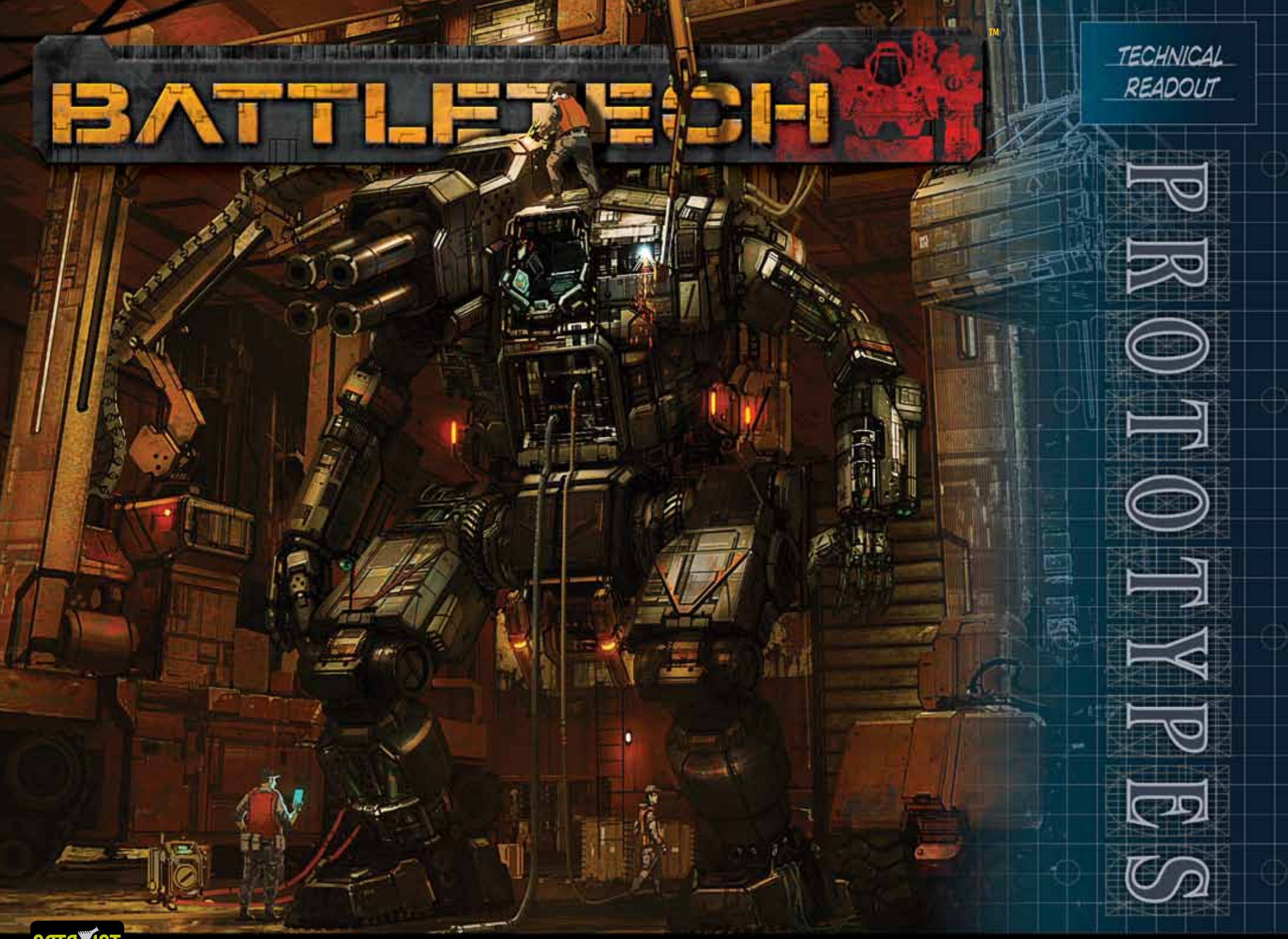
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PROTOTYPES
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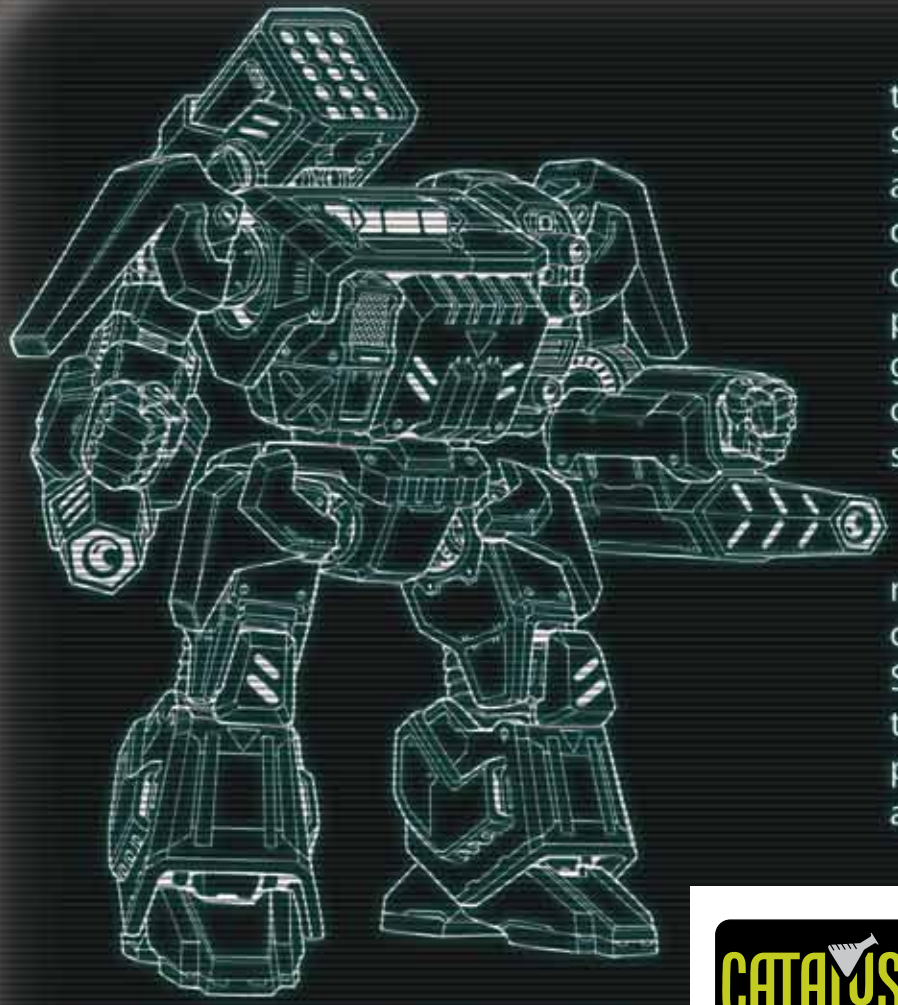
THE MARCH OF PROGRESS



The Jihad is over. A new Republic has been born. In the wake of one of humanity's greatest conflicts, the Inner Sphere, Periphery and Clans must adapt to new political and industrial realities—a new balance of power. But changes on the map are only the beginning. The Word of Blake's war has scattered a new wave of technological progress across nearly every realm, giving rise to a new generation of combat units. Only the sheer devastation of the relentless fighting has slowed the arms race that is sure to come … but for how long?

Technical Readout: Prototypes introduces the wave of new battle armor, vehicle, 'Mech, and aerospace units that debuted in the years after the birth of the Republic of the Sphere. Featuring technologies rarely seen outside the testing fields or Solaris arenas, these new war machines provide a peek at the new age to come as mankind faces a new century.

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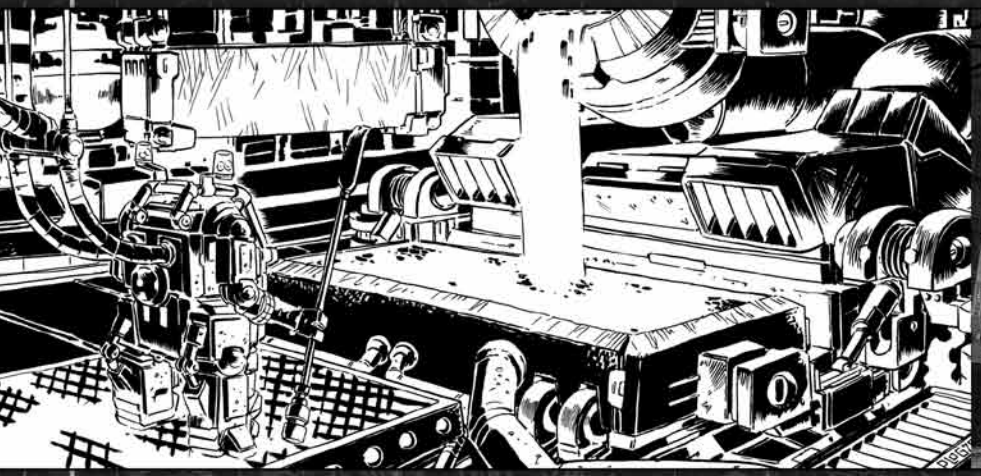

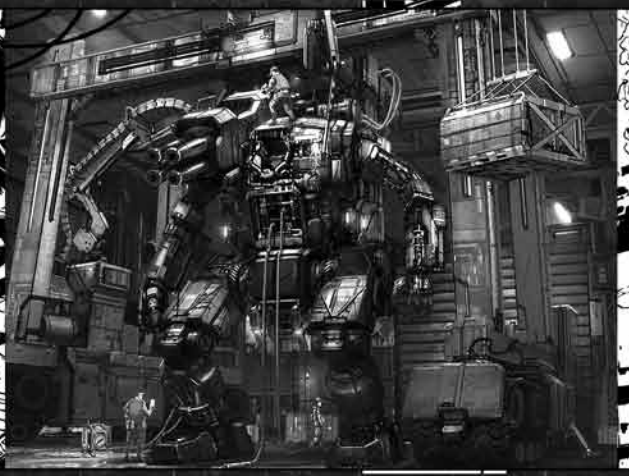

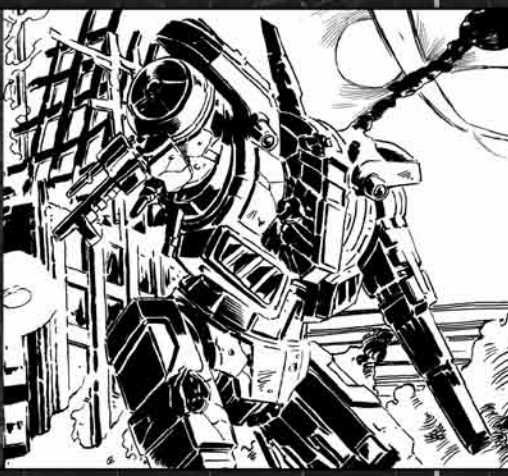

TABLE OF CONTENTS

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Special Thanks

This book is dedicated first to the writers, artists, layout guys, and volunteers who helped make the *Experimental Tech Readout* PDF-exclusive series a success. (Without them, this volume would be entirely too boring to speak of!) And to the legions of BattleTech fans who have proven their dedication time and again through days of feast, famine, and everywhere in between.

…And, of course, Herbert A. Beas would like to thank his family and his eternal support team: Oscar, Annie, Blaze, Meggie, and Kurita—without whom my life might be completely uninteresting these days….

Brent and the *BattleTech* Artist Corps would like to thank Doug Chaffee in memorium for inspiring a whole generation of players, fans and artists to carry on the legacy he helped make iconic. It's not the same without you.

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INTRODUCTION

Although the war has been over for nearly ten years it may be decades before we can truly appreciate the full effects of the Word of Blake Jihad. With a level of destruction not seen since the early Succession Wars, the conflict raged not only across border worlds, but struck nearly every realm in its heartlands, giving even those who came to see interstellar conflict as a distant game played by noble houses a true image of total war. Interstellar industries still reel from the effects of massive infrastructure damage and targeted raids by enemy forces interested less in securing their wares and more in leaving them in ruins. Even some of the giants of the military-industrial complex—Defiance of Hesperus, Luthien Armor Works and Ceres Metals—suffered catastrophic losses.

Despite setbacks the Inner Sphere and the Clans persevered. Desperation led many to flood the market with second-tier manufacturers and low-grade RetroTech, even while weapons designers raced to perfect experimental technologies for battlefield use. As enemy realms once again allied to bring down the monstrous Word of Blake war machine, once-proprietary equipment found its way into the arsenals of every great power. By the mid 3070s and early 3080s, the major military factories were once more churning out machines for their masters—albeit in a much-reduced capacity, while minor producers were supplying supplemental units to fill the ranks of depleted militias and other secondary forces.

The last two mass-market *Technical Readout* publications—produced in 3075 by the late Chandrasekhar Kurita, and in 3085 by the RAF's Department of Military Intelligence—gave us all a familiarity with the immediate effects of the Jihad on mainstream military production. Yet even as the new (and old) designs featured in those volumes brought proven technologies into the fray, a slew of smaller publications filtered through other channels to highlight experimental designs that were undergoing trials (in many cases, by fire) at the same time. It is these wartime prototypes that not only survived the Jihad but proved viable for mainstream use that we examine in this publication. Although many of these new prototypes sport familiar chassis, the equipment most of them carry signifies a new wave in battlefield technologies and design techniques that will likely transform warfare for the remainder of this century and possibly beyond.

One final note: Due to the advances in designs and the interchange of technologies that characterize some of the units in this edition, this compilation has not been divided into the Inner Sphere and Clan segments that have become customary since *Technical Readout: 3050*. Instead, each section is broadly defined by unit types, with Inner Sphere and Clan examples given for each section. Furthermore, an additional section—*Technology Upgrade: 3090*—provides a concise look at the various new battlefield technologies that have transitioned from the proving grounds to general, if somewhat limited, production.

—Precentor Steven Partridge, ComStar Historical Archives, 3090

How to Use this Technical Readout

Technical Readout: Prototypes provides a series of new units and variants fresh from the proving grounds of the post-Jihad Inner Sphere and ready for deployment. As these units feature a wave of new technologies, these units are primarily intended for use in advanced *BattleTech* games and campaigns. Still, where applicable, a rules level designation (in parentheses) has been added to each unit's Technology Base data. These rules levels are outlined below.

Caveat: The rules level designations provided in this book apply strictly to equipment available to the *BattleTech* universe from about the year 3090 and onward, after a number of advanced and experimental technologies have begun to filter into the broader mass markets of the Inner Sphere and Clan space. For games set before 3090, these units may not even be available at their listed rules levels. To determine what a unit's rules level is considered based on its in-universe date of play, consult the *Technology Upgrade: 3090* chapter (see p. 304).

Standard (Tournament Legal) Rules

Units with no rules level designation are considered Standard-level (or Tournament Level) construction, and use gameplay rules appropriate for games built around *Total Warfare* (*TW*) and using the construction rules found in *TechManual* (*TM*). The equipment these units feature is considered to be available to most of the major manufacturers in the Inner Sphere and/or Clans, and thus may reasonably appear on production-grade units (at least after 3090). Note, however, that because some Advanced equipment may transition into Standard rules in this book, additional rules found in *Tactical Operations* (TO) may be required to use these units to full effect.

Advanced Rules

Units with an (Advanced) rules level designation use Advanced-level construction and gameplay rules, appropriate for games using the rules in *Total Warfare* (*TW*) and the construction rules found in *TechManual* (*TM*), as modified by *Tactical Operations* (*TO*). The equipment these units feature is considered to be available to most of the major manufacturers in the Inner Sphere and/or Clans, and thus may reasonably appear on production-grade units (at least after 3090). Nevertheless, such units remain unavailable for use in Standard rules games.

Experimental Rules

Units with an (Experimental) rules level designation use Experimental-level construction and gameplay rules, appropriate for games using the rules in *Total Warfare* (*TW*) and the construction rules found in *TechManual* (*TM*), as modified by *Tactical Operations* (*TO*). However, unlike Advanced rules units, Experimental rules units feature equipment that is still in the prototype phase or in extremely limited supply among the major manufacturers of the Inner Sphere and/or Clans. As a result, Experimental level units may not reasonably play in most games, and are specifically unavailable in Standard-rules play.

Design Quirks

In addition to the normal gameplay stats provided with each unit's entry, players may find additional notes that describe Design Quirks unique to the design. Design Quirks are an optional Advanced-level game rule, and how the various Quirks affect gameplay may be found in *Strategic Operations* (see pp. 193-199, *SO*). Additional Design Quirks (and their rules) can be found in the *Technology Upgrade: 3090* chapter.

BATTLE ARMOR

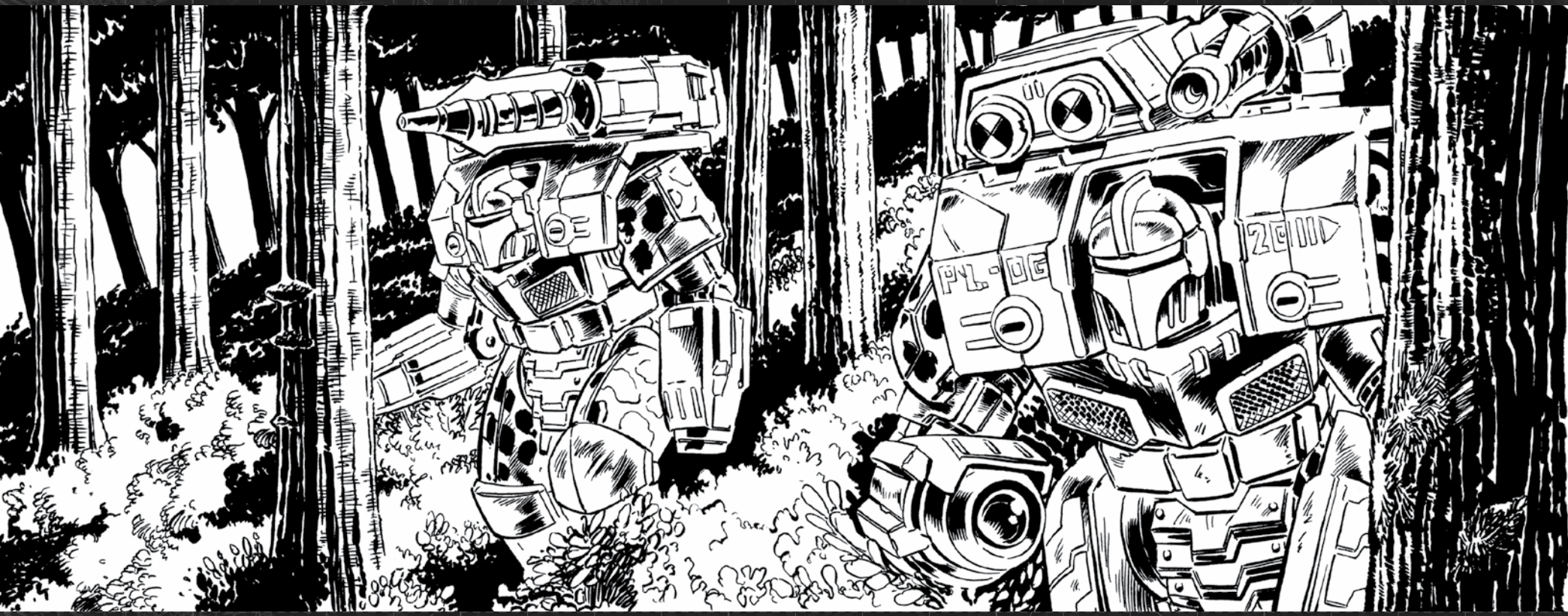
Comparatively speaking, there have been fewer technological advances in battle armor design than there have in BattleMech and vehicular equipment. For the most part, this may be because of the much smaller and more cramped nature of battle armor, where every cubic centimeter is needed to cram in firepower, armor and, of course, the trooper himself. This, naturally, poses a problem when producing equipment that can both withstand the rigors of combat and still contribute to a larger tactical situation.

More critical to this is the limited number of battle armor manufacturers in the Inner Sphere, compared to those that build BattleMechs, vehicles and other heavy units. For most of the Inner Sphere powers, battle armor technology was still a rather new and experimental field at the time the Jihad began, and thus many armor manufacturers were located centrally, deep within the borders of their producing realms. In the shadow of capitals and other major manufacturers, the smaller battle armor factories—operating almost entirely on federal subsidies to grow their business—were well protected. Until, of course, the Jihad erupted and the Word of Blake introduced a "go for the throat" strategy that bypassed borders and struck each realm at its heart. Several key battlesuit manufacturers thus perished while the more established (and dispersed) heavy arms industries survived.

Despite the damage, battle armor has seen some technological advancement in recent decades. We have seen the introduction of mechanical jump boosters and a new detachable weapon system made available to Clan and Sphere-made suits. The Clans have also pushed new myomer enhancements and laser weapons into the realm of their battlesuit designs. The Word of Blake and Draconis Combine have even made inroads toward bringing C^3 technology to battle armor. Both efforts remained in the experimental phases by the time the Jihad ended, and widespread damage in the Blake Protectorate may have set back battle armor C^3i by a decade or more.

Many of the suits now entering production are making the most of the slim pickings, and adding further diversity to the arsenals of today's armored infantry forces.

—Precentor Steven Partridge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GLADIATOR-S EXOSKELETON

Battle Armor

The concept of the pit fighter on Solaris was just coming into vogue when the Jihad swept over the Game World. Armed with simple industrial exoskeletons, these combat fighters lived on the edge of Solaris society, competing in smaller venues well outside of Solaris City proper and hoping for the day when some talent scout from a larger stable or cooperative would witness their single moment of glory.

The Jihad changed all that.

As Erik Gray and his Solaris Home Defense League began recruiting active resistance members to fight the Word of Blake occupiers, many of the SHDL's frontline ranks consisted of these hard-luck pit fighters. Used as guards and forward scouts, these men and women found themselves in many firefights with the corrupted Solaris police department and Blakist infantry.

Solaris Arms, one of the principal manufacturers of the Gladiator exoskeleton, suffered severe losses during the occupation. With all of its main manufacturing facilities burned to the ground and a good portion of its inventory "acquired" by the SHDL, the company failed to overcome its losses after Solaris was liberated. During the liquidation all of Solaris Arms' technical data was sold to StarCorps, who also secured the services of Abasi Oteke, one of the more popular SHDL pit fighters in Heatherton—a small city on the fringe of the Tangerine Desert.

Oteke, no longer able to fight after losing his left leg in the SHDL's final push into the International Zone, was instrumental in helping StarCorps redesign the venerable Gladiator. Based on the Spider—Oteke's own custom design, and one of the last produced by Solaris Arms before their collapse—the so-called Gladiator-S series mounts a magnetic clamp system on the exoskeleton's torso and legs. Oteke, known for hiding along the metal-girded ceilings of the underground tunnel networks beneath Solaris City, used these clamps to stay in place, dropping down on unsuspecting Word of Blake 'Mechs to tear into them with his right-hand vibro battle claw.

At the Jihad's peak battle armor sales shot through the roof as larger militaries began buying up as many supplies and replacement parts as they could to feed their war efforts. Battle armor became a precious commodity, difficult to find on the mercenary market. Several companies, StarCorps included, saw an opportunity in irregular forces such as mercenaries and resistance groups, and moved to fill it with military-modified exoskeletons. Though not as heavily armed or armored as proper battlesuits, these armed exos offered a cheap alternative, and could be used by basic infantry with minimal training.

With Oteke as their main consultant StarCorps tweaked the original Gladiator design further. Enhancing the power supply and myomer structure, they increased the suit's speed by 100 percent. Unable to mount heavy weapons, which would severely compromise the balance and weight of the suit, StarCorps instead added two anti-personnel weapon mounts on each arm.

The Gladiator-S retained Oteke's mag-clamp to allow for quick BattleMech or vehicle transportation. The suit also received a set of downscaled mechanical boosters for short, thirty-meter hops. While these boosters are completely ineffective for quick mobility—the newly redesigned leg and myomer structure takes care of that—they are useful when the trooper finds himself in a pinch. The Gladiator-S can thus vault most single-level dwellings and clear rough terrain patches as needed, often to the surprise of an opponent not used to seeing the exoskeleton in action.

Much of StarCorps' selling strategy relies on footage from the Solaris occupation and several pit fights that feature Oteke's achievements with his custom suit. At times, Oteke occasionally teaches interested mercenaries other tactics that make effective use of the clamps and boosters.

Interestingly, production of the Gladiator-S is extremely limited. StarCorps decided not to flood the market with the exoskeleton, acknowledging its weak armor protection and lack of a heavy punch as a poor replacement for true battlesuits. Still, this suit has found some popularity among smaller mercenary commands, especially those under corporate garrison contracts in semi-hostile environments. Production is made more on a pay-per-unit basis, with payment negotiated before the exoskeletons are assembled and delivered. StarCorps claims this approach can also be used to properly tailor suits to their prospective users.

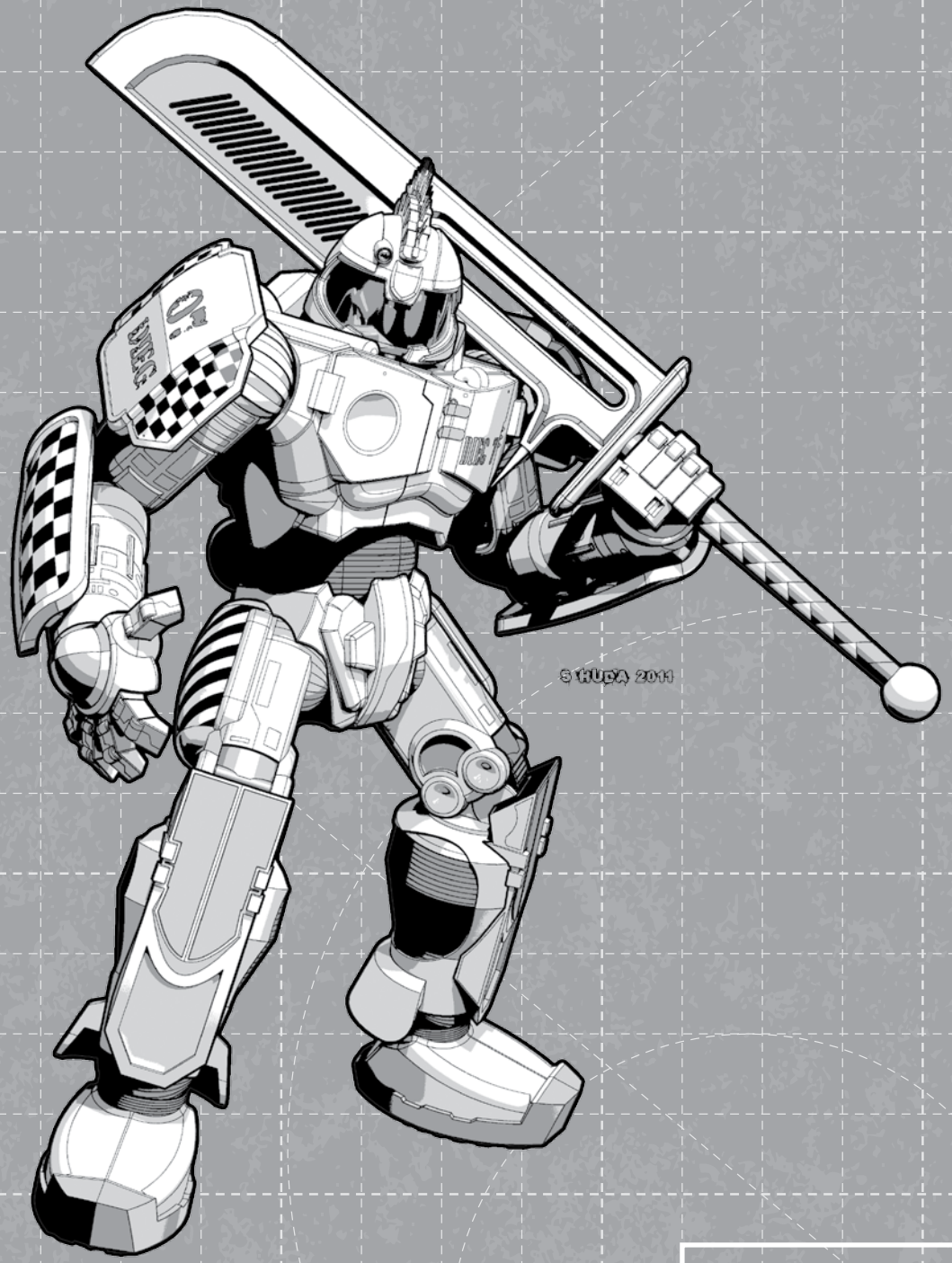
GLADIATOR-S EXOSKELETON

Type: Gladiator-S Exoskeleton
Manufacturer: StarCorps Industries
Primary Factory: Emris IV
Equipment Ratings: E/X-X-F/D

Tech Base: Inner Sphere (Advanced)
Chassis Type: Humanoid
Weight Class: Exoskeleton
Maximum Weight: 400 kg
Battle Value: 9
Swarm/Leg Attack/Mechanized/AP: Yes/Yes/Yes/Yes
Notes: May not attempt Anti-'Mech Swarm and Leg Attacks in the same turn as it uses Jump MP. Features the following Design Quirk: Difficult to Maintain.

Equipment		Slots	Mass
Chassis:			80 kg
Motive System:			
Ground MP:	4		50 kg
Jump MP:	1		0 kg
Manipulators:			
Right Arm:	Armored Glove		0 kg
Left Arm:	Battle Vibro-Claw		50 kg
Armor:	Standard		100 kg
Armor Value:	2 + 1 (Trooper)		

Weapons and Equipment	Location	Slots (Capacity)	Mass
Anti-Personnel Weapon Mount	RA	1	5 kg
Anti-Personnel Weapon Mount	LA	1	5 kg
Magnetic Clamps	Body	2	30 kg
Mechanical Jump Booster	—	—	50 kg



VOID (MINELAYER)

Indicative of a major shift in mentality for the Combine military, the production of non-BattleMech combat units has soared since the end of the Jihad. This is due to several factors, particularly the loss of significant 'Mech factories during the conflict, as well as the loss of so many MechWarriors. With proper DCMS MechWarrior training requiring a minimum of four years, replacing the losses in personnel has been slow; that so many retired MechWarriors were recalled to active duty and killed further reduced the pool of qualified instructors. Thus the surge in non-'Mech production, since vehicles and battle armor can be turned out in much greater numbers and their operators more quickly trained to combat status. One of the results of this philosophical shift was the minelayer variant of the Void battlesuit now in production.

The first battlesuit produced on Luthien since the world was freed from Blakist occupation, the Void Minelayer is built at the Ishikama-Harima factory on the coastal flats of Luthien's Shizuoka continent. Despite the occupation and destruction of much of Luthien's military industry, the Ishikama-Harima plant, because of its distributed design, was able to resume production immediately after the liberation, albeit on a limited scale. Full production resumed in 3079, though the minelayer Voids operated in various prototype configurations prior to this.

While the prototypes made use of Clan technology and saw field operations against the Combine's enemies, the limitations inherent in the hybrid design saw Ishikama-Harima's engineers alter the suit to its present state. The most significant alteration is the minelayer's smaller size compared to the standard Void suit. Since the initial model was designed to accommodate Nova Cat Elementals, it is clear that the Procurement Department chose to forego supplying the production-grade minelayers to the Clan enclaves. This is just one of many indicators of souring relations between the Nova Cats and the DCMS.

While the standard Void mounts jump jets, the minelayer variant drops them in favor of mechanical jump boosters. This results in a shorter jump capability but saves weight for the suit's altered weapons configuration. According to one report, this change was made after the ignition of an early prototype's jump jets set off the mines it had just laid, savaging the suit and killing its trooper. The jump booster allows the Void to deploy its minefield, then bounce clear without the risks associated with firing jump jets.

The standard Void's improved stealth armor was replaced with cheaper basic stealth. Though this somewhat hinders the suit's mission, it reduced costs and helps ensure an easier production cycle.

While minelaying units typically offer little utility beyond the minelaying role, this Void variant is equipped for combat operations as well. Its left arm mounts an anti-personnel weapon for dealing with sentries or other soft targets, while the right arm carries a medium recoilless rifle. Gone is the bulky support PPC, freeing space in the torso for the minelayer's namesake weapons. A pair of heavy battle claws provide the suit with a powerful means to carry out swarm attacks. Once the Voids have deployed their mines and taken down enemies at range, the minelayer troopers can attack directly. Particularly effective against 'Mechs that have stumbled through the minefield, these Voids have achieved a reputation for capturing MechWarriors and their damaged 'Mechs—something the DCMS considers a bonus return on investment.

The twin, torso-mounted mine dispensers provide each Void suit with the capability to deploy four minefields. The munitions used in these dispensers can be tailor-selected at the trooper's base. Void squads are often assigned in pairs, with each squad carrying a specific mine type, to maximize their operational utility. A common tactic is to assign standard mines to one squad, to herd enemy units along a chosen path—where the second squad has sown inferno or command-detonated mines. This approach brought a swift end to a bold pirate raid on Tabayama in 3088, with the pirate 'Mechs losing legs in the standard minefields and then being lit into torches by the inferno minefields laid in their only remaining path to one of the planet's many granary storage districts.

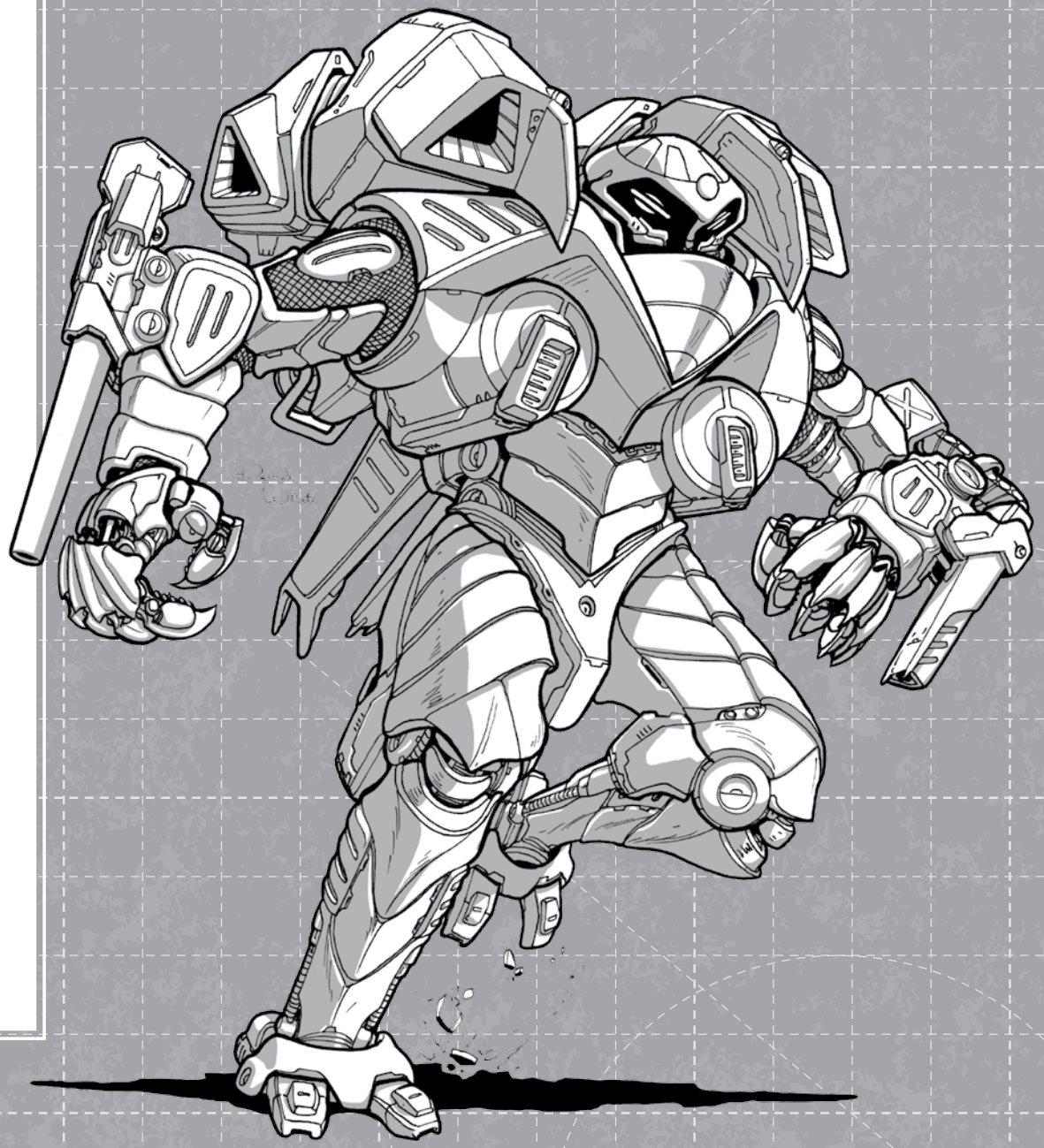
VOID (MINELAYER)

Type: Void (Minelayer)
Manufacturer: Ishikama-Harima Battle Armor Industries
Primary Factory: Luthien
Equipment Ratings: E/X-X-E/E

Tech Base: Inner Sphere (Advanced)
Chassis Type: Humanoid
Weight Class: Medium
Maximum Weight: 1,000 kg
Battle Value: 60
Swarm/Leg Attack/Mechanized/AP: Yes/Yes/Yes/Yes
Notes: May not attempt Anti-'Mech Swarm and Leg Attacks in the same turn as it uses Jump MP. The Void (Minelayer) also has the following Design Quirks: Poor Targeting/Long (Medium Recoilless Rifle), Fast Reload (Mines), Modular Weapons, Accurate Weapon (Minelayers).

Equipment		Slots	Mass
Chassis:			175 kg
Motive System:			
Ground MP:	3		40 kg
Jump MP:	1		0 kg
Manipulators:			
Right Arm:	Heavy Battle Claw		20 kg
Left Arm:	Heavy Battle Claw		20 kg
Armor:	Basic Stealth	3	275 kg
Armor Value:	5 + 1 (Trooper)		

Weapons and Equipment	Location	Slots (Capacity)	Mass
Medium Recoilless Rifle (20)	RA	2	250 kg
Anti-Personnel Weapon Mount	LA	1	5 kg
2 Mine Dispensers	Body	4	100 kg
Mechanical Jump Booster	—	—	100 kg



Battle Armor

With the virtual destruction of Gray Death Technologies in 3074 the development of the Gray Death Strike (or GD Strike) armor came to an abrupt halt. Though the surviving prototypes performed above all expectations against the Word of Blake, the heavy damage the Word delivered to Glengarry's battle armor construction sites rendered GDT unable to produce even their older suits. Additionally, when GDT's backers at Defiance Industries took full control of the company they decided to relocate all battle armor manufacturing to their sites on Furillo, further stalling any battle armor production for a number of years.

The GD Strike prototypes were armed with a Clan-made advanced SRM system. Though Defiance Industries attempted to secure a steady flow of these launchers from one of the Inner Sphere-friendly Clans, even the Diamond Sharks could not be convinced to provide enough weapons to justify a full production run of the original suit. While it is unclear if negotiations are still ongoing, the GD Strike armor was redesigned to work with an Inner Sphere missile system in early 3080, enabling full production by the end of the year.

In order to work the heavier launcher into the prototype, the designers cut back in other places. The two battle claws were removed in favor of two lighter basic manipulators, and the launcher's magazine was reduced to only two volleys. The fact that the launcher was a standard Sphere-made system also reduced the weapon's effective range. This reduced the suit's performance tremendously. Once used, however, the missile system can be jettisoned for extra mobility, and the GD Strike armor can act as a spotter for semi-guided artillery and missiles thanks to the light TAG mounted in its right arm. While some troopers made complaints about the lack of missile reloads and the missing secondary weapon, most performance and field reports are very favorable.

These conflicting opinions probably originate from a misconception of what the suit is made for by some of its wearers. Many battle armor pilots are trained on attack suits and not used to the idea of functioning as a support unit on the battlefield. While working mainly in a support role heavily improves the chances for battle armor troops to survive, many GD Strike troopers desire to wade into the thick of battle.

The Gray Death Strike armor is often deployed alongside its predecessor, the Gray Death Standard suit. In such formations, a common tactic uses Strike suits to fire a barrage of missiles against heavily armored enemy targets or positions, before the older Standard suits overrun whatever is left using their direct fire weapons.

With 450 kilograms of standard armor, the Gray Death Strike armor is one of the best armored medium-sized suits the Inner Sphere has currently in production, and is able to take a beating from many BattleMech weapons. Lacking any jump capability, the suit was outfitted with a very powerful ground movement system and is able to run as fast as thirty-two kph on open ground. The ability to hide behind small objects, combined with the suit's size and relatively high speed, make it very difficult to get a weapon lock on the battle armor.

Currently, the GD Strike suit is sold exclusively to the Lyran Commonwealth, to make up for their heavy battle armor losses during the Jihad. These suits have seen action primarily in small raids against the remnants of the former Free Worlds League. While the Commonwealth is the suit's only buyer, Defiance Industries is keeping quite a few to themselves to outfit their own security forces. Though expensive, these Defiance security models may actually be Clan-tech equipped prototypes rather than the production GD Strike suits. Whether the rumors suggesting this are true or not, Defiance has not needed to deploy its defense forces in the last couple of years. Nevertheless, strange production numbers and cost analyses indicate that there is something going on.

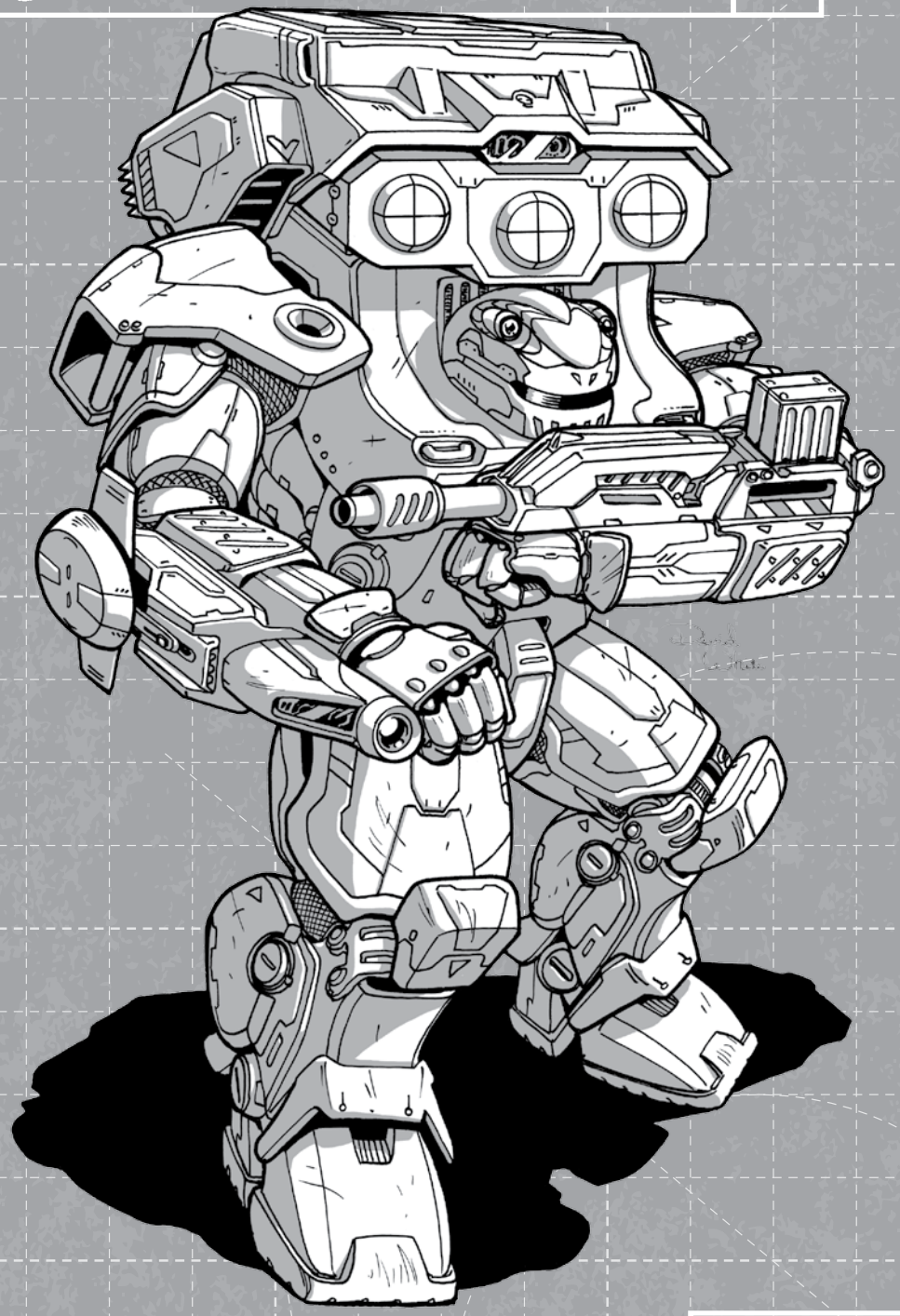
GRAY DEATH STRIKE

Type: Gray Death Strike Armor
Manufacturer: Defiance Industries
Primary Factory: Furillo
Equipment Ratings: E/X-X-E/E

Tech Base: Inner Sphere
Chassis Type: Humanoid
Weight Class: Medium
Maximum Weight: 1,000 kg
Battle Value: 52
Swarm/Leg Attack/Mechanized/AP: Yes/Yes/Yes/Yes
Notes: Features the following Design Quirk: Distracting.

Equipment		Slots	Mass
Chassis:			175 kg
Motive System:			
Ground MP:	3		80 kg
Jump MP:	0		0 kg
Manipulators:			
Right Arm:	Basic Manipulator		0 kg
Left Arm:	Basic Manipulator		0 kg
Armor:	Standard		450 kg
Armor Value:	9 + 1 (Trooper)		

Weapons and Equipment	Location	Slots (Capacity)	Mass
Light TAG (60)	RA	1	35 kg
Anti-Personnel Weapon Mount SRM-3 (2 shots)	LA	1	5 kg
Detachable Missile Pack	Body	3	250 kg



HAUBERK COMMANDO

Since its debut in 3070, the Hauberk battlesuit had been well-regarded by the AFFS, both for its thick armor and its heavy armament. Despite these features, this battle armor proved ill-suited to the "up close and personal" combat that took place in the urban battlegrounds of New Avalon during the Jihad. Often thrown into house-by-house fighting to back up lighter Cavalier and other battle armor troops, the Hauberk's LRMs were effectively neutered by the short ranges. Worse, the value of the suit's advanced stealth armor also degraded when forced to tackle Blakist Se'irim and Nephilim suits in close, claw-to-claw combat. Based on this experience, a field-expedient refit—nicknamed the Hauberk II—replaced the LRMs with dual Magshots taken from fallen Cavalier suits. While this addressed the issue of short-range firepower, it did little to improve the suit's survivability.

The Blakist withdrawal from New Avalon in 3074 left the AFFS forces on-planet as shattered as their once-great capital city. However, some saw opportunities amidst the wreckage. One of these was Tech Sergeant Timothy Balke. Balke, a specialist in battle armor repair, had been impressed by two Blakist developments: the detachable weapon mounts that enabled weapons to be fitted and replaced with ease, and the unique adaptive armor that had made light Purifier suits so dangerous in close confines. He upgraded a small number of damaged Hauberk II frames with cobbled-together adaptive armor stripped directly from the remains of Blakist suits, as well as an eclectic mix of scavenged Clan-tech weaponry. Described as "quite the urban defense power armor suit" on the basis of a few choreographed trials, Balke's handful of customized suits made a strong initial impression which, unfortunately, wore off quickly after the suits suffered multiple system failures during a more rigorous testing cycle. Balke had worked miracles tying all the disparate systems together, but reliability in the field proved too much to hope for.

Despite these problems the AFFS felt that a close-combat version of the Hauberk, employing adaptive armor, was worth pursuing. Albion Advanced Technologies, with close to twenty years experience in powered armor construction (and likely concerned at the possible success of a competitor to their Grenadier assault suit), successfully won the contract for the Hauberk Commando armor by combining the construction contract with commitments to both plant rebuilding and battlefield equipment and ordnance clearing—the latter being essential for obtaining access to the damaged Blakist equipment then-required for construction.

The Commando uses standard Inner Sphere-made weapons for both reliability, and ease of supply. Paired extended-range lasers supplement the remaining torso-mounted Magshot, while a twin-tube short-range missile launcher provides an extra, one-off punch. Most importantly, while AAT was forced to initially use salvaged armor and weapon mounts—limiting early production runs to the supply of available salvage— by 3088 they had mastered the production of both technologies, and with them the first wholly home-grown Commando suits.

Now filtering into widespread AFFS deployment, the Hauberk Commando battle armor is definitely a defender—or a mugger. Its ground speed remains ten kph, but it can double that speed by simply ejecting all of its weapons (a tactic not often performed while munitions remain). With its battle claws replaced with lasers the Commando cannot ride on BattleMechs or OmniVehicles. It must rely on troop transports to move large distances. When used offensively, the Hauberk Commando is shuttled forward to preemptively take and hold key terrain or built-up areas. Once in position, the suit blends into its background, emerging only to strike before fading back into invisibility. While lacking the punch of the Balke model, or the competing Grenadier assault armor, the Hauberk Commando is appreciated by its users more for its stealthiness, reliability, and—above all—ruggedness.

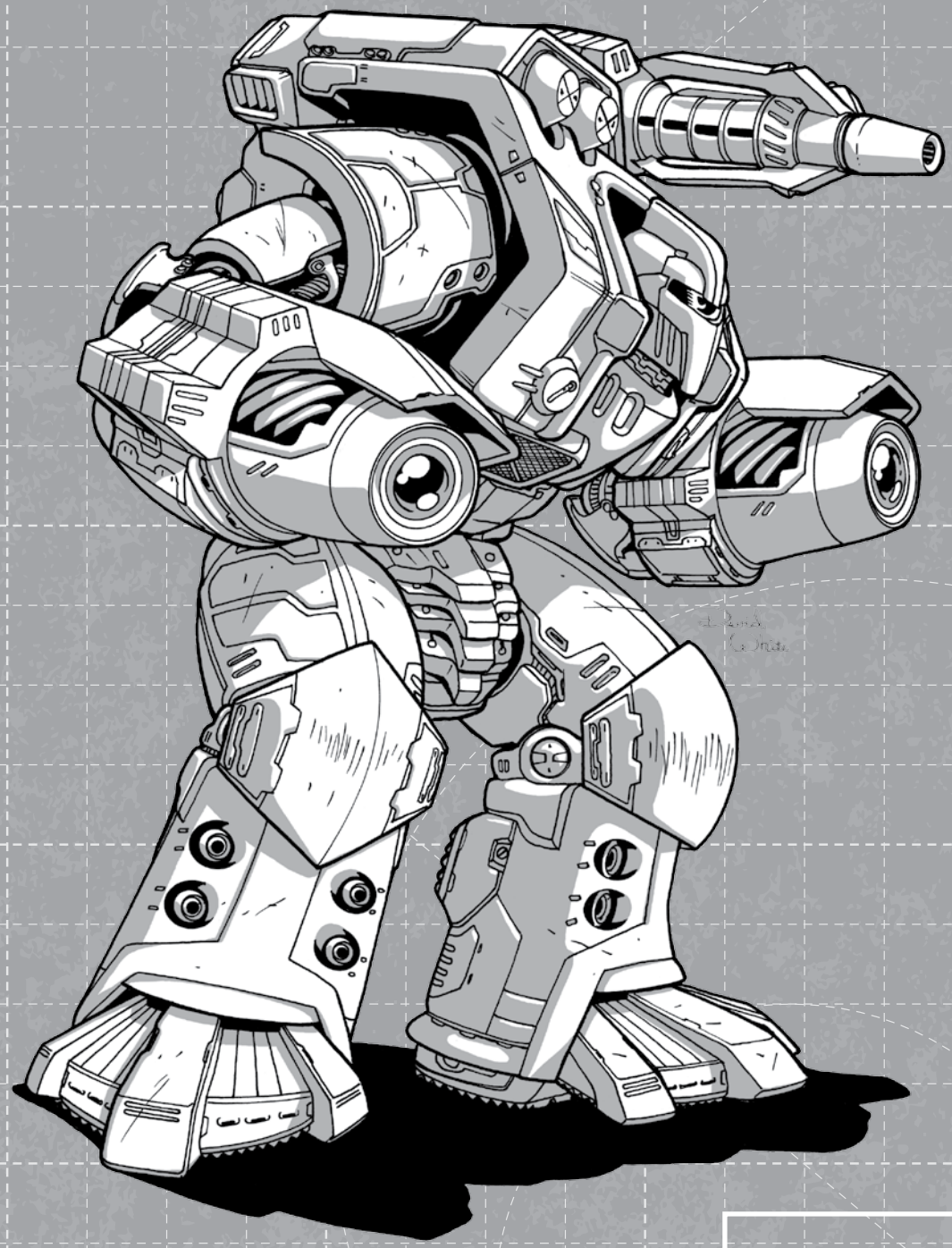
HAUBERK COMMANDO

Type: Hauberk Commando
Manufacturer: Albion Advanced Technologies
Primary Factory: New Avalon
Equipment Ratings: E/X-X-E/E

Tech Base: Inner Sphere (Advanced)
Chassis Type: Humanoid
Weight Class: Assault
Maximum Weight: 2,000 kg
Battle Value: 74
Swarm/Leg Attack/Mechanized/AP: No/No/No/No
Note: May only move at 1 Ground MP while carrying any detachable weapon packs, and returns to 2 MP when all detachable weapon packs are dropped. Features the following Design Quirk: Easy to Maintain.

Equipment		Slots	Mass
Chassis:			550 kg
Motive System:			
Ground MP:	1 (2)		160 kg
Jump MP	0		0 kg
Manipulators:			
Right Arm:	None		0 kg
Left Arm:	None		0 kg
Armor:	Mimetic	7	550 kg
Armor Value:	11 + 1 (Trooper)		

Weapons and Equipment	Location	Slots (Capacity)	Mass
ER Small Laser (20)			
Detachable Weapon Pack	RA	1	265 kg
ER Small Laser (20)			
Detachable Weapon Pack	LA	1	265 kg
SRM 2 (OS)	Body	2	75 kg
MagShot (10)			
Detachable Weapon Pack	Body	1	135 kg



ENHANCED SYLPH

Battle Armor

Like many birds of prey, the Clan Cloud Cobra's Sylph battle armor caught the enemy unaware by being ungainly and slow on the ground but flying farther and faster than expected overhead. Clan Snow Raven fought hard to win the design in Trials against the Cobras, and is finally putting their own Sylphs into production. While based on the original Sylph design, the Enhanced Sylph has lost its defining characteristic—its ability to cruise through the air at over fifty kilometers per hour. Ironically, the aerospace Clan's enhanced version of the aerial Sylph is exclusively ground-bound.

Despite the fundamental change in mobility, the Enhanced Sylph remains a quality battlesuit. By use of the Clans' battle armor myomer boosters, the Sylph's ground speed is faster than most other bipedal battlesuits, matching its original airspeed and the easily keeping pace with the Lyran Rottweiler design. An extended-range micro laser provides most of its firepower, backed up by an anti-personnel mount capable of additional firepower against soft targets. But perhaps the most powerful weapons at this Sylph's disposal are its basic manipulators, which allow this suit to perform anti-'Mech attacks or hitch a ride on friendly OmniMechs.

With all of the changes there was no mass left over to improve the Sylph's armor, leaving this enhanced suit vulnerable to Inner Sphere secondary arms. Trading the VTOL motive system for the myomer boosters presented an additional complication, as well; pilots for the Enhanced Sylph now require extra physical conditioning to survive the waste heat generated by the booster system. Although extra insulation and cooling systems were added, the Enhanced Sylph is reportedly one of the least comfortable battle armors in existence

Nevertheless, the new Sylph's primary function—scouting the enemy—has not changed, even though its means have. No longer able to take to the skies and keep an overwatch, the Enhanced Sylph moves quickly along the ground, hunting for its prey. The heat bloom from the myomer boosters makes these suits near-impossible to hide, so their work is far from subtle. This makes them best for work in cities, where they can quickly enter buildings for cover and face down dug-in infantry forces. While their anti-personnel weapons and lasers may not pose much of an obstacle to armored targets, where this design really shines is against the pirate forces that regularly plague their protectorate in the Outworlds Alliance. Between these capabilities and the psychological terror that Clan battle armor produces, few pirate forces will linger to deal with them.

The first major engagement the Enhanced Sylph faced was against a rabble of bandits led by former warriors of Clan Smoke Jaguar, who used Clan weapons and tactics. While their 'Mech forces clashed, the Ravens used the Sylphs to harass the Elementals. Unused to dealing with battle armor that outmaneuvered them, the bandit troopers withdrew, dooming their 'Mechs. While the Ravens lost nearly twenty percent of their Sylphs, it is believed that slower battle armor would have led to a longer stalemate and correspondingly more casualties.

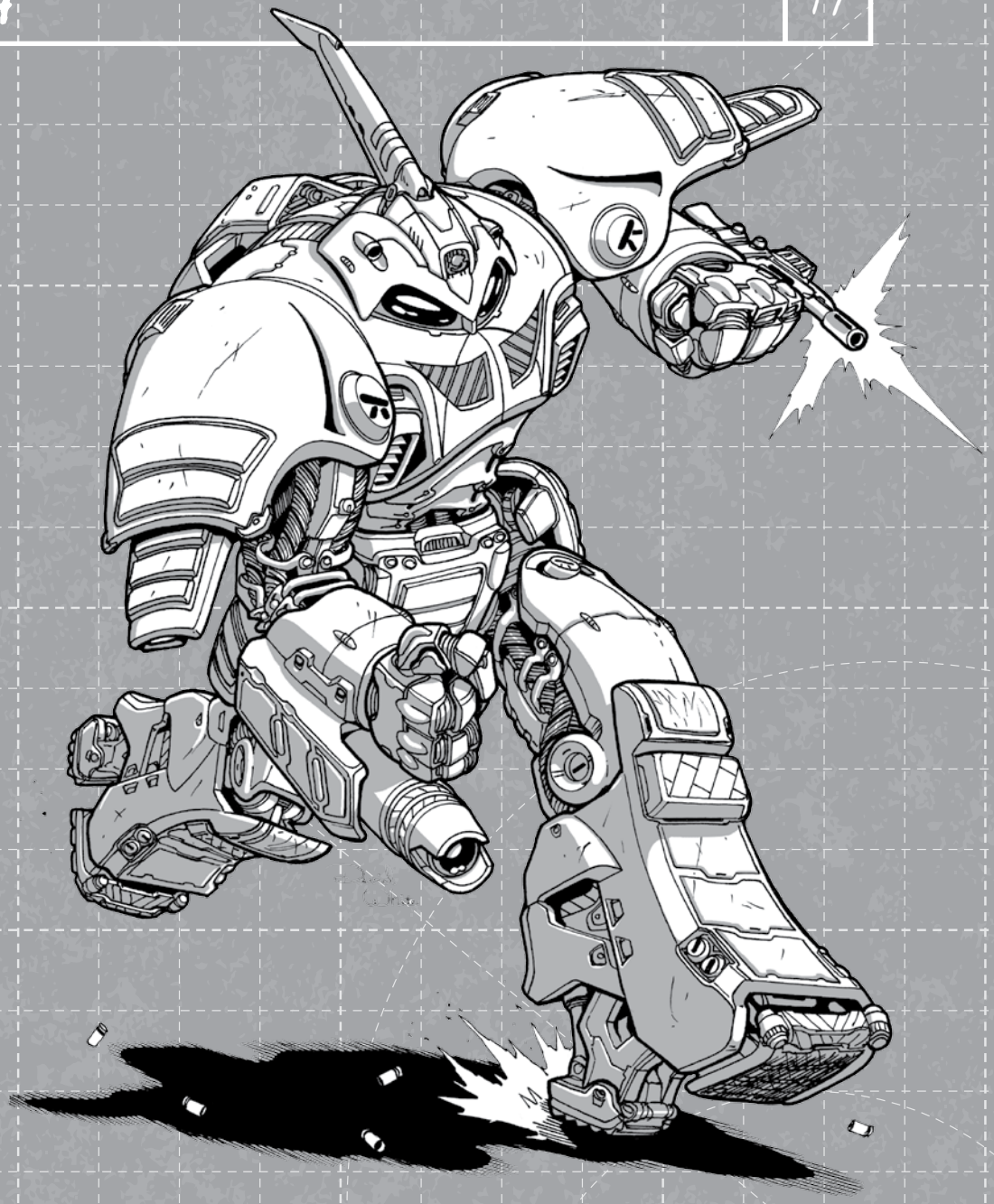
ENHANCED SYLPH

Type: Sylph (Enhanced)
Manufacturer: CSR Battle Armor Facility Alpha
Primary Factory: Ramora
Equipment Ratings: F/X-X-F/E

Tech Base: Clan (Advanced)
Chassis Type: Humanoid
Weight Class: Light
Maximum Weight: 750 kg
Battle Value: 34
Swarm/Leg Attack/Mechanized/AP: Yes/Yes/Yes/Yes
Notes: Battle Armor Myomer Booster increases damage inflicted by Swarm/Leg Attacks by 2 points per trooper, and makes it impossible to use Hidden Units rules; Features the following Design Quirks: Hard to Pilot, Accurate Weapon (ER Micro Laser).

Equipment		Slots	Mass
Chassis:			150 kg
Motive System:			
Ground MP:	5		60 kg
Jump MP:	0		0 kg
Manipulators:			
Right Arm:	Basic Manipulator		0 kg
Left Arm:	Basic Manipulator		0 kg
Armor:	Standard		125 kg
Armor Value:	5 + 1 (Trooper)		

Weapons and Equipment	Location	Slots (Capacity)	Mass
ER Micro Laser (30)	RA	1	150 kg
Anti-Personnel Weapon Mount	LA	1	5 kg
Battle Armor Myomer Booster	Body	3	250 kg



Battle Armor

Two centuries ago, Clan Wolf came up with a totally new mode of combat for infantry when they introduced the Elemental battle armor (known as Toads to veterans of the 3052 Clan Invasion). With good overall mobility, armor and firepower, the Elemental suit has been the gold standard of Clan armored infantry. It was not until the Clans invaded the Inner Sphere that necessity forced them to re-evaluate their approach to meet varying demands. Despite the explosion of new designs from both Clan and Inner Sphere powers, most of these suits were merely specialized forms of the basic Elemental armor that continues to dominate Clan toumans today.

Despite the standard Elemental's all-around utility, Clan Hell's Horses—known for their infantry-heavy formations—sought to enhance their Elementals' mobility and began development work. Prototypes were developed and tested, but the one that showed the most promise was a heavier suit that used battle armor myomer boosters to achieve greater ground speed than the standard Toad could achieve with its customary jump jet leaps. The armament of the early prototypes was a strange warping of the standard suit, with micro pulse lasers replacing standard lasers and a less-accurate, but longer-ranged rocket launcher in place of the missiles. Field tests showed that the suit had promise, but that the weapon selection could use improvement.

Responding to the constructive criticism, the production model Elemental II became a reworked version of the prototype. Gone were the original weapons. Instead, an impressive anti-personnel Gauss rifle gave the suit a much greater reach than the original lasers did with the same punch. The inaccurate rockets were also removed, allowing the new design to come in at the same one-ton mass of the original Elemental. The traditional anti-personnel mount remains an option to add a bit more firepower—or simply to allow the trooper to avoid using the Gauss rifle in cases where it would be wasteful. Most Horses warriors using the Elemental II appear to favor shotguns or flechette weapons in this mount, which can be incredibly deadly against the poorly armored bandits and terrorists they frequently encounter. These weapons also reduce the chance of missed shots carrying through walls in urban environments, and thus reduce the chance of hitting innocents hiding behind cover.

The speed of the Elemental II is its greatest improvement. While the original was capable of jumping ninety meters at a hop, it did so at an increased risk of being targeted while at the top of its jump arc. The lack of cover and greater visibility made the standard Elemental a relatively easy target for snipers lying in wait. The Elemental II can cross thirty more meters overland in the same time. Though it has a harder time dealing with restrictive terrain, that same terrain can be used for cover. In fact, in urban environments the Elemental II can move through structures with greater ease than jumping Elementals. While the biggest drawback—the massive heat generated by the myomer boosters—limits their stealth capabilities, the design is insulated so well that its trooper is no less comfortable in the Elemental II than in the original Toad suit. And the virtual impossibility of hiding from infrared sensors is of little concern given the Elemental II's mission profile.

The Elemental II has seen action mostly against the pirates that plague the Hell's Horses' occupation zone. Attempting to avoid the Horses' dangerous hovercraft and mitigate their range advantage by quickly striking at urban centers, these raiders enjoyed modest successes until the Elemental II became available. Using their greater mobility, the Horses have managed to use effective hit-and-run tactics to savage these bandits' lighter 'Mechs, using their AP Gauss rifles to good effect against lightly armored machines. Even against heavier 'Mechs, the Horses have been able to duck into buildings for cover and then quickly appear in the rear to rip through their enemies' thin back armor. Though this has resulted in a spike in civilian deaths as the pirates have resorted to shooting at the battle armor inside the buildings, the Horses' increasing success against these bandits has resulted in fewer raids and may soon curb their attacks once and for all.

Perhaps the greatest improvement in utility for the armor was replacing the battle claws with basic manipulators. While not as efficient at ripping armor panels off, these manipulators allow the suit to move through structures with a limited collateral damage. A skilled trooper can even turn a conventional doorknob without mangling it. These advantages have seen the Elemental II distributed to those units stationed in areas with large urban zones, and it is expected that future assignments for these suits may include areas with wide open spaces, or underground facilities that preclude the use of jump jets.

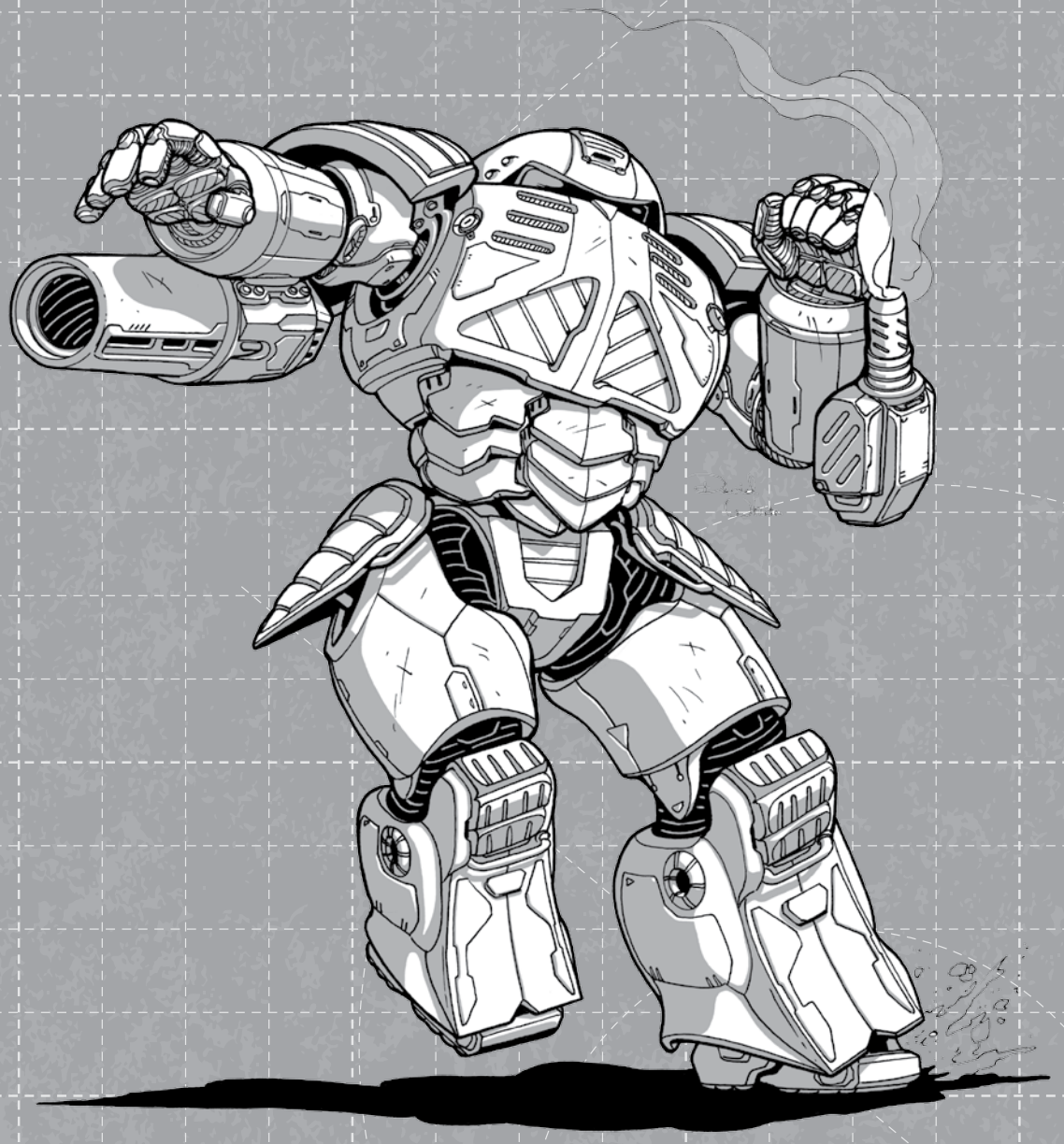
ELEMENTAL II

Type: Elemental II
Manufacturer: Csesztreg Industriplex Gamma
Primary Factory: Csesztreg
Equipment Ratings: F/X-X-E/E

Tech Base: Clan (Advanced)
Chassis Type: Humanoid
Weight Class: Medium
Maximum Weight: 1,000 kg
Battle Value: 70
Swarm/Leg Attack/Mechanized/AP: Yes/Yes/Yes/Yes
Notes: Battle Armor Myomer Booster increases damage inflicted by Swarm/Leg Attacks by 2 points per trooper, and makes it impossible to use Hidden Units rules; Features the following Design Quirk: Easy to Maintain.

Equipment		Slots	Mass
Chassis:			250 kg
Motive System:			
Ground MP:	4		40 kg
Jump MP:	0		0 kg
Manipulators:			
Right Arm:	Basic Manipulator		0 kg
Left Arm:	Basic Manipulator		0 kg
Armor:	Standard		250 kg
Armor Value:	10 + 1 (Trooper)		

Weapons and Equipment	Location	Slots (Capacity)	Mass
AP Gauss Rifle (20)	RA	2	200 kg
Anti-Personnel Weapon Mount	LA	1	5 kg
Battle Armor Myomer Booster	Body	3	250 kg



At over seventy years of age, *Överste* Jack Koslow no longer commands the infantry of the Second Kavalleri. Instead, he earns a healthy retainer as a technical advisor at BA Facility Gamma. He even technically remains a warrior in the eyes of his fellow Rasalhagians (and their Ghost Bear protectors), despite not facing a serious military challenge in five years. Having acquired a scientist caste protégé in the form of Sven Hitomi not long after coming to the facility, Koslow recently debuted his own unique take on stealth battle armor.

Starting with the solid chassis of the Rogue Bear battlesuit, Koslow and Hitomi produced a series of prototypes using a mix of Clan and Inner Sphere systems, testing each one before settling on the Rogue Bear-HR as a combat-worthy exhibit. The results of the HR's combat trials were mixed, with the suit lacking firepower suitable for its size. Koslow's stealthy battle tactics were shown to be fundamentally sound, especially when facing Word of Blake forces, but they clashed with the notion of a chassis built for heavy firepower. If these features could be incorporated, the Dominion would be willing to fund the new suit. After a decade of lobbying and redesign, Jack Koslow finally saw his stealth armor suit—the Rogue Bear (Hybrid)— accepted into the Ghost Bear touman.

It was one thing to create a prototype. Now, it was up to Hitomi to create a combat-worthy platform suitable for mass production. Of a mixed Rasalhagian and Draconis heritage, Hitomi blossomed under the Ghost Bear Dominion, achieving more than he ever could have done under either of his birth realms. Success in this cutting edge program would make him a *ristar* in the competitive world of the Bears' scientist caste, and he rose to the challenge.

Complaints about the limitations of the HR's partial wing saw it replaced with a sturdier jump booster, and the battle claws were discarded in favor of conventional manipulators, with the saved space and weight used to add an extra machine gun and anti-personnel weapon mount. Retaining the Spheroid camo system and stealth armor, the final version of the Rogue Bear (Hybrid) offered an excellent balance of covert technology and devastating anti-infantry firepower.

The Rogue Bear (Hybrid) is a mix of contrasts. Its weapons encourage it to charge into short-range combat, while its stealth systems reward staying at long range against heavy weapons. Its mass forces it to compete with Elementals and standard Rogue Bears, but it lacks their firepower. Hitomi has taken these criticisms into account and continues to work on a follow-up design, describing the Hybrid as a first step on the way to "a new generation of battle armor". In contrast, Koslow has been aggressively positive about the new suit and refuses to acknowledge its faults.

The Rogue Bear (Hybrid) has been readily accepted by Clusters that already use Kobolds, where they serve as heavy reinforcements for lighter armor. As many of these Clusters already make heavy use of Rogue Bears, there is a degree of parts commonality that eases maintenance, though the blending of Inner Sphere and Clan technologies throws a hitch into the process. The Hybrid has not been as popular with units used to direct combat, however. Trials with Rogue Bears and Elementals have revealed the Hybrid's vulnerability to long-ranged weapons that the older suits are better able to handle. This has made the design a tough sell for frontline units. Unless these influential warriors can be brought around, the future of stealth battle armor in the Ghost Bear Dominion may be short, no matter how good it is at its job.

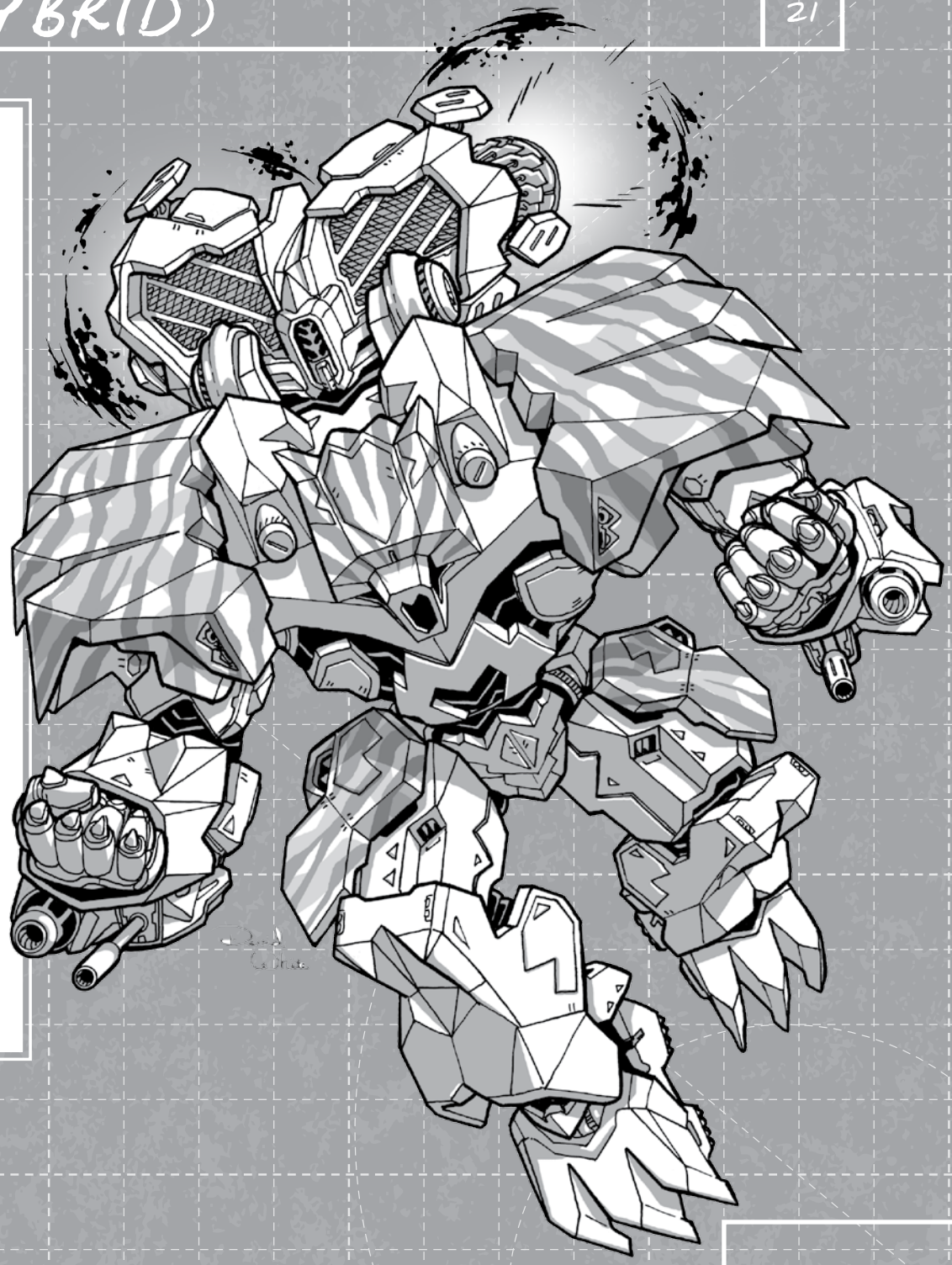
ROGUE BEAR (HYBRID)

Type: Rogue Bear (Hybrid)
Manufacturer: BA Facility Gamma
Primary Factory: Mannendorf
Equipment Ratings: F/X-X-F/E

Tech Base: Mixed Clan (Advanced)
Chassis Type: Humanoid
Weight Class: Heavy
Maximum Weight: 1,500 kg
Battle Value: 52
Swarm/Leg Attack/Mechanized/AP: No/No/Yes/Yes
Notes: Includes Camo System (Movement Modifiers +2/+1/+0), and Basic Stealth Armor (Range Modifiers 0/+1/+2; Invisible to Probes); Features the following Design Quirks: Non-Standard Parts, Easy to Maintain.

Equipment		Slots	Mass
Chassis:			400 kg
Motive System:			
Ground MP:	1		0 kg
Jump MP:	3		250 kg
Manipulators:			
Right Arm:	Basic Manipulator		0 kg
Left Arm:	Basic Manipulator		0 kg
Armor:	Basic Stealth	3	300 kg
Armor Value:	10 + 1 (Trooper)		

Weapons and Equipment	Location	Slots (Capacity)	Mass
Machine Gun (50)	RA	1	100 kg
Anti-Personnel Weapon Mount	RA	1	5 kg
Machine Gun (50)	LA	1	100 kg
Anti-Personnel Weapon Mount	LA	1	5 kg
Battle Armor Jump Booster	Body	2	125 kg
Camo System (IS)	Body	2	200 kg



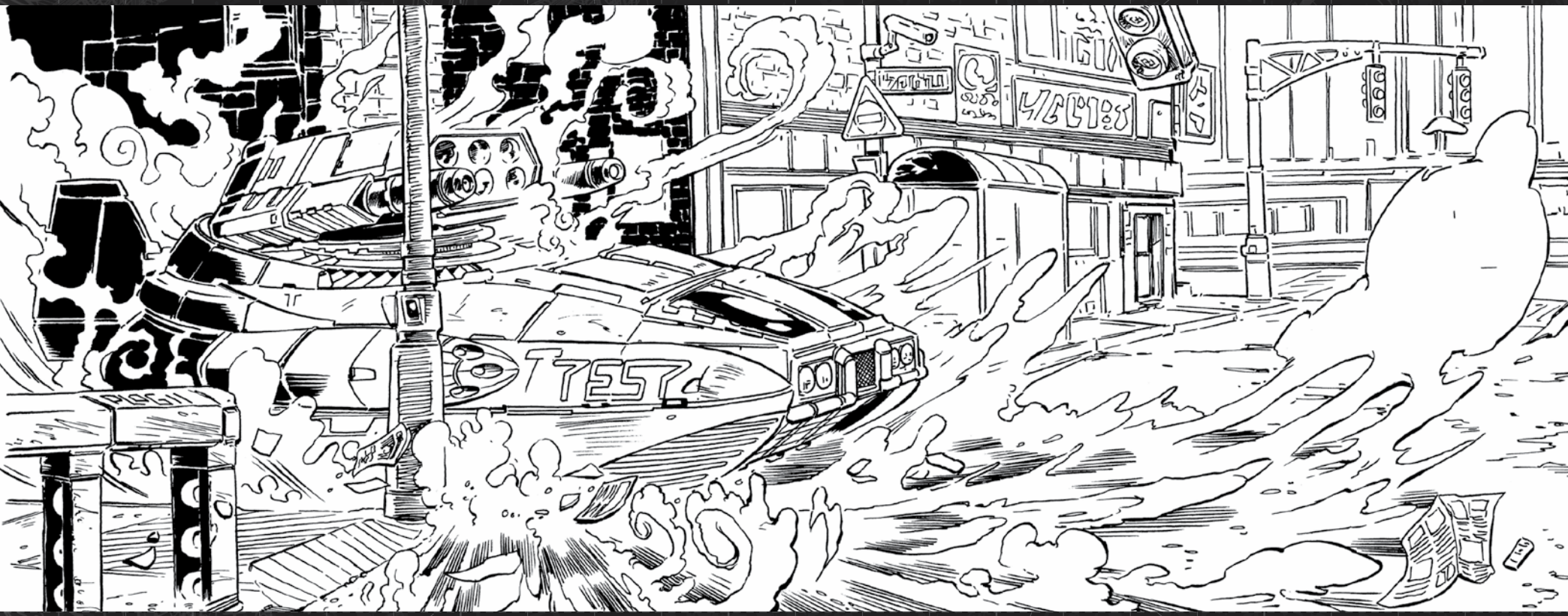
VEHICLES

The Jihad was the ultimate proving ground for new technologies. With nearly every state and Clan threatened by fanatics armed with the very latest in military hardware, engineers began to turn to ever more creative solutions in order to gain any battlefield advantage. With conventional vehicles, some changes were straightforward: swapping weapons, electronics, or armor with newer and more powerful gear. Others were more alien—adding sponsons, secondary turrets, and even enhanced motive systems to offer wider fields of fire and fewer terrain restrictions. Amphibious and engineering capabilities became more common for basic ground tanks, which were previously designed for generic land warfare, while less expensive civilian-grade vehicles grew increasingly popular for battlefield support roles such as reconnaissance. Advances in armoring techniques even brought added resilience to the fragile motive systems of most land combat vehicles, while Capellan-style stealth armor made the transition to conventional forces.

Although the Word of Blake's terror assaults and strategic raids targeted heavy industries and command centers, enough of the Inner Sphere's various research and development labs managed to persevere throughout the war. Desperation—and Blakist usurpation of factory control among the worlds they managed to hold—forced manufacturers to share data across corporate and even national lines. These trends all but ensured the spread of new technologies even as many states turned to primitive RetroTech and armed support-grade units to get by.

Even the Clans, who have historically treated conventional vehicles with anything from disdain to utter contempt, have expended resources to improve the capabilities of their vehicles, with the pro-vehicle Hell's Horses and their historic enemies in the Ghost Bear Dominion taking the lead. Clan innovations have rekindled the lost Star League technologies that made it possible for vehicles to jump like BattleMechs, while chemical lasers and ProtoMech-scale autocannons offer an emergent opportunity for combustion-driven vehicles to compete with fusion-powered counterparts.

—Precentor Steven Partridge



Light Vehicles

Mass: 17 tons
Movement Type: VTOL
Power Plant: Omni Generation Five Fusion
Cruising Speed: 129 kph
Maximum Speed: 194 kph
Armor: Longanecker E-Series
Armament:
2 Defiance B3S Small Lasers
Manufacturer: Lockheed/CBM Corporation
Primary Factory: Furillo
Communications System: Xilex 12 Wireless with Guardian ECM
Targeting and Tracking System: None

Overview

Lockheed/CBM's prototype Lexan surveillance helicopter was introduced in 3076 and well received, but production timelines and its expensive Angel ECM suite put it out of reach for many customers. Jumping on the RetroTech bandwagon, company executives sent it back to development for an inexpensive redesign that could be mass-produced in short order. The revamped Lexan entered production two years later and quickly became a favorite among law enforcement, paramilitary groups and planetary militias in the Lyran Commonwealth. Lockheed/CBM has aggressively targeted these demographics, offering multi-unit discounts, reduced-price upgrades and other incentives to bolster sales.

Despite great success in non-military markets, Lockheed/CBM has been unable to woo the LCAF, purportedly due to the Lexan's lack of a targeting & tracking system. Last December *TechLeaks* posted documentation revealing that talks between the LCAF and Lockheed/CBM to produce a completely militarized variant are underway. As usual, these rumors have been denied by official sources.

Lockheed/CBM is currently negotiating for export rights to The Republic, Federated Suns and several Periphery states. Demo units have been shipped to at least two prospective customers in anticipation of acquiring an export license. Given market saturation in the Lyran Commonwealth, the successful opening of foreign markets is crucial to the long-term success of this design.

Capabilities

The Lexan is a transverse rotor VTOL filling high-speed reconnaissance and surveillance roles. It is not intended for combat. Its lack of even a civilian-grade targeting and tracking system requires the crew to maintain a safe observation distance, an easy task thanks to a top speed of nearly 200 kph. The Lexan can outrun all but the fastest ground-based threats, and the added protection of a Guardian ECM suite makes acquisition almost impossible without advanced sensor packages. While most of the changes from prototype to production downgraded the Lexan, Lockheed/CBM made one significant improvement. The rotors use a mixture of composite materials and fabrication techniques to reduce blade-vortex interaction and other types of noise, eliminating audible emissions by fifty percent over the Lexan Oceanic series.

Equipped with an advanced recon camera, the Lexan can detect and track hidden units at a maximum distance of eighteen kilometers. Data from the camera is fed to the sensor cabin, where the camera is controlled by the camera operator. The Lexan is equipped with Suresight technology, giving the operator four configurable displays and incredible flexibility in monitoring and tracking. Basic options include simultaneous viewing of the live camera feed and up to three pre-recorded data streams. The technology is frequently used to compare reference images to the current topology, and is of significant use in identifying a variety of illegal operations. Video feeds may be spread across all four monitors, giving the operator a panoramic view similar to a BattleMech's HUD. In this configuration, the camera operator becomes the Lexan's gunner—overriding copilot control of the chin turret. Multiview with four concurrent displays at different resolutions (or with different filters) is also supported.

The Lexan has a standard crew complement of four. The pilot and copilot sit side-by-side, while the camera operator and ECM specialist ride tandem in the partially-enclosed sensor cabin behind the cockpit. The flight crew can monitor the camera feed on a large multifunction display in the cockpit and, in the absence of a camera operator, control basic camera functions.

The Lexan can provide targeting telemetry for indirectly-fired LRMs, but the feature is disabled by the factory and must be enabled through by a software bypass that voids the Lexan's warranty. Many operators choose to leave this feature off to discourage use of the lightly-armored craft in combat. With only one ton of commercial-grade armor plating, the Lexan is highly vulnerable to damage and can be brought down by a single Magna laser shot.

Deployment

In production for almost twelve years, the Lexan has become a staple in the militias of the Lyran Commonwealth. It is most frequently found in the Timbuktu Theater, Melissia Theater, Coventry Province and Arc-Royal Province.

LEXAN SURVEILLANCE HELO

Type: **Lexan Surveillance Helo**
Technology Base: Inner Sphere (Advanced)
Movement Type: VTOL (Medium)
Equipment Rating: E/X-X-F/E
Mass: 17 tons
Battle Value: 232

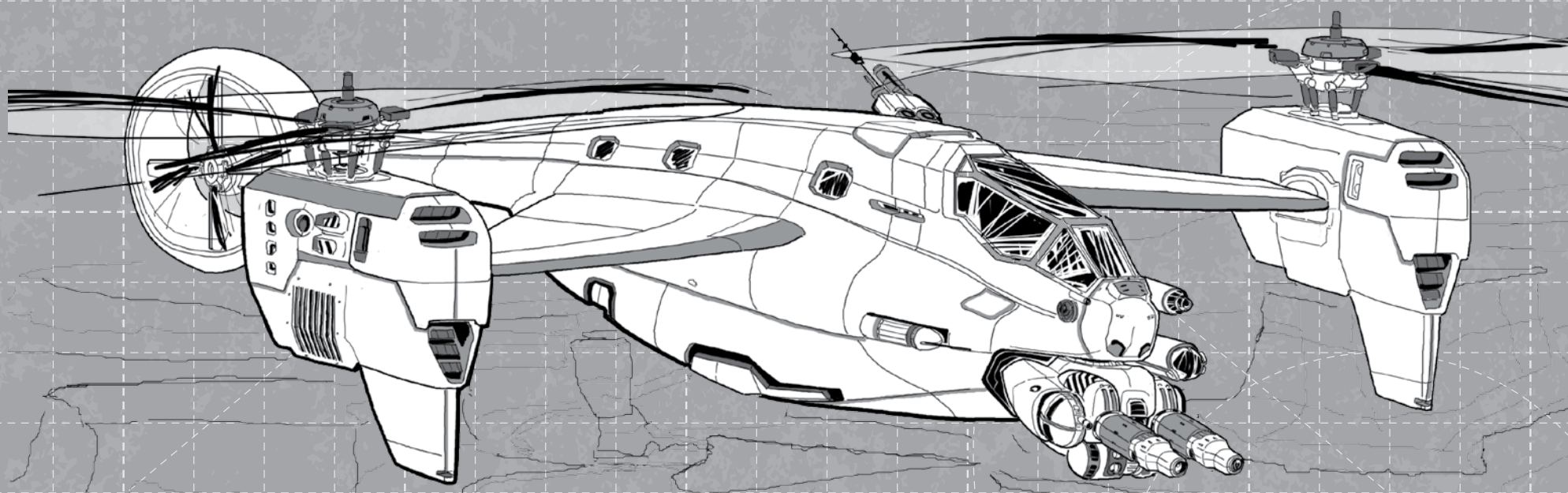
Equipment		**Mass**
Chassis:		5.5
Engine/Controls:	Fusion	5
Cruise MP:	12	
Flank MP:	18	
Heat Sinks:	2	2
Fuel:	0	
VTOL Chin Turret:		.5
Armor Factor (BAR 10):	17	1

	Internal Structure	*Armor Value*
Front	2	5
R/L Side	2	3/3
Rear	2	2
Rotor	2	2
Turret	2	2

Weapons and Ammo	**Location**	**Tonnage**
Recon Camera	Turret	.5
2 Small Lasers	Turret	1
Guardian ECM Suite	Body	1.5

Crew: 4 (2 enlisted/non-rated, 2 gunners)
Cargo: None

Notes: Features Armored Chassis Modification; features the following Design Quirks: Bad Reputation, VTOL Rotor Arrangement (Dual Rotors), Improved Sensors.



Light Vehicles

Mass: 20 tons
Movement Type: Wheeled
Power Plant: GM Electric 120 Fuel Cell
Cruising Speed: 75 kph
Maximum Speed: 118 kph
Armor: ProtecTech Light
Armament:
1 Intek Hellborer Medium Laser
Manufacturer: Joint Equipment Systems
Primary Factory: Panpour
Communications System: Communiqué Equipment with Angel ECM
Targeting and Tracking System: Targeting System 2.3 with Bloodhound Active Probe

Overview

Following the debut of the unpopular JES I Tactical Missile Carrier, Joint Equipment Systems suffered a dramatic decline in its reputation and customer perception. While the majority of surviving weapons manufacturers had few difficulties finding prospective customers for their equipment, JES was forced to sell off many of their cheap vehicles at a loss.

The company realized that it needed to demonstrate that it was capable of more than its Tactical Missile Carrier. The options at Panpour were limited, and access to the latest technologies was hampered by the ongoing Jihad. Fortunately, their proximity to Jalastar Aerospace paid off when a joint effort between the companies enabled both to produce the new Bloodhound active probes and the Angel ECM system.

JES designers knew their best opportunity to quickly deploy this technology was to integrate it with the aging Skulker scout vehicle line. Though considered outdated and of limited use, the Skulker's fusion plant allowed for the inclusion of the highly advanced electronics. The ancient laser was upgraded with a Sutel Precision Line ER medium. The end result—the X-5 prototype—seemed to achieve its objectives neatly: it was a competent platform to deploy the new electronics, its logistical needs were low, it could function for longer operations in the field and its weaponry was enhanced.

The X-5 proved to be too expensive to attract customers. The fusion engine elevated its price above the point prospective customers were willing to tolerate for a relatively expendable scout unit further inhibited by its wheeled motive system.

Lenore Vincento in JES' marketing department is credited by the company with coming up with the lease program that saved the project. The various X-5 prototypes were loaned out to several prominent mercenary companies for a nominal monthly fee. The source of income from this scheme was negligible, but it did achieve its goal of proving that JES was capable of producing a highly advanced and functional combat vehicle.

Meanwhile, JES invested in its original engine manufacturing site on Panpour to create a fuel cell engine suitable for Skulker refits. Work was completed in 3081, and by 3082 the new Skulker Mk. IIs were being delivered to customers. The new power plant forced a downgrade to an Intek laser as the Skulker's defensive option, as well as a reduction in its overall speed. However, this vehicle can still rely on the capabilities of the Angel ECM to keep it from being harmed, and likewise continues to deploy a Bloodhound active probe, which dramatically improves the Skulker's ability as a scout.

Capabilities

While slower than the X-5, the Mk. II still clocks in performance that is equivalent to the original Skulker wheeled scout. This continues to be adequate for the majority of the vehicle's intended deployments, as is the reduced range of its solitary weapon. Operators familiar with both the production model and the prototype mourn the loss of fuel independence created by the switch to the fuel cell power system.

Deployment

All of the Skulker Mk. IIs have gone to agencies of the Federated Suns, including several mercenary companies under long-term contract. Exact sales data remains unavailable, but it has become clear that the Skulker's deployment among the AFFS is relatively prolific, suggesting a concerted effort to make at least a few specimens available to each unit. Inexpensive ways of deploying both an Angel ECM and a Bloodhound Probe to the field remain scarce, no doubt influencing that decision. No nations or mercenaries outside the Federated Suns have demonstrated ownership of the vehicle, but a few long-term contracts are due soon with several mercenary commands, creating the possibility that the Skulker Mk. II will appear outside the employ of House Davion.

Variants

No factory variants exist of the Skulker Mk. II, although there have been rumors of JES testing an environmentally sealed version on Kraygor, one of Panpour's moons. This would require extensive modifications, and its exact power plant and electronics layout is unknown. The Illician Lancers' Fourth Rangers has been known to strip armor off its Skulkers in favor of additional mission-specific equipment and supplies.

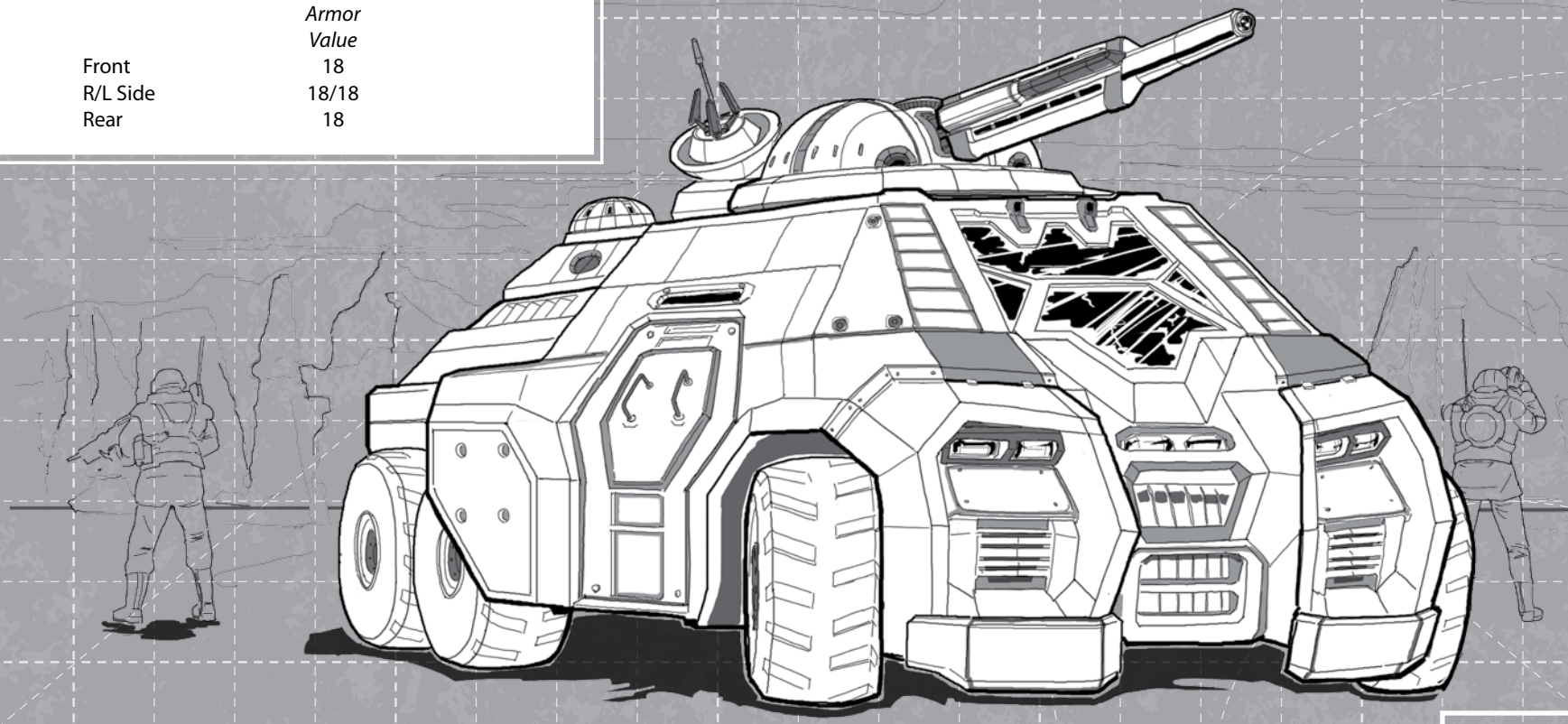
SKULKER MK. II

Type: **Skulker Mk. II**
Technology Base: Inner Sphere (Advanced)
Movement Type: Wheeled
Tonnage: 20
Battle Value: 454

Equipment		**Mass**
Internal Structure:		2
Engine:	120	5
Type:	Fuel Cell	
Cruise MP:	7	
Flank MP:	11	
Heat Sinks:	3	2
Control Equipment:		1
Lift Equipment:		0
Power Amplifier:		.1
Armor Factor:	72	4.5
	Armor Value	
Front	18	
R/L Side	18/18	
Rear	18	

Weapons and Ammo	**Location**	**Tonnage**
Medium Laser	Front	1
Angel ECM Suite	Body	2
Bloodhound Active Probe	Body	2

Notes: Features the following Design Quirks: Poor Performance, Accurate Weapon (Medium Laser), Trailer Hitch.



Light Vehicles

Mass: 21 tons
Movement Type: VTOL
Power Plant: GM 70 Extralight
Cruising Speed: 108 kph
Maximum Speed: 162 kph (216 kph with Jet Boosters)
Armor: Hellespont Lite Stealth
Armament:
1 Tomudzuru Extended LRM 10
Manufacturer: Tengo Aerospace
Primary Factory: Sarna
Communications System: Endicott Type 11 Maser with Guardian ECM
Targeting and Tracking System: Dwyerson Mk XIX

Overview

Lacking many modern designs, Tengo Aerospace was hard-pressed to put something current in production. Wanting to widen their portfolio, they tried to advance in the VTOL sector. Since they had never produced anything but aerospace fighters and DropShips, they secured the rights for an aftermarket upgrade of the Warrior attack helicopter in 3074. The tightly-woven contract prevented them from selling or testing the Warrior HX-9 in Capellan space, so they lent the prototype to the Kell Hounds who had ample experience with the Warrior and were contractually required not to field it against the Capellan Confederation.

In 3084 Tengo Aerospace released the Warrior S-9 Stealth Helicopter as a full production model. This was a bold move, as Tengo's original contract only allowed for aftermarket upgrades and test runs; they had never procured the rights to manufacture a production model from Lockheed/CBM. Nevertheless, their new Warrior was sold to dozens of mercenary outfits and the CCAF. When Lockheed accused Tengo of breaching contract, Tengo claimed that, while possible in theory, clauses restricting the production of war materiel for the good of the state violated Capellan law. Lockheed/CBM, asserting that the contract was written and signed under the law of the Lyran Alliance (now Commonwealth), is currently considering legal steps to stop Tengo Aerospace from production—and to force them to turn all profits rendered with this VTOL over to them. ComStar mediators have been contacted for both sides, but Tengo's representatives are refusing to work through the recommended intermediaries within The Republic of the Sphere.

The threats of lawsuits and countersuits have continued for several years, but neither side has yet had its day in court. Many wonder if all of this is anything more than public posturing by two massive interstellar conglomerates for some form of mutual gain.

Capabilities

While the HX-9's weapons range was a strong selling point for the prototype, it lacked real damage potential. To counter this the designers removed the hyper velocity autocannon and replaced it with a ten-tube Tomudzuru extended range missile launcher. This exchange increased the Warrior's damage potential tremendously, but the limited reloads reduced its battlefield stamina. Many buyers have complained about this, since it requires the Warrior to constantly fall back for refit, often leaving its battle group without long-range fire support.

While two tons of Hellespont Lite Stealth armor could be considered lacking under other circumstances, on the S-9 it is very effective. Not only does it help the Warrior get within weapon range without being detected, but it makes it harder for enemy forces to lock onto its exact position once it has been spotted.

With its 162 kph cruising speed, the Warrior is considered a fast VTOL, but thanks to its jet boosters it can accelerate to as fast as 216 kph in short bursts. This boost in speed can be lifesaving when the enemy starts shooting, but at such speeds the Warrior becomes prone to maneuvering problems and is very susceptible to curtain fire laid in its flight path.

Deployment

The Warrior S-9 has been sold to over a dozen mercenary commands, with the Kell Hounds able to buy it at a reduced price as part of their field testing contract. The CCAF is currently the largest buyer, putting it into their front line forces as a fast and stealthy reconnaissance vehicle.

There have been sightings of unknown VTOLs matching the description of the S-9 on various Republic worlds on the Capellan border. Whether those are S-9s or just panic caused by the still-tense relationship between The Republic and Confederation remains to be seen.

WARRIOR S-9 STEALTH HELICOPTER

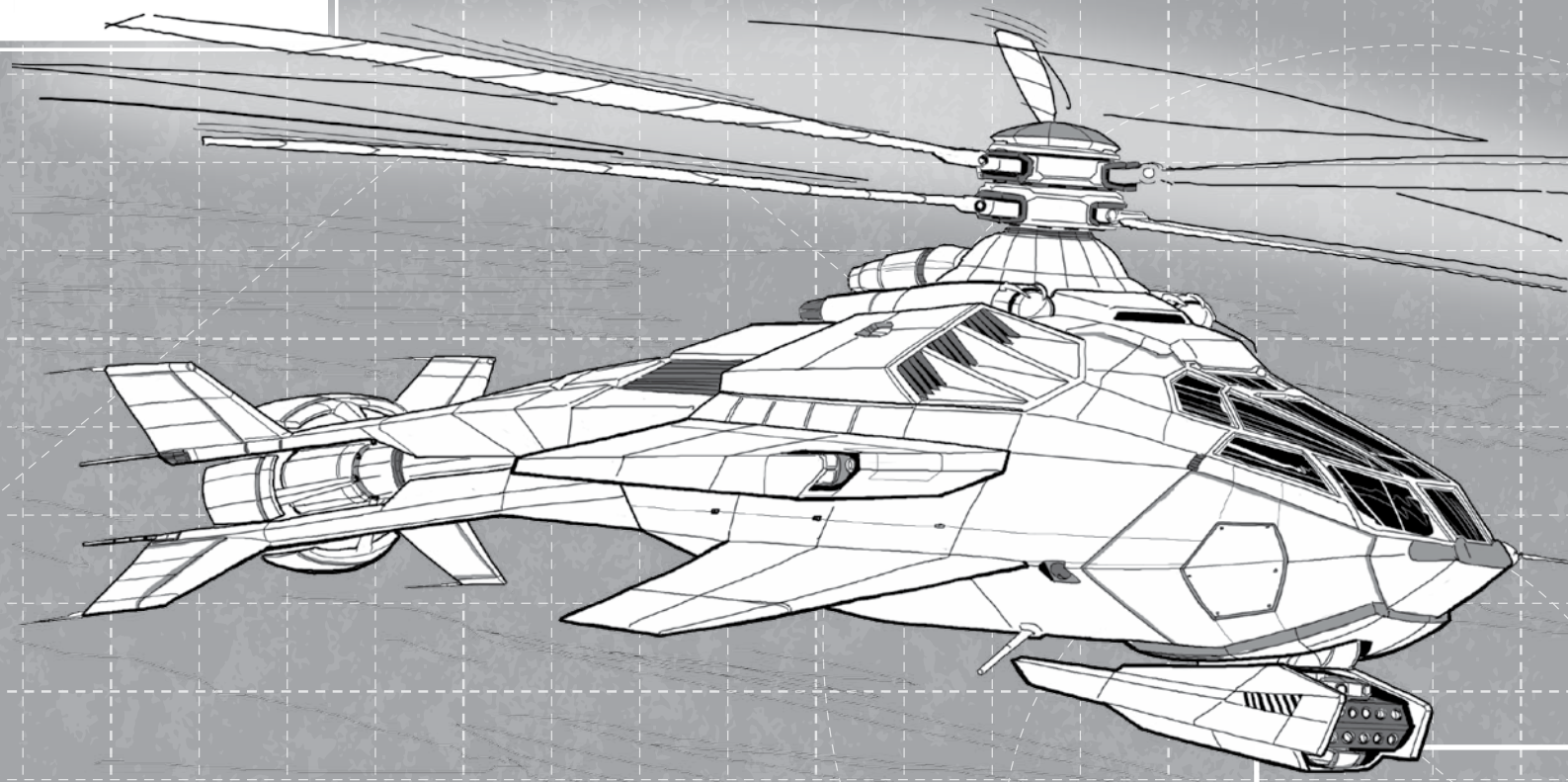
Type: **Warrior S-9 Stealth Helicopter**
Technology Base: Inner Sphere (Advanced)
Movement Type: VTOL
Tonnage: 21
Battle Value: 668

Equipment		**Mass**
Internal Structure:		2.5
Engine:	70	1.5
Type:	XL Fusion	
Cruise MP:	10	
Flank MP:	15 (20)	
Heat Sinks:	10	0
Control Equipment:		1.5
Lift Equipment:		2.5
Power Amplifier:		0
Turret:		0
Armor Factor (Stealth):	32	2

	Armor Value
Front	8
R/L Side	8/8
Rear	6
Rotor	2

Weapons and Ammo	**Location**	**Tonnage**
Extended LRM 10	Front	8
Ammo (ELRM) 9	Body	1
Guardian ECM Suite	Body	1.5
VTOL Jet Booster	Body	.5

Notes: Features the following Design Quirks: Hard to Pilot, VTOL Rotor Arrangement (Coaxial Rotors), Fast Reload.



Light Vehicles

Mass: 25 tons
Movement Type: VTOL
Power Plant: GM 110 Fusion
Cruising Speed: 108 kph
Maximum Speed: 162 kph (216 kph with Jet Boosters)
Armor: StarGuard Darknova Stealth
Armament:
2 Federated-Barret Magshot Gauss Rifles
Manufacturer: Cal-Boeing of Dorwinion
Primary Factory: Belladonna
Communications System: Garret Supremesound with Guardian ECM
Targeting and Tracking System: Garret D2j

Overview

This rugged airframe is one of the most well-known aircraft in the Federated Suns. Originally designed as a mobile short-range missile platform, one variant had an infantry bay installed to transport a platoon of infantry. With the explosion of battle armor across the Inner Sphere with the coming of the Clans, Davion generals asked for the transport bay to be expanded to carry a whole squad of battle armor. The Jihad led to many once-proprietary technologies suddenly being available across the Inner Sphere. Despite the Capellan Confederation developing vehicular stealth armor in the mid 3060s, through battlefield salvage the Federated Suns was able to reverse engineer and start limited production of their own within ten years. During the early Jihad there was often a miniscule amount of stealth armor produced each month, barely able to cover even one vehicle. Slowly, Cal-Boeing was able to build a few Cavalry Infiltrator prototypes for testing. Davion engineers and generals were clearly very intrigued by this design update.

By 3080 Davion factories were able to achieve full production of vehicle stealth armor and the VTOL jet booster. Ensured a steady supply of armor, Cal-Boeing moved to top secret field trials after the Jihad ended. There were even rumors of updated Cavalry helicopters in the field during post-Jihad cleanup missions, but nothing was ever proven. The project was pushing forward rapidly until project director Colonel Nigel Griffin was killed during a test flight when the booster didn't shut down. During the ensuing investigation, the option for moving the weapons from front mounts to a chin turret was discussed and approved. The crash and redesign set the project back twenty-four months, but there were no major design flaws found and development resumed. Full production started in the fall of 3085.

