SPACE EMPIRES

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RULE BOOK

Version 1.1

GMT
GAMES

1.0 Introduction

Space Empires is a classic "4X" game: eXplore, eXpand, eXploit, and eXterminate. Each player will grow a space empire and will attempt to win by eliminating other players. The time scale of this game is very large—at least an Earth year in between Economic Phases. This fact will help you understand certain aspects of the rules. The game can be played by one to four players. We recommend using only the Basic Rules for your first few games. Once you are comfortable with the game mechanics you can add Advanced Rules.

GLOSSARY OF COMMONLY USED TERMS:

Colonize: the process of putting a Colony on a planet in the Movement Phase (see 4.4) or Combat Phases (see 5.10.3), and continuing that process in the Economic Phase (see 7.0).

Construction Point (CP): Homeworlds and colonies produce Construction Points. Construction Points are used in the Economic Phase to purchase units, maintain spaceships, and develop technology. A Production Sheet has been provided to facilitate keeping track of CPs.

Enemy: a unit belonging to any other player.

Group: one to six spaceships of the same type, represented by a Group counter. Counters do not always represent single ships, but have a numeral marker stacked underneath them to indicate the

number of ships in that particular group (from one to six). Colony Ships, Miners, and MS Pipelines are the only exceptions to this rule as they always represent a single ship.

Home System: A group of hexes where the Homeworld (see 2.7) and Home System markers are placed at the start of the game.

Spaceship: also referred to as a "ship". Other than the three non-group ships (see 2.5), ships are always represented by a Group counter, even if only one ship is present (don't let the term "Group" throw you off). Only ships of the same type and Technology Level can be part of the same group.

System: a vast zone of space, represented in this game by a single hex printed on the game board.

Unit: Group, Decoy, Miner, Colony Ship, MS Pipeline, Base, or Ship Yard.

2.0 Playing Pieces

Each player should pick a color to represent his budding empire and will receive System and Group counters of his color.

2.1 SYSTEM MARKERS

At set-up, sort the System markers according to the border printed on their back. The markers with white borders are "deep space". The markers with colored borders will populate each player's stellar neighborhood, called the "Home System". The red player will have red-bordered System markers in his Home System, the blue player will have blue bordered System markers in his Home System, and so forth. System markers must be placed randomly; their front-sides should remain unknown to all players. Turn all the markers with the same colored border face down and then carefully mix them. Next each player should randomly place them on the map board, one in each hex, inside his Home System. The white System markers occupy the hexes between the Home Systems of the players. Set aside any unused white System markers as they will not be needed. See the Scenario Book for the exact details of set up for each scenario.

2.2 PLANETS
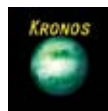
A planet has no effect on game play until it is colonized. Colonization begins in the Movement Phase (see 4.4.1), or possibly at the end of combat (see 5.10.3), and continues into the Economic Phase (see 7.0). Terra-forming Technology is required for colonizing barren planets (see 9.7). In the Advanced Rules, barren planets in deep space are inhabited by uncooperative aliens (see 14.1).
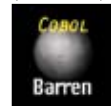
2.3 GROUPS

2.3.1 General: Group counters have pictures of spaceships on them and represents 1-6 spaceships of the same type and Technology Level. Place a numeral marker underneath the Group counter to indicate the number of spaceships in the group. Groups are

merely a way to represent a group of ships of the same type and technology level. Ships of the same type and technology may join and leave groups as they choose at any time (as counters allow). Group counters have two sides—the back side is used to hide the ship's type and combat information. Group counters and their Numeral Markers start with their identity hidden from other players and are only revealed in combat. The front side has the following information: Type, Class, Attack Strength, Defense Strength, Hull Size, and Group number.

Type — Group Identification Number
Class —
Attack Strength — Hull Size
Defense Strength —

2.3.2 Type: The spaceship type is indicated by the large letters in the corner of the counter. Ship types include:

BB: Battleships

BC: Battle Cruisers

CA: Cruisers

CV: Carriers*

DD: Destroyers

DN: Dreadnaughts

F: Fighters*

R: Raiders*

SC: Scouts

SW: Minesweepers*

SY: Ship Yards

Spaceship types introduced in the Advanced Rules.

Base	Scout	Destroyer	Cruiser	Battleship	Battle-cruiser
Dread-naught	Carrier	Fighter Squadron	Mine-sweeper	Raider	Ship Yard

2.3.3 Class: This letter is used in determining which ship fires first in combat (an A fires before a B).

2.3.4 Attack Strength: The number needed to score a hit (a 4 means you must roll a 4 or less to hit a target).

2.3.5 Defense Strength: Defense Strength is the number printed next to the Attack Strength. For example, a Destroyer has a Defense Strength of "0". This number modifies the attacker's die roll, so the higher this number the harder it is to hit the ship in combat.

2.3.6 Hull Size: Hull Size is the number after the "x". It indicates the number of hits required to destroy a ship in the group. For example, the Hull Size of a Destroyer is "1", which means it is destroyed if it suffers one hit. A Cruiser's Hull Size is "2" which means that two hits destroy one Cruiser. Hull Size also determines the maintenance cost of the ship, the amount of technology that a

ship can utilize, and the construction capacity needed to build a ship at a Ship Yard. Notice that the Hull Size is printed on the Group counter, but it applies to each ship within that group.

2.3.7 Group Identification Number: Use this number to identify the group on the Ship Technology Chart.

2.4 NUMERAL MARKERS

Each group in play must have one of these stacked underneath it to indicate the number of spaceships represented by the group counter.

EXAMPLE: If there are 2 Cruisers with the same Technology Level in a Cruiser Group, place a numeral 2 marker underneath the CA Group counter. Even if only a single spaceship is in a group, place a numeral 1 marker underneath it. This way your opponents will have to guess how many spaceships are in that group.

2.5 NON-GROUP UNITS

Colony Ships, MS Pipelines* and Miners are non-Group units. They always represent a single ship—never place a numeral marker underneath them, and always place them face up.

* MS Pipeline (Merchant Ships) are only used in the Advanced Rules.

2.6 DAMAGE MARKERS

Place Damage markers on top of a group to keep track of the hits applied to this group during the Combat Phase. Remove all Damage markers at the conclusion of the Combat Phase (see 5.6).

2.7 HOMEWORLD

A Homeworld represents the player's home planet plus possible installations on moons and planets within the same solar system. Each player starts with one Homeworld from which he will explore the galaxy. It always starts with a production capacity of 20 CPs. Except as noted, rules that apply to Colonies also apply to Homeworlds.

2.8 COLONY NUMBER COUNTERS

These are numbered counters with the word "Colony" on them and are placed on top of colonies to track colony growth on a planet. Several of these are marked with the word "Home", use these only when your Homeworld takes damage.

2.9 DICE

The game comes with 10-sided dice which are used for all rolls in the game. On this die, a "0" represents a 10.

3.0 Sequence of Play

For the first turn of the game, players roll a die to determine who the first player is and player order proceeds clockwise around the map board. After the first turn, Player Order is determined by bidding in the Economic Phase (7.4). The Sequence of Play is as follows:

A. Determine Player Order (7.4)

B. Turn One:

Player 1:
a. Movement (see 4.0)
b. Combat (see 5.0)
c. Exploration (see 6.0)

Player(s) 2-4: Same as Player 1

C. Turn Two: (same as turn one)

D. Turn Three: (same as turn one)

E. Economic Phase (see section 7.0)—All players conduct this phase simultaneously, not in player order.

Keep track of the current turn using the Turn marker and the Turn Track printed on the game board. After the Economic Phase, the Turn marker is reset to 1. Continue until a winner is determined.

4.0 Movement

4.1 MOVEMENT PROCEDURE

Units move from system to adjacent system (from hex to adjacent hex). The distance a unit can move is determined by a Ship's Movement Technology Level, and is measured in hexes. Movement is voluntary, and a player may move one, some, or all of his groups or none at all, in the same Movement Phase. Units may be moved separately or together. At the start of the game, the Movement Technology Level for all players is "one." That means that each unit may move only one hex during the Movement Phase in each turn. If you develop your Movement Technology (during the Economic Phase, see 7.5), and upgrade the ship (9.10.4), you increase the number of hexes each ship may move in a turn, as follows:

• **Level 2:** Ships may move 1 hex in each of the first two turns, but may move 2 hexes in the third turn.

• **Level 3:** Ships may move 1 hex in the first turn, but may move 2 hexes in each of the second and third turns.

