



### INTRODUCTION

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It should come as no shock in this, our fourth volume detailing the most important and groundbreaking combat units of the Age of War, that we are also detailing brief slices of Humanity's history. And, of course, in the process, we find ourselves both shedding light on a well-known—yet poorly understood—era, as well as uncovering new details that may well debunk "facts" we all thought to be true.

In this volume, we cover a couple of the most iconic BattleMechs ever to see the light of day—the *Griffin* and the *Rifleman*—though these first incarnations are quite different than the models that we all know from the Succession Wars and beyond. We also finally present hard facts on the *Swordsman*—a 'Mech you likely know nothing about, but which played roles in two very important conflicts. There's also the *Toro*, the Taurian Concordat's first BattleMech, and the *Xanthos*, the first (failed) quad-legged BattleMech, and likewise the first (failed) model of the famous *Emperor*.

Similarly, we have collected information on a wide variety of other battlefield units. The Chi-Ha, which played a key role in the formative years of the Draconis Combine, the Cobra VTOL, which played a similar role in the early days of the Terran Hegemony, and the Sturmblitz, which not only introduced the Human Sphere to the class-20 autocannon but also helped stabilize the Lyran Commonwealth. We also present the *Hammerhead*, one of the Hegemony's first aerospace fighters, as well as the *Mustang* and the *Intrepid*, both key designs fielded by the Federated Suns. And finally, there's the *DroST IIb*, a dedicated carrier ship and sister design of the *DroST Ila*-class DropShip we presented in our history of the Reunification War.

Our work is, of course, far from complete. The Age of War remains an era rife for the plumbing, and we will continue doing so, in the process bringing a better understanding of our history and of us. After all, this is who we are.

—Dr. Saga Brest, 29 December 3079

### HOW TO USE THIS BOOK

The 'Mechs, combat vehicles, and fighters described in *Experimental Technical Readout: Primitives, Volume 4* provide players with a sampling of designs from the period of time covered by the Age of War and the rise of the First Star League. While the focus of the designs featured in this book is historical, many of the designs have modern counterparts detailed in other Technical Readouts.

The rules for using 'Mechs, vehicles and fighters in BattleTech game play can be found in *Total Warfare*, while the rules for their construction can be found in *TechManual*. However, the primitive nature of these designs also utilized the RetroTech construction rules found in *Jihad Secrets: The Blake Documents*, supplemented by the Experimental-level rules presented in *Tactical Operations*.

#### **Developer's Addendum**

Astute readers may notice that several of the designs that will appear in this and other volumes of the *XTR*: *Primitives* mini-series have appeared in previous *Record Sheets* books such as *Record Sheets*: 3075, or in sourcebooks such as *Historical*: *Reunification War*. This redundancy is intentional, both as a means of correcting minor errors in the original Primitive units' stats (where conflict arises, the *Primitives XTR*s supersede) and as a means of providing a clearer and more focused treatment of the primitive machines that were contemporaries during the Age of War.

### INTRODUCTION

### CREDITS

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**Special Thanks:** ...to oxygen (the element, not the cable channel), without which most things would be a tad more difficult.



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### TR-A-1 TORO

Field Testing Summation: Original Toro Primitive Chassis Producer/Site: Taurus WarWorks, Taurus Supervising Engineer: José Arámbula Prototype Introduction Date: 2481 **Non-Production Equipment Analysis:** 

**Primitive Armor Primitive Cockpit Primitive Engine** 

#### Overview

Under the leadership of Protector Amanda Calderon and her successors, the Taurian Concordat enjoyed a century and a half of relative peace, beginning in 2425-during the height of the Age of War. So while seemingly every major realm was at war with each other, the Concordat pursued the duel strategies of non-interference and peace through superior firepower. Like every other power of the time, the Concordat actively pursued the BattleMech, especially after the Federated Suns debuted its BattleAxe in 2459. Over the course of two decades, Taurian agents procured a wide variety of key BattleMech technologies, allowing the Concordat to develop many of the supporting advancements needed to finally produce its own 'Mechs. The final pieces to the puzzle came in 2475, when the Concordat took possession of several Capellan Firebees.

Three different teams of Taurian defense contractors competed to design and build the Concordat's first home-sourced BattleMech. The government-run Taurus WarWorks, with its direct access to the Concordat intelligence services (as well as many former ranking Taurian Defense Force officers on its payroll), won the competition with its Toro. Though its competitors had apparently submitted heavier and more daring designs, the official competition reports indicate the Toro was more stable and reliable than the others.

Of course, that was undoubtedly aided by the fact that the Capellans had already solved many of the engineering problems for fielding a thirty-five ton BattleMech. Using the Firebee not only as a basis, but as a direct starting point, Taurus WarWorks' engineers downgraded the Firebee's power plant to a 170-rated engine, freeing up mass needed to mount additional armor and a heavier primary weapon. The resulting bulked-up Toro carried a large-class laser, while also retaining the Firebee's two torsomounted dual-SRM launchers as backup. Though not as swift as the Firebee, the Toro was nonetheless more mobile than most other BattleMechs in service at the time, and carried heavier armor and more raw firepower than its predecessor. It could not stand toe-totoe with most other 'Mechs on the field, but neither was it meant to; as a light Periphery 'Mech, it was designed to engage and eliminate conventional targets, while working in force alongside conventional TDF forces to isolate and destroy enemy BattleMechs.

The first prototype Toros walked out of Taurus WarWorks' labs in August of 2481, with the first generation models delivered to the TDF less than two years later. Even though the TDF fielded many more BattleMech designs over the course of the next century including several copies of common Inner Sphere designs-the Toro received numerous upgrades, remaining in front line service until the end of the Reunification War

#### Type: Toro

Technology Base: Inner Sphere (Primitive) Tonnage: 35

Equipment			Mass
Internal Structure:			3.5
Engine:	170 Primiti	ive	6
Walking MP:	4		
Running MP:	6		
Jumping MP:	0		
Heat Sinks:	10		0 -
Gyro:	10		2
Cockpit (Primitive):			5
Armor Factor (Primitive):	112		10.5
Annoi ractor (Finnitive).	Internal	Arm	
	Structure		
Head	3	9	
Center Torso	11	9 14	
Center Torso (rear)		5	
R/L Torso	8	13	
R/L Torso (rear)	0	3	
R/L forso (rear) R/L Arm	6	د 11	
R/L Leg	8	15	
R/L Leg	0	1.	)
Weapons and Ammo	Location	Critical	Tonnage
SRM 2	RT	1	1
SRM 2	LT	1	1
Ammo (SRM) 50	LT	1	1
Large Laser	LA	2	5
-			
Notes: Features the follow	wing Design Q	uirks: Cra	mped Cockp
Narrow Profile, Ob			
(Large Laser)	,		5
· · J · · · · /			



### SWD-1 SWORDSMAN

Field Testing Summation: Original Swordsman Primitive Chassis Producer/Site: Jerricho Industries, Robinson Supervising Engineer: Andelina Shohomm Prototype Introduction Date: 2463 Non-Production Equipment Analysis:

Primitive Armor Primitive Cockpit Primitive Engine

#### Overview

One of the very first military projects authorized by First Prince James Davion after his rise to power, the *Swordsman* was intended to be a mid-weight, relatively inexpensive BattleMech that could be built in large numbers and assigned into the AFFS' swelling BattleMech corps, leaving heavier 'Mechs like the *Mackie* and *Battleaxe* as the core of the Federated Suns' attack and assault formations.

Given that the *Swordsman* was intended to be the backbone of the Federated Suns' BattleMech corps, it was to be produced by several different manufacturers across the nation, though Jerricho Industries of Robinson took charge of the design and initial production—due solely to the behind-the-scenes political maneuvering of Terran March Prince and Jerricho's principal stockholder, Mikhail Rostov. The target mass of forty tons, with mobility matching that of the *Mackie* (and the *Battleaxe*) and requirement to carry a Class-5 autocannon (a budget-conscious decision), were provided by the AFFS. Based on those requirements, Jerricho's team submitted three different prototypes before receiving acceptance from the AFFS. The final design incorporated a five-tube long-range missile launcher opposite the autocannon, both in the 'Mech's torsos, as well as a medium-class laser in each of its two fully articulated arms.

Given the short development time—less than five years from the initial request to acceptance—the *Swordsman* suffered from a number of different problems, some minor and some potentially debilitating. Nonetheless, Rostov pressed hard for the construction of the 'Mech, which quickly became the predominant design within his Terran March, though wide acceptance within the remainder of the AFFS was not as forthcoming. Despite the original mandate that it be built in numerous facilities across the Federated Suns, *Swordsman* construction never expanded beyond Robinson. Jerricho Industries nonetheless continued to refine and upgrade the design, ultimately debuting the SWD-2 model in 2482 which fixed most of the problems experienced in the original models while at the same time increasing mobility and armor, and also incorporating a four-tube short-range missile launcher.

