in another part of your 'Mech.

Heat sinks are shown on your 'Mech's critical damage display in the bottom left corner of your secondary screen. They are the final internal destination of heat generated by your 'Mech's systems, delivered there by the appropriate coolant loop. Heat sinks disperse internal 'Mech heat out into the surrounding environment.

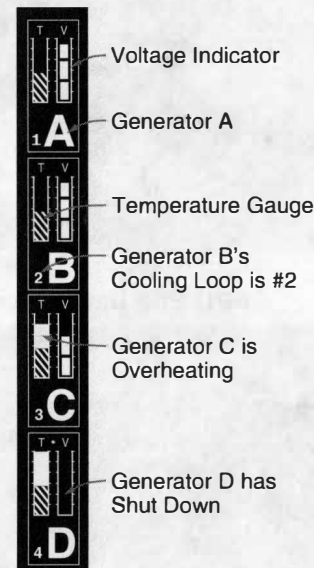
Your **coolant reservoir** is perhaps your most important tactical cooling resource, since you can flush overburdened cooling loops with fresh coolant from the reservoir during the course of a battle. Its limitation is that there is a finite amount of coolant in the reservoir. Once used, it cannot be replenished.

Systems Used:

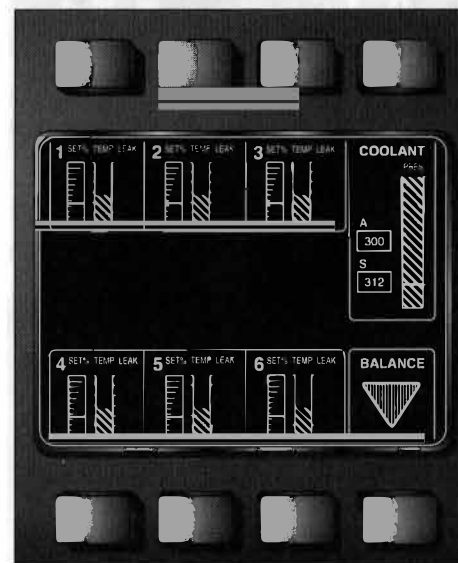
Coolant MFD
Generator Info Center



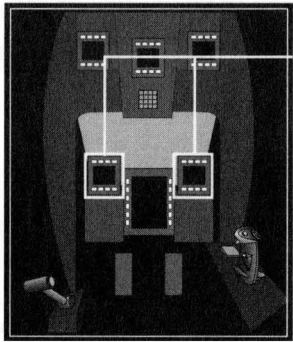
Generator Info Center



Coolant MFD



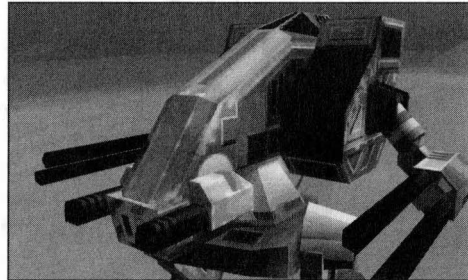
Each system's **engineering data** screen allows you to select a gen mode (generator mode). This setting can either read manual, auto or off. If set to auto, the system will automatically search for a new generator whenever the one it's using shuts down. But because your computer doesn't set energy routing priorities to systems on auto mode, it's best to only select your most critical systems (sensors and myomers) to auto. Otherwise, if all of your systems are set to auto and a couple of generators fail, the cascading effect of every system looking for a new generator could lock-out your most important systems (like seeing and moving).



Systems Used:

Weapon MFDs

Generally speaking, as energy weapon damage output and range increase, the heat generated increases also; they are interrelated effects.



PPC Eng Data Screen

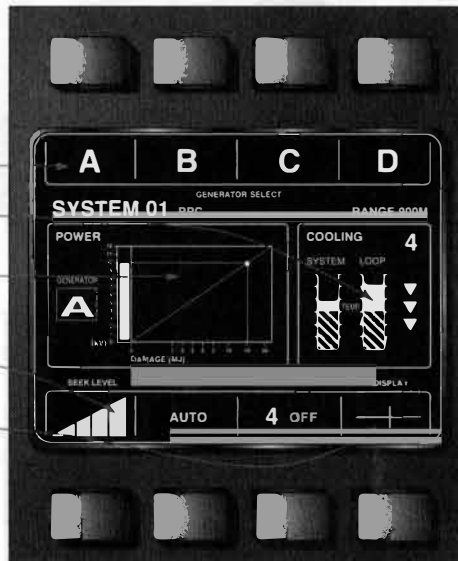
Generators A-D

Loop 4's Heat is Rising

This is the System's Power-to-Output Graph

Seek Level is Set to Supercharge

Punch Display When You Are Finished With Any Supplementary Screen



If you set the **seek level** of a powerful energy weapon to maximum, consider prioritizing the coolant loop that the weapon occupies. You'll need to constantly cool the weapon down if you don't want to burn it out.

ENERGY WEAPONS

"Hmmm, sling, bow, revolver, rifle, howitzer, PPC...I think I'll take the PPC."

TYPES

There are two main main types of energy weapons; these are the **particle projection cannon (PPC)**, and the various types of **lasers**. Lasers are classified as small, medium and large, with increasing levels of damage output and range. Of course, the bigger the laser, the longer it takes to recharge. Since energy weapons draw power from your generators, they are not restricted by limited ammunition loads. Also to their advantage, they do not suffer from jams or ammunition fires. To offset these advantages, energy weapons generate more than their fair share of heat, and the particle projection cannon in particular takes a long time to recharge after firing.

HEAT EFFECTS

The main impediment to energy weapon fire is heat generation. There are two energy weapon related heat effects to manage during a battle. First, the weapon builds heat when it discharges, and second, the weapon's generator builds heat while recharging the weapon. Not only does all this heat strain your cooling system, but the hotter an energy weapon is, the longer it takes to recharge. And if the weapon overheats, which can easily happen in a raging battle, the weapon may fuse-up. Fused-up weapons are very difficult to cool down, and they may not be available for the duration of a battle.

SETTING SEEK LEVELS

Since heat management is of primary concern to energy weapon users, you, as the 'Mech's pilot, have the option of setting your weapons' power, and thus heat, output. Determining an energy weapon's destructive output is called setting its **seek level** (since the weapon seeks to deliver the desired level of power output). Punch the weapon's **display eng data** button. In the bottom left corner of the supplementary screen is the **seek level** display. Punching the seek level button alters the weapon's power output in Mega Joules (MJ), as indicated on the weapon's power graph shown in the center of the screen.

The normal setting for a weapon is its third seek level. The fourth level produces a supercharged state, while the first and second seek levels allow you to rapid fire the weapon. After you're finished setting the weapon's new seek level, punch the **display** button to return the MFD to its normal screen.

BALLISTIC WEAPONS

"Physics, Shmysics. Load that AFC 100 into my 'Mech anyway."

TYPES

There are two categories of ballistic weapon systems: **missiles launchers** and **auto fire cannons**. The two types of missile launchers fire short range missiles (SRM) or long range missiles (LRM). Auto fire cannons (AFC) are rated by their bore in millimeters, with larger bores getting greater damage potential. Unlike energy weapons, ballistic weapons can generally fire with greater frequency since they simply have to reload to be ready. However, ballistic weapons have the disadvantage of having a limited supply of ammunition, and that ammunition can jam in the loader, or worse, cook off in an ammo bay fire. Internally exploding ammunition will do a lot of damage to your 'Mech. When you fire off a ballistic weapon's last round of ammo, or if you end up ejecting the weapon's ammo store, you will no longer be able to fire that weapon.

JAMS

In veteran and expert simulation modes, a ballistic weapon can jam due to taking damage or having excess heat in the system. In the case of a jam, it's up to you to manually eject the offending ordnance, whether it's a missile or a cannon shell. Punch the affected weapon's **display eng data** button. In the bottom left corner of the supplementary display you will see the **eject** command. Punch the eject button to harmlessly discharge the faulty round. Return to the MFD's normal screen by punching the **display** button.