• **Level 4:** Ships may move 2 hexes in all three turns.

• **Level 5:** Ships may move 2 hexes in each of the first two turns, but may move 3 hexes in the third turn.

• **Level 6:** Ships may move 2 hexes in the first turn, but may move 3 hexes in each of the second and third turns.

Mining Ships, Colony Ships, MS Pipeline and Mines: Regardless of your Movement Technology Level, these ships move only 1 hex each turn.

Bases and Ship Yards: Bases and Ship Yards cannot move.

Decoys: Decoys move at the speed of the current Movement Technology Level.

4.2 MOVEMENT RESTRICTIONS

A unit may not enter a hex with a face-down (unexplored) System marker, a Nebula, or Asteroids, *unless* it starts its turn adjacent to it. Also, entering a hex with any of these markers ends that unit's movement, regardless of its Movement Technology Level.

EXAMPLE: A group that could move two hexes begins the Movement Phase adjacent to a hex with an Asteroids marker. It may enter the hex, but must stop after doing so.

Units without an Attack Strength (such as Colony Ships, Decoys and Miners) may not enter a hex with a face-down (unexplored) System marker, enemy unit, or enemy colony unless a combat capable ship also enters that hex (it need not have started in the same location).

4.3 ENEMY OCCUPIED HEXES

Units must immediately stop all movement when entering a hex containing enemy units that have a combat capability and attack them during the Combat Phase. If a unit enters a system containing only enemy units without any combat capability (Decoy, Colony Ship, etc.), those defenseless units are immediately destroyed and do not impede movement (or reveal ships or technology). The moving (attacking) units may continue moving. Units may ignore enemy colonies on a planet and pass through the hex or stay in the hex. If a unit ends its move in a hex with an enemy Colony, the unit may attack during the Combat Phase.

4.4 PLANETS AND COLONIZATION

A planet without a colony on it has no effect on movement. A non-colonized planet may be colonized by a Colony Ship (8.4). A colonized planet may not be colonized again until the existing Colony is destroyed (5.10.3).

4.4.1 Initiating Colonization
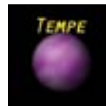
 Place the Colony Ship (ship side up) on the Planet marker. You may do this in the same turn that the Colony Ship moves into the hex, or after a successful attack in that hex. Once you announce colonization in this way, the Colony Ship may no longer move. It has begun the process of forming a Colony and has dismantled itself for the raw material needed to start the process. From this point on, it is considered a Colony. Colonization takes time and the colony will grow in future Economic Phases (see 7.7).

4.4.2 Colonizing Barren Planets

 Some planets are labeled "Barren." They may not be colonized without Terra-forming Technology (see 9.7). Once a Barren planet is colonized, the planet functions like any other planet. It delivers resources and grows just like other non-barren planets. If a colony on a Barren planet is destroyed, the planet immediately reverts back to a Barren planet.

5.0 Combat

5.1 COMBAT PROCEDURE

5.1.1 General: Combat occurs during the Combat Phase whenever units belonging to different players are in the same hex. Combat is mandatory and takes place within a hex. The player whose units moved into the hex and initiated combat is designated the attacker, while the other player is referred to as the defender. If there is more than one battle, the attacker determines the order in which they will be resolved. Both the attacker's units and the defender's may fire, often more than once, and combat continues until only one player has units remaining in the hex.

5.1.2 Move Ships Off Map: Take all units in the system temporarily to a convenient area off the playing board. Mark the system in which the battle takes place with the Battle marker as a reminder. The attacker and defender both reveal and arrange their units in "battle lines". If a decoy is present, it is eliminated before any combat takes place. Each line should be organized according to Class (A's at one end, B's next to the A's, etc.).

5.1.3 Determine Combat Screening: Next, each player counts the number of combat-capable ships involved in the battle. The player with the greater number of combat-capable ships has the option of Combat Screening (see 5.7).

5.1.4 Determine Fleet Size Bonus: If one player has twice as many unscreened, combat-capable units as his opponent in a combat, his firing units enjoy a +1 bonus to their Attack Strengths. Determine this Fleet Size Bonus at the start of each firing round. It is possible that as a battle progresses and ships are destroyed or retreat, the size differential will change, so that a player who enjoys this bonus at the start of combat may lose it in a later round, and vice versa. Note that the smaller side is not penalized in its fire.

5.1.5 Resolve Combat: Players resolve combat starting with the A Class units, progressing to the B Class units, and so forth in descending order, until all ships have had the opportunity to fire. No ship may fire more than once in a combat round, but can be a target more than once.

5.1.6 Repeat if Necessary: If both the attacker and defender still have ships in the hex after this first round of combat, perform a second round of combat starting with the Combat Screening step (5.1.3). Combat may last any number of rounds. After the first round is completed a unit which has an opportunity to fire at a target may retreat instead (see 5.9).

5.2 FIRING ORDER

Fire combat is *never* simultaneous. Ships with an A Class fire before ships with a B Class, ships with a B Class fire before ships with a C, etc. If both players have groups with the same Class (for example, if both are B's), the group belonging to the player with the higher Tactics Technology fires first. If the Class and the Tactics Technology of both groups are the same, then the defender's group fires first. If combat is taking place in a system with Asteroids or a Nebula, the Class of all spaceships is E regardless of what is printed on the counters (see Special Conditions 5.8).

PLAY NOTE: It is possible for all of one player's units to fire before his opponent has a chance to roll the dice. It is also possible for a ship to be destroyed before it fires even once. Developing a higher Tactics Technology than your opponent can be critical.

5.3 WHO MAY FIRE

Only units with an Attack Strength may fire. A combat unit may fire at any enemy unit in the system except at a unit that is screened (see 5.7). If ships are part of the same group, they may still fire individually and at different targets. In the Advanced Rules, Fighter Squadrons may also fire (see 11.2), and they do so independently of their Carriers (see 11.1).

5.4 NON-COMBAT UNITS

Ships without a combat capability (Colony Ships, Mining Ships and MS Pipelines) may not retreat and are automatically destroyed if caught alone or if all accompanying friendly combat-capable ships are eliminated or retreat. Colonies (on planets) also have no combat capability, but are not automatically destroyed (see 5.10).

5.5 FIRE RESOLUTION

Select a firing unit and a target. Add the firing unit's Attack Strength to its Attack Technology Level (9.2). The sum is the total Attack Strength.

Example, a Battlecruiser's Attack Strength is 5, and if it has an Attack Technology Level of 1, the total Attack Strength is 6.

Increase the Attacker Strength by one (+1) if the Fleet Size Bonus (5.1.4) is applicable.

Next, add the target's Defense Strength to its Defense Technology Level and subtract this sum from the total Attack Strength to get the "To Hit" number. The attacking player rolls a die for each ship in the group and if the die roll is equal to or less than the number needed to hit, a hit is scored. Regardless of the number needed to hit, a roll of 1 will always score a hit. Dice may be rolled one at a time for each ship and the result seen before deciding on the target for the next ship.

EXAMPLE: If a target has a Defense Strength of 1 and a Defense Technology Level of 1, 2 is subtracted from the total Attack Strength. If the Battlecruiser from the above example is the firing unit, it would need to roll a 4 or less to score a hit.

Important: The Attack and Defense Technology modification may not exceed the ship's Hull Size (see 9.2).

5.6 RECORDING HITS

Damage is cumulative and is recorded by placing Damage markers on or near the Group counter during battle. When a ship receives hits equal to its Hull Size, it is destroyed. Adjust the numeral marker under the Group counter to reflect the loss of the ship, and if the group only had one ship, remove the Group counter from play.

EXAMPLE: Cruiser Group #1 has 2 Cruisers. Therefore, at the start of combat, there is a marker with a number "2" under the Group counter. During combat a hit was scored on one of the Cruisers,

so a "1" Damage marker is placed on top of the counter to record the hit. Later, a second hit was scored on the same Cruiser. The Damage marker currently marking the first hit is removed, while the numeral marker underneath the Group counter is flipped to "1" to show that only one Cruiser remains in the group. If the Cruiser is later destroyed, the Group counter and its numeral marker will be removed.

Two or more ships in the same group may not have hits applied to them at the same time, all hits must be applied to a single ship, and only after it is destroyed may subsequent hits be applied to another ship in the same group.

Unless there are enough hits to destroy a target, hits do not affect performance in any way. If otherwise able, a damaged ship may be split off into a separate group and may retreat (5.9) or be screened (5.7). At the conclusion of combat, if a ship has hits but is not destroyed, the hits are removed. Thus, ships are considered automatically repaired after combat (the turns represent a long period of time in which the crew can repair the damage).

