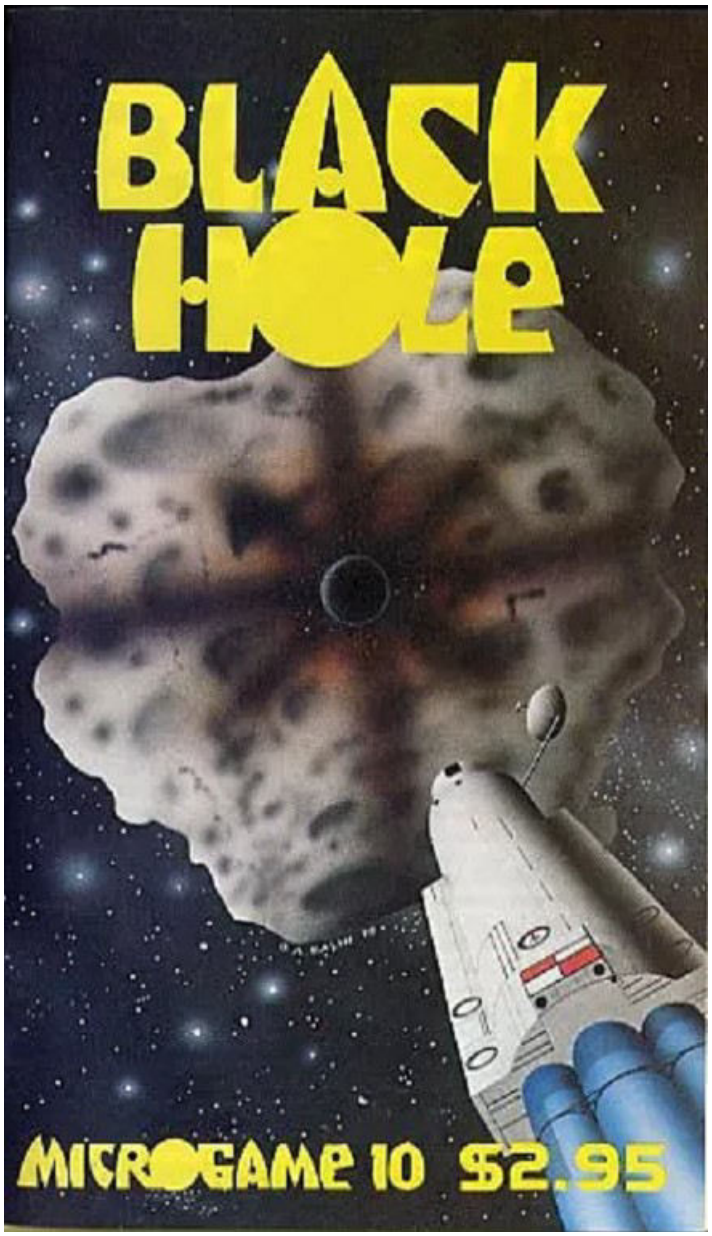
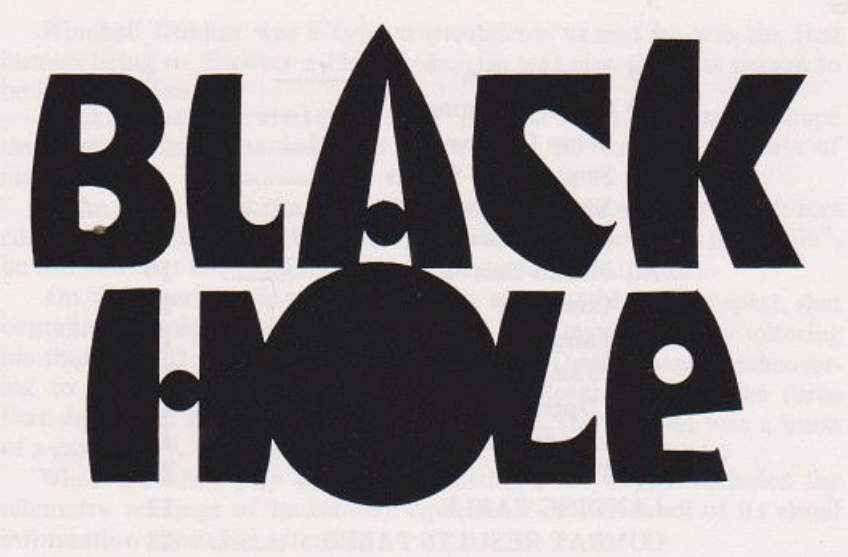

BLACK
HOLE
MICROGAME 10 $2.95



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Thanks go to those who playtested or commented on this game, including Steve Jackson, Ben Ostrander, Bill Williams, Bill Wade, Keith Gross, and Willie Sirois. A very special thanks goes to Howard Thompson for his patience.
And finally my sincere appreciation to Eric Driskell, Charles Schwartz, David Sims, and Carl Geers for taking the time to "play that crazy game where the missiles go off one side of the map and come back on the other side". Thanks guys.

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Preface

The economics of asteroid mining were a classic example of supply and demand. Terra's demand for raw materials was well established, and several corporations had made the huge investments to exploit the asteroid belt to satisfy that demand.

The actual riches of the Belt had fallen very short of the figures speculated on in the 20th century, making each asteroid with even modest deposits a prize worth fighting for.

As with oil, cartels developed around the Belt's resources. The cartels had all the trappings of nations and didn't shirk minor conflicts. The discovery of an exceptionally rich asteroid would often result in a scramble to reach the asteroid with enough military leverage to enforce a claim. You could make your own law and order 2 AUs from the Earth.

Ships transporting the men and arms to an asteroid would usually avoid combat with each other since their value could exceed even the worth of a mineral rich asteroid.

Although the corporations prospered, they avoided areas of limited and uncertain returns. Most of the prospecting was done by independent miners. Miners was a misnomer. These prospectors made their fortunes by selling information. With the equipment on their sensory packed ships, they would record the necessary data about a particular asteroid then place the data on an auction block. Of course, they would leave out the location until the deal was settled.

Like the solitary gold prospector of the 1800s, the asteroid prospectors were independent, self-sufficient and greedy.

