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***Empires of Dawn***

***Interstellar Empires in the Galaxy of WarpWar***

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CLEAR CREDIT: *WarpWar* was a product of Metagaming, and was designed originally by Howard Thompson. Some modifications for “imperial WarpWar” were later introduced in *The Space Gamer* magazine in an article co-written by Steve Jackson and Joseph Powers – still a product of Metagaming at the time. Many of the additional ship systems and rules for making use of them were designed/published as a part of the WarpWar Design Group – an online group that worked out and playtested them around 20 years ago. They were published as *WarpWar 2*, if memory serves, at the time. Rick Smith developed the basic production rules used herein (though I have somewhat modified them for a better fit with the colonization rules), as well as retrofitting and slightly simplifying the classic 3D movement system from SPI’s *StarForce Alpha Centauri* game for use with WarpWar. The inspiration for the colonization rules came from reading a review of another 4X type space board game called *Gateway to the Stars*. I don’t own that game, but the description of the process in the review led me to this method, which also solved a huge problem of “overproduction” that occurred in my earlier design efforts.

**[1.0] INTRODUCTION**

*Empires of the Dawn* is a game that expands basic *WarpWar* in a simple way in order to allow some campaign structure beyond that implicit in the basic *WarpWar* game. For the purists among you, the fundamental rules underlying all aspects of this game are *WarpWar*'s. “Strategic” rules are overlaid upon the basic *WarpWar* structure, but have been designed to mesh with *WarpWar*'s fundamental design principles in every way possible. Several simple options are provided to add greater depth to the game, but are still as simple as possible for ease of play. However, they do add complexity, so be aware of that when choosing to use or not use them.

The game is divided into Game Turns, during which each Player has the opportunity to explore unfamiliar stellar systems, expand into them by placing colonies (and outposts, if the players agree to use Case 9.6) there, exploit the systems he occupies by producing “Build Points” with which to conduct construction, research, and other meaningful activities, and, eventually to exterminate the opposing Players.

The game may be played by two or more Players in its basic version. The game *can* be played solitaire, but is significantly less fun that way.

SCALE OF THE GAME

Each Game Turn represents roughly one year of Solar Terrestrial time. Each hex of the game map represents roughly one Light Year of distance in all three dimensions.

**[2.0] SEQUENCE OF GAME EVENTS**

GENERAL RULE: A Game-Turn consists of a players going through each of the events described below in order. When all players have completed the event, the next event is started.

The sequence of game events for all players is:

**[2.1] BP TRANSACTION EVENT**

The BP transactions event consists of one or more

of the following:

• Receive new Build Points as per scenario or

from owned systems according to the economics

rules (see Cases 7.1 and 7.2). Add to stockpiles and record current totals.

• Load or unload system BPs into Holds.

• Scrap old ships at bases and add Build Points

to base stockpiles.

**[2.2] BUILD/REPAIR EVENT**

**[2.21]** The building event consists of one or more of the following:

• Build new ships, Colony Pods and other items. Subtract expenditures from Base\Colony totals.

The new Ships, Bases, Factories and Laboratories are placed on the Star Base they were built at.

• Repair and resupply old ships at stars with repair capability, then subtract BP from the stockpile/holds.

• Deploy Colony Pods.

**[2.22]** All players place new builds at the bases at the same time.

**[2.3] MOVEMENT EVENT**

**[2.31]** You may move some, all, or none of your

Warpships up to the maximum movement (in hexes) of which they are capable.

**[2.32]** Systemships may be picked up or dropped off during this event at a cost of 1 Movement Point per pickup or drop off action. SystemShips may not conduct strategic movement on their own; they must be transported by a WarpShip.

**[2.33]** Players establish the order in which they will move by rolling a die; high roll goes first, second highest second, and so on. Tie rolls roll a tie-breaker between them with the highest roll going first, etc. See Rule 3.0, Movement, for details.

**[2.4] COMBAT EVENT**

**[2.41]** Combat MUST occur whenever ships from

opposing fleets occupy the same star hex at the end of a player's movement event (however see optional Rule 10.0; Diplomacy and Interplayer Agreements).

**[2.42]** Combat in each star hex is separate, and ends when only one player's or one alliance's ship(s) occupy that star hex.

**[2.43]** Combat does NOT occur when opposing ships occupy the same nonstar hex.

**[2.44]** See Rule 5.0 for details of combat

**[2.5] END TURN PROCESSES EVENT**

**[2.51] SystemShip Rearrangement:** After all combats on all star hexes are resolved, players can have any Warpship drop off any Systemship(s) it carries at the star it occupies, have any Systemship at a star hex picked up by a Warpship there that has SRs, or transfer Systemships from one Warpship to another at the same star hex. Similarly, Fighters and Missiles may be broken out of Holds to replace losses, and/or transferred between ships capable of using them and so on. This event is essentially a free shuffling around of Systemships, Fighters, and Missiles in a star hex, and costs no movement.

**[2.52] Victory Condition Check**: Check if a victory condition is met as per scenario. Players declare victory only at this time.

**[2.53] Technology Advancement:** Follow technology rules (see Rule 6.0).

**[2.53] Diplomacy:** Players now conduct diplomacy and may declare and terminate Trade and Research Agreements (optional Rule 10.0).

**[2.54] Record Passage of One Game-Turn:** The turn is over. Note the passage of the Game-Turn and begin the next turn.

**[3.0] MOVEMENT**

GENERAL RULE: During the Movement Phase of a Player's turn, he may move some, all, or none of his WarpShips up to their maximum movement allowance. A WarpShip’s movement allowance is equal to undamaged PD +TL. Note that in order to move at all, two conditions must be met. The ship must have a Warp Generator (see Ship Systems). Second, the ship must have at least one point of PD to expend in movement. If a ship lacks a point of PD to conduct the desired movement action (see Case 3.23 below), that action may NOT be conducted.

Ship counters are placed face up on the map, with lettering visible. Systemships are not placed face up on the map while being carried by Warpships, but **are** placed on the appropriate star hex when not being carried.

PROCEDURE:

Starting with the first Player and continuing in the order determined during the Player Order Determination Phase (2.2A), each Player conducts regular movement for as many of his eligible WarpShips as he cares to move. The maximum possible distance a WarpShip can move is governed by its current PD plus Tech Level.

**[3.1] HOW TO CONDUCT MOVEMENT**

**[3.11]** During the Movement Phase, each Player may move as many or as few of his WarpShips as he wishes. Players may move only their own WarpShips. Players may never examine, move or otherwise use WarpShips belonging to another Player.

**[3.12]** Each WarpShip or group of WarpShips is moved individually. Once a Player stops moving a WarpShip or group of WarpShips, that ship or group may not conduct any further movement until the next Friendly Movement Phase.

**[3.13]** Friendly WarpShips occupying the same stellar system at the beginning of the Movement Phase may combine to form one or more groups or “forces.” Friendly WarpShips in different stellar systems at the beginning of the Movement Phase may not combine to form a single force during that Movement Phase. Therefore, a WarpShip that moves from system A to system B may not “pick up” a WarpShip at system B and then move on to system C during that Movement Phase. The original force may, by itself move to system C, and the force at system B may also move to system C separately, provided both forces have sufficient Movement Points to accomplish the moves required.

**[3.14]** Players may **detach** WarpShips from a moving force at any point during movement (i.e. a force consisting of three WarpShips moves from system A to system B. The Player chooses to detach one WarpShip in system B (thus completing its movement) and the remaining two WarpShips, still moving as one force, proceed on to system C).

**[3.2] MOVEMENT ALLOWANCES AND COST**

**[3.21]** A WarpShip’s movement Allowance is governed by the ship’s Power/Drive unit plus the player’s current TL. In order to actually conduct movement, the WarpShip to be moved MUST possess at least one point of Power/Drive (PD – see Ship Systems) per Movement Point it wishes to expend. The SHIP’s current TL is then added to this total in order to determine the actual Movement Allowance of the ship. Thus, if a WarpShip were at TL-2 and had 5 points of undamaged PD, it’s Movement Allowance would be 7 (5 for the PD, plus a 2-point bonus for the ship’s TL). Note that the **ship's** current TL is the one that is used, even if the PLAYER’s TL is higher. A WarpShip's actual Movement Allowance is determined at the start of the Movement Phase and may vary from turn to turn depending on damage to the WarpShip.

**[3.22]** WarpShips may pick up or drop SystemShips during movement, at a cost of **one** movement point per SystemShip dropped or picked up. Note this provision applies only to SystemShip pick up and drop.