EXAMPLE: A Battleship in BB Group #2 suffers 2 hits in combat. After the last enemy ship retreats to conclude combat, the Damage marker is removed from the top of the Group counter.

5.7 COMBAT SCREENING

At the start of each firing round, if a player has more combat-capable ships than his opponent, he may choose to screen some of them. He is permitted to screen a number of ships up to the difference. Screening combat ships is always voluntary.

EXAMPLE: If the attacker has 10 combat-capable spaceships and the defender has 5, the attacker may screen as many as 5 ships.

Before rolling the dice to resolve firing, set aside screened ships, if any. They may not fire or be fired upon. They may retreat, but only when it is their turn to do so (see 5.9). Players are allowed to change the composition of his screened ships at the start of each round of combat—so that units that fired in the first round may be screened in a later round and vice-versa.

All non-combat ships are automatically screened until the end of the battle (see 5.9.1).

5.8 SPECIAL CONDITIONS

5.8.1 Asteroids: If the combat is occurring in a system with an Asteroids marker, the Attack Technology Level of all units in the combat is considered zero, regardless of the player's Technology Level. In addition, the Class of all ships in the combat is considered to be E, regardless of what is printed on the counter(s). The firing order of ships is determined solely by the Tactics technology of the firing units involved. This represents the extra protection provided by the asteroids and the difficulty involved in bringing longer ranged and more advanced weapons to bear in the middle of an asteroid belt. Note that a ship's Attack Strength number is unaffected.

5.8.2 Nebulae: If the combat is occurring in a system with a Nebula marker, the Defense Technology Level of all units in the combat is considered zero, regardless

of the player's Technology Level. In addition, the Class of all ships in the combat is considered to be E, regardless of what is printed on the counter(s), this represents the nature of close-ranged fighting. The firing order of ships is determined solely by the tactics rating of the players involved. Note that a ship's Defense Strength is unaffected.

5.9 RETREATS

5.9.1 General: Retreat is a voluntary action. At any time *after* the first firing round, a ship may choose to retreat instead of firing. It may only choose to do this when it is its turn to fire. Retreat may require a player to place a new Group counter on the game board (that is, if one ship in a group retreats leaving the rest of the group in the hex). Bases and Ship Yards may not retreat; they must remain in the hex.

NON-COMBAT UNITS: Colony Ships, Mining Ships and MS Pipelines may not retreat—they are too slow to get away. If these ships are abandoned by all combat-capable units, they are destroyed.

5.9.2 Retreat Location: A retreating spaceship must be shifted to an adjacent hex. The hex may not contain any enemy units (including colonies or non-combat units). A retreating ship may not be shifted into an unexplored system. It *must* retreat into a hex that is equally distant or closer to one of its colonies than the hex that it is retreating from (discounting any colony in the battle hex). If no legal retreat exists, the ship may not retreat.

5.10 COLONIES & COMBAT

5.10.1 Procedure: A ship in a system occupied by an enemy Colony may attack the Colony, but only after all other combat is resolved in the hex. If all enemy units have either been destroyed or have retreated, the Colony may be fired upon. Each ship may only fire once at the Colony, and the Colony may not return fire. A ship may fire at a Colony only during its Combat Phase (not during the Combat Phase of the colony's player turn), but may do so each turn that it remains in the hex. Each Colony has a Defense Strength of zero and no Defense Technology. Only the attacking ship's Attack Strength and Attack Technology are used for the purpose of determining the chance of hitting. The modifier for Fleet Size (5.1.4) is ignored during colony combat.

5.10.2 Effect of Hits: A hit reduces the Colony one step. A Colony with 5 CPs is reduced to 3 CPs, a 3 CP Colony is stepped down to 1 CP, and a 1 CP Colony that receives a hit is destroyed (remove the Colony marker—the planet may be colonized by another Colony Ship). A newly colonized planet - the colony ship has been placed on the planet, but has not yet been flipped to the colony side - also requires 1 hit to destroy. If the Homeworld is hit, instead of using the 3 CPs and 1 CP markers, it reduces in value in increments of five. Thus, the first hit reduces it to 15 CPs, another hit to 10 CPs, and then to 5 CPs. A Homeworld marked with a 5 CPs marker is destroyed if it takes a hit.

5.10.3 Damaged Colonies: Reduced colonies function normally. They provide CPs (as indicated on the marker) and grow during

the Economic Phase. If reduced completely (that is, if destroyed), the planet may be colonized again. If the attacking player has a Colony Ship in the hex, it may immediately initiate colonization (see 4.4.1).

5.11 POST COMBAT

Ships revealed in combat are now returned to the map but remain face up and may be examined, along with their numeral markers, by other players at any time. If they start a turn in the same hex as one of their colonies, they may be flipped face down (hiding their Numeral Marker also) before being moved and remain that way until they once again engage in combat.

6.0 Exploration

Except for players' Homeworlds, at the start of the game all systems are unexplored, indicated by the placement of face-down System markers during set-up.

6.1 EXPLORATION PROCEDURE

If a unit shares a hex with a face-down (unexplored) System marker during the Exploration Phase, it *must* explore that system. Flip the marker over and reveal its identity to all players. Apply effects immediately. Cruisers equipped with Exploration Technology (9.8), may alter this procedure and explore during movement.

6.2 PLANETS, NEBULAE AND ASTEROIDS

These markers remain in the hex and affect future game play.

• PLANETS: Can be colonized (4.4)

• NEBULAE AND ASTEROIDS: Affect movement (4.2) and combat (5.8).

6.3 BLACK HOLES

A unit that moves into a hex containing a Black Hole must momentarily pause movement to check for survival. Each ship in a group must be checked individually for survival. On a roll of 1-6 the ship survives; a roll of 7-10, the unit is destroyed. Making this roll/rolls will obviously reveal how many ships entered the hex. This die roll is made the instant a unit enters a Black Hole. Units that begin their Movement Phase in a Black Hole do not have to roll again, unless they move out of the Black Hole and back in. If the unit survives its encounter with the Black Hole, it may continue moving (Movement Technology Level permitting). The Black Hole remains in the hex for the rest of the game.

6.4 DANGER!
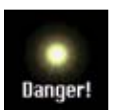
Space is dangerous, especially the unexplored bits of it. When this marker is revealed, all units in the hex are destroyed. The marker is then removed from play. The hex remains empty.

6.5 SUPER NOVA

A Super Nova dominates this sector of space. A unit revealing the Super Nova must immediately retreat to the hex it just left. The Super Nova remains in the hex for the rest of the game. No unit may move or retreat into this system.

6.6 LOST IN SPACE

When a unit reveals this marker, the player to the right of the 'revealing' player immediately shifts the unit 1 hex in any direction. If more than one unit is in the hex all the units present must be shifted together as a stack. If placed in a hex with an unrevealed System marker, that marker must immediately be explored. If placed in a hex with enemy units, combat immediately ensues. After shifting units out of the hex, the Lost in Space marker is removed and the hex remains empty.

6.7 MINERALS

This marker represents a precious resource vital to industry.

6.7.1 Characteristics: The marker has no effect on movement or combat and remains in the hex until towed away by a Mining Ship. Minerals may not be voluntarily destroyed. If towed to a Colony or Homeworld, the Mineral marker is removed from the game in the Economic Phase and generates a one time CP bonus equal to the value printed on the marker (as long as the Colony or Homeworld is not blockaded — see 7.1).

6.7.2 Towing Procedure: Only a Mining Ship may tow a Mineral marker. A Mining Ship may only carry one Mineral marker at a time. To signify towing, place the marker on top of the ship towing the mineral, the marker moves with the Mining Ship. There is no cost to do this and it may be done at any time. When the ship and its mineral reach a hex with any colony (even a new one) or Homeworld, the mineral may be "deposited" on the planet where it will remain until the Economic Phase. Any number of Mineral markers may be deposited on the same colonized planet. A Mineral marker, once towed by a Mining Ship, will leave a hex empty. A Mining Ship may not dump its cargo in space in order to pick up a better Mineral.

6.7.3 Destroyed: If a Mining Ship is destroyed while towing a Mineral marker (or a Space Wreck), the Mineral/Space Wreck is destroyed too. Likewise, if a Colony with a Mineral/Space Wreck is destroyed before the Economic Phase, the Mineral/Space Wreck is destroyed too.

6.8 SPACE WRECK

A derelict spacecraft from an advanced civilization has been found.