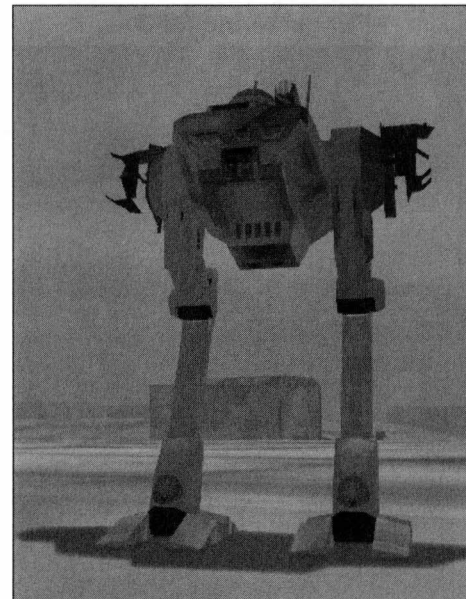
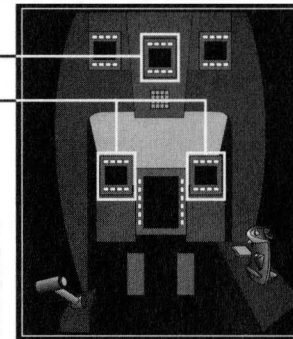
AMMO BAY FIRES

As the result of overheating a ballistic weapon, the ammunition store for that weapon may catch fire. You will get an audio prompt that an ammo bay fire is in progress, but it is once again up to you to manually eject the ammunition store. When dealing with an ammo bay fire, speed is of the essence. Punch the affected weapon's **display eng data** button. On the supplementary screen that comes up, you will see a flame icon and a countdown to the time when your computer thinks the ammunition will explode. In the bottom left corner of the display you will see the **eject** command. Hold down the eject button for **three seconds** to discharge the weapon's entire ammo store. The weapon is now rendered useless since you have no ammunition for it, but at least the ammo didn't explode and take you with it. Return to the MFD's normal screen by punching the **display** button.

Systems Used:

Engineering MFD

Weapon MFDs

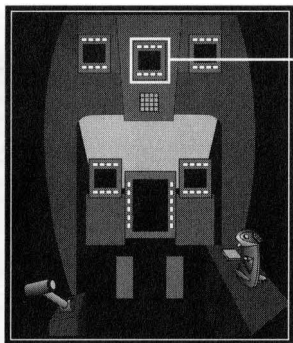


AFC Eng Data Screen



Everything in your 'Mech makes its own unique **sound**. Experienced players will know when weapons are recharging, when they have a weapon jam, and when a launcher is reloaded, just from the sounds. Eventually, you will also be able to recognize the sound of a coolant leak, and the direction of incoming enemy fire. Learning these sounds will help your reaction times.

Once in the cockpit, you will see that the **recharging daisywheel** of each ballistic weapon contains a number. This shows you the weapon's remaining ammo. Each time you fire, the number will count down by one. The weapon's remaining ammo number also appears in the center of its eng data screen, like the one show here. If a weapon's recharging daisywheel contains the letter **R**, it is a rear firing weapon.



Systems Used:
Engineering MFD

MYOMERS / SENSORS

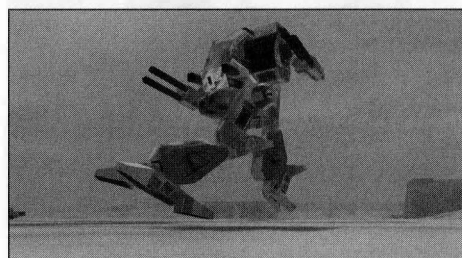
"Ignore your 'Mech's ability to see and move at your peril. Nothing else in your 'Mech is this important."

◆ **Myomers and sensors** are good candidates to be put on auto gen mode. That way, they'll almost always be guaranteed to get generator power.

◆ If your 'Mech stops moving, and the heat in your myomers is OK, check the generator; it may be the system that has overheated.

◆ If your HUD or radar display suddenly goes out, you have either taken a critical hit, or the generator your sensors are on has shut down.

Engineering MFD



Searchlight On/Off Icons



The searchlight control is found on the left side of the secondary screen



ENGINEERING MFD

The multi function display directly above your viewscreen is referred to as the **engineering MFD** because it displays information on your 'Mech's myomers and sensors (though it may also show missile launchers). Using the **display eng data** button, you can search for information and set preferences for myomers and sensors just like you do for weapon systems.

MYOMERS

Myomers are the bundles of polyacetylene fibers which function as your 'Mech's muscle system, contracting and relaxing to move limbs and manipulate weapons. By setting the **seek level** of your myomers, just like you do for energy weapons, you can customize the system's power output. This translates to a lower or higher top speed for your 'Mech. Obviously, by setting a high seek level, your mech will move faster with the trade-off of generating more heat. This can be bad news for you, since overheated myomers can reduce your 'Mech's speed to zero. Setting your myomers at a low seek level will reduce your 'Mech's speed, but your coolant can then be used to cycle your weapons faster. The decision of where to set your myomer seek level is up to you, depending on your battlefield style, but a standard seek level is always preset for you by the computer.

In **standard simulation mode**, you are not able to supercharge your myomers by setting a high seek level. This provides an advantage to players in **expert simulation mode**, since they will be able to get their 'Mechs moving faster than normal, albeit, with the additional heat concerns.

SENSORS

Your 'Mech's **sensors** are responsible for generating your radar display, along with a lot of the information that appears in your HUD. Taking critical damage to this system can result in your HUD flickering, losing your HUD, or worst of all, losing your radar display. Overheated sensors will generate the same effects.

One sensor system that is particularly useful during night battles is your searchlight. Your searchlight control is located on the left side of your secondary screen. Punch the searchlight button to turn it on and off. Obviously, a search light is a radiator, which means that while it's on, other 'Mechs can see it, making you an easier target. If you're experiencing power difficulties, your searchlight will flicker or fail as the power fails.

GENERATORS

Do not, under any circumstance, stick anything you value into the generator access panel while the turbine is operating.

GENERATOR INFO CENTER

The right side of your secondary screens shows the status of your BattleMech's generators. Up to four operate in each 'Mech, and they are identified by the letters A through D. Each of your 'Mech's weapons, myomer and sensor systems runs on power from these generators, but any given generator can only run up to six 'Mech systems. The more systems a generator powers, and the harder those systems work, the hotter the generator will become. If you look at the **generator info center**, you'll see that each generator has a power output indicator and a heat gauge. If a generator overheats, it will shut down. That generator will not come back on-line until its heat gauge has cooled down half way, which can take some time. If a generator is destroyed by a critical hit, an "X" will appear in that generator's info center. In either case, you will have to reroute power to systems currently hooked up to the incapacitated generator.

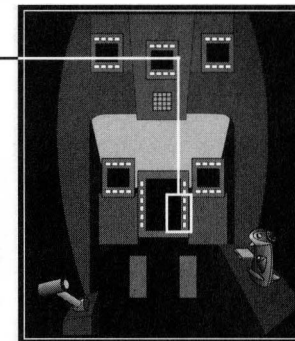
REROUTING POWER

Rerouting power to an energy-starved 'Mech system is a relatively simple procedure. Punch the system's **display eng data** button. Across the top of the eng data supplementary screen you will see the letters of your 'Mech's generators. In the central power display you will see the boxed letter of the generator this system is currently drawing power from. To reroute power from a different generator to this system, punch the button corresponding to your new generator. If you cannot switch to your desired generator, it probably already has six systems running off of it. Try a different one. Punch the **display** button in the bottom right corner of the supplementary display when you are done.