**[3.23]** It costs a WarpShip **1 MP** to do any of the following:

- Move the full distance along a warpline, from the star hex at one end to the star hex at the other; or

- Drop off OR pick up **one** SystemShip.

Note that these actions may be undertaken in any particular order or combination up to the limit of the WarpShip's actual Movement Allowance.

**[3.24]** It costs a WarpShip 5 **MPs** to do any of the following:

- Move a single normal hex either vertically or horizontally, or;

- Explore a newly entered Star System hex in order to determine Habitability Rating (and, if optional rules are in effect, to determine the number of planets, their size limit, and their resources).

Note that Exploration of a star hex is NEVER mandatory. A player may choose to explore the star hex, or he may choose to simply pass through it without exploring it (see Rule 9.0, Exploration).

***Example 1:*** *Moving to an adjacent hex, OR moving up one level costs 5 MPs.*

***Example 2:*** *If a player enters a hex which has not previously been explored by HIM, he may expend 5 MPs in order to explore the hex and determine all information (HR’s, number of planets, etc., depending on the rules in play) about that star hex.*

**[3.25]** It costs a WarpShip **7 MPs** to move BOTH vertically and horizontally through a given hex.

***Example:*** *Moving over one hex AND up one hex costs 7 MPs.*

**[3.26]** A Warpship may **not** stop at any intermediate point on the warpline when using warpline movement. Warpships may only enter warplines for warpline movement at one end of the warpline, not in the middle.

**[3.27]** Warpships must stop movement on any star hex occupied by an enemy ship. This applies to Warpships moving either normally through space or by warplines to the Star Hex. Warpships may freely move through all-space hexes (i.e., those hexes without a star depicted in them) even if they are occupied by enemy ships.

**[3.28]** WarpShips may not conduct a movement action for which they lack the necessary Movement Points. For example, if a WarpShip only has 3 MPs available, that WarpShip may not move through normal space, but could move through up to three WarpLine connections.

**[3.29]** Movement points expended during the standard Movement Phase are NOT considered "lost" or expended during the following Combat Phase. When combat commences, a ship may allocate its full current PD strength to combat.

**[3.3] 3D MOVEMENT**

In the original game, the map was a two dimensional representation of a flat area of “space.” Much like fighting a naval campaign in the age of sail, it failed to accurately reflect the true nature of space. Three dimensionality rectifies that problem

**[3.31] Three Dimensionality.** The map is now a three-dimensional map within which each hex represents a volume of space equal in all three dimensions – that is one hex across is also one hex high:



The surface of the map is identical to the “Planar Ecliptic” and provides the two-dimensional location of all stars depicted in the volume, but all positions on the Map are rendered in terms of their hex number AND their Zulu coordinate (i.e., how many hexes above or below the two dimensional plane that location is). The map may be visualized as a “stack” of three dimensional hexes that exists both above and below the plane of the ecliptic represented by the map. Thus, any star actually at the planar level has a Zulu coordinate of exactly “0,” while any star “above” the plane of the ecliptic has a Zulu coordinate that is a “plus” value (e.g., “+3” or “+10,” depending on how many hexes above the plane of the ecliptic the hex being described actually is), and any star “below” the plane of the ecliptic has a Zulu coordinate that is a “minus” value (e.g., “-1” or “-15”). If it helps, visualize the map as a stack of hexagons somewhat similar to the way a beehive is built – a series of hexagonal cells stacked one upon another and adjacent to numerous similar stacks.

**[3.32] True Distances.** If the mapwere a two dimensional map, there would be no difficulty in determining the distance from one point to another: Players would simply count the number of hexagons from one point to another and that would be that. Due to the three-dimensionality of the map, however, things are not so simple. "Straight line" distances must be calculated through the three-dimensional volume at every conceivable angle. Stars that look relatively close may actually be far apart due to their three-dimensional displacement in space. It would not be accurate to calculate distances in the most obvious way, i.e., counting the distance in hexes two dimensionally and then simply adding the "up" or "down" differential between two points. Doing that would not give the shortest distance between two points. What one really wants to know in this case is the length of the **hypotenuse** of the right triangle formed by the "horizontal" and "vertical" distances. Luckily, Pythagoras figured this one out a while back by developing the simple formula stating that the sum of the squares of the two other legs of the triangle is the hypontenuse (A2+B2=C2). Rather than burden Players with the task of figuring out square root problems every time they move their WarpShips, we've supplied a simple rule of thumb that does it for them.

**[3.33] Rule of Thumb:** It costs 5 Movement Points (PD 5), to move horizontally or vertically or 7 Movement Points to move *both* horizontally and vertically. (This is accurate to true 3D movement within 2%.)

**[3.34] Warp Lines.** Warp lines still connect the indicated stars and the Movement cost to move via warp line between two stars remains one, regardless of the “true distance” between the two stars. Because of the considerable vertical distance in the map, occasionally warp lines will visually cross each other. While traveling along a warp line, pass straight thru any such crosses. These two warp lines do not touch, and you can not switch between them mid movement.

**[3.35] Optional Rule: Variable Zulus.** One advantage to using the existing map is that Players may introduce some variability (and therefore replay value) to the game by randomly determining new Zulu values for each star before beginning each game.

**[3.36] Procedure:** Players randomly determine the actual Zulu value for each star displayed on the map. For the purposes of the game, we will assume that the positive and negative values may never exceed 20 (that is that the max negative Zulu value is “-20”, while the max positive Zulu value is “+20”). To determine the actual Zulu coordinate of a particular star, the Players first roll 1D6. If the result is a “1” or a “2,” the star's Zulu coordinate is “0” and no further roll for that star is necessary. If the result is “3” or “4,” the Zulu coordinate will be a negative number, and if the result is a “5” or “6,” the Zulu coordinate will be a positive number. Assuming the Zulu coordinate is not “0,” the players finish the process by rolling 4D6 and subtracting 4 from the total which will provide the exact Zulu coordinate. Note that a result of “0” is rounded up to “1” in this case (e.g., if a player rolls four ones and then subtracts 4, he would receive a “zero” result, but since we have already determined that the star is not on the planar level (that is, the “zero” level), the number must be adjusted to either +1 or -1 depending on the earlier die roll).

***Example:*** *The Players are getting ready to play the game and have decided to use the three-dimensional version of the map. They begin by selecting a star and rolling 1D6. In this case the result is a “6” -- the star's Zulu coordinate will be a positive number. Next the Players roll 4D6. The results are “5,” “1,” “6” and “6” for a total of “18.” Subtracting four from the total yields a result of 14. The star's Zulu coordinate is “+14.” They then repeat the procedure for each star on the map until Zulu coordinates have been assigned to each star.*

Note that when using variable Zulus in this fashion, the depicted WarpLines on the map still connect the same two stars, regardless of the actual distance between them now.

**[3.4] WARPSHIP MOVEMENT EXAMPLE**

A Player begins with a WarpShip in hex 8F+7 and wishes to move it to 8G+9. The WarpShip will need to move one hex laterally and two hexes vertically.

The player *could* choose to move one hex to the side (into the 8G column) and then two hexes vertically (from +7 to +9) for a total of 15 Movement Points required to make the move.

More intelligently, he probably will choose to move one hex both laterally *and* vertically for a cost of 7 Movement Points, and then one more hex vertically for a cost of 5 Movement Points for a total cost of 12 MP’s.

Had there been a WarpLine connecting two star hexes (one star each in hex 8F+7 and 8G+9) he could have simply chosen to traverse the WarpLine between the two hexes at a total cost of 1 Movement Point.

**[3.5] DUST CLOUDS**  
Dust Clouds represent masses of interstellar gas and debris. They either are the result of a star dying (going Supernova, for instance) or the cradle from which new stars will eventually develop – or more probably, both. Either way, they are more difficult and dangerous to move through than “normal” space is.

**[3.51]** It costs double MA to cross a purple dust hex side. (So 10 points normally or 14 if you are traveling both horizontally and vertically.)

**[3.52]** In addition, ships moving through dust clouds may take damage if they cross thru one or more Dust Cloud hexsides in the same movement phase. The damage inflicted by Dust Clouds is as follows:  
  
• Zero damage for crossing 1 Dust Cloud hex side.

• 1D6/2 damage for crossing 2 Dust Cloud hexsides.

• 1D6+2 damage for crossing 3 Dust Cloud hexsides.

• 2D6+3 damage for crossing 4 Dust Cloud hexsides.  
  
