BATTLETECH

EXPERIMENTAL TECHNICAL READOUT:

XTRO

BOONDOGGLES

S.HUDA 2012

INTRODUCTION

Welcome to another edition of *Tech Trends*. In some of our recent episodes, we've reviewed projects that the various powers of the Inner Sphere and Clans have been working on. While some of these may result in new weapons of war that will improve their forces (or their customers' forces), today we'll look at the flipside of the arms race. After all, while research and development of new technologies are vital for staying ahead of the curve, even the most ambitious of military projects can find themselves prey to errors in design or even a failure to define clear end goals.

Indeed, many projects have gone into the history books as less than a footnote, their development running too far over budget, with little to nothing to show for their efforts. Even so, many such "failures"—like the *Banshee* BattleMech and the *Potemkin* WarShip—still managed to find a useful home in the modern military. But what about those that never even made it that far?

The units included in today's edition of *Tech Trends* introduce us to military designs that never made it: Cancelled projects whose results either served out their limited lives as training wrecks in some backwater militia outpost, or—more often than not— were simply scrapped after their projects ended ingloriously.

–Reginald Dao, *Tech Trends* vid-zine, Galtean Publishing, 3087

HOW TO USE THIS BOOK

The 'Mechs, combat vehicles, and aerospace craft described in *Experimental Technical Readout: Boondoggles* provide players with a sampling of the biggest failures that have graced the research and development departments of military manufacturers throughout BattleTech's history. The rules for using 'Mechs, vehicles, fighters and DropShips in *BattleTech* game play can be found in *Total Warfare*, while the rules for their construction can be found in *TechManual*. However, the nature of these designs also draws upon the Experimental-level rules presented in *Tactical Operations* and a number of special rules presented at the end of this book. As a result, none of the units featured in this volume are considered tournament legal, and their use in introductory games is discouraged.

INCOMING
MESSAGE

SEND

SAVE

CANCEL

DELETE

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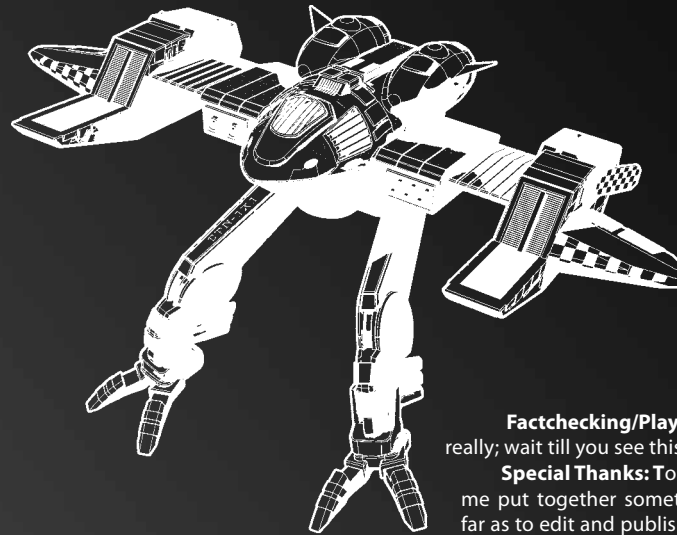Stephen Huda
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Special Thanks: To Herb Beas, for not only letting me put together something this zany, and going so far as to edit and publish it as well, but also for taking it upon himself to write this special thanks to himself because I was too scatterbrained to. ;-)

Oh, and to Johannes Heidler, Luke Robertson, and Sebastian Brocks. They checked some of this stuff out for me, too. I'd have mentioned that under the factchecking and playtesting credits, but… again, wait till you see this stuff!

CAT35XT017

Under License From

STAR LEAGUE ERA   CLAN INVASION ERA   JIHAD ERA

SUCCESSION WARS ERA   CIVIL WAR ERA   DARK AGE ERA

Outcome Summation: Rejected Prototype
Producer/Site: Olivetti Weaponry, Sudeten
Supervising Technician: Senior Technician Hakeem
Project Start Date: 3063
Failure Analysis: Poor Design

Overview

Fighting in the Inner Sphere has introduced many challenges for the Clans, with one of the most teling being the need for effective electronic warfare and reconnaissance. Where in the Homeworlds the Clans could expect an accurate list of the defenders from a simple *batchall*, ferreting out this information against Inner Sphere foes proved to be a hands-on challenge. In an effort to address this issue, Clan Jade Falcon tasked its technicians with revamping the venerable *Ostscout* to Clan standards.

While we are unable to determine how exactly the design progressed, we do know that several different plans emerged over the first decade of development, all coming from at least three different teams. The technicians who finally "won" the project consisted mostly of native Inner Sphere engineers, partnered with captured Wolf scientists and Falcon techs. Together, they oversaw the construction of four prototypes delivered for controlled testing on the Hazen Proving Grounds on Sudeten.

While the designers clearly expected mixed feedback from the testing, even they were shocked at how poorly their so-called *Ostscout IIC* fared. Its speed was impressive, outpacing the infamous *Dasher* despite weighing nearly twice as much, but even more impressive was the nearly 400-meter jump capacity gained when its jump jets were used in conjunction with the partial wing assembly built into the 'Mech's rear torso. Unfortunately for the design team, that was where the good reviews ended.

The armor was expected to be thin, but protection even flimsier than a Sphere-made *Stinger* was a disappointment to Jade Falcon leadership. The cramped cockpit—even with the ejection systems reportedly removed to save space—was particularly treacherous for pilots attempting to push the physical limits of their 'Mech, while the bulky construction materials used prevented optimal placement of components, resulting in such oddities as the off-balance jump jets, which the MechWarriors reported caused the 'Mech to spin counter-clockwise in every leap. Finally—and perhaps most egregiously, from the Falcon point of view—was the fact that, like its 3050 predecessor, the *Ostscout IIC* lacked any offensive weaponry to speak of.

While this last deficiency would be objectionable to many in the Inner Sphere, to the Clan warriors, it was especially offensive. The *Ostscout IIC*'s electronics were helpful at spotting hidden enemies and nullifying advanced targeting systems and networks, but none of that could deliver actual damage to the enemy. Only the TAG system prevented the machine from reducing its pilot to a mere spectator in the battlefield, but with artillery support still rare in Falcon toumans, the odds of an *Ostscout* MechWarrior contributing to his own codex in battle promised to be nearly nil. When a survey tech ruefully suggested the MechWarrior could always ram his opponent if he wished to boost his personal glory so badly, the test pilot had to be restrained to keep from beating the man to death.

Compounding these issues was yet another poor choice. In an effort to reduce the design's outrageous resource costs, the technicians used only standard heat sinks. While this was sufficient for ground movement, the combination of the (highly expensive) ultra-extralight engine and eleven jump jets quickly overwhelmed the prototypes, forcing shut downs after three consecutive jumps. While this oversight—and the lack of weapons—could have been corrected, Khan Clees instead chose to have the project shut down and transferred the staff to other assignments.

The surviving prototypes were reportedly sold to the Diamond Sharks in an effort to salvage something from all the resources poured into the project. Incredibly, even the Sharks have been unable to sell these machines to date. In the end, much of the blame for this failure can be pointed at inconsistency in the development, with too many teams and leaders.

Type: **Ostscout IIC**
Technology Base: Mixed Clan (Experimental)
Tonnage: 35

Equipment		Mass
Internal Structure:	Endo Steel	2
Engine:	385 XXL	14.5
Walking MP:	11	
Running MP:	17	
Jumping MP:	11*	
Heat Sinks:	10*	0
Gyro (XL – IS):		2
Cockpit (Small – IS):		2
Armor Factor (Ferro):	38	2

	Internal Structure	Armor Value
Head	3	5
Center Torso	11	6
Center Torso (rear)		1
R/L Torso	8	5
R/L Torso (rear)		1
R/L Arm	6	2
R/L Leg	8	5

Weapons and Ammo	Location	Critical	Tonnage
TAG	RA	1	1
Jump Jet	RT	5	2.5
Partial Wing	RT/LT	3/3	2
Bloodhound Active Probe (IS)	LT	3	2
Jump Jets	LT	2	1
Jump Jets	RL	2	1
Jump Jets	LL	2	1
Angel ECM	H	2	2

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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: Bad Reputation, No Ejection System, Obsolete/3073, Prototype, Unbalanced.

EXPERIMENTAL

Outcome Summation: Failed Prototype
Producer/Site: KaliYama Weapons Industries, Kalidasa
Supervising Technician: Dr. Lucien Penobscot
Project Start Date: 3018
Failure Analysis: Inoperable Equipment

Overview

SAFE is not generally known for success, but in the waning days of the Third Succession War, they were able to uncover evidence that both of the Free Worlds' long time enemies, the Lyran Commonwealth and the Capellan Confederation, were developing new BattleMechs. Not to be outdone, Captain-General Janos Marik repurposed a large amount of League eagles to assist KaliYama Weapons in the development of a new BattleMech design to bolster the Free Worlds military. Eager to beat the sales record of their rivals in Irian Technologies, KaliYama leapt at this opportunity.

Focused on outperforming IrTech's mediocre *Hermes II*, KaliYama's initial LIB-4T *Liberator* concept 'Mech concept was sound. With a similar movement profile to the *Hermes*, at an only slight reduction in armor protection, the *Liberator* offered a much harder punch. Its pair of five-tube long-range missile racks, backed up by a Magna large laser, easily outgunned the *Hermes'* Oriente autocannon at a respectable reach, while a pair of short-range missile tubes rounded out the package for close-range backup. On paper, the engineers demonstrated that the *Liberator*'s MechWarriors could easily manage their heat load by alternating the laser with the missiles. How wrong they were.

A severe flaw in the *Liberator*'s revolutionary new torso design (developed to reduce manufacturing costs and to make maintenance easier) resulted in a complete failure in the 'Mech's core cooling system not functioning. This flaw was missed during the early testing because the hand-built test models did not employ the same manufacturing techniques. Curiously, some test pilots did express concern about heat spikes the 'Mech generated even before the addition of weapons, but the KaliYama techs waved these complaints off as typical MechWarrior grousing over creature comforts. With the design team silencing the grievances, the *Liberator*'s marketing team moved ahead, pushing the new 'Mech as much as they could. Deals were made with the LCCC to purchase the first hundred units off the production line and many were earmarked for specific commands, with some even included on advance TO&Es for billets yet to be filled.

All of this ended spectacularly at the *Liberator*'s first unveiling. KaliYama had finally recognized the issue internally but did not want to inform the League Military, so they scrambled to fix the problem before the first open-field tests. The problem persisted as the testing began, so KaliYama had carefully planned the routine to allow plenty of time to cool down. When the testing was concluded, one of the generals pointed to an abandoned Augustus tank and asked the KaliYama representative to have the *Liberator* destroy it. The representative tried to deflect the request, at which point Captain-General Janos Marik, himself in attendance, spoke up and demanded that they destroy it.

The order was relayed and tentative missile fire impacted the armor. The Captain-General impatiently requested a full barrage until the front of the tank was gone. The KaliYama team complied and within half a minute, there was a tremendous explosion—but rather than the Augustus, it was the *Liberator* that exploded as its ammunition detonated under the crippling heat, sending the ejected pilot rocketing back towards the spectators. Contracts were immediately canceled and marketing pulled back, but all too late to save the *Liberator*'s reputation. Further investigation discovered the flaws in the cooling were so great that the chassis would have to be rebuilt from scratch. The three surviving prototypes languished for nearly half a century, with the last ironically destroyed in a live fire exercise by the Augustus' descendent, the Moltke.

Type: Liberator
Technology Base: Inner Sphere
Tonnage: 40

Equipment		Mass
Internal Structure:		4
Engine:	240	11.5
Walking MP:	6	
Running MP:	9	
Jumping MP:	0	
Heat Sinks:	10	0
Gyro:		3
Cockpit:		3
Armor Factor:	104	6.5

	Internal Structure	Armor Value
Head	3	9
Center Torso	13	15
Center Torso (rear)		4
R/L Torso	10	13
R/L Torso (rear)		4
R/L Arm	6	8
R/L Leg	10	13

Weapons and Ammo	Location	Critical	Tonnage
LRM-5	RA	1	2
Ammo (LRM) 24	RA	1	1
Large Laser	CT	2	5
SRM-2	LT	1	1
Ammo (SRM) 50	LT	1	1
LRM-5	LA	1	2
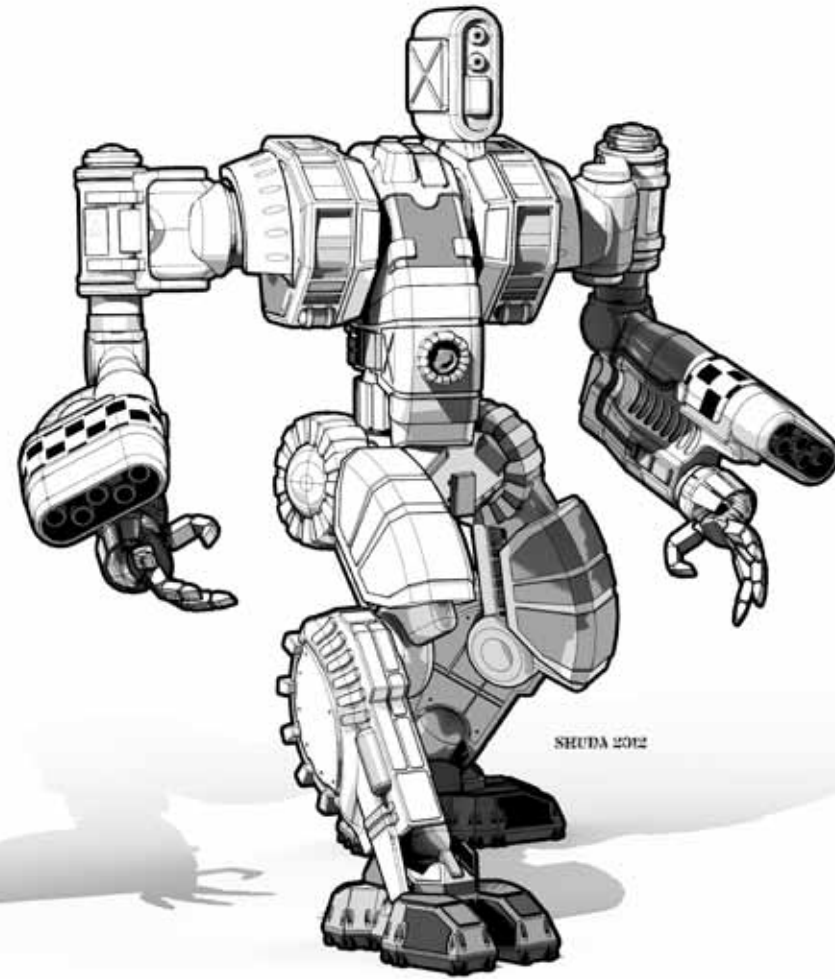
Notes: Features the following Design Quirks: Bad Reputation, Nonfunctional (Heat Sinks), Poor Workmanship, Obsolete/3025, Prototype

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EXPERIMENTAL

SCP-X1 SCORPION LAM

Outcome Summation: Failed Prototype
Producer/Site: Brigadier Corporation, Oliver
Supervising Technician: General Serina Ceausescu
Project Start Date: 2690
Failure Analysis: Inoperable Equipment

Overview

In the late twenty-seventh century, many BattleMech manufacturers wanted to get in on the Star League's newest military development, the Land-Air 'Mech. Brigadier Corporation was no different. Having made their reputation (questionable as it was) through quadruped 'Mechs, their design teams were not intimidated with the challenge to adapt one of their existing chassis to transform into an aerospace fighter. The *Goliath* was quickly ruled out, as it was far too heavy and slow, so their efforts quickly turned to the medium-weight *Scorpion*.

In order to free up the mass that would allow for the addition of the conversion equipment and jump jets, Brigadier's engineers reduced the size of the *Scorpion*'s fusion plant, saving nearly ten tons. In addition to installing the jump jets, two heat sinks were added to help alleviate some of the 'Mech's longstanding heat burden. These changes would prove to be the easy part; the massive adaptations to the chassis necessary for conversion would take far longer than anticipated.

When considering the chassis modifications, the *Scorpion* had some theoretical advantages over its competitors. Its relatively flat body offered a lot of surface area while the sides were ideally shaped for the addition to "winglets" that would make for flight stability. These "winglets" would be folded outward while all four legs folded up partly for hybrid mode, and fully into the torso underside for fighter mode. The difficult aspect was changing the torso sections that would needed to accommodate the reconfigurations for each form. Once designers conquered that problem, it was believed that the resulting flexibility would also drastically improve the 'Mech's land stride, finally offering the chance for the *Scorpion* to get past its "Bucking Bronco" nickname. Sadly, the improvements proved ultimately unusable.

While the 'Mech was able to transform on a gantry in a testing facility, in the field it simply collapsed while attempting to convert to AirMech or fighter modes. A frustrated design team decided to send the design out in AirMech mode and demonstrated that it could transform back into BattleMech form in the field, albeit with little grace. Empowered by this small victory, the team pressed onward, but ultimate success eluded them. Even when the *Scorpion* could convert into another mode, its jump jets could not generate enough force to create lift. Brigadier's testing division even attempted to air-drop one of the prototypes from a shuttle, to see if it could manage sustained flight in its fighter configuration. While the 'Mech did not fall like the proverbial brick, neither did it perform anything that could have been considered flight. After something of a controlled decent, its pilot ejected 300 meters from impact, and the LAM crashed into a rocky outcropping on the test fields.

Drowning in losses from the project, Brigadier finally pulled the plug on the operation and dismissed the entire design staff. Ironically, the last report handed in on the *Scorpion LAM* project showed that, in BattleMech mode, it was actually more effective than the standard *Scorpion*. While a newer version might have increased sales for the maligned unit, Brigadier simply did not have the resources to make the changes necessary to market such an improved chassis.

[Editor's Note: *Records of Brigadier's efforts nevertheless clearly piqued some curiosity beyond the company in the centuries since; shortly before the Jihad, fighting on Hesperus II uncovered an old bunker within which was reportedly found specs and prototypes of the failed* Scorpion *LAMs that were apparently manufactured and tested by Defiance Industries in secret. Unfortunately for Defiance, their efforts to produce a quadruped LAM met the same end as those of Brigadier, despite Hesperus II's far more sophisticated resources.*]

Type: Scorpion LAM
Technology Base: Inner Sphere (Experimental [Illegal])
Tonnage: 55

Equipment		Mass
Internal Structure:		5.5
LAM Conversion Equipment:		5.5
Engine:	275	15.5
Walking MP:	5	
Running MP:	8	
Jumping MP:	5	
AirMech Cruising MP:	15	
AirMech Flanking MP:	23	
Safe Thrust:	5	
Maximum Thrust:	8	
Heat Sinks:	12	2
Gyro:		3
Cockpit:		3
Fuel:	80	0
Structural Integrity:	18	
Armor Factor:	112	7

	Internal Structure	Armor Value
Head	3	8
Center Torso	18	24
Center Torso (rear)		8
R/L Torso	13	11
R/L Torso (rear)		5
R/L F Leg	13	10
R/L R Leg	13	10

Weapons and Ammo	Location	Critical	Tonnage
SRM 6	RT	2	4
PPC	RT	3	7
Jump Jet	RFL	1	.5
Jump Jet	RRL	1	.5
Ammo (SRM) 15	LT	1	1
Jump Jet	LFL	1	.5
Jump Jet	LRL	1	.5
Jump Jet	CT	1	.5

Notes: Features the following Design Quirks: Hard to Pilot, Illegal (Quad-LAM), Low Profile, Nonfunctional (Conversion System), Obsolete/2692, Prototype

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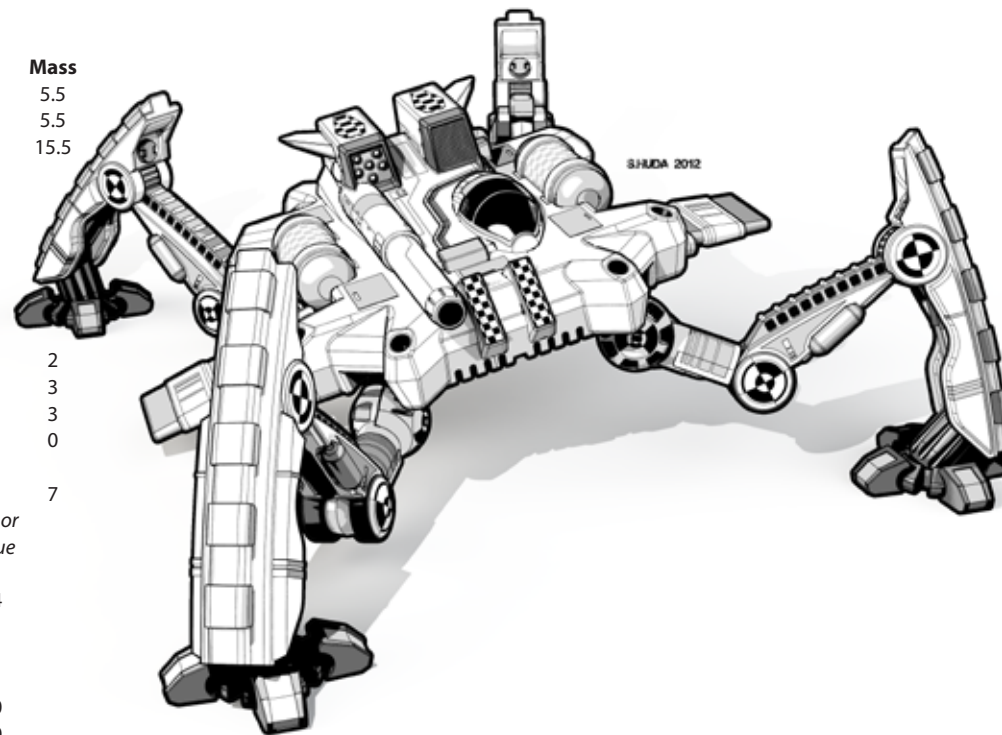
EXPERIMENTAL

Outcome Summation: Failed Prototype
Producer/Site: Bergen Industries, New Earth
Supervising Technician: Dr. Jerald Flannigan
Project Start Date: 2699
Failure Analysis: Inoperable Equipment

Overview

Brigadier's *Scorpion* LAM was not, of course, the only failure that ever happened when pushing the boundaries of the Land-Air 'Mech concept. The promise of this new technological innovation prompted Star League manufacturers to continue to challenge its limits, be they in terms of configurations or sheer size. While Brigadier challenged the former, Bergan Industries took on the latter in their attempt to create a heavier LAM.