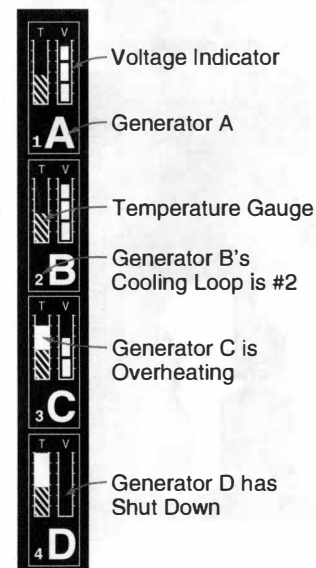
If, due to the loss of a generator, you are forced to put too much of a load on your remaining generators, you may notice that they start to overheat. To avoid overheating these remaining generators, you may want to increase the priority of the coolant loop(s) where these generators are located. Under the temperature gauge of each generator is the number of the coolant loop that that generator is attached to. Since you cannot reallocate a generator (or any other system) to a different coolant loop, you will have to increase the cooling priority of a loop containing an overheating generator. You increase a cooling loop's priority by increasing its set% level, as described on the following page.

Systems Used:

Generator Info Center



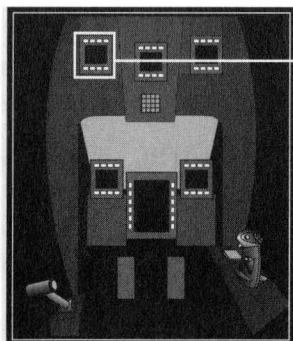
Generator Info Center



Weapon Eng Data Screen



Like many of the other systems in your 'Mech, each generator can suffer its own coolant leak. If a coolant leak occurs in a generator, inverted triangles will appear next to the voltage gauge. As with all other coolant leak indicators, one triangle shows a small leak, two indicate a medium-sized leak, and three tell you that a severe leak is in progress. The only way to stop a generator coolant leak is to shut off the leaking generator by punching the button next to the generator on the secondary screen. Of course, this will shut off power to every system drawing from that generator, so you will have to reroute electricity to those systems.



Systems Used:

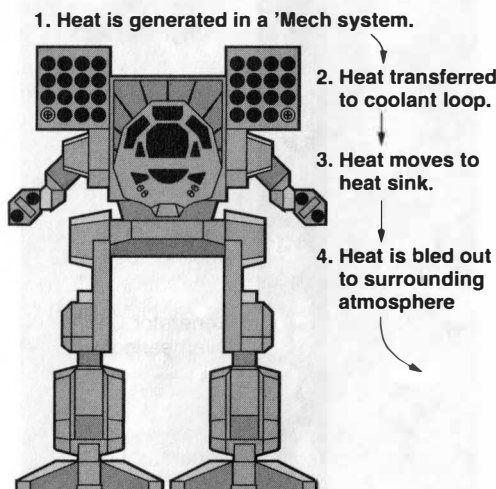
Coolant MFD

◆ Inverted triangles in any system display indicates the presence of a coolant leak. One triangle shows the presence of a small leak, two indicate a medium sized leak, and three tell you there's a really big leak.

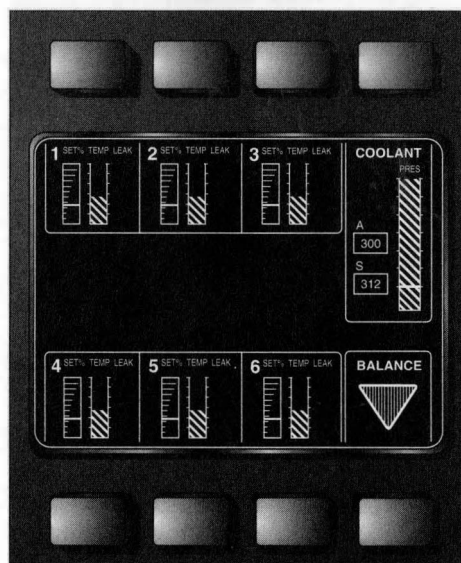
◆ The lower the outside ambient temperature, the more heat-efficient your 'Mech becomes. Your heat sinks can bleed off more heat to the environment when it's cold outside. Conversely, when fighting in desert or jungle environments, your 'Mech retains heat longer.

◆ When a MechWarrior flushes reservoir coolant into his loops, you will see a condensation cloud rise from his 'Mech on the battlefield. This is a good warning sign that the enemy has momentarily become significantly more dangerous.

The Path of Heat Transfer



Coolant MFD



COOLANT / HEAT

A MechWarrior talking about how cool his 'Mech is, is probably not making a subjective attitude statement.

HEAT

When playing in **expert simulation mode**, the heat that your 'Mech produces can be as deadly as enemy fire. Building up too much heat can cause weapons to take longer to recharge, reduce your 'Mech's top speed and/or ignite stowed ammunition. The key to controlling heat is knowing how to utilize your 'Mech's cooling system.

COOLANT MFD

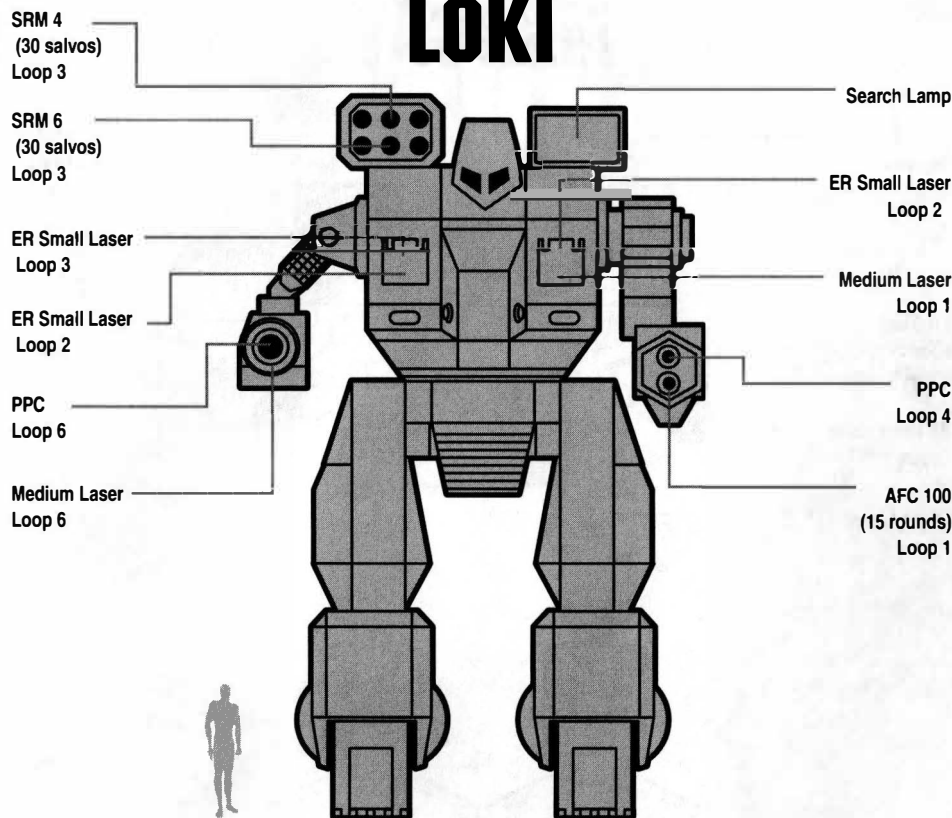
Coolant information is displayed on your cockpit's **coolant MFD**. You will see that your 'Mech is divided into six internal areas called **coolant loops**. These loops are numbered from 1 to 6. Each loop services all heat generating systems in its part of the 'Mech. The loops are compartmentalized so that you can contain a leak by deprioritizing the coolant loop servicing that area. Unfortunately, this compartmentalization prevents you from transferring an overheating system to an alternate loop. In order to cool down an overtaxed loop, it is up to you to prioritize and/or flush fresh coolant into that area from the coolant reservoir.