The SWD-2 *Swordsman*, both newly constructed 'Mechs as well as a handful of upgraded original models, remained the primary front-line BattleMech of the AFFS' Terran March until the end of the Davion Civil War, when First Prince Alexander Davion ordered the *Swordsman* lines shut down and at the same time dismantled the Terran March (as well as the Suns' Outer March), in part as repayment for the disloyalty shown by Dmitri Rostov grandson of Prince Mikhail Rostov—during the war. Davion completed his dismantling of the former Terran March (and Rostov) power base by transferring the bulk of its surviving regiments (which also included the majority of *Swordsmans* still in service) to the nascent SLDF in 2571.

Those *Swordsman* 'Mechs that survived the Reunification War were either mothballed or transferred to reserve and militia formations across the Star League, a fact that ensured a handful of the Federated Suns' third home-grown BattleMech design (behind the *Battleaxe* and the *Wolverine*) would remain in service until the Amaris Civil War.

#### Type: Swordsman

Technology Base: Inner Sphere (Primitive) Tonnage: 40

Equipment			Mass
Internal Structure:			4
Engine:	145 Primiti	ive	5
Walking MP:	3		
Running MP:	5		
Jumping MP:	0		
Heat Sinks:	10		0
Gyro:			2
Cockpit (Primitive):			5
Armor Factor (Primitive):	107		10
	Internal	Arm	or
	Structure	e Valu	ie
Head	3	9	
Center Torso	12	15	
Center Torso (rear)		5	
R/L Torso	10	14	
R/L Torso (rear)		5	
R/L Arm	6	8	
R/L Leg	10	12	
Weapons and Ammo	Location	Critical	Tonnage
Medium Laser	RA	1	1
LRM 5	RT	1	2
Ammo (LRM) 24	RT	1	1
AC/5	LT	4	8
AC/3 Ammo (AC) 20	IT	4	0 1
Medium Laser	LA	1	1
Medium Laser	LA	1	I

**Notes:** Features the following Design Quirks: Accurate Weapon (AC/5), Ammunition Feed Problem (AC/5), Bad Reputation, Obsolete (2482), Poor Workmanship, Searchlight.



### **RFL-1N RIFLEMAN**

Field Testing Summation: Original *Rifleman* Primitive Chassis Producer/Site: Kallon Corporation, Nanking Supervising Engineer: Gibb Nakaryin Prototype Introduction Date: 2504 Non-Production Equipment Analysis:

Primitive Armor Primitive Cockpit Primitive Engine

#### Overview

In 2490, the Kallon Corporation was one of countless of Hegemony sub-contractors looking to expand its operations to become a primary weapons suppliers. It had already begun to produce a series of conventional armored vehicles and tanks, but CEO Singa Kallon set his sights far higher and recruited a team of engineers to design a BattleMech that would be accepted for production by the Hegemony Armed Forces.

Kallon's mandate was easier said than done, however. The company had to not only develop the engineering processes required to construct a BattleMech, but also had to build a base of industrial sub-contractors—many of whom were warned by the largest Hegemony military suppliers that any support of Kallon could mean an end to their own massive contracts with the "big boys."

Kallon finally submitted its first 'Mech, code-named FALCON BLUE, to the HAF, but that was rejected in 2501. Kallon came back three years later with the FALCON GRAY, which the HAF accepted on a provisional basis for assignment to militia units (and approved for sale to authorized private security concerns) in 2505. Named *Rifleman*, this was a mid-weight 'Mech mounting an arsenal of purely energy weapons—paired Class B and C medium and large lasers produced in-house by Kallon—making the *Rifleman* perfectly suited for extended fire-support, defensive and garrison assignments. Uniquely for the time period, the *Rifleman* mounted all of its weapons in its arms and dispensed with hands or lower arm actuators—in reality a cost- and time-saving measure made by Kallon during the rush to submit the 'Mech to the HAF—giving it an unparalleled field of fire compared to any other 'Mech or tank in Hegemony service.

The *Rifleman* was produced in moderate numbers through the first half of the twenty-sixth century, enough to cement the Kallon Corporation's position and to see the wide proliferation of the *Rifleman*. The Treaty of Geneva in 2556 ushered in a whole new era for the *Rifleman*, however. The Kallon Corporation took advantage of the treaty's economic benefits to open up production facilities within the Capellan Confederation and to debut the -2N model, a modernized *Rifleman* for the HAF carrying the Air Aggressor Fire Control Adjuster that transformed the 'Mech into an ideal anti-aircraft platform. Both *Rifleman* models served through the end of the Reunification War, by which time the -1N was retired from common House and militia service in favor of the -2N, which continued to serve the SLDF and member-state militaries until Kallon introduced the sixty-ton *Rifleman* RFL-3N in 2770. The -3N remained in constant production for more than three more centuries, despite Earthwerks' eventual takeover of Kallon, the fall of the Star League, and the Succession Wars.

#### Type: Rifleman

Technology Base: Inner Sphere (Primitive) Tonnage: 50

<b>Equipment</b> Internal Structure:			Mass 5
Engine:	240 Primit	ive	11.5
Walking MP:	4		
Running MP:	6		
Jumping MP:	0		
Heat Sinks:	12		2
Gyro:			3
Cockpit (Primitive):			5
Armor Factor (Primitive):	123		11.5
	Internal	Arm	or
	Structure	e Val	ue
Head	3	6	
Center Torso	16	23	3
Center Torso (rear)		4	
R/L Torso	12	15	5
R/L Torso (rear)		2	
R/L Arm	8	15	5
R/L Leg	12	13	3
Weapons and Ammo	Location	Critical	Tonnage
Large Laser	RA	2	5
Medium Laser	RA	1	1
Large Laser	LA	2	5
Medium Laser	LA	1	1

**Notes:** Features the following Design Quirks: Anti-Aircraft Targeting, Obsolete (2504), Searchlight.





### **GRF-1A GRIFFIN**

Field Testing Summation: Original *Griffin* Primitive Chassis Producer/Site: Maxwell Manufacturing, Inc., Procyon Supervising Engineer: Helina Pendergrass Prototype Introduction Date: 2465 Non-Production Equipment Analysis:

Primitive Armor Primitive Cockpit Primitive Engine Prototype Jump Jets Prototype PPC

#### Overview

The introduction of the *Mackie* prompted a massive arms race the likes of which Humanity had never seen before (or has yet seen again). While the five Great Houses struggled and plotted to steal the secrets of the BattleMech, the Terran Hegemony pushed hard to ensure that it would retain the technological lead while also remaining the strongest militarily, prompting several calls for new BattleMechs during the twenty-fifth century.

Maxwell Manufacturing, Inc., was not an original stakeholder in the design and production of the *Mackie*, but its engineering prowess and WorkMech production capacity impressed the Hegemony government enough that it encouraged the company to compete in producing a "highly mobile BattleMech" for the HAF. Maxwell's designers used a target mass of sixty tons, enough that it could carry a powerful PPC, with enough available mass remaining to also mount a five-tube LRM launcher. With those weapons, a *Griffin*'s MechWarrior could successfully engage enemy targets at the longest of ranges, while the 'Mech's nearly 65 kph top speed meant that it could remain at range with ease or rush in to deliver a *coup de grace* upon its enemies.

[Editor's note: Unfortunately, the particle cannons made available to these early Griffins were of less-efficient, prototype-quality, because the Hegemony had yet to achieve sufficient production of the weapon to meet all of its needs at that time. For this reason, Maxwell's engineers housed the weapon in an improvised cooling jacket system that helped mitigate a fraction of its excess heat.]

Lacking any significant short-ranged weaponry, a *Griffin's* MechWarrior had to rely upon the mass of numbers to effectively engage point-blank targets, falling back upon physical attacks as a last resort.

Most importantly, the *Griffin* jump capability cemented Maxwell's offering as the competition's front-runner, though like General Mechanics (with the *Wasp*) before it, and soon enough with Lang Industries (which was developing the *Shadow Hawk*), Maxwell's engineers struggled with control and stabilization problems inherent to propelling a multi-ton machine ninety meters through the air. Those problems were minor when compared to those experienced by the 'Mech's predecessors however, and quickly overshadowed by the *Griffin*'s capabilities. Within just a few years of its deployment, the *Griffin* had taken the prominent role in assault battalions throughout the HAF, where it would attack in the first stages of any HAF offensive.