Capabilities

The original prototypes of the Cavalry Infiltrator retained all the weaponry in front mounts, with three Magshot Gauss rifles replacing the medium lasers and machine guns of the BA variant. After the crash in testing, engineers found it was feasible to put the weapons in a chin turret for expanded firing arcs at the cost of one of the Magshot Gauss rifles. Pilots have been nearly unanimous in praising this change, stating that they no longer have to fly straight at a target to shoot at it. They can now choose much better angles to minimize return fire while still hitting their targets.

Vehicle stealth armor teamed with a VTOL jet booster is a deadly combination. The stealth armor limits the accuracy of return fire while the booster lets the pilot get into and out of the landing zone at top speed. The booster has created a new dynamic for putting troops on target from altitude, though. Jumping out of the old Cavalry at 160 kph was terrifying. Jumping out of the new Infiltrator at 210 kph is nearly suicidal. Only the most elite battle armor troopers try this maneuver.

One small negative is the size of the infantry bay. A full squad of Grenadier or Hauberk suits can be a very tight fit. The decision to expand the infantry bay from three tons to four greatly increased demand for the Cavalry as a transport and infiltration VTOL. Michaelson Heavy Industries is seeking rights to the variant when Cal-Boeing renews their product license, hoping it may be the key to pulling MHI back from the brink of financial insolvency.

Deployment

The market for VTOL-based battle armor squad transports is wide open, but Cal-Boeing has not even considered orders from outside the Federated Suns. Marshal Jon Davion's creation of the Light Combat Team is a perfect fit for the Cavalry Infiltrator, and Cal-Boeing cannot keep up with demand. The Davion Department of Military Intelligence branch MI6—the Rabid Foxes—received most of the initial run. Since then, most often the Cavalry is placed in units heavy with Cavalier and Infiltrator II battle armor. Many recent shipments have been going to units configured as LCTs, where the Cavalry fulfills a wide variety of roles.

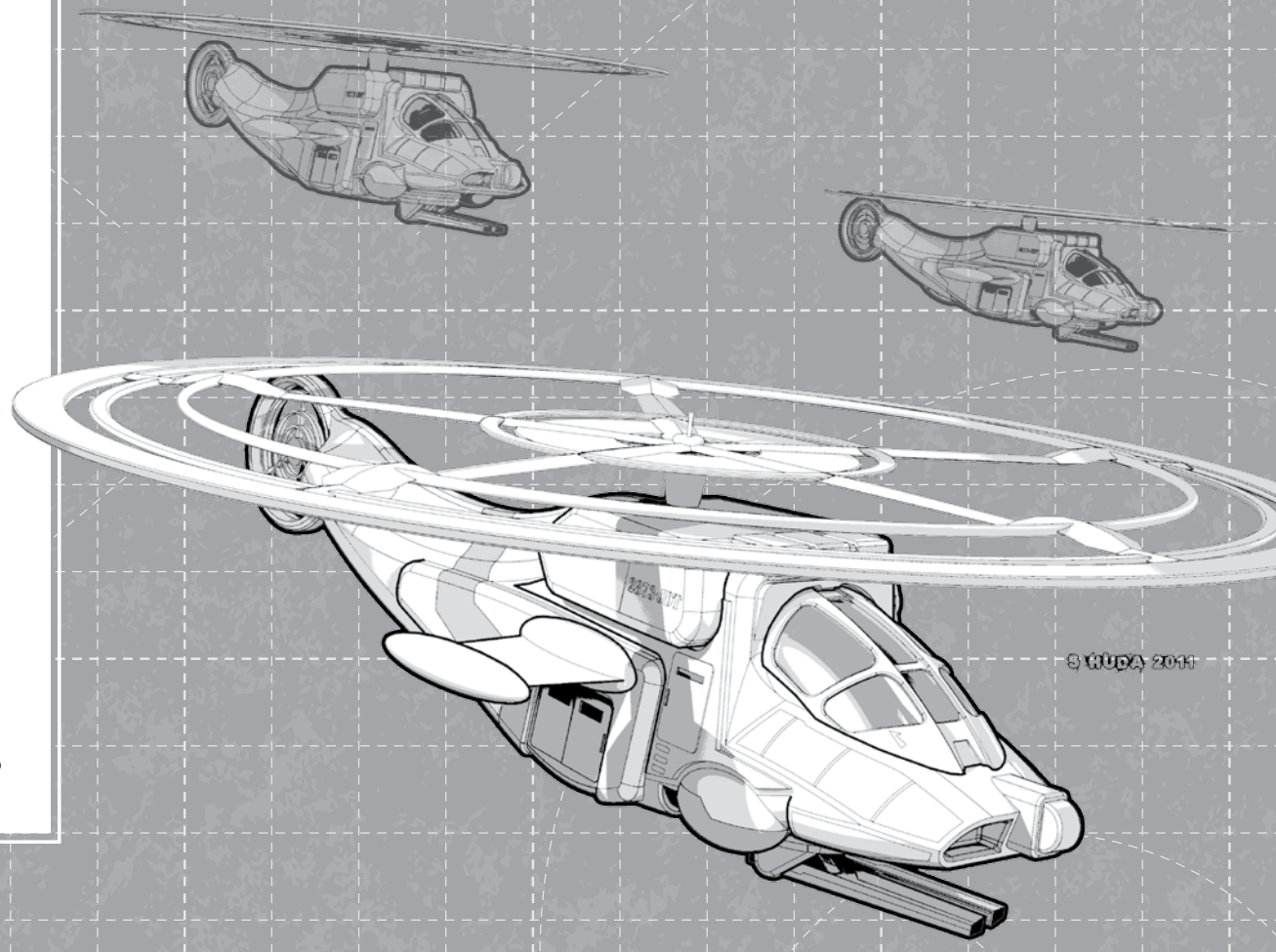
CAVALRY INFILTRATOR

Type: **Cavalry Infiltrator**
Technology Base: Inner Sphere (Advanced)
Movement Type: VTOL
Tonnage: 25
Battle Value: 446

Equipment		**Mass**
Internal Structure:		2.5
Engine:	110	5.5
Type:	Fusion	
Cruise MP:	10	
Flank MP:	15 (20)	
Heat Sinks:	10	0
Control Equipment:		1.5
Lift Equipment:		2.5
Power Amplifier:		0
VTOL Chin Turret:		.5
Armor Factor (Stealth):	64	4
	Armor Value	
Front	20	
R/L Side	12/12	
Rear	10	
Turret	8	
Rotor	2	

Weapons and Ammo	**Location**	**Tonnage**
2 Magshot Gauss Rifles	Turret	1
Ammo (Magshot) 50	Body	1
Guardian ECM Suite	Body	1.5
Infantry Bay	Body	4
VTOL Jet Booster	Body	1

Notes: Features the following Design Quirks: Hard to Pilot, Easy to Maintain.



Light Vehicles

Mass: 25 tons
Movement Type: Tracked
Power Plant: GM 100 Fuel Cell
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Armor: ArcShield Nimbus I Hardened
Armament:
2 LongFire Light LRM 5 Launchers
1 LFN Linblad Machine Gun
Manufacturer: Aldis Industries
Primary Factory: Betelgeuse
Communications System: OlmStead 30
Targeting and Tracking System: Virtutrak S0

Overview

Introduced in 3078, the Scorpion Minesweeper was an experiment by Aldis Industries to see if an existing combat design could be modified to be an equally successful mine clearance vehicle. Being such a small and logistically efficient design, and not in high demand due to its low-grade and obsolete equipment, Aldis knew that many tank crews assigned to a Scorpion Minesweeper would immediately be familiar with the crew compartment, cutting down on training time. The first production version appeared in 3078, with Aldis practically giving them away to the Betelgeuse Home Guard in order to sway the Ministry of the Military to divert funds, but it would be years before such an event occurred.

Capabilities

With its role clearly defined as the removal of minefields, much of the Scorpion tank was rearranged to be able to carry its special mine-clearing equipment. Its turret was removed and its compartment altered to move the crew further back in the vehicle. None of these would affect performance on the battlefield but they did increase the crew's confidence. Unfortunately, slow sales drove Aldis to go back and make more changes, hoping to secure a long-term sales contract with a hesitant Confederation. The current version debuted in 3087.

After these changes the Scorpion Minesweeper became easier to produce and more durable. To save weight the original internal combustion engine was switched for a more efficient fuel cell version. This freed up so much weight that its thin armor, as well as the modular armor pack mounted right behind the minesweeper attachment on the prototype, could be exchanged for hardened armor. This doubled the Scorpion's protection and was the change most well received by crews worried about being in the middle of a particularly volatile minefield and having it detonate on their flanks.

Always known for bare-bones offensive capability, this more advanced support version of the Scorpion continues that tradition. Its machine gun was retained but the autocannon was replaced with a pair of long-range missile racks. This gives the vehicle the ability to theoretically contribute to fights, but frequently this is not the case as the ammunition bins now often carry specialized ordnance to assist in the removal and repositioning of minefields instead of standard missiles.

Deployment

Due to the support role the Scorpion Minesweeper performs, the Capellan Confederation allows this design to be exported to any interested party. However, even with the expanded market the design has not attracted any customers and has been in service with just Home Guard and planetary militia troops. As of this writing, no frontline regiments have been spotted with permanently assigned Scorpions. Units in border systems that see heavy combat often get a temporarily-assigned lance or company of these vehicles to assist in the rebuilding of their urban areas, which often includes the removal of massive minefields. Scorpion Minesweeper formations are credited with cutting recovery time in half.

Even in formations they are permanently assigned to, most Minesweepers are not spotted immediately in a unit's TO&E. The vehicle is normally assigned to a company of specialist infantry, rather than separate units used for combat.

SCORPION MINESWEEPER

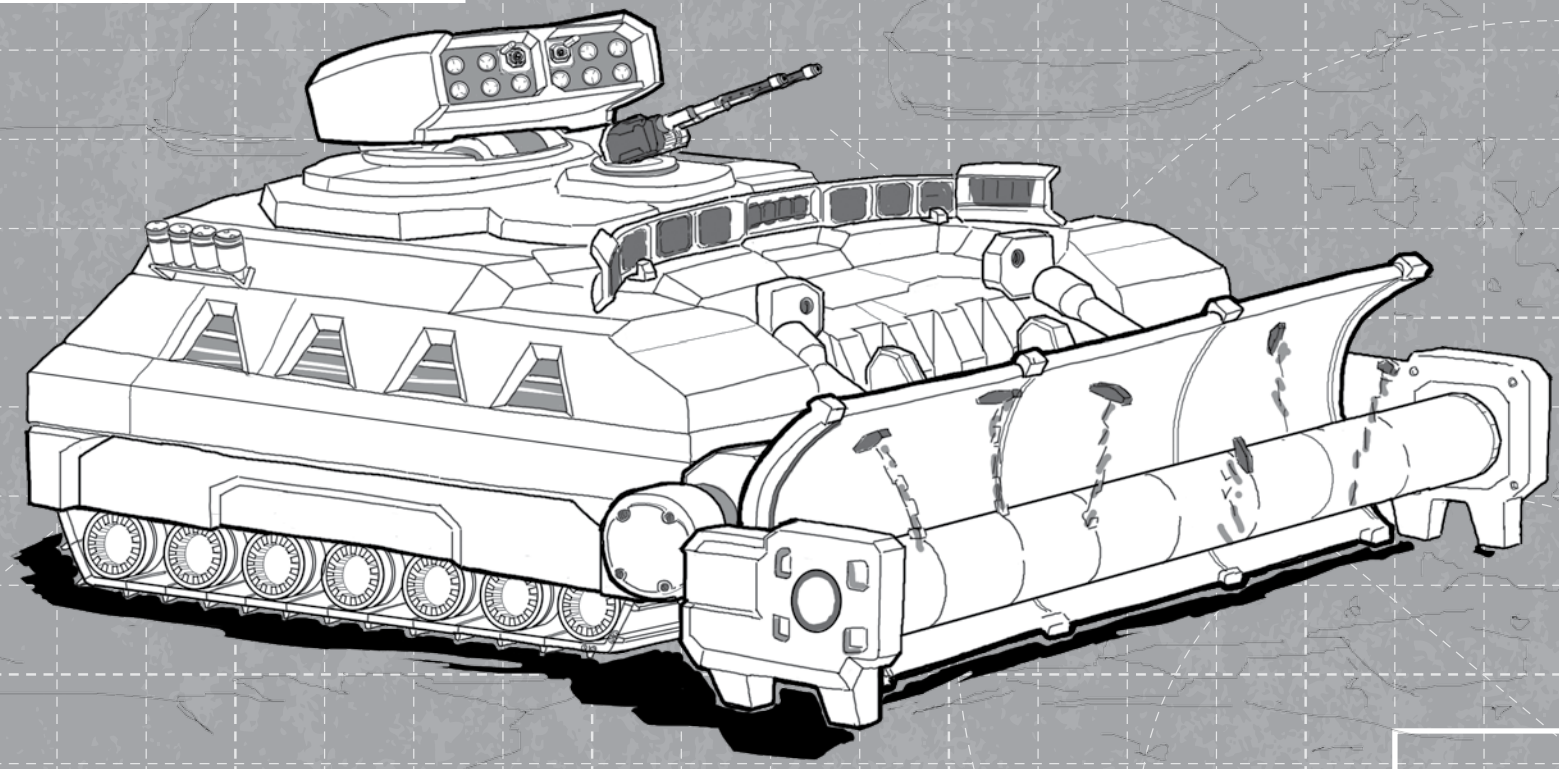
Type: **Scorpion Minesweeper**
Technology Base: Inner Sphere (Advanced)
Movement Type: Tracked
Tonnage: 25
Battle Value: 452

Equipment		**Mass**
Internal Structure:		2.5
Engine:	100	4
Type:	Fuel Cell	
Cruise MP:	4	
Flank MP:	6	
Heat Sinks:	1	0
Control Equipment:		1.5
Lift Equipment:		0
Power Amplifier:		0
Turret:		0
Armor Factor (Hardened):	48	6

	Armor Value
Front	16
R/L Side	11/11
Rear	10

Weapons and Ammo	**Location**	**Tonnage**
2 LRM 5	Front	4
Ammo (LRM) 72	Body	3
Machine Gun	Front	.5
Ammo (MG) 100	Body	.5
Minesweeper	Front	3

Notes: Features the following Design Quirks: Bad Reputation, Poor Sealing, Trailer Hitch, Rumble Seat.



Light Vehicles

Mass: 25 tons
Movement Type: Naval (Hydrofoil)
Power Plant: Hermes 100 Fusion
Cruising Speed: 108 kph
Maximum Speed: 162 kph
Armor: ArcShield Heavy Ferro-Fibrous
Armament:
1 Coventry Comet Extended Long Range Missile Pack 10
Manufacturer: Skye Pleasure Craft
Primary Factory: Skye
Communications System: TharHes Seaweed PG-2
Targeting and Tracking System: TharHesNav Shark

Overview

Skye Pleasure Craft's Sea Skimmer hydrofoil has remained in production for two centuries. It gives the elite of Skye an excuse to cruise the seas near their local yacht club while parading their valiant service in front of their peers. The Sea Skimmer's weaponry was more than adequate for parade duty and coastal guard, and never received an upgrade to more modern specifications. It was left unsaid that Skye did not need that much defending, by the 348th Reserve Detachment or any other Sea Skimmer units.

The Jihad brought a new sense of urgency when Skye was attacked by the Free Worlds League. The Marik forces gave ample opportunity for the 348th Reserve to show its bravery, but the hydrofoils only demonstrated their limitations. Squadrons of Sea Skimmers could rule the seas, but Marik forces ruled the air. The result was disaster.

The Sea Skimmers had no long-range weaponry, and when operating in support of ground units their speed was hampered by having to avoid inshore obstacles. The Marik forces were able to destroy them with ease, clogging the waterways with burning wrecks.

As soon as the Marik troops withdrew Skye Pleasure Craft began working on an upgrade to the Sea Skimmer. Robin Holburn, son of the CEO, designed and built a prototype he called the Sniper. The prototype exchanged all its weaponry for an experimental extended LRM 5 launcher with plentiful ammo. Unfortunately, these changes drastically increased the cost of the Sea Skimmer, and the Sniper was declared a failure. The handful that had been built were soon consigned to the company's drydock and Skye Pleasure Craft continued building its ages-old model for Skye's rebuilding navy. And Skye needed to rebuild.

By the end of 3073 it was clear the Word of Blake was coming for Skye. The Sea Skimmers were again called upon, with the same tragic results, but the handful of Sniper refits were a different story entirely. Brought out of drydock to meet the threat, the Snipers struck up and down the coast, the extreme range of their missiles making long stretches of the coast dangerous for the Word. Their shining moment was when they were ordered to destroy an artillery emplacement near the coast that had been pounding Coalition forces and preventing a concentrated assault. The Snipers cruised in untouched, forcing the Word artillery to flee under a hail of missiles. The Coalition charged into the gap.

Skye Pleasure Craft had a hit on their hands, but it would take them several years to get extended long-range missile racks in production. They made a few tweaks to highlight one of the weaknesses found in the Sniper: its lack of firepower. While the Sniper could harass, it failed to destroy. The new plans called for a slightly slower Skimmer that enabled Skye Pleasure Craft to double the size of the launcher.

Capabilities

The upgraded, production-model Sea Skimmer is still fast, but its weaponry has completely changed its role. With no secondary weapons, the Sea Skimmer is incapable of any other role except long range fire support. As long as its crew and commanders keep their cool and keep the Sea Skimmer at range, the hydrofoil is a talented harasser.

Deployment

The first new Skimmer went to the rebuilding 348th Reserve Detachment, in honor of their long dedication to Skye. The first few productions runs were reserved for the Isle of Skye, but The Republic also requested several orders based on reports of Sea Skimmer actions in the Terra campaign.

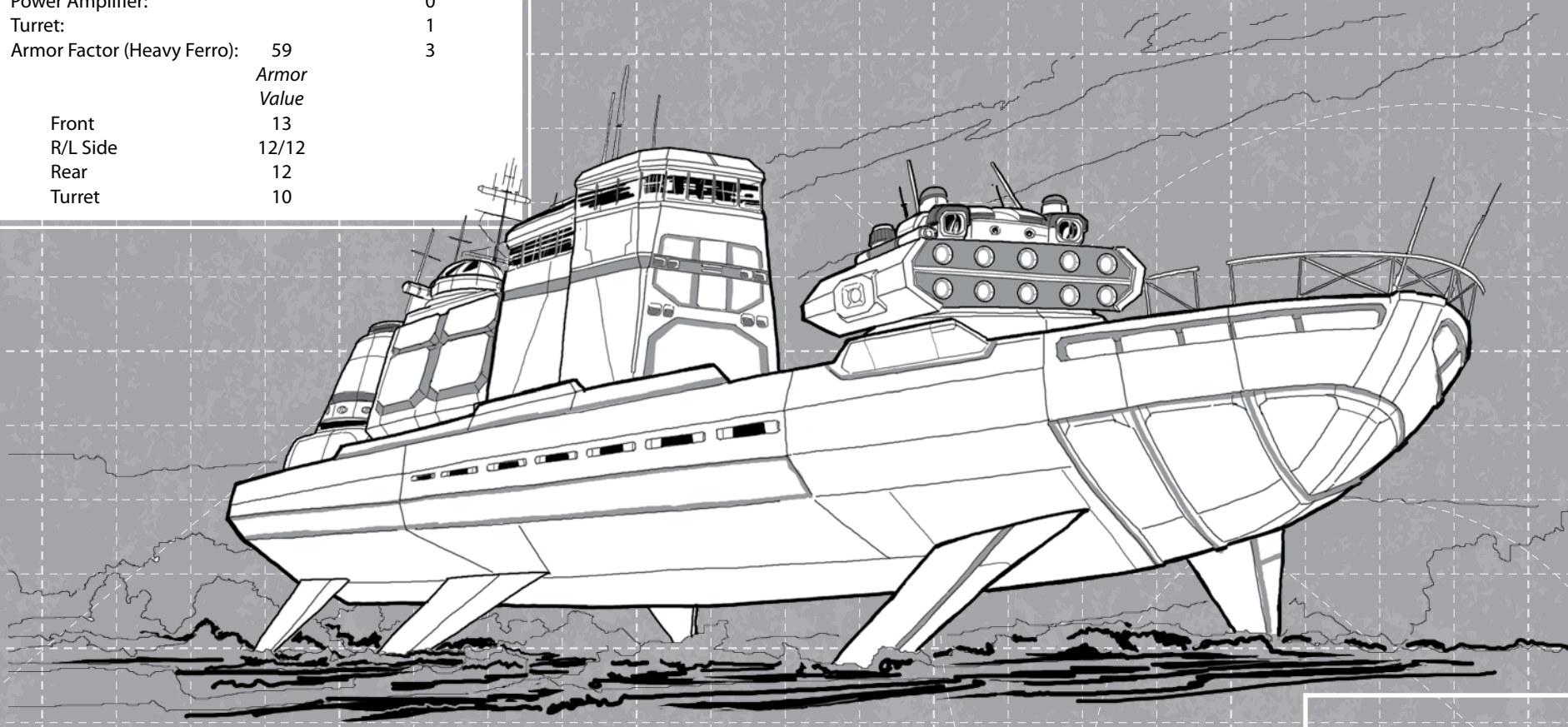
SEA SKIMMER (ELRM)

Type: **Sea Skimmer (ELRM)**
Technology Base: Inner Sphere (Advanced)
Chassis Type: Naval (Hydrofoil)
Tonnage: 25
Battle Value: 556

Equipment		**Mass**
Internal Structure:		2.5
Engine:	100	4.5
Type:	Fusion	
Cruise MP:	10	
Flank MP:	15	
Heat Sinks:	10	0
Control Equipment:		1.5
Lift Equipment:		2.5
Power Amplifier:		0
Turret:		1
Armor Factor (Heavy Ferro):	59	3
	Armor Value	
Front	13	
R/L Side	12/12	
Rear	12	
Turret	10	

Weapons and Ammo	**Location**	**Tonnage**
Extended LRM 10	Turret	8
Ammo (ELRM) 18	Body	2

Notes: Features the following Design Quirks: Poor Performance, Accurate Weapon (ELRM), Searchlight.



Light Vehicles

Mass: 35 tons
Movement Type: Tracked (Amphibious)
Power Plant: Doorman Amphib 140 Fuel Cell
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Armor: StarSlab Neptune/3 Heavy Ferro-Fibrous
Armament:
1 Delta Dart II Enhanced LRM 10 Launcher
1 Naval Dart S-Series LR Torpedo 10 Launcher
2 Defiance Aqua-Drop Mine Dispensers
Manufacturer: Defiance Industries
Primary Factory: Hesperus II
Communications System: TharHes Mini-Talk
Targeting and Tracking System: TharHes AGART V3

Overview

The Sea Hunter was a curiosity only found on Herzberg until the early '80s when a Defiance executive learned of the design. Defiance ultimately bought the rights to the variant, providing a sizeable boon to the refit yard that had produced it. Significant changes were made between prototype and production: the experimental combat vehicle escape system was eliminated and the expensive XL fusion engine downgraded to a more economical fuel cell. The rebranded Hunter Amphibious Tank entered full production in 3085 with mediocre sales.

Defiance has spent the last five years attempting to boost adoption of the specialty vehicle, but with only marginal success. Competition from the more expensive, Cyclops-produced Glaive and the venerable Sea Skimmer have been major obstacles in the Hunter's target markets. An incentive program started in early 3089 has been Defiance's most successful marketing tool, but the future of this tank is uncertain. Production has declined by twenty-five percent over the last three years in favor of more marketable units.

Capabilities

As with the extinct Land-Air 'Mechs, the Hunter is a curiosity and difficult for many commanders to deploy effectively. A blend of tank and boat, it performs both tasks poorly. Although it has a reasonable combat range, critics decry the Hunter for being outclassed by a number of vehicles and arguably some battle armor units.

The tank is powered by a Doorman fuel cell engine. Although it significantly reduces cost, it also leaves the vehicle incapable of employing energy weapons without bulky and expensive power amplifiers. This limits after-market options in the burgeoning secondary market, which may be hurting sales. Defiance's fourth-quarter prospectus highlights the Hunter's low per-unit cost while illustrating the high cost of customization in an attempt to deter modifications from factory stock.

The slow, ponderous vehicle tops out at just over sixty kph on land. Its chief tactical advantage is its amphibious modifications. Two side-mounted pontoons provide enough buoyancy to keep it afloat in calm waters and two aft-mounted screws give it a thirty kph top speed. Operations in swells over one meter are not recommended, but tests showed the tank able to operate in swells as high as three meters without sinking. However, without the escape system of the prototype capsizing would likely kill the crew, and many crews avoid water altogether.

Despite its drawbacks, the Hunter does excel at engaging blue-water naval targets. Defiance recently licensed torpedo technology from Galtor Naval Yards (producers of the ubiquitous Neptune submarine) to equip the Hunter with its first locally-built torpedo launcher—the Naval Dart S-Series. This ten-tube system features the same targeting system as the battle-tested Sea Devastator, and gives the Hunter a 630-meter effective range against seaborne targets. Another new Defiance product, the Aqua-Drop mine dispenser, equips the tank for sealing off both land- and water-based assault paths.

The adaptation of the classic Hunter hull to house a functional turret is Defiance's best innovation. They chose the new Delta Dart II enhanced ten-tube launcher for the Hunter's primary armament. The launcher has the same maximum range profile as the standard Doombud, but multiple upgrades to the targeting and arming mechanisms cut the standard arming distance in half. While significantly more flexible than the standard launcher, its damage profile is unchanged.

Five tons of heavy ferro-fibrous armor give the Hunter decent protection on all armor facings; enough to stop a heavy PPC blast during field trials. Unfortunately, critics have found many faults with the brand of armor selected; in the last few years, difficulties with the StarSlab heavy ferro's fabrication have resulted in microscopic stress fractures. Although recalls have been issued, confidence is shaky, leading most crews to treat assignment to the Hunter as punishment duty.

Deployment

Despite Defiance's generous offers and significant marketing campaign, deployment of the Hunter is limited. Several Lyran commands have been pressured into buying the unit, but they do so in extremely small quantities. Numbers as low as one per vehicle regiment are common, and the tank is virtually unknown on water-starved worlds. The majority of sales outside the LCAF have been to surviving mercenary commands.

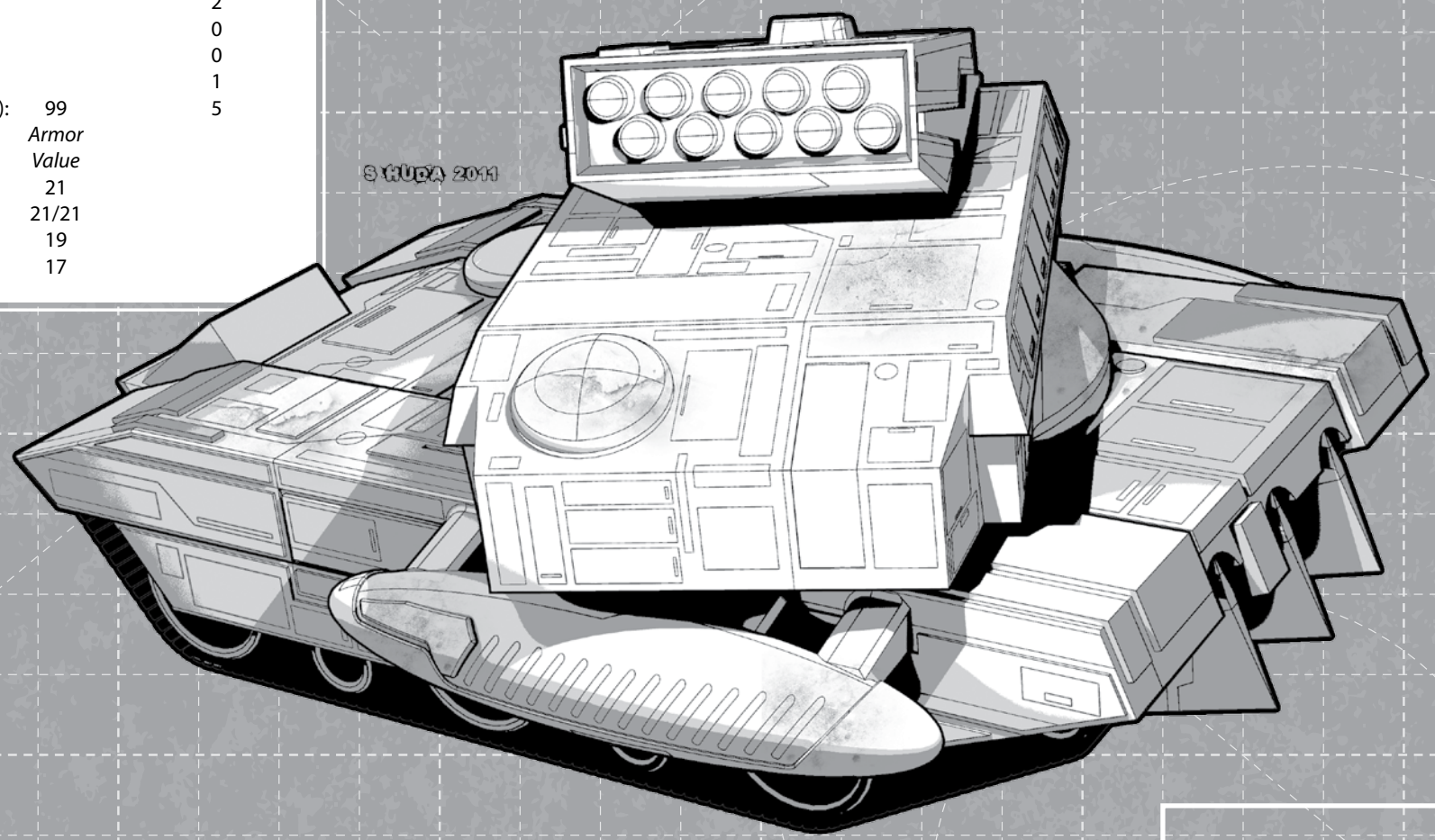
HUNTER AMPHIBIOUS TANK

Type: **Hunter Amphibious Tank**
Technology Base: Inner Sphere (Advanced)
Movement Type: Tracked (Amphibious)
Tonnage: 35
Battle Value: 639

Equipment		**Mass**
Internal Structure:		3.5
Engine:	140	6
Type:	Fuel Cell	
Cruise MP:	4	
Flank MP:	6	
Heat Sinks:	1	0
Control Equipment:		2
Lift Equipment:		0
Power Amplifier:		0
Turret:		1
Armor Factor (Heavy Ferro):	99	5
	Armor Value	
Front	21	
R/L Side	21/21	
Rear	19	
Turret	17	

Weapons and Ammo	**Location**	**Tonnage**
Enhanced LRM 10	Turret	6
Ammo (NLRM) 12	Body	1
LR Torpedo 10	Front	5
Ammo (LRT) 12	Body	1
2 Mine Dispensers	Rear	1
Fully Amphibious Equipment	—	3.5

Notes: Features the following Design Quirks: Gas Hog, Accurate Weapon (LR Torpedo 10), Accurate Weapon (Enhanced LRM 10).



Light Vehicles

Mass: 35 tons
Movement Type: Hover
Power Plant: Scarborough 210 XL
Cruising Speed: 118 kph
Maximum Speed: 183 kph (237 kph with supercharger)
Armor: ProtecTec 19 Heavy Ferro-Fibrous
Armament:
2 Diverse Optics Type 25PX Medium X-Pulse Lasers
1 Guided Technologies 2nd Generation Streak SRM 6 Launcher
Manufacturer: Scarborough Manufacturers
Primary Factory: Algedi
Communications System: Scarborough Talky 4 with C^3 Slave System
Targeting and Tracking System: Scarborough Tracky 1

Overview

A frightening combination of speed and firepower, the new X-Pulse variant of the venerable Pegasus hovertank is built on Algedi, the last semi-autonomous Azami world remaining in the Draconis Combine. While tensions and distrust between the Azami and the Combine leadership persist since the internal conflict that erupted between the two during the Jihad, the rise of The Republic and several concessions granted since have dissolved the Azami Brotherhood breakaway state, gifting most of its worlds to the newborn Republic of the Sphere. The Dragon demanded control over the vital factory world of Algedi, and the Arkab Legion forces who defend it, as part of the long-standing accord between House Kurita and the Azami people.

Capabilities

The powerful and tremendously expensive Scarborough 210 XL fusion engine would be enough for most, but not for Scarborough Manufacturers' Robert McMichaelson and his engineering team. Deciding that speed is the best advantage a comparatively fragile combat unit like a hovertank possesses, McMichaelson strapped a supercharger to the engine and watched as the first prototypes screamed across the proving grounds setting speed records at nearly 240 kph.

Four and a half tons of heavy ferro-fibrous armor is layered onto the X-Pulse's chassis, giving it considerable protection from enemy fire. Despite the redistribution of armor the engineers were unsuccessful in eliminating the fragility of the lift fans and air skirts, which remain susceptible to enemy fire. The extreme danger of this fragility was illustrated in 3087, when one of the few X-Pulse variants to be delivered to the DCMS took part in repulsing a raid.

The Ryuken-*san* was on Proserpina when a Robinson Rangers raiding force arrived. A pair of X-Pulse variants cut off the raiders before they could reach the Bulldog Technologies factory, savaging the enemy 'Mechs so badly they aborted their raid. While the vehicles harassed the 'Mechs during their retreat, a lucky shot from a Rangers *Locust* damaged one of the Pegasuses' lift fans. The hovertank—moving with its supercharger engaged—slammed into the ground. The cartwheeling vehicle tore itself apart, leaving no survivors.

The Pegasus' usual pair of SRM 6 racks was replaced with a single Streak SRM 6 rack. The single medium laser of the standard Pegasus was replaced with a pair of advanced X-Pulse weapons. These modern descendants of the original weapon deliver firepower with greater accuracy and ammo-efficiency. With the matched ranges of the weapons, the crew is able to put all their fire on target simultaneously.

While most of the X-Pulse's components are produced locally by Scarborough, they rely on imports from other Combine worlds for the weapon systems. This has provided the Combine leadership with something of a bargaining chip in their efforts to ensure a dedicated supply of the X-Pulse hovertanks for their own forces.

Deployment

While plentiful on the five Azami worlds—including those now within Republic space—the X-Pulse variant of the Pegasus is slowly appearing beyond them. The Arkab Legions and the local defense forces on Algedi boast companies of the new variant, though dozens of vehicles have been delivered to DCMS commands throughout the Combine.

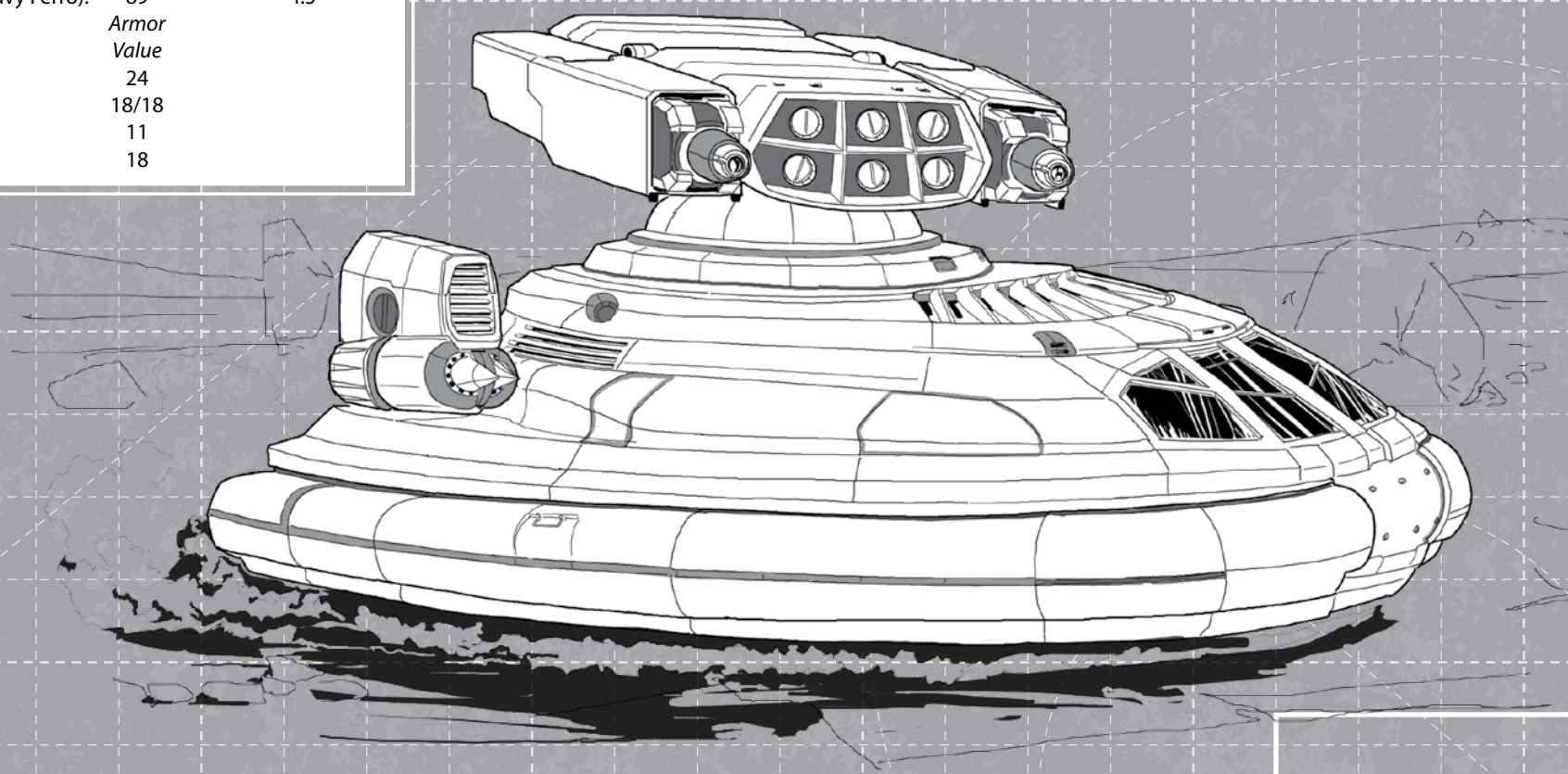
PEGASUS (X-PULSE)

Type: **Pegasus (X-Pulse)**
Technology Base: Inner Sphere (Advanced)
Movement Type: Hover
Tonnage: 35
Battle Value: 1,119

Equipment		**Mass**
Internal Structure:		3.5
Engine:	210	7
Type:	XL Fusion	
Cruise MP:	11	
Flank MP:	17 (22)	
Heat Sinks:	12	2
Control Equipment:		2
Turret:		1
Lift Equipment:		3.5
Power Amplifier:		0
Armor Factor (Heavy Ferro):	89	4.5
	Armor Value	
Front	24	
R/L Side	18/18	
Rear	11	
Turret	18	

Weapons and Ammo	**Location**	**Tonnage**
2 Medium X-Pulse Lasers	Turret	4
Streak SRM 6	Turret	4.5
Ammo (Streak) 15	Body	1
C^3 Slave	Body	1
Supercharger	Body	1

Notes: Features the following Design Quirks: Hard to Pilot, Improved Communications.



Medium Vehicles

Mass: 40 tons
Movement Type: WiGE
Power Plant: GM 205 Fusion
Cruising Speed: 86 kph
Maximum Speed: 129 kph
Armor: New Samarkand Heavy Ferro-Fibrous
Armament:
1 Diverse Optics Type 25PX Medium X-Pulse Laser
Manufacturer: Pesht Motors
Primary Factory: Unity
Communications System: Neil 400
Targeting and Tracking System: Chichester ASR 26 with Bloodhound Active Probe

Overview

The Bloodhound variant of the Hiryo WiGE is perhaps less effective as a combat unit than the base Hiryo, but it sports additional adaptations to protect the crew and improve their survivability. These improvements come at the cost of armor, firepower and carrying capacity. While the Bloodhound variant is less expensive than the standard, these significant alterations have garnered it a lukewarm reputation.

Capabilities

While the first test Bloodhound carried an XL engine, the Procurement Department vetoed the expense as impractical for a utility unit. Their zeal for cost-saving in the post-Jihad rush to replace their losses saw even the original Hiryo's light fusion engine labeled as unviable for the Bloodhound. Using a simple, but heavier, standard fusion engine drastically reduced the cost per unit, freeing budget space for the added cost of the special environmental sealing. It is this special sealing and air recirculation system that protects the crew from hostile environments and allows the Bloodhound to operate in conditions where other vehicles cannot. The Hiryo (Bloodhound) can penetrate radioactive, poisonous, or viral zones to deliver its squad of battle suited troopers.

The insistence that the Bloodhound retain the top speed of the standard model resulted in a significant loss of weaponry. The snub-nose PPC is gone, replaced with a much lighter medium X-pulse laser—the same laser found on the redesigned *Wolf Trap* BattleMech. It should be noted that priority was specifically given to the Bloodhound for this weapon, since the WiGE can be produced in much greater numbers.

Taking up some of the additional tonnage of the Bloodhound is its namesake piece of equipment. Decades in development, the Chichester Bloodhound Active Probe is a significant improvement over the Star League's Beagle. Crucial to the Bloodhound's mission of penetrating enemy lines to deploy its troopers, the probe can defeat and detect even the sophisticated camouflage systems found on modern battlesuits.

Like the standard Hiryo, the Bloodhound carries a battle armor bay, though it only fits a single squad. While the standard Hiryo is equipped to support its deployed troops, the single X-pulse laser of the Bloodhound is a significant reduction of firepower. Also reducing the Bloodhound's ability to stand and fight is a one-ton reduction in armor. These factors combine to inspire a general dislike for the Bloodhound variant.

Deployment

All units with battle armor components in their TO&E have received some of the Hiryo (Bloodhound). Of these, the district regular units of the DCMS have received the fewest, while high-prestige line units like the Sword of Light and the Izanagi Warriors have more. With their mandate to protect the Coordinator, the Warriors have added elite battle armor troopers to their forces, using the Bloodhound and its superior crew protection equipment to provide exceptional defensive capability on Luthien, where much of the surface will remain radioactive for years to come. Similarly, some local planetary defense forces have received the Bloodhound, in cases where the world suffered attacks by nuclear, chemical or biological weapons. There are even rumors of several dozen Bloodhounds and accompanying volunteer troopers being dropped onto An Ting with medical and testing supplies to determine its current status.

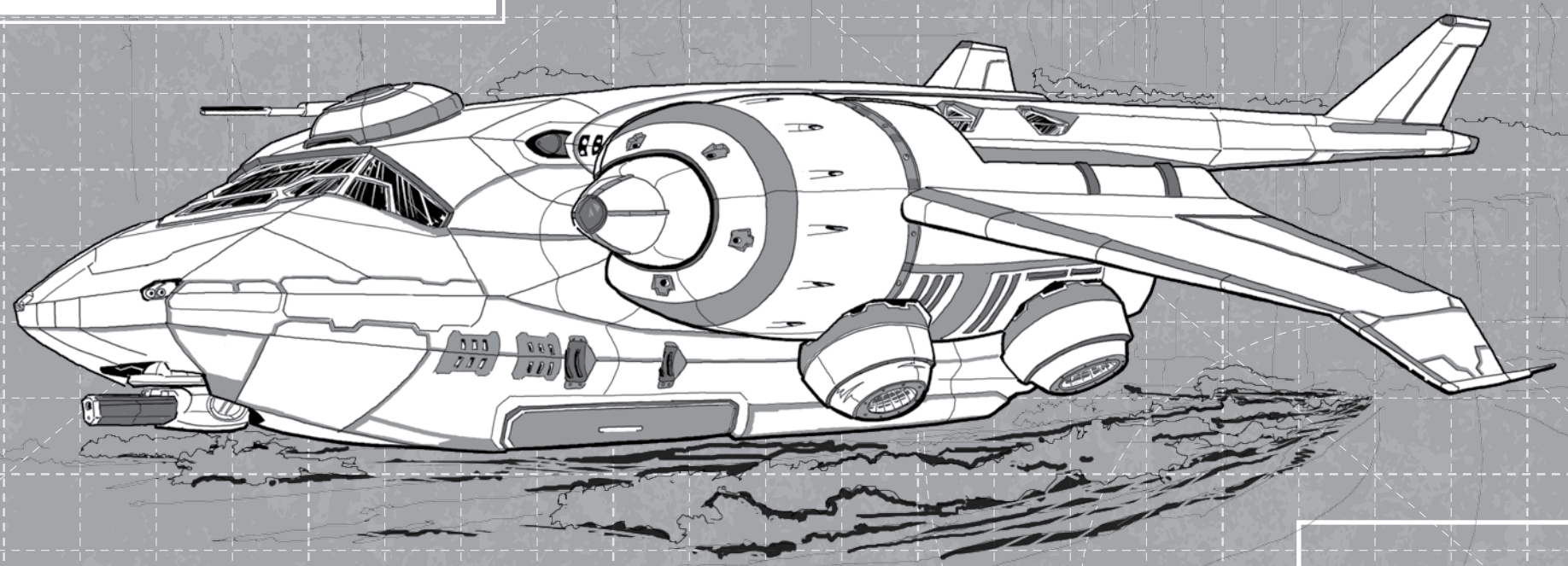
HIRYO (BLOODHOUND)

Type: **Hiryo (Bloodhound)**
Technology Base: Inner Sphere (Advanced)
Movement Type: WiGE
Tonnage: 40
Battle Value: 504

Equipment		**Mass**
Internal Structure:		4
Engine:	205	13
Type:	Fusion	
Cruise MP:	8	
Flank MP:	12	
Heat Sinks:	10	0
Control Equipment:		2
Lift Equipment:		4
Power Amplifier:		0
Turret:		0
Armor Factor (Heavy Ferro):	99	5
	Armor Value	
Front	25	
R/L Side	25/25	
Rear	24	

Weapons and Ammo	**Location**	**Tonnage**
Medium X-Pulse Laser	Front	2
Bloodhound Active Probe	Front	2
Battle Armor Compartment	Body	4
Environmental Sealing	—	4

Notes: Features the following Design Quirks: Difficult to Maintain, Non-Standard Parts, Easy to Pilot, Rumble Seat.



Medium Vehicles

Mass: 40 tons
Movement Type: Tracked
Power Plant: Nissan 200 Fusion
Cruising Speed: 54 kph
Maximum Speed: 86 kph
Armor: ArcShield Maxi II
Armament:
1 Exostar ER Large Laser
6 GM Light Machine Guns
Manufacturer: Jalastar Aerospace
Primary Factory: Panpour
Communications System: O/P R Janxiir
Targeting and Tracking System: TargiTrack 717

Overview

A popular tank for decades, the Myrmidon has fought in every major conflict since 3060. Cheap, easy to repair and armed with a brutally efficient long-range/short range combo, New Earth Trading Company couldn't produce the tank fast enough to fill orders. When Jalastar was directed by the AFFS to reach a licensing agreement with NETC and begin construction of Myrmidons on Panpour, the Jalastar leadership found itself in a quandary. Already producing the tactically similar, but far pricier, RAC-armed Manticore, they believed that building Myrmidons would take away from an already-popular line. It wasn't until they learned of a custom Myrmidon variant that specialized in anti-infantry operations that they developed a new business plan.

Jalastar quietly dispatched a mercenary unit to hunt down the pirates who had developed the variant while their legal team pounded out an agreement with NETC. Two years later, they had a licensing agreement with NETC, the goodwill of the people of Kolovraty and a salvaged custom anti-infantry Myrmidon to study before developing a production-level version.

Capabilities

Jalastar took a tank that had been customized for pirate raids and, with very few modifications, converted it to regular battlefield use. The most controversial decision—removal of the PPC—was based solely on business reasons. The Myrmidon is widely known for its signature weapon and keeping the snub-nose PPC at first seemed obvious. But as the marketing section submitted their recommendation, the engineers found themselves ordered to remove the PPC and replace it with an ER large laser. Snub-nose PPCs, the analysts argued, had the same range limitations as the RAC mounted in the Manticore, once again placing the vehicles in competition. An ER laser could be marketed as giving supporting fire for the heavier tank. It was also cheaper, making it more attractive to mercenary buyers.

The swap, however, necessitated the removal of the machine gun arrays in order to free up enough mass to include the additional heat sinks the laser demanded. The difference in weight between the PPC and laser freed up another five hundred kilograms the engineers converted to additional armor. Again the marketing section intervened, and the lighter—but pricier—light ferro-fibrous was removed. Replacing the ferro-fibrous with standard armor ate up the gains in protection from the additional half ton of weight, but the marketing department assured them the difference in price would contribute to additional sales.

As the prototypes were rushed into testing veteran staffers quickly reported that the new weapon types would require new tactics. Typically used as a brawler, the Myrmidon is widely deployed at every level to enter battle and take the fight to the enemy. The anti-infantry version, however, doesn't have a main gun powerful enough to take down any but the lightest of battle armor troops. Testers also determined that the loss of the machine gun arrays meant that instead of having a concentrated close-in punch, the Myrmidon-AI would have the ability to devastate unarmored infantry in a complete circle around the tank but not focus on any single target.

The end result was an effective Myrmidon variant delegated to supporting other tanks. The marketing department could only smile at their success—spreadsheets and statistics had allowed them to convert a threat to their Manticore market share into a complementary design.

Deployment

The Myrmidon-AI, in its role as a support tank, has not infiltrated the AFFS as fast as the Department of the Quartermaster originally hoped. Effective in its anti-infantry role, the Myrmidon-AI is too specialized for widespread deployment.

Required by the licensing agreement to be available for purchase by the RAF, the Myrmidon-AI is finding success in The Republic's military, usually concentrated in units on the volatile Confederation border. The low price has also attracted numerous mercenary units, generating much-needed hard currency.

Jalastar, in turn, has reinvested their profits into their Manticore line, upping production. To sooth the DQ's ire at their obeying the letter of their order—and not his intent—Jalastar has reduced the price of the Manticores sold to the AFFS for the next ten years.

MYRMIDON (ANTI-INFANTRY)

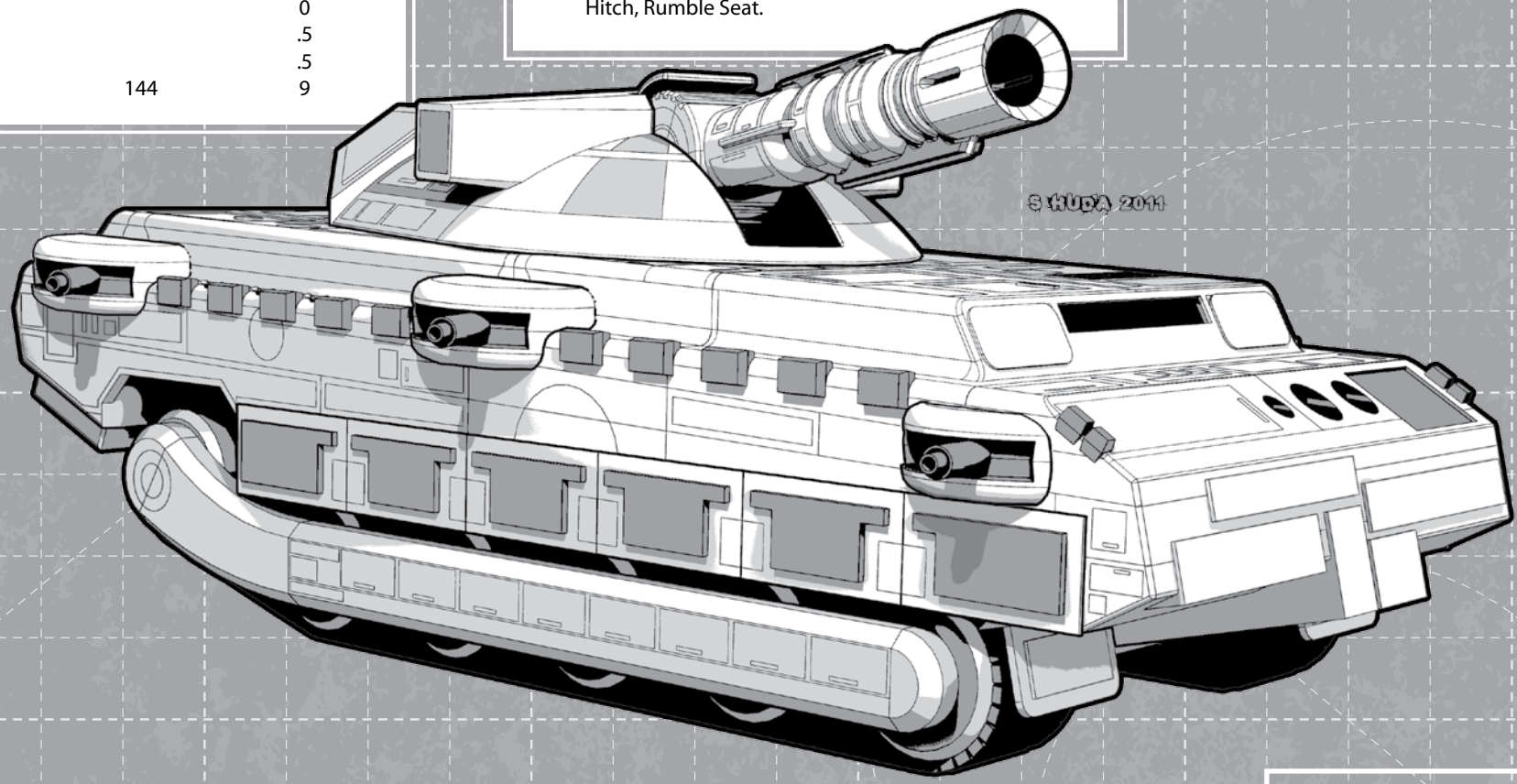
Type: **Myrmidon (Anti-Infantry)**
Technology Base: Inner Sphere (Advanced)
Movement Type: Tracked
Tonnage: 40
Battle Value: 749

Equipment		**Mass**
Internal Structure:		4
Engine:	200	13
Type:	Fusion	
Cruise MP:	5	
Flank MP:	8	
Heat Sinks:	12	2
Control Equipment:		2
Lift Equipment:		0
Power Amplifier:		0
Turret:		.5
Sponson Turrets:		.5
Armor Factor:	144	9

	Armor Value
Front	35
R/L Side	25/25
Rear	24
Turret	35

Weapons and Ammo	**Location**	**Tonnage**
ER Large Laser	Turret	5
3 Light Machine Guns	Right Sponson	1.5
3 Light Machine Guns	Left Sponson	1.5
Ammo (Light MG) 200	Body	1

Notes: Features the following Design Quirks: Poor Workmanship, Accurate Weapon (ER Large Laser), Trailer Hitch, Rumble Seat.



PHALANX SUPPORT TANK

Medium Vehicles

Mass: 40 tons
Movement Type: Tracked (Limited Amphibious)
Power Plant: Hermes 160 Extralight
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Armor: Maximilian 100 with CASE
Armament:
1 Oriente Model S Sniper Artillery Cannon
1 Oriente Polybolos 27mm Machine Gun
Manufacturer: Earthwerks Incorporated
Primary Factory: Calloway VI
Communications System: Garret T21-C
Targeting and Tracking System: Garret D7h

Overview

Every company has a flop now and then, and Earthwerks is no different. Starting with a basic and workable goal—shoehorn themselves into the comfortable medium tank market New Earth Trading Company controlled with its popular Myrmidon—Earthwerks tried to build a tank that would appease as many buyers as possible. They went with the same weight limit of forty tons and deliberately built a tank that was everything the Myrmidon was not. Unfortunately for Earthwerks, when the design philosophy is to be the opposite of an effective, popular tank the results are easily predicted: Earthwerks ended up with a tank that was not cheap, not popular, and not effective. Twelve prototypes were built, with four donated to the military and the rest being used as test beds for potential variants.

Two were quickly destroyed, and Earthwerks executives began to shut down production, transferring resources to ongoing, more profitable programs. During the fierce fighting on Ohrensen, though, the Phalanx caught a break. A battered Level III of Blakist infantry holed up in the tight, twisting confines of the downtown area just outside a spaceport, with their defense anchored by a sturdy stone cathedral. In despair, an Ohrensen captain asked the Phalanx crew attached to his formation to fire a couple rounds into the building and create a breach big enough for his men to exploit. The Phalanx acknowledged the order, and five rounds later brought the abbey down, entombing the Word troops. As the captain surged forward, the Phalanx was again called forward to fire at another Word stronghold. This time a public affairs officer followed, cameraman at his side. Finding a covered location to record from, the holocamera clearly caught the Phalanx trundling forward to nearly point-blank range while being blasted by Blakists SRMs and rifle fire. After it fired three quick rounds into the base of a ten-story building the cheers of the Ohrensen soldiers as the building collapsed could clearly be heard on the trideo footage.

Capabilities

Grateful for their good fortune, Earthwerks quickly began to adapt their failed medium tank into a dedicated city-buster. Realizing that its new role of shattering chokepoints would rarely separate the tank from infantry support, the engineers did away with the infantry bay in favor of more armor. Because the dual-drive system was too thoroughly intertwined with the locomotive system they had to keep the semi-amphibious nature of the tank intact. Moving the machine gun off the turret to the front gained them another additional half-ton of weight savings, most of which went on the rear to reinforce what had originally been a troop hatch.

The Phalanx quickly earned a dual reputation; for the infantry formations lucky enough to have a Phalanx platoon attached, they are well-loved and protected. In return, scores of videos can be found of Phalanxes moving under withering fire to blast enemy positions and rescue their beleaguered infantry companions. At higher levels, though, the Phalanx hasn't overcome the basic flaws that influence generals: it's expensive, slow, still only moderately armored and can only do one thing well.

Deployment

Earthwerks has taken a new approach to marketing the previously-shunned Phalanx. Exploiting the niche the Phalanx almost literally blasted open for itself, Earthwerks markets the tank as an infantry support vehicle and has opened the market to any buyer, Sphere-wide. Sales have been slow but steady from across the Inner Sphere—most infantry brigades can usually be found with at least a platoon attached—but they rarely found in armor units. The only known variant is the production version of the original prototype, still containing the infantry bay. This model is generally only found in Lyran space, where they often team a platoon of Phalanxes with a squad of Rottweiler battle armor.

PHALANX SUPPORT TANK

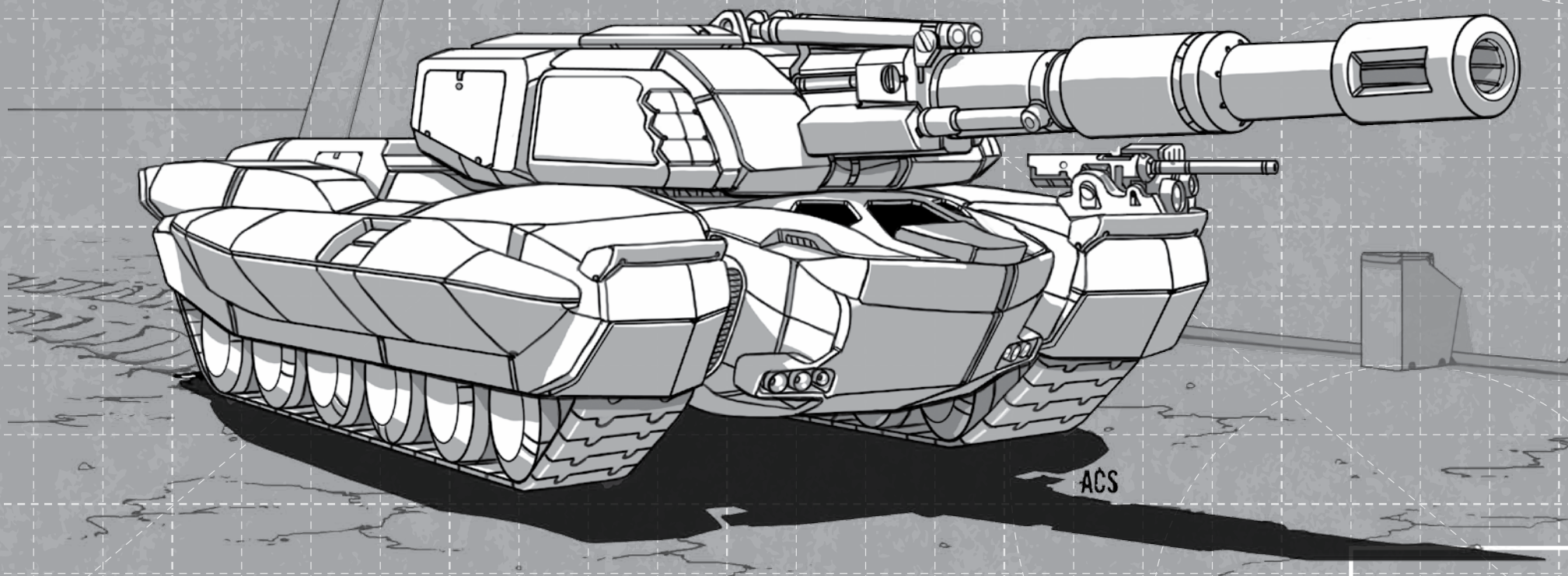
Type: **Phalanx Support Tank**
Technology Base: Inner Sphere (Advanced)
Movement Type: Tracked (Limited Amphibious)
Tonnage: 40
Battle Value: 533

Equipment		**Mass**
Internal Structure:		4
Engine:	160	4.5
Type:	XL Fusion	
Cruise MP:	4	
Flank MP:	6	
Heat Sinks:	10	0
Control Equipment:		2
Power Amplifier:		0
Turret:		1.5
Armor Factor:	120	7.5

	Armor Value
Front	30
R/L Side	24/24
Rear	22
Turret	20

Weapons and Ammo	**Location**	**Tonnage**
Sniper Artillery Cannon	Turret	15
Ammo (Sniper) 20	Body	2
Machine Gun	Front	.5
Ammo (MG) 100	Body	.5
CASE	Body	.5
Limited Amphibious Equipment	—	2

Notes: Features the following Design Quirks: Difficult to Maintain, Inaccurate Weapon (Machine Gun), Trailer Hitch.



BANDIT MK. II

Medium Vehicles

Mass: 50 tons
Movement Type: Hover
Power Plant: Vox 215 Fusion
Cruising Speed: 97 kph
Maximum Speed: 151 kph
Armor: Royal-9 Special Heavy Ferro-Fibrous with CASE
Armament:
1 Arc-Royal Incinerator Medium Variable-Speed Pulse Laser
2 Coventry Light Autoguns
Manufacturer: Arc-Royal MechWorks (under license)
Primary Factory: Arc-Royal
Communications System: Dalban StarLink II
Targeting and Tracking System: Garret E5a

Overview

The surge of mercenary units seeking refuge from the horrors of Outreach and Galatea during the Jihad created an underground gaming circuit on Arc-Royal, for those looking for low-key action but unwilling to leave the protective umbrella of the Kell Hounds and the Wolves-in-Exile.

The few survivors of Blackwell Industries-Outreach, with nothing better to do now that their employer was destroyed, began gathering salvage. Using a Bandit nicknamed Warthog, this salvage-equipped refit became extremely successful in the open-class vehicle duels. Local manufacturer, Arc-Royal MechWorks, took notice and negotiated to produce the Bandit variant under license. With a large variable-speed pulse laser and an extralight engine, in addition to a slew of defensive equipment, the Warthog was an impressive and robust design, but the manufacturer wasn't convinced it was the best option.

Arc-Royal MechWorks watched the market, particularly Arcturan Arms latest version of the Vedette, and realized that such a high-priced combat vehicle, especially one so light, would not compete in the market. To reduce cost, the production model used a standard fusion engine and adjusted its weapons.

Capabilities

The Bandit Mk. II became a much more traditional hovertank. The infantry bay was eliminated in favor of more equipment and armor, taking away any ability to act as a transport. In addition, though it weapon system remains semi-modular, it is no longer a true OmniVehicle. The Mk. II only has one configuration.

This version carries a medium variable-speed pulse laser as its primary weapon. Though seeming inefficient, the weapon can tailor its output and fire rate to deal with a wide variety of targets. For backup against infantry where the laser may be overkill, two machine guns are mounted to act as point defense against sappers.

The Bandit Mk. II is remarkably durable, a trait not traditionally associated with hovercraft. Its intake system has proved to be quite effective in keeping the vehicle from succumbing to the kiss of death even light weapons have on the otherwise-vulnerable skirt. The Bandit also contains a sturdy nine tons of heavy ferro-fibrous armor, which rivals the armor profile of some tanks nearly twice its size. The half-ton of machine gun ammunition is protected by CASE, though detractors are quick to note that the CASE weighs just as much as the ammunition it is supposed to protect.

Deployment

With Arc-Royal MechWorks unwilling to produce the original version of the Bandit Warthog, sales of the Bandit Mk. II remain disappointing. After the scouring of Outreach, much of the aura of Wolf's Dragoons and Blackwell Corporation vanished in the same mushroom clouds their staff and facilities did. Even with the Blakist threat gone many buyers are afraid to invest in something that may make them the target of any underground Robe unit thinking they may be an offshoot of the mercenaries.

The only steady users of the Bandit Mk. II have been the Kell Hounds and surviving Wolf's Dragoons, who seem to be in desperate need of any advanced weaponry they can get at a discount. The Lyrans have purchased several dozen, but this seems limited to those units deployed around Arc-Royal in order to take advantage of the close logistical support Arc-Royal MechWorks can provide. Unfortunately for Arc-Royal MechWorks, it seems no one outside ninety light years seems to be showing any real interest in this design.

BANDIT MK. II

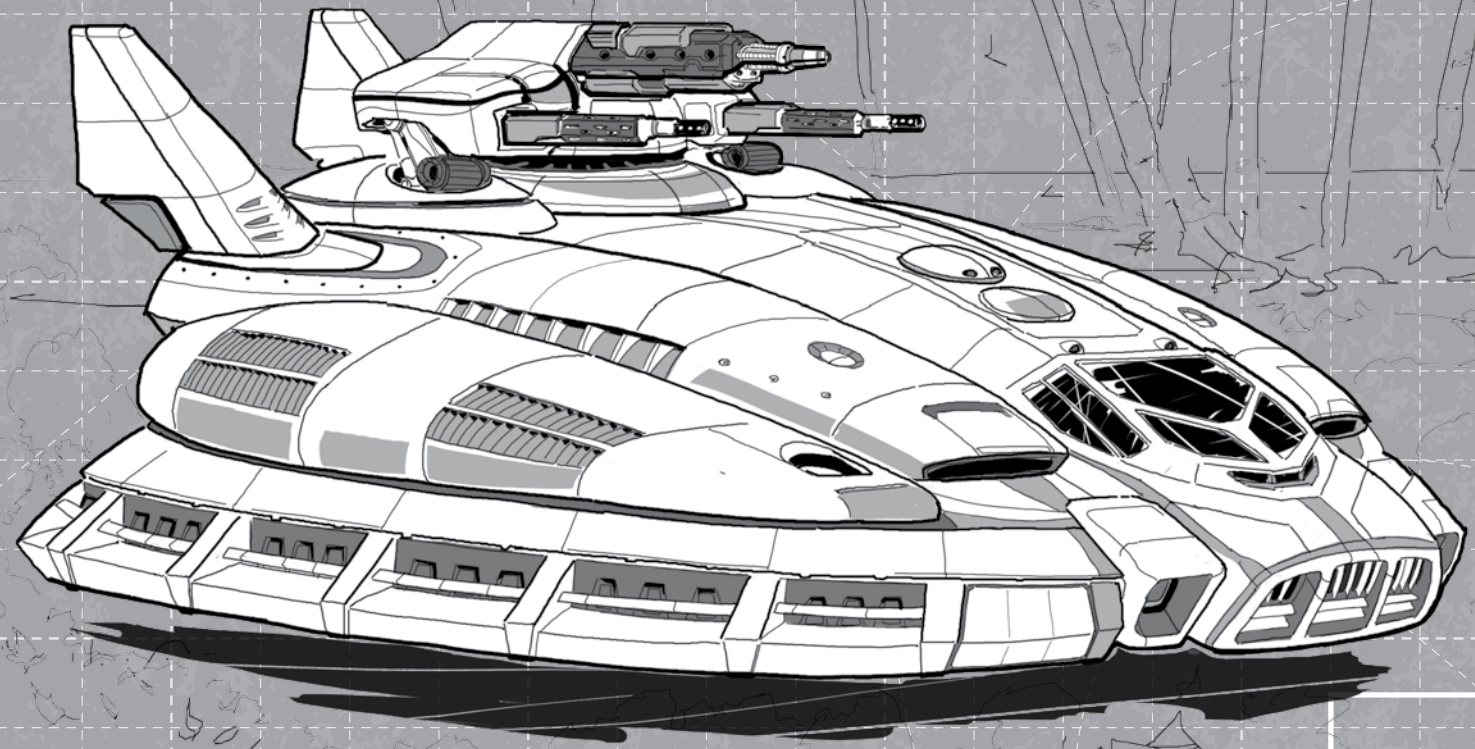
Type: **Bandit Mk. II**
Technology Base: Inner Sphere (Advanced)
Movement Type: Hover
Tonnage: 50
Battle Value: 770

Equipment		**Mass**
Internal Structure:		5
Engine:	215	14.5
Type:	Fusion	
Cruise MP:	9	
Flank MP:	14	
Heat Sinks:	10	0
Control Equipment:		2.5
Lift Equipment:		5
Turret:		.5
Armor Factor (Heavy Ferro):	178	9

	Armor Value
Front	44
R/L Side	32/32
Rear	34
Turret	36

Weapons and Ammo	**Location**	**Tonnage**
Medium VSP Laser	Turret	4
2 Machine Guns	Turret	1
Ammo (MG) 100	Body	.5
CASE	Body	.5
Armored Motive System	—	7.5

Notes: Features the following Design Quirks: Bad Reputation, Modular Weapons, Rumble Seat.



Mass: 50 tons
Movement Type: Hover
Power Plant: Strand 165 Fusion
Cruising Speed: 86 kph
Maximum Speed: 129 kph (172 kph with supercharger)
Armor: Johnston Reactiweave 6330
Armament:
2 Exostar Pinnacle (Clantech) Medium Pulse Lasers
2 Poland Main Model C Magshot Gauss Rifles
Manufacturer: Johnston Industries
Primary Factory: Benet III
Communications System: O/P AIR 900
with Angel ECM Suite
Targeting and Tracking System: Johnston Focuspoint

Overview

Originally built as a high-speed flanking unit, the Fulcrum was meant to strike at the ends of an enemy's battle line. With the enemy line disrupted, the Fulcrum could rush through and use its TAG to mark enemy units for artillery while jamming enemy communications with its Guardian ECM. The inherent fragility of a hovertank sometimes meant that even when the line was open, it was still difficult to press through to the enemy's rear. Johnston Industries engineers set out in the 3070s to address this problem.

Under the Fulcrum X project the hovertank was modified to last longer, hit harder, and be more disruptive. The choice was made to use cutting-edge technology across the board, and the AFFS Department of the Quartermaster backed Johnston as much as possible. There are rumors that Dynamico did not want to build their Clan tech weapons for this design until Davion generals "persuaded" their executives to join the program. The real coup was getting the Angel ECM suite, given how rare the system is in the Federated Suns. Shipments of this device are slow to Johnston, and often the Angel is the last thing to be installed in the tank.

Capabilities

The heart of the new design is a pair of Clan tech medium pulse lasers in the turret, replacing the standard large laser of the original. While sacrificing range each laser hits nearly as hard as the original. The inclusion of these weapons slows down the manufacturing process immensely, as they cannot be produced at anywhere near the same quantity as an Inner Sphere laser. It is believed that each pair of medium pulse lasers are built in parallel to the tank and mated up at the very end of the construction process. Three Magshot Gauss rifles round out the weapons suite, with two mounted in the turret and one in the front, replacing the TAG.

To offset the costs of the Clan tech lasers, the original XL engine has been removed for a standard fusion engine. The loss of speed from this bulkier engine is compensated for with a supercharger. Defense is increased with an armored hoverskirt system and new Blazer armor replacing the old StarSlab HVA. The final change was to upgrade the Guardian ECM suite to the Angel ECM suite. With the ability to block nearly all battlefield communications and electronics, the power of this electronic warfare package is substantial. It is rumored that during field testing, not even the new C^3 Boosted systems could get a signal through. This will certainly make the Fulcrum a dangerous distraction.

Deployment

The availability of the Fulcrum Hybrid is not as wide as some of the other prototypes in this report. The Clan lasers and Angel ECM have resulted in smaller deliveries, with longer lead times. Those that have been delivered are performing well, especially in the Davion Light Combat Teams that have cropped up in the past decade. The Hybrid is perfect in the cavalry role so necessary for the LCT concept to work, although the Hybrid has shown more staying power and the ability to brawl. Where the old Fulcrum would pick at the edges or skirt wide on the flank, platoons of Hybrids have been seen at the center of the line pushing their own holes in the line and hitting the supercharger to rush through.

Recently, a platoon of Hybrids was delivered to the Fourth Ceti Hussars on Mendham. Within a month, the Taurian Concordat launched a raid on the planet and met the Hussars in a rather straight-up battle. When the Hybrids made a charge toward the left end of the Taurian line, the Concordat commander shifted assets in that direction, allowing the Davions to push the middle and split the line. The Hybrids reversed to the middle of the line, hit their superchargers, and rocketed into the Taurian rear. Over the next three days, they disrupted troop movements, destroyed supplies and even mounted an attack on a grounded DropShip. Their actions never let the Taurians settle into a battle plan, and eventually the chaos caused them to retreat. Three of the four Hybrids survived.

FULCRUM HYBRID

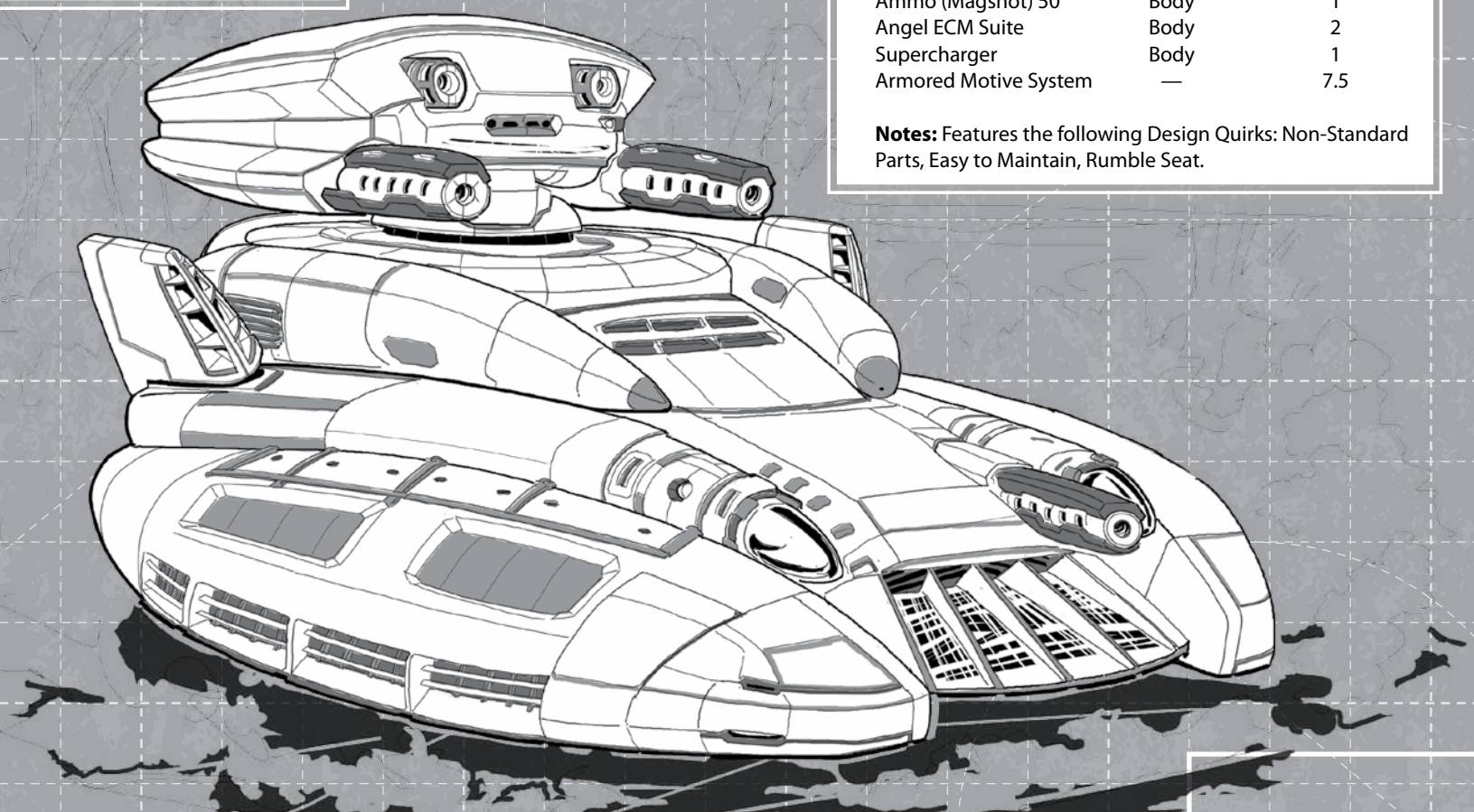
Type: **Fulcrum Hybrid**
Technology Base: Mixed Inner Sphere (Advanced)
Movement Type: Hover
Tonnage: 50
Battle Value: 1,543

Equipment		Mass
Internal Structure:		5
Engine:	165	10
Type:	Fusion	
Cruise MP:	8	
Flank MP:	12 (16)	
Heat Sinks:	10	0
Control Equipment:		2.5
Lift Equipment:		5

Equipment		Mass
Power Amplifier:		0
Turret:		.5
Armor Factor (Reactive):	160	10
	Armor Value	
Front	40	
R/L Side	30/30	
Rear	30	
Turret	30	

Weapons and Ammo	Location	Tonnage
2 Medium Pulse Lasers (C)	Turret	4
2 Magshot Gauss Rifles	Turret	1
Magshot Gauss Rifle	Front	.5
Ammo (Magshot) 50	Body	1
Angel ECM Suite	Body	2
Supercharger	Body	1
Armored Motive System	—	7.5

Notes: Features the following Design Quirks: Non-Standard Parts, Easy to Maintain, Rumble Seat.



Medium Vehicles

Mass: 50 tons
Movement Type: Tracked
Power Plant: Arcturan Electric 250 Fuel Cell
Cruising Speed: 54 kph
Maximum Speed: 86 kph
Armor: Durallex Special Heavy Ferro-Fibrous with CASE
Armament:
1 Maxell Maximum Bombast Laser
2 Poland Main Model C Magshot Gauss Rifles
Manufacturer: Arcturan Arms
Primary Factory: Arcturus
Communications System: TharHes Muse 54-58K
Targeting and Tracking System: TharHes Mars-1

Overview

When the V-G7X Vedette was introduced in the 3070s it resembled a mini-Challenger. With a wide variety of weapons, it had just about every piece of advanced gear and equipment crammed into it. Dual turrets, a targeting computer, and even a supercharged engine made this once-mediocre and uninspired tank extremely potent and versatile. Those who fought against a G7X experienced rude shocks when its autocannon and bombast laser hit with deadly accuracy from a tracked vehicle going over a hundred kilometers per hour.

While effective in combat, very few were interested in purchasing it. When doing customer surveys of those turning away from it, Arcturan Arms found the sole reason many would not buy it: too high-priced. Customers during and after the Jihad needed quantity to replace losses. It remained a constant, whether the unit in question was obsolete, inferior or as technologically-advanced as possible.

Realizing the error in their ways, Arcturan Arms went back to the drawing board with a back-to-basics mentality and came back with a vastly different version in 3084.

Capabilities

So much of the V-G7X was stripped out after commencing production that some observers wondered if this was a brand new design rather than a rework. Only a handful of the equipment mounted on the original remains, and its appearance is vastly difference from the original release.

The fuel cell engine was the cause of most of the change. A vastly cheaper alternative to the supercharged extralight engine the G7X had, it caused only a slight increase in weight. However, the lack of integral heat dissipation was a bigger issue, since Acturan Arms insisted on keeping the bombast laser as the primary armament. The secondary turret and its equipment was stripped, as well as another expensive feature: the advanced targeting computer. Many detractors claim that much of this equipment could have been kept if it the bombast laser taken out instead of the autocannon, but Arcturan Arms executives insisted that the potent energy weapon be kept.

Defensively, Arcturan Arms decided that heavy ferro-fibrous would be a desired alternative to the sometimes-useful reactive armor. Though impressive against incoming ballistic and missile weapons, the price tag and volatile nature of the reactive armor was another reason for the lack of sales. Its dual Magshots were kept, as they proved too valuable to the design as anti-battle armor weapons. The net result of all these changes was a bare-bones tank more like the original Vedette.

Deployment

The V7 has seen a lot of sales to mercenaries, who feel the Vedette's price tag is finally more reasonable for a design that was traditionally bought dozens at a time. It basic setup, with better armor and an ammo-independent main weapon, seems to be what the mercenary-based customers desire.

A few dozen of the pricier V-G7X models are still in use, mainly by the frontline forces of the Lyran Commonwealth. With sufficient funds to purchase them, even House Steiner's procurement division balked at the price when in two months' time several vehicle regiments requested a total of two battalions' worth.

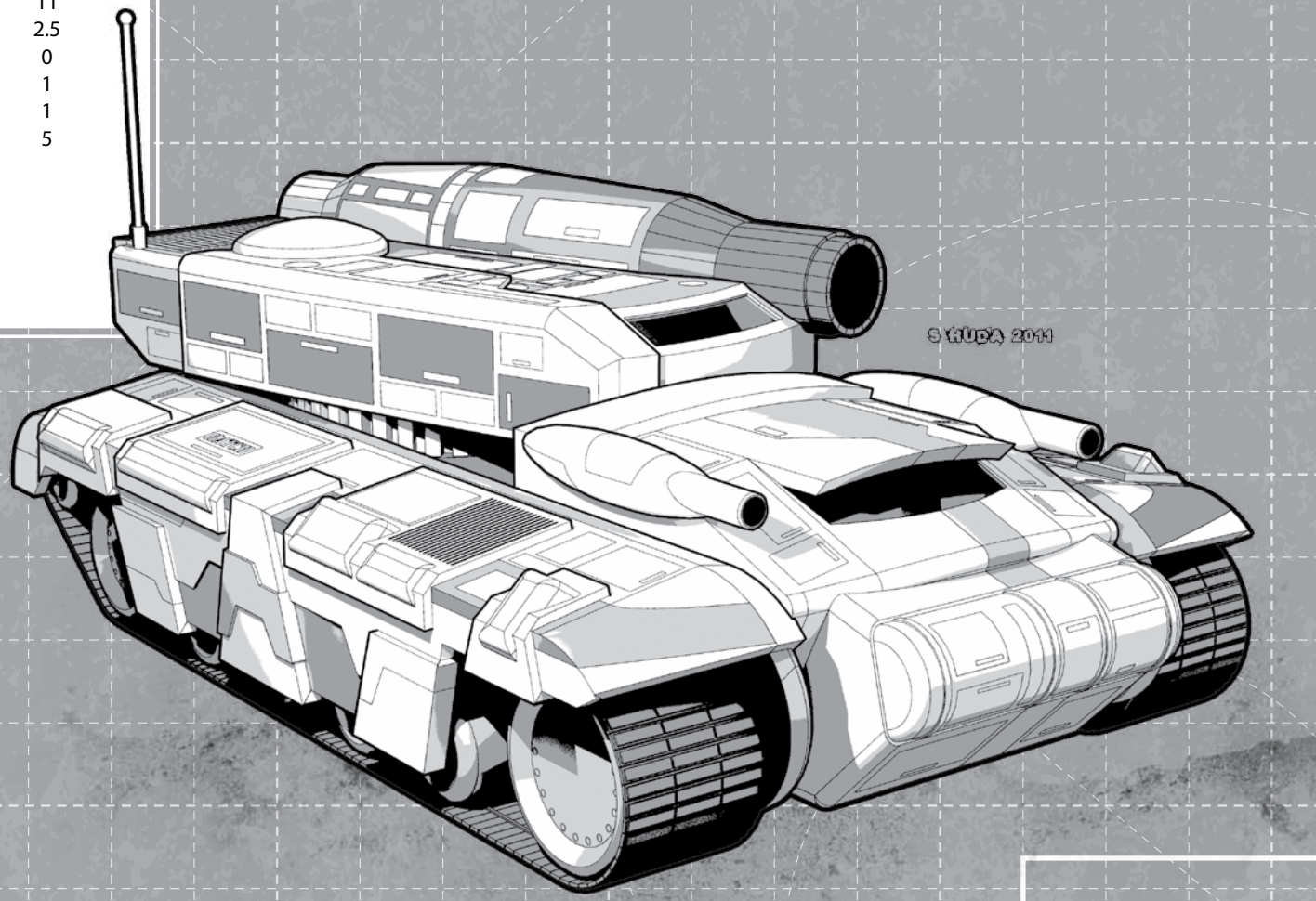
VEDETTE V7

Type: **Vedette V7 Medium Tank**
Technology Base: Inner sphere (Advanced)
Movement Type: Tracked
Tonnage: 50
Battle Value: 599

Equipment		**Mass**
Internal Structure:		5
Engine:	250	15
Type:	Fuel Cell	
Cruise MP:	5	
Flank MP:	8	
Heat Sinks:	12	11
Control Equipment:		2.5
Lift Equipment:		0
Power Amplifier:		1
Turret:		1
Armor Factor (Heavy Ferro):	99	5
	Armor Value	
Front	22	
R/L Side	20/20	
Rear	19	
Turret	18	

Weapons and Ammo	**Location**	**Tonnage**
Bombast Laser	Turret	7
2 Magshot Gauss Rifles	Front	1
Ammo (Magshot) 50	Body	1
CASE	Body	.5

Notes: Features the following Design Quirks: Poor Workmanship, Trailer Hitch.



Heavy Vehicles

Mass: 60 tons
Movement Type: Tracked
Power Plant: Ceres 240 Fuel Cell
Cruising Speed: 43 kph
Maximum Speed: 65 kph
Armor: Ceres Nemean Hardened
Armament:
1 Ceres Arms Model Z Hyper-Velocity Autocannon/10
1 Sian/Ceres Stalking Cougar Streak SRM 6
Manufacturer: Ceres Metals Industries
Primary Factory: Menke
Communications System: CeresCom Model 37-P
Targeting and Tracking System: Ceres Maladev 3

Overview

The development of the Po is widely regarded as a serendipitous moment in Confederation history; it was the right vehicle at the right price at the right moment in time. Designed and rushed into production immediately following the Fourth Succession War, the Po was cheap, durable, and easily producible in large numbers by even the most basic of Capellan factories. Most importantly, it was effective. Its turret-mounted autocannon had enough punch to destroy lighter opponents and damage heavier ones.

Usually deployed in full lances, a popular tactic was for all four tanks to attack the most dangerous opponent, destroy it, and work their way down. Yet for a tank with decades of proven service behind it, the Po has seen few manufacturer-approved variants. Most military analysts believe this lack of change in the Po stems from a mantra in the CCAF: if it works, don't touch it.

Capabilities

The hyper-velocity (HV) Po variant was designed based on a custom refit made by a Concordat technician deployed against the Federated Suns. Employing a prototype hyper-velocity autocannon in place of the original main gun, the vehicle could engage enemy forces at distances surpassing even an ER large laser. Giving a tank so common in the Confederation the ability to attack all but the most-distant enemies, CCAF authorities believed, would give their armor a distinct advantage in battle against their neighbors. In order to install the heavier autocannon, the original technician had replaced the standard internal combustion engine with a much lighter fusion plant. The CCAF reluctantly duplicated the swap on their prototypes, despite concerns about the significant increase in cost if the tank were to go into full production. Recognizing that the battlefield had changed in the decades since the Po's debut, engineers also used the mass freed up by the engine swap to replace the original machine guns with a brand-new Streak SRM 6 launcher. Though expensive, this was a price the CCAF easily accepted, recognizing that their main battle tank required a backup punch effective against 'Mechs, armor and battlesuits alike.

The most obvious external change, however, was the decision to install hardened armor on the Po (HV). The original technician used the thicker armor mainly as an experiment, as hardened armor remains scarce in his native Concordat. The CCAF, believing the large amount of smoke the HV autocannon generated would inhibit the Po's ability to hide, decided to duplicate this change as well, installing the heavy and bulky hardened armor on the design.

The first half-dozen prototype Po (HV)s were sent to combat testing on Menke, where they scored high in most categories except durability; because of the massive armor weight and the other changes, only half as much plate was installed. Though engineers claimed that this would provide an equal amount of protection to the standard Po, the armor crews let their concerns be noted in internal evaluations.

After combat testing on Menke the HV prototypes were branded deployment-ready and assigned to the Fourth MAC and the Fourth Tau Ceti Rangers for their assault on Hsien. During the vicious, three-way fighting in the streets of Hsien City, a lance of Fourth MAC Po (HV) s accounted for three light BattleMechs before they were destroyed. The pair assigned to the Fourth Tau Ceti Rangers participated in ambushing a Clan Hell's Horses Binary, the first known engagement between the CCAF and the distant Clan. Though the pair destroyed one Epona and damaged another, they were both destroyed.

The destruction of all six Po (HV) prototypes forced the CCAF to take a hard look at the level of armor on the new tank. Satisfied with the autocannon and SRM combo, they were at a loss until one engineer proposed the use of a combat-grade vehicle fuel cell engine instead of the shielded fusion plant. Installing a fuel cell allowed the engineers to save even more engine mass, and lowered the vehicle's price somewhat—a welcome bonus. The weight savings went into additional armor. Now content with the Po (HV)'s protection, the CCAF approved the tank into mainstream production.

Deployment

Due to difficulties in producing the hardened armor, the Po (HV) did not enter full production until 3079. Orders for the Po (HV), while steady, have been slow; with the original heavy tank serving since the Andurien invasion, most buyers have been content with its proven reliability and lower cost. As a result, the highest concentrations of the Po (HV) can be found among McCarron's Armored Cavalry, the Citizen's Honored brigade and the defensively-oriented Victoria Commonality Rangers.

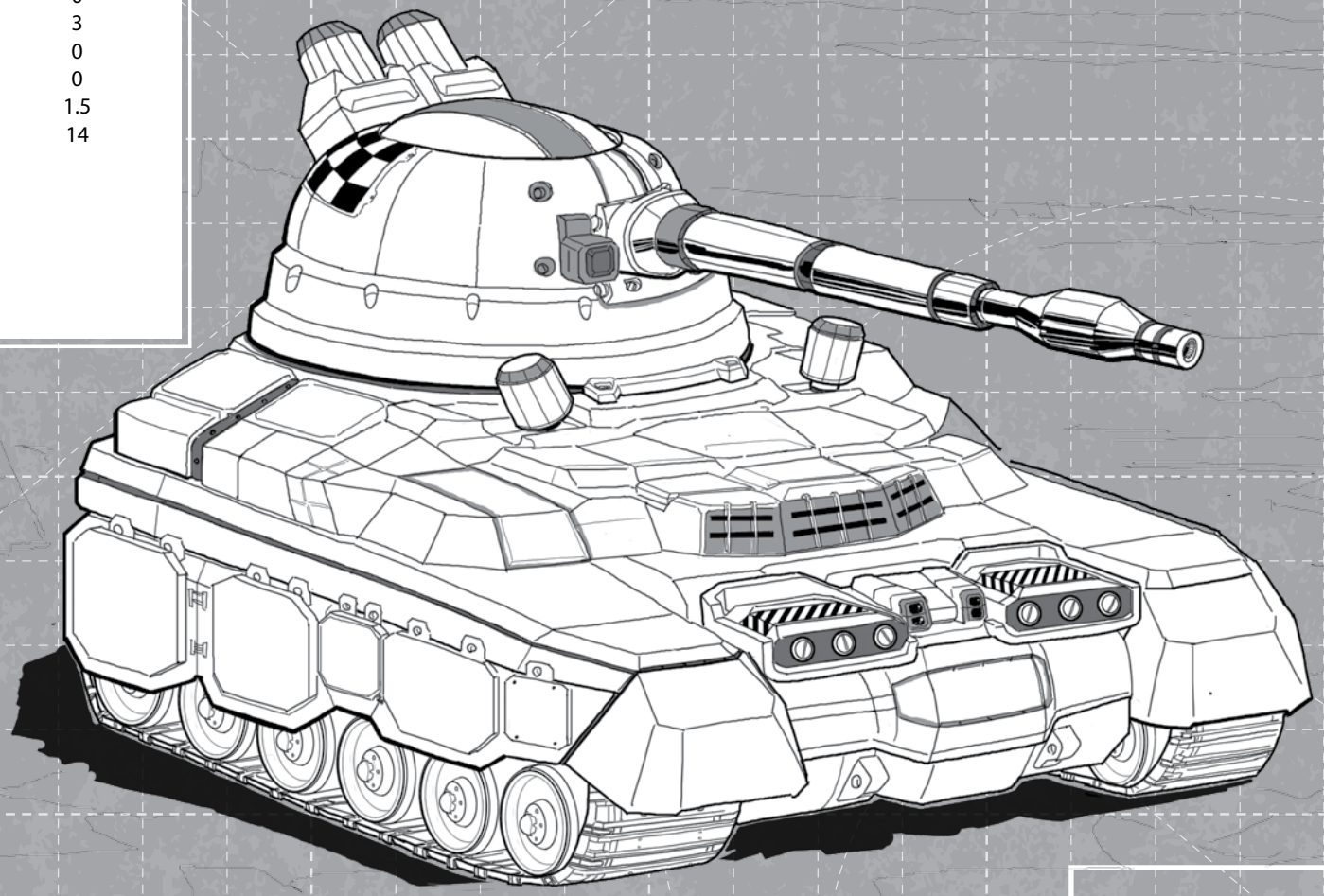
PO HEAVY TANK (HV)

Type: **Po Heavy Tank (HV)**
Technology Base: Inner Sphere (Advanced)
Movement Type: Tracked
Tonnage: 60
Battle Value: 1,021

Equipment		**Mass**
Internal Structure:		6
Engine:	240	14
Type:	Fuel Cell	
Cruise MP:	4	
Flank MP:	6	
Heat Sinks:	1	0
Control Equipment:		3
Lift Equipment:		0
Power Amplifier:		0
Turret:		1.5
Armor Factor (Hardened):	112	14
	Armor Value	
Front	25	
R/L Side	23/23	
Rear	20	
Turret	21	

Weapons and Ammo	**Location**	**Tonnage**
Hyper-Velocity AC/10	Turret	14
Ammo (HVAC) 16	Body	2
Streak SRM 6	Front	4.5
Ammo (Streak) 15	Body	1

Notes: Features the following Design Quirk: Poor Sealing, Easy to Maintain, Trailer Hitch, Rumble Seat.



THUMPER (ANGEL) ARTILLERY VEHICLE

Heavy Vehicles

Mass: 60 tons
Movement Type: Wheeled
Power Plant: Strand 220 Fuel Cell
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Armor: Durallex Heavy with CASE
Armament:
1 Edward Industries Thumper Artillery Piece
2 Hovertec SRM 2 Launchers
2 Voelkers 200 Machine Guns
Manufacturer: Brooks Incorporated
Primary Factory: Irian
Communications System: Irian E.A.R. 5 with Angel ECM Suite
Targeting and Tracking System: Irian FFE-9

Overview

This new Thumper model was first prototyped by the Maxwell Planetary Defense Consortium (MPDC) in the Tamarind District in 3080, one of a number of projects meant to enhance both Tamarind's defenses and its domestic military industry. The Thumper Maxwell took lessons from the debacle of the Galleon Maxwell, an overdesigned, overly-complicated IFV to considerably streamline the technology it utilized. By replacing the original Thumper's fusion engine with a fuel cell engine, eliminating the turret for the Thumper artillery piece and switching to a non-energy array of secondary weapons, the Thumper Maxwell prototype was a significant simplification of the Brooks Incorporated model that could be rapidly built on Maxwell. Or so it was thought.

Capabilities

The Thumper Angel is a production version of the Thumper Maxwell, with few changes except for off-the-shelf components rather than the experimental products of Tamarind's fledgling military industry.

The core of the Thumper is its namesake artillery piece, the Edward Industries Thumper Artillery Piece. The Thumper Angel has twice the ammunition capacity of Brooks' original Thumper, well protected by CASE. The blow-away panels of the CASE bin also may be deliberately opened for rapid reloading with ten-round cassettes by a handy WorkMech or crane.

Secondary weapons are somewhat lighter than the original Thumper, and now mounted on simplified sponsons rather than 360-degree turrets. Each sponson sports a twin-tube SRM launcher and a machine gun for dealing with light units that infiltrate past the escorts Tamarind doctrine dictates for its Thumpers. These weapons have often been derided as popguns, but without compromising another feature of the Thumper Angel no alternative is available. Its powerful ECM suite is considered a primary defense.

The Thumper Angel has a moderate off-road speed and good armor, heavier than the Brooks original due to the removal of the main turret.

Deployment

The Thumper Maxwell was never deployed as intended. The Angel ECM suite, its lone piece of advanced equipment, was never available in sufficient quantities from domestic Tamarind suppliers, who could not master the hardware or elaborate software of such an advanced electronic countermeasures system. Most Thumper Maxwells were shipped to Tamarind militias with Guardians.

Further, the Tamarind military procurement department was ill-experienced for the task of building Tamarind's military industry. It was used to buying from the open—and now shattered—Free Worlds military markets. The member of the Maxwell Defense Consortium awarded the task of building the Thumper self-propelled artillery vehicles was experienced at building heavy, robust ground vehicles—spaceport crawlers—but only in limited quantities. It built well, but slowly, and continually missed production targets. The Tamarind government was beginning to take action in the mid-3080s when a new problem arose.

When the Jihad came to an end and trade in the region formerly known as the Free Worlds League began to normalize, Brooks Incorporated took note of the unlicensed copy of its vehicle and filed suit in Tamarind courts. The Tamarind military and MPDC were ready for this, and used a "national security matter" defense to quickly reject the legal assault. Brooks responded by utilizing its interstellar economic clout to begin embargoing the products of MPDC members in other ex-FWL states. This brought MPDC and Tamarind back to the negotiating table.

Recognizing that generosity with Tamarind might open doors elsewhere, Brooks Incorporated demanded only token monetary compensation and recognition of its license to the Thumper. In addition, Brooks offered to begin building the MPDC Thumper variant immediately in its Irian facility and bypass both the ECM and factory bottlenecks encountered by Tamarind. Brooks accepted the Tamarind counteroffer and construction of the Thumper Angel commenced on Irian in 3089. Brooks would also aid Tamarind in the construction of factories for the Thumper chassis and Angel ECM suite—at Tamarind's expense. Whether Tamarind funded the project with taxes and/or breach-of-contract penalties from MPDC did not matter to Brooks.

The first platoons of Thumper Angels were deployed to Tamarind planetary militias in 3090, with companies more to come. The unit was functionally identical to the Thumper Maxwell deployed in small numbers since 3080, and Brooks has boosted profits by selling to the RAF as well as Tamarind. Brooks is not limiting sales, though, and is soliciting clients from around the Inner Sphere.

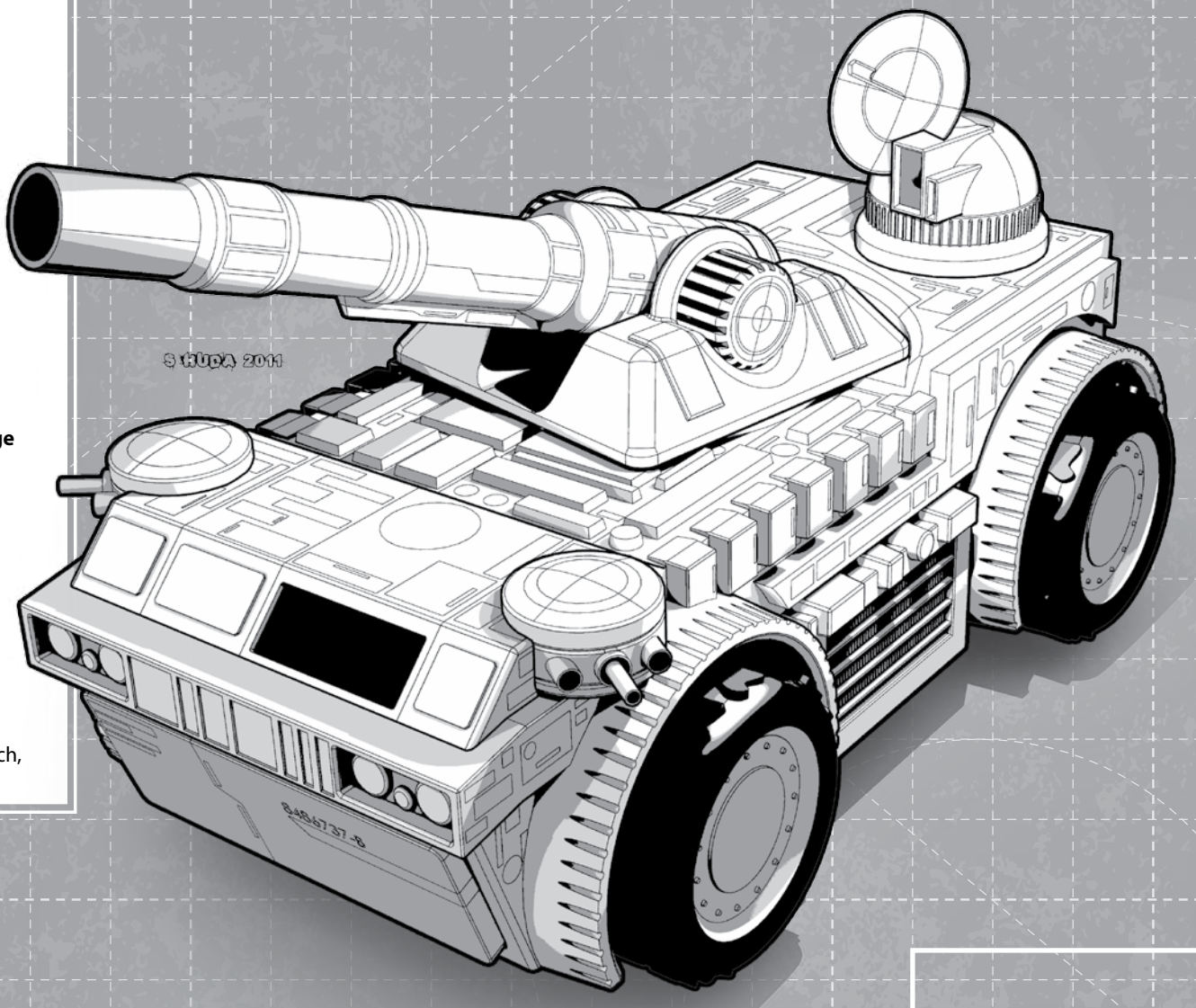
THUMPER (ANGEL) ARTILLERY VEHICLE

Type: **Thumper (Angel) Artillery Vehicle**
Technology Base: Inner Sphere (Advanced)
Movement Type: Wheeled
Tonnage: 60
Battle Value: 758

Equipment		**Mass**
Internal Structure:		6
Engine:	220	12
Type:	Fuel Cell	
Cruise MP:	4	
Flank MP:	6	
Heat Sinks:	1	0
Control Equipment:		3
Lift Equipment:		0
Power Amplifier:		0
Sponson Turrets:		.5
Armor Factor:	192	12
	Armor Value	
Front	60	
R/L Side	48/48	
Rear	36	

Weapons and Ammo	**Location**	**Tonnage**
Thumper Artillery	Front	15
Ammo (Thumper) 80	Body	4
SRM 2	Right Sponson	1
Machine Gun	Right Sponson	.5
SRM 2	Left Sponson	1
Machine Gun	Left Sponson	.5
Ammo (SRM) 50	Body	1
Ammo (MG) 200	Body	1
Angel ECM Suite	Body	2
CASE	Body	.5

Notes: Features the following Design Quirks: Trailer Hitch, Rumble Seat.



Heavy Vehicles

Mass: 65 tons
Movement Type: Tracked
Power Plant: Edasich Motors 195 Fusion
Cruising Speed: 32 kph
Maximum Speed: 54 kph
Armor: Durallex Special Heavy Ferro-Fibrous
Armament:
1 Kingston Long Tom Artillery Cannon
1 Coventry Starscream Thunderbolt 5 Missile Launcher
2 Defiance Model XII Extended Range Medium Lasers
Manufacturer: Defiance Industries
Primary Factory: Hesperus II
Communications System: TharHes Muse 54-58K
Targeting and Tracking System: TharHes Mars 5

Overview

Many schoolchildren see pictures of tanks firing single projectiles at one another. This was only prevalent for a short period in the history of armored vehicles, though it is starting to return in a small way with the prevalence of the Gauss rifle. The Rommel Howitzer is the most modern equivalent to those ancient machines, though it's even more devastating than those tankers could have imagined.

Capabilities

With the same chassis as the now half-century-old Rommel, at first glance one wouldn't notice the difference. Same basic shape: one cannon, missile launcher, both in the turret. There is an extra laser on the front, and the other weapons look a little different. Once in action, however, the Rommel Howitzer's opponents will sit up and take notice. Despite mounting a fusion engine, the production model is slower than its predecessors, a bit of a step back to the Von Luckners and Brutuses the Rommel distinguished itself from. This move was obviously made after the initial prototypes' price tags were added to the picture, with the extralight engine exceedingly pricey. There were discussions about a light engine, but in the end a slightly-slower version was more acceptable than a total redesign.

Much like those older tanks, the big gun is what the enemy needs to be aware of on the Rommel Howitzer. Not merely capable of destroying a lightly armored vehicle in one swift blow, the high explosive shells for the Kingston Long Tom Cannon can affect nearly a fifty meter radius. While devastating to opponents, it is especially lethal to battle armor. Three tons of ammunition is a ton less than the prototype, but still plentiful, though it doesn't allow the production model to take advantage of the wide selection of ammunition that the Long Tom is capable of delivering. It retains a greater strategic flexibility than tanks or 'Mechs armed with other weapons, providing a solution for a great many problems facing the modern commander.

For additional reach, a small Thunderbolt launcher replaces the five-tube missile launcher. While the range is a bit shorter than a standard five-pack, one Thunderbolt missile hits as hard as five LRMs. Technicians have been very appreciative of the Thunderbolt, since it requires less maintenance than a LRM launcher. The pair of lasers offer close-in support and don't require additional cooling, thanks to the fusion engine. While the armor had to be reduced slightly from the prototype, it is still an improvement over previous Rommels, utilizing Durallex heavy ferro-fibrous. It is bulkier but does not hamper the tank's movement. The coverage is especially better in the rear, earning the Rommel Howitzer some derision despite the improvement.

That was not where the criticism ended. While simulators hardly noticed the loss of the machine guns that followed the upgrade to a Gauss rifle, the Rommel crews certainly did. Close-range infantry support is gone. In fact, with the danger of the tank damaging itself with point blank cannon fire, infantry forces have every incentive to close in as the lasers lack the ability to lay down effective suppression fire. On the other end, members of the command staff worry that tank crews may not be as familiar with area effect, leading to a greater incidence of friendly fire. Individuals crewing Rommel Howitzers ignorantly scoff at that assessment. Missed Gauss rounds rarely hit other fighting forces, but even trained artillery crews can damage unintended targets on today's battlefield.

Deployment

The first distribution of the Rommel Howitzer has been to the Lyran Guards, with the Fourteenth being the first to receive them. The Royal Guards and Arcturan Guards are next in line, but it is not known where or if this Rommel will be delivered to other units in the LCAF. Foreign sales, at this time, are an even greater mystery.

