

AEROTECH™

THE BATTLETECH GAME OF FIGHTER COMBAT



FASA
CORPORATION



AEROTECH

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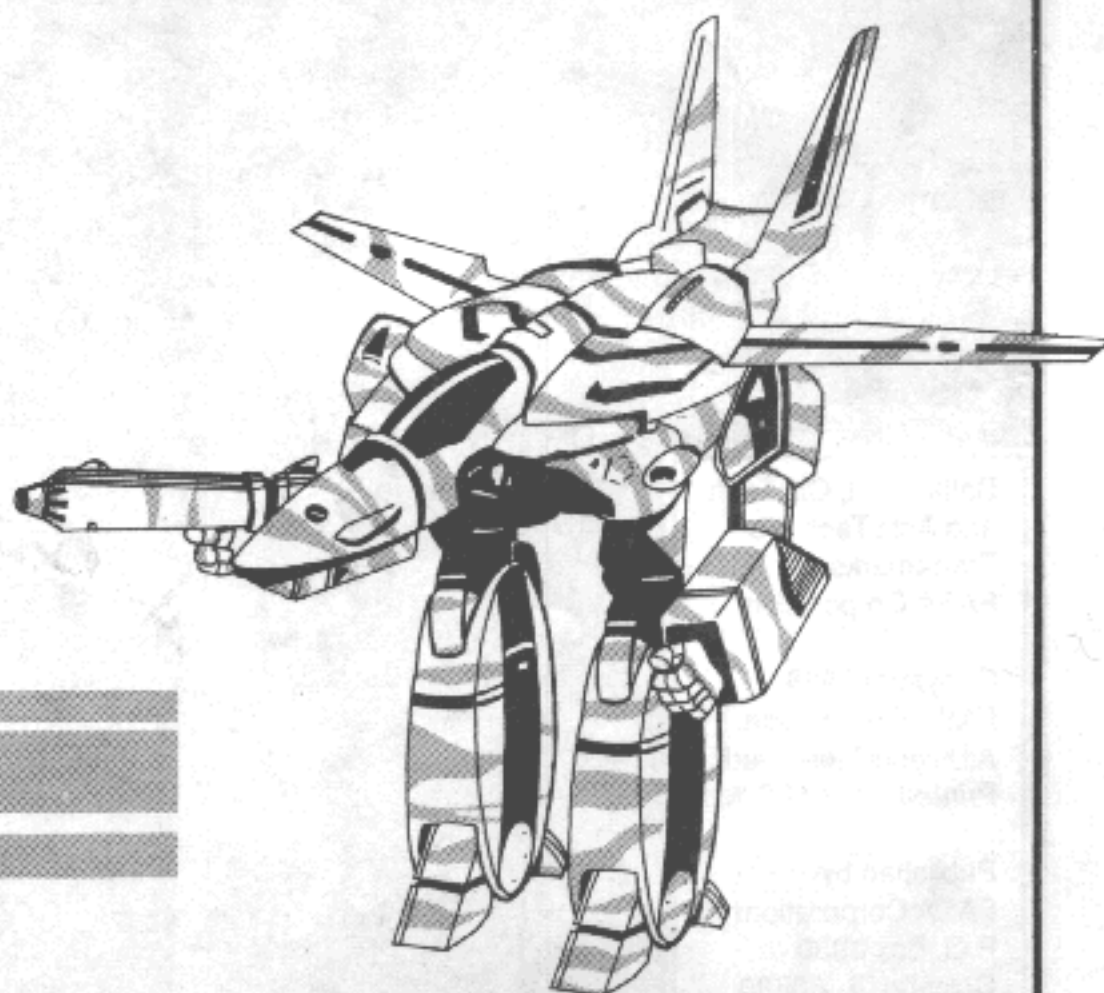
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AEROTECH

TABLE OF CONTENTS

INTRODUCTION	3	HEAT	25
Components	3	Heat Points	25
Record Sheets	3	Heat Build-up	25
Space Mapsheet	3	Effects of Heat	25
Terrain	3	Movement Effects	25
Dice	4	Weapons Attack Effects	25
Game Setup	4	Shutdown	25
Sequence of Play	4	Ammunition Explosion	26
AEROSPACE PILOTS	5	Pilot Damage	26
Pilot Skills	5	DROPSHIPS AND 'MECHS	27
Damaging an Aerospace Pilot	5	Drop Procedures	27
MOVEMENT	7	Landing	27
Facing	7	Drop Ship Combat	28
Types of Movement	7	Leopard Class Dropship	29
Thrust	7	Union Class Dropship	30
Overthrust	7	Overlord Class Dropship	31
Structural Integrity	7	AEROSPACE FIGHTER DESIGN	32
Velocity	7	Fighter Design	34
Gravity	8	LAND-AIR 'MECHS (LAMS)	35
Entering the Atmosphere	9	Conversion Time	35
Powered Flight Entry	9	Capabilities	35
Dead Stick Entry	9	'Mech Mode	35
Movement at High Altitude	10	Air 'Mech Mode	35
Movement at Low Altitude	10	Fighter Mode	35
Special Maneuvers	11	OTHER RULES	37
Landing	13	Fighter Refueling	37
COMBAT	15	Fighter Launching	37
Firing Weapons	15	Fighter Recovery	37
Firing Arcs	16	OPTIONAL RULES	38
Line-of-Sight	16	Abstract 'Mech Landing System	38
Range	16	Sample Victory Conditions	38
Multiple Targets	17	SCENARIOS	39
To-Hit Procedures	17		
Base To-Hit Number	17		
Modified To-Hit Number	18		
Missile Hits	18		
Ammunition	18		
Hit Location	18		
Determining Hit Location	18		
Damage Value	20		
Recording Damage	20		
Transferring Damage	20		
Destroying an Aerospace Craft	21		
Ground Targets	21		
Strafing	21		
Dive Bombing	22		
Thrust Loss	23		
Inferno Bombs	23		
Return Fire	23		



INTRODUCTION

COMPONENTS

This game includes 224 full-color playing pieces representing a wide variety of aerospace craft. Representing fighters and DropShips, these playing pieces are placed on the mapsheet to show the position and orientation of each craft and its movement during the game. There are enough counters for each type of craft for almost any engagement. If players need more, they may substitute just about any type of counter.

RECORD SHEETS

The AeroSpace Fighter Record Sheet shown in the diagram is used to keep track of the condition of a fighter during the game. DropShips have their own Record Sheet specifically designed for each type. The different sections of the Fighter Record Sheet are discussed below.

Armor Diagram

The large diagram at the top right-hand corner of the page is the Armor Diagram. It shows the arrangement of the armor plating on the fighter. As weapon hits destroy the armor, the boxes are checked off.

Fighter Data

Located in the upper left corner, this section of the Record Sheet lists all the fighter's important statistics, including the type of fighter, its tonnage, structural integrity, and thrust ratings. Also included here is a heat sink check-off list.

Pilot Data

This small section appears below fighter data, and lists the name, skills, and condition of the AeroSpace fighter pilot.

Velocity Record

This large section is used to keep track of the fighter's velocity as it changes from one game turn to the next. The columns represent the fighter's beginning velocity, the number of thrust points spent during a turn, the fighter's ending velocity, and the amount of fuel remaining. Depending on the pilot's actions during the game turn, these numbers may or may not change. Any movement restriction should be noted next to the turn number during which that restriction will be in effect.

Heat Scale

A column of numbered boxes, the Heat Scale is used to keep track of the internal heat build-up in each fighter. As heat builds up, these boxes are checked off from low to high. When enough heat has built up, the comments beside the boxes tell what effect the heat has on the fighter's operation.

Equipment Data

These four sections show where weapons and ammunition can be stored on an aerospace fighter. These locations also tell which firing arc each weapon covers. When a weapon is destroyed or all its armor boxes have been checked off in one location, the affected area or weapon is simply crossed off and can no longer be used.

SPACE MAPSHEET

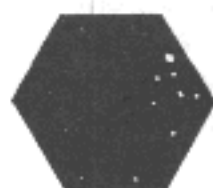
The AeroSpace Mapsheet used in this game is a grid of six-sided areas called hexes. These hexes are used to regulate movement and combat, with fighters and DropShips moving from hex to hex. Hex maps help make movement more realistic because they provide six possible movement directions instead of the four possible with square grids.

Each hex on the space side of the mapsheet is roughly 6500 kilometers across (about 4000 miles), and each turn represents one minute.

The reverse side is used for low-altitude fighter combat. Each hex on that side is roughly 500 meters across (about three-tenths of a mile) or about the same as one BattleTech mapsheet. Each turn at this scale is ten seconds long.

TERRAIN

There are very few types of terrain in the air or in space. What does exist is explained below.



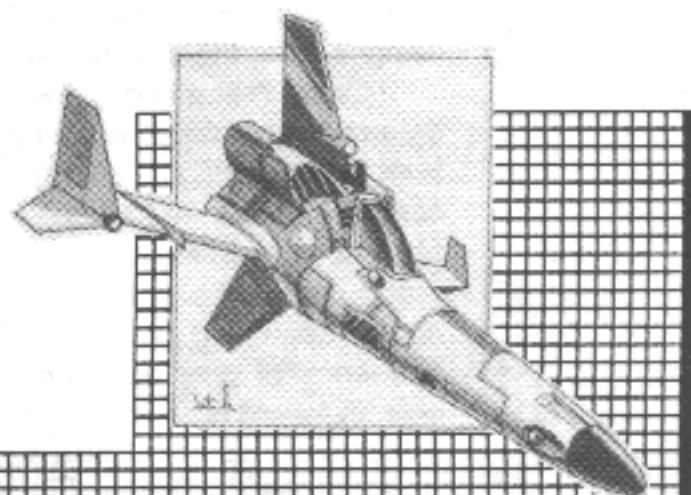
OPEN SPACE

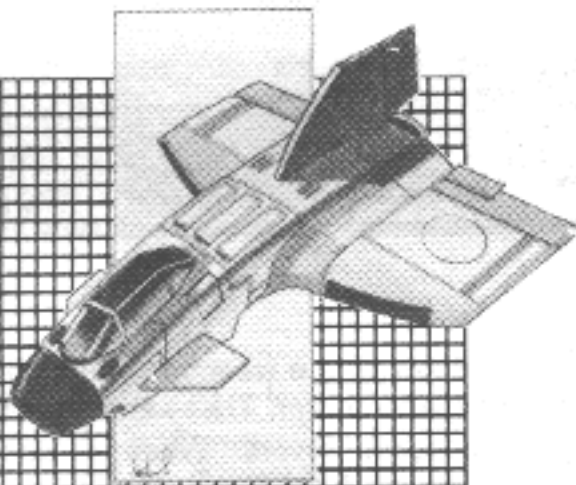
These empty hexes are just that, open space. They have no effects on anything.



ATMOSPHERE

Most planets have some sort of atmosphere. Atmospheric hexes make weapons fire more difficult, and movement within the atmosphere is much different from movement in space. Entering an atmospheric hex from space is a difficult operation that requires *Piloting* skill.





GRAVITATIONAL EFFECT HEXES



These hexes show the effects of gravity on the movement of aerospace craft, and contain either a grey arrow or a blue arrow. A craft ending its turn on a grey arrow hex may be pulled towards the planet by gravity. A craft moving through or ending its turn on a blue arrow hex may be pulled and turned toward the planet.

PLANETS



Planet and moon hexes are the only type of terrain that will block line-of-sight and weapons fire. To land on a planetary hex requires several skill rolls. If care is not taken during landing, the meeting with the earth/air interface can be fatal.

DICE

AeroTech includes two standard, six-sided dice. During the game, sometimes only one die is rolled, and sometimes both are, either one at a time or both together.

GAME SETUP

To start the game, simply lay out the Space Mapsheet on a table or some other surface that offers all players easy access. Next, fill out AeroSpace Fighter Record Sheets for each fighter involved in the battle. The players can use the statistics for the various fighter types described in the book or they can create their own designs using the system also found in this rulebook.

Once the players have chosen sides, they must determine the objectives for their team. These may range from driving off an enemy landing force to landing a certain number of 'Mechs or DropShips on a certain planetary hex. Having decided their objectives, each group of players places its units on the mapsheet and notes beginning velocities. Then, simply follow the sequence of play until one side or the other meets its objectives and is declared the winner.

SEQUENCE OF PLAY

INITIATIVE PHASE

A. One player from each side rolls both dice to determine his team's initiative. The team with the higher roll has the initiative throughout the turn.

MOVEMENT PHASE

A. The team that lost the initiative chooses one craft, and moves it first.

B. The team that won the initiative moves one craft. Movement alternates until all craft have been moved. The team that won the initiative moves one of its craft last. Each side must move its DropShips before moving any other craft. Although movement should alternate, at times one side may have to move more than one craft during its move, so that each side ends movement at roughly the same time. One side or the other should not be able to move a large number of pieces at one time because of numerical differences in the teams.

ATTACK PHASE

A. The team that lost the initiative chooses a craft that will declare fire first. The player controlling that craft declares any attack he plans to make using his craft's weaponry.

B. The team that won the initiative chooses a craft that will declare fire next. The player controlling that craft declares his attacks. Declaring targets alternates until all fire has been declared. The team that won the initiative declares the last attack.

C. Weapons fire is resolved, one craft at a time. As all combat is considered simultaneous, the order does not matter. Note that all the weapons attacks by one craft should be resolved before those of any other craft are resolved.

D. Damage from weapons attacks takes effect. Damage is recorded as attacks are resolved, but it does not affect the craft until after ALL weapons attacks have been resolved. At that point, all damage takes effect immediately.

HEAT PHASE

A. Players adjust their Heat Scales to reflect any heat built up or lost during the game turn. Any temporary or permanent damage caused by excessive internal heat goes into effect at this time.

END PHASE

A. Players whose Pilots were wounded or unconscious this turn now roll to see if consciousness is regained or maintained.

B. Players roll to see if any temporary movement or fire restrictions can be removed. Restrictions that took effect in this turn cannot be removed until the next turn.

The above steps are repeated until only one team's craft are left. The team with the last surviving craft is the winner. If the last craft from each team are destroyed simultaneously, the game is a tie. Meeting the objective of a scenario may also end the game.

AEROSPACE PILOTS

The human soldiers who pilot aerospace fighters and DropShips are called Aerospace Pilots. Their skills play an important role in keeping a craft moving and in combat. If its Pilot is killed or seriously injured, an aerospace craft will be knocked out of commission, even though actual damage to the craft may be light.

PILOT SKILLS

Two skills are important to an Aerospace Pilot in combat: *Piloting* and *Gunnery*. Average AeroSpace Pilots have a *Piloting* Skill Rating of 5 and a *Gunnery* Skill Rating of 6.

Piloting Skill helps determine the outcome when an Aerospace Pilot attempts to push the design features of his craft, especially when entering the atmosphere. *Gunnery* skill helps determine how easy or difficult it is to make a successful shot with the aerospace craft's weaponry. These two skills are discussed in detail in chapters covering **Movement** and **Combat**.

Varying Skill Levels

As an optional rule, the players could roll randomly at the beginning of the game for the *Piloting* and *Gunnery* skills of every AeroSpace Pilot. This will produce an interesting mixture of green and seasoned pilots. Roll one die for the AeroSpace Pilot's *Piloting* and *Gunnery* skill, and compare the results to the table below.

AEROSPACE PILOT SKILLS TABLE		
Die Roll	<i>Piloting</i> Skill	<i>Gunnery</i> Skill
1	6	7
2	6	6
3	5	6
4	5	6
5	4	6
6	4	5



Skill Improvement

Players may want to keep any of the AeroSpace Pilots they have created for use in future games or campaigns, assuming that the Pilot survives the current battle. To do this, the players should keep track of the number of enemy craft destroyed by each surviving Pilot. For every five craft he kills, the Pilot can improve his *Piloting* skill; or, for every ten craft he kills, his *Gunnery* skill. Once the choice is made to improve *Gunnery* skill, the next ten kills must go toward improving that skill. Pilots cannot trade *Piloting* skill points for *Gunnery* skill points. Whether he chooses *Piloting* or *Gunnery*, the player improves the skill by subtracting 1 from the current skill level.

DAMAGING AN AEROSPACE PILOT

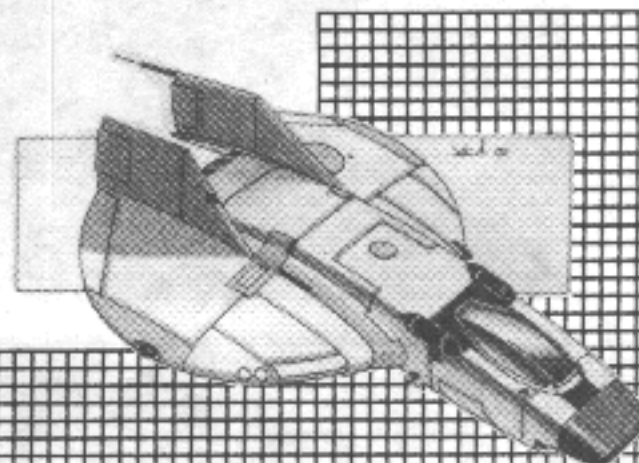
There are four ways of damaging an AeroSpace Pilot: cockpit hits, high thrust maneuvers, internal ammunition explosions, and heat. An AeroSpace Pilot can take 6 points of damage before dying, but it is very possible he will be knocked unconscious long before taking that much damage. Every time the pilot is damaged, the player must roll both dice and consult the Consciousness Table to see if the pilot remains conscious.

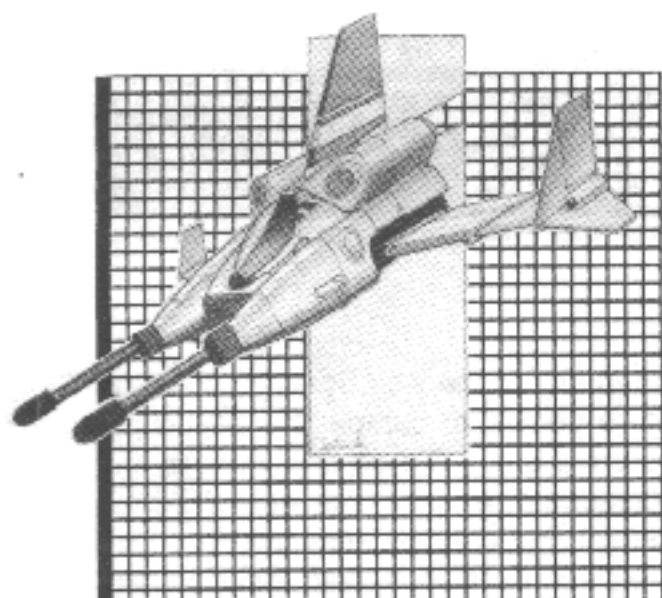
AEROSPACE CONSCIOUSNESS TABLE	
Total Damage	Consciousness Number
0	3
1	3
2	5
3	7
4	10
5	11
6	Dead

If the dice roll is equal to or greater than the Consciousness Number, the pilot remains conscious. If the roll is less than the Consciousness Number, the pilot is knocked unconscious, his craft cannot thrust or fire, and it will drift at its current velocity. The pilot must remain unconscious for one complete turn. During the End Phase of the turn after he lost consciousness, the Pilot rolls again. If this roll is successful, the Pilot regains consciousness and does not have to roll on the Consciousness Table unless he is hit again.

Cockpit Hit Damage

The Aerospace Pilot takes 1 point of damage whenever the cockpit of his aerospace craft is hit. If the hit penetrates the cockpit armor, the pilot is automatically killed.





High Thrust Maneuver Damage

Whenever the pilot applies thrust that exceeds his craft's structural integrity, two *Piloting* Skill Rolls must be made: one for Structural Integrity Loss and one for Pilot Blackout. The roll for structural integrity is explained in the **Movement** Chapter. The Pilot Blackout Roll is based on *Piloting* Skill Level and the following table:

BLACKOUT TABLE		
Thrust spent	Pilot Condition Damage points taken	Piloting Modifier
1		-7
2		-6
3		-5
4		-4
5		-3
6		-2
7	0	-1
8	1	0
9	2	+1
10		+2
11	3	+3
12		+4
13	4	+5
14		+6
15	5	+7

As shown on the table, the Pilot's Skill Level is modified by both the thrust of the maneuver and the pilot's condition.

If the Blackout Roll fails, the pilot is unconscious. Consciousness can be regained in the normal way. If the pilot has not taken any damage, there is no further effect. If the pilot has taken hits, he must immediately roll against his current Consciousness Number. If the roll succeeds, there is no effect and the pilot can try to regain consciousness in the normal manner. If the roll fails, the pilot suffers another hit and must try to regain consciousness at this new number.

A pilot may attempt to regain consciousness from a Blackout during the end phase of the current turn. A pilot who is unconscious from damage, however, may not attempt to recover until the end phase of the NEXT turn.

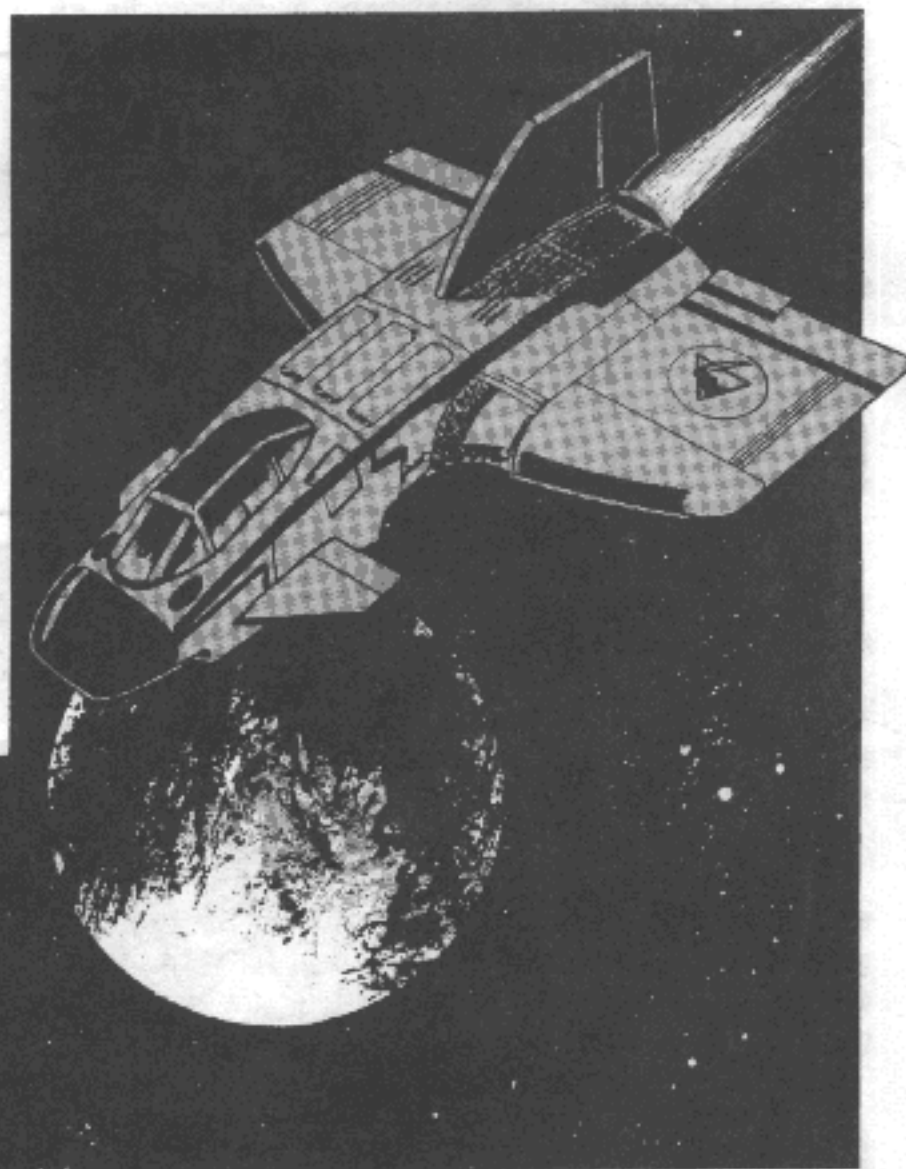
Ammunition Explosion Damage

An internal ammunition explosion gives the pilot 1 point of damage, due to the physical and electrical shocks he receives.

Excess Heat Damage

When heat builds up in an aerospace craft, it can affect the pilot. The trigger points and Avoid Rolls are noted on the Heat Scale. If an Avoid Roll fails, the pilot takes 1 point of damage and must make the normal roll against the Consciousness Table.

For example, a healthy pilot makes a 13 thrust maneuver in one hex during his movement. This exceeds his craft's current SI and so requires a Piloting Skill Roll. His Blackout Roll is figured as follows: (Piloting Skill Level of 5 + Thrust Modifier of +5 + Pilot Condition Modifier of -1 = 9) To prevent blackout, the pilot must roll a 9 or better with two dice. Failure of the roll results in Pilot Blackout, which lasts until the End Phase of the current game turn, when he can attempt a Consciousness Roll.



MOVEMENT

In space there is no friction to slow down a craft. An Aerospace fighter or DropShip will travel in a straight line with no change in velocity unless some outside force acts on the craft. Gravity and thrust are the two most important forces that affect the movement of Fighters and DropShips.

Aerospace vessels change their position on the Space Mapsheet by using two different types of movement: normal thrust and overthrust. The only difference between these two types of movement is the number of thrust points available in that turn and the cost of those points. A craft's velocity is limited only by the size of the playing area. A craft must always move the number of hexes equal to its velocity, however. If forced off the mapsheet, the craft is out of the game. Care must be taken when travelling at high velocities because of the high thrust cost for turns.

FACING

Every hex on the map has six edges, called hexsides. In **AeroTech**, every Fighter and DropShip must face one of these six hexsides. In this game, the ship's facing is considered to be the same as the direction its bow or nose is pointing. A fighter's facing affects both its movement and its combat, and can be changed only during the Movement Phase.

TYPES OF MOVEMENT

Each vessel is rated in three important categories: thrust, overthrust, and Structural Integrity (SI). These determine the maneuverability of any fighter or DropShip.

THRUST

Thrust is used to make vector changes or turns. The velocity of the vessel (i.e., the number of hexes it will move in one turn) determines the amount of thrust needed to make a 60-degree, or one-hexside, facing change. It costs much more to make a facing change when moving at high velocities. Each thrust point costs 1 fuel point. When a vessel runs out of fuel, it will continue in the direction it is facing, with no velocity change or facing change allowed.

OVERTHRUST

Overthrust is the fighter's ability to get thrust points above its thrust rating, and is normally 1.5 times the thrust rating (rounded up). Overthrust points are no different than thrust points except that they cost 2 fuel points each. Overthrust also adds 1 heat point for every point of overthrust used.