The *Griffin* remained on the front lines even after the state of the art had superseded it. A series of financial errors and misconduct on the part of Maxwell's corporate officers in the last decade of the twenty-fifth century placed the corporation into receivership before it was dissolved and its assets sold to Earthwerks, Incorporated. Soon after, the *Griffin* received a complete overhaul into the "modern" GRF-1N—five tons lighter but a third faster, with better jump capacity, a bigger missile launcher and slightly better heat capacity—which remained the "standard" for centuries longer.

#### Type: Griffin

Technology Base: Inner Sphere (Primitive) Tonnage: 60

Equipment Internal Structure:			Mass
Engine:	290 Primiti	ve	17.5
Walking MP:	4	vc	17.5
Running MP:	6		
Jumping MP:	3		
Heat Sinks:	11		1
Gyro:			3
Cockpit (Primitive):			5
Armor Factor (Primitive):	155		14.5
	Internal	Arm	or
	Structure	e Valu	le
Head	3	9	
Center Torso	20	21	
Center Torso (rear)		7	
R/L Torso	14	21	
R/L Torso (rear)		6	
R/L Arm	10	14	ŀ
R/L Leg	14	18	3
Weapons and Ammo	Location	Critical	Tonnage
Prototype PPC	RA	3	7
I RM 5	RT	1	2
Ammo (LRM) 24	RT	1	2
Prototype Jump Jet	СТ	1	1
Prototype Jump Jet	RT	1	1
Prototype Jump Jet	LT	1	1

**Notes:** Equipped with Prototype Jump Jets; features the following Design Quirks: Improved Cooling Jacket (Prototype PPC), Jettison-Capable Weapon (Prototype PPC), Obsolete (2595), Poor Sealing.





### **EMP-1A EMPEROR**

Field Testing Summation: Original Emperor Primitive Chassis Producer/Site: Quarry Arms, Terra Supervising Engineer: Octavi Lang Prototype Introduction Date: 2442 Non-Production Equipment Analysis:

Primitive Armor Primitive Cockpit Primitive Engine

#### Overview

As a part of the original consortium that designed and built the *Mackie*, Quarry Arms was in a prime position to win the competition to produce the Hegemony's next BattleMech. In fact, before production of the *Mackie* even began, Quarry's Dr. Octavi Lang began working on a concept he sketched out while assigned to the *Mackie* team. Project Emperor was an aggressive concept that married two of the largest autocannon available at the time and a bevy of lasers to a lighter but better-armored chassis than the *Mackie*.

Unfortunately, neither Dr. Lang nor the Quarry Arms Board of Directors fully realized the engineering difficulties of designing and developing a machine as complex as a BattleMech without assistance, even with all of the engineering data generated during the development of the *Mackie* at their disposal. The upstart Martinson Armaments trumped every other manufacturer by winning the first design competition with their *Kyudo*, while former corporate ally Hegemony Weapons Research won the second competition with their *Banshee* offering.

Quarry's problems with the *Emperor* were many. Though the company finally debuted its first two prototypes in the final weeks of 2442, both suffered numerous problems. By the time Quarry resolved the 'Mech's multitude of balance, power distribution, EM interference, ammunition feed, under-performing myomer and cascading electronics systems issues, the two prototype *Emperors* were little more than battered "Franken-Mechs" that bore only passing resemblance to their original design. Quarry built two more prototypes in 2452, but four years later lost the next competition to General Mechanics' *Orion*, which HAF evaluators felt was a more powerful design at fifteen tons less mass.

Discouraged, Quarry shelved the *Emperor*, though Dr. Lang and a small team of associates continued to unofficially tweak the design, which the HAF finally accepted for a limited "emergency" production run in 2464 to boost the size of its BattleMech corps after the Free Worlds League and Capellan Confederation both gained BattleMech technology. The last EMP-1A production models were delivered in 2472, serving primarily in support roles within assault regiments and in defensive assignments where its tremendous armor but limited overall firepower (Dr. Lang's team could never solve the problem of successfully mounting class-10 autocannon in place of the lower caliber class-5 weapons) were best employed. The *Emperor* was obsolete before its production run was complete. Those that weren't upgraded in the 2580s and '90s to the -5A standard—which carried two large-class lasers, more heat sinks and also mounted jump jets—were soon relegated to garrison units or mothballed. Many of those found their way into the militaries of the Star League Member-States during the Reunification War, which was the 'Mech's final hurrah, at least until StarCorps introduced a new high-tech model in 2612.

#### Type: Emperor

Technology Base: Inner Sphere (Primitive) Tonnage: 90

Equipment			Mass
Internal Structure:			9
Engine:	325 Primitive		23.5
Walking MP:	3		
Running MP:	5		
Jumping MP:	0		
Heat Sinks:	10		0
Gyro:			4
Cockpit (Primitive):			5
Armor Factor (Primitive):	273		25.5
	Internal	Armor	
	Structure	Value	
Head	3	9	
Center Torso	29	46	
Center Torso (rear)		10	
R/L Torso	19	30	
R/L Torso (rear)		8	
R/L Arm	15	30	
R/L Leg	19	36	

Weapons and Ammo	Location	Critical	Tonnage
AC/5	RA	4	8
Ammo (AC) 40	RT	2	2
Medium Laser	RT	1	1
Medium Laser	Н	1	1
Medium Laser	LT	1	1
Ammo (AC) 40	LT	2	2
AC/5	LA	4	8

**Notes:** Features the following Design Quirks: Bad Reputation, Command BattleMech, Obsolete (2470).





### **XNT-20 XANTHOS**

Field Testing Summation: Original Xanthos Primitive Chassis Producer/Site: Hollis Industries, Corey Supervising Engineer: Dr. David Harrison Prototype Introduction Date: 2564 Non-Production Equipment Analysis:

Primitive Armor Primitive Cockpit Primitive Engine

#### Overview

Considered a "wunderkind" of his time, Dr. David Harrison was given near-carte blanche when it came to pursuing the projects he favored when Hollis Industries recruited him in the early-2540s—so long as he brought the company into the "big leagues" by producing a BattleMech. That came in 2561 with the *Catapult*, which gave the company the financial boost it needed to produce something totally revolutionary. Thus, Hollis Industries gave birth to the four-legged BattleMech in the form of the *Xanthos*.

Dr. Harrison had long believed that a four-legged BattleMech would be the most stable, all-terrain firing platform possible, capable of mounting more armor than ever before. Though a quad frame suffered from far more restricted firing arcs than bipedal 'Mechs with fully articulated arms and rotating torsos, Harrison nonetheless believed the quad 'Mech was the ideal approach for an assault-class BattleMech. He continuously tinkered with his quadruped design concepts even as he built the *Catapult*, eventually refining his ideas into a set of workable prototypes in 2564.

For these first proof-of-concept prototypes of the *Xanthos*, Hollis Industries limited Harrison to building with less expensive, proven—but outdated—technologies. The resulting XNT-20 *Xanthos*es massed one hundred tons each, and carried a wide arsenal of weaponry that could pummel enemies at all ranges. Harrison envisioned a mass of *Xanthos* advancing on a wide front, and so paid little heed to addressing the 'Mech's relatively weak flanks; defense of the 'Mech would be provided by its comrades and other supporting units. Only a single small laser covered its rear quarters against fast tanks or other tailing targets.

On paper, the *Xanthos* was an intriguing concept to the Hegemony Armed Forces, which directed a series of trials for the new 'Mech. Unfortunately, the *Xanthos*' supposed stability was mythical, a fact that Harrison was acutely aware of and was attempting to remedy even as Hollis pushed forward with its evaluation against his objections. Unfortunately, Hollis' experienced MechWarrior test pilots had trouble keeping the prototype 'Mech upright through complex maneuvers over uneven ground, especially the further into the realistic combat trials the 'Mech advanced.

The Xanthos was rejected and Dr. Harrison humiliated. With its brief Catapult contract at an end with the HAF and no other major military contracts in place, Hollis Industries began to sell the Catapult under the table to the Capellan Confederation and Free Worlds League (and later, the remaining Star League Member-States) to remain solvent. The company

would eventually perfect Harrison's *Xanthos* in a desperate effort to boost their product lines years later—at which point, only the Capellan Confederation would take serious interest. Harrison, meanwhile, moved on to the Brigadier Corporation, where he finally succeeded in realizing his dreams of stable quadruped 'Mech designs in the *Scorpion* and (later) the *Goliath*. Unfortunately for Harrison, while these four-legged machines would enter production, these so-called "Harrison's Follies" found little appreciation among MechWarriors or generals in the years to come.