ROMMEL HOWITZER

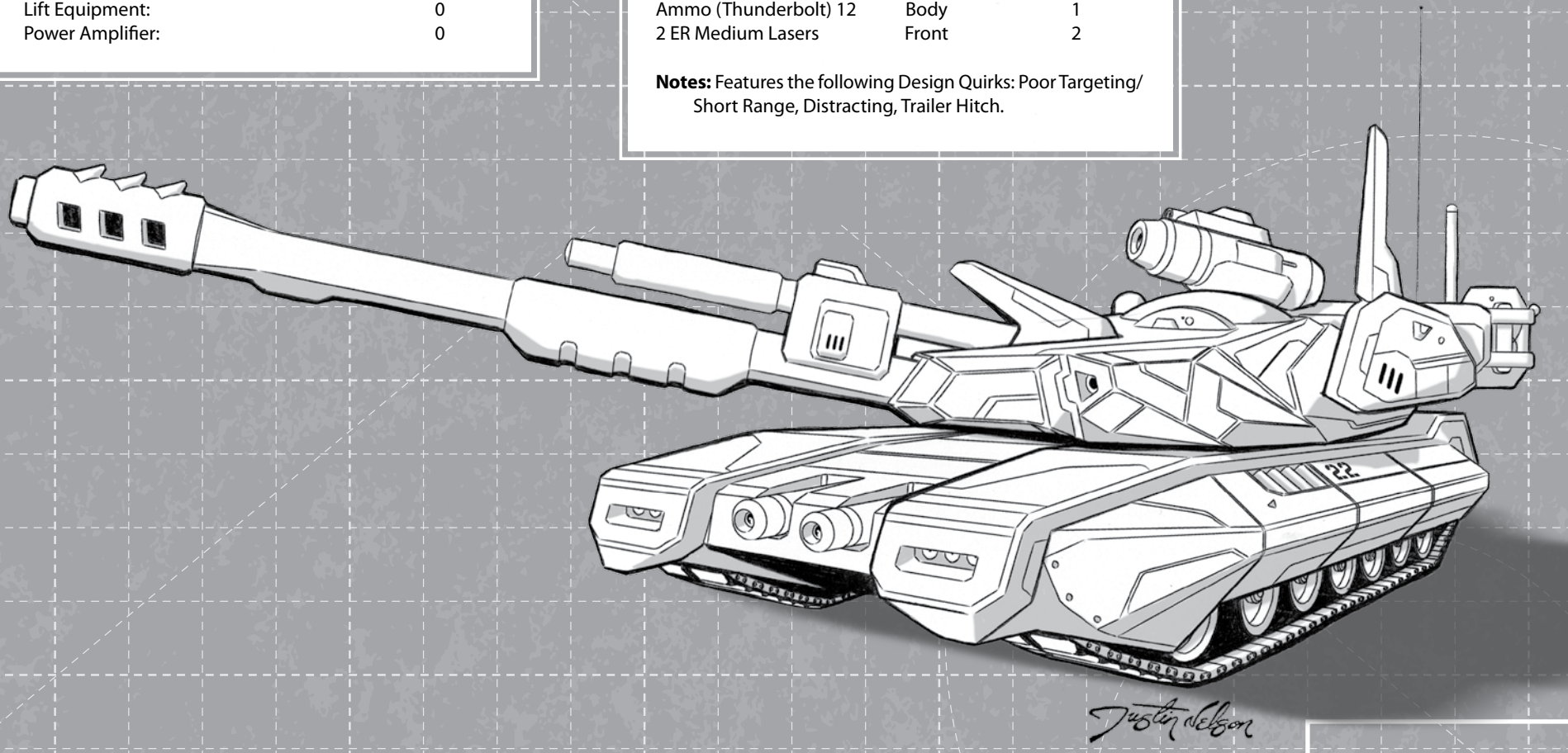
Type: **Rommel Howitzer**
Technology Base: Inner Sphere (Advanced)
Movement Type: Tracked
Tonnage: 65
Battle Value: 1,353

Equipment		**Mass**
Internal Structure:		6.5
Engine:	195	12
Type:	Fusion	
Cruise MP:	3	
Flank MP:	5	
Heat Sinks:	10	0
Control Equipment:		3.5
Lift Equipment:		0
Power Amplifier:		0

Equipment		**Mass**
Turret:		2.5
Armor Factor (Heavy Ferro):	228	11.5
	Armor Value	
Front	48	
R/L Side	47/47	
Rear	46	
Turret	40	

Weapons and Ammo	**Location**	**Tonnage**
Long Tom Artillery Cannon	Turret	20
Ammo (Cannon) 15	Body	3
Thunderbolt 5	Turret	3
Ammo (Thunderbolt) 12	Body	1
2 ER Medium Lasers	Front	2

Notes: Features the following Design Quirks: Poor Targeting/ Short Range, Distracting, Trailer Hitch.



Assault Vehicles

Mass: 80 tons
Movement Type: Tracked
Power Plant: JES 240 Fuel Cell
Cruising Speed: 32 kph
Maximum Speed: 54 kph
Armor: Johnston Bastion Plate 530 Hardened
Armament:
4 Delta Dart II Enhanced LRM 15 Launchers
Manufacturer: Joint Equipment Systems, Johnston Industries
Primary Factory: Benet III
Communications System: O/P R Janxiir
Targeting and Tracking System: FireScan with IndirecTrack

Overview

The LRM Carrier has seen many revisions in the centuries since its introduction, though none so radical as the Magistracy of Canopus's Heavy LRM Carrier. During the height of the Blakist Jihad, Johnston Industries began an ambitious field refit project based on the Magistracy variant in hopes of providing Allied forces a much-needed edge against Blakist technology. That project ultimately became the Heavy NLRM Carrier.

Capabilities

First produced in Johnston's newest factory on Benet III, the Carrier sports the most advanced LRM technology currently available in the Inner Sphere. Four Delta Dart II enhanced missile launchers fill the Carrier's turret. Advanced arming circuitry and other classified improvements provide a missile that is hot within one second of launch, or roughly ninety meters after leaving the launcher. Although Inner Sphere technology has yet to match the near-instant arming of Clan LRM launchers, the Delta Dart II is a significant step toward closing the gap. Further, it eliminates high speed closing maneuvers to get inside the range of LRM units. Unfortunately, the Delta Dart II is almost thirty percent heavier than the standard Delta Dart, and the increased weight of the launch mechanism forced designers to reduce the Heavy LRM Carrier's payload by twenty tubes, giving the NLRM Carrier only three-fourths of its predecessor's firepower. Additional weight concerns reduced ammunition capacity to eight salvos per launcher, or about 500 missiles; a fifty-percent reduction from the Heavy LRM Carrier.

Aside from ammo consumption, the only other complaint gaining traction pertains to the O/P R Janxiir. The communications system is maintenance-intensive and vulnerable to EM interference. Three field upgrade kits have been issued to date, along with five service bulletins. Although the latest update appears to have resolved the problem, only one-fifth of Carriers have received it. Without the update, Carriers operating closer than 200 meters to an active EM source suffer from distorted and occasionally interrupted communications.

Hunter-killer units accustomed to the lightly-armored Magistracy and standard carriers will find an unpleasant surprise in the NLRM Carrier. Where those units often succumbed to two well-placed PPC shots, this eighty-ton beast will take them and smile. Ten tons of armor protect the Carrier, and if it were only the standard armor plating of its predecessors, it still would be a 100% increase in protection. However, Johnston learned from their success with Facility A and incorporated new armor fabrication technology in their Benet III plant. The NLRM Carrier features Johnston Bastion Plate armor. The hardened armor is significantly more robust than traditional amor, and the Carrier can easily withstand two heavy PPC shots on any armor facing. The Bastion Plate is slightly more vulnerable to cluster munitions and other scattershot weapons, and makes maneuvering more difficult, but both are acceptable trades for a more robust fire-support vehicle.

Had the Carrier gone into production solely with Johnston, it may well have sported an extralight fusion engine and an exorbitant price tag. Instead, Johnston partnered with JES on the design to produce an affordable fire-support platform. A reciprocal licensing agreement allowed JES to acquire Johnston's Bastion Plate, and requires that only JES-produced 240 fuel cell engines power the vehicle. The economical power plant gives the Carrier a top speed of 54 kph.

Deployment

JES is currently negotiating to build an assembly plant on Filtvelt. Part of the deal will require the use of Filtvelt-produced fuel cell engines instead of the JES-produced engine for all units assembled there. Additional brinkmanship has led to peculiar sales agreements between JES, Johnston and their customers. The Carrier is available for purchase only in the Federated Suns and Filtvelt Coalition. Although both customers may procure the unit from either manufacturer, Johnston clearly intends to own the AFFS market when they finish decontamination and reconstruction operations at their New Syrtis facilities. Best estimates place completion of that work in the fourth quarter of '91, barring any other setbacks.

The Suns and Filtvelt have both purchased significant numbers of the Carrier. The NLRM Carrier has made its way into over half of the AFFS line regiments assigned to border worlds, while Filtvelt has concentrated their assets.

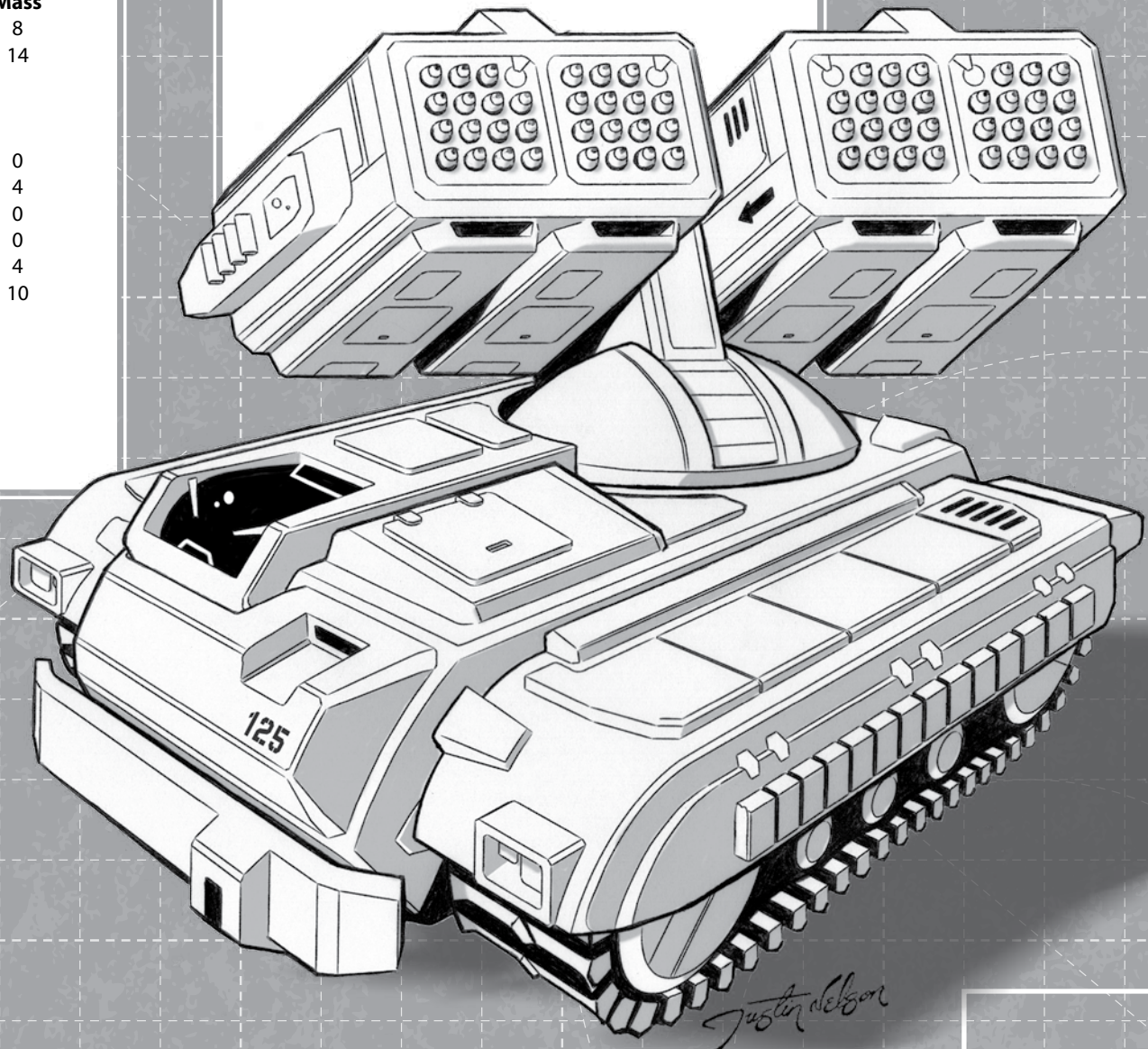
HEAVY NLRM CARRIER

Type: **Heavy NLRM Carrier**
Technology Base: Inner Sphere (Advanced)
Movement Type: Tracked
Tonnage: 80
Battle Value: 1,245

Equipment		**Mass**
Internal Structure:		8
Engine:	240	14
Type:	Fuel Cell	
Cruise MP:	3	
Flank MP:	5	
Heat Sinks:	1	0
Control Equipment:		4
Lift Equipment:		0
Power Amplifier:		0
Turret		4
Armor Factor (Hardened):	80	10
	Armor Value	
Front	17	
R/L Side	16/16	
Rear	14	
Turret	17	

Weapons and Ammo	**Location**	**Tonnage**
4 Enhanced LRM 15	Turret	36
Ammo (NLRM) 48	Body	4

Notes: Features the following Design Quirk: Difficult to Maintain, Trailer Hitch.



Assault Vehicles

Mass: 90 tons
Movement Type: Tracked
Power Plant: GM Powercell 270 Fuel Cell
Cruising Speed: 32 kph
Maximum Speed: 54 kph
Armor: Valiant Plate Heavy Ferro-Fibrous
Armament:
1 Poland Main Model A Gauss Rifle
1 Poland Main Model X Silver Bullet Gauss Rifle
4 Federated-Barret Magshot Gauss Rifles
Manufacturer: General Motors
Primary Factory: Salem
Communications System: Wunderland XXXV-2 Series
Targeting and Tracking System: Sync-Tracker (4034-A30)

Overview

As the Clan Invasion raged Kallon Industries and General Motors teamed up to develop a new combat vehicle, one which would "challenge the BattleMech's position as king of the battlefield." In the decades since, the Challenger Main Battle Tank has done just that, meeting and defeating 'Mechs in head-to-head combat from the Taurian border to the Clan homeworlds. While the BattleMech remains without equal, the Challenger has shown that a sufficiently-sophisticated tracked combat vehicle can challenge all but the largest and most powerful BattleMechs on even terms. Inspired by the Challenger, the already armor-friendly AFFS developed additional high-tech tracked combat vehicles, ultimately leading to the powerful heavy armor formations of today's Davion forces.

If anything, the Jihad only further exalted the position of armor within the AFFS. Battle tank factories escaped much of the destruction heaped upon BattleMech manufacturers, leaving Davion armor formations well equipped with powerful tanks whilst 'Mech units struggled to even get serviceable equipment.

In many confrontations during Operation SCOUR, lighter Davion 'Mech forces were forced to fall back only to have their heavy tank forces come forward and shatter the Blakists who opposed them. Morale is riding high in many Federated Suns armor units, and armor crews across the Crucis Reach are boasting that the tank has eclipsed the 'Mech as the force of decision on the modern battlefield. While those in higher echelons see such boasts for the hollow bravado they are, there's no denying that the modern heavy tank has become a force to be reckoned with and that only means one thing—the AFFS needs more Challenger tanks.

Capabilities

Many would say that the biggest weakness of the Challenger is not on the battlefield, but its price tag. While easier to build and maintain, the Challenger's initial cost is higher than that of many 'Mechs. With the Federated Suns' economy pummeled by the Jihad, AFFS procurement was beginning to balk at purchasing such incredibly costly machines. When GM presented their prototype Mk. XVc Challenger to the AFFS, they were politely told they might "…be better off researching how to grow a money tree than continuing in the direction [they were] headed…". While commanders in the field were clamoring for more heavy tanks, the treasury was interested in how they could reduce expenses. They were certainly not interested in some XXL engine monstrosity.

GM was directed to instead develop a cheaper alternative to existing Challenger variants, one that the Federated Suns could afford to issue to every unit in the AFFS. Already heavily invested in their Mk. XV project, GM went back to the drawing board, looking for ways to bring down the cost. It was quickly determined that replacing the expensive double-extralight fusion engine with a new fuel cell model would drop the cost of the vehicle to easily-affordable levels, but doing so would require the removal of other equipment.

Reviewing field tests by the Davion Heavy Guards, it was determined that the prototype's Thunderbolt missile launcher was its least-essential weapon system. Its poor firing arc and arming delay meant it was typically only fired while the tank was not directly engaged in combat, a role easily assumed by accompanying missile carriers. The resulting design is a literal "Gauss boat," with all six of the vehicle's weapons firing electromagnetically-propelled rounds. Removal of the Thunderbolt also freed up space for more armor and ammunition.

Deployment

The AFFS reacted enthusiastically to General Motors' newer, more affordable MBT. Mk. XVs have proliferated throughout the March Militias and can be found in some numbers in the First Federated Suns Lancers and Avalon Hussars. Units which were previously too far down the supply chain to receive this class of heavy tank have fallen in love with the Mk. XV, its high-tech appearance and solid design.

Variants

Kallon Industries' Kirklin plant continues to produce the Mk. XI and Mk. XII for use by the AFFS' elite formations, for whom nothing but the best is acceptable. With Kallon fulfilling the AFFS' needs for high-end Challenger production, GM's two plants have switched to providing the more plentiful Mk. XV.

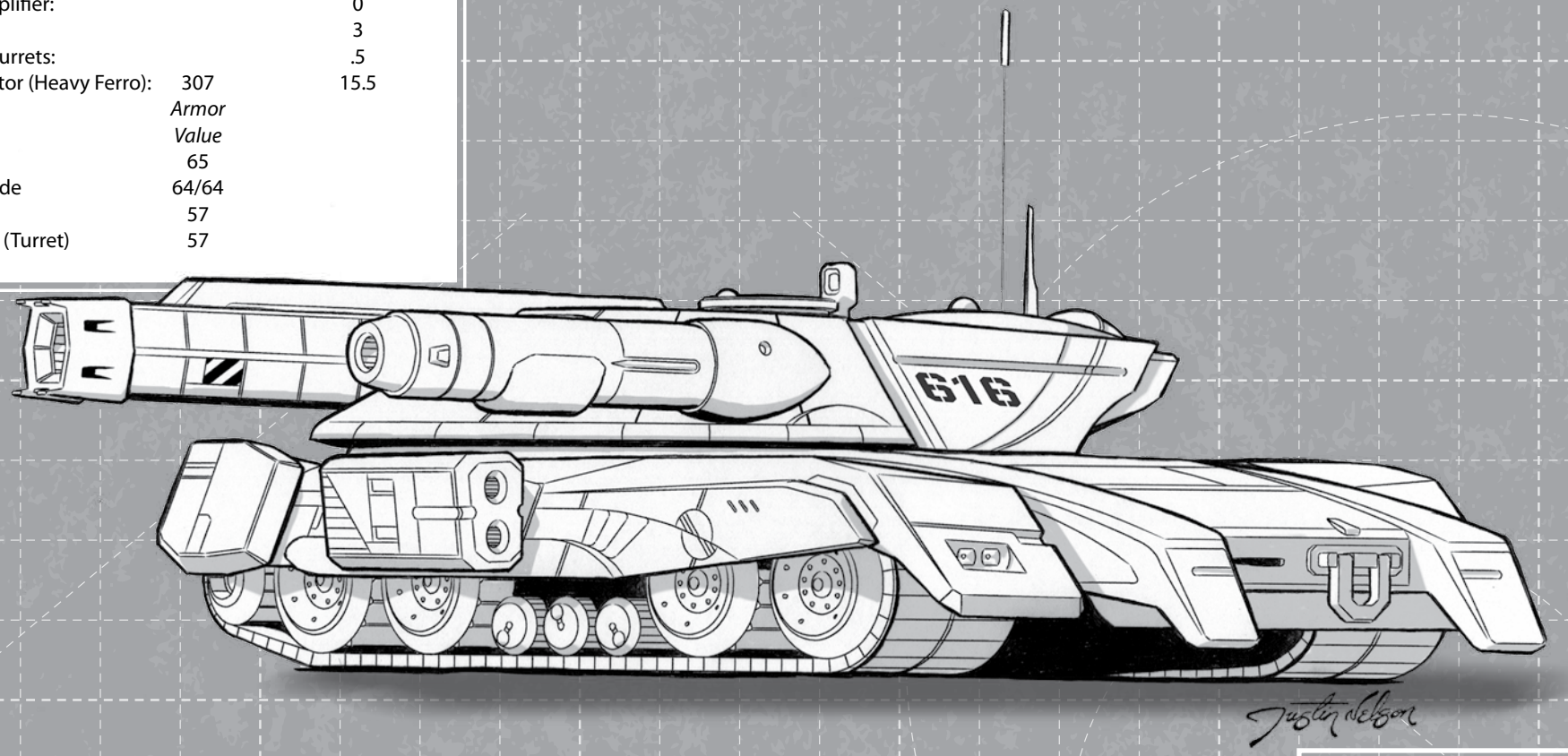
CHALLENGER MK. XV

Type: **Challenger XV**
Technology Base: Inner Sphere (Advanced)
Movement Type: Tracked
Tonnage: 90
Battle Value: 1,724

Equipment		**Mass**
Internal Structure:		9
Engine:	270	17.5
Type:	Fuel Cell	
Cruise MP:	3	
Flank MP:	5	
Heat Sinks:	1	0
Control Equipment:		4.5
Lift Equipment:		0
Power Amplifier:		0
Turret:		3
Sponson Turrets:		.5
Armor Factor (Heavy Ferro):	307	15.5
	Armor Value	
Front	65	
R/L Side	64/64	
Rear	57	
Rotor (Turret)	57	

Weapons and Ammo	**Location**	**Tonnage**
Gauss Rifle	Turret	15
Ammo (Gauss) 24	Body	3
Silver Bullet Gauss Rifle	Turret	15
Ammo (SB Gauss) 24	Body	3
2 Magshot Gauss Rifles	Right Sponson	1
2 Magshot Gauss Rifles	Left Sponson	1
Ammo (Magshot) 100	Body	2

Notes: Features the following Design Quirks: Poor Performance, Trailer Hitch, Rumble Seat.



Assault Vehicles

Mass: 95 tons
Movement Type: Tracked
Power Plant: Pitban 285 Fusion
Cruising Speed: 32 kph
Maximum Speed: 54 kph
Armor: Lexington Ltd. High Grade Ferro-Fibrous
Armament:
1 Diverse Optics Sunbeam Extended Range Large Laser
3 Magna Mk II Medium Lasers
1 Valiant Grand Arbalest Enhanced LRM 15 Launcher
Manufacturer: Quickscell
Primary Factory: Richvale
Communications System: Irian E.A.R.
Targeting and Tracking System: Wasat Aggressor

Overview

The staple of the Grumman Amalgamated production line, the Ontos heavy tank has seen many variations during its long history. The new HEAT (Hostile Environment Assault Tank) is the newest and most controversial version of the venerable armored vehicle. Despite claims of impropriety by Grumman Amalgamated, the Quickscell Company has begun to deliver this new design to the Lyran Commonwealth.

The crux of the controversy lies in the origin of the HEAT variant. While Grumman does license the manufacture of the Ontos to other corporations, they claim that no such agreement exists with Quickscell. They also claim that the Ontos-X, upon which the Ontos HEAT is based, was never licensed for production and that any research data on the design should therefore belong to Grumman.

Quickscell doesn't deny the licensing claim. They are willing to pay the licensing fees, but staunchly refuse to acknowledge the claim of Grumman's CEO Haydn Globin that the design constitutes "…a theft of intellectual property." They insist they acquired the design through perfectly legal means. Since the only known Ontos-X was stolen by its crew on Despair in 3072 Quickscell's claims seem dubious at best.

In truth, Quickscell's opportunistic development of the design is the real root cause of Grumman Amalgamated's distress. Shiro III, home of Grumman Amalgamated, also houses vast facilities once utilized by Irian BattleMechs Unlimited to produce their *Wasp* and *Stalker* designs. Before Devlin Stone's rescue of the faltering Irian BattleMechs Unlimited, Irian executives were scrambling to keep the company afloat. Needing cash badly, the company began to sell off stockpiles of equipment and components at drastically-reduced prices. Quickscell stepped in before Grumman could take advantage of the Irian fire sale, and purchased large quantities of various components at a fraction of their market value.

As news of the Quickscell coup spread through industrial circles, Grumman Amalgamated grew more and more irate. When Quickscell utilized many of those same components to produce the Ontos HEAT, Grumman saw what they viewed as a perfect opportunity to settle the score and launched a wave of lawsuits. Despite pending litigation, Quickscell continues to produce and sell the Ontos HEAT in growing numbers.

Capabilities

The primary feature of the Ontos HEAT is its ability to operate in hostile environments where most vehicles cannot. Equipped with a sealed and pressurized crew compartment, the Ontos HEAT is capable of operating in extreme temperatures, non-breathable atmospheres and even high and low pressure environments. The tank comes equipped with a full crew ejection pod.

The Lyran research variant, the Ontos-X, retained the octet of medium lasers that made the Ontos famous during the Succession Wars, but Quickscell didn't have enough medium lasers stockpiled to replicate such a payload in any significant quantity. By replacing five of the medium lasers on each tank with a Diverse Optics Sunbeam extended range large laser, Quickscell was able to both provide better ranged firepower and substantially reduce the quantities of medium lasers required at the production facility on Richvale.

The final addition was the enhanced long-range missile system. Quickscell had to track the original prototype launcher to its source, which turned out to be Valiant Systems in the Federated Suns. By partnering with Oriente Weapon Works, who had existing ties with Valiant, Quickscell was able to secure a limited but steady supply of the new weapon system.

Deployment

Wherever local environmental conditions are a primary concern, the Ontos HEAT is being deployed in small numbers as a test to its effectiveness. Notable postings to date include worlds heavily damaged during the Jihad, such as Hesperus II and Tharkad.

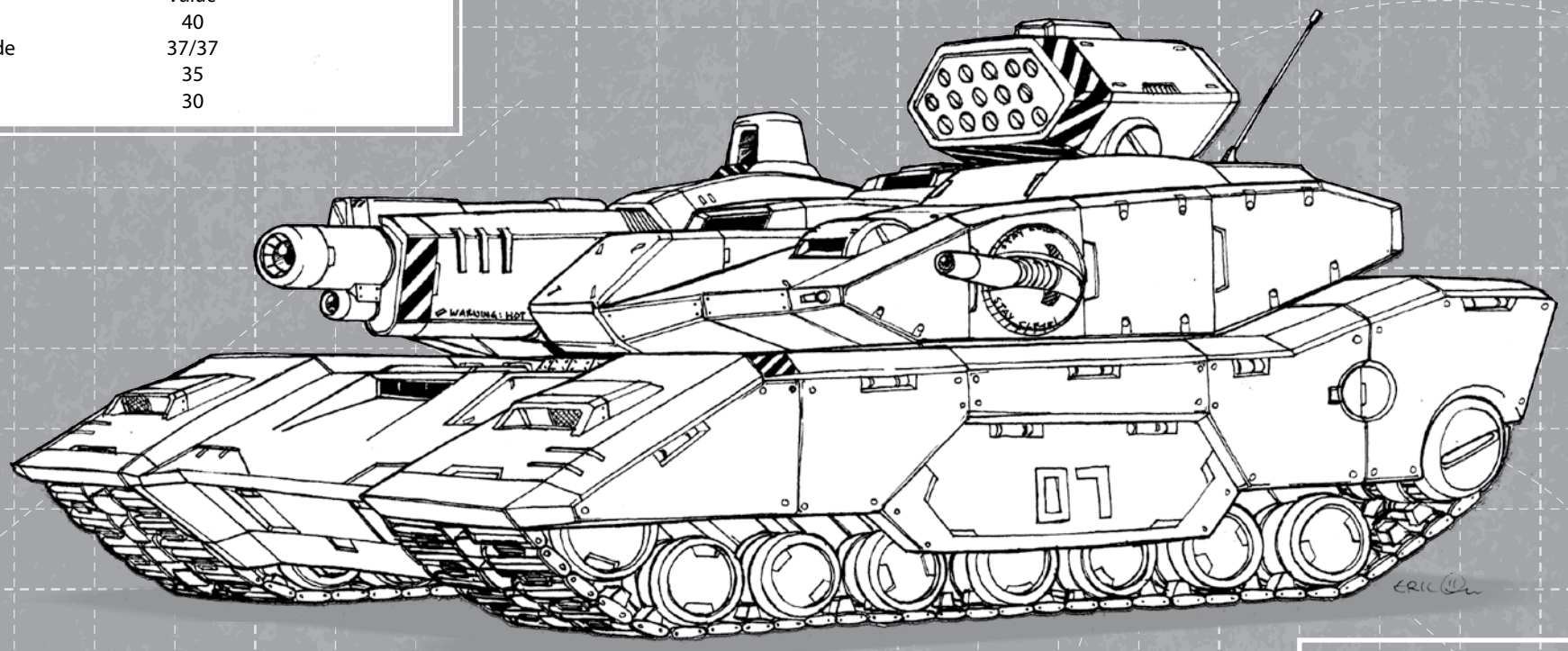
ONTOS HEAT

Type: **Ontos HEAT**
Technology Base: Inner Sphere (Advanced)
Movement Type: Tracked
Tonnage: 95
Battle Value: 1,173

Equipment		**Mass**
Internal Structure:		9.5
Engine:	285	25
Type:	Fusion	
Cruise MP:	3	
Flank MP:	5	
Heat Sinks:	21	11
Control Equipment:		5
Lift Equipment:		0
Power Amplifier:		0
Turret:		2
Armor Factor (Ferro):	179	10
	Armor Value	
Front	40	
R/L Side	37/37	
Rear	35	
Turret	30	

Weapons and Ammo	**Location**	**Tonnage**
ER Large Laser	Turret	5
3 Medium Lasers	Turret	3
Enhanced LRM 15	Turret	9
Ammo (NLRM) 16	Body	2
Combat Vehicle Escape Pod	Rear	4
Environmental Sealing	—	9.5

Notes: Features the following Design Quirks: Trailer Hitch, Rumble Seat.



Assault Vehicles

Mass: 150 tons
Movement Type: Tracked
Power Plant: Locom 300 Fuel Cell
Cruising Speed: 21 kph
Maximum Speed: 32 kph
Armor: StarSlab/7
Armament:
1 Excelsior I Cruise Missile/50 Launcher
2 Federated-Barrett Magshot Gauss Rifles
Manufacturer: Kallon Industries
Primary Factory: Kirklin
Communications System: JoLex Systems
Targeting and Tracking System: StratSight v.9

Overview

The cruise missile artillery developed in the 3060s showed much promise as a tactical weapon, but the Federated Commonwealth was unable to bring it to the battlefield. The massive launcher simply did not fit any common combat vehicles, and retrofitting DropShips likewise proved prohibitive. The potential rewards of being the first company to deploy the weapon system in a mobile application were vast, and Kallon Industries proved the winner of the race, but loser of the contest.

Their prototypes—named for the Hindu god Kalki—were little more than overburdened SturmFeur tanks mated with a small cruise missile launcher. These prototypes worked, but exhibited many crippling problems. The suspension systems were not up to the task of sustained movement supporting so much mass. The machine gun turret suffered serious failures. The tank's armor was weaker than it should have been, and the cruise missile launcher itself had to be replaced after not more than fifteen launches. Even then, Kallon supposedly lost several prototypes—along with their crews—due to catastrophic failures.

Kallon spun the project as a proof-of-concept success, and heavily reimbursed the families of the test crews, but the AFFS remained unconvinced. The Kalki's slow land speed prevented it from keeping up with most armor formations, and its ammunition endurance consisted of a single launch, tying the tactical launcher down. When other companies learned the true extent of the costs incurred by Kallon to win the race, they likewise dramatically reduced their own efforts.

Few things changed until the late 3070s, when Kallon came up for air and looked to find new revenue. It restarted its Kalki project, but this time redesigned the vehicle from the ground up. While saving time and reducing costs by utilizing many SturmFeur components, the chassis was redesigned and properly engineered to deal with the mass of its gear. A fuel cell power plant was used instead of fusion plant, and the original archaic machine guns were upgraded to Magshot weapons. Kallon proved unable to improve the Kalki's low land speed and internal ammunition difficulties, but did prove dramatically improve durability and reliability. This improved the Kalki's reception, and sales orders began coming in.

Capabilities

The Kalki brings a powerful and versatile weapon that can have a pivotal impact on the battlefield. Despite improved all-terrain mobility, the Kalki's low speed continues to inhibit its utility in a mobile artillery deployment, or one where the artillery attempts to remain in close proximity to a dynamic front line. Kallon's offer of a dedicated support vehicle to maintain a ready supply of missile reloads seems to have had a positive effect on Kalki deployment, in the sense of causing commanders to look at the Kalki in similar terms as they might the Long Tom artillery.

Officers usually had similar operational expectations of the cruise missile launcher that they had of Arrow IV-equipped vehicles. Once properly deployed, the Kalki's utility remains narrow. Without the prospect of a sustained barrage of cruise missiles, commanders keep waiting for the optimum moment to deploy the weapon, frequently not acting on good opportunities while they perpetually wait to find the perfect moment. This operational inefficiency appears difficult to change.

Deployment

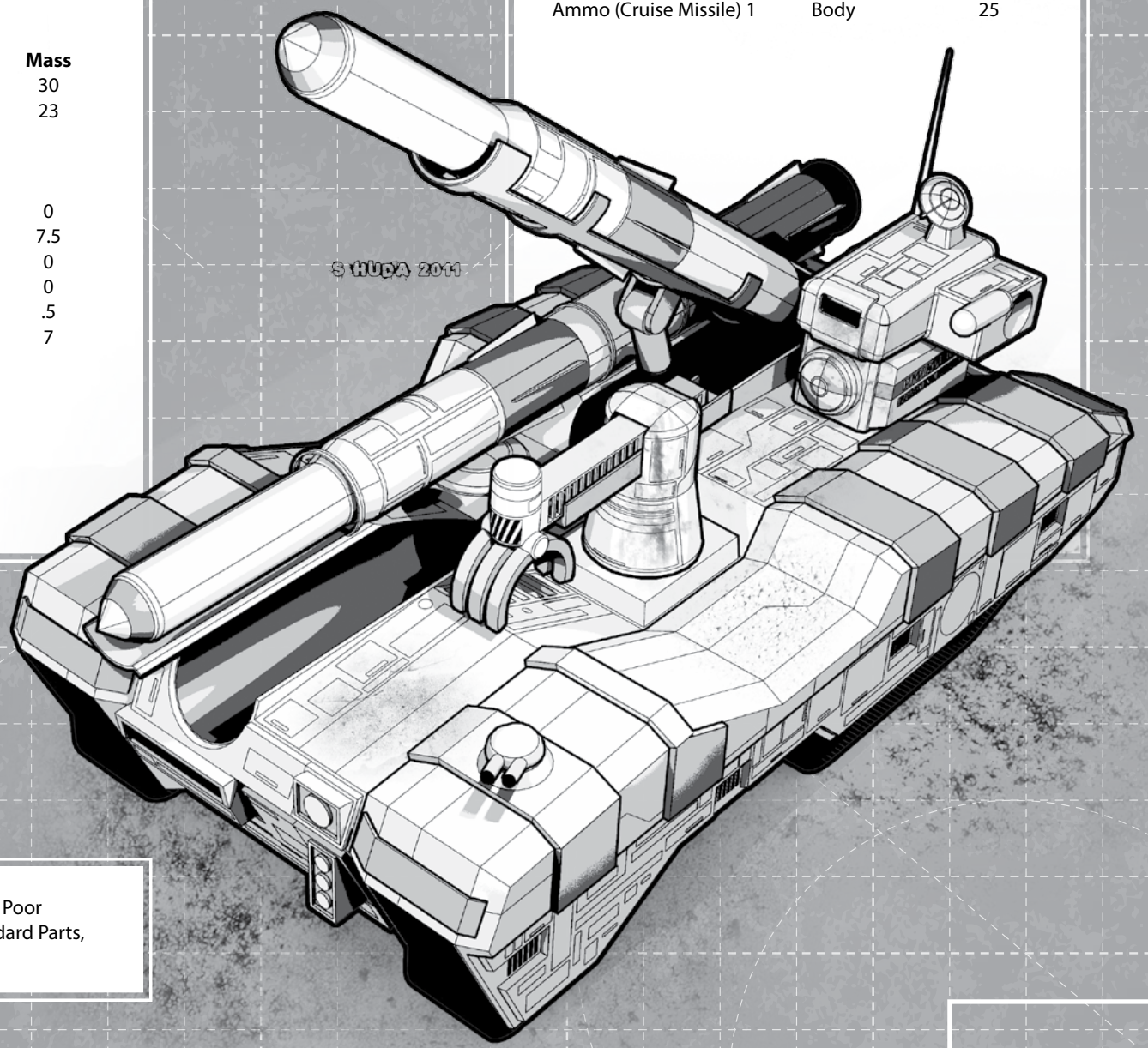
To date, the Kalki continues to exist solely in the employ of the Federated Suns, who have deployed them among their most premier units since accepting delivery in 3079. Its prime mercenary commands, especially the Illician Lancers and the Vegan Rangers, have been requesting procurement of the Excelsior I missile launchers as well, but so far the AFFS High Command has tightly restricted the Kalki's deployment.

KALKI CRUISE MISSILE LAUNCHER

Type: **Kalki Cruise Missile Launcher**
Technology Base: Inner Sphere (Experimental)
Chassis Type: Tracked
Tonnage: 150
Battle Value: 1,036

Equipment		**Mass**
Internal Structure:		30
Engine:	300	23
Type:	Fuel Cell	
Cruise MP:	2	
Flank MP:	3	
Heat Sinks:	1	0
Control Equipment:		7.5
Lift Equipment:		0
Power Amplifier:		0
Turret:		.5
Armor Factor:	112	7
	Armor Value	
Front	20	
Front R/L Side	16/16	
Rear R/L Side	16/16	
Rear	16	
Turret	12	

Weapons and Ammo	**Location**	**Tonnage**
2 Magshot Gauss Rifles	Turret	1
Ammo (Magshot) 50	Body	1
Cruise Missile/50	Front	55
Ammo (Cruise Missile) 1	Body	25



Notes: Features the following Design Quirks: Poor Performance, Difficult to Maintain, Non-Standard Parts, Distracting, Trailer Hitch.

NISHIKIGOI (KOI VARIANT)

Assault Vehicles

Mass: 240 tons
Movement Type: WiGE
Power Plant: Edasich-Shinobi Waverunner XIX
Cruising Speed: 54 kph
Maximum Speed: 86 kph (108 kph with Supercharger)
Armor: Chatham Kappa no Yoroi
Armament:
4 Telos ThunderShot Thunderbolt 10 Launchers
2 Chosatsugai no Kunai Anti-Missile Systems
Manufacturer: Wakazashi Enterprises
Primary Factory: Dover
Communications System: Sony GAW-79
Targeting and Tracking System: RadCom G4RM-Z

Overview

When the Nishikigoi appeared on the Lyran planet Kaumberg in 3074, few of Kaumberg's inhabitants had heard of the Koi, much less seen a militarized variant. Finding the Kuritan-made vehicle tooling around the Lyran backwater was more than just a curiosity—it mobilized conspiracy theorists, amateur investigators, and skeptics already running mad with the Jihad. Rumors ran rampant, but officially it was a legally registered transport owned by a prestigious family business: Kaumberg Enterprises. Two years later, no malevolent intent had been substantiated and no credible conspiracy theories had come to light. The public lost interest and accepted the oddity, leaving only professional skeptic Heinrich Dahl to continue the investigation. Veröffentlichung der Wahrsager published *Der Koi Wechselbalg* (The Koi Changeling) in 3077 to dismal sales and horrible reviews. Critics decried Dahl's theory as far-fetched, poorly researched and laughable. He would be vindicated two years later.

When Wakazashi unveiled the Nishikigoi in 3079, its supercharged engine drew considerable attention. Documents allegedly fabricated by Pesht Motors showed Wakazashi had stolen technology from the DCMS to develop the engine. An ISF witch hunt indicted three executives and they were forced to reveal all. After arson, allegedly arranged by Pesht Motors, delayed Koi production on Dover in 3061, Wakazashi exported its R&D operations to keep their Koi project safe from further industrial machinations. They contracted Lyran-based Edasich Motors for the engine development. A provision of the contract prevents Edasich from putting the engine into production, giving Wakazashi exclusivity. Kaumberg Enterprises would secretly assemble and test the prototype refit with Edasich's engine, and deliver final recommendations for the production chassis. For their efforts, Kaumberg Enterprises kept the prototype.

The Wakazashi executives were acquitted and received Watcher of the Dragon's Eye Certificates for their ingenuity in protecting Combine industry. Less than five percent of Dahl's first printing sold. Today, those few surviving copies are worth in excess of 200 C-Bills, and Dahl has been lauded as an investigative genius for correctly deducing the truth behind the Nishikigoi.

Capabilities

The Nishikigoi is the largest WiGE currently in production and excels as a militarized light transport. The Edasich-designed turbocharged fusion engine consumes over a tenth of the vehicle's mass and propels it at sustained speeds of eighty-six kph with short bursts exceeding 100 kph.

Much of the Koi's cavernous cargo bay has been sacrificed for military upgrades. Where the Koi and its sister design—the Ryu—feature over a hundred tons of cargo capacity, the Nishikigoi's capacity is just over fifty tons. The remaining weight—and space—are devoted to a reinforced chassis mounting commercial-grade armor capable of stopping a Gauss slug on any facing. A dorsal turret houses four medium Thunderbolt launchers. Combined with an advanced fire control system, this gives the Nishikigoi a damage profile better than a *Hatamato-Chi*.

The heart of the Nishikigoi is its communication bay. Filling the aft portion of the cargo bay, eight tons of advanced electronics give the WiGE a variety of electronic warfare options, ECM and ECCM capabilities, satellite uplink and remote sensor monitoring. Although these roles are often better served by purpose-built systems, the ravages of the Jihad were running unchecked when the Nishikigoi was developed. Equipping it with more advanced systems would have complicated supply and repair, increased its cost and created production delays. Wakazashi's creative solution provides flexibility at less than ten percent of the cost.

Two anti-missile systems seem afterthoughts on the Nishikigoi, protecting its rear flanks from missile attacks, but occupying space that could have been better spent on anti-personnel machine guns. The Nishikigoi's armament is designed to deter light and medium scout units, not repel boarding actions.

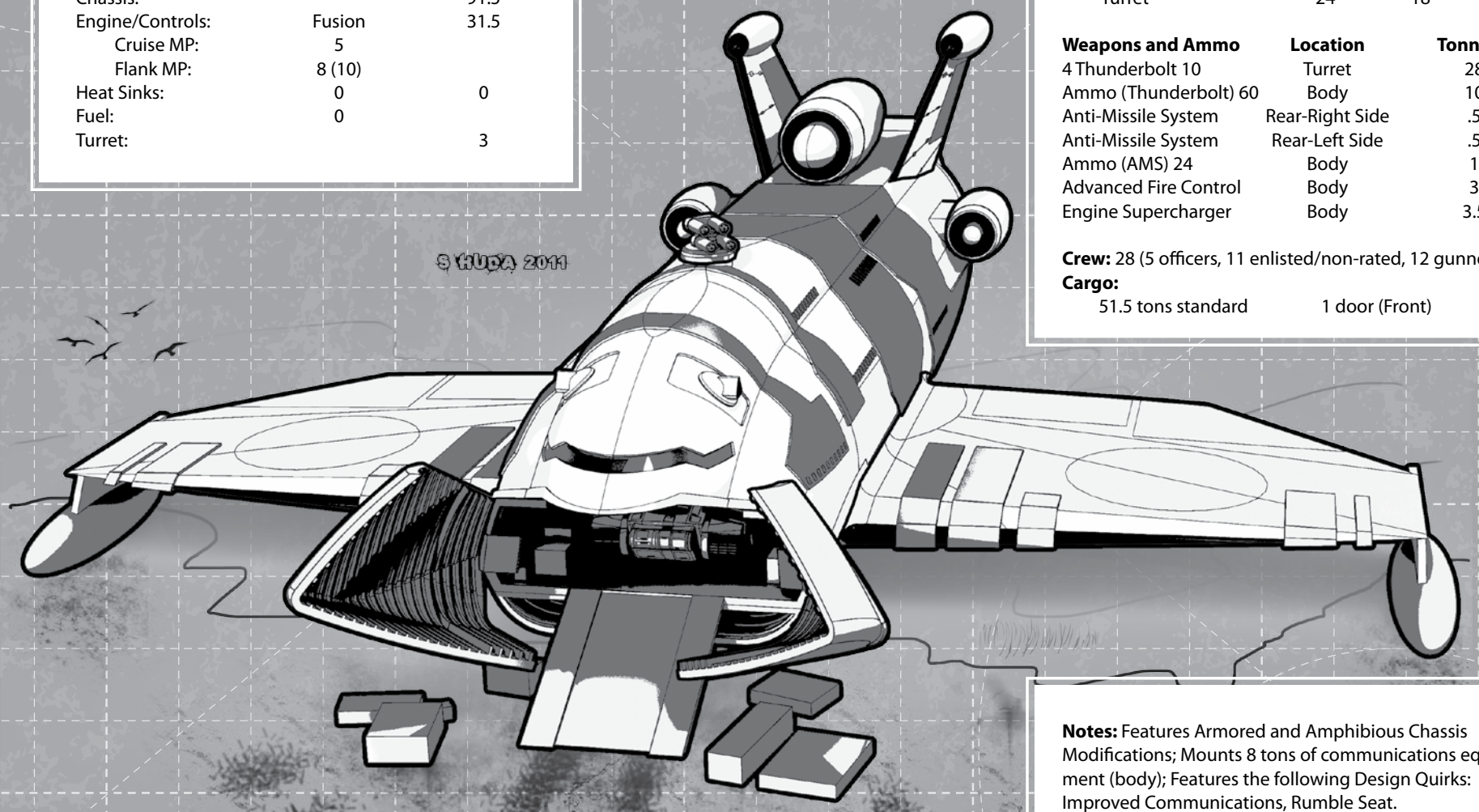
Deployment

The Nishikigoi is found throughout the Draconis Combine, except within the Nova Cat enclaves.

NISHIKIGOI (KOI VARIANT)

Type: **Nishikigoi**
Technology Base: Inner Sphere (Advanced)
Movement Type: WiGE (Large)
Mass: 240 tons
Equipment Ratings: E/X-X-F/E
Battle Value: 2,017

Equipment		Mass
Chassis:		91.5
Engine/Controls:	Fusion	31.5
Cruise MP:	5	
Flank MP:	8 (10)	
Heat Sinks:	0	0
Fuel:	0	
Turret:		3



Equipment		Mass
Armor Factor (BAR 10):	124	7
	Internal Structure	*Armor Value*
Front	24	18
Front R/L Side	24	18/18
Rear R/L Side	24	18/18
Rear	24	16
Turret	24	18

Weapons and Ammo	Location	Tonnage
4 Thunderbolt 10	Turret	28
Ammo (Thunderbolt) 60	Body	10
Anti-Missile System	Rear-Right Side	.5
Anti-Missile System	Rear-Left Side	.5
Ammo (AMS) 24	Body	1
Advanced Fire Control	Body	3
Engine Supercharger	Body	3.5

Crew: 28 (5 officers, 11 enlisted/non-rated, 12 gunners)
Cargo:
51.5 tons standard 1 door (Front)

Notes: Features Armored and Amphibious Chassis Modifications; Mounts 8 tons of communications equipment (body); Features the following Design Quirks: Improved Communications, Rumble Seat.

Light Vehicles

Mass: 35 tons
Movement Type: Hover (Jump)
Power Plant: Fusion 105
Cruising Speed: 97 kph
Maximum Speed: 140 kph
Jump Jets: V-Lift X8
Jump Capacity: 240 meters
Armor: Compound VM22 Ferro-Fibrous
Armament:
2 Series 2b Extended-Range Medium Lasers
Manufacturer: Csesztreg Industriplex Beta
Primary Factory: Csesztreg
Communications System: Build 1700/5 Tacticom with ECM Suite
Targeting and Tracking System: Series XL FWS Track-Nav v2 with Active Probe and TAG

Overview

Clan Hell's Horses revisited the concept of the SLDF-era Kanga jump tank in the late 3050s. Although the sophisticated AI control system was within the Clans' technological capabilities, its difficulty made it prohibitively expensive to produce. The project was shelved in favor of the Hephaestus scout tank.

Despite continued interest in the project, initially rumored to be based upon wing-in-ground effect technology, a test vehicle did not appear until the mid-3070s in the form of the short-lived Kanga-X, a joint venture with Clan Wolf-in-Exile. No further progress was made until 3082, when help came from an unlikely source: a Clan Nova Cat trading delegation. During the Jihad, the Cats' Alpha Galaxy participated in the assault on Graham IV as part of the Coalition's Free Worlds thrust. There they stumbled across a data core from the ruins of Mitchell Vehicles' original Kanga plant, most likely unearthed by the Blakists.

Armed with this newly-acquired data, the Horses have finally been able to get the Hephaestus jump tank off the ground, though not without further compromises.

Capabilities

The new data core provided fresh insight into the flight control software deployed on the KGA-3X test variant of the Kanga, which mounted a turret. This proved to be the breakthrough the Horses' engineers needed, as the failed Kanga-X tests had shown that rotating the turret while jumping often destabilized the vehicle mid-jump, causing disastrous results on landing.

The core's information also proved that the OmniVehicle concept would not work with a jump tank. The Horses' engineers could not see a way to make an Omni jump tank work without a BattleMech's balance-correcting gyro, as all of the possible weapon combinations along with their different weights and centers of mass would have been impossible to account for. Armed with the recovered software, the designers were able to finally resolve the seemingly insurmountable balance and control issues, short-cutting what had appeared to be an incredibly time-consuming development process and making the project financially viable.

Redesigned as a fixed-configuration jump tank based on the primary configuration of the Hephaestus Scout Tank, the new Hephaestus gains five tons on its predecessor but improves upon its characteristics in almost every way. A 140-rated fusion engine allows the new Hephaestus to achieve speeds of almost 100 kph when cruising, and nearly 140 kph flat-out. The new Track-Nav v2 AI system enabled the designers to surpass the Kanga's mobility, the eight V-Lift jump jets give it a range of 240 meters per hop—more than many 'Mechs. The system also allows for far smoother landings, reducing the chance of accidental damage to the vehicle, while special seating allows the crew to weather the beatings of multiple jumps in relative comfort.

Twin turret-mounted Series 2b Extended-Range Medium Lasers provide the Hephaestus' firepower, and a TAG unit lets it call artillery fire if required. An active probe and ECM suite enhance the tank's scouting and defensive abilities.

These capabilities come at a price, however—to match the scout tank's speed profile the infantry bay had to be dropped to free mass for the jump jets. Further testing has suggested that carrying infantry would have caused issues for the Track-Nav system regardless—let alone problems for the infantry itself after multiple 240-meter jumps.

Five and a half tons of ferro-fibrous armor protect the Hephaestus, a slight increase on that of the Scout Tank, but almost double that of the Kanga. The Horses' engineers also used an armored motive system to further protect the fragile air skirts.

Deployment

First deployed in 3083, the Hephaestus Jump Tank has only been seen within the Hell's Horses touman. They serve as scout and support units in Cavalry Clusters, and feature very prominently in Strike Clusters. Speculation is rife that the Horses may be experimenting with a system similar to the Capellans' magnetic clamp technology, to allow their Elementals to catch a lift on the Hephaestus. This would limit the tank's mobility, as jumping with mechanized battle armor would be suicide for all involved.

Variants

Only a single variant has been spotted in trials. Designed for an anti-infantry role, the entire electronics array has been replaced with a pair of turret-mounted AP Gauss rifles, backed up by two more forward-mounted AP Gauss rifles.

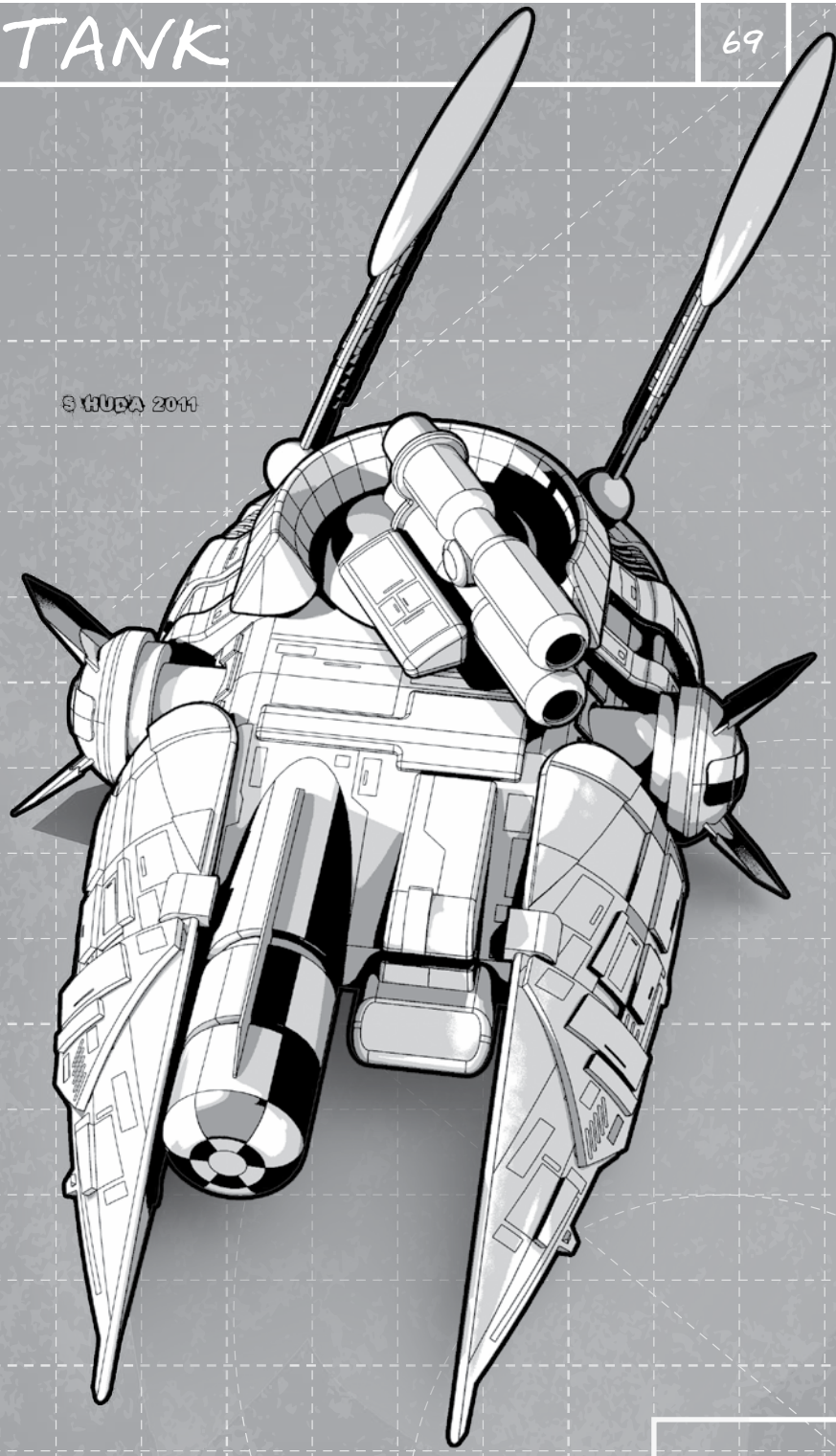
HEPHAESTUS JUMP TANK

Type: **Hephaestus Jump Tank**
Technology Base: Clan (Advanced)
Movement Type: Hover (Jump)
Tonnage: 35
Battle Value: 1,044

Equipment		**Mass**
Internal Structure:		3.5
Engine:	140	7.5
Type:	Fusion	
Cruise MP:	9	
Flank MP:	14	
Jump MP:	8	
Heat Sinks:	10	0
Control Equipment:		2
Lift Equipment:		3.5
Power Amplifier:		0
Turret:		.5
Armor Factor (Ferro):	105	5.5
	Armor Value	
Front	20	
R/L Side	24/24	
Rear	19	
Turret	18	

Weapons and Ammo	**Location**	**Tonnage**
2 ER Medium Lasers	Turret	2
TAG	Turret	1
ECM Suite	Body	1
Active Probe	Body	1
Jump Jets	Body	4
Armored Motive System	—	3.5

Notes: Features the following Design Quirks: Difficult to Maintain, Hard to Pilot, Non-Standard Parts, Distracting.



Medium Vehicles

Mass: 40 tons
Movement Type: VTOL
Power Plant: 55 Fusion
Cruising Speed: 64 kph
Maximum Speed: 97 kph (129 kph with Jet Booster)
Armor: Compound VM22 Ferro-Fibrous
Armament:
1 Series 7N Extended Range Large Laser
1 Type XV-S Streak LRM 15 Launcher
Manufacturer: Csesztreg Industriplex Beta, WC Site 4
Primary Factory: Cseszstreg, Arc-Royal
Communications System: K9 CommSys with ECM Suite
Targeting and Tracking System: Hunter (2) Dedicated TTS with TAG

Overview

Watching with interest how the Inner Sphere deployed and used their battle armor, Clan Hell's Horses realized that in the past twenty years or so, many units were shifting to VTOLs such as Karnov and Cavalry variants. Other organizations, such as the DCMS, had begun using often-overlooked WiGE support vehicles. Though considered fragile transports when compared to most of their ground-based counterparts, these types of vehicles offered a sense of flexibility the rest could not. Terrain such as mountains, water and woods had little or no effect on the transit time of these transports, allowing them to shift quickly to an evolving campaign.

But the delicacy of such transports proved too much when left by themselves on the battlefield. With so much tonnage devoted to transport, these units were left under-armored and under-gunned. The Hell Horses wanted a VTOL that could act as an escort and support craft for not just the transports, but the battle armor being deployed during a raging battle. After much negotiation, and after trading engineering data with the Wolves-in-Exile, the Horses began producing the Garuda Heavy VTOL in 3084, followed shortly by the exiled Wolves on Arc-Royal.

Capabilities

Despite its oversized structure the Garuda is a very efficient design. Offensively, an extended-range large laser gives it both range and firepower, while being mounted on a chin turret provides it a flexible range of aim. Most VTOLs have to orient themselves directly at a target, which can be detrimental when trying to keep up their speed, but the ability of the laser to reorient itself is a boon to those cutting across the battlefield with an enemy on their flanks.

Its secondary weapon is no less potent. A recent development among the Clans, a Streak LRM is also mounted. Although it carries only eight rounds of ammunition, the fact that this LRM system operates exactly like its SRM counterpart—not firing unless it can guarantee a hit with all its missiles—makes such a design choice sensible.

The biggest shock to opponents is its jet booster, which gives it bursts of speed of almost 130 kilometers per hour. While that speed is not rare for heavy VTOLs, it is for one as heavily armed and armored as the Garuda.

Less prominent features have become no less important with the Garuda. Six and a half tons of ferro-fibrous armor make the Garuda as well armored as a VTOL can be, while an electronic countermeasures suite takes care of enemies who may attempt to use advanced sensors to aid in their targeting. The TAG is almost an afterthought, providing targeting data for artillery.

Deployment

The Garuda has been well received in both the Hell's Horses and the Wolves-in-Exile. Assigned alongside VTOL transports, it has become the telltale sign of an incoming battle armor insertion.

Tactics when assisting battle armor formations have fallen into one to two categories. The first is to use the Garuda to soften up a hot landing zone, speeding in and laying down suppression fire while the more vulnerable transports unload Elementals. Then the Garuda, after escorting those transports out of the area, swings back around to provide close air support to the battle armor.

A second, less-preferred tactic is for the Garuda to skirt the edge of the battle, giving long range support. Crews assigned to a Garuda seem to have a distinct dislike for this behavior, preferring to use their speed and armor to make high speed passes against targets while trusting their electronic countermeasures to keep their enemies from making accurate counter fire. This role has resulted in higher casualties, but the crews insist this is far better than hanging on the outskirts of the battlefield like cowardly *surat*s.

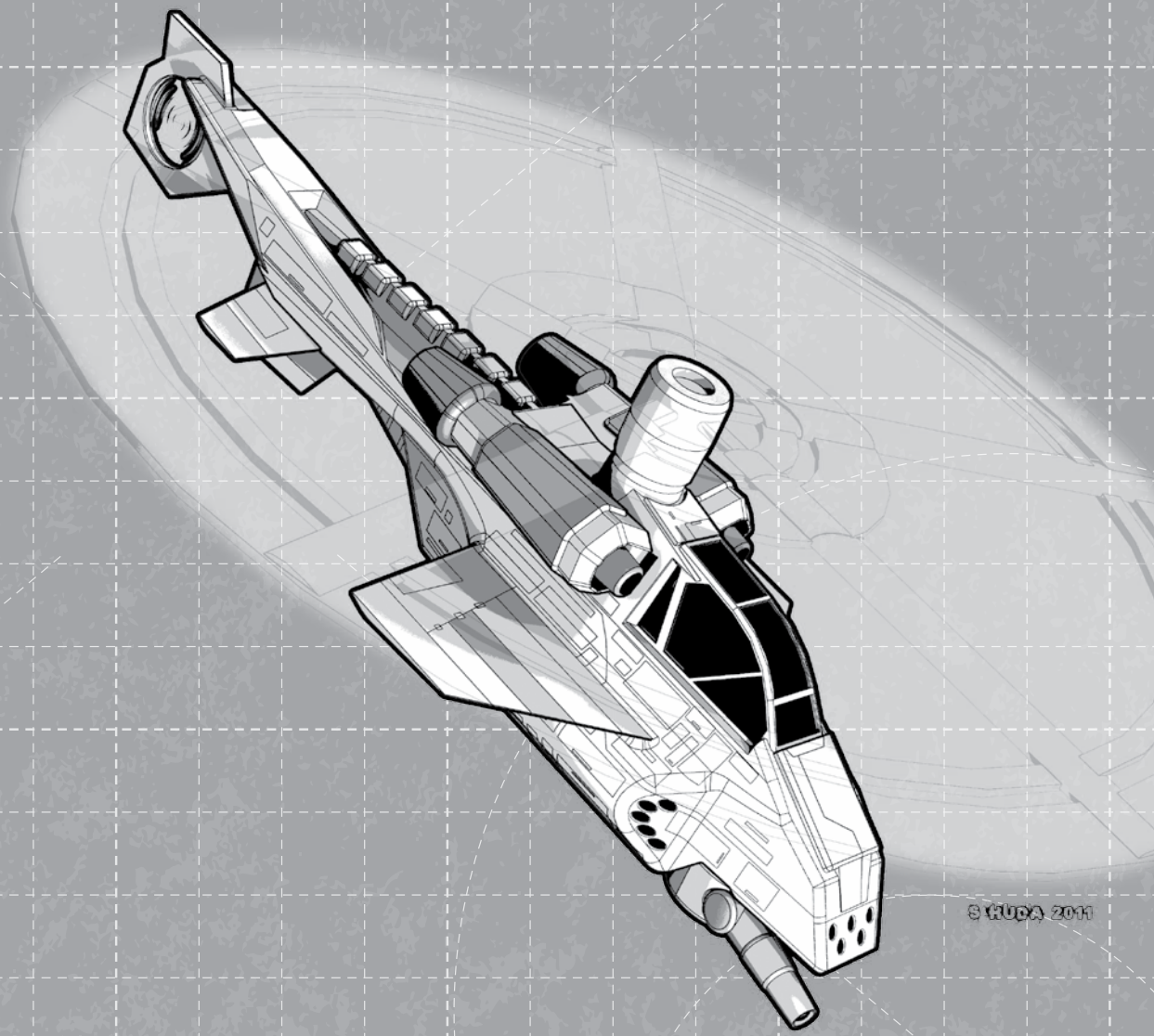
GARUDA HEAVY VTOL

Type: **Garuda Heavy VTOL**
Technology Base: Clan (Advanced)
Movement Type: VTOL
Tonnage: 40
Battle Value: 1,484

Equipment		**Mass**
Internal Structure:		8
Engine:	55	2.5
Type:	Fusion	
Cruise MP:	6	
Flank MP:	9 (12)	
Heat Sinks:	12	2
Control Equipment:		2
Lift Equipment:		4
Power Amplifier:		0
Turret		.5
Armor Factor (Ferro):	124	6.5
	Armor Value	
Front	30	
R/L Side	25/25	
Rear	22	
Turret	20	
Rotor	2	

Weapons and Ammo	**Location**	**Tonnage**
ER Large Laser	Turret	4
TAG	Turret	1
Streak LRM 15	Front	7
Ammo (Streak) 8	Body	1
ECM Suite	Body	1
VTOL Jet Booster	Body	.5

Notes: Features the following Design Quirks: Non-Standard Parts, Searchlight, Rumble Seat.



Medium Vehicles

Mass: 50 tons
Movement Type: Wheeled
Power Plant: 180 ICE
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Armor: Compound Alpha Ferro-Fibrous
Armament:
2 Type P-A ProtoMech Autocannon/8s
4 Tau-II Anti-Personnel Gauss Rifles
2 Type 18h Heavy Flamers
Manufacturer: Quikscell Company
Primary Factory: Pandora
Communications System: Basix 200
Targeting and Tracking System: OptiSight 12

Overview

What little we currently know—or likely ever will know—about events in the Clan Homeworlds can be summed up thusly: something has happened or is happening, and that something is shaking the Clans to their very core.

The Jade Falcons are a prime example of this. After what appeared to be a series of widespread uprisings culminating in the death of Khan Marthe Pryde, the Falcon warrior caste apparently decided that they had become too lenient in their dealings with many Inner Sphere native lower-castemen.

As they cracked down, enforcing a stricter policy than they had in past thirty years, a major backlash among the populace erupted. The Falcon warriors found themselves inadequately prepared to deal with it. Doing the only thing they seem to know how to do, they began equipping their garrison troops with weapons designed to deal with such vast, unarmored issues, such as the Sokar Urban Combat Vehicle.

Capabilities

The term urban combat unit is used very loosely when applied to the Sokar. The vehicle itself is almost useless when facing anything but the lightest opposition, and its design seems to somehow mimic the Star League-era Magi tank, which had a similar role and design.

Its main set of weapons is its four turret-mounted anti-personnel Gauss rifles. These weapons can fire an enormously high volume of slugs into any sort of guerrilla or resistance unit, and if all four are targeting a single battlesuit, they cantake down all but the heaviest suit in seconds.

Also mounted are a pair of front-facing heavy flamers to assist in building clearing. These are alarmingly similar to the ancient Rim Worlds Republic Ignis tank. More puzzling are the two heavy ProtoMech autocannons also mounted on the turret. While most might consider these the main guns, analysts think that due to the lack of ammunition provided, these guns are for backup. Should an unruly group of lower castemen actually get something big enough to weather more than a volley or two of AP Gauss rounds, these autocannons will ensure that streak of luck does not last.

Its five tons of armor seems almost too much for its role, but is average for a vehicle its size. Our analysts have come to the cynical conclusion that the Jade Falcon designers knew that amount would be more than enough, but put it on anyway to keep the Sokar on patrol in a hostile neighborhood longer, only returning when it was out of ammunition. Few lower castemen can get their hands on weapons big enough to penetrate the heavy slabs of armor, with one recent exception on Sudeten.

Deployment

The Sokar has seen surprisingly widespread deployment throughout the Jade Falcon Occupation Zone. Mostly used by solahma units, some have been spotted within Clan-run civilian police departments on worlds where our intelligence indicated some of the riots were the worst. Unlike more popular units, for which Trials are issued no one appears to desire this design, and Galaxy Commanders often force it upon troops who feel soiled by having to use a vehicle designed to fight those who are not warriors.

According to our intelligence, despite the wide deployment the Sokar has only once had to fire its weapons outside of training and testing. On Sudeten, with civil uprisings on the strict food rationing in 3088 at an all-time high, reports of some lower castemen garnering access to military-grade weapons appeared. Two Sokars came in on opposite sides of the crowd and ordered the group to surrender their weapons and disperse. When the crowd refused and continued to fight, the Sokars opened up, killing dozens in seconds. In a few bloody moments, the few lower castemen who were still able to flee disappeared.

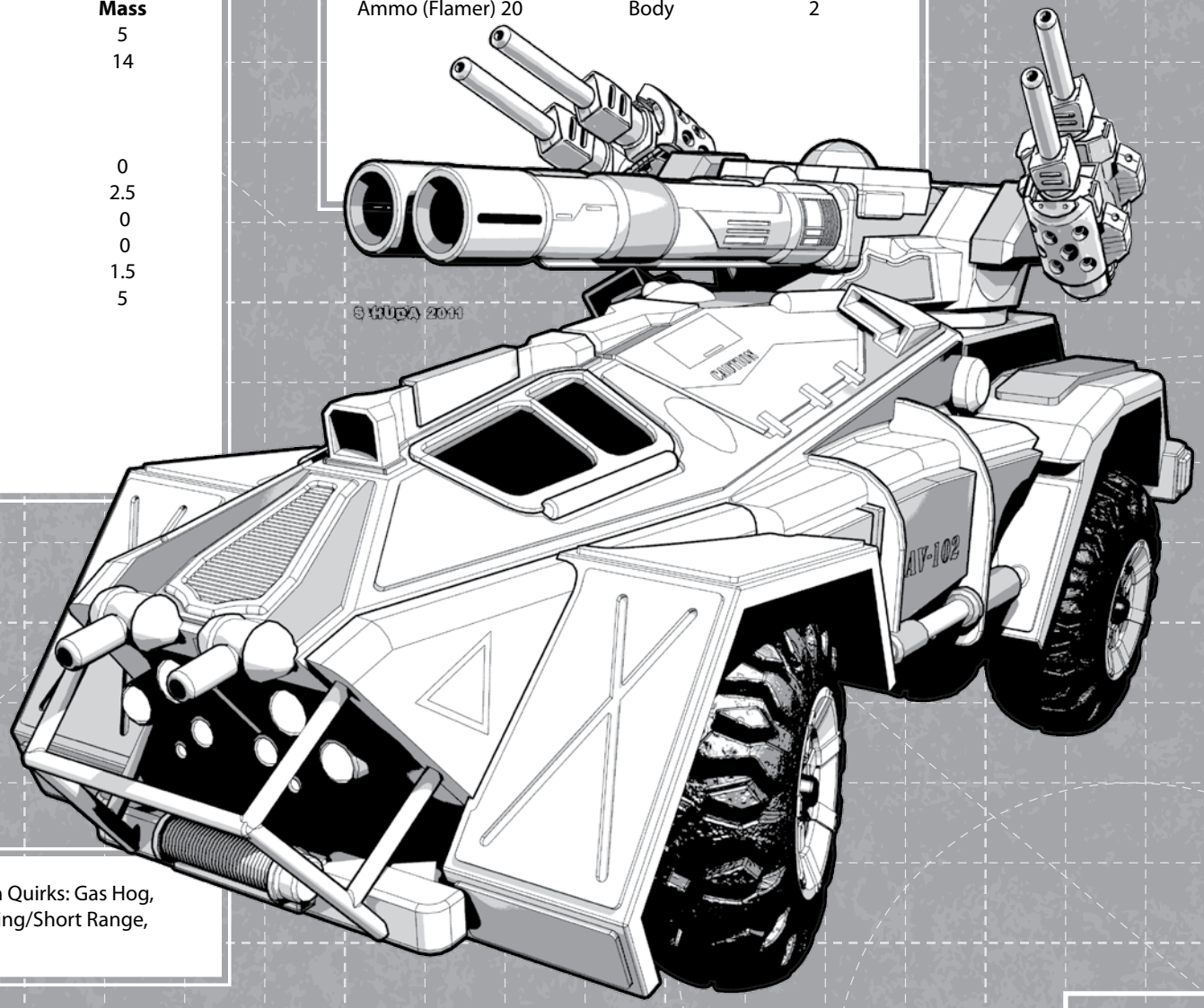
The Jade Falcons deliberately allowed footage of this incident to leak. In the Inner Sphere this might have incited civilians farther, it seemed to have the opposite effect in the Clan occupation zones.

SOKAR URBAN COMBAT UNIT

Type: **Sokar Urban Combat Unit**
Technology Base: Clan (Advanced)
Movement Type: Wheeled
Tonnage: 50
Battle Value: 599

Equipment		**Mass**
Internal Structure:		5
Engine:	180	14
Type:	ICE	
Cruise MP:	4	
Flank MP:	6	
Heat Sinks:	0	0
Control Equipment:		2.5
Lift Equipment:		0
Power Amplifier:		0
Turret:		1.5
Armor Factor (Ferro):	96	5
	Armor Value	
Front	25	
R/L Side	20/20	
Rear	16	
Turret	15	

Weapons and Ammo	**Location**	**Tonnage**
2 ProtoMech AC/8	Turret	11
Ammo (PAC) 20	Body	2
4 AP Gauss Rifles	Turret	2
Ammo (AP Gauss) 80	Body	2
2 Heavy Flamer	Front	3
Ammo (Flamer) 20	Body	2



Notes: Features the following Design Quirks: Gas Hog, Poor Workmanship, Improved Targeting/Short Range, Trailer Hitch.

Medium Vehicles

Mass: 55 tons
Movement Type: Tracked
Power Plant: 275 Fusion
Cruising Speed: 54 kph
Maximum Speed: 86 kph
Armor: Forging H-Delta Hardened
Armament:
2 Series 2Ph Extended Range Medium Pulse Lasers
2 Pattern J7 SRM-6 Launchers
Manufacturer: Swedenborg Heavy Industries
Primary Factory: Kirchbach
Communications System: Build 1750/4 Tacticom
Targeting and Tracking System: Series XLII TLS

Overview

At the peak of the Jihad, reports from agents operating in the coreward Periphery reported the expansion of Clan Hell's Horses' testing centers on Nouveaux Paris. In particular, Provisional Testing Site Stallion evidently focused on the development of improved combat vehicle technologies for the Horses' use in their coming invasion of Clan Wolf's Inner Sphere holdings. The so-called Enyo-XR (Experimental Refit) was one product of these endeavors, upgrading the Horses' Enyo strike tank with a supercharged XXL engine, extended-range pulse laser and an armored motive system. The resulting speed demon promised nightmares to the Wolf Clan forces that would encounter it, and perhaps Inner Sphere enemies as well. Fortunately for the Horses' enemies, the upheavals at home apparently created a resource crunch that kept the Enyo-XR from becoming a mainstream unit.

Capabilities

The use of so many experimental technologies in the Enyo-XR's design created a resource cost that would make even a Lyran balk, especially for a vehicle originally conceived for Cavalry and Striker Cluster use. As if in reaction to this extreme expense, the Enyo strike tanks now being produced for the Horses on Kirchbach are a far cry from the XR prototype, and are even inferior in speed and firepower to their original models.

This new variant drops the supercharged XXL engine that helped the XR attain hovercraft-like speeds. With a standard fusion plant installed in its place—rated lower than the original Enyo's extralight—the vehicle now achieves a top speed less than ninety kph. This gives the Enyo (ER Pulse) an effective, if not especially impressive, ground speed for its tonnage, but reduces its use as a cavalry unit. The XR's armored motive components have also been dropped in this new variant, but in their place Clan Hell's Horses' engineers covered the vehicle with hardened armor, providing a greater overall resilience against battle damage for less raw tonnage than ferro-fibrous and armored components combined. The sheer bulk of this armor affects the vehicle's balance, especially at high speeds, but given their emphasis on conventional warfare, most Horses tank drivers will undoubtedly see little challenge in handling this slower, but tougher Enyo.

For firepower, this vehicle relies on a pair of medium-sized extended-range pulse lasers mounted in its turret. This change trades in the reach of the standard Enyo's large pulse laser (and the Enyo-XR's ER large pulse laser) for greater combined damage and comparable accuracy. A pair of standard six-tube SRM launchers in the forward section reclaim some of the backup firepower the XR lost for its many upgrades, while also providing the option for tank crews to carry alternative munitions into the field that the standard Enyo's Streak launchers would not allow.

Overall, the new Enyo lacks the speed, reach and firepower of the original, and is a far cry from its experimental progenitor. Though it is tougher, and well-suited for close-quarters combat, it is doubtful that the Horses will find it as effective as the original strike tank. Variants—or perhaps even complete replacement models—are sure to come.

Deployment

Despite the vehicle's shortcomings, the Horses seem intent on using the Enyo (ER Pulse) as their official replacement for many of their older, Homeworld-built vehicles. Constructed at the upgraded Swedenborg Heavy Industries plants on Kirchbach, these tanks are being shipped across the Clan's occupation zone to fill gaps in their medium and heavy vehicle formations. Given the Horses' apparent efforts to stabilize their hard-won territories against possible aggression from all sides, it is presumed that these new Enyos will form a key part of a larger defensive strategy.

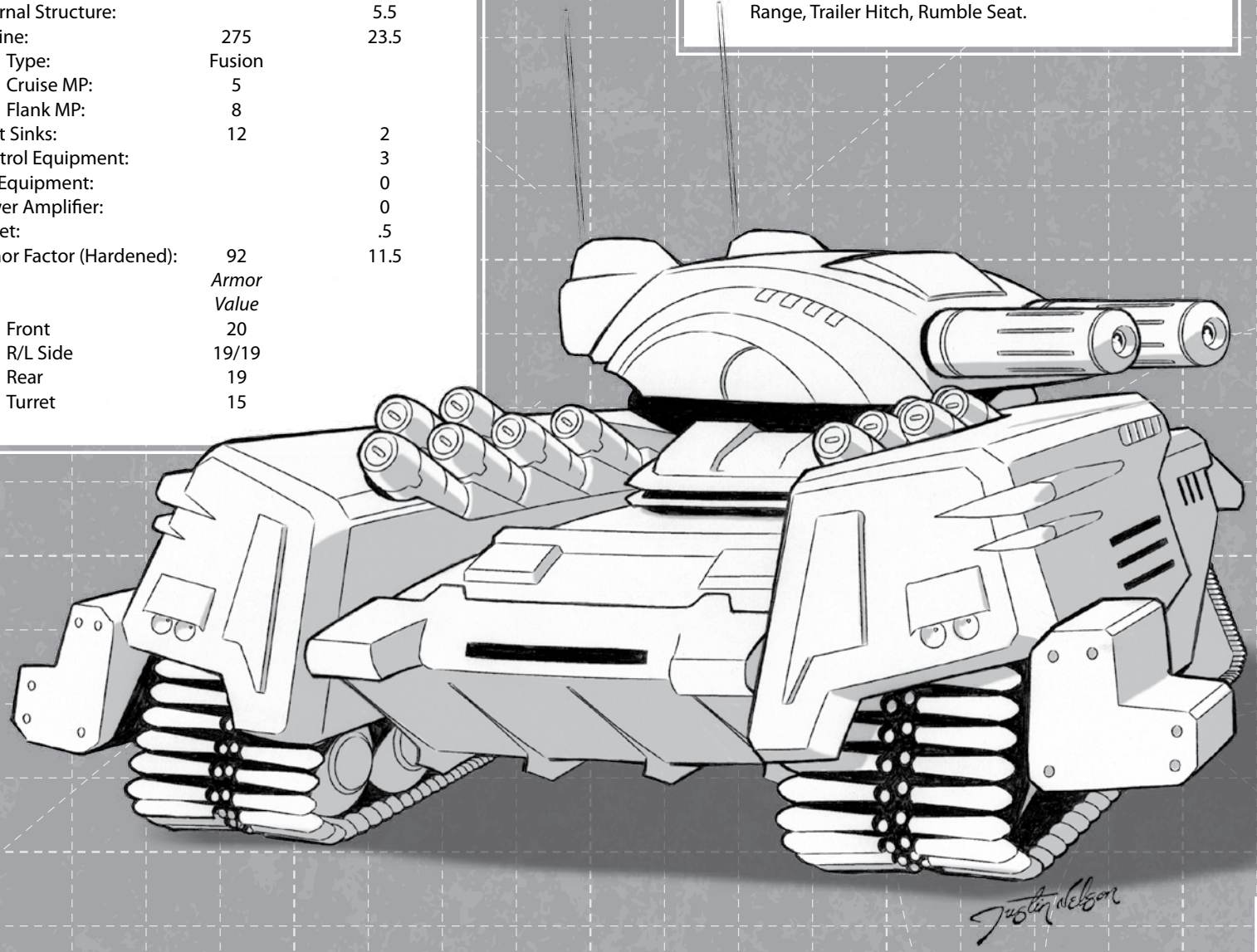
ENYO (ER PULSE)

Type: **Enyo (ER Pulse)**
Technology Base: Clan (Advanced)
Movement Type: Tracked
Tonnage: 55
Battle Value: 1,130

Equipment		**Mass**
Internal Structure:		5.5
Engine:	275	23.5
Type:	Fusion	
Cruise MP:	5	
Flank MP:	8	
Heat Sinks:	12	2
Control Equipment:		3
Lift Equipment:		0
Power Amplifier:		0
Turret:		.5
Armor Factor (Hardened):	92	11.5
	Armor Value	
Front	20	
R/L Side	19/19	
Rear	19	
Turret	15	

Weapons and Ammo	**Location**	**Tonnage**
2 ER Medium Pulse Lasers	Turret	4
2 SRM 6	Front	3
Ammo (SRM) 30	Body	2

Notes: Features the following Design Quirks: Bad Reputation, Poor Sealing, Improved Targeting/Short Range, Trailer Hitch, Rumble Seat.



Mass: 60 tons
Movement Type: Tracked
Power Plant: Jones ElectroCell 180 Fuel Cell
Cruising Speed: 32 kph
Maximum Speed: 54 kph
Armor: Compound RX-5 Laser-Reflective
Armament:
4 Type OVR-X LB 5-X Autocannons
Manufacturer: United Outworlders Corporation
Primary Factory: Mitchella
Communications System: Consolidated BMR 6c
Targeting and Tracking System: TRTTS Mark V AirTracker

Overview

The Nuberu Anti-Aircraft Tank was one of the last joint projects designed by Clan Snow Raven and the Outworlds Alliance prior to the formation of the Raven Alliance.

With a good portion of the Snow Ravens' might concentrated in their newly captured holdings in the Draconis Combine, and suffering heavy losses in their touman from the Jihad, many Raven enclaves had been denuded of troops. Though the Jihad had been kinder to the Alliance than many other realms, its depredations and the erosion of central authority led to a marked increase in new pirate bands. With pirate attacks occurring almost daily, the Alliance Aerospace Arm was no longer able to cope with being the former Outworlds' first line of defense, which left their Ground Arm companions at greater risk.

The aptly named Nuberu—Cloud Master—is designed to ensure that any attackers who survive long enough to make atmosphere don't survive long enough to reach the ground.

Capabilities

With both parties looking for a low-cost vehicle to strengthen their stretched garrison units, the native Outworlders suggested licensing the very capable Partisan from Kallon Industries in the Federated Suns. However, relations with House Davion remained strained since the recent hostilities with Clan Snow Raven. It was believed unlikely that their Alliance would be able to secure the design. Instead, Snow Raven engineers teamed up with their native counterparts to create an improved form of the venerable Partisan, using Clan technology to make it smaller and easier to produce.

Though advanced by Outworlds standards, the Nuberu's only revolutionary aspects are its Clan laser-reflective armor and its innovative twin-turret design. Meant solely for air defense, the Nuberu is armed with four Clan LB 5-X autocannons mounted in two turrets. Possessing a twenty-five percent greater range than their Inner Sphere equivalents, the OVR-X LB 5-Xs can lay down a deadly blanket of flak. Only two tons of ammunition—exclusively cluster—gives the Nuberu limited battlefield endurance, but as it is designed as a defensive vehicle operating close to friendly lines, this is not considered to be a problem.

The unusual twin turret design allows the engagement of multiple targets, allowing each Nuberu to protect itself and another unit as well. Even if one turret is destroyed or locked the other can still engage and threaten the enemy. The TRTTS Mark V's specialized AirTracker module provides very accurate fire against airborne targets, though is somewhat inaccurate against ground targets. Nine and a half tons of laser-reflective armor provides slightly better protection than that of the Partisan, while significantly increasing defense against strafing attacks—an aerospace fighter's most deadly ground assault. Although the fuel cell engine lacks the endurance of a fusion plant, it is simpler to both produce and maintain—the Nuberu costs less than two-thirds the revamped Partisan Air Defense Tank.

With their own manufacturing complexes already working overtime, Snow Raven engineers chose to upgrade and expand the United Outworlder's Mitchella plant to produce the Nuberu. With the Ravens supplying the know-how, electronics, weapons and armor, the Outworlders supply the manpower, chassis and engine.

Deployment

Only in production since 3083, every Raven Alliance garrison boasts at least two platoons of Nuberus, with many possessing a company or more. Deployments to defend significant installations have allowed far more fighters and 'Mechs to be released from defensive duties. Most Raven enclaves have two Stars of the tank, often split down into sub-units of two or more Points, while an entire Cluster of Nuberus has been spotted on Alpheratz, defending the construction site of what is to become the Raven Alliance's new capital enclave.

Variants

Aside from its limited endurance, the Nuberu's biggest shortcoming is its lack of secondary weapons. To rectify this deficiency the design team created a support variant.

The engineers simply created two new turret assemblies to swap onto the existing vehicle, ensuring a great commonality of parts. The front turret mounts twin Streak SRM 6s, while the rear turret features the bulk of the variant's firepower with four LRM 15 launchers. Three light machine guns in each turret provide a fearsome infantry defense. The final tweak was to remove the AirTracker module, enabling the targeting of both air and ground targets with equal accuracy. Current deployment of the variant, officially known as the Nuberu 2—nicknamed the Numantia—is one to two per platoon, and usually one or two Points per Star.

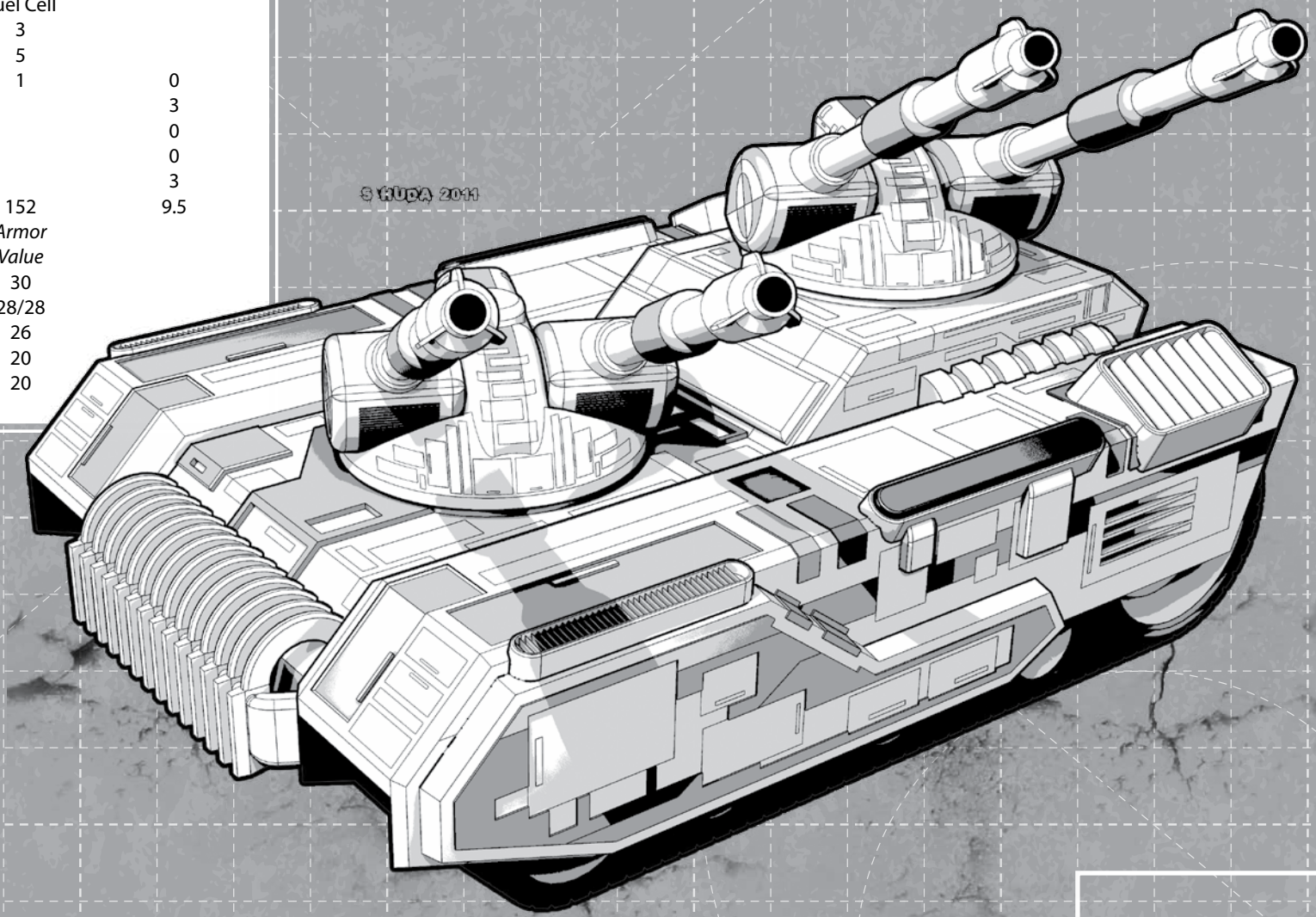
NUBERU ANTI-AIRCRAFT TANK

Type: **Nuberu Anti-Aircraft Tank**
Technology Base: Clan (Advanced)
Movement Type: Tracked
Tonnage: 60
Battle Value: 1,100

Equipment		**Mass**
Internal Structure:		6
Engine:	180	8.5
Type:	Fuel Cell	
Cruise MP:	3	
Flank MP:	5	
Heat Sinks:	1	0
Control Equipment:		3
Lift Equipment:		0
Power Amplifier:		0
Turrets:		3
Armor Factor (Reflective):	152	9.5
	Armor Value	
Front	30	
R/L Side	28/28	
Rear	26	
Turret 1	20	
Turret 2	20	

Weapons and Ammo	**Location**	**Tonnage**
2 LB 5-X AC	Turret 1	14
2 LB 5-X AC	Turret 2	14
Ammo (LB-X) 40	Body	2

Notes: Features the following Design Quirks: Gas Hog, Anti-Aircraft Targeting, Trailer Hitch, Rumble Seat.



VIDAR HEAVY DEFENSE TANK

Heavy Vehicles

Mass: 75 tons
Movement Type: Tracked
Power Plant: Fuel Cell 150
Cruising Speed: 21 kph
Maximum Speed: 32 kph
Armor: Compound A2F Ferro-Fibrous with CASE
Armament:
4 Series 7CHM Large Chemical Lasers
2 Type XVI LRM 15 Launcher with Artemis V FCS
2 "Goalkeeper" Anti-Missile Systems
Manufacturer: Bjorn and Benson
Primary Factory: Spittal
Communications System: Q2 Block 7
Targeting and Tracking System: Build 2 JRD TTS with Artemis V FCS

Overview

3075 to 3085 was a good time for Rasalhagian vehicle designers. Not only had they gained access to Clan technologies, but the needs of the Jihad had forced their Ghost Bear overlords to allow them to use it. From the revamped Axel at the start of the decade to the Eldingar at its end, and a host of reconfigured Clan standards in between, the companies Bjorn & Benson, Gorton, Kinsey and Thorpe, Joint Equipment Systems and Odin Manufacturing totally changed the nature of the Dominion's conventional armor.

Initially allowing the Rasalhagians to design their own tanks could be waved off as a public relations exercise. After all, who cared about tanks? As armored units began to show improved combat records, it was initially put down to the more-experienced Rasalhagian crews, but when even Clan crews began to show improvement, often praising their new hardware, realization dawned. The Rasalhagian-designed tanks were simply better.

Honor demanded a response. When a bid was issued in 3082 for a low-cost defensive tank to supplement the existing Mars, the scientist caste submitted a new vehicle design for the first time in twenty years, then pulled strings to get it accepted. Making use of the merchant caste's position on an unwilling Bjorn & Benson's board, the Vidar Heavy Defense Tank finally crawled into service in 3085.

Capabilities

While the designers naturally looked for advanced solutions to show off their superior technical flair, the specification called for an inexpensive tank, and the two concepts continually clashed.

Core to the scientists' concept was twin turrets. These would allow increased flexibility and reduce the tank's vulnerability to turret jams. Into the fore turret they fitted four chemical lasers, while two LRM launchers with advanced targeting systems were placed in the aft turret. Combined, they gave the Vidar very heavy firepower, especially under 300 meters.

Unfortunately, these advanced features caused problems. Although the Vidar was covered in what the scientists considered to be heavy armor, the need to spread it over two turrets left it no thicker than an average Clan tank. Additionally, the scientists did not fully understand the limitations of the fuel cell engine. Hoping to reduce costs by using the engine technology, they only forced themselves to use heavy chemical lasers to avoid extra heat sinks, which drove up the weight and overloaded the engine. In the end the Vidar was no more mobile than the tanks it was expected to escort.

Deployment

Minutes after the Vidar crawled off the production line, a Bjorn & Benson representative declared a Trial of Refusal which pitted one of B&B's Axel IICs against the brand new Vidar. On relatively open terrain, the Axel outmaneuvered and destroyed the Vidar in less than five minutes. While the high command publicly berated and ignored the validity of the civilian Trial, the point had been made.

Despite this inauspicious start, the Vidar proved itself later that year when a pair successfully held a pirate foray at bay on Porthos. When operating on prepared surfaces, the Vidar was mobile enough to bring its formidable laser array to bear. Since then, tactics have evolved to use the Vidar as mobile pillbox.

The future of the Vidar is extremely uncertain. It has strong backing from conservative elements in Clan Ghost Bear society that want to push back against the growing Rasalhagian influence. However, for the mainly Rasalhagian warriors that have to use them, Vidars are considered lightly protected deathtraps. For now, Vidars are being assigned as escorts for Mars and Huitzilopochtlis as originally intended.

Variants

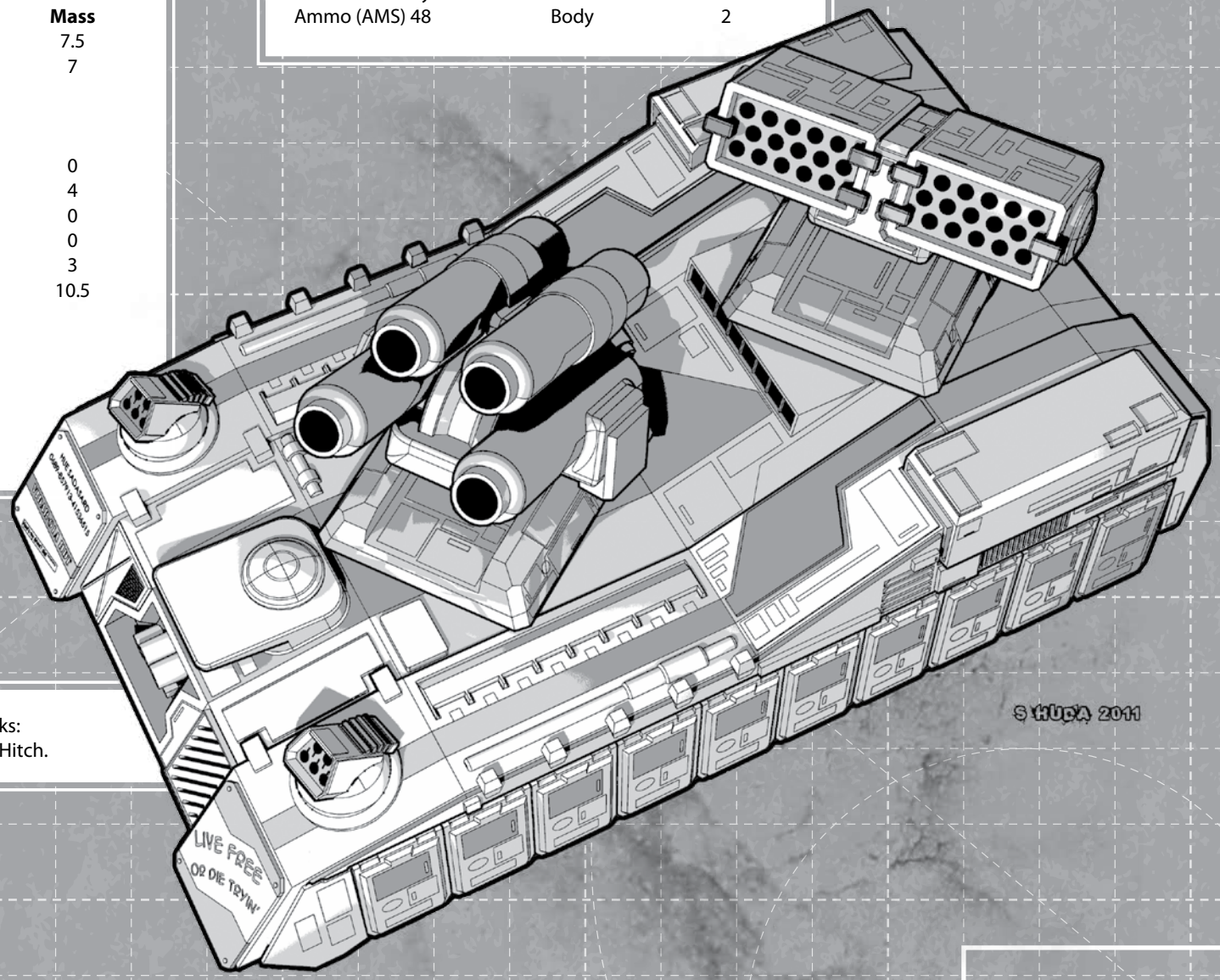
Bjorn & Benson proposed a variant of the Vidar which drops the chemical lasers in favor of extended range lasers. Though this requires extra heat sinks, the fore turret is smaller. Additionally, the anti-missile systems are removed and hardened armor is used to increase the survivability of the largely-immobile tank. The scientist caste is not impressed and, while better, the tank crews still think it is a death trap.

VIDAR HEAVY DEFENSE TANK

Type: **Vidar Heavy Defense Tank**
Technology Base: Clan (Advanced)
Movement Type: Tracked
Tonnage: 75
Battle Value: 1,396

Equipment		**Mass**
Internal Structure:		7.5
Engine:	150	7
Type:	Fuel Cell	
Cruise MP:	2	
Flank MP:	3	
Heat Sinks:	1	0
Control Equipment:		4
Lift Equipment:		0
Power Amplifier:		0
Turrets:		3
Armor Factor (Ferro):	201	10.5
	Armor Value	
Front	40	
R/L Side	35/35	
Rear	31	
Turret 1	30	
Turret 2	30	

Weapons and Ammo	**Location**	**Tonnage**
4 Large Chemical Lasers	Turret 1	20
Ammo (LCL) 60	Body	6
2 LRM 15 with Artemis V FCS	Turret 2	10
Ammo (LRM) 32	Body	4
2 Anti-Missile Systems	Front	1
Ammo (AMS) 48	Body	2



Notes: Features the following Design Quirks:
Bad Reputation, Poor Performance, Trailer Hitch.

Assault Vehicles

Mass: 100 tons
Movement Type: Tracked
Power Plant: 300 Fusion Extralight
Cruising Speed: 32 kph
Maximum Speed: 54 kph
Armor: Composite Alpha-V1 Ferro-Lamellor
Armament:
1 Model LT-Max Long Tom Artillery Cannon
4 Series 14a Medium Pulse Lasers
Manufacturer: Swedenborg Heavy Industries
Primary Factory: Kirchbach
Communications System: Build 1685 Tacticom
Targeting and Tracking System: Series VI Integrated TTS

Overview

For the vehicle-heavy Hell's Horses Clan, Swedenborg Heavy Industries on Kirchbach was one of the greatest assets gained in their invasion of Clan Wolf's occupation zone. Having been cut off from their regular sources of vehicles in the Homeworlds soon after their arrival, the Horses seized the opportunity to upgrade the local manufacturing facilities that Clan Wolf had largely overlooked as insignificant. One of the first success stories of this renovation was the Zephyros infantry support vehicle, a lightweight unit built for fast infantry fire support, and intended to replace the Clans' venerable Odin and Mithras light tanks.

SHI's latest offering, the Aithon Assault Transport, aims to capitalize on the Zephyros' success with a design that our analysts believe will replace both the Indra infantry transport and Oro assault vehicles.

Capabilities

Named for one of the immortal, fire-breathing steeds of the war god Ares, the Aithon is a massive, well-protected and well-armed transport and assault vehicle. A ten-ton cargo bay allows it to carry a full Point of the Horses' heaviest battle armor, two Points of standard Elementals, or their equivalent mass in conventional troops and equipment—although the last would be quite cramped. Protecting this deadly cargo is a hard shell made of the Clans' new ferro-lamellor plate, which all but negates the damage potential of lighter weapons and cluster munitions and reduces the impact of heavier weapons by up to twenty percent. An armored motive system adds further resilience to the design, defying strikes to the vehicle's exposed treads and wheels to keep it mobile.

Though its ground speed is slow by modern standards—topping out just shy of fifty-five kph—the Aithon's extralight fusion plant gives it almost unlimited operating range with significant weight savings and more than enough juice for the quartet of turret-mounted medium pulse lasers it employs for close-in defense and support. However, it is the forward-mounted Long Tom artillery cannon that gives this beast its real teeth. Providing close, direct-fire artillery support, this mammoth cannon carries enough rounds to fire continuously for over two minutes and is ideal for both clearing woods and minefields, or laying siege to enemy bunkers and other prepared positions.

Deployment

Given its speed and function, the Aithon is not a front-liner by any stretch of the imagination, but field commanders may expect to see this vehicle deployed in any capacity where the Horses are determined to assault a position or break entrenched resistance. Though it is built mainly as a transport, the presence of an Aithon in a Hell's Horses formation may not necessarily foretell an infantry assault. Indeed, some Horses attacks in the Periphery have employed these vehicles instead as salvage transports or paddy wagons for captured enemy troops—after the vehicles' guns and supporting units were first employed to overwhelm the opposition.

To date, all of the Aithons manufactured at SHI have been assigned to the Hell's Horses' various assault Clusters, where their limited mobility is mitigated by the near-constant presence of supporting 'Mechs and vehicles.

Variants

There have been no variants of the Aithon, but speculation of alternative weapon loadouts has been fueled by the Horses' efforts to further expand the Swedenborg factory complex.

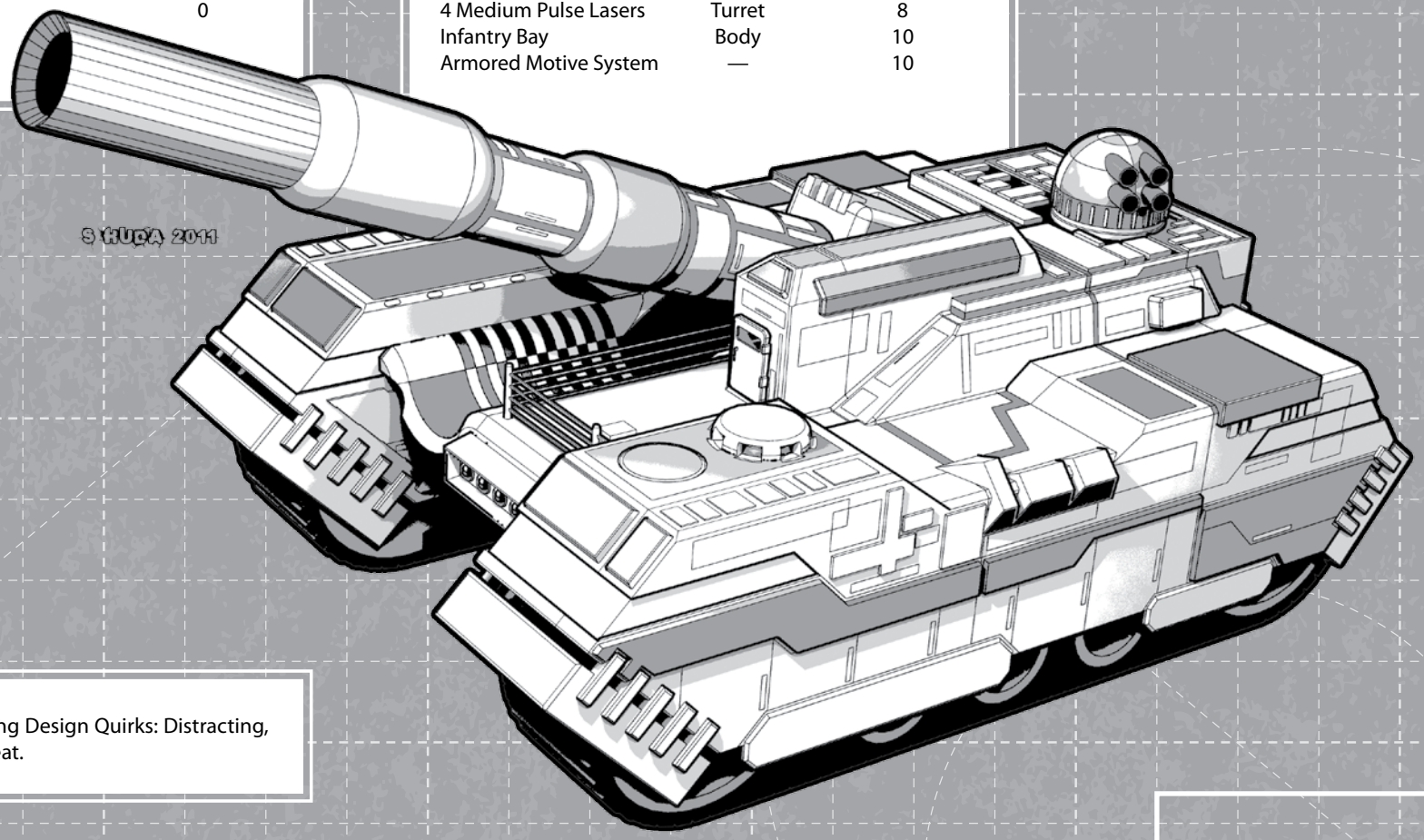
AITHON ASSAULT TRANSPORT

Type: **Aithon Assault Transport**
Technology Base: Clan (Advanced)
Movement Type: Tracked
Tonnage: 100
Battle Value: 1,666

Equipment		Mass
Internal Structure:		10
Engine:	300	14.5
Type:	XL Fusion	
Cruise MP:	3	
Flank MP:	5	
Heat Sinks:	16	6
Control Equipment:		5
Lift Equipment:		0

Equipment		Mass
Power Amplifier:		0
Turret:		1
Armor Factor (Lamellor):	175	12.5
	Armor Value	
Front	37	
R/L Side	37/37	
Rear	34	
Turret	30	

Weapons and Ammo	Location	Tonnage
Long Tom Cannon	Front	20
Ammo (Cannon) 15	Body	3
4 Medium Pulse Lasers	Turret	8
Infantry Bay	Body	10
Armored Motive System	—	10



Notes: Features the following Design Quirks: Distracting, Trailer Hitch, Rumble Seat.

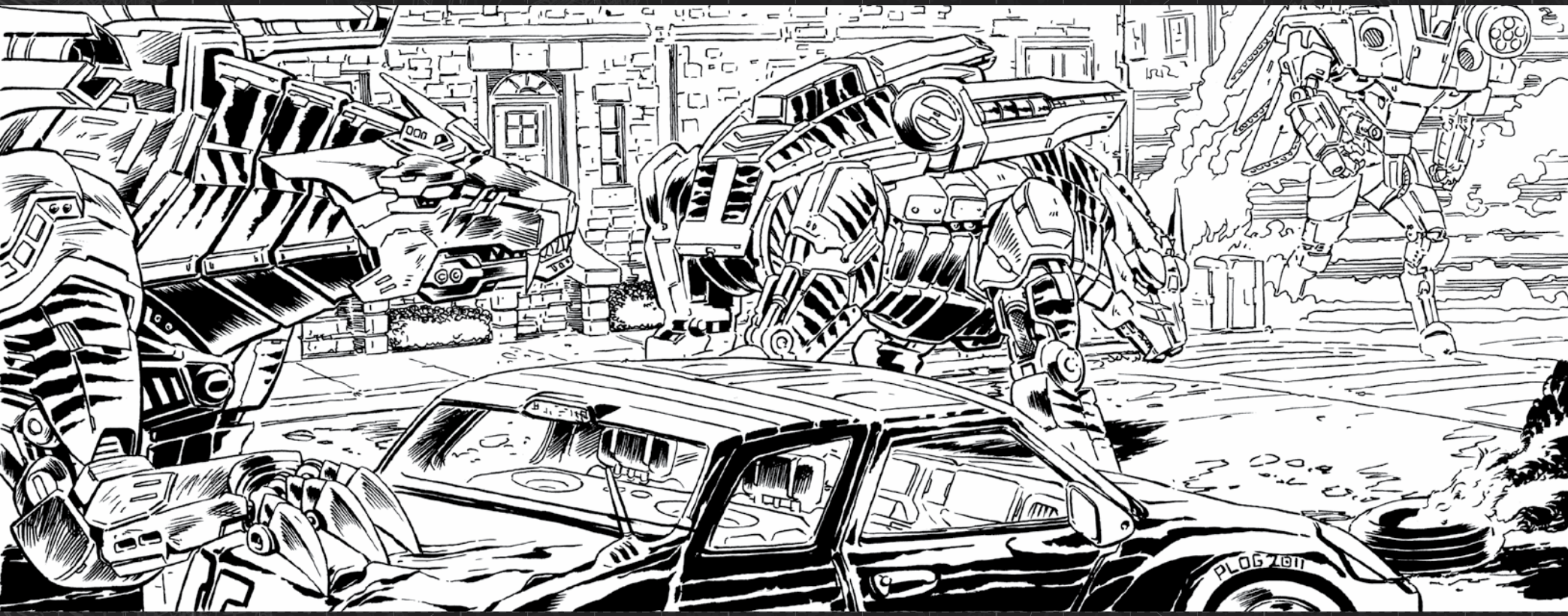
PROTOMECHS

Despite rumors and reports before—and throughout—the Jihad of Inner Sphere engineers exploring and developing such technologies, the ProtoMech has remained a combat unit exclusive to the Clans. Indeed, the closest practical application of Sphere-born ProtoMechs may well have been the Word of Blake's truncated "Machina Domini" project, which mimicked the Protos' unique control systems but failed to achieve the miniaturization and fluid maneuverability the Clans achieved in the 3060s.

It is worth noting that ProtoMech construction in the Clan-held territories of the Inner Sphere is still much reduced, with several Clans—particularly the Jade Falcons, Wolves, and Ghost Bears—completely eschewing these units in favor of heavier BattleMechs. This lack of production may actually be a side effect of the reported conflagrations that spread through Clan space during the Jihad. As of this report, in fact, there remains little evidence of active trade and travel between the Clan territories in the Inner Sphere and their distant Homeworld brethren. Even the Diamond Shark flotillas appear to keep themselves within the boundaries of the Inner Sphere and near Periphery, and all efforts to ascertain the reasons have been stymied. An intra-Clan conflict—perhaps even a civil war—has been speculated, but there is little evidence to confirm such an event.