Selecting the *Champion* as their baseline seemed only natural for its speedy, aerodynamic design. Still, unlike most of the other LAM projects, the *Champion* 1X1 model was conceived purely as a proof-of-concept; its end result would not necessarily aim at creating a final, field-ready design, so much as an effort to exceed the design goals of Allied Aerospace's planned *Phoenix Hawk* LAM. With a little pressure off of the design team, they went about drastically rebuilding the *Champion* from a cavalry BattleMech into an LAM.

The first big challenge was freeing up mass for the conversion equipment and jump jets. Engineering realities automatically ruled out the use of extralight engines, as their additional volume interfered with the critical torso alterations LAMs needed for switching between combat modes. Moreover, for similar reasons, the *Champion* could not make use of an endo steel frame and would even have to replace its ferro-fibrous armor with standard plate. This left only one option: removal of the *Champion*'s powerful LB-X autocannon.

Once the entire frame was rebuilt and jump jets were installed, all that was left was to get the *Champion* working. Doctor Flannigan was convinced that the *Champion*'s sleek aerospace-style shape would help its aerodynamics in flight, especially in atmospheric combat. Initial testing showed that the LAM adapted well to its jump jets, enjoying the 150-meter leaps that were so uncommon among heavy 'Mechs. Next they tested the prototype's ability to transform while stationary, and were encouraged to see the craft achieve relatively smooth transitions between fighter and BattleMech with only minor manual adjustments required between modes.

The disappointment came when it was time for the *Champion* LAM to take flight. After launching in fighter mode, the pilot quickly noticed that the LAM's turns were sluggish. The on-board diagnostics and remote viewing could not find a problem during the maiden flight, so the pilot successfully landed after just a few minutes airborne. Further analysis of the footage and the *Champion* discovered that the larger jump thrusters that were required for a 'Mech of the *Champion*'s size struggled to meet the maneuvering needs for combat flying, and made for a poor substitute for the dedicated engines of a true fighter. Left as is, the *Champion* LAM would be an easy target in the air, even for an LAM. Worse, after-flight servicing reports found signs of extreme wear on the conversion equipment, especially in the hip and waist assemblies, and a few frayed myomer bundles and power feeds that suggested the potential for catastrophic failure from repeated transformations. Though the *Champion* LAM successfully flew, landed, and transformed, its capabilities in all three respects in battle—or even over a short round of routine non-combat patrols—were questionable, at best.

Attempts were made to use lighter jump jets to achieve thrust, but those jets failed to produce enough power to keep the LAM aloft or achieve stable, sustained flight. After a few test pilots were injured, that fix was abandoned and other solutions were proposed. Outfitting the jump jets with additional motors to move them worked, but required so much additional mass that the *Champion* would have to dump additional weapons to accommodate those changes—and that change still did not rectify the structural weakening caused by conversions. With the entire project going nowhere and stock prices falling amid news of a spectacular crash caught on tri-vid, Bergan Industries finally canceled the *Champion* LAM project, and shipped its remaining prototypes to their storehouses on New Dallas.

Type: Champion LAM
Technology Base: Inner Sphere (Experimental [Illegal])
Tonnage: 60

Equipment	Mass	
Internal Structure:		6
LAM Conversion Equipment:		6
Engine:	300	19
Walking MP:	5	
Running MP:	8	
Jumping MP:	5	
AirMech Cruising MP:	15	
AirMech Flanking MP:	23	
Safe Thrust:	5	
Maximum Thrust:	8	
Heat Sinks:	11	1
Gyro:		3
Cockpit:		3
Fuel: 80		0
Structural Integrity:	20	
Armor Factor:	144	9

	Internal Structure	Armor Value
Head	3	9
Center Torso	20	25
Center Torso (rear)		8
R/L Torso	14	18
R/L Torso (rear)		6
R/L Arm	10	12
R/L Leg	14	15

Weapons and Ammo	Location	Critical	Tonnage
Medium Laser	RT	1	1
SRM 6	LT	2	4
Artemis IV FCS	LT	1	1
Ammo (SRM) 15	LT	1	1
2 Medium Lasers	LT	2	2
Jump Jet	RL	2	2
Jump Jet	LL	2	2
Jump Jet	CT	1	1

Notes: Features the following Design Quirks: Hard to Pilot, Illegal (Heavy-LAM), Nonfunctional (Conversion System), No/Minimal Arms, Obsolete/2702, Prototype

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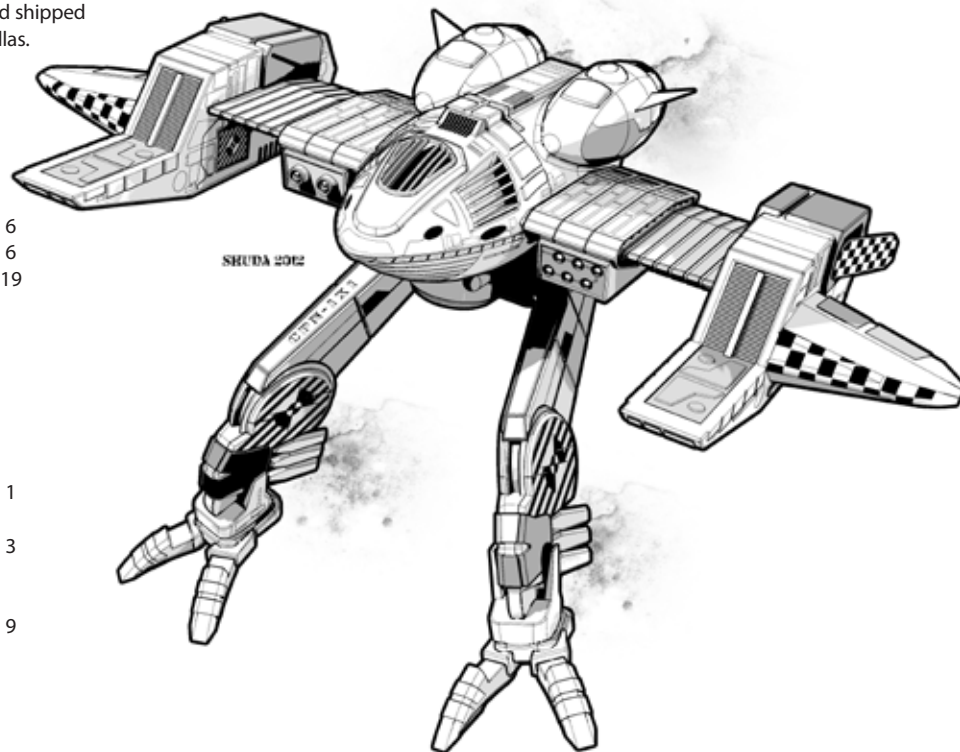
EXPERIMENTAL

SAM-RS2 MATAR

Outcome Summation: Failed Prototype
Producer/Site: Amaris Arms Corporation, Terra
Supervising Technician: Senior General Rifkin Amaris
Project Start Date: 2775
Failure Analysis: Inoperable Equipment

Overview

Stefan Amaris knew that if he was going to fend off Aleksandr Kerensky's SLDF, he would need better defenses for his "empire". As Kerensky crept closer and closer to Terra, weapons development became more and more desperate. The most well known outgrowth of these efforts was the monstrosity known as "Amaris' Folly"—or, more officially, the *Matar*. This last-gasp project was aimed at developing a single, super-heavy BattleMech that could theoretically take on an entire 'Mech company. Rifkin Amaris (one of Stefan's closest cousins), technically headed the ambitious project, but the Usurper himself frequently meddled in the project.

Built primarily for static defense, speed was not a concern for this outsized 'Mech. Firepower, and the ability to take more than it could dish out, were instead the primary focus. With dual Gauss rifles—buried deep in the side torsos—the *Monster* had plenty of long-distance punch, with an extended range large laser thrown in for good measure. Four tons of ammunition would enable this machine to hammer its enemies relentlessly. Curiously, the design team went to great lengths to hide the Gauss rifles deep within their mountings, and even contemplated launcher-style hatches in the hopes that the prominent laser housings would keep attackers guessing about the 'Mech's loadout. This approach prevented the addition of CASE that could have protected against capacitor detonation should the *Matar* suffer an armor breach. Neither Amaris was fazed by this, apparently, feeling that few enemies would be able to get that far against a well supported *Matar*.

Another issue solved through superior firepower was the threat posed by lighter units. Against speedy units, a *Matar* would appear be hard-pressed to track. To address this hazard, a pair of heavy pulse lasers—one in each arm—gave the *Matar* both the widest possible arc and the best means to deliver a telling blow once such units got close enough to use their own weapons. Even if a bogey got behind the sluggish *Matar*, a pivot of the torso could enable the 'Mech to bring an arm laser to bear on its would-be flanker. Even the threat of infantry was addressed through the installation of two flamers, something Stefan Amaris himself reportedly insisted upon. Opposing infantrymen would be cooked in the open or burned alive in any structure or woods they hid in.

For its defense, the *Matar* featured twenty and a half tons of Star Slab armor, focused mainly on the torsos, and a Guardian ECM unit was installed in the leg, to negate any of the advanced munitions Kerensky's forces might field against it. Amaris was particularly concerned by the Narc beacon, which could allow missiles to rain down where the *Matar* could not reply. Finally, the heat sink capacity was sufficient to keep the 'Mech cool, so long as all three large lasers were not fired simultaneously. Even then, with no explosive munitions to worry about, the *Matar*'s heat level could be pushed as long as its pilot did not want to go anywhere.

Indeed, as luck would have it, the *Matar* never *could* go anywhere once it entered the prototype stage. Three different design teams were unable to resolve the stress issues that prevented the 'Mech's leg actuators from moving the superheavy machine. Grown increasingly paranoid and desperate as news of Keresnky's campaign continued to filter in, the Amaris cousins turned their rage on these hapless engineers, executing them all for "treasonous incompetence". In the end, the *Matar* project was scrapped, and Rifkin attempted to take his work with him into exile. He was captured trying to leave Terra and the data was recovered by Kerensky's troops.

Yet even though the *Matar* went down in history as a dead-end development created by a desperate and dying regime, it lived to vex the Inner Sphere again when Clan Smoke Jaguar reworked the design as the *Behemoth*.

Type: Matar
Technology Base: Inner Sphere (Experimental [Illegal])
Tonnage: 110

Equipment		Mass
Internal Structure:		11
Engine:	220	10
Walking MP:	2	
Running MP:	3	
Jumping MP:	0	
Heat Sinks:	14 [28]	4
Gyro:		3
Cockpit:		3
Armor Factor:	327	20.5

	Internal Structure	Armor Value
Head	3	9
Center Torso	33	47
Center Torso (rear)		15
R/L Torso	23	31
R/L Torso (rear)		15
R/L Arm	18	36
R/L Leg	23	46

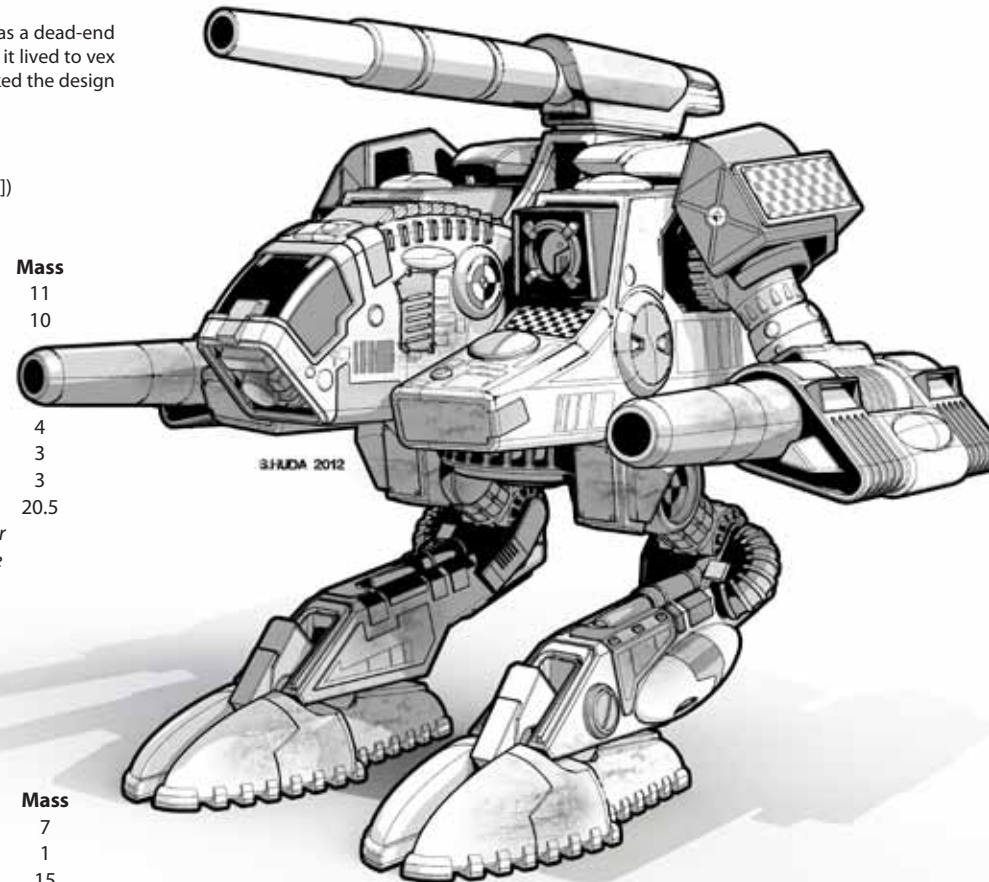| Weapons and Ammo	Location	Critical	Mass
Large Pulse Laser	RA	2	7
Ammo (Gauss) 8	RA	1	1
Gauss Rifle	RT	7	15
Ammo (Gauss) 8	RT	1	1
Flamer	RT	1	1
Large Pulse Laser	LA	2	7
Ammo (Gauss) 8	LA	1	1
Gauss Rifle	LT	7	15
Ammo (Gauss) 8	LT	1	1
Flamer	LT	1	1
Guardian ECM	LL	2	1.5
Medium Pulse Laser	H(R)	1	2
ER Large Laser	CT	2	5

Notes: Features the following Design Quirks: Distracting, Illegal (Superheavy 'Mech using Standard rules), Nonfunctional (Upper Leg Actuators), Nonfunctional (Lower Leg Actuators), Obsolete/2778, Prototype

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EXPERIMENTAL

Outcome Summation: Failed Production Model
Producer/Site: Johnson-Aldis Weaponries, Thorin
Supervising Technician: Major Uri Fujisama
Project Start Date: 2390
Failure Analysis: Poor Design

Overview

Hundreds of years before there were Land-Air 'Mechs, there was another combat unit designed to cross the line between vehicle types: the Thorizer. Conceived by Johnson-Aldis Weaponries, the hybrid between jet and hovercraft was the invention many in the company felt would propel them to the top of the Terran Hegemony's military manufacturing complex.

The Thorizer was built to address a very real need. While most Hegemony divisions possessed plenty of hovercraft, they were chronically short on aerospace support. Named after a predator native to Johnson-Aldis's homeworld of Thorin, this special vehicle would combine the features of both hovercraft and fighter, enabling such divisions to employ a supplemental air cover as needed to surprise and overwhelm any opposition. The Terran Hegemony, intrigued by this potential, agreed to help the company move this concept forward.

The primary goal of the Thorizer project was to develop a good hovercraft capable of converting on the fly into a passable aerospace fighter. Long before its engineers even looked at payloads or velocities, Johnson-Aldis had to design a revolutionary new frame. Fixed, rigid structures simply would not do (as LAM developers would find out generations later); what was structurally sound for a hovercraft was not good for an aerospace fighter. To accommodate two very different lift needs, the vehicle's sides would need to change their very configuration for each mode of movement: extending wings and landing gear for aircraft flight, and collapsing them for ground-level mobility. This only left room in the hovercraft for a single, large centerline weapon. Sadly, as the equipment needed to transform the Thorizer did not leave sufficient mass for even the smallest of autocannons, the designers opted instead for smaller weapons to cover its forward and aft firing arcs, eventually setting on a total of three twin-tube short-range missile launchers, all fed from the same ammunition bin.

Since fuel was not a great necessity for something built only to serve as a short-range aerofighter, only three and a half tons of reaction mass was installed. This left less than three tons of low-grade armor to cover the vehicle. This weak armor, in conjunction with a forward armament consisting of only two short-range missile tubes, meant that the Thorizer could only realistically threaten another Thorizer—but, for a prototype, these were seen as minor issues, since weapon loads would be more easily corrected once the concept was suitably proven.

As it turned out, the Thorizer was not so easily fixed. When the craft made its maiden flight in fighter configuration, observers quickly wondered why its pilot was being so conservative with the thrusters. The craft struggled to lift off the ground, and its fastest maneuvers showed the same acceleration profiles as the most ponderous fighters in the Hegemony. Debriefing determined that the pilot *was* pushing the craft to its limits, but the engines simply failed to deliver the output. As an initial production run continued, the design team struggled to correct this issue,

but ultimately determined that the acceleration flaw was inherent to the basic design, due to the inherent trade-offs between the vehicle's two motive modes. Johnson-Aldis refused to discontinue the Thorizer but did change its presentation to the Hegemony.

Desperate to add to their aerospace defenses, the Hegemony bought the initial production run despite the sluggish maneuverability, but quickly came to regret its choice. With its slow air speed, the Thorizer was virtually useless against any sort of airborne opponent, and prone to stalling. After losing too many crews to crashes, the Hegemony disabled the Thorizer's flight conversion equipment, repurposed the fuel tanks for cargo, and relegated the remaining vehicles to militia forces strictly as a mediocre hovercraft. Dubbed the "Gooney Bird" by its crews, the Thorizer only survived two decades in this reserve role, before the remaining units were sold for scrap.

Type: **Thorizer**
Technology Base: Inner Sphere (Experimental [Illegal])
Movement Type: Hover (Medium)
Equipment Rating: C/F-X-X
Tonnage: 35

Equipment		Mass
Chassis:		10.5
Engine/Controls:	Fusion	7
Cruising MP:	4	
Flank MP:	6	
Jump MP:	3	
Safe Thrust:	3	
Max Thrust:	5	
Heat Sinks:	0	0
Fuel:	280	3.5
Structural Integrity:	4	

Armor Factor (BAR 5):	39	2.5
	Armor Value	
Front	10	
R/L Side	10/10	
Rear	9	

Weapons and Ammo	Location	Tonnage
2 SRM-2s	Front	2
SRM-2	Rear	1
Ammo (SRM) 50	Body	1
Basic Fire Control	Body	.5

Crew: 3 (2 enlisted, 1 gunner)

Notes: Features bimodal conversion equipment (5.5 tons), and 3 jump jets (1.5 tons). Features the following Design Quirks: Bad Reputation, Distracting, Difficult to Maintain, Hard to Pilot, Illegal (Support Vehicle with Bimodal LAM Equipment), Non-Standard Parts, Obsolete/2415, Poor Performance
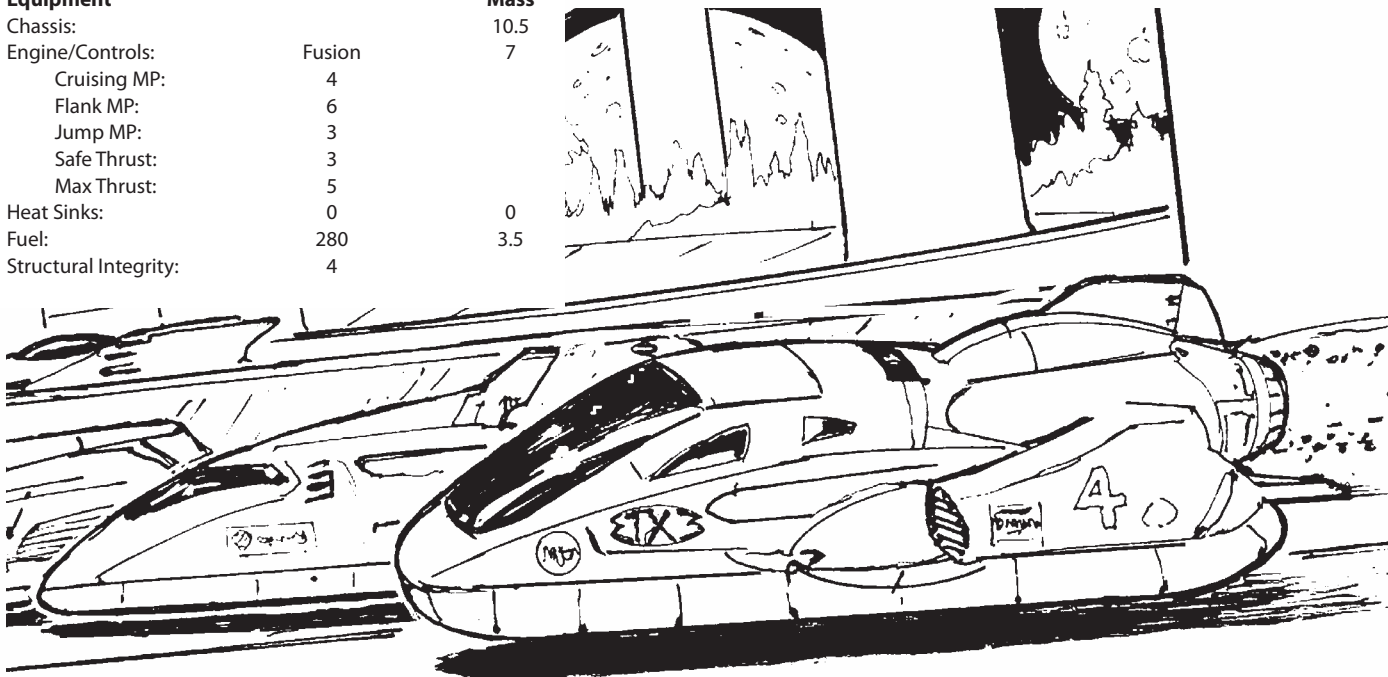
EXPERIMENTAL

CONDOR TRANS-TRACK

Overview

Ever since they became a regular part of modern militaries, hovercraft have offered a tremendous speed advantage over other armored vehicles, while often packing comparable firepower. Unfortunately, their delicate air skirts render these swift vehicles extremely vulnerable to enemy fire, and their excellent maneuverability can be undone by even a moderately thick tree line. With some terrain preventing the use of lift fans altogether, Red Devil Industries of Pandora proposed a radical modification for hovercraft that would install retractable treads for use in difficult terrain, and allow the vulnerable hover skirt to be withdrawn when damaged or rendered impractical. This concept was expected to be showcased in an entirely a new craft, but management rejected this to reduce expenses. Instead, Red Devil opted to test the new innovation on a proven hull instead: the classic Condor.