For example, a fighter with a thrust rating of 10 and an overthrust rating of 15 spends 13 thrust points in one turn. It will cost this fighter 1 fuel point for each thrust point up to its thrust rating, and 2 fuel points and 1 heat point for each thrust point above its thrust rating, to the limit of its overthrust rating. In this case, the total cost to the fighter will be 16 fuel points and 3 heat points.

STRUCTURAL INTEGRITY (SI)

The Structural Integrity of a vessel is initially equal to its thrust rating or its tonnage divided by 10 (rounded down), whichever is greater. The SI rating is a measure of how much stress and strain the craft can take when maneuvering. It is also a measure of the craft's condition. When a vessel's structural integrity is reduced to 0, it is destroyed.

Whenever a pilot attempts a maneuver or series of maneuvers requiring thrust points higher than his craft's current SI rating, he must make a *Piloting Skill Roll*. The skill roll is modified by the number of thrust points exceeding the Structural Integrity Rating. If the roll fails, the craft loses one SI point, and completes the maneuver. In space, this *Piloting Skill Roll* is made only when the required number of thrust points are spent in one hex. Any thrust spent in acceleration or deceleration is also included. A second *Piloting Skill* roll is required to see if the pilot blacks out. This procedure is explained in the High Thrust Maneuver Damage section of the **AeroSpace Pilot** chapter.

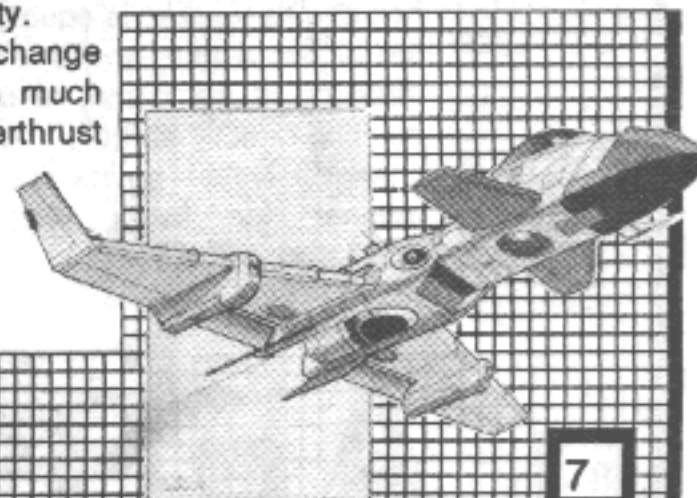
For example, a fighter with an SI of 10 and a current velocity of 10 makes two turns (8 thrust points) and then accelerates 5 (5 thrust points), all in the same hex for a total of 13 thrust points. This exceeds his current SI. The Piloting Skill Roll required is 8 (Piloting Skill Level 5 + difference in thrust and current SI 3 = 8). The pilot must roll an 8 or greater with two dice to avoid losing 1 SI point.

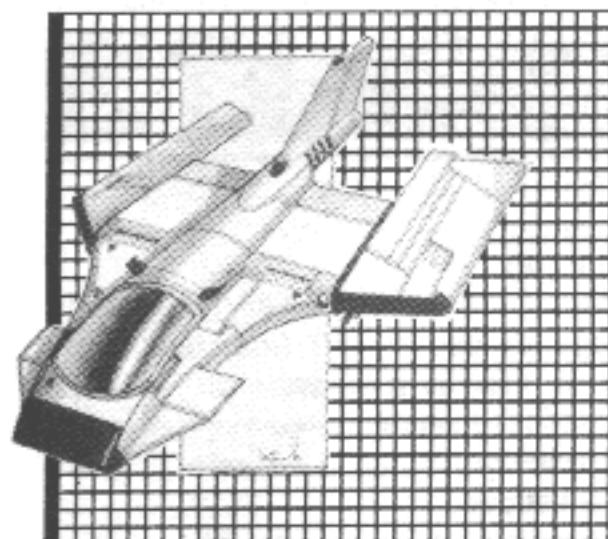
VELOCITY

Actual movement is simply a matter of checking the craft's initial velocity to see how many hexes must be moved and how much thrust it costs to change facing by one hexside. Thrust points may also be spent in increasing or decreasing velocity. Any acceleration or deceleration must be done as the very first part of movement or the very last. The craft may only accelerate or decelerate once per turn, and may not split any velocity change between the first and last part of the craft's movement. Also, no craft may turn in place. All must move at least one hex forward before spending any thrust on maneuvers. This includes ships with 0 velocity, which must accelerate at least to a velocity of 1 before spending thrust to change facing.

When a craft accelerates or decelerates at the beginning of its turn, the craft's velocity for the whole turn is the new number. If a craft accelerates or decelerates at the end of its turn, only its ending velocity changes. It cannot move more or less than its beginning velocity.

A craft may change its velocity by as much as its current overthrust rating.





A fighter with a thrust rating of 6, overthrust rating of 9, and a current velocity of 7 needs to make three turns in order to fire at an enemy DropShip. Checking the Thrust Point Cost Table, the pilot finds that he needs 12 thrust points to make the required turn at his current velocity. His fighter is not capable of making this series of

maneuvers. However, by decelerating to 5, the cost per turn drops to 2 thrust points, thus making the maneuver possible. (2 deceleration + 3 x 2 thrust per turn = 8 thrust points)

THRUST POINT COST TABLE

Velocity	Thrust Point Cost Per Hexside Facing Change
0	Not Allowed
1-5	2
6-10	4
11-15	6
16-20	8
21-25	10
26-30	12

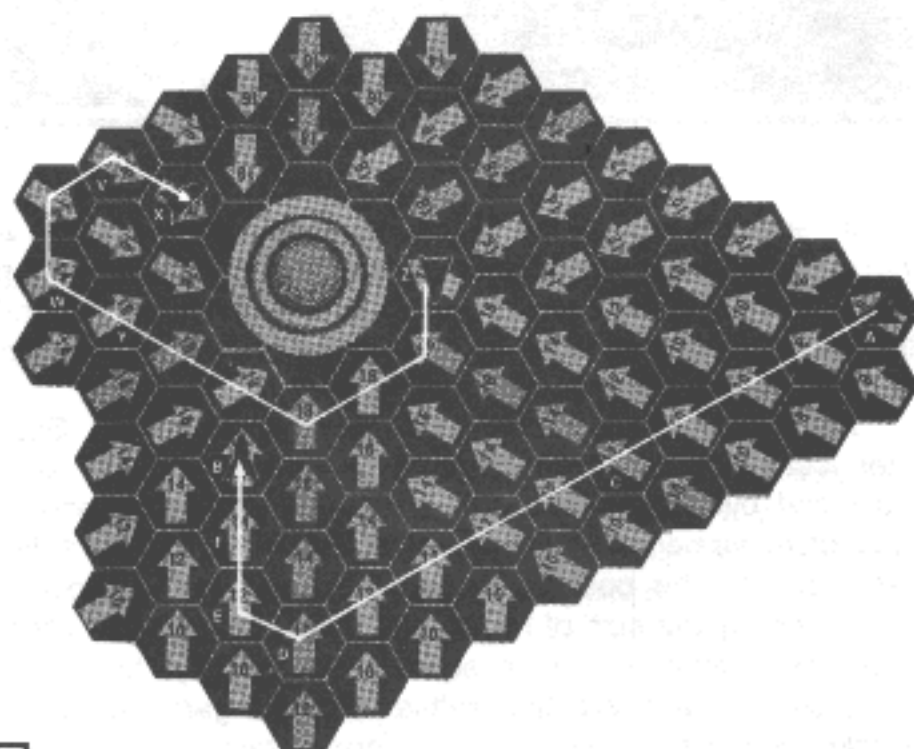
GRAVITY

Movement and maneuvers in space would very easy and basic except for the effects of gravity. Planets and moons exert varying gravitational forces at various distances, as noted by the arrows on the space mapsheet. The arrows force changes in facing and other movement dislocations that pilots must either counteracted or take advantage of.

Gravity Arrows

There are two types of gravity arrows: blue and grey. Grey arrows take effect only when a craft ends its movement in a hex so marked. If a craft ends its movement in a grey arrow hex and its ending velocity is equal to or less than the number of the arrow, the craft is displaced one hex in the direction of the arrow. There is no facing change. However, if the craft's ending velocity is greater than the number of the arrow, there is no effect.

Blue arrows have the same effect as grey arrows, with one addition. Whenever a craft enters a blue arrow hex and its velocity is equal to or less than the number of the arrow, it must make a forced facing change in the direction of the planet or moon. If the craft is already pointing directly at the planet or moon, there is no facing change. Thrust points may be spent in the normal manner for facing changes to counteract this gravitational effect.



For example, a fighter with an initial velocity of 10 wishes to move from Hex A to Hex B. He moves four hexes to Hex C. The fighter must make a facing change in Hex C because his velocity is 12 or less. As this would face him straight at the planet, the pilot will spend 4 thrust points to override the forced change. He continues straight to Hex D, where another facing change is required. This time, the pilot goes with gravity and turns toward Hex E, spending his 10th hex of velocity to move to Hex E. If the pilot ended his turn here, gravity would pull him one hex toward the planet to Hex F, as grey arrow hexes only affect craft that end their movement in them. To get to Hex B, the fighter must make another facing change in Hex E, accelerating from a velocity of 10 to a velocity of 11. This allows movement into Hex F, where gravity will pull the fighter to Hex B. During this turn, the fighter spent 13 thrust points and increased its velocity to 11.

The fighter in Hex Z has an initial velocity of 7, and wishes to move to Hex X. The pilot cannot simply move around the 18-arrow ring and stop in Hex X, as gravity would pull him into the atmosphere and force a dead-stick entry. To end movement in Hex X, the fighter must spend thrust points in Hex Y to counter the forced gravity turn, make another turn in Hex W, and accelerate to a velocity of 8 to move to Hex V, where gravity will force a facing change and pull the fighter to Hex X.

ENTERING THE ATMOSPHERE

Most inhabited planets have an extensive atmosphere. The boundary between open space and the atmosphere is critical to all spacecraft. The intentional or unintentional movement across this boundary requires *Piloting* skill. There are two ways to enter the atmosphere: powered flight and gliding, or dead-sticking, it.

POWERED FLIGHT ENTRY

Powered flight is the safest way to enter the atmosphere. To make a powered-flight entry, a craft must allocate enough thrust points to make a facing change at its current velocity and enter the atmospheric ring of hexes. This can be done by moving directly into the ring (where a facing change in the 18-arrow ring qualifies as the required thrust maneuver) or by being pulled by gravity into the atmospheric ring, with enough thrust points in reserve to make a facing change at the craft's current velocity. To make a successful atmospheric entry, the thrust points are needed for the critical reentry attitude adjustments.

DEAD STICK ENTRY

A Dead Stick Entry occurs whenever a ship enters the atmospheric ring and cannot or does not spend the required thrust points to make the reentry attitude adjustments. In either case, a *Piloting* Skill Roll is still required, with velocity modifications from the following table.

ATMOSPHERIC ENTRY MODIFIERS		
Current Velocity	Powered Entry	Dead Stick Entry
0	+3	+10
1-2	+2	+8
3-4	+1	+6
5-6	0	+4
7-8	+1	+2
9-10	+2	+4
11-12	+3	+6
13-14	+4	+8
15-16	+5	+10
17-18	+6	+12
19+	+7	+14

If any of the following conditions apply, the noted modifiers are added when figuring the Entry *Piloting* Skill Roll. In all cases, the Dead Stick Entry column is used.

Pilot unconscious or blacked out	+6
Plant shutdown	+4
No thrust points available because of damage	+4
No thrust points available because of restriction	+4
Craft out of fuel	+4
Craft suffering random movement	+3
Craft's controls are locked	+2
Craft suffering a turn restriction	+1

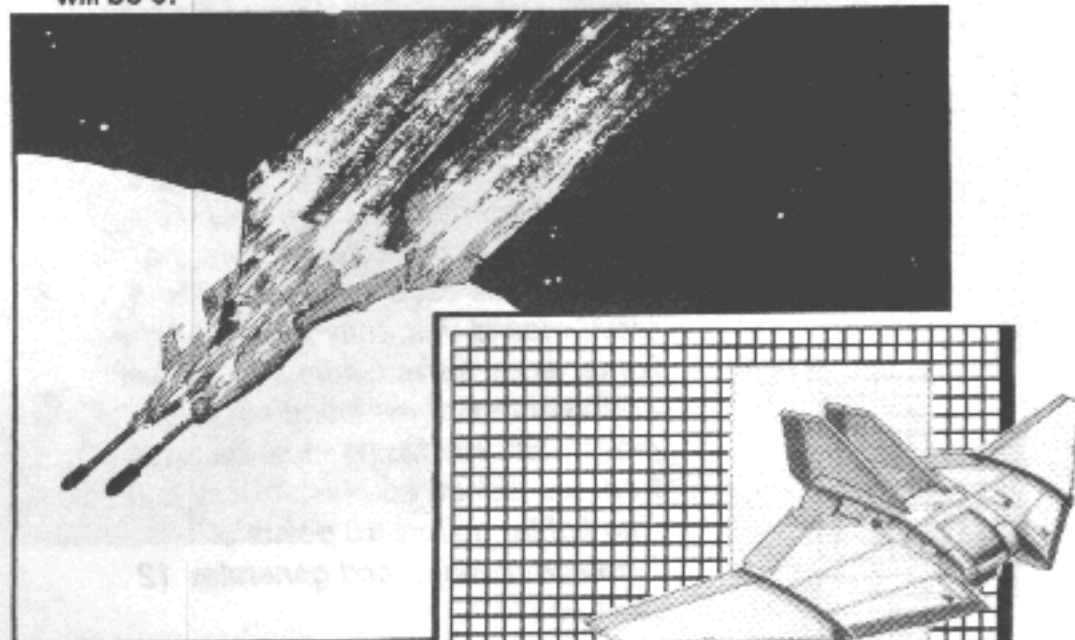
[NOTE: Fighters missing one or both wings may not enter the atmosphere. Any fighter that does so is automatically destroyed. A fighter with no nose adds an additional +2 modifier for all *Piloting* Skill Rolls required in the atmosphere. This

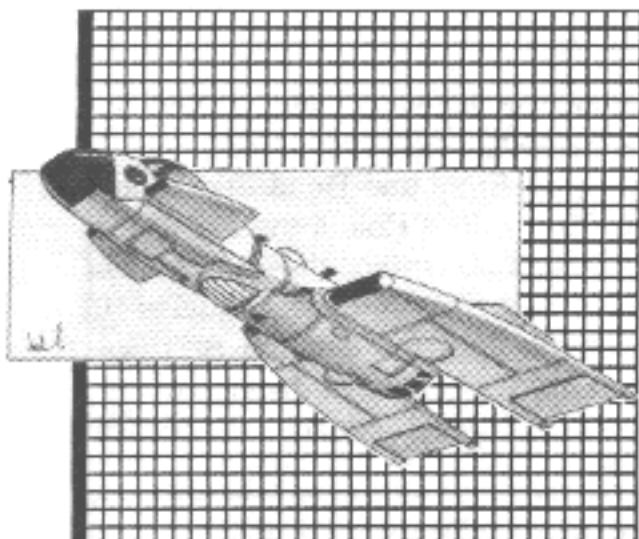
includes entry, movement restriction recovery, and landing. In addition, all movement rates in the atmosphere are halved.]

The numbers in the Powered Entry and Dead Stick Entry columns are modifiers to the *Piloting* Skill Roll. If the skill roll is successful, then the craft successfully enters the atmosphere and builds up a small amount of heat. This amount is equal to 10 minus the difference between the dice roll and the Skill Roll Target. In addition, the craft may change its facing to any direction desired. If the skill roll fails, consult the Failed Atmospheric Entry Table below.

FAILED ATMOSPHERIC ENTRY TABLE	
Difference between Skill Roll Target and Actual Number Rolled	Result
1	Entry Successful. Take 5 points of damage on the front table, and add 15 heat points.
2	Entry Successful. Take 10 points of damage on the front table, and add 20 heat points.
3	Entry Successful. Take 15 points of damage on the front table, and add 25 heat points.
4	Bounced off atmosphere. Take 5 points of damage directly to the fuselage, and add 10 heat points.
5	Bounced off atmosphere. Take 10 points of damage directly to the fuselage, and add 12 heat points.
6	Bounced off atmosphere. Take 15 points of damage directly to the fuselage, and add 14 heat points.
7	Bounced off atmosphere. Lose 1 SI point, 10 points of fuselage, and add 16 heat points.
8	Bounced off atmosphere. Lose 2 SI points, 10 points of fuselage, and add 18 heat points.
9	Bounced off atmosphere. Lose 3 SI points, 10 points of fuselage, and add 20 heat points.
10+	Craft burns up in reentry.

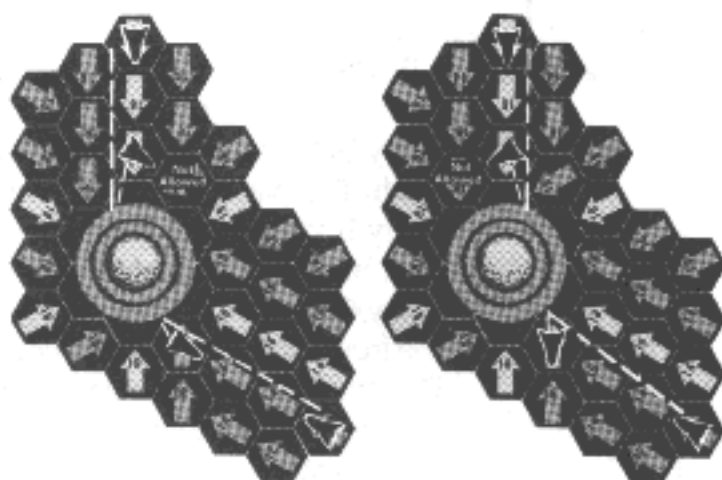
A craft that has bounced off the atmosphere will end its movement in the space hex occupied before attempting entry. The craft should be facing away from the planet, and its velocity will be 0.





Entering the atmosphere is the only time that a craft does not have to move as many hexes as its current velocity. Upon entering, the movement rules change completely, as noted below.

Failed Atmospheric Entry Facing Examples



For example, a fighter with a velocity of 15 decides to enter the atmosphere. The pilot wisely chooses to make a powered entry and spends 6 thrust points to do so. He must make a Piloting Skill Roll with a Powered Entry Modifier of +5. That means he needs a roll of 10 or greater to successfully enter the atmosphere. If he rolled an 11, he would end his move in the first atmospheric hex entered. His velocity would be 0, and he would have generated 9 heat points (10 - the difference between the actual die roll, 11, and the target 10). If he rolled less than 10, say 5, he failed to enter the atmosphere and must check the Failed Atmospheric Entry Table.

To get the result from this table, simply subtract the die roll from the target, in this case $10 - 5 = 5$. The 5 result means that entry failed and the fighter ends his movement in the last all-space hex of his intended movement. His facing must be away from the planet, and his velocity is 0. The fighter suffers 10 points of fuselage damage and generates 12 heat points.

MOVEMENT AT HIGH ALTITUDE

Once a craft enters the atmosphere, it has three choices: it can return to space, remain at high altitude, or move to low altitude. All craft must end one turn at high altitude. To return to space, simply turn the craft toward space and begin normal movement with an initial velocity of 1. To remain at high altitude, the craft must spend 1 thrust point and will remain in the same hex. Movement to other atmospheric ring hexes costs 2 thrust points per hex. Craft at high altitude are vulnerable to fire from any other craft in space. Facing changes do not cost thrust points at high altitude.

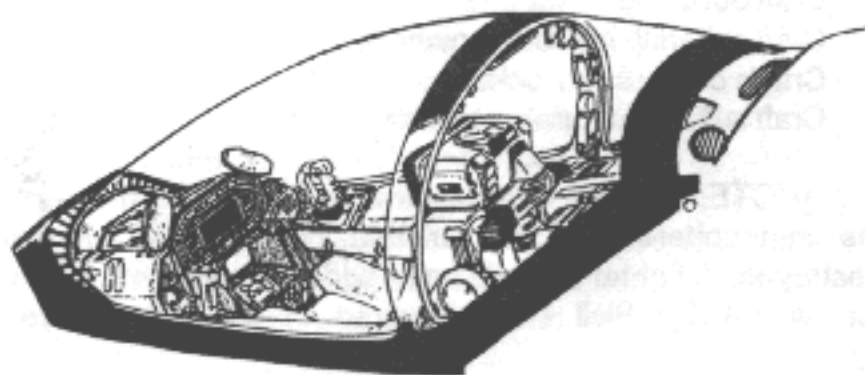
Movement to low altitude is simply a matter of dropping to ground level. Having entered the ground environment, the craft cannot be affected by any craft in space or at high altitude. It takes one turn to move from high altitude to low altitude. During that turn there can be neither attacks against the descending craft nor attacks by descending craft. Once at low altitude, the craft can fight other craft in the air, strafe ground targets, dive bomb ground targets, or land.

Craft suffering random movement at high altitude will end its turn facing in a random direction. The Dive Bomb Scatter Table should be used to determine the new facing. A craft that spends no thrust to maintain its position automatically descends to low altitude.

MOVEMENT AT LOW ALTITUDE

Although there is little or no friction to affect the velocity of a craft in space, friction and drag play a large part in movement in the atmosphere. At low altitude, a craft must spend 1 thrust point per hex moved. A free one-hexside facing change is allowed according to the table below. The table is based on velocity, and simply says that a craft has a tighter turning arc when moving slower. This also means that it may not make any without travelling the required number of hexes. This restriction applies only to normal one-hexside turns, and not to special maneuvers.

LOW ALTITUDE TURN TABLE	
Velocity	Minimum Number of Hexes of Straight Movement/Turn
1-3	1
4-6	2
7-10	3
11-15	4
16+	5



For example, a fighter with a velocity of 5 must move two hexes before making a turn, but that turn will be free. A fighter with a velocity of 9 must move three hexes before turning.



A craft that moves or is forced to move 0 hexes must try to land.

SPECIAL MANEUVERS

In addition to free turns, the atmosphere makes several acrobatic maneuvers possible. The following diagrams show these maneuvers and their thrust cost. They can be attempted at any time during a fighter's movement. Certain maneuvers require a *Piloting Skill Roll*, which is modified by the difficulty. A successful skill roll results in the fighter moving as shown by the solid lines in the diagram. A failed roll results in the movement indicated by the dotted lines.

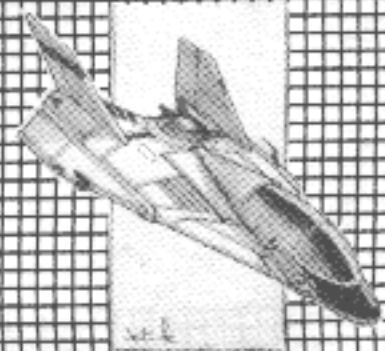
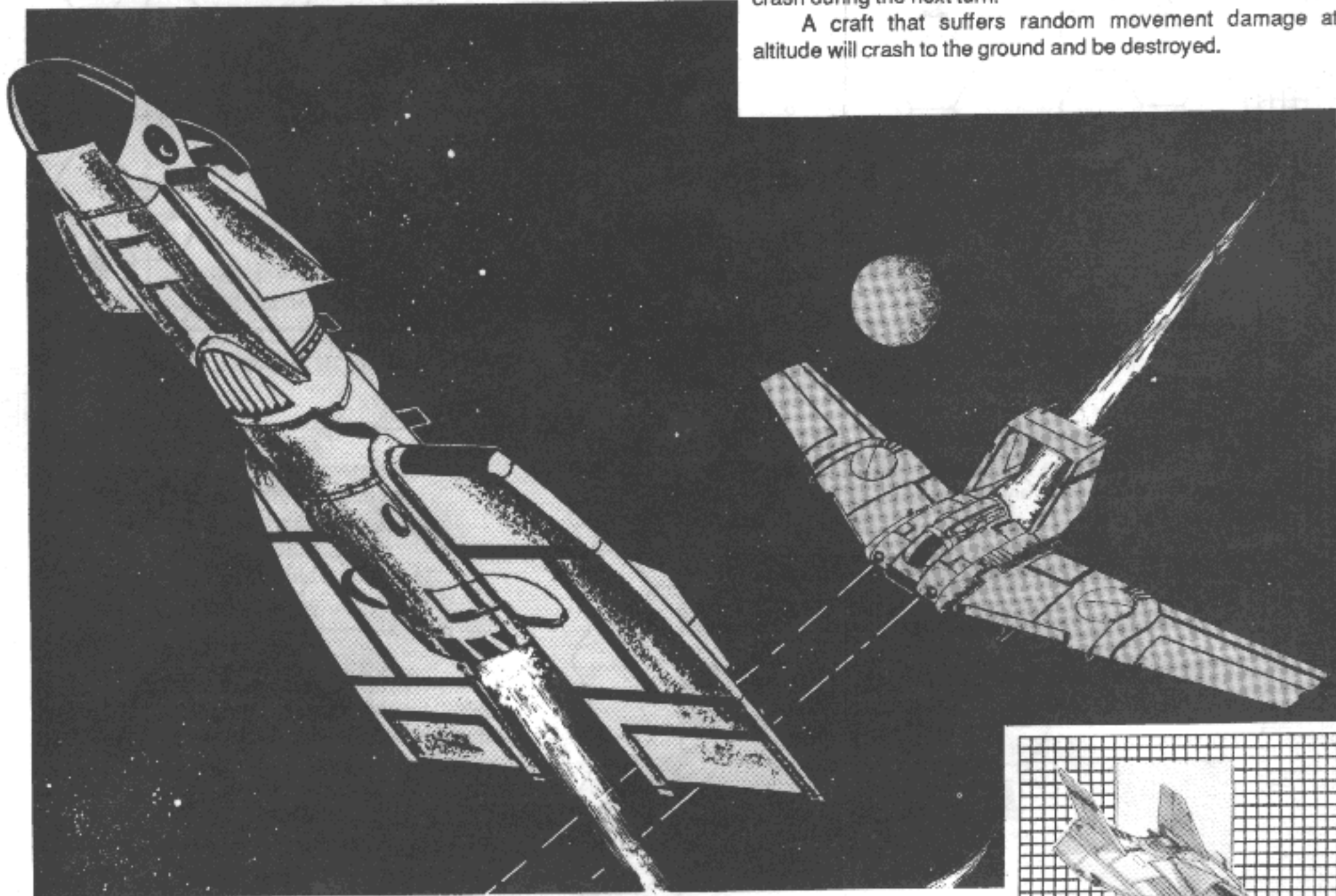
SPECIAL MANEUVERS TABLE

Maneuver	Thrust Required	Skill Roll Modifier
1	4	+2
2	4	+2
3	3	+1
4	3	+1
5	3	+1
6	4	+2
7	4	+2
8	3	+2
9	3	+2
10	2	0
11	2	0

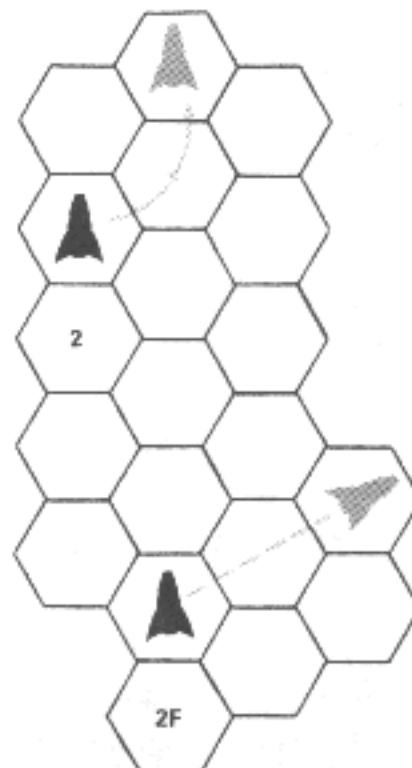
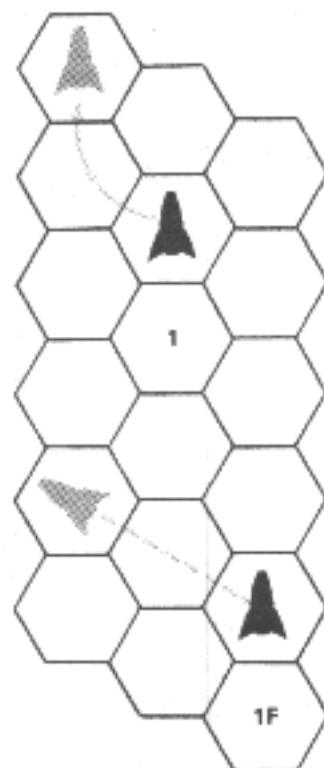
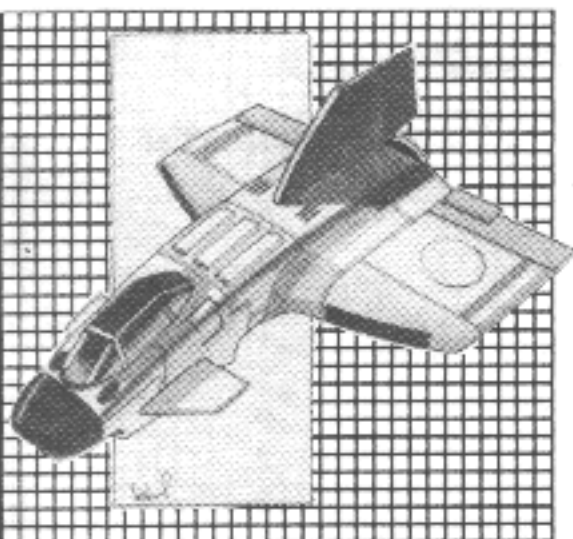
See diagrams on page 12 for actual maneuvers and failure results.