Whatever caused the Clans such upheaval may be reflected in their latest ProtoMech developments, in more ways than just the declining numbers. Deprived of their Homeworld resources, the few Inner Sphere Clans still using ProtoMechs have begun fielding designs with cruder surface features. In addition, new changes in ProtoMech technologies have apparently enabled the Clan engineers to build bigger ProtoMech chasses, and even quadruped and flight-capable glider ProtoMechs have appeared. As a result, today's ProtoMechs can pack a variety of surprises that were virtually unheard of prior to the Jihad. At the same time, these mini-'Mechs are losing the alien, monstrous aesthetics of their progenitors, and taking on forms that appear more in line with their bigger kin.

—Precentor Steven Partridge


PLOG 2011

ProtoMechs

Mass: 4 tons
Chassis: Huntress SAT4
Power Plant: 36 Fusion
Cruising Speed: 64 kph
Maximum Speed: 97 kph
Jump Jets: E4-Light Extended
Jump Capacity: 270 meters
Armor: Proto-Standard S-4
Armament:
1 SRM 2 Launcher
Manufacturer: Irece Delta Refit Center
Primary Factory: Irece
Communications System: Proto-Type 4
Targeting and Tracking System: SAT-PM 1

Overview

When Clan Nova Cat found itself cast out of the Homeworlds, it found its nascent ProtoMech program cut off at its proverbial knees. What few production models existed straggled their way to the Nova Cats' new home in the Draconis Combine's Irece Prefecture. Combat loss and time whittled down the surviving ProtoMechs that to barely a Trinary.

While the Nova Cats had the capability to revamp production on Irece to build new models, Khan Santin West believed it a waste of the Clan's resources. Because ProtoMech pilots came exclusively from the aerospace Phenotype, and required major surgery to implant the necessary enhanced imaging tattoos, the Nova Cats were loathe to strip their already-depleted aerospace cadres to pilot these specialty ground units.

As such, the few *Satyr* ProtoMechs possessed by the Nova Cats—which made up the bulk of the Clan's ProtoMech arsenal—were restricted to insertion and reconnaissance roles, often used in raids over the shared border with Clan Ghost Bear. Because the Clan Council did not see the program as a viable avenue of weaponry, ProtoMech pilots were volunteers only, usually those aerospace pilots deemed too old for active duty or those injured in combat or training exercises.

During the Jihad, the Nova Cats suffered severe casualties in personnel and war material. With Luthien Armor Works in disarray, the Nova Cats lost a large portion of their resource and supply chain for much of the Clan's war industry. Reeling from the battlefield losses in fighting the Word of Blake forces, the Nova Cats looked to repurpose their few remaining ProtoMechs into a more capable combat role.

Capabilities

The few *Satyr*s that remained were pulled offline in the mid-3070s. Originally built for high speed and minimal mission maintenance, Nova Cat technicians were tasked to remake the *Satyr* into a close-combat unit capable of augmenting the Clan's dwindling battle armor forces. By utilizing some experimental jump jets provided—at great cost—by the Diamond Sharks and incorporating new design, the technicians found they needed to redesign key visual elements of the *Satyr*.

Because of the modifications and additional weight required by the jump jets, the original weapon loadout was no longer adequate. The engine was downgraded to a slightly smaller model that allowed the inclusion of a cheaper short-range missile rack; the slower speed was balanced by the additional mobility provided by increased jump thrust. Though now reliant on ammunition, the *Satyr* was better equipped to handle its new role in infantry and armor support.

Deployment

Rare to begin with, the *Satyr* is not widely deployed among Nova Cat forces. Severely hampered by a lack of available aerospace volunteers, the few *Satyr*s in the field are used mainly to provide heavy support for the Clan's battle armor Points. The largest complement of *Satyr*s is located in Xi Galaxy, often found participating in various opposition force exercises for the Galaxy. One Point of *Satyr*s tend to work with two Points of battle armor, usually Voids and Rabids, often ranging out in front of the armored infantry to seek out the opposition. Once noted, the *Satyr*s then engage, using their mobility to slowly maneuver the battle to where its Pointmates can stage an appropriate ambush or flanking assault. The tactics work well among urban and mountainous battlefields, but tend to fall apart in more open terrain.

While achieving some moderate success in a few raids across the Dominion border, the *Satyr*s are faced with the inevitable attrition of pilots. The Clan has found maintaining even the few ProtoMech suits it has an expensive proposition, even when using crippled or disfigured aerospace warriors in a form of second life. The Draconis Combine recently approached the Clan with offers of a scientific partnership to develop a new phenotype or, at the very least, a specialized warrior program to operate the suits. The offer is a blatant attempt by the Combine to suborn ProtoMech technology, though Clan scientists continue to insist that the exceptionally invasive EI surgery necessary would kill a normal Spheroid—or, at the least, drive him or her completely insane. The Combine refuses to back down, however, and it is possible some form of joint genetic program will develop between the two in the near future.

SATYR-XP

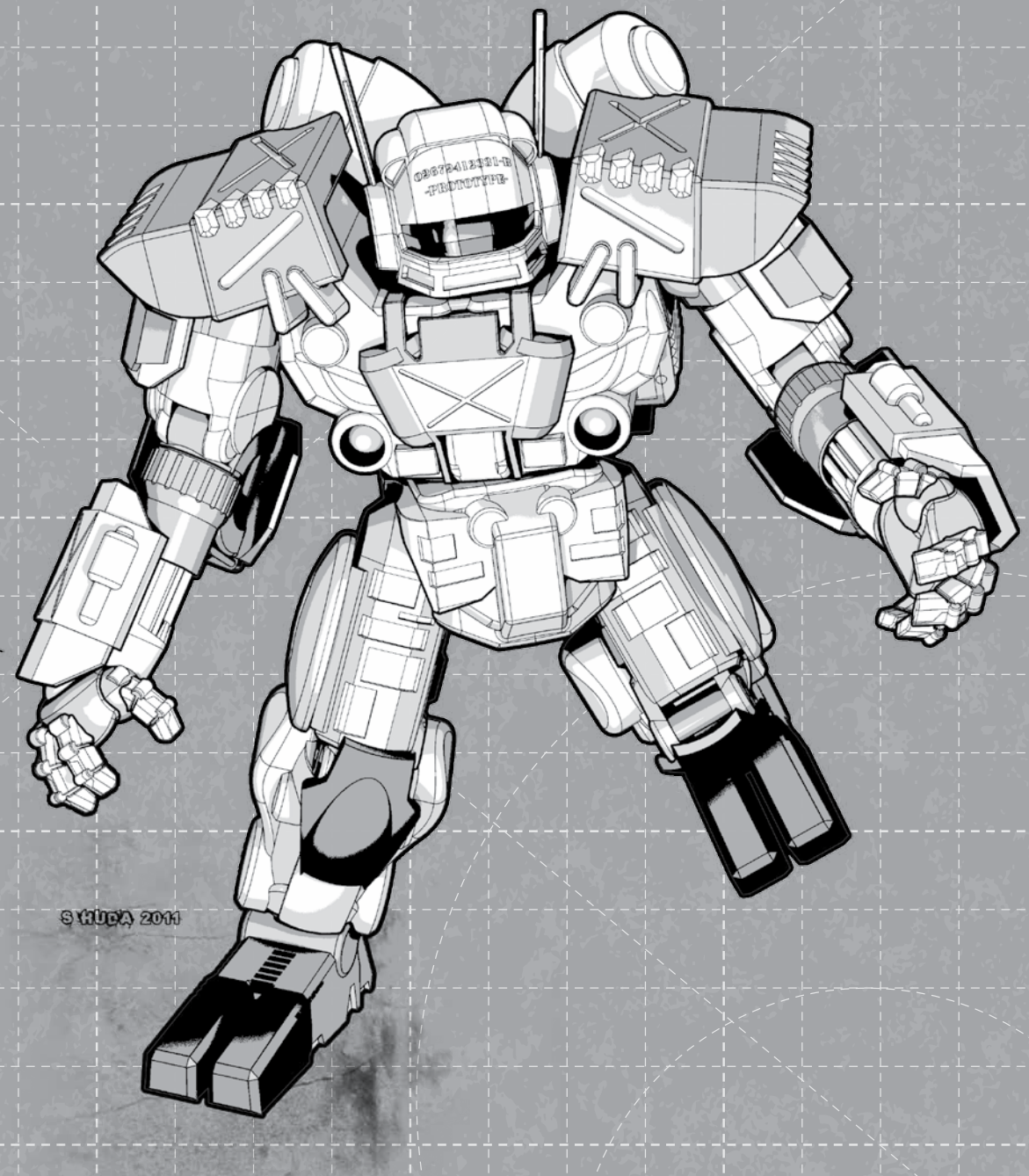
Type: **Satyr-XP**
Technology Base: Clan
Tonnage: 4
Battle Value: 114

Equipment		**Mass**
Internal Structure:		400 kg
Engine:	36	900 kg
Walking MP:	6	
Running MP:	9	
Jumping MP:	9	900 kg
Heat Sinks:	0	0 kg
Cockpit:		500 kg
Armor Factor:	12	600 kg

	Internal Structure	*Armor Value*
Head	1	2
Torso	4	5
R/L Arm	1/1	1/1
Legs	3	3

Weapons and Ammo	**Location**	**Mass**
SRM 2	T	500 kg
Ammo (SRM) 10	—	200 kg

Notes: Features the following Design Quirk: Difficult to Maintain.



ProtoMechs

Mass: 6 tons
Chassis: ProtoMech PRC/Q-Mod
Power Plant: 45 Fusion
Cruising Speed: 64 kph
Maximum Speed: 97 kph
Jump Jets: None
Jump Capacity: None
Armor: ProtoMech Standard P-6Q
Armament:
2 Anti-Personnel Gauss Rifles
1 SRM 2 Launcher
Manufacturer: Csesztreg Industriplex Epsilon
Primary Factory: Csesztreg
Communications System: Build 2083 Micro
Targeting and Tracking System: Proto-Enhanced, Model 4-M

Overview

Given the stability of the *Xanthos* BattleMech and the speed of the Rottweiler battlesuit, it was only a matter of time before someone tried the quad chassis for a ProtoMech. The Hell's Horses have applied Coyote innovation to their *Procyon*. It is unknown how the Horses acquired the specifications for the quad chassis, but they have begun initial production of the quadruped *Procyon*. The small number of select forces being assigned this *Procyon* appears to be less for testing but an inability of the factories on Csesztreg to produce quality models at the rate the Horses need.

Capabilities

Being bigger, faster and tougher and having more firepower mark the quad as completely superior to the original *Procyon*. Some of the *Procyon* variants offer more range, but that is a function of payload rather than capability. With the quad chassis allowing twenty percent more speed and half-again as much armor, the quad ProtoMech offers more options for the Horses. Able to keep up with lighter *Orc*s and many 'Mech units, it can survive a hit from a Gauss rifle. Perhaps the most flexibility is given by the payload: dual short-range missile tubes and a pair of AP Gauss rifles. It can quickly savage infantry formations and a Point can cripple many vehicles with a single salvo. The *Procyon* does lack a weapon with a big punch, making it less than ideal for solo operations against larger armor and BattleMechs.

The introduction of a quad ProtoMech has not been without problems. The cockpit is larger than bipedal designs, which has been problematic for veteran ProtoMech pilots who are used to a tighter fit. Technicians are not familiar with the configuration, leading to greater downtime for the *Procyon*. Most important, manufacturers that have barely been able to meet the product requirements for ProtoMech components are struggling to deliver parts that are unique to the quad configuration.

Another issue with the *Procyon* quad are the problems that the Horse's opponents have with the design. When first encountered by the Ghost Bears, the Bears didn't realize that it was a different design. They assumed it was a new configuration of the *Procyon,* with the pilots somehow moving them in quad fashion. When the data was acquired by Clan Snow Raven, their pilots spent a few months attempting to operate bipedal ProtoMechs in a quadruped fashion. The full picture became clearer a few months later.

The Horses issued a Trial of Possession for a Star of *Kodiak*s, using the *Procyon* to much success. The *Procyon*s were able to tear into the Bear battle armor formations and avoid any sort of massed reprisal. While the Bears lost the battle—badly—they were able to gather enough data to get a clear picture of what the new *Procyon* was.

Despite the mysteries and confusion surrounding the design, it does answer one question: four years ago we received reports of the Horses Trialing for a few Jade Falcon bondsmen, all former pilots of Lyran Fenrirs and Rottweilers. At the time, it was suspected that the Horses were developing a quad battle armor, but no such battle armor appeared. It seems more likely their expertise was used to train ProtoMech pilots in operating a quad.

Deployment

Data on the postings of the *Procyon* are far and few between. Current speculation has it being used to replace ProtoMechs amongst the best units. It is also possible that second-tier units may receive them in lieu of replacement BattleMechs, with 'Mechs being assigned to the premiere units.

PROCYON (QUAD)

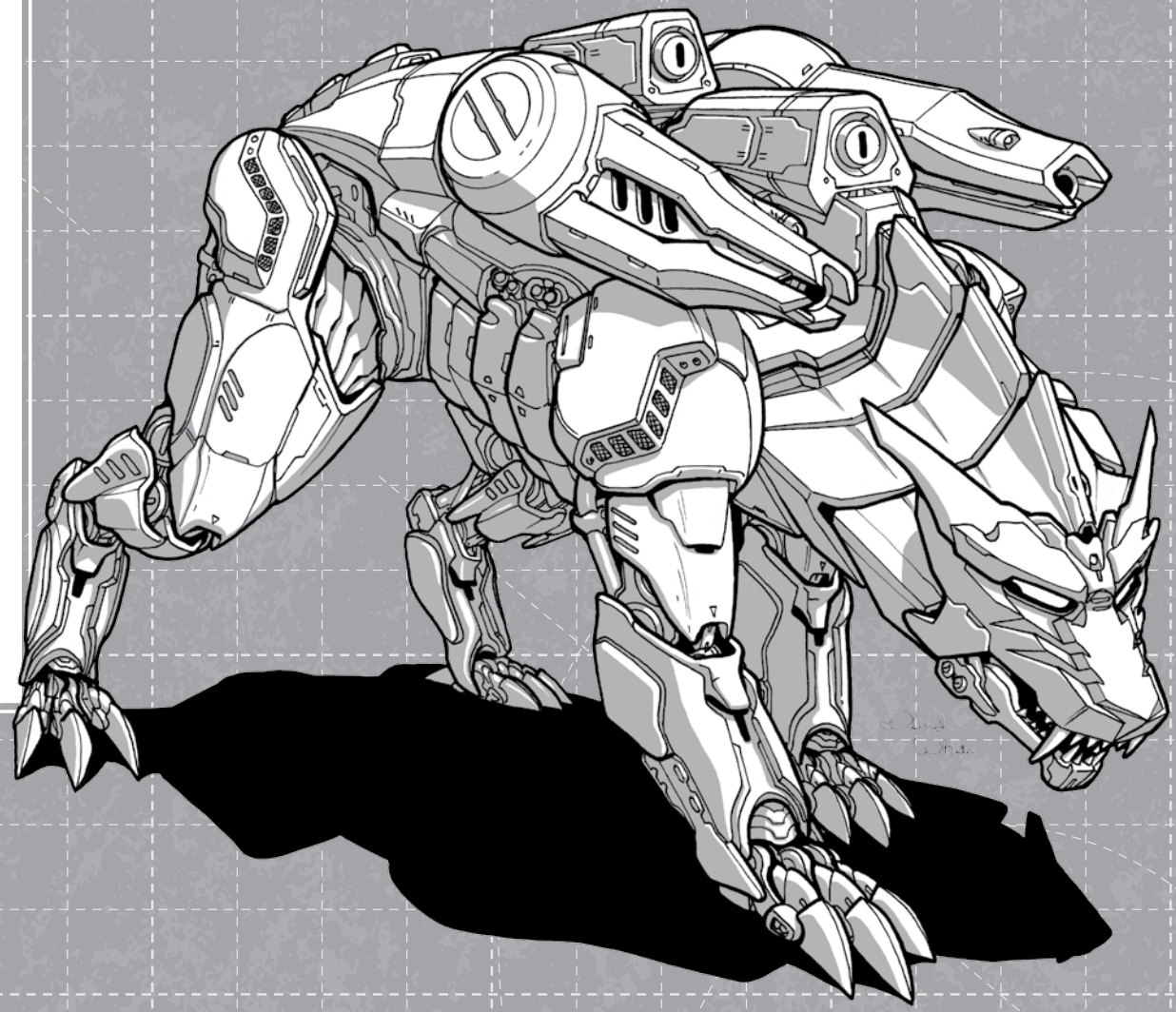
Type: **Procyon (Quad)**
Technology Base: Clan (Advanced)
Tonnage: 6
Battle Value: 205

Equipment		**Mass**
Internal Structure:		600 kg
Engine:	45	1,000 kg
Walking MP:	6	
Running MP:	9	
Jumping MP:	0	0 kg
Heat Sinks:	0	0 kg
Cockpit:		500 kg
Armor Factor:	30	1,500 kg

	Internal Structure	*Armor Value*
Head	2	4
Torso	6	12
Legs	8	14

Weapons and Ammo	**Location**	**Mass**
AP Gauss Rifle	T	500 kg
Ammo (AP Gauss) 16	—	400 kg
AP Gauss Rifle	T	500 kg
Ammo (AP Gauss) 16	—	400 kg
SRM 2	T	500 kg
Ammo (SRM) 5	—	100 kg

Notes: Features the following Design Quirks: Hard to Pilot, Distracting.



ProtoMechs

Mass: 9 tons
Chassis: Huntress MIN9 with MagClamps
Power Plant: 45 Fusion
Cruising Speed: 32 kph
Maximum Speed: 54 kph
Jump Jets: None
Jump Capacity: None
Armor: Proto-Standard M-9
Armament:
2 Improved Heavy Small Lasers
1 SRM 4 Launcher
Manufacturer: Csesztreg Industriplex Epsilon
Primary Factory: Csesztreg
Communications System: Proto-Type A
Targeting and Tracking System: SAT-PM 1

Overview

Clan Hell's Horses' touman found itself worn out and ragged after almost three decades of battle against a variety of enemies as it carved out the Clan's new permanent home in the Inner Sphere. The series of wars, which stretched over six generations of Clan warriors, did much to bolster the Clan's power and prestige among its peers, but by the end of the Jihad and the subsequent formation of The Republic, the Clan's military power could do little more than defend its new holdings against occasional raids from its neighbors.

The Clan faced several setbacks when adapting its new holdings to a Clan level of industry. Khan James Cobb recognized the value of integrating and upgrading Spheroid manufacturers, probably from watching the Ghost Bears do the same. Though the Horses began the process almost immediately, it took nearly a decade for the Clan to begin seeing the fruits of its labor.

One of the first priorities was the rearming of the Clan's touman. Severely depleted during its decade-long battle with the Wolves, the Clan was in great need of quick, fast units to replenish its forces. Knowing that OmniMech production was behind, the Clan authorized several new projects that either refitted older equipment or capitalized on new scientific breakthroughs. One of those was the refit and revitalization of the Clan's ProtoMech Clusters, which had found excellent success fighting Clan Wolf over the last several years.

The large supply of *Minotaur*s on hand made it the obvious choice for Horse scientists and technicians to revitalize.

Capabilities

One of the largest ProtoMech designs in production at the time of the Horses' withdrawal from the Homeworlds, the *Minotaur* was a dangerous weapon platform. A Point of these ProtoMechs could easily take down a medium OmniMech, and were excellent units to use as a supplement to static defenses.

Mobility was an issue, as the *Minotaur* was exceedingly slow. By modifying the knee and elbow joints to handle new magnetic clamps, the plodding ProtoMech could now be moved quickly from location to location. The massive medium lasers were pulled and replaced with two improved small heavy lasers, controlled in each arm by the pilot with a simple trigger. A swing-back four-pack missile launcher provides a hefty punch at close range.

Such massive changes to the original design's loadout forced the Clan designers to re-imagine the *Minotaur*'s look, however. The original model utilized specific armor molds and precision-made plates, giving it an ethereal, otherworldly look. The armor tooling facilities were all located in the Homeworlds, an unavailable option for the Clan even through the Diamond Sharks. Because time was not available to remake such precision equipment, Clan scientists opted instead to rebuild and refurbish several shuttered armor manufactories on Csesztreg that Clan Wolf had shut down during their prior occupation. As a result, the newer *Minotaur* looks more blocky and mechanical in appearance. Such aesthetics are lost on its chosen pilots, however, who are clearly happy with the redesign.

Deployment

The new *Minotaur P2* has only recently been seen operating with Clan Hell's Horses, mostly with Beta and Theta Galaxies, in shared Binary formations. Its heavy armament and armor make it a key component as an anchoring Point, often carried into position by a partner Star. The design is very similar to a prototype Point spotted operating with Theta Galaxy during the Wolf Crisis in 3080; its apparent success in the few Trials they participated in seems to have been the impetus for this complete remake. Its distinctive single swing-back launcher makes it easy to identify when operating with a mixed Point.

While ProtoMech forces are not a significant portion of the Horses' new touman, they are present and remain deadly. The Wolves relearned this lesson in their 3088 raid on Alleghe, when their attacking forces ran straight into a full Star of ProtoMechs defending the *Hellstar* processing facility. The three Points of *Minotaur P2*s that materialized along their southern flank hammered the Wolves, thanks to some creative maneuvering by Star Colonel Paul Amirault. Only four *Minotaur*s were lost, compared to almost a Binary of Wolf 'Mechs and battle armor.

MINOTAUR P2

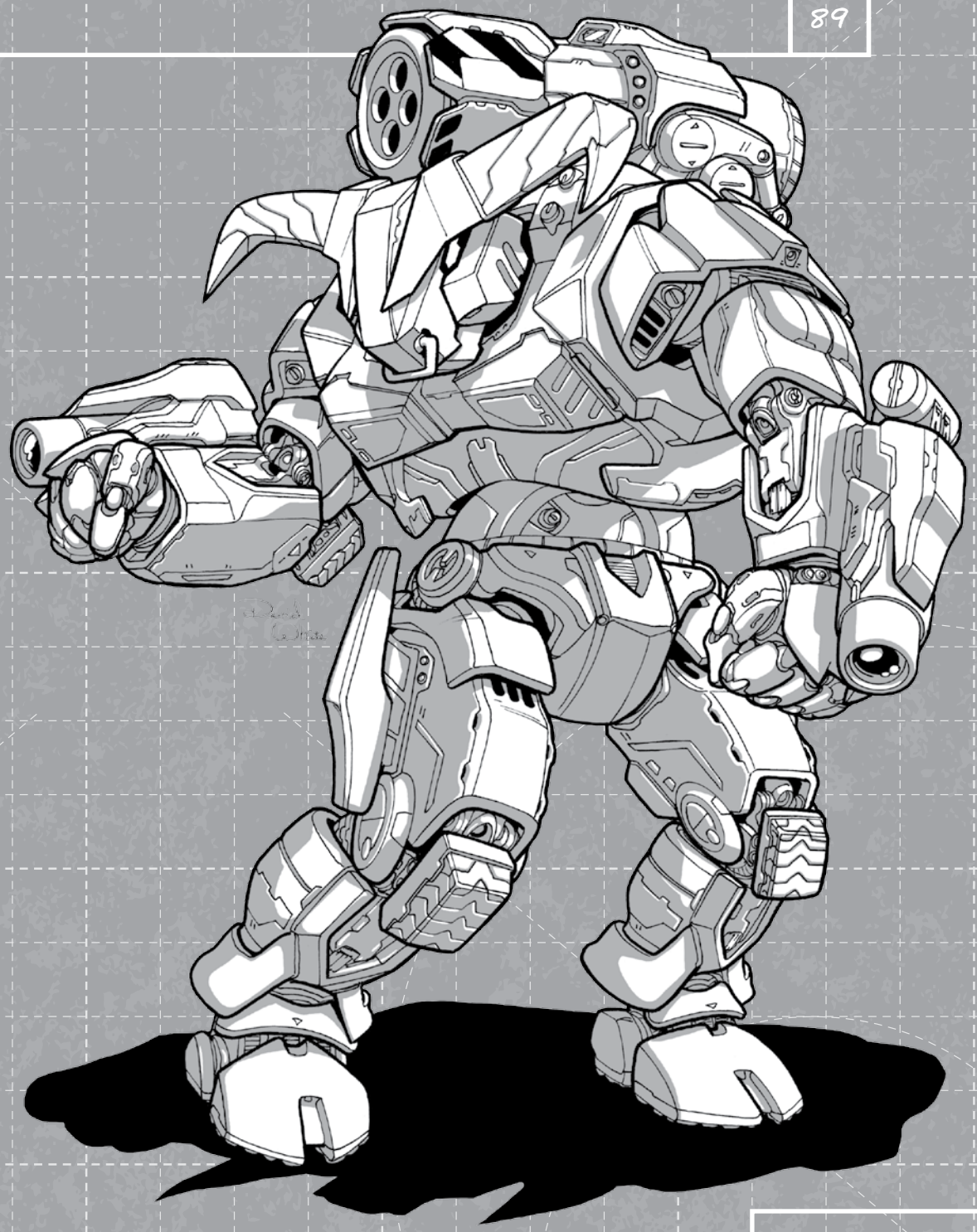
Type: **Minotaur P2**
Technology Base: Clan (Advanced)
Tonnage: 9
Battle Value: 266

Equipment		**Mass**
Internal Structure:		900 kg
Engine:	45	1,000 kg
Walking MP:	3	
Running MP:	5	
Jumping MP:	0	0 kg
Heat Sinks:	6	1,500 kg
Cockpit:		500 kg
Armor Factor:	45	2,250 kg

	Internal Structure	*Armor Value*
Head	2	6
Torso	9	18
R/L Arm	2/2	4/4
Legs	5	10
Main Gun	1	3

Weapons and Ammo	**Location**	**Mass**
Improved Heavy Small Laser	RA	500 kg
Improved Heavy Small Laser	LA	500 kg
Magnetic Clamp System	T	500 kg
SRM 4	M	1,000 kg
Ammo (SRM) 8	M	320 kg

Notes: Features the following Design Quirk: Extended Torso Twist



ProtoMechs

Mass: 14 tons
Chassis: SVA-14 Glider
Power Plant: 60 Fusion
Cruising Speed: 10 kph, 43 kph with Gliding
Maximum Speed: 10 kph, 64 kph with Gliding
Armor: UltraProto Standard
Armament:
2 Medium Chemical Lasers
1 Streak SRM 6 Launcher
1 Machine Gun
Manufacturer: Swedenborg Heavy Industries
Primary Factory: Kirchbach
Communications System: Proto-Type 4
Targeting and Tracking System: SAT-PM 1

Overview

Intelligence gathered from Diamond Shark trade delegations uncovered several rumors of Clan Hell's Horses developing a light or ultralight LAM. There was even one image of the object at a distance, though little could be gleaned from the file, other than it was capable of flight. Covert missions to ferret out more information all ended in failure, without a single piece of evidence of the LAM's existence.

Six months ago Clan Wolf became a live-fire test for the *Svartalfa*. The Wolves weren't sure what the *Svartalfa* was: too small to be a 'Mech, but far too tough to be battle armor or a ProtoMech—or so they thought. While they finally managed to get a handle on them, it is clearly going to take a while before their warriors know how to combat the *Svartalfa*.

Capabilities

The *Svartalfa* is big. It's half-again as massive as any known ProtoMech, and mounts more armor than most twenty-ton BattleMechs. It can take a heavy Gauss rifle shell to the chest at point-blank range and keep on coming. As terrifying as such a heavy ProtoMech is, the *Svartalfa* does not move any faster than unarmored infantry along the ground. Before images of the Kanazuchi battle armor are conjured, however, the claims of the *Svartalfa* being an LAM were not that far off. While it cannot transform into an aerospace fighter, it is capable of limited flight, using the wing-in-ground effect concept to glide just above the ground at speeds over sixty kilometers per hour. This keeps the *Svartalfa* from relying exclusively on other vehicles for transportation, and allows it to move around the battlefield.

Tough and mobile, the *Svartalfa* packs an even better punch. Two chemical lasers do not have the same power as their fusion-charged Clan counterparts, but they do match up with Inner Sphere lasers. A full Streak six-pack provides additional firepower, one that can take advantage of the holes that the lasers open. For anti-personnel support a standard machine gun is built into the torso with plenty of ammunition. The chemical lasers' fuel needs limit their endurance, but because they do not require the heat dissipation of regular lasers, this allows for the heavier armor and Streak rack.

Outside of the readily apparent differences, the *Svartalfa* is different in other ways. The cockpit is fifty percent larger than a standard ProtoMech cockpit. While the larger design requires more control, this does allow for a larger pilot. A pilot of Elemental breeding is a possible with the *Svartalfa*, but it can be easily reconfigured for a snug fit for smaller pilots. The wing system folds to allow not only easy transportation but also better mobility on the ground. The ability to fold doesn't impede their strength or ability to absorb fire.

Deployment

The *Svartalfa* has only been distributed to the best ProtoMech pilots in the best units. They have been used on several raids against the Wolves, both confounding the defenders and proving the effectiveness of the *Svartalfa*. Deploying medium and heavy 'Mechs to take on even a single ProtoMech frustrated the Wolf MechWarriors, while attempts to use battle armor resulted in failure due to the *Svartalfa*'s advantages in armor, firepower and mobility. The *Svartalfa* provides a low-resource unit that can be used to occupy much more complex units, allowing heavier forces to focus on a smaller number of opponents.

Variants

Looking for a greater range of engagement, Hell's Horses scientists managed to put a fifteen-tube long-range missile rack on the torso. They then discovered they still had more room and added another as a main gun. This did necessitate the removal of some armor, but this version has staying power, with ten salvos for each launcher. Despite the decreased armor, the greater range and firepower has proven effective on the battlefield. A Point of LRM-equipped *Svartalfa*s and an accompanying spotter convinced a Star of Wolf 'Mechs that they were a *Bane* hiding in the woods. With their mobility, they would rotate the spotter position around, ravaging the Wolves. Bypassing the spotter, the Wolves converged on the heart of woods to discover it empty.

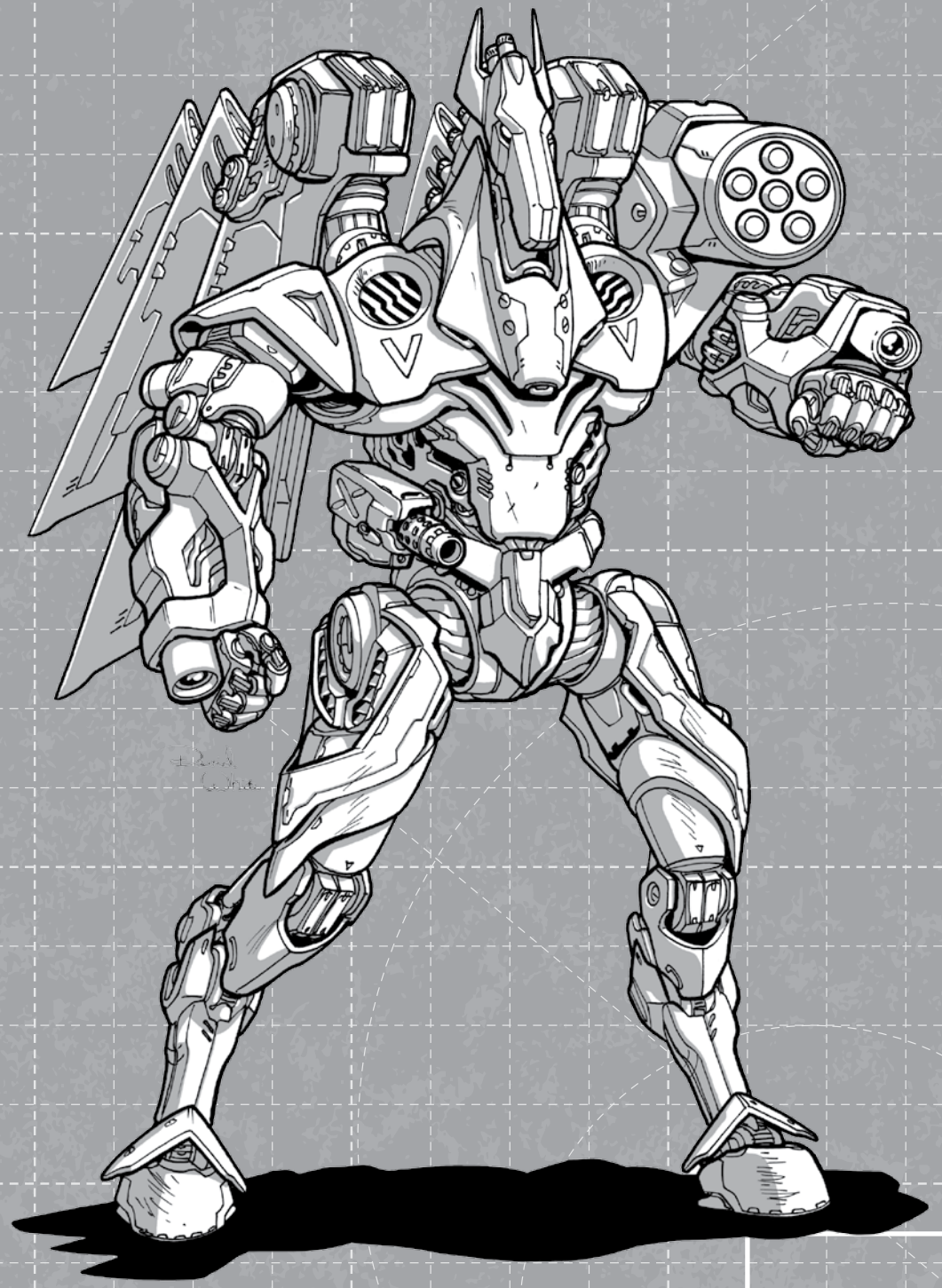
SVARTALFA ULTRA PROTOMECH

Type: **Svartalfa Ultra ProtoMech**
Technology Base: Clan (Advanced)
Tonnage: 14
Battle Value: 540

Equipment		**Mass**
Internal Structure:		1,400 kg
Engine:	60	1,500 kg
Walking MP:	1	
Running MP:	1	
WiGE Cruise MP:	4	
WiGE Flank MP	6	
Heat Sinks:	0	0 kg
Cockpit:		750 kg
Armor Factor:	65	3,250 kg

	Internal Structure	*Armor Value*
Head	4	9
Torso	14	23
R/L Arm	4/4	6/6
Legs	8	14
Main Gun	2	7

Weapons and Ammo	**Location**	**Mass**
Medium Chemical Laser	RA	1,000 kg
Ammo (MCL) 15	—	500 kg
Medium Chemical Laser	LA	1,000 kg
Ammo (MCL) 15	—	500 kg
Machine Gun	T	250 kg
Ammo (MG) 50	—	250 kg
Streak SRM 6	M	3,000 kg
Ammo (Streak) 10	—	600 kg



'MECHS

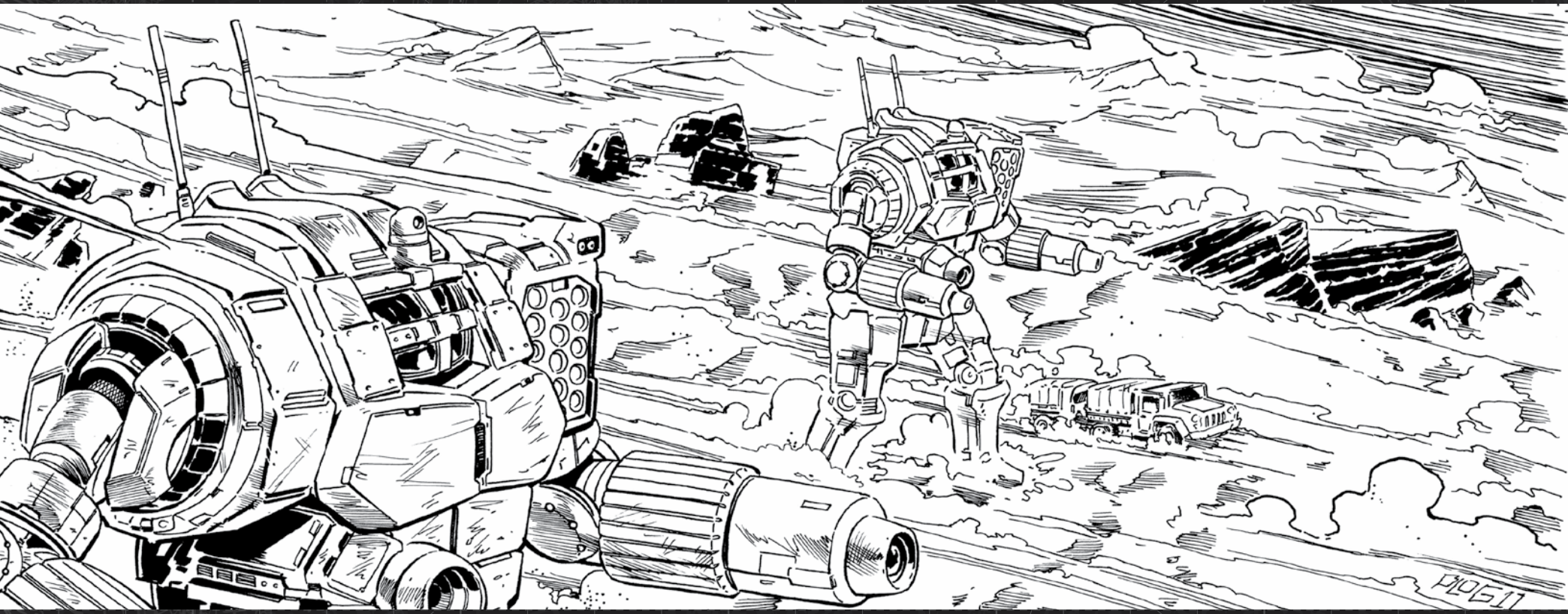
In spite of all the advances in technology, the BattleMech remains the king of the battlefield. Able to handle any terrain, packing more firepower than a vehicle of equal mass and mobility and commanded by a single, well-trained warrior, the 'Mech remains the deadliest and most economical combat unit in existence. In a fair fight, tanks and infantry must often rely on tactics and numbers to bring down a 'Mech, while DropShips and WarShips can barely be repaired, replaced and re-crewed as quickly as a state can raise a 'Mech battalion. Though the effective use of combined-arms can turn the tide of a war, at the heart of every major battle fought today the 'Mech reigns supreme. It is thus hardly surprising that most of the technological advances of the past few decades have focused on weapons and equipment suitable for BattleMech use.

Understanding the BattleMech's power, much of the Word of Blake's assault strategy early in the Jihad was aimed at disabling, destroying or controlling the largest 'Mech manufacturers in the Sphere. Hesperus II, Coventry, and Irian were all overrun, while many of the New Avalon factories were obliterated. Sites the Word could reach but not hold were bombarded, crippling production lines. At the same time, captured facilities were upgraded to facilitate the output of new units for the Blakist war machine.

As we noted elsewhere, at the same time the Blakists were both devastating enemy factories and enhancing their own to produce more modern BattleMechs, the desperate realms of the Inner Sphere were also pursuing a two-pronged effort to modernize their secondary producers while simultaneously embracing second-rate design techniques and equipment to make up for their shortfalls. The result of the latter—colloquially dubbed RetroTech—revived machines that had not strode on the battlefield since before the days of the first Star League, and even spawned a new generation of similar units ideal for supporting second-line defenses and planetary militias. In addition, a host of combat-modified IndustrialMechs also entered production, adding to the perceived rise in RetroTech, despite not truly being part of the same developmental movement.

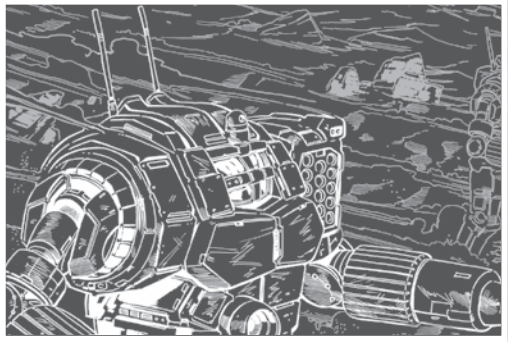
What follows is a collection of the newest mainstreamed designs that fall into all of these categories: new tech, RetroTech, and modified industrial tech. Taken together, they provide an excellent glimpse of the Jihad's fallout on 'Mech production among the Inner Sphere powers and local Clans

—Precentor Steven Partridge



PTN-2M PATRON PATROLMECH

Light 'Mechs



Mass: 15 tons
Chassis: AR1 Standard
Power Plant: Vlar 30 PowerStack Fuel Cell
Cruising Speed: 21 kph
Maximum Speed: 32 kph
Jump Jets: None
Jump Capacity: None
Armor: Maximillian 60
Equipment:
4 LFN Linblad Light Machine Guns
3 Death Blossom Rocket Launcher 10s
Manufacturer: Graham-Davis Enterprises
Primary Factory: Tamarind
Communications System: Neil 2000
Targeting and Tracking System: TRSS Eagle Eye

Overview

When the *Patron* debuted in the Duchy of Tamarind as a combat 'Mech designed to support local infantry defenders, it caught the first raiders off guard. Expecting an unarmed SupportMech, the bandit infantry were quickly scattered by a quartet of light machine guns. When their vehicles closed in to assist, rocket launchers savaged them, keeping the vehicles at bay until the *Patron*'s allied infantry could finish off the raider infantry. This spectacular debut led to greater sales of the latest variant of the venerable *Patron* LoaderMech: the PTN-2M *Patron* PatrolMech.

Capabilities

Originally designed as an ammunition loader, the *Patron* PatrolMech found a new niche post-Jihad. Aimed at a similar market as Coventry Metal Works' *Copper* SecurityMech, the *Patron* "Patroller" is aimed at buyers who need additional protection, but not so much to justify a full BattleMech. Graham-Davis Enterprises billed their 'Mech as superior to the *Copper*, with a greater reach and a lower price tag. GDE, of course, neglects to mention the slower ground speed—half as fast as the *Copper*—and the dramatically lower armor protection relative to its twenty-five ton competitor, but that can only be expected on a 'Mech so light. Though the PTN-2M has upgraded its armor from a vulnerable commercial grade to standard military plate, it does not rectify the fact that a medium laser strike can still sever a limb.

The use of the *Patron* to reinforce infantry units was a bit of a game-changer for Tamarind's forces. The rocket launchers provide serious—if limited—ranged firepower, preventing enemy units from sitting back and picking apart the defenders at range. Despite the limited protection of the *Patron*, enemy forces closing to finish it off will have to clash with their supporting infantry units, likely more on the infantry's terms. Against enemy infantry the *Patron* can shift roles, using its machine guns to chew up those troops who dare to close in to engage.

As a SecurityMech, the *Patron* performs well, but in different ways. While security vehicles are easier to find, they lack the imposing presence that a 'Mech provides. If that and firepower don't work as a deterrent, the machine guns are more than a match for the civilian vehicles and small arms that are the primary threats SecurityMechs face. In the off chance that the attackers are using something more combat-capable, the trio of rocket launchers can quickly destroy or disable the threat. While not having the two extra launchers that the first combat version had, the PatrolMech's improved fire control improves the likelihood that they will hit. Despite the premise behind the Patroller, SecurityMechs are often found pressed into industrial roles when threat levels are low, often helping load trucks in the day and guarding the facility at night.

Deployment

The *Patron* can be found throughout the Inner Sphere, though primarily in the former Free Worlds League. The newer versions have been sold within the Duchy of Tamarind, as well as to their allies. They have also offered the design to the mercenary and security markets, with some background checks to limit the chance of having to fight their own products. Despite being designed for the security market, the Patroller finds itself at home in military forces more often than the earlier version. Its improved armor and targeting make up for its loss in firepower. Comparatively speaking, security forces do not worry so much about the *Patron*'s weaponry, so much as the deterrence that even the image of a light 'Mech can provide by simply being nearby.

PTN-2M PATRON PATROLMECH

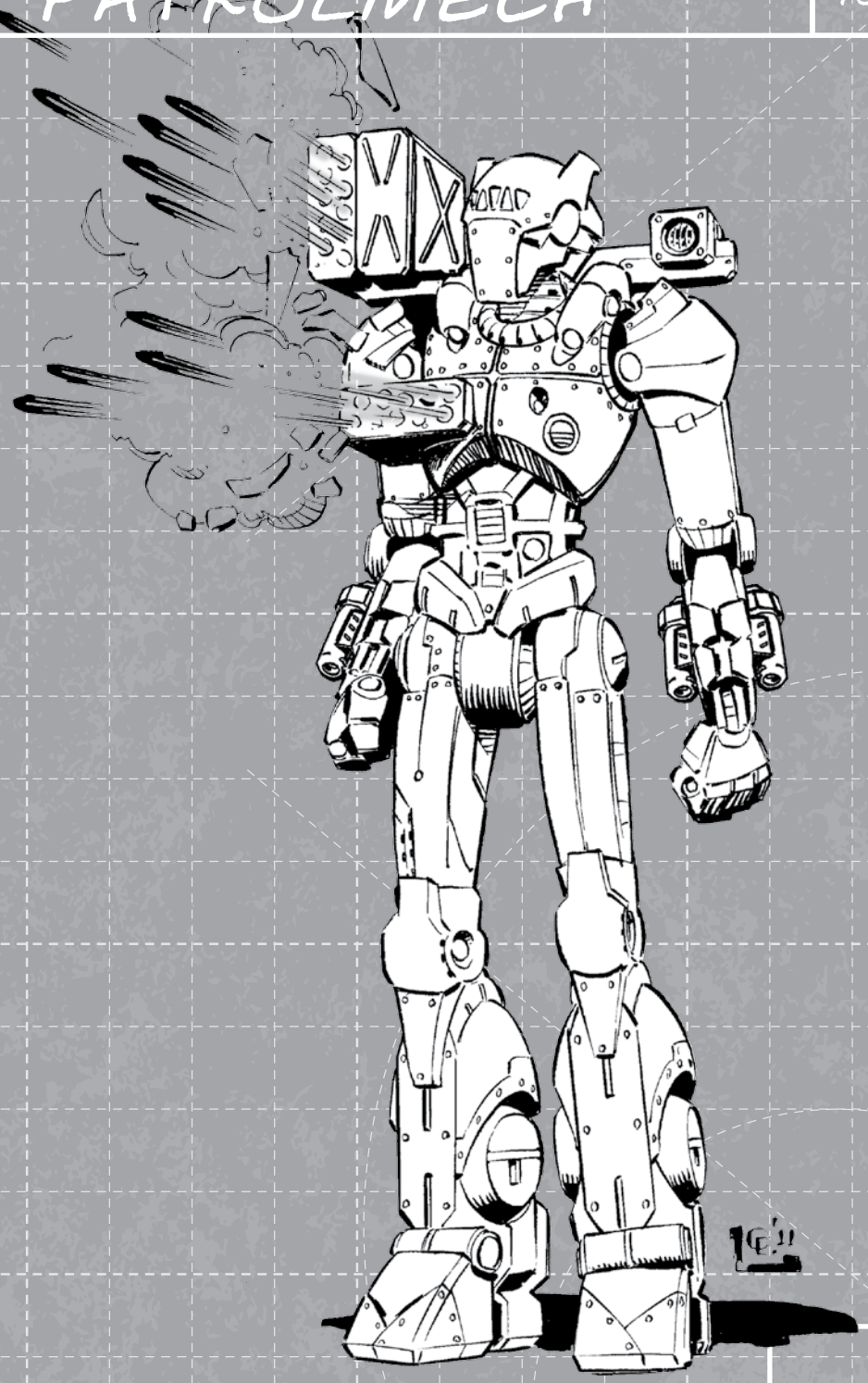
Type: **Patron PatrolMech**
Technology Base: Inner Sphere
Tonnage: 15
Battle Value: 147

Equipment		**Mass**
Internal Structure:	IndustrialMech	3
Engine:	30 Fuel Cell	1.5
Walking MP:	2	
Running MP:	3	
Jumping MP:	0	
Heat Sinks:	1	0
Gyro:		1
Cockpit (Industrial):		3
Armor Factor (Heavy Industrial):	32	2

	Internal Structure	*Armor Value*
Head	3	3
Center Torso	5	5
Center Torso (rear)		4
R/L Torso	4	4
R/L Torso (rear)		2
R/L Arm	2	2
R/L Leg	3	2

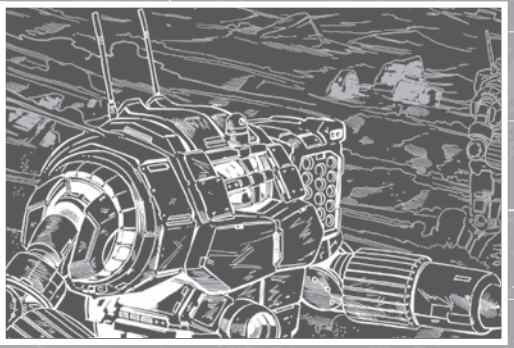
Weapons and Ammo	**Location**	**Critical**	**Tonnage**
2 Light Machine Guns	RA	2	1
Ammo (Light MG) 100	RA	1	.5
3 Rocket Launcher-10	RT	3	1.5
2 Light Machine Guns	LA	2	1
Ammo (Light MG) 100	LA	1	.5

Notes: Features Advanced Fire Control; Features the following Design Quirks: Ammunition Feed Problem, Protected Actuators.



DOL-1A1 DOLA

Light 'Mechs



Mass: 30 tons
Chassis: Tianshi I-S
Power Plant: Ceres Motors 240 XL
Cruising Speed: 86 kph
Maximum Speed: 129 kph
Jump Jets: Chilton 360s
Jump Capacity: 240 meters
Armor: Hellespont Lite Ferro-Fibrous
Armament:
2 Firmir Improved Extended Range Medium Lasers
Manufacturer: Shengli Arms
Primary Factories: Victoria
Communications System: Dian-bao Comms Advanced with Angel ECM Suite
Targeting and Tracking System: Dynatec 990

Overview

Olson's Rangers' sudden betrayal left Shengli Arms suffering from extensive damage. Olson's coordinated sabotage of the underground facility collapsed the ceilings, sealed entryways, and damaged many of its assembly lines. Shengli was able to restore limited production of their *Duan Gung* and *Jinggau* in relatively short order, but other portions of the plant remained sealed off by rubble, making receiving components and raw materials an arduous process. The discovery that the *Yu Huang* line had been irreparably crushed by debris was a particularly sobering blow. Rather than dwell on its losses, CEO Lao-Tzu ordered the company to press forward with development of new designs. Spawning from the same chambers that once housed the *Yu Huang's* assembly area comes the latest weapon of Shengli Arms: the *Dola*.

A rapid-response skirmisher, the *Dola* provides the CCAF the means to negate even the most advanced electronics. Operating as part of a cavalry or command lance, the *Dola* has the speed to respond anywhere on the battlefield, rendering the enemy's sophisticated sensors ineffective. While small, the *Dola* packs a deceptively powerful punch at point-blank range, making it an ideal raider.

Capabilities

While some were surprised that Shengli chose to introduce a new light 'Mech instead of seeking to rebuild the lost line, the choice was a practical one. The CCAF was already well served by such assault 'Mechs as the *Pillager* and *Emperor,* but losses amongst CCAF recon and cavalry units were appalling during the Jihad, where units ill-suited to frontline combat were repeatedly thrown away in brutal ambushes, last-stands and frontal assaults. The CCAF chewed through light 'Mechs with a voracious appetite, resulting in a force suffering from a shortage of units suitable for raiding and screening actions.

Unlike most Capellan light 'Mechs, which are built around reconnaissance and infantry suppression, the *Dola* is one of the first BattleMechs produced in the Confederation to learn from the Sphere-wide trend toward higher mobility, accuracy and hitting power as a means to make smaller chasses effective. Designed to tangle with 'Mechs one or more times its size as a matter of course, the *Dola's* offensive punch comes from a pair of medium lasers and a sword, a simple component to craft and one easy for even a novice MechWarrior to strike with. While some criticize the wisdom of placing a melee weapon on so small a frame, the *Dola* is expected to operate near the enemy to make use of its jamming equipment, and using a sword means that it does not suffer from overheating issues in prolonged combat.

The heart of the design is Shengli's recently-perfected Angel ECM suite. While the CCAF could once count on integral Guardian suites found on their stealth BattleMechs to eliminate enemy EW advantages, the proliferation of several advanced systems, particularly Boosted C^3, has put House Liao's ECM dominance in jeopardy. The DOL-1A1's excellent mobility allows it to reach and interdict enemy electronics wherever they are encountered.

Early prototypes were more advanced, but proved fragile and difficult to pilot. Shengli replaced the experimental composite structure with standard, and expanded the cramped cockpit to more typical dimensions. These changes meant the loss of the prototype's devastating vibroblade. While this has reduced the 'Mechs offensive power, the prototypes were found just as likely to cripple themselves as harm the enemy in the hands of less than experienced pilots.

Deployment

The *Dola* has found a warm reception amongst a number of rebuilding Capellan units. Both House Dai Da Chi and Phyr's Hussars are particularly keen on the *Dola,* as it plays well to their aggressive—some would say reckless—tactics. The *Dola* is also being exported to the Magistracy of Canopus, but priority is currently being given to meeting the needs of the CCAF, leaving the Canopians with only a few examples.

Variants

A number of units fielding multiple *Dola*s have instituted a field refit known as the DOL-1A2. With the 1A1 already providing sensor jamming, the 1A2 swaps the standard sword and Angel ECM suite for TAG and a light vibroblade. These Yoh Ti Ts'angs, as they have been nicknamed, have proven extremely popular amongst the Warrior Houses.

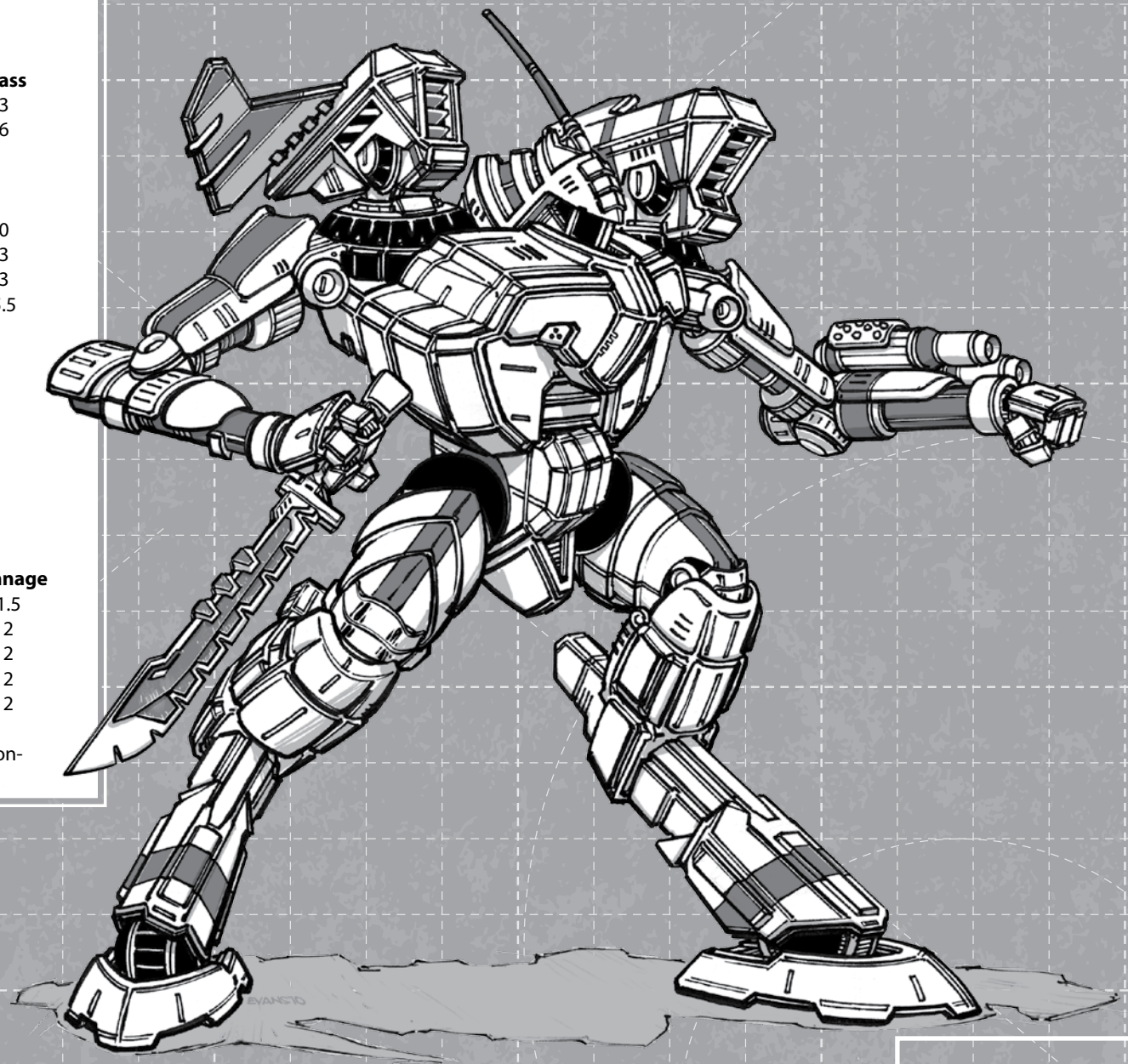
DOL-1AI DOLA

Type: **Dola**
Technology Base: Inner Sphere (Advanced)
Tonnage: 30
Battle Value: 950

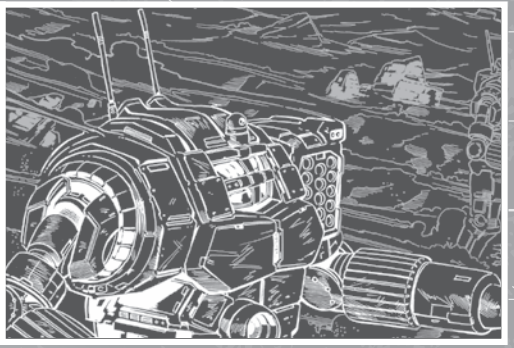
Equipment			**Mass**
Internal Structure:			3
Engine:	240 XL		6
Walking MP:	8		
Running MP:	12		
Jumping MP:	8		
Heat Sinks:	10 [20]		0
Gyro:			3
Cockpit:			3
Armor Factor (Ferro):	98		5.5
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	10	13	
Center Torso (rear)		6	
R/L Torso	7	10	
R/L Torso (rear)		4	
R/L Arm	5	10	
R/L Leg	7	11	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Sword	RA	2	1.5
Angel ECM Suite	CT	2	2
2 ER Medium Lasers	LA	2	2
Jump Jets	RT	4	2
Jump Jets	LT	4	2

Notes: Features the following Design Quirk: Jettison-Capable Weapon (Sword).



Light 'Mechs



Mass: 30 tons
Chassis: SDA Harvester (Sealed)
Power Plant: Doorman 120 Fusion
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Underwater Maneuvering Units: Piscis Volans
Underwater Speed: 43 kph
Armor: Valliant Lamellor
Equipment:
1 Diverse Optics Extended Range Small Laser
1 Sea Harvester Six Rack SR Torpedo Launcher
Manufacturer: Bowie Industries
Primary Factory: Carlisle
Communications System: T-300 Dual Wave
Targeting and Tracking System: Dalban Trident

Overview

The *Spindrift* is the result of a company suggestion box policy, first implemented by Bowie Industries over thirty years ago. Each year from 1 October through 30 November, Bowie solicits all manner of ideas from its employees. Ideas are categorized and voting opens for one month on 15 December. The results are revealed on 20 March. In the 'Mech development category, the best design suggestions, as chosen by the technical staff at Bowie, are given a full workup and presented to the board of directors as possible projects.

Bowie had produced a total of twelve prototypes by the late 3070s, and after exhaustive testing finalized the SDT-1A configuration in 3083. Sadly, the numerous advanced armor configurations tested in the prototype stage did not make it into the final production model. The laser reflective armor proved particularly disappointing, as it repeatedly failed to stop short range torpedoes and fared worse against ballistic weaponry above water.

The scarcity and expense of acquiring HarJel also eliminated it from the production configuration. Bowie included it on the prototype to prevent a hull breach from damaging the *Spindrift*'s Doorman fusion engine, and stated several times that they hoped to negotiate an agreement with Clan Diamond Shark that would allow them to include it in production. When Bowie announced the removal of HarJel at a stockholders' conference in late 3082, their shares fell two percent.

Capabilities

The *Spindrift* is designed to excel in a variety of underwater roles. A full set of arm actuators (including the Quince-Jones hand actuator) gives it excellent articulation. Precise positioning on three axes is achieved using the Bowie-designed Piscis Volans underwater maneuvering units. Positioned in each side torso and the legs, the UMUs give the *Spindrift* an exceptional movement rate underwater (as fast as 43 kph) but also allow for positioning with one-meter accuracy in the hands of a trained operator.

Offensively, the *Spindrift* is meant for underwater engagements. A Sea Harvester short range six-tube torpedo launcher gives it solid firepower for its weight class, and engagement ranges up to 270 meters. The Sea Harvester is the most common and reliable brand of torpedo launcher currently available. Even with a cross-torso ammo feed, the Sea Harvester offers a cycle time four-fifths of a second faster than comparable launchers. Additionally, years of continual quality improvement eliminate the possibility of a jam in the feed mechanism. Although the *Spindrift* must move above water to reload, the Sea Harvester's modular ammunition storage bin can be reloaded very quickly. Aside from the Sea Harvester, the 'Mech is equipped with a reliable Diverse Optics laser.

An advanced Dalban Trident targeting system ties these weapons together. Complete with programmable firing options and targeting parameters, the Dalban is capable of tracking up to fifteen independent targets underwater, and provides the MechWarrior with a constant stream of data including depth, descent/ascent rate, displacement/mass, propulsion type and speed. Primarily an underwater targeting suite, the Dalban's capabilities are significantly reduced on land. With telemetry for only five overland targets, the Dalban can be overwhelmed—particularly by the battle armor groups which pose the greatest threat to the *Spindrift*. With only one lightweight laser to defend itself, the 'Mech is outgunned by virtually all battle armor units. Anti-'Mech trained infantry also pose a minor threat to the SecurityMech, but it can easily outdistance conventional infantry.

Given its intended use underwater, the *Spindrift* lacks an ejection system, but it is common for MechWarriors to carry a bail-out supplemental oxygen system. In some deployments a wetsuit, fins and standard air tank, or dry suit and nitrox system, are used to improve survivability when ditching. Storage compartments behind the pilot's couch accommodate these additional items.

Deployment

Since its introduction five years ago the *Spindrift* has seen solid sales throughout the Lyran Commonwealth. Although it's purpose-built for water-rich worlds, the design is also capable of operating in vacuum and other hostile environments. A number have been purchased for those uses. Although not supported by Bowie, aftermarket modifications often remove the torpedo launcher and UMUs for those deployments, exchanging them for more suitable equipment.

SDT-1A SPINDRIFT AQUATIC SECURITYMECH

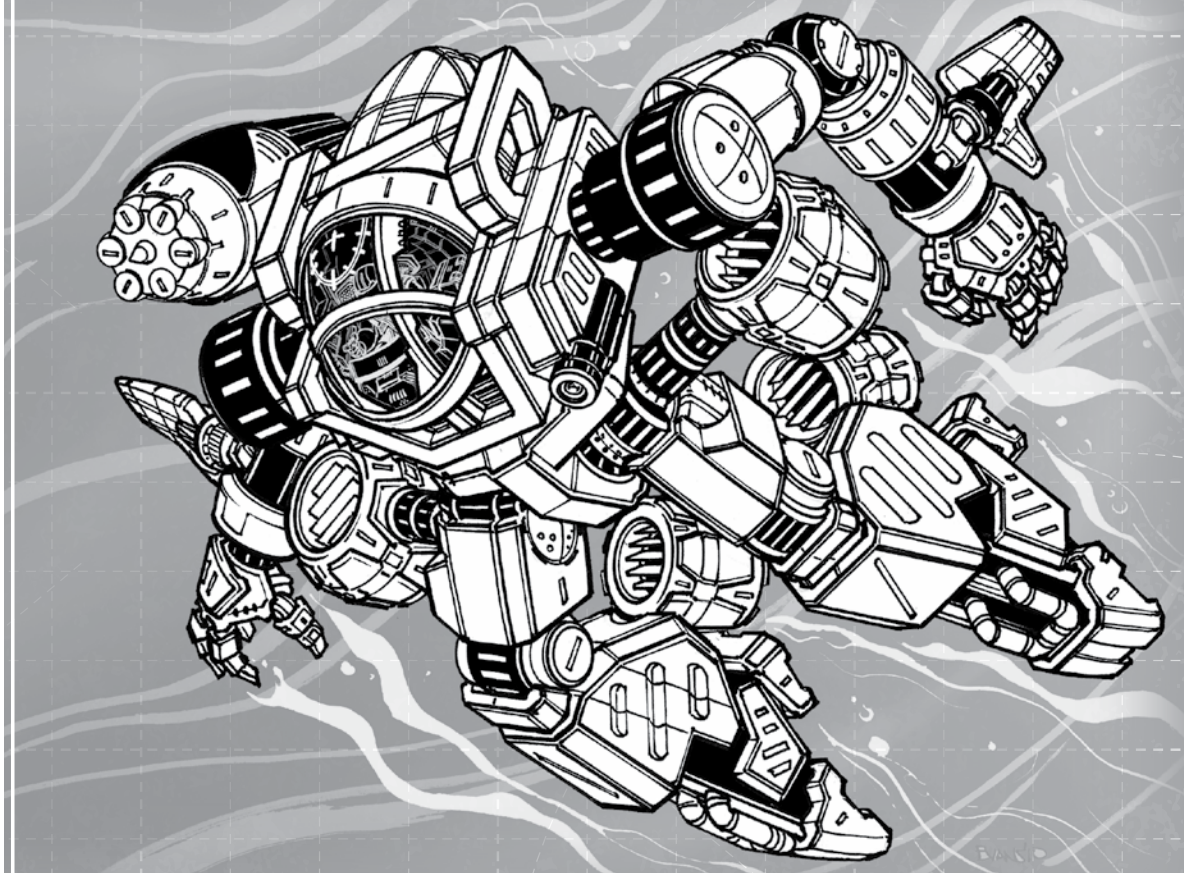
Type: **Spindrift Aquatic SecurityMech**
Technology Base: Inner Sphere (Advanced)
Tonnage: 30
Battle Value: 449

Equipment		**Mass**
Internal Structure:	IndustrialMech	6
Engine:	120	4
Walking MP:	4	
Running MP:	6	
Jumping MP:	0	
UMP MP:	4	
Heat Sinks:	10	0
Gyro:		2
Cockpit (Industrial):		3
Armor Factor (Heavy Industrial):	88	5.5

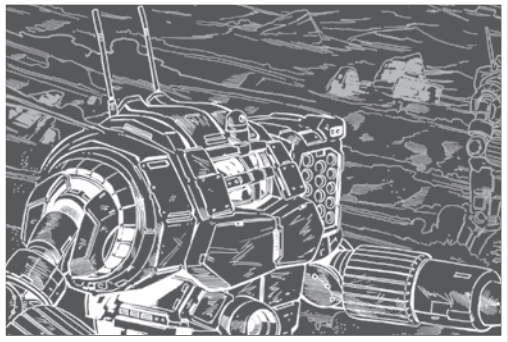
	Internal Structure	*Armor Value*
Head	3	6
Center Torso	10	10
Center Torso (rear)		6
R/L Torso	7	9
R/L Torso (rear)		5
R/L Arm	5	9
R/L Leg	7	10

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
SRT 6	RT	2	3
Ammo (SRT) 15	LT	1	1
ER Small Laser	LT	1	.5
Environmental Sealing	*	8	3
UMU	RT	1	.5
UMU	LT	1	.5
UMU	RL	1	.5
UMU	LL	1	.5

Notes: *Environmental Sealing takes up 1 critical slot in every location; Features Advanced Fire Control; Features the following Design Quirks: No Ejection System, Multi-Trac.



Light 'Mechs



Mass: 35 tons
Chassis: MerMan Industrial
Power Plant: Jones 175 Fuel Cell
Cruising Speed: 54 kph
Maximum Speed: 86 kph
Jump Jets: None
Jump Capacity: None
Armor: Lexington Limited
Equipment:
1 Meridian Mark II Heavy Rifle
Manufacturer: Meridian Manufacturing
Primary Factory: New St. Andrews
Communications System: Meridian Broadband
Targeting and Tracking System: Meridian T-60

Overview

New St. Andrews has generally been considered an unremarkable world, inhabited by people of Scottish descent whose history has them traversing much of the anti-spinward Inner Sphere before arriving on their present home. Peace did not last in the agrarian community, and soon conflicts over resources polarized the inhabitants back into their traditional clannish origins.

New St. Andrews had been the occasional recipient of raids from its neighbors and various pirate bands, including expeditions to ascertain its potential for mineral exploitation. One such raid succeeded in late 3058, and a mining operation was set up in 3059 to mine accessible deposits of rare minerals. This led the powerful MacGreggor clan to conclude that peace would be impossible on New St. Andrews unless they were able to defend themselves. The clans began an effort to acquire a pool of talent from the Inner Sphere, while working to eject the mining operation.

These efforts succeeded in 3060, and Meridian Manufacturing was created the same day. The first BattleMech manufacturing project began in 3063. While the clans of New St. Andrews had been able to create fairly modern facsimiles of the venerable Scorpion and Vedette vehicle designs, they had to compromise with regards to the weapon systems, installing lower tech machine guns and heavy rifle equivalent weapons. The compromises required in their BattleMech project proved even more severe. To add insult to injury, Meridian proved unable to manufacture a functioning copy of the class-five autocannon.

Lead designer Niamh Stewart is credited with the design approach to make the design look fearsome, such that untrained opponents would be confused by its appearance. While initially a mere quirk of the design, it soon proved to have a major impact on Meridian's future. Images of the unusual 'Mech sparked interest among New St. Andrews' various neighbors. When the curious discovered the *Arbiter*'s extremely low price, sales orders began pouring in.

Unfortunately, persistent raids on the Meridian Manufacturing facilities by various bandits have kept the *Arbiter* from reaching full production. Combined with numerous logistical problems caused by New St. Andrews' remote location, it is no surprise that Meridian needed until 3074 to be able to manufacture the *Arbiter* without interruption.

Capabilities

As a combat unit, the ARB-001 is underwhelming. Its Jones 175 power plant, created with New St. Andrews labor and materials, provides it with power enough to reach a respectable eighty-six kph. This only compares favorably with the heavier designs it may encounter, allowing it to disengage from the many 'Mechs that vastly outperform it. Its Mark II Heavy Rifle is a marginally competent weapon that allows groups of *Arbiter*s to pose a significant threat to lighter BattleMechs, and can be enough to cause more cautious pirates to withdraw. However, the heavy rifle's inferior propellants and shell design deprive the *Arbiter* of significant battlefield performance, and its ammunition bay holds only six shells. While this helps ensure that an *Arbiter* will not needlessly loiter on a battlefield by choice, it has created many situations where an ARB-001 was left without any means of defending itself.

Worst of all is the ARB-001's inability to cope with its weapon's heat. Sustained volleys will cause significant heat problems.

Deployment

Despite its poor performance capabilities, the ARB-001 has seen wide sales. Individual hand-built copies found their way to customers in the Rim Collection and Circinus Federation, and also the Lyran Alliance (now Commonwealth) and Free Worlds League (and its various successor states) as early as 3068. Numerous mercenary units in the area have been happy to add the *Arbiter* as an inexpensive security asset.

Variants

Many customers have swapped out the Mark II cannon for any autocannon available. The structural demands of the two weapon systems are similar; the Meridian T-60 system was actually coded to support an autocannon. This change significantly improves the design, mitigating its heat and ammunition endurance problems immediately.

ARB-001 ARBITER SECURITYMECH

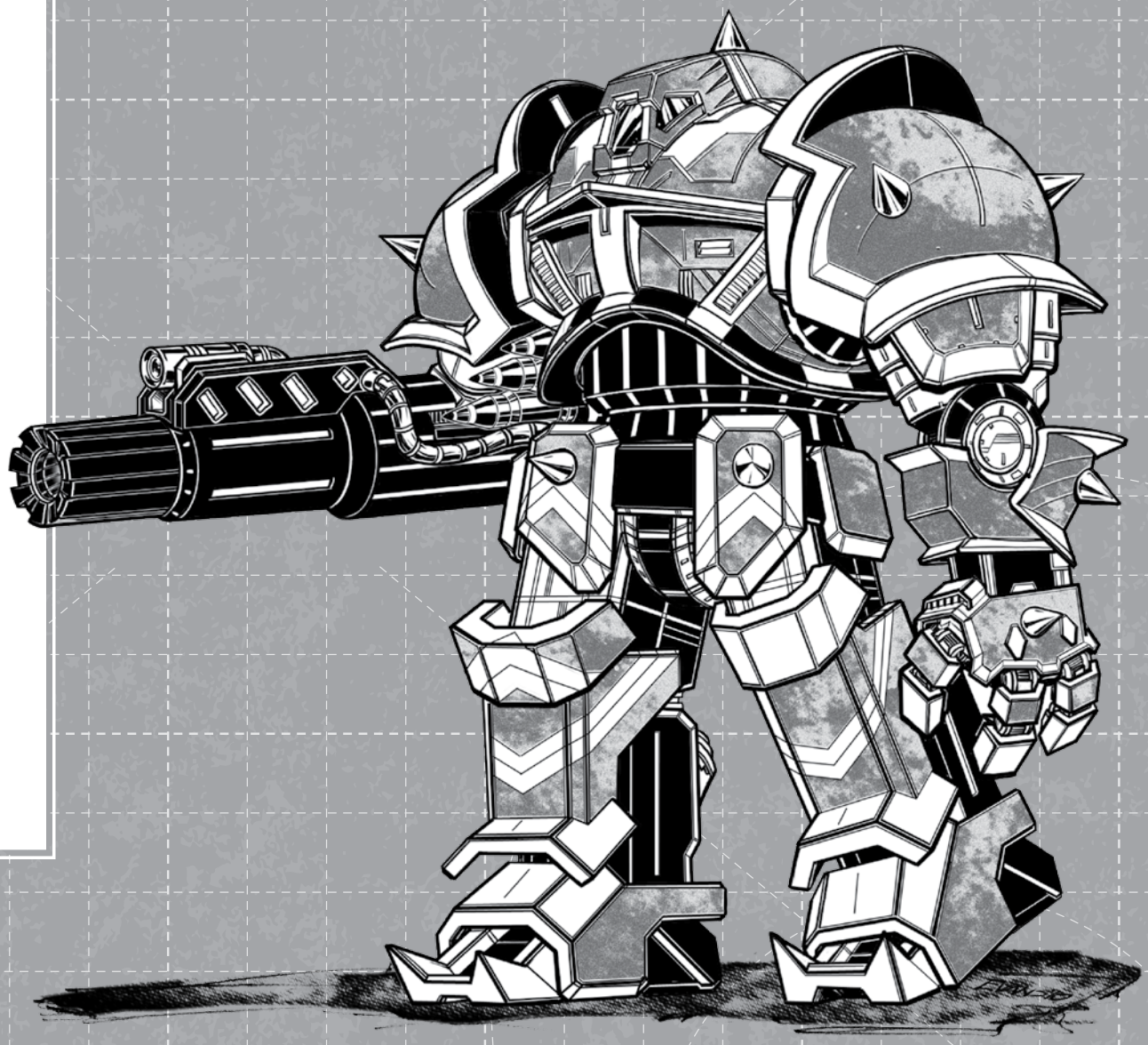
Type: **Arbiter**
Technology Base: Inner Sphere
Tonnage: 35
Battle Value: 507

Equipment		**Mass**
Internal Structure:	IndustrialMech	7
Engine:	175 Fuel Cell	8.5
Walking MP:	5	
Running MP:	8	
Jumping MP:	0	
Heat Sinks:	1	0
Gyro:		2
Cockpit (Industrial):		3
Armor Factor (Heavy Industrial):	80	5

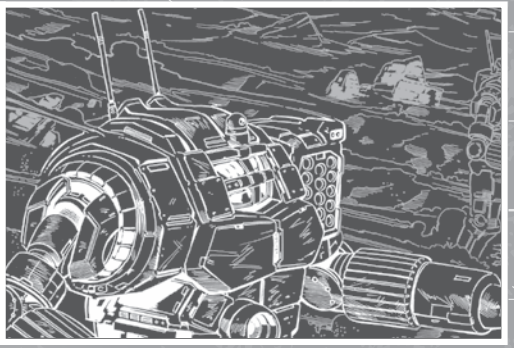
	Internal Structure	*Armor Value*
Head	3	8
Center Torso	11	10
Center Torso (rear)		2
R/L Torso	8	10
R/L Torso (rear)		2
R/L Arm	6	8
R/L Leg	8	10

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Heavy Rifle	RA	3	8
Ammo (Rifle) 6	RA	1	1
Ejection Seat	H	1	.5

Notes: Features Advanced Fire Control; Features the following Design Quirks: Exposed Weapon Linkage, Distracting.



Light 'Mechs



Mass: 35 tons
Chassis: MatherTech 750-E Endo Steel
Power Plant: Omni 245
Cruising Speed: 75 kph
Maximum Speed: 118 kph
Jump Jets: None
Jump Capacity: None
Armor: Lexington Limited High Grade Ferro-Fibrous
Armament:
4 Defiance Model XII Extended-Range Medium Lasers
Manufacturer: Coventry Metal Works
Primary Factory: Coventry
Communications System: Cyclops 14
with Guardian ECM Suite
Targeting and Tracking System: Cyclops with
Bloodhound Probe

Overview

When Coventry Metal Works looked to update some of their BattleMechs to utilize developing technologies, the *Stiletto* was targeted for redesign. While the 'Mech had earned merit as a scout, it had never gained popularity among MechWarriors. It also failed to live up to its original mission to mimic the Clan *Fire Falcon* as a powerful and ultrafast strike unit.

The new *Stiletto* was overhauled from head to toe. Its top speed was increased by over thirty kilometers per hour. It also switched the entire weapon payload to an all-energy arsenal, allowing the *Stiletto* to operate for extended periods of time with no resupply required. Even the weapon mountings were changed in order to mount BattleMech turrets.

The sensors were also improved, in order to facilitate better scouting and avoid ambushes. The improved Bloodhound active probe replaced the defensive Guardian ECM suite. While many viewed this as a lateral design option, rather than an improvement, the project engineers felt that with the improved speed it was better to locate enemy units than try to confuse them.

The overhaul was deemed a success, and Coventry began shifting the concept STO-6X to a production-ready model. Many of the necessary systems were already available when the order to modify the production facility came down. The 6S moved from concept to full production at a breakneck speed.

Capabilities

Even the most effective concept vehicle must make some changes when it enters mass production, and the *Stiletto* is no exception. While engineers prized the speed provided by a supercharged fusion engine, practical considerations forced the production model to utilize a standard Magna 245 power plant instead. The LCAF demanded that the Guardian ECM suite be installed. It was viewed as vital technology in the face of C^3 and C^3i-equipped enemy forces. Forced to choose between the supercharger and the Bloodhound probe, Coventry designers opted to keep the electronics and leave the engine unchanged.

The turret mountings in the BattleMech's shoulder sockets took some tweaking to perfect. Once operational, they provided a stable and broad field of fire for the *Stiletto* to effectively target into any firing arc at any speed. While MechWarriors require a retraining to master the new firing controls, the positive responses have greatly outpaced concerns.

The Bloodhound active probe provides the *Stiletto* with maximum detection capabilities. Even dedicated anti-detection technologies struggle to escape the Bloodhound's notice. The extended range of the Bloodhound's detection envelope, when coupled with the *Stiletto's* top speed of 118 kph, gives the 'Mech an uncanny ability to detect and disrupt enemy ambushes.

Built for combat as well as scouting roles, the 6S variant has more firepower and armor protection than ever before. For the first time it also has the potential to overheat. While this would require prolonged intense combat, it is still a danger traditional *Stiletto* pilots did not have to address. Despite that potential hazard, the 6S *Stiletto* is viewed as a successful upgrade.

Deployment

To combat the disdain many LCAF MechWarriors show for the *Stiletto*, the 6S was first deployed in the First Royal Guards. Once the taboo was broken, other notable regiments received shipments of the BattleMech to bolster their recon and strike lances. The First Skye Jaegers and Fourth Donegal Guards both utilize the design to great effect. The Lyran Regulars are slated to begin receiving the STO-6S in the near future.

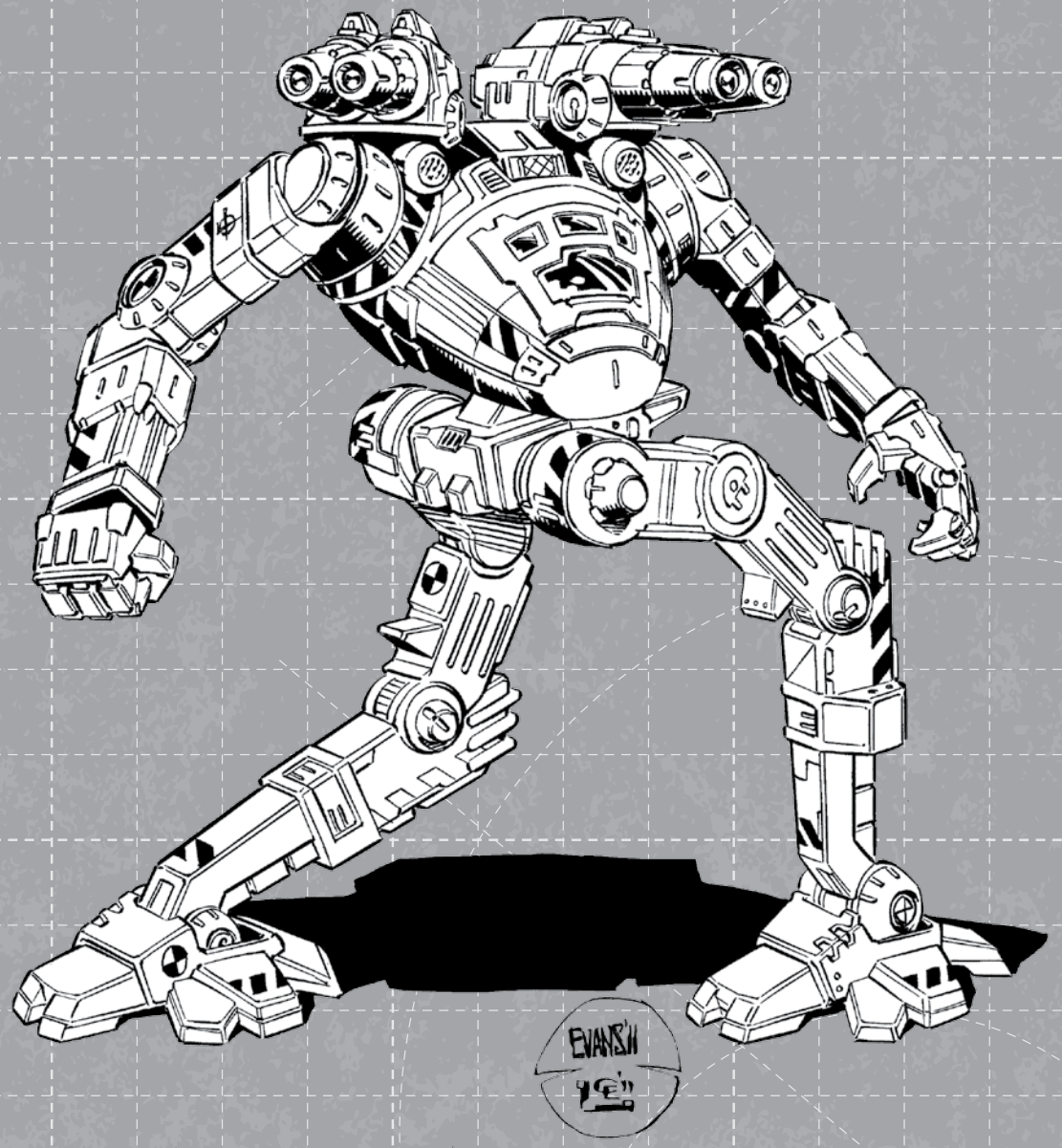
STO-6S STILETTO

Type: **Stiletto**
Technology Base: Inner Sphere (Advanced)
Tonnage: 35
Battle Value: 1,171

Equipment			**Mass**
Internal Structure:	Endo Steel		2
Engine:	245		12
Walking MP:	7		
Running MP:	11		
Jumping MP:	0		
Heat Sinks:	10 [20]		0
Gyro:			3
Cockpit:			3
Armor Factor (Ferro):	116		6.5
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	11	16	
Center Torso (rear)		5	
R/L Torso	8	11	
R/L Torso (rear)		5	
R/L Arm	6	12	
R/L Leg	8	15	

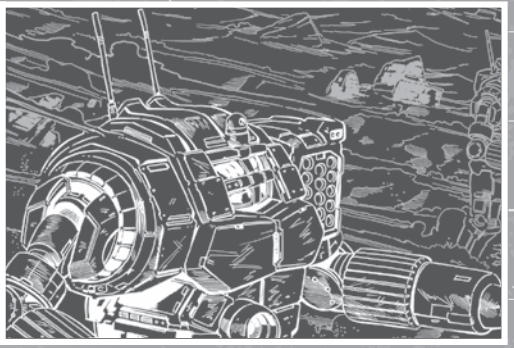
Weapons and Ammo	**Location**	**Critical**	**Tonnage**
2 ER Medium Lasers*	RT	2	2
BattleMech Turret (Shoulder)	RT	1	.5
Bloodhound Active Probe	RT	3	2
Guardian ECM Suite	CT	2	1.5
2 ER Medium Lasers*	LT	2	2
BattleMech Turret (Shoulder)	LT	1	.5

Notes: *Mounted in BattleMech Shoulder Turrets; Features the following Design Quirks: Bad Reputation, Difficult Ejection, Multi-Trac.



WLF-2H WOLFHOUND

Light 'Mechs



Mass: 35 tons
Chassis: Arc-Royal KH/3b Endo Steel
Power Plant: GM 210 XL
Cruising Speed: 64 kph
Maximum Speed: 97 kph (129 kph with Supercharger)
Jump Jets: None
Jump Capacity: None
Armor: Durallex Medium
Armament:
1 Magna Supernova Heavy PPC with PPC Capacitor
2 RAMTech 1500Z Extended-Range Medium Lasers
1 Diverse Optics Extended-Range Small Laser
Manufacturer: Arc-Royal MechWorks
Primary Factory: Arc-Royal
Communications System: O/P COM-22/H47
Targeting and Tracking System: Digital Scanlok 347

Overview

With the effective destruction of Outreach, the Word of Blake propelled the Kell Hounds' homeworld Arc-Royal into the role of central hub for the Inner Sphere's brisk mercenary trade. Coupled with the presence of the Com Guards and General Adam Steiner, this increase in trade and visibility led to an economic boom for the planet. Arc-Royal MechWorks had been a small shop using the recovery of *lostech* to become a limited production facility. The sudden influx of people and resources caused a rapid expansion, which swelled the ARM's ranks and coffers. Even after the disastrous summit of 3073 Arc-Royal's new status was a key military and political hub.

While manufacturing capacities all across the Inner Sphere had been dealt serious damage, ARM remained one of the very few who suffered only moderate damage. As the Jihad waned and a new future struggled to shape itself, ARM stood poised to be a vanguard of new designs and new technologies. Several venerable BattleMech designs were outfitted with experimental new technologies. Those that were promising were further developed until a viable production model could be discerned.

The most encouraging of these new ultra-high-tech variants was based on the classic *Wolfhound* BattleMech. Long a favorite of the Kell Hounds and the Lyran Commonwealth, the *Wolfhound* was generally considered one of the most capable and successful light BattleMech designs. The 'Mech lent itself well to superior technologies, and soon a cadre of WLF-2X models was pushing the envelope on the proving grounds near ARM's main facility on Arc-Royal. The lessons learned from that testing paved the way for the slightly modified, though still advanced, WLF-2H variant.

Capabilities

The goal of the WLF-2X program was to up the speed and firepower of the *Wolfhound,* while retaining the protection and all-energy loadout that made it so popular among MechWarriors. The addition of a supercharger boosted the BattleMech's top speed. A heavy PPC and a PPC capacitor dramatically increased the damage curve of its primary armament. The secondary weapons were improved to extended range medium lasers and a new extended range small laser was added. Reactive armor and an actuator enhancement system were also added to improve overall performance.

Unfortunately, while the design tested well, not all of these improvements were viable for a production model. The actuator enhancement system required technicians with specialized repair skills to repair damage. It also required entirely new and rare actuators that ARM was unlikely to be able to produce in sufficient quantities. The reactive armor was another casualty of practicality. With logistical support strained to its breaking point, specialized armor was a guarantee that field repairs would be nearly impossible. While the weapon systems were easy to replicate, the armor and actuators had to be changed before the WLF-2H could be produced as a cost-effective machine.

In the end, the most basic solutions worked the best. The reactive armor was dropped in favor of standard armor. The actuator enhancement system was replaced by an additional heat sink to offset some of the increased heat generated by next-generation weaponry. ARM executives stood fast on the supercharger. It was too core to the concept to remove from the design. By the latter half of 3082, ARM had steady numbers of WLF-2H *Wolfhound*s rolling out the door into the waiting hands of eager LCAF and mercenary customers.

Deployment

The Lyran Guards and Skye Jaegers have actively pursued the WLF-2H for their light and strike lance units. The Crescent Hawks and Stealthy Tigers were the first mercenary units to purchase the design. Clan Wolf-in-Exile Khan Phelan Kell secured a small number of WLF-2Hs in return for technical assistance requested by ARM officials. Sales have outpaced production capacity, to the point where a backorder period exists for mercenaries looking to get their hands on the cutting edge variant.

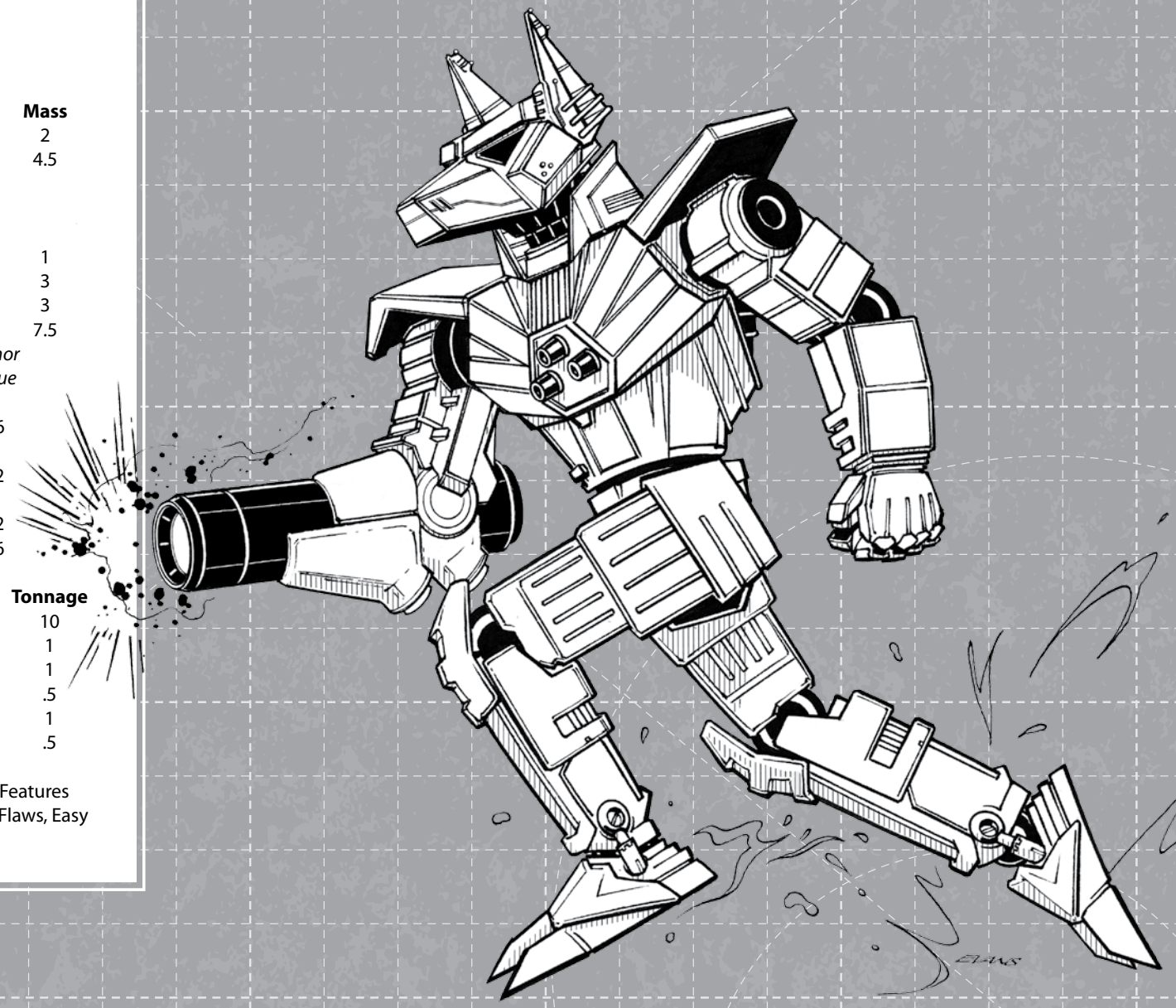
WLF-2H WOLFHOUND

Type: **Wolfhound**
Technology Base: Inner Sphere (Advanced)
Tonnage: 35
Battle Value: 1,511

Equipment			**Mass**
Internal Structure:	Endo Steel		2
Engine:	210 XL		4.5
Walking MP:	6		
Running MP:	9 (12)		
Jumping MP:	0		
Heat Sinks:	11 [22]		1
Gyro:			3
Cockpit:			3
Armor Factor:	119		7.5
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	11	16	
Center Torso (rear)		6	
R/L Torso	8	12	
R/L Torso (rear)		4	
R/L Arm	6	12	
R/L Leg	8	16	

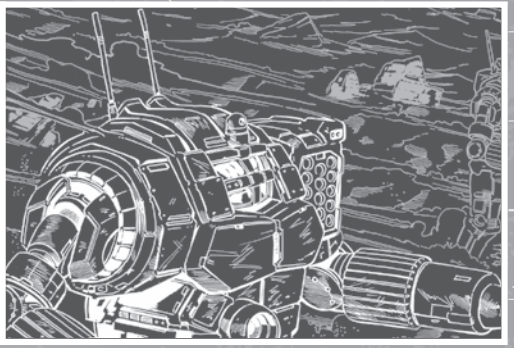
Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Heavy PPC	RA	4	10
PPC Capacitor	RA	1	1
ER Medium Laser	RT	1	1
ER Small Laser	CT	1	.5
ER Medium Laser	LT	1	1
Supercharger	LT	1	.5

Notes: Features a Full-Head Ejection System; Features the following Design Quirks: Cooling System Flaws, Easy to Maintain, Rumble Seat.



WFT-2B WOLF TRAP

Medium 'Mechs



Mass: 45 tons
Chassis: Alshain Class 580 Endo Steel
Power Plant: Hermes 270 XL
Cruising Speed: 64 kph
Maximum Speed: 97 kph
Jump Jets: None
Jump Capacity: None
Armor: New Samarkand Royal Ferro-Fibrous
Armament:
1 Imperator Dragon's Fire Gauss Rifle
2 Diverse Optics Type 25PX Medium X-Pulse Lasers
Manufacturer: Luthien Armor Works
Primary Factory: New Samarkand
Communications System: Sipher Security Plus 2
Targeting and Tracking System: Eagle Eye 400 XX

Overview

Built on New Samarkand, in Luthien Armor Works' expanding factory, this recent variant of the *Wolf Trap* promises to revitalize the chassis for the DCMS. Using of a mix of tried-and-true components with alterations only to the weapons and armor, the WFT-2B fills a light cavalry role for the DCMS' heavy forces.

Capabilities

Powered to a nearly 100 kph top speed by its Hermes 270 XL engine, the WFT-2B can really move. The right arm retains the original *Wolf Trap*'s profile by foregoing a hand actuator and mounts the Dragon's Fire Gauss Rifle to the 'Mech's shoulder. This is the same massive gun mounted on the Combine's AS7-K *Atlas*, which helps streamline logistics. Early in the design stage, this variant carried a Silver Bullet Gauss rifle. While that weapon system proved reliable and safe, the DCMS High Command weighed the potential bottleneck that might result from having to create a supply stream for a new weapon system against the need to replenish their BattleMech forces quickly. Strategic planning won out, and the Silver Bullet Gauss was discarded. While the standard Gauss rifle is less accurate than the Silver Bullet, the greater concentration of damage it delivers on target was considered more desirable.

The WFT-2B does carry two weapons of particular note. Backing up the Gauss rifle are two medium X-pulse lasers. Built on Kessel by Diverse Optics, the Type 25PX boasts the same range as a standard medium laser but with the inherently greater accuracy of a pulse laser. While the heat output of the 25PXs is greater than a standard medium pulse laser, the *Wolf Trap*'s upgrade from standard to double heat sinks is more than capable of allowing the MechWarrior to go weapons-free at will.

Besides the weapons changes and the switch to double heat sinks, the WFT-2B also upgraded the armor. Using ferro-fibrous armor in place of the standard armor of the WFT-1 allows the same tonnage of armor to provide more than ten percent greater protection to the 'Mech. For a fast response unit intended to help plug holes in the front lines, such protection is vital.

This very advantage proved useful in a punitive raid against pirates in 3089. After a raid on Tabayama, the Fifth Sun Zhang Academy Cadre, on New Samarkand to induct new members of the 3089 graduating class, was tasked to track the pirates and deal with them. The trail led to Farstar and the so-called Farstar Raiders. Executing a combat drop on the Raiders' DropShip landing zone, the *Wolf Trap*s were instrumental in exacting a terrible toll on the surprised ground forces. When the Raiders sought the safety of their DropShips' protective umbrella, several *Wolf Trap*s momentarily braved the fire and brought down three medium Raider 'Mechs, escaping intact but with heavy damage.

Deployment

With the shortage of fully-trained MechWarriors to pilot the new *Wolf Trap*, half of the New Samarkand factory's output has been directed to the Sun Zhang MechWarrior Academy. This sees distribution of the 'Mechs to cadets who will learn from the cockpit and then carry the 'Mech they trained in with them to their assignment in the Sun Zhang Academy Cadre upon their graduation.

The rest of the new *Wolf Trap*s have been delivered to the less-prestigious units of the DCMS. While premiere units like the Sword of Light have their pick of new 'Mechs, they have largely chosen not to request this new variant, opting instead for replacements of better reputation than the *Wolf Trap*. Thus, units like the Ryuken and Legion of Vega have received a significant influx of brand new *Wolf Trap*s in the past few years. Some of the new 'Mechs have also made their way to the Proserpina Hussars, who assign them to new graduates from the University of Proserpina.

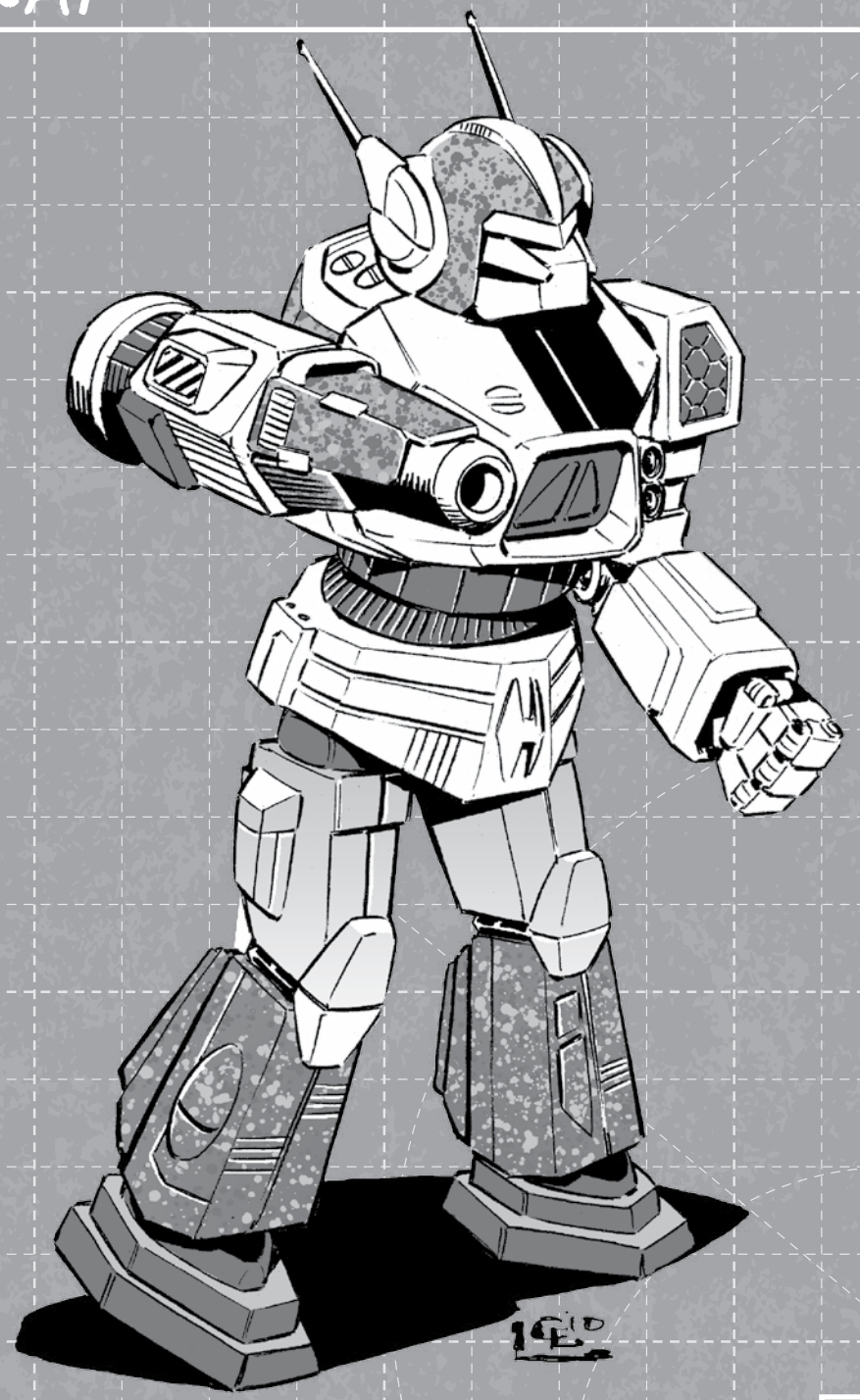
WFT-2B WOLF TRAP

Type: **Wolf Trap**
Technology Base: Inner Sphere (Advanced)
Tonnage: 45
Battle Value: 1,439

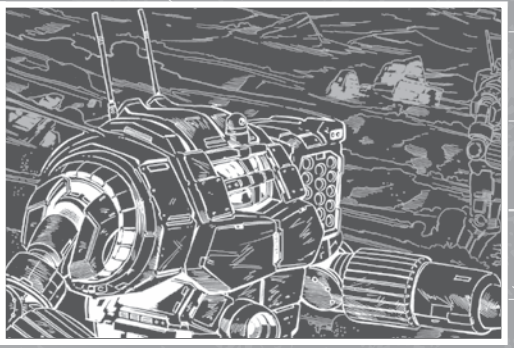
Equipment			**Mass**
Internal Structure:	Endo Steel		2.5
Engine:	270 XL		7.5
Walking MP:	6		
Running MP:	9		
Jumping MP:	0		
Heat Sinks:	10 [20]		0
Gyro:			3
Cockpit:			3
Armor Factor (Ferro):	143		8
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	14	17	
Center Torso (rear)		5	
R/L Torso	11	17	
R/L Torso (rear)		5	
R/L Arm	7	14	
R/L Leg	11	20	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Gauss Rifle	RA	7	15
Ammo (Gauss) 16	RA	2	2
2 Medium X-Pulse Lasers	LT	2	4

Notes: Features the following Design Quirks: Bad Reputation, Easy to Maintain, Rumble Seat.



Medium 'Mechs



Mass: 50 tons
Chassis: Crucis Type V-R
Power Plant: Nissan 200 XL
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Jump Jets: None
Jump Capacity: None
Armor: Kallon FWL Special Light Ferro Fibrous with CASE II
Armament:
1 Mydron Excel Ultra Autocannon/10
2 Diverse Optics Sunfire Extended-Range Medium Lasers
Manufacturer: Kali Yama Weapons Industries
Primary Factory: Kalidasa
Communications System: Omicron 4002 with Guardian ECM Suite
Targeting and Tracking System: TRSS Eagle Eye with TAG

Overview

When newer and more radical technologies started becoming available manufacturers invested heavily in building prototypes that deployed the new weapon systems and construction materials. Kali Yama was no exception, and their HBK-7X project began in 3065, producing the first functional prototype only two years later. The fourth, and final, version manifested itself in four prototypes that performed very well.

Kali Yama's focus was on addressing the perceived flaws of the *Hunchback*, one of its bestselling products. Their primary objective was to dramatically increase the durability of the BattleMech by introducing cutting-edge technology such as CASE II and reinforced internal structure. Durability was further enhanced by mounting the cockpit deeper in the torso, and by armoring the 'Mech's gyro. A few compromises had to be made to facilitate these enhancements, including downgrading the planned twenty-class Ultra autocannon to class ten.

Kali Yama failed to achieve enough interest in their provocative design, and executives blamed the failure on potential customers not understanding the improvements or being repelled by the cost and fragility of the XL engine in a design intended for frontline use. They hosted a public live-fire demonstration, where one of the prototypes was subjected to sustained salvos by a lance of assault 'Mechs. When they ceased fire, a test pilot entered the design and powered it up, brought its weapons systems online and even fired the autocannon despite the loss of one of the *Hunchback*'s limbs. It proved to no avail, with potential customers likewise mourning the loss of the design's powerful autocannon.

The fate of the HBK-7 seemed sealed until recently, when The Republic's control of Kali Yama gave them a front seat to their facilities' renaissance. Legate Latsos and his staff spent three months going over all of Kali Yama's available designs, and eventually a significantly modified version of the HBK-7X-4 began production in late 3085 as the HBK-7R.

Capabilities

The 7R version retains the reinforced internal structure and CASE II of the 7X, and thus also retains much of the survivability improvements. Latsos insisted on a normal cockpit for cost and tonnage reasons, as well as simplifying the retraining of existing HBK pilots. The reintroduction of TAG in the head mount, as previously deployed by the 7X-2, provided few problems, but the inclusion of a Guardian ECM suite caused significant tension between Kali Yama and Latsos. This inclusion proved impossible without significant sacrifice, and was used by local management to test to what extent they were autonomous of The Republic. Given that Latsos got his way, at the expense of the armored gyro, it is presumed that management lost. This is certainly how events played in Kalidasa media outlets. The final adjustment was the replacement of the ferro-fibrous armor with light ferro-fibrous. Improving the total amount of armor by one ton created a net improvement in armor protection on the *Hunchback*'s legs. It appears this decision was made to better align Kali Yama's efforts with the overall Republic supply base.

The final product remains competent in the mid-to-close range. The 'Mech's surprising resilience and mixed weapons array keep the *Hunchback* a threat even in its traditional urban environment, especially when supported by either semi-guided LRMs or Arrow IV. It is noticeably slower than most contemporary designs in the medium weight class, and commanders and MechWarriors must remain aware of that limitation. In some ways, the general propensity to presume that a *Hunchback* has a class twenty autocannon continues to be beneficial, as opponents have been known to presume themselves safe at ranges within the 7R's reach. This is surprising, given the fact that *Hunchback*s without the twenty have been operational for some time.

Deployment

Deployment of the HBK-7R has only recently begun, and insufficient information exists to achieve any conclusions about The Republic's intended policy for it. There have been rumors that the 'Mech is being offered as a completion bonus to any company-size mercenary unit willing to sign on with The Republic for ten years or more, but no credible evidence has been presented. It also has not yet been seen among the ranks of any mercenary unit, Republic or otherwise.