To evaluate the design, the LCAF assigned a young officer to help oversee the project as it moved forward: then-Kommandant Thomas Hogarth.

Refitting the Condor hovercraft with the new technology proved costly in terms of the sheer weight involved, forcing Pandora's engineers to replace the main cannon with a smaller one, while also reducing the vehicle's armor coverage. These changes permitted the installation of the new tread and skirt retraction/deployment systems, but tests attempted immediately afterward swiftly demonstrated that the newly developed equipment amounted to nothing. The complicated retraction system would repeatedly fail to engage on command and often snagged—a failure repeated on the entire batch of prototypes that Pandora had constructed.

Yet, if one were to check the progress reports from the program, one would have presumed the project a smashing success. At least three large "demonstration parties" were thrown with guests from across the Commonwealth and Federated Suns—though no one ever saw the Condor Trans-Tracks actually operating on the field. There were many prototypes displayed, and one even featured as a centerpiece for a party, yet as the visitors came and went from Pandora, most were so pleased with their chance to network that few even noticed the lack of evidence in the project's success. Indeed, those few guests who were concerned with the Trans-Track quickly grew tired of trying to wrangle more information from their hosts, and fell silent before these festivities ended. With such a glowing reception, the LCAF ordered a full battalion for combat duty, and Red Devil began work on expanding their production line to meet the demand for their new hovertank.

When they arrived at their assigned units, the crews quickly realized they were sold a lemon. Unable to make the tread-to-hover conversions work, most crews suffered through the use of these vehicles (almost always delivered in "tracks-down mode") as best as they could. Other commands simply refused to allow their crews to use the vehicles once they discovered the limitations. As the complaints rolled in, the LCAF quickly canceled the order and (reportedly) moved to dismiss Hogarth. Somehow, the well-connected Kommandant managed instead to be reassigned to the Furillo militia, while the Condors he so glowingly recommended ultimately found themselves dispatched to backwater defense forces over the next decade. Many—likely as a sort of payback from the Lyran High Command—eventually found their way to the Furillo BPM, where they once again became a problem for Thomas Hogarth to deal with.

Type: **Condor Trans-Track**
Technology Base: Inner Sphere (Experimental [Illegal])
Movement Type: Hover/Track
Tonnage: 50

Equipment		Mass
Internal Structure:		5
Engine:	165	12
Type:	ICE	
Cruising MP (Hover):	8	
Flank MP (Hover):	12	
Cruising MP (Tracked):	3	
Flank MP (Tracked):	5	
Heat Sinks:	6	6
Control Equipment (Hover):		2.5
Control Equipment (Tracks):		2.5
Lift Equipment:		5
Power Amplifier:		.5
Turret:		1
Armor Factor:	88	5.5

	Armor Value
Front	28
R/L Side	14/14
Rear	13
Turret	30

Weapons and Ammo	Location	Mass
AC/2	Turret	6
Ammo (AC) 45	Body	1
2 Medium Lasers	Turret	2
Machine Gun	Front	.5
Ammo (MG) 100	Body	.5

Notes: Features the following Design Quirks: Bad Reputation, Difficult to Maintain, Illegal (Dual Motive System), Nonfunctional (Dual Motive System), Obsolete/3045.
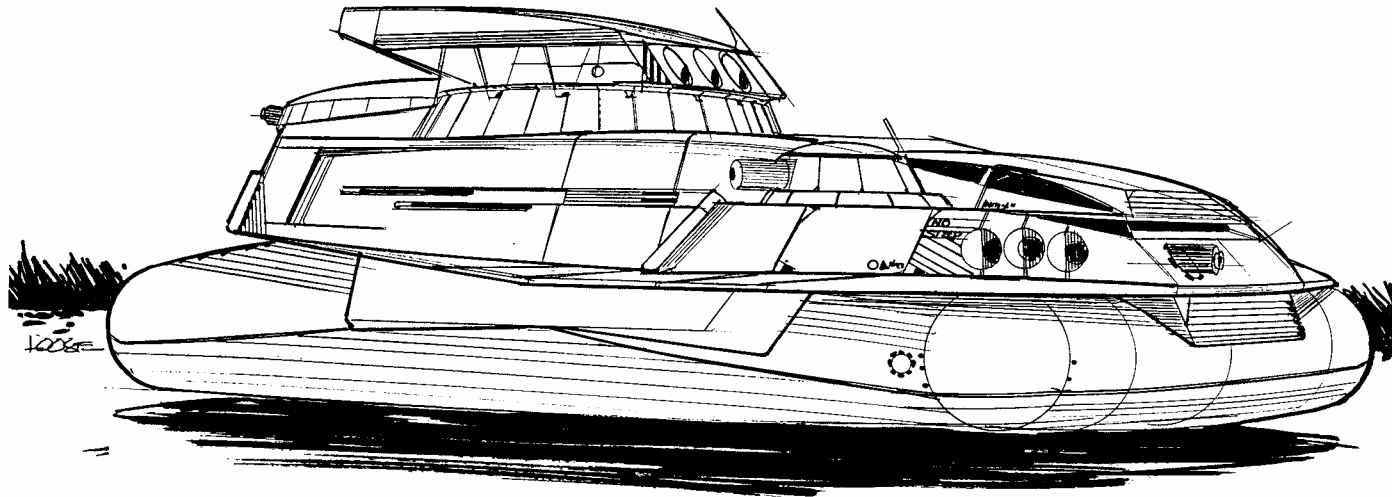
EXPERIMENTAL

NEPTUNE HYPER

Outcome Summation: Failed Prototype
Producer/Site: Galtor Naval Yards, Galtor
Supervising Technician: Admiral Minh Yan
Project Start Date: 3031
Failure Analysis: Inoperable Equipment

Overview

Underwater, there is little doubt that submarines are the masters of their domain. Yet, on water-rich worlds where such assets are needed, the limits of submerged or even surface-level maneuvering on sub still means that it can take such vessels longer to get from one theater to another than many commanders would like. Intrigued by a proposed solution from the recently captured Galtor Naval Yards, the Draconis Combine funded a project aimed at combining the advantages of a hydrofoil with the company's solid Neptune submarine. Advised that there would have to be sacrifices in order to add the hydrofoil system, the DCMS brass nevertheless found the prospect of faster blue-water forces worth investigating.

The first challenge Galtor's technicians faced was obtaining the original design files. While they had retained the Neptune construction plans when House Kurita captured the facilities, the complicated files that could be used for such an extensive redesign were lacking. A very cautious diplomatic inquiry was put out to the remainder of the company still in the Federated Suns. These Davion counterparts pressed for compensation for the plans and the Combine agreed to a limited replacement parts exchange, supplying parts for captured *Panthers* (at cost) in exchange for the files.

Once the design was finalized, Admiral Yan, the head of the DCMS' obscure maritime fleet, personally led the procurement department through the changes. The addition of hydrofoil equipment was at the forefront of the conversion, but the changes in weaponry were also a topic of much anticipation. To free up the room for the hydrofoil equipment, the submarine's large laser and its eight-ton cooling system had been removed. This allowed six new short-range torpedo tubes to be connected to the existing ammunition bin, protecting the submarine's art against tailing enemies. By removing half a ton of armor from the bow, Galtor was also able to replace the vessel's power amplifier with an additional ton of ammunition for the deadly long-range torpedo launcher. Despite the loss of the laser, Yan felt that the new Neptune's firepower was arguably improved.

All that was left was the testing of the prototype. With storm clouds overhead, observers were treated to a remote broadcast of the submersible capabilities. The Neptune was as good as advertised, defeating three mock BattleMechs and two surface craft. As the skies cleared and the seas calmed, the Neptune began its most important trial. Surfacing, it quickly obtained its normal top speed and kept accelerating, moving up on plane. The prototype was to accelerate towards the limit of eighty kilometers per hour, established by the engineering team for the initial testing, but as the vessel neared seventy, one of the hydrofoil fins snapped off, sending the hundred-ton submarine capsizing into the water.

The ensemble from the procurement department quickly departed, leaving a deeply shamed Admiral Yan to determine what went wrong and explore any possible corrections for the problem. A post-mortem determined that the hydrofoil components were simply incapable of withstanding the pressures and maneuvering stress of operating at depths greater than 250 meters below the surface, and that these limits were further taxed by strain of the hydrofoil engagement systems. Unwilling to compromise the submarine's ability to patrol the depths in exchange for unreliable surface speed bursts, the DCMS chose to discontinue the project. The two remaining prototypes joined the Galtor militia once the hydrofoils were removed, serving with some distinction.

Type: **Neptune Hyper**
Technology Base: Inner Sphere (Experimental [Illegal])
Movement Type: Naval
Tonnage: 100

Equipment		Mass
Internal Structure:		10
Engine:	270	29
Type:	ICE	
Cruising MP (Sub):	3	
Flank MP (Sub):	5	
Cruising MP (Hydrofoil):	7	
Flank MP (Hydrofoil):	11	
Heat Sinks:	0	0
Control Equipment:		5
Diving Equipment:		10
Lift Equipment:		10
Armor Factor:	224	14
Armor		
Value		
Front	70	
R/L Side	58/58	
Rear	38	

Weapons and Ammo	Location	Mass
LR Torpedo 20	Front	10
2 SR Torpedo 6	Front	6
SR Torpedo 6	Rear	3
Ammo (LR-T) 12	Body	2
Ammo (SR-T) 15	Body	1

Notes: Features the following Design Quirks: Difficult to Maintain, Illegal (Dual Motive System), Nonfunctional (Hydrofoil Motive System), Obsolete/3032.
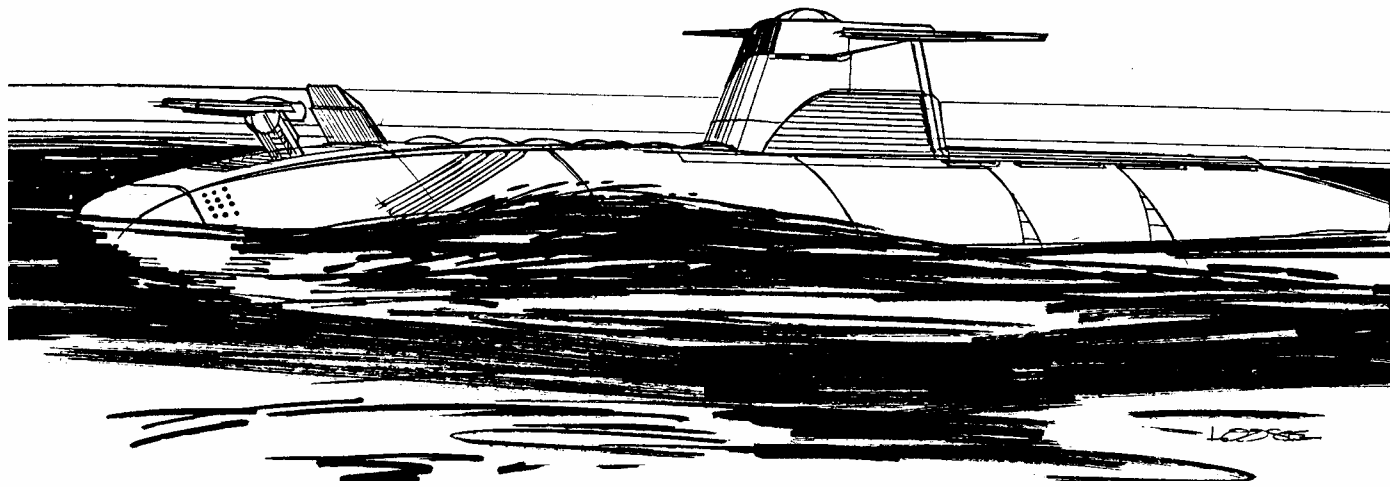
EXPERIMENTAL

MUSE IRONHORSE

Outcome Summation: Failed Prototype
Producer/Site: B&W Enterprises, El Dorado
Supervising Technician: Colonel Eduardo MacNiel
Project Start Date: 3078
Failure Analysis: Limited Application

Overview

The Federated Suns' MUSE program developed many prototype weapons in the latter days of the Jihad. Some of these—like the *Legionnaire* MUSE FIRE, or the *Rifleman* MUSE WIND BattleMechs—showed real battlefield potential and would eventually lead to production-grade units. Others, however, were merely costly demonstrations of a concept.

MUSE Ironhorse was one of the latter.

The Ironhorse was a rail-based support unit specifically designed to provide massive firepower and C3 capabilities ideal for the defensive needs of any large-scale position such as a city, spaceport, or major military installation. Mounting six extended range particle cannons—built to Clan standards—on any ground vehicle would make it fearsome enough, but the MUSE Ironhorse backed these weapons up with thirty tubes of long-range missiles also built to the same advanced specs. Plasma cannons acquired from Diamond Shark sources also protected the tractor unit from every side except the rear, while a Thumper artillery tube added the ability to strike at enemy positions several kilometers away. Sixteen tons of combat-grade armor protected the Ironhorse tractor. For the rear, a trailer of almost equal firepower was built, including a turret housing a massive Clan-grade payload of four particle cannons, four large pulse lasers, and an Arrow IV missile launcher.

While the generals were excited by the possibilities, the designers were not done with simply breathtaking firepower. A massive communications and control suite was installed in the tractor while the trailer offered nearly 200 tons of cargo space. This made it possible for the Ironhorse to not only act as a command unit, but also made it a viable transport for enough supplies to keep a battalion-sized command well supported. With a top speed of over 150 kilometers per hour, the Ironhorse could theoretically match the speed of most combat hovercraft while still being able to unleash its horrifying destructive capacity, and the tractor's fusion plant enabled operation independent of a rail-based power grid.

Yet, for all it offered, the Ironhorse suffered from some serious flaws. Firstly, its cost was immense, especially with all of the Clan-level technology permeating the design. Secondly, it was—after all said and done—still a train, which meant it was slow to accelerate or decelerate, and completely reliant upon fixed (and quite vulnerable) tracks. Indeed, during one of the Ironhorse's first field tests, the opposing force effectively eliminated its hundreds of millions of C-Bills worth of firepower by simply dispatching a pair of *Stinger*s to tear up the tracks ahead of and behind the train, leaving it isolated to a mere two kilometers of track. While it still could provide some artillery support to the area around its position, the same could far more easily be accomplished by two smaller vehicles that would not have been so easily sidelined.

With the Ironhorse's application so limited and its price tag so high, the project was shut down. As with much of the MUSE project, designers and builders learned about the applications of cutting edge technology, but at a high cost to the AFFS budget.

Type: **MUSE Ironhorse (Tractor)**
Technology Base: Clan (Experimental)
Equipment Rating: F/X-X-F
Movement Type: Rail (Large)
Tonnage: 600

Equipment		Mass
Chassis:		214
Engine/Controls:	Fusion	79.5
Cruising MP:	9	
Flank MP:	14	
Heat Sinks:	132	132
Fuel:		0
Turret:		5
Armor Factor (BAR 10):	304	16
	Armor	
	Value	
Front	54	
F R/L Side	40/40	
R R/L Side	40/40	
Rear	30	
Turret	60	

Weapons and Ammo	Location	Mass
4 ER PPCs	Turret	24
2 LRM-15	Turret	7
Thumper Artillery	Turret	15
Plasma Cannon	Turret	3
2 ER PPC	Front	12
2 Plasma Cannon	Front	6
2 Plasma Cannon	Right	6
Ammo (LRM) 40	Body	5
Ammo (Plasma) 100	Body	10
Ammo (Thumper) 100	Body	5
Communications Equipment	Body	10
Advanced Fire Control	Body	8

Crew: 31 (5 officers, 13 enlisted/non-rated, 13 gunners)
Cargo:

      39.5 tons standard   1 Door (Right)

Notes: Features Armored and Tractor Chassis modifications. Features the following Design Quirks: Non-Standard Parts, Obsolete/3077, Prototype.

Type: **MUSE Ironhorse (Trailer)**
Technology Base: Clan (Experimental)
Equipment Rating: F/X-X-F
Movement Type: Rail
Tonnage: 600

Equipment		Mass
Chassis:		171.5
Engine/Controls:		0
Cruising MP:	N/A	
Flank MP:	N/A	
Heat Sinks:	135	135
Fuel:		0
Turret:		6
Armor Factor (BAR 10):	304	16
	Armor	
	Value	
Front	30	
F R/L Side	40/40	
R R/L Side	40/40	
Rear	54	
Turret	60	

Weapons and Ammo	Location	Mass
4 ER PPCs	Turret	24
4 Large Pulse Lasers	Turret	24
Arrow IV	Turret	12
2 Plasma Cannon	Right	6
2 Plasma Cannon	Right	6
Ammo (Plasma) 100	Body	10
Ammo (Arrow IV) 50	Body	10
Advanced Fire Control	Body	25

Crew: 16 (3 officers, 13 gunners)
Cargo:

      169 tons standard   1 Door (Right)

Notes: Features Armored, Tractor, and Trailer Chassis modifications. Features the following Design Quirks: Obsolete/3077, Prototype
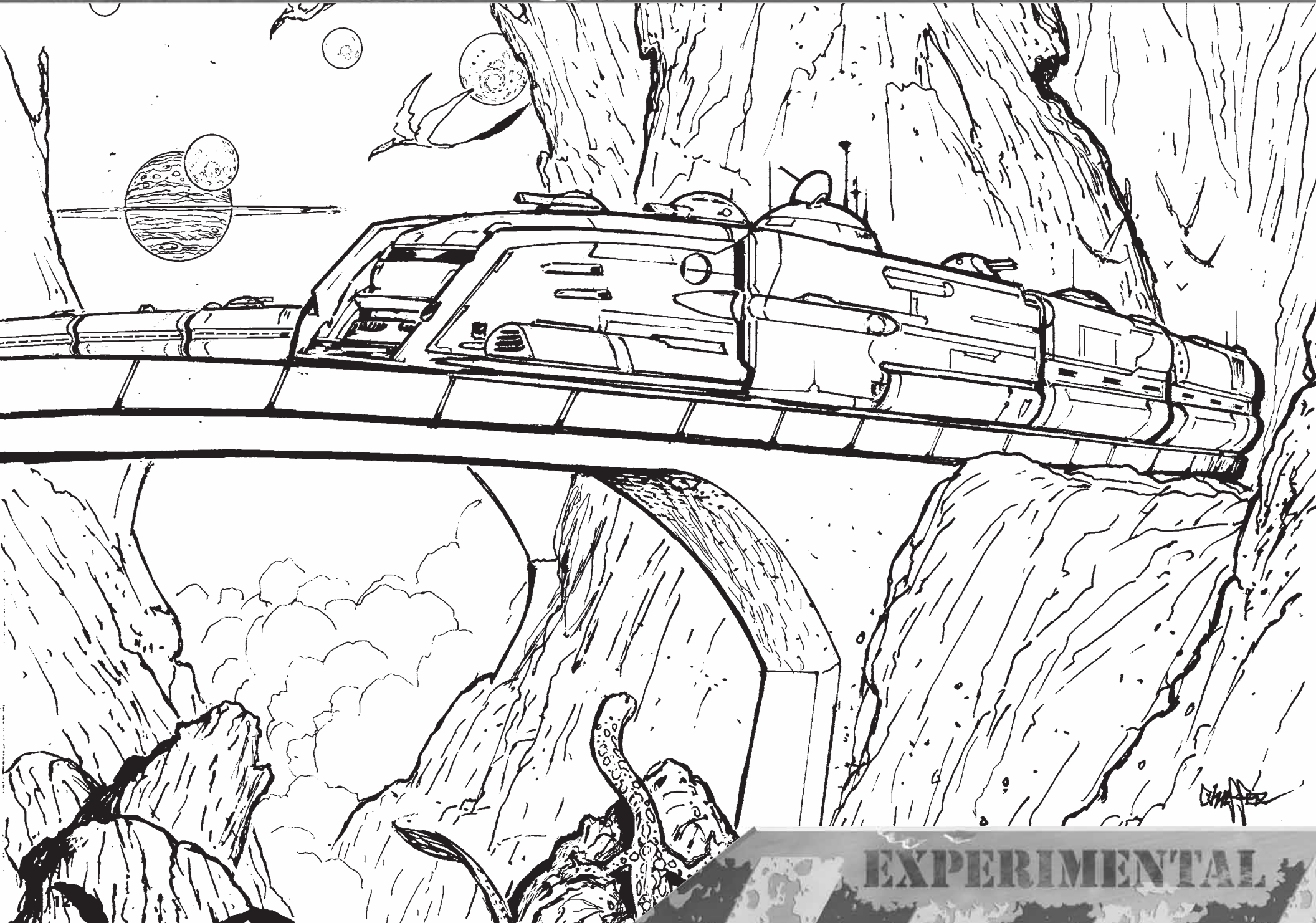
EXPERIMENTAL

EXPERIMENTAL

SEABASS

Overview

Some ideas wait for a great innovator to discover them; others wait for someone bold enough to actually act on them. The Seabass was the latter. An aerial and aquatic vehicle would give any army a tactical advantage, pinning the enemy and providing the choice of where to engage their opponents. There have been many units that tried and failed to tackle two roles or environments at once, the designers at Irian were hoping that the differences in the flow dynamics between atmospheric and aquatic conditions could be minimized.

Irian chose to be relatively cautious in developing their revolutionary design, using less restricted materials for the test bed. The Seabass called for modest speed and an energy payload to provide firepower in and out of the water. Able to keep up with the slightly heavier Defender, it had a similar armor layout, but not the superior grade armor. This didn't appear to be a significant issue; historical data from the Defender showed that weapons heavy enough to defeat the armor's protection would cripple or destroy either fighter in most cases.

Two different prototypes were built for testing, one for each environment. Both developed failures during testing and were lost, but the dedicated survival equipment in each allowed the pilot and data to survive. Learning from their first failures, both prototypes were rebuilt and succeeded in their trial runs.

The first complete test run was scheduled for the morning of 22 October 3072. The weather was calm and Irian management was hopeful that they would finally see a potential product for all the Eagles they had spent in development. Test pilot Jake "Flash" Warner left the dock and quickly submerged the Seabass, safely surfacing after nearly three kilometers underwater. He then proceeded to taxi along the surface for half of a kilometer before he was able to take off.

This was nearly twice as long as Irian had expected, souring the mood in the observation room as the plane landed again on the water after circling the test facility in a sixty-kilometer loop. Warner took the Seabass back down again under the water as most of the observers started to visit the buffet bar. After ten minutes of not hearing from Warner, the control room dispatched a submersible to make contact. After another ten minutes, the observers were sent back home and search and rescue operations were begun. It took three hours to locate the wreck of the Seabass under Lake Nabsquith.