There are many more different forces acting on a craft in the atmosphere. Therefore, players must make SI rolls for every game turn in which the total thrust spent during the whole turn exceeds the current SI. A pilot who blacks out during flight at low altitude must recover on his first attempt or his craft will crash during the next turn.

A craft that suffers random movement damage at low altitude will crash to the ground and be destroyed.



SPECIAL MANEUVERS AT LOW ALTITUDES



LANDING

Several things must occur for a craft to land. It must first enter the atmosphere, and end one turn at high altitude. It then spends one turn travelling to low altitude. The craft must spend one complete turn at low altitude (note that this turn lasts only ten seconds and not one minute, as a high altitude turn). The fighter must be moving only one hex and make a successful *Piloting Skill Roll* to actually land. The *Piloting Skill Roll* is modified by several factors, as noted in the following tables:



STRUCTURAL INTEGRITY MODIFIER TABLE

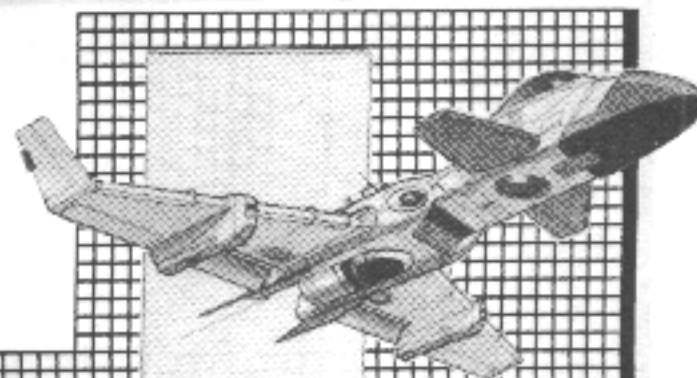
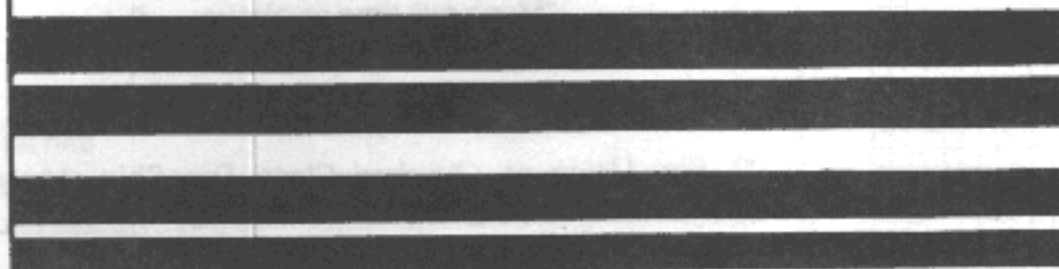
Starting SI	Current SI																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	0																
2	5	0															
3	7	3	0														
4	8	5	3	0													
5	8	6	4	2	0												
6	8	7	5	3	2	0											
7	9	7	6	4	3	2	0										
8	9	8	6	5	4	3	2	0									
9	9	8	7	6	5	4	3	2	0								
10	9	8	7	6	5	4	3	2	1	0							
11	10	9	8	6	6	5	4	3	2	1	0						
12	10	9	8	7	6	5	4	3	2	2	1	0					
13	10	9	8	7	6	5	4	3	3	2	2	1	0				
14	11	10	9	7	7	6	5	4	3	2	2	2	1	0			
15	11	10	9	8	7	6	5	4	3	3	2	2	1	1	0		
16	11	10	9	8	7	6	5	4	4	3	3	2	2	1	1	0	
17	12	11	10	9	8	7	6	5	4	3	3	3	2	2	1	1	0

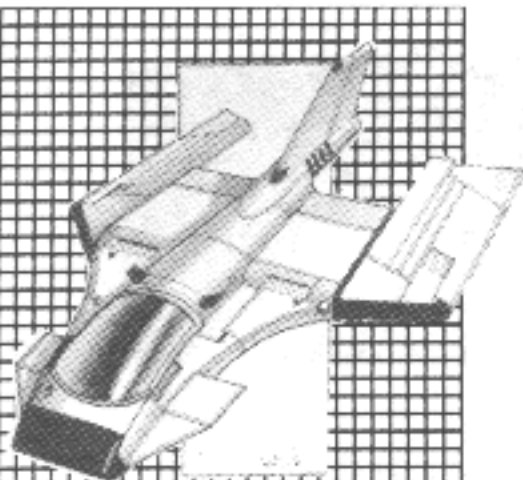
To find the SI modifier to the landing *Piloting Skill Roll*, simply cross-reference the craft's starting and current Structural Integrity values, and read off the number.

LANDING MODIFIERS TABLE

Effect	Modifier
Craft Condition Modifiers	
Craft under movement restriction	+4
If craft's nose armor is destroyed	+2
If craft has lost 1/2 thrust capability	+2
If no thrust is available	+4
If no thrust is available on <i>Union</i> or <i>Overlord</i> DropShips	+8
Terrain Modifiers	
Craft landing in manned, friendly airfield	-2
Craft landing in unmanned, friendly airfield	-1
Craft landing road or other concrete surface	0
Craft landing on unfriendly airfield	+1
Craft landing in open, clear hex	+2
Craft landing in water hex	+3
Craft landing in elevated hex	+3
Craft landing in light woods	+4
Craft landing in heavy woods	+5

If the *Piloting Skill Roll* is successful, then the craft lands with no problem. If the skill roll fails, consult the Failed Landing Table. The entry line on the table is the amount by which the skill roll missed.





FAILED LANDING TABLE

Difference between
Piloting Skill Roll
Target and Actual
Skill Roll

Effect

1	Landing gear crushes. Take 10 damage points on the front table.
2	Landing gear crushes. Take 10 damage points on the front table and 10 damage points on one wing. One door destroyed on DropShip.**
3	Landing gear crushed. Take 20 damage points on the front table and 15 damage points in one wing. Two doors destroyed on DropShip.**
4	Crash. Pilot escapes with no damage. If DropShip, all 'Mechs are O.K. but will take 1D6+6 turns to get out.
5	Crash. Pilot takes 1 hit. If DropShip, roll 2 dice for each 'Mech. If result is a 2, 3, 11, or 12, the 'Mech is destroyed.
	'Mech exit time: 1D6 + 6 turns.
6	Crash. Pilot takes 3 hits. If DropShip, roll 2 dice for each 'Mech. If result is a 2-4 or 10-12, the 'Mech is destroyed.
	'Mech exit time as above.
7	Crash. Pilot takes 4 hits. If DropShip, roll 2 dice for each 'Mech. If result is a 2-5 or 9-12, the 'Mech is destroyed.
	'Mech exit time as above.
8+	Crash. Craft explodes on impact. No survivors.

** For Union or Overlord Class DropShip, apply damage to aft tables instead of front tables.

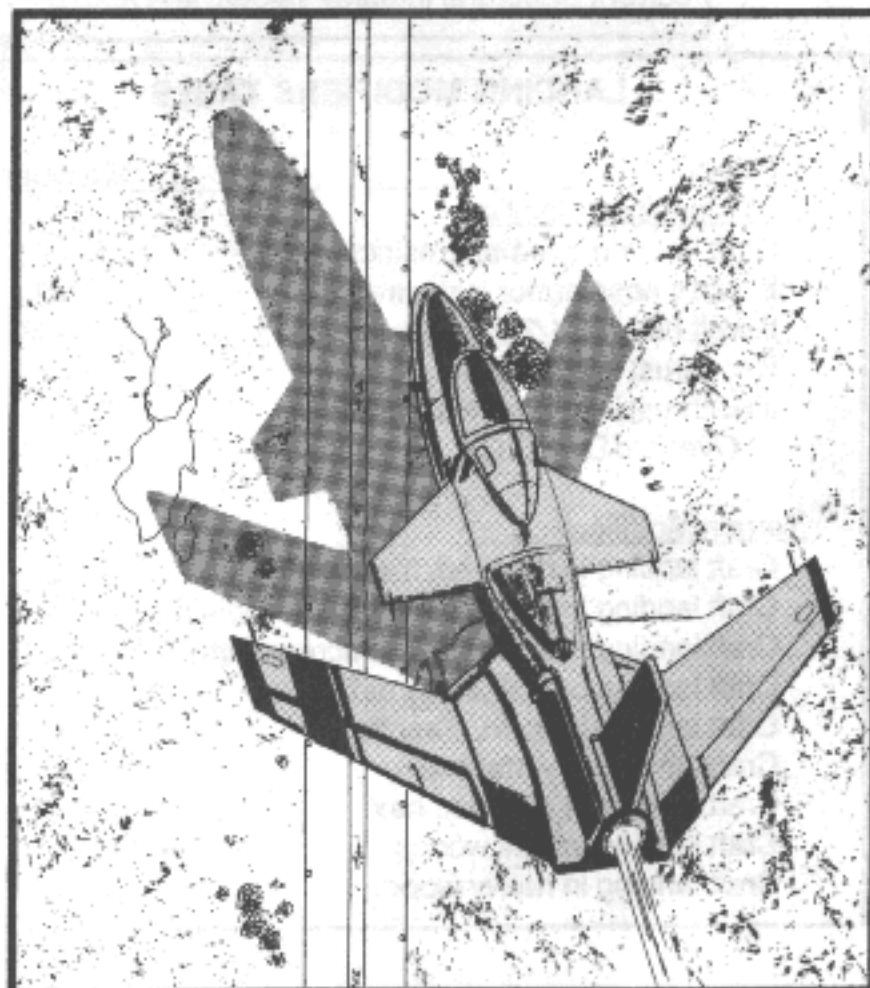
If the landing terrain is not known, the following table can be used:

RANDOM LANDING TERRAIN TABLE

Die Roll	Terrain Type
2-3	Heavy Woods
4-5	Light Woods
6	Elevated Terrain
7	Water
8	Open terrain
9-10	Road or other concrete surface
11	Unmanned airfield
12	Manned airfield

There is a +4 modifier to this table if the planet is the home of the craft.

For example, a fighter with an initial SI of 10 and a current SI of 7 wants to land immediately. The best spot is a clear field. After spending one turn in low altitude, the pilot can attempt the landing. The Piloting Skill Roll required is $5 + \text{the SI modifier of } 3 + \text{a terrain modifier of } 2 = 10$. If a 10 or better is rolled, the fighter lands successfully. If, for example, a 6 were rolled, the player would have to consult the Failed Landing Table. The entry line equals the target number (10) minus the actual die roll (6). In this case, a 4 results. The table says that the pilot crashed and completely destroyed his fighter during the landing, but that he escaped unharmed.



COMBAT

The object of any battle is to prevent the enemy from obtaining his objective. In most cases, this is accomplished by trying to destroy the enemy. In **AeroTech**, the combatants usually consist of fighters, DropShips, and sometimes ground targets and dropping 'Mechs.

FIRING WEAPONS

Weapons attacks inflict damage to the armor of aerospace craft. When the armor is gone, the structural integrity and internal components of the craft take damage. When their structural integrity is reduced to 0, craft are destroyed.

Once a successful attack has been made, find the damage location and record the damage.

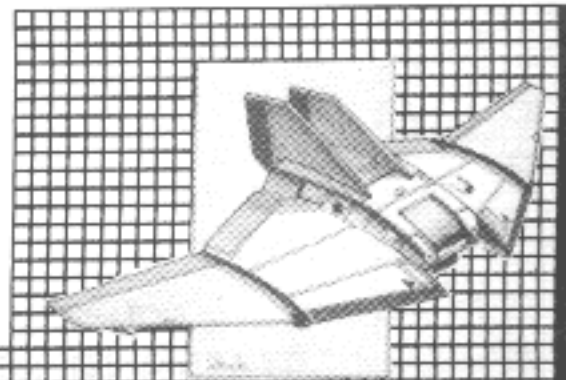
The combat rules describe the assortment of energy weapons, ballistic weapons, and missile launchers available to an aerospace craft. Every weapon has its own short, medium, and long range, its own damage effects, and its own heat generation rating. In addition, the aerospace craft has limited ammunition available for its missile launchers and ballistic weapons. The characteristics of each weapon are listed in the Weapons Table.

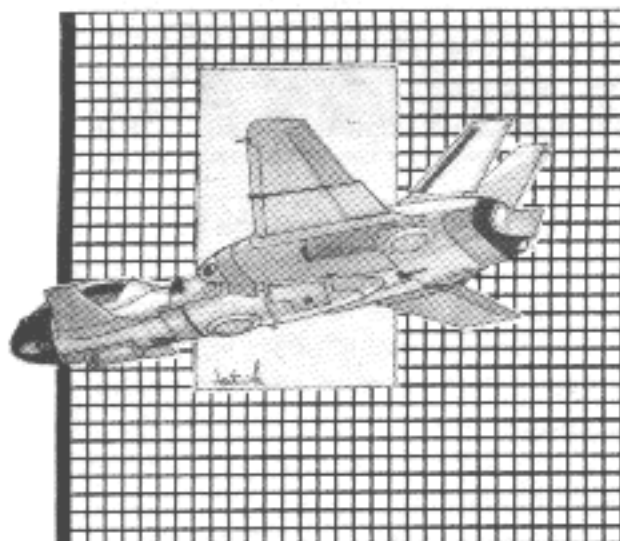
WEAPONS TABLE

Type	Heat	Damage	Minimum	Short	Medium	Long	Tons	Shots/Ton
Base To-Hit Number				6	8	10		
Small Laser	1	3	-	1	2	3	.5	
Medium Laser	3	5	-	1-3	4-6	7-9	1	
Large Laser	8	8	-	1-5	6-10	11-15	5	
Particle Cannon	10	10	3	1-6	7-12	13-18	7	
Auto Cannon/2	1	2	4	1-8	9-16	17-24	6	45
Auto Cannon/5	1	5	3	1-6	7-12	13-18	8	20
Auto Cannon/10	3	10		1-5	6-10	11-15	12	10
Auto Cannon/20	7	20		1-3	4-6	7-9	14	5
Machine Gun	0	2		1	2	3	.5	200
Flamer	3	2		1	2	3	1	
Long Range Missiles								
5-pack	2	*	6	1-7	8-14	15-21	2	24
10-pack	4	*	6	1-7	8-14	15-21	5	12
15-pack	5	*	6	1-7	8-14	15-21	7	8
20-pack	6	*	6	1-7	8-14	15-21	10	6
Short Range Missiles								
2-pack	2	**		1-3	4-6	7-9	1	50
4-pack	3	**		1-3	4-6	7-9	2	25
6-pack	4	**		1-3	4-6	7-9	3	15

* LRM missiles do 1 point of damage per missile that hits

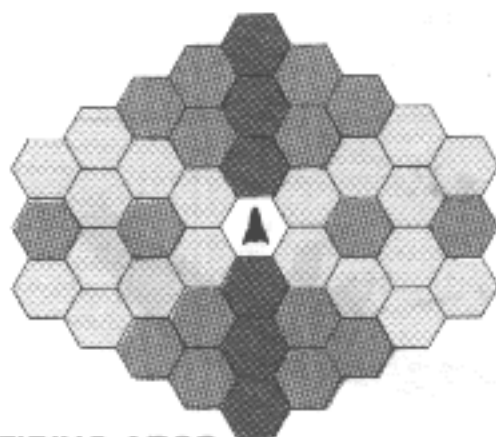
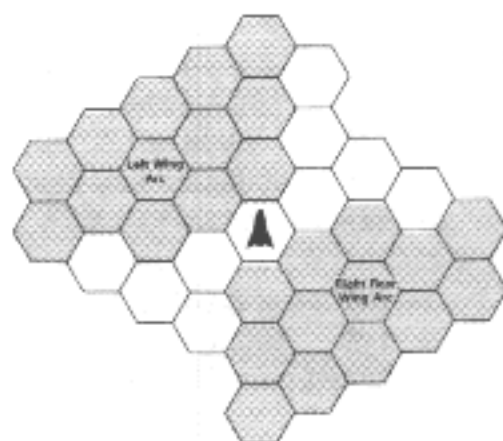
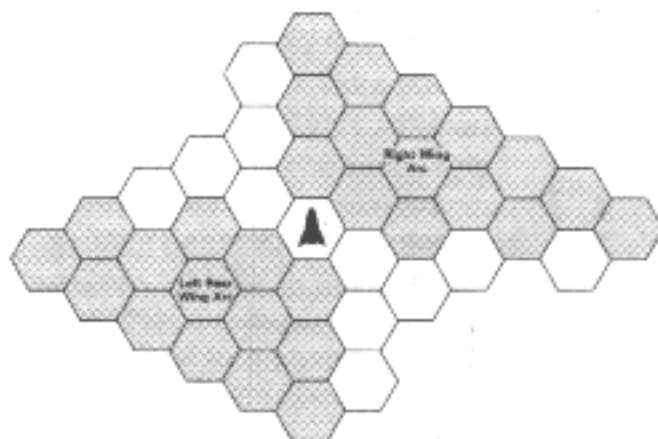
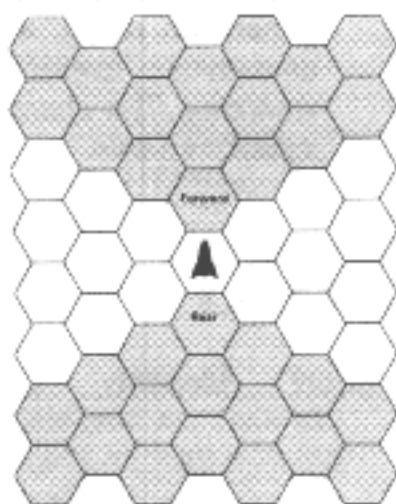
** SRM missiles do 2 damage points per missile that hits





FIRING ARCS

There are six basic firing arcs for aerospace craft, as shown in the following diagram. Only DropShips have rear starboard and rear port firing arcs. Because all weapons are mounted rigidly on aerospace craft, they can only fire at targets in their designated firing arcs.

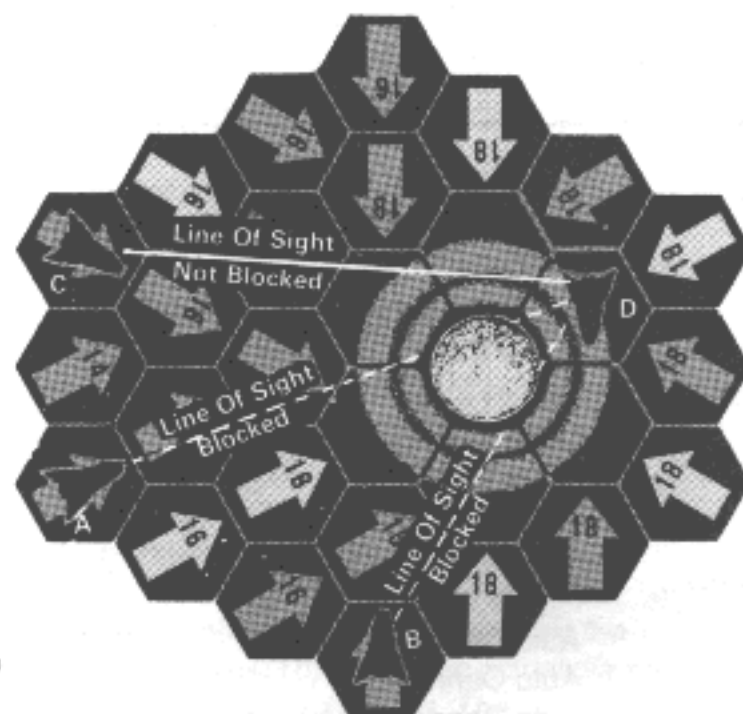


COMBINED FIRING ARCS

LINE-OF-SIGHT

Line-of-sight rules are very simple in space because there are only three types of terrain: open space, the atmosphere, and planets and moons. Only planets and moons block line-of-sight. Fighters and DropShips do not.

Whenever an imaginary line drawn from the center of the attacker's hex to the center of the target's hex intersects or touches a planet or moon hex, line-of-sight is blocked and no weapons fire is allowed.



For example, if a fighter in Hex A wanted to fire at a target in Hex D, a LOS check would have to be made. In this case the imaginary line drawn from the center of Hex A to the center of Hex D clearly intersects the planet and LOS is blocked.

The LOS for the fighter in Hex B firing at the target in Hex D is also blocked as the imaginary line touches the planet hex.

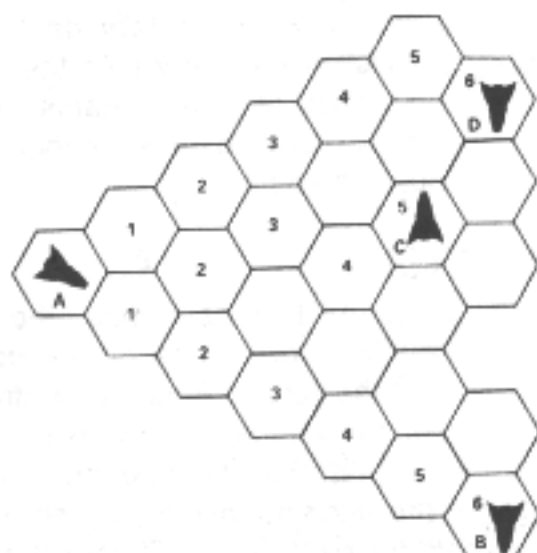
The fighter in Hex C has a clear line-of-sight as the imaginary line comes very close to the planet hex but does not intersect, run along, or touch it.

RANGE

Range is the distance between the attacking aerospace craft and its target. It is also the distance a weapon can fire. The range is determined by counting the number of hexes from the firing craft to its target, including the target's hex. Begin at the hex next to the attacker along the line-of-sight and follow the shortest path to the target. The range has an effect on how easy or difficult it is to hit the target, with distant targets generally being harder to hit.

The ranges for all weapons are listed in the Weapons Table. A weapon's maximum range is divided into thirds for its short, medium, and long ranges.

Weapons fire is not allowed if the range is 0, i.e., the two combatants are in the same hex.



The range from the attacker in Hex A to the target in Hexes B and D is 6 and to the target in Hex C, 5.

MULTIPLE TARGETS

Very rarely will a single target be in the firing arc or field of fire of all three forward arcs. More often, there will be several targets in a variety of firing arcs. It is up to the pilot to decide which weapons to fire at which targets. Although he may fire at more than one target in a single turn, hitting any target but the first is more difficult. There is a +1 To-Hit Modifier for any shot at a second or third target during one game turn. This modifier is not cumulative, i.e., the modifier for the third target is still only +1. DropShips ignore the multiple target modifier.

TO-HIT PROCEDURES

Firing can begin after a player has determined that a target is within range and that there is a clear line-of-sight.

The first step is to determine the Base To-Hit Number of the craft's weaponry, which is determined by range. For each weapon he intends to fire, the player must count the range and consult the Weapons Table. If the target is concealed by atmospheric hexes or the attacker's craft has been damaged, the Base To-Hit Number increases to become the Modified To-Hit Number. The attacker rolls two dice. If the result is equal to or greater than the Modified To-Hit Number, the shot hit. If the Modified To-Hit Number is 13 or more, the attack is automatically a miss.

BASE TO-HIT NUMBER

The Base To-Hit Number for all weapons depends on the range and the AeroSpace Pilot's Gunnery Skill. For every Gunnery Skill Level above or below 4, the Base To-Hit Number is increased or decreased by 1. The lower the Gunnery Skill Level, the lower the Modified To-Hit Number. To find the Base To-Hit Number, first count the range between the attacking craft and its target, using the shortest path and counting the target's hex but not the attacker's hex. Next, consult the Weapons Table for the weapon being fired. Find the range in the row of numbers for the weapon, and determine if the range is short, medium, long, or out of range. Then, consult the Base To-Hit

Table to find the Base To-Hit Number.

The Base To-Hit Number is higher in AeroTech than in other Tech games. This is because the targets are often thousands of kilometers away, requiring the use of more sophisticated fire-control computers. Even so, the MechWarrior who can actually see his target still has an easier chance to hit his target.