• For each additional hexside crossed beyond 3, increase the number of Dice rolled by one and increase the amount added by one. Thus, five hexsides would be 3D6+4, six hexsides would be 4D6+5, and so on.  
  
**[3.53]** Players may assign this damage to any ship components they desire on the traveling ship (normally armor if Optional Ship Systems are n use). Shields do NOT protect against this damage.  
  
**[3.54]** The map is unable to depict a given hexside is “dusty” between *vertical* cells. If a hex has 5 or more hexsides with dust around it, all cells in the vertical column of cells have “dusty” hexsides between them. If a hex has 4 or fewer hexsides with dust, then you can travel vertically between cells with out worrying about dust.

**[3.6] BEACON STARS**

Certain stars depicted on the map are shown as “Beacon Stars.” Usually, for those interested, these are intensely hot White or Blue Giant Stars (Stellar Class A or O).

**[3.61]** Such stars have such a powerful solar wind no dust is within 2 cells of it. So there is a “bubble” of free space around it, with no Dust Cloud hexsides touching them. Note that this empty “bubble” can greatly assist movement if it is otherwise surrounded by Dust Clouds.

**[3.62]** If any ship moves into a Beacon Star’s hex, it will take 1D6 damage per movement point spent in that hex. (If the ship has enough power/drive to move and power its shields, then the shields WILL protect against this damage.)

**[3.63]** Beacon Stars are usually too variable and short-lived to develop WarpLines, and they never develop any usable planets of any description, so players will normally simply avoid entering their actual hex.   
  
**[3.7] WHITE DWARF STARS**  
White Dwarfs, while normally of little use to a player since they don’t have usable planets, *can* assist interstellar movement.

**[3.71]** By dropping close to the surface of the dead star, you can do a burn and get more speed from your fuel then normal (the Oberth effect). Each White Dwarf in a given stellar hex gives you **+7 Movement Points** for moving in normal space as you leave the hex. (This bonus may NOT be used along warp lines.)   
  
**[3.72]** If two White Dwarfs are close binaries (shown by two White Dwarfs close beside each other in the hex, with no text between them), then you can use a gravity assist to get an EXTRA +7 movement points when you leave the hex. (7 each for the two WD gravity assist = 14 bonus movement points). Thus, White Dwarfs can give you a significant bonus to your movement.

**[3.73]** Any bonus Movement Points acquired in this manner MUST be spent during the current Game-turn – they may NOT be “saved” for later.  
  
**[3.74]** White Dwarfs are not given names, they are simply called “WD” prepended to the hex location. So White Dwarfs located in cell 19L+2 is called WD19L2. If they were in a close Binary relationship, they would be called WD19L2A and WD19L2B.

**[3.8] SYSTEMSHIP MOVEMENT**

**[3.81]** SystemShips do not “move” in the same sense that WarpShips do. They are confined to whatever hex they are in.

**[3.82]** If there are no friendly WarpShips with at least one SystemShip Rack present in a hex, any SystemShips in that hex will be lost at the beginning of the next Game Turn. (This represents the loss of the ships due to lack of maintenance and support.)

**[3.83]** Note that a Friendly Colony or Outpost at a Star System in that hex is considered to be able to support any number of SystemShips regardless of the presence of any Friendly WarpShips with SystemShip Racks.

**[4.0] SHIP SYSTEMS AND CONSTRUCTION**

GENERAL RULE: After collecting BP the players begin building. Players may use these BPs to:

(a) build new ships,

(b) repair old ships,

(c) build new Colony pods,

(d) build new Factories,

(e) build new Labs, or

(f) resupply Missiles to old ships.

A player builds or repairs by expending Build Points from BP stockpiles. Ships may be built and scrapped only at Colonies and/or Outposts (note that if the optional Shipyard rules are in effect, they may only be built, repaired (**exception:** Warpships with a Repair Bay may repair other ships), and/or scrapped at a Shipyard). Ships may be resupplied and repaired at Outposts, Colonies or by Warpships equipped with Repair Bays. The Build Points are spent as explained below. IT IS NECESSARY to make a written record for each ship built, the damage it takes, and the repairs and

resupplies it needs. BPs may be saved from turn to turn.

**[4.1] SHIP SYSTEMS**

Warpships and Systemships may be built with the

following systems. It is NOT necessary for a ship to have all these systems. If you don't want a ship to have (for instance) Missiles, you just don't build any.

**[4.11]** Technological levels (TL) also affect a ship’s Systems. The technological level (TL) for newly built ships increases when successfully researched by the owning player. Ships always retain their original TL. Ships built initially are at TL-0.

**[4.12] Ship System Descriptions:**

**(a) Power Drive (PD):** represents the total effective strength of a ship's engines. During movement, the PD of a Warpship gives its movement allowance in Movement Points. During combat, the PD strength of a ship is allotted to its drive and weapons so that those may operate. During combat, a ship may NEVER allocate power from PD in excess of the available PD strength. Each point of PD strength costs one BP to build.

**(b) Warp Generator (WG):** is the unit that allows a ship to move from star to star through space and to jump along Warplines. A ship with a Warp Generator is a Warpship. Ships without Warp Generators are Systemships. Warp Generators cost 5 BP to build (however, see Case 7.6 for an optional rule regarding WG costs).

**(c) Beams (B):** represent the ability of a ship to project a beam of destructive energy at a target. Each ship may have only one Beam projector. The strength of the projector will vary according to the number of Build Points spent on it. The number of BP spent on the beam is the maximum strength at which that ship's beam may be powered during combat.

**(d) Screens (S):** represent the ability of a ship to surround itself with a protective energy screen. Screens reduce the number of "hits" damage the ship must take when it is struck by an enemy weapon. Beams and Screens are manifestations of the same type of energy projection generator. Beam and Screen may be used simultaneously, but NEITHER may be used on the same round that Missiles or Shells are fired. The number of Build Points spent on a Screen is the maximum strength at which that Screen may be powered during combat.

**(e) Tubes (T):** are used by a ship to launch Missiles. Each Tube may launch one Missile per combat round. It requires a PD allocation of 1 to power a Tube for firing. Each Tube costs 1 BP to build.

**(f) Missiles (M):** may be fired through a ship's Tubes at an enemy ship. Each Missile does a basic damage of 2 hits if it strikes. The number of hits damage a Missile does may be modified by other factors as per the combat rules. One Build Point will build three Missiles. A ship may be built to carry any number of Missiles, and can never hold more than initially specified. As Missiles are fired, they must be subtracted from the ship's

Missile stock on that ship's record. Missiles may not be transferred between ships during combat.

**(g) Systemship Racks (SR):** (SR) let a Warpship carry Systemships or Colony Pod. Systemships may not have SRs and may not carry other Systemships. A Warpship may have any number

of SRs and may carry one Systemship for each SR it has. Each Systemship Rack costs one BP to build. A Warpship may NOT be carried in a Systemship Rack.

**[4.2] OPTIONAL SHIP SYSTEMS**

In addition to the standard Ship Systems listed above, players may agree to permit the following optional Ship Systems to be produced and used in play:

**(h) Armor (A):** Armor is ablative hull reinforcement; a beam-shedding coating combined with a Chobham-like system of honeycombs designed to minimize physical damage. Armor costs one BP to build. So putting 6 points of armor on your ship costs 6 BP. However, to *repair* damaged armor costs 1/2 normal. So those six points of armor will only cost 3 to fix up if damaged in combat.

*(My armor is a bit more expensive than most people's versions. This is because Warp War is already long enough and I tend to prefer combat to be deadly. If most ships carry armor then it just adds an extra few turns in each combat before the blood starts to flow. Armor is now expensive enough, that it does not tend to get put on every ship.)*

**(j) Holds (H):** Each cargo hold can move 5 BP and costs 1 BP to build. One point of damage destroys a cargo hold. If the cargo hold is destroyed, all BP's in it are lost. Note that your build points are not in an empire wide pool, but exist on individual worlds and in cargo holds. Players building a ship can only use BP that are in that system. Players may freely move BP from a system's bank to a ship (and vise versa) in the same system during your turn.

A single HIT destroys a Hold, and all of its contents as well.  
  
*(Moving BP around the map adds a fair bit of paperwork to the game. Feel free not to use these rules.)*  
  
**(k) Repair Bays (R):** cost 5 BP each. A ship with a Repair Bay may use BPs in one or more Holds or from a Colony or Outpost to repair itself or any number of other ships present on the same star hex during the build/repair event. BPs mined from Baseless Stars may be used immediately to repair by ships with Repair Bays. Repair Bays, like Warp Generators, do not take damage in combat and are destroyed when the Warp Generator is destroyed.