Studying the wreckage showed that the seals by the cockpit door were damaged by the flight and failed when the Seabass resubmerged. Warner's widower, Chester, sued Irian in a heavily publicized trial once the facts came out. Between the lack of success and the poor publicity, Irian finally pulled the plug on the project. The lone remaining prototype was sold to the Albert Falls militia where it remains their sole armed aircraft.
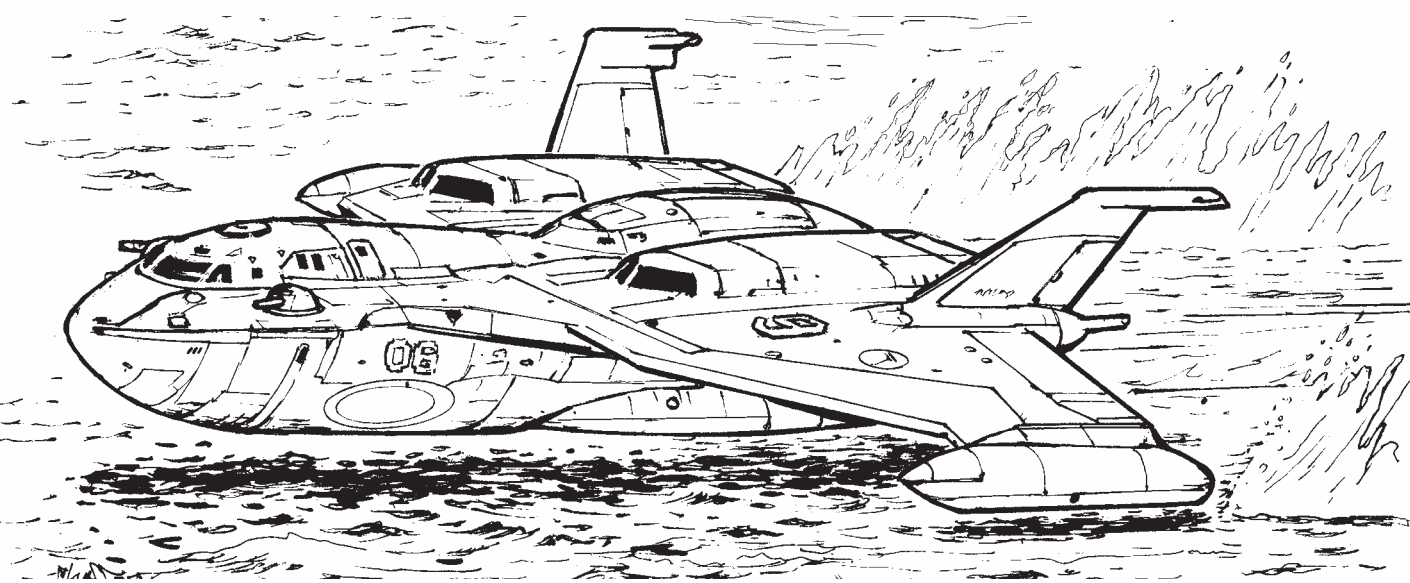
Type: **Seabass Flying Submersible**
Technology Base: Inner Sphere (Experimental [Illegal])
Equipment Rating: E/F-X-X
Movement Type: Fixed Wing/Naval (Sub)
Tonnage: 20

Structural Integrity:	6	0
Heat Sinks:	3	3
Fuel:	222	4
Armor Factor (BAR 7):	24	1

Equipment		Mass	Armor Value
Chassis:		5.5	
Engine/Controls:	Fusion	6	
Safe Thrust:	6		
Maximum Thrust:	9		
Cruising MP (Sub):	7		
Flank MP (Sub):	11		

	Armor Value
Nose	7
Wings	6/6
Aft	5

Weapons and Ammo	Location	Tonnage	Heat	SRV	MRV	LRV	ERV
Medium Laser	Nose	1	3	5	—	—	—

Crew: 3 (2 elinsted/non-rated, 1 gunner)
Cargo:
    0.5 tons   1 Door (rear)

Notes: Features Amphibious and Submersible Chassis Modification. Features the following Design Quirks: Illegal (Submersible Fixed Wing Chassis Modification), Prototype

EXPERIMENTAL

BSE-X2 BANSHEE AEROSPACE FIGHTER

Outcome Summation: Rejected Prototype
Producer/Site: Wangker Aerospace, Axton
Supervising Technician: Colonel Hartisan Yunupingu
Project Start Date: 3046
Failure Analysis: Poor Design

Overview

Seeking to address limitations on fuel expenditure in aerospace fighter deployment, Wangker approached the Federated Commonwealth military command with a new concept fighter that would feature turbine propulsion for atmosphere, while still being able to fly in space. The AFFC granted Wangker millions of kroner in grants based on the proposal, and diverted further money as the project moved along, meeting or exceeding its milestones.

After three years of development, Wangker unveiled its prototype before the military review board. True to their word, they delivered a quality machine that met all of their claims. The *Banshee*, as it was dubbed, functioned in space as well as in the atmosphere, and even handled better than some of the Commonwealth's current craft. Its fusion-based turbine gave it far greater operational lifespan while operating in atmosphere, while its generous five-ton fuel mass provided more than enough range for space ops.

Unfortunately, it soon became clear that excellent handling and stretching its fuel reserves in air flight were about the only things the new fighter could offer. Thanks to the sheer mass demanded by the *Banshee*'s extremely unconventional dual-power design, the medium fighter could only boast the speed of a heavy fighter, combined with the armor and firepower of a lightweight. Its mere four Gs of maximum thrust put the *Banshee* in league with the *Stuka* and *Chippewa*, allowing almost any medium fighter to fly circles around it, while its armor was equal to that of the *Sabre*—though some aerospace aficionados conceded that the placement of this protection was better balanced for a dogfighter. Unfortunately, balanced armor would still have mattered little as the *Banshee*'s dual medium lasers could not even match the weaponry of the lightly armed F-10 *Cheetah*.

After the initial trial data came out, the AFFC's representatives were deeply disappointed at what they had gotten for their money, and some of the Quartermaster Corps panicked, fearing that the budget outlays they had authorized for the project would damage their careers when it became clear that the result was such a failure. Eager to sweep the matter under the rug, but bound by contractual obligations, they instead found a way to dispatch the handful of prototypes already produced to forces near the Lyran//Periphery border for "extended testing". There, it was believed, the fighters would languish in obscurity, with little likelihood of experiencing enemy action that would call attention to their deficiencies.

The ruse actually succeeded, until the coming of the Clans, when these few *Banshee* fighters found themselves desperately pressed into action against the Jade Falcons. Though the prototypes failed miserably in combat, one pilot scored a noteworthy kill against a Falcon *Avar* on Anywhere. The Clan pilot, believing that his opponent was deliberately under-utilizing his fighter as some kind of track, ducked into a metal-rich canyon to avoid the heavier fighter's guns when the AFFC pilot turned toward him, and crashed against the canyon walls.

Type: Banshee Aerospace Fighter
Technology Base: Inner Sphere (Illegal)
Tonnage: 50

Equipment	Mass	
Aerospace Engine:	150 Fusion	5.5
Conventional Engine:	250 Turbine	25
Safe Thrust:	5	
Maximum Thrust:	8	
Structural Integrity:	5	

Heat Sinks:	10	0
Fuel:	400	5
Cockpit:		3
VTOL Equipment		2.5
Armor Factor:	64	4

	Armor Value
Nose	23
Wings	14/14
Aft	13

Weapons and Ammo	Location	Tonnage	Heat	SRV	MRV	LRV	ERV
Medium Laser	LW	1	3	5	—	—	—
Medium Laser	RW	1	3	5	—	—	—

Note: Features Cockpit Command Console (3 tons); Halves fuel consumption and moves as a Conventional Fighter in atmosphere. Features the following Design Quirks: Atmospheric Flyer, Illegal (Dual engine design), Illegal (Conventional VTOL equipment on aerospace fighter).

EXPERIMENTAL

F-12A CHEETAH II

Outcome Summation: Rejected Prototype
Producer/Site: Imstar Aerospace, Amity
Supervising Technician: Admiral Garland Smith
Project Start Date: 3021
Failure Analysis: Poor Design

Overview

Though the innovation of the Free Worlds League has served it well at times, it can often be so aggressive that it handcuffs the military with designs that don't seem to be thought out in terms of tactical doctrine. The *Cheetah II* fits this picture. Imstar Aerospace wanted to upgrade their flagship light fighter, the *Cheetah*, which already served the Free Worlds adequately, albeit without distinction. CEO Woodrow "Tiger" Gurnstoggle requested design teams to give him proposals for a rework of the venerable fighter. Three plans emerged from the commissioned studies: one that called for making the fighter heavier, and two that adjusted its trust, with one decreasing airspeed in favor of greater firepower, and the other increasing speed.

After reviewing the plans and observing the presentations, Gurnstoggle, a former conventional fighter pilot, chose the faster design, knowing that more speed had always served him well in his time in service. He turned to a former colleague, Admiral Garland Smith, to liaise with the military for the project. Smith approved the prototype for League funding.

The *Cheetah II* prototypes demonstrated both more powerful thrust and better handling in atmosphere, and Admiral Smith put in a requisition for three squadrons over the next two years. Imstar quickly began contacting component manufacturers to set up shipments for the new design, when a chance meeting between a member of the procurement department and Admiral Smith's superior made her aware that a new aerospace design that was going to be introduced. The procurement officer requested Smith's analysis and was stunned at what she saw.

The increased engine forced the removal of a third of the fighter's armor and dropped its two medium lasers as well, leaving the thinly armored fighter with only a single small laser for combat. Smith's justification, that the increased speed allowed the *Cheetah II* to better serve as a high speed bomber, did not go over well, as it carried the same external ordinance load a standard *Cheetah* could already bring to bear. With basically an overly expensive jump-bomber on their hands, the military hated the purchase and brought about a very public review of the matter.

With their stock falling, Imstar's board of directors was forced to dismiss Gurnstoggle from (albeit with a few-million-eagle "golden parachute"). A full investigation carried out by Imstar later revealed that Gurnstoggle, Smith and the head of the design team that proposed the *Cheetah II* were having an inappropriate relationship and were heavily invested in Spyratos Engine Systems, makers of the fighter's unusual 275-rated aerospace fusion engine. A lawsuit saw recovery of some of the money (including Gurnstoggle's severance package), but the stain of the scandal remained with Imstar and the Free Worlds military for some time. Spyratos Engine Systems was cleared of any wrongdoing, but was unable to recover from the loss in building a new fusion engine line that had no customers.

Type: **Cheetah II**
Technology Base: Inner Sphere
Tonnage: 25

Equipment		Mass
Engine:	275	15.5
Safe Thrust:	13	
Maximum Thrust:	20	
Structural Integrity:	13	
Heat Sinks:	10	0
Fuel:	320	4
Cockpit:		3
Armor Factor:	32	2
	Armor Value	
Nose	9	
Wings	9/9	
Aft	5	
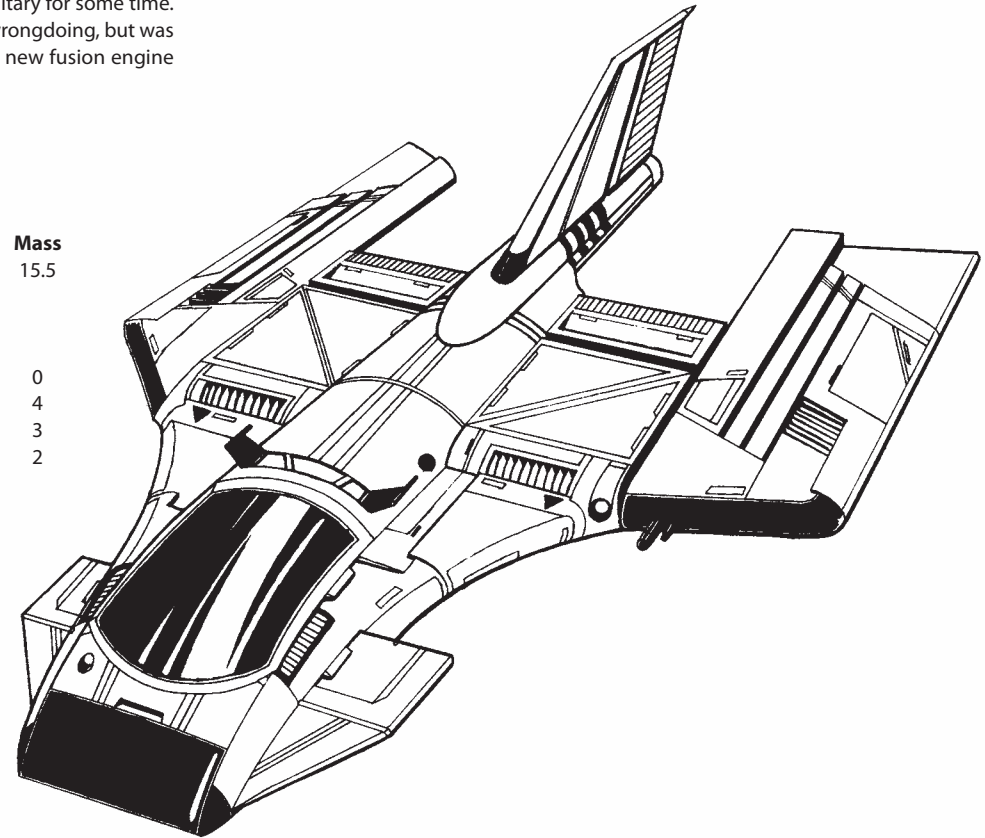
Weapons and Ammo	Location	Tonnage	Heat	SRV	MRV	LRV	ERV
Small Laser	Nose	.5	1	3	—	—	—

Notes: Features the following Design Quirks: Atmospheric Flyer, Bad Reputation, Difficult to Maintain

EXPERIMENTAL

BRIGHT STAR AUTO SCOUT

Outcome Summation: Failed Prototype
Producer/Site: Ulsop Robotics, Zebebelgenubi
Supervising Technician: General Jamison Cameron
Project Start Date: 2539
Failure Analysis: Unknown

Overview

A longtime builder of quality robots and computers, Ulsop Robotics was looking to branch out into other areas of high technology. Their first attempt was to use their expertise to develop an unmanned exploration JumpShip, hoping to reduce or eliminate the need for human beings to take up the mundane tasks of mapping and evaluating distant star systems, a duty that had cost the lives of more than a few crews during the time of the Star League. A fully automated system would end the risk as well as perform the job cheaper and quicker.

As Ulsop had never built any spacecraft before—let alone JumpShips—many doubted the company's ambitious new project, though the resulting design was very compact and efficient. Built to operate completely unmanned, the *Bright Star* (as the prototype was dubbed), possessed limited life support capacity and access ways that were barely human-sized, sufficient enough only for the technical teams who would periodically work on the craft between missions. It possessed a lifeboat should something go wrong while the crew was onboard, but even this amenity was configured more for unmanned operation, as it was to double as an emergency data dump capsule, intended to jettison in emergencies with a backup copy of all collected data to date.

The true challenge would be in the operation of the JumpShip. Not only would it have to perform the calculations for the next jump, it would need to determine which system to visit next. It would also need to monitor its supply of consumables and plot a return path that would allow it to be resupplied from its home base. Beyond the navigation, the *Bright Star* needed to map out the systems it visited, identifying all the major celestial bodies and any important raw materials, such as ice. As the needs of a survey differed based on the size and how many celestial bodies it contained, the time and supplies it would require could vary, adding another complicated process for the software to determine. Yet Ulsop believed they had addressed all the issues.

An escorted trip to Ozawa from Zebebelgenubi showed that the *Bright Star* could safely perform jumps and survey a system faster than a human crew. After a celebratory christening, where an Ulsop robot smashed a glass container of microchips across the bow, the scout was sent on its maiden voyage. While the SLDF liaison requested to begin with a five-year mission, Ulsop had planned a ten-jump limit for the first solo voyage, with it returning to Zebebelgenubi when it was complete.

Instead of following the programmed course, the *Bright Star* immediately jumped to already explored systems. Ulsop attempted to reclaim control of the ship, using HPGs and command circuits to try and catch it before its jumps, but to no avail. Remote access failed and the last confirmed sighting of it was in the New Samarkand system before it left the known space. There have been rumored sightings in the time since then, but nothing confirmed. It seems unlikely that the *Bright Star* is still functional after half a millennium, but as the Champlain-III probe showed in 3075, it is possible for some probes to survive even a thousand years.

Bright Star Automated Scout
Use: Exploration Unit
Tech: Inner Sphere (Experimental)
Introduced: 2543
Mass: 60,000 tons

Dimensions
Length: 124 meters
Width: 22 meters
Height: 15.2 meters
Sail Diameter: 890 meters

Fuel: 150 tons (1,500 points)
Tons/Burn-day: 0.977
Station-keeping Thrust: 0.1G (0.2 Thrust)
Sail Integrity: 3
KF Drive Integrity: 3
Heat Sinks: 82
Structural Integrity: 1

Armor
Nose: 6
Fore-Sides: 4
Aft-Sides: 4
Aft: 4

Cargo
Bay 1: Small Craft (2)   1 Door
Bay 2: Cargo (123.5 tons)   1 Door

Life Boats: 1
Escape Pods: 0
Crew: None

Notes: Equipped with 32.5 tons of standard armor. Features prototype Aerospace Smart Robotic Control System (ASRCS)-style equipment (Gunnery: 4, Piloting: 5; 360 tons), Large NCSS, Communications equipment (13 tons), 2 Drone Carrier Control Systems (3 tons). Features the following Design Quirk: Non-functional (Fully automated ASRCS-driven JumpShip)

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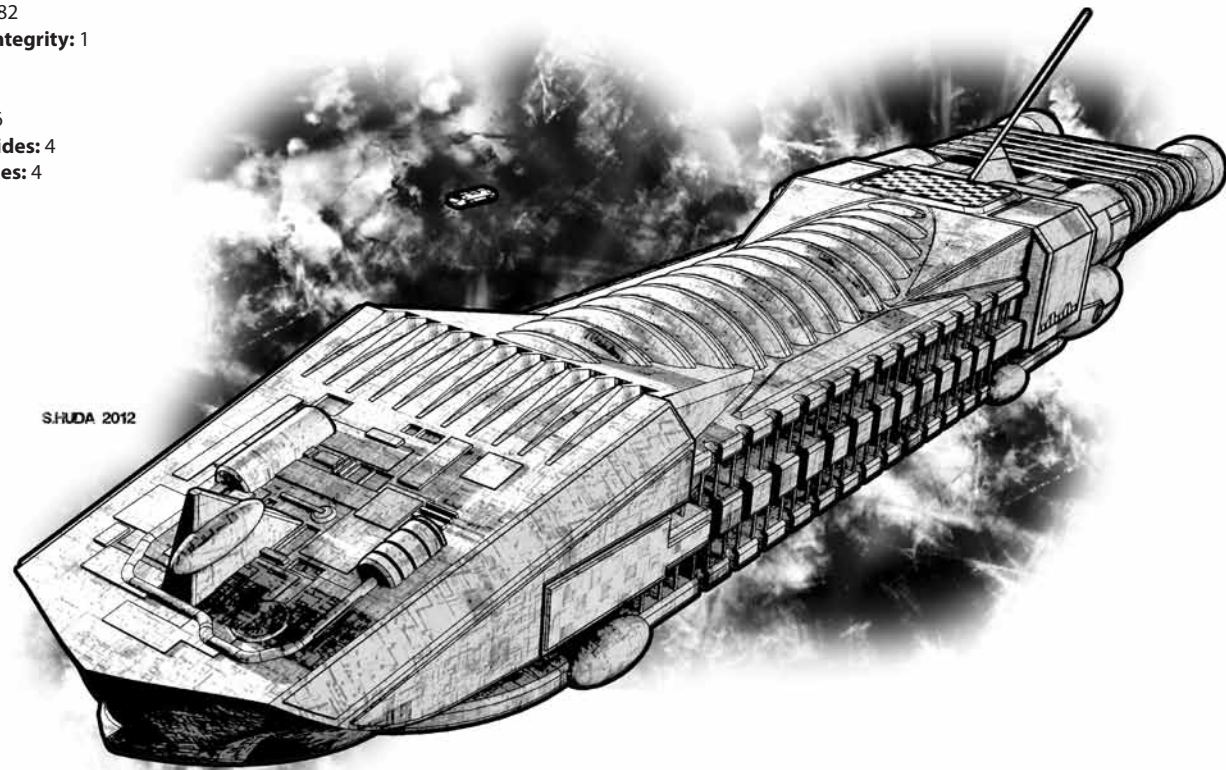
EXPERIMENTAL

Outcome Summation: Failed Prototype
Producer/Site: Daussault-Shimmon Enterprises, New Earth
Supervising Technician: Admiral Ursula Verlander
Project Start Date: 2745
Failure Analysis: Inoperable Equipment

Overview

Warfare is ever changing, every time that the 'ultimate weapon' appears to be approaching, another one neutralizes it. The appearance of aircraft carriers in the mid twentieth century signaled the beginning of the end for the battleship. Fearing the historical ramifications, commanders of the Star League black navy felt that the same thing might occur in space. Rather than leave matters to chance, they assigned the head of naval architecture to design a WarShip carrier that would invalidate the WarShips of the member states.

The first draft of the specifications called for a million ton ship that could carry three wings of fighters. As with many of the Star League's projects, specifications changed multiple times. The final vessel was sixty percent bigger and carried almost a thousand fighters. In addition to changing the design multiple times, each major revision brought in a new set of engineers, with over a dozen firms receiving payment for a complete set of schematics.

The first ship to be built was named after a long line of Terran aircraft carriers. Holding eighteen wings of fighters internally, in addition to the capacity of any DropShips on its four docking points. With a total of fifty four fighter bay doors, the *Enterprise* could launch an entire wing every ten seconds at peak combat performance. In the bowels of the ship, the most complex command and control system that the Star League had ever designed for a vessel lay, capable of tracking up to 2500 different objects during combat. A large assortment of capital weapons gave the *Enterprise* not only a good punch, but reach as well.

Perhaps the biggest innovation was the inclusion of vast arrays of large pulse lasers and anti-missile systems. These would prevent the ship from falling prey to its own revolution in space combat, swarms of fighters. The anti-missile systems would also allow incoming missiles, both conventional and nuclear, to be shot down before they could damage the vessel and leave it's hoards of fighters stranded.

When the vessel finally launched, some five years after the first drafts were drawn, all the eyes in the SLDF navy were on it. The *Enterprise* could not produce enough thrust to leave its berth and tugs were forced to move the ship out of its construction dock around the planet Saturn. The viewing audience gave up after four hours of waiting for the WarShip to rectify the propulsion problem and the test runs were rescheduled for a later date. That date never arrived.