BASE TO-HIT TABLE	
Range	Base To-Hit Number
Short	6
Medium	8
Long	10

ATMOSPHERIC MODIFIERS

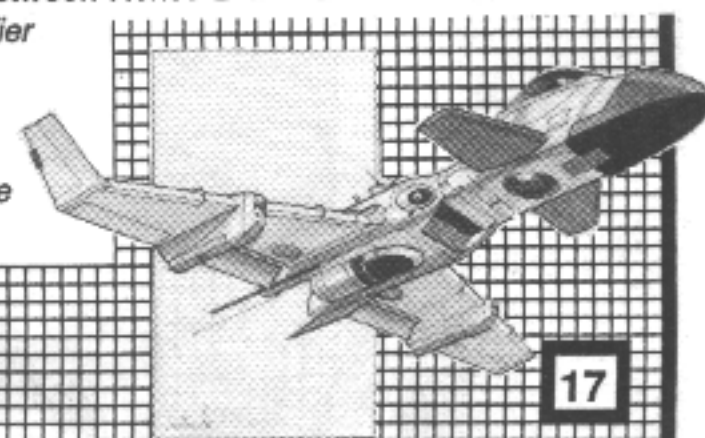
Whenever a craft must fire into, out of, or through the atmosphere, the Pilot must take into account atmospheric effects. If a craft is in an atmospheric hex and is firing at a target in space (a non-atmospheric hex), there is a +2 To-Hit Modifier. If a craft in space is firing at a target in the atmosphere (at high altitude), there is also a +2 To-Hit Modifier. If the line-of-sight from attacker to target passes through atmospheric hexes, there is a +1 To-Hit Modifier for each atmospheric hex, not including any atmospheric hex occupied by either the target or attacker. This hex adds the regular +2 To-Hit Modifier for firing into or out of the atmosphere. Craft in the atmosphere at high altitude or in space cannot hit craft in the atmosphere at low altitude.

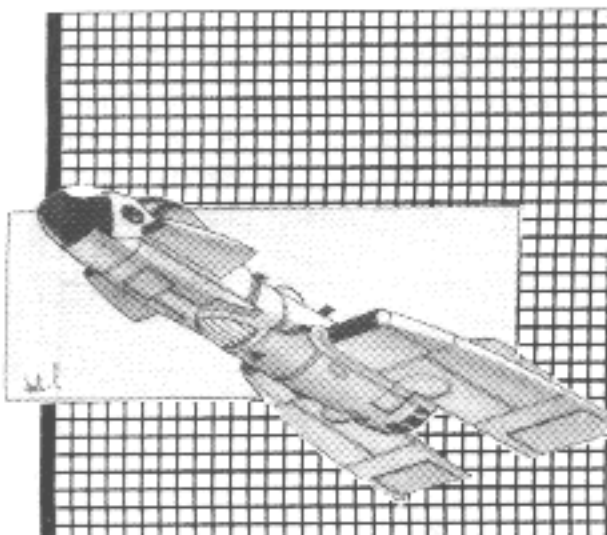
There is no atmospheric modifier if both attacker and target are in the atmosphere, either at high or low altitude.



In this example, the fighter in Hex D would have a +2 To-Hit modifier when firing at hex B. This is because it is firing out of an atmospheric hex. A fighter in Hex B would have the same modifier if firing at Hex D. If the fighter in Hex D fired at Hex A the To-Hit modifier would be +3(+2 because it is firing out of an atmospheric hex and +1 for each atmospheric hex fired through). Combat between Hex C and Hex D would have no atmospheric modifier because both are in the atmosphere at high altitude.

Combat between Hexes B and E would have a To-hit modifier of +2 (+1 for each atmospheric hex crossed by the line-of-sight).





MODIFIED TO-HIT NUMBERS

The Modified To-Hit Number is the Base To-Hit Number plus all modifiers for *Piloting* skill, atmospheric interference, and any heat or other effects on the craft's condition. If the Modified To-Hit Number is 13 or greater, the shot is an automatic miss.

TO-HIT ROLL

The To-Hit Roll is made with two dice. If the number rolled is equal to or greater than the Modified To-Hit number, the shot is successful.

MISSILE HITS

When a missile launcher attack is successful, the damage depends on exactly how many of the fired missiles actually reached the target. During the Succession Wars, missile guidance technology for tactical combat is extremely primitive and not at all dependable.

The Modified To-Hit Number is calculated and the To-Hit Roll made just as for other weapons, but the combat procedure has one extra step. If a missile launcher attack hits its target, the attacking player must then roll two dice and consult the Missile Hit Table to find out how many missiles hit.

First, find the number of missiles fired on the top row of the table. Run a finger down this vertical column until it intersects the horizontal row corresponding to the die roll. The number at the intersection is the number of missiles that actually hit the target.

MISSILE HIT TABLE

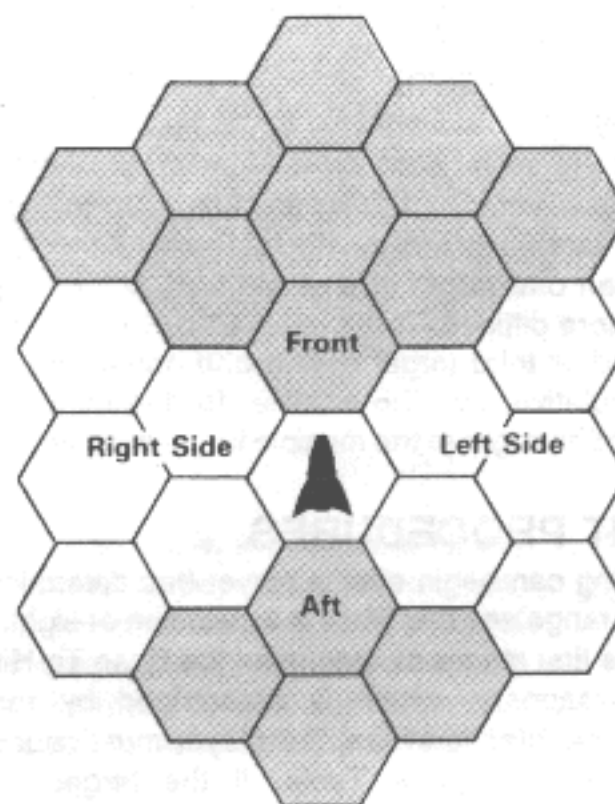
Die Roll	Number of Missiles Fired						
	2	4	5	6	10	15	20
2	1	1	1	2	3	5	6
3	1	2	2	2	3	5	6
4	1	2	2	3	4	6	9
5	1	2	3	3	6	9	12
6	1	2	3	4	6	9	12
7	1	3	3	4	6	9	12
8	2	3	3	4	6	9	12
9	2	3	4	5	8	12	16
10	2	3	4	5	8	12	16
11	2	4	5	6	10	15	20
12	2	4	5	6	10	15	20

AMMUNITION

Missile launchers, machine guns, and auto cannons possess limited amounts of ammunition. The Record Sheet for each craft should indicate the number of times a given weapon can fire before it is out of ammunition. The player keeps a tally on the Record Sheet, making a check mark every time the weapon is fired. When the number of check marks equals the amount of ammunition carried, the weapon is out of ammunition and out of the game.

HIT LOCATION

When a weapon or missile hits, the attacking Player must determine whether he hit the front, back, left, or right side of the target. First, lay a straightedge from the center of the attacker's hex to the center of the target's hex. Find the hexside crossed by the straightedge on the accompanying diagram to find the side of the craft hit by the fire. If the straight edge exactly crossed the joint between two sides, the defender chooses which side is hit by the attack.



DETERMINING HIT LOCATION

To determine the exact location of the hit, the attacker should roll both dice and consult the appropriate column of the Hit Location Table for each weapon that hits and for each short-range missile that hits. Long-range missile hits, however, are a special case, and the attacker should roll once for every five that hit the target. If the number of missiles that hit a defending craft cannot be evenly divided into groups of five, the attacker should make as many groups of five as he can, and roll once for those left over.

HIT LOCATION TABLE

Die Roll	Front	Aft	Left/Right Side
2	Cockpit/Bridge	Engine/Critical	Cockpit/Bridge
3	Nose/Weapon out	Fuselage/Control	Wing/Weapon Out
4	Fuselage	Fuselage/Heat Sink	Engine/Heat Sink
5	Right Wing	Right Wing	Fuselage/Bomb
6	Nose	Engine	Wing
7	Nose	Fuselage/Heat Sink	Fuselage/Door
8	Nose	Engine	Wing
9	Left Wing	Left Wing	Nose
10	Fuselage/Bomb	Fuselage/Heat Sink	Engine/Heat Sink
11	Nose/Weapon Out	Fuselage/Control	Wing/Weapon Out
12	Cockpit/Bridge	Engine/Critical	Engine/Critical

Table Explanations:

General: Damage is marked off the designated location. Extra effects are noted below.

/Bomb: The heaviest bomb carried by the fighter is destroyed. The movement penalty is still in effect. If no bombs are carried, there is no effect.

/Bridge: Affects DropShips only. Roll on the Bridge Hit Table. Damage is marked off against the Nose.

/Critical: A roll must be made on the Engine Critical Hit Table.

/Control: Affects Fighters only. Roll on the Control Surface Hit Table and take the resulting movement restriction.

/Weapon Out: The craft loses 1 weapon from the damaged location. If no weapon remains, there is no effect. The defending player chooses the weapon to be destroyed.

/Heat Sink: The craft loses 1 heat sink.

/Door: Affects DropShips only. One DropShip door is damaged. No 'Mech may leave by that door until groundside repairs are completed. This damage reduces by one the number of 'Mechs that may be dropped in one turn. Roll one six-sided die. On a result of 1 or 2, a fighter door has been damaged.

CONTROL SURFACE HIT TABLE

Die Roll	Effect
2	Random movement. Velocity increases by current thrust rating.
3	Random movement. Velocity increases by thrust spent in current turn.
4	No left turns.
5	Random movement. Velocity increases by thrust spent in current turn.
6	No left turns.
7	Controls lock. Straight movement only.
8	No right turns.
9	Random movement. Velocity increases by thrust spent in current turn.
10	No right turns.
11	Random movement. Velocity increases by thrust spent in current turn.
12	Random movement. Velocity increases by current thrust rating.

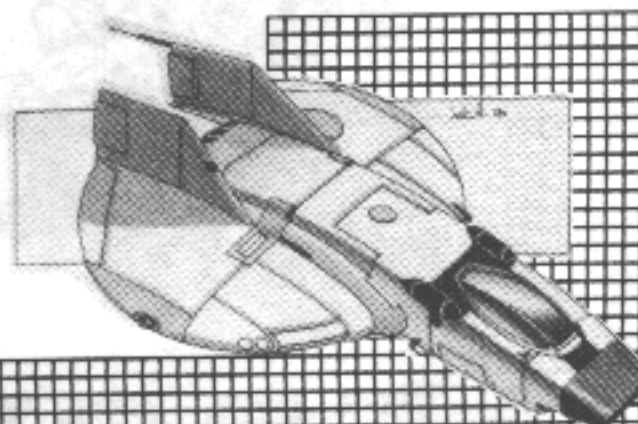
All effects are cancelled by a successful *Piloting Skill* Roll made during the next turn.

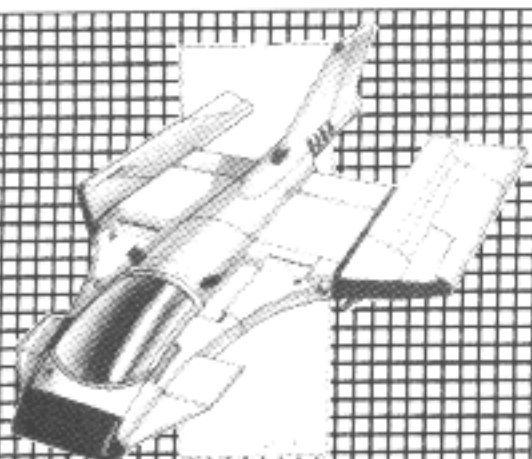
If a Random Movement result is rolled for a craft at low altitude, the craft automatically crashes, destroying everything.

RANDOM MOVEMENT TABLE

Die Roll	Effect
2	Hard left
3	Soft left
4	Hard left
5	Soft left
6	Straight
7	Straight
8	Straight
9	Soft right
10	Hard right
11	Soft right
12	Hard right

Hard = forward one hex, 120-degree or 2-hexside turn
Soft = forward one hex, 60-degree or 1-hexside turn





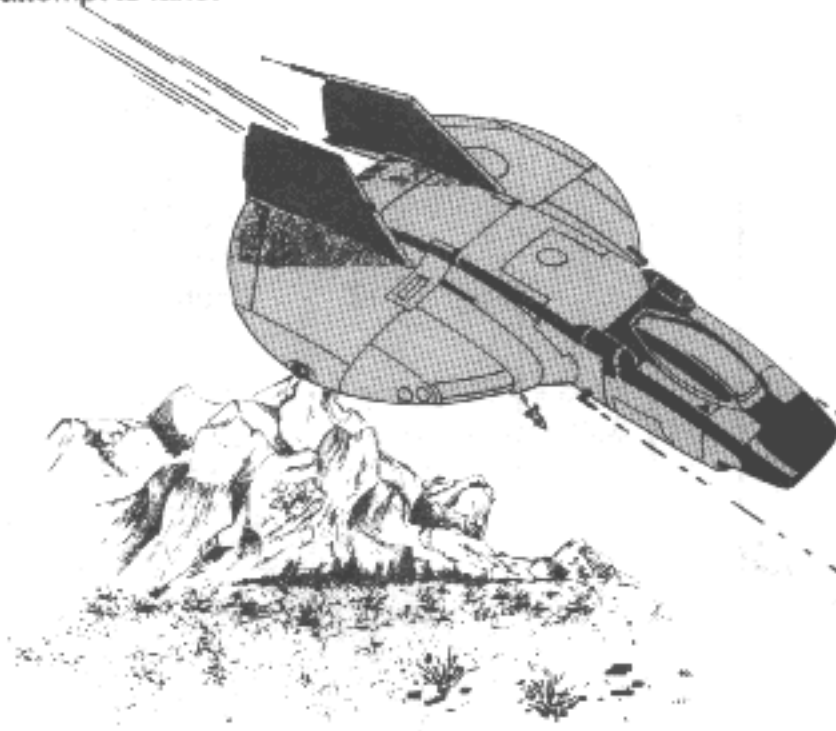
SI rolls must be made for random movement if the maneuver or combination of maneuver and thrust exceed the SI of the craft. Even though the pilot applied no thrust for the random turn, the maneuver's thrust rating at the current velocity is used when making the SI roll.

ENGINE CRITICAL HIT TABLE

Die Roll	Effect
2	Engine Explodes. Craft moves straight at current velocity
3	Lose one-half current thrust permanently. Control surface hit.
4	Lose one-third current thrust permanently. Control surface hit.
5	Lose one-fourth current thrust permanently.
6	-15 fuel points.
7	-10 fuel points.
8	-15 fuel points.
9	+5 heat points per turn.
10	+5 heat points per turn, control surface hit.
11	+10 heat points per turn, control surface hit.
12	Engine Explodes, craft destroyed.

Thrust point losses are rounded up and must always be at least 1 point. When an engine can no longer produce thrust, the craft must move straight at its current velocity. No weapons may fire.

A craft at low altitude that loses all thrust may attempt to land.



BRIDGE CRITICAL HIT TABLE

Die Roll	Effect
2	Bridge Destroyed. Craft continues moving straight at current velocity.
3	Control Surface Hit. Roll on Control Surface Hit Table. The result is permanent.
4	Control Surface Hit and +1 To-Hit Modifier. *
5	Control Surface Hit and +1 To-Hit Modifier. *
6	+2 To-Hit Modifier. *
7	+1 To-Hit Modifier. *
8	+2 To-Hit Modifier. *
9	Control Surface Hit and +1 To-Hit Modifier. *
10	Control Surface Hit and +1 To-Hit Modifier. *
11	Control Surface Hit. Roll on Control Surface Hit Table. The result is permanent.
12	Bridge Destroyed. Craft continues moving straight at current velocity.

* These results last until a successful *Piloting* Skill Roll is made.

DAMAGE VALUE

Every weapon gives the damage listed in the Weapons Table. Missiles do the same amount of damage for each missile at any range, but the number of missiles that hit determines the total damage done. Long-range missiles have a Damage Value of 1, and short-range missiles a Damage Value of 2 for each missile in the group.

RECORDING DAMAGE

Every time there is a weapons hit, the player of the target locates the appropriate hit location shown in the armor diagram for every point of damage given. When all the Armor boxes at that location have been crossed off, the damage is transferred to the fuselage, and the appropriate number of boxes are crossed off there.

TRANSFERRING DAMAGE

When all the armor protecting a part of a craft is gone, that part is completely destroyed. The next hit located in the destroyed location will be transferred to the fuselage at two times the normal amount. Thus, if a craft's wing armor is gone and a 10 point hit is suffered at that damaged location, 20 points of damage will be marked off the fuselage armor. When all of the fuselage armor is destroyed, damage is transferred directly to the craft's Structural Integrity.

When the Engine Armor is completely destroyed, every additional hit is marked off the fuselage at double the damage. In addition, one roll must be made on the Engine Critical Damage Table.

DESTROYING AN AEROSPACE CRAFT

When all the armor protecting one section of a craft is gone, that part is completely destroyed. All weapons and ammunition located there are also lost. In addition, the Structural Integrity of the craft has been severely weakened. For each location that has lost all its armor, subtract 2 from the SI.

There are several ways to destroy an aerospace craft. The easiest is to kill the pilot by penetrating the cockpit armor. The long way is to reduce the structural integrity to 0. The intermediate ways are through the Damage Table results of Engine Explodes and Bridge Destroyed. Any craft that does not explode and has 0 SI will drift at its current velocity until it leaves the board, hits a planet or moon, or tries to enter the atmosphere.

GROUND TARGETS

When a fighter is at low altitude in the atmosphere, he may attack other low-altitude aerospace craft or ground targets. Each hex on the low altitude map is roughly equivalent to a 22 x 17 inch **BattleTech** mapsheet. In order to attack a ground hex, a fighter must move straight for two hexes immediately prior to ending his movement in a **BattleTech** map hex. In order to hit ground targets, weapons must have a range of at least 4. There are two types of ground attack: strafing and dive bombing.

STRAFING

When a fighter ends its turn on a battlefield hex, he may announce a strafing attack during the combat phase. This is the only attack he may make during the turn. After all ground forces have completed their movement, the fighter chooses a three-hex-wide row of hexes as his strafe row. This set of hexrows must run parallel to the fighter's direction of atmospheric flight. Every ground target within the strafing row (friend and foe) is a target for the strafing craft. The Base To-Hit number is 8, modified for the pilot's *Gunnery* skill, target movement modifiers, target terrain modifiers, and the condition of the strafing craft.

All the strafing craft's energy weapons (weapons that do not require ammunition) are grouped together to determine its strafing factor, which is the amount of damage done to each target hit. This damage is divided into groups of five and rolled against the appropriate column of the Strafing Damage Table. Non-strafing weapons are allowed a single shot with each pass. The Base To-Hit Number is 8, and the modifications are the same as for a strafing attack.

A ground target can be any 'Mech, vehicle, infantry unit, or building. Units inside buildings are protected from direct fire during a strafing attack, but the building can be attacked. Units hidden inside the building will suffer the consequences of that attack.

As can be seen, strafing is a very powerful ground attack and will most certainly help decide the outcome of any ground battle. It is up to defending fighters to prevent such attacks.

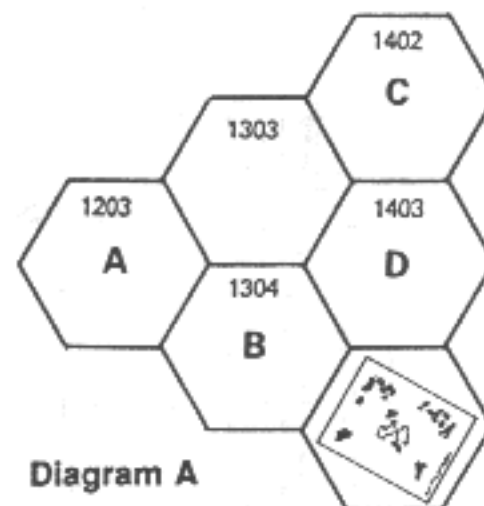
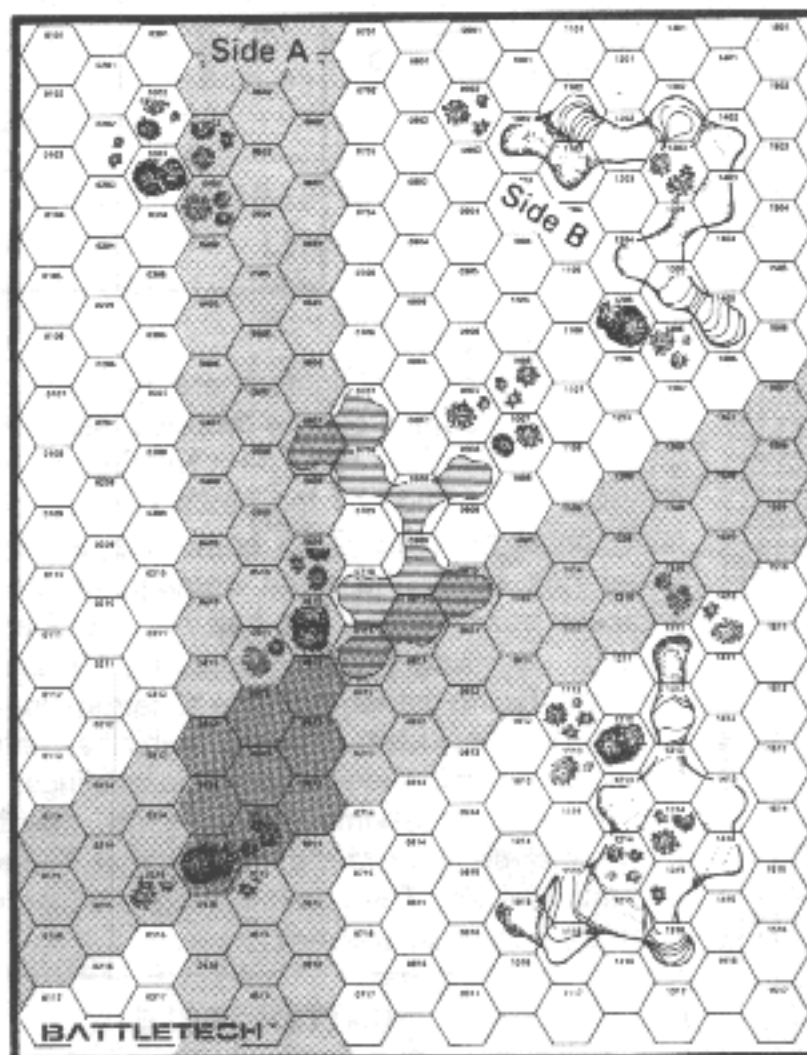
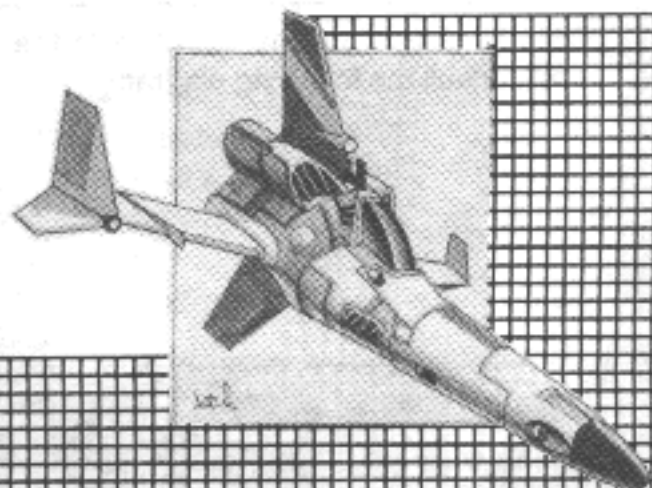


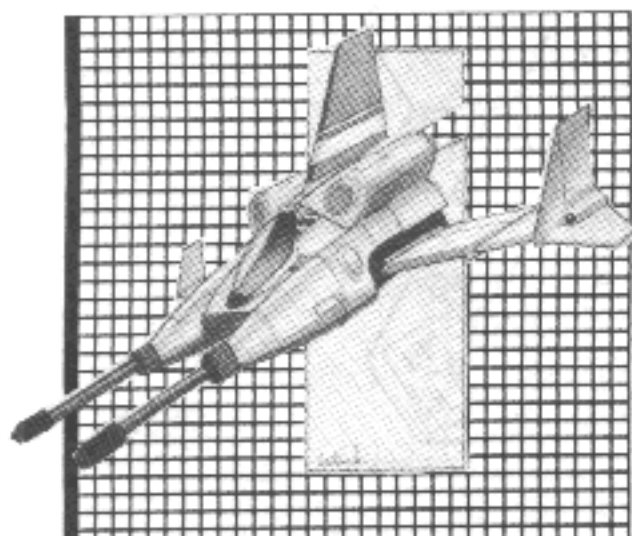
Diagram A



In this example, diagram A shows the orientation of the **BattleTech** mapsheet in relation to the low altitude mapsheet. A fighter approaching the **BattleTech** mapsheet hex along the A-B hex row would be able to choose any three hex wide row of hexes on side A of the **BattleTech** mapsheet. One such strafing row has been shaded. Every target, be it 'Mech, vehicle, building or infantry unit in the shaded area is a target for the strafing attack.

A fighter approaching the **BattleTech** mapsheet hex along the C-D hex row will pick its strafing row from side B. An example has been shaded.