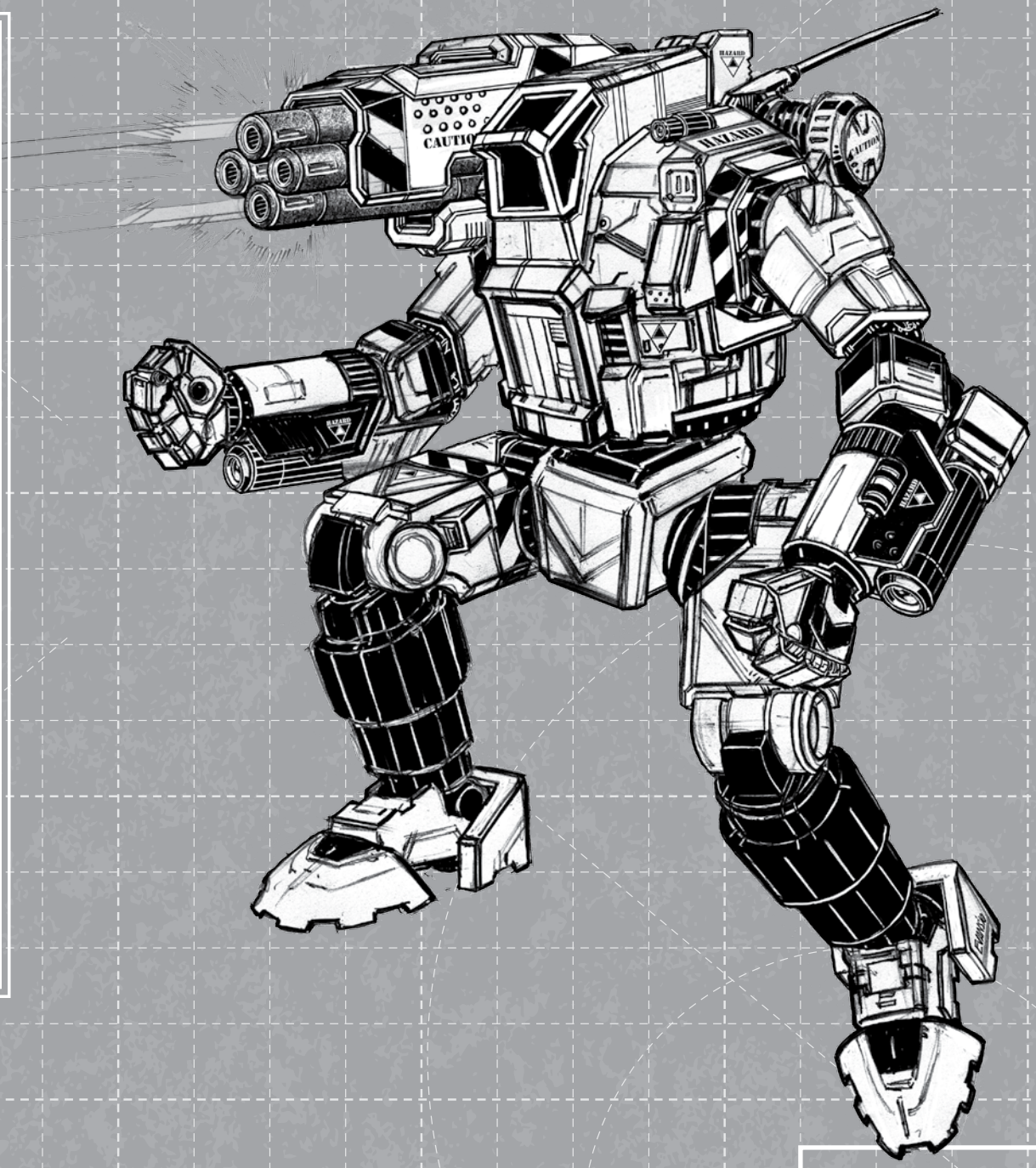
HBK-7R HUNCHBACK

Type: **Hunchback**
Technology Base: Inner Sphere (Advanced)
Tonnage: 50
Battle Value: 1,248

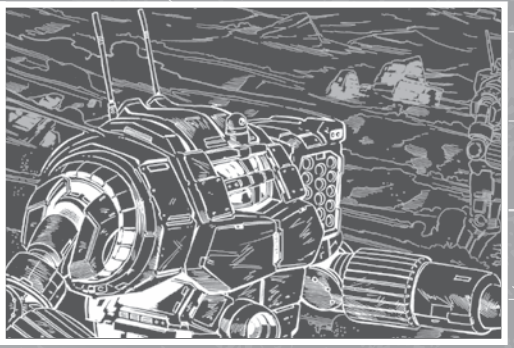
Equipment			**Mass**
Internal Structure:	Reinforced		10
Engine:	200 XL		4.5
Walking MP:	4		
Running MP:	6		
Jumping MP:	0		
Heat Sinks:	10 [20]		0
Gyro:			2
Cockpit:			3
Armor Factor (Light Ferro):	169		10
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	16	27	
Center Torso (rear)		5	
R/L Torso	12	20	
R/L Torso (rear)		4	
R/L Arm	8	16	
R/L Leg	12	24	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
ER Medium Laser	RA	1	1
Ultra AC/10	RT	7	13
TAG	H	1	1
Guardian ECM Suite	CT	2	1.5
Ammo (Ultra) 20	LT	2	2
CASE II	LT	1	1
ER Medium Laser	LA	1	1

Notes: Features the following Design Quirks: Bad Reputation, Poor Sealing.



Medium 'Mechs



Mass: 50 tons
Chassis: 2A Type 15 Endo Steel
Power Plant: Magna 350 XL
Cruising Speed: 75 kph
Maximum Speed: 118 kph
Jump Jets: None
Jump Capacity: None
Armor: StarGuard Reflec
Armament:
1 Mydron Model RC Rotary Autocannon 5
2 Bright-Bloom Extended-Range Medium Lasers
Manufacturer: Achernar BattleMechs
Primary Factory: Cahokia
Communications System: PCE-4X "Blaster"
Targeting and Tracking System: Federated Hunter

Overview

The *Legionnaire*, though in the Davion inventory for less than twenty years, has become a common and popular sight among the war-worn forces of the AFFS. Originally constructed at a secret research facility on New Avalon, one prototype and several datachips containing design data were smuggled off-world in 3073, and construction began immediately at Corean and Achernar facilities.

The *Legionnaire* MUSE FIRE was one of a number of different research projects undertaken by the AFFS to rearm their forces. More than simply finding new variants for BattleMechs, however, researchers were deliberately tasked to push the envelope and think outside the box. New armor, engines of unusual sizes, mixed technologies; everything was on the table as a test project. Dozens of projects never left the drawing boards, stillborn by technological hurdles or impracticality. Of the few that were built, few were recognized to have potential for development into a producible BattleMechs. MUSE FIRE was one that quickly moved from concept to testing to production.

Capabilities

As with the standard *Legionnaire*, the LGN-2F is built around a single weapon system, the RAC-5 autocannon. Unlike the standard version, the engineers that constructed the 2F somehow managed to acquire a pair of Clan-made rotary autocannons. This purchase has spurred both DMI and MIIO into action, quietly but anxiously attempting to determine the long term implications of these weapons. The goal of the agents is to discover whether these prototypes are simply one-offs, or evidence of Clan scientists reverse-engineering Inner Sphere equipment. As one highly-placed source reportedly said, "The notion of fighting a Clan Star equipped with stealth armor, RACs, and C^3i systems is, quite simply, our nightmare scenario." The engineers also sheathed the 2F in rare Clan-produced reflective armor, giving the *Legionnaire* additional protection against the many energy weapons of the modern battlefield. In testing, this change proved beneficial, but in computer simulations against traditional enemy forces, the armor was only shown to be advantageous against BattleMechs commonly found among the forces of the Word of Blake and the Capellan Confederation. Against Combine BattleMechs, the reflective armor was shown to be a double-edged sword. It was more susceptible to damage from ballistic and missile weapons, and simulations showed it would provide additional protection for the *Legionnaire* against the many PPC variants now found on Combine 'Mechs but it was usually quickly reduced by multiple MRM and LRM volleys. The computers clearly showed the *Legionnaire* could reasonably be expected to win against most opponents of similar weight boasting energy weapons, but could be quickly destroyed by a lighter 'Mech carrying MRMs or even rockets. The production model of the 2F carries AFFS-produced reflective armor, and MechWarriors assigned to them are carefully trained in dual tactics: one set against energy-based enemies, and another against missile boats.

Taking a cue from the realignment of AFFS units into LCTs, the engineers placed the cockpit in the center torso to increase the MechWarrior's survivability. The reasoning was that trained MechWarriors are harder to replace than equipment, thus moving the warrior from the vulnerable head to the most protected area on a BattleMech would bring more MechWarriors home alive. MechWarriors, on the other hand, are split between those who agree and those who prefer to have the ability to eject. "A MechWarrior riding in a torso-mounted cockpit directly underneath three tons of ammunition," one popular commentator claimed, "has already determined the cause of death on his death certificate. All that's left is the date." Only time will tell which theory will prove most beneficial to the warriors of the AFFS.

Deployment

The *Legionnaire* 2F can be found in nearly every regiment of the AFFS, but in higher levels among commands that suffered the most during the Jihad. A handful can be also be found among the DCMS, LCAF and former Free Worlds troops that fought alongside the AFFS in Operation SCOUR, acquired though either salvage or trade. The original variant, the Beagle probe-enhanced 1X, was put into limited production and is usually found in lighter, more mobile AFFS units such as the Ceti Hussars. The new LGN-2F variant is almost exclusively deployed to the Capellan March, its reflective armor especially popular due to the proliferation of plasma weapons in that theater.

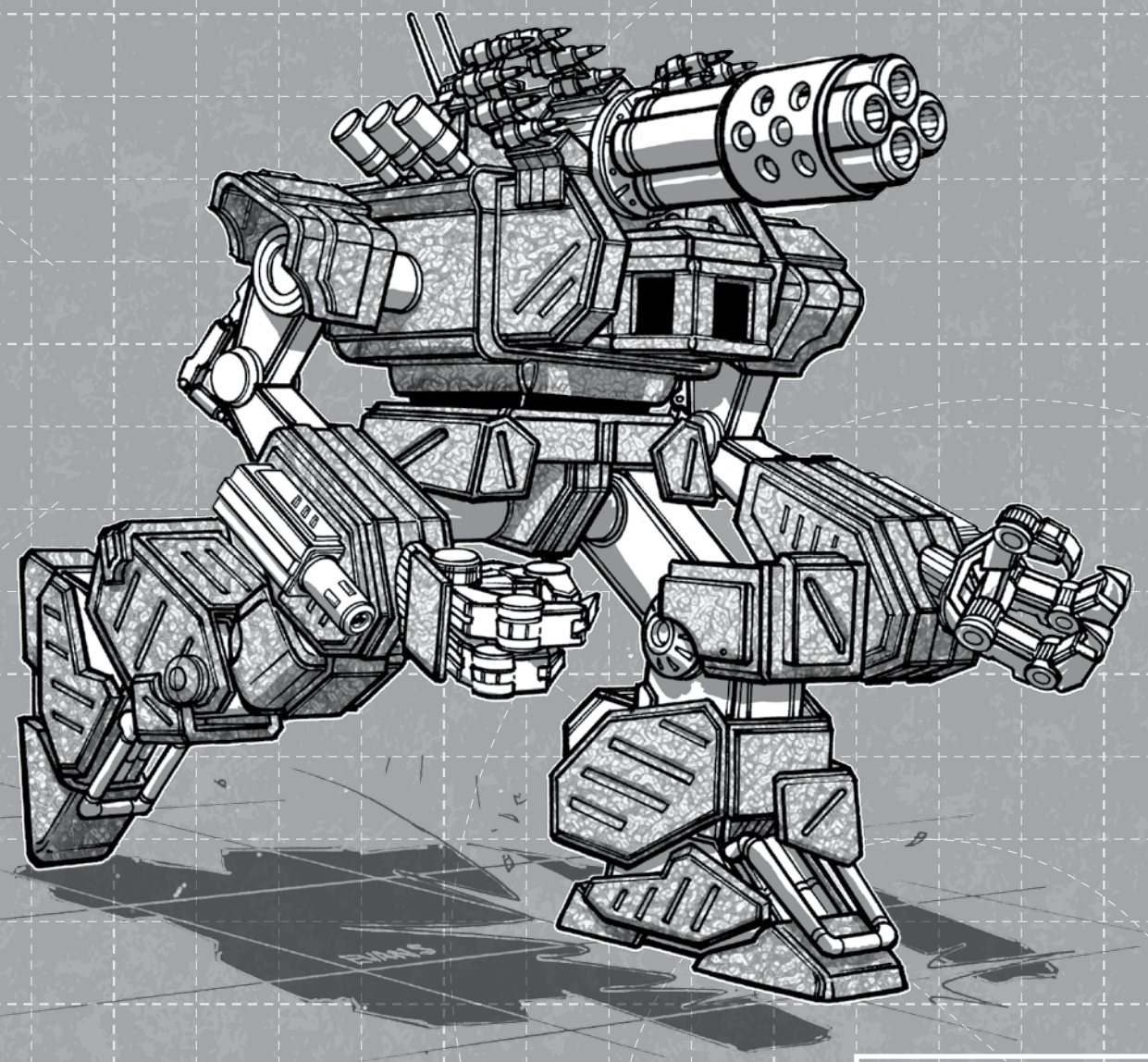
LGN-2F LEGIONNAIRE

Type: **Legionnaire**
Technology Base: Inner Sphere (Advanced)
Tonnage: 50
Battle Value: 1,808

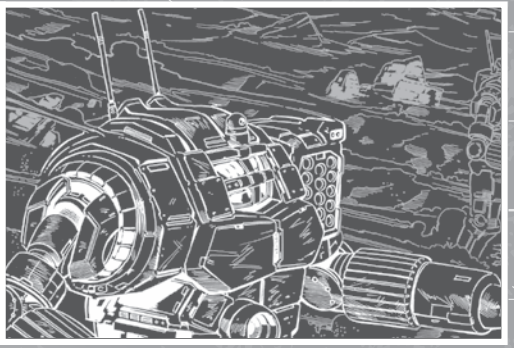
Equipment			**Mass**
Internal Structure:	Endo Steel		2.5
Engine:	350 XL		15
Walking MP:	7		
Running MP:	11		
Jumping MP:	0		
Heat Sinks:	10 [20]		0
Gyro:			4
Cockpit (Torso-Mounted):			4
Armor Factor (Reflective):	152		9.5
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	16	20	
Center Torso (rear)		7	
R/L Torso	12	16	
R/L Torso (rear)		6	
R/L Arm	8	14	
R/L Leg	12	22	

Weapons and Ammo	**Location**	**Critical**	**Mass**
ER Medium Laser	RA	1	1
Rotary AC/5	RT	6	10
Ammo (RAC) 60	H	3	3
ER Medium Laser	LA	1	1

Notes: Features the following Design Quirks: Exposed Actuators, Exposed Weapon Linkage (RAC/5), Poor Sealing, Easy to Maintain, Stable, Rumble Seat.



Medium 'Mechs



Mass: 50 tons
Chassis: MNM-2A Industrial
Power Plant: GM 200 Fusion
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Jump Jets: None
Jump Capacity: None
Armor: Maximillian 43
Equipment:
1 Martell RT Binary Laser Cannon
1 Martell Medium Laser
1 Magna Small Laser
1 LFN Linblad Machine Gun
Manufacturer: Corean Enterprises/General Motors
Primary Factory: Futuna
Communications System: Garret T10B
Targeting and Tracking System: Corean CalcMaster

Overview

The original *Sarissa,* the MN1-K, postdated other early Free Worlds 'Mechs like the *Icarus*. Named for the ancient Greek spear, the *Sarissa* was fielded in the mid-to-late 25th century as a stopgap militia BattleMech until superior BattleMechs could trickle down to militias. At the time, the "main BattleMech model 1, mark K" was welcomed by both civilians and militias, who had been trembling under the threat of Terran Hegemony and Lyran Commonwealth BattleMechs.

The MN1-K *Sarissa* was an adequate design for the era. Though not fast, it outpaced the common *Mackie* and mounted ten tons of standard armor. Its weaponry consisted of a large laser and several medium lasers. The key to the MN1-K's popularity with Marik militias was its mechanical reliability and durability. The *Sarissa* drew heavily on a century of IndustrialMech construction experience, and was both readily assembled in civilian facilities and maintained by technicians experienced with IndustrialMechs.

Its origins and simplicity made the *Sarissa* an ideal 'Mech for Regulus' depleted militias in the early 3080s. Regulus contracted Corean Enterprises, the original manufacturer of the *Sarissa,* to resume production of the ancient design. As Corean's BattleMech facilities were beleaguered under the weight of the Jihad, Corean turned to GM for subcontracted aid in converting the IndustrialMech facility at Futuna to producing the primitive design. Given the disruptions of the Jihad, and with the Free Worlds League coming apart at the seams, Corean had to make some compromises in the *Sarissa,* particularly in armor, but was arguably able to improve the design with the MN1-D.

The MN1-D's most visible change was to lighten the secondary weapons of the MN1-K in favor of the simple but rare blazer cannon: a pair of conjoined large lasers. The secondary weapons were modified to suit Regulus' requests for a more versatile 'Mech, one that could deal with more threats than the original. There was a particular interest in anti-infantry capability, though the restlessness of the Regulus population at the time indicates the likely infantry threats would be rioting civilians.

The Regulan *Sarissa* only had a short production run before Corean retreated from its conversion of the Futuna factory and focused on civilian IndustrialMechs. The ostensible cause was the cessation of hostilities and skyrocketing demand for reconstruction. In fact, the MN1-D had proven quite unpopular with Regulan militias. The Principality of Regulus, though, insisted on some militia 'Mech production, even if it had to be an IndustrialMech.

Capabilities

Corean obliged because the development contract was sizable, but protested the specifications handed down from the Regulan high command.

There was nothing particularly flawed about building the MN2-A on an IndustrialMech chassis; it would even accelerate production. The weapons were acceptable and unchanged from the MN1-D. Though somewhat light for the *Sarissa*'s tonnage, the blazer cannon and secondary weapons were adequate and largely independent of resupply needs. A modern engine freed tonnage for heat sinks, while the primitive cockpit was replaced with the simpler interface of an IndustrialMech cockpit. The armor was updated to heavy industrial standards.

The specifications had also attempted to address some of the criticisms of the MN1-D but, in the opinion of Corean engineers and the militia users, missed the mark. Primarily, the MN2-A *Sarissa* attempted to fix a modest heat problem by adding three additional heat sinks, showing the thinking of Regulan BattleMech officers used to double heat sinks. While the blazer cannon and secondary weapons could warm up the MN1-D, they were not a great burden. The MN1-D's real problem was its primitive armor. While as heavy as the armor of the MN1-K, it was actually less effective than its ancestor's armor. The MN2-A improved the armor materials, but not the protection, using the freed tonnage elsewhere. Detractors have called the result a Regulan *Panther*.

Deployment

After field testing the MN2, Corean incorporated trivial lessons into the new IndustrialMech structure and began producing the result as the MN2-A. Under pressure from the Principality of Regulus, Corean has been dutifully building and shipping *Sarissa*s to Regulan planetary militias in quantity. The profits are solid, but Corean worries about the impact on its reputation.

To avoid incurring the wrath of the Principality, which is currently sensitive to criticism of its decision-making after its domestic unrest, Corean has been quietly providing guidance to militias on how to strip out heat sinks in favor of additional armor, which is a rather involved refit effort.

MN2-A SARISSA SECURITYMECH

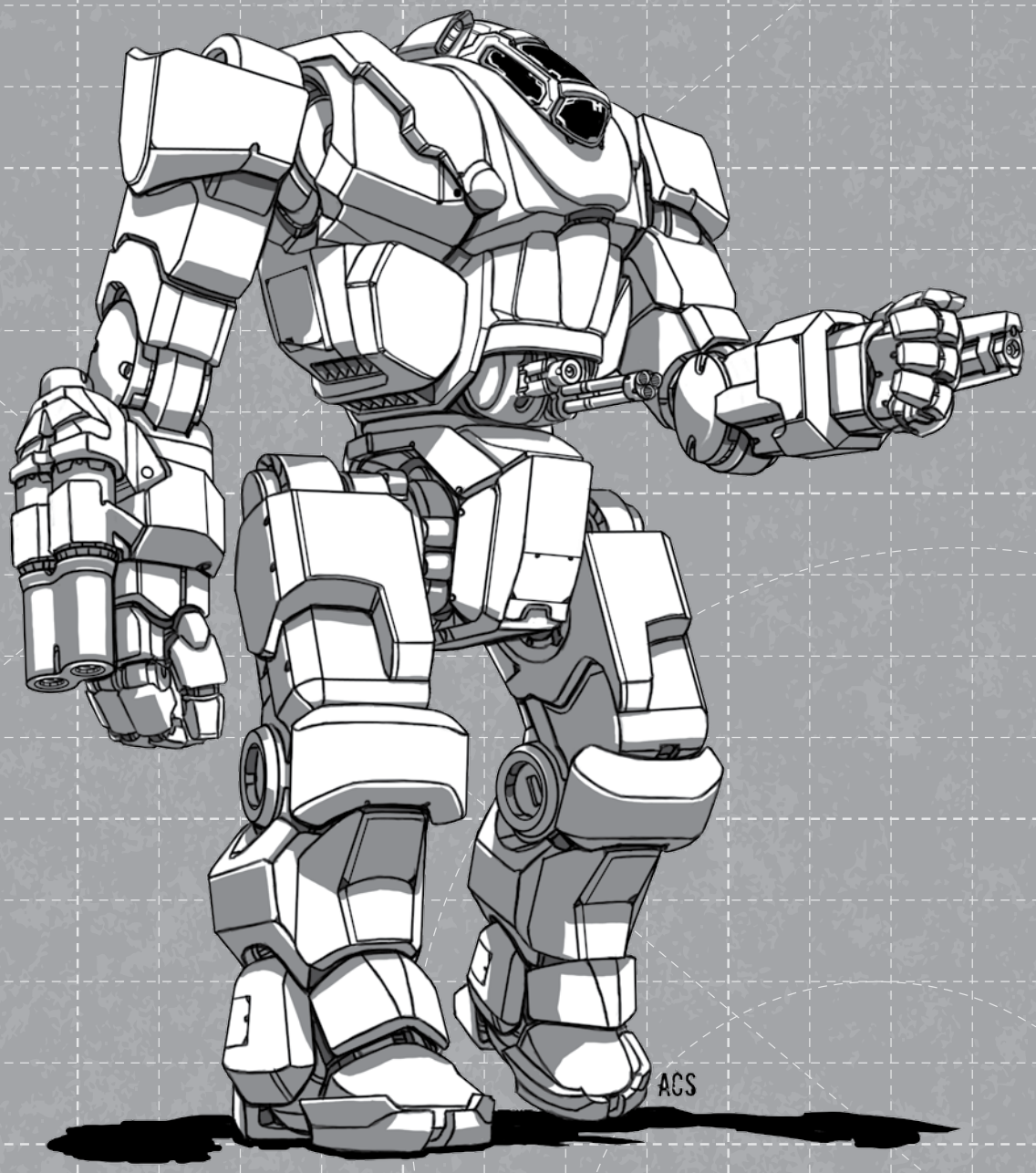
Type: **Sarissa SecurityMech**
Technology Base: Inner Sphere (Industrial)
Tonnage: 50
Battle Value: 771

Equipment		**Mass**
Internal Structure:	IndustrialMech	10
Engine:	200	8.5
Walking MP:	4	
Running MP:	6	
Jumping MP:	0	
Heat Sinks:	18	8
Gyro:		2
Cockpit (Industrial):		3
Armor Factor (Heavy Industrial): 104		6.5

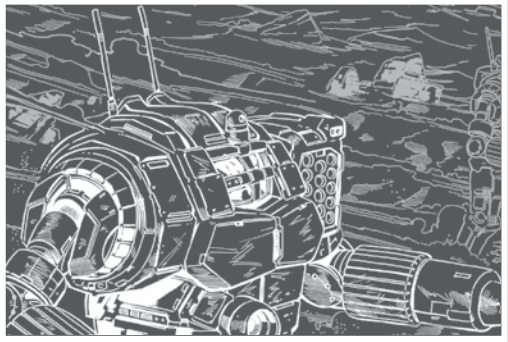
	Internal Structure	Armor Value
Head	3	8
Center Torso	16	16
Center Torso (rear)		6
R/L Torso	12	12
R/L Torso (rear)		5
R/L Arm	8	10
R/L Leg	12	10

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Blazer Cannon	RA	4	9
Ejection Seat	H	1	.5
Small Laser	CT	1	.5
Machine Gun	CT	1	.5
Ammo (MG) 100	LT	1	.5
Medium Laser	LA	1	1

Notes: Includes Advanced Fire Control system; Features the following Design Quirks: Difficult Ejection, Rumble Seat.



Medium 'Mechs



Mass: 50 tons
Chassis: Corean-II Deluxe Endo Steel
Power Plant: Hermes 250 Light
Cruising Speed: 54 kph (64 kph with TSM)
Maximum Speed: 86 kph (97 kph with TSM)
Jump Jets: Rawlings 50
Jump Capacity: 150 meters
Armor: Starshield with CASE
Armament:
2 Diplan M3-XR Extended Range Medium Lasers
1 Holly Mk II Streak SRM 6
1 Vanguard Able 'Mech Taser
2 Olympian Extended Range Flamers
Manufacturer: Kali Yama Weapons Industries
Primary Factory: Kalidasa
Communications System: Corean TransBand-J9
Targeting and Tracking System: Corean B-Tech

Overview

Unlike most BattleMech manufacturers, Kali Yama Weapons Industries came through the Jihad relatively intact. With Kalidasa part of The Republic of the Sphere, and the Free Worlds League collapsed, Kali Yama was looking for something to give them an edge on the competition in a suddenly-shrinking demand for BattleMechs.

Among the items that Kali Yama acquired were the technical plans for the 'Mech taser. Able to immobilize a 'Mech or vehicle long enough to allow it to be captured, the system was used sparingly during the Jihad. The specialized equipment was not suitable for production 'Mechs, so the plans sat on a shelf for several years.

In late 3086, word reached Kali Yama from their technical team advising ATC in the Taurian Concordat about an unusual *Trebuchet* variant that had surfaced. Kali Yama's CEO Alison Ryce-O'Neil was immediately interested and asked for more information. After several months, the small Kali Yama team in the Concordat sent Ryce-O'Neil an analysis of the variant, gleaned from public sources. Ryce-O'Neil turned the data over to Doctor Jasper Flangeberg, the senior *Trebuchet* line manager.

When Flangeberg and his team examined the data they found a viable design, but one with a few problems. The modular armor and shield were rejected as being too hard to maintain in the field, but the combination of the chain whip and triple strength myomer had possibilities.

Someone remembered the 'Mech taser, and the pieces fell into place. Marketed as a capture 'Mech, the K7R *Trebuchet* entered the market in 3088.

Capabilities

Dubbed the RepoMech by a member of Flangeberg's team, the K7R *Trebuchet* is designed to disable an enemy's 'Mechs. Teamed with a long-range 'Mech like a 7M or 8B *Trebuchet*, the K7R can use the covering fire, along with its speed and mobility, to close on its target. It maintains the short-range brawler aspect of its Periphery cousin, but with the 'Mech taser system, the K7R has a dimension its cousin can't match. The chain whip, backed by active triple-strength myomer, can either yank a 'Mech off its feet or keep it from breaking away long enough for the K7R's pilot to use the Vanguard Able 'Mech Taser.

To cut down on both cost and increase survivability, Flangeberg's team replaced the extralight engine with the same rated engine, only in a more compact version. CASE was also added to protect the K7R from ammo explosion. The rest of the weapons systems, the armor, and the heat sinks were left alone.

Deployment

Because of its specialist nature, Kali Yama doesn't have a K7R assembly line. Instead, they offer the design as a refit kit at their Kalidasa factory. So far, sales are limited to The Republic Armed Forces, which has purchased only a small number. There is some discussion about allowing the design to be sold to other parties, but nothing has been decided at this time.

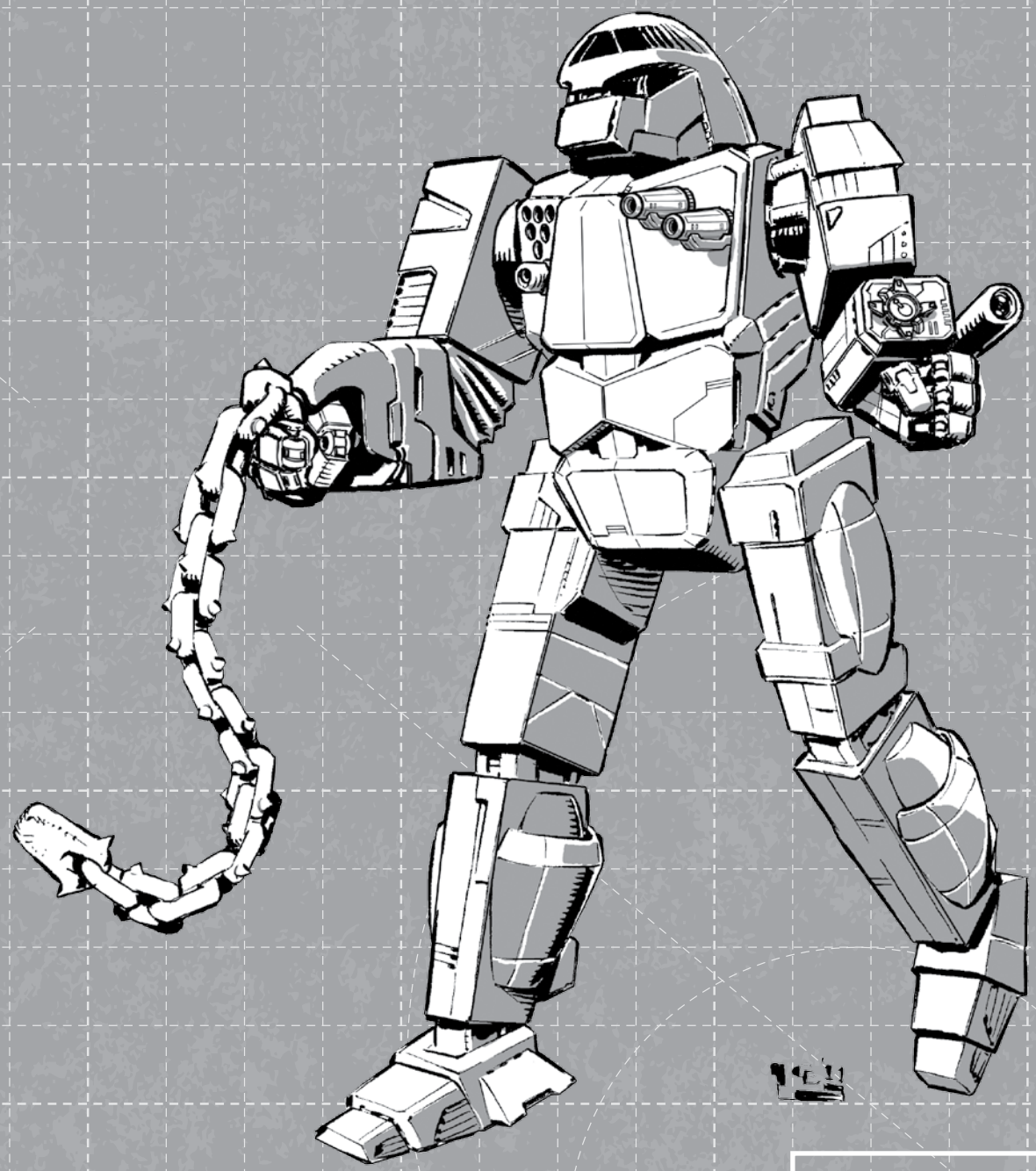
TBT-K7R TREBUCHET

Type: **Trebuchet**
Technology Base: Inner Sphere (Advanced)
Tonnage: 50
Battle Value: 1,408

Equipment			**Mass**
Internal Structure:	Endo Steel		2.5
Engine:	250 Light		9.5
Walking MP:	5 (6)		
Running MP:	8 (9)		
Jumping MP:	5		
Heat Sinks:	10 [20]		0
Gyro:			3
Cockpit:			3
Armor Factor:	168		10.5
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	16	24	
Center Torso (rear)		7	
R/L Torso	12	19	
R/L Torso (rear)		5	
R/L Arm	8	16	
R/L Leg	12	24	

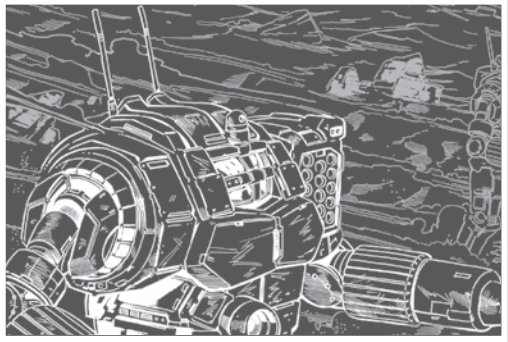
Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Chain Whip	RA	2	3
Streak SRM 6	RT	2	4.5
ER Medium Laser	RT	1	1
2 ER Flamers	LT	2	2
Ammo (Streak) 15	LT	1	1
Ammo (Taser) 10	LT	2	2
CASE	LT	1	.5
Taser (BattleMech)	LA	3	4
ER Medium Laser	LA	1	1
Triple Strength Myomer	RT/LT	3/3	0
Jump Jets	RL	2	1
Jump Jet	CT	1	.5
Jump Jets	LL	2	1

Notes: Features the following Design Quirks: Bad Reputation, Exposed Weapon Linkage (Taser), Non-Standard Parts, Easy to Maintain, Fast Reload, Jettison-Capable Weapon (Chain Whip).



APL-4M APOLLO

Medium 'Mechs



Mass: 55 tons
Chassis: Earthwerks APL Composite
Power Plant: DAV 220 XL
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Jump Jets: None
Jump Capacity: None
Armor: Durallex Special Ferro-Fibrous with CASE II
Armament:
2 Zeus Astrapios Extended LRM 15 Launchers
1 Sunglow Enhanced Focus Extended Range Medium Laser
Manufacturer: Earthwerks Incorporated
Primary Factory: Keystone
Communications System: Neil 6000
Targeting and Tracking System: Garret A6

Overview

The mini-*Archer* is now a long-established design. It started with a basic concept of medium fire-support and filled the role so well that not only has the design been popular for decades, it has done so without any factory variants in thirty years of service. The *Apollo's* long range missile racks were still as effective as ever, its speed sufficient to move around the battlefield, its armor as heavy as any medium BattleMech has ever carried.

But after three decades, the *Apollo* had lost its glamour. Sales have slowed, despite the need to arm and rebuild through the Jihad. Purchasers are infatuated with more speed, X-pulse lasers, improved jump jets, lightweight PPCs and all the other new technology being marketed throughout the Inner Sphere. The *Apollo*'s old-fashioned construction comes across as poor by comparison, despite its proven reputation.

The damage to Keystone's lines as the Word of Blake withdrew caused Earthwerks to reconsider the value of its older lines, and the *Apollo*'s slowing sales had Earthwerks executives concerned. They demanded something with a little more spark to justify its return to production.

Capabilities

The design team for the *Apollo* returned to the formula that made it such a success: they looked at trends in heavy fire support 'Mechs and then created a medium-weight version. Looking at new fire support units being built elsewhere, the recurring theme was the move to extended range missile racks on such designs as the *Orion 3100*, *Pandarus*, *Pendragon* and others. Two fifteen racks were considered the minimum necessary to be a true fire support design, and the designers aimed to fit the rest of the 'Mech around that goal.

The increased weight of these racks was far too much for the old chassis to handle. Everything on the *Apollo* had to be lightened. The standard fusion engine was replaced with an extralight, the structure with new lightweight composites, and the armor upgraded to a lighter ferro-fibrous compound. With these extensive changes, the design team managed to meet their goal.

The last concern was the debate over survivability over secondary weapons. In the end, the decision was made in favor of survivability, with the addition of improved CASE for both torsos, limiting the secondary weapons to a single laser.

The resulting *Apollo* stepped off the line in 3083, the same year as the production *Pandarus* appeared from Kali Yama. The resemblance was immediately noticeable, and Kali Yama has condemned the *Apollo* publicly as a blatant rip-off. Earthwerks denies that this was anything other than two designs with the same goals reaching the same results, but has made a great deal of noise about the lower weight of the *Apollo*. Kali Yama has countered with marketing the lower cost of its standard engine.

Deployment

The Second Free Worlds Legionnaires, deployed on Keystone and very understrength from its battles on Atreus, received large numbers of new *Apollo*s for testing and rebuilding the regiment. Earthwerks has also shipped *Apollo*s throughout the Marik Commonwealth but, so far, the Marik Commonwealth has denied requests to export the design. They hope to use the design to receive a trade in kind from another realm. The resemblance to the *Pandarus* and the unwillingness to sell to other former Free Worlds League states has limited its demand.

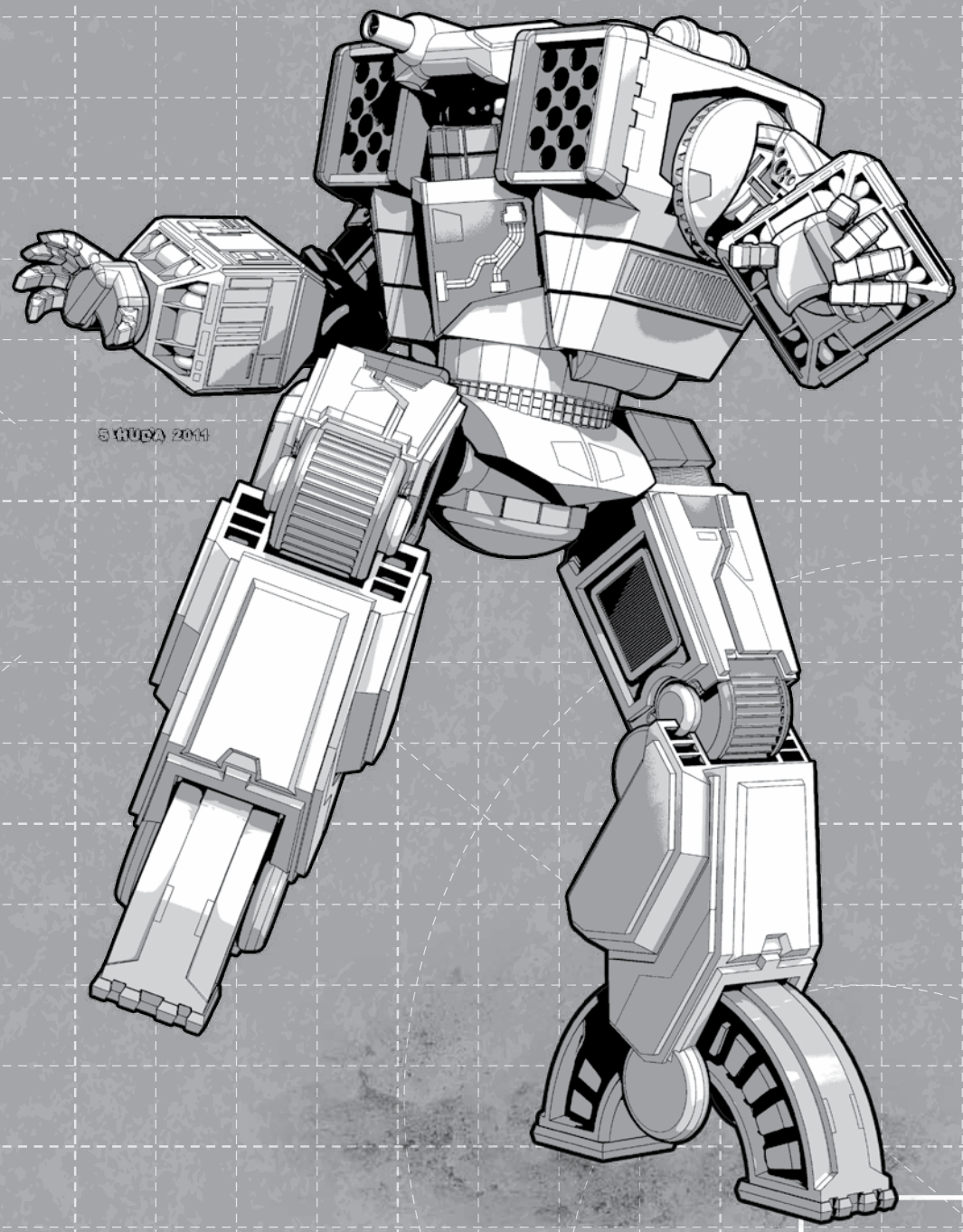
APL-4M APOLLO

Type: **Apollo**
Technology Base: Inner Sphere (Advanced)
Tonnage: 55
Battle Value: 1,343

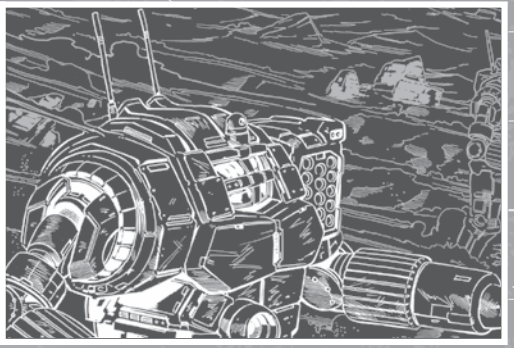
Equipment			**Mass**
Internal Structure:	Composite		3
Engine:	220 XL		5
Walking MP:	4		
Running MP:	6		
Jumping MP:	0		
Heat Sinks:	10 [20]		0
Gyro:			3
Cockpit:			3
Armor Factor (Ferro):	179		10
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	18	27	
Center Torso (rear)		7	
R/L Torso	13	20	
R/L Torso (rear)		6	
R/L Arm	9	17	
R/L Leg	13	25	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Extended LRM 15	RT	6	12
Ammo (ELRM) 12	RT	2	2
CASE II	RT	1	1
ER Medium Laser	H	1	1
Extended LRM 15	LT	6	12
Ammo (ELRM) 12	LT	2	2
CASE II	LT	1	1

Notes: Features the following Design Quirks: Difficult to Maintain, Fast Reload.



Heavy 'Mechs



Mass: 60 tons
Chassis: Technicron Type E-Endo
Power Plant: Magna 300
Cruising Speed: 54 kph (64 kph with TSM)
Maximum Speed: 86 kph (97 kph with TSM)
Jump Jets: None
Jump Capacity: None
Armor: Maximillian 40
Armament:
2 Aberdovey Mk. II Medium Lasers
1 Guided Technologies 2nd Generation Streak SRM 4
1 Donal Particle Projection Cannon
1 Diverse Optics TAG
Manufacturer: Earthwerks Incorporated
Primary Factory: Tikonov
Communications System: CommuTech Multi-Channel 10 with Guardian ECM
Targeting and Tracking System: BlazeFire Sightlock with TAG

Overview

Earthwerks Incorporated's recent efforts with the *Quickdraw* appear to have utilized a pair of QKD's they recovered during proactive operations. These were appropriated by Meihui Quan, whose connections—presumably to House Liao—enabled her to acquire a significant investment from Earthwerks, which resulted in a dramatic redesign of the 'Mech.

The concept of the handheld weapon is centuries old, but no one had been able to effectively deploy handheld weaponry in a way that mitigated its disadvantages. While the inherent flexibility of handheld weaponry had been obvious, the weight restrictions inherent in 'Mech design, the inability to use most on-board weaponry, and the difficulties of making various handheld weapons available all succeeded in keeping the concept unexplored.

Quan incorporated stealth armor to help shield the 'Mech while swapping weaponry or engaging the enemy, a lift hoist to give it innate carrying capability, triple strength myomer to enhance the *Quickdraw*'s carrying capacity, and turret-mounted weaponry in the head. The handhelds created for the prototypes included some of the most advanced weapon systems available, including rotary autocannons and Thunderbolt missile launchers. Curiously, Earthwerks had even created prototype combat vehicles whose intent appeared to be weapon carriers for the *Quickdraw*, dropping off and picking up discarded handhelds. The entire production impressed many, but attracted scorn from those seeing the project as a massive drain in resources.

Some of the impressed resided among the procurement division of the Word of Blake, as Earthwerks was encouraged to develop a derivative version, the QKD-8P. The primary intent was to deploy it among the Protectorate Militia, where its flexibility was hoped to confer the strategic advantages of the OmniMech at a fraction of the cost. This was remarkable for several reasons, not the least of which was that the Word had access to two of the QKD's historic manufacturers on Irian and Savannah. We have not yet been able to determine what advantage the Blakists gained from their decision. It has become clear that Earthwerks intended to make the best of its directive by deploying several among the ranks of its security force.

The insurrection on Tikonov prevented them from sending even a single *Quickdraw* to a Protectorate unit, in no small part due to the Blakist attacks on Earthwerks facilities during their retreat. It wasn't until 3084 that the first QKD-8Ps were loaded on an outbound Republican DropShip.

Capabilities

Several dramatic changes have been made to Quan's original design, presumably with her assistance as senior special consultant. Most notable is the absence of stealth armor, possibly because insufficient quantities could be made available to support QKD production. The ECM suite has been retained, as has all of the QKD-8X's weaponry. As is common on numerous *Quickdraw*s, the two Aberdovey lasers have been remounted forward. A Hovertec Streak SRM 4 has also been added. While an effective weapon, it is generally considered an awkward variable for a 'Mech equipped with TSM. Fortunately, the missiles and paired lasers are only useful when the *Quickdraw* is not carrying any handhelds, which would ideally be a rare occurrence. The turret mechanism has not been retained, which prevents the QKD-8P from covering its retreat with its head-mounted PPC and TAG. Earthwerks has continued manufacturing the handhelds, and has been very public with regard to the wide assortment of weaponry that accompanies each outbound *Quickdraw*. It is not clear if Quan's weapon carrier vehicle concept has likewise been retained.

Deployment

The *Quickdraw* has attracted a fair amount of attention from several customers who like its concept, and the relative freedom it affords them from strict supply lines. The QKD-8P seems to be exclusively deployed in the ranks of the RAF. It finds a home among its frontline units, contrary to the proposed Blakist operational doctrine.

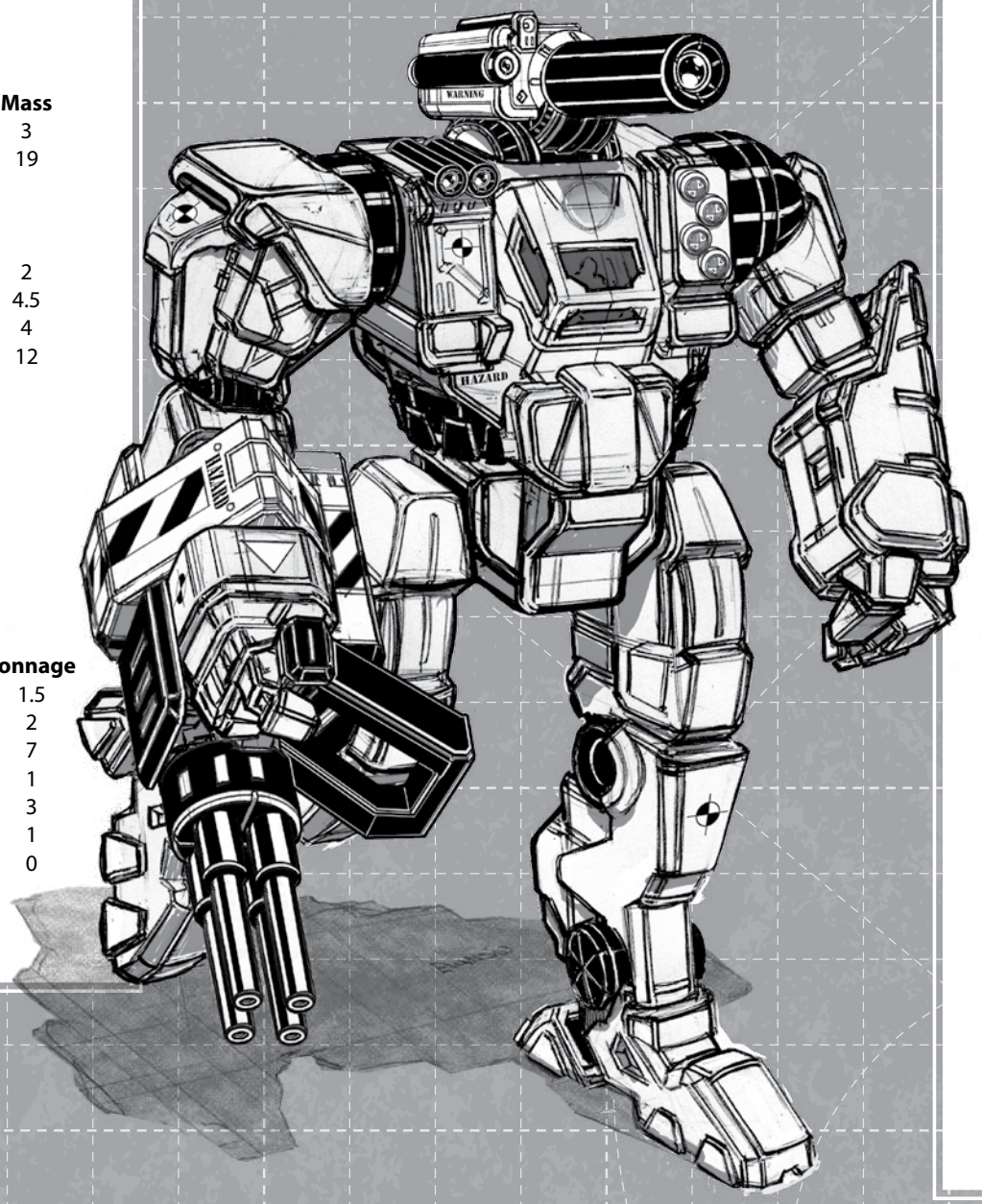
QKD-8P QUICKDRAW

Type: **Quickdraw**
Technology Base: Inner Sphere (Advanced)
Tonnage: 60
Battle Value: 1,598

Equipment			**Mass**
Internal Structure:	Endo Steel		3
Engine:	300		19
Walking MP:	5 (6)		
Running MP:	8 (9)		
Jumping MP:	0		
Heat Sinks:	12		2
Gyro (Compact):			4.5
Cockpit (Torso-Mounted):			4
Armor Factor:	192		12
	Internal Structure	*Armor Value*	
Head	3	8	
Center Torso	20	30	
Center Torso (rear)		10	
R/L Torso	14	18	
R/L Torso (rear)		10	
R/L Arm	10	16	
R/L Leg	14	28	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Guardian ECM Suite	RT	2	1.5
2 Medium Lasers	RT	2	2
PPC	H	3	7
TAG	H	1	1
Streak SRM 4	LT	3	3
Ammo (Streak) 25	LT	1	1
Triple-Strength Myomer	RA/LA	3/3	0

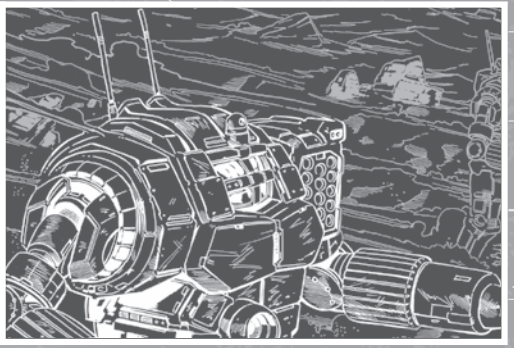
Notes: Features the following Design Quirk: Hyper-Extending Actuators.



Handheld Weapon Configurations

Weapons and Ammo	**Mass**
Heavy LRM Weapon (12 tons)	
LRM 20	10
Ammo (LRM) 6	1
Armor (16 points)	1
Battle Value: 236	
Heavy LB-X Weapon (12 tons)	
LB 10-X AC	11
Ammo (LB-X) 5	.5
Armor (8 points)	.5
Battle Value: 174	
Heavy Streak Weapon (12 tons)	
3 Streak SRM 4	9
Ammo (Streak) 25	1
Armor (32 points)	2
Battle Value: 248	
Heavy Rotary AC Weapon (12 tons)	
Rotary AC/5	10
Ammo (RAC) 30	1.5
Armor (8 points)	.5
Battle Value: 310	
Heavy Thunderbolt Weapon (12 tons)	
Thunderbolt 10	7
Ammo (Thunderbolt) 18	3
Armor (32 points)	2
Battle Value: 239	
Light Autocannon Weapon (6 tons)	
Light AC/5	5
Ammo (LAC) 10	.5
Armor (8 points)	.5
Battle Value: 82	
Light Anti-Infantry Weapon (6 tons)	
5 Machine Guns	2.5
Ammo (MG) 100	.5
Vehicular Flamer	1
Ammo (Flamer) 20	1
Armor (16 points)	1
Battle Value: 64	
Light Laser Weapon (6 tons)	
Medium Laser	1
3 Heat Sinks	3
Armor (32 points)	2
Battle Value: 110	

Heavy 'Mechs



Mass: 60 tons
Chassis: SL Special
Power Plant: 360 Hermes XL
Cruising Speed: 64 kph (75 kph with TSM)
Maximum Speed: 97 kph (151 kph with TSM and Supercharger)
Jump Jets: Chevron I
Jump Capacity: 180 meters
Armor: Ceres Heavy
Armament:
5 Diverse Optics Extended Range Medium Lasers
4 Ceres Arms Model JX Small X-Pulse Lasers
Manufacturer: Ceres Metals Industries
Primary Factory: Capella
Communications System: CeresCom Model 21-Rs
Targeting and Tracking System: C-Apple Churchill with Targeting Computer

Overview

Originally tailored to the fighting style of the Warrior House Dai Da Chi, the TSG9-DDC faced several obstacles to become a production model. First and foremost was the view among the CCAF Strategios that the original *Ti Ts'ang* was a highly effective combat unit which needed no update. Combat experience had proved a lack of range and decreased accuracy once the triple strength myomer bundles were activated, but that was accepted as part of the BattleMech's operational profile. House Dai Da Chi technicians proved that both problems could be addressed.

Encouragingly, the DDC *Ti Ts'angs* mounted a supercharger for the fusion engine, which could increase the machine's already impressive top speed. The replacement of the BattleMech hatchet with a newer and less reliable lance system caused concern. Despite such misgivings, the damage potential of the lance and success in field tests allayed those fears. Convinced the DDC variant was in fact an improvement on excellence, CCAF officials approved a production program and directed Ceres Metals Industries to implement it.

Even so, the DDC production program struggled to launch. The design required custom components that took longer than anticipated to develop. Converting the small lasers into small x-pulse versions proved more difficult than anticipated. Even more difficult was the replication of the targeting computer. Despite the technological challenges, the team at CMI eventually procured all the necessary parts to produce the TSG9-DDC at their plant on Capella. By 3083 the variant *Ti Ts'ang* had overcome its troubled development and was in full production.

Capabilities

The original TSG9-DDC was the result of hubris and favor. House Dai Da Chi's sterling and loyal service put them at the pinnacle of the CCAF's resupply efforts. Given free rein to sift through available BattleMechs and developing technologies, a trio of Dai Da Chi MechWarriors seized their chance to customize *Ti Ts'ang*s to reflect what they felt was their own personal combat style.

The ultimate strike in the eyes of any *Ti Ts'ang* pilot is a lethal hit from the BattleMech's melee weapon. Speed is critical in delivering such a strike. While the triple strength myomer served to both increase speed and physical damage capacity, the Dai Da Chi warriors wanted to go faster. The inclusion of a supercharger vaulted the BattleMech's top speed in excess of 150 kilometers per hour.

With such incredible speed at their fingertips, they next sought to replace the BattleMech hatchet with a more suitable melee weapon. Reports of the lance used on Solaris VII sparked their curiosity. When the lance replaced the hatchet, it combined with the higher top speed to produce an impact with over twice the penetrative power. The lance was harder to hit with, to be sure, but the resulting devastation was more than worth the risk. Of course, the Dai Da Chi warriors also believed they were too skilled for the lance's intricacies to present any real problem.

Final corrections were made in an effort to increase weapon accuracy and more rapidly activate the triple strength myomer bundles. The *Ti Ts'ang*'s laser arsenal was upgraded with extended range medium lasers and cutting-edge Ceres Arms small X-pulse lasers. Linked to a targeting computer, this new laser package offset the inherent accuracy issues that came with operating at heat levels required by the triple strength myomer.

Deployment

The elite Warrior Houses were the first to receive the *Ti Ts'ang DDC*. House Dai Da Chi, House Imarra and House Tsang Xiao were issued the initial run. Soon after, small numbers were given to House Ijori and McCarron's Armored Cavalry. It is reported that some have been seized for use by various Death Commandos, as well.

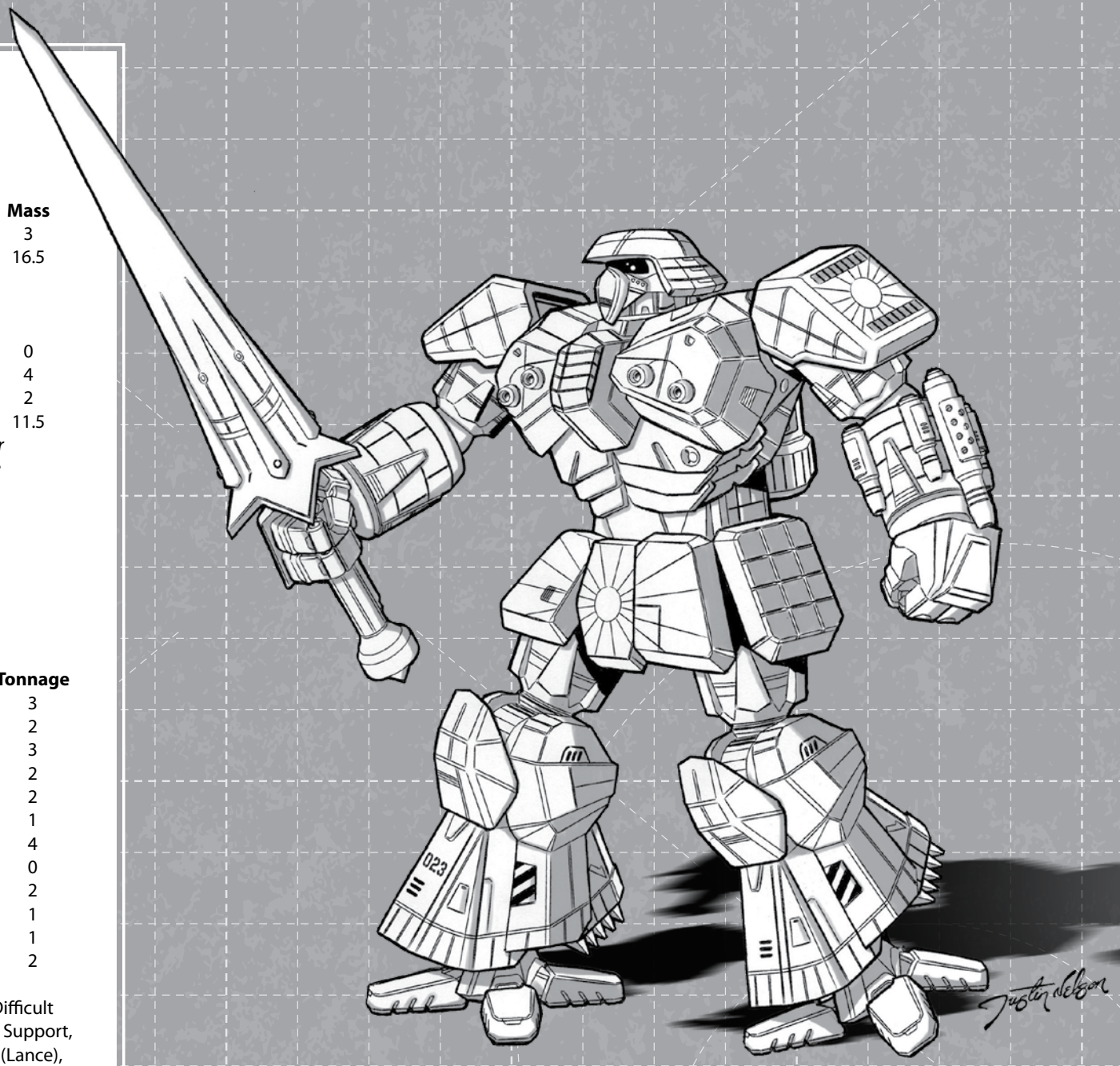
TSG-9DDC TI TS'ANG DDC

Type: **Ti Ts'ang DDC**
Technology Base: Inner Sphere (Advanced)
Tonnage: 60
Battle Value: 1,984

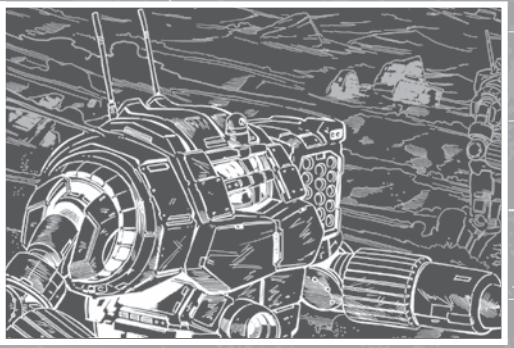
Equipment			**Mass**
Internal Structure:	Endo Steel		3
Engine:	360 XL		16.5
Walking MP:	6 (7)		
Running MP:	9 (14)		
Jumping MP:	6		
Heat Sinks:	10 [20]		0
Gyro:			4
Cockpit (Small):			2
Armor Factor:	184		11.5
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	20	30	
Center Torso (rear)		9	
R/L Torso	14	20	
R/L Torso (rear)		6	
R/L Arm	10	20	
R/L Leg	14	22	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Lance	RA	3	3
2 ER Medium Lasers	RT	2	2
Targeting Computer	RT	3	3
Supercharger	CT	1	2
2 ER Medium Lasers	LT	2	2
ER Medium Laser	LA	1	1
4 Small X-Pulse Lasers	LA	4	4
Triple-Strength Myomer	RA/CT	5/1	0
Jump Jets	RL	2	2
Jump Jet	RT	1	1
Jump Jet	LT	1	1
Jump Jets	LL	2	2

Notes: Features the following Design Quirks: Difficult to Maintain, Non-Standard Parts, Improved Life Support, Protected Actuators, Jettison-Capable Weapon (Lance), Rumble Seat.



Heavy 'Mechs



Mass: 65 tons
Chassis: Dorwinion AXM Endo Steel
Power Plant: 325 VOX XL
Cruising Speed: 54 kph
Maximum Speed: 86 kph
Jump Jets: None
Jump Capacity: None
Armor: Lexington Ltd. Light Ferro-Fibrous with CASE
Armament:
2 Defiance Bombard Thunderbolt 15 Launchers
4 Defiance Model XII Extended Range Medium Lasers
Manufacturer: Defiance Industries
Primary Factory: Furillo
Communications System: Neil 8000
Targeting and Tracking System: RCA Instatrac Mark X

Overview

In the mid-3070s, Defiance Industries' R&D division on Furillo explored a number of experimental technologies based on the chassis of the AXM-2N *Axman*. Although the primary focus of these experiments was to develop an alternative form of modular weapons technology for the OmniMech, other enhancements featured on the AXM-6X prototypes created were XL fusion engines built to Clan specifications and mated with superchargers for added bursts of speed. While all of these technologies proved successful on both the testing grounds and in live-fire exercises, the sheer expense necessary to achieve Clan standards led Defiance's production teams to take a somewhat less-expensive approach with the AXM-6T production model.

Capabilities

The AXM-6T is built around the use of a fully independent handheld weapon. This concept, explored numerous times since the advent of the BattleMech centuries ago, only recently reached battlefield-worthy fruition. Indeed, both the *Quickdraw* and the *Axman* featured in this document demonstrate parallel handheld weapon developments initiated during the Jihad, and likely inspired the Hell's Horses' recent production of the *Incubus II*.

The independent handheld weapon system enables a standard humanoid BattleMech to use its hand and arm actuators to wield external weapons almost as well as a human soldier can carry his rifle. These weapons, tailored to the 'Mech's lifting capabilities, can carry their ammunition, heat sinks, and even protective armor casings externally, tapping into power feeds through special hookups readily adapted to any 'Mech. As a result, heat spikes and internal explosions are easily contained, and a suitable 'Mech can easily swap handheld weapons in the field—even while under fire. This capability makes the AXM-6T what its engineers have jokingly called a "poor man's OmniMech," but in practice could actually offer conventional 'Mechs advantages OmniMechs lack.

Still, the drawbacks of the independent handheld system are many. Weighing down a 'Mech with external weapons strains its engine and affects its balance, decreasing mobility. At the same time, the bulk of a handheld mount renders its using 'Mech unable to deploy any internally-mounted weapon in the arms or front torso when carrying its modular armament. The designers of the AXM-6T accounted for both of these effects, however, by installing a more powerful extralight engine in the 6T to mitigate the speed loss, and by mounting significant secondary firepower—in the form of four extended-range medium lasers—in the BattleMech's legs. To reduce costs and facilitate mainstream production, the 6T uses an Inner Sphere-made engine, rather than the Clan-spec equivalent found in the 6X prototypes.

Even without its handheld mount, the *Axman*-6T remains a formidable fighter. Though it now lacks the iconic hatchet of its base design, a pair of heavy Thunderbolt missile launchers replace the 2N's LRM pods and give this 'Mech the ability to deliver crippling damage to its enemies, while a thick skin of light ferro-fibrous armor helps protect it against enemy fire. In response to complaints about the limited reloads found in the 6X prototypes, the 6T carries four tons of Thunderbolt munitions in CASE-protected bins. Combined with its unencumbered land speed of almost ninety kph, this firepower makes the 6T an excellent medium-range brawler.

Deployment

Most of the AXM-6Ts built to date have been deployed with LCAF regiments defending key interior worlds, such as Tharkad, Donegal, Coventry and Hesperus II. Presumably this is because there remains, at this point, a rather limited supply of independent handheld weapons. Should this poor man's OmniMech concept catch on, however, we can expect to see more 'Mechs like the AXM-6T deployed to frontline commands.

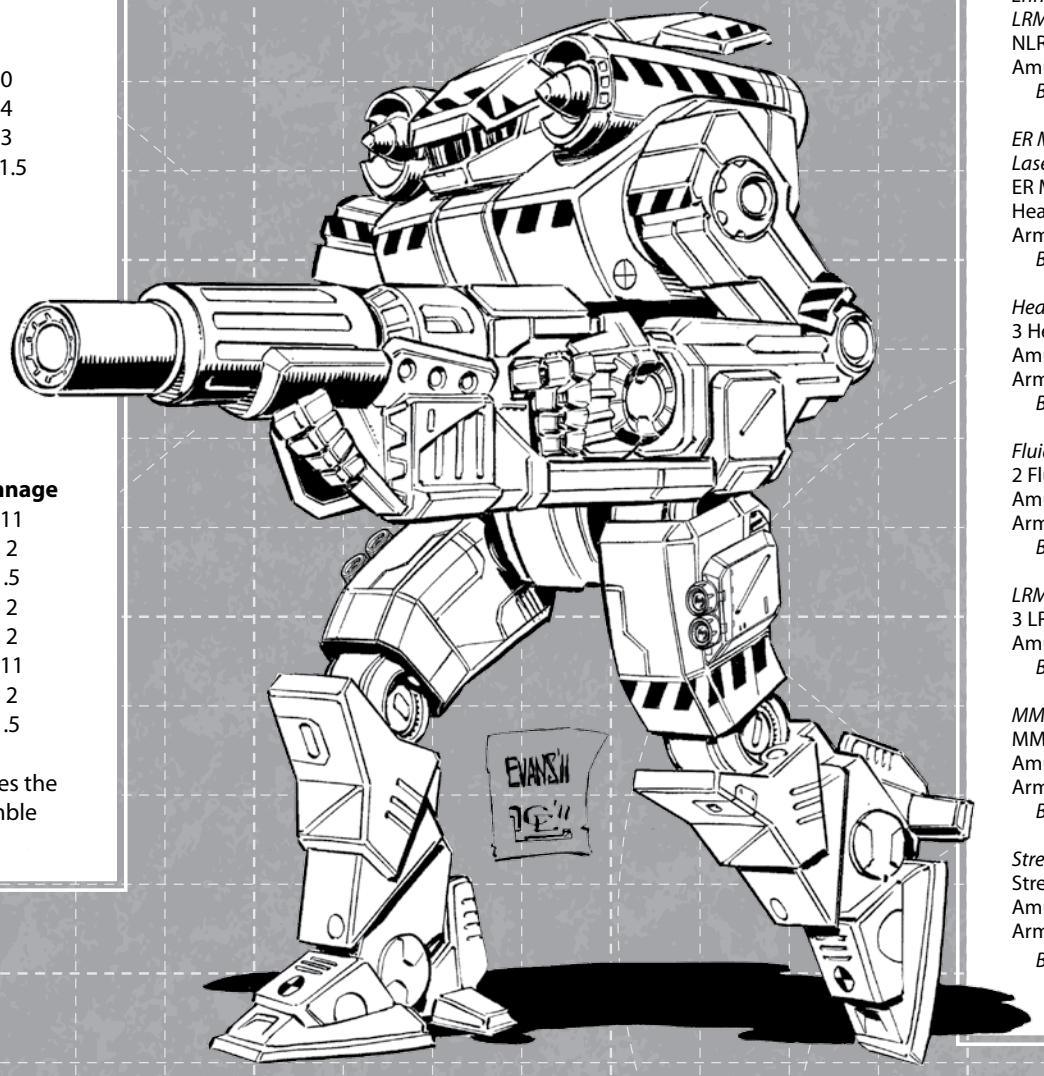
AXM-6T AXMAN

Type: **Axman**
Technology Base: Inner Sphere (Advanced)
Tonnage: 65
Battle Value: 1,830

Equipment			**Mass**
Internal Structure:	Endo Steel		3.5
Engine:	325 XL		12
Walking MP:	5		
Running MP:	8		
Jumping MP:	0		
Heat Sinks:	10 [20]		0
Gyro:			4
Cockpit:			3
Armor Factor (Light Ferro):	195		11.5
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	21	25	
Center Torso (rear)		11	
R/L Torso	15	20	
R/L Torso (rear)		10	
R/L Arm	10	20	
R/L Leg	15	25	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Thunderbolt 15	RT	3	11
Ammo (Thunderbolt) 8	RT	2	2
CASE	RT	1	.5
2 ER Medium Lasers	RL	2	2
2 ER Medium Lasers	LL	2	2
Thunderbolt 15	LT	3	11
Ammo (Thunderbolt) 8	LT	2	2
CASE	LT	1	.5

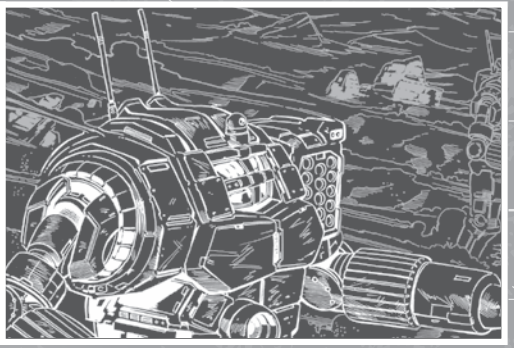
Notes: Features Full-Head Ejection System; Features the following Design Quirks: Protected Actuators, Rumble Seat.



Handheld Weapon Configurations

Weapons and Ammo	**Mass**
Light Autocannon Weapon (6.5 tons)	
Light AC/5	5
Ammo (LAC) 20	1
Armor (8 points)	.5
Battle Value: 86	
Enhanced LRM Weapon (6.5 tons)	
NLRM 10	6
Ammo (NLRM) 6	.5
Battle Value: 111	
ER Medium Laser Weapon (6.5 tons)	
ER Medium Laser	1
Heat Sinks	5
Armor (8 points)	.5
Battle Value: 78	
Heavy Flamer Weapon (6.5 tons)	
3 Heavy Flamers	4.5
Ammo (Flamer) 20	1
Armor (16 points)	1
Battle Value: 51	
Fluid Gun Weapon (6.5 tons)	
2 Fluid Guns	4
Ammo (Fluid Gun) 40	2
Armor (8 points)	.5
Battle Value: 28	
LRM Weapon (6.5 tons)	
3 LRM 5	6
Ammo (LRM) 12	.5
Battle Value: 138	
MML Weapon (6.5 tons)	
MML 7	4.5
Ammo (MML) 17/14	1
Armor (16 points)	1
Battle Value: 107	
Streak SRM Weapon (6.5 tons)	
Streak SRM 6	4.5
Ammo (Streak) 15	1
Armor (16 points)	1
Battle Value: 132	

Heavy 'Mechs



Mass: 65 tons
Chassis: Bristol RCL-MOD
Power Plant: Core Tek 195 HydroCell
Cruising Speed: 32 kph
Maximum Speed: 54 kph
Jump Jets: None
Jump Capacity: None
Armor: Humphreys Heavy Industrial
Equipment:
1 Marklin 6-Pack SRM 6 Launcher
1 Borfore Heavy Rifle
Manufacturer: Bristol SalvageWorks
Primary Factory: Canopus
Communications System: Channel 80 Short Wave
Targeting and Tracking System: O/P 911

Overview

The outbreak of brutal violence and rampant destruction caused by the Jihad was not limited to the Inner Sphere. The deepest recesses of the Periphery felt the impact as well. In the face of a terrifying new threat, even the smallest and poorest of nations scrambled to bolster their defenses. One of the more creative stopgap measures was to arm various industrial workhorses to create improvised BattleMechs.

With economies shattered in the wake of the Jihad, the market was primed for a low cost BattleMech option. Bristol SalvageWorks spent time investigating many of the customized IndustrialMechs that had sprung up across the Periphery. The one that interested them most was a combat upgrade of a *Dig Lord* MiningMech. Bristol engineers constructed a blueprint for a combat-capable *Dig Lord* and secured funding from both Canopian government officials and private investors.

The transition wasn't as easy as anticipated. Logistical and mechanical issues plagued the early phase of the project. The Bristol design team was forced to get creative with solutions and alterations in order to keep the project moving forward, and the end product of their efforts was dubbed the *Deep Lord*. Also known as a MilitiaMech, their creation is now being sold to Periphery powers and mercenary units all around Canopus.

Capabilities

In theory, the *Deep Lord* was a basic and manageable concept. The treads of the *Dig Lord* could be removed and replaced with legs, and the drilling and filtering gear could be replaced by weapons and armor. Bristol's engineers even had a working example of a customized *Dig Lord* to work from, procured at cost through less-than-reputable channels.

In practice, very little went right during the project's initial phases. The customized *Dig Lord* mounted a vibroblade and an enhanced actuator system that was simply too complex and costly to re-create on a production scale. In the vibroblade's place a mace was installed, to give the MilitiaMech a fearsome physical attack. The multiple missile launcher was shed as a cost-cutting measure, and replaced with a Canopian-made Marklin 6-tube short range missile system.

The most time-consuming and problematic obstacle was deciding on a main weapon. Initial designs called for installing the *Shadow Hawk*'s famous Armstrong J11 autocannon. The cost to purchase and deliver the autocannons to Canopus was far too high for the project budget. Forced to seek out a new main weapon, the design team hit upon a creative solution. Most semi-developed Periphery worlds had a ready supply of antiquated cannons. Used for perimeter security, point defense and police duties, these outdated weapons were cheap to acquire, which fit perfectly.

Mounting the weapon proved challenging. Various positions were considered and tested, but no obvious placement gave the engineers the field of fire and aesthetic they desired. As something of a Hail Mary, they tried a shoulder turret mount. While atypical for BattleMechs, it made the cannon system seem desirable with its unique ability to fire to all arcs. To improve accuracy, a deal was made with another company located on Canopus: Magistracy Metals and Manufacturing. MMM was upgrading their *Locust* line to the newer 5V variant, and that required an upgrade to the targeting and tracking systems. Bristol happily purchased the original O/P 911 systems and installed them for fire control in the *Deep Lord*.

The end result produced a BattleMech that by modern standards is ineffective. It is slow, poorly armored and lacks significant firepower. It is incredibly inexpensive, and that alone makes it desirable in most corners of the Periphery. While it is unlikely to stand up to advanced combat operations, it is more than capable of defeating the attacks offered by roving pirate bands.

Deployment

Bristol's low pricing and aggressive marketing seems to be yielding results. While no large single purchaser has ordered the *Deep Lord,* sales have been brisk. Numerous Periphery outposts, city states, militia units and mercenary units have ordered the 'Mech in small numbers.

RCL-ZIM DEEP LORD MILITIAMECH

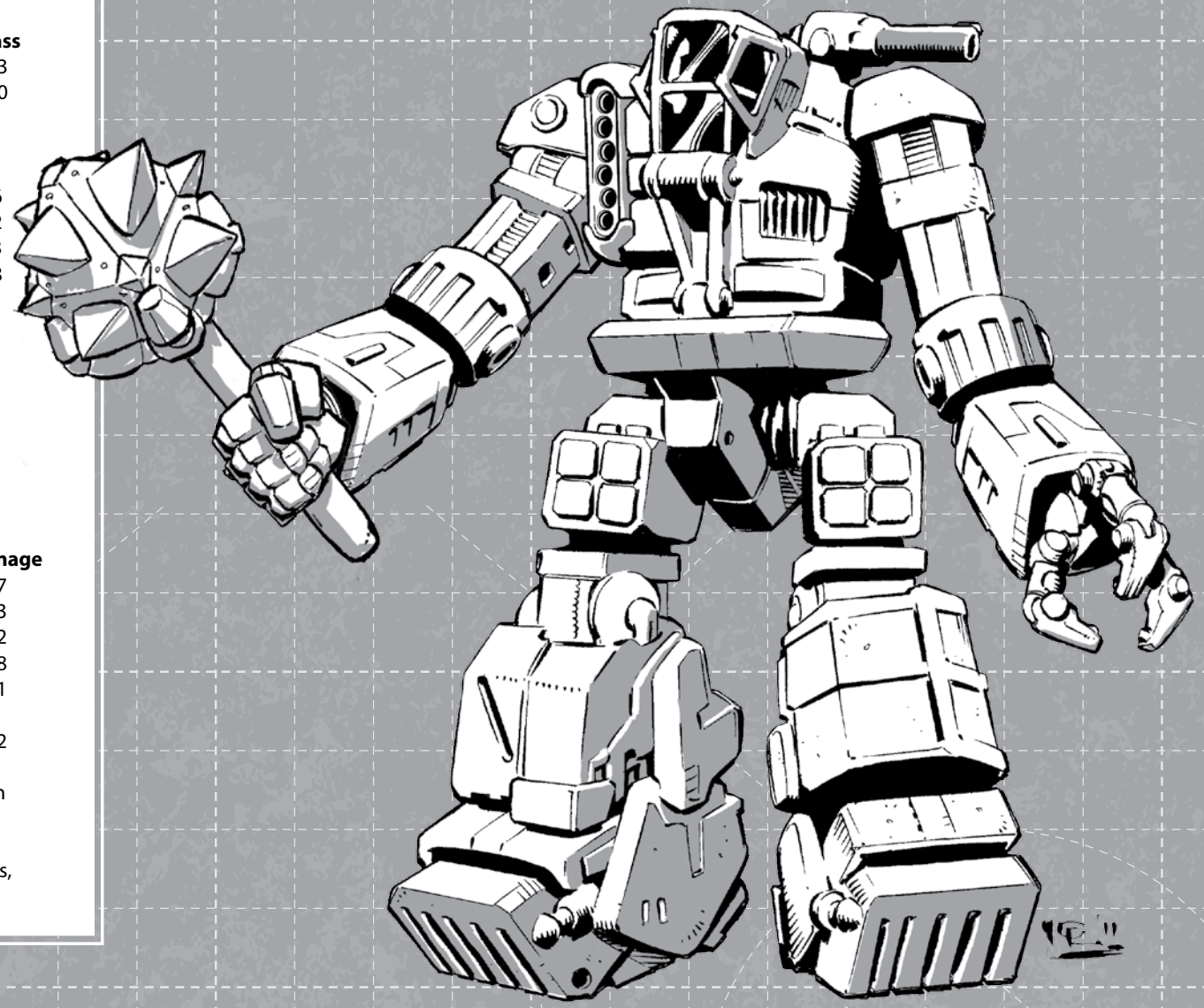
Type: **Deep Lord MilitiaMech**
Technology Base: Inner Sphere (Advanced)
Tonnage: 65
Battle Value: 715

Equipment		**Mass**
Internal Structure:	IndustrialMech	13
Engine:	195 Fuel Cell	10
Walking MP:	3	
Running MP:	5	
Jumping MP:	0	
Heat Sinks:	7	6
Gyro:		2
Cockpit (Industrial):		3
Armor Factor (Heavy Industrial):	128	8

	Internal Structure	*Armor Value*
Head	3	9
Center Torso	21	16
Center Torso (rear)		5
R/L Torso	15	14
R/L Torso (rear)		3
R/L Arm	10	16
R/L Leg	15	16

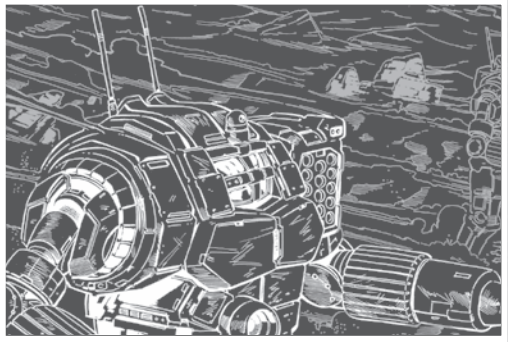
Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Mace	RA	7	7
SRM 6	RT	2	3
Ammo (SRM) 30	RT	2	2
Heavy Rifle*	LT	3	8
BattleMech Turret (Shoulder)	LT	1	1
Ammo (Rifle) 12	LT	2	2

Notes: *The Heavy Rifle is mounted in a BattleMech Shoulder Turret; Features Advanced Fire Control; Features the following Design Quirks: No Ejection System, Improved Life Support, Protected Actuators, Jettison-Capable Weapon (Mace).



BGS-4T BARGHEST

Heavy 'Mechs



Mass: 70 tons
Chassis: Earthwerks BGS Quad
Power Plant: GM 280
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Jump Jets: None
Jump Capacity: None
Armor: Durallex Heavy with CASE II
Armament:
1 Defiance Annihilator Improved Heavy Gauss Rifle
1 BlazeFire Sweetshot Extended Range Large Laser
1 Defiance Model XII Extended Range Medium Laser
Manufacturer: TharHes Industries
Primary Factory: Tharkad
Communications System: TharHes Euterpe HM-14 with C^3 Slave
Targeting and Tracking System: TharHes Ares-8a

Overview

Ever since its introduction the quadruped BattleMech has been an interesting design choice, a careful balance of advantages and disadvantages. For the increased stability, less room was available. For better movement and the ability to kick enemies close behind, the ability to react with a torso twist was lost. Enemy forces could move into that side "sweet spot" and fire on a quad without fear of return fire.

Until recently.

With the deployment of turret-using quad 'Mechs, the battlefield isn't the same. Nor is that the only way this new Barghest fills its opponents' hearts with dread.

Capabilities

The BGS-4T is notably slower than previous *Barghest*s. With a maximum speed under sixty-five kilometers per hour, it no longer fills the fast heavy or cavalry roles, but what it loses in speed, it gains in survivability. The extralight engine is replaced with a smaller standard, a tried-and-true GM 280 used on Lyran BattleMechs for centuries. This added durability is needed, as the armor protection is lessened from the original *Barghest*, which had been the least protected version until now. Unlike the 1T, the heat sink capacity is more than capable of handling the demands of the 'Mech; only damage or outside heat effects are likely to push the 4T to problematic levels of buildup.

The 4T isn't about speed or protection, however, but a very brutal punch. Its improved heavy Gauss rifle can shatter many light 'Mechs over half a kilometer away. The superior rifle design does not have all the drawbacks that the original did, providing consistent damage over range while the more controlled recoil prevents the *Barghest* from falling over from its own weapons fire. Added to that are a pair of extended range lasers in a turret: one large and one medium. In addition to protecting the *Barghest*'s flanks, this turret can also be brought to bear on the target of the Gauss rifle to exploit the big hole opened up.

If that weren't enough, the 4T mounts a C^3 slave system right behind the cockpit. While the damage drop off and significant minimum range inaccuracy made the heavy Gauss rifle a poor choice for a C^3 weapon, the improved version is almost tailor-made for a network. Trying to fire back at a *Barghest* crouched down at half a kilometer can be a difficult shot even for a veteran. Having it hit back with a greater punch than a class-twenty autocannon from such a distance can discourage a force from even attempting to push forward. Designers also provided the 4T protection from itself. Where a Gauss weapon would likely destroy the torso it is in if hit, an advanced CASE II system protects the structure, preventing the loss of the attached front leg as well.

Deployment

The first *Barghest* 4Ts have been assigned to the Royal Guard and Lyran Guard regiments. Despite normal protocol, the units issued the design have not been because of prominence or connections, but rather because of existing C^3 networks in their forces. While the 'Mech is quite capable of operating independently, it shines as part of a network and TharHes wanted the design to shine in its first few encounters on the battlefield.

And it did. With a *Banshee* and *Mongoose II* spotting, a pair of *Barghest* 4Ts squatted down on a wooded hillside. As a Marik company approached, the *Mongoose* sped through the gaps in their formation, allowing the *Barghest*s to rain down Gauss slugs. After a few futile salvos at the fast *Mongoose*, the company turned their fire to the *Banshee* as it split a *Hermes II* down the middle with its axe. Despite the terrifying assault 'Mech in their midst, the real damage was being done by the two 'Mechs on the hill, as 'Mech after 'Mech dropped from the massive Gauss hits. A mere lance retreated, leaving the *Barghest*s to hold the area while the *Banshee* retired for repairs.

BGS-4T BARGHEST

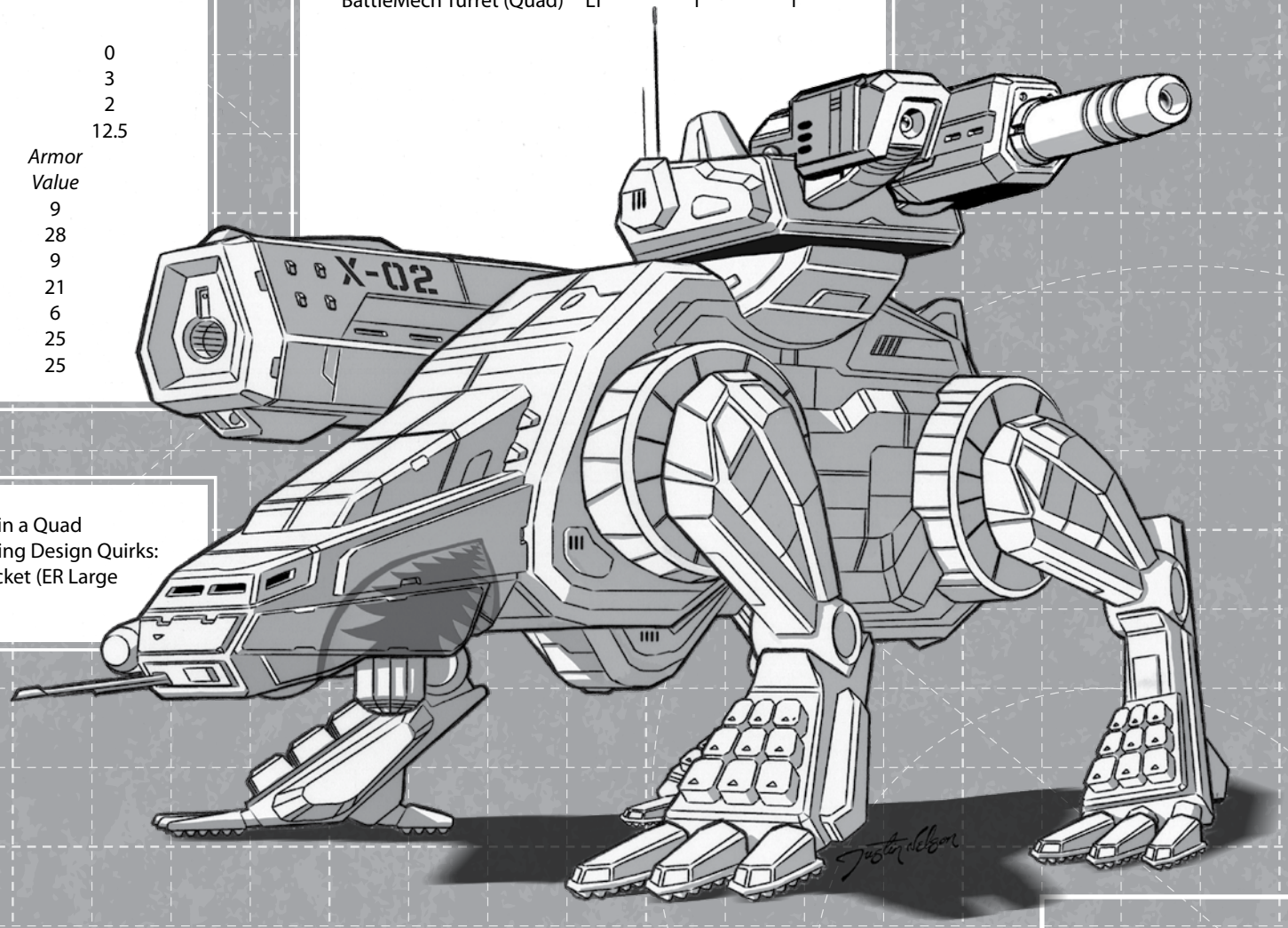
Type: **Barghest**
Technology Base: Inner Sphere (Advanced)
Tonnage: 70
Battle Value: 1,734

Equipment		**Mass**
Internal Structure:	Endo Steel	3.5
Engine:	280	16
Walking MP:	4	
Running MP:	6	
Jumping MP:	0	
Heat Sinks:	10 [20]	0
Gyro:		3
Cockpit (Small):		2
Armor Factor:	200	12.5

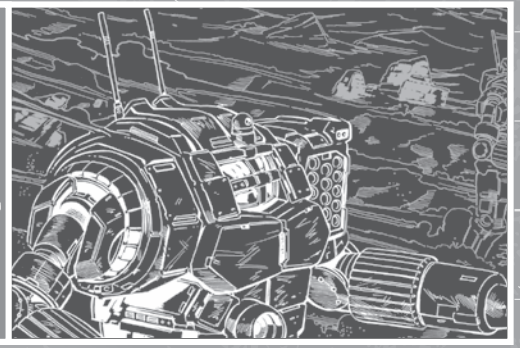
	Internal Structure	*Armor Value*
Head	3	9
Center Torso	22	28
Center Torso (rear)		9
R/L Torso	15	21
R/L Torso (rear)		6
R/L Front Legs	15	25
R/L Rear Legs	15	25

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Improved Heavy Gauss	RT	11	20
CASE II	RT	1	1
Ammo (Gauss) 4	RFL	1	1
C^3 Slave	H	1	1
Ammo (Gauss) 8	CT	2	2
Ammo (Gauss) 4	LFL	1	1
ER Large Laser*	LT	2	5
ER Medium Laser*	LT	1	1
BattleMech Turret (Quad)	LT	1	1

Notes: *These weapons are mounted in a Quad BattleMech Turret; Features the following Design Quirks: EM Interference, Improved Cooling Jacket (ER Large Laser), Rumble Seat.



Heavy 'Mechs



Mass: 70 tons
Chassis: Arc Royal z33/8
Power Plant: VOX 280 Light
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Jump Jets: Leviathan Enhanced Lifters
Jump Capacity: 180 meters
Armor: Durallex Heavy
Armament:
2 Maxell X-pulsion Large X-Pulse Lasers
3 RAMTech 1500Z Extended Range Medium Lasers
Manufacturer: Arc-Royal MechWorks
Primary Factory: Arc-Royal
Communications System: K9-C
Targeting and Tracking System: Type VI Bloodhound

Overview

Out of production for centuries, the *Grasshopper* was a popular, but rare, 'Mech for much of the Succession Wars. Most of the original Star League-era production survived the Succession Wars by being continuously salvaged. When LexaTech Industries of Hun Ho decided to capitalize on the rising popularity of the rugged machine in the 3060s, the *Grasshopper* reentered production. It quickly filled the ranks of the DCMS and expanded on an already-impressive reputation during the Combine's actions against the Ghost Bears and the Federated Suns. As the Jihad slowly burned itself to completion, manufacturers across the Inner Sphere took stock of their reduced capacities and created business plans. Taking a page from their Combine counterparts, Arc-Royal MechWorks decided to begin construction of a new *Grasshopper* model and offer it to all possible buyers, taking advantage of pent-up demand for a known product.

Defensively, nearly every aspect of the Arc-Royal *Grasshopper* is focused on survivability and mobility. Six Leviathan Enhanced Lifters increase the maximum jump capacity of the *Grasshopper* to 180 meters, the additional jump distance added to take a complacent opponent by surprise. Thirteen and a half tons of Durallex armor sheaths the heavy 'Mech—virtually the maximum possible—and as an additional measure, the cockpit was moved to the torso. Unable to shoehorn a bulky extralight engine into the endo steel chassis, Arc-Royal engineers settled for a smaller, but heavier, light engine. In trials, engineers added the showy bombast lasers to their prototype, mated to a prototype Bloodhound active probe. A then-experimental item, the Bloodhound was placed in the space vacated by the cockpit for maximum sensor coverage, and slaved to a coaxial medium pulse laser.

Capabilities

Initial reviews of the GHR-7X prototype were cautiously optimistic; the BattleMech seemed to be a certain improvement over the 7K, but the experimental bombast lasers caused analysts concern. Able to be dialed-up in combat, bombast lasers could provide heavier damage at the cost of increasing the inherent inaccuracies of the weapon. During development, veteran MechWarrior advisors predicted that—outside of controlled test conditions or the high-risk, high gain arenas of Solaris—most MechWarriors would fire at the lower settings, trading lower potential damage to limit powerful misses. These predictions were unfortunately proven accurate during action on Rochelle.

There, two prototypes were completed in time to be donated to the LAAF for field testing, and both *Grasshopper*s were destroyed in the heavy fighting on-planet. After-action reviews clearly showed both MechWarriors rarely dialing up their weapons to the maximum potential, and quickly getting overrun by Blakist defenders. Both pilots were killed and the battleROMs were also destroyed in action. Heeding the advice of the veteran warriors, the engineers replaced the bombast lasers in their next attempts with x-Pulse large lasers, deemed an effective compromise between damage and accuracy. The medium pulse laser was removed from the head cavity and replaced with a new RAMTech 1500Z ER medium laser alongside a production version of the Bloodhound. Finally, an additional ER medium laser was added to each arm for extra protection from battle armor.

Deployment

Due to the poor performance of the original prototypes, Arc-Royal MechWorks thought it prudent to slowly reintroduce the *Grasshopper* to the market, focusing on other designs until Rochelle could quietly be forgotten. Finally released in a well-orchestrated campaign of successful field trials and discounts to mercenary or former-mercenary units, the simple-but-effective design has caught the eye of many major mercenary units. In steady production for almost a full decade, the GHR-7P can be found in nearly any unit boasting past or current mercenary affiliation, though it has been slower to enter House militaries. With the 7P only common in the LCAF, Arc-Royal is not planning to increase the current production levels of the 'Mech in the near future.

Variants

As the experimental GHR-7X was listed and marketed, Arc-Royal still receives occasional requests to produce the prototype model. So far, Arc-Royal has honored these requests as bombast lasers become available, but it is expected that ARM will slowly phase out this courtesy. Less than a half-dozen new prototypes are known to exist.

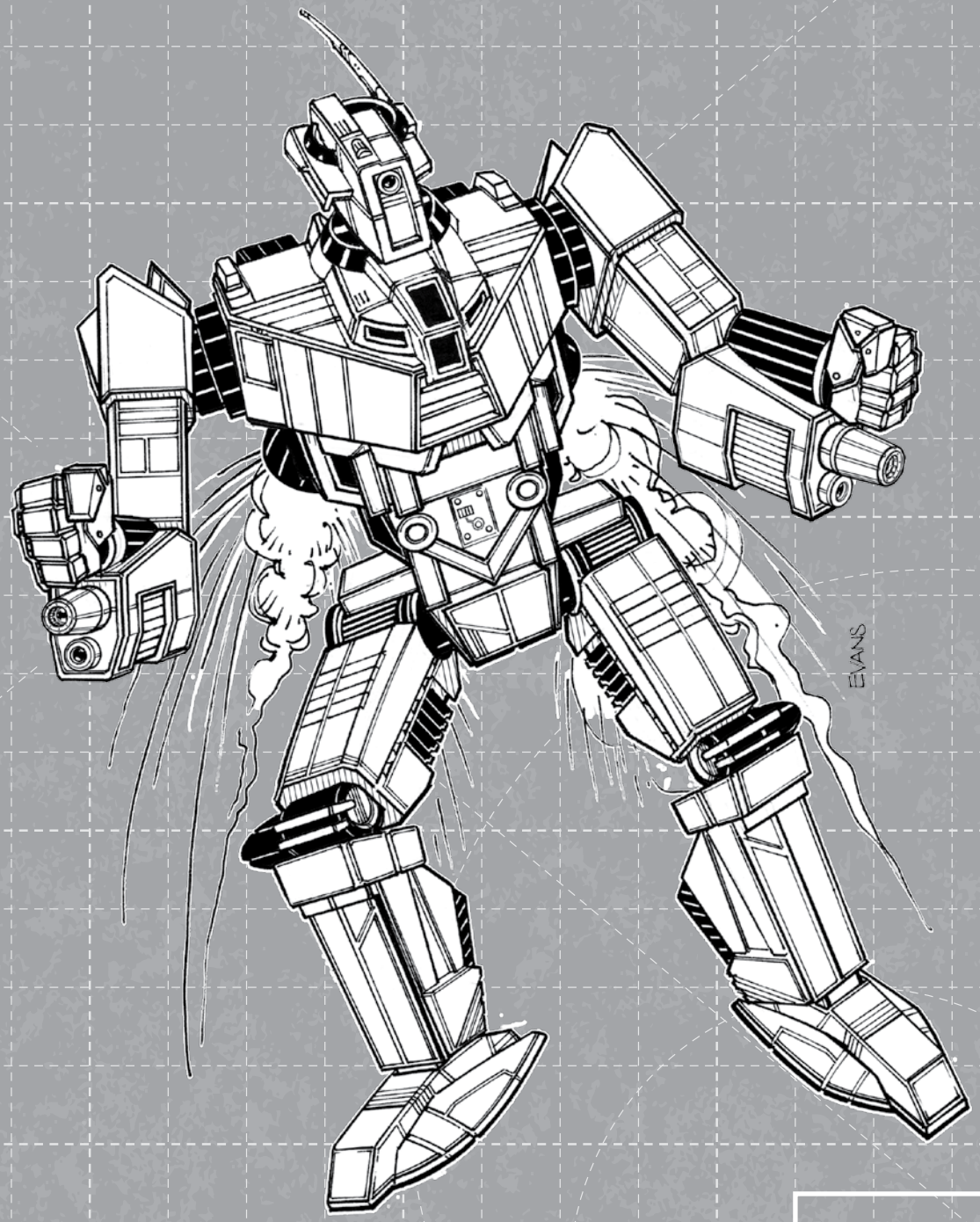
GHR-7P GRASSHOPPER

Type: **Grasshopper**
Technology Base: Inner Sphere (Advanced)
Tonnage: 70
Battle Value: 1,806

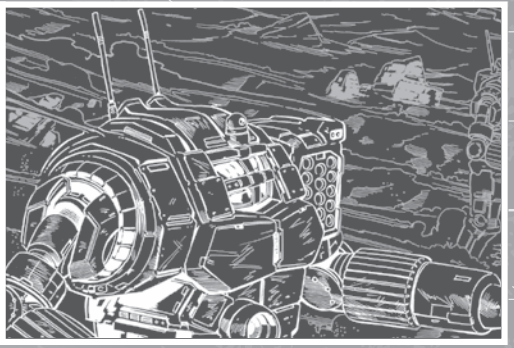
Equipment			**Mass**
Internal Structure:	Endo Steel		3.5
Engine:	280 Light		12
Walking MP:	4		
Running MP:	6		
Jumping MP:	6		
Heat Sinks:	13 [26]		3
Gyro:			3
Cockpit (Torso-Mounted):			4
Armor Factor:	216		13.5
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	22	32	
Center Torso (rear)		11	
R/L Torso	15	22	
R/L Torso (rear)		8	
R/L Arm	11	22	
R/L Leg	15	30	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Large X-Pulse Laser	RA	2	7
ER Medium Laser	RA	1	1
Bloodhound Active Probe	H	3	2
ER Medium Laser	H	1	1
Large X-Pulse Laser	LA	2	7
ER Medium Laser	LA	1	1
Improved Jump Jet	RL	2	2
Improved Jump Jets	RT	4	4
Improved Jump Jets	LT	4	4
Improved Jump Jet	LL	2	2

Notes: Features the following Design Quirks: Non-Standard Parts, Rumble Seat.



Heavy 'Mechs



Mass: 70 tons
Chassis: Hollis Mk III Endo Steel
Power Plant: VOX 280 XL
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Jump Jets: Anderson High Propulsion 12s
Jump Capacity: 180 meters
Armor: Ceres Heavy with CASE II
Armament:
1 Sian/Ceres Hellcat Class 20 Thunderbolt Launcher
1 Ceres Arms Model X Medium X-Pulse Laser
3 Ceres Arms Extended Range Medium Lasers
Manufacturer: Ceres Metals Industries
Primary Factory: Capella
Communications System: Ceres Metals Model 21-Rs
Targeting and Tracking System: C-Apple Churchill

Overview

Until recently manufactured at three separate industrial complexes, the *Thunder* is one of the most prolifically produced BattleMechs in the Confederation. A mobile line breaker, the *Thunder* has been counted on repeatedly to shatter formations brought against House Liao with its devastating firepower. The *Thunder*'s overwhelming power has made it a popular purchase in the Magistracy Armed Forces as well, where its capabilities greatly set it apart from a number of older 'Mechs still in service.

Unfortunately, the prodigious rate of manufacture is necessary—*Thunder* losses are among the highest of any design in the CCAF and MAF. While a charge from a *Thunder* is enough to break all but the stiffest static defense, in extended engagements the *Thunder* is incredibly vulnerable to ammo explosions and crippling damage to its engine and main gun. Its short weapons range, extralight engine, and over-reliance on a single, fragile weapon all combine to give the *Thunder* limited combat endurance. While the Capellan Confederation can more readily absorb the cost of replacing *Thunder*s lost in combat, to the Magistracy, the loss of such advanced machines comes as a serious blow.

In 3078, the MAF opted not to renew their contract with Ceres Metals for new *Thunder*s, citing low survivability and high cost. Eager not to lose a valued customer, or incur the displeasure of the Chancellor and his wife, Ceres invited several MAF officers to provide input on the development of a new *Thunder* variant. Representatives of the CCAF were invited to provide input as well. The result was a much-altered design developed to meet the needs of both militaries.

Capabilities

MAF Procurement expressed a lack of satisfaction in the *Thunder's* cost and survivability. They submitted several after-action reports indicating *Thunder*s drew more fire than their lancemates as their effective range was dangerously close. They also expressed that even with CASE, ammo explosions occurred more frequently than in other 'Mechs, and still rendered the BattleMech ineffective.

CCAF representatives expressed general contentment with their THR-2Ls, but cited incidents where CCAF *Thunder*s engaged by Blakist forces in tight terrain suffered horrific losses. In one instance, a lance of three *Thunder*s and a *Lao Hu* was wiped out by Word skirmishers and indirect missile barrages when thick forest prevented them from maneuvering to support one another. The one aspect of the design both the MAF and CCAF praised was its powerful autocannon.

Ceres Metals pulled out all the stops in attempting to answer all the respondents' complaints. To decrease the unit's cost, Ceres Metals used the smaller VOX 280 extralight engine. Originally used by StarCorps for their WHM-8D, with production switching to the slower WHM-5L model Ceres Metals was able to secure the engines at reduced cost. The slower ground speed was countered by the use of new Anderson High-Propulsion 12 jump jets, allowing the C4 to travel over even the roughest terrain.

Despite the approval of the autocannon, Ceres opted to replace the weapon with the newly-developed Sian/Ceres Hellcat, capable of delivering the same damage at twice the distance. Its ability to be fired indirectly allows the THR-C4 to better support its lancemates, and its more compact size allows its ammunition to be stored in the arm, protected by an improved form of CASE.

Finally, Ceres installed the new Ceres Arms Model X medium X-pulse laser. While not in the design requirements, Ceres felt the highly accurate weapon would be a boon to a unit making long leaps in combat.

Deployment

The THR-C4 (the C standing for both Capellan *and* Canopian) entered service with both nations in 3083. Production runs have been split evenly, with the CCAF issuing their allotment to the rebuilding Liao Cháng-Chéng, while the MAF has sent theirs to their premiere units, such as the Chasseurs á Cheval.

Variants

Ceres Metals continues to produce the stealth-armored THR2L at Capella, and both the -2L and Arrow IV-armed 3L at Sian. Production of the *Thunder* at St. Ives was ended violently by the Word of Blake's Eighth Division. Ceres has indicated it plans to repair its St. Ives facility, but it remains to be seen whether they will continue *Thunder* production at that location.

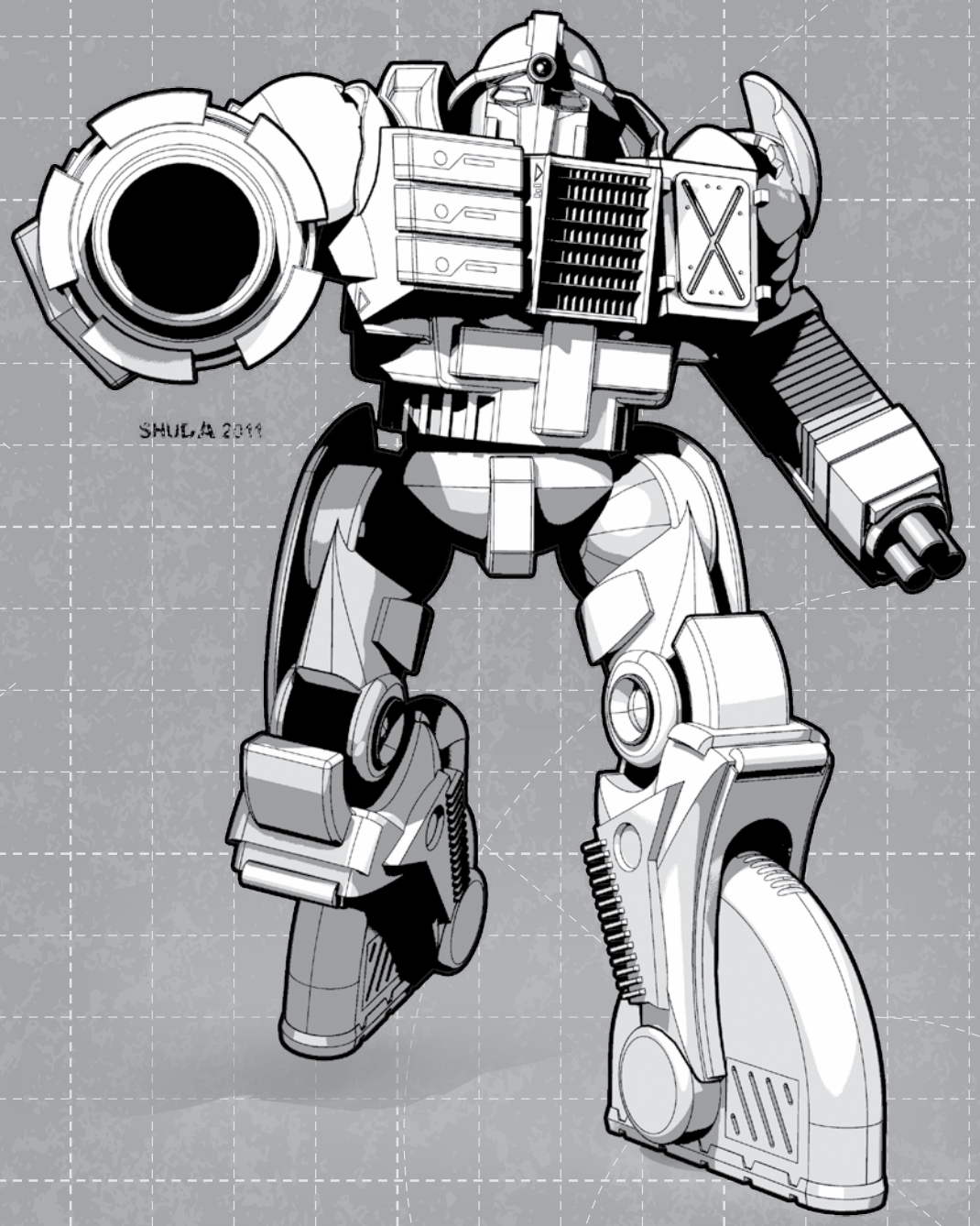
THR-C4 THUNDER

Type: **Thunder**
Technology Base: Inner Sphere (Advanced)
Tonnage: 70
Battle Value: 2,028

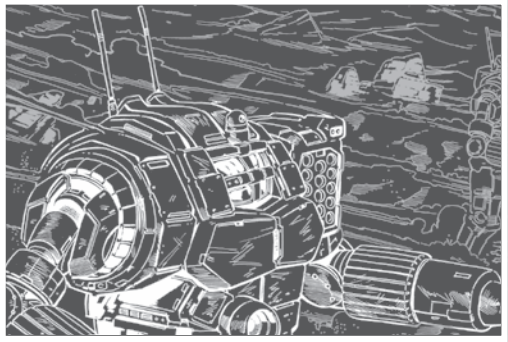
Equipment			**Mass**
Internal Structure:	Endo Steel		3.5
Engine:	280 XL		8
Walking MP:	4		
Running MP:	6		
Jumping MP:	6		
Heat Sinks:	12 [24]		2
Gyro:			3
Cockpit:			3
Armor Factor:	216		13.5
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	22	34	
Center Torso (rear)		9	
R/L Torso	15	23	
R/L Torso (rear)		7	
R/L Arm	11	22	
R/L Leg	15	30	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Thunderbolt 20	RA	5	15
Ammo (Thunderbolt) 12	RA	4	4
CASE II	RA	1	1
Medium X-Pulse Laser	H	1	2
3 ER Medium Lasers	LA	3	3
Improved Jump Jets	LT	6	6
Improved Jump Jets	RT	6	6

Notes: Features the following Design Quirks: Hard to Pilot, Easy to Maintain, Reinforced Legs.