Winchell Dunkin was a typical prospector except he was the first human being to discover a black hole. He was also the first person to be killed by one.
Dunkin was only attracted to the asteroid due to its strange shape since his instruments indicated there were no mineral deposits of interest.
As he approached the asteroid he speculated on what natural forces could shape an asteroid like a torus. As his ship passed over the “hole”, he realised that the moulding forces had been artificial, alien.
On the interior side were three areas, spaced 120 degrees apart, that contained a wild array of structures and buildings. Excitedly entering his shuttle craft and separating from the ship, Dunkin began manoeuvring to land near one of the areas. Dunkin never imagined the force that destroyed him. One moment he existed, the next he was a burst of x-ray energy.
When Dunkin's ship began broadcasting a mayday, it included the telemetry readings of its sensory equipment as well as all of its visual information about the asteroid.
The data brought a quick response from the two major cartels. Armed strike forces were launched to capture the asteroid-artifact.
And the battle for BLACK HOLE was on.

1.0 INTRODUCTION

BLACK HOLE is a two player science fiction game representing tactical warfare on an asteroid. Each player commands a combat force that he manoeuvres to attack his opponent's units. Through movement and combat, each player attempts to capture and control the asteroid while destroying the other player's force.

2.0 GAME COMPONENTS

2.1 Map. The map represents a torus (doughnut) shaped asteroid. The A column is the outer equator, and the H column is the inner equator. The “inside” surface area of the asteroid consists of columns E through K inclusive. Columns A, B, C, D, L, M, and N are the “outside” surface area. To help visualise this: imagine one A column overlaying the other A column creating a tube; connecting the ends of the tube gives the torus shape.
Terrain features are shown on the map in the following manner:

A. Plain hexes contain no markings.
B. Crater hexes contain dark splash contours.
C. Mountain hexes contain dark irregular lines.
D. Base hexes will be hexes that contain base counters as indicated in the setup rules.
E. The “inside” hexes have been lightly shaded to help the players identify this area.

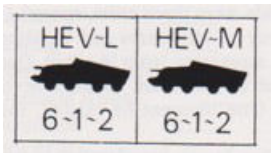
The A column is duplicated on the map to aid in the movement of the counters. The top row of hexes is also duplicated at the bottom of the map for the same purpose. For the sake of orientation, and also to aid in the movement of the counters, consider the top of the map as north, the bottom as south, the left edge as west, and the right edge as east. In reality these directions are meaningless, but they will serve to make the movement rules more easily understood.
Remember, although certain hexes are duplicated, there is only one of each hex. For

example, a unit at hex A-1 in the NW corner is also at hex A-1 in the SW, SE and NE corners since there is only one A-1 hex.

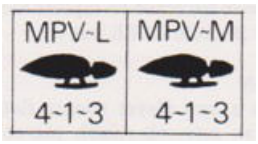
2.2 Unit Counters. Each player has 65 playing pieces indicating different types of units.

2.2.1 Combat Units. There are six types of combat units.

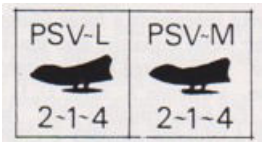
A. Heavy Equipment Vehicles (HEVs). There are two groups of HEVs. One group is armed with missiles, while the other group is armed with powerful laser drills that have been converted to weapons.



B. Mobile Platform Vehicles (MPVs). There are two groups of MPVs. One group is armed with missiles, while the other group is armed with high intensity lasers.



C. Personnel Service Vehicles (PSVs). There are two groups of PSVs. One group is armed with missiles, while the other group is armed with low intensity lasers.



2.2.2 Missile Units. These counters come in three types representing one, two, or three missiles.

The numbers on missile unit counters are attack strength (left) and defence strength (right).

Single Missile Unit (SMU). This counter represents one missile.

Dual Missile Unit (DMU). This counter represents two missiles.

Triple Missile Unit (TMU). This counter represents three missiles.

2.2.3 Base Units. The base counters represent immobile installations.

2.2.4 Dummy Units. The dummy counters represent fake base and combat units designed to confuse the enemy.

2.2.5 Ship Units. The ship counters represent the players' space ships.

2.3 Extra Materials. The players will need pencils, paper and a pair of dice.

3.0 SETUP FOR PLAY

3.1 Counter Selection. Each player selects one set of counters, either blue or white, to represent his forces.

3.2 Combat Unit Selection. From his counters, each player selects a force of combat units totalling 40 attack points. For example, a player could choose 6 PSVs armed with lasers, 6 PSVs armed with missiles, 1 HEV armed with a laser, 1 HEV armed with missiles, and a laser armed MPV. Thus, 12 + 12 + 6 + 6 + 4 = 40.

3.3 Base Placement. Three base counters are placed on the map, one at hex H-5, another at hex H-15, and another at hex H-25.
3.4 First Move. To determine which player moves first, each player rolls a die. The higher roller is the first player and moves first, while the low roller is the second player and moves second.
3.5 First Player's Initial Landing. The first player makes his initial landing according to the landing rules.
3.6 Second Player's Initial Landing. After the first player's initial landing, the second player makes his initial landing according to the landing rules.
3.7 Start of Game. After the second player's initial landing, the game begins with the first player's turn in the sequence of events.

4.0 SEQUENCE OF EVENTS
4.1 Game Turn. BLACK HOLE is played in turns. A complete game turn consists of a player turn by each player. When one player has completed his sequence of events, it is the other player's turn.
4.2 Sequence of Events. The sequence of procedures listed below describe the order of events through which each player must go during a complete game turn.
First Player Turn

A. Initial Action. First player turns face up any undisrupted units that landed face down in the previous turn.

B. Missile Movement Phase. First player moves all his missile units on the map one at a time, resolving any combat before moving the next missile unit.

C. Victory Point Phase. First player receives victory points for each of his combat units on a base hex.

D. Combat Unit Movement Phase. First player moves his combat units according to the combat unit movement rules.

E. Laser Combat Phase. First player conducts laser combat with his laser armed combat units.

F. Missile Launch Phase. The missile armed combat units of the first player launch new missiles one at a time resolving any combat before launching the next missile unit.

G. Landing Phase. First player lands any available combat units according to the landing rules.

H. Final Action. First player turns his disrupted units face up, which brings them back to an undisrupted state.

Second Player Turn
The second player, using his own units, repeats the sequence listed above.
The second player marks off one complete game turn and play reverts to the first player. The players repeat these steps for each turn of the game.