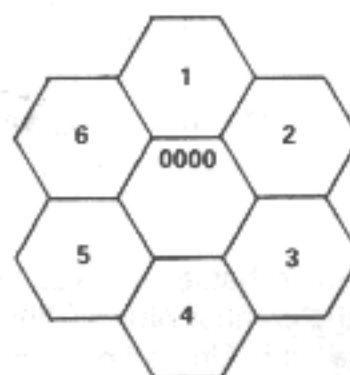
STRAFING DAMAGE TABLE

Die Roll	Left Side	Front/Back	Right Side
2	Head	Head	Head
3	Left Torso/ Critical	Center Torso/ Critical	Right Torso/ Critical
4	Left Arm	Right Leg	Right Arm
5	Left Arm	Right Arm	Right Arm
6	Left Leg	Right Torso	Right Leg
7	Left Torso	Center Torso	Right Torso
8	Center Torso	Left Torso	Center Torso
9	Right Torso	Left Arm	Left Torso
10	Right Arm	Left Leg	Left Arm
11	Left Torso/ Critical	Center Torso/ Critical	Right Torso/ Critical
12	Head	Head	Head

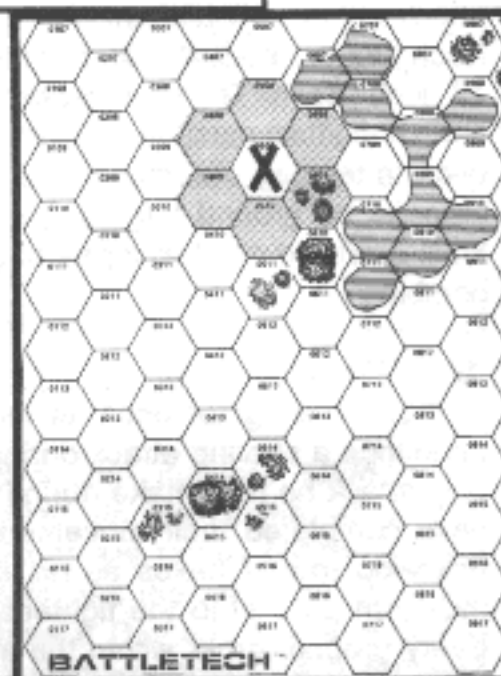
DIVE BOMBING

Most aerospace fighters are equipped with bomb racks, whose bombs can be dropped into any hex of the ground combat area. The To-Hit Number for a dive-bomb attack is 6, modified by the pilot's *Gunnery* skill and the condition of his craft. If the bomb hits, all objects in the target hex suffer the rated damage of the bomb. All adjacent hexes suffer one-half that number. The total damage is divided into groups of 10 and allocated normally. Bomb damage affects all targets in the damage area. This includes 'Mechs, vehicles, infantry, and buildings. It also includes units inside buildings.

When a dive-bomb attack misses, the bomb must hit the ground somewhere. The Scatter Table is used to find this location. The bomb will explode and do damage normally in the scattered hex.



Scatter Diagram



The diagram shows the area of effect of a Dive Bombing attack. Hex X marks the impact hex or the hex that the aerospace pilot originally aims for. If the attack is successful, all objects in the impact hex will take damage equal to the full rating of the bomb. Objects in all adjacent hexes (shaded here) will suffer damage equal to one-half the rating of the dropped bomb. If the dive bomb attack misses, the scatter table is used to find a new impact hex.

To determine the location of the scattered impact hex, roll 2 dice and reference the Scatter Table. This usually tells how many hexes away the impact hex will be. Next roll one die and reference the Scatter Diagram. This shows the direction of the impact hex. If, for example, a dive bomb attack on hex 0509 missed and the Scatter Table die roll was a 9 and the Scatter Diagram roll was a 4, the location of the new impact hex would be 0512 and all targets, friend and foe will be affected by the bomb.

SCATTER TABLE

Die Roll	Effect
2	Bomb jams on rack. Will not drop.
3	5 hexes off target
4	4 hexes off target
5	3 hexes off target
6	2 hexes off target
7	1 hex off target
8	2 hexes off target
9	3 hexes off target
10	4 hexes off target
11	5 hexes off target
12	Bomb jams on rack. No remaining bomb will drop.

To determine the direction of the miss, roll one die and consult the following diagram.

THRUST LOSS

When fighters carry heavy bomb loads, they lose maneuverability. This means that as long as a bomb is attached to the fighter, the fighter will lose thrust according to the following chart.

THRUST LOSS TABLE	
Bomb Rating	Thrust Lost
10	0.2
20	0.4
40	0.8
60	1.2
80	1.6
100	2.0

Bomb loads can be mixed and matched as the players desire. When calculating the current loss to bomb weight, all fractions are rounded up. A fighter may load as many bombs as desired as long as one full thrust point remains.

For example, a fighter with a thrust rating of 10 chooses to carry three 100-, two 40-, and one 20-damage point bombs. The total thrust lost with this full load would be 8 thrust points [(3 x 2 for the 100 pointers) + (2 x .8 for the 40 pointers) + (1 x .4 for the 20 pointer) = 8 thrust points]. That means the fighter would have a thrust rating of 2 and an overthrust rating of 3 with the full load. When the first 100-point bomb is dropped, the thrust rises to 4. The thrust rating will continue to rise as the payload is dropped.

Fighters can drop as many bombs as desired at any time during their turn. If more than one bomb is dropped during a bomb attack, separate To-Hit Rolls must be made for each individual bomb. Each bomb so dropped must have the same target hex. Intentional or unintentional drops will hit the BattleTech Mapsheet randomly. If the fighter is not over the BattleTech mapsheet during a drop, the bombs have no effect. Mass drops are particularly important if an Engine Critical Hit has lowered the fighter's thrust rating below that required to maintain flight.

INFERNO BOMBS

The normal bomb contains high explosives, and inflicts damage as above. Another type of bomb, the inferno bomb, does no explosive damage, but automatically starts fires and creates heat. Except for their damage effects, these super-napalm bombs are similar to 10-point bombs. They raise the heat levels of all objects in the impact hex by 10 heat points, automatically starting a fire. Vehicles and infantry are automatically destroyed. Objects in adjacent hexes have their heat levels raised by 5 heat points, and a fire starts on a 2D6 roll of 6 or greater. Vehicles and infantry are destroyed unless they make an Avoid Roll of 8 or greater. Any 'Mech in the affected area has been splattered with a burning gel. Unless the 'Mech can immerse itself in water of Level 1+, the heat effects will last for three turns.

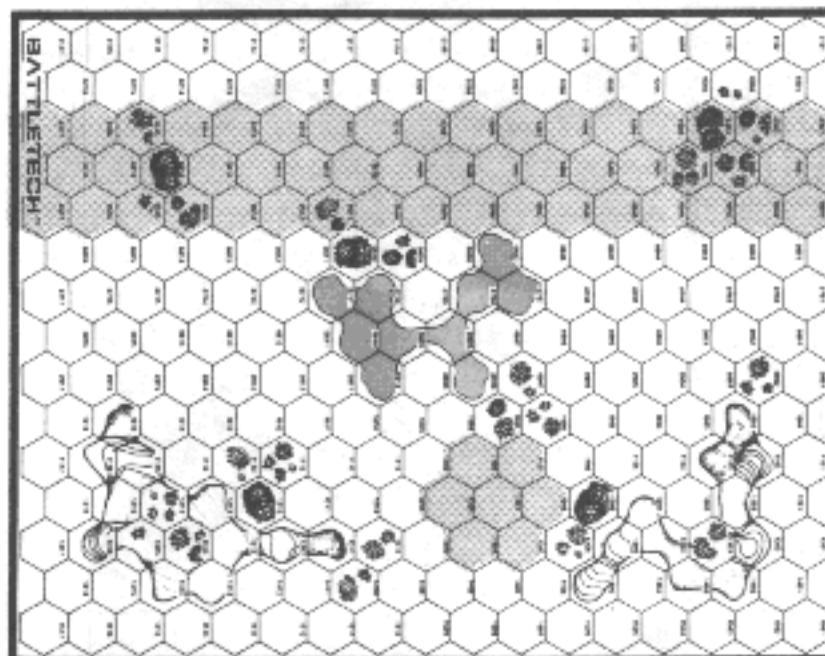
RETURN FIRE

An Aerospace Fighter that makes a ground attack is also vulnerable to fire from ground units. Any ground unit on the BattleTech Battlefield map may fire at a craft that ends its turn over the BattleTech Battlefield map. The To-Hit Number is 10, modified by *Gunnery* skill and attacker movement. There is also a -4 To-Hit Modifier if the attacker is in the fighter's strafing row or is unfortunate enough to be in the fighter's dive-bomb target area. A ground unit that fires at a fighter may not make an attack against any other unit. Any weapon with a range of 6 or more may fire. The damage location area on the fighter is determined on the Damage From Ground Fire Table. Damage is then allocated in the appropriate column of the normal damage table. All fire from an individual 'Mech will hit the fighter in the same area.

AEROSPACE CRAFT DAMAGE FROM GROUND FIRE

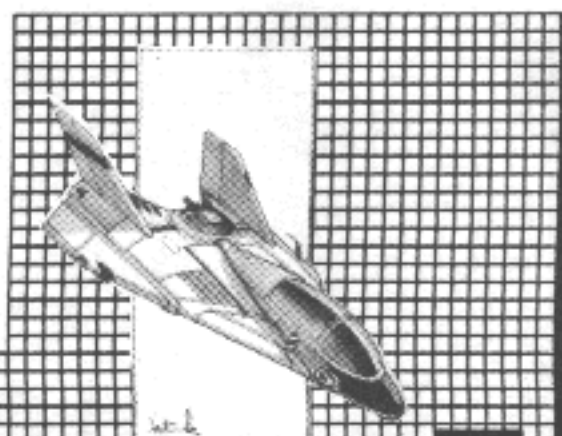
Die Roll	Left/Right Side Attack	Strafing/Target Area Attack
1	Front Side	Front Side
2	Front Side	Front Side
3	Left/Right Side	Front Side
4	Left/Right Side	Left Side
5	Left/Right Side	Right Side
6	Rear	Rear

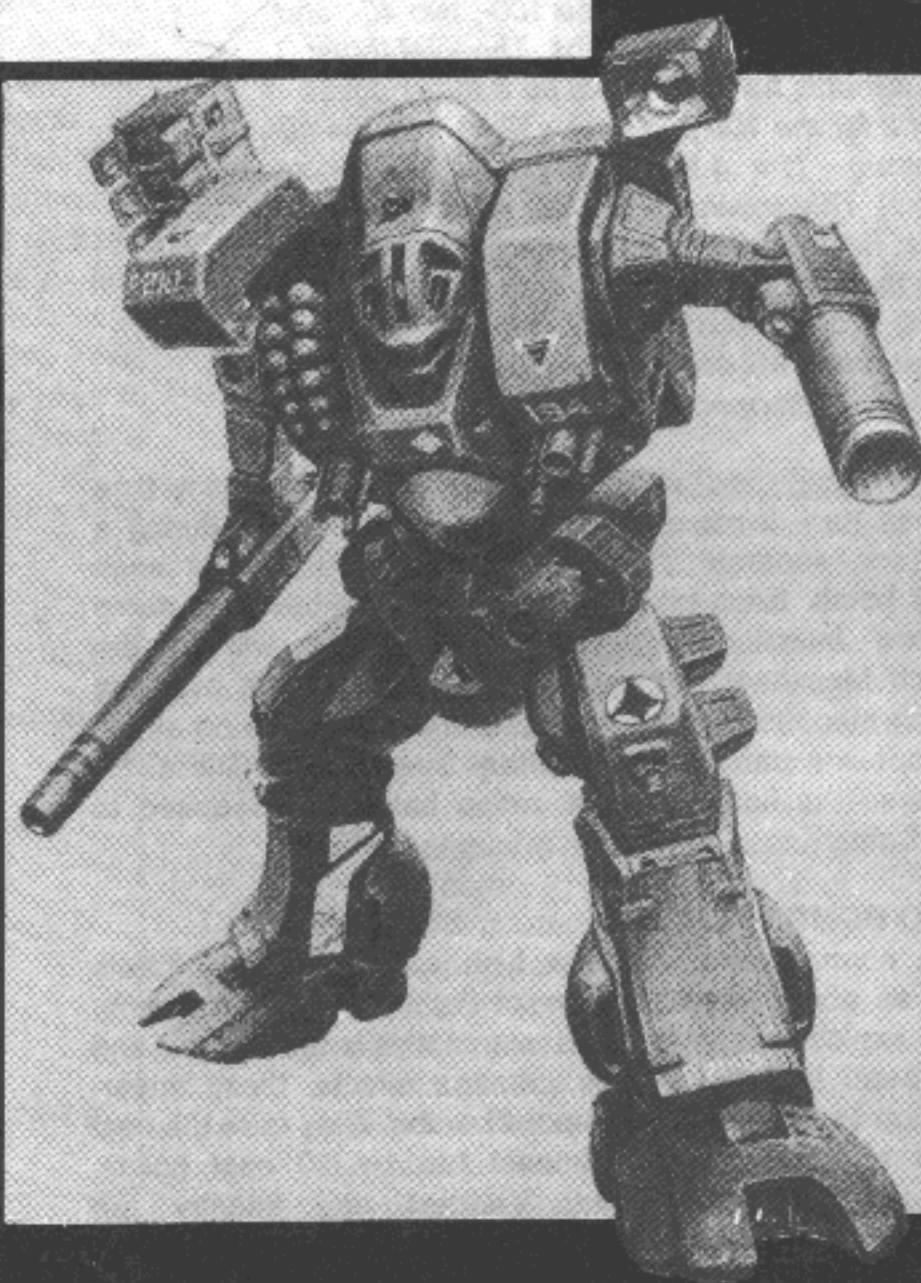
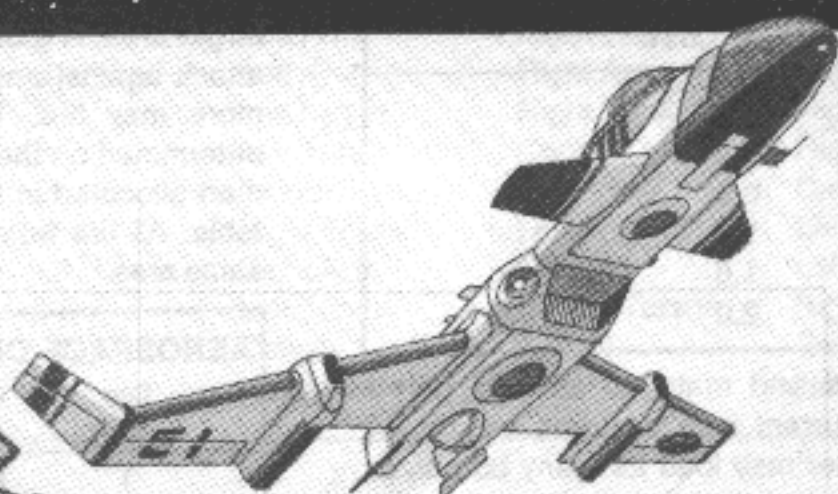
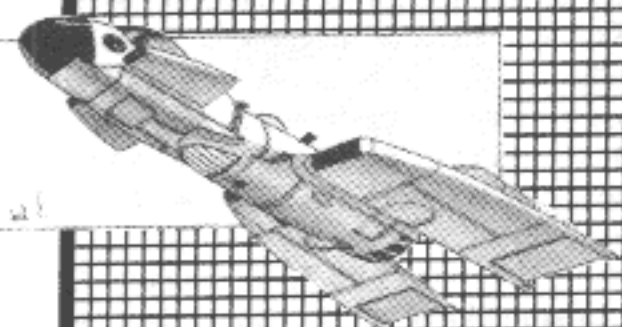
When an Aerospace Fighter makes a ground attack, it becomes vulnerable to attack from other fighters. There is a -3 To-Hit Modifier for all fighter attacks against a fighter who is attacking a ground target.



In this example a fighter is strafing the shaded row of hexes. Any ground unit occupying a shaded hex and firing at the fighter receives the -4 To-Hit modifier. Any unit outside of the shaded hex rows, firing at the fighter does not receive any such modification.

The same is true for dive bomb attacks. Any ground unit in the affected area (shown shaded here), will receive the -4 To-Hit modifier and all others will not.





HEAT

Like BattleMechs, Aerospace Fighters have problems with heat. In space, radiation is the only way to dissipate heat generated by the craft's electronics, weapons fire, and overthrust. To help eliminate heat, all fighters are fitted with extensive arrays of heat sinks.

Even so, a high rate of activity usually produces more heat than the craft can dissipate. As a fighter's internal heat increases, its movement can become erratic and its weapons fire less accurate. If its internal heat reaches too high a level, ammunition carried by the fighter may explode. Its fusion reactor, which is the fighter's main power plant, may shut down, causing the craft to drift in space until the heat level is reduced. The Pilot may even suffer damage.

HEAT POINTS

The number of heat points built up by a fighter craft determines its internal heat. The greater the number of heat points, the greater the internal heat. The player keeps track of heat-point build-up on the AeroTech Record Sheet, marking off boxes in the column labelled 'Heat Scale'. The Heat Scale runs from 0 to 30. As a fighter's internal heat reaches various points on the Heat Scale, it will suffer the adverse effects described on the scale.

HEAT BUILD-UP

Different activities build up heat at different rates. A good pilot will balance the tactical value of a certain activity against the heat it will add to his Fighter. The Heat Point Table gives the number of heat points built up by various activities.

HEAT POINT TABLE	
Activity	Heat Points
Weapon Fire	See Weapons Table.
Overthrust	1 Heat Point per thrust point of overthrust.
Atmospheric Entry	Successful entry: 10 - (difference between <i>Piloting Skill Roll</i> and Target Number). Unsuccessful entry: See Failed Entry Table.
Engine Criticals	See Engine Critical Hit Table.
Heat Sinks	-1 Heat Point per operational heat sink.

RECORDING HEAT BUILD-UP

During the Heat Phase near the end of every game turn, each player adds up the heat points that his Fighter built up. He then subtracts the heat dissipated by his Fighter's heat sinks. Any remaining heat points are added to the Heat Scale on the Fighter's Record Sheet. If, however, the Fighter dissipated more heat than it built up for the turn, the difference is subtracted from its Heat Scale. It is a good idea to use a pencil on the Heat Scale because the heat will go up and down many times during the game.

EFFECTS OF HEAT

As a result of increased internal heat, the fighter craft functions less efficiently. It moves erratically, fires less accurately, is in danger of exploding its ammunition, or even of shutting down. Some of these effects are permanent and cannot be removed even if the fighter dissipates the built-up heat. Some will be removed when the internal heat goes down. Other effects may be avoided. All heat effects are explained below.

MOVEMENT EFFECTS

High heat levels cause the craft's navigation and piloting computers to overheat and malfunction. Due to this malfunction, the craft will move randomly until the pilot either causes the heat to drop or makes a successful Avoid Roll. A more severe malfunction will cause random movement and will freeze the thrust controls, preventing any deceleration to decrease the effect of the random movement.

The Avoid Number indicates how to avoid the malfunction. In any turn where the heat level remains above the trigger point, the player must roll two dice to determine if he has avoided the computer malfunction. If the dice roll is equal to or greater than the Avoid Number (6+, 8+, or 10+), the craft's piloting computers function normally.

If the heat level remains at or above the trigger point during the next turn, the pilot must make another Avoid Roll.

WEAPONS ATTACK EFFECTS

Add the number given to the fighter's Base To-Hit Number. If the effect is +2 Fire Modifier, add 2 to the Base To-Hit Number as long as the heat is at or above this point on the scale. The effect is not cumulative and is removed when the heat point level drops below the number that triggered the effect.

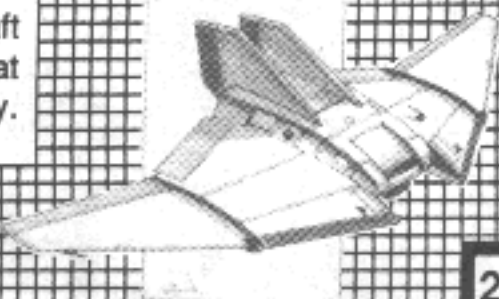
SHUTDOWN

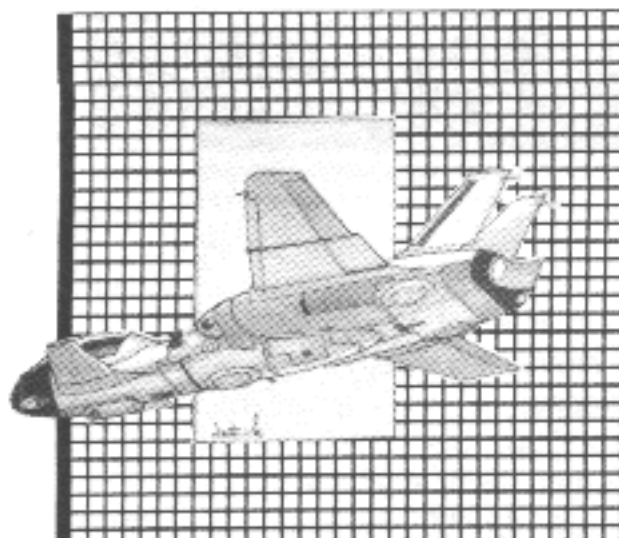
At excessively high temperatures, the magnetic jar containing the fusion reaction becomes unstable and may explode. As a safety device, the Fighter's fusion reactor shuts down automatically. Until the pilot restarts the reactor, the craft may not create any thrust or fire any weapons.

The pilot may be able to avoid shutdown by overriding the fusion reactor's safety shutdown procedure, as indicated by the Avoid Number given with the heat effect. The player rolls two dice. If the roll is equal to or greater than the Avoid Number, shutdown is avoided until the next turn or until the heat level drops below the trigger point. If the heat level remains above the trigger point during the next turn, the pilot must make another Avoid Roll.

As the heat level rises, the Avoid Number also rises, making it more difficult to avoid a reactor shutdown.

If a fighter craft shuts down, it will drift at its current velocity.





Although it is no longer generating any heat, the craft's heat sinks are still working to dissipate its built-up heat. The heat will drop every turn that the reactor remains shut down, giving the Pilot a chance to restart the reactor. He rolls two dice. If his roll is equal to or greater than the Avoid Number (which gets lower as the heat drops), the pilot can restart the reactor. When the heat drops below 14 on the Heat Scale, the

reactor restarts automatically.

If a shutdown fighter enters the atmosphere, it is in big trouble. There is a +4 modifier to the Atmospheric Entry Roll, which is made on the Dead Stick Entry column.

AMMUNITION EXPLOSION

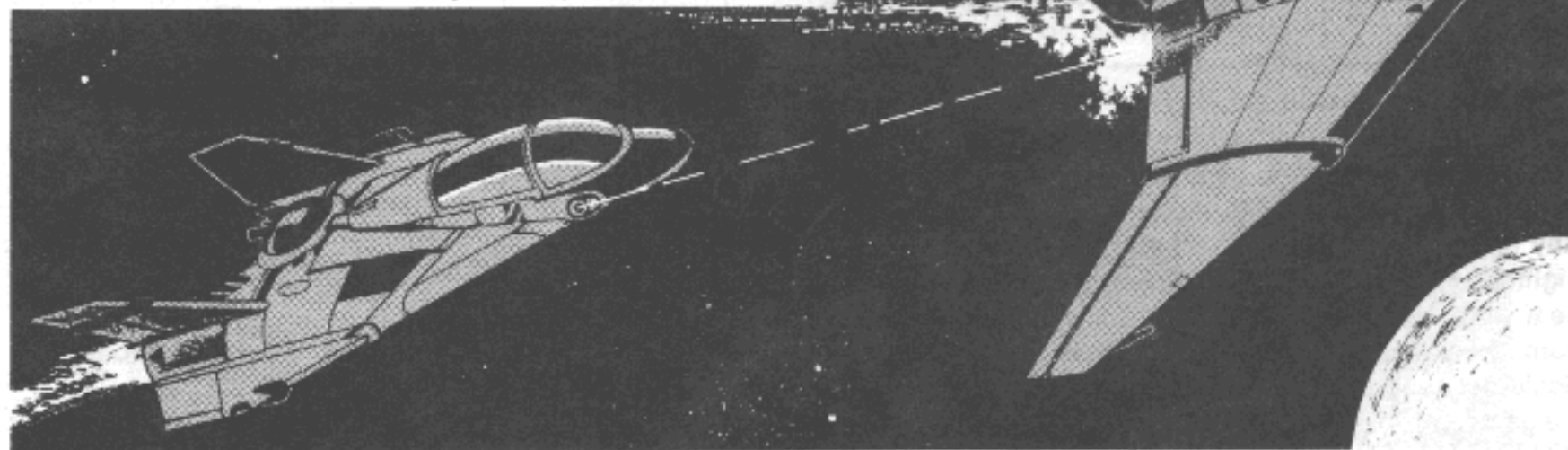
For every turn after reaching this point, the most destructive ammunition rack for a non-energy weapon explodes. The Damage Value determines which ammunition rack is destroyed. A machine gun ammunition rack has a Damage Value of 2, and an AC/5's rack has a Damage Value of 5. A short-range missile pack has a Damage Value of 2 per missile on the rack, and a long-range missile pack has a Damage Value of 1 per missile on the rack. When the ammunition explodes, all of one type goes up at the same time. If a fighter carries one ton of LRM-20 ammunition and it explodes, the craft takes 120 damage points (20 damage points x 6 shots or charges per ton x 1 ton = 120 damage points).

The pilot may avoid this effect by pure luck, as indicated by the Avoid Number. To determine whether the ammunition explosion is avoided in a turn when the heat level is above the trigger point, the player rolls two dice. If the dice roll is equal to or greater than the Avoid Number (4+, 6+, etc.), no explosion occurs.

PILOT DAMAGE

For every turn that the heat level is at or above this trigger point, the pilot must successfully make an Avoid Roll with two dice, or will suffer one point of damage. This heat effect remains in effect as long as the heat remains above the trigger point.

If the pilot does suffer damage, he must then make a Consciousness Roll and suffer any consequences.



THE HEAT SCALE

Heat Points	Effect
00	No effect
01	No effect
02	No effect
03	No effect
04	No effect
05	Random Movement, avoid on 5+
06	No additional effect
07	No additional effect
08	+1 To-Hit modifier
09	No additional effect
10	Random Movement, avoid on 6+
11	No additional effect
12	No additional effect
13	+2 To-Hit modifier
14	Shutdown, avoid on 4+
15	Random Movement, No Thrust, avoid on 6+
16	No additional effect
17	+3 To-Hit modifier
18	Shutdown, avoid on 6+
19	Ammunition Explosion, avoid on 4+
20	Random Movement, No Thrust, avoid on 8+
21	Pilot Damage, avoid on 6+
22	Shutdown, avoid on 8+
23	Ammunition Explosion, avoid on 6+
24	+4 To-Hit modifier
25	Random Movement, No Thrust, avoid on 10+
26	Shutdown, avoid on 10+
27	Pilot Damage, avoid on 9+
28	Ammunition Explosion, avoid on 8+
29	No additional effect
30	Automatic Shutdown

DROPSHIPS AND 'MECHS

DropShips are the large, heavily-armed and -armored craft that transport 'Mechs and aerospace fighters from the system jump points to their target planets. Once in close orbit around its target planet, a DropShip can enter the atmosphere or begin 'Mech drop procedures.

A 'Mech can leave a DropShip at three points: in space, at high altitude, or on the ground after the DropShip has landed. While the DropShip is in space, they can eject Aerospace Fighters at any time, but it requires special equipment to remove or replace a Fighter after the DropShip has landed. All such operations are normally done in space, as no fighter ejection operation is possible when the DropShip is in the atmosphere at low altitude. DropShips may not fire any weapons at low altitude.

DROP PROCEDURES

In order to accurately drop 'Mechs, a DropShip must remain stationary over the drop site for two full turns (not including the turn during which the DropShip first moved into the drop hex). At high altitude, the player can maintain station by spending 1 thrust point. In space, the DropShip must face away from the planet, and then spend thrust to offset the pull of gravity. At the end of the Movement Phase of the second stationary turn, the ship may eject as many 'Mechs as it has functioning doors. The dropping 'Mechs are now fair targets for Fighters and enemy DropShips.