Each of the six loop status displays shows its **set%** and current **temp** (temperature). The set% reading indicates that loop's priority for receiving coolant from the reservoir. To gain a priority for cooling a particular loop (at the expense of the others), punch that coolant loop's button. Punching it a second time maximizes that loop's cooling priority, while a third push deprioritizes that loop completely. Punching the set% a fourth time returns it to its original level. The set% of all loops will be equalized when you punch the **balance** button in the bottom right corner of the display.

The top right button of the coolant MFD controls major coolant releases from your 'Mech's reservoir. The reading in the coolant bar indicates current **pres** (pressure) in the reservoir. A full bar indicates a full reservoir. At any time during a battle, you can punch (or hold down) the **coolant** button to flush fresh coolant through your 'Mech's loops (with a bias based on your set% levels). When you do this, you will notice a significant drop in loop temperatures and other pilots will see steam rise from your 'Mech on the battlefield. You are limited as to how many times you can perform these complete system flushes since your reservoir holds a finite volume of coolant fluid. Although each 'Mech has a different sized reservoir, you should expect to be able to punch your coolant button three or four times before emptying your reservoir.

The top portion of the pressure bar in the coolant MFD shows what's left in the reservoir, while the bottom portion is an indicator of the coolant currently in all the loops and heat sinks. If you have a leak in one of your loops, the deficit will automatically be replenished from the reservoir. This could, of course, drain the reservoir if you haven't deprioritized that loop's set%. Finally, the **A** reading in the coolant display shows ambient outside temperature in °K, while the **S** reading displays your 'Mech's internal temperature.

LOKI



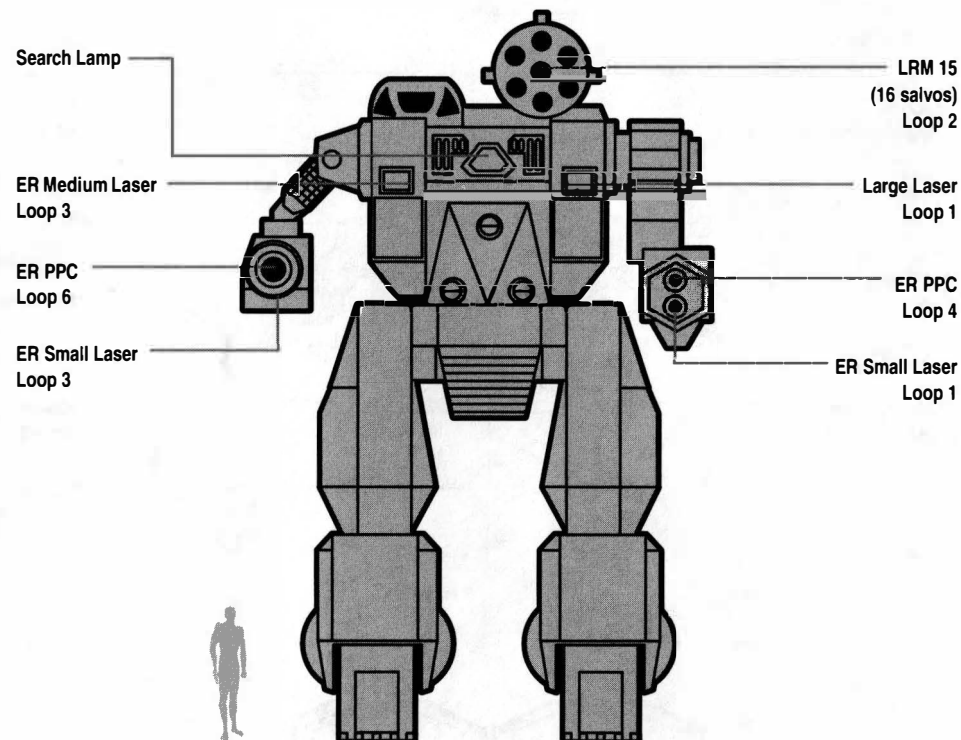
MECH STATS

Tonnage	75	0-100 Kph (in seconds)	4.5
Armor points	2110	100-0 Kph (in seconds)	4.5
Reservoir Size (Liters)	3800	Top Speed Normal	143
Number of Heat Sinks	38	Top Speed Super Charged	182
Torso speed (deg/sec)	60	Top Speed Gimped	40
Torso Limit (degrees)	110		

COOLANT LOOPS

LOOP 1	LOOP 2	LOOP 3	LOOP 4	LOOP 5	LOOP 6
AFC 100 (15 rounds)	ER Small Laser	ER Small Laser	PPC	Generator D	PPC
Medium Laser	ER Small Laser	SRM 4 (30 salvos)		Myomers	Medium Laser
Generator A	Generator B	SRM 6 (30 salvos)			
	Sensors				

THOR



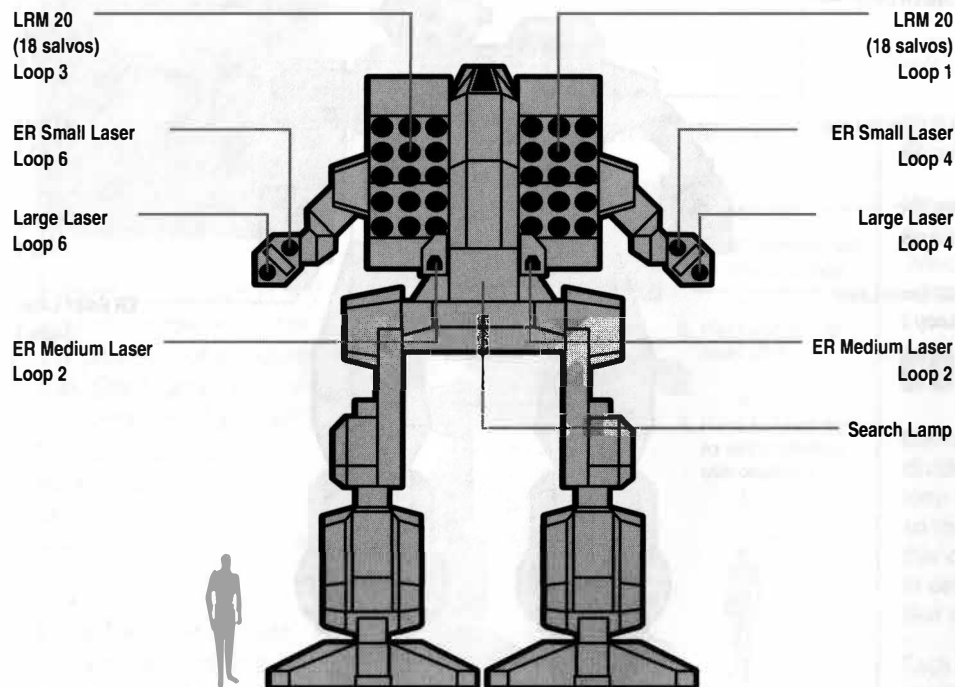
MECH STATS

Tonnage	75	0-100 Kph (in seconds)	4.5
Armor points	2110	100-0 Kph (in seconds)	4.5
Reservoir Size (Liters)	3800	Top Speed Normal	143
Number of Heat Sinks	38	Top Speed Super Charged	182
Torso speed (deg/sec)	60	Top Speed Gimped	40
Torso Limit (degrees)	110		

COOLANT LOOPS

LOOP 1	LOOP 2	LOOP 3	LOOP 4	LOOP 5	LOOP 6
Large Laser	LRM 15 (16 salvos)	ER Medium Laser	ER PPC	Generator D	ER PPC
ER Small Laser	Generator B	ER Small Laser		Myomers	
Generator A	Sensors				