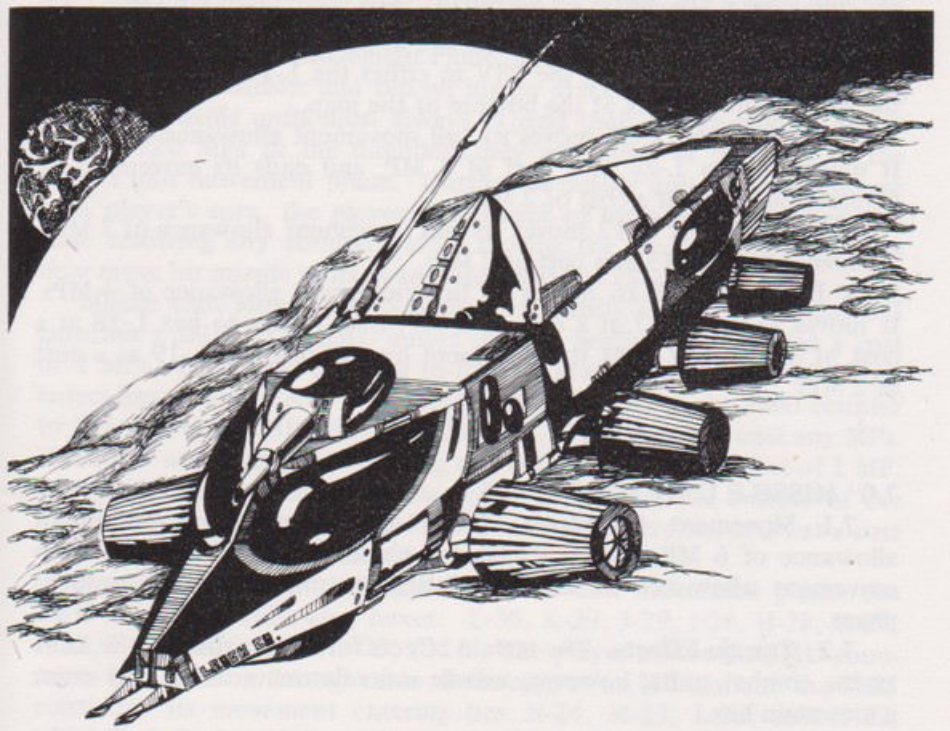
5.0 VICTORY CONDITIONS

5.1 Victory Points. A player receives victory points (VPs) for each of his combat units that occupy a base hex during the victory point phase of his turn. The victory points are awarded as follows:

PSV = 10 VPs
MPV = 15 VPs
HEV = 20 VPs

During the game a player also receives victory points equal to the attack strength of enemy combat units the player destroys. HEVs are worth 6 VPs; MPVs are worth 4 VPs; and PSVs are worth 2 VPs. Players do not receive any victory points for enemy combat units destroyed by the black hole.

5.2 Game Length. BLACK HOLE is played for 10 game turns. At the end of the 10th turn, the victory points are totalled and the player with the most victory points is the winner.



6.0 COMBAT UNIT MOVEMENT

6.1 Movement Allowance. Each combat unit has a specific number of movement points (MPs). HEVs have a movement allowance of 2 MPs; MPVs have a movement allowance of 3 MPs; and PSVs have a movement allowance of 4 MPs. It costs a certain number of MPs for each combat unit to enter a hex as described below.

6.2 Terrain Effects. It costs all combat units 2 MPs to move from north to south or south to north on the outside hexes, while similar movement on the inside hexes costs 1 MP per hex. All diagonal movement, NE to SW, NW to SE, whether on the inside or outside hexes, costs 1 MP per hex. Craters, mountains, and bases do not add any movement cost to entering a hex.

6.3 General Movement. During the combat unit movement phase of a player's turn, he may move all, some, or none of his combat units. A combat unit never has to move, and when it does move it never has to use all of its MPs. However, a combat unit can never exceed its movement allowance, nor can MPs be saved from turn to turn, nor are MPS transferable from one unit to another.

6.4 Stacking. Any number of friendly combat units may stack in one hex.

6.5 Movement Through Other Combat Units. Any combat unit may move through a hex occupied by friendly combat units. Friendly combat units can never enter hexes occupied by enemy combat units.

6.6 Movement Examples. A PSV at hex B-3 moves its full movement allowance of 4 MPs. It moves to hex A-2 at a cost of 1 MP. The player moves the counter to hex A-2 on the right side of the map. This does not cost any MPs. From hex A-2, the PSV enters hex N-2 at a cost of 1 MP; and it ends its movement by entering hex L-1 at a cost of 1 MP. The player has the option of placing the PSV in either the L-1 hex at the top of the map or the L-1 hex at the bottom of the map.

An MPV at hex K-28 moves its full movement allowance of 3 MPs. It moves to hex L-28 at a cost of 1 MP, and ends its movement by entering hex L-27 at a cost of 2 MPs.

An HEV at hex A-12 moves its full movement allowance of 2 MPs. It moves to hex A-13 at a cost of 2 MPs.

A PSV at hex K-16 moves its full movement allowance of 4 MPs. It moves to hex K-17 at a cost of 1 MP, then moves to hex L-18 at a a cost of 1 MP; and it ends its movement by entering hex L-19 at a cost of 2 MPs.

7.0 MISSILE UNIT MOVEMENT

7.1 Moment Allowance. Each missile has a movement allowance of 6 MPs during its launch phase. Each missile unit has a movement allowance of 20 MPs during the missile unit movement phase.

7.2 Terrain Effects. The terrain effects for missile units is the same as for combat units; however, missile units detonate when they enter a mountain hex.

7.3 General Movement. Each missile unit launched during the missile unit launch phase of a player's turn *must* move its full movement allowance of 6 MPs. During the missile unit movement phase of a player's turn, all missile units *must* move their full movement allowance of 20 MPs.

7.4 Stacking. Any number of missile units (enemy or friendly) may occupy a hex.

7.5 Movement Though Other Missile Units. Any missile unit (enemy or friendly) may move through a hex occupied by other missile units (enemy or friendly).

7.6 Facing. Each missile unit must be placed and moved on the map so that the arrow on the counter faces the hexside in the direction the missile unit is moving. When launched from a combat unit, a missile unit has a choice of six facings. The facing of the missile unit depends of which adjacent hex it enters. A missile unit entering the hex north of the combat unit it was launched from will be facing north. A missile unit entering the hex northeast of the combat unit it was launched from will be facing northeast and so on.

7.7 Missile Unit Launch Phase. Only combat units armed with missiles can launch missile units. A missile armed HEV can launch 1 TMU or 1 DMU and 1 SMU or 3 SMUs per turn. A missile armed MPV can launch 1 DMU or 2 SMUs per turn. A missile armed PSV can launch only 1 SMU per turn. Each missile unit can be launched in a separate direction. Each missile unit must be moved its full movement allowance and any combat resolved before another missile unit can be launched.