If for some reason the DropShip cannot remain stationary over the drop hex, 'Mechs may be dropped, but will automatically scatter. Use the Dive Bomb Scatter Table to determine how many low altitude hexes away the scattered 'Mechs will fall.

For example, a Union class DropShip is on a mission to the Kurita planet New Samarkand. It has passed through the fighter battle and is setting up for the 'Mech drop. On game turn 5, the DropShip enters the atmosphere and ends its turn in the drop hex. The craft must stay in that hex for turn 6 and 7. At the end of the movement phase of turn 7 the Drop Ship may eject as many 'Mechs as it has functioning doors. If the DropShip stays stationary during turn 8, another load of 'Mechs may be dropped. During the stationary turns the DropShip may fire any or all of its weapons but may not move or change its facing.

LANDING

A 'Mech takes one turn to fall from space to high altitude, one full turn to fall from high altitude to low altitude, spends one turn at low altitude, and one full turn to land from low altitude. No other movement is possible.

After a 'Mech is dropped, its pilot must make several *Piloting Skill Rolls*. The first is to see if the MechWarrior can control his drop. Failure of this modified roll may result in the 'Mech's destruction when it hits the ground. When landing, a

'Mech must make a *Piloting Skill Roll* modified by any damage suffered during the drop and by the terrain where it intends to land. Consult the 'Mech Drop Modifiers Table below.

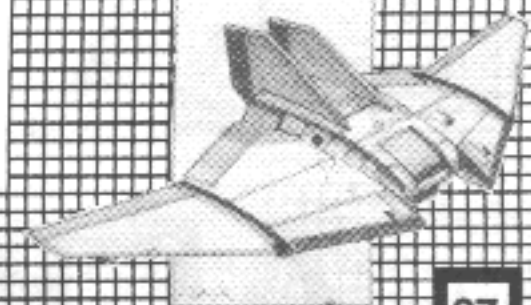
'MECH DROP MODIFIERS Descent Roll Modifiers	
Effect	Modifier
Automatic Modifier	+2
Per 10 points of damage suffered during descent	+1
Per Gyro Critical	+4
Per Head Hit	+2

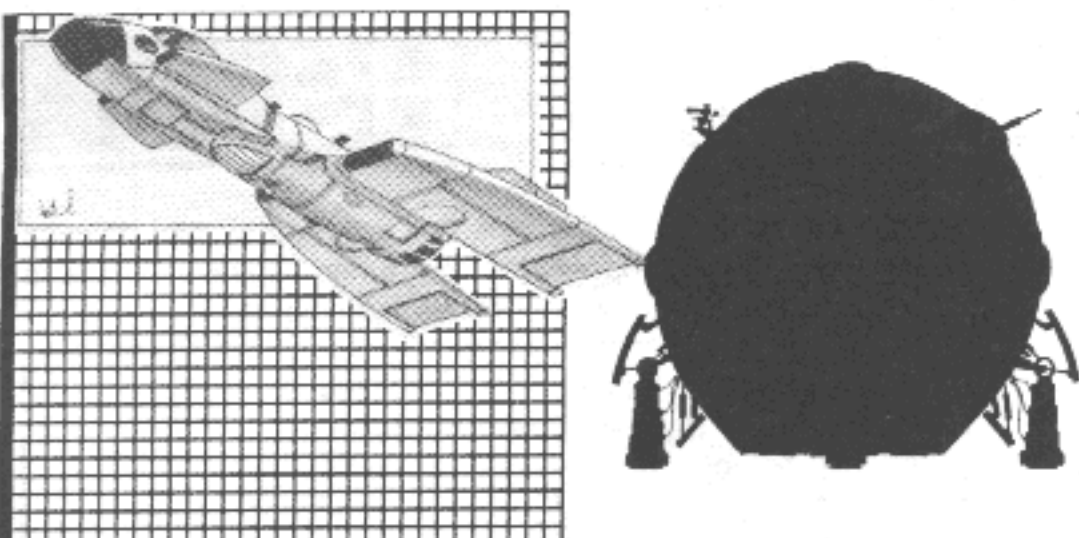
This initial *Piloting* skill roll has an automatic modifier of +2. If the roll fails, consult the following table for effects and modifiers to the Landing Roll.

FAILED DESCENT ROLL TABLE	
Difference between Target Number and Actual Roll	Effect
1	Scatter
2	Scatter
3	Scatter, +1 to Landing Roll
4	Scatter, +2 to Landing Roll
5	Scatter, +3 to Landing Roll
6	Scatter, +4 to Landing Roll
7+	'Mech splatters into the ground and is completely destroyed. No parts may be scavenged.

Landing Roll Modifiers	
Effect	Modifier
Per leg/foot actuator destroyed	+1
'Mech's Gyro Hit	+4
Per Hip Critical Hit	+2
Per Head Hit	+2
Landing Hex Terrain Modifier	
Light Woods	+1
Heavy Woods	+2
Rubble	+2
Rough	+1
Water Level 1+	+2
Elevated Hex	+1

If both skill rolls are successful, the 'Mech lands successfully with no damage. If the first roll fails, the MechWarrior must check the Failed Descent Roll Table for damage, scatter, and for a modifier to the second roll.





DROP SHIP COMBAT

DropShips carry enormous amounts of firepower and enough heat sinks to effectively use it. Purists can keep track of weapons individually. For quicker play, an abstract system can be used. The abstract system reduces all DropShip weapons to a set of 10-point fire factors. In combat, the DropShip simply shoots as many fire factors as desired, resolving each 10-point shot individually. Any shot that hits will do 10 damage points to one hit location. Each fire factor builds up 7 points of heat. The DropShip's statistics give the firing arcs for each fire factor. The range for DropShip fire factors are as follows:

Short	1-6 hexes
Medium	7-12 hexes
Long	13-18 hexes

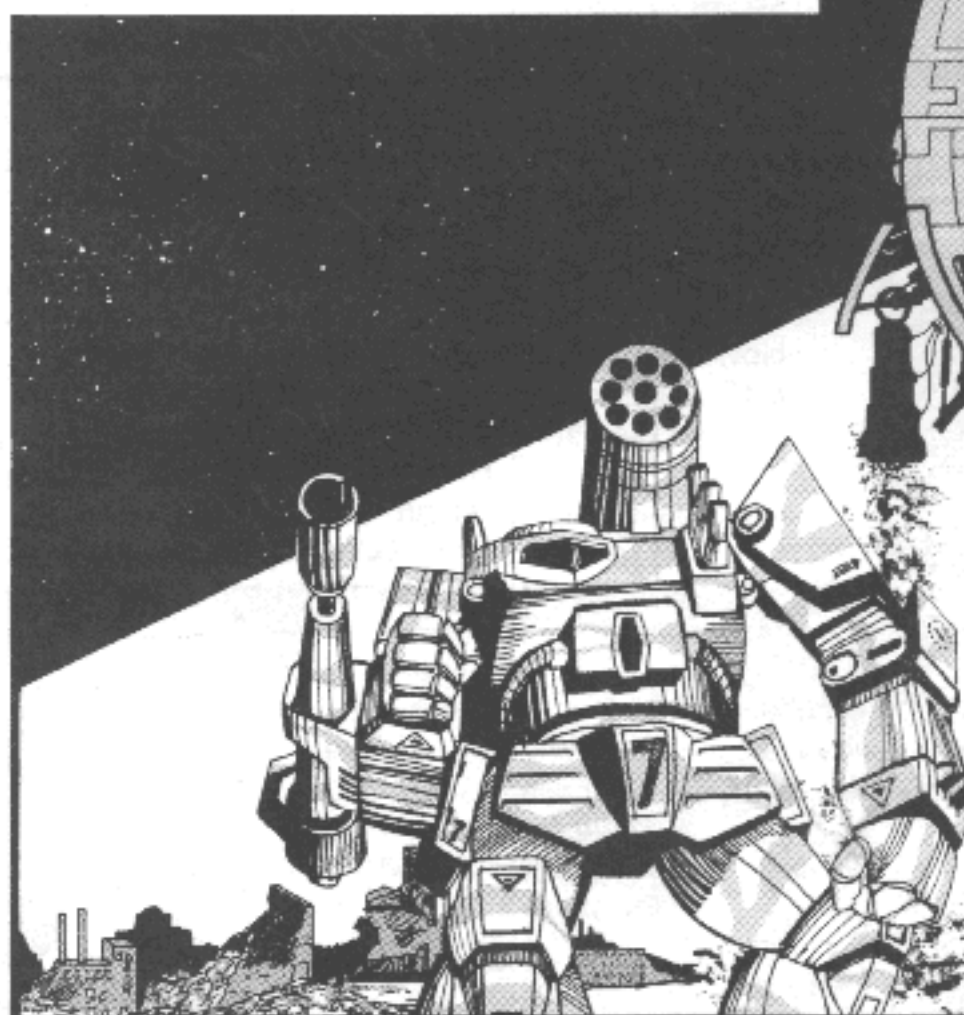
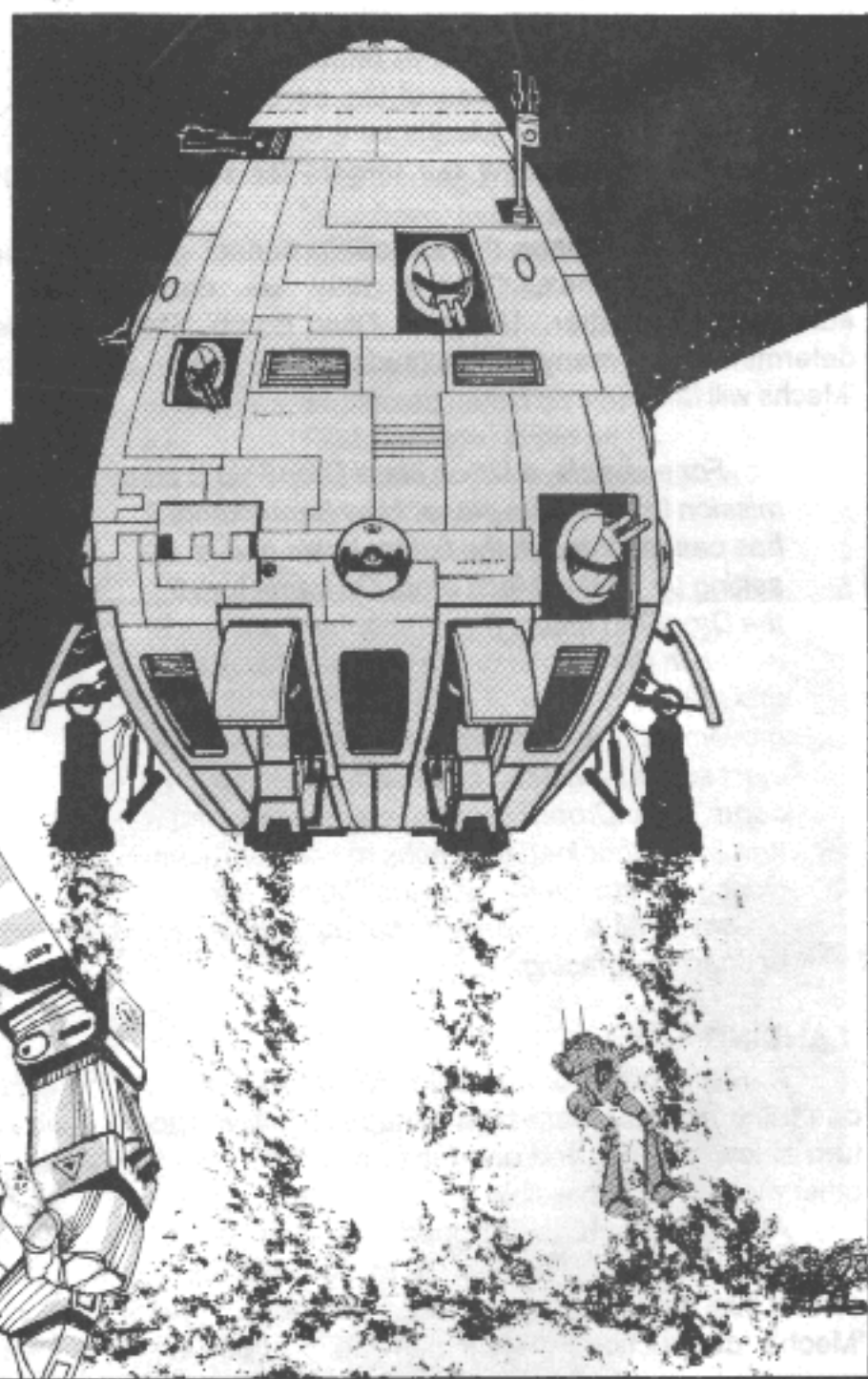
Each Weapon Out damage result destroys one fire factor.

Each DropShip carries enough fuel to travel from the jump point to the target planet, engage in combat, and return to the jump point.

LANDING FAILURE TABLE

Difference between Target Number and Die Roll	Effect
1	Level 1 fall
2	Level 1 fall
3	Level 2 fall
4	Level 3 fall
5	Level 4 fall
6	Level 5 fall
7	Level 6 fall
8+	'Mech destroyed

This falling damage uses the normal Damage Location Table. Scattered 'Mechs use the Dive Bomb Scatter Table to determine final landing location. 'Mechs land at the end of a ground combat movement phase. During the turn that they land, the 'Mech may not fire, but functions normally thereafter.



DROP SHIP STATISTICS

LEOPARD CLASS DROPSHIP

Thrust: 4
Overthrust: 6
Structural Integrity: 7

Armor:
Nose 100
Right Wing 90
Left Wing 90
Fuselage 140
Engine 60

Weapons:
2 PPCs
3 LRM-20 racks
7 Medium lasers
5 Large lasers

Nose:
2 PPCs
1 LRM-20 rack
3 Medium lasers

Wings:
1 LRM-20 rack
1 Medium Laser
2 Large lasers

Aft:
2 Medium lasers
1 Large laser

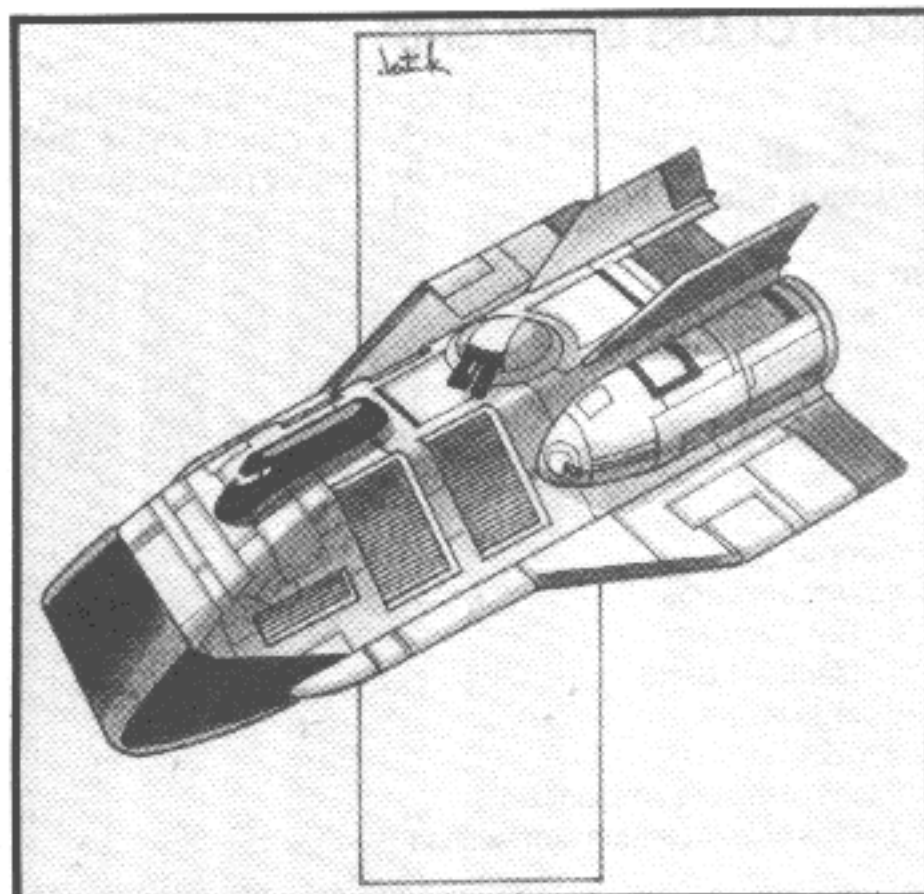
Fire Factors
Nose: 5
Wings: 3
Aft: 2

Components:	Tonnage
Type	
4 'Mech cocoons	600
4 Doors	0
2 AeroSpace fighter cocoons	300
15 people	150
Engines	360
Fuel (10 thrust points per ton)	123
Bridge	13
Weapons	60
Armor	30
Heat Sinks	64

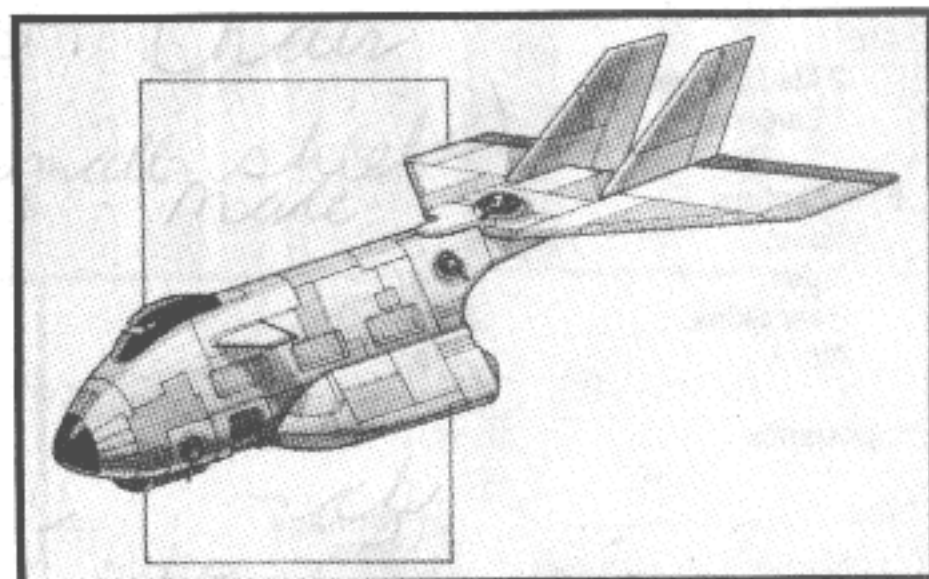
Total 1700

Notes:

The *Leopard* Class DropShip carries four 'Mechs and two fighters of any tonnage. It can launch all craft and 'Mechs in one turn. The DropShip carries enough fuel to refuel both fighters once.



STANDARD LEOPARD DROPSHIP
Carries 4 'Mechs and 2 fighters



CV LEOPARD DROPSHIP
Carries 6 fighters

UNION CLASS DROP SHIP

Thrust: 3
Overthrust: 5
Structural Integrity: 11

Armor:

Nose 140
Right Side 140
Left Side 140
Fuselage 180
Engine 60

Weapons:

6 Autocannon/5s
6 LRM-20 racks
12 Medium Lasers
5 Large lasers
3 PPCs
9 tons of missile ammunition
12 tons of autocannon ammunition

Nose:

2 Autocannon/5s
2 LRM-20 racks
2 Medium lasers
1 PPC

Sides:

2 Autocannon/5s
2 LRM-20 racks
2 Medium lasers
1 PPC
1 Large laser

Rear Sides:

2 Medium Lasers
1 Large laser

Aft:

2 Medium lasers
1 Large laser

Fire Factors

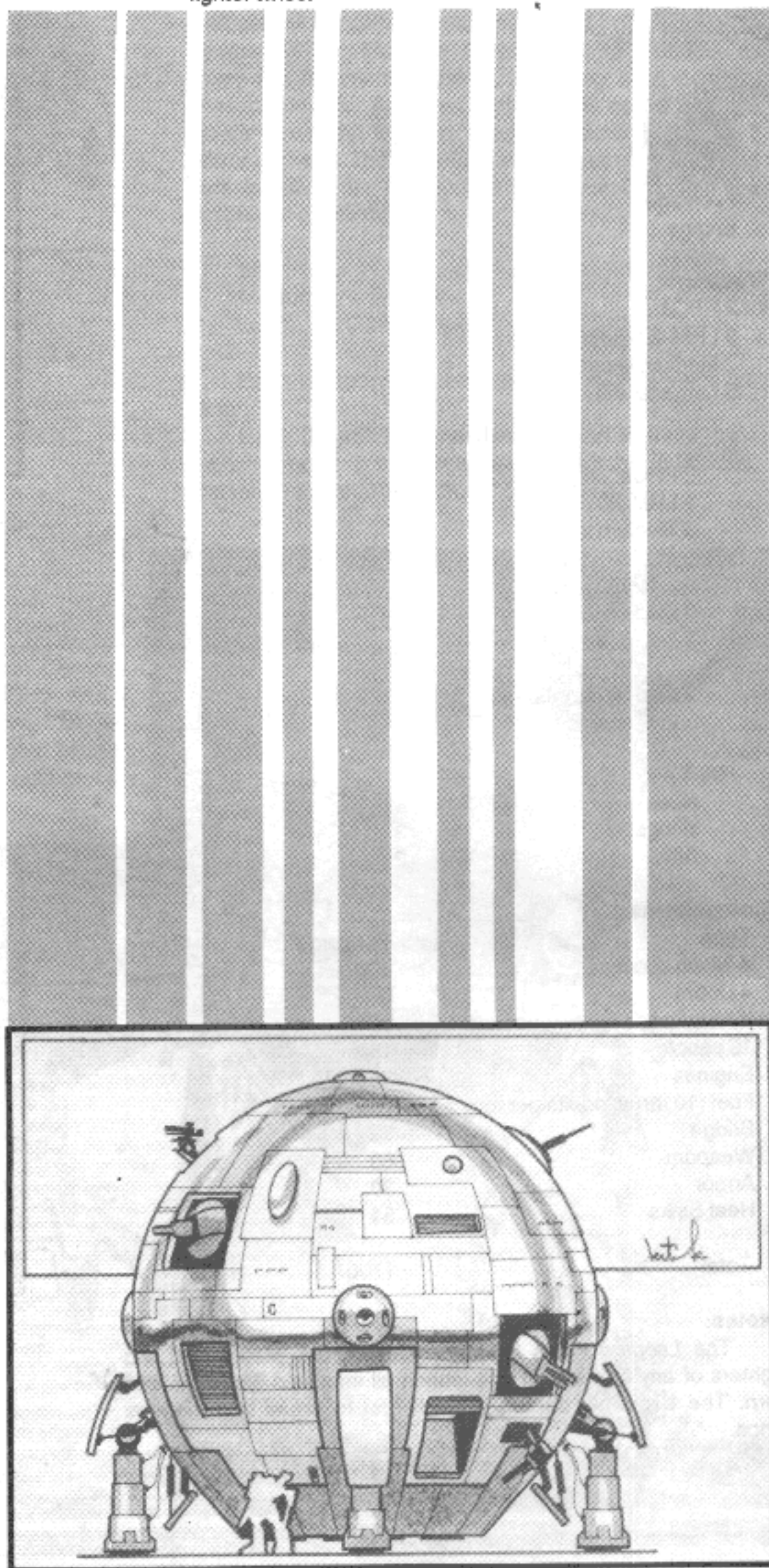
Nose: 7
Sides: 6
Rear Sides: 2
Aft: 2

Components

Type	Tonnage
12 Mech cocoons	1800
4 Doors	0
2 AeroSpace fighter cocoons	300
28 people	280
Engines	630
Fuel (6 thrust points per ton)	209
Bridge	27
Weapons	187
Armor	40
Heat Sinks	27
Total	3500

Notes:

The *Union Class DropShip* carries twelve 'Mechs and two fighters of any tonnage. It can launch four 'Mechs and two fighters in one turn and can refuel each fighter twice.