VULTURE



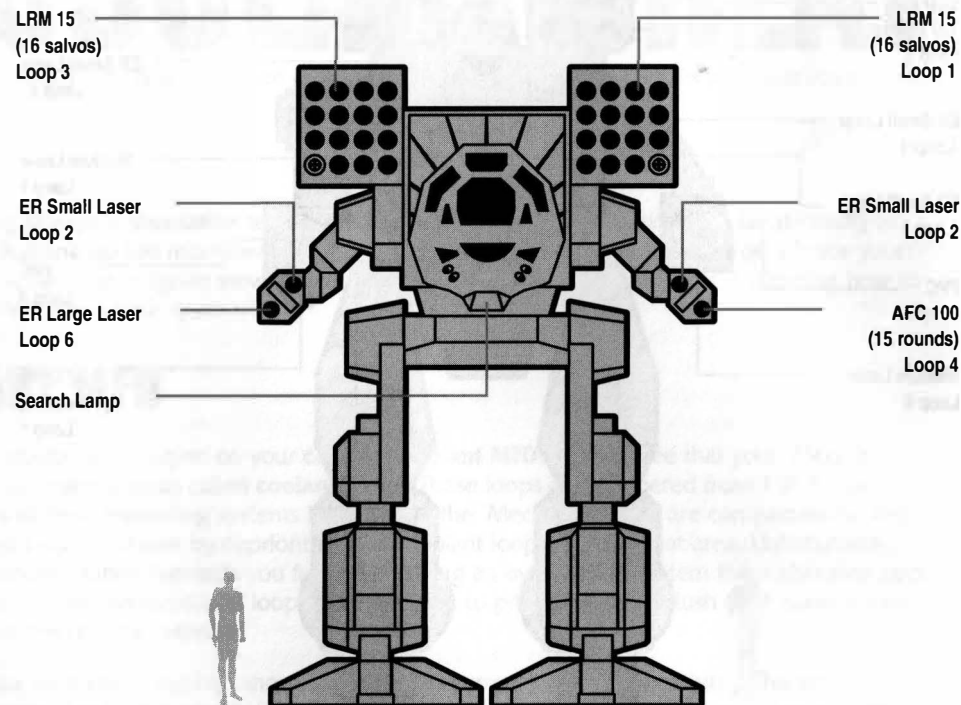
MECH STATS

Tonnage	75	0-100 Kph (in seconds)	4.7
Armor points	2025	100-0 Kph (in seconds)	3
Reservoir Size (Liters)	2400	Top Speed Normal	175
Number of Heat Sinks	24	Top Speed Super Charged	235
Torso speed (deg/sec)	50	Top Speed Gimped	62
Torso Limit (degrees)	130		

COOLANT LOOPS

LOOP 1	LOOP 2	LOOP 3	LOOP 4	LOOP 5	LOOP 6
LRM 20 (18 salvos)	ER Medium Laser	LRM 20 (18 salvos)	ER Small Laser	Generator D	ER Small Laser
Generator A	ER Medium Laser	Loop 3	Large Laser	Myomers	Large Laser
	Sensors	Generator C			Medium Laser

MADCAT



MECH STATS

Tonnage	75	0-100 Kph (in seconds)	4.2
Armor points	2195	100-0 Kph (in seconds)	4
Reservoir Size (Liters)	2800	Top Speed Normal	175
Number of Heat Sinks	28	Top Speed Super Charged	220
Torso speed (deg/sec)	80	Top Speed Gimped	62
Torso Limit (degrees)	90		

COOLANT LOOPS

LOOP 1	LOOP 2	LOOP 3	LOOP 4	LOOP 5	LOOP 6
LRM 15 (16 salvos)	ER Small Laser	LRM 15 (16 salvos)	AFC 100 (15 rounds)	Generator D	ER Large Laser
Generator A	ER Small Laser	(16 salvos)	(15 rounds)	Myomers	
	Generator B	Generator C			
	Sensors				

THE FIVE HOUSES

OF THE INNER SPHERE

HOUSE DAVION

THE FEDERATED COMMONWEALTH: Ruled by Prince Victor Steiner-Davion, the Federated Commonwealth once encompassed two Successor States: the Federated Suns and the Lyran Commonwealth. The fires of secession have split that once-vast realm into two hostile parts. Prince Victor, whose political talents unfortunately do not match his gift for military strategy, is willing to pay almost any price to reunite his fractured empire.

HOUSE KURITA

THE DRACONIS COMBINE: Ruled by Theodore Kurita, the Draconis Combine is the Inner Sphere's most formidable military power. Brilliant and subtle, Theodore Kurita is an honorable ally and an implacable enemy. He believes that the Inner Sphere's survival depends on finding and obliterating the Clan homeworlds.

HOUSE LIAO

THE CAPELLAN CONFEDERATION: Chancellor Sun-Tzu Liao rules this small Successor State, and dreams of Capellan supremacy over the rest of the Inner Sphere. He has made an alliance of convenience with the Free Worlds League in order to recapture worlds taken from the Confederation by the forces of House Davion, House Liao's age-old enemy.

HOUSE MARIK

THE FREE WORLDS LEAGUE: Captain-General Thomas Marik has managed to unite the quarreling factions of the Free Worlds League solidly behind him, a feat managed by few of the League's rulers. An idealist with a ruthless streak in the pursuit of his goals, Thomas is devoted to rebuilding the Star League under Marik leadership.

HOUSE STEINER

THE LYRAN ALLIANCE: Under the leadership of Archon Katrina Steiner-Davion, sister to Prince Victor Steiner-Davion, this breakaway state recently reclaimed its independence from the Federated Commonwealth. A shrewd manipulator of people, Katrina will do whatever is necessary to keep her realm free and expand its power.



MECHWARRIOR

Pull up your pants / Strike up the chants / Here comes the lance / It's time to dance



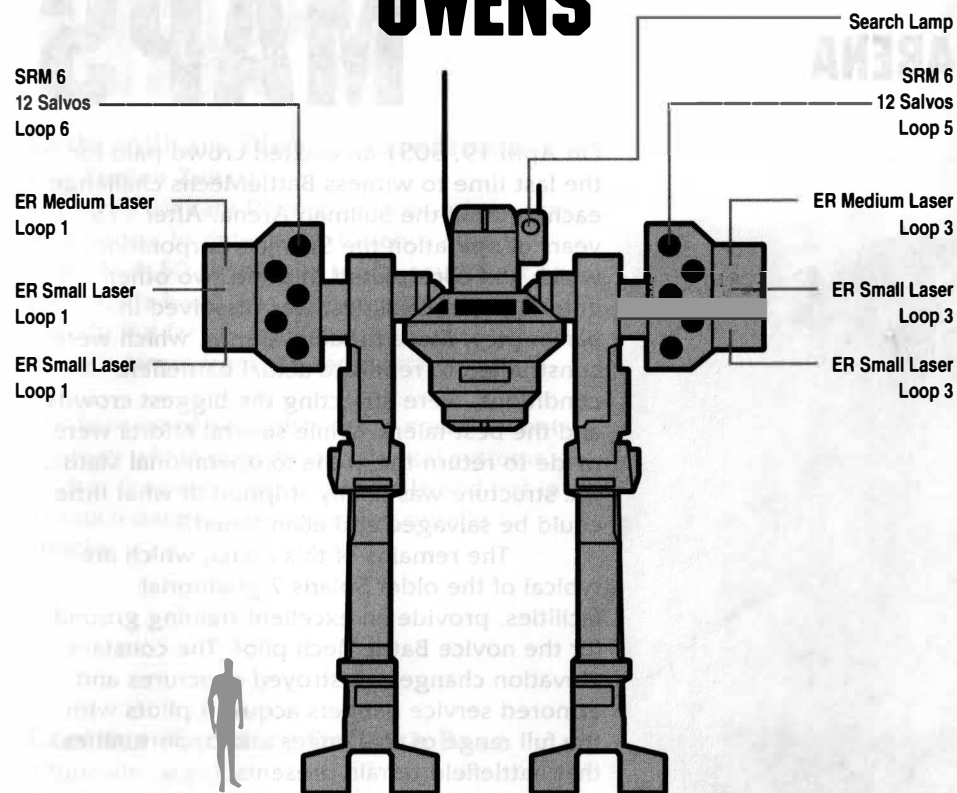
Countess Ganya "The Asp" Chernov allows the press to photograph her with the Jade Falcon "Vulture" that her unit captured during the battle of Coventry. The Countess's unit participated in the battle at the bequest of her liege lord Duke Bradford of Coventry, who serves Archon Katrina Stelner-Davion.