#### Type: Xanthos

Technology Base: Inner Sphere (Primitive) Tonnage: 100

Equipment Internal Structure:		<b>Mass</b> 10
Engine:	360 Primitive	33
Walking MP:	3	55
Running MP:	5	
Jumping MP:	0	
Heat Sinks:	18	8
Gyro:		4 /
Cockpit (Primitive):		5

#### Equipment

Armor Factor (Primitive):	160		15
	Internal	Armor	
	Structure	Value	
Head	3	9	
Center Torso	31	31	
Center Torso (rear)		8	
R/L Torso	21	19	
R/L Torso (rear)		5	
R/L Front Leg	21	16	
R/L Rear Leg	21	16	

Mass

Weapons and Ammo	Location	Critical	Tonnage
Small Laser	Н	1	.5
AC/10	RT	7	12
Ammo (AC) 20	RT	2	2
Medium Laser	RT	1	1
Large Laser	LT	2	5
SRM 4	LT	1	2
Ammo (SRM) 25	LT	1	1
Medium Laser	LT	1	1
Small Laser	LT (R)	1	.5

**Notes:** Features the following Design Quirks: Bad Reputation, Obsolete (2565), Poor Performance, Protected Actuators, Prototype, Unbalanced.

# **CHI-HA INFANTRY COMBAT VEHICLE**

Field Testing Summation: Common Primitive Combat Vehicle Producer/Site: Daisho MilWorks, New Samarkand Supervising Engineer: Petrov Kouta Prototype Introduction Date: 2284 Non-Production Equipment Analysis: Primitive Combat Vehicle

#### Overview

Originally designed as an armored transport for high-value cargoes, the Chi-ha eventually transformed into a lightly armed infantry combat vehicle for use by New Samarkand's militias. Its cargo hold was redesigned to hold a full platoon of infantry (or police) and its overall frame reinforced so that it could mount a turret. In the process, the transport lost its original four-axle/twelve-wheel suspension, in its place gaining a widefootprint tracked system which, while reducing its top speed and overall maneuverability, gave it better all-terrain performance. For use within predominantly urban areas, special coated tracks were eventually made available which, though expensive and often difficult to procure, did not damage paved roadways. The ICV was armed with three heavy-caliber machine guns—two within the turret and one more mounted to the fore considered more than enough to shred most light armored vehicles while delivering and supporting its infantry load.

The Chi-ha ICV saw wide use across New Samarkand, but its popularity did not explode until Shiro Kurita's meteoric rise to power. The Chi-ha became one of the lynchpins in the army Shiro raised and trained to conquer the Alliance of Galedon, with production expanded to four more worlds as Shiro built up his forces before embarking on his oftentimes-violent campaign to form the Draconis Combine. By default, it was the newly formed DCMS' primary infantry transport, serving in that role through most of the twenty-fourth century before being relegated to more and more supporting roles throughout the remainder of the Age of War.

Throughout its service life, the Chi-ha received continual upgrades. Some were relatively minor, such as cosmetic adjustments or the equipping of different electronics and machine guns. Others were significant, such as the modernization the ICV received in the 2350s; thanks to better technologies available, the Chi-ha received a higher top speed, improved targeting systems, and better armor protection, though at a loss of about half of its overall service range. This final Chi-ha model served the DCMS and other Combine entities well into the Star League era, and was even later resurrected for limited production during the Succession Wars.

#### Type: Chi-Ha ICV

Technology Base: Inner Sphere (Primitive) Movement Type: Tracked (Medium) Equipment Rating: D/C-X-X Mass: 22 tons

ICE

4

6

0

1

48

Internal

Structure

3

3/3

3

3

Mass

3.5

9

0

.5

2

Armor

Value

11

10/10

6

### Equipment Chassis: Engine/Controls: Type: Cruise MP: Flank MP: Heat Sinks: Fuel: 1,111 km Turret: Armor Factor (BAR 6): Front R/L Side Rear Turret

### Weapons and Ammo Location Tonnage 2 Machine Guns Turret Machine Gun .5 Front Ammo (MG) 200 Body 1 Advanced Fire Control System .5 Body Crew: 3 (2 enlisted/non-rated, 1 gunner) Cargo: Infantry (3 tons) 2 Doors (Rear) Notes: This Chi-ha represents the more modern 2350 model. Features the following Design Quirk: Low Profile 00

# **COBRA VTOL TRANSPORT**

Field Testing Summation: Common Primitive VTOL Producer/Site: Pacific-Euro Consolidated Aerospace Systems, Terra Supervising Engineer: Indrela Bell-Douglas Prototype Introduction Date: 2317 Non-Production Equipment Analysis: Primitive Combat Vehicle

#### Overview

Designed and built under a special order from Director-General James McKenna's office shortly after his coup, the Cobra VTOL Transport was anything but a product of its time. Constructed in an era where there was little standardization of equipment within the Hegemony Armed Forces (nee Alliance Global Militia) and where military contracts had regularly been awarded even after the base design was rejected by the military, the Cobra was one of a new breed of designs mandated by the former admiral. His HAF would be provided the tools they needed to accomplish their missions across the stars—mass-produced and standardized to ensure the commonality of training and logistics throughout the HAF—beginning with pieces of equipment like the Cobra.

Utilizing a tilt-rotor design, the Cobra was designed as a shortrange light military transport capable of serving in battlefield support assignments as well as in non-combat roles. Though it only boasted a top sustained speed of 130 kph—far slower than many other available VTOL transports at the time—after the addition of self-defense armaments it could still carry more nine tons of cargo within its spacious hold without impacting its performance in the least. The Cobra could additionally carry a significant load slung beneath it, which made it an ideal battlefield transport; in this configuration It could deliver a light vehicle (or artillery piece) and almost 100 troops (or tons of supplies) to a battlefield, quickly turning around and evacuating casualties to the rear lines before reloading and accomplishing the same mission again and again.

The Cobra was the standard HAF workhorse VTOL during the twenty-fourth century. A multitude of variants appeared through the years, all based on the same basic frame. The stock Cobra featured a convertible cargo hold that could be quickly configured with jump-seats or to carry palletized cargo. Field conversion kits allowed Cobras to be quickly transformed into medical evacuation transports or into airborne command and communications posts, reconnaissance platforms, or VIP transports complete with office and sleeping compartments. Unarmed (or disarmed) variants were often valued for their additional cargo space or were converted into airmobile field hospitals. Many Cobras found their way into civilian service—some sold to Hegemony government agencies and important civil concerns, while many more were demilitarized and sold in the civilian after-market—where they likewise became workhorse transports for nearly every conceivable purpose.

The Cobra's heyday was long over by the end of the Age of War though, with higher-tech designs taking its place within the HAF before the end of the twenty-fifth century. The final Cobra models ordered by the HAF used a fusion power plant, which provided a twenty-five percent increase to its top speed and even a slight increase to its cargo capacity. Though the twentyfourth century Cobra did not survive to see the formation of the Star League, the SLDF used it as the inspiration for a new transport that debuted more than two and a half centuries after the original HAF Cobra's introduction.

Mass

7.5

8

#### Type: Cobra

Technology Base: Inner Sphere (Primitive) Movement Type: VTOL (Medium) Equipment Rating: D/C-X-X Mass: 30 tons

Equipment	
Chassis:	
Engine/Controls:	
Type:	ICE
Cruise MP:	8
Flank MP:	12
Heat Sinks:	0
Fuel:	625 km
Armor Factor (BAR 6):	34
	Internal
	Structure
Front	3
R/L Side	3/3
Rear	3
Rotors	2

Weapons and Ammo	Location	Tonnage
2 Machine Guns	Front	1
Machine Gun	Right	.5
Machine Gun	Left	.5
Machine Gun	Rear	.5
Ammo (MG) 100	Body	.5
Advanced Fire Control System	Body	.5

Crew: 3 (2 enlisted/non-rated, 1 gunner) Cargo:

9 tons 3 Doors (Right, Left, Rear)

Notes: Features the following Design Quirks: Non-Standard Parts, Obsolete (2470), VTOL Rotor Arrangement (Dual)



# STURMBLITZ ASSAULT GUN

Field Testing Summation: Primitive Combat Vehicle Producer/Site: Tamar Arms, Tamar Supervising Engineer: Mikael Stossel-Gruenwold Prototype Introduction Date: 2488 Non-Production Equipment Analysis:

Primitive Combat Vehicle Prototype Autocannon/20

#### Overview

The interstellar arms race that raged during the twenty-fifth and twenty-sixth centuries took on many different forms. While it focused primarily upon upsmanship between competing BattleMech designs, there were many other realms within which this technological war was fought. The Lyran Commonwealth's development of the massive class-20 autocannon was, perhaps, that nation's greatest defense technology accomplishment since the reverse-engineering of the BattleMech decades earlier. And, like that advancement, it was accomplished through the efforts of a number of allied civil and military contractors working in conjunction with LCAF researchers.