It may be towed to a Homeworld or Colony by a Mining Ship just as if it were a Mineral marker (6.7.2). Instead of a CP bonus, it earns the player a free Technology upgrade during the Economic Phase (see 7.2). To determine which technology is upgraded, roll a die and consult

the Space Wreck Technology Table on the back page of this rule book.

If the technology rolled by the player is already at the maximum level in that category, the upgrade is wasted. Regardless of the result, remove the Space Wreck from the game at the end of the Economic Phase. Space Wrecks may not be voluntarily destroyed.

6.9 WARP POINTS AND DOOMSDAY MACHINES

These are only used via the Optional Rules (16.0 and 17.0). If one of these is flipped, remove the marker from play. It is not recommended that you play with these until very familiar with the game.

7.0 Economic Phase

The Economic Phase takes place at the conclusion of every third turn. This phase consists of a sequence of tasks that the players perform secretly and simultaneously:

- Collect Colony Income (7.1)
- Collect Mineral Income (7.2)
- Collect MS Pipeline Income (10.1.2) *Advanced Rules only*
- Deduct Maintenance (7.3)
- Bid to determine player order (7.4)
- Purchase units and technology (7.5)
- Place purchased units at allowable colonies (7.6)
- Adjust colony counters to reflect growth (7.7)

A Production Sheet has been provided that lists these specific steps with room to record the Construction Points (CPs) produced and spent on each item.

7.1 COLLECT COLONY INCOME

Each Colony counter is printed with a number which represents its value in CPs. Begin the Economic Phase by adding together the CPs of all of your colonies. Note the sum on your Production Sheet as income.

EXAMPLE: A player has colonized two worlds besides his Homeworld. He earns 20 CPs for the Homeworld and 5 CPs for each of the other two worlds. Altogether, his income for colonies is 30 CPs, and he records that on his Production Sheet.

A Colony Ship is worth zero "0" CPs and will remain valueless until it is flipped to its "Colony" side (see 7.7).

Blockade: A Colony that has an enemy unit (and no friendly units in the case of an enemy Raider) in the same hex does not produce income, but does grow (see 7.7) normally. Only units with an Attack Strength may blockade an enemy Colony.

7.2 COLLECT MINERAL INCOME

Add the value of all Mineral markers transported by Mining Ships to your non-blockaded colonies since the last Economic Phase. Record the sum of these Mineral markers on the Production Sheet and then remove the Mineral markers from the game. This is a one-time income. If the player has salvaged a Space Wreck (6.8), roll for the technology upgrade now.

7.3 MAINTENANCE

7.3.1 Maintenance Cost: Each ship has a maintenance cost equal to its Hull Size. Add the Hull Size of all your ships and note the sum on your Production Sheet. Bases, Colonies, Colony Ships, Mining Ships, and Ship Yards do not incur maintenance costs. Subtract your Maintenance cost from your income. If the total maintenance cost exceeds a player's income, the player's net income is zero.

EXAMPLE: A player has a Cruiser Group with 3 ships in it. Each Cruiser has a maintenance cost of 2 CPs (Hull Size of 2), so the group as a whole costs 6 CPs to maintain. He subtracts that from his income and notes the remainder on his Production Sheet.

7.3.2 Scuttling Ships: At any time during his turn a player may scuttle any of his units currently on the board, thus removing it from play (scuttled ships may be constructed anew and thus returned to play). One motive for doing so is to avoid paying maintenance costs. Another is to "make room" for newer and more technologically advanced spaceships.

7.4 BID TO DETERMINE PLAYER ORDER

This abstractly represents resources, supplies, intelligence, and capital spent to speed production schedules, etc.

Enter a number of CPs as a bid on your production sheet. The highest bid will earn the privilege of determining the player order for the next turn. This bid is optional, you may bid zero CPs, and likewise, there is no upper limit (except the total number of CPs you have available). The winner of this bid chooses which player will go first, with the turn order rotating clockwise around the table after that. This order stays in effect until the next Economic Phase. Regardless of who wins the bid, all players subtract their bid from their available CPs. In the event of a tie (even a tie where all players bid 0), the player who was first in player order this turn (among the tied players) wins the bid. Bids are revealed after the Economic Phase. On the first turn of a game, the players randomly determine turn order.

7.5 PURCHASE UNITS AND TECHNOLOGY

7.5.1 Procedure: Players may now spend CPs to purchase new Technology Levels and ships. These costs are listed on the Ship Technology Chart and Research Chart. Record each purchase on your Production Sheet. If you conclude this phase with CPs unspent, they carry over to the next turn.

7.5.2 Initial Building Limits: At the start of the game a player may only build Scouts, Colony Ships, Mining Ships, Decoys and Ship Yards. Other types of ships can only be built when a player's Technology Level is sufficiently advanced.

7.5.3 Ship Technology Level: When you purchase a ship, it is automatically "built" with your fleet's latest technology. If you purchase a Technology Level and a spaceship in the same Economic Phase, the new Technology Level applies to the new ship. However, ships already in play are not automatically upgraded.

Use your Ship Technology Chart to keep track of each group's Technology Levels.

7.5.4 Purchase Limits: If all Group counters of a particular ship type are already in play, you may not build new ships of that type (unless you scuttle ships in one of the groups in order to reuse the Group counter for the newly purchased ships).

7.6 PLACE PURCHASED UNITS

7.6.1 Procedure: Purchased units are placed at Ship Yards (SY). At Ship Yard Technology Level 1, one ship with a Hull Size of x1 may be placed per Ship Yard. If two level-1 Ship Yards occupy the same system, two hull points worth of ships may be placed there (either one x2 or two x1s). There is no limit to the number of Ship Yards that may occupy the same system. To purchase a ship, you must have Ship Yard capacity to build it. Ship Yard capacity can be increased by developing Ship Yard Technology (9.6). New ships may be added to existing groups in the same hex if they are of the same type and technology level.

EXAMPLE: If a player has two Ship Yards and a Ship Yard Technology Level of "1", he may only place 2 DD's there, or 2 Colony Ships, or 2 Mines, or 1 CA, or 1 Fighter and 1 Mine, etc. or any other appropriate combination.

7.6.2 Hidden Units: Combat units are placed face down when built and remain that way until combat occurs (see 5.11).

DESIGN NOTE: Obviously, other players will see you manipulate the counters, but you do not have to announce what you are building or scrapping. Face down groups and their Numeral Markers may not be examined by other players before they enter combat.

7.7 ADJUST COLONY INCOME

A Colony must "grow" in order to reach its full capacity. At this point in the Economic Phase, all colonies are adjusted upwards to reflect this development. Colonies producing 3 CPs have their "3 Colony" counter removed to reveal the 5 CP on the Colony (the maximum size). Next, colonies producing 1 CP have the "1 Colony" flipped to a "3 Colony". Finally, Colony Ships on planets are flipped to their Colony side and a "1 Colony" marker is placed on them.

EXAMPLE: During movement, a player colonizes a planet by placing his Colony Ship on top of the planet. During the subsequent Economic Phase, that planet delivers no CP's, but the counter is flipped to its Colony side. In the next Economic Phase, that Colony would be worth 1 CP when totaling income.

7.7.1 Damaged Homeworlds: During the Economic Phase, a damaged Homeworld (see 5.10.2) grows in 5 CP increments. Thus, a Homeworld marked with a "5" would be replaced by a "10", etc.

7.8 MAINTENANCE INCREASE AND DECREASE

There is a spot on the Production Sheet to track the additional (future) maintenance cost from purchases during this Economic Phase as well to track maintenance decrease from losses of ships in between Economic Phases. This is only an aid so that you do not have to count your maintenance costs during every Economic Phase.

8.0 Special Unit Types

8.1 BASES

A Base counter represents a defense system designed to protect a Colony from attack. Unlike single ships and groups, a Base may be built at any friendly planet with an income-producing Colony (not new or blockaded colonies). Bases are not built by Ship Yards. Only one Base may be built in a single hex, and no hex may have more than one Base. Once in play, a Base may not move. A Base participates in combat just like a group, except that it may not retreat. Bases do not incur maintenance costs.

8.2 SHIP YARDS

Ship Yards represent the facilities and infrastructure necessary for the construction of spaceships.

8.2.1 General: Your newly constructed units will enter play in a hex with a Ship Yard, and in some cases more than one Ship Yard is needed to build a single ship (see 7.6.1). Ship Yards do not incur maintenance costs.