7.8 Turning. Missile units can be guided during their launch phase. It costs 1 MP for a missile to change its facing. A missile unit can make only one facing change per hex.

7.9 Missile Unit Movement Phase. After their launch phase, missile units become ballistic and can no longer make facing changes. Therefore, the missile units must always expend their full movement allowance of 20 MPs in the direction they are facing at the start of the missile unit movement phase. During the missile unit movement phase of a player's turn, the player moves each of his missile units one at a time resolving any combat before moving the next missile unit. He may move his missile units in any order that he chooses.

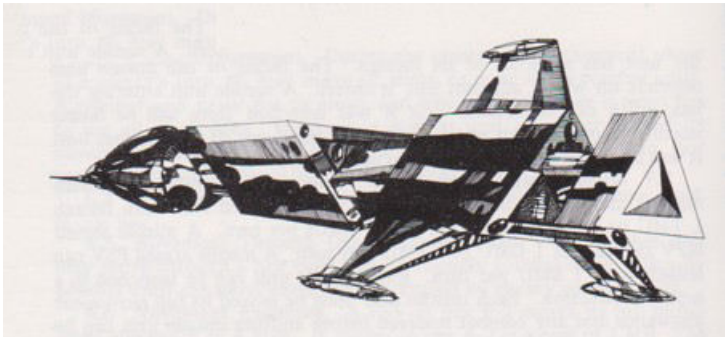
7.10 Missile Unit Movement Examples. A missile armed PSV at hex B-3 launches a SMU. The SMU enters the hex north of the PSV at a cost of 2 MPs. It changes its facing to the NW at a cost of 1 MP, and then it enters hex A-1 at a cost of 1 MP. The player moves the SMU counter to hex A-1 in the NE corner of the map. This does not cost any MPs. The SMU maintains its NW facing and enters hex N-1 at a cost of 1 MP. The player moves the SMU counter to hex N-1 at the bottom of the map. This does not cost any MPs. The SMU enters hex M-30 at a cost of 1 MP and ends its movement.

Next turn, during the player's missile unit movement phase, the SMU enters the following hexes: L-30, K-29, J-29, I-28, H-28, G-27, F-27, E-26, D-26, C-25, B-25, A-24, The player moves the SMU counter to hex A-24 on the right side of the map at no MP cost and the SMU continues its movement entering hex N-24, M-23, L-23, and K-22, which is a mountain hex and therefore, the SMU detonates and is removed from the map.

8.0 COMBAT

8.1 Combat Unit Attack Strength. The attack strength of combat units is expressed in terms of a specific number of attack points (APs). A laser armed HEV, for example, has an attack strength of 6 APs. The attack strength of missile armed combat units refers to the total attack strength of the missile units the combat unit can launch.

8.2 **Missile Unit Attack Strength.** TMUs have an attack strength of 6 APs. DMUs have an attack strength of 4 APs. SMUs have an attack strength of 2 APs.



8.3 Defensive Strength. The defence strength of units is expressed in terms of a specific number of defence points (DPs). All combat units have a defence strength of 1 defence point. All missile units have a defence strength of 2 defence points.

8.4 General Combat. There are two types of combat: missile combat and laser combat.

8.5 Missile Combat. During the missile unit movement phase, missile detonation must occur when a missile enters a hex occupied by a combat unit(s) either enemy or friendly.

During the combat unit movement phase, missile detonation must occur when a combat unit enters a hex occupied by a missile unit(s) either enemy or friendly.

During the missile unit launch phase, missile detonation must occur when a missile unit enters a hex occupied by a combat unit(s) either enemy or friendly.

Missile detonation must occur whenever a missile unit enters a mountain hex.

8.6 Missile Detonation. Missile detonation has the following effects: All units in the hex of detonation are attacked individually with the full attack strength of the missile unit. All units in the six hexes adjacent to the hex of detonation are attacked individually with half the attack strength of the missile unit.

For example, a TMU enters a hex occupied by a PSV and an MPV. The TMU detonates and attacks the PSV at 6 to 1 odds and the MPV is also attacked at 6 to 1 odds. In one of the adjacent hexes are two DMUs, which are each attacked at 3 to 2 (1 to 1) odds. In another adjacent hex is an HEV, which is attacked at 3 to 1 odds.

8.7 Laser Combat. Only laser armed combat units can execute laser combat. Laser combat may occur when a player's laser armed units can see enemy units. Laser units on the outside hexes can only see into the six hexes adjacent to the hex they occupy. Laser units on the inside hexes can see into the six hexes adjacent to the hex they occupy plus all the inside hexes. Each laser unit can only attack once per turn.

The attack strength of a laser armed unit is modified by the distance to its target. The effect of this modification is shown on the chart below.

no. of hexes to target	effect on attack strength
1-6	doubled
7-12	no effect
13-18	halved

For example, an HEV is attacked by three laser units: a PSV 4 hexes away, an MPV 10 hexes away, and an HEV 16 hexes away. The total attack strength of the laser units is 11 APs. The PSV's attack strength is doubled to 4. The MPV's attack strength is not affected and stays at 4, while the HEV's attack strength is halved to 3. 4 + 4 + 3 = 11.

8.7.1 Combining Attacks. Any number of laser units may combine their attack strengths into a single attack strength when attacking a single enemy unit. See example above.

8.7.2 Multiple Attacks. Any number of successive attacks may be made by individual laser units against any enemy unit in one turn, provided that each attacking laser unit fires only once. For example, an MPV occupying a base hex is attacked by three laser units: a PSV 4 hexes away, an MPV 7 hexes away, and an HEV 13 hexes away. The attacking player decides to attack first with the PSV. The odds are 4 to 2, which rounds down to 2 to 1. The attacker rolls the die and gets a 3, which on the combat results table (CRT) gives a result of NE, no effect. The MPV is undamaged. The attacking player attacks next with his MPV. The odds are 4 to 2 (2 to 1). The attacker rolls the die and gets a 5, which is D, disrupted. The defending MPV is turned face down to indicate it is disrupted. The attacking player attacks next with the HEV. The odds are 3 to 2, which rounds down to 1 to 1. The attacker rolls the die and gets a 6, which on the CRT gives a result of D. The defending MPV is destroyed since it was disrupted and received another D result.