The Lyran Commonwealth Armed Forces ultimately intended to mount this massive autocannon on heavy BattleMechs and tanks within assault battalions, where their incredible firepower would overwhelm and crush any defense. Before the LCAF could field any such designs, early versions of this 'Mech-killing weapon were mounted in a turretless vehicle testbed manufactured by Tamar Arms. From this stable platform, the weapon was thoroughly tested and retested in a variety of environments and combat scenarios, providing valuable data that would lead to its perfection and mass production.

Though never intended as an actual combat vehicle, Tamar Arms' testbed—which was based on a simple, if obsolete, vehicle frame produced by the company during the Age of War—received generally complimentary reviews from its crews and evaluators. The company made a few modifications to the base vehicle in 2500, heavily armoring it, but otherwise retaining the rest of its proven, albeit low-tech, systems, while mounting the heavy autocannon within a simple casemate—an armored box. Tamar Arms envisioned it as the ideal defense or heavy assault vehicle, capable of completely destroying any opponents it met in just a few volleys. Though it clearly lacked the functionality of a BattleMech or even a conventional tank, and required the support of other forces to defend against enemy infantry and cavalry units, in fixed positions and in mass it was all but unstoppable.

The LCAF rejected the design however, preferring instead to focus upon the 'Mechs and tanks it was developing. That is, until Archon Robert Steiner led his loyalist forces in pursuit of the mad former-Archon Margaret Olson and her supporters, which included The Duke of Tamar. The Duke's forces fielded dozens of these so-called Sturmblitz Assault Guns, which readily overwhelmed Archon Robert's forces first on Skye and then on Tamar, accounting for scores of 'Mech kills themselves. After this brief war, Archon Steiner was impressed with the vehicle, which he'd personally faced several times in battle. He ordered his procurement officers to start purchasing the vehicle en masse even as he punished the Duke of Tamar by also ordering Tamar Arms broken up, its assets sold to several other corporations; ultimately produced by three different manufacturers, the Sturmblitz remained in LCAF service until the formation of the SLDF, which inherited a handful. The last Sturmblitz Assault Guns were apparently finally retired following the Reunification War.

Mass

17

29.5

0

8

40

38/38

8

8/8

#### Type: Sturmblitz

Front

R/L Side

Technology Base: Inner Sphere (Primitive) Movement Type: Tracked (Medium) Equipment Rating: D/D-X-X Mass: 75 tons

Equipment		
Chassis:	Armored	
Engine/Controls:		
Туре:	ICE	
Cruise MP:	4	
Flank MP:	6	
Heat Sinks:	0	
Fuel: 338 km	1	
Armor Factor (BAR 10):	126	
	Internal	Armor
	Structure	Value

Weapons and Ammo	Location	Tonnage
Prototype AC/20	Front	14
Ammo (AC) 16	Body	4
Advanced Fire Control System	Body	1.5

Crew: 7 (1 officer, 2 enlisted/non-rated, 4 gunners) Cargo:

None

**Notes:** Features Armored Chassis Modification and the following Design Quirks: Distracting, Easy to Maintain, Obsolete (2488), Variable Range Targeting.



## **MUSTANG FIGHTER**

Field Testing Summation: Primitive Conventional Fighter Producer/Site: Journey Aerospace, Edwards Supervising Engineer: Perry Niilsson Prototype Introduction Date: 2463 **Non-Production Equipment Analysis:** Primitive Conventional Fighter

Prototype AC/10

#### Overview

The acquisition of BattleMech technology brought the Federated Suns more than just the 'Mech itself. It brought to light a wide series of research projects the Terran Hegemony was working on, if only in concepts rather than detailed technical specifications. The Federated Suns had known for some time that the Hegemony was working on developing a heavy-caliber autocannon, and itself was pursuing a parallel development of the weapon; though the information gained from receiving technical specifications on the Mackie certainly did not solve the many engineering problems experienced by the Suns' R&D teams, it did point the teams in the right direction, allowing them to build a prototype class-10 autocannon shortly after the Hegemony debuted its own models. First Prince James Davion pushed his military to develop a number of different combat units that could mount this powerful weapon—a move that led directly to the development of the T-12 Tiger Medium Tank, the Hammerhands BattleMech, and the Mustang fighter.

Though conventional atmospheric fighter craft had been long earlier supplanted by extra-atmospheric aerospace fighters, in an effort to be the first company to produce a combat unit armed with the heavy autocannon, Journey Aerospace nonetheless chose to marry the weapon with a conventional combat airframe it had been developing for some time. Replacing a smaller caliber class-5 weapon, the heavy autocannon was mounted on the airframe's centerline, though its inclusion required Journey's engineers to add what many would later come to call a "pregnant belly" to the fighter to contain the bulky weapon and its complex ammunition feed systems. While the addition of the heavy autocannon forced the downgrade of the Mustang's total of four wingmounted SRM launchers to smaller models, few at Journey Aerospace believed that would adversely affect the fighter's chances.

The Mustang certainly made an impression with the Armed Forces of the Federated Suns. It was heavier than most conventional fighters and focused entirely upon a heavy assault paradigm. Its heavy armaments load was meant to obliterate single targets, one at a time. Moreover, its heavy autocannon could defeat most armor, making it an even more dangerous weapon. It possessed acceptable maneuverability, but it was not designed as a dog fighter and had to rely upon lighter, more nimble craft to defend it against enemy interceptors—at least those it could not destroy in headto-head engagements.

The Mustang was not the ideal fighter for the AFFS, and it possessed several notable flaws-including a marked instability introduced when firing the heavy autocannon, as well as the danger of flaming out one of its engines during heavy maneuvering if the autocannon's fumes were ingested by the engine. Nevertheless, the AFFS was impressed, buying thousands over the course of some two decades.

#### Type: Mustang Fighter

Technology Base: Inner Sphere (Primitive) Movement Type: Fixed Wing (Medium) Equipment Rating: D/D-X-X Mass: 80 tons

#### Fauinment

Equipment		Mass
Chassis:		8
Engine/Controls:		35
Туре:	ICE	
Safe Thrust:	5	
Maximum Thrust:	8	
Structural Integrity:	5	
Heat Sinks:	0	0
Fuel:	375	7.5
Armor Factor (BAR 6):	84	3.5
	Armor	
	Value	
Nose	28	
Wings	23/23	
Aft	10	

					10.00			
	Weapons and Ammo	Location	Tonnage	Heat	SRV	MRV	LRV	ER\
	Prototype AC/10	Nose	12		10	10		
	Ammo (AC) 16	Body	2			÷ —		
	2 SRM 4	RW	4	_	4	_	_	_
	2 SRM 4	LW	4		4	—		
	Ammo (SRM) 50	Body	2			—		
	Advanced FCS	Body	2			—		

Crew: 9 (2 officers, 2 enlisted/non-rated, 5 gunners)

Notes: Features the following Design Quirks: Atmospheric Flyer, Easy to Maintain, Obsolete (2475)



### HMR-HA HAMMERHEAD

Field Testing Summation: Primitive Aerospace Fighter Producer/Site: Boeing Interstellar, Terra Supervising Engineer: S.L. Rosanske Prototype Introduction Date: 2402 Non-Production Equipment Analysis: Primitive Aerospace Fighter

#### Overview

The twenty-fourth century ranks among the handful of most significant in recorded history, bearing witness to the birth of the Terran Hegemony and four of five of the other nations that would ultimately unite to form the Star League. It also saw a tremendous increase in interstellar tension as the wars that once were fought between minor powers transformed into barely contained conflagrations that threatened to explode and consume the entire Inner Sphere. The Terran Hegemony recognized the shape of things to come and turned to its massive industry to build new generations of combat vehicles that would take it into the future. Among the products of this movement was the venerable *Hammerhead* aerospace fighter.

The twenty-fourth century had seen the incarnation of the aerospace fighter, which had quickly replaced conventional atmospheric fighter craft in most modern militaries, though the concepts and technology behind these machines of war were still in flux as the Hegemony looked for a new aerospace fighter. HAF design requirements called for a highly maneuverable dogfighter capable of defeating all current fighters while also operating as a part of a team to destroy enemy DropShips.

[Editor's note: for clarity, it is worth remembering that the term "DropShips" is used here to refer to large craft that lacked K-F booms and needed to dock with larger K-F vessels internally; DropShips that docked externally, as we know them today, did not exist prior to the advent of the K-F boom and modern JumpShip-docking hardpoints that prototyped in the early 2460s, and entered mainstream production in 2470.]

Weapons and Ammo	Location	Tonnage	Heat	SRV	MRV	LRV	ERV	
2 Large Lasers	Nose	10	8	8	8	_	_	

**Notes:** Features the following Design Quirks: Atmospheric Flyer, Obsolete (2475), Poor Life Support, Weak Undercarriage.