8.2.2 Building Ship Yards: Ship Yards may only be built at planets that produced income (not new or blockaded colonies) in the Economic Phase. A Colony may build both a Ship Yard and a Base in the same Economic Phase. Ship Yards may be purchased and placed at multiple planets, but no more than one per planet. Additional Ship Yards may be purchased at those planets in future Economic Phases. Ship Yards are produced by the Colony itself and therefore do not require Ship Yards to build them. Since Ship Yards are placed at the same time as other units, they may not be used to build units the turn they are built.

PLAY NOTE: Allowing the enemy to wipe out your forward Ship Yards can be disastrous!

8.2.3 Not Built at Ship Yards: The only units that do not require a Ship Yard for building are Decoys, Bases, and Ship Yards.

8.3 DECOYS

8.3.1 Purpose: Decoys are expendable, unarmed ships that are designed to fool your opponent(s) into thinking they are larger ships or an entire group. They move about just like a group, and you should place a numeral marker under the decoy to facilitate the ruse.

8.3.2 Characteristics: Decoys may not explore. Decoys move at the speed of the current Movement Technology Level and their Movement Technology Level is automatically upgraded. They are not capable of attacking or defending. If alone in a hex entered by another player's group, reveal the decoy and remove it from play immediately during movement (the attacking group is not revealed). If a decoy is in a hex with a friendly group that is attacked, decoys are automatically eliminated before combat resolution.

8.3.3 Purchasing and Maintenance: Any decoys not on the game board may be placed at any Colony during the next Economic Phase at the cost of 1 CP, and do not require a Ship Yard to be constructed. Decoys do not incur a maintenance cost.

8.4 COLONY SHIPS & COLONIES

Colony Ship counters are unique in that they represent either a ship or a Colony on a planet. When a Colony Ship colonizes a planet (see 4.4) it will be flipped from its ship side to its Colony side in the ensuing Economic Phase. Barren planets may not be colonized, unless Terraforming Technology has been developed (see 9.7). The movement rate of a Colony Ship is 1 hex, regardless of a player's Movement Technology Level. Colony Ships always represent a single ship and never have a numeral marker underneath them. Colony Ships are always placed face up.

8.5 MINING SHIPS

Each side has Mining Ships used to tow a Mineral marker (see 6.7) or a Space Wreck (see 6.8). The movement rate of a Mining Ship is 1 hex, regardless of a player's Movement Technology Level. Miners always represent a single ship and never have a numeral marker underneath them. Mining Ships do not incur a maintenance cost.

9.0 Technology

9.1 PURCHASING TECHNOLOGY

Players may spend CPs to improve their technologies. Technologies are purchased in "levels," each level costing CPs as indicated on the Research Chart. When you purchase a Technology Level, circle the appropriate number on the Production Sheet. Levels must be purchased in numerical order and only one level of technology may be purchased in each category per Economic Phase (although a player may purchase levels in two or more Technologies simultaneously).

EXAMPLE: Attack Technology Level 2 must be purchased before Attack Technology Level 3; and Attack Technology 2 and 3 may not be purchased in the same Economic Phase.

9.2 ATTACK AND DEFENSE TECHNOLOGIES

Improvement in these Technology Levels add to the combat capabilities of your ships (see 5.5). Note that ships can never carry Attack or Defense Technology greater than their Hull Size rating. These are the only technologies that are limited by Hull Size rating.

EXAMPLE: Scouts, Destroyers and Ship Yards can never have an Attack Technology greater than level 1, even if that player has purchased a higher Attack Technology Level.

9.3 TACTICS TECHNOLOGY

This technology affects which ships fire first in combat when they have the same Class (see 5.2). This abstractly represents not only the tactical training of a player's units, but certain aspects of technology. Tactics Technology is not limited by Hull Size rating. Like other technologies, the tactics rating is specific to a group.

9.4 SHIP SIZE TECHNOLOGY

Increasing this Technology Level allows you to purchase larger ships. The Research Chart shows which ships can be purchased at each Technology Level. This technology may be used in the same Economic Phase it is purchased.

EXAMPLE: A player just purchased Ship Size Level 3. That same Economic Phase he may begin purchasing Cruisers (CA).

9.5 MOVEMENT TECHNOLOGY

This represents how fast a ship may move (see 4.0).

9.6 SHIP YARD TECHNOLOGY

Each player starts with a Ship Yard Technology Level of 1 which can produce 1 Hull Size point of ships each Economic Phase. At Technology Level 2, each Ship Yard produces 1.5 Hull Size points each Economic Phase (rounded down). At Technology Level 3, each Ship Yard produces 2 Hull Size points each.

EXAMPLE: A player has developed Ship Yard Technology Level 2, and he has two Ship Yards in the same hex. Those Ship Yards may now build a total of 3 Hull Size points worth of ships each Economic Phase.

9.7 TERRAFORMING TECHNOLOGY

When this technology is purchased, your Colony Ships may colonize barren planets (see 4.4.2). Colony Ships that were purchased before this technology do not gain this benefit.

9.8 EXPLORATION TECHNOLOGY

This technology greatly improves the sensors and other equipment needed for exploration. Only Cruisers may be equipped with it. During the Movement Phase, each Cruiser so equipped may peek at *one* adjacent face-down (unexplored) System marker before moving. The player has the choice of returning the marker face down or revealing the marker. If the marker is revealed and it is a marker with a one time effect (Danger!, etc.), it is removed. Whether the marker is revealed or not, any negative effects from that marker do not affect the exploring Cruiser. The Cruiser is also allowed to move normally in that Movement Phase (and may explore a different hex in the usual fashion, as per 6.1). A Cruiser that uses Exploration Technology is not revealed.

PLAY NOTE: This means that a Cruiser equipped with Exploration Technology can explore 2 hexes each turn (one with its Exploration Technology and one by moving into the hex).

9.9 REVEALING TECHNOLOGY

Technology is revealed by players as it is used. Therefore, at the start of combat, each player must reveal the Attack, Defense, and Tactics Technology present in that battle. If a player destroys only non-combat ships (Decoys, Miners, etc.), he does not need to reveal his ships or his technology. He would, however, have to reveal if he fired on a Colony. Scanning Technology would only be revealed if Raiders were present and Point Defense revealed only if Fighters were present. Movement Technology would be revealed in the movement phase when it is used, etc. Ship Yard technology does not have to be revealed when it is used.

To reveal a technology a player just needs to announce it. He does not have to show his production sheet until the end of the game.

9.10 NEW TECHNOLOGY LEVELS

9.10.1 General: Technologies apply to ships purchased in the same and subsequent Economic Phases, but not to ships purchased in previous Economic Phases. Thus, if you purchase Attack Level 2 in the same turn that you purchase a Battleship, this new Battleship is "equipped" with Attack level 2 (but ships purchased in previous turns are not equipped with it).

9.10.2 Group Uniformity: Spaceships in the same group *must* have identical technology capabilities (such as Attack level, Tactics level, and so forth). If a player has two spaceships of the same type but with different technology capabilities, they must be represented by different Group counters.

9.10.3 Record Keeping: Keep track of a group's Technology Levels on the Ship Technology Chart using each group's identification number. When you purchase a ship, circle the current technologies on the row corresponding to its group on the chart. There is no need to ever erase the circles on the sheet since a player's Technology Level never decreases.

9.10.4 Upgrades: A ship may be upgraded to the player's current Technology Level. The ship must be in a system with a Ship Yard. There is no limit to the number of ships that can be upgraded at a single Ship Yard. The ship must not move for an entire turn (it must begin and end the turn at the Ship Yard), and CPs must be expended. The amount of CPs expended is dependent upon the amount of upgrade:

- If you pay the Hull Size of the ship, you may upgrade one Technology on that ship by one level.
- If you pay twice the Hull Size of the ship, you may upgrade all Technologies on that ship to their currently researched level (within hull size limits).

This means that a player must have CPs left over from the previous Economic Phase in order to upgrade ships.

9.10.5 Automatic Upgrades: Bases and Ship Yards are automatically and instantly upgraded to the latest Technology Levels without cost. Ship Yards may even use a new level of Ship Yard Technology that was just purchased.

PLAY NOTE: For those who wish to avoid the bookkeeping required by this rule, there is an Optional Rule that removes it (see 15.1).

Advanced Rules

It is recommended that you not use these Advance Rules until you are familiar with the game. They can be used in whole or in part.

10.0 Merchant Ship Pipelines

Merchant Ship Pipeline counters represent groups of slow moving space vessels as well as navigational beacons and portions of space that have been charted and cleared for space travel.