Due to the multitude of different plans, investigators determined that the engines did not work with the thruster network. Even if they could repair the main thrusters, the ship could never maneuver. Admiral Verlander took an early retirement, saving the careers of the other supporters of the program. The project was canceled and never revisited. The ship itself was towed to asteroid belt where it has since been stripped down to a bare hulk, with chunks cut out of even that by scavengers of the Sol system.

Enterprise Super Carrier
Use: Carrier WarShip
Tech: Inner Sphere (Experimental)
Introduced: 2749
Mass: 1,600,000 tons

Dimensions
> **Length:** 1,250 meters
> **Width:** 158 meters
> **Height:** 98 meters
> **Sail Diameter:** 1,190 meters

Fuel: 4000 tons (10,000 points)
Tons/Burn-day: 39.52
Safe Thrust: 2
Maximum Thrust: 3
Sail Integrity: 7
KF Drive Integrity: 31
Heat Sinks: 2,988 (5,976)
Structural Integrity: 50

Armor
> **Nose:** 235
> **Fore-Sides:** 210
> **Aft-Sides:** 208
> **Aft:** 188

Cargo
Bay 1: Fighters (648)	11 Doors	
Bay 2: Cargo (288,220.5)	2 Doors	
Bay 3: Fighters (324)	11 Doors	

DropShip Capacity: 4
Grave Decks: 2 (150 meters)
Life Boats: 435
Escape Pods: 640
Crew: 115 officers, 280 enlisted/non-rated, 100 gunners, 1,944 bay personnel

Ammunition: 77 rounds Killer Whale ammunition (2,000 tons), 77 rounds White Shark ammunition (1,600 tons), 77 rounds Barracuda ammunition (1,200 tons), 10 rounds of NAC/25 ammunition (10 tons) 60 rounds NAC/30 ammunition (60 tons), 40 rounds NAC/35 ammunition (40 tons), 864 rounds AMS ammunition (72 tons)

Notes: Equipped with 1,536.5 tons of Ferro-carbide armor and lithium-fusion batteries.

Weapons: Arc (Heat) Type	Heat	Capital Attack Values (Standard) Short	Medium	Long	Extreme	Class
Nose (820 Heat)						
4 NL/45	280	18 (180)	18 (180)	18 (180)	18 (180)	Capital Laser
2 Medium NPPC	270	18 (180)	18 (180)	18 (180)	18 (180)	Capital PPC
5 AR10	100	**	**	**	**	Capital Missile
(17 KW, 17 WS, 17 B)						
8 Large Pulse Lasers	80	7 (72)	7 (72)	—	—	Pulse Laser
8 Large Pulse Lasers	80	7 (72)	7 (72)	—	—	Pulse Laser
10 AMS	10	—	—	—	—	Point Defense
(108 rounds)						
FL/FR (760 Heat)						
4 NL/55	340	22 (220)	22 (220)	22 (220)	22 (220)	Capital Laser
2 Medium NPPC	270	18 (180)	18 (180)	18 (180)	18 (180)	Capital PPC
3 AR10	120	**	**	**	**	Capital Missile
(10 KW, 10 WS, 10 B)						
8 Large Pulse Lasers	80	7 (72)	7 (72)	—	—	Pulse Laser
10 AMA	10	—	—	—	—	Point Defense
(108 rounds)						
LBS/RBS (1,605 Heat)						
4 NL/55	340	22 (220)	22 (220)	22 (220)	22 (220)	Capital Laser
3 Heavy NPPC	675	45 (450)	45 (450)	45 (450)	45 (450)	Capital PPC
2 NAC/30	200	60 (600)	60 (600)	60 (600)	—	Capital AC
(30 rounds)						
2 NAC/35	240	70 (700)	70 (700)	—	—	Capital AC
(20 rounds)						
3 AR10	60	**	**	**	**	Capital Missile
(10 KW, 10 WS, 10 B)						
8 Large Pulse Lasers	80	7 (72)	7 (72)	—	—	Pulse Laser
10 AMS	10	—	—	—	—	Point Defense
(108 rounds)						
AL/AR (610 Heat)						
3 NL/45	210	14 (140)	14 (140)	14 (140)	14 (140)	Capital Laser
2 Medium NPPC	270	18 (180)	18 (180)	18 (180)	18 (180)	Capital PPC
3 AR10	120	**	**	**	**	Capital Missile
(30 rounds)						
8 Large Pulse Lasers	80	7 (72)	7 (72)	—	—	Pulse Laser
10 AMS	10	—	—	—	—	Point Defense
(108 rounds)						
Aft (584 Heat)						
2 NL/35	104	7 (70)	7 (70)	7 (70)	7 (70)	Capital Laser
1 Heavy NPPC	225	15 (150)	15 (150)	15 (150)	15 (150)	Capital PPC
1 NAC/25	85	25 (250)	25 (250)	25 (250)	—	Capital Missile
(10 rounds)						
8 Large Pulse Lasers	80	7 (72)	7 (72)	—	—	Pulse Laser
8 Large Pulse Lasers	80	7 (72)	7 (72)	—	—	Pulse Laser
10 AMS	10	—	—	—	—	Point Defense
(108 rounds)						
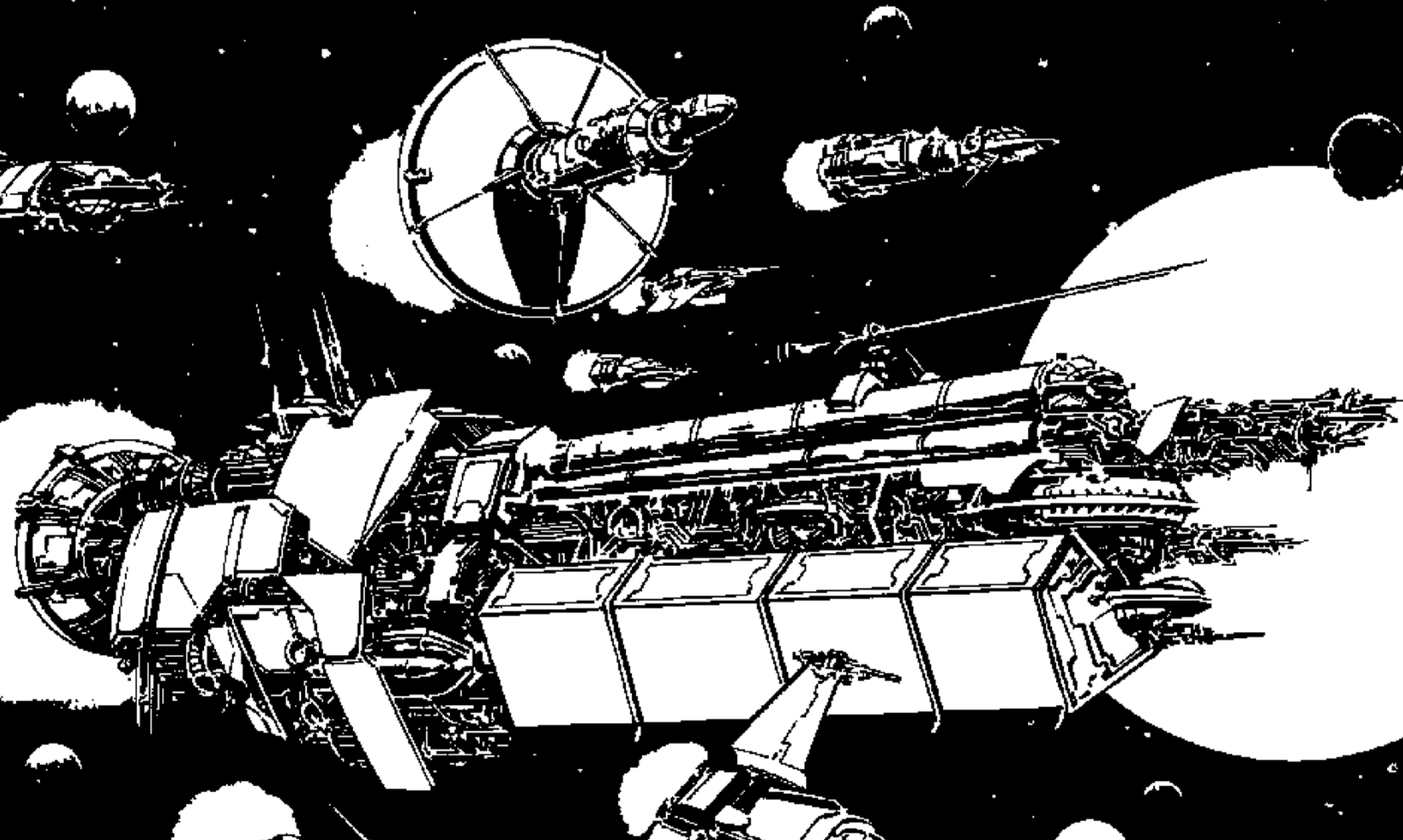
EXPERIMENTAL

MONITORS

Overview

With the advent of the compact KF drive, space became a much more dangerous place. No longer were warships limited to assault DropShips, but they could easily surpass a million tons. Yet, almost half of that was still tied up in the KF drive. During the latter part of the twenty seventh century, a group of SLDF admirals pushed to create a new breed of WarShip, dispensing with the KF drive to double the firepower. After over a decade of campaigning, funding was allocated for project AMHITRITE and Blue Nose Clipperships won the bidding to provide construction.

The prototype was to be based on the venerable Avatar class cruiser. The first problem that popped up during construction was one of hull stability. Without the frame around the KF drive acting as a keel to support the ship, the stresses it underwent during construction alone were enough to cause structural damage. The plans were re-drawn and construction began again, though the new structure ate away more of the mass than originally expected.

When launched, the prototypes were the focus of much scrutiny. While they had a potential military impact, their political impact was orders of magnitudes greater, with the pro- and anti- camps both believing that their views were correct and had little use for data that did not agree with them. The first victory was for the monitors, with five straight victories against larger opponents. A member of the anti- camp, Admiral Arthur Ubuntu offered to lead a challenge against the monitors with a group battle, three WarShips and three monitors. The two groups engaged and the monitors once again took the upper hand, though the fight got very spread out. Suddenly, two of the ships jumped to join the third and all three quickly disabled the monitor. Thought the remaining monitors tried to regroup themselves, they were out-maneuvered by the jump-capable craft and lost the battle.

To make matters worse, the SLS J. Swift, a *Newgrange* Class Ship, was heavily damaged trying to transport one of the monitors to New Earth. It spent five months in the shipyards while the monitor was scrapped. Unwilling to risk more transports in an attempt to transport the monitors, their future was limited only to defending systems that already had shipyards. The two remaining prototypes were assigned to patrol the Sol system for the next year, replacing a destroyer. Unsurprisingly, they did not see combat outside of target practice against the odd asteroid.

An evaluation was put together and presented to the fleet commanders. The monitors possessed fifty percent more firepower than vessels of the same mass. Unfortunately they had double the crew and their maintenance costs were triple that of a similar size vessel. Combined with their transport limitations and tactical limitations, the monitor program was 'put on hold' until more automation could bring the costs to a more manageable figure. Five years later, the Caspar drones began to make their appearance and outclassed the monitors in every way, scuttling the monitor program for good. The remaining two ships were used as target practice for the Caspar drones in the 2720s.
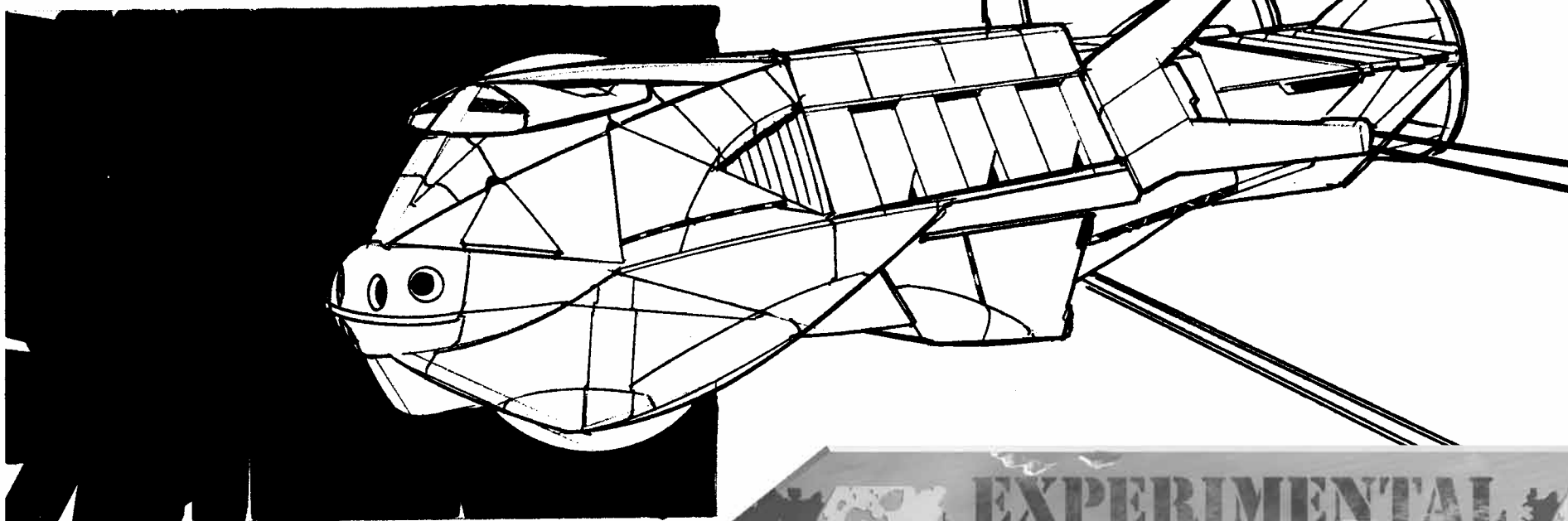
EXPERIMENTAL

LOOSE

BATTLETECH™

'MECH RECORD SHEET

'MECH DATA

Type: Ostscout IIC

Movement Points:		Tonnage:	35
Walking:	11	Tech Base:	Mixed Tech (Clan)
Running:	17		(Experimental)
Jumping:	13	Era:	Jihad

Weapons & Equipment Inventory (hexes)

Qty	Type	Loc	Ht	Dmg	Min	Sht	Med	Lng
1	Angel ECM Suite	HD	—	[E]	—	—	—	6
1	Bloodhound Active Probe (IS)	LT	—	[E]	—	—	—	6
1	Clan TAG	RA	0	0 [S]	—	5	9	15

WARRIOR DATA

Name: _____

Gunnery Skill: ____   Piloting Skill: ____

Hits Taken	1	2	3	4	5	6
Consciousness#	3	5	7	10	11	Dead

ARMOR DIAGRAM

- Head (5)
- Left Torso (5)
- Right Torso (5)
- Left Arm (2)
- Center Torso (6)
- Right Arm (2)
- Left Leg (5)
- Center Torso Rear (1)
- Right Leg (5)
- Left Torso Rear (1)
- Right Torso Rear (1)

CRITICAL HIT TABLE

Left Arm
1-3
1. Shoulder
2. Upper Arm Actuator
3. Lower Arm Actuator
4. Hand Actuator
5. Endo Steel
6. Endo Steel

4-6
1. Endo Steel
2. Endo Steel
3. Ferro-Fibrous
4. Ferro-Fibrous
5. Ferro-Fibrous
6. Ferro-Fibrous

Left Torso
1-3
1. XXL Fusion Engine
2. XXL Fusion Engine
3. XXL Fusion Engine
4. XXL Fusion Engine
5. Partial Wing
6. Partial Wing

4-6
1. Partial Wing
2. Jump Jet
3. Jump Jet
4. Bloodhound Active Probe (IS)
5. Bloodhound Active Probe (IS)
6. Bloodhound Active Probe (IS)

Left Leg
1. Hip
2. Upper Leg Actuator
3. Lower Leg Actuator
4. Foot Actuator
5. Jump Jet
6. Jump Jet

Head
1. Life Support
2. Sensors
3. Cockpit
4. Angel ECM
5. Sensors
6. Life Support

Center Torso
1-3
1. XXL Fusion Engine
2. XXL Fusion Engine
3. XXL Fusion Engine
4. XL Gyro (IS)
5. XL Gyro (IS)
6. XL Gyro (IS)

4-6
1. XL Gyro (IS)
2. XL Gyro (IS)
3. XL Gyro (IS)
4. XXL Fusion Engine
5. XXL Fusion Engine
6. XXL Fusion Engine

Engine Hits ○ ○ ○
Gyro Hits ○ ○
Sensor Hits ○ ○
Life Support ○

Right Arm
1-3
1. Shoulder
2. Upper Arm Actuator
3. Lower Arm Actuator
4. Hand Actuator
5. Clan TAG
6. Endo Steel

4-6
1. Endo Steel
2. Endo Steel
3. Ferro-Fibrous
4. Ferro-Fibrous
5. Ferro-Fibrous
6. Roll Again

Right Torso
1-3
1. XXL Fusion Engine
2. XXL Fusion Engine
3. XXL Fusion Engine
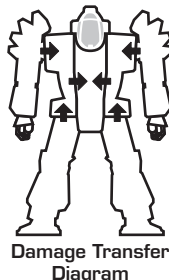4. XXL Fusion Engine
5. Partial Wing
6. Partial Wing

4-6
1. Partial Wing
2. Jump Jet
3. Jump Jet
4. Jump Jet
5. Jump Jet
6. Jump Jet

Right Leg
1. Hip
2. Upper Leg Actuator
3. Lower Leg Actuator
4. Foot Actuator
5. Jump Jet
6. Jump Jet

CATALYST game labs

Damage Transfer Diagram

INTERNAL STRUCTURE DIAGRAM

- Head
- Left Torso (8)
- Right Torso (8)
- Left Arm (6)
- Right Arm (6)
- Center Torso (11)
- Left Leg (8)
- Right Leg (8)

Heat Scale

Overflow

30* 29 28* 27 26* 25* 24* 23* 22* 21 20* 19* 18* 17* 16 15* 14* 13* 12 11 10* 9 8* 7 6 5* 4 3 2 1 0

HEAT DATA

Heat Level*	Effects
30	Shutdown
28	Ammo Exp. avoid on 8+
26	Shutdown, avoid on 10+
25	–5 Movement Points
24	+4 Modifier to Fire
23	Ammo Exp. avoid on 6+
22	Shutdown, avoid on 8+
20	–4 Movement Points
19	Ammo Exp. avoid on 4+
18	Shutdown, avoid on 6+
17	+3 Modifier to Fire
15	–3 Movement Points
14	Shutdown, avoid on 4+
13	+2 Modifier to Fire
10	–2 Movement Points
8	+1 Modifier to Fire
5	–1 Movement Points

Heat Sinks: 10 (23) Double

○ ○ ○ ○ ○ ○ ○ ○ ○ ○

BATTLETECH™

'MECH RECORD SHEET

'MECH DATA

Type: LIB-4T Liberator

Movement Points:		Tonnage:	40
Walking:	6	Tech Base:	Inner Sphere
Running:	9		(Introductory)
		Era:	Succession Wars

Weapons & Equipment Inventory (hexes)

Qty Type	Loc	Ht	Dmg	Min	Sht	Med	Lng
1 Large Laser	CT	8	8 [DE]	—	5	10	15
1 SRM 2	LT	2	2/Msl [M,C,S]	—	3	6	9
1 LRM 5	RA	2	1/Msl [M,C,S]	—	3	6	9
1 LRM 5	LA	2	1/Msl [M,C,S]	6	7	14	21

WARRIOR DATA

Name: _____

Gunnery Skill: _____   Piloting Skill: _____

Hits Taken	1	2	3	4	5	6
Consciousness#	3	5	7	10	11	Dead

ARMOR DIAGRAM

Head (9)
Left Torso (13)
Right Torso (13)
Left Arm (8)
Center Torso (15)
Right Arm (8)
Left Leg (13)
Center Torso Rear (4)
Right Leg (13)
Left Torso Rear (4)
Right Torso Rear (4)

CRITICAL HIT TABLE

Left Arm
1-3
1. **Shoulder**
2. **Upper Arm Actuator**
3. **Lower Arm Actuator**
4. **Hand Actuator**
5. **LRM 5**
6. Roll Again

4-6
1. Roll Again
2. Roll Again
3. Roll Again
4. Roll Again
5. Roll Again
6. Roll Again

Left Torso
1-3
1. **SRM 2**
2. **Ammo (SRM 2) 50**
3. Roll Again
4. Roll Again
5. Roll Again
6. Roll Again

4-6
1. Roll Again
2. Roll Again
3. Roll Again
4. Roll Again
5. Roll Again
6. Roll Again

Left Leg
1. **Hip**
2. **Upper Leg Actuator**
3. **Lower Leg Actuator**
4. **Foot Actuator**
5. **Heat Sink**
6. Roll Again
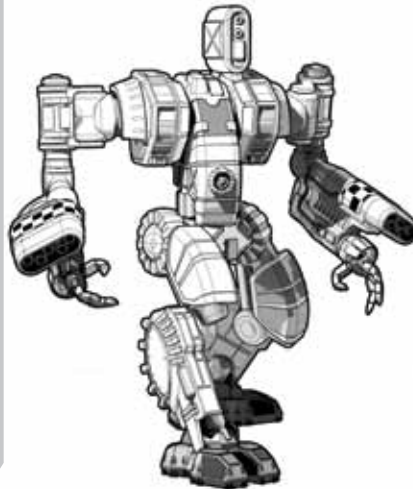
Head
1. **Life Support**
2. **Sensors**
3. **Cockpit**
4. Roll Again
5. **Sensors**
6. **Life Support**

Center Torso
1-3
1. **Fusion Engine**
2. **Fusion Engine**
3. **Fusion Engine**
4. **Gyro**
5. **Gyro**
6. **Gyro**

4-6
1. **Gyro**
2. **Fusion Engine**
3. **Fusion Engine**
4. **Fusion Engine**
5. **Large Laser**
6. **Large Laser**

Engine Hits ○ ○ ○
Gyro Hits ○ ○
Sensor Hits ○ ○
Life Support ○

Right Arm
1-3
1. **Shoulder**
2. **Upper Arm Actuator**
3. **Lower Arm Actuator**
4. **Hand Actuator**
5. **LRM 5**
6. **Ammo (LRM 5) 24**

4-6
1. Roll Again
2. Roll Again
3. Roll Again
4. Roll Again
5. Roll Again
6. Roll Again

Right Torso
1-3
1. Roll Again
2. Roll Again
3. Roll Again
4. Roll Again
5. Roll Again
6. Roll Again

4-6
1. Roll Again
2. Roll Again
3. Roll Again
4. Roll Again
5. Roll Again
6. Roll Again

Right Leg
1. **Hip**
2. **Upper Leg Actuator**
3. **Lower Leg Actuator**
4. **Foot Actuator**
5. Roll Again
6. Roll Again