Boeing Interstellar, which in one form or another had been constantly producing combat aerospace craft for nearly five centuries already, came back with a design that, while heavier than most other aerospace fighters at the time, could outmaneuver nearly everything else in service. Its two nosemounted large-class lasers could outright destroy the handful of lighter, more nimble designs fielded by the other nations, while its armor was heavy enough to shrug off what few minor hits it might receive in return. Similarly, a squadron of *Hammerheads* had both the maneuverability and firepower at their disposal to eviscerate enemy large craft in just a handful of salvoes, or to lay waste to tremendous numbers of enemy ground forces caught in their strafing runs.

While the fighter lacked the ability to engage enemies at range, the Hegemony Armed Forces were duly impressed with the *Hammerhead* and ordered it into production, with the first fighters reaching HAF squadrons in 2407. The *Hammerhead* went on to be one of the Hegemony's most-produced and its longest-serving aerospace fighter; it was modernized during the seventh and eighth decades of its life, when it gained about ten percent more armor and twenty percent better acceleration, and once more a century later when it gained a powerful AC/20 and ferro-aluminum armor.

#### Type: Hammerhead

Technology Base: Inner Sphere (Primitive) Tonnage: 75

Equipment		Mass
Engine:	360 (Primitive)	33
Safe Thrust:	6	
Maximum Thrust:	9	
Structural Integrity:	7	
Heat Sinks:	16	6
Fuel:	400	5
Cockpit:		5
Armor Factor (Primitive):	171	16
	Armor	
	Value	
Nose	58	
Wings	44/44	
Aft	25	



# **INTREPID ASSAULT CRAFT**

Field Testing Summation: Primitive Small Craft Producer/Site: Avalon Aerospace Partners, New Avalon Supervising Engineer: William "Tubby" Dargas Prototype Introduction Date: 2331 Non-Production Equipment Analysis: Primitive Small Craft

#### Overview

The Federated Suns was seemingly the last major Inner Sphere power to develop its own aerospace fighter, debuting the *Centurion* in 2430, though unlike its contemporaries it relied heavily upon a layered dual approach to aerospace dominance. Within an atmosphere, economical mass-produced conventional fighters were the dominant power, while large shuttlecraft and highly maneuverable spacecapable "small craft" were assigned interception and defensive duties in space. Aerospace fighters purchased from other sources did have limited multi-function roles, but the weight of the AFFS aerospace mission lay firmly on the shoulders of small craft like the Intrepid.

Designed to replace a number of different "assault shuttles" and "escort ships" operated by the AFFS, the Intrepid was at its core a nimble aerodyne assault craft capable of engaging ships of all kinds or providing heavy support fires to engaged friendly ground forces. This "generalist" approach meant that the Intrepid would neither be the fastest nor the most maneuverable ship in the sky, but its heavy arsenal of energy weapons and almost nineteen tons of armor outmatched anything else it might expect to encounter save for an armed drop shuttle, and even those would not last long against a dedicated squadron of Intrepid assault craft. Moreover, it possessed above-average maneuverability for a ship of its mass, giving it a decisive edge in most encounters.

The Intrepid was designed to be more than a heavy fighter, however. Though the AFFS would take delivery of most of these craft, it was also destined for system patrol and escort duties. Operating from a mother ship or space station, Intrepids crewed by militia, police or customs officials would randomly inspect inbound ships, intercept suspected enemies (or smugglers) or transport important officials on short range runs. As a result, the Intrepid boasted a small compartment that could carry up to a platoon of armed marines or customs officers (albeit in extremely cramped quarters), who were responsible for conducting inspections or taking charge of enemy vessels. The AFFS navy similarly used the Intrepid to deliver boarding parties to embattled enemy ships, where the assault craft's relatively heavy armor and identical profile to most other engaged FedSuns craft might keep it safe long enough to land its marine cargo.

The Intrepid served well in its intended role, even inspiring the development of similar craft within the other major nations. Ultimately, the Federated Suns turned to the aerospace fighter, which was not only a cheaper alternative but also required fewer trained crew, to fulfill its interceptor and assault requirements, maintaining a much reduced assault craft "fleet" to accomplish heavy escort and marine assault missions. Type: Military Aerodyne Use: Assault Craft Tech: Inner Sphere Introduced: 2331 Mass: 150 tons

#### Dimensions

Length: 21 meters Width: 23 meters Height: 7 meters

Fuel: 5 tons (400) Safe Thrust: 5 Maximum Thrust: 8 Heat Sinks: 22 Structural Integrity: 10

#### Armor

Nose: 73 Sides: 65 Aft: 35

#### Cargo

Bay 1: Infantry (1 foot platoon) 2 Doors

Crew: 1 Officer, 2 Enlisted/Non-rated, 2 Gunners

#### Ammunition: None.

**Notes:** Equipped with 18.5 tons of primitive armor; all crew quarters assigned as Steerage-class (5 tons per crewman). Features the following Design Quirks: Atmospheric Flight Instability, Improved Cooling Jacket (Large Lasers), Obsolete (2455).

Weapons and Ammo	Location	Tonnage	Heat	SRV	MRV	LRV	ER\
3 Medium Lasers	Nose	3	9	15	_	_	_
Large Laser	RW	5	8	8	8	_	_
Medium Laser	RW	1	3	5	_	_	_
Large Laser	LW	5	8	8	8	_	_
Medium Laser	LW	1	3	5	_	_	_
Medium Laser	Aft	1	3	5	_	_	_



# **DROST IIB CARRIER DROPSHIP**

Field Testing Summation: Primitive Carrier DropShip Producer/Site: Various Supervising Engineer: Dax Bester Prototype Introduction Date: 2445 Non-Production Equipment Analysis: Primitive DropShip

Prototype AC/10

#### Overview

The DropShip-Tank (DroST) series DropShips were built for the Terran Hegemony during a wild era of advancement both in military technology and doctrine. They were designed to be carried internally by JumpShips and WarShips (debuting before the advent of the K-F Boom and externallydocked DropShips), and deliver a heavy conventional ground force into battle. Though heavily armored, these DropShips were nonetheless vulnerable to enemy fighters and assault craft, with escorting WarShips and assault DropShips able to provide only so much cover for their invasion forces.

This realization prompted something of a doctrinal shift within the HAF, which soon came to depend upon a large fleet of DropShips, shuttles and other landing craft to overwhelm an enemy with sheer numbers to ensure a significant portion of the invasion force would be able to land. Ultimately, this led both to the retrofitting of DropShips (including the DroST I) to carry more landing craft (at the obvious expense of cargo capacity) as well as the inclusion of numerous assault craft and aerospace fighters within the invasion force—craft that would provide additional anti-fighter cover during the landing phase of the operation.

The DroST II was the first HAF DropShip designed from its inception to be built either as a dedicated cargo/troop ship or as a carrier vessel. The DroST IIb was the carrier version of the common transport model, and carried a total of six small craft bays within its belly (in addition to the two small craft carried by the base model). Moreover its designers recognized the fact that, unlike its conventional sister model, which would be regularly tasked with non-combat transport missions when not needed for the van of an invasion, the carrier model was a dedicated combat platform. As a result, the DroST IIb mounted a considerable arsenal of weaponry, which allowed it to directly engage enemy interceptors and DropShips, or even to provide support fire for troops on the ground.

When first introduced, the HAF intended that one out of every three DroST IIs built would be the carrier model—in every invasion "section" of ships, four DroSTs would be standard models and two would be carriers, with one carrying shuttles loaded with troops and equipment and the second carrying a squadron of assault ships or aerospace fighters—though that ratio dropped precipitously as HAF doctrine changed and standard model losses significantly eclipsed carrier losses. Over the decades, the DroST II-series of DropShips saw several notable upgrades, the most significant of which was the inclusion of K-F Booms and better armor starting with models produced 2470. Extant carrier models still in service eventually saw those upgrades, though the HAF sold off standard model DroST IIs rather than upgrade them, preferring instead to purchase new models. The DroST IIb remained the Hegemony's primary carrier DropShip until the debut of the Leopard CV.

[Editor's Note: Further research has shown that the DroST IIa model we presented in our definitive history of the Reunification War, in fact, represents the "upgraded" models that appeared after 2470. Before 2470, the DroST IIa and IIb DropShips produced did not have K-F Booms and featured decidedly less armor protection.]