10.1 MERCHANT PIPELINES

10.1.1 Characteristics: Merchant Ship (MS) Pipelines always represent a single trade network—never place a numeral marker underneath them. MS Pipelines move 1 hex per turn, and do not receive any benefit from an increase in Movement Technology. They may be purchased and placed at a Ship Yard in the usual fashion. MS Pipelines have no combat capability and if attacked are instantly destroyed (unless screened). MS Pipelines may not retreat during combat and do not incur maintenance costs.

10.1.2 MS Pipeline Chains: MS Pipelines may be organized in a "chain", a trade network connecting planets and other regions of space. Two or more MS Pipelines adjacent to one another are considered to be a chain (or pipeline). The benefits of a chain are as follows:

- MOVEMENT: Any unit, including another MS Pipeline, that starts its movement on a chain of friendly MS Pipeline counters and spends its entire Movement Phase on the same chain may move an additional hex, as long as this hex is also part of the chain. If used to aid a ship's movement, none of the MS Pipeline counters that form this chain may move during the turn. To make it easier to keep track of which MS Pipeline counters have not moved, the MS Pipeline counters have an "Active" side. If a MS Pipeline has moved, flip it to the "Moved" side until the start of the next turn. MS Pipelines that survive entrance into a Black Hole hex, may, in future turns use their navigational aids to allow friendly ships traveling along a pipeline to enter the Black Hole hex without rolling for destruction (in other words, a chain may extend into a Black Hole hex). MS Pipelines also allow friendly ships traveling along a pipeline to ignore Nebulae and Asteroids for purposes of movement.

- TRADE: Any friendly Colony (even a new one) that is connected to the home planet by a friendly MS Pipeline chain produces one extra CP in the Economic Phase (the home planet does not produce an extra CP, but each Colony connected to it does). There must be a MS Pipeline counter in each planet hex, including the home planet, and in each hex in between. An unlimited number of colonies may be connected to the home planet in this way, each contributing an extra CP through the chain. MS Pipelines may contribute to this chain even if they moved this turn. Each Colony gives this benefit only one time per Economic Phase, no matter how many times it is connected.

PLAY NOTE: Beware of cloaked Raiders in your pipelines!

11.0 Carriers, Fighters & Point Defense

Fighter Technology allows you to build Carriers (CV) and Fighter Squadrons. Point Defense Technology applies only to Scouts, and only affects their attacks against Fighter Squadrons.

11.1 CARRIERS (CV)

11.1.1 Characteristics: A Carrier may hold a maximum of 3 Fighter Squadrons. Carriers may participate in combat, but cannot be targeted until all friendly fighters (not just those on that particular Carrier) present in the battle are destroyed (even if the Carrier is not screened). Carriers lose this immunity if the owner screens any fighters.

11.1.2 Carrier Retreats: Carriers that retreat may not "orphan" fighters in combat. A Carrier may retreat with less than its full complement of Fighter Squadrons, but only if there are Carriers (or a friendly Colony) remaining in the system to absorb the fighters left behind.

11.2 FIGHTERS

11.2.1 Characteristics: Fighters are purchased in squadrons, and you must use numeral markers underneath Fighter Squadron counters to indicate the number of squadrons represented by that counter. Note that Fighter Squadron counters do not have to be physically stacked on a Carrier, they just need to be in the same hex.

EXAMPLE: A hex could have one Carrier group with a "2" under the counter and one fighter group counter with a "6" under the counter to represent 2 fully loaded Carriers.

11.2.2 Fighter Movement: Fighters are small spaceships that have no interstellar movement capability of their own. Fighter Squadrons therefore may not move from hex to hex on their own, although they may be carried. Only a CV may carry Fighter Squadrons. Thus, a squadron must remain at the Ship Yard where it is placed during the Economic Phase, or, transfer to a Carrier in the same hex.

11.2.3 Transfer: One or more Fighter Squadrons may transfer from a colonized planet to a Carrier or vice versa, or, between Carriers, in the same hex. Transfer may happen any time during a Carrier's move or combat, at no extra cost to the Carrier.

11.2.4 Fighters & Combat: In combat, Fighter Squadrons may fire and be targeted. A Fighter Squadron is counted as a single combat-capable ship for the purpose of determining screening. A Fighter Squadron may not retreat, although it may be carried away from a battle hex when a Carrier retreats.

11.2.5 Fighters and Colonies: There is no limit to the number of Fighter Squadrons that may be at a Colony. Fighters based on a Colony must participate in any battle that occurs in their hex.

11.2.6 Fighter Technology & Upgrades: All fighters represented by the same Fighter Squadron Group counter must share the same Technology Levels. Fighter Technology increases a Fighter's Attack and Defense Strength (as indicated on the Ship Technology Chart). If a Carrier spends a turn in a hex with a Ship Yard, each Fighter Squadron on the Carrier may upgrade all of its Technology to the current level at the cost of 1 CP. Therefore a Carrier with three Fighter Squadrons would pay 3 CPs in order to upgrade all of them to the current Fighter Technology and Tactics Level. Fighters do benefit from both Attack and Defense Technology (limited by hull size, of course).

11.3 POINT DEFENSE TECHNOLOGY

Point Defense Technology only applies to Scouts versus Fighter Squadrons.

11.3.1 Scouts: Point Defense Technology improves a Scout's ability to contend with fighters. A Scout with Point Defense Technology has an 'A' Class rating and a higher Attack Strength (depending on the Point Defense level). This applies *only* when firing at Fighter Squadrons, all other capabilities remain the same. In combat, a Scout with Point Defense Technology firing at a target other than a Fighter Squadron does so with its normal 'E' Class rating, it only fires with an 'A' rating when targeting a Fighter Squadron. Exception: in Asteroids and Nebulae, Point Defense equipped ships fire at "E" like all other ships and fighters.

11.3.2 Scouts and Attack/Defense Technology: Point Defense Technology can be used with Attack and Defense Technology when Scouts combat fighters — up to the limit of their Hull Size rating, which is 1 in both cases.

EXAMPLE: A Scout (Class = E, Attack Strength = 3) with Point Defense Technology Level 1 (A6 vs. fighters) plus Attack Technology Level 1 (+1 to Attack Strength) would fire on Fighter Squadrons with an A7 and fire on non-fighters with an E4.

12.0 Raiders: Cloaking and Scanners

12.1 RAIDERS (R)

12.1.1 General: Cloaking Technology allows the purchase of Raiders. Raiders operate in all ways like spaceships with the additional ability to "cloak". Cloaking gives a Raider group an advantage during the Movement Phase and Combat Phase. When a Raider's Cloaking Technology is superior to the enemy's Scanner Technology (12.2), or the enemy has no Scanners, then the Raider is considered "Cloaked".

12.1.2 Movement Advantage: A Cloaked Raider may move into a hex occupied by an enemy unit and continue moving. It need not stop. It may also occupy a hex and not trigger combat. If a Cloaked Raider is in the same hex with an enemy ship and Colony, the Colony is not considered blockaded. The Cloaked Raider would have to defeat any enemy ships to blockade a colony.

12.1.3 Defense Advantage: At the start of a battle, Cloaked Raiders have the option to retreat after the fleets are revealed and before shots are fired or mines detonate. In this case, if no other ships remained in combat, information about an opponent's technology would not be revealed.

12.1.4 Attack Advantage: In combat, Cloaked Raiders have a Class rating of A and during the first firing round (only) have their Attack Strength increased by +1. A Raider that is not Cloaked uses the D Class rating.

12.1.5 Cloaking Technology Levels: A player can increase his Cloaking Technology up to "2". Level 1 Scanners do not negate Level 2 Cloaking Technology.

12.1.6 Cloaking in Nebulae: Cloaking devices do not work in Nebulae. All Raider ships are treated as normal ships when in a Nebula.

12.2 SCANNERS

To counteract Cloaking Technology, a player may research scanners. This technology equips Destroyers with the ability to scan for Raiders. This nullifies all of a Raider's cloaking advantages. When a Destroyer with scanners is present, treat all enemy Raiders (of equal or lower Cloaking level) as normal ships. A legitimate tactic is to target Destroyers early in combat so that cloaking ships may be at an advantage. If all scanner equipped Destroyers are eliminated, the cloaked ships do not regain their benefits until the start of the next firing round. To avoid this, a player may screen a Destroyer as long as he outnumbers his opponent. A screened Destroyer may not participate in combat, but still provides its fleet with scanning benefits.