Heavy 'Mechs



Mass: 75 tons
Chassis: Kali Yama Chassis
Power Plant: Hermes 300 XL
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Jump Jets: None
Jump Capacity: None
Armor: Valiant Lamellor with CASE II
Armament:
1 Kali Yama Weapons Industries Grand Slam Gauss Rifle
1 Kali Yama Weapons Industries Type IVE Extended LRM 15 Launcher
2 Diverse Optics Extended Range Medium Lasers
Manufacturer: Kali Yama Weapons Industries
Primary Factory: Kendall
Communications System: Irian Orator-5K
Targeting and Tracking System: Wasat Aggressor Type 5 with TAG

Overview

The ON3-M *Orion* is based on the experimental ON3-MX *Orion 3100*. The *Orion 3100* was an attempt to utilize advances in weaponry to push combat ranges beyond even those of Clan weaponry, creating "… a 'Mech for the 32nd century." The ON3-MX might have pushed too far, though, as the mammoth improved heavy Gauss rifle and XL engine made the *Orion* vulnerable to crippling capacitor explosions from even minor internal damage. And, of course, the Lyrans proved reluctant to provide improved heavy Gausses to companies in the former Free Worlds League region.

The configuration of the production model ON3-M was not surprising, being anticipated even before the ON3-MX marched onto the test grounds.

Capabilities

The ON3-M chassis differs little from the ON1-M introduced forty years earlier, except for a trivial adjustment of the armor. It retains the same engine, frame, cockpit and cockpit electronics. These retentions of proven hardware were deliberate choices by Kali Yama to speed development of the ON3-MX. The famously roomy and easily-maintained chassis was ideal for quick experimentation with new weapons so long as the Kali Yama engineers resisted the impulse to tinker with the core systems.

The weapons installed on the ON3-M follow the vision of the *Orion 3100*. The two main weapons are a Kali Yama Grand Slam Gauss Rifle, giving potent and concentrated firepower comparable to most older heavy weapons, and a Kali Yama Extended LRM 15 with a record-setting range unmatched by any weapon other than artillery. A pair of extended-range medium lasers provides adequate secondary weapons.

Noting that the robust *Orion*s often end up in close-quarter combat, the ON3-M was equipped with a Diverse Optics TAG to direct the semi-guided LRMs of supporting units or, if available, guided artillery and bombs.

Kali Yama paid attention to the concerns voiced on the ON3-MX's large ELRM magazine and unprotected iHGR capacitor banks. Underneath the traditionally heavy armor of an *Orion*, Kali Yama installed heavily reinforced CASE II units in both side torsos. These advanced explosion containment systems, while heavier than conventional CASE, are so capable that they can often prevent catastrophic engine damage from a capacitor or ammunition explosion.

The resulting BattleMech is a workhorse. Thickly armored, cool-running, capable of easily engaging targets at ranges few can match and moderately mobile, the ON3-M *Orion* is an ideal line 'Mech for those units that can acquire it.

If the ON3-M has a drawback, it is relatively poor short-ranged performance. The ELRM launcher becomes almost impossible to aim below 200 meters, and the Gauss rifle is difficult at point-blank ranges, leaving the *Orion* with only a pair of ER medium lasers.

Deployment

The ON3-MX won accolades during its field tests at the end of the Jihad, and during unrest amongst former Free Worlds League member-states. After incorporating the feedback of potential customers and signing many advance orders, Kali Yama switched much of its *Orion* production capacity to the ON3-M in 3086.

While the Kali Yama has been poised to produce the ON3-M in quantity, some of its largest potential customers canceled their advance orders in 3088 and 3089, citing post-Jihad reconstruction expenses and the need to curb spending. As a result, Kali Yama has been left with idled lines and is selling the ON3-M below cost.

A majority of the ON3-Ms have been sold in package deals with the specialized *Pandarus* missile units. Generally, Kali Yama is able to sell two to three *Orion*s per *Pandarus*, producing a formidable combination of extreme, long range firepower. While the combination lances and companies look good on paper, sales have been limited.

The largest financial setback of the shrinking military market is Kali Yama's Kalidasa plant, which was being retooled to meet large orders of ON3-Ms for the AFFS, that has been since cancelled because of Republic pressure. Kali Yama has had to eat the loss and retool the assembly line again, this time to produce industrial 'Mechs suited for The Republic market. The 'Mech markets are reportedly so bad that Kali Yama is investigating diversifying into aerospace, due to the enormous demand for DropShips and JumpShips.

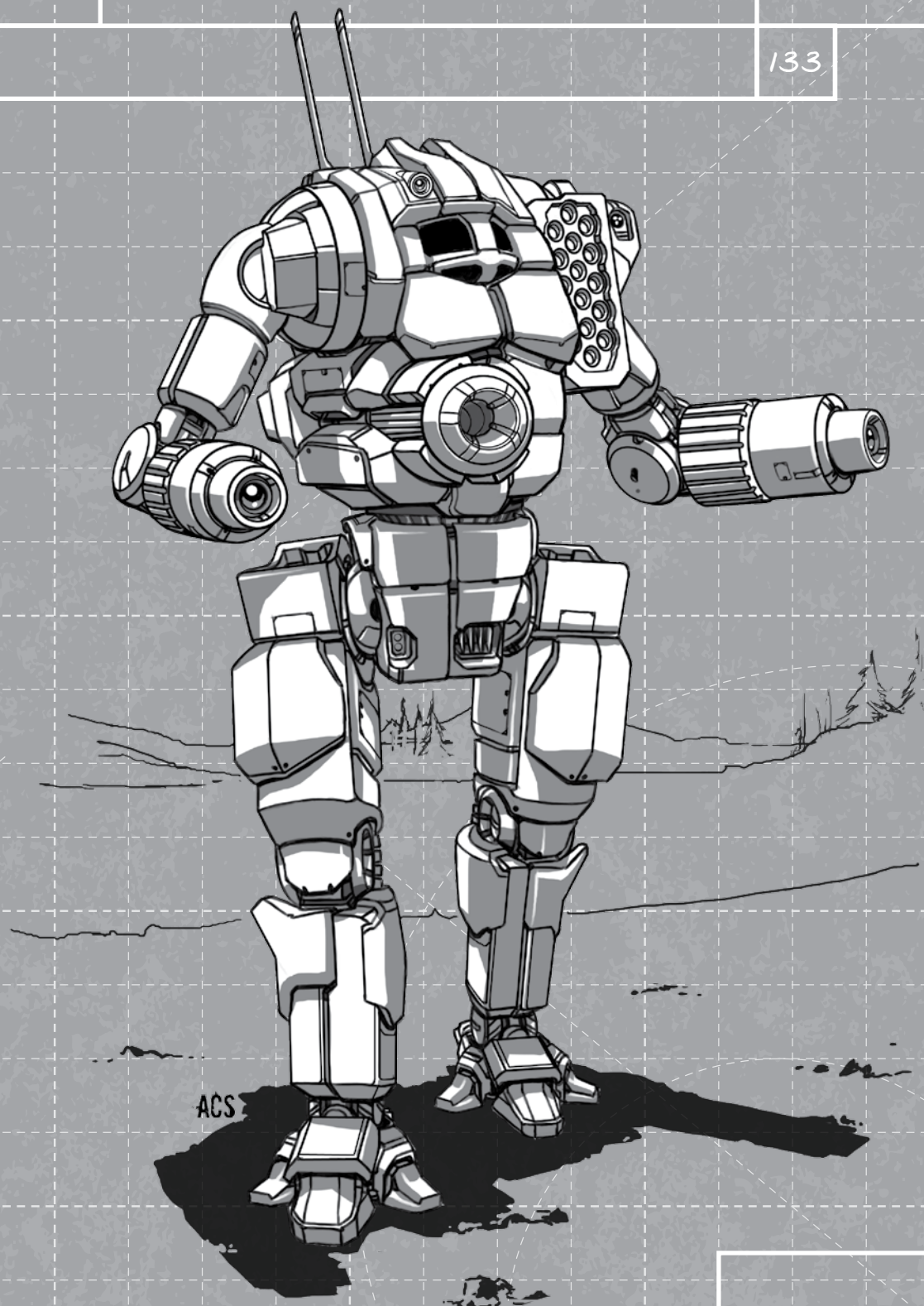
ON3-M ORION

Type: **Orion**
Technology Base: Inner Sphere (Advanced)
Tonnage: 75
Battle Value: 1,826

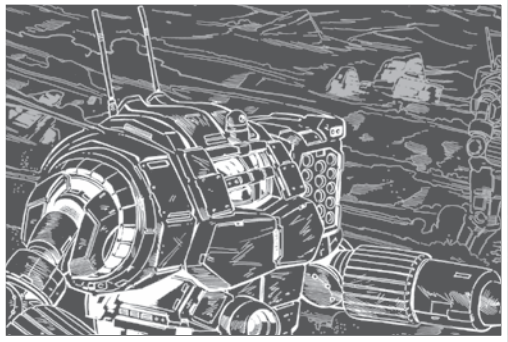
Equipment			**Mass**
Internal Structure:			7.5
Engine:	300 XL		9.5
Walking MP:	4		
Running MP:	6		
Jumping MP:	0		
Heat Sinks:	10 [20]		0
Gyro:			3
Cockpit:			3
Armor Factor:	224		14
	Internal Structure	*Armor* Value	
Head	3	9	
Center Torso	23	35	
Center Torso (rear)		10	
R/L Torso	16	22	
R/L Torso (rear)		10	
R/L Arm	12	22	
R/L Leg	16	31	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
ER Medium Laser	RA	1	1
Gauss Rifle	RT	7	15
CASE II	RT	1	1
TAG	H	1	1
Ammo (Gauss) 16	CT	2	2
Ammo (ELRM) 24	LT	4	4
CASE II	LT	1	1
ER Medium Laser	LA	1	1
Extended LRM 15	LA	6	12

Notes: Features the following Design Quirks: Difficult Ejection, Easy to Maintain, Rumble Seat.



Heavy 'Mechs



Mass: 75 tons
Chassis: LFA-Endo Steel
Power Plant: Vlar 300
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Jump Jets: None
Jump Capacity: None
Armor: Valiant Lamellor with CASE II
Armament:
3 Kali Yama Weapons Industries Type IIIE Extended LRM 10 Launchers
1 Diverse Optics Extended Range Medium Laser
Manufacturer: Kali Yama Weapons Industries
Primary Factory: Kendall
Communications System: Irian Orator-5K
Targeting and Tracking System: Wasat Aggressor Type 5

Overview

The production model LFA-1A *Pandarus* was named for an archer at the mythical Battle of Troy and grew out of the light field artillery, experimental LFA-1X that Kali Yama had been demonstrating since 3078.

The *Pandarus* was originally conceived as an OmniMech, to be primarily configured with missile weapons. In fact, the original concept of the OmniMech *Pandarus* was to exploit the value of breakthrough missile technologies developed since 3050. The results of the testing would both determine production weapon pods for the *Pandarus,* and provide a wealth of missile weapons data for other Kali Yama 'Mechs. However, the strained budgets of the Jihad era forced Kali Yama to restrict engineers to spare ON1-K chasses collecting dust in warehouses and, in turn, investigate a single fixed configuration. With positive reports from the ON3-MX testing, the *Pandarus* team settled on a specialized payload of extended LRMs.

Capabilities

Meeting at least one of the original goals of Alexandru Albusel's design team, the *Pandarus* is a specialized missile boat. Its primary selection of weapons, a triplet of Kali Yama Extended LRM 10s, gives the 'Mech unprecedented range. It nearly doubles the range of conventional LRM launchers and is able to engage targets easily at ranges most other weapons can barely reach.

This ranged performance comes with a price, though, as the ELRM launchers are heavy and restrict the 75-ton 'Mech's throw weight to that of common *Catapult* and *Archer* variants. The missiles are also heavy for their warhead size, due to the large fuel payload of their booster and sustainer motors, limiting the *Pandarus* to only eighteen volleys per launcher. ELRMs are only available with a single warhead type; the vast suite of conventional LRM warheads has not translated to ELRMs.

Another distinct disadvantage of the missile launchers is their almost complete inability to target anything at ranges under 200 meters. The *Pandarus*' single secondary weapon, a Diverse Optics extended-range medium laser, would be light for a 'Mech one-third of the *Pandarus*' tonnage. It is not surprising that Kali Yama representatives strongly emphasize treating the *Pandarus* like an artillery unit; a specialist that must be supported by other units to cover its weaknesses while its strengths help win the day.

Kali Yama unhesitatingly recommends its assorted *Orion* variants as partner units to the *Pandarus*, and not purely to maximize its profits. The *Pandarus* remains closely related to the *Orion*, arguably more so than the *Perseus*. Other than converting the major structural components to endo steel, most of the *Pandarus*' chassis differs little from the Kali Yama chassis of the ON1-M and ON3-M *Orion*s. The armor, lower torso and legs, arm actuators, gyroscope, engine core, major cockpit components and lasers are shared with ON3-M. The Kali Yama ELRM 10 is identical to that of the ON3-MX and shares three-fourths of its components with the ELRM 15 of the ON3-M. As the chassis is already noted for its ease of maintenance, the commonality of parts would ease any quartermaster's duties in keeping a mixed *Pandarus-Orion* unit supplied with spare parts and ammunition.

Other than its specialized weapon array, the *Pandarus* is a conventional heavy 'Mech. It has a moderate ground speed and respectable armor. Its standard engine and ammunition bins protected by the effective CASE II mean it is very tolerant to damage.

Deployment

The LFA-1X *Pandarus* used a composite structure as an expedient means of freeing mass for its heavy weapons payload without depending imported endo steel components. The composite framework could be built by local civilian aerospace contractors on Kendall. It was, however, much more fragile than conventional or endo steel structures. Kali Yama, anticipating huge reconstruction efforts by House militaries, invested in the 3081 construction of an endo steel refinery in Kendall orbit to support LFA-1A production and other Kali Yama projects.

Pandarus sales started off well in the early 3080s, and they were frequently sold in combination with *Orions*, but the contracts declined in the latter part of the decade as government spending shifted to post-Jihad civilian reconstruction and reconstruction debt. As of 3090, Kali Yama's successful venture into aerospace operations with its endo steel refinery has encouraged it to consider civilian aerospace ventures.

The *Pandarus* variant that has never manifested is the oft-promised OmniMech, the LFA-2O. This ultimate missile boat was expected to deploy everything from multi-missile launchers to Thunderbolts and ELRMs. The failing military markets, though, prevented Kali Yama from developing the LFA chassis into an OmniMech.

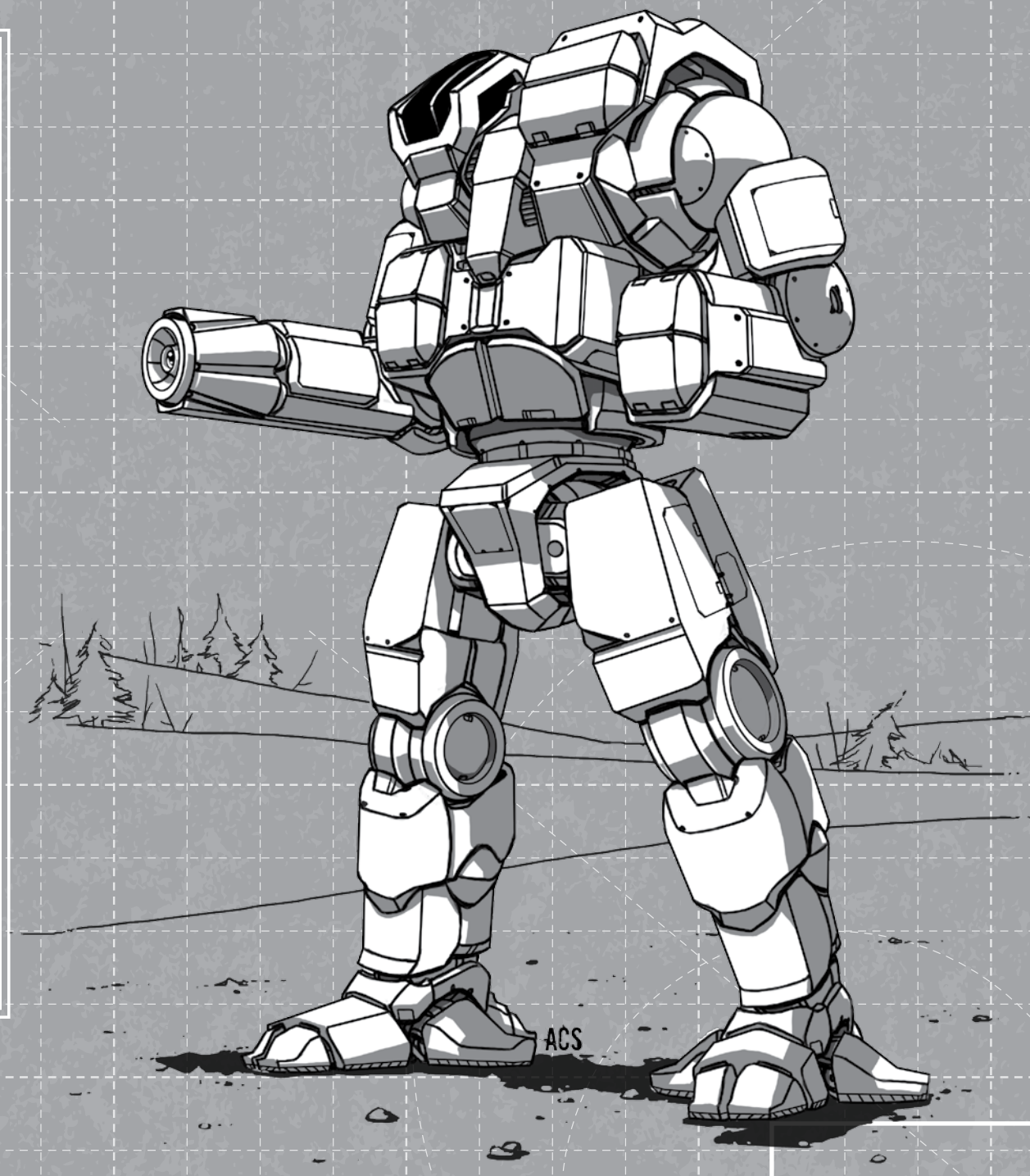
LFA-1A PANDARUS

Type: **Pandarus**
Technology Base: Inner Sphere (Advanced)
Tonnage: 75
Battle Value: 1,589

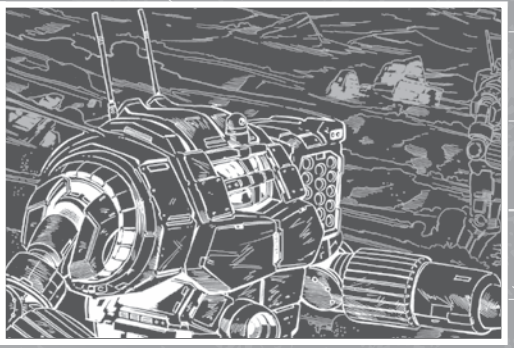
Equipment			**Mass**
Internal Structure:	Endo Steel		4
Engine:	300		19
Walking MP:	4		
Running MP:	6		
Jumping MP:	0		
Heat Sinks:	10 [20]		0
Gyro:			3
Cockpit:			3
Armor Factor:	208		13
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	23	32	
Center Torso (rear)		9	
R/L Torso	16	22	
R/L Torso (rear)		10	
R/L Arm	12	21	
R/L Leg	16	26	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
ER Medium Laser	RA	1	1
Extended LRM 10	RT	4	8
Ammo (ELRM) 27	RT	3	3
CASE II	RT	1	1
Extended LRM 10	LT	4	8
Ammo (ELRM) 27	LT	3	3
CASE II	LT	1	1
Extended LRM 10	LA	4	8

Notes: Features the following Design Quirks: Poor Targeting/Short Range, Improved Targeting/Long Range, Easy to Maintain, Rumble Seat.



Assault 'Mechs



Mass: 80 tons
Chassis: Earthwerks VOL Composite
Power Plant: Hermes 320 XL
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Jump Jets: None
Jump Capacity: None
Armor: New Samarkand Royal Ferro-Fibrous
Armament:
2 Lord's Light 5 Snub-Nose Particle Projector Cannons
2 Shigunga LRM 15 Launchers
5 Victory 23R Medium Lasers
2 Telos Darkwater SR Torpedo Launchers
Manufacturer: Maltex Corporation
Primary Factory: Unity
Communications System: Colmax 90
Targeting and Tracking System: Garret D2j

Overview

Originally conceived as a specialist unit for underwater operations against enemy bases and submarines, the *Hatamoto-Kaeru* entered production as a very capable combat unit worthy of inclusion in the *Hatamoto* family. Equipped for ground combat with a punishing array of PPCs, lasers and missiles, the *Kaeru* also boasts torpedo launchers. Underwater maneuvering units provide the *Kaeru* with unparalleled submerged capability.

Capabilities

Built around a lightweight composite skeleton, which is compact enough to mount both ferro-fibrous armor and the powerful Hermes 320XL engine, the *Hatamoto-Kaeru* is a fantastic melding of components with a long-established in the DCMS and new technologies seeking to obtain the same reputation.

The upgrade from the 27T's standard engine to the extralight engine was mandated by the desire to incorporate unique maritime capabilities on the chassis. More weight and space savings were required to accommodate the new components than was provided by the engine upgrade. Swapping the heat sinks from the original standard versions to freezers saved another eight tons, while still providing additional heat dissipation. The engineering team was stymied in their efforts to balance the requirements of providing the same armor protection with installing additional weapons until engineer Mike Vondrus suggested building a new skeleton from composite material. While it markedly increased the cost of the unit, it was later found to aid with buoyancy concerns for the underwater operations the 'Mech was to perform.

While the 27T carried only two PPCs and two SRM 6 racks, the *Kaeru*'s designers added lasers and additional missiles. Carrying weapons to provide a variety of range accessibility, the *Kaeru* first greets ground enemies with LRMs delivered by its reliable Shigunga racks. The standard PPCs of the 27T are replaced by Lord's Light snub-nose versions. The quintet of medium lasers, placed symmetrically about the torso, are the same Victory 23Rs found on LAW's venerable *Dragon*. Maritime versions of Telos' SRM racks are mounted in the legs, making the *Kaeru* the only known unit capable of combating partially submerged 'Mechs both above and below the waterline. While experimental versions of the new chassis utilized torpedo launchers in the torso as well, the DCMS High Command insisted that ground combat was more important than maritime; the leg-mounted torpedoes would be more than adequate to engage most undersea enemies.

The *Kaeru* boasts additional maritime equipment, most importantly a MechWarrior aquatic survival system. The MASS is one of the best indicators that the DCMS, in its current depleted form, considers the lives of its MechWarriors to be of paramount importance. Pairing the MASS with a full head ejection system gives the MechWarrior a much better chance of surviving, since the ejected head will float to the surface. The ejection system, of course, functions normally above the waves. UMUs in the torso enable the fully-submerged *Kaeru* to cut through the water as easily as a submarine.

The DCMS had reservations about the eventual reception of the *Kaeru* once full production was commissioned, and it began arriving in line units. Their fears were alleviated by the decision to replace the additional torpedo racks with standard LRMs. With the considerable heat load of the PPCs and lasers, the missiles give the MechWarrior a means to damage the enemy while closing for the kill. Bracket fire is advised for the *Kaeru*'s MechWarrior, with the PPCs being supplanted by the medium lasers once the range is favorable.

Deployment

Appearing in the ranks of most line units, the *Kaeru* has broken with DCMS tradition in that it has been supplied equally throughout the DCMS, perhaps because no one unit has requested it. Regardless, the 'Mech has distinguished itself across the Combine, thanks to skilled use of its amphibious capabilities.

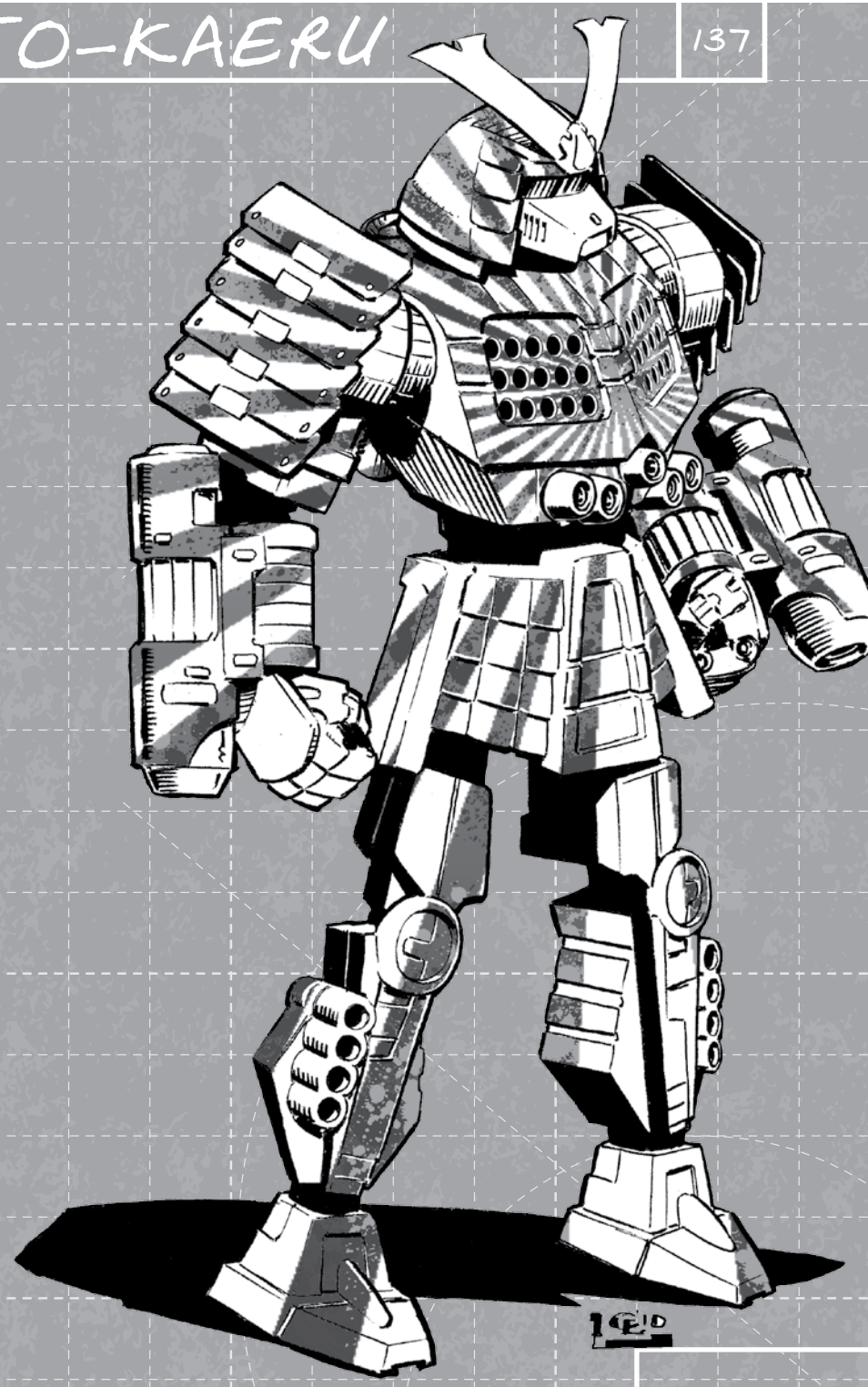
HTM-35K HATAMOTO-KAERU

Type: **Hatamoto-Kaeru**
Technology Base: Inner Sphere (Advanced)
Tonnage: 80
Battle Value: 1,961

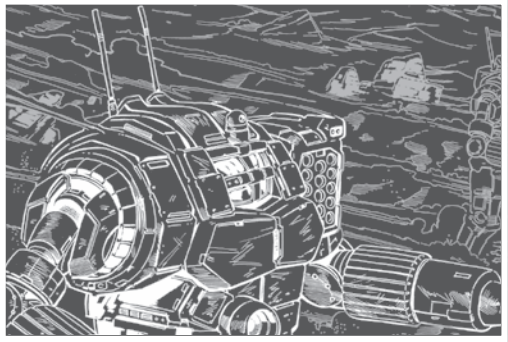
Equipment			**Mass**
Internal Structure:	Composite		4
Engine:	320 XL		11.5
Walking MP:	4		
Running MP:	6		
Jumping MP:	0		
UMU MP:	4		
Heat Sinks:	10 [20]		0
Gyro:			4
Cockpit:			3
Armor Factor (Ferro):	247		14
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	25	35	
Center Torso (rear)		15	
R/L Torso	17	25	
R/L Torso (rear)		9	
R/L Arm	13	26	
R/L Leg	17	34	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Snub-Nose PPC	RA	2	6
LRM 15	RT	3	7
Ammo (LRM) 8	RT	1	1
2 Medium Lasers	RT	2	2
SR Torpedo 4	RL	1	2
MASS	H	1	1.5
Ammo (SRT) 25	CT	1	1
Medium Laser	CT	1	1
LRM 15	LT	3	7
Ammo (LRM) 8	LT	1	1
2 Medium Lasers	LT	2	2
SR Torpedo 4	LL	1	2
Snub-Nose PPC	LA	2	6
UMU	RT	2	2
UMU	LT	2	2

Notes: Features the following Design Quirks: Difficult to Maintain, Non-Standard Parts, Multi-Trac.



Assault 'Mechs



Mass: 95 tons
Chassis: PDG Composite
Power Plant: GM 380 XL
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Jump Jets: None
Jump Capacity: None
Armor: StarGuard CIV with CASE II
Armament:
2 Holly EX Extended LRM 15 Launchers
1 Johnston High Speed Extended Range PPC with PPC Capacitor
3 Bright-Bloom Extended Range Medium Lasers
Manufacturer: General Motors
Primary Factory: New Valencia
Communications System: Newberg Telescan 17 with C^3 Slave
Targeting and Tracking System: Spar 3C MegaTrak

Overview

The *Pendragon* is one of the designs that came out of the Operation MUSE series, codenamed MUSE RED. While the first prototypes were built more than ten years ago, the 'Mech has languished in the development stage because of a number of financial, personnel and equipment problems. Only in the last year has the *Pendragon* gone into production, and only in limited numbers.

One of the main reasons for the long delay was the need for the *Pendragon*'s weapons and equipment to be built inside the Federated Suns. While the Diamond Shark-supplied armor, heat sinks and ER medium lasers helped prove the design concept, it was decided early that any production models would not be dependent on sources outside the Federated Suns. The Jihad-era destruction of large sectors of the Suns' military and civilian industrial infrastructure made securing those parts domestically difficult. With the AFFS' emphasis on restoring as much equipment as possible and manufacturing proven designs on the few assembly lines still working, new designs like the *Pendragon* were placed on the back burner until money and resources could be freed up.

The requirement for internal supply sources and a tight military budget forced the designers to make a few changes to the production model. The prototype Holly twenty-tube racks were replaced with production Holly-EX fifteen-tubes. This allowed the ammo weight to be cut in half and moved into the arms, along with the CASE II systems.

The weight saved from downgrading the ELRMs and reducing the ammo allowed the designers to increase the *Pendragon*'s speed to a respectable sixty kilometers per hour. The loss of the Clan-manufactured heat sinks and ferro-fibrous armor are offset by the use of the more-accessible Inner Sphere equivalents, with an extra double-strength heat sink and two additional tons of armor making up for the loss.

The Clan-supplied lasers were replaced with Bright-Bloom extended-range medium lasers, leaving the Johnston High Speed extended-range PPC and PPC capacitor as the only weapon system to make it from prototype to production.

Capabilities

The *Pendragon* is an extended-range hitter. Designed to stay behind the main battle line, it uses its C^3 slave unit to target the enemy at a safe distance. As part of a lance, the *Pendragon* can damage or cripple the enemy long before they come into range of the rest of the lance. The psychological impact of being hit without being able to hit back cannot be underestimated.

The *Pendragon* does have a few drawbacks, some of which have to do with the Holly launchers. With only a dozen reloads for each launcher, the MechWarrior must make every shot count. The incredibly high minimum range for these missiles, and the inability to use any other warhead type, hurts the *Pendragon*'s flexibility.

While the Johnston High Speed and Bright Bloom ER lasers give the *Pendragon* respectable short and medium-range firepower, it cannot be considered a battle-line 'Mech. Its composite internal structure leaves it vulnerable to penetrating damage, and the lack of lower arms makes physical attacks risky at best.

On the other hand, the *Pendragon* is fully armored, and it's fast enough to stay out of the range of most heavy and assault 'Mechs. The extreme range of its launchers allows it and its lancemates to stay well outside most ECM fields. The CASE II-encased ammo bays are in the arms, making the *Pendragon* a very survivable 'Mech, should an ammo explosion occur.

In the correct role, the *Pendragon* could decide the battle before it has begun. If used incorrectly, its usefulness drops to below average.

Deployment

The first half-dozen *Pendragon*s have been deployed with the Davion Guards, split evenly between the Assault and Heavy Guards.

Variants

There is one variant under consideration at this time. Designated as the 2R, the design carries a C^3 master computer, at the cost of downgrading the ER PPC and its capacitor to an ExoStar ER large laser, removing the C^3 slave and one of the ER medium lasers.

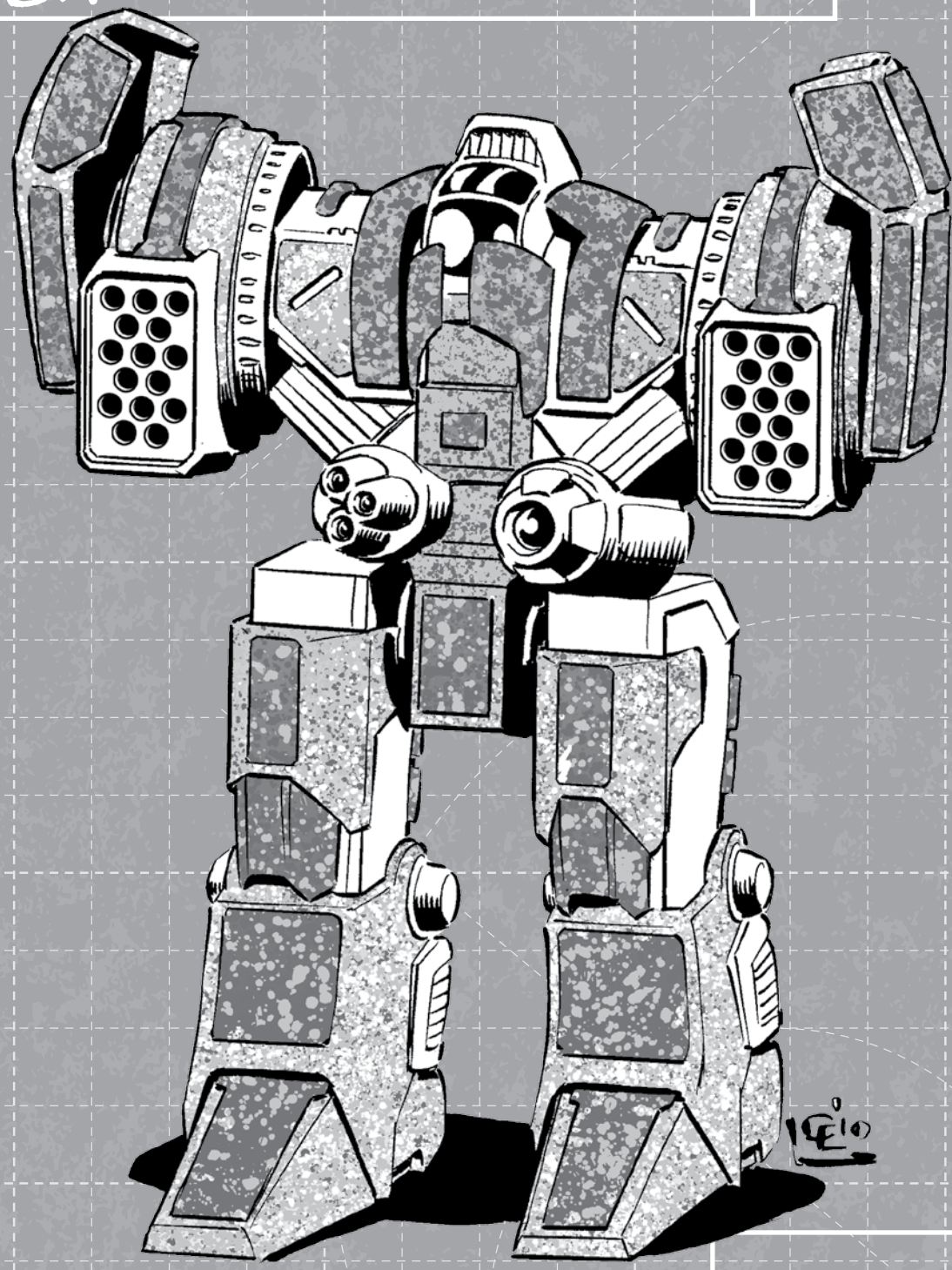
PDG-1R PENDRAGON

Type: **Pendragon**
Technology Base: Inner Sphere (Advanced)
Tonnage: 95
Battle Value: 2,216

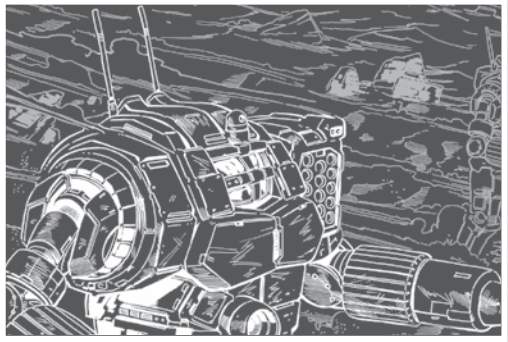
Equipment			**Mass**
Internal Structure:	Composite		5
Engine:	380 XL		20.5
Walking MP:	4		
Running MP:	6		
Jumping MP:	0		
Heat Sinks:	14 [28]		4
Gyro:			4
Cockpit:			3
Armor Factor (Ferro):	293		16.5
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	30	48	
Center Torso (rear)		12	
R/L Torso	20	30	
R/L Torso (rear)		10	
R/L Arm	16	32	
R/L Leg	20	40	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
ELRM 15	RA	6	12
Ammo (ELRM) 12	RA	2	2
CASE II	RA	1	1
3 ER Medium Lasers	RT	3	3
C^3 Slave	H	1	1
ER PPC	LT	3	7
PPC Capacitor	LT	1	1
ELRM 15	LA	6	12
Ammo (ELRM) 12	LA	2	2
CASE II	LA	1	1

Notes: Features the following Design Quirks: No/Minimal Arms, Difficult to Maintain, Improved Targeting/Long, Rumble Seat.



Light 'Mechs



Mass: 20 tons
Chassis: Earthwerks STG-EC
Power Plant: Nissan 120
Cruising Speed: 64 kph
Maximum Speed: 97 kph
Jump Jets: SR Starlifter 20
Jump Capacity: 180 meters
Armor: Compound FM3 Ferro-Fibrous
Armament:
2 Series X-a Improved Heavy Medium Lasers
1 Sigma-I Anti-Personnel Gauss Rifle
Manufacturer: Alliance Defenders Limited
Primary Factory: Alpheratz
Communications System: Garret T10B
Targeting and Tracking System: Tokasha B4 T&T

Overview

Thanks to the almost constant border struggles with the Draconis Combine, the Snow Raven and Outworlds Alliance's scout forces were dwindling. With almost no light 'Mech production capabilities in the Inner Sphere, the Ravens were hard-pressed to upgrade their production. Idea after idea came and went with nothing deemed good enough, until—shortly after the formal unification of the Outworlds Alliance and the Snow Raven Clan into the Raven Alliance—Johann Eshei, CEO of Alliance Defenders Limited, proposed a new 'Mech design that would serve as a symbol of the deep bond between the Snow Ravens and the Outworlds Alliance.

Upgrading the ADL factories manufacturing the venerable STG-3R *Stinger* to Clan standards would satisfy the Clan warriors and their Periphery counterparts alike. The old Outworlds BattleMech would be the basis for a full Clan upgrade, and with newer Clan technology it would not be beneath the Clan's MechWarriors to pilot.

The Raven Alliance Council approved upgrading ADL shortly thereafter, but with the same strict rules and observation that characterized much of their Outworlds efforts. However, the speed with which the facilities were retooled and reactivated demonstrated the growing trust between the Outworlds' citizenry and the warrior-dominant Ravens.

Even when putting the battle capabilities aside, the *Stinger IIC* can be considered a full success, since warriors on both sides of the alliance have embraced the design.

Capabilities

With only 100 kph ground speed, the *Stinger IIC* is considered a relatively slow 'Mech for its weight, but the 180-meter jump capability makes up for this and enables the 'Mech to quickly get out of difficult situations, or jump behind enemy units to strike at their less protected rear.

Two Series X-a Improved Heavy Medium Lasers provide enough firepower to threaten heavier opponents and destroy smaller ones with only a few salvos. While the new improved heavy lasers do not have the same targeting problems as their predecessors, they still tend to cause problems, since the powerful capacitors are very unstable and likely to explode when they get hit. While the devastating effect this would normally have on a 'Mech this size is somewhat mitigated by CASE, the neurofeedback is still dangerous to the MechWarrior.

At first glance the Sigma-I anti-personnel Gauss rifle seems an afterthought, but it has been proven to be very capable at dispersing enemy infantry, and works as a back-up weapon should the 'Mech start to overheat.

Three and a half tons of ferro-fibrous armor provide almost all the protection a twenty-ton 'Mech frame can support, making the *Stinger IIC* able to withstand more enemy fire than most 'Mechs of its weight class. However, the *Stinger IIC* remains a fragile 'Mech, and should rely more on its mobility than its armor.

While Raven warriors use the 'Mech mostly as a scout and fast skirmisher, Outworlds pilots are employing a hit and run tactic with the *Stinger IIC*, utilizing the full potential the combination of jump jets and improved heavy lasers provides.

Deployment

The *Stinger IIC* is deployed with its symbolic meaning fully in mind. Half of the factory output goes to Snow Raven line Clusters, and the other half to the native Outworlds militias. The first shipments to both groups left Alpheratz at the same time.

Currently, the design is used extensively—and successfully—as a scout and mobile hitter in the ongoing border struggles with the Draconis Combine. Combine troops, having presumed that only the Ravens would continue fighting under the Clan-Alliance merger, were surprised to find Alliance-born troops operating this 'Mech when they struck at the Periphery realm's holdings.

Variants

So far, only a single variant has been seen. It loses the anti-personnel Gauss rifle and moves slower than the original, but it adds an improved heavy large laser. While this variant suffers tremendous heat problems, it is perfect for its intended role as a hit-and-run 'Mech, building heavily on the tactics the Alliance's warriors employ.

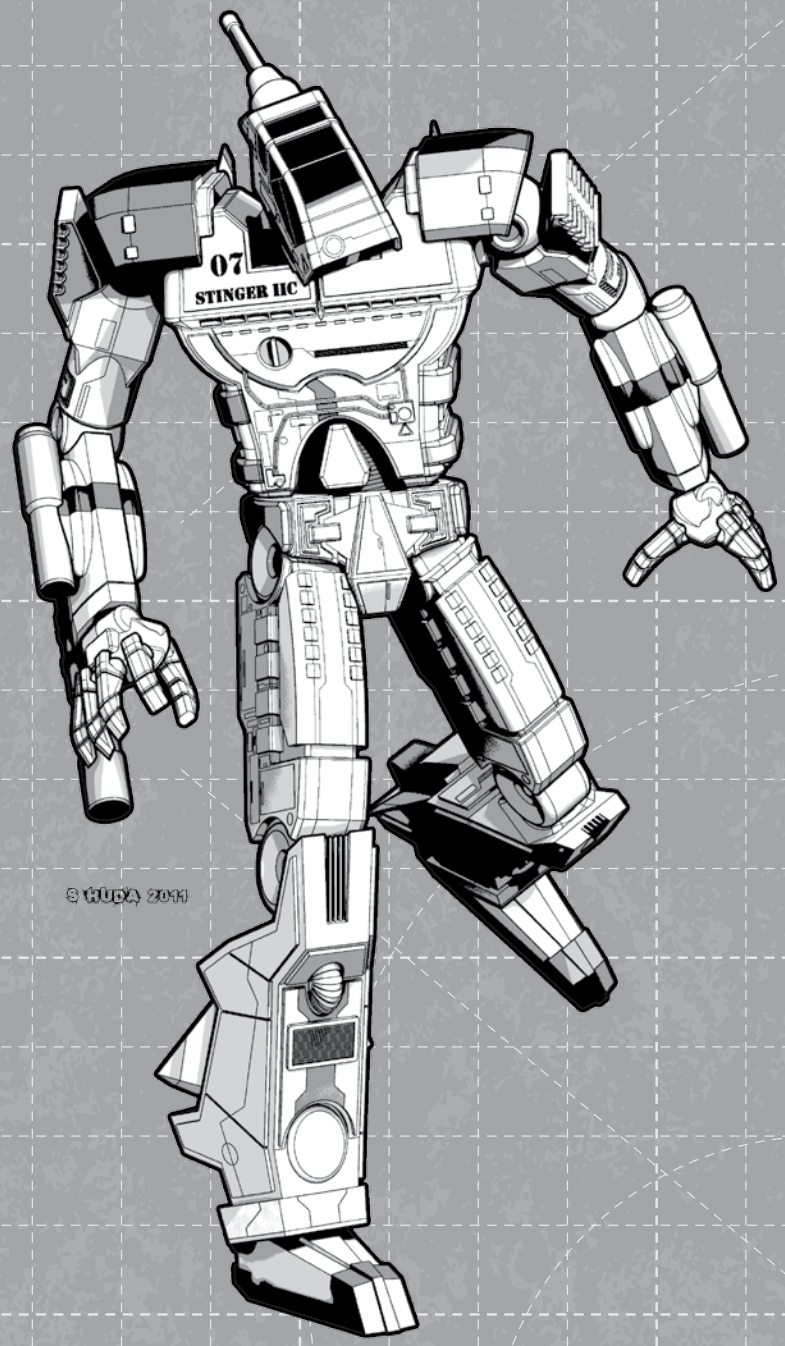
STINGER IIC

Type: **Stinger IIC**
Technology Base: Clan (Advanced)
Tonnage: 20
Battle Value: 730

Equipment			**Mass**
Internal Structure:	Endo Steel		1
Engine:	120		4
Walking MP:	6		
Running MP:	9		
Jumping MP:	6		
Heat Sinks:	10 [20]		0
Gyro:			2
Cockpit:			3
Armor Factor (Ferro):	67		3.5
	Internal Structure	*Armor Value*	
Head	3	7	
Center Torso	6	8	
Center Torso (rear)		4	
R/L Torso	5	7	
R/L Torso (rear)		3	
R/L Arm	3	6	
R/L Leg	4	8	

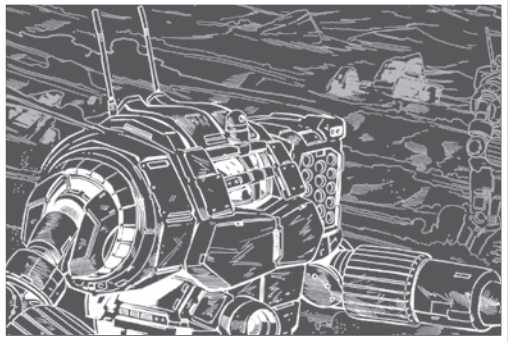
Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Improved Heavy Medium Laser	RA	2	1
AP Gauss Rifle	RA	1	.5
Ammo (AP Gauss) 40	CT	1	1
Improved Heavy Medium Laser	LA	2	1
Jump Jets	RT	3	1.5
Jump Jets	LT	3	1.5

Notes: Features the following Design Quirks: Cramped Cockpit, Difficult Ejection, Combat Computer.



INCUBUS II

Light 'Mechs



Mass: 30 tons
Chassis: Model MH-26 Endo Steel
Power Plant: Fusion 240 XL
Cruising Speed: 86 kph
Maximum Speed: 129 kph
Jump Jets: Clan Light Series Mk. II with Partial Wing
Jump Capacity: 240 meters
Armor: Compound H17 Ferro-Fibrous
Armament:
2 Series PPS-XIX Extended Range Medium Pulse Lasers
1 Type M1 Laser Anti-Missile System
Manufacturer: Csesztreg Industriplex Alpha
Primary Factory: Csesztreg
Communications System: CH2 Series Integrated
Targeting and Tracking System: Version Gamma-V TTS with Light Active Probe

Overview

Clan Hell's Horses seized Inner Sphere systems in 3071 more out of necessity than desire. Well aware that their actions would result in a wave of counteroffensives, the Khans of Clan Hell's Horses planned to quickly establish military production facilities in order to keep up with combat losses. That plan met with only limited success. Industrial construction was outpaced by military success, and soon the Hell's Horses were on the brink of being overextended and forced to abandon their gains.

Since the production facilities on their adopted home world of Csesztreg were modest at best, the Hell's Horses were forced to look for assistance in order to bolster their BattleMech production programs. That help would come from a longtime ally, albeit one with a new face. Where Khan Ward's Clan Wolf had been steady and skilled adversaries, Khan Phelan Kell's Clan Wolf-in-Exile had remained a loyal ally. It was the Exiles to whom the Hell's Horses looked for technical and supply assistance.

After brief, intense negotiations the two Clans reached an agreement to begin joint production operations on Csesztreg. While the Hell's Horses would handle the bulk of production and design tasks, Wolf-in-Exile advisors and raw materials would make such efforts possible. As a result, the Wolves-in-Exile were afforded the right of first refusal to a significant percentage of all produced units.

The *Incubus II*, a redesign of a staple among Clan second-line BattleMechs, was chosen as the first target for the new industrial alliance. Clan Hell's Horses had been producing their own version of the *Incubus,* tailored for ProtoMech hunting, for a few years. This gave their scientists a significant head start for the redesign. Technology acquired from Clan Wolf-in-Exile and reverse engineered from Jade Falcon *isorla* provided many of the most advanced components.

Capabilities

On rare occasions, a second-line BattleMech is so balanced and well-designed that it rivals even the vaunted OmniMech for overall effectiveness. The *Incubus* was one of those rare occasions. A perfect blend of blazing speed, withering pulse lasers and sturdy armor made the *Incubus* one of the most sought-after light BattleMechs in Clan space. When updating the venerable design, Hell's Horses scientists looked to drastically improve the BattleMech's mobility in rugged or dense terrain.

Two major changes allowed the *Incubus II* to markedly outpace its predecessor in heavy terrain environments. The BattleMech's fusion engine was slightly reduced in size. While this meant a lower top speed, the loss was more than offset by the increased mobility of jump jets. In addition, a new partial wing was fitted to the *Incubus II*'s vaguely LAM-like chassis. The partial wing was a natural fit, and increased jump capacity by more than thirty percent while drastically improving mid-air maneuverability.

The second major change was a complete revamp of the weapon systems. The reliable pulse lasers were replaced with cutting-edge extended-range pulse models, and a laser-based anti-missile system was installed for pilot protection. The other weapons were shed in favor of other systems, such as the partial wing, jump jets and a light active probe for spotting enemy units.

The trademark right-arm large pulse laser was given an overhaul as well. With handheld weapon systems becoming more common on battlefields all over known space, Clan Hell's Horses opted to follow suit with a package of handheld weapons which allow *Incubus II* MechWarriors a limited form of OmniMech-like flexibility. To date, options include a twin chemical laser package, Streak short- and long-range missile launchers, a twin long-range missile package, a triple-barreled AP Gauss rifle, a machine gun package for anti-infantry work and a TAG unit for spotting duty.

Deployment

Clan Hell's Horses is already using the *Incubus II* to bolster their heavily-damaged touman. With many Galaxies down to Binaries, production is ramped up to maximum levels. Clan Wolf-in-Exile has a limited number as well, using them as recon specialists in light Stars.

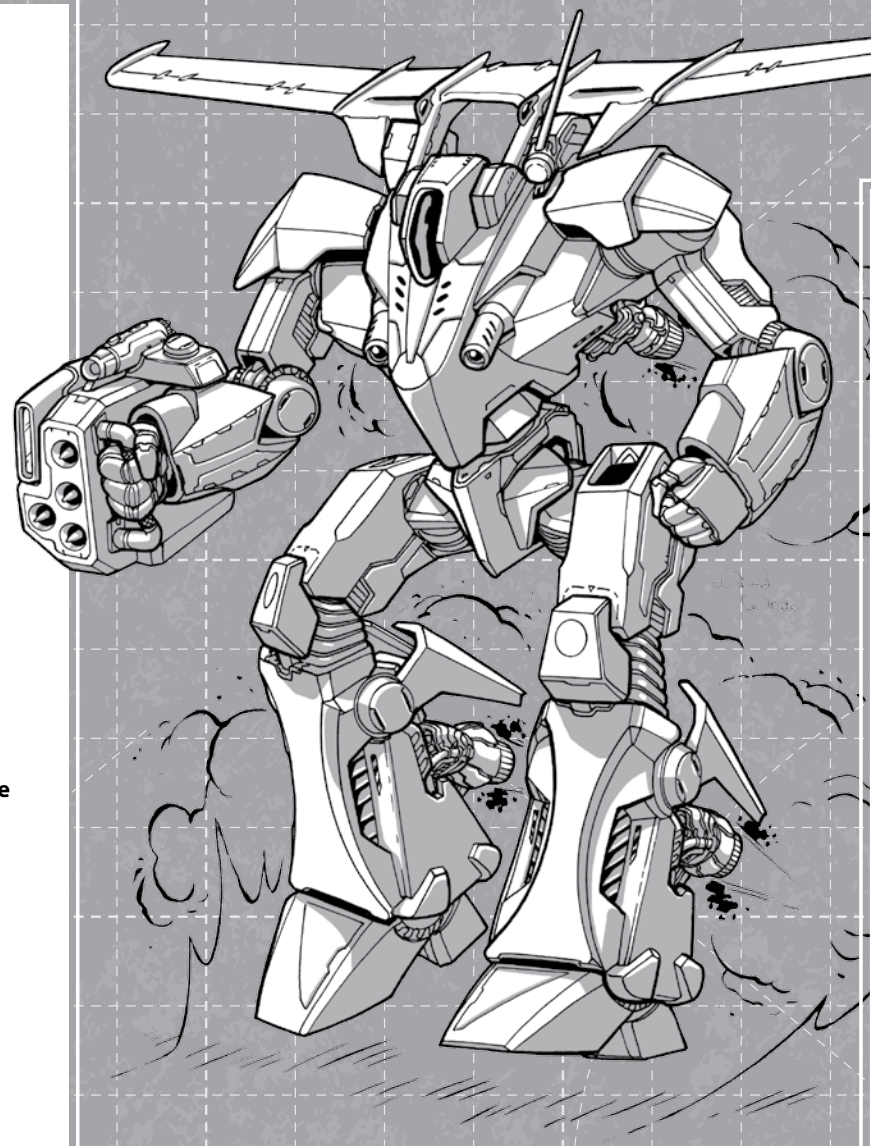
INCUBUS II

Type: **Incubus II**
Technology Base: Clan (Advanced)
Tonnage: 30
Battle Value: 1,261

Equipment			**Mass**
Internal Structure:	Endo Steel		1.5
Engine:	240 XL		6
Walking MP:	8		
Running MP:	12		
Jumping MP:	8*		
Heat Sinks:	10 [20]*		0
Gyro:			3
Cockpit:			3
Armor Factor (Ferro):	105		5.5
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	10	15	
Center Torso (rear)		5	
R/L Torso	7	10	
R/L Torso (rear)		4	
R/L Arm	5	10	
R/L Leg	7	14	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
ER Medium Pulse Laser	RT	2	2
Light Active Probe	H	1	.5
ER Medium Pulse Laser	LT	2	2
Laser Anti-Missile System	LT	1	1
Partial Wing	RT/LT	3/3	1.5
Jump Jets	RL	2	1
Jump Jets	RT	2	1
Jump Jets	LT	2	1
Jump Jets	LL	2	1

Notes: *Partial Wing adds +2 Jump MP, –3 heat in Standard Atmosphere (see pp. 293 and 295, *TO*, for additional rules); Features the following Design Quirks: Cramped Cockpit, Reinforced Legs.

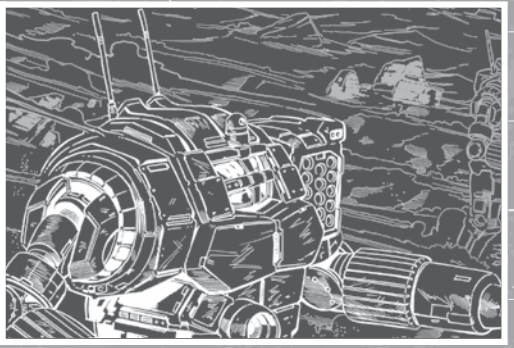


Handheld Weapon Configurations

Weapons and Ammo	**Mass**
Medium Chemical Laser Weapon (3 tons)	
2 Medium Chemical Lasers	2
Ammo (MCL) 15	.5
Armor (8 points)	.5
Battle Value: 93	
Streak LRM Weapon (3 tons)	
Streak LRM 5	2
Ammo (Streak) 12	.5
Armor (8 points)	.5
Battle Value: 108	
LRM Weapon (3 tons)	
2 LRM 5	2
Ammo (LRM) 12	.5
Armor (8 points)	.5
Battle Value: 130	
Streak SRM Weapon (3 tons)	
Streak SRM 4	2
Ammo (Streak) 12	.5
Armor (8 points)	.5
Battle Value: 100	
AP Gauss Weapon (3 tons)	
3 AP Gauss Rifles	1.5
Ammo (AP Gauss) 40	1
Armor (8 points)	.5
Battle Value: 82	
Machine Gun Weapon (2 tons)	
4 Machine Guns	1
Ammo (MG) 100	.5
Armor (8 points)	.5
Battle Value: 37	
TAG Weapon (1.5 tons)	
TAG	1
Armor (8 points)	.5
Battle Value: 16	

BEOWULF IIC

Medium 'Mechs



Mass: 45 tons
Chassis: Beowulf 3C
Power Plant: Fusion 270 XL
Cruising Speed: 64 kph
Maximum Speed: 97 kph (129 kph with MASC)
Jump Jets: Odin Type II
Jump Capacity: 180 meters
Armor: Compound A2F Ferro-Fibrous
Armament:
1 Series PPS-XX Extended Range Large Pulse Laser
2 Series PPS-XIX Extended Range Medium Pulse Lasers
Manufacturer: Odin Manufacturing
Primary Factory: Orestes
Communications System: Dash-2 with Watchdog CEWS
Targeting and Tracking System: Blade 12
with Watchdog CEWS and Light TAG

Overview

Looking back, the 3070s were a good time for up-and-coming weapon manufacturers. While Odin Manufacturing could hardly be called a new company, let alone a small company, it was not a military producer in the league of GM or Defiance. Relatively free from the predations of Word of Blake, and receiving regular contracts from the Ghost Bear Dominion, the military wing of Odin was able to expand and move into producing Clan tech.

The *Beowulf IIC* was symptomatic of this. Flush with the success of the *Karhu*, Odin was looking to push the boundaries further. Lacking a request from the Dominion, Odin planned to upgrade the popular *Beowulf* to both show off their technological prowess and force the fifteen year old *Beowulf* up to a new price point.

In the end Odin succeeded in both aims. The *Beowulf IIC* was a successful BattleMech, and the lack of a readily-accessible Clan fast medium 'Mech forced the Dominion to buy it at the higher price. It also, in combination with the earlier Rasalhague nationalism campaign that accompanied the *Karhu*, severely soured relations with the Unity Council. In wartime conditions the Council had been willing to put up with much, but this obvious attempt at profiteering was a step too far. A wave of restrictions was assigned to the freewheeling arms industries of the Dominion, and the merchant caste members who had become swept up in the intoxicating free-for-all.

Capabilities

Odin Manufacturing has been refitting *Beowulf*s with Clan technology for years. Most of these past efforts suffered a number of technical faults, especially with their electronics, caused by a basic incompatibility between the technologies. Building a *Beowulf IIC* from scratch, it was hoped, would remove these problems.

At its heart the *Beowulf IIC* is little different from its progenitor, sharing virtually the same chassis and a number of base components and jump jets. However, beyond these basic elements little has been spared to make this an advanced heavy scout 'Mech. A new Clan engine offers better survivability, while a small amount of weight has been saved by using Clan ferro-fibrous armor. In a move applauded by Rasalhagian MechWarriors, Odin fitted ER pulse lasers in place of the original systems, though Clan commentators consider the weapons inefficient because the 'Mech runs too hot.

The weak point of *Beowulf IIC* is its electronics. The heavy weapons forced Odin to cut corners by using a Watchdog CEWS and light TAG. Though highly advanced, and adding ECM capability to the *Beowulf*, both systems have significantly less range than the electronics they replace. Ironically, by keeping the original targeting and communications systems like the *Karhu* before it, the *Beowulf IIC* still suffers electronics glitches.

In service the *Beowulf IIC* is remarkably similar to the BEO-12. The large laser allows it to snipe, but useful firepower is really only available under 300 meters, where the existing BEO-12 already fights adequately. Worse, the short range of the electronics system forces the *Beowulf IIC* even closer in.

Deployment

Despite all of the politics behind it, the *Beowulf IIC* has been produced in moderate numbers. The Ghost Bear Dominion needed a fast medium Clan BattleMech to supplement its *Ursus,* yet there remain two complaints. The first is that the *Beowulf IIC* is under-gunned, and the second is that the Clan needed a fast medium OmniMech more. With all future construction under severe restrictions, any new 'Mechs are highly unlikely.

Deployed to both frontline and second-line Clusters, it is used in roles previously assigned to *Clint* or *Shadow Hawk IIC*s. Compared to these 'Mechs, the *Beowulf IIC* is considered a marked improvement. Tactics usually consist of flanking an opponent already pinned down by an *Ursus* or heavy 'Mech.

The most notable action involving a *Beowulf IIC* took place in 3088, when a Rasalhagian pair led a Clan Wolf Binary into an artillery trap before staying in contact to provide targeting data. The resulting furor over the use of artillery resulted in six months of tit-for-tat Trials.

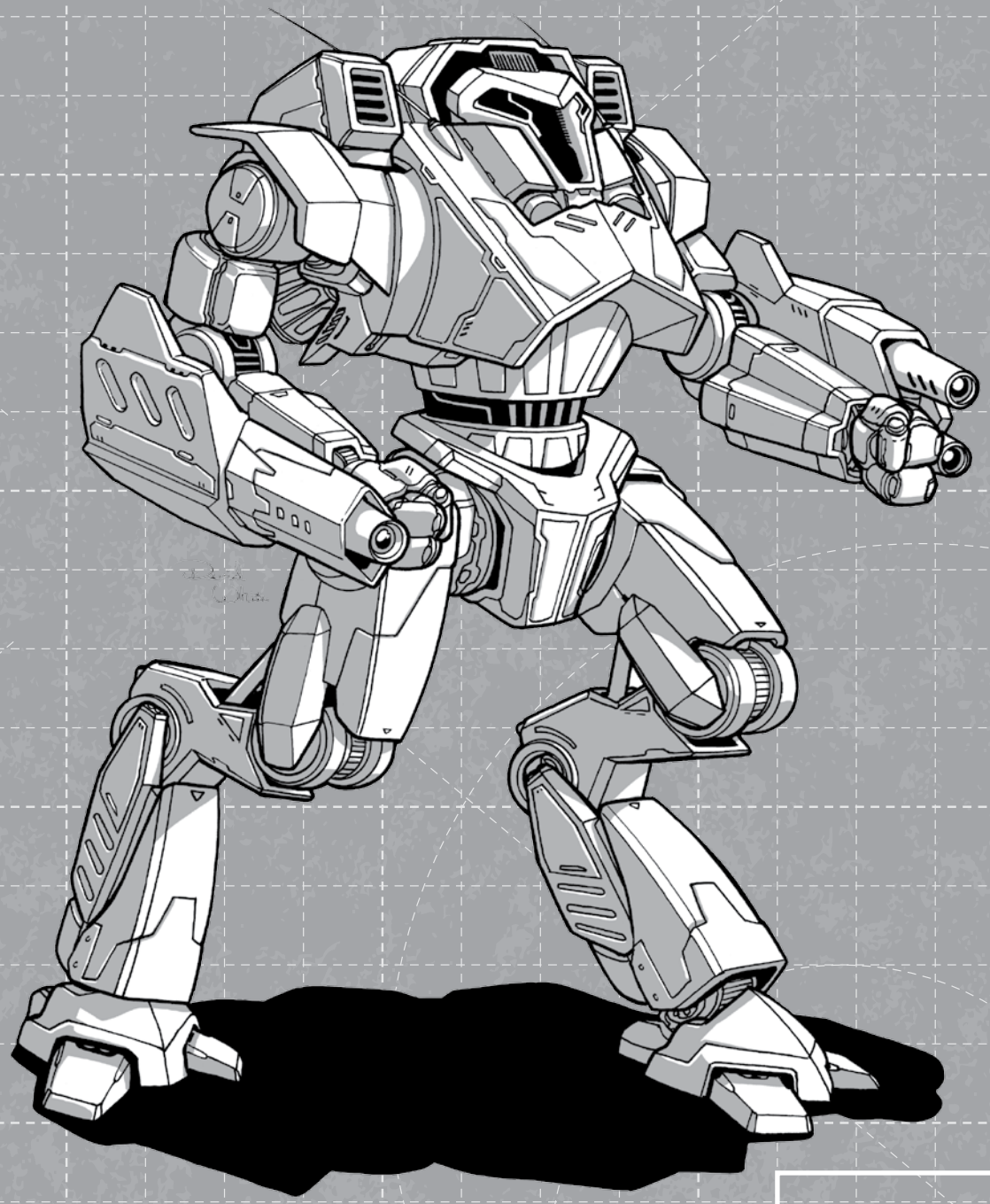
BEOWULF IIC

Type: **Beowulf IIC**
Technology Base: Clan (Advanced)
Tonnage: 45
Battle Value: 2,048

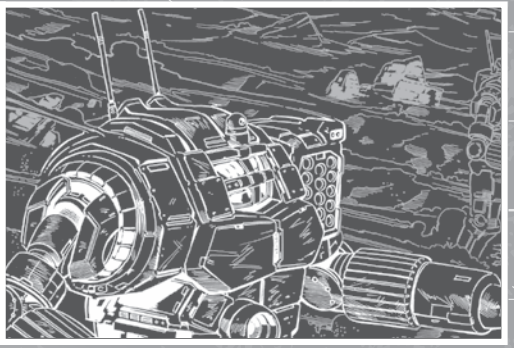
Equipment			**Mass**
Internal Structure:			4.5
Engine:	270 XL		7.5
Walking MP:	6		
Running MP:	9 (12)		
Jumping MP:	6		
Heat Sinks:	12 [24]		2
Gyro:			3
Cockpit:			3
Armor Factor (Ferro):	153		8
	Internal Structure	*Armor* Value	
Head	3	9	
Center Torso	14	20	
Center Torso (rear)		8	
R/L Torso	11	16	
R/L Torso (rear)		6	
R/L Arm	7	14	
R/L Leg	11	22	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
ER Large Pulse Laser	RA	3	6
MASC	RT	2	2
Light TAG	H	1	.5
Watchdog CEWS	CT	2	1.5
2 ER Medium Pulse Lasers	LA	4	4
Jump Jets	LT	3	1.5
Jump Jets	RT	3	1.5

Notes: Features the following Design Quirks: Bad Reputation, Exposed Actuators, EM Interference, Extended Torso Twist.



Medium 'Mechs



Mass: 50 tons
Chassis: Bergan XIV
Power Plant: Fusion 200
Cruising Speed: 43 kph
Maximum Speed: 64 kph
Jump Jets: None
Jump Capacity: None
Armor: Compound A2F Ferro-Fibrous with CASE II
Armament:
2 OVR-P ProtoMech Autocannon/8s
2 Model Vi Improved Heavy Medium Lasers
3 Tau II Anti-Personnel Gauss Rifles
1 Type 10x Extended Range Flamer
Manufacturer: Bergan Industries
Primary Factory: Alshain
Communications System: Garret T10B with Watchdog CEWS
Targeting and Tracking System: RCA Instatrac Mk. VI with Watchdog CEWS

Overview

The *Ursus PR* was a test bed for experimental systems, to see how they integrated with existing technologies. With a simple, proven chassis, the *Ursus* was well-suited as a platform for this role. But the events on 31 December 3078 would see the *Ursus PR* go into production as one of the most sinister 'Mechs to emerge from Bergan Industries.

The Omni-Paradise Bombing was a turning point in Rasalhagian attitudes toward unification with Clan Ghost Bear. Typical for a divided society, some were enthusiastic about joining the Clan, some were hostile, and most just wanted today to be like yesterday, maybe better but certainly not worse. The resistance movement Motstånd had successfully tapped into this attitude by continually raising the question of whether would life be better without Clan control. The militant arms of Motstånd did use violence, but that was mainly small scale, against Clan targets, and given the history of the Free Rasalhague Republic, essentially normal. The Omni-Paradise Bombing was big, public, and killed a hero of the Republic. Christian Månsdottir may have been a collaborator, but none could doubt his loyalty to, and love for, the Republic. When documents leaked to the *Alshain Inquirer* revealed that the bombers had used Blakist equipment recovered from Radstadt, a public relations gaffe became a disaster. Motstånd went from accepted to untouchable in a matter of days, despite the protestation of their civilian arm.

Capabilities

By 3079 the Watch/Mimir hybrid was an effective counterinsurgency force. Despite the public impression of it being a fighting organization, its greatest successes had come though using Mimir's old resistance links to bring holdouts to the bargaining table and negotiate peace. The Watch was not equipped for the more violent approach against hardened targets that the public demanded after 3079. What they needed was something akin to Clan Jade Falcon's civilian control tanks. A review of the databases brought up the *Ursus PR* as a useful platform, and after some slight modifications the prototype was sent into the field as the third major *Ursus* refit.

The *Ursus 3* is not an effective combat 'Mech and was not intended to be: it mounted a flexible weapon load disturbingly useful against infantry of all types. While the capabilities of the three anti-personnel Gauss rifles in the left arm and ER flamer are obvious, the new ProtoMech autocannons in the right arm can use a variety of ammunitions, including flechette rounds against people or armor-piercing rounds against buildings. Improved heavy lasers offer additional capability against hardened targets, while a Watchdog CEWS provides basic electronic warfare capability.

Other than its fundamental lack of speed and ranged weapons, the biggest weakness of the *Ursus 3* is the sheer amount of explosive equipment it carries. CASE II is used to mitigate this to some degree, at least protecting the 'Mech, but the pilot is advised to withdraw once armor is stripped as a cascading explosion is all too likely.

Deployment

The first *Ursus 3* was deployed in 3079 and was joined by a few other refits through the early 3080s. By 3085 it was deemed a necessary part of the Watch's equipment, so full production was initiated to supply each of the worlds of the Dominion. Given its role, this is not a preferred ride for MechWarriors and has been shunned accordingly. However, with the usual complement of tested-down MechWarriors, the Watch has had little trouble finding pilots on those few occasions when no current MechWarrior will step forward.

The *Ursus 3* is typically a reserve unit, called in when Motstånd goes to ground in a hardened location like a bunker. Resistant to most civilian weapons, the *Ursus 3* will move into range, breach the building, and cut down any who try to escape. On Predlitz there was an attempt to use an *Ursus 3* as a riot control unit, but a rapid Trial of Refusal relieved the local Watch commander of command before the inevitable happened.

With Motstånd now largely disbanded, it is unclear just what use there is for such a heavy platform in Watch hands, so once every planet has its complement, production is likely to cease outside of spare parts.

URSUS 3

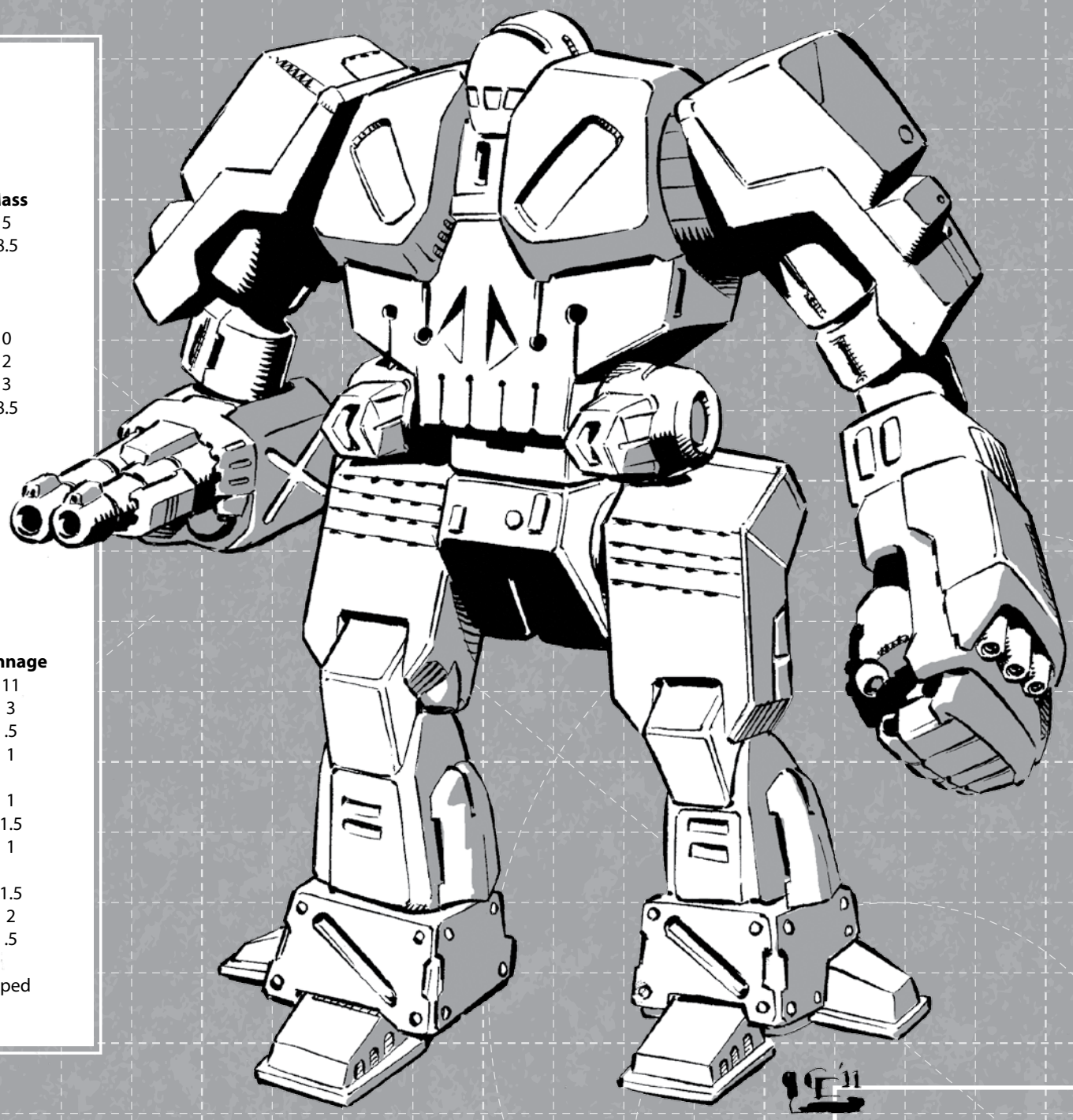
Type: **Ursus 3**
Technology Base: Clan (Advanced)
Tonnage: 50
Battle Value: 1,284

Equipment		**Mass**
Internal Structure:		5
Engine:	200	8.5
Walking MP:	4	
Running MP:	6	
Jumping MP:	0	
Heat Sinks:	10 [20]	0
Gyro:		2
Cockpit:		3
Armor Factor (Ferro):	163	8.5

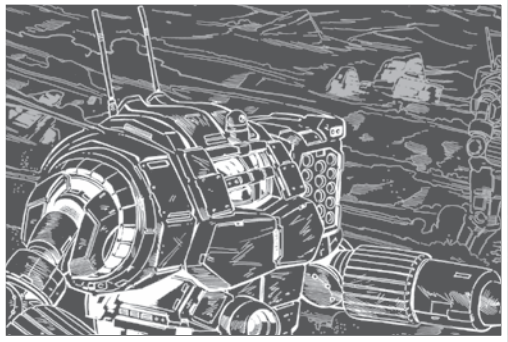
	Internal *Structure*	Armor *Value*
Head	3	9
Center Torso	16	25
Center Torso (rear)		7
R/L Torso	12	18
R/L Torso (rear)		5
R/L Arm	8	15
R/L Leg	12	23

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
2 ProtoMech AC/8	RA	8	11
Ammo (PAC) 30	RT	3	3
CASE II	RT	1	.5
Improved Heavy Medium Laser	RT	2	1
ER Flamer	H	1	1
Watchdog CEWS	CT	2	1.5
Improved Heavy Medium Laser	LT	2	1
3 AP Gauss Rifles	LA	3	1.5
Ammo (AP Gauss) 80	LA	2	2
CASE II	LA	1	.5

Notes: Features the following Design Quirks: Camped Cockpit, Protected Actuators.



Medium 'Mechs



Mass: 55 tons
Chassis: DSAM Endo 6-Composite
Power Plant: Fusion 330 XL
Cruising Speed: 64 kph
Maximum Speed: 97 kph
Jump Jets: None
Jump Capacity: None
Armor: Forging Zk15 Ferro-Fibrous
Armament:
2 Type XX "Great Bow" LRM 20 Launchers
4 Series 2b Extended Range Medium Lasers
6 Mustang 4.5 Extended Range Micro Lasers
Manufacturer: Manufacturing Plant DSF-IT1
Primary Factory: Itabaiana
Communications System: Comset 1
Targeting and Tracking System: J-Track 52 with Artemis V

Overview

The name *Mad Cat* has always been met with shock and awe in the Inner Sphere. The Diamond Sharks' introduction of the *Mad Cat II* did not change that. Driven by the thought of more profit, and seeing a market for a mobile and powerful medium 'Mech, the Diamond Sharks started development of the *Mad Cat III*.

Contrary to the exceptionally fast development time of the *Mad Cat II*, the *Mad Cat III*'s development went very slowly. It started in 3076, with the first model coming soon thereafter, making the development team more than just glad, but with the first prototype came the first problems. For some reason, the missile launcher refused to function properly, and the armor was almost impossible to attach to the frame. Once they had rewired the missile launchers and made a few changes to the 'Mech's frame, the hip actuators started to fail.

It became technicians-versus-failure, with failure always being one step ahead of the technicians. They fixed one problem, and another seemed to appear out of nowhere. This led to the *Mad Cat III* becoming somewhat of a running gag. The Diamond Sharks could not—or would not—give up on the design; too much hope and money had gone into the project, and the designers felt honor-bound to deliver what they had promised years earlier. They finally succeeded in producing an error-free version in 3085, and production started half a year later in February 3086.

Capabilities

At fifty-five tons the *Mad Cat III* is twenty tons lighter than its original ancestor. Nevertheless, to the untrained eye the two 'Mechs are almost impossible to tell apart. In its first battles, even some combat computers got confused and labeled the *Mad Cat III* as a new *Mad Cat* configuration, but this problem was addressed relatively quickly with the next updates.

The weapon payload is very similar to the primary configuration of the original *Mad Cat*. The Type XX twenty-tube long range missile launchers were upgraded with a modern Artemis V fire control system, and supplied by two tons of ammunition each. The arms still mount two lasers, but on the *Mad Cat III* they are both Series 2b extended range medium lasers. The armament is finalized by no less than six Mustang 4.5 extended range micro lasers, which have proven very effective in taking down smaller targets and infantry.

An impressive maximum ground speed of 97 kph allows the *Mad Cat III* to quickly close on the enemy once the missile launchers are depleted, or to disengage from dangerous battles.

The sole downside of the design is the rather low armor protection. With only eight and a half tons of ferro-fibrous armor, the 'Mech seems underprotected on the modern battlefield.

Deployment

Except for the exiled Wolves, the Nova Cats and the Diamond Sharks, the *Mad Cat III* seems to be completely shunned by the Clans. Khan Samantha Clees of the Jade Falcons has claimed, "… selling cutting edge Clan technology to the barbarians of the Inner Sphere is an outrage against everything Nicholas Kerensky stood for and taught us." The Diamond Sharks are readily selling the *Mad Cat III* to every interested buyer, including the Lyran Commonwealth, the Draconis Combine and The Republic of the Sphere. All three are buying the 'Mech in great numbers.

Variants

Listening to the complaints about the lack of protection, the Diamond Sharks have recently started to offer a variant of the *Mad Cat III* that adds half a ton of armor. The six extended range micro lasers are replaced by pulse lasers, and short range missile launchers take the place of the long range launchers, retaining the Artemis V fire control system. The two arm mounted lasers are replaced with a single pulse laser.

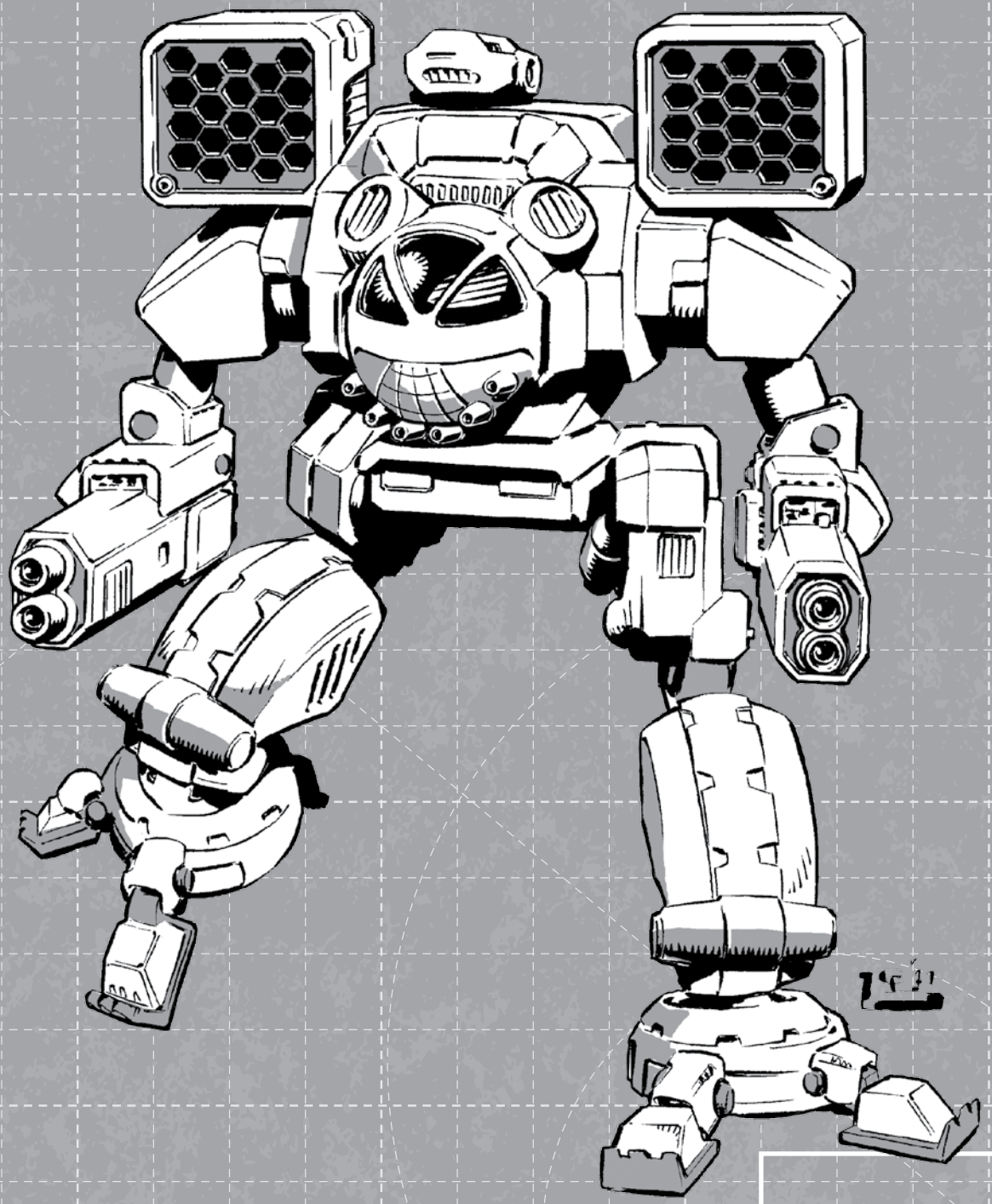
MAD CAT III

Type: **Mad Cat III**
Technology Base: Clan (Advanced)
Tonnage: 55
Battle Value: 2,400

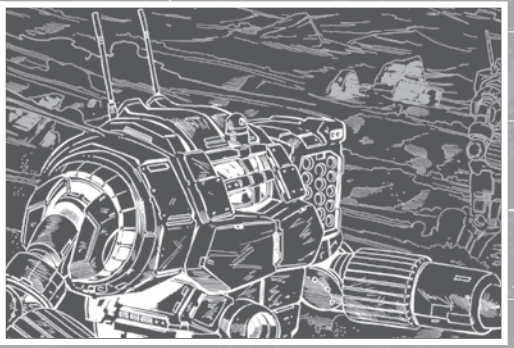
Equipment			**Mass**
Internal Structure:	Endo Composite		4.5
Engine:	330 XL		12.5
Walking MP:	6		
Running MP:	9		
Jumping MP:	0		
Heat Sinks:	10 [20]		0
Gyro:			4
Cockpit:			3
Armor Factor (Ferro):	163		8.5
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	18	20	
Center Torso (rear)		8	
R/L Torso	13	19	
R/L Torso (rear)		7	
R/L Arm	9	15	
R/L Leg	13	22	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
2 ER Medium Lasers	RA	2	2
LRM 20	RT	4	5
Artemis V FCS	RT	2	1.5
Ammo (LRM) 12	RT	2	2
2 ER Micro Lasers	RT	2	.5
2 ER Micro Lasers	CT	2	.5
LRM 20	LT	4	5
Artemis V FCS	LT	2	1.5
Ammo (LRM) 12	LT	2	2
2 ER Micro Lasers	LT	2	.5
2 ER Medium Lasers	LA	2	2

Notes: Features the following Design Quirks: Bad Reputation, Difficult to Maintain, Improved Communications.



Heavy 'Mechs



Mass: 70 tons
Chassis: Olivetti TDR-II
Power Plant: Redline 350 XL
Cruising Speed: 54 kph
Maximum Speed: 86 kph
Jump Jets: None
Jump Capacity: None
Armor: Forging Omni H24 with CASE II
Armament:
2 Series XVI-a Improved Heavy Large Lasers
1 Type XV-S Streak LRM 15 Launcher
3 Series 7Ja Extended Range Medium Lasers
Manufacturer: Olivetti Weaponry
Primary Factory: Sudeten
Communications System: Model J-D 067
Targeting and Tracking System: Hawkeye 58

Overview

Having had hundreds of years for their industry to adapt to their command economy, the Jade Falcons weren't ready for the various levels of production efficiency in their Inner Sphere holdings. Many components for their *Thor* and *Loki* were outpacing their usage. Not just the construction of those OmniMechs, but replacements for existing ones as well. Rather than dial back production of the components, Falcon leadership decided to find a new outlet for them, an entirely new 'Mech. They reworked an existing design that had been built on Sudeten, the venerable *Thunderbolt*, to use the excess production.

Capabilities

Engineers took the standard TDR chassis and reinforced it to hold seventy tons of equipment. This resulted in a design that looks like a *Thunderbolt* and a *Thor* had a child. The communications systems are the same as those used on the *Thor*, as is the targeting and tracking system. The ejection seat is from the *Loki,* while the life support is the same system that is used on the *Turkina*. The engine is the same model that propels the *Thor* to over eighty kilometers per hour. Even the armor plating is the same material used on the *Loki*.

When it comes to the weapons selection, however, little is left over from other areas. Three common extended-range medium lasers are reminiscent of the Star League *Thunderbolt*, as is the round fifteen-tube missile launcher on the shoulder. At the same time, the launcher is on the right shoulder, opposite the typical configuration for a *Thunderbolt*, and this LRM launcher is equipped with Clan Streak LRM technology. With two tons of ammunition protected by an advanced CASE II, pilots are likely to treasure the launcher and use it until it runs dry.

The final expectation of the design would be a powerful energy weapon on the right arm. The Falcons again play somewhat to the tune of expectations, only they do so on both arms. Each arm has an improved heavy large laser. Though still high heat/high damage weapons like the regular heavy lasers, these are more accurate at the cost of instability that could result in it explosion. Ordinary Clan CASE protect the arms to keep any such mishap from affecting the torsos.

While capable of tremendous offensive output, the design is limited by the cooling capacity. Even firing just both improved heavy lasers will build up a noticeable amount of heat. If a MechWarror is not careful, he may curse when the Streak locks and fires, adding even more heat to what he expected. Fortunately the extended range lasers have the same range, allowing them to scatter damage around while the 'Mech cools off.

Deployment

Despite the prestigious history of the *Thunderbolt*, the *Thunderbolt IIC* is assigned to second-line units. All MechWarriors piloting one must keep meticulous logs, describing every aspect of the performance of the 'Mech and its weapons, in particular the arm-mounted lasers. Evaluation of this weapon is still ongoing, and everything from ease of use to maintenance will be included in future determinations of its value.

Variants

Following the Inner Sphere's rebuilding of *Thunderbolt*s that withstood almost any amount of fire, the Falcons have tried something similar with their *Thunderbolt IIC*. Dropping the speed down allowed a 280 standard engine to replace the extralight. A heavy-duty gyro and ECM suite add to its resiliency. Two heat sinks are dropped, replaced with four jump jets that provide great mobility even when the heat gauge is pegged. The weapons are reworked to a complete energy based set. For long-range punch, an extended-range large pulse laser sits in the right arm. More punch is provided by a traditional heavy large laser, while three medium pulse lasers provide accurate close-range fire. Finally, a small pulse laser in the left arm returns the traditional anti-infantry weapon to the *Thunderbolt*. The whole package is protected by eleven tons of ferro-fibrous armor. The *Thunderbolt IIC 2* is currently being deployed on the Falcons' border with the Wolves, awaiting a live-fire test run.

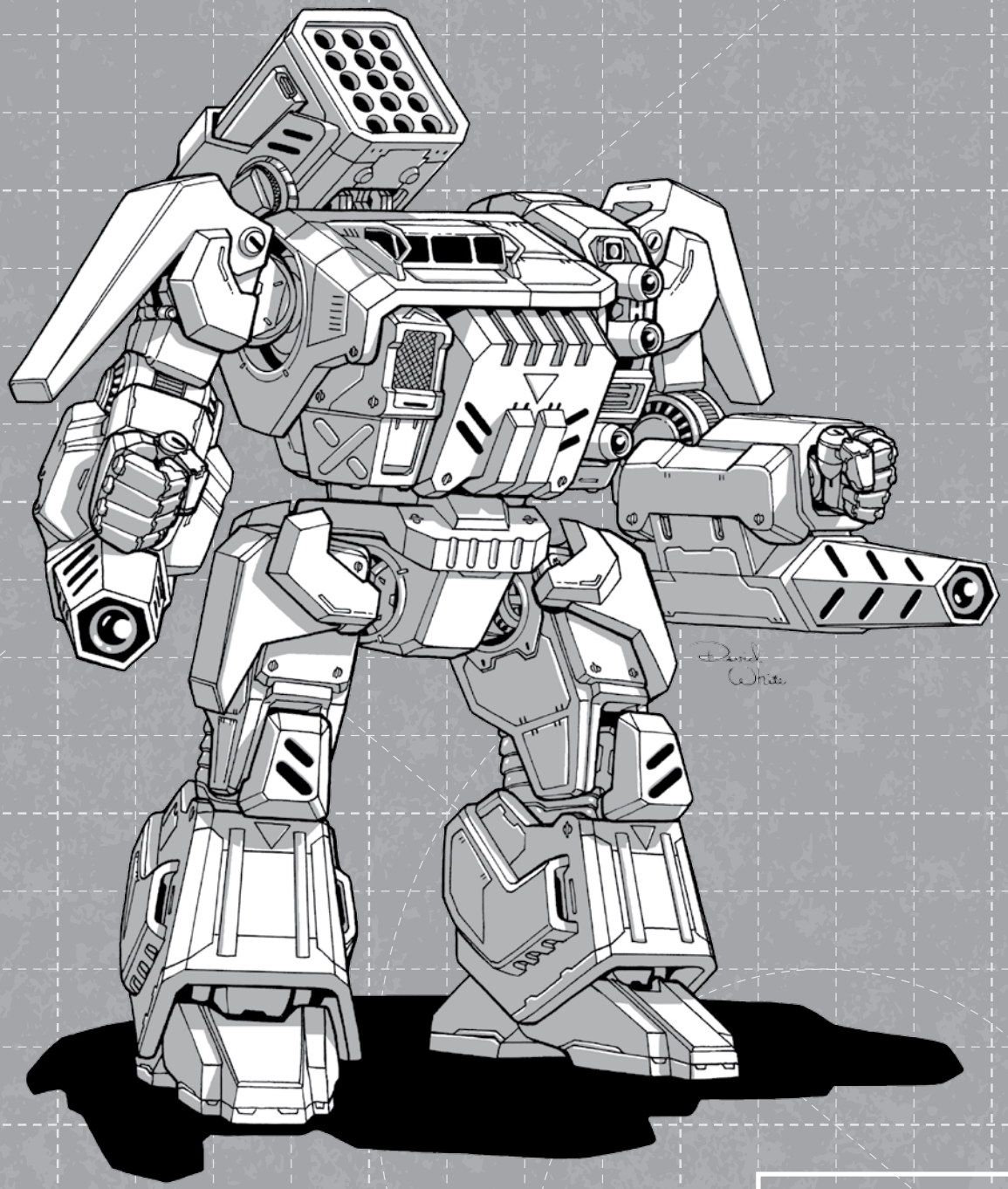
THUNDERBOLT IIC

Type: **Thunderbolt IIC**
Technology Base: Clan (Advanced)
Tonnage: 70
Battle Value: 2,475

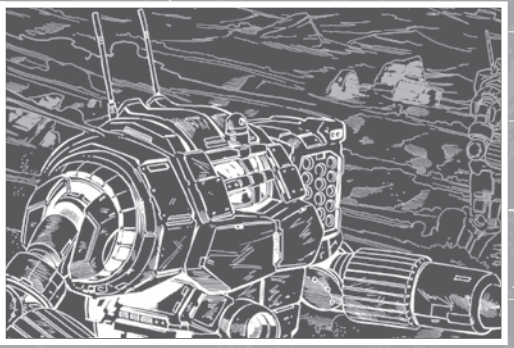
Equipment			**Mass**
Internal Structure:			7
Engine:	350 XL		15
Walking MP:	5		
Running MP:	8		
Jumping MP:	0		
Heat Sinks:	17 [34]		7
Gyro:			4
Cockpit:			3
Armor Factor:	216		13.5
	Internal Structure	*Armor Value*	
Head	3	9	
Center Torso	22	33	
Center Torso (rear)		10	
R/L Torso	15	24	
R/L Torso (rear)		6	
R/L Arm	11	22	
R/L Leg	15	30	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
Improved Heavy Large Laser	RA	3	4
Streak LRM 15	RT	3	7
Ammo (Streak) 16	RT	2	2
CASE II	RT	1	.5
3 ER Medium Lasers	LT	3	3
Improved Heavy Large Laser	LA	3	4

Notes: Features the following Design Quirks: Difficult to Maintain, Modular Weapons, Protected Actuators, Rumble Seat.



Assault 'Mechs



Mass: 90 tons
Chassis: DSAM Endo 4
Power Plant: Type 79 360 XL Fusion
Cruising Speed: 43 kph
Maximum Speed: 54 kph
Jump Jets: Groundthrust Mk. 5
Jump Capacity: 120 meters
Armor: Double-Forged ZX20 Hardened with CASE
Armament:
2 Starlight C2 Extended Range Large Pulse Lasers
2 Series 2b Extended Range Medium Lasers
2 Type X "Short Bow" LRM 10 Launchers
Manufacturer: Manufacturing Plant DSF-IT1
Primary Factory: Itabaiana
Communications System: MegaBand System 21
Targeting and Tracking System: Dtrac Suite 4

Overview

While a primary seller for many years, the sales of the original *Mad Cat II* went down around 3080 and are still falling due to the rise of more modern 'Mechs. Development of the *Mad Cat II-Enhanced*, meant to take the *Mad Cat II* back to its old glory, started in 3082—making it the first "enhanced assault 'Mech," as the Diamond Shark's advertisement calls it.

Current sales seem to prove they had the right idea; the 'Mech is one of the bestselling products the Diamond Sharks are offering, competing only with the new *Mad Cat III*. The *Mad Cat II-Enhanced* makes the *Mad Cat* the most successful Clan design to date, having spawned no less than three offshoots.

The final design entered production in mid 3084, matching the extremely short development time of the original *Mad Cat II*. While this would often mean that the design was rushed into production, and the designers had no time for field tests and troubleshooting, this does not seem to be the case here. The assault 'Mech shows no signs of problems or design flaws, performing more than well.

Capabilities

While not possessing the raw hitting power of the original *Mad Cat II*, the *Mad Cat II-Enhanced* is far better at taking damage. Mounting an impressive twenty-five tons of hardened armor, which started mass production only one year prior to the 'Mechs development, the ninety-ton 'Mech is able to withstand an almost endless amount of enemy fire. While Inner Sphere designers would call the 'Mech bulky, the Clans do not care about such things. To them, efficiency trumps beauty. Nevertheless, the *Mad Cat II-Enhanced* does still resemble a *Mad Cat*.

Having left experimental status, and being mass produced since 3084 the extended-range pulse lasers were something the Diamond Sharks just could not pass up. The *Mad Cat II-Enhanced* carries two Starlight C2 extended-range large pulse lasers, which give the 'Mech impressive long-range firepower.

The lasers are backed up by the old, small, ten-tube long-range missile launchers of the original design. Why the Diamond Sharks did not take this chance to install bigger missile launchers is unknown.

For close range fighting the *Mad Cat II-Enhanced* has two Series 2b extended-range medium lasers, which provide a backup once the missile launchers run out of ammo or the fighting starts to get too close. Utilizing its 120-meter jump range, these can be used to quickly hit enemies from behind before the 'Mech jumps out again without the risk of overheating.

Deployment

The *Mad Cat II-Enhanced* has been seen in all Inner Sphere Clan toumans, even with the Nova Cats and Wolves-in-Exile. While the two abjured Clans are not able to buy the *Mad Cat II-Enhanced* directly from the Diamond Sharks due to political pressure from the other invaders, they are buying them through secondary sources.

The 'Mech is heavily employed by the Wolves. Border skirmishes with the Hell's Horses have proven the 'Mech immensely effective. There is an unsubstantiated report of two *Mad Cat II-Enhanceds* battling each other following the rules of *zellbrigen*. Thanks to their armor, this duel lasted longer than the remaining battle and in the end both 'Mechs broke down. While we were not able to ascertain whether these rumors are true, they sound plausible given the amount of punishment its armor can take.

The Ghost Bear Dominion has started to outfit their second-line forces with this 'Mech, entrusting their awesome firepower to native-born Rasalhagian troops.

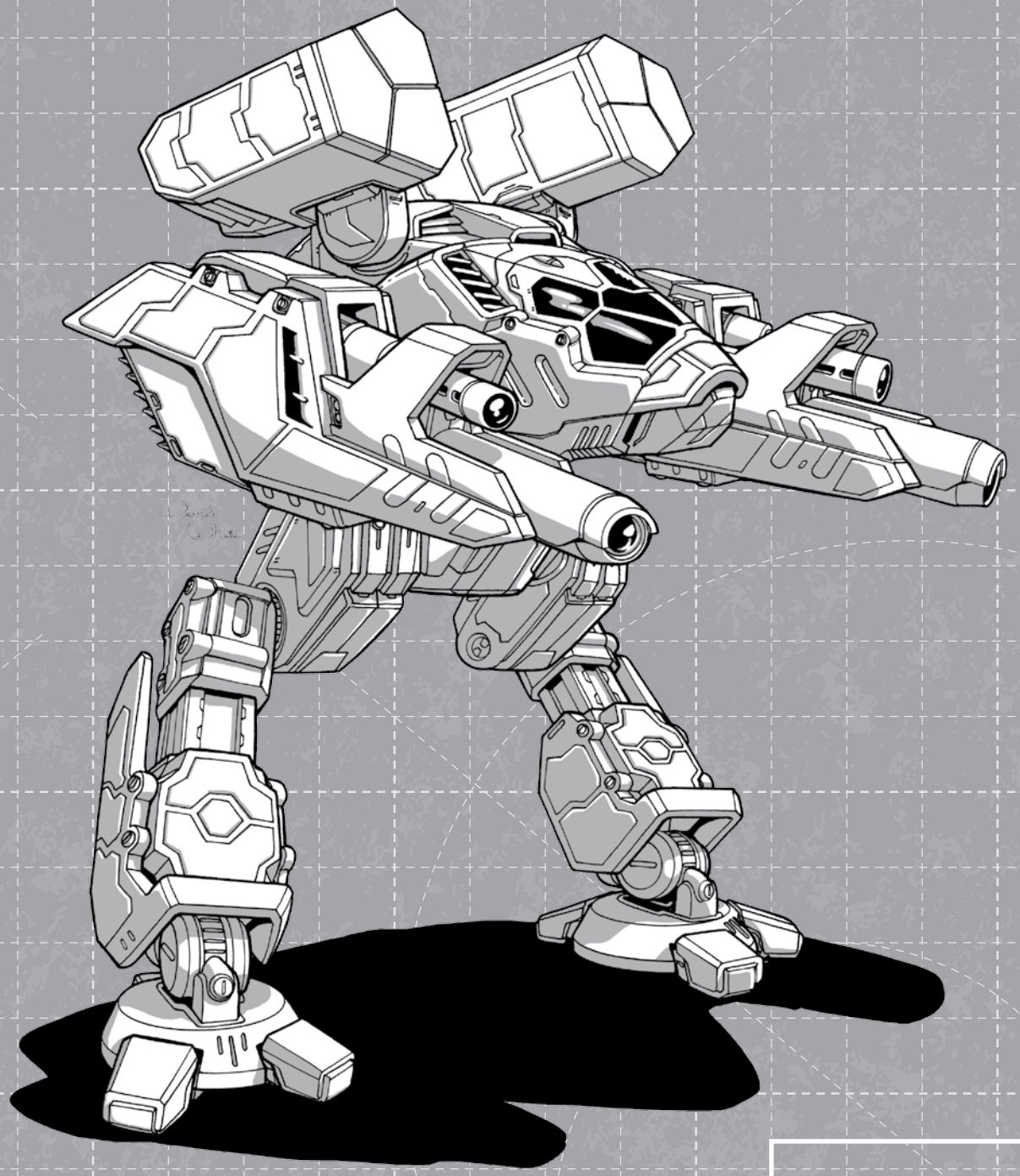
MAD CAT MK. II–ENHANCED

Type: **Mad Cat Mk. II-Enhanced**
Technology Base: Clan (Advanced)
Tonnage: 90
Battle Value: 2,732

Equipment			**Mass**
Internal Structure:	Endo Steel		4.5
Engine:	360 XL		16.5
Walking MP:	4		
Running MP:	5		
Jumping MP:	4		
Heat Sinks:	18 [36]		8
Gyro:			4
Cockpit:			3
Armor Factor (Hardened):	200		25
	Internal *Structure*	Armor *Value*	
Head	3	9	
Center Torso	29	30	
Center Torso (rear)		15	
R/L Torso	19	22	
R/L Torso (rear)		8	
R/L Arm	15	20	
R/L Rear Legs	19	23	

Weapons and Ammo	**Location**	**Critical**	**Tonnage**
ER Large Pulse Laser	RA	3	6
ER Medium Laser	RA	1	1
LRM 10	RT	1	2.5
Ammo (LRM) 12	RT	1	1
LRM 10	LT	1	2.5
Ammo (LRM) 12	LT	1	1
ER Large Pulse Laser	LA	3	6
ER Medium Laser	LA	1	1
Jump Jets	RT	2	4
Jump Jets	LT	2	4

Notes: Hardened Armor reduces Running MP by 1; Features the following Design Quirks: Protected Actuators, Rumble Seat.



AEROSPACE UNITS

The aerospace industries were arguably the hardest hit in the Jihad. Specifically targeted by the Blakists were those naval shipyards large and sophisticated enough to handle WarShips, and in their determination to ensure a complete collapse of fleet-building capacity, the Word brought the full horror of their weapons of mass destruction to every yard world they could reach. For many realms, this strategy savaged the production of JumpShips, DropShips and even smaller aerospace craft, because the major yard worlds also doubled as central hubs of the aerospace industry.

The damage was so thorough that, even today, WarShip manufacturing remains effectively impossible throughout the Inner Sphere, and most major realms are struggling to rebuild enough conventional JumpShips and DropShips to restore their shattered trade and transport networks. Unable to raise the resources and infrastructure to support capital ships for defense, the Inner Sphere and even the local Clans have turned to the Pocket WarShip concept, arming lighter combat DropShips with capital and sub-capital weapons to make up for the loss of their battle fleets, and to beef up defenses in key planetary systems.

It is of little surprise, then, that most of the aerospace advances have gone to DropShip refits and smaller fighter craft. Though employing the latest in proven technologies, many of the most recent aerospace craft we have seen entering service are using familiar hulls and airframes.

—Precentor Steven Partridge


PLOGIT

Mass: 20 tons
Chassis: Mujika Aerospace Type 4B
Power Plant: Rawlings AeroClassic 120 Turbine
Armor: Mujika AeroShell Light
Armament:
1 Sian/Ceres Lynx SRM 2
Manufacturer: Mujika Aerospace Technologies
Primary Factory: St. Ives
Communications System: XDuoteck 22 Automated
Targeting and Tracking System: Radcom Special T7

Overview

The Jihad had the Capellan Confederation in a bind. The horrific destruction of equipment forced the House to quickly design and build any sort of weapon it could, from advanced and expensive stealth-armored BattleMechs to the low-end Hetzer Wheeled Assault Guns. By relying more and more on inferior equipment, the Confederation's casualty rate shot up, and House Liao found itself in a dire manpower crunch. Trainees were being put through abridged courses, and in combat their lack of training often got them killed, forcing the academies to push another new batch of soldiers out. Each side of the coin was making the other worse, and ranking officers began to suffer low morale, as they had no idea how to stop it.

Mujika approached the Strategios with a way to solve both problems at once: the Bullet Suicide Drone. Able to be remotely piloted, the drone allowed inexperienced pilots to garner experience in an actual war without putting themselves at risk, and its low price tag and ease of construction would allow it to be fielded in the numbers the Capellan Confederation needed. After a few trial runs, it was immediately placed into production.

Capabilities

For all intents and purposes, the Bullet Suicide Drone is an inferior version of the already-Spartan Guardian conventional fighter. Its engine and missile system are smaller, and it loses its VSTOL capability, forcing it to use prepared runways. The only improvement that can be spotted on the outside is an increased amount of armor.

What makes the Bullet so important is its cockpit and pilot compartment—or more specifically, the lack of one. Taking a page from the Word of Blake, Mujika installed a remote drone operating system, allowing its pilot to operate it from a distance so far removed that it would be impractical to go after the operator himself in a raging battlefield.

Critics who claim that this impedes the skills and maneuverings of the fighter are quickly silenced by the fact that the Bullet does not need lightning fast reflexes to dogfight because it has a single goal: to slam into its target, detonating the powerful explosive installed in it. Because it looks and acts like a damaged Guardian, most anti-aircraft defenders often ignore it for the hard-hitting and dangerous aerospace fighters, only to watch in horror as their command center or DropShip goes up in a fireball from a lone Bullet they had ignored seconds earlier.

Deployment

With its low price tag and high casualty rates, many Capellan militias are buying these dozens at a time and deploying them the second any sort of enemy enters the atmosphere. The Word of Blake was taken aback when entire squadrons of what they believed to be manned Guardian fighters unwaveringly slammed into their transports and landing zones, destroying far more than what they cost while the operator was safely far away.

General Hampton on New Hessen acquired two dozen of these before the Blakists struck his homeworld. Not expecting a Federated Suns world to have Bullet drones, the Word forces once again mistakenly assumed that these were normal Guardian fighters before they took out two supply transports, putting the Word of Blake at a disadvantage before they secured their landing zone. It appeared Hampton used a series of shell mercenary companies to purchase the drones from the St. Ives-based Mujika Aerospace.

After that operation Word of Blake attackers began to blindly ignore the typically potent aerospace fighters of the enemy, instead focusing on conventional fighters that might have been explosive drones trying to get close to their targets. In most instances this was not the case, and until the end of the Jihad, the casualty rate of conventional fighter pilots when facing Word of Blake attackers increased tenfold.