2 Doors

2 Doors

2 Doors

Type: Military Aerodyne Use: Small Craft Carrier Tech: Inner Sphere (Primitive) Introduced: 2445 Mass: 5,300 tons

#### Dimensions

Length: 77 meters Width: 80 meters Height: 31 meters

Fuel: 350 tons (10,500) Tons/Burn-Day: 1.84 Safe Thrust: 5 Maximum Thrust: 8 Heat Sinks: 277 Structural Integrity: 16

#### Armor

Nose: 172 Sides: 172 Aft: 121

#### Cargo

Bay 1: Small Craft (2) Bay 2: Small Craft (6) Bay 3: Cargo (246 tons)

#### Life Boats: 4 Escape Pods: 2

Crew: 5 Officers, 9 Enlisted/Non-rated, 12 Gunners, 40 Bay Personnel Ammunition: 156 rounds LRM 20 ammunition (26 tons), 128 rounds Prototype AC/10 ammunition (16 tons)

**Notes:** Mounts 53.5 tons of primitive DropShip armor and Prototype AC/10s. Features the following Design Quirks: Atmospheric Flight Instability, Docking Arms, Easy to Maintain, Obsolete (2470).

Weapons	Capital Attack Values (Standard)				
Arc (Heat) Type	Short	Medium	Long	Extreme	Class
Nose (83 heat)					
4 LRM 20	5 (48)	5 (48)	5 (48)	_	LRM
3 Prototype AC/10	3 (30)	3 (30)	_	_	AC
4 Large Lasers	6 (62)	3 (32)	_	_	Laser
6 Medium Lasers					
RW/LW (55 heat)					
3 LRM 20	4 (36)	4 (36)	4 (36)	_	LRM
3 Prototype AC/10	3 (30)	3 (30)	_	_	AC
2 Large Lasers	4 (36)	2 (16)	_	_	Laser
4 Medium Lasers					
RW/LW Aft (28 heat)					
2 Large Lasers	4 (36)	2 (16)	_	_	Laser
4 Medium Lasers					
Aft (28 heat)					
2 Large Lasers	4 (36)	2 (16)	_	_	Laser
4 Medium Lasers					



### **GAME RULES**

The following game rules are intended to assist players in working with units featuring the primitive and prototype technologies presented in this volume. Where possible, the most recently published sourcebooks and rulebooks featuring these rules has been referenced, though a more in-depth and comprehensive set of rules will be published in future *BattleTech* rules.

#### Design Quirks

Every prototype and primitive unit described in this Experimental Technical Readout has one or more listed positive and/or negative Design Quirks (see *SO*, p. 193). These quirks are included to give each design a unique flavor based upon its history and use in this era before and during the earliest years of the Star League. Use of these quirks is optional, and should be agreed upon by all players before play begins.

#### **Primitive Aerospace Unit Construction**

Primitive aerospace fighters, small craft and DropShips are built using the standard Aerospace Unit Construction rules (see pp. 180-199, *TM*), with the changes described below (based on Primitive BattleMech Construction rules found in *Jihad Secrets: The Blake Documents*). All of these aerospace units designed and constructed prior to the introduction of "modern" technology in each of the major Inner Sphere and Periphery powers will adhere to these construction rules.

#### **Primitive Aerospace Fighter Construction**

Primitive aerospace fighters are constructed using the rules found on p. 146 of Jihad Secrets: The Blake Documents.

#### Primitive Small Craft and DropShip Construction

Step 3: Add Armor

Primitive small craft and DropShip armor is identical to the armor used by primitive BattleMechs (see p. 145, *The Blake Documents*), and is mounted using the standard limits for small craft and DropShips (see pp. 190-191, *TM*).

#### Prototype AC/10 & AC/20

The Prototype AC/10 becomes available within the Terran Hegemony in 2445 and is superseded by the standard AC/10 in 2460. The Prototype AC/20 becomes available within the Lyran Commonwealth in 2488 and is superseded by the standard AC/20 in 2500. Prototype autocannon follow the standard rules for the standard models, with the following exceptions:

Prototype autocannons will suffer a jam on any to-hit roll result of 2. Jammed weapons cannot be cleared in battle and are considered damaged—but not destroyed—for game play and repair purposes. Furthermore, a prototype autocannon may carry only three-quarters of the listed ammunition capacity for its standard version (rounded up) per ton. Thus, a prototype autocannon/20 would only carry 4 rounds of ammo per ton (0.75 x 5 = 3.75, rounded up to 4), and would be as prone to weapon jams as a modern Ultra autocannon.

Finally, prototype autocannons, despite being of inferior quality, cost five times as much as their production grade versions due to their rarity.

#### Introduction of "Modern" Tech

"Modern" technology—which utilizes the standard construction rules for BattleMechs, combat vehicles and aerospace units as found in the *Tech Manual*—debuted in each of the major Inner Sphere and Periphery powers in the years listed below.

#### Year Realm

- 2470 Terran Hegemony
- 2475 Federated Suns
- & Lyran Commonwealth 2487 Draconis Combine
- 2501 Free Worlds League
- 2503 Rim Worlds Republic
- 2504 Capellan Confederation
- 2505 Taurian Concordat

CANCEL

INCOMING

MESSAGE

SEND

SAVE

DELETE

### **GAME RULES**

#### Prototype DropShip and JumpShip Equipment

Until the dual developments of the DropShip K-F Boom and the JumpShip Docking Hardpoint in the mid-twenty-fifth century, JumpShips carried their DropShips within internal bays that significantly limited both the number of ships and the maximum total tonnage they could carry. The development of the K-F Boom technologies allowed JumpShip designers to discard the inefficient internal bays and instead mount one or more DropShips—of much greater mass than previously possible—on external docking points and carry them through a hyperspace jump. This technology revolutionized interstellar transport, quickly becoming the standard while at the same time drastically slashing transport costs—JumpShips could be built smaller and more economically while massive DropShips that could carry more cargo tonnage than ever before became the norm.

Note: The introduction date indicated here for the KF-Boom supersedes those listed in Tactical Operations (Second Printing and earlier).

#### Prototype DropShip K-F Boom

Every modern DropShip—one capable of completing a hyperspace jump while docked with a JumpShip—is built with an integral K-F Boom, a device that extends the JumpShip's K-F field beyond its own hull to encompass the DropShip. DropShips constructed without a K-F Boom could be later retrofitted with the K-F Boom systems, though at a not-insignificant cost and only at a dedicated shipyard (in fact, hundreds of refit services emerged during the latter twenty-fifth century throughout the Inner Sphere an Periphery, many legit but some not, specifically to "modernize" older DropShips).

For game purposes, the standard K-F Boom is an integral part of a DropShip's Docking Collar (see *TM*, Aerospace Unit Structural Costs and Availability table, p. 283). The Prototype K-F Boom becomes available in 2462 and is superseded by the Standard K-F Boom in 2470. The Prototype K-F Boom has no mass (its systems, like that of the Docking Collar, are integrated into the DropShip's structure), but has a cost of 1,000,000 C-Bills.

DropShips built before the development of the K-F Boom may be retrofitted to incorporate a K-F Boom (as well as a number of additional minor upgrades, such as the standardization of the Docking Collar). This is a Class E Refit (SO, p. 188) that requires a total of 30 days to complete at a cost of 12 million C-Bills.

#### Prototype Jump Jets

Standard production model jump jets (along with their required BattleMech gyroscope modifications and control software upgrades) debuted in 2471 within the Terran Hegemony (later, in each of the other Inner Sphere and Periphery nations). Prototype jump jet models were introduced in 2464 with the debut of the *Wasp* BattleMech (prototype jump jets were later included in the *BattleAxe* and the *Shadow Hawk*).

While prototype jump jets have the same mass and take up the same critical space as standard jump jets, their use was problematic and induced an instability within the jumping BattleMech. These problems were later cleared up within the production model jump jets.

Any BattleMech mounting prototype jump jets that jumps must make a Piloting Skill Roll with a TN of +3 (in addition to any other modifiers) to avoid falling when it lands (see TW, Piloting/Driving Skill Rolls, p. 59).

#### Prototype PPC

While the Terran Hegemony did not "perfect" the design and manufacture of the particle projection cannon until 2460, the Hegemony utilized PPCs on designs such as the *Mackie* and the *Banshee* BattleMechs for more than two decades before advances in miniaturization and manufacturing processes allowed the debut of the "standard" model PPC.

A Prototype PPC follows the rules for the standard Inner Sphere PPC, but produces 50 percent more heat when fired, and costs five times as much (1,000,000 C-Bills).