EXAMPLE: A player moves his Raiders into a hex with an enemy fleet and either wants to skip combat or keep moving and so announces that they are Raiders. The other player desires combat and so announces that he has Scanners present. The Raider player then announces that his Raiders are at Cloaking 2. The enemy player might then announce that he has Scanner 2.

13.0 Mines and Mine Sweepers

13.1 MINES

13.1.1 General: Mines are powerful, programmable, and hard to detect warheads with limited movement capability. Mine Technology must be researched before mines may be purchased and placed on the game board. A Mines counter operates like any other group; a numeral marker must be placed under it to indicate the number of mines represented by the counter. Mines cost no maintenance.

13.1.2 Mine Movement: Each Mines counter also represents a special mine laying ship that controls and deploys the mines (even though the ship is not pictured on the counter). There is no special cost for this ship; it is inherent in the cost of the mines. This allows the counter to move on its own, but it is limited to a movement of "one" regardless of Technology Level.

13.1.3 Movement Restrictions: Mines may not Explore nor may they enter an enemy occupied hex (including one with an enemy Colony)—even when accompanied by other friendly units. If enemy ships enter a hex containing Mines, the Mines are automatically considered deployed and active.

13.1.4 Mines and Combat: Before the start of combat, all Minesweepers (see below) remove as many Mines as they are capable of sweeping. All unswept Mines immediately detonate (remove the Mine counter from play) and destroy one ship each (regardless of the type of the ship). The choice of which ship is destroyed is determined by the player who controls the mines *(yes, I'm picking the DN!)*. If a CV is destroyed by a Mine, the Fighters present will be destroyed only if there is not enough room to carry them on other CVs. After mine sweeping and detonation, combat continues as normal.

13.1.5 Must Detonate: If enemy ships are present, Mines *must* detonate—they may not choose to ignore a ship. It is therefore a legitimate strategy to attempt to clear mines by attacking with only Scouts. If there are more Mines than attacking ships, excess Mines remain in the hex. Except when dealing with cloaked ships, under no circumstances will both Mines and enemy ships remain in a hex after sweeping and mine detonation.

13.1.6 Mines and Raiders: Mines only work on Raiders if there is a Destroyer with appropriate Scanner Technology present. This is the only exception to Mines being in the same hex as enemy ships after detonation. If a Destroyer with Scanner Technology enters the hex, the Mines will activate during combat as normal. During combat (not movement), a cloaked ship can decide to sacrifice itself and uncloak to allow the Mines to detonate on it, but if other ships are present, the owner of the Mine is still free to choose the mine's target.

13.2 MINESWEEPERS

Minesweeper Technology allows the purchase and placement of Minesweeper units. Minesweepers move using the player's Movement Technology (they are not limited to a movement rate of 1 hex). Minesweepers with a Minesweeper Technology Level of "1" remove one mine each before mine detonation. Minesweepers with a Technology Level of "2" remove two mines each before mine detonation. Note that Minesweepers may be chosen as the target of a detonating mine, but they do not have to be.

14.0 Aliens

14.1 PLACEMENT

The center of the board (Deep Space) is inhabited by a race of aliens. When a System marker in Deep Space is revealed to be a barren planet, randomly draw 4 Alien ship markers and place them on the planet. They attack any ship that enters their hex, including the exploring ship. Resolve the combat normally. If this planet was discovered by a Cruiser using Exploration Technology, the aliens are placed face down, unlooked at, and may not be examined.

14.2 ALIEN BEHAVIOR

Aliens never leave their hex, never retreat, and always fight to the death (although players can retreat from alien combats normally). Alien ships have a Hull Size rating of 1. Aliens have a Tactics rating of 1. All alien ships, regardless of type, are also equipped with a Point Defense of 2 and may choose to fire at Fighters with a Class A, Attack Strength 7 instead of shooting at a ship. In combat, the player to the left of the active player makes decisions on behalf of the aliens (that is, he selects targets). If team play is being used, then a player from the other team selects the targets regardless of seating.

14.3 CONQUERING ALIEN PLANETS

Aliens never get additional ships and are considered subdued the moment they lose their last ship in combat. The (former) alien planet can then be colonized normally by a player with Terraforming Technology.

O P T I O N A L   R U L E S

Most of these optional rules can greatly change the game. It is not recommended that you use them until familiar with the game, but they can be an enjoyable change of pace as you become more experienced. Feel free to use all, some, or none of the following in any game.

15. Minor Optional Rules

15.1 INSTANT TECHNOLOGY UPGRADE

For players who do not like the bookkeeping required for upgrading technology, it can be agreed that all existing ships are instantly upgraded to a newly purchased level of technology. An assumption can be made that each ship is equipped on board with facilities to upgrade their technology based on information being communicated from their home planet. This is then accomplished during the large amounts of time that transpire each turn.

15.2 BLACK HOLE SLING SHOT

A ship that enters a system with an already revealed black hole may declare that it is going to try a "sling shot" effect. This must be declared before the die is rolled to determine if the ship is lost due to the black hole. If this is declared, modify the Black Hole survival roll by +2 (a ship is 20% more likely to be destroyed if the sling shot is attempted). If it survives, the ship gains, an extra point of movement for that turn only. This represents ships moving closer to the event horizon (more risk) in order to take advantage of the gravitational properties to sling shot them forward. The use of MS Pipelines may not be combined with the Black Hole sling shot.

16.0 Warp Points

16.1 WARP POINT AVAILABILITY

There are six Warp Point markers in the game—three "Warp Point 1" markers and three "Warp Point 2" markers. Some or all may be used as agreed upon by all players.

16.2 WARP POINT USAGE

Warp Points can not be used until another Warp Point with the same number has been discovered. In games where all three Warp Points with the same number have been discovered, they are considered interlinked. A ship on one Warp Point can jump to either of the other two of the same number. If no other Warp Point of the same number has been discovered, the Warp Point is ignored (treat the space as if it were empty).

16.3 WARP POINT MOVEMENT

Warp Points affect movement by allowing ships to travel through them. If a ship is in a system containing a Warp Point, it may move to any other system containing another Warp Point with the same number, regardless of distance traveled, as if the two systems were adjacent. Moving in this way is optional, not mandatory.

EXAMPLE: A ship that can move 3 hexes starts its turn adjacent to a Warp Point. It first moves into the system containing the Warp Point. At this point it can continue moving to another adjacent system as if the Warp Point was not there or it can move to a system containing another Warp Point with the same number. If it did that, it would still have one movement point remaining to continue movement after arriving at the other Warp Point.

16.4 WARP POINTS AND MS PIPELINES

MS Pipelines may connect through a Warp Point. Warp Points are considered adjacent in all ways. Therefore, if two Warp Points (with the same number) both share hexes with a merchant ship, the pipeline extends through the Warp Point, just like it would with any adjacent hex.

16.5 WARP POINTS AND RETREATING

Warp Points of the same number are considered adjacent in every way, including retreats.

17. Doomsday Machines

17.1 DOOMSDAY MACHINE AVAILABILITY

There are three Doomsday Machines (DMs) in the Deep Space system markers. Players need to agree on the number of DMs that will be included in the game. When playing with this optional rule, a DM is not removed when flipped, but stays active on the map until destroyed.

17.2 DOOMSDAY MACHINE COMBAT

If flipped by normal exploration, a DM immediately attacks the exploring ship(s). A DM gets 2 attacks per round at Class-C, Attack Strength 9, has a Defense Strength of 2, and a Hull Size of 3. Players do not get the 2:1 Fleet Size Bonus (5.1.4) in combat against a DM. (Do not roll on the Doomsday Machine Weakness Chart on pg. 8 of the Scenario Book.) Unlike the solitaire game, DMs recover all damage at the end of a combat. DMs are immune to mines, cloaking, and fighters.

17.3 DOOMSDAY MACHINE MOVEMENT

DMs move each turn after all players have moved (including the turn it is flipped). DMs move 1 or 2 hexes and will move toward the nearest planet, asteroid, or ship within 2 hexes (stopping on it). If there is more than one of those that is equidistant from the DM, then roll randomly to determine which one it moves onto. Each space that qualifies has an equal chance of attracting the DM. If a DM moves to an alien planet, it will attack the aliens normally. A DM will not end its move on an unexplored hex or in a hex with another DM, but will move through them. If there are no planets, asteroids or ships within 2 hexes, the DM will move one hex in a random direction and end its turn.