**(m) Electronic Counter-Measures (E):** cost 1 BP per point of ECM. The ship can allocate PD in combat to ECM, up to the ECM rating with which the ship was constructed. In combat, after orders are revealed, the player using ECM allocates his ECM points among the attacking Missiles, and then adds or subtracts the difference between the defending ship's tech level and each Missile's tech level from the ECM points allocated to that Missile. ECM may be used in the same combat round with all other ship systems.

**(n) Mining Drills (MD):** Mining Drills are an **entirely optional** Ship System. Mining Drills may ONLY be used if the optional rules for Planetary Resources are in use (see Case 8.4) and if all players agree prior to the start of the game.

Mining Drills cost 3 BP to build. They may ONLY be built on WarpShips. A single HIT destroys Mining Drills.

Mining Drills permit a WarpShip so equipped to produce **one** BP per Game-Turn ONLY when the mining ship is located at a RICH Resource planet that does NOT have a Colony present on it. Mining MAY occur at planets with Outposts on them. No more than one Mining Drill equipped ship may mine any single RICH Resource planet at any one time. In order for the BP to be usable, it MUST be stored immediately in either a co-located Outpost, or in a Hold on board the actual mining ship itself. If there is no available storage space, the BP may not be mined.

*(****Note:*** *At a minimum, Holds should be added to the available systems if the players are interested in playing a campaign game.)*

**[4.3] NON-SHIP SYSTEMS**

In addition to the various Ship Systems that can be purchased with BP’s, there are a few “systems” that don’t belong on ships which can be purchased by the player:

**(o) Colony Pods (CP):** COLONY PODS are not ship components. They are built at existing colonies (only) for 5 BP. The Colony Pod is carried on a SystemShip Rack, and deployed from that SR (once the transporting WarpShip has arrived at a suitable location) to the surface of the planet to be colonized. If the SystemShip Rack is destroyed while carrying the Colony Pod, so is the Colony Pod. A Colony Pod serves no other purpose than creating either an Outpost or a Colony. Colony Pods are deployed during Build/Repair event.

**(p) Research Labs (LAB):** In order to improve TL, a player must conduct Research. The only method by which he may do so is to build Research Labs in order to generate Research Points which are then spent to research new Tech Levels (and, if the Complex Research Rules – see Case 6.5 – are in effect, individual ship systems). LABs cost 10 BP to build.  
  
A LAB permits the player to generate from one to six Research Points per Game-Turn, per LAB. In order to determine the number of Research Points a LAB generates, simply roll 1D6 with the result indicating the number of Research Points generated by that specific LAB.  
  
LABs may NOT be transported; once built in a location, they remain in that location. LABs may be built on either Colonies or Outposts. Research Points are automatically entered into a civilization-wide “pool” of Research Points – they do NOT require Holds to transport them to someplace where they can be used; information is not cargo.

**(q) Factory (F):** A factory costs 10 BP to build. Factories may NOT be transported – once built, they remain in their produced location. Factories may only be built at Colonies. A factory has no weapons and does not block enemy movement. You may not capture another player's factories. They can take 1 point of damage and then are completely destroyed. Players may not shoot at factories while the system has ships defending them.

*(****Note:*** *These systems are pretty much required if the players wish to play a campaign game.)*

**[4.4] OPTIONAL NON-SHIP SYSTEMS**

In addition to the standard Non-Ship Systems available, players may also agree to the following optional Non-Ship Systems.

**(r) Missile Base (MB):** Missile Bases are structures built on planetary surfaces to defend them. Each MB costs 5 BP’s to build.

Each MB consists of one Missile TUBE, One Point of ECM, and 9 MISSILES, plus the necessary power systems to energize the Missile Base.

MB’s may be resupplied during the Build/Repair Event normally if BP’s or additional Missiles are available in the Star System where they are located. Since the Missiles themselves are considered stored in a deep underground magazine, two HITS (one on the Launch Tube itself, and one on the ECM unit) is all it takes to destroy a Missile Base. A Factory, Colony or Outpost may NOT be attacked while there is a functioning Missile Base present on the planet where such items are located. Note that any MISSILES that are unexpended when a Missile Base is destroyed are considered to be “in storage” at that location and may be transferred to other Missile Bases or to ships which can carry them during the Friendly Build/Repair Event.

Missile Bases may ONLY be constructed in systems where there is at least an Outpost (to keep them supplied and serviced – much like a SystemShip).

In all other respects, the MISSILES launched by a planetary Missile Base are identical to normal ship MISSILES.

**(s) Shipyards (SY):** Shipyards are an **entirely optional** system. If used, the only Colonies or Outposts that may expend BP’s for the purpose of Building or Repairing Ships are those with a Shipyard unit. Similarly, ships may only be scrapped at a Colony or Outpost with a Shipyard. Only one Shipyard is required, regardless of the number BP’s to be expended or ships to be scrapped at a given planet.

Shipyards cost 10 BP to build.

No more than one Shipyard may be located at any given Colony or Outpost at any one time.

Shipyards affect only construction and repair of Ship Systems and Scrapping of Ship Systems; they are *never* required to build Non-Ship Systems of any type (one does not require a Shipyard in order to build a Shipyard or Factory...).

All players must agree to the use of Shipyards prior to the start of play before this rule is in effect.

*(****Players Note:*** *The purpose of this rule is to simply slow the development of the player civilizations a bit by introducing a new type of infrastructure they’ll need to build as they grow their empire.) It also means that if an enemy can somehow destroy a player’s Shipyards, that the player will be in a “Pearl Harbor” situation until they can get some new Shipyards up and running. In short, it forces a player to plan for the worst and expend some extra BP’s along the way to ensure he can survive.)*

**[4.5] REPAIR AND RESUPPLY**

Repair and resupply occurs during the Build/ Repair event.

**[4.51]** A ship must be on a Colony or Outpost star hex, or on a Star hex with a Repair Bay-equipped WarpShip present in order to be eligible for repair or resupply.

**[4.52]** A SystemShip may be repaired or resupplied even when it is loaded onto a WarpShip, as long as the conditions in Case 4.51 are met.

**[4.53]** Build Points are spent for repair and resupply in the same way they are spent when a ship is built. One BP builds just as much for repair as for original building, with the exception of Armor, which is repaired at a cost of 1 BP per 2 points of Armor, regardless of tech level.

**[4.54]** A ship can be repaired PARTIALLY or WHOLLY up to its original strength in each attribute, BUT NO MORE. For example, a ship originally built at PD=7 and damaged so that its new PD is 2, may be repaired all the way up to 7 (costing 5 BP’s), or repaired to some PD lower than 7. It can never be repaired to over 7. Its TL remains what it originally was.

**[4.55]** Resupply of Missiles allows a player to replace a ship's original stock of ammunition after some has been fired or destroyed in combat. One BP replaces up to 3 Missiles. A ship may NOT be resupplied with more Missiles than it originally carried. Any extra Missiles left over after resupply may be stored at any Colony or Outpost, or may be stored in Holds (a Hold may carry up to 15 Missiles). A ship MAY resupply itself with Missiles from its own or another ship’s Holds, but ONLY during the Build/Repair Event.

**[4.6] WARPSHIPS**

WARPSHIPS are ships with warp generators.

**[4.61]** WarpShips may have any ship component.

**[4.62]** They may move from hex to hex on the star map and may move along warplines.

**[4.63]** WarpShips may also engage in combat, carry Systemships, have Repair Bays and Holds. A WarpShip may select any combat tactic.

**[4.64]** SystemShips carried by WarpShips are noted by their numbers on that WarpShip's record. If a WarpShip is destroyed, all SystemShips and cargo it was carrying when destroyed are also destroyed.

**[4.65] WarpShip Examples (using Basic Rules):**

W2 is built with a Technological Level of 0. Twenty-one (21) BP are used to construct it. W2 cannot carry any Systemships (SR=0), but does have beams of strength 3, screens of 2, one Tube and 9 Missiles to fire, W2 also has a Power/Drive strength of 7 to use for movement and to allocate to weapons and drive during combat. W2's movement allowance is 7.

• W2's ship record looks like this:

W2: TL0 PD=7 S=2 B=3 T=1 M=9

This totals 16 BP. Adding the cost of the Warp

Generator, to make it a WarpShip, brings the cost to 21 BP (Warp Generators cost 5 BP’s).

• W7 is built with a Technological Level of 2. Twenty-five (25) BP’s are used to construct it (20 for the ship systems listed below, plus 5 BP’s for the Warp Generator). It is built to be a freighter and repair ship; it can't fight, since it has no Beams, Screens, or Tubes from which to launch Missiles.