OVERLORD CLASS DROPSHIP

Thrust: 3
Overthrust: 5
Structural Integrity: 18

Armor

Nose 170
Right Side 160
Left Side 160
fuselage 210
Engine 100

Weapons

6 PPCs
6 Autocannon/5s
2 Autocannon/20s
3 LRM-20 racks
12 Medium lasers
6 Large lasers
16 tons of missile ammunition
10 tons of Autocannon/5 ammunition
6 tons of Autocannon/20 ammunition

Nose

2 Autocannon/20s
2 Autocannon/5s
2 PPCs
2 Medium lasers

Sides

1 PPC
1 Autocannon/5
1 LRM-20 rack
2 Medium lasers
1 Large laser

Rear Sides

1 PPC
2 Medium lasers
1 Large laser

Aft

2 Autocannon/5s
1 LRM-20 rack
2 Medium lasers
2 Large lasers

Fire Factors

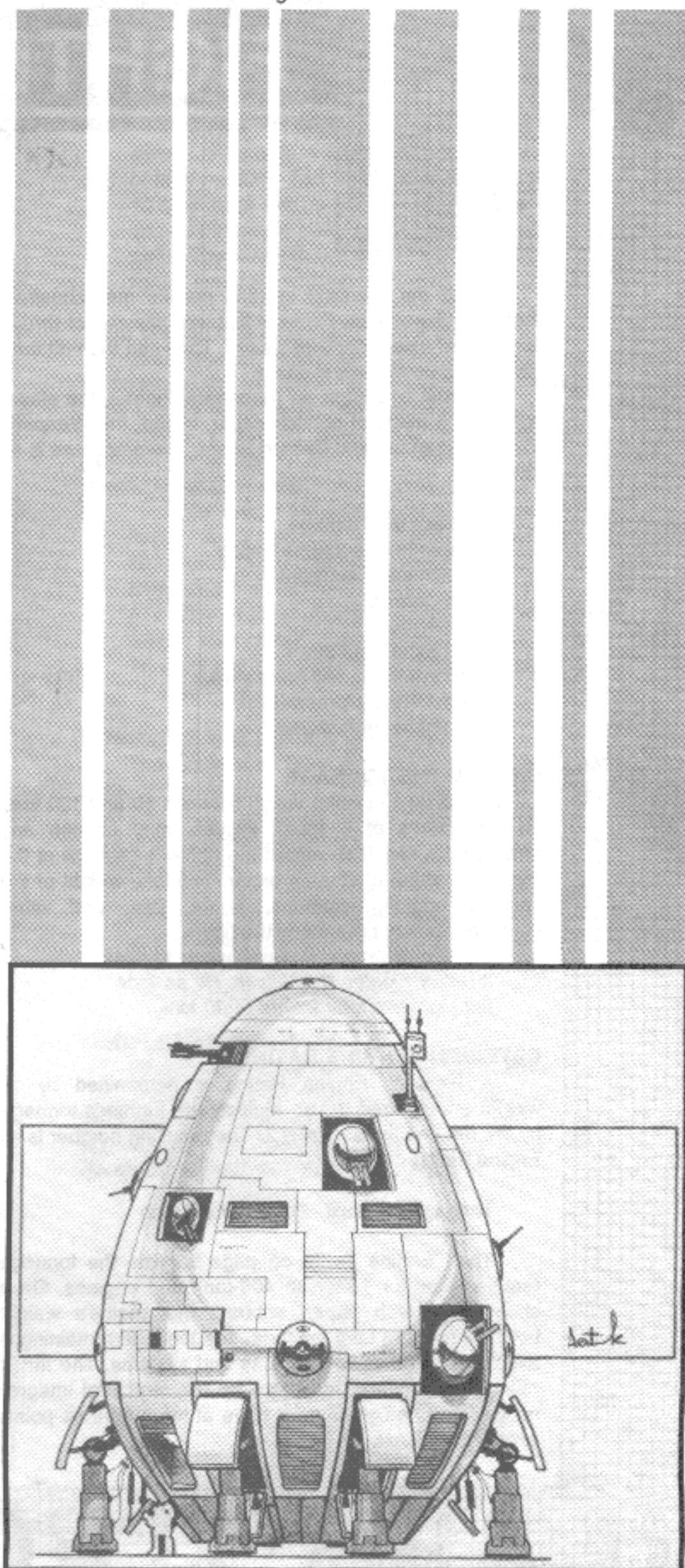
Nose: 8
Sides: 5
Rear Sides: 3
Aft: 5

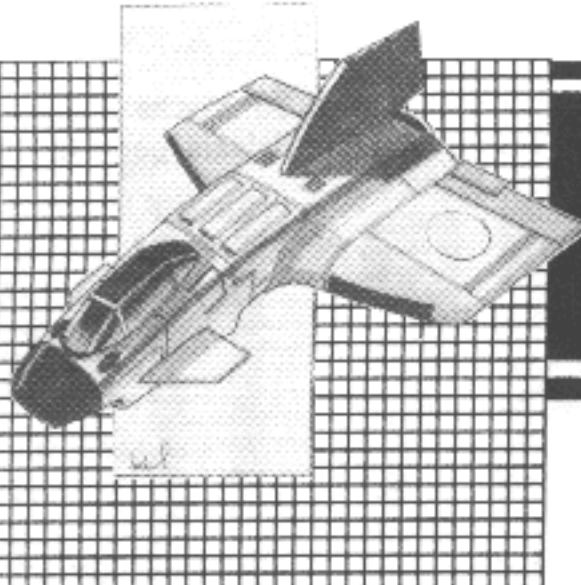
Components

Type	Tonnage
36 'Mech cocoons	5400
6 Doors	0
AeroSpace fighter cocoons	900
85 people	850
Engines	1890
Fuel (4 thrust points per ton)	306
Bridge	82
Weapons	222
Armor	50
Heat Sinks (120 provided with engines)	0
Total	9700

Notes:

The *Overlord* Class DropShip carries 36 'Mechs and six fighters. It can launch six 'Mechs and two fighters per turn. It can also refuel each fighter three times.





AEROSPACE FIGHTER DESIGN

Using the following system, players may construct their own Aerospace Fighters featuring the mix of thrust, armor, and weaponry they desire. They can then pit their designs against others in space.

In order to design an Aerospace Fighter, the player will need a piece of scratch paper, a pen, the Weapons Table, and an unused Record Sheet. The procedure is as follows:

1. Choose the Tonnage
2. Determine the Engine Rating
3. Determine Fuel Capacity
4. Add Cockpit
5. Add Armor
6. Add Extra Heat Sinks
7. Add Weapons and Ammunition
8. Complete Equipment Tables
9. Complete Record Sheet

CHOOSE THE TONNAGE

Aerospace Fighters weigh between 10 and 100 tons (in increments of 5 tons). Players may choose any tonnage desired, then record the fighter's tonnage at the top of the sheet of scratch paper. The total weight of the fighter's engine, weapons, armor, fuel, and other components may not exceed this figure.

For example, a player wants to design a heavy Fighter, the Vulcan. He assigns the Fighter a total weight of 80 tons.

DETERMINE ENGINE RATING

A Fighter's Engine Rating is determined by its weight and desired thrust. Multiply the Fighter's tonnage by the desired thrust minus 2. The resulting number is its Engine Rating.

$$\text{Tonnage} \times (\text{Thrust} - 2) = \text{Engine Rating}$$

The Engine Table on page 33 lists the tonnage requirements for 10-ton to 400-ton-rated engines. On a sheet of scratch paper, subtract the engine's weight from the fighter's total tonnage. The tonnage remaining is available for other components and systems. The thrust rating of the fighter may also be the structural integrity for the craft. A fighter must have at least 4 thrust points to orbit any planet.

The player gives his 80-ton Vulcan a thrust rating of 5. As a result, the fighter needs a 240-ton-rated engine [80 tons \times (5 thrust points - 2) = 240-ton rating]. Looking at the Engine Table, the player finds that a 240-ton-rated engine weighs 11.5 tons. He subtracts this number from the Vulcan's 80 tons available. This leaves 68.5 tons for armor, weapons, controls, and other components.

DETERMINE FUEL CAPACITY

Aerospace Fighters must carry fuel to maneuver. One ton of fuel generates 15 thrust points in a fighter. Choose the amount of fuel to be carried, and then multiply that tonnage by 15 to determine the number of thrust points the fighter can spend before refueling. (Fuel Tonnage \times 15 = Thrust Points).

The player decides to give the Vulcan standard fuel tanks. These can hold 5 tons of fuel, which will give 75 thrust points (5 tons \times 15 = 75 thrust points). 63.5 tons remain.

ADD COCKPIT

All fighters must have a cockpit and controls. This equipment weighs three tons and also provides 10 points of armor protection for the cockpit.

The Vulcan's cockpit and controls weigh in at 3 tons, leaving 60.5 tons for the remaining equipment.

ADD ARMOR

Armor helps protect the Structural Integrity, weapons, and a Fighter's other components. An Armor Value of 16 weighs 1 ton. Determine the total number of armor points the fighter will carry, then allocate these points among the fighter's five hit locations: the nose, fuselage, right and left wings, and engine. (Remember, cockpit armor is provided with the cockpit tonnage.) Armor can only be added in units of 1/2 ton or 1 ton.

The player decides to allocate 13.5 tons of the Vulcan's remaining tonnage to armor. As a result, the fighter carries an Armor Value of 216 (13.5 tons \times 16 points/ton = 216 points). The Vulcan has 47 tons of space left for its weapons, ammunition, and heat sinks.

ENGINE TABLE

Rating	Tonnage
10	0.5
15	0.5
20	0.5
25	0.5
30	1.0
35	1.0
40	1.0
45	1.0
50	1.5
55	1.5
60	1.5
65	2.0
70	2.0
75	2.0
80	2.5
85	2.5
90	3.0
95	3.0
100	3.0
105	3.5
110	3.5
115	4.0
120	4.0
125	4.0
130	4.5
135	4.5
140	5.0
145	5.0
150	5.5
155	5.5
160	6.0
165	6.0
170	6.0
175	7.0
180	7.0
185	7.5
190	7.5
195	8.0
200	8.5
205	8.5
210	9.0
215	9.5
220	10.0
225	10.0
230	10.5
235	11.0
240	11.5
245	12.0
250	12.5
255	13.0
260	13.5
265	14.0
270	14.5
275	15.5
280	16.0
285	16.5
290	17.5
295	18.0
300	19.0
305	19.5
310	20.5
315	21.5
320	22.5
325	23.5
330	24.5
335	25.5
340	27.0
345	28.5
350	29.5
355	31.5
360	33.0
365	34.5
370	36.5
375	38.5
380	41.0
385	43.5
390	46.0
395	49.0
400	52.5

ADD HEAT SINKS

The fighter needs heat sinks to dissipate heat produced by overthrust, weapons fire, and even atmospheric entry. Every engine system includes heat sinks. Therefore, every undamaged fighter can automatically dissipate 10 heat points per turn. However, most fighters need to be able to get rid of more heat than that. Extra heat sinks can be added at the cost of 1 ton per heat sink.

The player decides that he wants the Vulcan to be able to dissipate up to 20 points of heat per turn. The Vulcan automatically gets 10 heat sinks with its 240-ton-rated engine, and so the player must get another 10 heat sinks. These weigh a total of 10 tons. The fighter now has 37 tons remaining.

ADD WEAPONS AND AMMUNITION

Every weapon placed on a fighter weighs a certain amount, as listed on the Weapons Table. Allocate at least one ton for each missile launcher's or ballistic weapon's ammunition. This will provide a varying number of shots, depending on the launcher or weapon. The Fighter's weapons are placed in specific hit location areas in the next design step.

The Vulcan will carry 2 medium lasers (2 tons), 1 large laser (5 tons), 1 SRM-6 missile rack and 1 ton of missile ammunition (3 + 1 = 4 tons), and 2 autocannon/10s as main armament (2 x 12 = 24 tons). In addition, the fighter will carry 2 tons of AC/10 ammunition, enough for 10 shots per gun. The total weapons weight is 37 tons, thus filling up the fighter.

COMPLETE THE EQUIPMENT TABLES

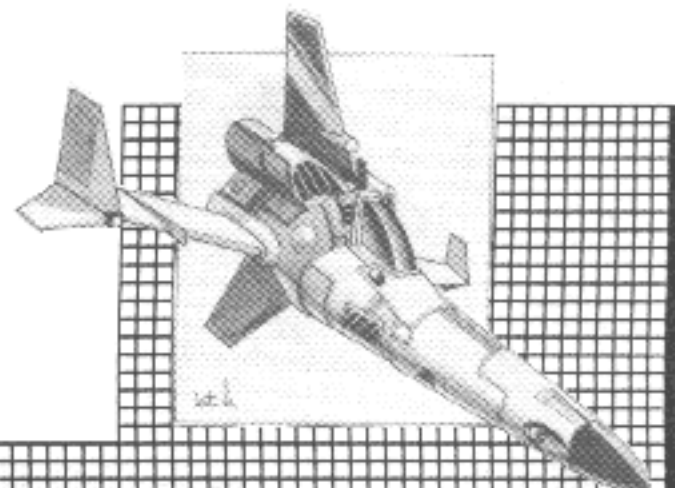
The Equipment Table on the Record Sheet shows the four parts of the fighter's structure that can mount weapons. Each area can mount up to six weapons and/or ammunition storage locations. The rear equipment location can only mount 2 tons of aft-firing weapons.

The Vulcan will mount a medium laser, the large laser, and the SRM-6 missile rack with its ammunition in the nose. Each wing will carry an AC/10 with its ammunition and the remaining medium laser will be mounted aft.

COMPLETE RECORD SHEET





Fill in the remaining information on by the Record Sheet.






The armor will be divided in the following way: 10 + 5 = 15 to the cockpit, 23 to the engine, 36 to each wing, 55 to the nose, and 63 for the fuselage. The fighters thrust rating is 5, overthrust rating 8, and Structural Integrity 8.









FIGHTER DESIGN



The playing pieces in **Aerotech** represent light, medium, and heavy fighters for all five houses. The silhouettes used to represent the different fighters and some statistics for each class are shown below.

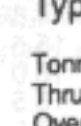

					
LIGHT					
					
					
Type: Sabre					
		Tons			
Tonnage:	25	25			
Thrust	11				
Overthrust	17				
Structural Integrity:	11				
Engine:	250	10.0			
Fuel:	75	5			
Cockpit:		3			
Armor:	64	4			
Heat Sinks:	10	0			
Armor					
	Armor Value				
Cockpit	10				
Nose	15				
Wings	10/10				
Fuselage	19				
Engine	10				
Weapons:					
Type	Loc.				
Med. Laser	Nose	1			
Med. Laser	LW	1			
Med. Laser	RW	1			

					
MEDIUM					
					
					
					
Type: Lightning					
		Tons			
Tonnage:	50	50			
Thrust	6				
Overthrust	9				
Structural Integrity:	6				
Engine:	200	8.5			
Fuel:	75	5			
Cockpit:		3			
Armor:	168	10.5			
Heat Sinks:	13	3			
Armor					
	Armor Value				
Cockpit	13				
Nose	54				
Wings	25/25				
Fuselage	38				
Engine	23				
Weapons:					
Type	Loc.				
AC/20	Nose	14			
Ammo (10)	Nose	2			
Med. Laser	Rear	1			
Med. Laser	Nose	1			
Med. Laser	LW	1			
Med. Laser	RW	1			

					
HEAVY					
					
					
Type: Eagle					
		Tons			
Tonnage:	75	75			
Thrust	6				
Overthrust	9				
Structural Integrity:	7				
Engine:	300	19			
Fuel:	75	5			
Cockpit:		3			
Armor:	224	14			
Heat Sinks:	25	15			
Armor					
	Armor Value				
Cockpit	14				
Nose	60				
Wings	35/35				
Fuselage	67				
Engine	23				
Weapons:					
Type	Loc.				
Large Laser	Nose	5			
Large Laser	LW	5			
Large Laser	RW	5			
Med. Laser	Nose	1			
Med. Laser	LW	1			
Med. Laser	RW	1			
Med. Laser	Rear	1			

					
Type: Centurion					
		Tons			
Tonnage:	30	30			
Thrust	10				
Overthrust	15				
Structural Integrity:	10				
Engine:	240	11.5			
Fuel:	75	5			
Cockpit:		3			
Armor:	120	7.5			
Heat Sinks:	10	0			
Armor					
	Armor Value				
Cockpit	15				
Nose	27				
Wings	19/19				
Fuselage	30				
Engine	20				
Weapons:					
Type	Loc.				
Med. Laser	Nose	1			
Med. Laser	LW	1			
Med. Laser	RW	1			

					
Type: Helicat					
		Tons			
Tonnage:	60	60			
Thrust	6				
Overthrust	9				
Structural Integrity:	6				
Engine:	240	11.5			
Fuel:	75	5			
Cockpit:		3			
Armor:	168	10.5			
Heat Sinks:	20	10			
Armor					
	Armor Value				
Cockpit	15				
Nose	42				
Wings	30/30				
Fuselage	38				
Engine	23				
Weapons:					
Type	Loc.				
Large Laser	Nose	5			
Large Laser	LW	5			
Large Laser	RW	5			
Med. Laser	Nose	1			
Med. Laser	Nose	1			
Med. Laser	RW	1			
Med. Laser	LW	1			
Med. Laser	Rear	1			

					
Type: Thunderbird					
		Tons			
Tonnage:	100	100			
Thrust	5				
Overthrust	8				
Structural Integrity:	10				
Engine:	300	19			
Fuel:	75	5			
Cockpit:		3			
Armor:	224	14			
Heat Sinks:	25	15			
Armor					
	Armor Value				
Cockpit	14				
Nose	60				
Wings	35/35				
Fuselage	67				
Engine	23				
Weapons:					
Type	Loc.				
Large Laser	Nose	5			
Large Laser	LW	5			
Large Laser	RW	5			
LRM-20	LW	10			
LRM-20	RW	10			
Ammo (12)	LW	2			
Ammo (12)	RW	2			
Med. Laser	Rear	1			
Med. Laser	Rear	1			
Med. Laser	Nose	1			
Med. Laser	LW	1			
Med. Laser	RW	1			

LAND-AIR 'MECHS (LAMs)

Land-Air 'Mechs, or LAMs, are jacks-of-all-trades and masters of none. In the middle of a battle, these fighting machines can change their configuration to that of a 'Mech, a fighter, or to a hybrid mode with some of the advantages of both. LAMs served as highly-mobile recon and light strike units for the Star League's armies. Never produced in great numbers, even fewer are manufactured and assembled now. The standard configurations are variations of the basic *Wasp*, *Stinger*, and *Phoenix Hawk* designs. Although lightly-armored, these highly-mobile 'Mechs are equipped with enough firepower so that opposing forces cannot simply ignore them.

CONVERSION TIME

It takes one full turn for an LAM to convert from one mode to another. Normal movement and fire are permitted during this turn, but with modifications. The following table lists these modifications:

CONVERSION RESTRICTION TABLE		
Conversion Type	Movement Restriction	Combat Restriction
'Mech to Air'Mech Air'Mech to 'Mech	1/2 normal movement	+3 To-Hit modifier
Air'Mech to Fighter Fighter to Air'Mech	Normal Air'Mech movement	Not Allowed

CAPABILITIES

'MECH MODE

When an LAM is in 'Mech mode, its capabilities are that of the 'Mech as it is designed. In other words, if the LAM is based on the *Stinger*, its statistics and capabilities will be that of a *Stinger* when the LAM is in 'Mech mode.

AIR 'MECH MODE

Movement

When on the ground, an Air'Mech moves as a regular 'Mech, but with reduced movement rates. Its walking and running rates are one-third normal 'Mech rates. The jump movement rate is multiplied by 3. Most important, no heat is built up by an Air'Mech during jump or flight.

Two new movement actions are required by Air'Mechs: launching and landing. Each takes 2 MP, and can only be used during jump or flight. Landing requires a normal *Piloting Skill Roll*, but there is a -4 modifier due to the Air'Mech's legs. Any damage to the legs that would affect a regular 'Mech's *Piloting Skill Roll* will also affect an Air'Mech's landing roll.

An Air'Mech does not have to land at the end of its turn. It can continue to fly at its jump rate for as long as it is capable of flight. All movement restrictions and rules apply, except that an Air'Mech cannot fly backward, and it must move forward at least six hexes for any turn spent in the air.

Combat

When on the ground, an Air'Mech fires normally, with any appropriate modifiers. When flying, there is a +2 To-Hit modification. When firing at an Air'Mech on the ground, it is a normal target. When it is flying, there is a +4 To-Hit modifier for fire from the ground and a -1 To-Hit modifier from all airborne craft (including other LAMs and AeroSpace fighters).

Damage

When an LAM converts into an Air'Mech, some of its hit locations change and the effects of some damage become more critical. The following critical hits will prevent any mode conversion:

CRITICAL HIT CONVERSION LIMITATION TABLE	
Critical Location	Conversion Disallowed
Gyro	'Mech to Air'Mech Air'Mech to 'Mech
Shoulder	Air'Mech to fighter
Upper Arm Actuator	Air'Mech to fighter
Hip	'Mech to Air'Mech Air'Mech to 'Mech
Upper Leg Actuator	No conversions allowed
Lower Leg Actuator	No conversions allowed

When an LAM changes from 'Mech mode to Air'Mech mode, it deploys its wings. These have armor values equal to one-half the total armor value of the side torsos (front and back). When an Air'Mech is hit by weapons fire, the regular 'Mech Hit Location Table is used, except that right and left torso hits become right and left wing hits. When all wing armor is gone, damage is passed on to the respective torso area. When the wing armor is destroyed, the wing

is destroyed and the Air'Mech can no longer fly. It must suffer a fall as if from Level 4. In addition, the Air'Mech will skid one-half the distance moved during the turn of the fall. The Air'Mech will suffer one-half normal falling damage for each hex of the skid, and any obstacle is considered to have been charged by the skidding Air'Mech. These rules are explained in further detail in *CityTech* and *BattleTech*.

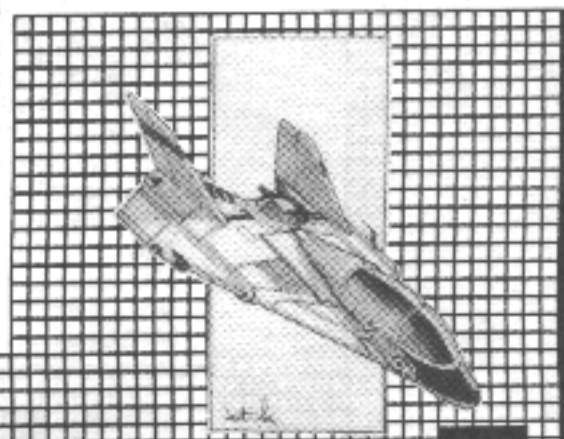
Damage to all other locations of an Air'Mech is as for a normal 'Mech.

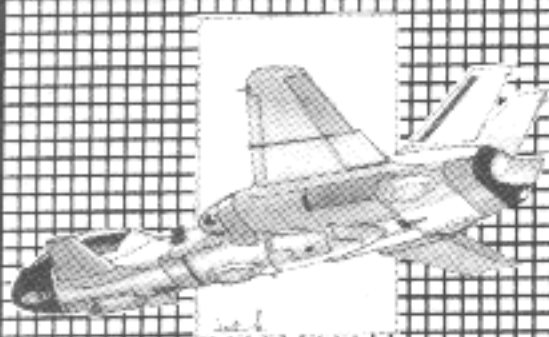
FIGHTER MODE

An Air'Mech can convert into an Aerospace Fighter. The conversion takes one turn, and can be done in flight. During the conversion turn, no weapons fire is allowed and the MP allowance is the same as normal Air'Mech movement.

Movement

An LAM fighter acts in all respects like a standard Aerospace Fighter. Its thrust and overthrust ratings are equal to its walk and run capabilities.





Combat

An LAM fighter's combat capabilities are equal to its 'Mech stats. When in flight, the LAM's heat sinks become extremely efficient. This is mostly due to the large amount of air passing over the heat sink surfaces. This phenomenon allows all energy weapons to fire in overcharge mode, greatly extending range, but only building up the normal amount of heat.

Arm weapons become wing weapons, leg-mounted weapons now fire aft, and all torso weapons now fire forward.

Damage

The following table shows the damage locations and their 'Mech equivalents.

DAMAGE LOCATIONS	
Fighter Location	LAM 'Mech Location
Cockpit	Head
Nose	Arms
Wings	Side Torso
Fuselage	Legs, then Center Torso

When the LAM's armor is penetrated, damage passes on to internal structure. When the center torso's internal structure is destroyed, the LAM, in whatever mode, is destroyed.

An LAM's SI is equal to its tonnage divided by 10 - 1 or its thrust rating, whichever is greater.

LAM Construction

The only addition required to construct an LAM using the 'Mech construction rules found in BattleTech is that 10 percent of the LAM's total weight must be devoted to the conversion equipment.

Type: LAM Stinger		Tons
Tonnage:	30 Tons	30
Walking MPs:	6	
Running MPs:	9	
Jumping MPs:	6	
Thrust:	6	
Overthrust:	9	
Structural Integrity:	6	
Engine:	GM 180	-7
Cockpit:		3
Gyro:		2
Internal Structure:		3
Jump Jets:		3
Heat Sinks:	11	1
Armor:	80	5
		Internal Structure
		Armor Value
Head:	3	9
Center Torso:	10	12/3
Rt/Lt Torso:	7	9/3
Rt/Lt Arm:	5	6
Rt/Lt Leg:	7	10
Conversion Equipment:		3
Weapons:		
Type	Loc.	
Med. Laser	Head	1
Med. Laser	RA	1
Med. Laser	LA	1

Type: LAM Phoenix Hawk		Tons
Tonnage:	50 tons	50
Walking MPs:	5	
Running MPs:	8	
Jumping MPs:	5	
Thrust:	5	
Overthrust:	8	
Structural Integrity:	5	
Engine:	250	12.5
Cockpit:		3
Gyro:		3
Internal Structure:		5
Jump Jets:		2.5
Heat Sinks:	12	2
Armor:	128	8
		Internal Structure
		Armor Value
Head:	3	6
Center Torso:	16	23/5
Rt/Lt Torso:	12	18/4
Rt/Lt Arm:	8	10
Rt/Lt Leg:	12	15
Conversion Equipment:		
Weapons:		
Type	Loc.	
Large Laser	RT	5
Med. Laser	RA	1
Med. Laser	LA	1
Machine Gun	RA	.5
Machine Gun	LA	.5
Ammo	CT	1

Type: LAM Wasp		Tons
Tonnage:	30 Tons	30
Walking MPs:	6	
Running MPs:	9	
Jumping MPs:	6	
Thrust:	6	
Overthrust:	9	
Structural Integrity:	6	
Engine:	GM 180	7
Cockpit:		3
Gyro:		2
Internal Structure:		3
Jump Jets:		3
Heat Sinks:	11	1
Armor:	80	5
		Internal Structure
		Armor Value
Head:	3	9
Center Torso:	10	12/3
Rt/Lt Torso:	7	9/3
Rt/Lt Arm:	5	6
Rt/Lt Leg:	7	10
Conversion Equipment:		3
Weapons:		
Type	Loc.	
Med. Laser	Head	1
SRM 2 pack	CT	1
Ammo	CT	1

OTHER RULES

FIGHTER REFUELING

To refuel in space, a fighter must match velocity and direction with a friendly DropShip. When both craft end their movement in the same hex, moving at the same velocity and direction, refueling can begin. During the next turn, neither craft may spend any thrust or fire weapons. The pilot of the fighter must make a successful *Piloting Skill Roll*. If the roll succeeds, the Fighter is completely refueled and may move normally next turn. If the roll fails, refueling operations are not yet complete. The pilot must wait another turn and then make another skill roll. If the roll fails and the fighter moves, no refueling has taken place.

FIGHTER LAUNCHING

To launch a Fighter, a DropShip must be in space and spend no thrust. The Fighter will simply be ejected from the DropShip. The Fighter then moves before all other craft. Its initial velocity is 0, but it may apply full overthrust (if desired) during this turn. A DropShip may launch as many Fighters in one turn as it has functioning fighter doors. The newly-ejected fighter appears in one of the DropShip's front side hexes.

FIGHTER RECOVERY

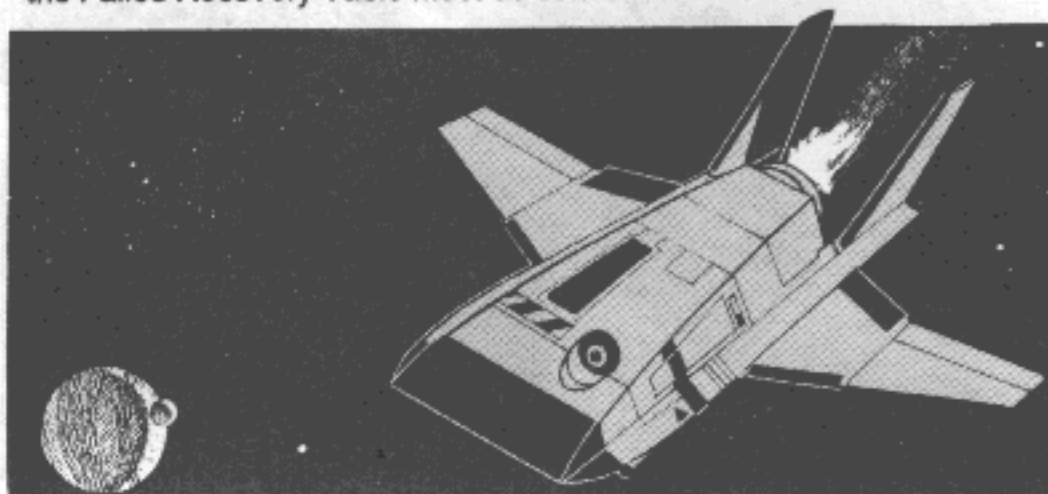
To recover a fighter, the DropShip and fighter must end a turn in the same hex, with the same velocity and direction, as with refueling. During the next turn, the fighter pilot must make a *Piloting Skill Roll* with the following modifications.