17.4 DOOMSDAY MACHINE EFFECTS

If there are ships in a hex with a DM, the DM will immediately attack them. DMs may be attacked by other players normally. If, after combat, a DM is in a hex with an asteroid or planet (with or without a colony), it will destroy it. Remove it and any colony from play. DMs get no benefits from destroying planets or asteroids. Any other terrain has no effect on DMs.

17.5 DOOMSDAY MACHINE PLAY BALANCE

Regardless of planets or ships, a DM will never move into a hex that was part of a player's home system (did not originally contain a Deep Space system marker). This obviously does not apply to the random map scenarios.

18. Research Gearing Limits

Realistically, an empire cannot go from a zero commitment in researching technologies to an all-out commitment overnight.

A player may only spend 10 more on research than he spent in the previous Economic Phase. For example, a player spent 15 CPs on research. The next Economic Phase he may spend 0 to 25 on research. Note that if he does spend 0 on research, the following Economic Phase he will be able to spend a maximum of 10.

19. Unpredictable Research

This rule inserts an element of chance into technological development. There's no guarantee your scientists will be able to make that breakthrough you need, right when you need it. When using this special rule, players do not use the normal production sheet, but must copy the special one provided in the scenario book.

19.1 RESEARCH FUNDING

During the Economic Phase, instead of purchasing a technology level (per 7.5), you must spend CPs to fund research. You may do this in increments of 5 CPs, and each increment is called a "grant." Each grant allows you 1 die roll. *For example, if you spend 10 CPs on funding, you roll two dice.* Funding must be specific to each technology. You must note on your production sheet the number of grants allocated to each technology type (such as tactics, movement, attack, and so forth). You must allocate all of your technology rolls to specific technologies before rolling any dice.

19.2 RESULTS

After you roll each die funded by your grants, you note the sum of the die rolls on the production sheet. If the sum is equal to or greater than the cost of the technology level, you immediately acquire that technology (you may apply it to spaceships you purchase this turn).

EXAMPLE: A player who purchases 5 research grants is attempting to research Attack Level 1. He spends 25 CPs, allocating 4 of the grants to that technology by circling numbers 1, 2, 3, and 4 underneath "Attack 1" on the production sheet. He allocates the 5th grant to a different technology. He rolls the first four dice and

yields 7, 5, 6, and 8 for a total of 26. Since it only requires "20" to research Attack 1, the research on that technology is completed and "Attack 1" is circled. The extra 6 points (20-26) are wasted. Had the rolls yielded 7, 5, 6, and 1 (for a total of 19), the research would have not been completed. During the next Economic Phase, he would have had to purchase another research grant and allocated it to "Attack 1" (by circling the number 5). In this case, success the following turn would be guaranteed because only 1 would be needed to get to 20. Sometimes it is wise to allocate more research rolls than you think you might need if you absolutely have to have that technology that turn.
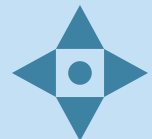
19.3 RESEARCH FUNDING LIMITS

An empire can not go from a zero commitment in research to an all-out commitment overnight. For this reason, a player may only purchase a maximum of two more research grants than he purchased the previous Economic Phase.

EXAMPLE: A player spent 15 CPs to purchase 3 research grants. The next turn he may purchase 0 to 5 research grants. Note that if he does purchase 0 research grants, the following turn he will be able to purchase a maximum of 2.

A complete game of *Space Empires* includes:

- One 22 x 30 inch map
- Four and one-half sheets of counters
- One Scenario Booklet
- One pad of Production Sheets
- Four identical Reference Cards
- Four 10-sided Dice
- This rule book

SEQUENCE OF PLAY

A. Determine Player Order (7.4)

B. Turn One:

Player 1:   a. Movement (see 4.0)
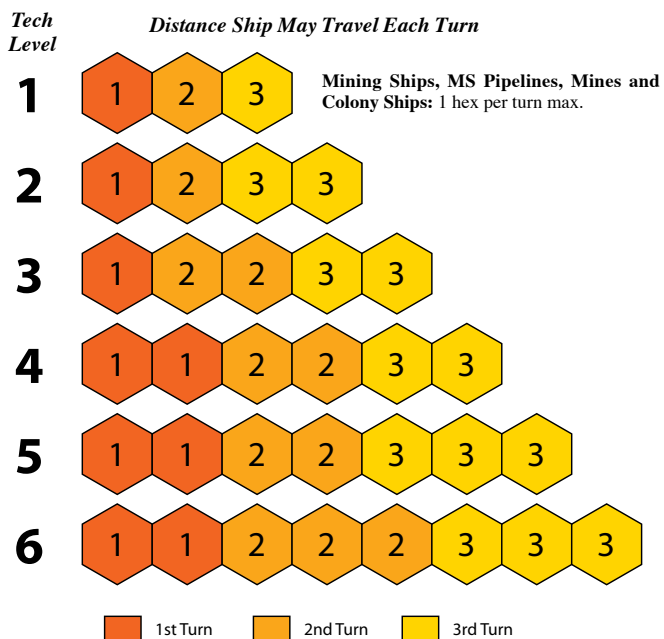   b. Combat (see 5.0)
               c. Exploration (see 6.0)

Player(s) 2-4:   Same as Player 1

C. Turn Two: (same as turn one)

D. Turn Three: (same as turn one)

E. Economic Phase (see section 7.0)—All players conduct this phase simultaneously, not in player order.
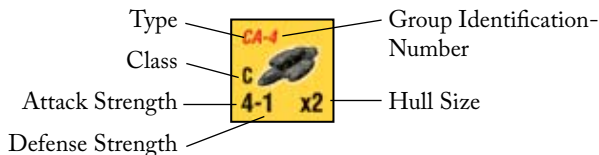

Type — CA-4 — Group Identification-Number
Class — C
Attack Strength — 4-1 — Hull Size
Defense Strength — x2

BB: Battleships   **F:** Fighters*
BC: Battle Cruisers   **R:** Raiders*
CA: Cruisers   **SC:** Scouts
CV: Carriers*   **SW:** Minesweepers*
DD: Destroyers   **SY:** Ship Yards
DN: Dreadnaughts

Spaceship types introduced in the Advanced Rules.

MOVEMENT TECHNOLOGY CHART

Tech Level   *Distance Ship May Travel Each Turn*

Tech Level								Note
1	1	2	3					**Mining Ships, MS Pipelines, Mines and Colony Ships:** 1 hex per turn max.
2	1	2	3	3				
3	1	2	2	3	3			
4	1	1	2	2	3	3		
5	1	1	2	2	3	3	3	
6	1	1	2	2	2	3	3	3

■ 1st Turn   ■ 2nd Turn   ■ 3rd Turn

BLACK HOLES SURVIVAL CHECK

Die Roll	Result
1-6	No Effect
7-10	Destroyed

DRM: +2 if Slingshot is attempted (15.2)

SPACE WRECK TECHNOLOGY TABLE (6.8)

Die Roll	Free Technology Upgrade
1-2	Ship size
3-4	Attack
5-6	Defense
7	Tactics
8-9	Move
10	Ship Yard

ABBREVIATED SEQUENCE OF COMBAT

1. Move Ships Off Map
   A. Eliminate Decoys
   B. Reveal Units
   C. Attacker Conducts Minesweeping
   D. Defender Detonates Mines
   E. Form Battle Lines

2. Determine Combat Screening
The player with the greater number of combat-capable ships has the option of Combat Screening (5.7). Non-combat ships are automatically screened until the end of the battle.

3. Determine Fleet Size Bonus
+1 to Attack Strength if one player has twice as many combat-capable ships as his opponent.

4. Resolve Combat
A Class Ships fire first, followed by B Class, etc. Use Tactics Level to break ties. If still tied, defender fires first. Fire is never simultaneous.

5 Repeat if Necessary
Return to Combat Screening step. After the first round is completed a unit which has an opportunity to fire at a target may retreat instead (see 5.9).

FIRE RESOLUTION PROCEDURE

1. Select a firing unit and a target.

2. Add the firing unit's Attack Strength to its Attack Technology Level. Note, Attack Technology Level cannot exceed Hull Size (9.2).

3. Increase Attack Strength by one (+1) if Fleet Size Bonus (5.1.4) is earned.

4. Subtract target's Defense Strength and Defense Technology Level from the Total Attack Strength. Note: Defense Technology cannot exceed Hull Size (9.2). The sum is the die roll necessary for a hit. Less-than-or-equal-to is a hit. A die roll of 1 is always a hit.

Hull Size determines how many hits a ship can take before it is destroyed.