W7's record looks like this:

W7: TL2 PD=6 A=8 H=2 SR=3 R=1

(the numbers of any SystemShips or Colony Pods carried by W7 would also appear here.)

**[4.66] WarpShip Examples (using Optional Warp Generator Cost Rules):** This section shows the exact same WarpShips, only built under the optional Variable Warp Generator Cost rules (see Case 7.6)

W2 is built with a Technological Level of 0. Twenty (20) BP are used to construct it. W2 cannot carry any Systemships (SR=0), but does have beams of strength 3, screens of 2, one Tube and 9 Missiles to fire, W2 also has a Power/Drive strength of 7 to use for movement and to allocate to weapons and drive during combat. W2's movement allowance is 7.

• W2's ship record looks like this:

W2: TL0 PD=7 S=2 B=3 T=1 M=9

This totals 16 BP. Adding the cost of the Warp

Generator, to make it a WarpShip, brings the cost to 20 BP (16/5 = 3.2, rounded up to 4 BP’s for the Warp Generator).

• W7 is built with a Technological Level of 2. Twenty-four (24) BP’s are used to construct it (20 for the ship systems listed below, plus one fifth that amount, or 4 BP’s, for the Warp Generator). It is built to be a freighter and repair ship; it can't fight, since it has no Beams, Screens, or Tubes from which to launch Missiles.

W7's record looks like this:

W7: TL2 PD=6 A=8 H=2 SR=3 R=1

(the numbers of any SystemShips or Colony Pods carried by W7 would also appear here.)

*(Note that under the optional rules, small ships are a point or two cheaper, while large ships will grow progressively more expensive...)*

**[4.7] SYSTEMSHIPS**

SYSTEMSHIPS do not have warp generators, nor may they conduct interstellar movement on the Strategic Map by themselves.

**[4.71]** SystemShips may NOT have Systemship Racks.

**[4.72]** They may exist only on star hexes unless carried by WarpShips. When a SystemShip is being carried by a WarpShip, its number is noted on the WarpShip's record sheet, and the SystemShip's counter does NOT appear on the map.

**[4.73]** SystemShips may NEVER move from one

hex to another under their own power. They must

always be carried by a WarpShip to move from one hex to another, and may ONLY be dropped off at a star hex.

**[4.74]** In combat, a SystemShip may *never*

select the RETREAT tactic; it can escape from combat only if carried by a WarpShip.

**[4.75] SystemShip Examples:**

• S20 is built with a Tech Level of 0. It costs 20

BP. It has no Warp Generator, SystemShip Racks, Holds, or Repair Bays.

Its record is:

S20: TL0 PD=7 B=5 S=5 E=3

• S55 is built during with a Tech Level of 1. It costs 4 BP; it is a fighter-type gunship, with PD=1 to power the Tube.

Its record is:

S55: TL1 PD=1 T=1 M=6

**[5.0] COMBAT**

GENERAL RULE: Combat MUST occur when ships of opposing sides occupy the same star hex at the end of a player's movement. Each contested star hex is treated as a separate combat and is resolved separately. The player whose Turn it is decides in which order they will resolve combats on contested star hexes. The combat on one star hex is resolved before combat on the next star hex

is begun. The combat event of the players turn is over when combat on all contested star hexes has been resolved. In multi-player games players can pair off to complete their respective combats simultaneously. This will reduce game time.

**[5.1] COMBAT ROUND SEQUENCE**

Each Combat Round is conducted in accordance with the following sequence of events:

**(1)** Each player writes an order for each of his ships at that star hex, keeping it concealed from his opponent. Each order must include:

• A combat tactic from the Combat Results Table

(Attack, Dodge or Retreat)

• A target enemy ship for Beam fire, if any

• A target enemy ship for each Missile fired, if

any, and each Missile's drive setting

• A power allocation from PD to Beams, Screens,

Drive (PD), ECM and Tubes (if Missiles are fired). The sum of these allocations may not exceed the ship's total current PD.

• Which SystemShips, if any, a WarpShip is to pick up or drop.

**(2)** When both players finish writing their orders, they show them to each other. Reading the Combat Results Table, in conjunction with the ship orders, the players determine the result for each weapon fired.

**(3)** Players apply the results of weapon hits to the ships. Any damage a ship receives is immediately marked off its ship record. Any ship that has received enough hits to reduce all its attributes to zero, except for the Warp Generator and Repair Bay, is destroyed.

Counters representing destroyed ships are removed.

**(4)** Ships that successfully retreat are moved to any hex adjacent to the star hex.

**(5)** If both players still have ships on that star hex, a new round of combat is begun on that hex.

Writing, revealing and applying one set of orders constitutes one combat round.

**(6)** Combat ends on a star hex when:

• All of one player's ships there have been destroyed, or;

• All of one player's ships there have successfully

retreated off that hex, or;

• Three consecutive combat rounds pass in which no ships take any damage not absorbed by Screens. In that case, the player whose turn it is must withdraw all his ships from that star hex to any hex(es) adjacent to that star hex. SystemShips are assumed picked up by any Warpship the retreating player wishes. If there are no Friendly WarpShips capable of carrying a Friendly SystemShip away from the star hex, the SystemShip is destroyed.

**[5.2] POWER ALLOCATION AND SHIP ORDERS**

Each ship order describes a ship's actions during one combat round. Much of the order will detail how much power is allocated from PD to the other ship attributes. The power allocated from PD is necessary for those other attributes to operate. No more power may be allocated to attributes than is undamaged and available in the PD unit. Drives, Beams, Screens, ECM, and Tubes are the attributes that need powering. The Warp Generator, Missiles, SystemShip Racks, Holds, Colony Pods, Repair Bays and Mining Drills do not need power in combat.

**[5.21] Power Allocation Example:**

A ship was built with an original PD of 9. In

previous combat 3 hits have been taken on that PD, reducing it to 6. From that PD=6, the ship allocates 1 to Drive (for maneuver during combat), 2 to Beams, 2 to Screens, and 0 to Tubes. This totals 5, so one is unallocated. (The ship could not power its Tubes to fire Missiles, since it was using Beams and Screens.)

**[5.22] Example of Beam Fire:**

W3 is going to fire its Beam at S25, using the attack combat tactic. The order for this combat would look like this:

W3 (TL0) ATTACKS S25: D=0 B=3 S=2 T=0

(W3 also powered its Screens while allocating nothing to Drive or Tubes. W3 would have needed a minimum of PD=5 for this example. Obviously, if W3 had not been built with a Beam of at least 3 and a Screen of at least 2, it could not have carried out this order. Beams and Screens and ECM cannot be powered past their capacity, even if extra power is available.)

**[5.23] Example of Missile Fire:**

S25 fires back at W3, using a Missile and the

Dodge combat tactic:

S25 (TL0) DODGE: D=4 B=0 S=0 T=1

M ATTACKS W3: D=3

(Note that S25 needed a PD of at least five to

execute this order. The D=3 for the Missile did NOT come out of the firing ship's PD. Also, note that S25 did not designate a target of its own. It dodged while firing a Missile, and the MISSILE attacked W3. When the Combat Results Table (CRT) is read, the Attack tactic will be used for the Missile to see if the Missile hit.)

It may be helpful to think of a Missile as a little ship that exists for only one combat round and always uses the Attack tactic. The Missile also has its own Drive unit, which can be set to any level of 1 or greater when launched, regardless of the PD of the firing ship. A Missile does a basic 2 hits of damage when it hits.

**[5.3] ECM**

After orders are revealed, the player using ECM allocates his ECM points among the attacking Missiles, and then adds or subtracts the difference between the defending ship's tech level and each Missile's tech level from the ECM points allocated to that Missile ONLY.

**[5.31] ECM Use Example:** A ship of tech level 2 is attacked by a Missile using a Drive rating of 3 and with a tech level of 3. The ship selected the ATTACK tactic, powered Drive to 3 and allocated 2 PD to ECM.

Normally the Missile would subtract the target's drive of 3 from its own drive to get a difference of 0, then read the CRT at the intersection of the ATTACK (0,+1) row and the ATTACK column, giving a result of HIT+2.

However the ship allocates its 2 points of ECM to the incoming Missile. Subtracting the Missile's Tech Level of 3 from the ship's Tech Level of 2 gives a result of -1; this is applied to the ECM allocated to the Missile, resulting in 1 effective ECM point. The player using ECM chooses to lower the Missile's Drive setting to 2. This

causes the Missile to get a drive difference of -1 and to use the ATTACK (-1,-2) row, resulting in just a normal HIT.