Though the five Successor States can field large numbers of regular troops, they also rely on independent mercenary outfits. These organizations vary in size and quality; the best of them are among the Inner Sphere's most talented fighting units, with skills far surpassing those of the feudal regiments of the Successor Lords.

Every House has found it necessary to hire mercenary groups at one time or another. In this age of continuous warfare, mercenaries play a vital role. As there are no dramatic causes or sweeping principles of right and wrong among potential employers, mercenaries can offer their combat services to the highest bidder, untroubled by conscience. And wherever there is war brewing in the Inner Sphere, there is money to be made by successful units for hire.

The Inner Sphere's best-known mercenary units are justly famed for their exploits. The Kell Hounds, Wolf's Dragoons, the Gray Death Legion, and Snord's Irregulars have gone down in the history of the Inner Sphere as fighting units so gifted that they can snatch victory from the jaws of certain defeat. The Kell Hounds and Wolf's Dragoons joined with the Draconis Combine's elite units to defeat the Clans on the Combine capital of Luthien. The Gray Death Legion earned its place in history through fighting prowess and its discovery of a long-lost Star League-era memory core on the planet Helm, which singlehandedly sparked a technological renaissance across the Inner Sphere. Snord's Irregulars, an offshoot of Wolf's Dragoons, has earned a reputation as an elite company of MechWarriors whose unorthodox tactics give them a battlefield edge out of all proportion to their size. These and other top-flight mercenary units have earned immense respect from employers and fellow mercenaries alike for their professionalism, innovation, and battle experience, providing prospective mercs with excellent examples of how to do well at the business of war.

OWENS



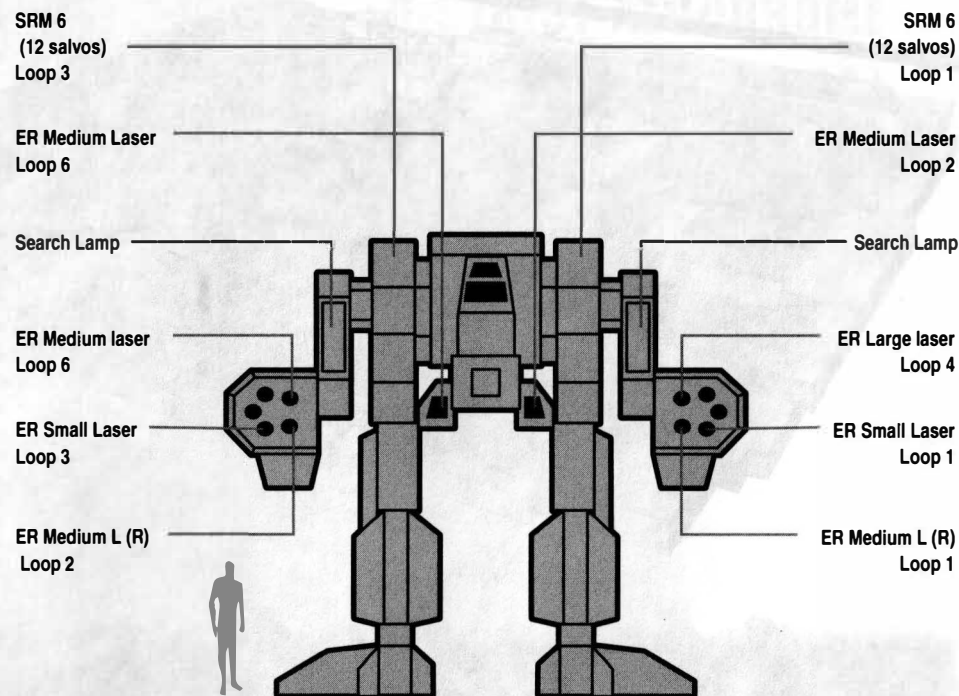
MECH STATS

Tonnage	25	0-100 Kph (in seconds)	4.2
Armor points	760	100-0 Kph (in seconds)	5
Reservoir Size (Liters)	1500	Top Speed Normal	154
Number of Heat Sinks	15	Top Speed Super Charged	265
Torso speed (deg/sec)	0	Top Speed Gimped	63
Torso Limit (degrees)	0		

COOLANT LOOPS

LOOP 1	LOOP 2	LOOP 3	LOOP 4	LOOP 5	LOOP 6
ER Medium Laser	Second Set Of	ER Small Laser	SRM 6	Generator D	SRM 6
ER Small Laser	Myomers	ER Small Laser	(12salvos)	Myomers	(12 salvos)
ER Small Laser	Generator B	ER Medium Laser			
Generator A	Sensors	Generator C			

BLACKHAWK



MECH STATS

Tonnage	50	0-100 Kph (in seconds)	5.1
Armor points	1362	100-0 Kph (in seconds)	4.6
Reservoir Size (Liters)	1600	Top Speed Normal	190
Number of Heat Sinks	16	Top Speed Super Charged	280
Torso speed (deg/sec)	0	Top Speed Gimped	60
Torso Limit (degrees)	0		

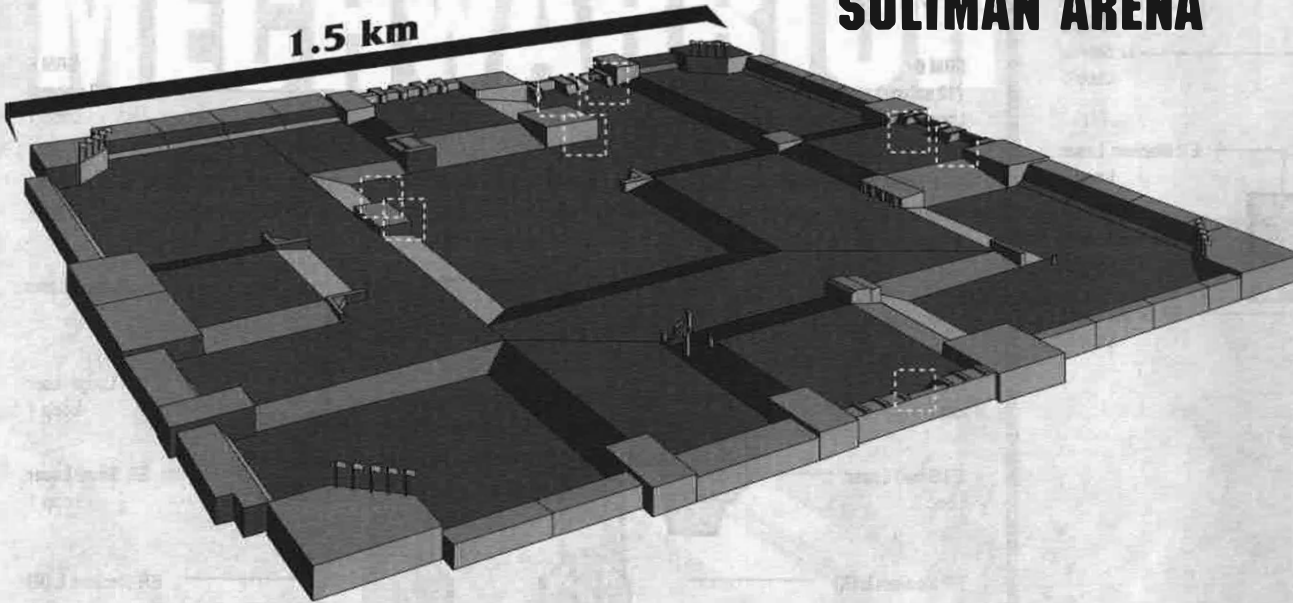
COOLANT LOOPS

LOOP 1	LOOP 2	LOOP 3	LOOP 4	LOOP 5	LOOP 6
ER Small Laser	ER Medium Laser	ER Small Laser	ER Large Laser	Generator D	ER Medium Laser
SRM 6	ER Medium L (R)	SRM 6	(12salvos)	Myomers	ER Medium Laser
(12 salvos)	ER Medium L (R)	(12 salvos)			
Generator A	Generator B	Generator C			
	Sensors				