8.7.3 Multiple Unit Combat. Each laser unit can only attack a single enemy unit per turn. When a laser unit attacks a stack of enemy units, it can only attack a single unit in the stack, not the entire stack. The attacking player can choose which unit he will attack; but again, he can only attack one unit in the stack.

8.8 Terrain Effects on Combat. The terrain features on the map affect combat as follows:

8.8.1 Effect on Combat Units. The defence strength of combat units is affected by the terrain features the combat units occupy. Also, the ability of the combat units to conduct combat is affected by the terrain features the combat units occupy.

A. Plain hexes. Plain hexes have no effect on combat.

B. Crater hexes. Combat units in crater hexes have their defence strength doubled, but cannot conduct combat. Missile armed units cannot launch missiles, and laser armed units cannot fire.

C. Base hexes. Combat units in base hexes have their defence strength doubled and can conduct combat.

D. Mountain hexes. Only HEV units have their defence strength doubled in mountain hexes. All combat units can conduct combat in mountain hexes.

8.8.2 Effect on Missiles. Terrain features have no effect on missiles. Their attack and defence strengths are constant. However, missiles do detonate when they enter mountain hexes.

8.9 Combat Resolution. For each battle, the combat strength of the attacking unit(s) is totalled and compared to the defence strength of the defending unit. This ratio of the attacker's to the defender's strength is rounded down in the defender's favour to one of the basic odds shown on the Combat Result Table (CRT). The attacker's factor is stated first, then the defender's factor. For example, a PSV occupying a base hex is attacked by two enemy laser units whose combined attack strength is 5 APs. The ratio is 5 to 2, which rounds down to a 2 to 1 on the CRT. Another example, an HEV on a mountain hex is attacked by a TMU at 6 to 2, which rounds down to a 3 to 1.
After figuring the basic odds, the attacker rolls the die and matches the die roll with the odds on the CRT to get the combat result. For example, a TMU is attacked by an HEV laser unit 9 hexes away. The odds are 6 to 2, which rounds down to a 3 to 1. The attacking player rolls the die and gets a 5. In the 3-1 column, a 5 produces a result of X, which means the TMU detonates and is removed from the map.

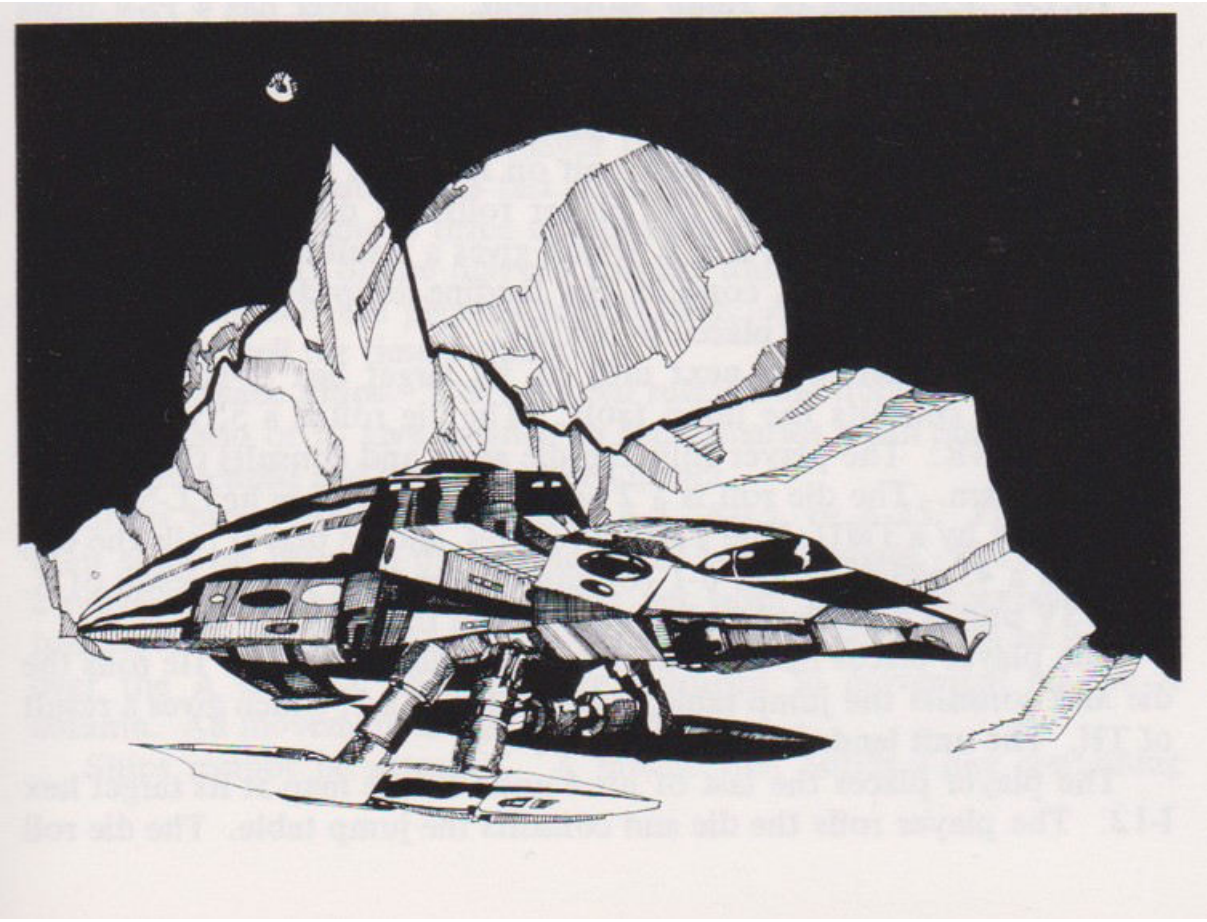
9.0 LANDING
9.1 General. During the landing phase of a player's turn, the player may attempt to place new combat units, if available, on the map. It is assumed the space ships carrying the forces are orbiting above the outer equator, the A column. Thus, the outer area is a safer landing zone than the inside area,
9.2 Limits. Each player may attempt to land up to four combat units per landing phase.
9.3 Placement. During his landing phase, a player can choose any hex (or hexes) as the target hex(es) for his unit(s).
9.4 Procedure. During the landing phase of a player's turn, he announces to his opponent how many combat units (up to 4) he will attempt to land. The player places the first unit on the hex he has chosen for the unit to land. This hex is called the target hex (TH).
The player rolls the die and consults the column of the landing table that matches the letter of the unit's target hex. After consulting the landing table, it may be necessary for the player to roll the die again and consult the landing-jump diagram to determine the exact landing hex of the unit. After the exact landing hex of the unit is determined, the next unit is placed on its target hex and the player repeats the procedure.
Note: Units may be landed face down to confuse the other player. However, these units are not considered disrupted and are turned face up at the start of the player's next turn.
9.5 Restrictions. Players may not choose hexes occupied by enemy combat units for their landing units' target hexes.
Units that would land on enemy units, due to the results of the landing table and landing-jump diagram, land instead in one of the hexes adjacent to the enemy unit. The specific hex is determined by a roll of the die and the landing-jump diagram. A roll of 1 places the unit in the hex north of the enemy hex, a 4 would place the unit in the hex south of the enemy unit, etc.