**[5.4] COMBAT RESULTS TABLE**

(see Separate Sheet)

**[5.41] Explanation of Combat Results:**

**MISS**: The MISS result means the weapons fired

missed the target ship, and no damage was done.

**ESCAPES:** The ESCAPES result means that the

ship that selected the RETREAT combat tactic successfully withdrew from its enemy and escaped. In order to ESCAPE, a retreating ship must simultaneously obtain the ESCAPE result against EACH enemy ship (not Missile) that fired on it.

**HIT:** The HIT result means that the Beam or

Missile fired at the target hit it. A Beam which hits does damage equivalent to the power of the Beam, plus tech level. A Missile which hits does 2 HITS damage, plus tech level. "HIT +1"

and "HIT +2" mean the player adds one and two HITS, respectively, to the HITS of damage inflicted by the weapon.

**[5.5] READING THE COMBAT RESULTS TABLE**

**[5.51] Beam Fire:** The appropriate cell from the CRT for Beam fire is read at the intersection of the target ship's combat-tactic column and the firing ship's combat tactic row. The specific row is found by subtracting the target ship's Drive allocation from the firing ship's Drive allocation and using the row corresponding to the difference.

**[5.52] Beam Fire Example:** The firing ship selects the Dodge tactic, allocates 3 PD to drives, and allocates 3 PD to Beam. The target ship selects the Attack tactic and allocates 2 to Drive with Screens unpowered.

Subtracting the target's Drive of 2 from the firing ship's Drive of 3 yields a +1. The result from the CRT is read at the intersection of the target ship's ATTACK column and the firing ship's DODGE row at (+1, +2). The (+1, +2) row is read because of the +1 difference between Drives. (It also would have been read if the difference was +2.) The result at this intersection is "HIT".

**[5.53] Missile Fire:** The appropriate CRT cell for Missile fire is read at the intersection of the target ship's combat tactic column and the firing ship's ATTACK row. (Missiles always attack.) The specific ship tactic row is found by subtracting the target's Drive allocation from the Drive setting given to the MISSILE. (Remember: A Missile may be given any Drive setting of +1 or greater,

at no PD cost except the 1 PD needed to power its

Tube.)

**[5.54] Missile Fire Example:** A Missile is fired and given a Drive setting of 4. It attacks (as always). The target ship selected the Attack tactic and allotted 3 PD to Drive. Subtracting the target's Drive allocation of 3 from the Missile's Drive setting of 4 yields a +1 difference.

The CRT result is read at the intersection of the target's ATTACK column and the firing ship's ATTACK (0, +1) row. The 0, +1 row is read because the difference between the Missile's Drive setting and target's Drive setting is +1. The result at that intersection is "HIT +2".

**[5.6] RECORDING SHIP DAMAGE FROM COMBAT**

When enemy weapons hit a target ship, that ship takes damage cumulatively from all weapons (of all ships) that hit it in each combat round. The amount of power allocated to a ship's Screens, PLUS that ship's Technological Level, is subtracted from the total number of hits a ship receives in a single Combat Round. (If the Screen is not powered, no Tech Level is added to the S=0.) The “HIT+1” and “HIT+2” results from the CRT add one and two hits, respectively, to the hits a weapon inflicts. One hit (if unabsorbed by Screens) does one Build Point worth of damage to the target.

Warp Generators and Repair Bays NEVER take damage in combat; when all the rest of the ship is destroyed, the Warp Generator and Repair Bay automatically explode. If Mining Drills are in play, they too take no HITS, instead being automatically destroyed when the ship itself is destroyed.

After subtracting the hits absorbed by the target ship's Screen from all hits scored on it, the remaining hits ("effective hits") are taken somewhere in the target's attributes. When all of a ship's attributes are reduced to 0, the ship is destroyed. Its counter is then removed from the map. The player owning a ship decides where the hits are to be taken.

If there are SystemShips still in a SR on a WarpShip that took damage, a player may take the

damage on the Systemship record sheet. SR cannot be destroyed till the SystemShip is destroyed or dropped.

**[5.61] Damage From Combat Example:**

A ship of technological level 0 has Screens powered at 4. It takes 7 hits in one combat round

(including Tech Level adjustments). The Screen absorbs 4 of the 7 hits. The remaining 3 "effective" hits must be taken in the ship's attributes. This is done by subtracting directly from Power/Drive rating, Beams, Tubes, Missiles, Armor, ECM, Holds, and Systemship Racks.

Before and after records for one round might look like this:

BEFORE: W4: TL0 PD=7 B=3 S=3 T=1 M=6

E=1 (a 22-BP ship, counting the Warp Generator.)

During combat the ship suffers three effective HITS.

AFTER: W4: TL 0 PD={7}6 B=3 S={3}2 T=1

M={6}3 E=1

The player chose to take one hit in PD, one in

Screens, and one in Missiles. Since 3 Missile cost 1 BP, the one hit took out 3 Missile. If a ship has only one or two Missiles left, it can use them to take a hit. However, if a ship has 3 or more Missiles, a hit in Missiles must take out 3.

Suppose W4 did not kill its enemy, but enters

another round of combat. The enemy ship is S35, a TL1 SystemShip. It fired two Missiles last round, and has current attributes as follows:

S35: TL1 PD=6 S=3 T=2 M={9}7

Combat orders for both ships are written out. The

players chose the following tactics:

S35 (TL1): DODGE D=4 T=2

M1 at W4: D=3

M2 at W4: D=4

W4 (TL0): ATTACK D=2 B=2 S=1 E=1

The SystemShip dodged and fired two Missiles,

one at drive setting 3 and one at 4. The WarpShip

attacked, firing its Beam at 3 and putting up a Screen with a strength of 1.

Reading the CRT we see that both Missiles hit W4: one at ATTACK (0,+1) and one at ATTACK (+2). Those are, respectively, a HIT+2 and a HIT+1. S35 also adds one more hit to the damage inflicted by each Missile because it is TL-1. Thus, the two Missiles that hit each do a basic 2 hits of damage, plus one more for Tech Level, and add the +2 and +1 from the CRT. The two Missiles inflict 5 and 4 hits, respectively, for a total of 9 hits. W4 had ECM powered to 1, and allocated that point of ECM to the first Missile. However the Missile's Tech Level of 1 is subtracted from W4's tech level of 0 for an ECM modifier of -1, rendering W4's ECM ineffective.

W4's Screen was powered at 1, which subtracts 1

hit from the 9 HITs done by the two Missiles, leaving 8 effective hits. (Since W4 is only tech level 0, the Screen absorbed no extra hits.) W4 must take 8 hits somewhere in its attributes. Its record at the end of last round looked like this:

W4: TL 0 PD={7}6 B=3 S={3}2 T=1 M={12}6 E=1

After taking 8 hits, it looks like this:

W4: TL 0 PD={7}6 B={3}0 S={3}0 T={1}0

M={12}0 E=1

W4 has elected to preserve all the PD possible in

order to make an effective retreat attempt, and to preserve ECM in order to try to fend off any additional inbound Missiles.

(S35 took no damage, because W4 missed with its

Beam fire. The Drive difference, subtracting S35's drive from W4's drive, was a -2. Reading the ATTACK (-1,-2) row for the firing ship and the DODGE column for the target ship gives a result of MISS.

**[5.62] Damaging SystemShip Racks:** If a WarpShip is damaged, it may assign damage to any SystemShips that it is carrying inside SystemShip Racks (SR). It may NOT assign damage to a SystemShip Rack, unless the SR is currently empty, or the SystemShip inside the Rack is completely destroyed. Note that Colony Pods, if carried by a WarpShip’s SR’s absorb only one HIT before being destroyed, after which the SR itself may be destroyed.

**[5.7] SYSTEMSHIP PICK-UP AND DROP DURING COMBAT**

A WarpShip may pick up or drop SystemShips during a combat round if it allocates Drive = 0 and Screen = 0, and selects the DODGE or RETREAT tactic.

**[5.71]** The Warpship may fire its Beam or power ECM while picking up or dropping SystemShips, but may NOT fire Missiles. A WarpShip may pick up or drop during one combat round as many SystemShips as it has undamaged Systemship Racks.

**[5.72]** SystemShips dropped during a combat round may NOT fire weapons (or be fired on) that combat round.

**[5.73]** SystemShips picked up during a combat round may not fire any weapons during that round, but may power Screens and ECM. They may be fired upon by enemy ships.