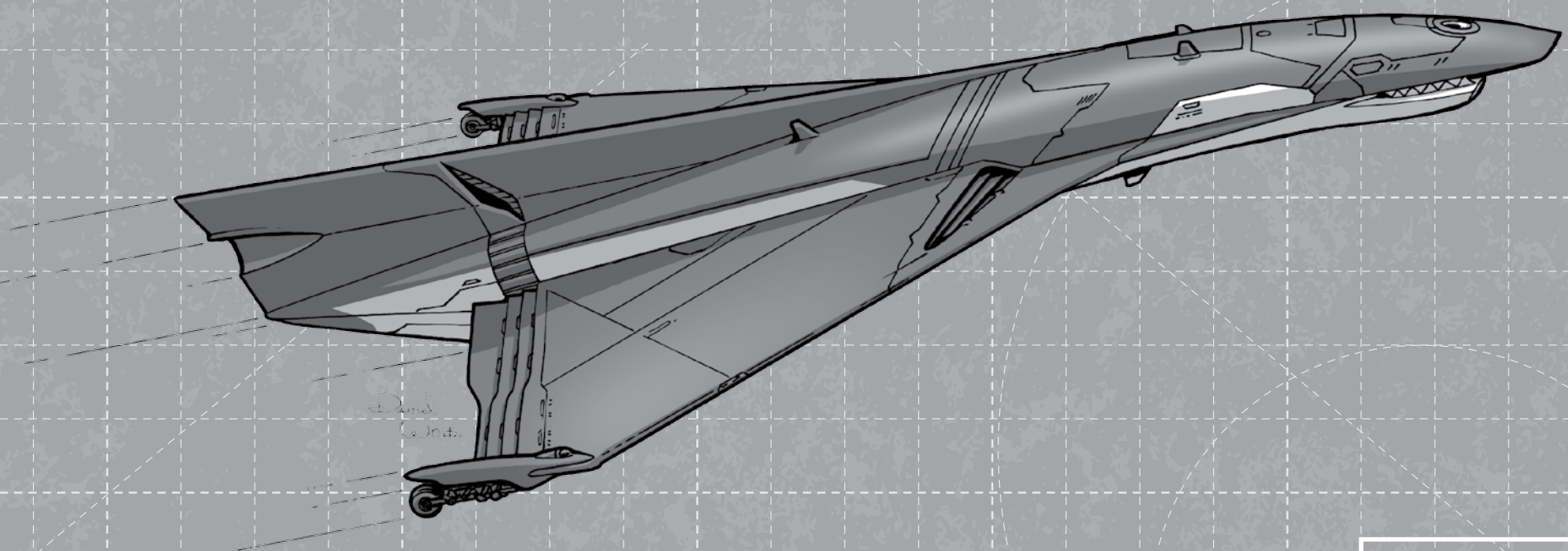
BULLET SUICIDE DRONE

Type: **Bullet Suicide Drone**
Technology Base: Inner Sphere (Advanced)
Tonnage: 20
Battle Value: 104

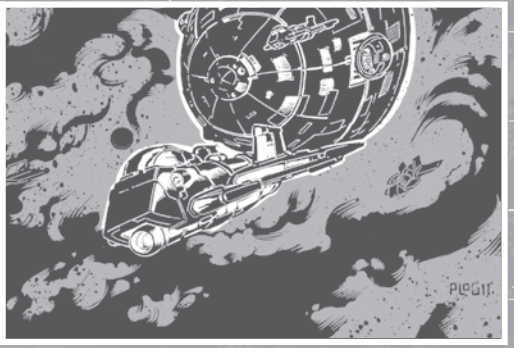
Equipment		**Mass**
Engine:	120 ICE	8
Safe Thrust:	6	
Maximum Thrust:	9	
Structural Integrity:	6	
Heat Sinks:	0	0
Fuel:	320	2
Cockpit:		2
Drone Operating System:		2.5
Armor Factor:	20	1.5
	Armor Value	
Nose	7	
Wings	5/5	
Aft	3	

Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
SRM 2	Nose	1	0	2	—	—	—
Ammo (SRM) 50	—	1					
Booby Trap	—	2					

Notes: Features the following Design Quirks: Bad Reputation, Weak Undercarriage, Atmospheric Flyer.



DRAKE MEDIUM STEALTH FIGHTER



Mass: 35 tons
Chassis: Imstar DF/35 Special
Power Plant: GM 210 Fusion
Armor: BFM Vehicular Stealth
Armament:
2 Krupp 3 Tube Multi-Missile Launchers
1 SarLon MiniCannon Light Autocannon/5
Manufacturer: Basantapur Fine Metals
Primary Factory: Colorado
Communications System: GPT Multi-Track Standard with Guardian ECM
Targeting and Tracking System: IMB SYS 7000

Overview

The Blakists were defeated, but like ripples in a pond, the changes they caused in the Inner Sphere continue to be felt. It's no surprise that many new military designs have sprung up in the aftermath of such a major conflagration, but sometimes, it's not the unit, but the company producing it, which becomes noteworthy.

As a premier supplier of metals and materials, Basantapur Fine Metals has a long and storied history. While it's natural for companies seek other revenue streams, BFM's sudden entrance in the defense market in the mid-3070s caught analysts unawares. Dissatisfied with the ability of the AFFS to thwart the constant Blakist threat, BFM developed the Drake to protect its interests.

BFM assembled the prototype Drake at their Lost Creek facility on Colorado. The Lost Creek range had full aerospace and conventional fighter maintenance facilities, as it was used to perform stress testing on a variety of heat-sensitive components manufactured by BFM. Frequently this involved a complex tear-down and rebuild of portions of the aircraft, as multiple alloys were tested. Those facilities were expanded and upgraded to include complete fabrication and assembly lines in the early 3080s, and a few years later BFM was entrenched in the defense industry. Despite its recent entry into this market, BFM already has a solid reputation.

The prototype Drake was billed as a conventional fighter with the armor of an aerospace fighter. The claim was substantiated by BFM's use of modular armor to more than double the protection provided by traditional fabrication techniques. Although BFM touted the modular armor as an intrinsic feature of the Drake, the company never intended to include it on the production version of the aircraft. Instead, they used the Drake as a test platform for different modular armor alloys, ultimately developing a lightweight and sturdy product. BFM imported the stealth armor used on the prototypes, but in preparation for going into production licensed the armor from Krupp to produce it on Colorado. Both the BFM stealth and modular armors are available for purchase in bulk.

In producing the Drake, BFM has become a master of importing and licensing. In addition to stealth armor, BFM also acquired a license from Imstar to produce the Drake's airframe, based on the Defender's DF/25. Imported products used in the Drake's construction include the Krupp multi-missile launchers, the SarLon autocannon, and the GPT Guardian ECM suite.

Capabilities

The Drake is remarkable as the first production conventional fighter to employ stealth armor, and is renowned as an accomplished dogfighter comparable to the heavier—and slower—Meteor. The stealth armor confounds targeting systems, allowing the Drake to close with little risk. Once on the six of an opponent, or when lined up for a strike attack against ground-based targets, the Drake hammers away with a brace of Krupp MML-3s and a SarLon MiniCannon. The combination is powerful enough to drop a 'Mechbuster in a couple salvos. To engage targets at longer ranges, the Krupps switch to LRM ammunition. Although the Drake has modest firepower at this range, the added flexibility makes it superior to competing designs as their armament cannot match the Krupp's range. The IMB targeting and tracking system automatically chooses the best ammunition for the Krupps, but the pilot may override this selection with a joystick-mounted toggle switch.

Deployment

Initial sales of the Drake went to other Federated Suns corporations and private security forces, but after several high-profile stories recounted the Drake's success the AFFS inquired about the fighter. Six months of negotiations followed before acceptable contract terms were reached in 3087. The Drake is found with planetary militia units throughout the Federated Suns, and with line regiments in the Capellan and Crucis Marches. A handful were deployed to the Draconis March, mostly along the Crucis March border, where the fighters have not been well received. BFM has expressed an interest in selling the design to the Filtvelt Coalition, Taurians, and Canopians, but no contracts have been inked.

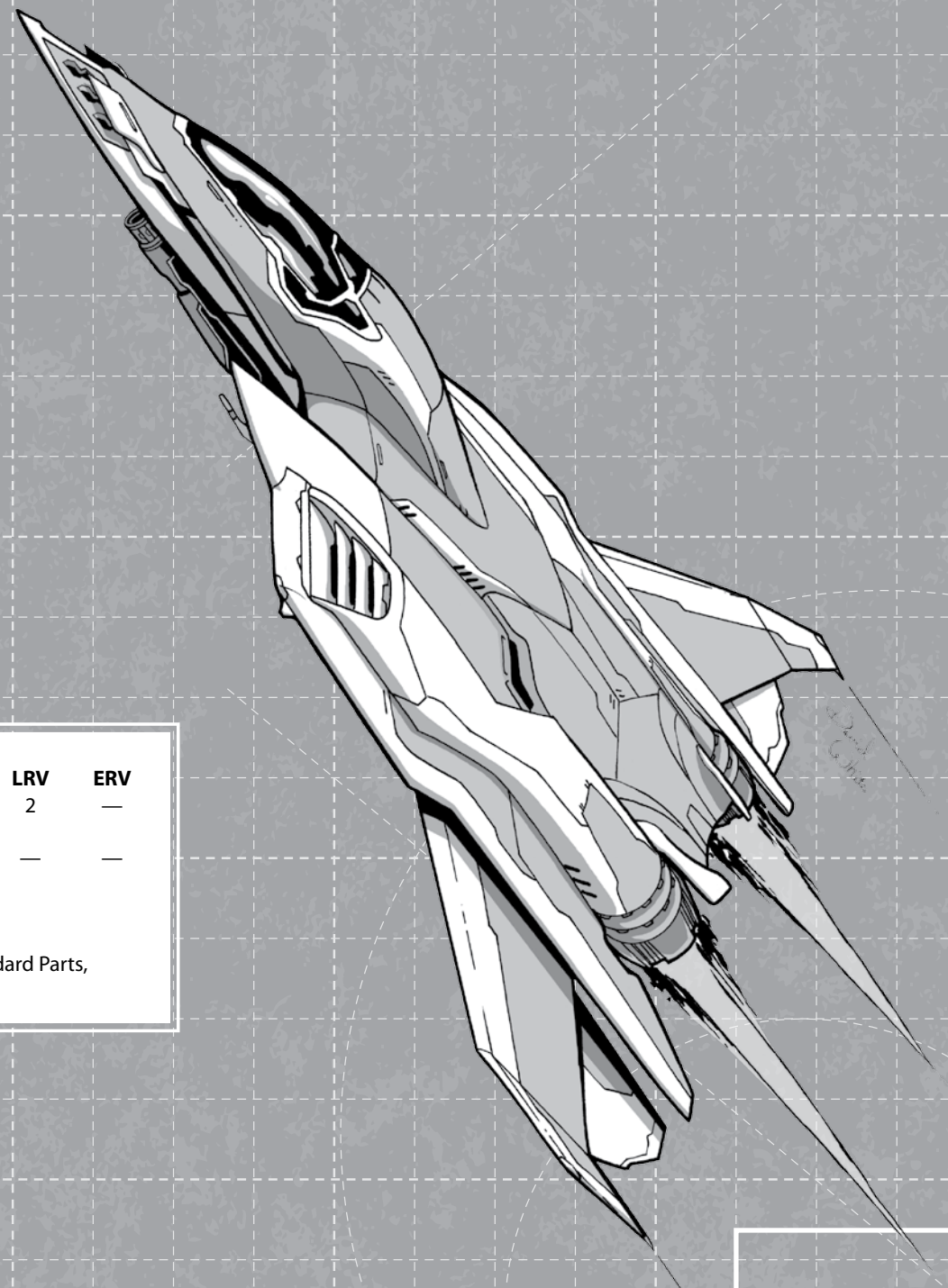
DRAKE MEDIUM STEALTH FIGHTER

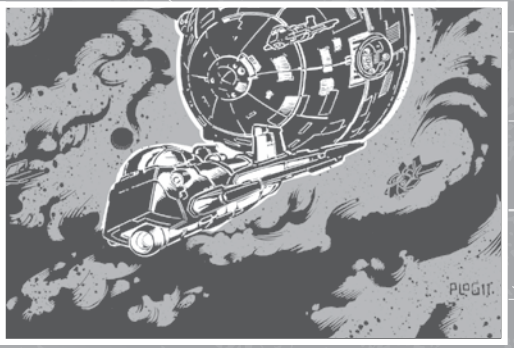
Type: **Drake Medium Stealth Fighter**
Technology Base: Inner Sphere (Advanced)
Tonnage: 35
Battle Value: 389

Equipment		**Mass**
Engine:	210 Fusion	13.5
Safe Thrust:	6	
Maximum Thrust:	9	
Structural Integrity:	6	
Heat Sinks:	10	0
Fuel:	560	3.5
Cockpit:		3.5
Armor Factor (Stealth):	32	2
	Armor Value	
Nose	10	
Wings	8/8	
Aft	6	

Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
2 MML 3	Nose	3	0	4	2	2	—
Ammo (MML) 80/66	—	2					
Light AC/5	Nose	5	0	5	5	—	—
Ammo (LAC) 20	—	1					
Guardian ECM Suite	Aft	1.5					

Notes: Features the following Design Quirks: Difficult to Maintain, Non-Standard Parts, Atmospheric Flyer.





Mass: 50 tons
Chassis: Imstar Type XI-M
Power Plant: GM 200 Fusion
Armor: Imstar V-Stealth
Armament:
1 Katyusha Arrow IV Missile Launcher
Manufacturer: Imstar Aerospace
Primary Factory: Marik
Communications System: IMB Hi-Def ComCon with Angel ECM Suite
Targeting and Tracking System: Imstar SkyWatch with LDR Array

Overview

The Arrow IV system had a profound impact on warfare. A relatively light and compact artillery system, it was installed in numerous combat vehicles and even several BattleMechs. Its variety of ammunition likewise made it popular, but its short artillery range inhibited its tactical flexibility, and also made it more vulnerable to direct attack.

Imstar responded to an inquiry from Representative Steve "Eclectic" Lester of the Special Solutions Committee for an affordable airborne deployment method for the Arrow IV system in 3072, electing to modify its existing Planetlifter frame to reduce costs. Communications later that year with Word of Blake leadership provided additional funding for the project, as well as access to vehicular stealth armor and Angel ECM technology. These contributed significantly to the Planetlifter's survivability, but even with these systems *Cheetah* test pilots with Imstar soon proved that the craft was still an easy target for aerospace fighters. While opponents unaware of the Planetlifter's renewed capabilities would often ignore the craft, once the Arrow IV missiles launched it immediately became a priority target.

This problem appears insurmountable, restricting the craft to situations of aerospace superiority. Given this restriction, additional equipment has been added to the frame, at the expense of its missile magazine, including a look-down radar and cockpit command console. The operational profile of a craft with a command console is not dissimilar to that of the Arrow IV-equipped Planetlifter, creating no new vulnerabilities. Thus equipped, the craft is referred to as the Planetlifter Tactical Support Aircraft.

Capabilities

The vehicular stealth armor is an obvious enhancement on any conventional aircraft, but only delays the inevitable. This restricts Planetlifter TSA deployment to where there is aerospace superiority. In this environment, the mobility of the airborne Arrow IV launcher proves highly desirable. Different parts of the battlefield are swiftly supplied with Arrow IV support, and the tactical oversight provided by the TSA is usually needed in the same area.

Deployment

Despite a lot of interest, the Planetlifter TSA was not produced in any significant numbers by Imstar until 3082. This is apparently due to the inability of the Word to acquire sufficient stealth armor and Angel ECMs to sustain production. Since then, its entire output has been acquired by the Marik Commonwealth, who has attached them in squadron-sized formations to existing aerospace fighter wings that support ground units.

Variants

A downgraded version of the TSA, the Planetlifter Support, surrenders the advanced electronics and stealth armor in favor of a much larger missile magazine. This version appears to have been deemed too narrow in focus by the Commonwealth, and tends to be deployed singly to combat commands. Imstar has requested it be allowed to sell the craft to the open market.

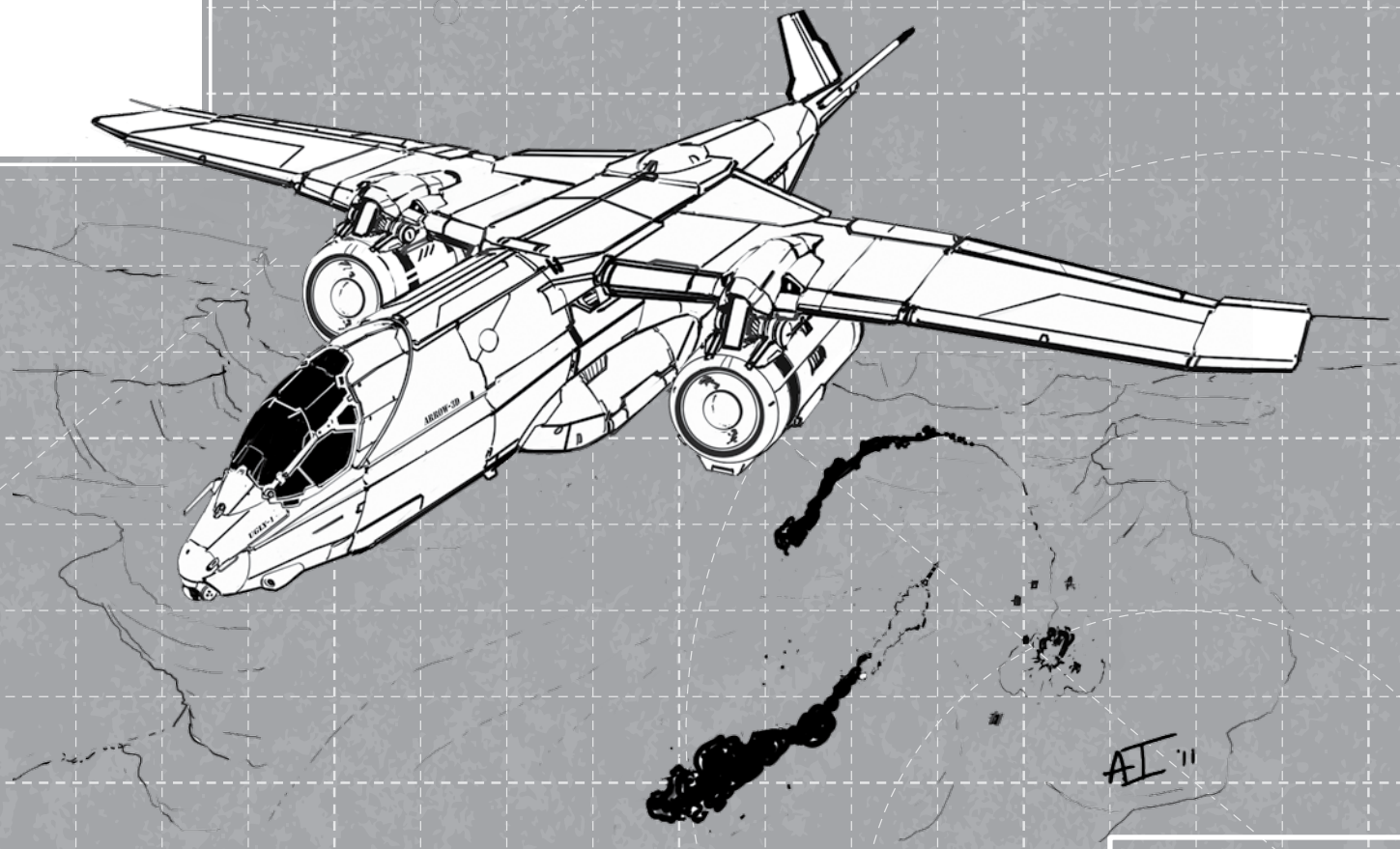
PLANETLIFTER TACTICAL SUPPORT

Type: **Planetlifter Tactical Support Aircraft**
Technology Base: Inner Sphere (Advanced)
Tonnage: 50
Battle Value: 475

Equipment		**Mass**
Engine:	200 Fusion	13
Safe Thrust:	4	
Maximum Thrust:	6	
Structural Integrity:	5	
Heat Sinks:	10	0
Fuel:	320	2
Controls		5
Armor Factor (Stealth):	48	3
	Armor Value	
Nose	22	
Wings	7/7	
Aft	12	

Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
Angel ECM Suite	Nose	2					
Look-Down Radar	Nose	5					
Cockpit Command Console	Nose	3					
Arrow IV System	Aft	15	0	*	*	*	*
Ammo (Arrow IV) 10	—	2					

Notes: *Arrow IV Missile Launcher may deliver artillery attacks to ground targets only; Features the following Design Quirks: Improved Communications, Rumble Seat.



Mass: 50 tons
Chassis: Wingman Standard-N
Power Plant: Magna 250 Fusion
Armor: Iron Halo 777 Ferro-Aluminum
Armament:
1 Pontiac Ultra 100 Autocannon/20
2 Diverse Optics Type 2 Medium Lasers
Manufacturer: Wingman Enterprises Limited
Primary Factory: Pinard
Communications System: Neil 5000
Targeting and Tracking System: TracTex Alpha-1 with Hawkeye M4 Recon Photo Pod

Overview

The Taurian Concordat began to modernize its entire defense industry in the wake of the catastrophic failures experienced during the Jihad. That modernization was not only limited to BattleMech production. Every facet of Taurian military production, from conventional infantry to DropShip manufacture, was overhauled so that the technological gap between the Taurian Defense Force and its enemies could be closed.

One of the most overlooked military assets in the Inner Sphere is traditional naval vessels. Water is found on every human-colonized world in some form or another. While ships are often used to move personnel or resources across the ocean depths, traditional naval military vessels are generally considered specialized and effectively obsolete. The Taurians, having suffered massive damage from unconventional attacks, were committed to preparing to face every conceivable threat.

Based on their successful Bat Hawk variant of the Meteor strike fighter, Wingman Enterprises Limited saw the call for naval defense vehicles as a chance to save their floundering company. They were able to convince Marshal Victor Sharpe that there was a need for a conventional fighter to patrol Taurian waterways and that they were the only company with the experience to create that fighter quickly and cost effectively. Marshal Sharpe was so impressed with their presentation that he ordered other Taurian defense companies to sign whatever agreements were necessary to supply Wingman Enterprises with the components they would need to finish the project in the quickest possible time frame.

Capabilities

Instead of designing an entirely new fighter, Wingman Enterprises went with a tried and true strategy: they copied and then modified an existing fighter. Custom-made SeaBuster fighters had already been produced and were being utilized in other Periphery nations. It was the perfect template from which Wingman Enterprises engineers could create a production SeaBuster of their own.

Once reverse-engineering began, the team discovered significant obstacles that could hamper production. The fuselage would have to feature a flotation hull, and the power plant was a fusion engine, not an ICE. While the hull could be produced with some effort, the fusion engine was more complicated. Instead of designing a custom power plant, Wingman found a supplier. Kali Yama Industries, producers of the *Trebuchet* BattleMech, was left with a large stockpile of standard Magna 250 fusion engines after the *Trebuchet* had been redesigned with an extralight engine. They were overjoyed to have a buyer for the obsolete standard fusion engines.

The other problem, in terms of mass production, was the main weapon system. The custom SeaBusters mounted a heavy Gauss rifle. Taurian manufacturers had no reliable supplier for that weapon. They would have to utilize something available, yet similarly devastating.

The solution would come from Sterope Defense Industries. The leading manufacturer of weapons and armor for Taurian armor forces offered the SeaBuster project their newest upgrade of the classic Pontiac 100 heavy autocannon. The Pontiac Ultra 100 autocannon nearly doubled the weapon's rate of fire. While the range was notably shorter than the heavy Gauss rifle, the raw destructive force was superior. Even more desirable to Wingman's design team was the fact that weight saved by installing the slightly smaller autocannon allowed for increased ammunition capacity and the mounting of a pair of reliable Diverse Optics Series 2 medium lasers.

The final addition to the SeaBuster package was one of the most important. Since naval forces are in short supply and required to cover vast expanses of territory, a Hawkeye M4 photographic reconnaissance pod was mounted to the SeaBuster's fuselage. The recon pod gives the SeaBuster a multi-mission capacity that increased its value to TDF officials.

Deployment

Pinard received the initial production run, but soon after deliveries reached Taurus and New Vandenberg. Once major industrial centers are garrisoned, the SeaBuster will spread to other relevant Taurian worlds. It is also likely a portion of the fighters will be made available for export.

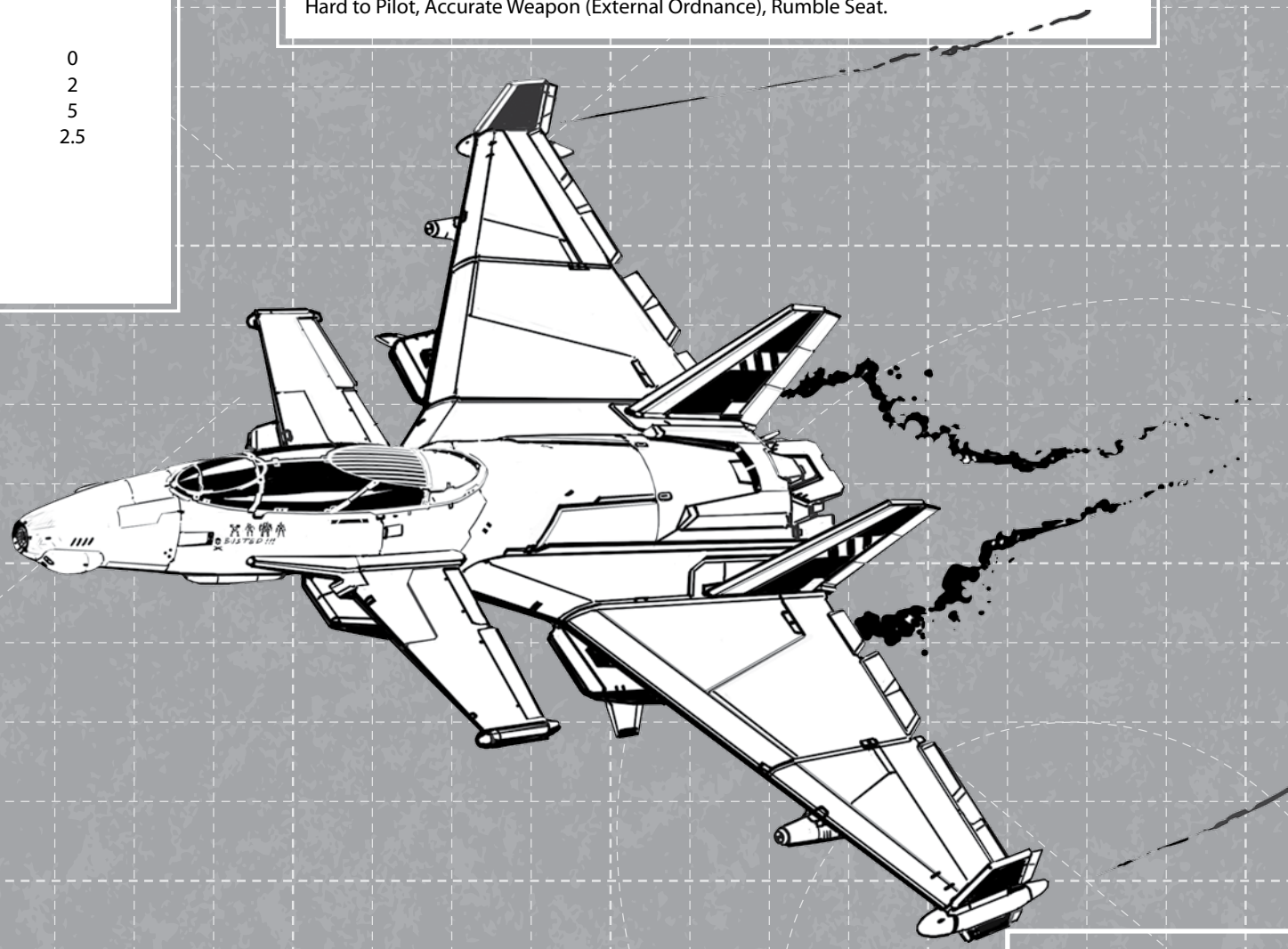
SEABUSTER STRIKE FIGHTER

Type: **SeaBuster Strike Fighter**
Technology Base: Inner Sphere (Advanced)
Tonnage: 50
Battle Value: 856

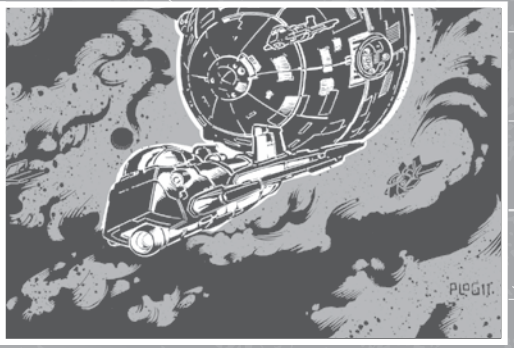
Equipment		**Mass**
Engine:	250 Fusion	19
Safe Thrust:	5	
Maximum Thrust:	8	
Structural Integrity:	5	
Heat Sinks:	10	0
Fuel:	320	2
Cockpit:		5
Armor Factor (Heavy Ferro):	49	2.5
	Armor Value	
Nose	19	
Wings	10/10	
Aft	10	

Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
Ultra AC/20	Nose	15	0	30	30	—	—
Ammo (Ultra) 20	—	4					
Recon Camera	Nose	.5					
Medium Laser	RW	1	3	5	—	—	—
Medium Laser	LW	1	3	5	—	—	—

Notes: Features Floatation Hull Chassis Modification; Features the following Design Quirks: Hard to Pilot, Accurate Weapon (External Ordnance), Rumble Seat.



Light Aerospace



Mass: 25 tons
Chassis: Imstar 10/f
Power Plant: GM 250-a XL
Armor: Imstar Aero-Stealth
Armament:
2 Starflash I Light Lasers
Manufacturer: Imstar Aerospace
Primary Factory: Amity
Communications System: Lassitor-3QS with Guardian ECM
Targeting and Tracking System: IBM SYS 3600 with Hyperspectral Imager

Overview

The OF-17A-R observation/reconnaissance *Cheetah* is a modification by Imstar Aerospace to its famous *Cheetah* aerospace fighter. The original OF-17 was a rushed wartime conversion that minimally altered the basic aerospace frame. The major change from the F-11 was the use of stealth armor. Imstar had hoped to develop an OmniFighter that could be configured into different reconnaissance roles, but "major pending operations against the Word of Blake Protectorate" did not leave Imstar sufficient time to develop differing, stealth-compatible equipment pods.

Imstar did not entirely retreat from the Omni concept, instead attempting to offer custom-built imagers that could be laboriously exchanged in the large nose bay. The idea never caught on with Coalition forces, or the current customer, the RAF. The look-down radar's powerful emissions would ruin the stealth of the fighter, while the high resolution and infrared imagers offered few capabilities not found in the hyperspectral imager. The Coalition only used the hyperspectral imagers, and they worked extremely well in the Liberation of Terra.

As a result of user feedback, Imstar began producing the simplified OF-17A-R before the first OF-17s had begun buzzing Mars and Terra.

Capabilities

The OF-17A-R *Cheetah* eliminates the flexibility of the OF-17 to simplify production and reduce costs. One of the major changes was to modify the nose equipment bay to permanently mount a hyperspectral imager. In addition to simplifying the bay and imager, it also eliminated a number of large access hatches on the nose required for imager exchanges, along with the stealth-compromising seams of the hatches.

GM had been providing its GM 250-a XL engine with a standard double strength regenerative cooler, but at Imstar's request used older, less expensive materials. The OF-17 was incapable of overheating except through severe engine damage, even with the burden of stealth armor, so Imstar requested this cost saving measure.

The Imstar decision on heat sinks was accompanied by questionable requests from Coalition forces, particularly the Lyrans tasked by Stone to handle procurement. The lack of armament on the OF-17 was apparently baffling to the economically and legally adept, but militarily naïve, Lyran procurement team. After long explanations from Imstar about the futility of arming the OF-17A-R, the final specifications no longer included arrays of wing-mounted medium and small lasers. Instead, the Coalition procurement agents had apparently taken the message to heart that the OF-17A-R *Cheetah* would not linger near threats and, if they were attacked, it would likely be in the form of a chase. Accordingly, the OF-17A-R would be equipped with "a light defensive array to discourage pursuit," and there would be no more talk from Imstar about depriving the valiant pilots of this sensible defensive system.

The pair of small lasers proved an outsized headache. The only viable location was in the projecting tail boom of the *Cheetah*. Any other location would require significant reworking of the stealth armor. This outlying ton of dense laser weaponry created balance problems in atmospheric flight. With more time and funds, Imstar could have lengthened the nose and shifted the hyperspectral imager forward, but had to resort to the expedient of ballast. With the internal hard points often dedicated to drop tanks or life support for long missions, the only place to accommodate the ballast was at the expense of cockpit volume. Since the OF-17A-R needed to lighten by a ton to fit the lasers, a small cockpit was used. The small cockpit, unfortunately, makes it very difficult for OF-17A-R pilots to endure the extended—days-long—coasting flights that make best use of the *Cheetah*'s stealth armor.

The ballast was, originally, sealed bins of local sand, but the idea of sand in a cutting-edge aerospace fighter appalled the procurement team, who dictated something more advanced be used. Imstar then had to take the time to produce some custom aerospace-grade aluminum forged ballast blocks to fit in front of the cockpit.

The lasers cannot be easily used while the OF-17A-R's stealth is operational, as the less capable heat sinks cannot handle both stealth and laser fire. If an OF-17A-R survives long enough to repeatedly use its small aft lasers, it will need to disengage its stealth and open heat sink baffles to shed accumulated heat.

Deployment

The OF-17A-R has been deployed in small numbers by the RAF. Most pilots assigned to the *Cheetah* recon squadrons clamor to be deployed in the older, out-of-production OF-17s when such are available.

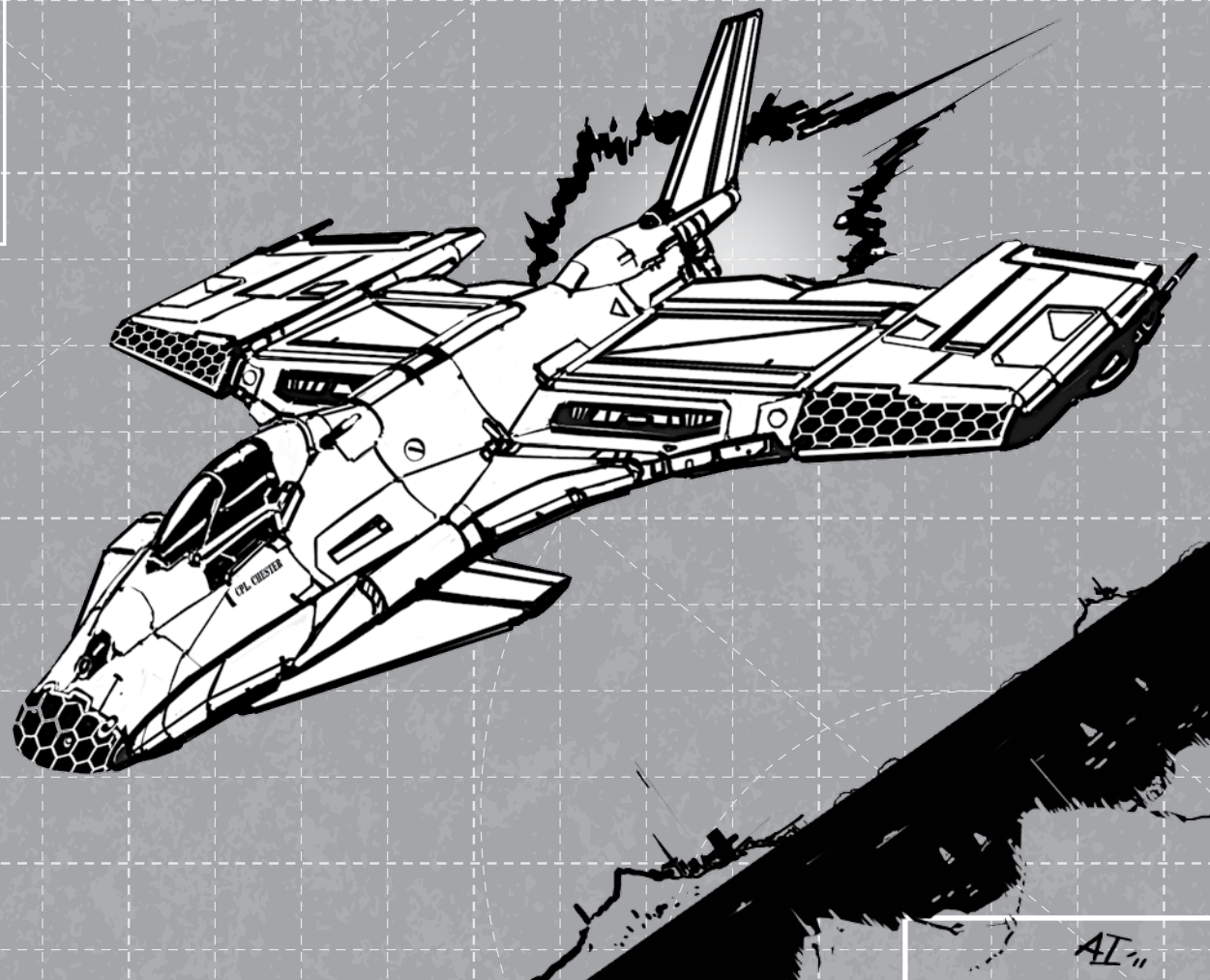
OF-17A-R CHEETAH

Type: **Cheetah**
Technology Base: Inner Sphere (Advanced)
Tonnage: 25
Battle Value: 290

Equipment		**Mass**
Engine:	250 XL	6.5
Safe Thrust:	12	
Maximum Thrust:	18	
Structural Integrity:	12	
Heat Sinks:	10	0
Fuel:	320	4
Cockpit (Small):		2
Armor Factor (Stealth):	40	2.5
	Armor Value	
Nose	11	
Wings	11/11	
Aft	7	

Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
Hyperspectral Imager	Nose	7.5					
Guardian ECM Suite	Nose	1.5					
2 Small Lasers	Aft	1	1	3	—	—	—

Notes: Features the following Design Quirks: Modular Weapons, Improved Life Support.



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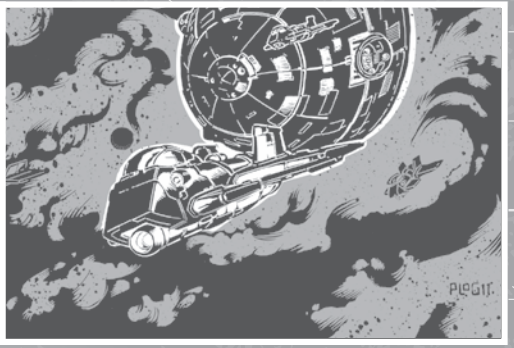


Mass: 25 tons
Chassis: Inazuma SI-32b
Power Plant: Nissan 225 XL
Armor: Nimakachi Type G Heavy Ferro-Aluminum
Armament:
3 Diverse Optics 20X Extended-Range Medium Lasers
3 Victory Star Screen Laser Anti-Missile System
Manufacturer: Wakazashi Enterprises
Primary Factory: Kervil
Communications System: BipStar 49-G
Targeting and Tracking System: Ki-II TTS

Overview

Cannibalizing one's own sales is generally considered detrimental, but this is exactly what Wakazashi has done since 3068 by offering both the *Sabre* and *Shologar* at the same time. The two fighter designs offer very similar performance, providing little discriminating elements for prospective customers to latch onto. Luckily for Wakazashi, adequate demand for the full output of both designs has persisted for decades, and the ravages of the recent fighting prevented opportunities to consolidate.

This changed recently, when more advanced weaponry became commonly available. One such effort was the creation of the SB-29 *Sabre*. This craft was used as the basis for the SB-31D *Sabre*, which began flight testing in 3071 but was not offered for sale until 3079. Its unique feature is a triplet of laser anti-missile systems, which provide exemplary protection to the fighter and other craft in proximity.

Its ability to engage missile attacks would seem to have made the *Sabre* an ideal craft for the Jihad, given the Blakists' frequent use of missiles, but Wakazashi siphoned off the SB-31Ds it produced for use with select JumpShips and DropShips. Wakazashi focused its initial output on its own shipping lines, as well as the shipping concerns of some of its allies and benefactors. Given the non-military deployment of the craft, and the relatively limited production output, this went unnoticed until recently.

Some have accused Wakazashi of war profiteering; rather that contributing the craft to the overall war effort, there are rumors that some of Wakazashi's allies paid a 200 percent premium for the *Sabre*, if not more. Others have claimed that some SB-31D's had found their way to several of the factions vying for the title of Coordinator.

These accusations found the support of several individuals with the power to pursue an investigation. It is unclear whether this was intended to extract concessions from Wakazashi, or whether this was part of a larger political game. For now, the manufacturing activities of Wakazashi remain unaffected, and the SB-31D continues to flow to the DCMS.

Capabilities

Equipped with decent speed, maneuverability and three ER medium lasers, the SB-31D is a capable light fighter. It distinguishes itself with its three laser anti-missile systems, one in each wing and one on the right side of the cockpit. During offensive operations, two of these systems are inactive. During defensive missions, all three laser AMSs may be on at the expense of firing the medium lasers. This operational profile is sustainable due to the eleven double-strength heat sinks and four and a half tons of heavy ferro-aluminum armor. The initial prototype had longer endurance with five tons of fuel, but testing and operational data made it clear that an additional heat sink was not just preferable, but critical to get the most out of the SB-31D.

Deployment

The SB-31D is seen with increasing frequency as a part of the escort of key military DropShips, JumpShips and WarShips. The Draconis Combine Admiralty has been deploying the craft across their stations.

The *Sabre* rarely deploys in anything but lance-sized strength, and is rarely used in offensive missions. While no material has been made available to verify the claims, the DCMS credits the craft with having stopped or stymied several Blakist missile attacks during the Jihad, some even prior to its public release.

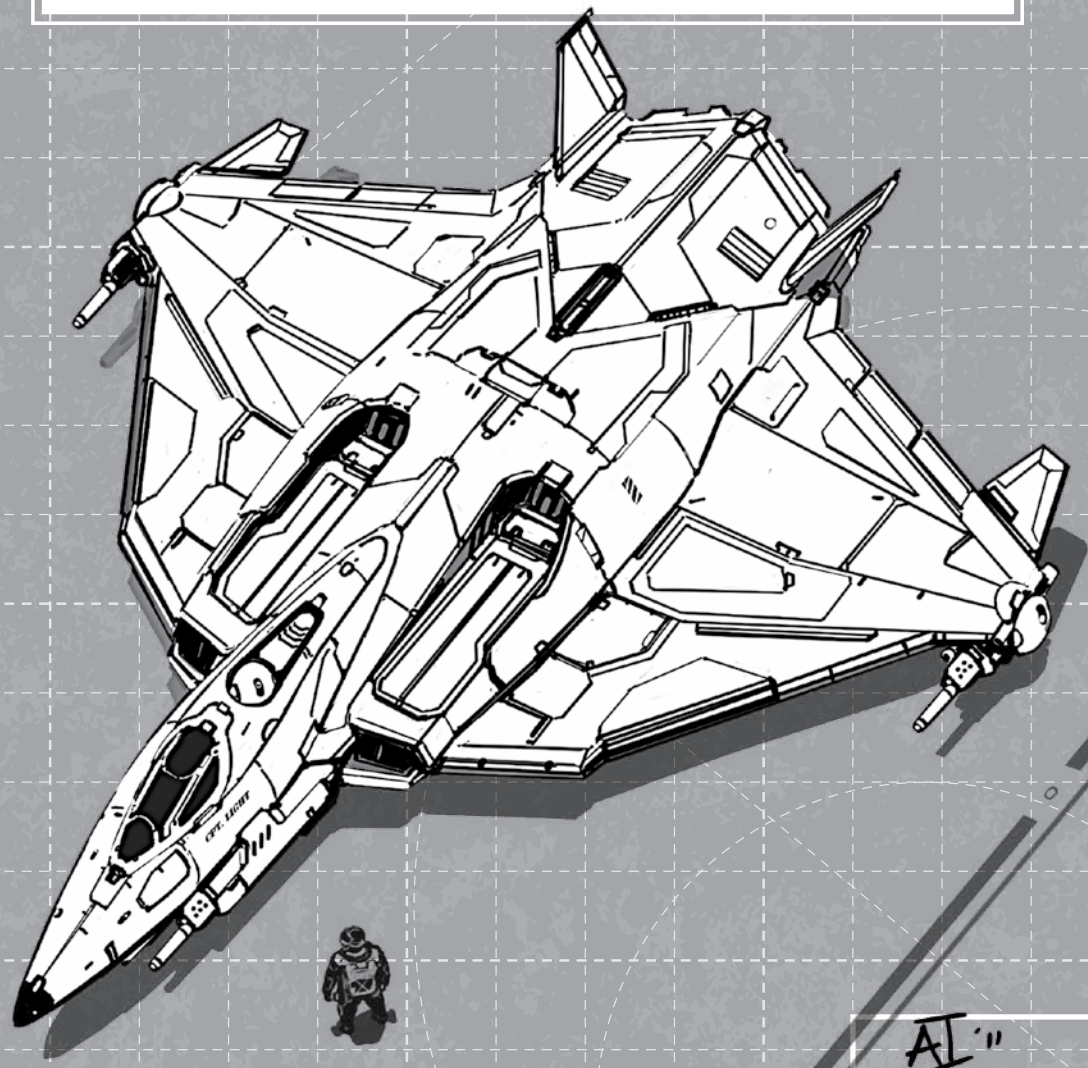
SB-31D SABRE

Type: **Sabre**
Technology Base: Inner Sphere (Advanced)
Tonnage: 25
Battle Value: 935

Equipment		**Mass**
Engine:	225 XL	5
Safe Thrust:	11	
Maximum Thrust:	17	
Structural Integrity:	11	
Heat Sinks:	11 [22]	1
Fuel:	320	4
Cockpit:		3
Armor Factor (Heavy Ferro):	89	4.5
	Armor Value	
Nose	25	
Wings	22/22	
Aft	20	

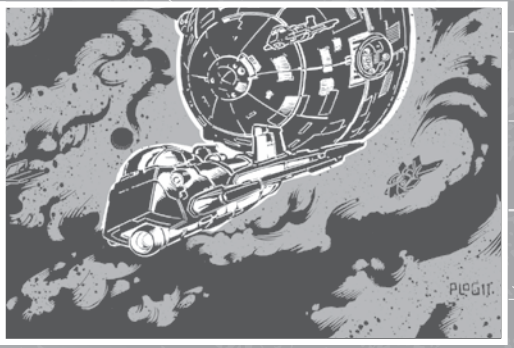
Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
ER Medium Laser	Nose	1	5	5	5	—	—
Laser Anti-Missile System	Nose	1.5	7				
ER Medium Laser	RW	1	5	5	5	—	—
Laser Anti-Missile System	RW	1.5	7				
ER Medium Laser	LW	1	5	5	5	—	—
Laser Anti-Missile System	LW	1.5	7				

Notes: Features the following Design Quirks: Cramped Cockpit, Atmospheric Flyer.



RF-1 UMBRA

Light Aerospace



Mass: 30 tons
Chassis: F-50/C-SX
Power Plant: Hermes 240 Extralight
Armor: Divine Shield-D Ferro-alluminum
Armament:
1 Fusigon Smarttooth Snub-Nose PPC
with ElectroMax Mark 1 Capacitor
2 Martell ER Medium Lasers
Manufacturer: New Age Systems Incorporated
Primary Factory: Terra
Communications System: COMSTAT 500 ATM
Targeting and Tracking System: Ringo Plant 88 Mk.2

Overview

In many ways, the *Umbra* is a Frankenstein-like combination of parts thrown together into a powerful whole. The origins of the fighter lie with the Word of Blake's Spectral fighter program. Originally conceived as an unmanned drone, the Word of Blake ran out of time to finish the design as conceived. Their concept shifted to a second-line Spectral fighter, but before a full production line could be assembled Terra and the Word of Blake fell to Devlin Stone's Coalition.

In the aftermath of the legendary invasion of Terra, Coalition technical personnel found the refurbished site of the original New Age Systems Incorporated fighter plant, where the Word of Blake had been attempting to crash-produce *Umbras*. While a handful of the fighters were close to operational, the facility had been abandoned before the work was completed. There were ample documents and supply parts to illustrate what the vision for the design had been.

In desperate need of viable military units, The Republic of the Sphere recognized the potential of the nearly-completed fighter. Republic engineers disassembled the prototypes and set about properly modifying the New Age Systems facility for sustainable production. Fortunately for the *Umbra* team, the Word of Blake personnel had not had time to destroy their documentation before fleeing the facility. Components for the *Umbra* had been accumulated from three different worlds. While the list of necessary equipment could have eventually been reverse-engineered, substantial time was saved by reading the design documentation and inventory reports. Armed with blueprints and a stockpile of components, The Republic of the Sphere was able to put the newly-minted *Umbra* into testing and then full production less than five years after the program began.

Capabilities

The *Umbra* was intended to mimic the Word of Blake's *Shade* OmniFighter on a less-versatile and less-advanced scale as a completely unmanned fighter. Political realities and the tides of war forced the Word to abandon the idea and push the *Umbra* into service as a traditional aerospace fighter instead, but the basic design principles were kept. High-thrust maneuverability was the dominant factor, along with an all-energy loadout that meant the fighter never needed to land and reload. The addition of a PPC capacitor was viewed as an effective way to boost the firepower of its primary weapon, at an acceptable level of risk.

In order to create the *Umbra*, the Word of Blake grabbed components from all over its sphere of influence. The frame and cockpit electronics were the same as those used in the Word-modified *Spad* fighter. The power plant and armor were acquired from the Master's Wings Aerospace facility on Gibson. The weaponry was produced on Terra as part of the Word's *Griffin* BattleMech upgrade program, although the ElectroMax capacitor was never tested under combat conditions. The rest of the necessary components were fabricated at the factory site.

While the recipe for the *Umbra's* genesis is complicated, the finished product is sleek and revised. The *Umbra* is made for high-thrust maneuvers, which make it a lethal dogfighter and provide it with ample speed for aerospace interception duty. The capacitor-enhanced, snub-nosed PPC gives the fighter with a powerful main weapon. When its firepower is augmented with reliable Martell extended-range medium lasers, the *Umbra* proves capable as a ground striker as well. It also saves on repair and logistics, with a simple and easy-to-reach frame like the one that made its *Spad* predecessor famous.

Deployment

As the military of The Republic of the Sphere continues to grow and build, it is clear that their approach to warfare relies heavily on the concept of combined arms. In keeping with this vision, most of the regiments being formed under The Republican banner are afforded a number of *Umbra* fighters to act as high speed interceptors and ground support fighters. Though still a new fighter, the *Umbra* has received positive reviews from most of the pilots assigned to it.

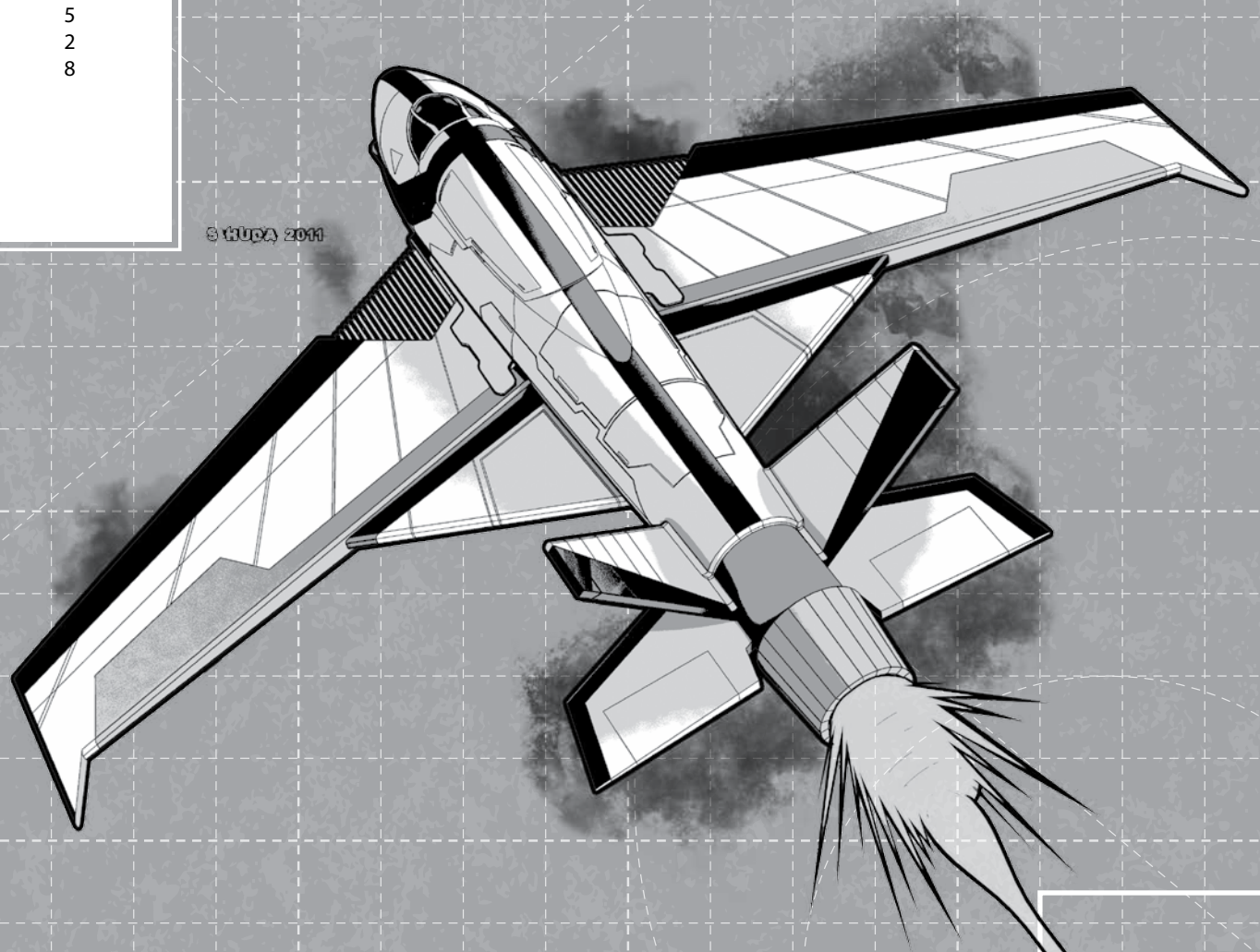
RF-1 UMBRA

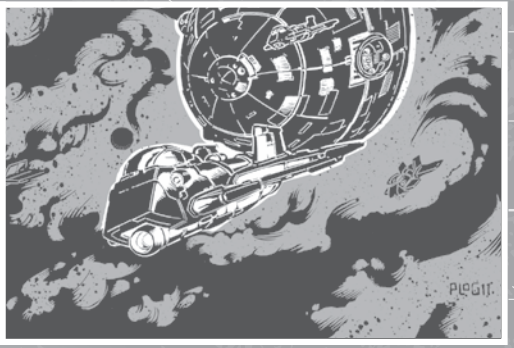
Type: **Umbra**
Technology Base: Inner Sphere (Advanced)
Tonnage: 30
Battle Value: 1,319

Equipment		**Mass**
Engine:	240 XL	6
Safe Thrust:	10	
Maximum Thrust:	15	
Structural Integrity:	10	
Heat Sinks:	10 [20]	0
Fuel:	400	5
Cockpit (Small):		2
Armor Factor (Ferro):	143	8
	Armor Value	
Nose	45	
Wings	32/32	
Aft	34	

Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
Snub-Nose PPC with Capacitor	Nose	7	15	15	13	—	—
2 ER Medium Lasers	Nose	2	5	5	5	—	—

Notes: Features the following Design Quirks: Easy to Maintain, Modular Weapons.





Mass: 45 tons
Chassis: Bowie 70
Power Plant: PlasmaStar 270 Light
Armor: Bowie Glinting Blade Reflective
Armament:
1 Defiance B33B Binary Laser
2 Helga Series 5-Tube Multi-Missile Launchers
1 Defiance Model XII Extended-Range Medium Laser
Manufacturer: Bowie Industries
Primary Factory: Carlisle
Communications System: Rander 250
Targeting and Tracking System: Rander TA8

Overview

The Jihad hit everyone hard, particularly the Lyran Alliance. Indeed, between the casualties of the Jihad and the ceding of most of the Isle of Skye to The Republic, the reformed Lyran Commonwealth lost all of its manufacturing capability for fighters lighter than the new *Morgenstern* OmniFighter. While there has been much debate about the utility of the small, virtually unarmored *Seydlitz* lost to Skye's realignment, nearly everyone in the LCAF tended to agree that even that old staple was better than nothing at all. Faced with relying upon imports from other nations to fulfill the Lyrans' light fighter needs, the LCAF assigned a task force to first identify what was needed in an a new fighter, then to oversee its design, prototyping and production. The *Wildkatze* fighter reached the end of that chain and began frontline deployment in 3088. The name, which translates as Wildcat, hails from the notion among its initial design team that the craft would be a successor for the aging *Hellcat*.

Capabilities

The first requirement for the *Wildkatze* was acceleration. It had to be able to out-thrust both the *Oni* and the *Lancer*. Capable of six Gs of max thrust, the *Wildkatze* is in a rather unique position with Inner Sphere fighters, either significantly less powerful than the light ones or more powerful than the mediums. Mass was saved by going with a light engine without incurring the expense of a full extralight engine. Based off the engine used in their *Chippewa*, Bowie dramatically reduced research and design time. The fuel load is on the light side, but with extra thrust the *Wildkatze* can afford to carry external fuel and keep up with its peers.

The second requirement for the fighter was that it be a threat to most any opponent it would encounter. Designers used the much-maligned binary laser for its heavy punch. While heavy and heat inefficient, even the heaviest fighters—and some DropShips—would have to worry about it punching right through their armor. Supplementing the laser is a pair of five-tube multi-missile launchers. While providing reach and a short-range punch, their low heat output complements the binary laser. An extended-range medium laser was included to protect the aft of the *Wildkatze* against smaller craft.

Protecting the craft is nine tons of armor. While an acceptable amount for a fighter of its size, it was decided that the prevalence of lasers on enemy fighters would make reflective armor worth the expense and the loss of protection that could be gained from ferro-aluminum armor. Protecting the *Wildkatze* from itself are ten double heat sinks, which allow the firing of all the forward-facing weapons without any detrimental effects. If a pilot finds himself using the forward weapons along with the rear laser, heat is probably the least of his worries.

Deployment

Designed primarily as a space- and air-superiority fighter, the *Wildkatze* does a good job against ground targets as well. Against other fighters, the binary laser can quickly hamstring the enemy while missiles wear down the armor. Powerful engines allow it to protect the rear of the Commonwealth's heavier fighters and get behind larger enemy craft. Against ground targets, a strafe with the laser can savage enemy units while a strike to the rear can punch a hole that the missiles can exploit. Rather than the usual hierarchy of distribution amongst Lyran forces, the *Wildkatze* has been assigned first to forces on the border that are most likely to see conflict. The prestigious Royal Guard has yet to receive even one.

Many former *Seydlitz* pilots have been appreciative of the new fighter, finding the focus on the binary laser to be similar to their former fighter, only with better armor and secondary weapons. Few would argue that the loss of thrust wasn't worth all the other improvements.

Variants

Just entering field testing, the WKT-2S *Wildkatze* is a high-performance version of the original design. The light engine was upgraded to an extralight version. This allowed more fuel, armor and an anti-missile system to be added. The binary laser was replaced with an extended-range large laser and another five missile tubes. Another ton of ammunition was added for the missiles, allowing for greater diversification. Though this version sacrifices the punch of the binary laser, it gains greater range and overall firepower.

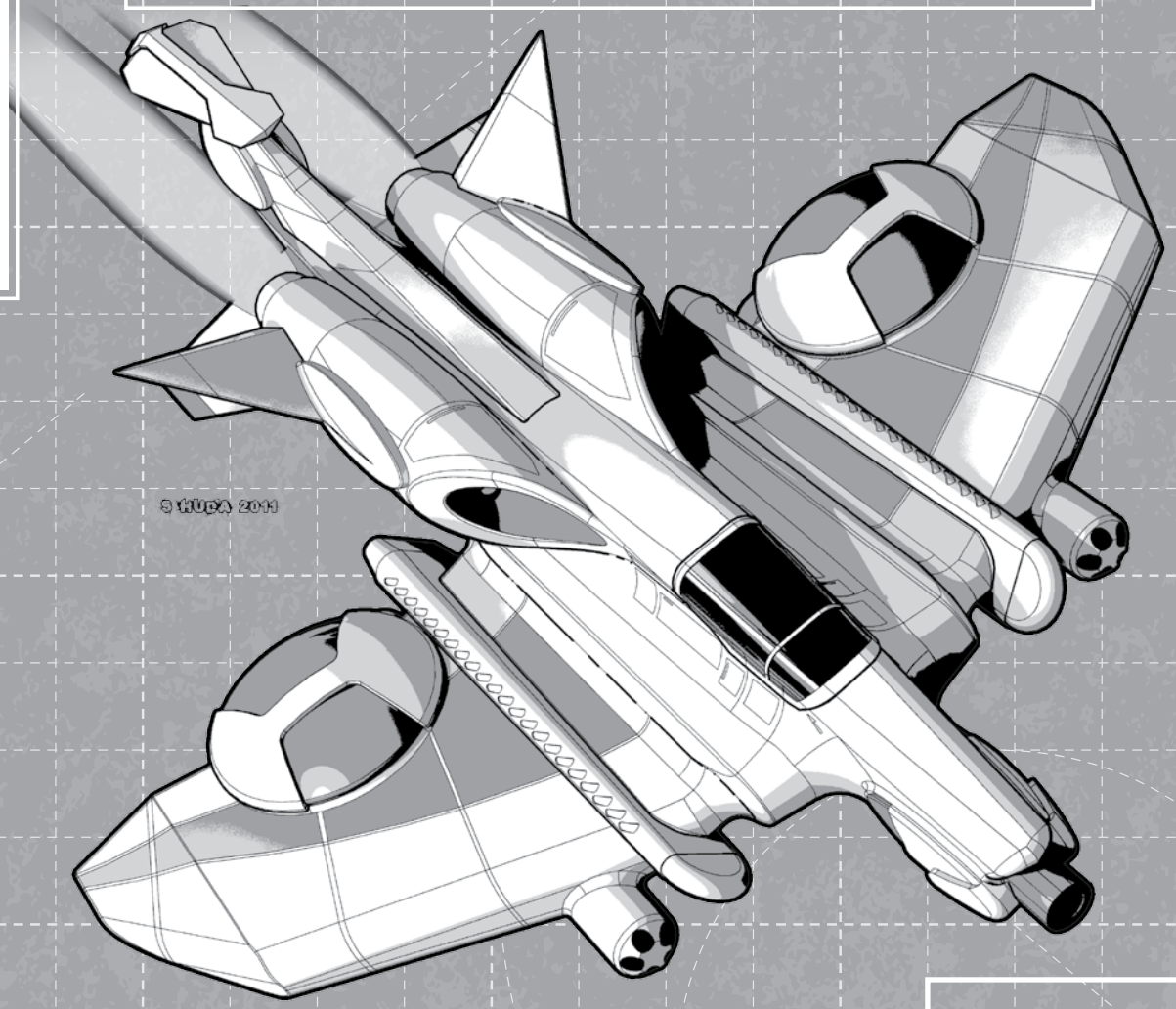
WKT-1S WILDKATZE

Type: **Wildkatze**
Technology Base: Inner Sphere (Advanced)
Tonnage: 45
Battle Value: 1,291

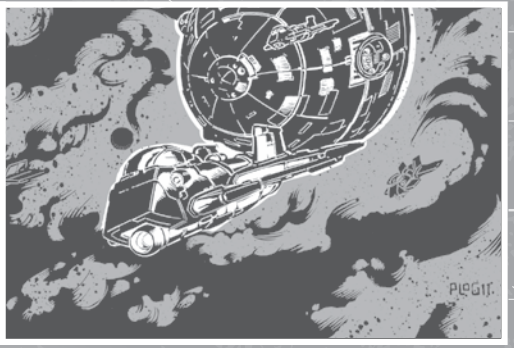
Equipment		**Mass**
Engine:	270 Light	11
Safe Thrust:	8	
Maximum Thrust:	12	
Structural Integrity:	8	
Heat Sinks:	10 [20]	0
Fuel:	320	4
Cockpit:		3
Armor Factor (Reflective):	144	9
	Armor Value	
Nose	47	
Wings	35/35	
Aft	27	

Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
Binary Laser	Nose	9	16	12	12	—	—
MML 5	RW	3	2	6	3	3	—
MML 5	LW	3	2	6	3	3	—
Ammo (MML) 34/26	—	2					
ER Medium Laser	Aft	1	5	5	5	—	—

Notes: Features the following Design Quirk: Easy to Pilot.



Medium Aerospace



Mass: 50 tons
Chassis: Wangker III
Power Plant: General Motors 300 XL
Armor: Wangker S5 Heavy Ferro-Aluminum
Armament:
1 ExoStar Large X-Pulse Laser
2 ExoStar Medium X-Pulse Lasers
2 Martell Extended-Range Medium Lasers
Manufacturer: Wangker Aerospace
Primary Factory: Axton
Communications System: Rander 200B
Targeting and Tracking System: Rander TA1000

Overview

Originally an advanced research project designed to upgrade the venerable *Corsair* with captured Clan technology, the 12D prototypes were code named RIGID NIGHT. It was hoped that the product of the research would result in a fighter that could be mass-produced. While exact copies of the RIGID NIGHT fighters weren't possible, a significantly modernized variant of the *Corsair* did result from the project's completion.

The chief obstacle for producing an advanced technology *Corsair* was logistics. A steady and reliable source of Clan equipment could not be secured. Concessions were made based on technologies that could be more easily acquired. Heavy ferro-aluminum armor was already being utilized to produce the CSR-V18 variant. Special care was taken to use as many parts as possible from the original facilities on Axton. In fact, the *Corsair's* longstanding provider for laser-based weapons, Dynamico Limited, was given captured Clan extended-range pulse lasers and asked to reproduce them. While Dynamico was unable to copy the cutting-edge Clan system, they did produce a hybrid X-pulse laser that was an adequate approximation.

Similar issues existed with the fighter's main components. The experimental RIGID NIGHT power plant could not be replicated, but a centuries-old working agreement between the Federated Suns and General Motors gave the 12D's engineering team access to the GM 300 XL power plant. The loss of speed was deemed acceptable, and alternative design characteristics were employed to make up the difference in weight. The new higher thrust required an updated frame, but Wangker was able to modify the existing *Corsair* enough to handle the stress.

Many concessions had to be made in order to bring RIGID NIGHT from the research lab to the assembly line. While some performance was sacrificed, the hard choices made by the engineers blended into a very capable aerospace fighter. The newest *Corsair* loses some of it range, but gains accuracy, firepower and most importantly, maneuverability.

Capabilities

Whatever logistical issues were generated by the *Corsair* 12D, the performance improvements certainly make up for. The *Corsair* had spent centuries earning a reputation as a rugged, lethal aerospace fighter capable of operating for long periods of time with little support. While it was never among the most feared fighters, it was certainly a favorite among pilots due to its uncanny knack to nearly always make it back from a sortie.

Improving upon a design with a substantial reputation is no easy task. While many outside observers believe Clan technology is a magic wand which can instantly cure all the design woes of any Inner Sphere vehicle, in reality meshing Clan technologies with Inner Sphere mechanisms more often than not causes as many problems as it solves.

The 12D must close to shorter ranges in order to engage foes, but does so with increased speed and armor protection. The addition of the ExoStar large X-pulse laser and Martell extended-range medium lasers does return some of its former long-distance punch, but the heart of the *Corsair* is its ability to dogfight. The significant technical advances of the 12D ensure that *Corsairs* will continue to be a core component of the AFFS aerospace arsenal for years to come.

Deployment

The Davion Guards were the first units to be issued to newest version of the *Corsair*. As production continues, the fighter will spread throughout many of the AFFS' mainstay regimental combat teams. The Crucis Lancers have received their first shipments of 12D's, and the Avalon Hussars and Robinson Rangers are expecting to receive their new *Corsairs* soon.

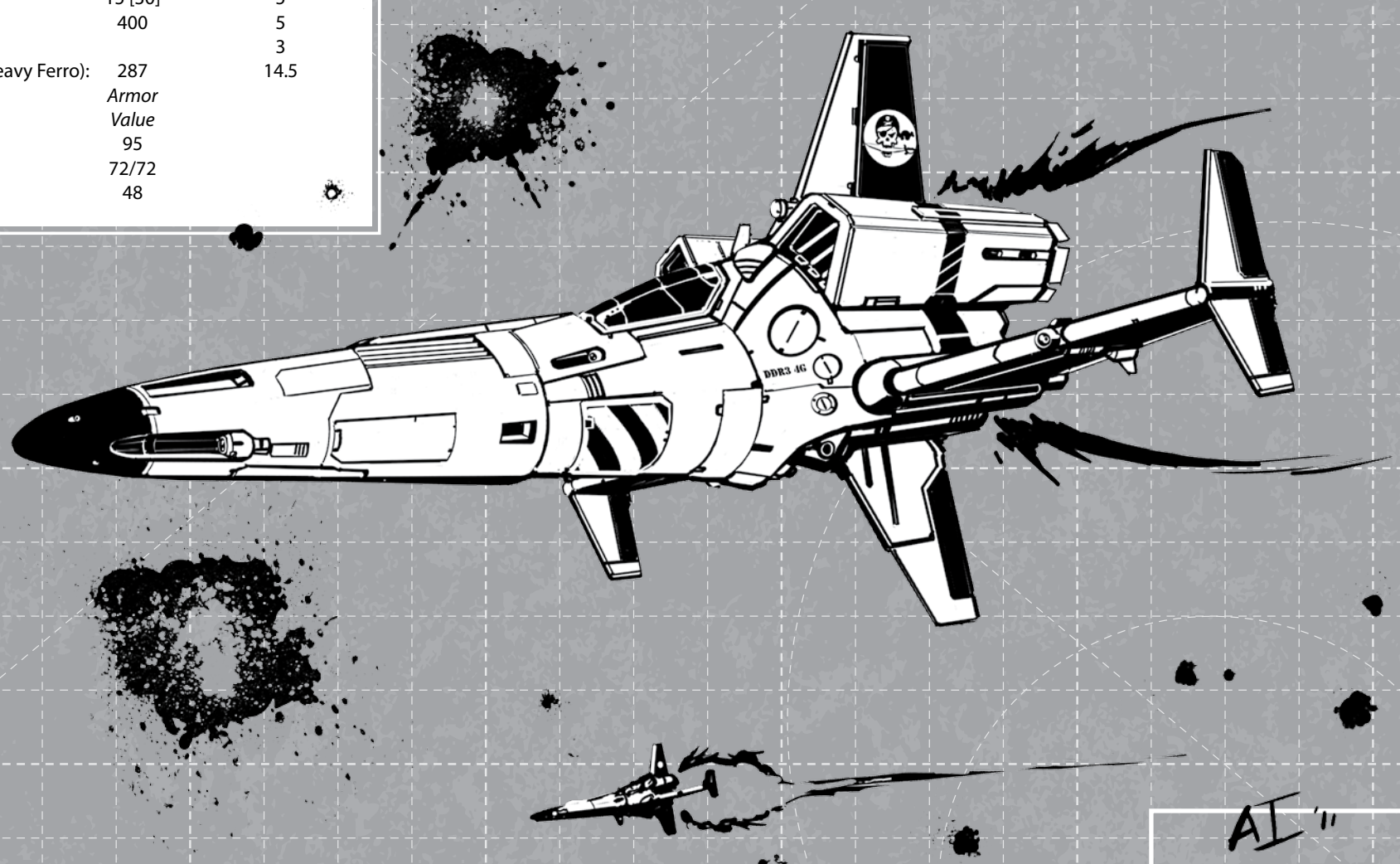
CSR-12D CORSAIR

Type: **Corsair**
Technology Base: Inner Sphere (Advanced)
Tonnage: 50
Battle Value: 1,619

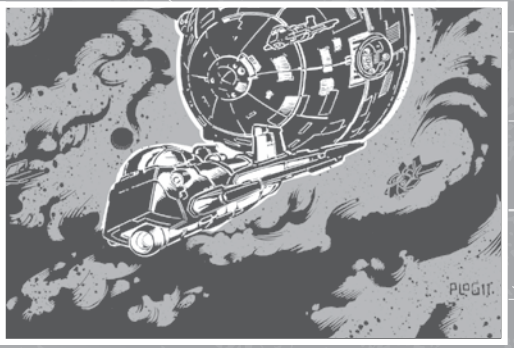
Equipment		**Mass**
Engine:	300 XL	9.5
Safe Thrust:	8	
Maximum Thrust:	12	
Structural Integrity:	8	
Heat Sinks:	15 [30]	5
Fuel:	400	5
Cockpit:		3
Armor Factor (Heavy Ferro):	287	14.5
	Armor Value	
Nose	95	
Wings	72/72	
Aft	48	

Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
Large X-Pulse Laser	Nose	7	14	9	9	—	—
Medium X-Pulse Laser	Nose	2	6	6	—	—	—
ER Medium Laser	RW	1	5	5	5	—	—
ER Medium Laser	LW	1	5	5	5	—	—
Medium X-Pulse Laser	Aft	2	6	6	—	—	—

Notes: Features the following Design Quirks: Weak Undercarriage, Easy to Maintain.



TR-13G TRANSIT



Mass: 50 tons
Chassis: Mujika Aerospace Type 18
Power Plant: Rawlings 200 XL
Armor: Mujika StarGlare Reflective
Armament:
1 Bithinian Ballistics "Thousand Fire" Long Tom Cannon
4 Ceres Arms ER Medium Lasers
Manufacturer: Ceres Metals Industries
Primary Factory: Capella
Communications System: Endicott Type 28 Maser
Targeting and Tracking System: Dwyerson Mark XII

Overview

Originally developed by Mujika Aerospace Technologies to compete with Tengo Aerospace's *Lightning*, Mujika's superior standing in the Confederation at the time won them the contract with the CCAF, but the 3030s saw a reversal of their fortunes. With the majority of Mujika's assets now lying in the St. Ives Compact, their *Transit* line on Capella became the target of Romano Liao's ever-increasing paranoia. Between 3034 and 3042, Mujika's Capella plant was the target of twelve separate Maskirovka raids. Despite never uncovering any evidence of collusion with the Federated Commonwealth or Compact, the constant corporate restructurings and arrests took their toll.

In 3043, the vice president of finances was caught attempting to flee to the Compact with his family and staff. Overnight, the Maskirovka arrested 2,733 employees of Mujika's Capella factory and seized the property on orders of the Chancellor. Within the month, the Confederation had sold all of the facilities Ceres Metals Industries, a company whose loyalty to the Capellan state was unquestioned. Despite efforts made by Mujika to win back control since the reunification of St. Ives and the Confederation, Capellan courts have repeatedly ruled in favor of Ceres Metals' exclusive ownership of the design.

Capabilities

Constructed around a single, large-bore autocannon, the *Transit* has long been considered an excellent DropShip killer and ground attack craft, but relatively poor against other aerospace fighters. The limited range of the class-twenty autocannon, combined with the *Transit's* only average engine performance, makes it simple for other fighters to pick the fighter apart. During Duke Hasek's offensive into the Confederation, *Transit*s performing DropShip interceptions suffered horrific losses when Davion fighter escorts pounced on them before they could close with their targets. *Sang-jiang-jun* Zahn immediately ordered Ceres to begin developing alternatives to the current *Transit* configurations.

Ceres opted for laser reflective armor, on the logic that most interceptors use lasers as their primary armament. Unfortunately, replacing the autocannon was easier said than done. The entire airframe of the *Transit* was constructed around the powerful gun, and most conventional weapon systems that could replace it would decrease the *Transit*'s firepower. Briefly, it appeared that Ceres would be able to secure Defiance's new improved heavy Gauss rifle. A number of prototypes were constructed utilizing the weapon, and proved devastatingly effective. Domestic Lyran demand soon outstripped supply, however.

When Ceres contacted Defiance to secure enough weapons for a production run, Defiance informed them that all but a fraction of their production through the year 3093 had already been purchased by the LCAF. Ceres was about to scrap the entire project when inspiration came from Bithinian Ballistics. With much of Bithinia's aerospace forces reassigned to fleet regiments, all that remained was a single squadron of *Transit*s belonging to BB's corporate security force. Knowing that they were solely responsible for the planet's space defense, the team's technicians refitted their craft with Bithinian's new "Thousand Fire" artillery cannon.

The new weapon proved capable of delivering the same punch the *Transit* was known for out to a greater distance, giving it improved effectiveness against aircraft and maintaining its all-important anti-DropShip and ground attack roles. When a small force of FWLM deserters attempted to raid Bithinia for supplies in 3079, BB's security squadron intercepted their DropShips and aerospace support in near orbit and wiped them out without loss. Ceres signed a long term contract for the purchase of Bithinian's newest cannon. The main gun for their new craft secured, full production of the TR-13G soon followed.

Deployment

Since their introduction, Ceres' new *Transit* has been widely deployed throughout the Capellan Confederation's fleet regiments. Both the *Ilsa Hyung* and *Aleisha Kris* operate with two squadrons each, and a number have been assigned to the CCAF's new *Vengeance DC*-class Pocket WarShips. Ceres Metals continues to produce the TR-12 model for use in conjunction with ground forces, where its higher speed and the autocannon's flexible munitions make it a better choice for the ground support role.

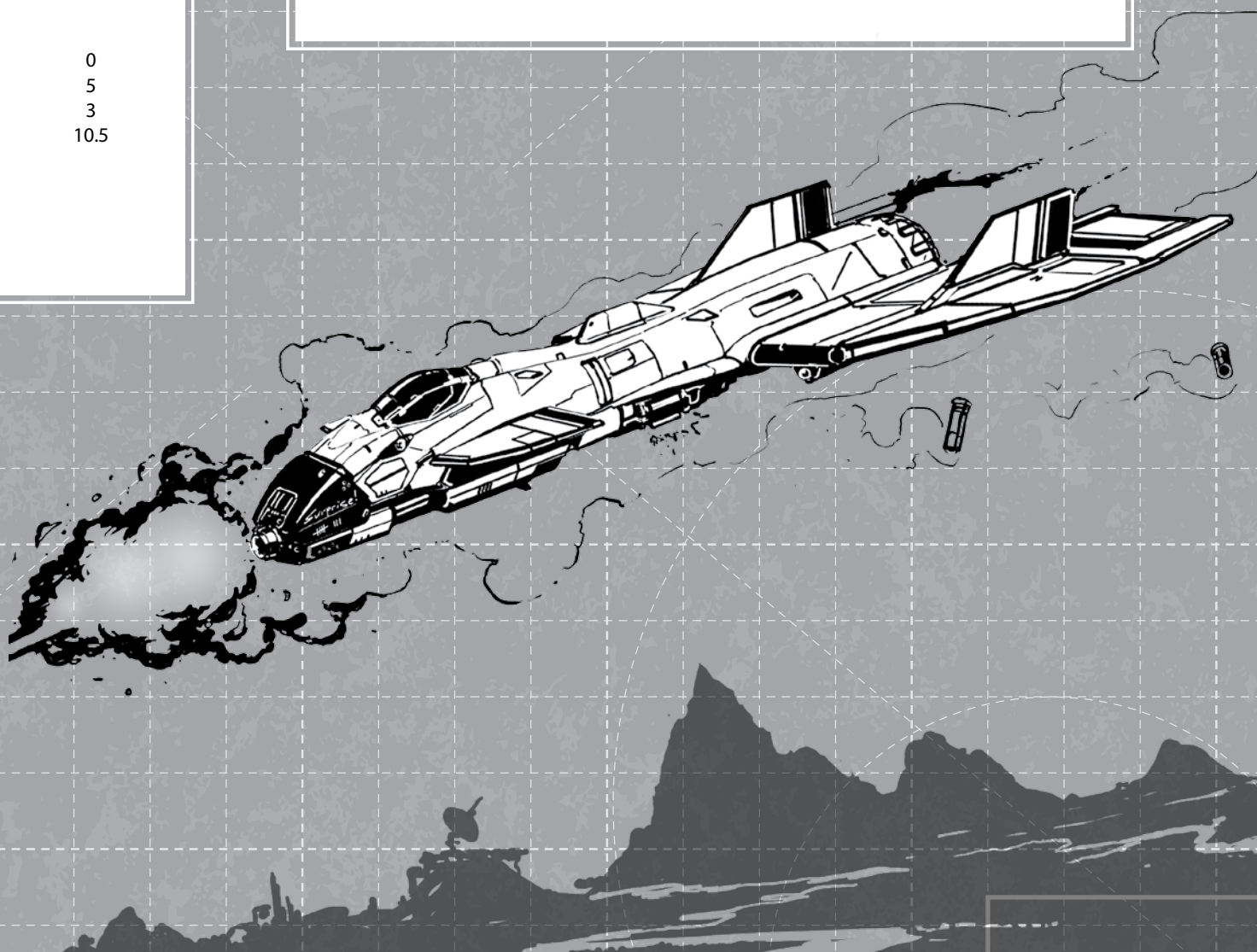
TR-13G TRANSIT

Type: **Transit**
Technology Base: Inner Sphere (Advanced)
Tonnage: 50
Battle Value: 1,522

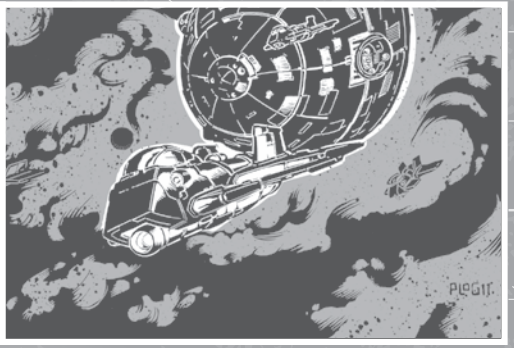
Equipment		**Mass**
Engine:	200 XL	4.5
Safe Thrust:	6	
Maximum Thrust:	9	
Structural Integrity:	6	
Heat Sinks:	10 [20]	0
Fuel:	400	5
Cockpit:		3
Armor Factor (Reflective):	168	10.5
	Armor Value	
Nose	65	
Wings	35/35	
Aft	33	

Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
Long Tom Cannon	Nose	20	20	20	20	20	—
Ammo (Cannon) 15	—	3					
2 ER Medium Lasers	Nose	2	5	5	5	—	—
ER Medium Laser	RW	1	5	5	5	—	—
ER Medium Laser	LW	5	5	5	—	—	

Notes: Features the following Design Quirks: Hard to Pilot, Atmospheric Flyer, Rumble Seat.



Medium Aerospace



Mass: 65 tons
Chassis: Shipil 300
Power Plant: Edasich Motors 195 XL
Armor: Shipil Super Ferro-Aluminum
Armament:
1 Defiance DialScope Model A Bombast Laser
2 Coventry Comet
Extended Long Range Missile Launchers
1 Defiance X5M Medium X-Pulse Laser
Manufacturer: Shipil Company
Primary Factory: Skye
Communications System: O/P AIR 900
Targeting and Tracking System: O/P 3000

Overview

Among the numerous casualties of the Jihad was Lockheed/CBM's *Lucifer* plant on Donegal. The *Lucifer* had been a longtime staple of the Lyran aerospace forces, and with the loss of the Donegal factories, many feared that the fighter would vanish. An experimental variant undergoing trials at the time would prove to be the key to its eventual survival.

The Shipil Corporation, producer of the light *Seydlitz* fighter, had been given the task of creating an experimental version of the *Lucifer* that was intended for use as a weapon testing platform. The intended craft, dubbed the LCF-X30, was initiated in 3074. An extralight fusion engine freed up significant weight, but also took up additional space. Fitting the desired weapon package into the frame proved to be the most difficult task for the project's technical staff. The rest of the program operated far more smoothly.

Trials on Skye were so promising that Lyran officials began to consider a production version of the LCF-X30. Unfortunately, several of the components required were either in drastically short supply or simply didn't exist—including *Lucifer* airframes. With Lockheed's Donegal facility in ashes, there was no source for producing the fighter's basic structure. Shipil was able to reverse-engineer a new frame based on the LCF-X30 prototypes, but if the new *Lucifer* was to become a reality a concerted political and industrial effort would be required.

The fact that the Lyran High Command endorsed the project proved enormously helpful in making that effort a reality, but not as much as the added weight of The Republic's military leadership after Skye was folded into the newborn Republic of the Sphere in 3081. Under political and economic pressures from both realms, Shipil Corporation managed to expand its facilities on Skye. Several of the allied realms' most reliable suppliers were tapped to produce components that would ultimately be used on the new *Lucifer*. Since it mounted a newly minted airframe and weapons tailor-made for its production run, it was decided that it would be unveiled as a brand new aerospace fighter dubbed the *Lucifer III*.

Capabilities

The *Lucifer III* is built to engage at ranges most aerospace fighters cannot. It mounts a pair of Coventry Comet Extended Long Range Missile Launchers, which can strike from distances that rival the Clans' extreme ranges. This long-distance barrage ability was intended to offset the improved maneuverability and speed of more cutting-edge fighters.

For close-in duty, the *Lucifer III* was originally equipped with a powerful binary laser system, but recurring heat issues forced the design team to look for an alternate solution. A Defiance DialScope Model A bombast laser proved capable of packing nearly the same firepower for much a more manageable heat load. The less-cumbersome main weapon also allowed for the doubling of ammunition stores for the missile launchers.

The maximum thrust, maneuverability and stress capacity all fall within negligible variances of the Lyrans' mainstay medium fighter. The *Lucifer III* mounts improved electronics and a rear-firing medium X-pulse laser intended to discourage aggressive tailing. While some within the Lyran High Command expected the *Lucifer* to be put out to pasture, the *Lucifer III* has instead given the venerable warhorse an entirely new lease on life.

Deployment

Shipil released the first run of *Lucifer III*s to the Skye Jaegers, as a sign of local solidarity. The Donegal Guards also received early *Lucifer III* shipments in memory of the original *Lucifer* factory. Since then, the Royal Guards, Lyran Guards and Lyran Regulars have all put in request for new *Lucifer III*s. Much like its predecessor, it is becoming a mainstay with the Lyran Aerospace Command.

In The Republic of the Sphere, the *Lucifer III* appears in numbers among several commands, particularly within the Hastati Sentinels and Principes Guards.

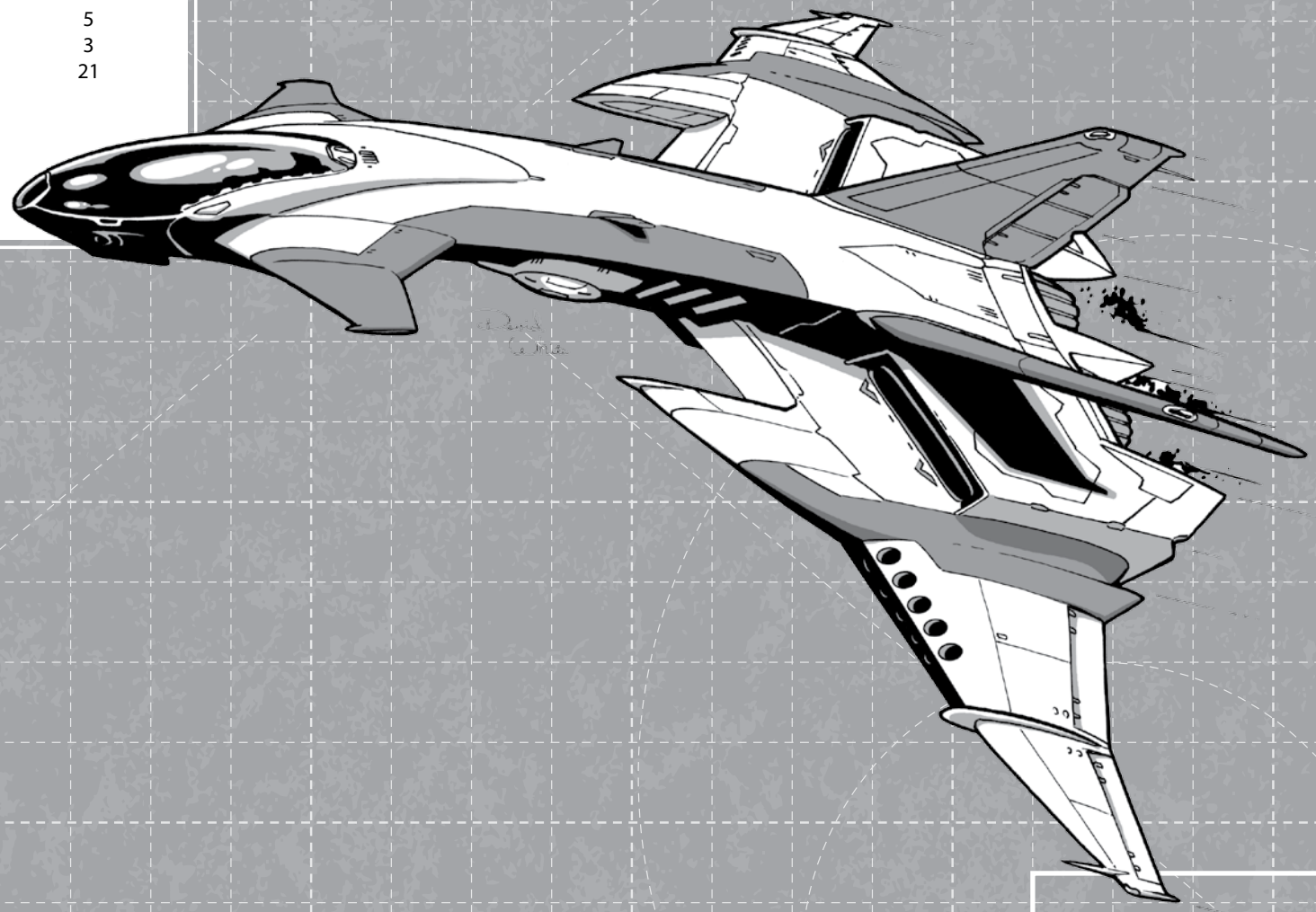
LCR-3 LUCIFER III

Type: **Lucifer III**
Technology Base: Inner Sphere (Advanced)
Tonnage: 65
Battle Value: 2,356

Equipment		**Mass**
Engine:	195 XL	4
Safe Thrust:	5	
Maximum Thrust:	8	
Structural Integrity:	6	
Heat Sinks:	13 [26]	3
Fuel:	400	5
Cockpit:		3
Armor Factor (Ferro):	376	21
	Armor Value	
Nose	119	
Wings	86/86	
Aft	85	

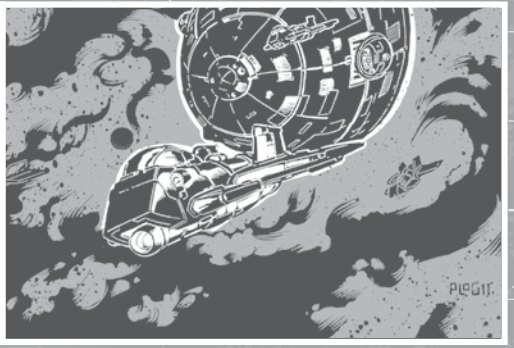
Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
Bombast Laser	Nose	7	12	12	12	—	—
Extended LRM 10	RW	8	6	6	6	6	6
Ammo (ELRM) 18	—	2					
Extended LRM 10	LW	8	6	6	6	6	6
Ammo (ELRM) 18	—	2					
Medium X-Pulse Laser	Aft	2	6	6	—	—	—

Notes: Features the following Design Quirks: Difficult Ejection, Easy to Pilot, Rumble Seat.



SU-14 SUZAKU

Heavy Aerospace



Mass: 75 tons
Chassis: Suzaku Sleek Assault
Power Plant: Nissan 375 Extra Light
Armor: New Samarkand Flying Dragon Heavy Ferro-Aluminum
Armament:
1 Shigunga MRM 20 Launcher
1 Diverse Optics Sunray Laser Anti-Missile System
2 Lord's Light 2 Extended-Range PPCs with Capacitors
Manufacturer: Kurita Combine Munitions Corporation
Primary Factory: Kajikazawa
Communications System: Duotech 250
Targeting and Tracking System: Chichester ASR30

Overview

A new heavy aerospace fighter, the *Suzaku* premiered about two years after the Kurita Combine Munitions Corporation factory on Altair was dismantled and transported to Kajikazawa. Housed on the continent of Kai Koshu, three hundred kilometers from the relocated Cosby BattleMech and Myomer Research Firm, the rebuilt factory has altered the landscape. What once was a placid coastal plain is now a bustling mini-metropolis with housing for factory workers and roads to various cities serving as lifelines to component suppliers.

Rather than locate the entirety of their manufacturing in one spot, the KCMC management chose to scatter the production of components. Breaking the stranglehold on aerospace fighter production held by Wakazashi Enterprises since Altair was lost, the DCMS hopes to leverage the two companies against one another to produce better products at lower cost.

Capabilities

A massive 375 XL engine drives the *Suzaku* to a breakneck top speed, easily pacing or outrunning fighters of comparable mass. This allows the fighter to fill the role of heavy interceptor, engaging large and heavily-armed enemies in space or atmosphere before they can reach their targets. Knowing that the *Suzaku* was intended to confront even the most massive fighters, KCMC's design engineers added serious armor protection: a twelve-ton coat of heavy ferro-aluminum armor. While the heaviest of weapons still pose a threat, the ability to stay in the fight with such well-armed enemies markedly increases a *Suzaku* pilot's confidence.

An ER PPC is mounted in each wing, to allow pilots to engage the *Suzaku*'s targets at long range, hopefully before they can bring their own guns to bear. While these weapons have a distinctly long range, the designers chose to install PPC capacitors as well, increasing the damage inflicted on targets by fifty percent. This puts the *Suzaku*'s weapons on a par with Clan ER PPCs, but that benefit comes with additional heat load. While the *Suzaku* carries twenty double heat sinks, the PPCs tax them to their limit when the capacitors are used.

Backing up the PPCs is a Shigunga medium-range missile rack in the nose. While this weapon system was previously built on Luthien by Luthien Armor Works, the loss of those facilities saw production moved to New Samarkand. To alleviate delays in shipping, KCMC successfully petitioned the DCMS to pressure LAW into constructing a secondary plant on Kajikazawa. While excess production heads off-world at a steady pace, warehoused stocks of the MRM launcher ensure the missile rack will not become a production bottleneck for the fighter.

Besides its heavy armor, the fighter also mounts a laser anti-missile system in the aft. When facing missile-laden enemies, *Suzaku* pilots have been advised to refrain from using their PPC capacitors to avoid overheating.

Deployment

In the seven years since the fighter cleared testing and entered production, the welcome from its recipients has made it the envy of all military producers. Pilots rave about the creature comforts of the cockpit. Complaints are few, and centered on the extreme heat problems that pilots can experience when they neglect to monitor their weapons fire. These complaints are taken in stride, however, coming as they do from pilots who survived their missions.

The Sword of Light regiments count the *Suzaku* as a favorite, while other line units with aerospace assets count at least two *Suzaku*s among their forces. Local defense forces, especially on regional capitals, have received *Suzaku*s as well to bolster their ability to protect the Combine leadership.

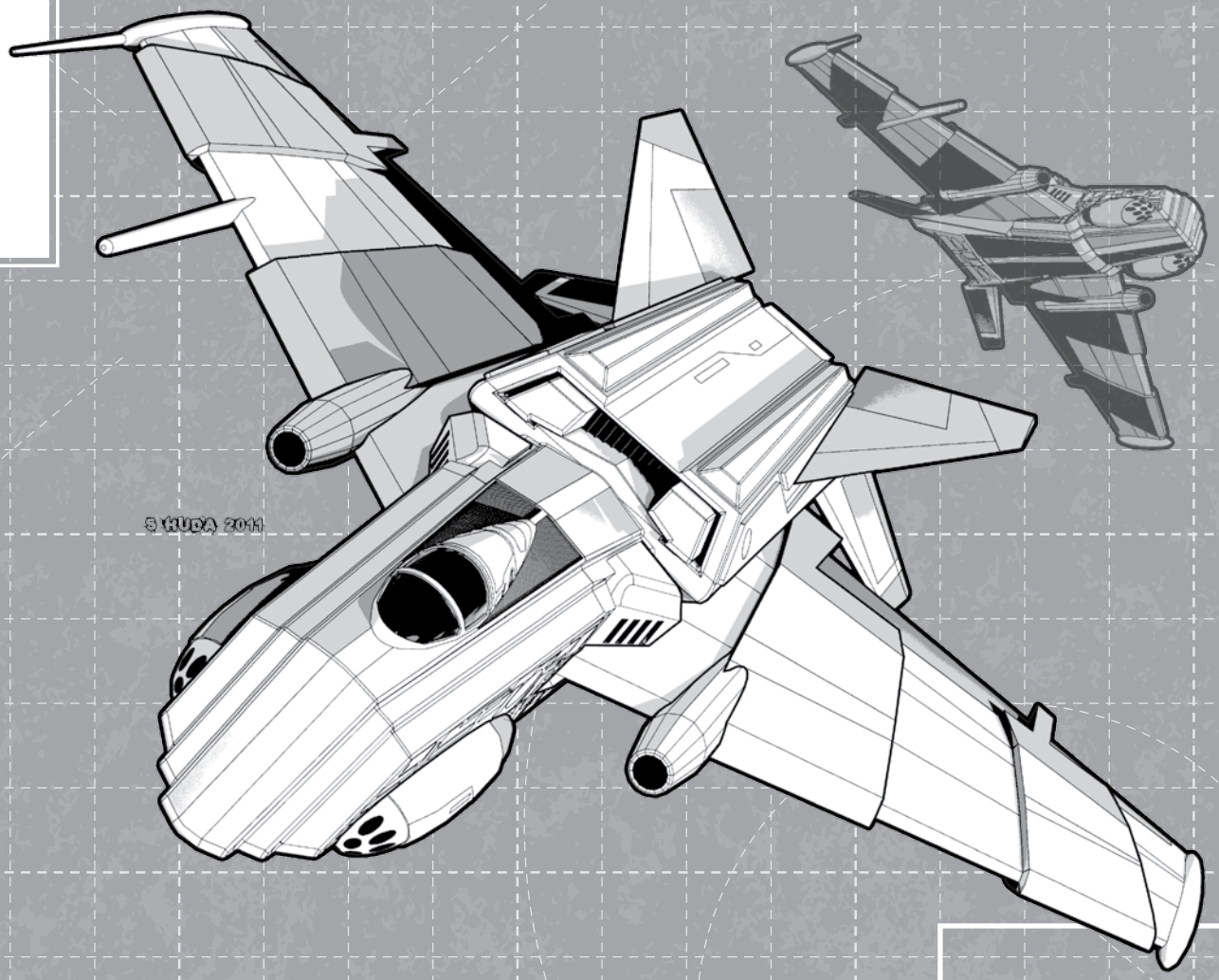
SU-14 SUZAKU

Type: **Suzaku**
Technology Base: Inner Sphere (Advanced)
Tonnage: 75
Battle Value: 1,940

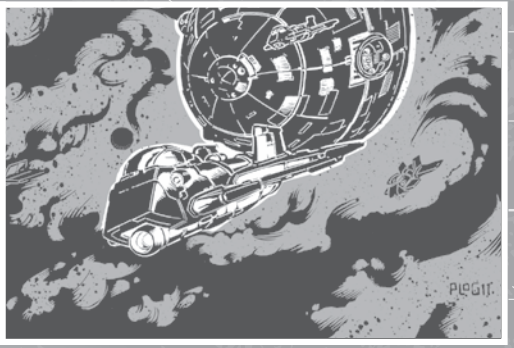
Equipment		**Mass**
Engine:	375 XL	19.5
Safe Thrust:	7	
Maximum Thrust:	11	
Structural Integrity:	7	
Heat Sinks:	20 [40]	10
Fuel:	320	4
Cockpit:		3
Armor Factor (Heavy Ferro):	238	12
	Armor Value	
Nose	66	
Wings	58/58	
Aft	56	

Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
MRM 20	Nose	7	6	12	12	—	—
Ammo (MRM) 24	—	2					
ER PPC with Capacitor	RW	8	20	15	15	15	—
ER PPC with Capacitor	LW	8	20	15	15	15	—
Laser Anti-Missile System	Aft	1.5	7				

Notes: Features the following Design Quirks: No Cooling Jacket (Laser AMS), Atmospheric Flyer, Rumble Seat.



Heavy Aerospace



Mass: 85 tons
Chassis: Interstar 290M
Power Plant: VOX 340XL
Armor: Donegal Sturdy-Sheath Heavy Ferro-Aluminum
Armament:
2 Defiance Killer Type HV Autoncannon-10
1 TharHes Reacher Special ELRM 10
4 RAMTech 1500Z Extended-Range Medium Lasers
Manufacturer: Lockheed/CBM
Primary Factory: Tharkad
Communications System: COMHRT II.Q
Targeting and Tracking System: Bauer-Scope 130Z

Overview

The Word of Blake knew, once it had captured Tharkad that it was only a matter of time before the Lyrans mustered their forces for a concentrated attempt to retake it. Rather than ship equipment and units from multiple jumps away, the Word of Blake decided to produce the defenses they would need on-site instead. In 3071, the 300X *Rapier* debuted and was put in wide circulation in and around Tharkad airspace.

Combined with the ancient LCS *Invincible*, the locally produced *Rapier*s were a major reason the Lyran Alliance failed in its blockade-running operations and the early attempts to liberate Tharkad. When Archon Adam Steiner appeared with a massive flotilla supported by Clan ships, not even the feared 300X could repel them—even though the fighters retained a superior kill ratio against Clan aerospace fighters and Spheroids alike. With the factories secured, the Lyrans refused to cut off their nose to spite their face by erasing a much-needed design simply for its Word of Blake stigma.

Capabilities

Lockeed/CBM engineers widely acknowledged the superior capabilities of the 300X *Rapier*, but wanted to make a few changes that would allow them a new designation and erase the sting of its popularity among the Blakists. It appeared that the strength of the 300X was not in its strafing capabilities, but rather in its ability to project heavy firepower at long ranges using its dual hyper-velocity autocannons and extended-range LRM rack.

Knowing that firing all its weaponry in one salvo would place an overwhelming burden on the *Rapier*'s heat sinks, engineers opted to move two of its wing mounted extended-range medium lasers to aft. Though this did reduce the strafing capability of the *Rapier*, it also reduced the heat burden, allowing pilots to fire all their forward weapons in one salvo without concerns of overheating. It gave the *Rapier* a credible deterrent against light fighters, which use their superior thrust to get into the aft of heavy fighters. With this one change to the design, Lockheed/CBM declared the *Rapier* "thoroughly Lyran," while Steiner procurement officers quietly looked the other way. It appears that other than the usual round of critics, no one is willing to speak up on how similar the 300S is to the Blakist 300X.

Deployment

Deployment of the 300S *Rapier* has been well-received by Lyran Commonwealth units looking for aerospace fighters with the ability to penetrate DropShip armor at long ranges without worrying about anti-missile systems. Once Tharkad was retaken, it was one of the few manufacturing lines left undamaged, and the *Rapier* simply continued production, stopping briefly only for the reconfiguration to the 300S model in 3081. This has left many units in possession of the 300X variant, who enjoy pairing it up with its similar cousin. Enemy aerospace fighters have to scrutinize the fighters to figure out which one has the aft weaponry. Many of these were modified during the Jihad into what would become the 300S specifications, though all indications that the development in the field was done completely independent from the Lockheed/CBM engineers back on Tharkad.

As the Coalition pushed into the Protectorate, it was not uncommon in the Lyran area of operations to have 300Xs spar with the field-refitted 300S. These dogfights became some of the most dramatic, where other pilots steered clear. *Rapier*s eventually drifted to the edge of the air combat region during the end of the Jihad, stalking one another in hopes for an uninterrupted duel.

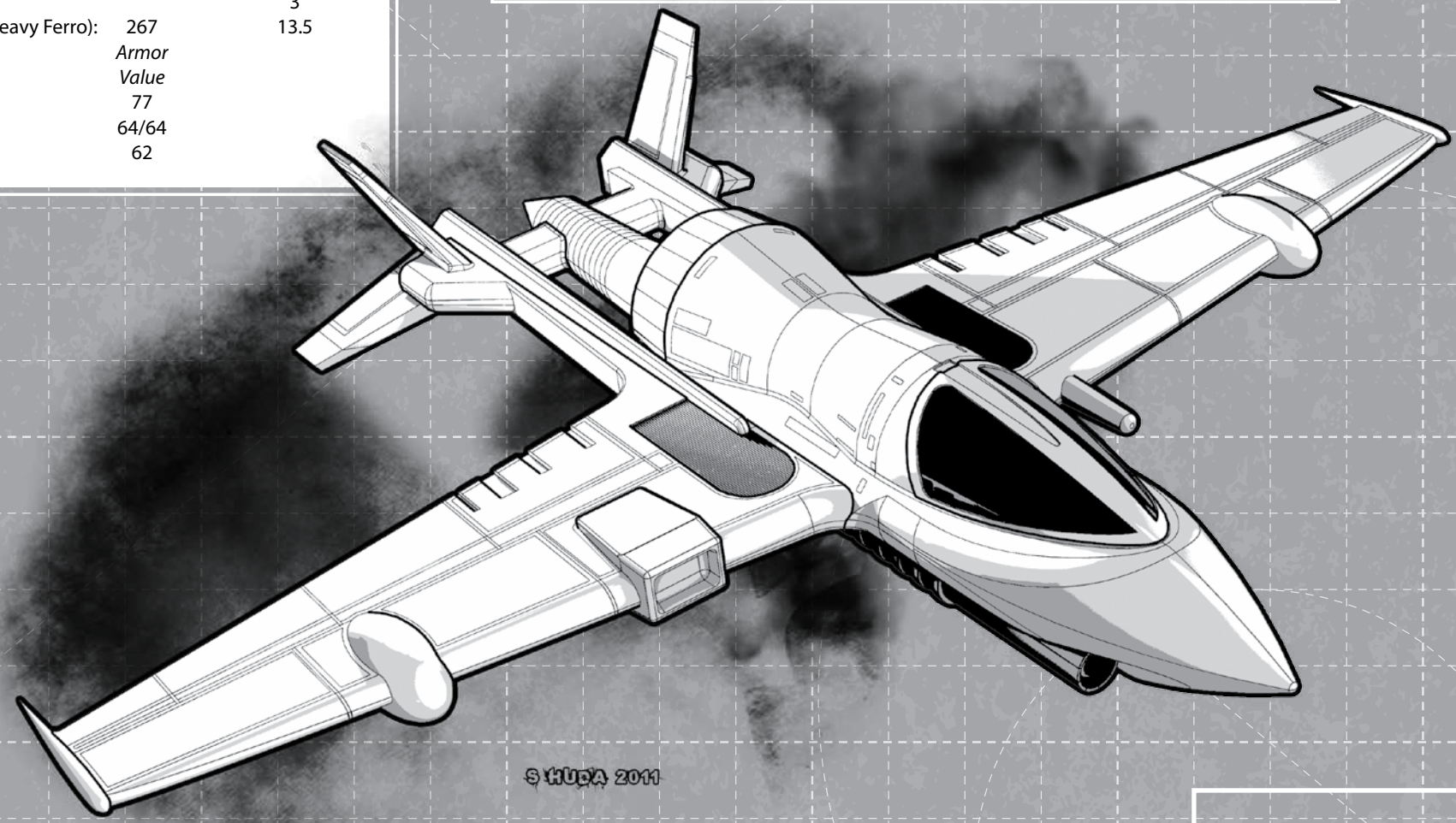
RPR-300S RAPIER

Type: **Rapier**
Technology Base: Inner Sphere (Advanced)
Tonnage: 85
Battle Value: 1,867

Equipment		**Mass**
Engine:	340 XL	13.5
Safe Thrust:	6	
Maximum Thrust:	9	
Structural Integrity:	8	
Heat Sinks:	15 [30]	5
Fuel:	400	5
Cockpit:		3
Armor Factor (Heavy Ferro):	267	13.5
	Armor Value	
Nose	77	
Wings	64/64	
Aft	62	

Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
2 Hyper-Velocity AC/10	Nose	28	7	10	10	10	—
Ammo (HVAC) 24	—	3					
Extended LRM 10	Nose	8	6	6	6	6	6
Ammo (ELRM) 18	—	2					
ER Medium Laser	RW	1	5	5	5	—	—
ER Medium Laser	LW	1	5	5	5	—	—
2 ER Medium Lasers	Aft	2	5	5	5	—	—

Notes: Features the following Design Quirks: Atmospheric Flight Instability, Accurate Weapon (ELRM 10), Improved Life Support.



Dropships

First seen in the Hyades Cluster in the mid-3080s, the *Foxhound* was apparently part of a revivification and grand new envisaging of the Taurian Defense Force. The development of a defensively-oriented small craft named for an enemy—Hanse Davion—they had no hand in defeating would seem to speak both to the continued malevolence and paranoia felt toward the Concordat's neighbors, and to their inability to plan for the next war instead of the last one.

On the first count, one would be correct, since the antipathy of the Concordat under their military dictators has only exacerbated the latent hatred for the Federated Suns. Even the homicidal and indiscriminate attacks on the civilian population of the Suns did nothing to sate the junta's thirst for Federated Suns blood, regardless of the evidence vindicating the Suns for the asteroid attack on Taurus.

Vandenberg Mechanized Industries' TiG-40 fills the need for sterner defense, especially in light of the loss of so many TiG-15s during attacks on Federated Suns systems. Intended as a powerful deterrent to aggressors, the *Foxhound* was reportedly developed with aid from the Word of Blake, while the ruling junta happily played the stooge to the scourge who actually carried out the attack on their capital. Only with significant technical assistance could the devastated TDF have manufactured some of the most advanced weapon systems known.