Damage Transfer Diagram

INTERNAL STRUCTURE DIAGRAM

Head
Left Torso (10)
Right Torso (10)
Left Arm (6)
Right Arm (6)
Center Torso (12)
Left Leg (10)
Right Leg (10)

HEAT DATA

Heat Level*	Effects	Heat Sinks: 10 Single
30	Shutdown	
28	Ammo Exp. avoid on 8+	
26	Shutdown, avoid on 10+	
25	–5 Movement Points	
24	+4 Modifier to Fire	○
23	Ammo Exp. avoid on 6+	○
22	Shutdown, avoid on 8+	○
20	–4 Movement Points	○
19	Ammo Exp. avoid on 4+	○
18	Shutdown, avoid on 6+	○
17	+3 Modifier to Fire	○
15	–3 Movement Points	○
14	Shutdown, avoid on 4+	○
13	+2 Modifier to Fire	○
10	–2 Movement Points	
8	+1 Modifier to Fire	
5	–1 Movement Points	

Heat Scale

Overflow
30* 29 28* 27 26* 25* 24* 23* 22* 21 20* 19* 18* 17* 16 15* 14* 13* 12 11 10* 9 8* 7 6 5* 4 3 2 1 0

BATTLETECH™

LAND-AIR BATTLEMECH RECORD SHEET

LAM DATA

Type: SCP-X1 SCORPION LAM

Tonnage: 55   **Tech Base:** Inner Sphere
(Experimental—Illegal)

Movement Points:

	BattleMech Mode	AirMech Mode	Fighter Mode	
Walking:	5	**Cruising:**	15	**Safe Thrust:**	5
Running:	8	**Flank:**	23	**Max Thrust:**	8
Jumping:	5				

Weapons & Equipment Inventory   (hexes)

Qty	Type	Loc	Ht	Dmg	Min	Sht	Med	Lng	Aero
1	PPC	RT	10	10 [DE]	3	6	12	18	10(M)
1	SRM 6	RT	4	2/Msl	—	3	6	9	12(S)
				[M,C,S]					

WARRIOR DATA

Name: _____

BattleMech
Gunnery Skill: ____   **Piloting Skill:** ____
Aerospace
Gunnery Skill: ____   **Piloting Skill:** ____

Hits Taken	1	2	3	4	5	6
Consciousness#	3	5	7	10	11	Dead

ARMOR DIAGRAM

Head (8)

Left Torso [11]

Right Torso [11]

Center Torso (24)

Left Front Leg [10]

Left Rear Leg (10)

Right Rear Leg (10)

Right Front Leg [10]

Left Torso Rear (5)

Right Torso Rear (5)

Center Torso Rear (8)

Advanced Movement Compass

```
      A
  F       B

  E       C
      D
```

CRITICAL HIT TABLE

Head
1. Life Support
2. Sensors
3. Cockpit
4. Avionics
5. Sensors
6. Life Support

Left Front Leg
1. Hip
2. Upper Leg Actuator
3. Lower Leg Actuator
4. Foot Actuator
5. Jump Jet
6. Roll Again

Right Front Leg
1. Hip
2. Upper Leg Actuator
3. Lower Leg Actuator
4. Foot Actuator
5. Jump Jet
6. Roll Again

Center Torso
1-3
1. Fusion Engine
2. Fusion Engine
3. Fusion Engine
4. Gyro
5. Gyro
6. Gyro

4-6
1. Gyro
2. Fusion Engine
3. Fusion Engine
4. Fusion Engine
5. Landing Gear
6. Jump Jet

Left Torso
1-3
1. Landing Gear
2. Avionics
3. Ammo (SRM 6) 15
4. Roll Again
5. Roll Again
6. Roll Again

4-6
1. Roll Again
2. Roll Again
3. Roll Again
4. Roll Again
5. Roll Again
6. Roll Again

Right Torso
1-3
1. Landing Gear
2. Avionics
3. PPC
4. PPC
5. PPC
6. SRM 6

4-6
1. SRM 6
2. Roll Again
3. Roll Again
4. Roll Again
5. Roll Again
6. Roll Again
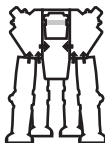
Avionics ○○○
Engine Hits ○○○
Gyro Hits ○○
Sensor Hits ○○
Landing Gear ○
Life Support ○

Structural Integrity
○○○○○○○○○○○
○○○○○○○○○

Left Rear Leg
1. Hip
2. Upper Leg Actuator
3. Lower Leg Actuator
4. Foot Actuator
5. Jump Jet
6. Roll Again

CATALYST game labs

Damage Transfer Diagram

Right Rear Leg
1. Hip
2. Upper Leg Actuator
3. Lower Leg Actuator
4. Foot Actuator
5. Heat Sink
6. Jump Jet

INTERNAL STRUCTURE DIAGRAM

Left Torso [13]   Head   Right Torso [13]

Left Front Leg [13]   Right Front Leg [13]

Center Torso (18)

Left Rear Leg [13]   Right Rear Leg [13]

Heat Scale

Overflow
30*
29
28*
27
26*
25*
24*
23*
22*
21
20*
19*
18*
17*
16
15*
14*
13*
12
11
10*
9
8*
7
6
5*
4
3
2
1
0

HEAT DATA

Heat Level*	Effects
30	Shutdown
28	Ammo Exp. avoid on 8+
26	Shutdown, avoid on 10+
25	−5 Movement Points /Rand. Movement 10+
24	+4 Modifier to Fire
23	Ammo Exp. avoid on 6+
22	Shutdown, avoid on 8+
20	−4 Movement Points /Rand. Movement 8+
19	Ammo Exp. avoid on 4+
18	Shutdown, avoid on 6+
17	+3 Modifier to Fire
15	−3 Movement Points /Rand. Movement 7+
14	Shutdown, avoid on 4+
13	+2 Modifier to Fire
10	−2 Movement Points /Rand. Movement 6+
8	+1 Modifier to Fire
5	−1 Movement Points /Rand. Movement 5+

Heat Sinks:
12
Single
(AirMech +3)

○○ ○○
○○ ○○
○○
○○
○○
○○
○○
○○
○○
○○

BATTLETECH™

LAND-AIR BATTLEMECH RECORD SHEET

LAM DATA

Type: CPN-1X1 CHAMPION LAM

Tonnage: 60   **Tech Base:** Inner Sphere
(Experimental—Illegal)

Movement Points:

	BattleMech Mode	AirMech Mode	Fighter Mode	
Walking:	5	**Cruising:** 15	**Safe Thrust:**	5
Running:	8	**Flank:** 23	**Max Thrust:**	8
Jumping:	5			

Weapons & Equipment Inventory   (hexes)

Qty	Type	Loc	Ht	Dmg	Min	Sht	Med	Lng	Aero
1	Medium Laser	RT	3	5 [DE]	—	3	6	9	5(S)
2	Medium Laser	LT	3	5 [DE]	—	3	6	9	5(S)
1	SRM 6	LT	4	2/Msl	—	3	6	9	12(S)
	w/Artemis IV FCS			[M,C,S]					

WARRIOR DATA

Name: _____

BattleMech
Gunnery Skill: ___   **Piloting Skill:** ___
Aerospace
Gunnery Skill: ___   **Piloting Skill:** ___

Hits Taken	1	2	3	4	5	6
Consciousness#	3	5	7	10	11	Dead

Advanced Movement Compass

```
      A
   F     B
   E     C
      D
```

ARMOR DIAGRAM

Head [9]
Left Torso [18]
Right Torso [18]
Left Arm [12]
Center Torso [25]
Right Arm [12]
Left Leg [15]
Right Leg [15]
Center Torso Rear (8)
Left Torso Rear (6)
Right Torso Rear (6)

CRITICAL HIT TABLE

Left Arm
1-3
1. Shoulder
2. Upper Arm Actuator
3. Roll Again
4. Roll Again
5. Roll Again
6. Roll Again

4-6
1. Roll Again
2. Roll Again
3. Roll Again
4. Roll Again
5. Roll Again
6. Roll Again

Left Torso
1-3
1. Landing Gear
2. Avionics
3. SRM 6
4. SRM 6
5. Artemis IV FCS
6. Medium Laser

4-6
1. Medium Laser
2. Ammo (SRM 6 Artemis) 15
3. Roll Again
4. Roll Again
5. Roll Again
6. Roll Again

Left Leg
1. Hip
2. Upper Leg Actuator
3. Lower Leg Actuator
4. Foot Actuator
5. Jump Jet
6. Jump Jet

Head
1. Life Support
2. Sensors
3. Cockpit
4. Avionics
5. Sensors
6. Life Support

Center Torso
1-3
1. Fusion Engine
2. Fusion Engine
3. Fusion Engine
4. Gyro
5. Gyro
6. Gyro

4-6
1. Gyro
2. Fusion Engine
3. Fusion Engine
4. Fusion Engine
5. Landing Gear
6. Jump Jet

Right Arm
1-3
1. Shoulder
2. Upper Arm Actuator
3. Roll Again
4. Roll Again
5. Roll Again
6. Roll Again

4-6
1. Roll Again
2. Roll Again
3. Roll Again
4. Roll Again
5. Roll Again
6. Roll Again

Right Torso
1-3
1. Landing Gear
2. Avionics
3. Medium Laser
4. Roll Again
5. Roll Again
6. Roll Again

4-6
1. Roll Again
2. Roll Again
3. Roll Again
4. Roll Again
5. Roll Again
6. Roll Again

Right Leg
1. Hip
2. Upper Leg Actuator
3. Lower Leg Actuator
4. Foot Actuator
5. Jump Jet
6. Jump Jet

Avionics ○○○
Engine Hits ○○○
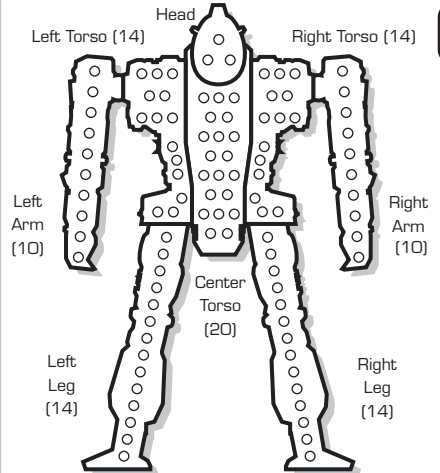Gyro Hits ○○
Sensor Hits ○○
Landing Gear ○
Life Support ○

Structural Integrity
○○○○○○○○○○
○○○○○○○○○○

CATALYST game labs

Damage Transfer Diagram

INTERNAL STRUCTURE DIAGRAM

Head
Left Torso [14]
Right Torso [14]
Left Arm [10]
Right Arm [10]
Center Torso [20]
Left Leg [14]
Right Leg [14]

HEAT DATA

Heat Level*	Effects	Heat Sinks:
30	Shutdown	11
28	Ammo Exp. avoid on 8+	Single
26	Shutdown, avoid on 10+	(AirMech +3)
25	–5 Movement Points /Rand. Movement 10+	
24	+4 Modifier to Fire	
23	Ammo Exp. avoid on 6+	
22	Shutdown, avoid on 8+	
20	–4 Movement Points /Rand . Movement 8+	
19	Ammo Exp. avoid on 4+	
18	Shutdown, avoid on 6+	
17	+3 Modifier to Fire	
15	–3 Movement Points /Rand. Movement 7+	
14	Shutdown, avoid on 4+	
13	+2 Modifier to Fire	
10	–2 Movement Points /Rand. Movement 6+	
8	+1 Modifier to Fire	
5	–1 Movement Points /Rand. Movement 5+	

Heat Scale
Overflow
30*
29
28*
27
26*
25*
24*
23*
22*
21
20*
19*
18*
17*
16
15*
14*
13*
12
11
10*
9
8*
7
6
5*
4
3
2
1
0

BATTLETECH™

'MECH RECORD SHEET

'MECH DATA

Type: SAM-RS2 MATAR

Movement Points:		
Walking:	2	**Tonnage:** 110
Running:	3	**Tech Base:** Inner Sphere (Experimental—Illegal)
		Era: Star League

Weapons & Equipment Inventory (hexes)

Qty	Type	Loc	Ht	Dmg	Min	Sht	Med	Lng
1	Large Pulse Laser	RA	10	9	–	3	7	10
1	Gauss Rifle	RT	1	15	2	7	15	22
1	Flamer	RT	2	2	–	1	2	3
1	Gauss Rifle	LT	1	15	2	7	15	22
1	Flamer	LT	2	2	–	1	2	3
1	Guardian ECM	LL	0	–	–	–	–	6
1	Large Pulse Laser	LA	10	9	–	3	7	10
1	Medium Pulse Laser	H(R)	4	6	–	2	4	6
1	ER Large Laser	CT	12	8	–	7	14	19

WARRIOR DATA

Name: _____

Gunnery Skill: ____   **Piloting Skill:** ____

Hits Taken	1	2	3	4	5	6
Consciousness#	3	5	7	10	11	Dead

ARMOR DIAGRAM

- Head (9)
- Left Torso (31)
- Right Torso (31)
- Left Arm (36)
- Center Torso (47)
- Right Arm (36)
- Left Leg (46)
- Center Torso Rear (15)
- Right Leg (46)
- Left Torso Rear (15)
- Right Torso Rear (15)

CRITICAL HIT TABLE

Left Arm

1-3
1. Shoulder
2. Upper Arm Actuator
3. Lower Arm Actuator
4. Double Heat Sink
5. Double Heat Sink
6. Double Heat Sink
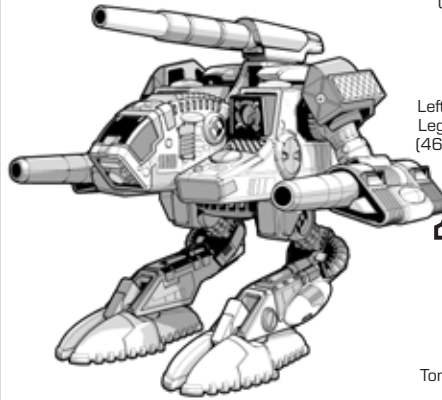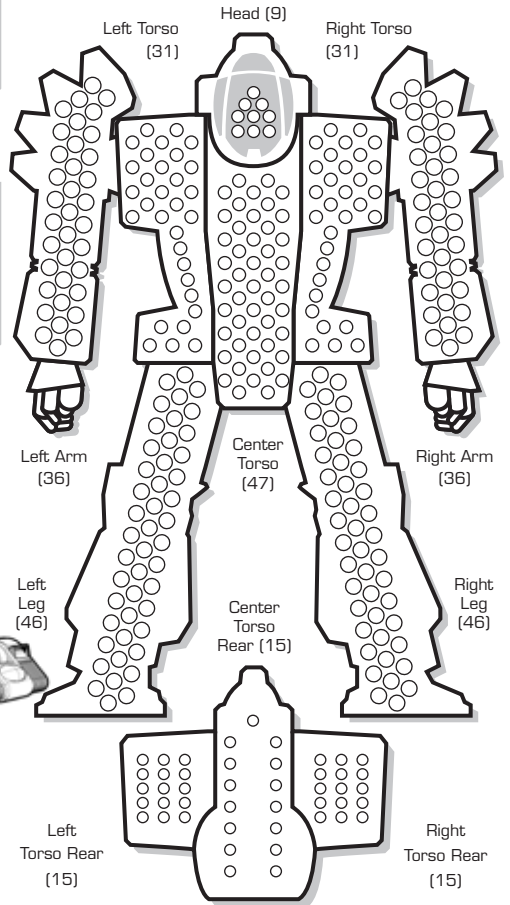
4-6
1. Double Heat Sink
2. Double Heat Sink
3. Double Heat Sink
4. Large Pulse Laser
5. Large Pulse Laser
6. Ammo (Gauss) 8

Left Torso

1-3
1. Double Heat Sink
2. Double Heat Sink
3. Double Heat Sink
4. Gauss Rifle
5. Gauss Rifle
6. Gauss Rifle

4-6
1. Gauss Rifle
2. Gauss Rifle
3. Gauss Rifle
4. Gauss Rifle
5. Flamer
6. Ammo (Gauss) 8

Left Leg
1. Hip
2. Upper Leg Actuator
3. Lower Leg Actuator
4. Foot Actuator
5. Guardian ECM
6. Guardian ECM

Head
1. Life Support
2. Sensors
3. Cockpit
4. Medium Pulse Laser (R)
5. Sensors
6. Life Support

Center Torso

1-3
1. Fusion Engine
2. Fusion Engine
3. Fusion Engine
4. Gyro
5. Gyro
6. Gyro

4-6
1. Gyro
2. Fusion Engine
3. Fusion Engine
4. Fusion Engine
5. ER Large Laser
6. ER Large Laser

Engine Hits	O O O
Gyro Hits	O O
Sensor Hits	O O
Life Support	O

Damage Transfer Diagram

CATALYST game labs

Right Arm

1-3
1. Shoulder
2. Upper Arm Actuator
3. Lower Arm Actuator
4. Double Heat Sink
5. Double Heat Sink
6. Double Heat Sink

4-6
1. Double Heat Sink
2. Double Heat Sink
3. Double Heat Sink
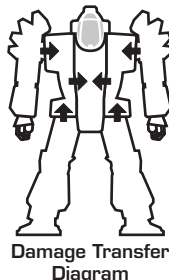4. Large Pulse Laser
5. Large Pulse Laser
6. Ammo (Gauss) 8

Right Torso

1-3
1. Double Heat Sink
2. Double Heat Sink
3. Double Heat Sink
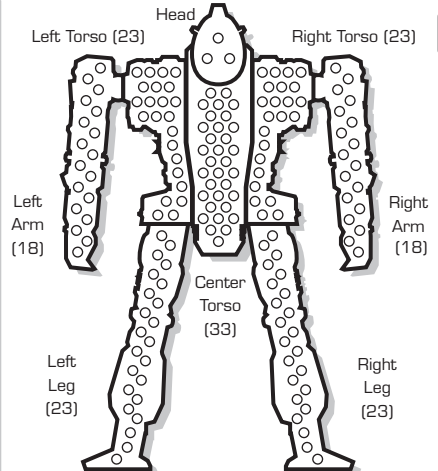4. Gauss Rifle
5. Gauss Rifle
6. Gauss Rifle

4-6
1. Gauss Rifle
2. Gauss Rifle
3. Gauss Rifle
4. Gauss Rifle
5. Flamer
6. Ammo (Gauss) 8

Right Leg
1. Hip
2. Upper Leg Actuator
3. Lower Leg Actuator
4. Foot Actuator
5. Roll Again
6. Roll Again

INTERNAL STRUCTURE DIAGRAM

- Head
- Left Torso (23)
- Right Torso (23)
- Left Arm (18)
- Right Arm (18)
- Center Torso (33)
- Left Leg (23)
- Right Leg (23)

HEAT DATA

Heat Level*	Effects
30	Shutdown
28	Ammo Exp. avoid on 8+
26	Shutdown, avoid on 10+
25	–5 Movement Points
24	+4 Modifier to Fire
23	Ammo Exp. avoid on 6+
22	Shutdown, avoid on 8+
20	–4 Movement Points
19	Ammo Exp. avoid on 4+
18	Shutdown, avoid on 6+
17	+3 Modifier to Fire
15	–3 Movement Points
14	Shutdown, avoid on 4+
13	+2 Modifier to Fire
10	–2 Movement Points
8	+1 Modifier to Fire
5	–1 Movement Points

Heat Sinks: 14 (28) Double

Heat Scale

Overflow

30* 29 28* 27 26* 25* 24* 23* 22* 21 20* 19* 18* 17* 16 15* 14* 13* 12 11 10* 9 8* 7 6 5* 4 3 2 1 0

BATTLETECH™

HOVER VEHICLE RECORD SHEET

BAR: 5

Front Armor
(10)

VEHICLE DATA

Type: THORIZER

Movement Points:		Tonnage: 35
Hover Mode	**Air Mode**	**Tech Base:** Inner Sphere
Cruising: 4	**Safe Thrust:** 4	(Experimental—Illegal)
Flank: 6	**Max Thrust:** 6	**Era:** Age of War
Jump: 3	**Engine Type:** Fusion	

Weapons & Equipment Inventory   (hexes)

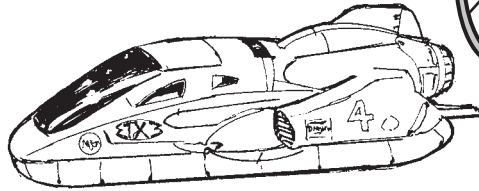| Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
2	SRM 2	Front	2/Msl	–	3	6	9
1	SRM 2	Rear	2/Msl	–	3	6	9

Ammo: (SRM 2) 50

CREW DATA

Crew: 4

Gunnery Skill: ____   **Driving Skill:** ____

Commander Hit [+1]   Driver Hit [+2]
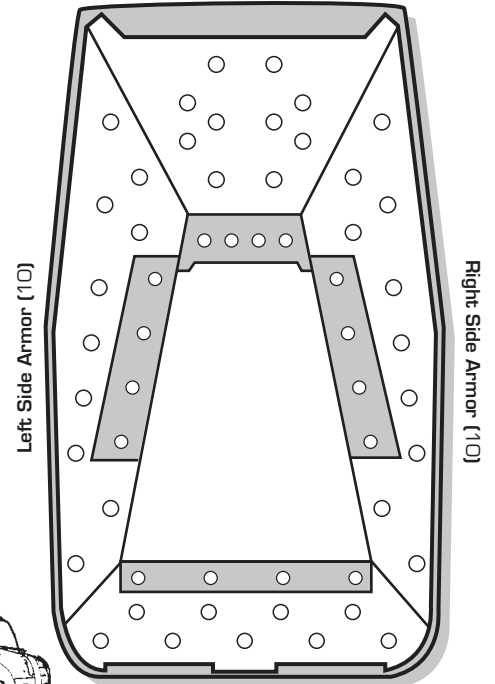Modifier to all Skill rolls   Modifier to Driving Skill rolls

CRITICAL DAMAGE

Engine Hit ☐

Sensor Hits [+1][+2][+3][D]

Motive System Hits [+1][+2][+3]

Stabilizers
Front ☐   Left ☐   Right ☐
Rear ☐

Left Side Armor (10)

Right Side Armor (10)

Rear Armor
(9)

GROUND COMBAT VEHICLE HIT LOCATION 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 Vehicles 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.
†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 at the end of the phase in which the damage takes effect.
§Side hits strike the side as indicated by the attack direction. For example, if an attack hits the right side, all Side results strike the right side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

MOTIVE SYSTEM DAMAGE TABLE

2D6 Roll	EFFECT*
2–5	No effect
6–7	Minor damage; +1 modifier to all Driving Skill Rolls
8–9	Moderate damage; –1 Cruising MP, +2 modifier to all Driving Skill Rolls
10–11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls
12+	Major damage; no movement for the rest of the game. Vehicle is immobile.