MAPS

SULIMAN ARENA

1.5 km



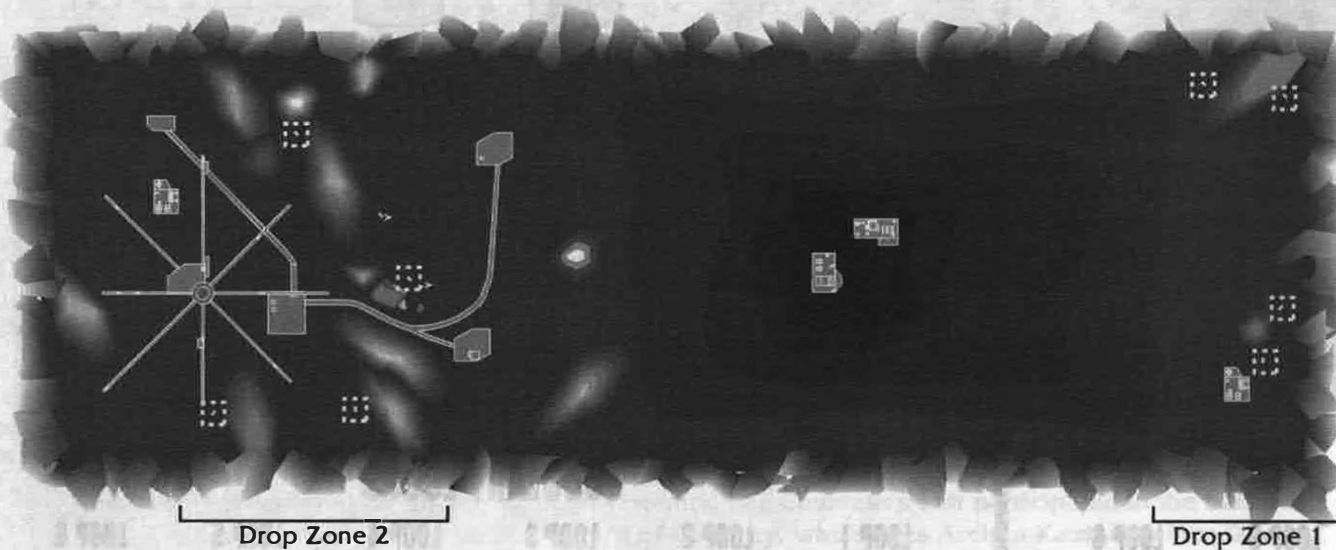
On April 19, 3051 an excited crowd paid for the last time to witness BattleMechs challenge each other in the Suliman Arena. After 115 years of operation the Sullman Corporation, which had constructed this and two other entertainment facilities, was dissolved in bankruptcy. More modern arenas, which were constructed to replicate actual battlefield conditions, were attracting the biggest crowds and the best talent. While several efforts were made to return the arena to operational status, the structure was finally stripped of what little could be salvaged and abandoned.

The remains of this arena, which are typical of the older Solaris 7 gladiatorial facilities, provide an excellent training ground for the novice BattleMech pilot. The constant elevation changes, destroyed structures and armored service hangers acquaint pilots with the full range of challenges and opportunities that battlefield terrain presents.

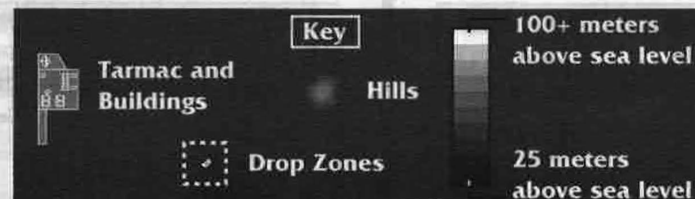
For the advanced pilot the Suliman Arena represents the same full range of challenges in a confined space. The 1.5 kilometer square in which the arena is laid out allows no opportunity for an overwhelmed opponent to escape confrontation.

The limited size of the arena tends to favor heavier mechs. Smaller, faster mechs are less able to use their speed to advantage. Still, an engagement between a number of similarly sized large or small mechs can make for a very exciting match.

The designers of the arena kept the size to a minimum to accentuate this close in fighting and careful maneuvering. Engagements of this nature are favored by most spectators and arenas which sell tickets directly to the public continue to be built at this scale.



CEREBUS PLANETARY DEFENSE BASE



MAPS

Kytin Military District Aerodrome (Ice Station Zebra)

The Kytin Military District helicopter base was established to defend the Cerebus missile base. Built 50 kilometers to the southwest of the missile base, it is near enough to respond quickly but far enough from the base to avoid being a target from the same attack.

The base employs a distributed encampment strategy which spreads out all vital systems so that they are more dependable and not in as much danger from incoming missile attacks.

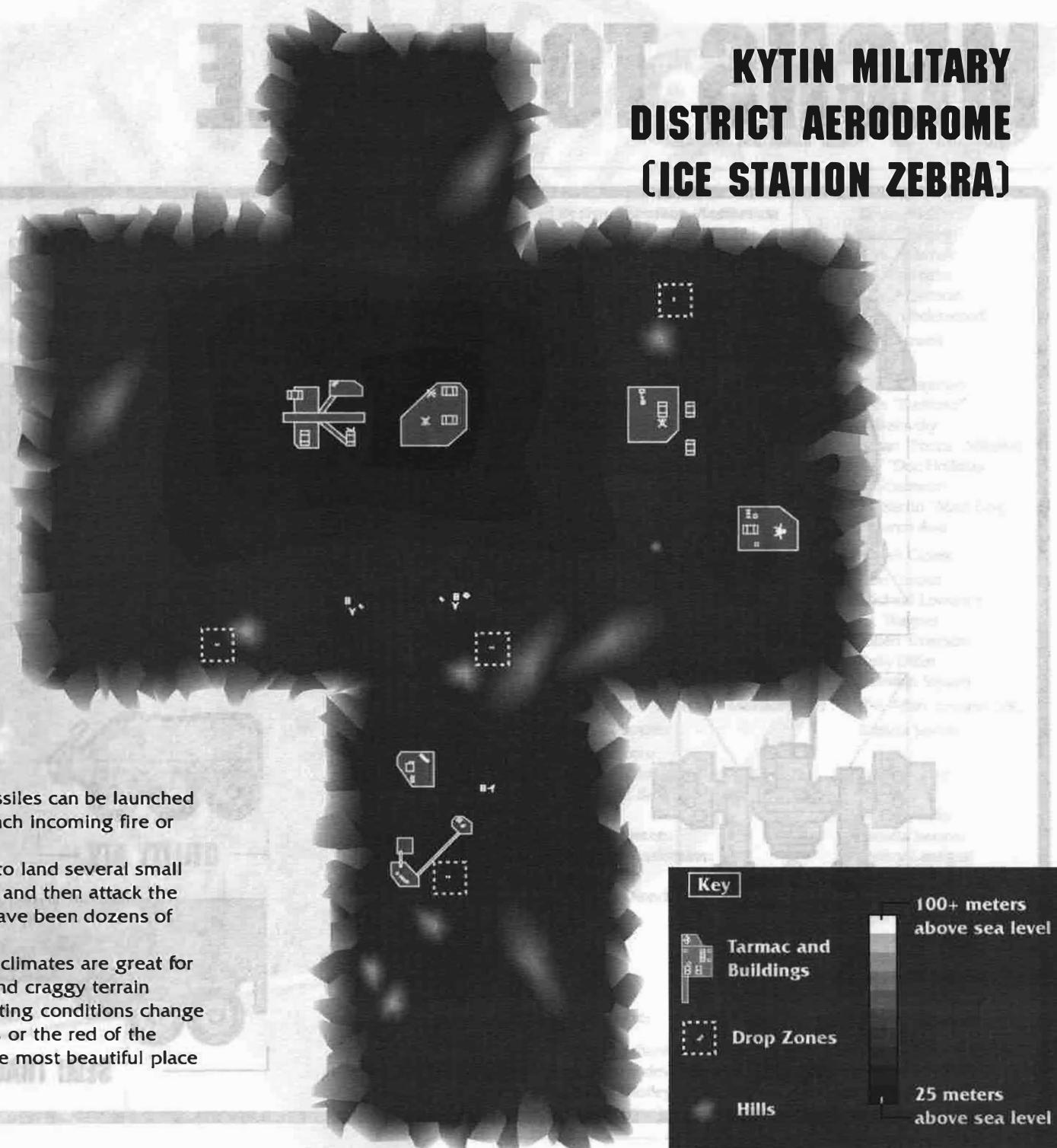
Cerebus Planetary Defense Base (Opposite page)