Designed as a picket with a lighter fuel load, the *Foxhound*'s skeleton crew has a shorter patrol time than the *Tigress*. However, the *Foxhound* packs a much greater punch to ships entering the Cluster without proper clearance. Two nose-mounted ER large lasers give the *Foxhound* a respectable ranged punch. Side-mounted improved heavy Gauss rifles deliver devastating firepower. That the Blakists shared this devastating and modern weapon with the Taurians demonstrated their desire to have armed allies against the Federated Suns. Besides the thick barding of more than sixteen tons of heavy ferro-aluminum armor, laser anti-missile systems protect the nose and aft from enemy missiles. Maintenance reports indicate serious problems with coolant feeds bursting, due to the extreme heat caused by rapid laser discharges.

TiG-40 Foxhound Gunboat

Type: Military Spheroid
Use: Gunboat
Tech: Inner Sphere (Advanced)
Introduced: 3083
Mass: 180 tons
Battle Value: 3,452

Dimensions
Length: 33 meters
Width: 25 meters

Fuel: 8 tons (640)
Safe Thrust: 5
Maximum Thrust: 8
Heat Sinks: 20 (40)
Structural Integrity: 9

Armor
Nose: 96
Sides: 89
Aft: 89
Cargo:
None

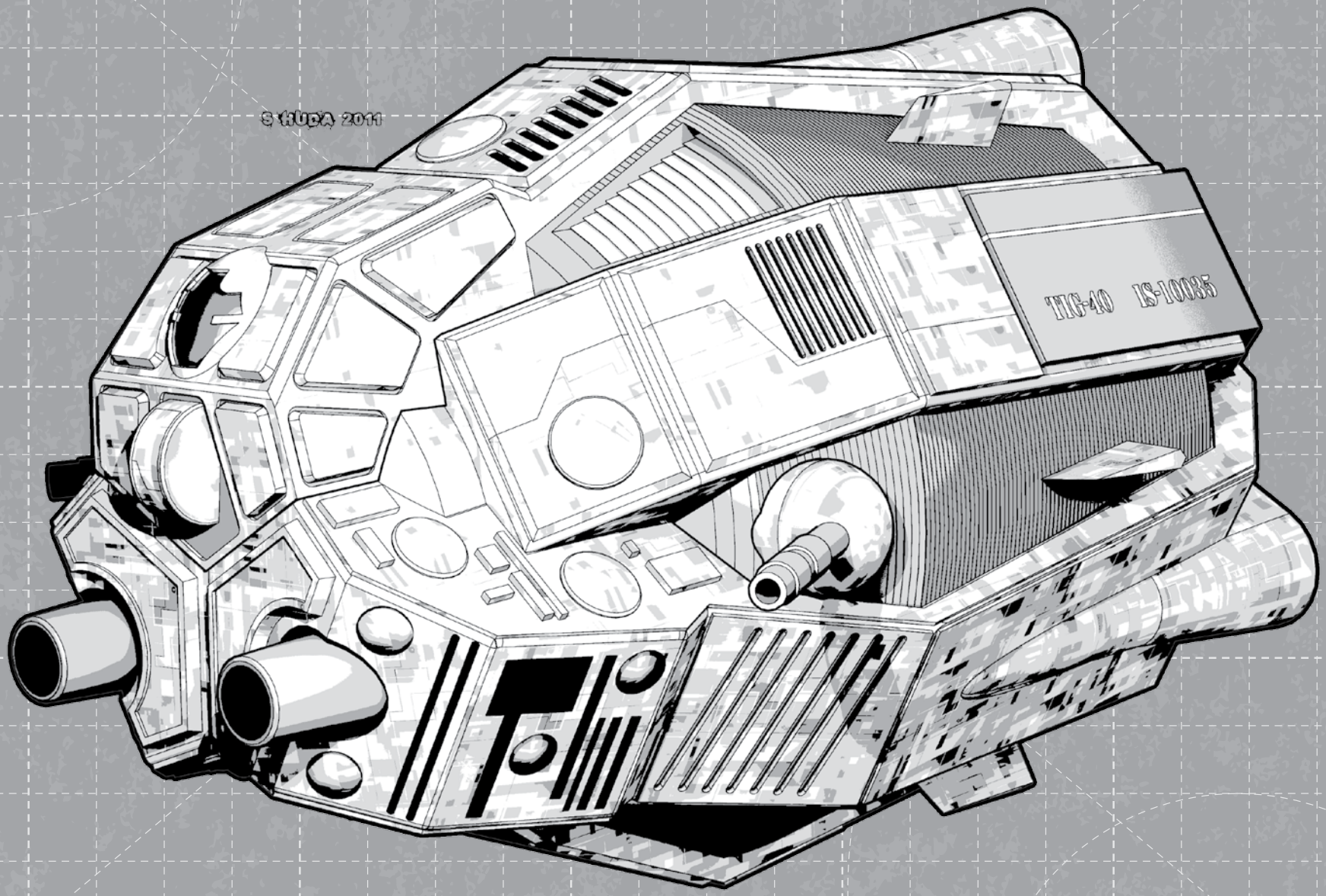
Life Boats: 0
Escape Pods: 0

Crew: 4 (3 enlisted/non-rated, 1 gunner)

Notes: All crew quarters assigned as Steerage-class (5 tons per crewman); Equipped with 16.5 tons of heavy ferro-aluminum armor; Features the following Design Quirks: Difficult to Maintain, Hard to Pilot, Non-Standard Parts, Improved Targeting/Long Range, Rumble Seat.

Weapons and Ammo	Location	Tonnage	Heat	SRV	MRV	LRV	ERV
2 ER Large Lasers	Nose	10	12	8	8	8	—
Laser Anti-Missile System	Nose	1.5	7	—	—	—	—
Improved Heavy Gauss	Right Side	20	2	22	22	22	—
Ammo (iHeavy Gauss) 16	—	4					
Improved Heavy Gauss	Left Side	20	2	22	22	22	—
Ammo (iHeavy Gauss) 16	—	4					
Laser Anti-Missile System	Aft	1.5	7	—	—	—	—

TIG-40 FOXHOUND



CLAYMORE V3

DropShips

Taking inventory of the huge stockpiles of Clan salvage obtained over the decades, Shipil, designers of the *Claymore* assault DropShip, saw an opportunity to rectify one of the biggest problems of the vessel: the lack of adequate firepower. With little change to the structure and innards, many weapons were swapped, instantly increasing the range and firepower of much of the *Claymore*'s armament. Other changes, such as extended-range LRMs and laser anti-missile systems, gave Shipil an assault DropShip that could compete in the modern market.

Out of the original five *Claymore Interceptor* prototypes sent as escort vessels to the retaking of Terra, only two survived. While on other vessels this might have been a black mark, testimonies and reports proved their effectiveness as escort vessels. All five threw themselves into the heaviest areas of combat, deliberately drawing fire away from the valuable troop transports. In more than a few instances, the *Interceptor*s would not even return fire while their laser anti-missile systems were in constant use, destroying enemy missile fire targeting the transports. Crews even forced their ships directly into the line of fire, with the LAS *Interceptor* taking a salvo of naval PPC fire targeting an *Overlord,* losing all hands but allowing the transport to survive.

After the formation of The Republic, the newborn RAF placed orders for the *Claymore,* hoping Shipil could continue to provide them with the effective escort DropShip. Unfortunately, Shipil found it harder to acquire Clan weaponry than they anticipated. Without crews experienced in maintaining the advanced technology, the ships succumbed to equipment malfunctions quickly. Production-model ships have kept the bombast lasers, Silver Bullet Gauss rifles, laser anti-missile systems and extended-range LRMs, but the Clan lasers had to be replaced with Inner Sphere versions.

The forced downgrades of its weapons have returned the *Claymore V3* to its criticized state of being undergunned. Republic officers, after losing several in humiliating defeats to the Capellan Confederation's new *Lung Wang P2* Pocket WarShip, have quietly rotated these away from the Liao border, where the *Claymore* is unlikely to see combat. Republic procurement officials recently informed Shipil that orders for this vessel will cease if they cannot produce a version resembling the earlier, more effective version. Shipil has begun negotiating with the Wolves-in-Exile, Diamond Sharks and any other group with access to Clan technology, in the hopes of allowing them to go back to building the DropShip to its *Interceptor* specifications.

Claymore V3-class DropShip

Type: Military Aerodyne
Use: Assault Ship
Tech: Inner Sphere (Advanced)
Introduced: 3086
Mass: 1,400 tons
Battle Value: 5,889

Dimensions
Length: 87 meters
Width: 74 meters
Height: 25 meters

Fuel: 80 tons (4,000)
Tons/Burn-day: 1.84
Safe Thrust: 6
Maximum Thrust: 9
Heat Sinks: 110 (220)
Structural Integrity: 12

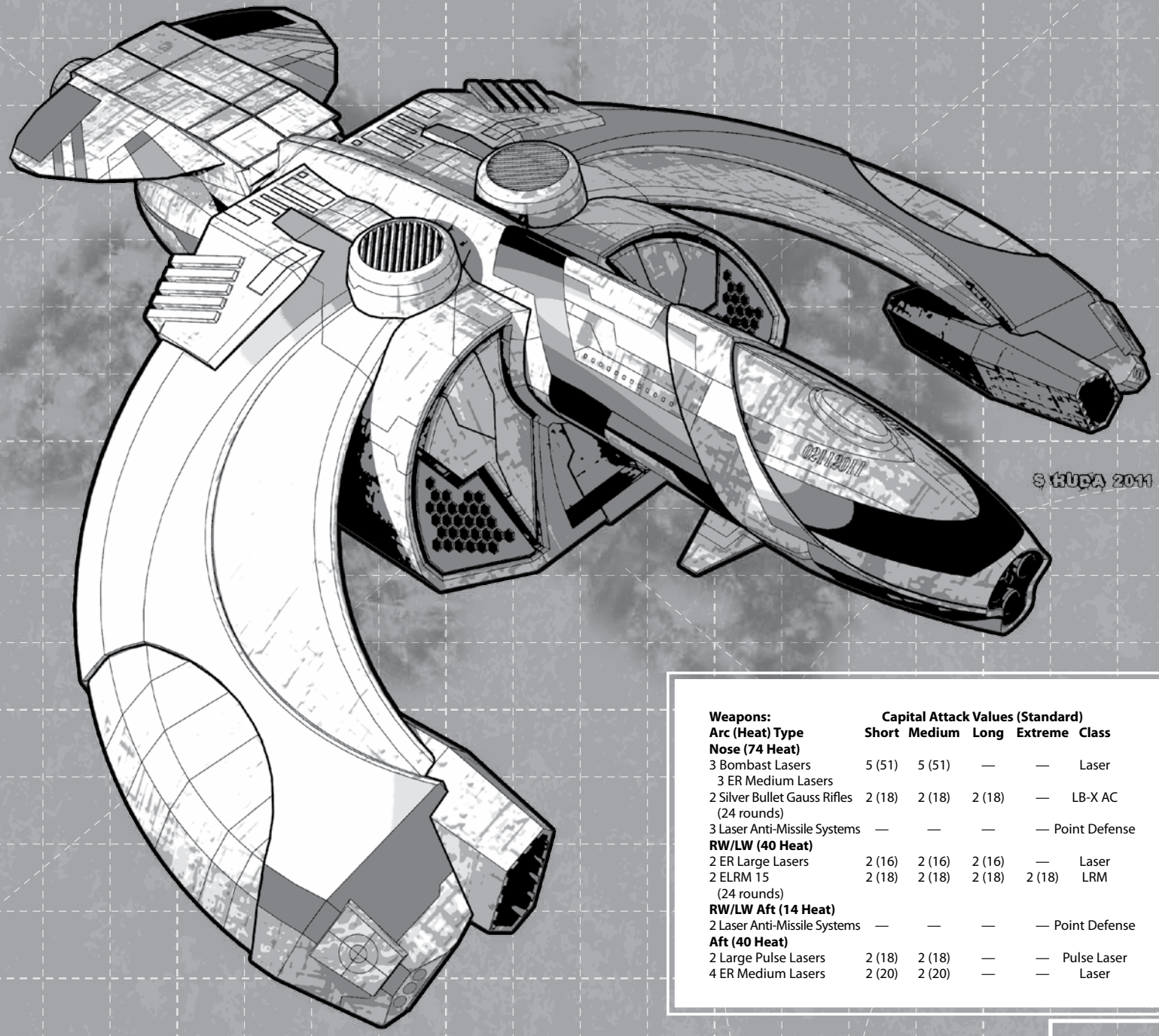
Armor
Nose: 250
Wings: 200
Aft: 150

Cargo
Bay 1: Cargo (258.5 tons) 2 Doors

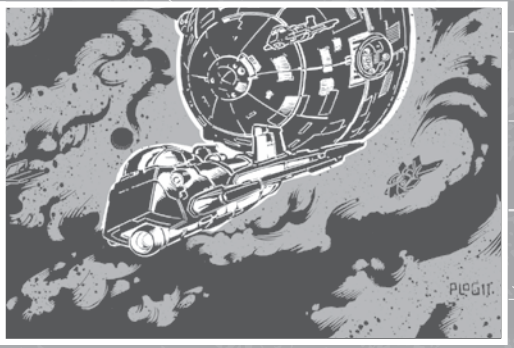
Life Boats: 2
Escape Pods: 0
Crew: 3 officers, 7 enlisted/non-rated, 5 gunners

Notes: Equipped with 47 tons of standard armor; Features the following Design Quirks: Bad Reputation, Atmospheric Flyer.

CLAYMORE V3



Weapons:	Capital Attack Values (Standard)				
Arc (Heat) Type	**Short**	**Medium**	**Long**	**Extreme**	**Class**
Nose (74 Heat)					
3 Bombast Lasers 3 ER Medium Lasers	5 (51)	5 (51)	—	—	Laser
2 Silver Bullet Gauss Rifles (24 rounds)	2 (18)	2 (18)	2 (18)	—	LB-X AC
3 Laser Anti-Missile Systems	—	—	—	—	Point Defense
RW/LW (40 Heat)					
2 ER Large Lasers	2 (16)	2 (16)	2 (16)	—	Laser
2 ELRM 15 (24 rounds)	2 (18)	2 (18)	2 (18)	2 (18)	LRM
RW/LW Aft (14 Heat)					
2 Laser Anti-Missile Systems	—	—	—	—	Point Defense
Aft (40 Heat)					
2 Large Pulse Lasers	2 (18)	2 (18)	—	—	Pulse Laser
4 ER Medium Lasers	2 (20)	2 (20)	—	—	Laser



The *Merlin R1* is the production model—if it can be said to be in production—of the *Merlin Ngake*. The *Merlin Ngake* was first fielded in 3079, based on a *Merlin* seized from the Word of Blake in a daring 3077 Regulan intelligence operation. It remains a mystery whether the Regulans got the desired intelligence and/or important Blakist personages, but they did end up with a slightly worse-for-the-wear *Merlin*. This was turned over to a still little-known aerospace "guru," David Reed of the Ngake Ducal Spaceport, with a budget to investigate new weaponry for future assault DropShips.

The *Merlin Ngake* ended up as an all-laser assault DropShip, though not through any aesthetic decision. Energy weapons were preferred for supply independence. Testing various configurations on orbital debris in the Principality led to a selection of new X-pulse lasers, with laser anti-missile systems as secondary and point defense weapons, while the core of the *Merlin*'s armament—and nearly a quarter of its tonnage—went into four sub-capital lasers in a nose battery. Unlike the original *Merlin*, the *Merlin Ngake* lacked launch bays. This was partly because the Regulans initiated the capture of the DropShip by ramming an S-7A Bus into a launch bay, and partly to free tonnage for the heavy sub-capital lasers.

This assault DropShip, or Pocket WarShip, provided excellent service at the end of the Jihad, when its elite gunners delivered pinpoint bombardments on critical Word of Blake Protectorate planets. The sub-capital lasers were not particularly potent—comparable to Sniper artillery weapons at the point of impact—but they had unlimited ammunition.

With the *Ngake*'s success, Regulus was willing to invest in additional conversions. The Principality lacked *Merlin* shipyards of its own, and was instead forced to buy and salvage them from the open market before converting them to the *R1* configuration at the Ngake Ducal Spaceport. The production model *Merlin R1* assault DropShip sacrifices only one fighter bay, not both, to make room for the heavy weapons payload. To ease the installation of the fighter bay, the potent anti-missile systems, designed with a nuclear conflict in mind, were lightened as space-to-space nuclear attacks dwindled. Fuel capacity was also reduced slightly, limiting the *R1*'s independent activities slightly. Experience from the *Merlin Ngake* suggesting rear-mounted sub-capital lasers for extended, hovering bombardments was ignored, as the Principality's armchair admirals continued to view the nose-mounted sub-capital weapons as valid space superiority weapons. Only about half a dozen *Merlin-R1*s have been converted to date.

Merlin R1-class DropShip

Type: Military Spheroid
Use: Assault DropShip
Tech: Inner Sphere (Advanced)
Introduced: 3082
Mass: 2,500 tons
Battle Value: 6,115

Dimensions
Length: 92 meters
Width: 32 meters
Height: 21 meters

Fuel: 140 tons (5,600)
Tons/Burn-day: 1.84
Safe Thrust: 6
Maximum Thrust: 9
Heat Sinks: 140 (280)
Structural Integrity: 20

Armor
Nose: 250
Sides: 200
Aft: 230

Cargo

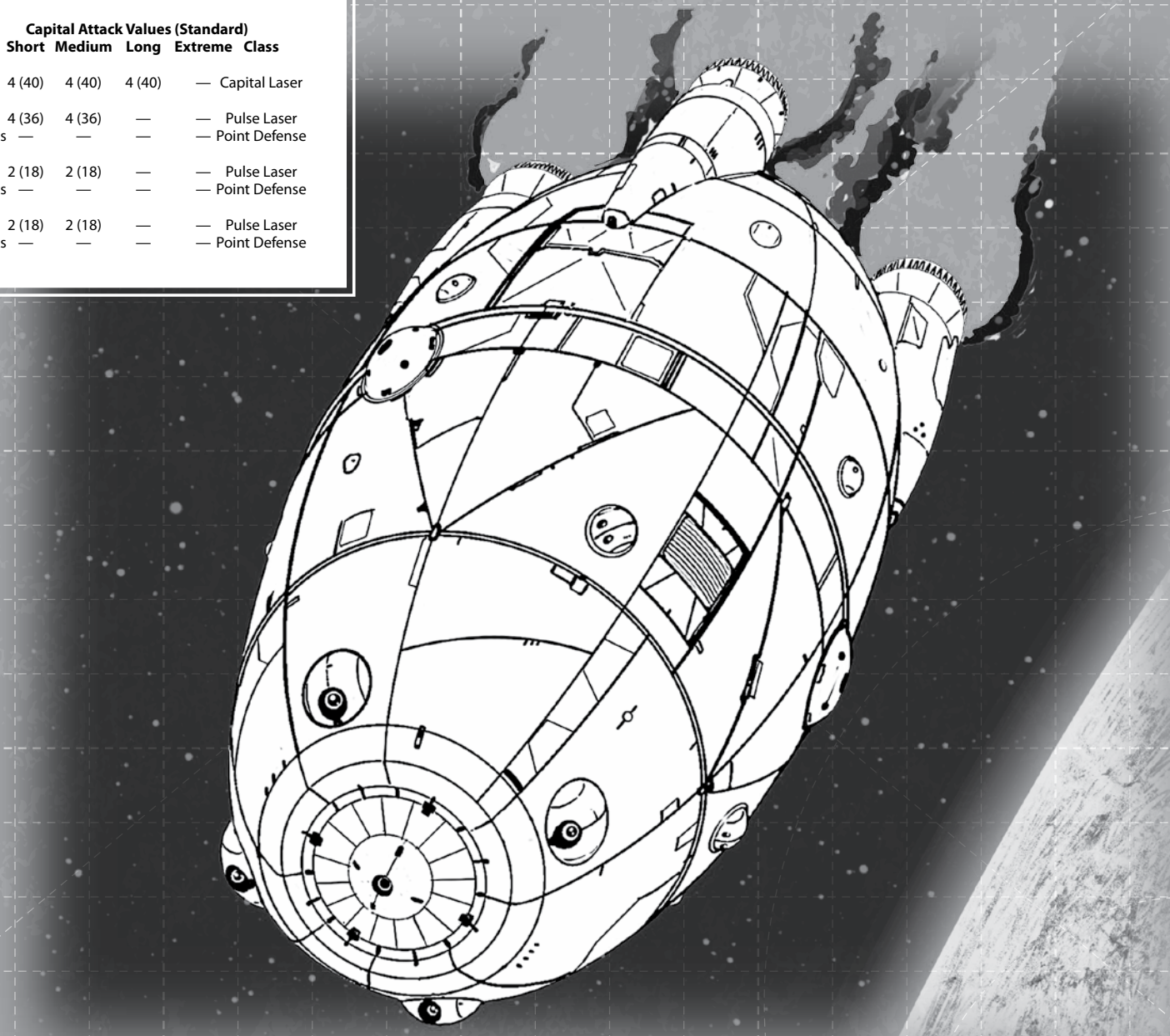
Bay 1: Fighter (1)	1 Door
Bay 2: Cargo (163 tons)	3 Doors

Life Boats: 0
Escape Pods: 2
Crew: 3 officers, 3 enlisted/non-rated, 9 gunners, 2 bay personnel

Notes: Equipped with 50 tons of standard armor. Features the following Design Quirk: Non-Standard Parts.

MERLIN R1

Weapons:	Capital Attack Values (Standard)				
Arc (Heat) Type	**Short**	**Medium**	**Long**	**Extreme**	**Class**
Nose (96 Heat)					
4 Sub-Capital Laser/1	4 (40)	4 (40)	4 (40)	—	Capital Laser
FR/FL (70 Heat)					
4 Large X-Pulse Lasers	4 (36)	4 (36)	—	—	Pulse Laser
2 Laser Anti-Missile Systems	—	—	—	—	Point Defense
AR/AL (42 Heat)					
2 Large X-Pulse Lasers	2 (18)	2 (18)	—	—	Pulse Laser
2 Laser Anti-Missile Systems	—	—	—	—	Point Defense
Aft (42 Heat)					
2 Large X-Pulse Lasers	2 (18)	2 (18)	—	—	Pulse Laser
2 Laser Anti-Missile Systems	—	—	—	—	Point Defense



LUNG WANG P2

The Word of Blake's attack on Sian made House Liao sit up and take notice of the new wave of naval doctrine being used by the other Successor States. Rashpur-Owens engineers sensed a need for the Confederation to attempt to make their systems as immune to attack as possible, and an opportunity to become a major provider of Pocket WarShips to the Confederation. The closing years of the Jihad saw the *Lung Wang Predator* put into testing.

Always a solid and favored design within House Liao's borders, the changes to the *Lung Wang*'s structure stripped away its ability to transport BattleMechs and focused solely on space combat. Its nose bay carries a trio of sub-capital lasers, able to penetrate the armor of all but the thickest DropShip hulls while avoiding the issue of anti-missile systems that can defend against the capital missiles many previous Pocket WarShips and their escorts carry. Most WarShips can weather repeated volleys of these weapons, but with the sudden destruction of many of the WarShips throughout the Inner Sphere, Rashpur-Owens engineers believe this will not be a major issue. This theory proved true when operations saw the CCS *Predator* destroy two Blakist *Union*-class Pocket WarShips in a single confrontation.

Other weapons give it effective anti-fighter weaponry as well. Extended-range LRMs and LB-X autocannons allow it a standoff capability that deters all but the heaviest aerospace fighter. The original also carried a mobile HPG salvaged from Blakist wreckage, and proved to be vital in giving advance warning and response to nearby threats. However, designers have been unable to reproduce a working version of the mobile HPG, and when the *Lung Wang P2* was authorized for production it was left out of the specifications. This allows more cargo, giving the *P2* longer patrol endurance.

The new *Lung Wang* is currently being produced as quickly as possible, and being distributed to various border systems, particularly those near The Republic or Federated Suns. This Pocket WarShip variant has become the Confederation's standard assault DropShip, sometimes deployed in pairs or groups of three in combat operations. The Republic has been trying to counter with upgraded *Claymore*-class DropShips, but the results have shown the *Lung Wang P2* the superior craft.

The original prototype—*Predator*—has been deemed effective enough to remain in service. Though Liao officials have repeatedly claimed she was stripped and modified to production standards, Republic intelligence claims *Predator* still operates with the mobile HPG, and is used exclusively in Death Commando operations.

Lung Wang P2-class DropShip

Type: Military Spheroid
Use: Assault DropShip
Tech: Inner Sphere (Advanced)
Introduced: 3082
Mass: 2,600 tons
Battle Value: 7,921

Dimensions
- **Length:** 57 meters
- **Width:** 54 meters
- **Height:** 47 meters

Fuel: 75 tons (3,120 points)
Tons/Burn-day: 1.84
Safe Thrust: 5
Maximum Thrust: 8
Heat Sinks: 100 (200)
Structural Integrity: 15

Armor
- **Nose:** 220
- **Sides:** 190
- **Aft:** 190

Cargo

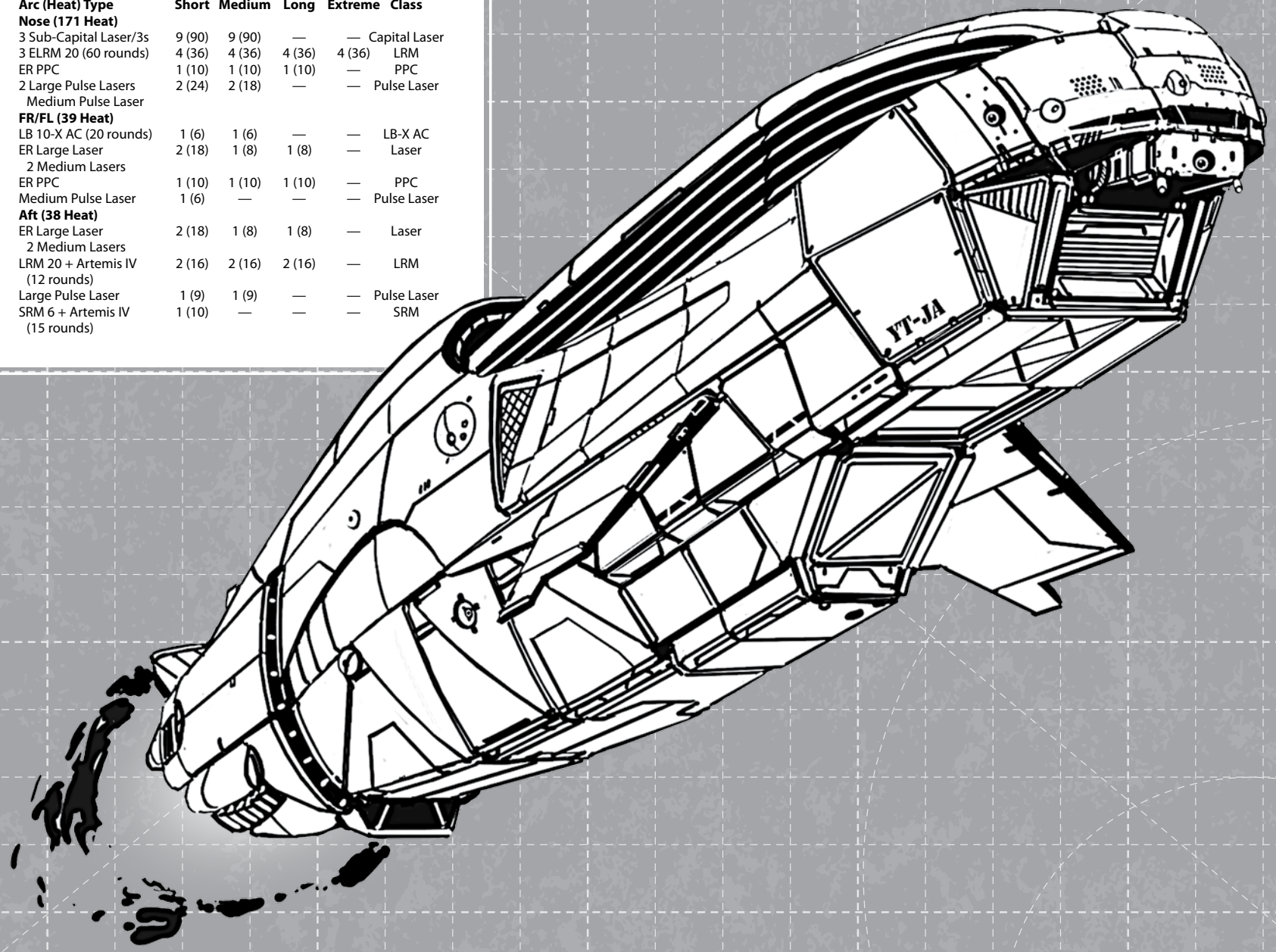
Bay 1: Fighters (2)	2 Doors
Bay 2: Infantry (2 foot platoons)	1 Door
Bay 3: Cargo (55.5 tons)	1 Door

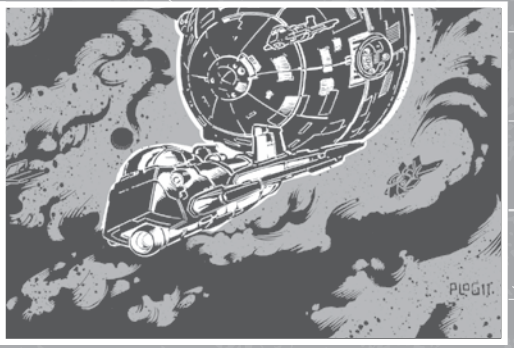
Life Boats: 2
Escape Pods: 4
Crew: 4 officers, 4 enlisted/non-rated, 10 gunners, 60 bay personnel

Notes: Equipped with 46 tons of standard armor; Features the following Design Quirks: Atmospheric Flight Instability, Weak Undercarriage, Improved Communications.

LUNG WANG P2

Weapons: Arc (Heat) Type	Capital Attack Values (Standard) Short	Medium	Long	Extreme	Class
Nose (171 Heat)					
3 Sub-Capital Laser/3s	9 (90)	9 (90)	—	—	Capital Laser
3 ELRM 20 (60 rounds)	4 (36)	4 (36)	4 (36)	4 (36)	LRM
ER PPC	1 (10)	1 (10)	1 (10)	—	PPC
2 Large Pulse Lasers	2 (24)	2 (18)	—	—	Pulse Laser
Medium Pulse Laser					
FR/FL (39 Heat)					
LB 10-X AC (20 rounds)	1 (6)	1 (6)	—	—	LB-X AC
ER Large Laser	2 (18)	1 (8)	1 (8)	—	Laser
2 Medium Lasers					
ER PPC	1 (10)	1 (10)	1 (10)	—	PPC
Medium Pulse Laser	1 (6)	—	—	—	Pulse Laser
Aft (38 Heat)					
ER Large Laser	2 (18)	1 (8)	1 (8)	—	Laser
2 Medium Lasers					
LRM 20 + Artemis IV (12 rounds)	2 (16)	2 (16)	2 (16)	—	LRM
Large Pulse Laser	1 (9)	1 (9)	—	—	Pulse Laser
SRM 6 + Artemis IV (15 rounds)	1 (10)	—	—	—	SRM





The origins of the MCS *Danai Centrella* remain a mystery. Appearing amongst Canopian forces in 3080, the vessel shocked intelligence agencies across the Sphere. While the Canopians officially possessed a WarShip program as early as the 3060s, it was considered a joke even by the personnel staffing it. Thus, when a Canopian *Vengeance* DropShip mounting capital missiles appeared along The Republic border, it took many by surprise.

By whatever means the Canopians came into possession of the *Danai Centrella*, it seems they have been unable to replicate it. Throughout 3081 the *Danai Centrella* was stationed at Ares in the Capellan Confederation, where engineers with Earthwerks Limited reverse-engineered her design. Earthwerks' expertise in Pocket WarShip construction stretches back to 3065, when they refit an *Overlord*-class Dropship to A3 specifications based on stolen data. The *Baleful Gelos* remained the only Pocket WarShip in the Capellan navy until 3072, when AFFS Pocket WarShips arrayed in defense of New Syrtis stopped the CCAF dead in its tracks. Grudgingly impressed, the Strategios ordered Pocket WarShips built.

The Canopians proved more than willing to allow their vessel to be studied, in exchange for new hulls. In late 3083, Earthwerks launched the MCS *Tuatha de Danann*, an almost-exact copy of the *Danai Centrella*. Since then, Earthwerks has alternated launching vessels of the class for the Capellan and Magistracy navies, starting with the CNS *Fuuzi* and the MCS *Emerald Queen*. Like the *Danai Centralla*, these vessels are hybrid WarShip-carriers designed to support their fighter groups in an engagement.

Slower than many Pocket WarShips, the *Vengeance DC* generally hangs back from the fighting while sending its fighter wing forward. Whilst the fighters engage the target, the *Vengeance* delivers supporting fire with its eight Piranha-class sub-capital missiles and 420 long range missile tubes. The combined power of the *Vengeance*'s missiles gives it incredible brute firepower. If the *Vengeance* possesses any weakness, it is its limited aft defenses, a weakness mitigated somewhat by the distance the *Vengeance* is expected to operate from the enemy.

While showing the flag over Gan Singh, the CNS *Fuuzi* was nearly destroyed when her fighter screen was drawn off by Republic feints. The *Interdictor*-class *Endeavor* ambushed *Fuuzi* near a moon and struck it aft with a full barrage. Only the quick thinking of *Kong-zhong-shao* Eureka Yui-Tong saved her vessel. Shut down and launching lifeboats, Yui-Tong broadcast an SOS requesting the recovery of the crew. When *Endeavor* moved in, *Fuuzi* vented atmosphere to flip and face the *Interdictor* and fired all missiles. Before *Endeavor* could destroy *Fuuzi*, the returning *Transgressor* squadron fell upon it, forcing it to disengage.

Vengeance DC-class DropShip

Type: Military Aerodyne
Use: Pocket WarShip
Tech: Inner Sphere (Advanced)
Introduced: 3083
Mass: 11,400 tons
Battle Value: 18,189

Dimensions
Length: 237 meters
Width: 98 meters
Height: 21 meters

Fuel: 600 tons (18,000 points)
Tons/Burn-day: 1.84
Safe Thrust: 4
Maximum Thrust: 6
Heat Sinks: 148 (296)
Structural Integrity: 17

Armor
Nose: 400
Sides: 300
Aft: 198

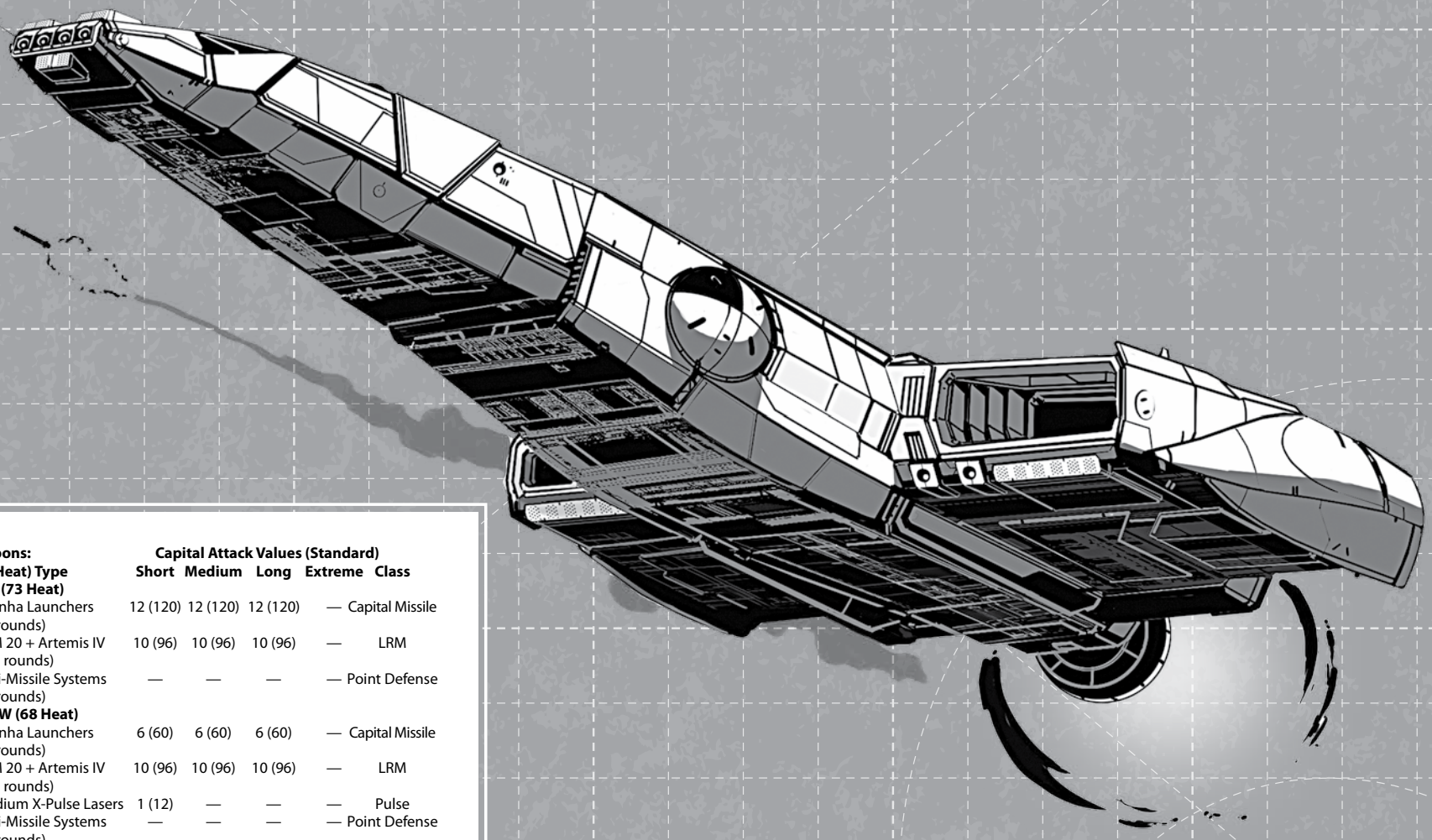
Cargo

Bay 1: Fighters (18)	4 Doors
Bay 2: Small Craft (3)	2 Doors
Bay 3: Infantry Bay (4 foot platoons)	1 Door
Bay 4: Cargo (390 tons)	1 Door

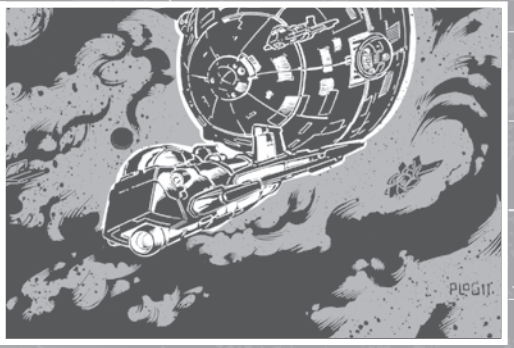
Life Boats: 0
Escape Pods: 33
Crew: 7 officers, 7 enlisted/non-rated, 20 gunners, 6 NCSS crew, 163 bay personnel

Notes: Equipped with 76 tons of heavy ferro-aluminum armor, and Small Naval-Comms Scanner (100 tons). Features the following Design Quirk: Un-streamlined.

VENGEANCE-DC PWS



Weapons:	Capital Attack Values (Standard)				
Arc (Heat) Type	**Short**	**Medium**	**Long**	**Extreme**	**Class**
Nose (73 Heat)					
4 Piranha Launchers (60 rounds)	12 (120)	12 (120)	12 (120)	—	Capital Missile
6 LRM 20 + Artemis IV (144 rounds)	10 (96)	10 (96)	10 (96)	—	LRM
2 Anti-Missile Systems (60 rounds)	—	—	—	—	Point Defense
RW/LW (68 Heat)					
2 Piranha Launchers (30 rounds)	6 (60)	6 (60)	6 (60)	—	Capital Missile
6 LRM 20 + Artemis IV (144 rounds)	10 (96)	10 (96)	10 (96)	—	LRM
2 Medium X-Pulse Lasers	1 (12)	—	—	—	Pulse
2 Anti-Missile Systems (60 rounds)	—	—	—	—	Point Defense
Aft (40 Heat)					
3 LRM 20 + Artemis IV (72 rounds)	5 (48)	5 (48)	5 (48)	—	LRM
4 ER Medium Lasers	2 (20)	2 (20)	—	—	Pulse
2 Anti-Missile Systems (60 rounds)	—	—	—	—	Point Defense



Mass: 30 tons
Chassis: UOC Light Spec 3
Power Plant: 210 Raven XL
Armor: POE Ferro-Aluminum
Armament:
1 StarTek 15 Tube Long Range Streak
2 Series 5b ER Medium Lasers
Manufacturer: United Outworlders Corporation
Primary Factory: Ramora
Communications System: Outworlds Advanced 6ai
Targeting and Tracking System: Multiplatform T12e

Overview

With a name like *Corax* and the proximity of Clan Snow Raven, few were surprised to discover that they had worked with the Outworlds Alliance to produce the OmniFighter. However, aggressive Combine pilots were shocked when they found themselves facing off against a new configuration that somehow fit a pair of large lasers in each wing, along with fifteen LRMs with Artemis IV in the nose. Engineering experts scoffed at the pilots' stories. Intelligence assets probed further into this mystery to find out what the pilots were talking about. It turns out that both groups were wrong. The Ravens were building their own version of the *Corax*.

Capabilities

Just like its Omni predecessor, the *Corax C* is fast, capable of seven Gs of acceleration should it be needed. Based on the same frame, the two can be very difficult to tell apart. The biggest difference is the bulkier armor covering the Ravens' version. Providing a little more protection than the Omni, the use of Clan-grade ferro-aluminum actually frees up a ton of mass. The cockpit is another giveaway. The original fighter had a cockpit that allowed even the biggest farmer's son to defend the Alliance in a *Corax*. The *Corax C* has a cramped cockpit, similar to those seen in the fighters that the Blakists introduced before their fall. Even the tiny Raven fighter pilots find themselves hampered by the cramped quarters.

Of course, the easiest way to differentiate the two is to get shot at by one. The wing-mounted medium lasers on the *Corax C* have the same reach as a standard large laser with almost the same punch. Sitting in the nose is a fifteen rack of long-range missiles. Such a weapon would barely fit on a *Corax*, but instead of the lighter Clan launcher, the *Corax C* mounts a Streak version. Assured that all the missiles will hit when fired, this weapon provides a much bigger punch than its less precise cousins. Provided with two tons of ammunition, the *Corax C* can stay in the fight until the end. Despite being well-built compared to Inner Sphere standards, it is still a light fighter and susceptible to the punch of most weapons.

The design has proved potent when tangling with Combine fighters. Neither side has disabled an enemy fighter, so both factions look at the fights as training under fire. The Kurita forces have shown to be the better-trained of the two, but while their more mobile *Sholagar*s can get position on their Clan opponents, even the upgraded weapons are mediocre against the thicker armor of the *Corax C*. In return, the LRMs and lasers quickly chew through the armor of the Combine craft, despite the recent upgrade to ferro-aluminum.

Deployment

Being a second-line fighter based on an Inner Sphere design with a cramped cockpit, the *Corax C* is assigned to bottom-of-the-barrel pilots. Even the worst pilots feel slighted when given a *Corax C* to pilot. Perhaps as the integration of the Raven Alliance continues, the *Corax C* will find a receptive audience. While few pilots will ungrudgingly put up with the restrictive cockpit, many Alliance pilots would be glad to deal with it if it meant greater armor and a much more powerful payload.

Variants

There are no variants of the *Corax C*, though we have reports of designers looking to emulate the primary configuration of the *Corax*. Swapping the missiles for a Clan large pulse laser would provide a potent punch and additional armor; weapons or even a targeting computer could be added as well. Luckily, the Ravens seem content with the current version.

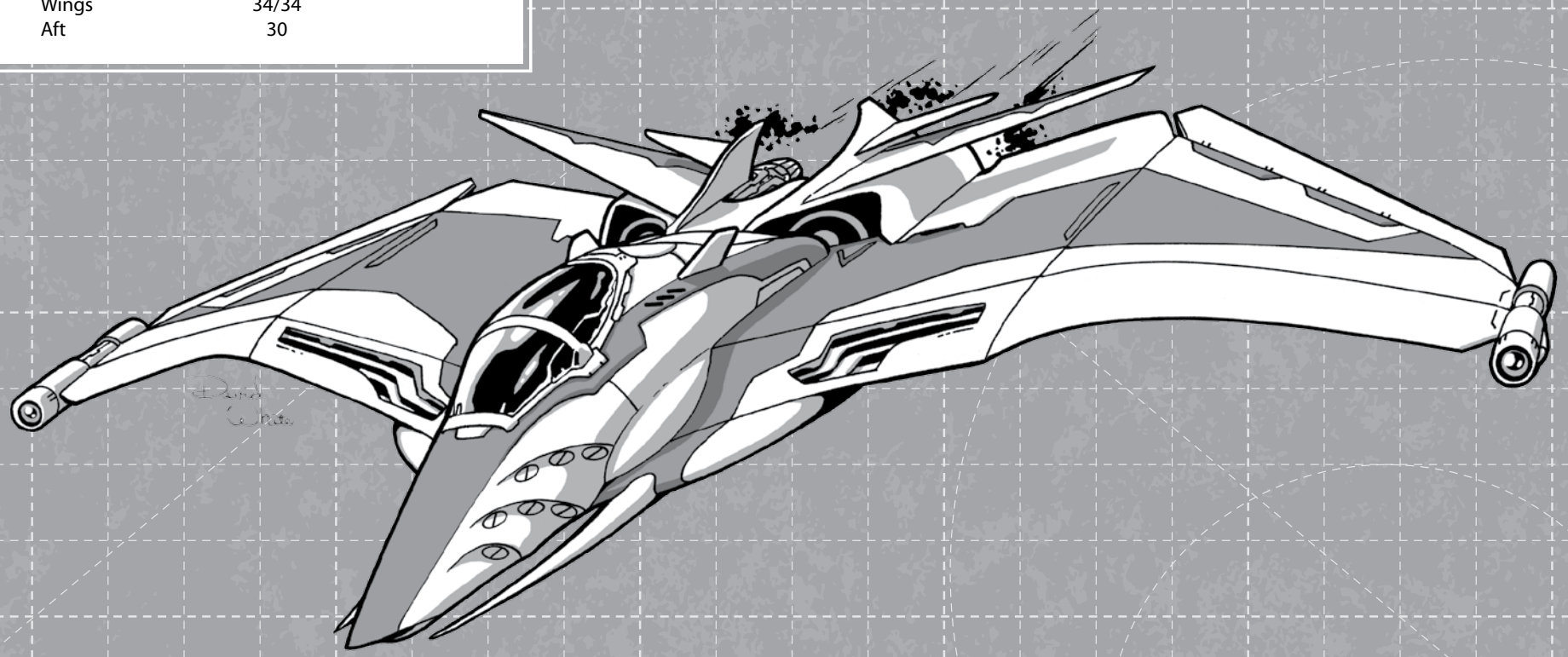
CORAX C

Type: **Corax C**
Technology Base: Clan (Advanced)
Tonnage: 30
Battle Value: 1,233

Equipment		**Mass**
Engine:	210 XL	4.5
Safe Thrust:	9	
Maximum Thrust:	14	
Structural Integrity:	9	
Heat Sinks:	10 [20]	0
Fuel:	400	5
Cockpit (Small):		2
Armor Factor (Ferro):	144	7.5
	Armor Value	
Nose	46	
Wings	34/34	
Aft	30	

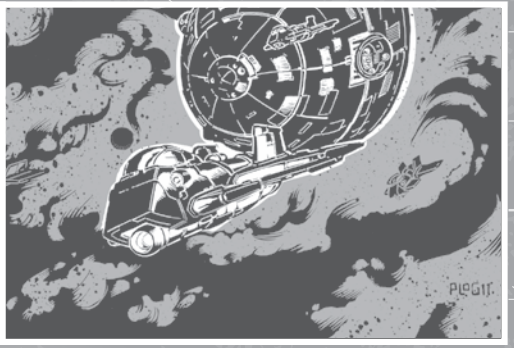
Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
Streak LRM 15	Nose	7	5	15	15	15	—
Ammo (Streak) 16	—	2					
ER Medium Laser	RW	1	5	7	7	—	—
ER Medium Laser	LW	1	5	7	7	—	—

Notes: Features the following Design Quirks: Bad Reputation, Modular Weapons.



TYRE 3

Medium Aerospace



Mass: 55 tons
Frame: Model LV-3
Power Plant: Standard 165 Fusion
Armor: Bruin Heavy Ferro-Aluminum
Armament:
1 Type XX "Long Bow" LRM 20-Rack
2 Series 5D-1 Improved Heavy Large Laser
2 Series 2h Extended-Range Medium Laser
1 Light Shield-1 Laser Anti-Missile System
Manufacturer: Janesek Industries
Primary Factory: Orestes
Communications System: Masters 400
Targeting and Tracking System: DST Model 316/4 with Artemis V FCS

Overview

In 3067 Janesek Industries was one of the most advanced aerospace producers in the Inner Sphere. Producers of the ComStar-designed *Huscarl* OmniFighter, executives at Janesek had every reason to expect a bright future. The events of the next few years changed all of that.

First, a cut in production caused by damage suffered in Word of Blake's 3068 raid saw profits flatline that year. After that, Janesek's stock rode a roller coaster driven by fears of Word of Blake and Clan Ghost Bear. It was not until 3072 that some stability returned, but major challenges still faced the small company.

With two other major aerospace facilities, Clan Ghost Bear had little interest in modernizing Janesek's plant. Designated an export facility, Janesek received limited funding and had to rely on sales of the *Huscarl* to authorized buyers, Clan or otherwise. It was only due to a major effort that Janesek was able to convince the Dominion merchant caste to allow it to build the extremely basic *Tyre* aerospace fighter, also mainly for export.

Thirteen years of steady production later, Janesek was at a crossroads. The Ghost Bear Dominion already produced multiple heavy OmniFighters, and with the end of the Jihad, sales of the *Huscarl* were drying up. To stay in the military market a new aerospace fighter was needed, but Janesek was unlikely to get access to the technology to produce it. A plan was hatched to produce a revised version of the *Tyre,* to catch the eye of the Ghost Bears and hopefully bring in fresh investment.

Capabilities

While the *Tyre* frame could hardly be called advanced, Janesek hoped to totally revamp its performance by using the latest weapons available. Age-old complaints about a lack of range were dealt with by replacing the autocannon with a LRM launcher tied into an Artemis V system. Intriguingly, the accurate wing mounted pulse lasers were replaced with a pair of improved large heavy lasers. While offering little more damage potential, they provided some of the best armor penetration available. The heat requirements of these big lasers forced the downgrading of the nose lasers and installation of extra heat sinks, while a laser anti-missile system was added to the rear and the armor replaced with ferro-aluminum.

Given its limited funds, Janesek was unable to engineer the upgraded *Tyre* to accept a more powerful engine; it would have to make do with the old Standard 165.

Deployment

In the *Tyre 3*, the Ghost Bear Dominion has gained a fighter they don't really know what to do with. Like all *Tyre*s, this model lumbers in the atmosphere and thus has been directed to units that prefer to fight in space. Based on its obvious anti-ship capabilities, most have been deployed to naval forces like *Aesir* Stars.

The *Tyre 3* is expected to perform well against the Lyran Commonwealth's heavily-armored fighters. Unfortunately, few Clan or Draconis fighters are equally well-protected, so the heavy laser-based armament offers little benefit over the lighter pulse lasers. Combined with its poor maneuverability, the *Tyre 3* has received little interest as a ground attack or atmospheric fighter.

A number have been sold to Clan Hell's Horses, who have deployed it widely. This probably relates more to their willingness to buy any platform available to rebuild their shattered touman than any great desire for the design. These sales have encouraged the merchant caste to view the *Tyre 3* as an item to sell to the Inner Sphere at a premium, but with no sales so far this may not be enough to save Janesek.

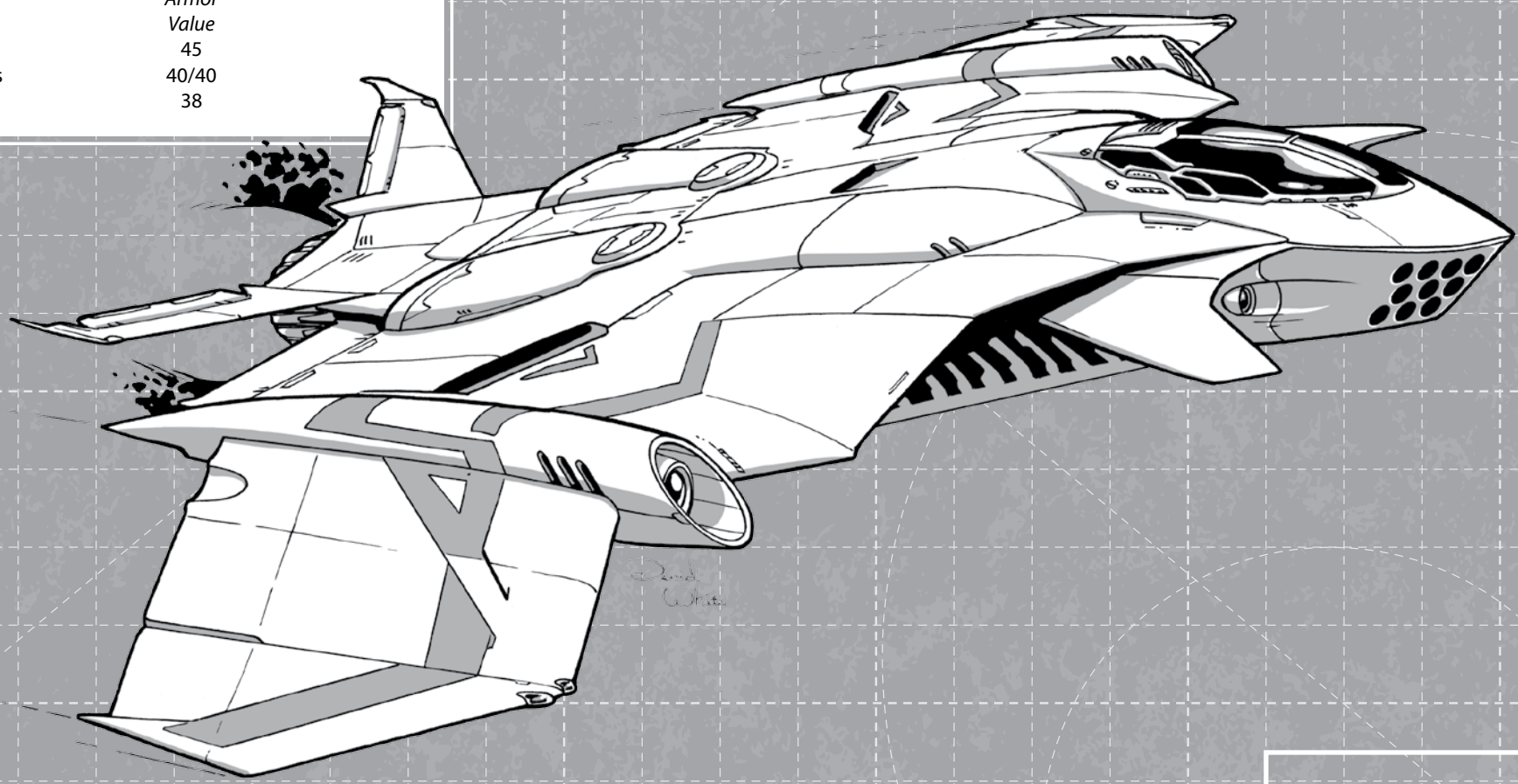
TYRE 3

Type: **Tyre 3**
Technology Base: Clan (Advanced)
Tonnage: 55
Battle Value: 1,499

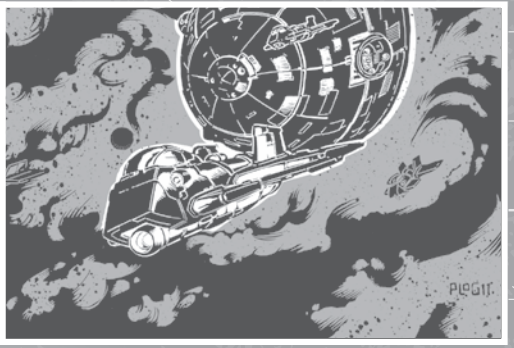
Equipment		**Mass**
Engine:	165	6
Safe Thrust:	5	
Maximum Thrust:	8	
Structural Integrity:	5	
Heat Sinks:	22 [44]	12
Fuel:	400	5
Cockpit:		3
Armor Factor (Ferro):	163	8.5
	Armor Value	
Nose	45	
Wings	40/40	
Aft	38	

Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
LRM 20 with Artemis V FCS	Nose	6.5	6	16	16	16	—
Ammo (LRM) 18	—	3					
2 ER Medium Lasers	Nose	2	5	7	7	—	—
Improved Heavy Large Laser	RW	4	18	16	16	—	—
Improved Heavy Large Laser	LW	4	18	16	16	—	—
Laser Anti-Missile System	Aft	1	5				

Notes: Features the following Design Quirks: Bad Reputation, Atmospheric Flight Instability, Rumble Seat.



Heavy Aerospace



Mass: 70 tons
Chassis: Fledgling 2
Power Plant: Consolidated 280 XL
Armor: Compound Gamma Ferro-Aluminum
Armament:
2 Series 7k Extended-Range Large Lasers
2 Aesalon Streak LRM-20 Launchers
2 Tiercel Heavy Medium Lasers
2 Harpa Heavy Small Lasers
Manufacturer: Falcon's Roost Orbital Assembly Plant
Primary Factory: Sudeten
Communications System: System XXX
Targeting and Tracking System: Omicron XX

Overview

A very unpleasant surprise greeted an unidentified pirate raiding force when their DropShip *en route* to Barcelona encountered a Star of unknown aerospace fighters in December 3085. The unknown fighter has since been identified as a brand new second-line unit built on Sudeten. While three of the fighters were reported killed, later intelligence indicates one of those suffered unrecoverable mechanical problems prior to the craft's pilot ejecting. Suffice to say, the extreme range and accuracy of the *Persepolis*' weapons caught the attention of the raiders before they aborted their approach and fled the system.

Capabilities

Orbiting in the Lagrange point between Sudeten and the smaller of its two satellites, Saar, the Falcon's Roost Orbital Assembly Plant exists as the epitome of Clan philosophy. Form clearly taking a distant second to function, the shapeless construct houses what must be a tremendously well-engineered factory, given the volume of *Persepolis* fighters it churns out. That the new fighter is a second-line unit and not an OmniFighter speaks to the haste of the Falcon Khans to put pilots into any spaceworthy fighters.

Built as the maiden craft of the new factory, the *Persepolis* exploits the long range accuracy of Clan weaponry. Not as fast as other fighters of its weight class, the *Persepolis* does not need to close with its targets to destroy them. Especially when second-line pilots are at the controls, the *Persepolis* prefers standoff engagements. Its paired large lasers stab from its nose at ranges that few Inner Sphere weapons can hope to match. More than one unfortunate pirate pilot has been blasted from his cockpit by those lasers before he ever had a chance to fire his own weapons. Backing up the large lasers is a pair of improved heavy medium lasers. These powerful weapons have overcome the negative factors associated with heavy lasers, though reports are clear that a technical problem with the manufacturing process results in flaws that occasionally cause these weapons to experience catastrophic failure. This is apparently what causes fighter pilots to eject from otherwise-operable fighters. Harsh discipline to the factory's technicians and engineers has not resolved the problem, which most likely derives from the crash program to develop the lasers so quickly.

Just as feared as the ER large lasers are the wing-mounted LRM launchers. As they do not differ visually from standard LRM launchers, it was the misfortune of the *Persepolis*' early opponents to discover that these launchers utilize Streak technology. While the Inner Sphere has come far in Streak technology for short-range missiles, the Clans have succeeded in adapting the guided missile technology to long-range missiles. With no alternative but to absorb the damage, since anti-missile systems are rarely able to down forty missiles at a time, most enemies that survive the *Persepolis*' lasers have fallen to the long-range homing missiles.

Finally, for those enemies able to get on the *Persepolis*' six, a pair of improved heavy small lasers dissuades them from remaining too long. These smaller versions of the heavy lasers in the nose suffer the same explosive failure, though less damaging than mediums.

Carrying average armor for its mass, the *Persepolis* makes better use of its maneuverability and long-range deadliness. On those occasions when an enemy fighter has survived the fusillade of powerful weapons, the *Persepolis* has fallen rather quickly to sustained fire from its rear. Accepting the loss of pilots unable to avoid a tail, the Falcons seem unlikely to alter the design to add more armor at the expense of decreasing its firepower.

Deployment

The *Persepolis* has appeared across the breadth of Jade Falcon territory since that first reported encounter five years ago. Though more prevalent in second-line units, the *Persepolis* also appears in the ranks of frontline Galaxies. To date, only Alpha and Delta Galaxies have none of the new fighter in their ranks. Instead, as other Galaxies receive the new second-line fighter, better-quality OmniFighters are being transferred to Alpha and Delta. No reports of Trials of Possession by other Clans for samples of the fighter are yet known to have taken place.

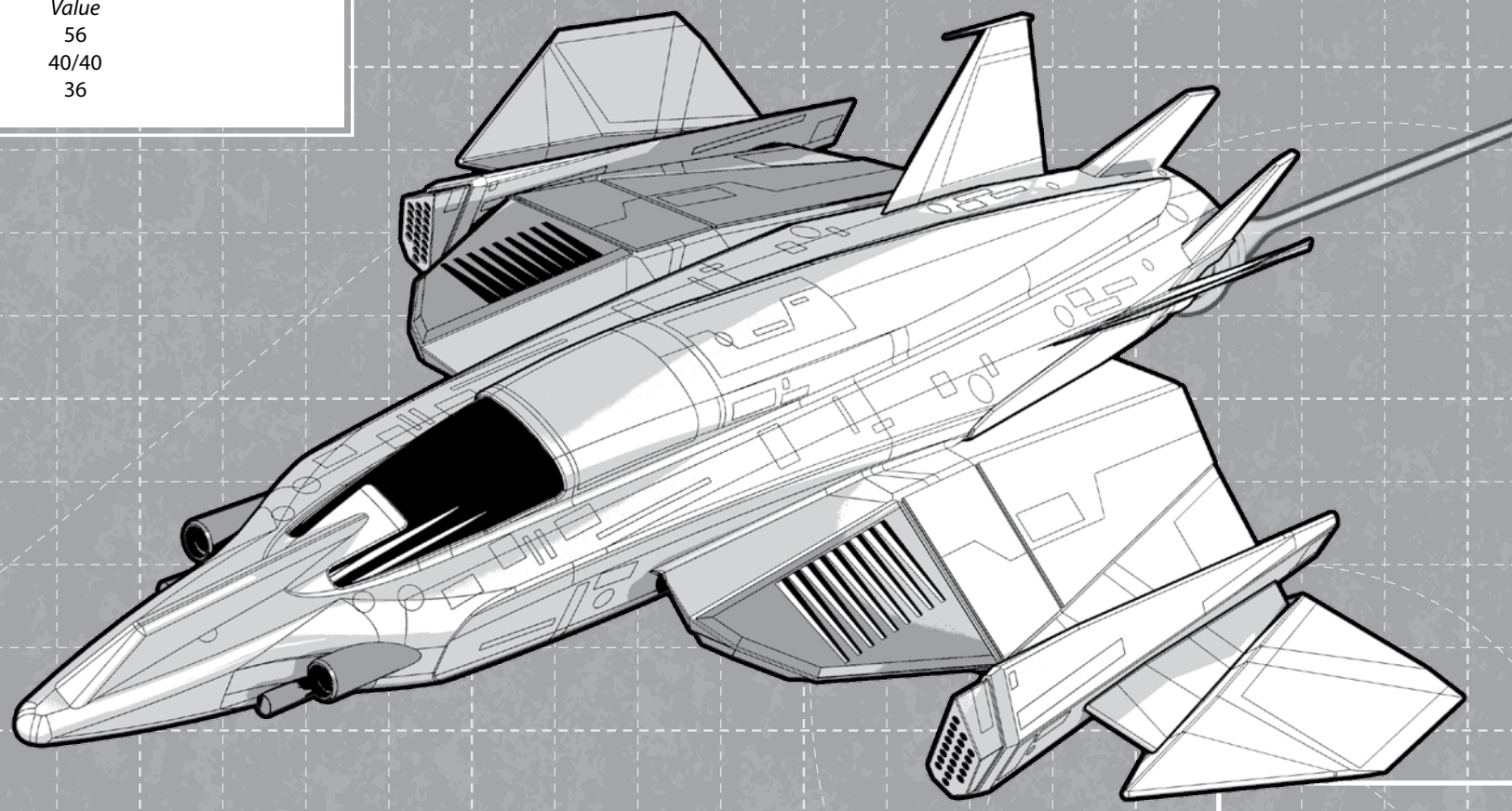
PERSEPOLIS

Type: **Persepolis**
Technology Base: Clan (Advanced)
Tonnage: 70
Battle Value: 2,323

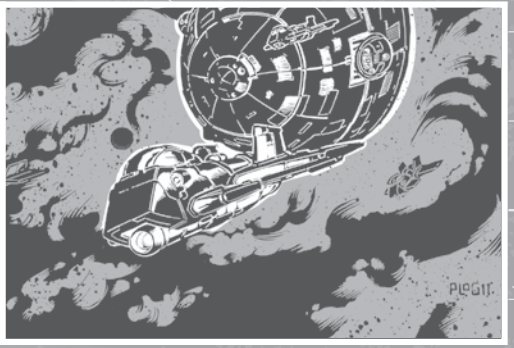
Equipment		**Mass**
Engine:	280 XL	8
Safe Thrust:	6	
Maximum Thrust:	9	
Structural Integrity:	7	
Heat Sinks:	20 [40]	10
Fuel:	400	5
Cockpit:		3
Armor Factor (Ferro):	172	9
	Armor Value	
Nose	56	
Wings	40/40	
Aft	36	

Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
2 ER Large Lasers	Nose	8	12	10	10	10	10
2 Improved Heavy Medium Lasers	Nose	2	7	10	—	—	—
Streak LRM 20	RW	10	6	20	20	20	—
Ammo (Streak) 12	—	2					
Streak LRM 20	LW	10	6	20	20	20	—
Ammo (Streak) 12	—	2					
2 Improved Heavy Small Lasers	Aft	1	3	6	—	—	—

Notes: Features the following Design Quirks: Difficult Ejection, Poor Performance, Poor Workmanship, Accurate Weapon (ER Large Laser).



Heavy Aerospace



Mass: 95 tons
Chassis: Type 992-35E
Power Plant: AeroFusion 285 XL
Armor: Forging II Ferro-Aluminum
Armament:
1 Type DDS "Kingston" Extended-Range PPC
2 Model X2 Improved Heavy Large Lasers
2 Type XX "Great Bow" LRM-20 Launchers
2 Series PPS-XIX Medium Pulse Lasers
2 Blizzard Coolant Pods
1 Beamsplitter Laser Anti-Missile System
Manufacturer: DS Aero Assembly Site Rho
Primary Factory: Twycross
Communications System: CCC T-55
Targeting and Tracking System: CCC D6.2J with Artemis V FCS

Overview

Unique among the Clans for their mercantile practices, the Diamond Sharks rarely ignore an opportunity to make a profit. As with most successful merchants, this generally involves spotting a need in the marketplace and then filling it. In recent decades the Diamond Sharks have become elite traders within both the Inner Sphere and amongst their fellow Clans. Their uncanny ability to deliver desired products to desperate markets has served them very well.

The refit *Hydaspes 3* is another example of their business acumen at work. The fighter had been one of the most heavily deployed and heavily produced among the Clan homeworlds. By the time the Clans invaded the Inner Sphere, the *Hydaspes* was already relegated to second-line duty and flirting with obsolescence. Clan Diamond Shark saw a chance to turn their fleet of aging warbirds into a new and desired product.

After a dedicated research effort, the scientist caste of the Diamond Sharks successfully upgraded the aging fighter with an updated weapons and targeting package. The revamped fighter was intended for sale to invading Clans. All of the Inner Sphere Clans were suffering from massive aerospace losses, and none of them possessed the logistical resources to replenish their ranks. A new and capable fighter was going to generate large revenues in a short time. The fact that the fighters were produced on Twycross only made delivery to their customers that much easier.

Capabilities

The Diamond Sharks had no desire to redesign or substantially alter the *Hydaspes*. As such, none of the core components were altered. The fighter would have the same performance characteristics that had kept it in service for over two centuries.

The weapons package was drastically altered. In an effort to improve accuracy, the twin long-range missile launchers were equipped with state-of-the-art Artemis V fire control systems. The improved Artemis systems were markedly more accurate than their predecessors. The fact that they also drove up the price tag was only a concern for the customers, not for the Diamond Sharks producing them.

The firepower was significantly enhanced by exchanging the trio of Series XIV extended-range large lasers for a DDS extended-range particle projection cannon and a pair of cutting-edge Model X2 improved heavy large lasers. The damage potential of the new loadout dwarfed the original *Hydaspes,* but the already serious heat issues were made even worse. Realizing the danger of such drastic overheating potential, the Diamond Sharks mounted a pair of Blizzard coolant pods to give the *Hydaspes 3* a way to unleash its firepower more safely. While this didn't entirely solve the problem, it did give pilots room for error in the event they lost track of their heat during the ferocity of a dogfight.

The final new addition to the *Hydaspes 3* was a defensive consideration. Aware of the evolution of modern missile technologies, the Diamond Sharks installed a next-generation laser anti-missile system. While this system compounded the heat issue, it helped reduce the danger of incoming missile attacks. With no ammunition required, it also had the ability to continue protecting the fighter during prolonged engagements or campaigns.

Deployment

The *Hydaspes 3* has found a market just as Diamond Shark merchants predicted. Every Inner Sphere Clan has placed an order for the fighter. As quickly as the fighters roll off the line on Twycross, they are shipped to waiting units throughout the occupation zones. Clan Jade Falcon and Clan Hell's Horses have been the largest customers to date. The sales for the *Hydaspes 3* have been so brisk that the Diamond Sharks are contemplating a second production facility, or allowing other Clans to produce the fighter. Whatever form it takes, it is clear that the Diamond Sharks intend to expand their distribution of the fighter as soon as possible.

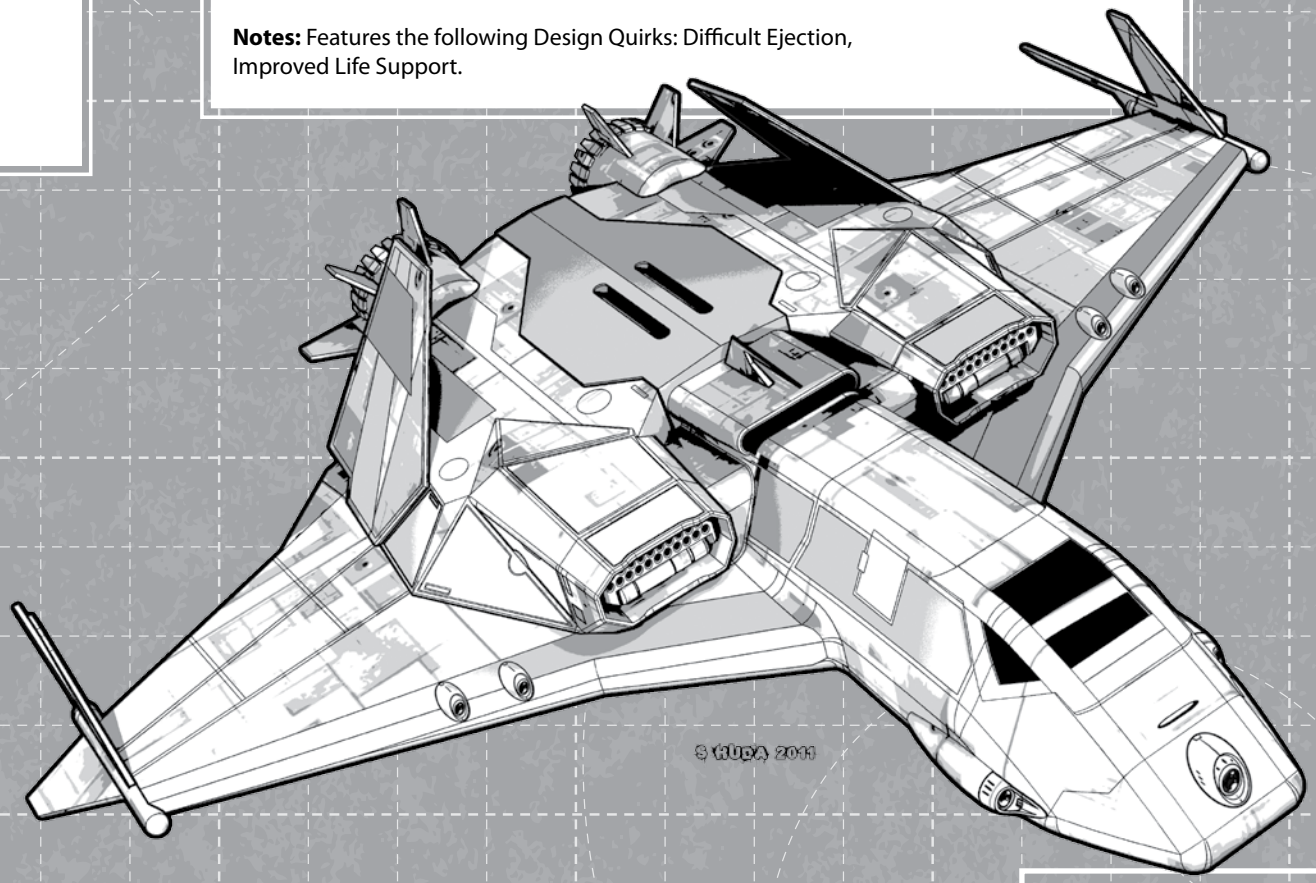
HYDASPES 3

Type: **Hydaspes 3**
Technology Base: Clan (Advanced)
Tonnage: 95
Battle Value: 2,611

Equipment		**Mass**
Engine:	285 XL	8.5
Safe Thrust:	5	
Maximum Thrust:	8	
Structural Integrity:	9	
Heat Sinks:	30 [60]	20
Fuel:	320	4
Cockpit:		3
Armor Factor (Ferro):	336	17.5
	Armor Value	
Nose	100	
Wings	80/80	
Aft	76	

Weapons and Ammo	**Location**	**Tonnage**	**Heat**	**SRV**	**MRV**	**LRV**	**ERV**
ER PPC	Nose	6	15	15	15	15	—
2 Improved Heavy Large Lasers	Nose	8	18	16	16	—	—
Laser Anti-Missile System	Nose	1	7				
LRM 20 with Artemis V FCS	RW	6.5	6	16	16	16	—
Ammo (LRM) 12	—	2					
2 Medium Pulse Lasers	RW	4	4	7	7	—	—
LRM 20 with Artemis V FCS	LW	6.5	6	16	16	16	—
Ammo (LRM) 12	—	2					
2 Medium Pulse Lasers	LW	4	4	7	7	—	—
2 Coolant Pods	Aft	2					

Notes: Features the following Design Quirks: Difficult Ejection, Improved Life Support.



On 12 January 3081, three *Broadsword*-class DropShips bearing the insignia of the Clan Wolf's Gamma Galaxy streaked across the sky of Csesztreg. No Trial had been declared, but on Tamar it was felt time to remind Clan Hell's Horses of their place in the universe. Steering clear of Budapest and Szrged, the small force of Wolves aimed at a secondary facility on the other side of the planet. As they neared their target threat warnings sounded and the lead *Broadsword* dropped out of the sky in a ball of flame. Scanning the sky desperately for fighters, the surviving DropShips bled altitude and hurriedly landed, only to come under immediate artillery fire. It is unclear what happened next, but both DropShips took to the air in order to avoid destruction on the ground, while the 'Mechs pushed on to eliminate the artillery. With the 'Mechs reporting being caught in fortifications and taking fire from a grounded DropShip, the second *Broadsword* attempted to provide support but fell to capital missile fire. The last *Broadsword* escaped and the Inner Sphere learned of the *Outpost Defender*.

Like most reports about Clan Hell's Horses' military, details are sketchy. It seems that Clan Hell's Horses have been refitting *Outpost*s to some kind of mobile hardened defensive points. Much like the *Fortress*-class they are based on, these refitted *Outpost*s employ artillery in their noses, but unlike the *Fortress* they have had a pair of Killer Whale missile launchers installed. The result is an odd mix. Capital missiles and artillery are almost mutually exclusive in roles, leaving confused tactical options.

Normal doctrine would suggest that the *Outpost* is intended as an enhanced version of its original form: a fast DropShip able to penetrate hardened defenses. On the surface, this makes some sense, but a pair of capital missiles is considered absolute minimal capital firepower. In reality, the refitted ship offers little better performance in this role and sacrifices a large portion of its carrying capacity.

Clan Wolf's misadventure provides an alternative. Stationed on the ground, the *Outpost* can act as a mobile planetary defense system. As a DropShip, it is relatively easy to move wherever needed. The artillery makes more sense in this situation, as it is able to act as both an anti-air system as well as control a wide area around the DropShip. Reports from Clan Wolf indicate the construction of field fortifications around the grounded DropShip. Combined with troops carried on board, and its own weapons, this would make attacking an *Outpost Defender* relatively dangerous.

Serious questions have to be raised about the effectiveness of these siege tactics. The effective range of the weapons carried is still relatively short, limiting the area an *Outpost* can influence. It is simple to avoid these grounded ships. This may suit Clan Hell's Horses, with their slow-moving tanks and battle armor, but the potential to be outmaneuvered is all too clear.

Outpost Defender-class DropShip

Type: Military Spheroid
Use: Assault DropShip
Tech: Clan (Advanced)
Introduced: 3080
Mass: 7,000 tons
Battle Value: 15,825

Dimensions
- **Length:** 127 meters
- **Width:** 127 meters
- **Height:** 101 meters

Fuel: 150 tons (4,500 points)
Tons/Burn-day: 1.84
Safe Thrust: 5
Maximum Thrust: 8
Heat Sinks: 195 (390)
Structural Integrity: 20

Armor
- **Nose:** 360
- **Sides:** 355
- **Aft:** 350

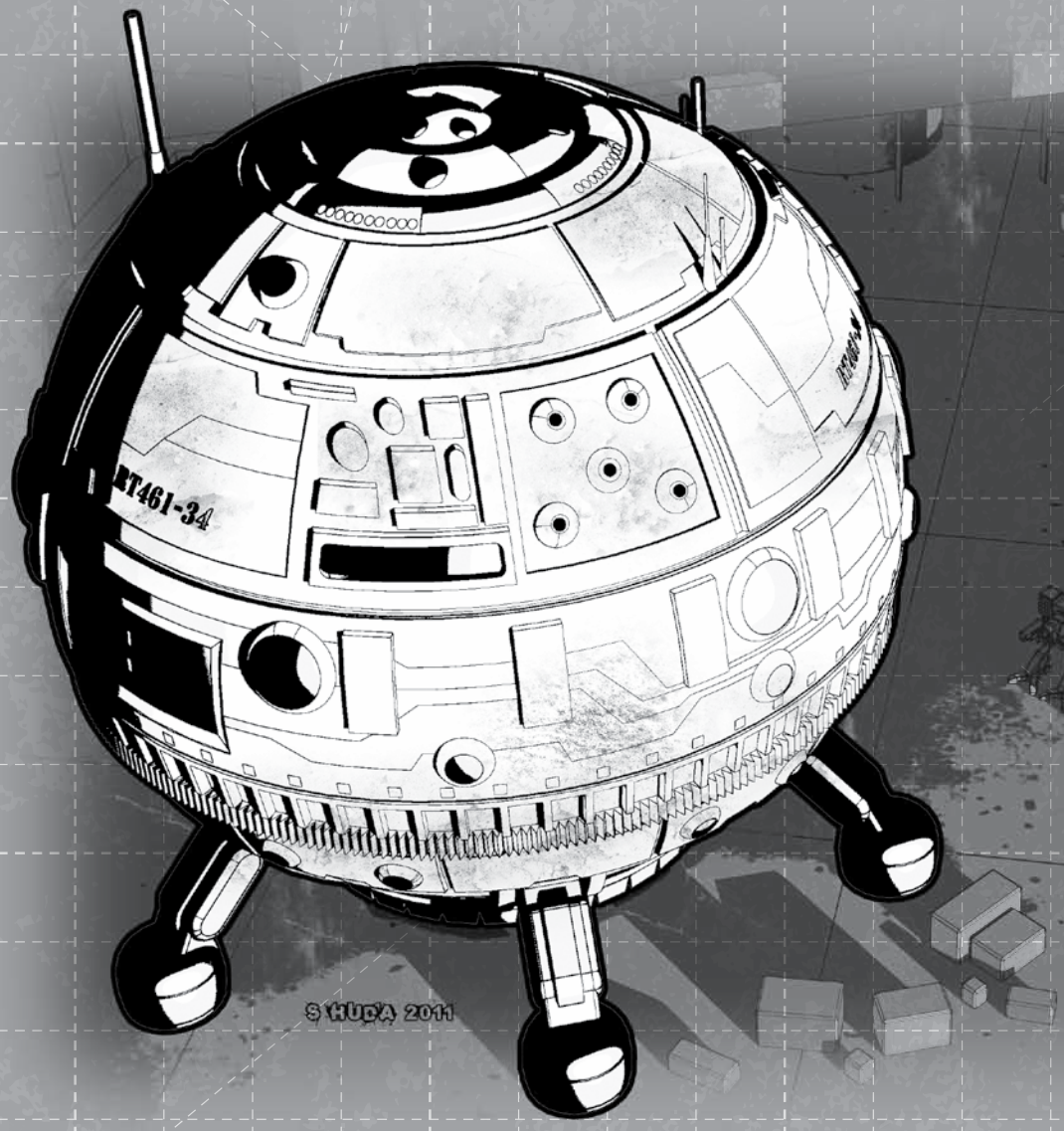
Cargo

Bay 1: Fighters (10)	4 Doors
Bay 2: Battle Armor (5 Points)	1 Door
Bay 3: Cargo (909 tons)	1 Door

Life Boats: 5
Escape Pods: 10
Crew: 3 officers, 5 enlisted/non-rated, 10 gunners, 50 bay personnel

Notes: Equipped with 56 tons of Ferro-Aluminum armor; Artillery Weapons can only be used when the DropShip is landed.

OUTPOST DEFENDER



Weapons:	Capital Attack Values (Standard)				
Arc (Heat) Type	**Short**	**Medium**	**Long**	**Extreme**	**Class**
Nose (168 Heat)					
2 Killer Whales (20 rounds)	8 (80)	8 (80)	8 (80)	8 (80)	Capital Missile
5 Arrow IV Missiles (100 rounds)	10 (100)	10 (100)	10 (100)	10 (100)	Artillery
4 ER Large Lasers	4 (40)	4 (40)	4 (40)	4 (40)	Laser
5 Medium Pulse Lasers	4 (35)	4 (35)	—	—	Pulse Laser
2 Laser Anti-Missile Systems	—	—	—	—	Point Defense
FR/FL (66 Heat)					
3 ER Large Lasers	3 (30)	3 (30)	3 (30)	3 (30)	Laser
5 Medium Pulse Lasers	4 (35)	4 (35)	—	—	Pulse Laser
2 Laser Anti-Missile Systems	—	—	—	—	Point Defense
AR/AL (50 Heat)					
2 ER Large Lasers	2 (20)	2 (20)	2 (20)	2 (20)	Laser
4 Medium Pulse Lasers	3 (28)	3 (28)	—	—	Pulse Laser
2 Laser Anti-Missile Systems	—	—	—	—	Point Defense
Aft (50 Heat)					
2 ER Large Lasers	2 (20)	2 (20)	2 (20)	2 (20)	Laser
4 Medium Pulse Lasers	3 (28)	3 (28)	—	—	Pulse Laser
2 Laser Anti-Missile Systems	—	—	—	—	Point Defense

With two Stars of WarShips lost by 3070, Clan Snow Raven was clearly hurting and looking to make up their weakness with whatever they had available. The *Titan*-class DropShip had been designed as a large escort, and the Clan had a number of spare hulls available for modification. The *Titan* seemed an obvious choice for refit. All they needed was a place to refit them.

United Outworlders Corporation had long operated a DropShip parts facility on Ramora, though it had never expanded into completed ships. As the only facility of its kind in the Outworlds Alliance, it was naturally a site of great interest to the Snow Ravens. They had already been assisting in designing and building the *Corax* and *Lightning* aerospace fighters there. Though there might have normally been some reservation about bringing advanced Clan technology on site, most of the parts would be imported or fabricated off-world in the *Potemkin*-class *Wild Swan* in orbit. Only installation would occur on the surface.

With only a limited number of hulls available, Clan Snow Raven sought to use the most advanced technology available to bring their ancient *Titan*s into the 31st century. At the hands of their technicians, the *Titan*s gained range and protection. Ferro-aluminum armor saw protection increased by forty-five percent. Additionally, a brace of laser anti-missile systems would provide protection for both the *Titan* and its charges from the nuclear missiles that had done so much damage to the Clan's navy. In general, the *Titan* lost firepower, but the weapons it gained were made to Clan specs and thus, much more far-reaching. Two of the aerospace hangars were replaced with four Killer Whale launchers and their associated ammunition. The loss of aerospace support would be painful, but after five years of war there were far fewer pilots available. Finally, in a show of the independence expected of the refitted ships, all were fitted with a HPG.

With the first ships coming online in the mid 3070s, all of Clan Snow Raven's surviving *Titan*s would be refitted by the end of the decade. None saw service outside of the Outworlds Alliance during the Jihad. Instead, their presence allowed the battered Snow Raven WarShip fleet to be decommissioned for extended refits as the Quatre Belle facility came online. Despite the lack of combat testing, the united Raven Alliance seems happy with the design and is searching the other Clans for more *Titan*s to refit.

Titan Monitor-class DropShip

Type: Military Aerodyne
Use: Assault DropShip
Tech: Clan (Advanced)
Introduced: 3086
Mass: 12,000 tons
Battle Value: 18,304

Dimensions
Length: 250 meters
Width: 162 meters
Height: 47.2 meters

Fuel: 480 tons (5,400 points)
Tons/Burn-day: 1.84
Safe Thrust: 5
Maximum Thrust: 8
Heat Sinks: 195 (390)
Structural Integrity: 18

Armor
Nose: 350
Wings: 345
Aft: 342

Cargo

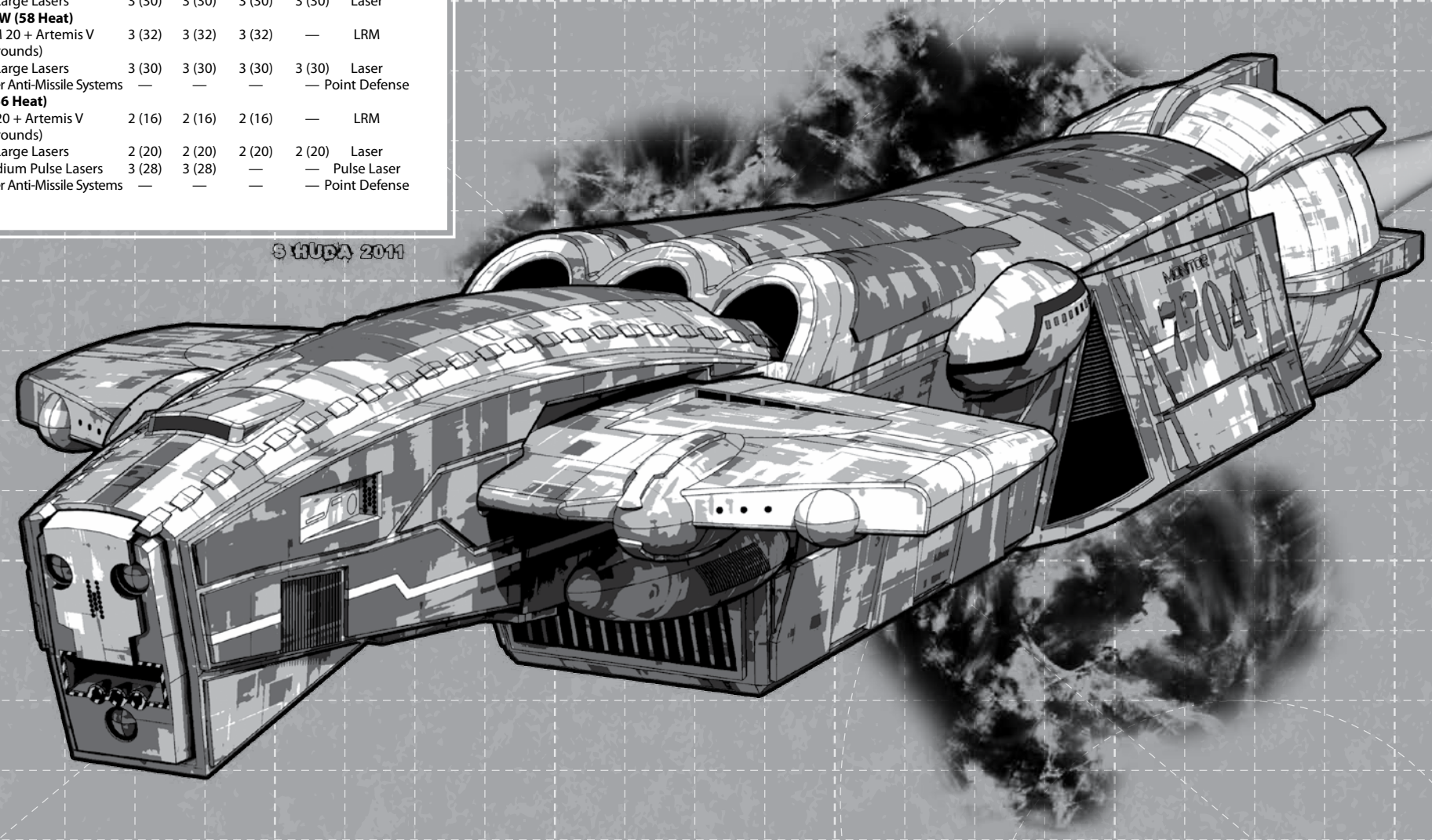
Bay 1: Fighters (10)	5 Doors
Bay 2: Cargo (1,881)	2 Doors

Life Boats: 4
Escape Pods: 4
Crew: 7 officers, 23 enlisted/non-rated, 8 gunners, 10 HPG crew, 20 bay personnel

Notes: Equipped with 78 tons of Clan Ferro-Aluminum armor. Also carries a Mobile HPG (50 tons).

TITAN MONITOR

Weapons:	Capital Attack Values (Standard)				
Arc (Heat) Type	**Short**	**Medium**	**Long**	**Extreme**	**Class**
Nose (134 Heat)					
4 Killer Whales (40 rounds)	16 (160)	16 (160)	16 (160)	16 (160)	Capital Missile
3 LRM 20 + Artemis V (60 rounds)	5 (48)	5 (48)	5 (48)	—	LRM
3 ER Large Lasers	3 (30)	3 (30)	3 (30)	3 (30)	Laser
RW/LW (58 Heat)					
2 LRM 20 + Artemis V (42 rounds)	3 (32)	3 (32)	3 (32)	—	LRM
3 ER Large Lasers	3 (30)	3 (30)	3 (30)	3 (30)	Laser
2 Laser Anti-Missile Systems	—	—	—	—	Point Defense
Aft (56 Heat)					
LRM 20 + Artemis V (24 rounds)	2 (16)	2 (16)	2 (16)	—	LRM
2 ER Large Lasers	2 (20)	2 (20)	2 (20)	2 (20)	Laser
4 Medium Pulse Lasers	3 (28)	3 (28)	—	—	Pulse Laser
2 Laser Anti-Missile Systems	—	—	—	—	Point Defense



TECHNOLOGICAL ADVANCEMENTS: 3090

Despite the widespread destruction of the Jihad—or perhaps because of it—the military technologies of the Inner Sphere, Periphery and Clans continued to advance. A combination of desperation, corporate back-deals, alliances, and Word of Blake interference spurred the spread of new weapons and equipment from the drawing boards and testing ranges to the battlefield.

In terms of *BattleTech* game play, the rules classifications of various equipment—Tournament Legal, Advanced, and Experimental—not only reflect the complexity of their rules, but also their availability to the manufacturers of the various in-universe factions. Tournament Legal weapons, for example, are readily available to all factions capable of a given technology base (Clan or Inner Sphere). Advanced weapons, meanwhile, are broadly available, but are either hard to come by or employ special rules that are not readily extrapolated from the core game rules of *Total Warfare*. Experimental weapons, meanwhile, reflect either extinct/disused technologies, or equipment still in the prototype phases—and thus are not available to mainstream manufacturing.

THE JIHAD TECHNOLOGY ADVANCEMENT TABLE

The technological advances of the *BattleTech* universe through the Jihad era brought many items and design options previously classified as Experimental into the mainstream. To reflect this, the Jihad Technology Advancement Table shown on pp. 206-208 shows how and when various new technologies and construction options offered in the *Tactical Operations* advanced rulebook moved from its previous rules classifications and into general, mainstream production. Where applicable, the years each item was first considered prototyped under its current rules class are shown (under the Prototyped column), followed by a year of introduction when the item moved to its new classification (under Introduced).

Estimated Introductions

Any year preceded with a tilde (~) reflects an estimated year of introduction, usually due to the fact that some factions gained access to the technology or technique within a year or two before others. Exact dates of introduction by faction are beyond the scope of this product, but campaign gamemasters may approach such estimated introduction years as an opportunity to slip in an item of new technology up to 2 years before (or up to 3 years after) the listed year. If randomness is desired, simply add (1D6 – 3) to the estimated year of introduction.

Unlisted Advanced and Experimental Items

Any Advanced- or Experimental-level equipment and items not listed in this table are unaffected by the technology progression of the Jihad and remain unchanged as of 3090.

NEW DESIGN QUIRKS

Beginning with this *Technical Readout*, special notes will be provided for applicable units whose fluff or images suggest additional features. These Design Quirks use the optional rules found in *Strategic Operations* (see pp. 193-199, *SO*), as well as few additional Quirks presented in this volume. Design Quirks are an advanced game rule, with limited game balance, and so they are not appropriate for tournament play. Instead, these unique effects would be far better suited to role-playing or campaign-based games, where greater in-universe depth is desired.

Unless noted otherwise in the Quirk's rules, each Design Quirk may be taken only once per unit.

ProtoMech Design Quirks

Under the normal Design Quirks rules, ProtoMechs may not select Design Quirks. If the players wish, however, several Design Quirks suitable for BattleMechs and IndustrialMechs may also be taken by ProtoMechs. These ProtoMech Design Quirks may be found in the ProtoMech Design Quirks Table. The point costs for ProtoMechs are the same as for 'Mechs.

PROTOMECH DESIGN QUIRKS TABLE

Positive Quirks

Accurate Weapon	Improved Communications
Distracting	Improved Sensors
Easy to Maintain	Improved Targeting
Extended Torso Twist	Variable-Range Targeting

Negative Quirks

Ammunition Feed Problem	Obsolete
Bad Reputation	Poor Performance
Difficult to Maintain	Poor Sealing
Exposed Weapon Linkage	Poor Targeting
Hard to Pilot	Poor Workmanship
Inaccurate Weapon	Prototype
No Torso Twist	Sensor Ghosts

Positive Quirk: Rumble Seat (0 points)
Available to: 'Mechs, Vehicles, Fighters/Small Craft

'Mechs, Vehicles, fighters, and other small aerospace craft are generally built with only enough seating for their operators, but some may contain a spare seat in their control areas in which a passenger (or observer/instructor) may ride along.

This Design Quirk may not be taken by any unit that employs a Small Cockpit, Torso-Mounted Cockpit, has the Cramped Cockpit Design Quirk, or is classified in the Light or Ultra-Light weight class.

A unit with a Rumble Seat has a single extra seat available in its command area (cockpit or crew cabin) suitable to carry one passenger in relative comfort. This seat is typically devoid of controls, and so this passenger may not control the unit (but may have access to the unit's sensors, and may even possess the ability to shut down the unit in the event of an emergency—a feature commonly used in training units). The passenger is susceptible to the same damage for any hits taken to the pilot/commander, but the seat is not ejection-capable (though it may be part of a cockpit that features a Full Head Ejection system or a vehicle with a Combat Vehicle Escape Pod).

A unit without a rumble seat must pay for passenger space in tonnage, as appropriate to the unit's construction rules.

Positive Quirk: Distracting (1 point)
Available to: 'Mechs, ProtoMechs, Vehicles, Fighters/Small Craft

A unit with the Distracting Quirk is physically designed to intimidate (or confuse) its opponent with its appearance. Examples include the fearsome visage of the *Atlas* BattleMech or the deliberately monstrous forms of the first-generation ProtoMechs, but can also include units cosmetically designed to appear more heavily armed or deadly than they truly are, such as the *Arbiter*.

A unit with the Distracting Quirk applies a +1 Special Source modifier to any Morale Checks its opponents must make when using the Tactical Morale rules (see pp. 211-213, *TO*). If using the Demoralizer Special Piloting Ability from *A Time of War* (see p. 225, *AToW*), the Distracting Quirk adds a +1 modifier to the demoralizer's WIL score.

Positive Quirk: Jettison-Capable Weapon (1 point)
Available to: 'Mechs, Vehicles

Some units are equipped with mounted weapons that can be jettisoned in combat and—if recovered—remounted on the same unit with ease. While this feature included early Star League-era attempts to develop handheld weapon mounts (as seen on the original *BattleMaster*, *Wolverine*, *Griffin*, and *Phoenix Hawk* designs), vehicles can also adapt this technology.

A 'Mech or Vehicle can carry a maximum of two Jettison-Capable Weapons, and must take the Jettison-Capable Quirk for each weapon so equipped. Handheld Weapons may not receive this Design Quirk, nor may any item mounted using pod technology (fixed weapons on an Omni-unit may be Jettison-Capable, however).

A Jettison-Capable Weapon may be dropped in combat using the basic rules for Dumping Ammunition (see p. 104, *TW*), except there is no risk of explosion from the jettisoning weapon, and thus there are no special effects when a unit jettisoning its weapons is struck from the rear. Jettisoning an ammunition-dependent weapon does not also jettison its ammunition. Treat any untouched critical locations for a Jettison-Capable Weapon as a Roll Again result if they are struck after the weapon is jettisoned.

A jettisoned weapon's location should be racked in campaign play, as it can be recovered and re-mounted on the unit later using the same rules and time spent as an ammunition reload (though any critical hits the weapon may have sustained before being jettisoned will still need to be repaired). As with dumped ammunition—and unlike truly independent Handheld Weapons—jettisoned weapons may not be picked up and used by other units.

Negative Quirk: Obsolete (4 points)
Available to: All Units

A unit with the Obsolete Quirk is completely out of production, and parts for the same are extremely scarce. Examples of this include Land-Air 'Mechs after 3050, the ICR-1X *Icarus* BattleMech, and most Inner Sphere WarShips after the Jihad. Though still serviceable—and maybe even effective—an obsolete unit is extremely difficult to maintain after its parts sources go silent, forcing technicians to resort to jury-rigging and hand-machining even the most basic structural parts and electronics to keep it battle worthy.

A unit with the Obsolete Quirk cannot have any variants in active production, and must note the year in which its production ceased as part of the Quirk. After that, the unit will become increasingly hard to maintain, and its resale price will drop (for anyone except antique collections, that is). To reflect this, for every 15 years after production of an obsolete unit ceased, any rolls to repair or replace equipment on the unit—or to even locate said parts—will suffer a +1 target number increase (to a maximum of +5). In addition, for every 20 years after production of an obsolete unit ceased, the resale cost (but not the purchase cost) will decrease by 10 percent (to a minimum of 50 percent).

A unit that somehow comes back into production after becoming obsolete automatically negates this Quirk 10 years after returning to production.

Note that an obsolete unit may still receive additional modifiers for other Design Quirks such as Difficult to Maintain, Easy to Maintain, and Non-Standard Parts.

Negative Quirk: Poor Sealing (2 points)
Available to: 'Mechs, ProtoMechs, Vehicles, Battle Armor

A unit with the Poor Sealing Design Quirk suffers from imperfections in its structural and armor design that make it more susceptible to leaks and other failures in hostile environments. In any situation where a unit much check for hull breaches and/or flooding (such as suffering damage while operating in vacuum, toxic environments and underwater), this Quirk adds a modifier of +2 to the roll when making a Hull Breach check. If the unit would otherwise not be susceptible to hull breaches, consider it to have a base Hull Breach TN of 12 before applying this modifier.

In addition to the above, a unit with Poor Sealing must also make a Hull Breach check when first entering a hostile environment (such as exiting a DropShip into vacuum or toxic atmospheres, when entering water, or when becoming completely submerged in water). Failure will result in a flood to a random location that is exposed to the hostile environment (use the appropriate Front Locations Table to determine the affected area).

JIHAD TECHNOLOGY ADVANCEMENT TABLE

Weapon/Item	Previous Class	Prototyped	New Class	Introduced	Tech Base
Active Probes					
Bloodhound AP	Exp	3058	Adv	3082	IS
Watchdog CEWS	Exp	3059	TL	3080	Clan
Angel ECM	Exp	3057IS / 3058C	Adv	~3080	IS/Clan
Armor					
Hardened	Exp	3047IS / 3061C	Adv	~3081	IS/Clan
Laser-Reflective	Exp	3058IS / 3061C	Adv	~3080	IS/Clan
Reactive	Exp	3063IS / 3065C	Adv	~3081	IS/Clan
Vehicular Stealth	Exp	3067	Adv	3084	IS
Armored Components	Exp	3061	Adv	~3082	IS/Clan
Armored Motive System	Exp	3071IS / 3057C	Adv	~3083	IS/Clan
Artemis V Fire Control System	Exp	3061	Adv	3085	Clan
Artillery Cannons	Exp	3012IS / 3032C	Adv	~3079	IS/Clan
Autocannons					
Hyper-Velocity AC/2/5/10	Exp	3059	Adv	3079	IS
BattleMech Melee Weapons					
Chain Whip	Exp	3071	Adv	3084	IS
Flail	Exp	3057	TL	3079	IS
Lance	Exp	3064	Adv	3083	IS
Mace	Exp	3061	TL	3079	IS
Spikes	Exp	3051	Adv	3082	IS
BattleMech/ProtoMech Motive Systems					
Mechanical Jump Boosters	Exp	3060	Adv	3083	IS
Partial Wing ('Mech)	Exp	3067	Adv	~3085	IS/Clan
Partial Wing (ProtoMech)	Exp	3067	Adv	3085	Clan
UMUs	Exp	3066IS / 3061C	Adv	~3084	IS/Clan
Booby Trap	Exp	PS	Adv	~3080	IS
CASE II	Exp	3064IS / 3062C	Adv	~3082	IS/Clan
Chaff Pod	Exp	3069	Adv	3079	IS
Cockpit Systems					
Small Aerospace Cockpit	Adv	3070	TL	~3081	IS/Clan
Small BattleMech Cockpit	TL	3065IS	TL	~3070	IS/Clan*
Torso-Mounted Cockpit	Exp	3053IS / 3055C	Adv	~3080	IS/Clan
Coolant Pod	Exp	3049IS / 3056C	Adv	~3079	IS/Clan
Engines					
Combat Vehicle Fission	Adv	2882	TL	~3079	IS/Clan
Combat Vehicle Fuel Cell	Adv	ES	TL	~3078	IS/Clan
Large (Non-XXL)	Exp	2630	Adv	~3085	IS/Clan
Ejection Systems					
Combat Vehicle Escape Pod	Exp	3038	Adv	3079	IS
Flamers					
ER Flamer	Adv	3070IS / 3067C	TL	~3081	IS/Clan
Heavy Flamer	Adv	3068IS / 3067C	TL	~3079	IS/Clan
Gauss Rifles					
Improved Heavy Gauss	Exp	3065	TL	3081	IS

JIHAD TECHNOLOGY ADVANCEMENT TABLE

Weapon/Item	Previous Class	Prototyped	New Class	Introduced	Tech Base
Magshot	Adv	3072	TL	3078	IS
Silver Bullet Gauss	Exp	3051	TL	3080	IS
Grenade Launcher, Vehicle	Adv	PS	TL	~3080	IS/Clan
Handheld Weapon	Exp	3055IS / 2490C	Adv	~3083	IS/Clan
Heat Sinks					
Compact Heat Sinks	Exp	3058	Adv	3079	IS
Lasers					
Binary (Blazer) Cannon	Exp	2812	TL	3077	IS
Bombast Laser	Exp	3064	Adv	3085	IS
Chemical Lasers	Exp	3059	Adv	3083	Clan
ER Pulse Lasers	Exp	3057	Adv	3082	Clan
Improved Heavy Lasers	Exp	3069	Adv	3085	Clan
X-Pulse Lasers	Exp	3057	Adv	3078	IS
Laser Anti-Missile System	Exp	3059IS / 3048C	Adv	~3079	IS/Clan
MASS	Exp	3048IS / 3062C	Adv	~3083	IS/Clan
Missile Launchers					
Enhanced LRMs	Exp	3058	TL	3082	IS
Extended LRMs	Exp	3054	Adv	3080	IS
Improved OS Launcher	Adv	3056IS / 3058C	TL	~3081	IS/Clan
Streak LRMs	Exp	3057	Adv	~3079	Clan
PPC Capacitor	Exp	3060	Adv	3081	IS
ProtoMech Melee Weapon	Exp	3067	TL	3077	Clan
Rifle (Cannon)	Exp	PS	TL	~3084	IS
Structure					
Composite	Exp	3061	Adv	3082	IS
Endo-Composite	Exp	3067IS / 3073C	Adv	~3085	IS/Clan
Reinforced	Exp	3057IS / 3065C	Adv	~3084	IS/Clan
Supercharger	Exp	ES	Adv	~3078	IS/Clan
Taser	Adv/Exp**	3067	Adv	3084	IS
Thunderbolt Launchers	Adv	3072	TL	3081	IS
Turrets					
'Mech Turret (Shoulder)	Exp	2450	Adv	~3082	IS/Clan
'Mech Turret (Head)	Exp	2450	Adv	~3082	IS/Clan
'Mech Turret (Quad)	Exp	2320	Adv	~3079	IS/Clan
Dual Turret (Vehicle)	Exp	PS	TL	~3080	IS/Clan
Sponson Turret (Vehicle)	Exp	PS	TL	~3079	IS/Clan
VTOL Chin Turret	Exp	PS	TL	~3079	IS/Clan
Vehicular Jump Jets	Exp	2650	Adv	~3083	IS/Clan
Void-Signature System	Exp	3070	Adv	3085	IS
VTOL Jet Booster	Exp	ES	Adv	~3078	IS/Clan

JIHAD TECHNOLOGY ADVANCEMENT TABLE

Weapon/Item	Previous Class	Prototyped	New Class	Introduced	Tech Base
Additional ProtoMech Tech					
Extended Jump Jets	Exp	3071	TL	~3079	Clan
Magnetic Clamp System	Exp	3070	Adv	~3080	Clan
Battle Armor Tech					
BA Mechanical Jump Boosters	Exp	3070	Adv	~3084	IS/Clan*
BA Myomer Booster	Exp	3072	Adv	3085	Clan
BA Detachable Weapon Pack	Adv	3073IS / 3072C	TL	~3080	IS/Clan
ER Pulse Lasers	Exp	3057	Adv	3082	Clan
Conventional Infantry Tech					
Disposable Weapons	Adv	Variable	TL	NA	IS/Clan
Heavy Weapons Ammunition					
Caseless AC Ammo	Exp	3056	Adv	3079	IS
Flak AC Ammo	Adv	2310	TL	~3070	IS/Clan
Air-Defense Arrow	Exp	3068	Adv	3080	IS
Laser-Inhibiting Arrow	Exp	3053	Adv	3083	IS
Anti-Ship Missile (Bomb)	Exp	3071	Adv	~3072	IS/Clan*
Fragmentation Grenades	Adv	PS	TL	~3072	IS/Clan
Artemis V Missiles	Exp	3061	Adv	3085	Clan
Construction Options					
Mixed Technologies	Exp	—	Adv	~3082	IS/Clan
Patchwork Armor	Exp	—	Adv	~3080	IS/Clan
ProtoMech Glider Chassis	Exp	3075	Adv	~3084	Clan
ProtoMech Quadruped Chassis	Exp	3075	Adv	~3083	Clan
ProtoMech Ultraheavy Chassis	Exp	3075	Adv	~3083	Clan
Super-Heavy Combat Vehicles	Exp	—	TL	~3075	IS/Clan
Ultra-Light BattleMechs	Exp	—	TL	~3075	IS/Clan

**Newly devised Clan tech version is identical to Inner Sphere version in every way.*

***Refers to the battle armor and vehicle-scale Tasers, respectively.*

KEY OF TERMS

Rule Classes

Exp = Experimental Rules (Requires *TO*, but not in general production)

Adv = Advanced Rules (Requires *TO*, currently in general production)

TL = Tournament Legal (Compatible with *TW* and *TM* game play, currently in general production)

Prototype Years and Tech Base

PS = Pre-Spaceflight

ES = Early Spaceflight

IS = Inner Sphere technology base (includes non-Clan Periphery realms)

C = Clan technology base (includes Homeworld Clans and Clan-controlled Inner Sphere regions)