9.6 Example of Landing. During his landing phase, a player decides to try to land 4 combat units. He tells the other player he intends to land 4 units, and places his first unit on the map at hex C-24. He rolls the die and gets a 3, which in the C column of the landing table gives a result of 1R. The unit landed in the first ring of hexes surrounding its target hex. The player tolls again and consults the landing-jump diagram to determine the exact landing hex of the unit in the 1st ring. The die roll is a 1 and the unit is placed in hex C-23.

The player places the next unit on the map at hex L-6. The player rolls a 1 and this gives a result of TH on the L column of the landing table, which means the unit landed on its target hex L-6.

The player places the next unit on the map at hex K-11. The player rolls a 5 and on the K column of the landing table this gives a result of 4R, which means the unit landed in the 4th ring of hexes surrounding its target hex. The player rolls again and consults the landing-jump diagram to determine the exact landing hex of the unit in the 4th ring. The die roll is a 3 and the unit is placed in hex A-13.

The player places the last of his 4 units on the map at hex F-11. The player rolls a 6 and on the F column of the landing table, this gives a result of X, which means that the unit was destroyed by the black hole. The unit is removed from the map, and the player's landing phase is over for that turn.



10.0 JUMP

10.1 Jump Movement. Jump movement is a unique type of movement that allows PSVs to "jump" across the space between the inside hexes. The PSV units use their own propulsion plus the gravity of the black hole to accomplish jump movement.

10.1.2 General. Jump movement occurs during the combat unit movement phase. Only PSVs can conduct jump movement. To conduct jump movement, a PSV must be on an inside hex and it cannot expend any MPs in the normal movement manner.

10.1.3 Procedure. The procedure for jump is similar to landing procedure except that the players use the jump table. Results from the jump table may make it necessary for the players to use the landing-jump diagram to determine the exact hex the unit will land in when it comes out of jump.

The PSV making a jump is removed from the map (the unit is placed beside the map to show the other player what units are in jump). The moving player writes on a piece of scratch paper the target hexes of his jump units. On the next combat unit movement phase, units that went into jump during the previous combat unit movement phase must land. The player show his piece of paper with his target hex information on it to the other player, and places his unit on its target hex. The player rolls the die and consults the jump table. After consulting the jump table, it may be necessary for the player to roll the die again and consult the landing-jump diagram to determine the exact landing hex of the unit. After the exact landing hex of the unit, the next unit is placed on its target hex and the player repeats the procedure. After landing, a unit cannot move or jump until the next combat unit movement phase; however, the unit may conduct combat.

Any number of PSVs may jump and be in jump during any turn.

10.1.4 Examples of Jump Movement. A player has 4 PSV units go into jump. The player writes their respective target hexes on a piece of paper and places the units beside the map. During the player's next combat unit movement phase, he shows the units' target hexes to the other player and places the first unit on its target hex. The first unit was targeted for hex E-5. The player rolls the die and consults the jump table. The die roll is a 2, which gives a result of 1R. The player rolls the die again and consults the landing-jump diagram. The die roll is a 5 and the unit is placed in hex D-6.

The player places his next unit on its target hex H-10. He rolls the die and consults the jump table. The die roll is a 5, which gives a result of 4R. The player rolls the die again and consults the landing-jump diagram. The die roll is a 2 and the unit lands in hex L-8, which is occupied by a TMU. The TMU detonates, and its player rolls the die, and gets a 4, which on the 6-1 column on the CRT gives a result of X. The PSV unit is destroyed and removed from the map.

The player places his next unit on its target hex F-29. He rolls the die and consults the jump table. The die roll is a 1, which gives a result of TH. The unit lands in its target hex F-29

The player places the last of his 4 units on the map at its target hex I-12. The player rolls the die and consults the jump table. The die roll is a 6, which gives a result of X. The unit is destroyed by the black hole and is removed from the map.

10.2 Jump Combat. Units in jump can attack and be attacked. However, missiles cannot be launched to attack units in jump, although missile armed units in jump can launch missiles while in jump. The player uses the jump table and the landing-jump diagram to determine the impact and detonation hex of the missiles launched by PSVs in jump. All units in jump have their defence strength doubled. Laser armed units in jump attack at half strength. Only units on the inside hexes can be attacked by laser units in jump, and vice versa.

Example: A laser armed PSV unit in jump attacks an enemy PSV unit that is also in jump. The odds are 1 to 2.
Example: A laser armed HEV attacks a PSV in jump. The odds are 3 to 2, which rounds down to a 1 to 1.
Example: A laser armed PSV in jump attacks an MPV. The odds are 1 to 1.

Missile armed combat units on inside hexes can launch missiles into jump; however, missiles launched into jump cannot attack units in jump. A player launching a missile into jump announces to the other player the target hex of the missile, and uses the jump movement procedure to determine the impact and detonation hex of the missile. Missiles launched into jump do not become ballistic, but impact and detonate in the same launch phase. Missiles are launched into jump during the missile launch phase.

Example: A missile armed HEV on hex G-27 launches a TMU into jump. The player tells his opponent that the target hex is G-22, which is occupied by an enemy PSV. The player rolls the die and consults the jump table. The die roll is a 5, which gives a result of 4R. The player rolls the die again and consults the landing-jump diagram. The die roll is a 4, and the TMU impacts and detonates in hex G-26. The HEV is attacked by its own missile. The odds are 3 to 1.