The Cerebus Missile base is set in the polar circle of the planet Fafnir. The base was established as a critical component of an orbital defense strategy set in motion 25 years ago. The strategy calls for extensive ground to orbit missile bases on the Arctic and Antarctic continents. From these bases missiles can be launched at approaching drop ships before they can launch incoming fire or deploy sizable concentrations of BattleMechs.

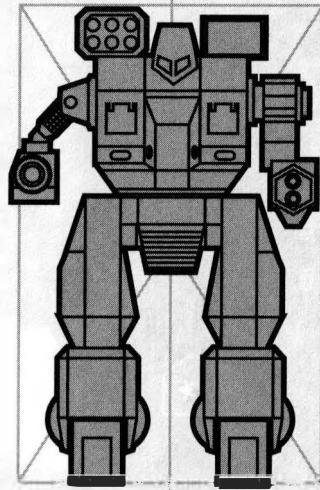
The only way to defeat this strategy is to land several small drop ships that can get past the missile screen and then attack the bases from the ground. Over the years there have been dozens of such attempts, so far none have succeeded.

The freezing temperatures of the polar climates are great for the 'Mechs heat management, but the rough and craggy terrain makes it a difficult place to maneuver. The lighting conditions change dramatically in the blue of the extended dawns or the red of the forever sunsets. Some have said it is indeed the most beautiful place to fight.

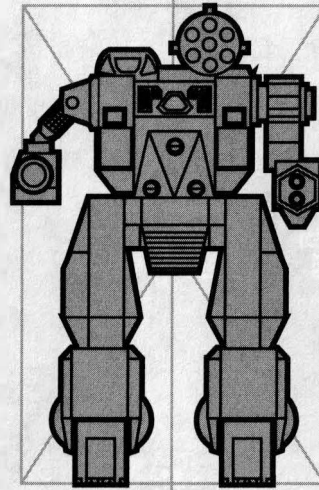
KYTIN MILITARY DISTRICT AERODROME (ICE STATION ZEBRA)



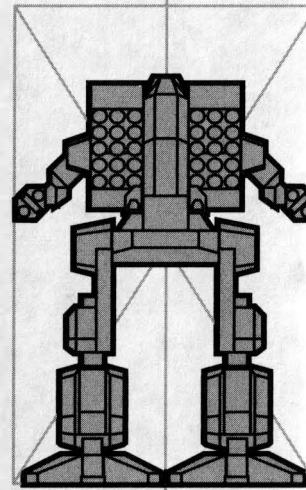
MECHS TO SCALE



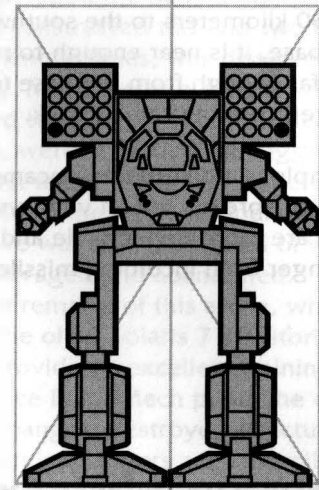
LOKI



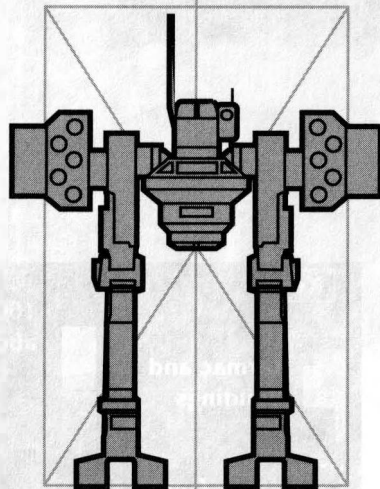
THOR



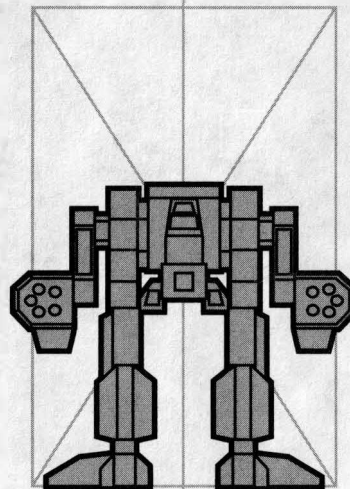
VULTURE



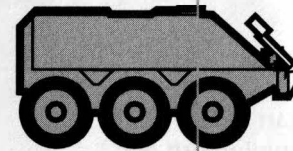
MADCAT



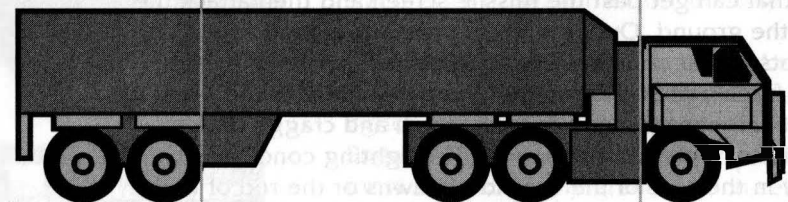
OWENS



BLACKHAWK



UTILITY ATV



SEMI TRACTOR/TRAILER



CREDITS

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'Mech Electrical/Heat Systems:

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Photo Producer's Assistants:

Photography Art Direction:

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Victor Bonilla
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Christy Landgraf
Lanita Sexton
Victor Bonilla
Tom Peters
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Brian Sorge
Genya Chelekhova
Lia Montelongo
Jerry Malik

The Producer wishes to thank the families of all the poor souls listed above for allowing them to so fully devote their time and effort to this product. And also, thanks to Denny Thorley for some great ideas, and for prodding the Producer to once again push the envelope.



Explorer



03
ALPHA

KEEP CLEAR
SLIDING COMPONENTS

CLAMPING MECHANISMS
MAY MOVE AT ANY TIME

CLAMPING MECHANISMS
MAY MOVE AT ANY TIME

CLAMPING MECHANISMS
MAY MOVE AT ANY TIME

CLAMPING MECHANISMS
MAY MOVE AT ANY TIME

KEEP CLEAR
SLIDING COMPONENTS

RESCUE



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