**[5.74]** If a SystemShip was to be picked up by a WarpShip on a given combat round, but the WarpShip is destroyed during that round, the SystemShip is NOT automatically destroyed, but remains on the star hex.

**[5.75]** If a WarpShip dropping SystemShips is destroyed on the round it drops the SystemShips, the SystemShips are NOT destroyed.

**[5.76]** If a WarpShip successfully RETREATS on the round it drops SystemShips, the SystemShips stay in the star hex.

**[5.77]** A WarpShip MAY drop (or “jettison”) Colony Pods during Combat, but if it does so, the Colony Pods are considered automatically destroyed at the moment they are jettisoned. (It makes more sense to leave them in the Racks and hope they survive; but even if they are destroyed, they provided an extra HIT worth of “armor” to the WarpShip...)

**[5.8] SYSTEMSHIP PICK-UP AND DROP AFTER COMBAT**

After all combat on all star hexes has been resolved for a player's turn, the player may designate any SystemShips the player wishes picked up or dropped by any WarpShip on the appropriate star hex.

This is essentially a free rearrangement of SystemShips following combat, for the player whose turn it was.

**[5.9] Optional Rule: FLOATING HULKS**

COMMENTARY: Under the basic rules, once a ship loses its last effective ship's system, it basically “blows up.” While this serves the purpose of getting rid of the ship for record-keeping purposes, it doesn't really match with all those Science Fiction stories and movies where the dead hulk of the alien warship is drifting between the stars when our intrepid heroes discover it.... Likewise, it precludes Players from attempting to ambush Enemy ships by *pretending* to be hulks. Note that this is a VERY optional rule!

GENERAL RULE: When all Ship systems have been eliminated from a ship, its Warp Generator (if it has one) automatically shuts down, and the ship becomes a floating hulk. The following cases then apply:

**[5.91]** Any ship that is “destroyed” in combat is considered to be a hulk or wreck in the hex where it was destroyed (even a catastrophic explosion capable of rendering a ship useless and killing its crew will leave debris of some kind behind). Players record what hex the ship was in on the destroyed ship's Ship Record sheet.

**[5.92]** A wrecked ship (WarpShip or SystemShip) can be picked up by any WarpShip equipped with SystemShip Racks (SR) so long as there are no Enemy ships in the same hex. A Player MAY pick up an opponent's wrecked ship.

**[5.93]** Whenever a Player brings a wrecked ship to a Friendly inhabited planet (or Shipyard, if they are in use), he may scrap the ship, receiving one TENTH of the **original** Ship's worth in BP (rounding fractions down – however a player will *always* receive a minimum of one BP). He does not receive any technological benefit from scrapping a wreck that was at a higher TL than he currently is, he receives only the BP for the ship.

**[5.94]** A player may voluntarily power-down any of his own ships at any time merely by deciding to do so. While a ship is powered down it cannot move, attack, and is treated as a destroyed ship, even to the point of being scrappable by the opponent. A player is not required to tell his opponent which ships are dead and which are powered-down. A ship which is either a hulk or is powered down is more vulnerable in combat and suffers +1 HIT for each successful attack against it. A hulk would be unaffected by the HITs, but a powered-down ship suffers damage normally. The attacking Player has no way of knowing which is which.

**[5.95]** A ship that is powered-down for more than **one** Game-Turn (NOT Combat Round) is destroyed, due to death of crew from un-recirculated air (note that this rule gives it a full year of endurance on un-recirculated air – which is probably more than would really be possible). Note that endurance is rated in Game-Turns, not Combat Rounds.

**[5.96]** A powered-down ship may power-up at any time, including while in an Enemy WarpShip's SystemShip Rack.

**[5.97]** The first combat round after powering-up, a ship's Screens, Beams, and Tubes, Launch Bays, and ECM are at half strength (rounding fractions down). This represents the process of powering up and rebooting computers and so on. If not carried by a WarpShip, drive is zero.

**[5.98]** If a powered-up ship attacks the WarpShip carrying it, the WarpShip is *always* HIT at **+2**. Screens do NOT stop any hits in this case (the WarpShip is *inside* the enemy Screens). A WarpShip cannot attack any ship it is carrying. All it can do is take its lumps that round, eject the ship, and attack next combat round. A powering-up WarpShip on a hostile SystemShip Rack may NOT fire Missiles at the WarpShip carrying it; only Beams; once it is ejected, it may maneuver and fire normally.

**[6.0] TECHNOLOGY AND RESEARCH**

COMMENT: In the original game, technology levels increased automatically every four Game-Turns. In the Campaign Warp War rules given in *The Space Gamer* magazine, players had to “buy” increased tech levels by spending BP’s. In either case, it was guaranteed precisely when you would advance technologically. In reality, breakthroughs come somewhat at random. The Technology rules are designed to better simulate that effect.

The heart of much of the game system is the Technological Level (TL) concept. TLs dictate how effective a Player's empire is in almost every aspect of the game, from weapons effectiveness to economic efficiency. Basically a Player's TL is a reflection of how “advanced” his society is technically and enables the player to employ more advanced ship systems and to improve his economy by investment in the necessary infrastructure (in the form of Factories) to allow his people to take advantage of their new, more advanced technologies.

GENERAL RULE: Players must develop technology. They do so by spending Build Points to produce LABS, each of which may generate from 1-6 RESEARCH POINTS during each Game Turn. These Research Points are then spent to research more advanced technology.

**[6.1] PROCEDURE**

**[6.11]** Players must have at least one LAB before they may generate Research Points.

**[6.12]** Each Research LAB will generate from 1-6 Research Points. The Player rolls one die for each LAB he possesses and totals up the number of Research Points generated. These are then added to the number expended to research the new Technology.

**[6.2] LIMITATIONS ON LABS**

**[6.21]** Each LAB costs 10 BP’s to build. Once produced, they are immediately placed on a Friendly colony or Outpost. They should be placed on the same Colony or Outpost in which the BP’s were expended.

**[6.22]** Each Colony may have a number of LABS equal to the size of the colony times 2.

***Example:*** *Player A has a planet with a size 4 Colony on it. Player A may place up to 8 LABS on that colony.*

**[6.23]** Each Outpost may have only **one** LAB placed on it.

**[6.24]** LABs may *not* be transported between planets or star systems. Once built, they must remain where they were constructed until destroyed by hostile forces or scrapped by the owning player.

**[6.3] RESEARCHING TECHNOLOGY LEVELS**

**[6.31]** Each tech level (referred to as TL-X in the game, where “X” is the number of the Tech Level the player currently possesses and/or is attempting to research) costs 100 Research Points (RP’s) times the tech level to be discovered. Thus, to discover TL-1 will cost 100 RP’s, while TL-2 will cost 200, TL-3, 300, and so on.

*(Note that TL-0 therefore costs zero Research Points to research, which is highly appropriate since all players begin the game at TL-0.)*

**[6.32]** Players track their research on a separate piece of paper. They should note the Tech Level being researched, the cost in RP’s to reach that level, and how many RP’s have been expended to date on the Research program.

***Example:***

*Player A initially notes the following:*

*Research RP’s*

*Program Cost Expended*

*TL-1 100 -*

*During the first Game Turn, Player A builds one LAB. Since the Building Event occurs first during the Game Turn, Player A immediately rolls to see how many Research Points his new LAB generates. He gets a “3.” He notes the expenditure as follows:*

*Research RP’s*

*Program Cost Expended*

*TL-1 100 3*

*Player A now needs only 97 more RP’s to reach TL-1. During the next Game Turn, Player A again rolls the die for his one existing Lab, this time rolling a “5.” His record now looks like so:*

*Research RP’s*

*Program Cost Expended*

*TL-1 100 8*

*Player A now needs only 92 more Research Points to successfully complete his research and reach TL-1. If Player A were now to build a second LAB during Game Turn 3, he would be able to roll the die twice to determine the number of Research Points he has available. In this case he gets a “1” and a “5” for a total of 6 additional Research Points. His record now looks like so:*

*Research RP’s*

*Program Cost Expended*

*TL-1 100 14*

*Player A now has only 86 more Research Points to go before achieving Tech Level 1. Note that if Player A were instead researching TL-2, the required number of Research Points for success would be 200 (100 x the desired TL of 2), and he would still have 186 RP’s to go instead of only 86.*

**[6.33]** Technology must always be researched in order; that is, a player may NOT research TL-2 before completing research into TL-1.

**[6.4] EFFECTS OF TECHNOLOGY**

**[6.41]** As previously noted, a player’s TL is added to the number of Movement Points his ships are allowed to expend during the Movement Phase.