11.0 OPTIONAL RULES
11.1 Time Limit. Each player turn represents one minute of real time. To help simulate this fast pace, the players may use a time limit. A recommended time is three minutes per player turn. The time limit begins at the start of the player's combat unit movement phase; when the time runs out the player's turn is over. A three minute egg timer works quite well for time keeping.
11.2 Space Ships. This optional rule should only be used with the basic scenario to give balance to the scenarios when played between an inexperienced player and an experienced gamer.
Ships begin the game at either A-5, A-15, or A-25. Players place their ships on the map during the initial landing phase. The ships have a movement allowance of 10 *hexes* per turn, and must expend their full movement allowance. Since the ships are considered to be in orbit over the A column, the ships are confined to movement on the A column. All movement is north to south.
Ships cannot be attacked. A missile that enters a hex containing a ship simply passes through the hex with no effect to either the ship or the missile.

Each ship has the missile launch capability of a missile armed HEV. Ship missiles are launched during the missile launch phase. The player writes the target hexes of his missiles on a piece of paper. These target hexes can only be hexes in the ship's target area. The ship's target area is ten hexes long and covers the width of the map. A ship at A-5 could only launch missiles at hexes A-1 to A-10, B-1 to B-10, C-1 to C-10, etc. A ship at A-15 has a target area from A-11 to A-20, B-11 to B-20, etc. A ship at A-25 has a target area from A-21 to A-30, B-21 to B-30, etc.

Missiles impact and detonate the turn *after* they are launched. For example a missile launched during the missile launch phase of the 3rd turn will impact and detonate during the missile movement phase of the 4th turn.

During the launch phase the player writes the target hexes of his missiles on a piece of paper. Next turn, during the player's missile movement phase, he will show the paper to the other player and using the landing table and the landing-jump diagram determine the impact-detonation hexes of his missiles.

11.3 Missile Detonation. These are alternate methods for missile detonation, but in all cases missiles still detonate when they enter a mountain hex.

11.3.1 Player Control. A player's missiles detonate at the player's option.

11.3.2 Proximity. Missiles detonate when they enter a hex adjacent to a combat unit, either enemy or friendly. Players may elect to double the attack strength of their missiles to make up for the effects of this rule.

Note: Missiles do not become armed during the launch phase until they have expended 3 MPs.

11.4 Mountains. Treat all mountain hexes as plain hexes. All missiles have their defensive strength reduced to 1DP.

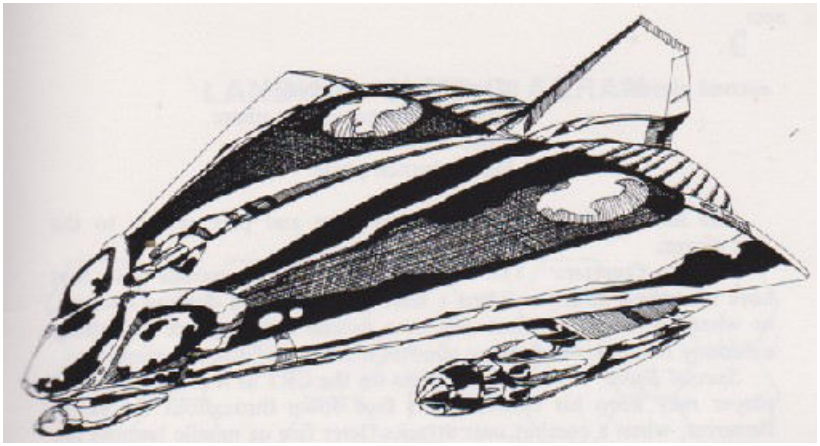
11.5 Landing Area. A ship's landing area is equal to its target area. During the landing phase, a player can only choose hexes in his ship's landing area for landing hexes.

11.6 Black Hole Effect. When a combat unit is destroyed by the black hole, the x-ray energy released detonates all missiles on the inside hexes. The missiles carried by the missile armed combat units do not detonate.

11.7 Inside Line of Sight. The rule that allows a laser unit on the inside hexes to attack any unit on the inside hexes is rather unrealistic, but allows for quick and easy play. However, blind spots would exist on the inside hexes, and this rule defines them.

Passing one line NW to SE, and another line NE to SW through a laser unit's hex, creates the laser unit's blind area. A laser unit cannot attack any unit on or between these lines, except for the hexes adjacent to the laser unit.

For example, a laser unit at hex H-21 could attack any units on the inside hexes except for the hexes E-19, -20, -21, -22, F-20, -21, -22, J-20, -21, -22, K-19, -20, -21, -22.



12.0 SCENARIOS

12.1 Basic Scenario. The scenario described in the setup for play rules is the basic scenario of BLACK HOLE.

12.2 Advanced Scenario. The advanced scenario depicts a situation where the invading strike force of a cartel attempts to capture the asteroid from a rival cartel. The first player represents the invading cartel while the second player represents the defending cartel.

Forces: The first player chooses a force of combat units equal to 60 attack points. The second player chooses a force of combat units equal to 40 attack points. Also the second player gets the two dummy counters and the three base counters.

Setup: Second player must place the base counters on the H column, and each counter must be 10 hexes from the other counters. The dummy counters can be placed anywhere on the map, as can the combat units. The second player can place all of his units face down.

First player's forces enter the map through the landing rules.

Game Length: 8 turns.

Victory Conditions: First player wins when, at the start of his turn, he has combat units in each of the base hexes.

Second player wins by avoiding the first player's victory conditions.

Sequence of Events: The first turn of the advanced scenario follows this sequence of events.

First player -	Landing phase
	Laser combat phase
	Missile launch phase
Second player-	Laser combat phase
	Missile launch phase

All subsequent turns use this sequence of events.

First player -	Missile movement phase
	Combat unit movement phase
	Laser combat phase
	Missile launch phase
	Landing phase

Second player - Missile movement phase
Combat unit movement phase
Laser combat phase
Missile launch phase

The second player checks off one turn and play reverts to the first player.
Dummy Counters: The dummy counters are immobile units that have no attack ability. When a laser unit attacks a dummy counter, or when an enemy combat unit or a missile enters a hex containing a dummy counter, the dummy counter is removed from the game.
Special Rules: Treat all D results on the CRT as X results. Second player may keep his combat units face down throughout the game. However, when a combat unit attacks (laser fire or missile launch) the unit must be turned face up. After the combat is resolved, the second player may reinvert the unit. The first player's units must be face up at all times.
First player can only land on the A column.