RECOVERY MODIFICATION TABLE

Fighter Condition	Modifier
Craft under movement restriction	+3
Craft has lost 1/2 thrust ability	+2
Craft has lost all thrust ability	+4

DropShip modifications
Same as above.

If either the Fighter or DropShip is suffering random movement, recovery is not possible. A DropShip must have a functioning door to attempt recovery. If the *Piloting Skill Roll* fails, the Failed Recovery Table must be consulted.



FAILED RECOVERY TABLE

Difference Between Target Number and Actual Roll

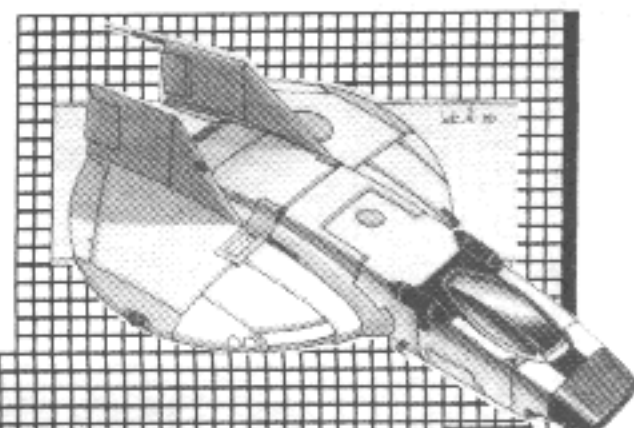
Effect

1	Recovery successful. Fighter takes 10 damage points on front table.
2	Recovery successful. Fighter takes 15 damage points on front table. DropShip takes 10 damage points on side table.
3	Recovery successful. Fighter takes 20 damage points on front table. DropShip takes 15 damage points on side table, and fighter will not be able to launch during rest of game.
4	Recovery fails. Fighter nose destroyed. DropShip takes 25 points of damage to side.
5	Recovery fails. Fighter suffers 25 points of damage to nose and 15 points to side. DropShip suffers 30 points of damage to side.
6	Recovery fails. Fighter jammed in door, will take 6 + 1D6 turns to free, fighter suffers 30 points to side. DropShip suffers 30 points to side. No atmospheric entry possible until fighter is removed.
7+	Recovery fails. Fighter damages DropShip door beyond repair. DropShip may not enter atmosphere until repairs are completed. Completion time: 6+2D6 turns. Fighter destroyed. DropShip takes 35 points to side.

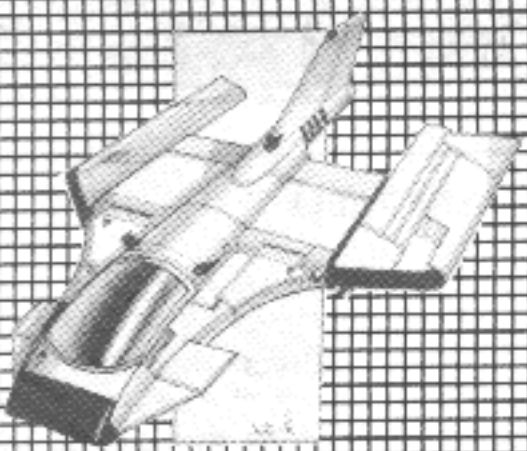
Acceleration and deceleration are the very first or very last parts of movement.

If a craft's engine is destroyed, no energy weapons may be fired and one reload of ballistic weapons may be fired.

If a DropShip's bridge is destroyed, no thrust may be spent, no weapons may be fired, but fighters and 'Mechs may be ejected. Any such ejections take place as the last part of movement. Fighters launched in this manner may not move or fire until the next turn.



OPTIONAL RULES



ABSTRACT 'MECH LANDING SYSTEM

Some players may not want to spend a large amount of time determining the exact location and condition of dropped 'Mechs. A quicker abstract system is given below as an alternative.

For each 10 points of damage suffered by the 'Mech during descent, roll damage effects on the following table.

ABSTRACT DAMAGE TABLE

Die Roll	Damage Effect
2	+3 Gyro critical
3	+2 Miscellaneous critical
4	+1
5	+1
6	+1
7	+1
8	+1
9	+1
10	+1
11	+2 Miscellaneous critical.
12	Head Hit 'Mech destroyed.

These results are modifiers to a descent Piloting roll. This skill roll has a base of 5. If the roll fails, the 'Mech is destroyed. If the roll succeeds consult the following table to determine in what type of terrain the 'Mech will land in.

ABSTRACT LANDING TERRAIN

Die Roll	Terrain Type
1	Clear
2	Clear
3	Clear
4	Rough
5	Light Woods
6	Heavy Woods

The 'Mech Landing Roll should now be made with modifiers from the Landing Modifier Table. If the roll succeeds, the 'Mech lands safely. If the roll fails the 'Mech is destroyed.

SAMPLE VICTORY CONDITIONS

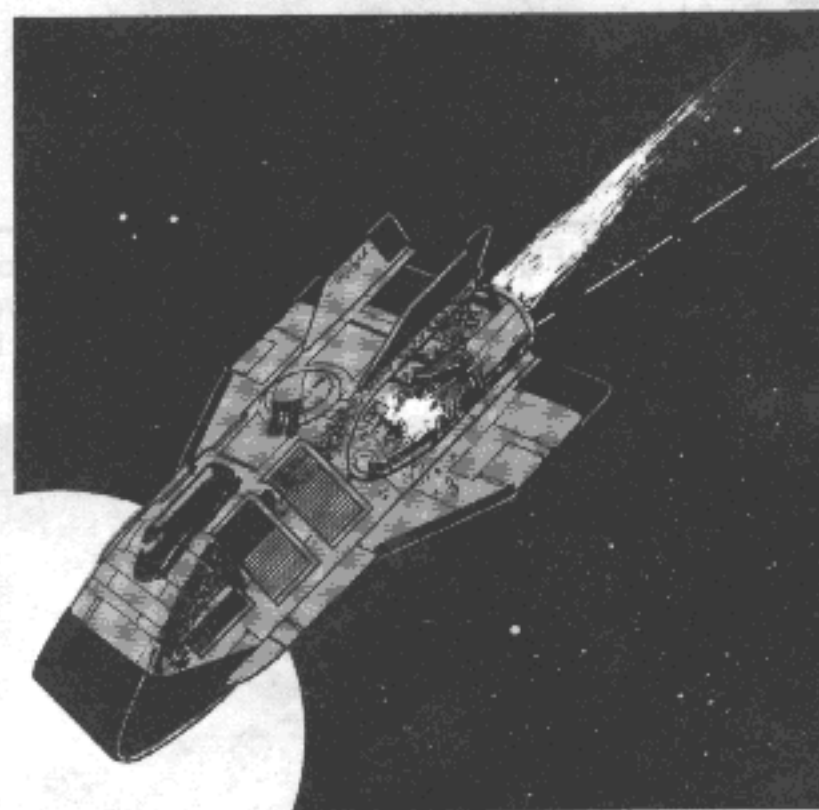
In many scenarios, it is sometimes difficult to know who won the engagement. One way to resolve this problem is to assign victory points to various achievements during the game. The player with the most victory points at the end is declared the winner. The difference between opposing player victory point totals will also show the margin of victory.

The table below shows some examples of events worth victory points and can be used as a guide line when playing.

VICTORY POINT TABLE

Event	Victory points
Player meets scenario objective	100
Per enemy craft destroyed	1 VP/heat sink or 1 VP/ton
Per enemy 'Mech destroyed	10
Per enemy 'Mech damaged	5
Per friendly 'Mech dropped	5
Per friendly 'Mech landed	10
Per DropShip landed	25
Per Fighter landed	15

Additions to this table might include bonus points awarded for landing the first 'Mech lance or DropShip, or a sliding scale that awards more points for landing units earlier rather than later in the game.



SCENARIOS

CLOSE, BUT NO CIGAR

In an unconventional move, the commander of a Liao raiding force has sent his Fighters far ahead of his DropShips in an attempt to surprise the Steiner defenders. As the Fighters have a much smaller detection signature and the DropShip's position was very obvious, Liao hoped his Fighters would catch the defenders by surprise. The attacking fighters were finally noticed when they got close to the system's moon. It was only at this point that the defending Fighters scrambled. The attacker must destroy all defending fighters or the DropShips will turn back.

Set-Up

Each side may choose any number of fighters, as long as the total number of heat sinks fighting on each side is 100 or less.

The Defender sets up its fighters in the upper atmosphere of the target planet.

The Attacker sets up his fighters at least 17 hexes away from the planet and within 10 hexes of the moon.

Victory Conditions

The game is over when one side's fighters have all been destroyed. The victor is the player who has fighters remaining.

SCRAMBLE FOR YOUR LIFE

Surprise is hard to achieve when crossing interplanetary distances. It takes a lot of planning, scheming, and sometimes lives lost. In this case, the plan was for a small force made up of a *Leopard* DropShip filled with Fighters instead of 'Mechs to jump into the target system. Their sole objective was to knock out the system's long-range radar facilities a week before the actual attack.

Surprise is worth the price, if it can even the odds. Here, a Kurita attack force has managed to catch Davion fighters on the ground. If not for the good training and quick reflexes of Davion units, the battle would have been over before it even started.

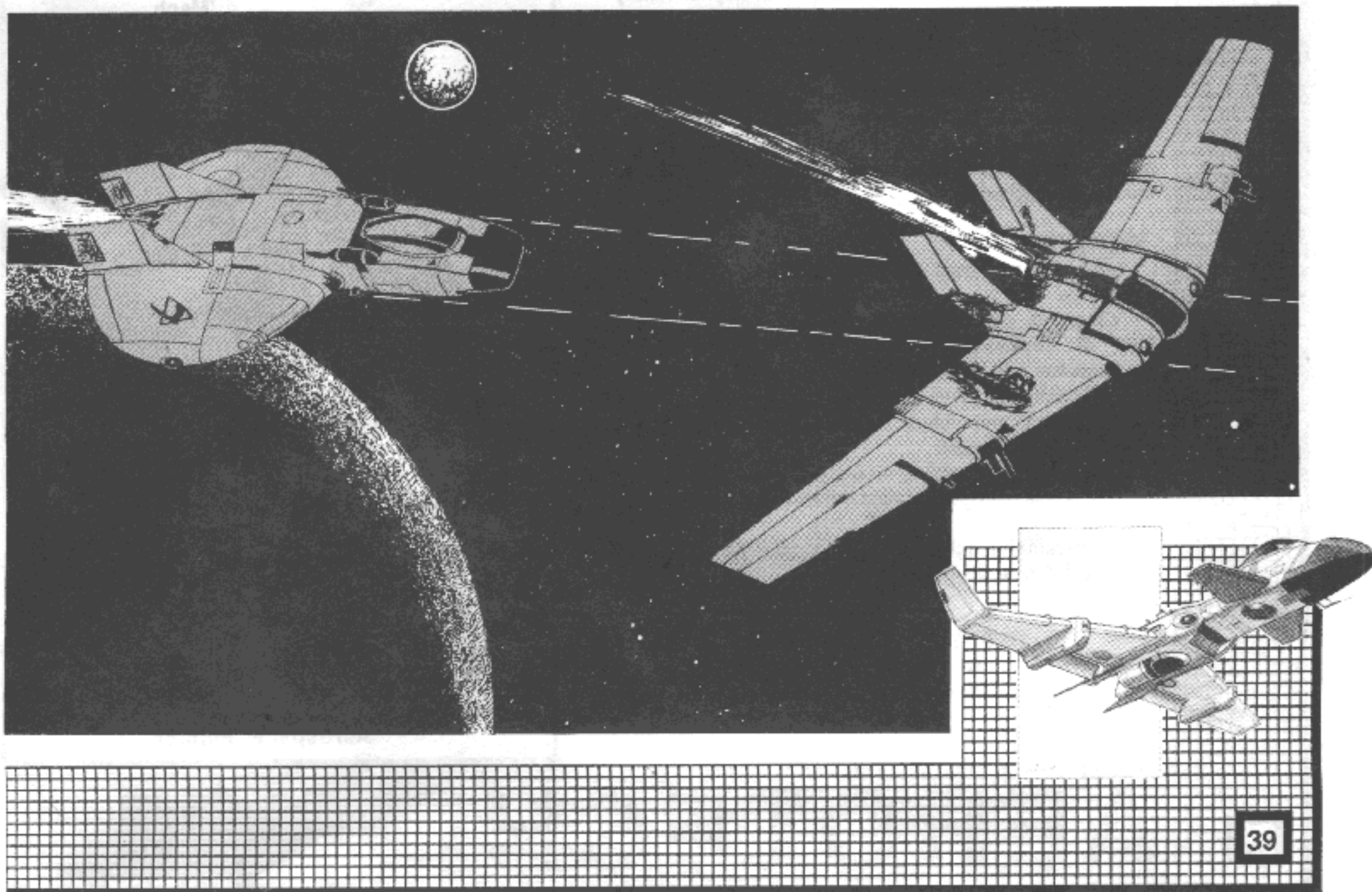
Set-Up

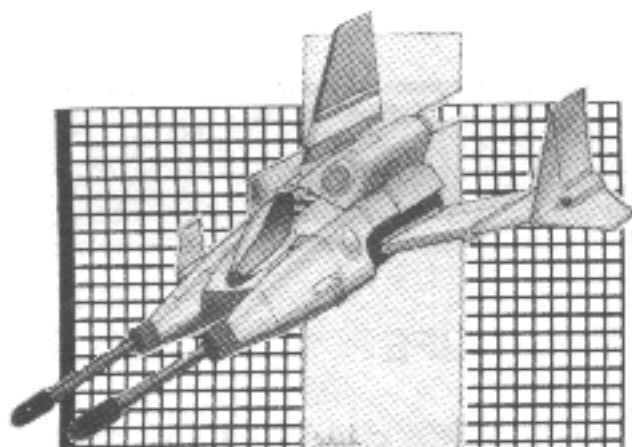
Each player may choose fighters totalling 100 heat sinks.

The game takes place at low altitude in the atmosphere. Davion forces may set up anywhere on the mapsheet, but all units must be within 10 hexes of each other. Kurita units are placed anywhere on the map, but only after all Davion units are in place.

Victory Conditions

The side with the last fighter alive is the victor.





SCENARIO THREE

This is the standard raid procedure. A one or two DropShip force with its normal complement of fighters intends to raid a relatively undefended planet. The objective is to fight through the defending fighters, and then drop as many 'Mechs as possible to secure a landing area for the DropShips and fighters. The Defenders will try to cripple and

prevent the DropShips from dropping any 'Mechs.

Set-Up

The Attacker may choose any combination of DropShips and fighters, as long as the Heat Sink total is 250 or less and the number of fighters chosen can be carried by the DropShips. The Attacker places his units at the edge of one of the short sides of the mapsheet.

The Defender may choose fighters up to a total of 225 heat sinks. It is recommended that the defender use the quantity-over-quality strategy in picking fighters. The Defender places his units within the 10-arrow zone of the planet's gravity well.

Special Rules

Before the start of the game, roll one die to determine the Attacker drop zone. This is where all 'Mechs must be dropped and all craft landed to qualify for victory points.

The Attacker must start dropping 'Mechs by game turn 7.

Victory Conditions

Victory and the scale of victory are based on the performance of each side. Victory points are awarded on the following schedule:

Victory Points

1 point per heat sink of destroyed fighters and DropShips

5 points per destroyed 'Mech. This includes any kind of destruction, from DropShip destruction to weapons fire, and landing failure.

10 points per 'Mech dropped [Attacker only]

5 points per 'Mech landed in an undamaged condition [Attacker only]

25 points per DropShip landed [Attacker only]

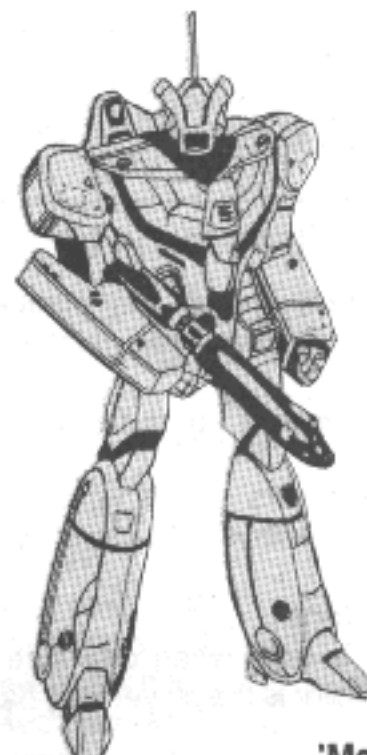
10 points per fighter landed [Attacker only]

Subtract the higher victory point total from the lower and check the results below.

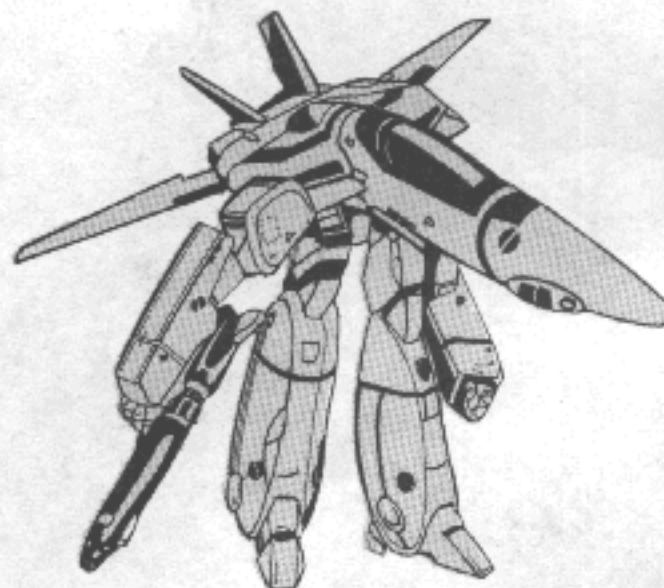
0-50	Draw
51-100	Marginal Victory
101-150	Tactical Victory
151+	Decisive Victory

SCENARIO FOUR

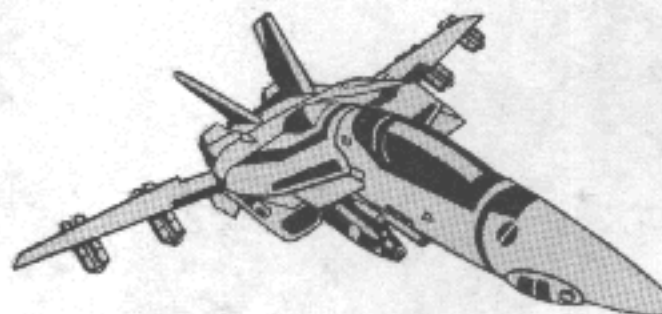
In this scenario, two different attack forces are raiding the same planet. The objective is to destroy the enemy and secure the planet-side facilities. Each side starts with 250 heat sinks, and each can only have as many fighters as their DropShips can carry. Each side can convert 4 'Mech cocoons into fighter cocoons. Victory conditions and point schedules are the same as that in scenario three, except that both sides are considered attackers.



'Mech



Air-Mech



Aerospace Fighter

ENGINE CRITICAL HIT TABLE

Die Roll	Effect
2	Engine Explodes. Craft moves straight at current velocity.
3	Lose one-half current thrust permanently. Control surface hit.
4	Lose one-third current thrust permanently. Control surface hit.
5	Lose one-fourth current thrust permanently.
6	-15 fuel points.
7	-10 fuel points.
8	-15 fuel points.
9	+5 heat points per turn.
10	+5 heat points per turn, control surface hit.
11	+10 heat points per turn, control surface hit.
12	Engine Explodes, craft destroyed.

RANDOM MOVEMENT TABLE

Die Roll	Effect
2	Hard left
3	Soft left
4	Hard left
5	Soft left
6	Straight
7	Straight
8	Straight
9	Soft right
10	Hard right
11	Soft right
12	Hard right

Hard = forward one hex, 120-degree or 2-hexside turn
Soft = forward one hex, 60-degree or 1-hexside turn

BRIDGE CRITICAL HIT TABLE

Die Roll	Effect
2	Bridge Destroyed. Craft continues moving straight at current velocity.
3	Control Surface Hit. Roll on Control Surface Hit Table. The result is permanent.
4	Control Surface Hit and +1 To-Hit Modifier.*
5	Control Surface Hit and +1 To-Hit Modifier.*
6	+2 To-Hit Modifier.*
7	+1 To-Hit Modifier.*
8	+2 To-Hit Modifier.*
9	Control Surface Hit and +1 To-Hit Modifier.*
10	Control Surface Hit and +1 To-Hit Modifier.*
11	Control Surface Hit. Roll on Control Surface Hit Table. The result is permanent.
12	Bridge Destroyed. Craft continues moving straight at current velocity.

* These results last until a successful Piloting Skill Roll is made.

HIT LOCATION TABLE

Die Roll	Front	Aft	Left/Right Side
2	Cockpit/Bridge	Engine/Critical	Cockpit/Bridge
3	Nose/Weapon out	Fuselage/Control	Wing/Weapon Out
4	Fuselage	Fuselage/Heat Sink	Engine/Heat Sink
5	Right Wing	Right Wing	Fuselage/Bomb
6	Nose	Engine	Wing
7	Nose	Fuselage/Heat Sink	Fuselage/Door
8	Nose	Engine	Wing
9	Left Wing	Left Wing	Nose
10	Fuselage/Bomb	Fuselage/Heat Sink	Engine/Heat Sink
11	Nose/Weapon Out	Fuselage/Control	Wing/Weapon Out
12	Cockpit/Bridge	Engine/Critical	Engine/Critical

Table Explanations:

General: Damage is marked off the designated location. Extra effects are noted below.

/Bomb: The heaviest bomb carried by the fighter is destroyed. The movement penalty is still in effect. If no bombs are carried, there is no effect.

/Bridge: Affects DropShips only. Roll on the Bridge Hit Table. Damage is marked off against the Nose.

/Critical: A roll must be made on the Engine Critical Hit Table.

/Control: Affects Fighters only. Roll on the Control Surface Hit Table and take the resulting movement restriction.

/Weapon Out: The craft loses 1 weapon from the damaged location. If no weapon remains, there is no effect. The defending player chooses the weapon to be destroyed.

/Heat Sink: The craft loses 1 heat sink.

/Door: Affects DropShips only. One DropShip door is damaged. No Mech may leave by that door until groundside repairs are completed. This damage reduces by one the number of Mechs that may be dropped in one turn. Roll one six-sided die. On a result of 1 or 2, a fighter door has been damaged.

MISSILE HIT TABLE

Die Roll	Number of Missiles Fired						
	2	4	5	6	10	15	20
2	1	1	1	2	3	5	6
3	1	2	2	2	3	5	6
4	1	2	2	3	4	6	9
5	1	2	3	3	6	9	12
6	1	2	3	4	6	9	12
7	1	3	3	4	6	9	12
8	2	3	3	4	6	9	12
9	2	3	4	5	8	12	16
10	2	3	4	5	8	12	16
11	2	4	5	6	10	15	20
12	2	4	5	6	10	15	20

BASE TO-HIT TABLE

Range	Base To-Hit Number
Short	6
Medium	8
Long	10

HEAT POINT TABLE

Activity	Heat Points
Weapon Fire	See Weapons Table.
Overthrust	1 Heat Point per thrust point of overthrust.
Atmospheric Entry	Successful entry: 10 - (difference between Piloting Skill Roll and Target Number).
	Unsuccessful entry: See Failed Entry Table.
Engine Criticals	See Engine Critical Hit Table.
Heat Sinks	-1 Heat Point per operational heat sink.

ATMOSPHERIC ENTRY MODIFIERS

Current Velocity	Powered Entry	Dead Stick Entry
0	+3	+10
1-2	+2	+8
3-4	+1	+6
5-6	0	+4
7-8	+1	+2
9-10	+2	+4
11-12	+3	+6
13-14	+4	+8
15-16	+5	+10
17-18	+6	+12
19+	+7	+14

BLACKOUT TABLE

Thrust spent	Pilot Condition	Piloting Modifier
	Damage points taken	
1		-7
2		-6
3		-5
4		-4
5		-3
6		-2
7	0	-1
8	1	0
9	2	+1
10		+2
11	3	+3
12		+4
13	4	+5
14		+6
15	5	+7

AEROSPACE CONSCIOUSNESS TABLE

Total Damage	Consciousness Number
0	3
1	3
2	5
3	7
4	10
5	11
6	Dead

THRUST POINT COST TABLE

Velocity	Thrust Point Cost Per Hexside Facing Change
0	Not Allowed
1-5	2
6-10	4
11-15	6
16-20	8
21-25	10
26-30	12

LOW ALTITUDE TURN TABLE

Velocity	Minimum Number of Hexes of Straight Movement Turn
1-3	1
4-6	2
7-10	3
11-15	4
16+	5

SPECIAL MANEUVERS TABLE

Maneuver	Thrust Required	Skill Roll Modifier
1	4	+2
2	4	+2
3	3	+1
4	3	+1
5	3	+1
6	4	+2
7	4	+2
8	3	+2
9	3	+2
10	2	0
11	2	0

WEAPONS TABLE

Type	Heat	Damage	Minimum	Short	Medium	Long	Tons	Shots/Ton
Base To-Hit Number				6	8	10		
Small Laser	1	3	-	1	2	3	5	
Medium Laser	3	6	-	1-3	4-6	7-9	1	
Large Laser	8	8	-	1-5	6-10	11-15	5	
Particle Cannon	10	10	3	1-8	7-12	13-18	7	
Auto Cannon/2	1	2	4	1-8	9-16	17-24	6	45
Auto Cannon/5	1	5	3	1-6	7-12	13-18	8	20
Auto Cannon/10	3	10		1-5	6-10	11-15	12	10
Auto Cannon/20	7	20		1-3	4-6	7-9	14	5
Machine Gun	0	2		1	2	3	5	200
Flamer	3	2		1	2	3	1	
Long Range Missiles								
5-pack	2	*	6	1-7	8-14	15-21	2	24
10-pack	4	*	6	1-7	8-14	15-21	5	12
15-pack	5	*	6	1-7	8-14	15-21	7	8
20-pack	6	*	6	1-7	8-14	15-21	10	6
Short Range Missiles								
2-pack	2	**		1-3	4-6	7-9	1	50
4-pack	3	**		1-3	4-6	7-9	2	25
6-pack	4	**		1-3	4-6	7-9	3	15

* LRM missiles do 1 point of damage per missile that hits

** SRM missiles do 2 damage points per missile that hits