Attack Direction Modifier:		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 Physical Attack Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

GROUND COMBAT VEHICLE CRITICAL HITS TABLE

LOCATION HIT

2D6 Roll	FRONT	SIDE	REAR	TURRET
2–5	No Critical Hit	No Critical Hit	No Critical Hit	No Critical Hit
6	Driver Hit	Cargo/Infantry Hit	Weapon Malfunction	Stabilizer
7	Weapon Malfunction	Weapon Malfunction	Cargo/Infantry Hit	Turret Jam
8	Stabilizer	Crew Stunned	Stabilizer	Weapon Malfunction
9	Sensors	Stabilizer	Weapon Destroyed	Turret Locks
10	Commander Hit	Weapon Destroyed	Engine Hit	Weapon Destroyed
11	Weapon Destroyed	Engine Hit	Ammunition**	Ammunition**
12	Crew Killed	Fuel Tank*	Fuel Tank*	Turret Blown Off

*If Combat Vehicle has ICE engine only. If Combat Vehicle has a fusion engine, treat this result as Engine Hit.
**If Combat Vehicle carries no ammunition, treat this result as Weapon Destroyed.

BATTLETECH

TRANS-TRACK VEHICLE RECORD SHEET

VEHICLE DATA

Type: CONDOR TRANS-TRACK

Movement Points: **Tonnage:** 35

	Hover Mode	Tracked Mode	
			Tech Base: Inner Sphere
			(Experimental—Illegal)

Cruising: 8   Cruising: 3   **Era:** Succession Wars

Flank: 12   Flank: 5

Engine Type: ICE

Weapons & Equipment Inventory   (hexes)

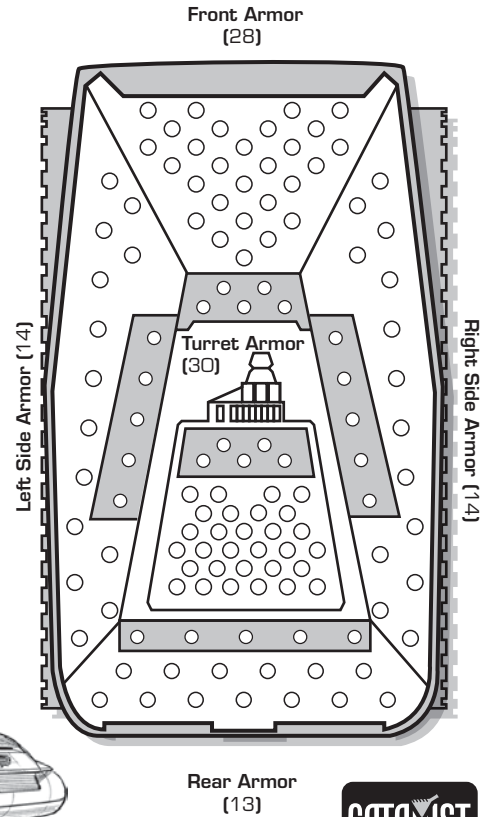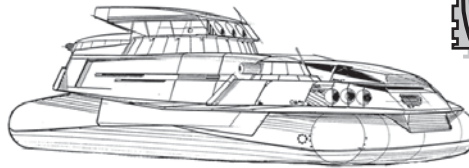| Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
1	AC/2	Turret	2	4	8	16	24
2	Medium Laser	Turret	3	–	3	6	9
1	Machine Gun	Front	2	–	1	2	3

Ammo: (AC/2) 45, (MG) 100

CREW DATA

Crew: 4

Gunnery Skill: ___   **Driving Skill:** ___

Commander Hit [+1]   Driver Hit [+2]
Modifier to all Skill rolls   Modifier to Driving Skill rolls

CRITICAL DAMAGE

Turret Locked ☐   Engine Hit ☐

Sensor Hits   [+1][+2][+3][D]

Motive System Hits   [+1][+2][+3]

Stabilizers

Front ☐   Left ☐   Right ☐

Rear ☐   Turret ☐

Front Armor (28)

Left Side Armor (14)

Turret Armor (30)

Right Side Armor (14)

Rear Armor (13)

GROUND COMBAT VEHICLE HIT LOCATION 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 Vehicles 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.
†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 at the end of the phase in which the damage takes effect.
§Side hits strike the side as indicated by the attack direction. For example, if an attack hits the right side, all Side results strike the right side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

MOTIVE SYSTEM DAMAGE TABLE

2D6 Roll	EFFECT*
2–5	No effect
6–7	Minor damage; +1 modifier to all Driving Skill Rolls
8–9	Moderate damage; −1 Cruising MP, +2 modifier to all Driving Skill Rolls
10–11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls
12+	Major damage; no movement for the rest of the game. Vehicle is immobile.

Attack Direction Modifier:

Hit from rear	+1
Hit from the sides	+2

Vehicle Type Modifiers:

Tracked, Naval	+0
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 Physical Attack Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

GROUND COMBAT VEHICLE CRITICAL HITS TABLE

LOCATION HIT

2D6 Roll	FRONT	SIDE	REAR	TURRET
2–5	No Critical Hit	No Critical Hit	No Critical Hit	No Critical Hit
6	Driver Hit	Cargo/Infantry Hit	Weapon Malfunction	Stabilizer
7	Weapon Malfunction	Weapon Malfunction	Cargo/Infantry Hit	Turret Jam
8	Stabilizer	Crew Stunned	Stabilizer	Weapon Malfunction
9	Sensors	Stabilizer	Weapon Destroyed	Turret Locks
10	Commander Hit	Weapon Destroyed	Engine Hit	Weapon Destroyed
11	Weapon Destroyed	Engine Hit	Ammunition**	Ammunition**
12	Crew Killed	Fuel Tank*	Fuel Tank*	Turret Blown Off

*If Combat Vehicle has ICE engine only. If Combat Vehicle has a fusion engine, treat this result as Engine Hit.
**If Combat Vehicle carries no ammunition, treat this result as Weapon Destroyed.

BATTLETECH™

NAVAL VESSEL RECORD SHEET

VEHICLE DATA

Type: NEPTUNE HYPER

Movement Points:		Tonnage: 100
Sub Mode	**Hydrofoil Mode**	**Tech Base:** Inner Sphere
Cruising: 3	**Cruising:** 7	(Experimental—Illegal)
Flank: 5	**Flank:** 11	**Era:** Succession Wars

Engine Type: ICE

Weapons & Equipment Inventory (hexes)

Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
1	LR Torpedo 20	Front	1/Msl	6	7	14	21
2	SR Torpedo 6	Front	2/Msl	–	3	6	9
1	SR Torpedo 6	Rear	2/Msl	–	3	6	9

Ammo: (LR-T 20) 12, (SR-T 6) 15

CREW DATA

Crew: 8

Gunnery Skill: ___   **Driving Skill:** ___

Commander Hit +1   **Driver Hit** +2
Modifier to all Skill rolls   Modifier to Driving Skill rolls

CRITICAL DAMAGE

Engine Hit ☐

Sensor Hits   +1 +2 +3 D

Motive System Hits   +1 +2 +3

Stabilizers

Front ☐   Left ☐   Right ☐

Rear ☐

NOTES

ARMOR DIAGRAM

Front Armor (70)

Left Armor (58)

Right Armor (58)

Rear Armor (38)
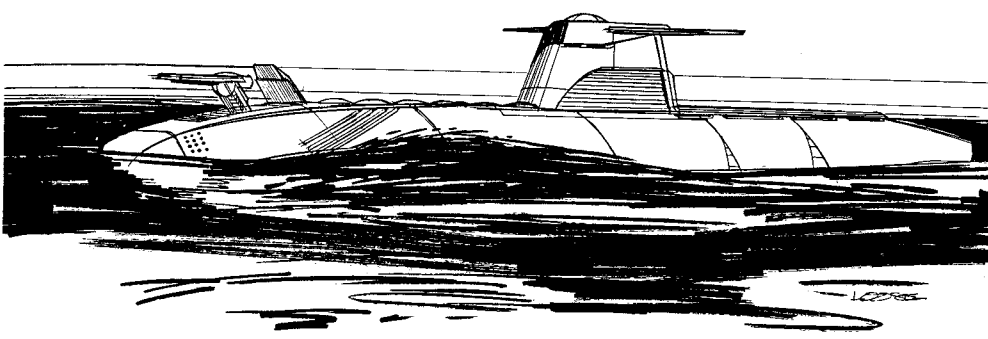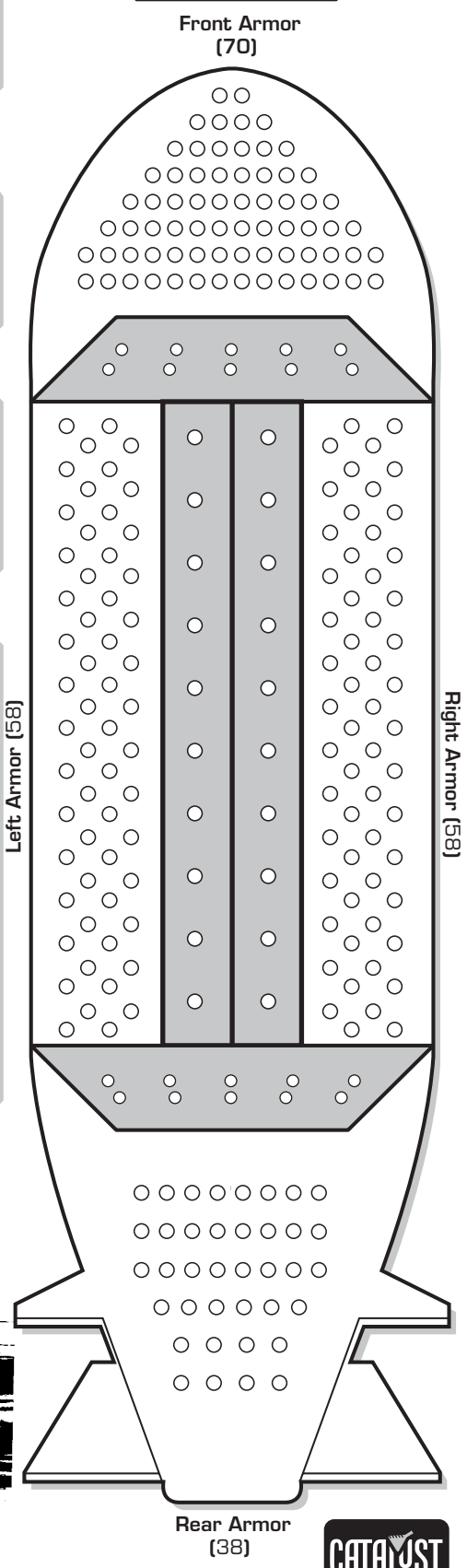
DEPTH TRACK

Turn	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Depth																				

BATTLETECH™

SUPER-HEAVY VEHICLE RECORD SHEET

BAR: 10

Front Armor (54)

Front Turret Armor (60)

Front Left Side Armor (40)

Front Right Side Armor (40)

Rear Left Side Armor (40)

Rear Right Side Armor (40)

Rear Armor (30)

VEHICLE DATA

Type: MUSE IRONHORSE (TRACTOR)

Movement Points:	**Tonnage:** 600
Cruising: 9	**Tech Base:** Clan (Experimental)
Flank: 14	
Movement Type: Rail	**Era:** Jihad
Engine Type: Fusion	

Weapons & Equipment Inventory   (hexes)

Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
4	ER PPC	Turret	15	0	7	14	23
1	Thumper	Turret	15A	–	–	–	21*
2	LRM 15	Turret	1/Msl	0	7	14	21
1	Plasma Cannon	Turret	**	0	6	12	18
2	ER PPC	Front	15	0	7	14	23
1	Plasma Cannon	Front	**	0	6	12	18
1	Plasma Cannon	F Right	**	0	6	12	18
1	Plasma Cannon	F Left	**	0	6	12	18
1	Plasma Cannon	R Right	**	0	6	12	18
1	Plasma Cannon	R Left	**	0	6	12	18

Notes:
Features Armored and Tractor Chassis modifications.

Ammo: (LRM 15) 40, (Plasma Cannon) 100, (Thumper) 200
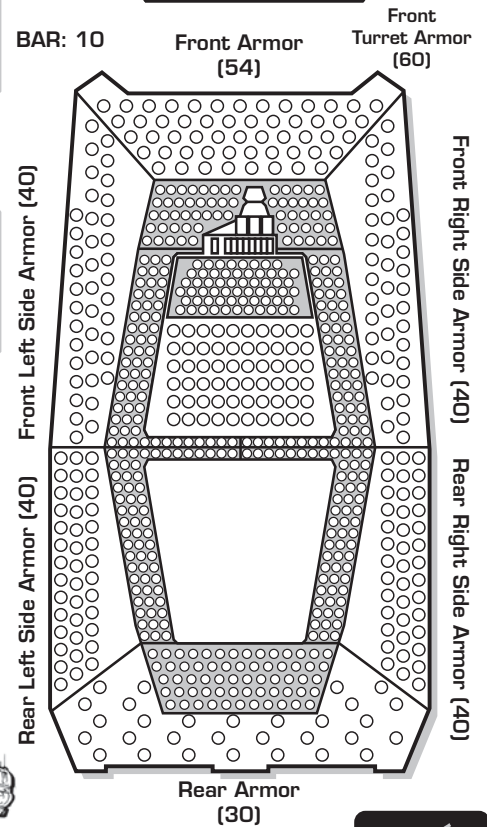
CREW DATA

Crew: 16

Gunnery Skill: ___ **Driving Skill:** ___

Commander Hit +1 **Driver Hit** +2
Modifier to all Skill rolls Modifier to Driving Skill rolls

CRITICAL DAMAGE

Front Turret Locked ☐ Engine Hit ☐

Sensor Hits   +1 +2 +3 D

Motive System Hits   +1 +2 +3

Stabilizers

Front ☐ Left ☐ Right ☐

Rear ☐ Ft. Turret ☐

SUPER-HEAVY VEHICLE HIT LOCATION TABLE

ATTACK DIRECTION

2D6 Roll	FRONT	REAR	FRONT SIDE	REAR SIDE
2*	Front (critical)	Rear (critical)	Side (critical)§	Side (critical)§
3	Right Side†	Left Side†	Front†	Rear†
4	Front†	Rear†	Side†	Side†
5	Front†	Rear†	Side	Side
6	Front	Rear	Side	Side
7	Front	Rear	Side	Side
8	Front	Rear	Side (critical)*	Side (critical)*
9	Front†	Rear†	Side†	Side†
10	Turret	Turret	Turret	Turret
11	Turret	Turret	Turret	Turret
12*	Turret (critical)	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. 194 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicles 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.
†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 at the end of the phase in which the damage takes effect.
§If the attack hits the front right or left side, all Front side results strike the front armor, while Rear Side results strike the rear right or rear left side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

MOTIVE SYSTEM DAMAGE TABLE

2D6 Roll	EFFECT*
2–5	No effect
6–7	Minor damage; +1 modifier to all Driving Skill Rolls
8–9	Moderate damage; –1 Cruising MP, +2 modifier to all Driving Skill Rolls
10–11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls
12+	Major damage; no movement for the rest of the game. Vehicle is immobile.

Attack Direction Modifier:

Hit from rear	+1
Hit from the sides	+2

Vehicle Type Modifiers:

Tracked, Naval	+0
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 Physical Attack Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

SUPER-HEAVY VEHICLE CRITICAL HITS TABLE

LOCATION HIT

2D6 Roll	FRONT	SIDE	REAR	TURRET
2–5	No Critical Hit	No Critical Hit	No Critical Hit	No Critical Hit
6	Driver Hit	Cargo/Infantry Hit	Weapon Malfunction	Stabilizer
7	Weapon Malfunction	Weapon Malfunction	Cargo/Infantry Hit	Turret Jam
8	Stabilizer	Crew Stunned	Stabilizer	Weapon Malfunction
9	Sensors	Stabilizer	Weapon Destroyed	Turret Locks
10	Commander Hit	Weapon Destroyed	Engine Hit	Weapon Destroyed
11	Weapon Destroyed	Engine Hit	Ammunition **	Ammunition **
12	Crew Killed	Fuel Tank*	Fuel Tank*	Turret Blown Off

*If Combat Vehicle has ICE engine only. If Combat Vehicle has a fusion engine, treat this result as Engine Hit.
**If Combat Vehicle carries no ammunition, treat this result as Weapon Destroyed.

BATTLETECH™

SUPER-HEAVY VEHICLE RECORD SHEET

BAR: 10

VEHICLE DATA

Type: MUSE IRONHORSE (TRAILER)

Movement Points:	**Tonnage:** 600
Cruising: N/A	**Tech Base:** Clan (Experimental)
Flank: N/A	
Movement Type: Rail	**Era:** Jihad
Engine Type: Fusion	

Weapons & Equipment Inventory (hexes)

Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
4	ER PPC	Turret	15	0	7	14	23
1	Arrow IV	Turret	20A	–	–	–	9*
4	Large Pulse Laser	Turret	10	0	6	14	20
1	Plasma Cannon	Rear	**	0	6	12	18
1	Plasma Cannon	F Right	**	0	6	12	18
1	Plasma Cannon	F Left	**	0	6	12	18
1	Plasma Cannon	R Right	**	0	6	12	18
1	Plasma Cannon	R Left	**	0	6	12	18

Notes:
Features Armored, Tractor, and Trailer Chassis modifications.
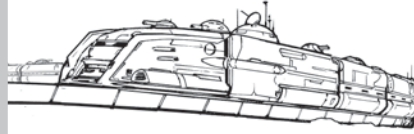
Ammo: (Plasma Cannon) 100, (Arrow IV) 100

CREW DATA

Crew: 16

Gunnery Skill: ___ **Driving Skill:** ___

Commander Hit [+1] **Driver Hit** [+2]
Modifier to all Skill rolls Modifier to Driving Skill rolls

CRITICAL DAMAGE

Engine Hit ☐

Rear Turret Locked ☐

Sensor Hits [+1] [+2] [+3] [D]

Motive System Hits [+1] [+2] [+3]

Stabilizers

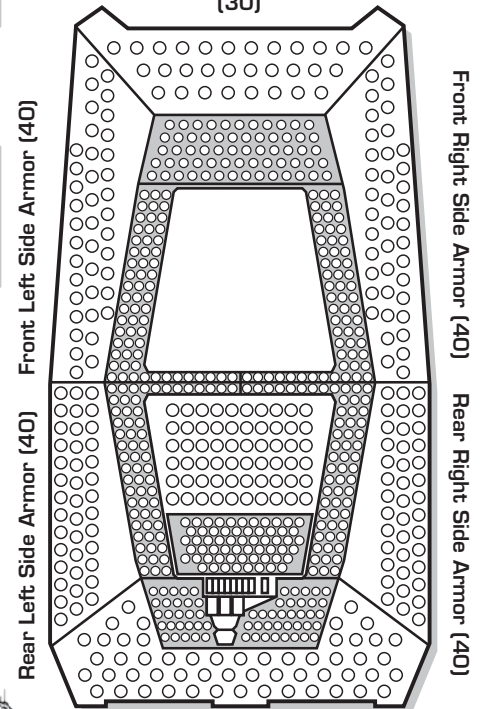| Front ☐ | Left ☐ | Right ☐ |
| Rear ☐ | | Rr. Turret ☐ |

Front Armor (30)

Front Left Side Armor (40)

Front Right Side Armor (40)

Rear Left Side Armor (40)

Rear Right Side Armor (40)

Rear Armor (54)

Rear Turret Armor (60)

SUPER-HEAVY VEHICLE HIT LOCATION TABLE

ATTACK DIRECTION

2D6 Roll	FRONT	REAR	FRONT SIDE	REAR SIDE
2*	Front (critical)	Rear (critical)	Side (critical)§	Side (critical)§
3	Right Side†	Left Side†	Front†	Rear†
4	Front†	Rear†	Side†	Side†
5	Front†	Rear†	Side	Side
6	Front	Rear	Side	Side
7	Front	Rear	Side	Side
8	Front	Rear	Side (critical)*	Side (critical)*
9	Front†	Rear†	Side†	Side†
10	Turret	Turret	Turret	Turret
11	Turret	Turret	Turret	Turret
12*	Turret (critical)	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. 194 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicles 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.
†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 at the end of the phase in which the damage takes effect.
§If the attack hits the front right or left side, all Front side results strike the front armor, while Rear Side results strike the rear right or rear left side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

MOTIVE SYSTEM DAMAGE TABLE

2D6 Roll	EFFECT*
2–5	No effect
6–7	Minor damage; +1 modifier to all Driving Skill Rolls
8–9	Moderate damage; –1 Cruising MP, +2 modifier to all Driving Skill Rolls
10–11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls
12+	Major damage; no movement for the rest of the game. Vehicle is immobile.

Attack Direction Modifier:

| Hit from rear | +1 |
| Hit from the sides | +2 |

Vehicle Type Modifiers:

Tracked, Naval	+0
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 Physical Attack Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

SUPER-HEAVY VEHICLE CRITICAL HITS TABLE

LOCATION HIT

2D6 Roll	FRONT	SIDE	REAR	TURRET
2–5	No Critical Hit	No Critical Hit	No Critical Hit	No Critical Hit
6	Driver Hit	Cargo/Infantry Hit	Weapon Malfunction	Stabilizer
7	Weapon Malfunction	Weapon Malfunction	Cargo/Infantry Hit	Turret Jam
8	Stabilizer	Crew Stunned	Stabilizer	Weapon Malfunction
9	Sensors	Stabilizer	Weapon Destroyed	Turret Locks
10	Commander Hit	Weapon Destroyed	Engine Hit	Weapon Destroyed
11	Weapon Destroyed	Engine Hit	Ammunition **	Ammunition **
12	Crew Killed	Fuel Tank*	Fuel Tank*	Turret Blown Off

*If Combat Vehicle has ICE engine only. If Combat Vehicle has a fusion engine, treat this result as Engine Hit.
**If Combat Vehicle carries no ammunition, treat this result as Weapon Destroyed.