INCOMING

MESSAGE

SEND

SAVE

CANCEL

DELETE



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GROUND	D COMBAT VE	HICLE HIT LOC	CATION TABLE
		ATTACK DIRECTION	
2D6 Roll	FRONT	REAR	SIDE§
2*	Front (critical)	Rear (critical)	Side (critical)
3	Front†	Rear†	Side†
4	Front†	Rear†	Side†
5	Right Side †	Left Side †	Front†
6	Front	Rear	Side
7	Front	Rear	Side
8	Front	Rear	Side (critical)*
9	Left Side†	Right Side†	Rear†
10	Turret	Turret	Turret
11	Turret	Turret	Turret
12*	Turret (critical)	Turret (critical)	Turret (critical)

\*A result of 2 or 12 (or an 8 if the attack strikes the side) may inflict a critical hit on the vehicle. For each result of 2 or 12 (or 8 for side attacks), apply damage normally to the armor in that section. The attacking player then automatically rolls once on the Ground Combat Vehicle Critical Hits Table below (see *Combat*, p. 192 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicle SHit Location Table may inflict critical hit against the turret; if the vehicle has no turret, a 12 indicates the chance of a critical hit on the side corresponding to the attack direction. The travel of a 12 in other side of a critical hit on the side corresponding to the attack direction. The travel of the attack direction. The vehicle may suffer motive system damage even if its armor remains intact. Apply damage normally to the armor in that section, but the attacking player also rolls once on the Motive System Damage Table at right (see Combat, p. 192 in *Total Warfare* for more information). Apply damage or on the force source in which the damage takes effect. Side hits strike the side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attack direction. For example, if an attack hits the right side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

ΜΟΤΙ	/E SYSTEM	1 DAMAGE TA	BLE
2D6 Roll 2–5	EFFECT* No effect		
6–7		I modifier to all Driving SI	
8–9	Moderate damage Driving Skill Rolls	e; –1 Cruising MP, +2 mo	difier to all
10–11	Heavy damage; or +3 modifier to all l	nly half Cruising MP (roun Driving Skill Rolls	d fractions up),
12+	Major damage; no Vehicle is immobile	) movement for the rest ( e.	of the game.
Attack Direction N	/lodifier:	Vehicle Type Modifiers	:
Hit from rear	+1	Tracked, Naval	+0
Hit from the sides	+2	Wheeled	+2
		Hovercraft, Hydrofoil	+3
		WiGE	+4

\*All movement and Driving Skill Roll penalties are cumulative. However, each Driving Skill Roll modifier can only be applied once. For example, if a roll of 6-7 is made for a vehicle, inflicting a +1 modifier, that is the only time that particular +1 can be applied; a subsequent roll of 6-7 has no additional effect. This means the maximum Driving Skill Roll modifier that can be inflicted from the Motive System Damage Table is +6. If a unit's Cruising MP is reduced to 0, it cannot move for the rest of the game, but is not considered an immobile target. In addition, all motive system damage takes effect at the end of the phase in which the damage occurred. For example, if two units are attacking the same Combat Vehicle during the Weapon Attack Phase and the first unit inflicts motive system damage and rolls a 12, the -4 immobile target modifier would not apply for the second unit. However, the -4 modifier would take effect during the Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hax, it sinks and is destroyed.

### GROUND COMBAT VEHICLE CRITICAL HITS TABLE





GROUNI	D COMBAT VE	HICLE HIT LOC	CATION TABLE
		ATTACK DIRECTION	
2D6 Roll	FRONT	REAR	SIDE§
2*	Front (critical)	Rear (critical)	Side (critical)
3	Front†	Rear†	Side†
4	Front	Rear†	Side†
5	Right Side †	Left Side †	Front†
6	Front	Rear	Side
7	Front	Rear	Side
8	Front	Rear	Side (critical)*
9	Left Side†	Right Side†	Rear†
10	Turret	Turret	Turret
11	Turret	Turret	Turret
12*	Turret (critical)	Turret (critical)	Turret (critical)

\*A result of 2 or 12 (or an 8 if the attack strikes the side) may inflict a critical hit on the vehicle. For each result of 2 or 12 (or 8 for side attacks), apply damage normally to the armor in that section. The attacking player then automatically rolls once on the Ground Combat Vehicle Critical Hits Table below (see *Combat*, p. 192 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicle SHit Location Table may inflict critical hit against the turret; if the vehicle has no turret, a 12 indicates the chance of a critical hit on the side corresponding to the attack direction. The travel of a 12 in other side of a critical hit on the side corresponding to the attack direction. The travel of the attack direction. The vehicle may suffer motive system damage even if its armor remains intact. Apply damage normally to the armor in that section, but the attacking player also rolls once on the Motive System Damage Table at right (see Combat, p. 192 in *Total Warfare* for more information). Apply damage or on the force source in which the damage takes effect. Side hits strike the side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attack direction. For example, if an attack hits the right side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

ΜΟΤΙ	/E SYSTEI	M DAMAGE TA	BLE
2D6 Roll 2-5 6-7 8-9		+1 modifier to all Driving SI ge; –1 Cruising MP, +2 mo	
10–11 12+	Heavy damage; +3 modifier to a	only half Cruising MP (roun II Driving Skill Rolls no movement for the rest (	
Attack Direction N	lodifier:	Vehicle Type Modifiers	:
Hit from rear	+1	Tracked, Naval	+0
Hit from the sides	+2	Wheeled Hovercraft, Hydrofoil WiGE	+2 +3 +4

\*All movement and Driving Skill Roll penalties are cumulative. However, each Driving Skill Roll modifier can only be applied once. For example, if a roll of 6-7 is made for a vehicle, inflicting a +1 modifier, that is the only time that particular +1 can be applied; a subsequent roll of 6-7 has no additional effect. This means the maximum Driving Skill Roll modifier that can be inflicted from the Motive System Damage Table is +6. If a unit's Cruising MP is reduced to 0, it cannot move for the rest of the game, but is not considered an immobile target. In addition, all motive system damage takes effect at the end of the phase in which the damage occurred. For example, if two units are attacking the same Combat Vehicle during the Weapon Attack Phase and the first unit inflicts motive system damage and rolls a 12, the -4 immobile target modifier would not apply for the second unit. However, the -4 modifier would take effect during the Physical Attack Phase. If a hover vehicle is rendered inmobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

### **GROUND COMBAT VEHICLE CRITICAL HITS TABLE**









**GROUND COMBAT VEHICLE HIT LOCATION TABLE** ATTACK DIRECTION SIDE§ 2D6 Rol FRONT REAR 2 Front (critical) Rear (critical) Side (critical) Side† Side† 3 4 Front† Rear† Right Side Front Front 5 6 7 Left Side f Rear Side Front Rear Side 8 9 Rea Side (critical) Left Side † Right Side† Reart 10 11 Turret . Turret Turret Turret Turret Turret 12 Turret (critical) Turret (critical) Turret (critical)

\*A result of 2 or 12 (or an 8 if the attack strikes the side) may inflict a critical hit on the vehicle. For each result of 2 or 12 (or 8 for side attacks), apply damage normally to the armor in that section. The attacking player then automatically rolls once on the Ground Combat Vehicle Chtical Hits Table below (see *Combat*, p. 192 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicle S Hit Location Table may inflict critical hit against the turret; if the vehicle has no turret, a 12 indicates the chance of a critical hit on the side corresponding to the attack direction. Table may inflict critical hits direction. The vehicle has no turret, a 12 indicates the chance of a critical hit on the side corresponding to the attack direction. Table may suffer motive system damage even if its armor remains intact. Apply damage normally to the armor in that section, but the attack ing player also rolls once on the Movie System Damage Table at right (see Combat, p. 192 in *Total Warfare* for more information). Apply damage even of the end of the phase in which the damage takes effect. Side hits strike the side armor. If the vehicle has no turret, a turret hit strikes the armor on the side armor on the side armor on the side armor damage takes effect.

ΜΟΤΙΛ	/E SYSTE	M DAMAGE TAE	BLE
2D6 Roll	EFFECT*		
2-5	No effect	4	
6–7		+1 modifier to all Driving Skill	
8–9	Moderate dama Driving Skill Roll	age; –1 Cruising MP, +2 modi Is	ier to all
10–11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls		
12+	Major damage; Vehicle is immo	no movement for the rest of bile.	the game.
Attack Direction N	/lodifier:	Vehicle Type Modifiers:	
Hit from rear	+1	Tracked, Naval	+0
Hit from the sides	+2	Wheeled	+2
		Hovercraft, Hydrofoil	+3
		Wige	+4

\*All movement and Driving Skill Roll penalties are cumulative. However, each Driving Skill Roll modifier can only be applied once. For example, if a roll of 6-7 is made for a vehicle, inflicting a +1 modifier, that is the only time that particular +1 can be applied; a subsequent roll of 6-7 has no additional effect. This means the maximum Driving Skill Roll modifier that can be inflicted from the Motive System Damage Table is +6. If a unit's Cruising MP is reduced to 0, it cannot move for the rest of the game, but is not considered an immobile target. In addition, all motive system damage takes effect at the end of the phase in which the damage occurred. For example, if two units are attacking the same Combat Vehicle during the Weapon Attack Phase and the first unit inflicts motive system damage and rolls a 12, the -4 immobile target modifier would not apply for the second unit. However, the -4 modifier would ever a Depth 1 or deeper water hax, it sinks and is destroyed.



