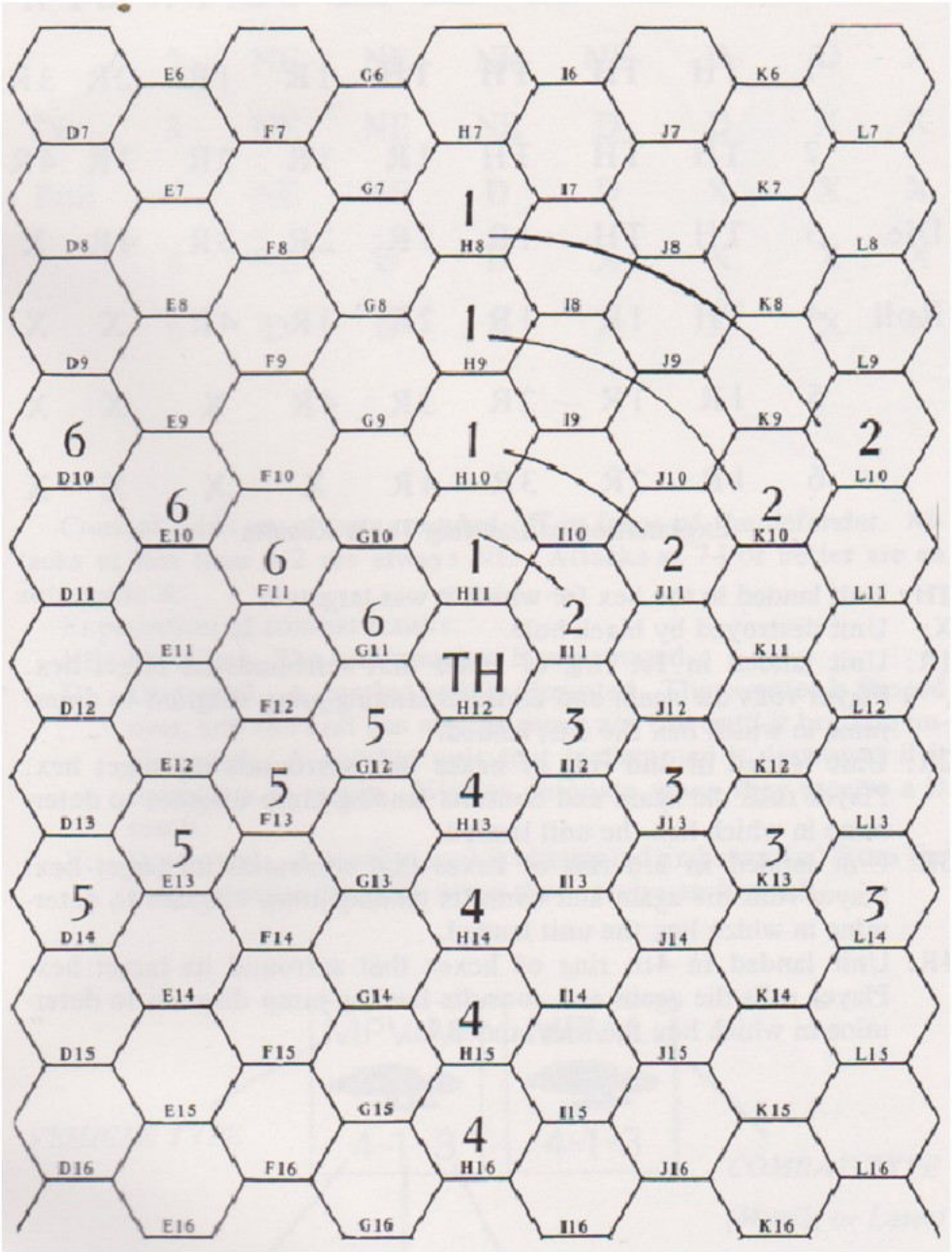
JUMP TABLE

Results

	1	TH
	2	1R
Die	3	2R
Roll	4	3R
	5	4R
	6	X

Explanation of Jump Table Results same as for landing table results.

LANDING-JUMP DIAGRAM



LANDING-JUMP DIAGRAM EXPLANATION

When a player receives a result of 1R, 2R, 3R or 4R on the jump or landing table, he rolls the die and consults the landing-jump diagram. The die roll is matched to the number on the hex ring given him by the jump or landing table.

For example, a player received a result of 3R on the landing table. He rolls the die and gets a 5. His unit lands on the 5 hex on the 3rd ring of hexes. If the die roll had been a 2, the unit would have landed on the 2 hex of the 3rd ring of hexes.

LANDING TABLE

Column

		A	B-N	C-M	D-L	E-K	F-J	G-I	H
	1	TH	TH	TH	TH	1R	1R	2R	3R
	2	TH	TH	TH	1R	1R	2R	3R	4R
Die	3	TH	TH	1R	1R	2R	3R	4R	X
Roll	4	TH	1R	1R	2R	3R	4R	X	X
	5	1R	1R	2R	3R	4R	X	X	X
	6	1R	2R	3R	4R	X	X	X	X

Explanation of Landing Table Results

TH:	Unit landed in the hex for which it was targeted.
X:	Unit destroyed by black hole.
1R:	Unit landed in 1st ring of hexes that surrounds its target hex. Player rolls die again and consults landing-jump diagram to determine in which hex the unit landed.
2R:	Unit landed in 2nd ring of hexes that surrounds its target hex. Player rolls die again and consults landing-jump diagram to determine in which hex the unit landed.
3R:	Unit landed in 3rd ring of hexes that surrounds its target hex. Player rolls die again and consults landing-jump diagram to determine in which hex the unit landed.
4R:	Unit landed in 4th ring of hexes that surrounds its target hex. Player rolls die again and consults landing-jump diagram to determine in which hex the unit landed.

COMBAT RESULTS TABLE

Combat Odds								
		1-2	1-1	2-1	3-1	4-1	5-1	6-1
	1	NE	NE	NE	NE	NE	D	D
	2	NE	NE	NE	NE	D	D	X
Die	3	NE	NE	NE	D	D	X	X
Roll	4	NE	NE	D	D	X	X	X
	5	NE	D	D	X	X	X	X
	6	D	D	X	X	X	X	X

Combat odds are always rounded off in favour of the defender. Attacks at less than 1-2 are always NE. Attacks at 7-1 or better are an automatic X.

Explanation of combat results:

NE:	No effect. The unit attacked is undamaged.
D:	Disrupted. A combat unit is disrupted. The counter is flipped over, and the unit can neither move nor fire until it becomes undisrupted. A combat unit that is disrupted is destroyed if it receives a D result. Missiles detonate when they receive a D result.
X:	Destroyed. A combat unit is eliminated and removed from the map. Missiles detonate when they receive an X result.

COUNTER EXPLANATION