BATTLETECH™

CONVENTIONAL FIGHTER RECORD SHEET

FIGHTER DATA

Type: SEABASS FLYING SUBMERSIBLE

Movement Points:		Tonnage:	20
Flying	Submerged	Tech Base:	Inner Sphere
Safe Thrust: 6	Crusing: 6		(Experimental—Illegal)
Max Thrust: 9	Flank: 9	Era:	Jihad

Weapons & Equipment Inventory

Standard Scale

Qty Type	Loc	Ht	(1–6) SRV	(7–12) MRV	(13–20) LRV	(21–25) ERV
Medium Laser [DE]	N	3	5	—	—	—

Fuel: 222 Points
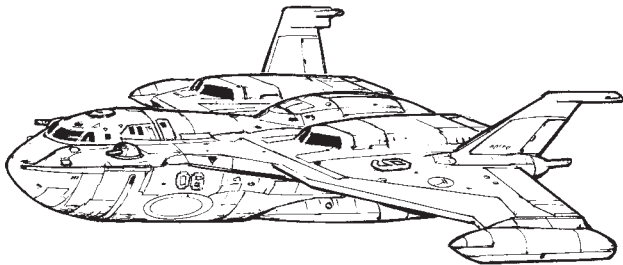
ARMOR DIAGRAM

Nose Damage Threshold (Total Armor)
1 (7)

BAR: 7

Structural Integrity: 6

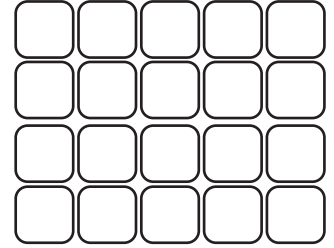**Left Wing Damage Threshold (Total Armor)**
1 (6)

Right Wing Damage Threshold (Total Armor)
1 (6)

Aft Damage Threshold (Total Armor)
1 (5)

CRITICAL DAMAGE

Avionics	+1	+2	+5	Engine	2	4	D
FCS	+2	+4	D	Gear	+5		
Sensors	+1	+2	+5	Life Support	+2		

PILOT DATA

Name: _____

Gunnery Skill: ____ Piloting Skill: ____

Hits Taken	1	2	3	4	5	6
Consciousness #	3	5	7	10	11	Dead
Modifier	+1	+2	+3	+4	+5	

GROUND MAP STRAIGHT MOVEMENT

MINIMUM STRAIGHT MOVEMENT (IN HEXES)

VELOCITY	FIGHTER	SMALL CRAFT AND FIXED WING SUPPORT VEHICLES
1	8	8
2	12	14
3	16	20
4	20	26
5	24	32
6	28	38
7	32	44
8	36	50
9	40	56
10	44	62
11	48	68
12	52	74

Velocity above 12 is not possible on ground maps.

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										
Altitude										

Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										
Altitude										

FIGHTER RETURN TABLE

SAFE THRUST	TURNS BEFORE RETURN
1–4	3
5–8	2
9–12	1
13+	0

BATTLETECH ™

AEROSPACE FIGHTER RECORD SHEET

FIGHTER DATA

Type: Banshee BSE-X2

Thrust:		**Tonnage:**	50
Safe Thrust:	5	**Tech Base:**	Inner Sphere (Illegal)
Maximum Thrust:	8	**Era:**	Clan Invasion

Weapons & Equipment Inventory
Standard Scale   (1–6)   (7–12) (13–20)(21–25)

Qty	Type	Loc	Ht	SRV	MRV	LRV	ERV
1	Medium Laser [DE]	LW	3	5	—	—	—
1	Medium Laser [DE]	RW	3	5	—	—	—

Fuel: 400 Points

EXTERNAL STORES/BOMBS

Key:-
HE - High Explosive
LG - Laser Guided
C - Cluster
RL - Rocket Launcher

ARMOR DIAGRAM

Nose Damage Threshold (Total Armor)
3 (23)

Structural Integrity: 5

Left Wing Damage Threshold (Total Armor)
2 (14)

Right Wing Damage Threshold (Total Armor)
2 (14)

Aft Damage Threshold (Total Armor)
2 (13)

Heat Scale

Overflow

| 30* |
| 29 |
| 28* |
| 27* |
| 26* |
| 25* |
| 24* |
| 23* |
| 22* |
| 21* |
| 20* |
| 19* |
| 18* |
| 17* |
| 16 |
| 15* |
| 14* |
| 13* |
| 12 |
| 11 |
| 10* |
| 9 |
| 8* |
| 7 |
| 6 |
| 5* |
| 4 |
| 3 |
| 2 |
| 1 |
| 0 |

CRITICAL DAMAGE

Avionics	+1	+2	+5	**Engine**	2	4	D
FCS	+2	+4	D	**Gear**	+5		
Sensors	+1	+2	+5	**Life Support**	+2		

PILOT DATA

Name: _____

Gunnery Skill: ____   **Piloting Skill:** ____

Hits Taken	1	2	3	4	5	6
Consciousness #	3	5	7	10	11	Dead
Modifier	+1	+2	+3	+4	+5	

HEAT DATA

Heat Level*	Effects
30	Shutdown
28	Ammo Exp. avoid on 8+
27	Pilot Damage, avoid on 9+
26	Shutdown, avoid on 10+
25	Random Movement, avoid on 10+
24	+4 Modifier to Fire
23	Ammo Exp. avoid on 6+
22	Shutdown, avoid on 8+
21	Pilot Damage, avoid on 6+
20	Random Movement, avoid on 8+
19	Ammo, Exp. avoid on 4+
18	Shutdown, avoid on 6+
17	+3 Modifier to Fire
15	Random Movement, avoid on 7+
14	Shutdown, avoid on 4+
13	+2 Modifier to Fire
10	Random Movement, avoid on 6+
8	+1 Modifier to Fire
5	Random Movement, avoid on 5+

Heat Sinks:
10
Single

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										
Altitude										

Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										
Altitude										

BATTLETECH™

AEROSPACE FIGHTER RECORD SHEET

EXTERNAL STORES/BOMBS

Key:-
HE - High Explosive
LG - Laser Guided
C - Cluster
RL - Rocket Launcher

FIGHTER DATA

Type: Cheetah II F-12A

Thrust:		**Tonnage:**	25
Safe Thrust:	13	**Tech Base:**	Inner Sphere (Intro)
Maximum Thrust:	20	**Era:**	Succession Wars

Weapons & Equipment Inventory

Standard Scale   (1–6)   (7–12) (13–20)(21–25)

Qty Type	Loc	Ht	SRV	MRV	LRV	ERV
1 Small Laser [DE]	N	1	3	—	—	—

Fuel: 320 Points

ARMOR DIAGRAM

Nose Damage Threshold (Total Armor)
1 (9)

Structural Integrity:
13
○○○○○○○○○○
○○○

Left Wing Damage Threshold (Total Armor)
1 (9)

Right Wing Damage Threshold (Total Armor)
1 (9)

Aft Damage Threshold (Total Armor)
1 (5)

Heat Scale

Overflow

30*
29
28*
27*
26*
25*
24*
23*
22*
21*
20*
19*
18*
17*
16
15*
14*
13*
12
11
10*
9
8*
7
6
5*
4
3
2
1
0

CRITICAL DAMAGE

Avionics	+1 +2 +5	**Engine**	2 4 D
FCS	+2 +4 D	**Gear**	+5
Sensors	+1 +2 +5	**Life Support**	+2

PILOT DATA

Name: _____

Gunnery Skill: ____   **Piloting Skill:** ____

Hits Taken	1	2	3	4	5	6
Consciousness #	3	5	7	10	11	Dead
Modifier	+1	+2	+3	+4	+5	

HEAT DATA

Heat Level*	Effects
30	Shutdown
28	Ammo Exp. avoid on 8+
27	Pilot Damage, avoid on 9+
26	Shutdown, avoid on 10+
25	Random Movement, avoid on 10+
24	+4 Modifier to Fire
23	Ammo Exp. avoid on 6+
22	Shutdown, avoid on 8+
21	Pilot Damage, avoid on 6+
20	Random Movement, avoid on 8+
19	Ammo, Exp. avoid on 4+
18	Shutdown, avoid on 6+
17	+3 Modifier to Fire
15	Random Movement, avoid on 7+
14	Shutdown, avoid on 4+
13	+2 Modifier to Fire
10	Random Movement, avoid on 6+
8	+1 Modifier to Fire
5	Random Movement, avoid on 5+

Heat Sinks:
10
Single

○○○○○○○○○○

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										
Altitude										

Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										
Altitude										

BATTLETECH

JUMPSHIP RECORD SHEET

Nose Damage Threshold
(Total Armor)
1 (6)

⬚⬚⬚⬚⬚⬚

JUMPSHIP DATA

Type: BRIGHT STAR AUTO SCOUT

Name: _____ **Tonnage:** 60,000

Thrust: **Tech Base:** Inner Sphere (Experimental)

Station-Keeping Only

Era: Star League

DropShip Capacity: 0

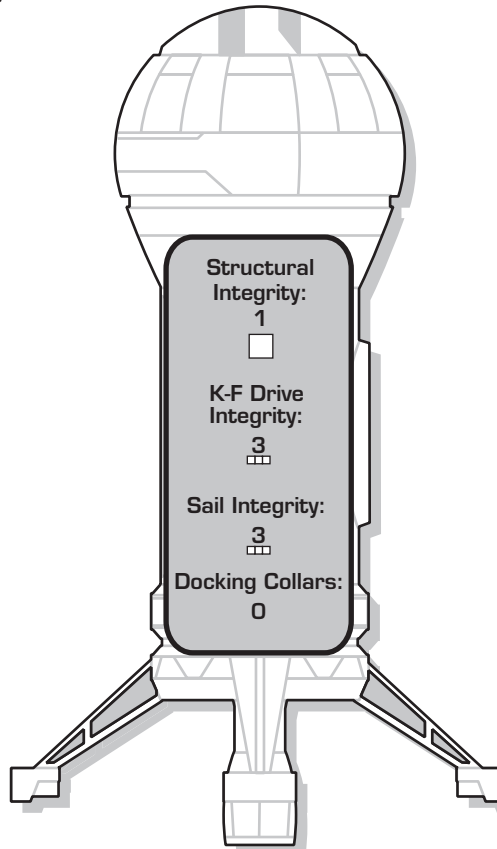**Fighters/Small Craft:** 0 / 2 **Launch Rate:** 2/Turn

Weapons & Equipment Inventory

Cargo:
Bay 1: Small Craft (2) (1 Door)
Bay 2: Cargo (123.5 tons) (1 Door)

Fuel: 1,500

Fore-Left Damage
Threshold (Total Armor)
1 (4)
⬚⬚⬚⬚

Fore-Right Damage
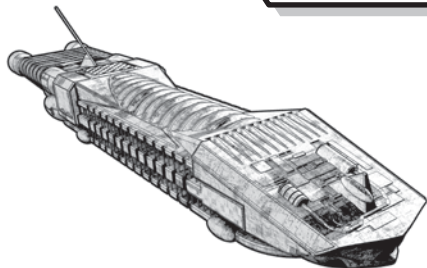Threshold (Total Armor)
1 (4)
⬚⬚⬚⬚

Structural Integrity: 1
⬜

K-F Drive Integrity: 3
⬚⬚⬚

Sail Integrity: 3
⬚⬚⬚

Docking Collars: 0

Aft-Left Damage
Threshold (Total Armor)
1 (4)
⬚⬚⬚⬚

Aft-Right Damage
Threshold (Total Armor)
1 (4)
⬚⬚⬚⬚

Aft Damage Threshold
(Total Armor)
1 (4)
⬚⬚⬚⬚

CREW DATA

Gunnery Skill: ___ **Piloting Skill:** ___

Hits Taken	1	2	3	4	5	6
Modifier	+1	+2	+3	+4	+5	Incp.

Crew: 0 **Marines:** 0

Passengers: 0 **Elementals:** 0

Other: 0 **Battle Armor:** 0

Life Boats/Escape Pods: 1 / 0

CRITICAL DAMAGE

Avionics	+1	+2	+5	Life Support	+2
CIC	+2	+4	D		
Sensors	+1	+2	+5		

Thrusters

Left	+1	+2	+3	D
Right	+1	+2	+3	D

Engine	−1	−2	−3	−4	−5	D

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										

Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										

HEAT DATA

Heat Sinks: 82

Heat Generation Per Arc

Nose:	0
Left/Right Fore:	0 / 0
Left/Right Broadside:	0 / 0
Left/Right Aft:	0 / 0
Aft:	0

BATTLETECH

WARSHIP RECORD SHEET

WARSHIP DATA

Type: ENTERPRISE SUPER CARRIER

Name: _____ **Tonnage:** 1,600,000

Thrust: **Tech Base:** Inner Sphere (Experimental)

Safe Thrust: 2

Maximum Thrust: 3 **Era:** Jihad

DropShip Capacity: 4

Fighters/Small Craft: 970 / 0 **Launch Rate:** 44/turn

Weapons & Equipment Inventory

Capital Scale

Bay	Loc	Ht	(1–12) SRV	(13–24) MRV	(25–40) LRV	(41–50) ERV
4 NL/45s	N	280	18	18	18	18
2 Medium Naval PPC	N	270	18	18	18	18
5 AR/10	N	100	**	**	**	**
0 Anti-Missile Systems (108 rounds)	N	10	—	—	—	—
4 NL/55s	FL/FR	340	22	22	22	22
2 Medium Naval PPC	FL/FR	270	18	18	18	18
3 AR/10	FL/FR	60	**	**	**	**
10 Anti-Missile Systems (108 rounds)	FL/FR	10	—	—	—	—
4 NL/55s	L/R BS	340	22	22	22	22
3 Heavy Naval PPC	L/R BS	675	45	45	45	45
2 NAC/30 (60 rounds)	L/R BS	200	60	60	60	—
2 NAC/35 (20 rounds)	L/R BS	240	70	70	—	—
10 Anti-Missile Systems (108 rounds)	L/R BS	10	—	—	—	—
3 NL/45s	AL/AR	210	14	14	14	14
2 Medium Naval PPC	AL/AR	270	18	18	18	18
3 AR/10	AL/AR	120	**	**	**	**
10 Anti-Missile Systems (108 rounds)	AL/AR	10	—	—	—	—
2 NL/35s	A	104	7	7	7	7
1 Heavy Naval PPC	A	225	15	15	15	15
1 NAC/25 (10 rounds)	A	85	25	25	25	—
10 Anti-Missile Systems (108 rounds)	AL/AR	10	—	—	—	—

Fuel: 10,000
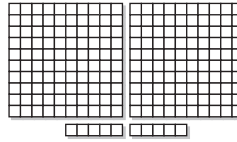
ARMOR DIAGRAM

Capital Scale

Nose Damage Threshold (Total Armor) 24 (235)

Fore-Left Damage Threshold (Total Armor) 21 (210)

Fore-Right Damage Threshold (Total Armor) 21 (210)

Structural Integrity: 50

K-F Drive Integrity: 31
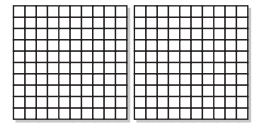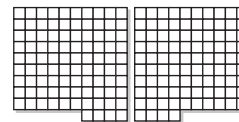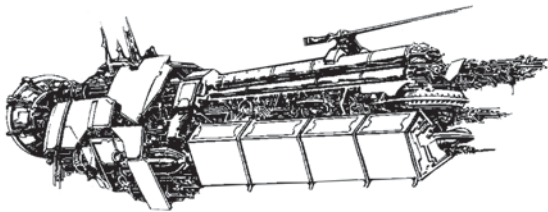
Sail Integrity: 7

Docking Collars: 4
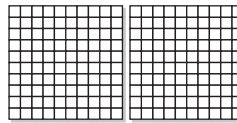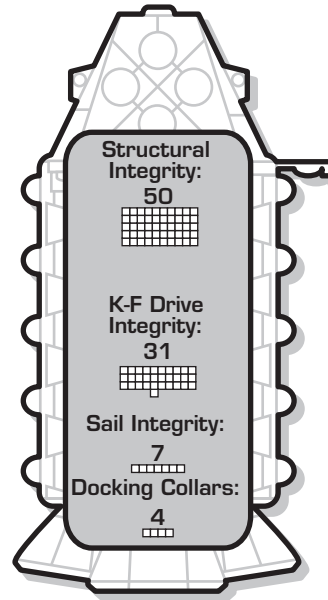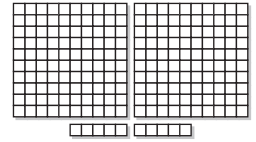
Aft-Left Damage Threshold (Total Armor) 21 (208)

Aft-Right Damage Threshold (Total Armor) 21 (208)

Aft Damage Threshold (Total Armor) 19 (188)

CREW DATA

Gunnery Skill: ____ **Piloting Skill:** ____

Hits Taken	1	2	3	4	5	6
Modifier	+1	+2	+3	+4	+5	Incp.

Crew: 2,439 **Marines:** 0

Passengers: 0 **Elementals:** 0

Other: 0 **Battle Armor:** 0

Life Boats/Escape Pods: 435/640

CRITICAL DAMAGE

Avionics [+1] [+2] [+5] **Life Support** [+2]

CIC [+2] [+4] [D]

Sensors [+1] [+2] [+5]

Thrusters

Left [+1] [+2] [+3] [D]

Right [+1] [+2] [+3] [D]

Engine [−1] [−2] [−3] [−4] [−5] [D]

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										

Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										

HEAT DATA

Heat Sinks: 2,988 (5,976)

Heat Generation Per Arc

Nose:	820
Left/Right Fore:	760/760
Left/Right Broadside:	1,605/1,605
Left/Right Aft:	610/610
Aft:	584

BATTLETECH™
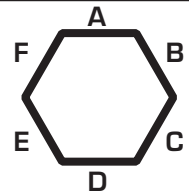
WARSHIP RECORD SHEET (REVERSE)

WARSHIP DATA (Cont.)

Type: ENTERPRISE SUPER CARRIER

Name: _____

Weapons & Equipment Inventory (Cont.)

Standard Scale

Bay	Loc	Ht	(1–12) SRV	(13–24) MRV	(25–40) LRV	(41–50) ERV
8 Large Pulse Lasers	N	80	7 (72)	7 (72)	—	—
8 Large Pulse Lasers	N	80	7 (72)	7 (72)	—	—
8 Large Pulse Lasers	FL/FR	80	7 (72)	7 (72)	—	—
8 Large Pulse Lasers	L/R BS	80	7 (72)	7 (72)	—	—
8 Large Pulse Lasers	AL/AR	80	7 (72)	7 (72)	—	—
8 Large Pulse Lasers	A	80	7 (72)	7 (72)	—	—
8 Large Pulse Lasers	A	80	7 (72)	7 (72)	—	—

Grav Decks:
Grav Deck #1: 50-meter
Grav Deck #2: 50-meter

Cargo:
Bay 1: Fighters (648) (11 Doors)
Bay 2: Cargo (288,220.5) (2 Doors)
Bay 3: Fighters (324) (11 Doors)

ADVANCED MOVEMENT

A vector is active if thrust is applied while the unit is facing that hexside. A vector is inactive if the unit spends no thrust to move through that hexside.

Each time a unit spends thrust, note down that number on the record sheet in the appropriate vector (the vector of the unit's facing). Next, determine the effect of spending thrust by consolidating the active vectors.

First, consolidate any active opposing vectors (see Opposing Vectors diagram) by subtracting the lowest thrust value from both vectors, reducing one vector to 0.

Next, consolidate the oblique vectors (see Oblique Vectors diagram). When any pair of oblique vectors is active, subtract the lowest of the two thrust values from both vectors (or from both if they are equal), reducing one (or both) oblique vectors to 0, and add the same value to the thrust value of the vector in between.

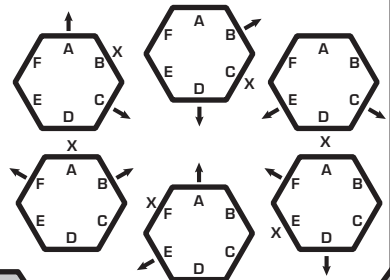After consolidating all vectors, a unit should have no more than two active vectors.

OPPOSING VECTORS

If both vectors marked with arrows are active, subtract an equal amount from both until only one of them is active.
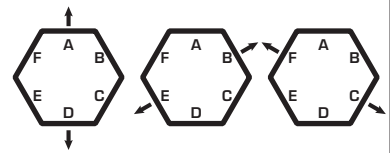
OBLIQUE VECTORS

If both vector markers are active, subtract an equal amount from both and add that amount to vector X.

VELOCITY RECORD

Unit: _____

Turn #	Thrust	Facing	A	B	C	D	E	F	Fuel
1	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
2	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
3	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
4	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
5	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
6	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
7	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
8	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
9	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
10	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
11	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
12	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
13	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
14	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
15	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
16	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
17	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
18	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
19	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____
20	_____	_____	_/_	_/_	_/_	_/_	_/_	_/_	_____

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 p. 193, *SO*). These quirks are included to give each design a unique flavor based upon its history and use in the post Star League era known as the Succession Wars. Use of these quirks is optional and should be agreed upon by all players before play begins.

New Design Quirks

The unique nature of the designs presented in this *Experimental Technical Readout* introduce peculiar new Design Quirks unique to virtually any unit ever dubbed a "Boondoggle". These Design Quirks use the optional rules found in *Strategic Operations* (see pp. 193-199, *SO*), as well as few additional Quirks presented in *Technical Readout: Prototypes* and *Interstellar Operations*. 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, a Design Quirk may be taken only once per unit.

Negative Quirk: Nonfunctional (5 points)
Available to: All

A unit possessing this quirk has one or more components or pieces of equipment that simply does not work. No amount of repairs or replacement will correct this issue; the unit must be redesigned from the ground up to solve the problem.

A unit can have multiple Nonfunctional quirks, but each must be assigned to the specifically non-operational components they possess.

Negative Quirk: Illegal (0 points)
Available to: All

Units designed with this Quirk do not follow the existing construction rules for some reason, achieving effects that are not normally allowed in game-play, and which can fail spectacularly at any moment. These units should not be employed unless all players agree.

If employed, the opposing player may roll 2D6 to determine if the unit with this Quirk suffers a catastrophic failure once every 6 turns of combat. On a result of 6 or higher, such catastrophic failure occurs in 1D6 of the unit's hit locations (using the Front/Back Hit Locations Table). A Critical Hits check is then made for each failure location determined, applying a +4 modifier to the roll result. On any modified roll result of 13+, the location suffers complete collapse if it is an arm, leg, head, wing, main gun, or turret. This will destroy all items within (and any explosive components checks should be made as appropriate for location destruction). If the affected location is none of the above, it suffers 4 critical hits, determined as normal.

Illegal units suffer an additional +4 target number modifier to repair or replace any damaged or destroyed components, and double all repair and maintenance times for work performed on them. If an Illegal unit repair fails, the item gains the Nonfunctional Quirk as well.

Finally, because they are technically failures at the time of production, Illegal units should also receive the Obsolete Design Quirk (see p. 205, *TRO: Prototypes*), with the year of their obsolescence determined to be the same as their year of introduction.

INCOMING MESSAGE

SEND

SAVE

CANCEL

DELETE