**[6.42]** As previously noted, a player’s TL is added to the number of HITS his Beams and Missiles do in combat. For example, a TL-3 ship would add 3 HITS to its Beam damage and 3 HITS to each Missile’s damage, when the weapon actually hit an enemy ship.

**[6.43]** As previously noted, a player’s TL is added to the number of HITS his Shields can stop.

**[6.44]** If ECM Rules are in play, ECM is affected by tech a little differently: the player using ECM allocates his ECM to incoming Missiles as desired. The Tech Level of each Missile is then subtracted from the Tech Level of the target ship, and the difference is added to or subtracted from the ECM points allocated against *that* Missile ONLY.

**[6.45]** As previously noted, a player’s TL dictates how many FACTORIES a given Colony Point may operate to produce additional Build Points.

*(****Technology in Combat Example:*** *A Tech Level 2 ship fires with a Beam strength of 4 and hits a Tech Level 1 ship. The firing ship adds 2 to its Beam strength of 4, for a total of 6 HITS. The target ship had Screens powered at 3. It adds its tech level of 1 to the Screen power of 3, for a total of 4 HITS absorbed by the Screen. Subtracting 4 HITS absorbed from 6 inflicted leaves 2 HITS the target ship will have to take somewhere in its attributes and mark off its ship record before the next combat round.)*

**[6.5] Optional Rule: MORE COMPLEX TECHNOLOGY**

COMMENT: The intent of this rule is two-fold; one, it permits players to somewhat “specialize” their research into specific areas; and two, it tends to slow the speed of Technology advancement in the game. By using this rule, players will be able to surprise one another with unexpected technology advancements, and at the same time, the race for technology becomes expensive and time-consuming enough that players will need to adopt a more balanced approach to their expenditures of BP’s in the game.

**[6.51]** Researching a new Technology Level only allows a player to increase the number of Factories he may build at Friendly Colonies. All other advantages noted in Case 6.4 are instead researched themselves before they can be taken advantage of. Each system that can be researched in this manner is now referred to by it’s system name and X (e.g, “Beams-X”) where “X” represents the TL of the system being researched (e.g., “Beams-5”).

**[6.52]** In order to develop the more advanced systems available under the new Tech Level (e.g., better Shields, Beams, Missiles, etc.), the player must individually research the new systems.

**[6.53]** Each new system costs 25 RP’s times the new Tech Level to research. That is, to research Beams at TL-1 will cost 25 RP’s. To research Beams at TL-2 will cost 50 RP’s, and so on.

**[6.54]** Research for these projects must be tracked separately. A player MAY research multiple systems at once, splitting up his research points as he desires among his various research projects.

**[6.55]** Only systems that are affected by new TL’s need be researched in this manner (Tubes, Cargo Holds, SystemShip Racks, etc. are not improved by their TL, so do not require research in this manner).

**[6.56]** More advanced ship systems may NOT be researched until the more advanced TL to which they belong is researched. That is, players may not begin to research Beams-1 until TL-1 has been successfully researched.

**[6.57]** As with the basic Research Rules, technologies must be researched in order – that is, a player may not research Beams-2 until Beams-1 has been successfully researched.

**[6.58]** Players may begin researching a new TL as soon as they complete the old one – they need not wait until each and every sub-system has been researched to the new level before beginning research in the next highest TL.

***Example:*** *Player A has successfully researched TL-3. He may now begin researching advanced ships systems at TL-3 (assuming he has completed researching them at TL-2). He may also begin immediately researching TL-4.*

**[6.59]** Players may conduct more than one research program at a time – researching a new TL, researching Beams under the existing TL, researching Shields under the existing TL, etc., all simultaneously. The player conducting the research simply splits up his available Research Points among the various programs as he sees fit.

***Example:*** *Player B is conducting Research in TL-3 while simultaneously conducting research in Beams-2, Shields-2 and Movement-2.*

*(Note that the Complex Research option* ***greatly*** *expands the paperwork requirements of the game at every level, as the players will need to track the TL of each individual system built into a ship, and where each type of systems stands with regard to Technology Level.)*

**[7.0] PRODUCTION**

COMMENT: Production is a representation of the industrial output of the population of a given space Empire or polity. Production generates Build Points, which are then expended by the players to create ships of various types by building Ship Systems, and to create various other items which can help the player’s Empire expand, defend itself, improve technology, etc.

GENERAL RULE: Players generate Build Points at a rate of one BP per Colony Point, plus one BP for any Factories they are operating. Build Points may be saved from Turn to Turn. Build Points must be spent in the location where they are, but may be stored and then moved to the place where the player wishes to expend them. Build Points are expended to produce both Ship and Non-Ship Systems. A written record is kept by the player of every Ship and Colony/Outpost or other installation he has. Players show these records to each other after (but not during) the game. A written record is also kept for each Colony/Outpost, showing the BP’s accumulated and spent during the course of the game. Factories being run by a given Colony must be kept track of on that Colony’s record sheet. Finally, if the Optional Missile Base rules are in effect, the player must keep a written record of each Missile Base as well.

**[7.1] COLONY POINTS**

Colony Points are the fundamental way by which all Build Points are generated (even Factories must be located at, and operated by, Colony Points).

**[7.11]** Each Colony is composed of one or more Colony Points. The number of Colony Points at a given Colony may be increased through additional Colonization (see Rule 9.0, COLONIZATION). Each Colony Point generates ONE Build Point during each Game-Turn, regardless of Tech Level.

*Example: Player A has a colony that is composed of 4 Colony Points. This colony will generate 4 Build Points per Turn until it is destroyed, or increased in size, or builds some factories to increase output.*

**[7.12]** Build Point generation by colonies is automatic. Players do not need to fulfill any special conditions (other than creating and increasing the colony points in the first place).

**[7.13]** Friendly colonies will generate Build Points as long as they exist.

**[7.14]** All Build Points generated by a colony are considered to be in storage at that colony until such time as they are expended or moved to a different location.

**[7.15]** If the optional Outpost rules (see Case 9.6) are in play, Outposts **never** generate any Build Points, though they may store an unlimited number of Build Points.

**[7.2] FACTORIES**

**[7.21]** Factories represent the increased production of a civilization as it’s technology increases, however this increased production is not automatic. Factories are emblematic of the increased investment in infrastructure necessary to realize this production increase.

**[7.22]** Players may build a number of factories for each Colony Point equal to their Tech Level. That is, at TL-1, a single Colony Point may build and operate *one* Factory. At TL-2, a single Colony Point may build and operate *two* Factories, and so on. Each Colony Point on a given planet may operate as many Factories as their current TL permits.

**[7.23]** Each factory produces one BP each game turn. These BP’s are created, transported and expended just like normal colony Build Points.

**[7.24]** Factories may NOT be transported; they must be built in the location where they are to be used.

**[7.25]** Factories have no weapons or defenses. A single HIT destroys a factory.

**[7.26]** Each Factory costs 10 BP’s to build.

**[7.27]** An Outpost may **not** build or operate any Factories.

**[7.3] Optional Rule: CHEAPER FACTORIES**

Players may wish to make factories cheaper in order to speed the economic development of their civilizations (and the overall pace of the game). In that case, Factories only cost 5 BP’s to build.

**[7.4] Optional Rule: MINING**

This rule permits somewhat larger BP production, but at a significant cost.

**[7.41]** This Optional Rule may ONLY be used if the Variable Resources optional rule (Case 8.4) is ALSO in effect.

**[7.42]** RICH resource planets may be mined by WarpShips equipped with the Mining Drills (MD) Ship System. Note that NORMAL and POOR resource worlds may NOT be mined at any time.

**[7.43]** No more than one MD-equipped WarpShip may mine any given RICH resource planet at any one time.

**[7.44]** A RICH world being mined in this fashion produces ONE Build Point per Game-Turn, which must immediately be placed in:

• The mining ship’s Holds (if any), or,

• In a Hold aboard a ship also located at the RICH world, or,

• In an OUTPOST physically located on the RICH world being mined.

**[7.45]** If the mined BP cannot be stored, the mining player receives no BP that Game-Turn.

**[7.46]** Mining may NOT occur at a RICH world which already has a COLONY present on it. *(In effect, the player is using orbital lasers and force beams to strip-mine the planet – something that no planetary population is likely to approve, or even survive; Outposts, on the other hand, may haver been created purposely to permit the strip mining to occur...)*

**[7.47]** If a COLONY is subsequently established on a RICH planet that is currently being mined, the, mining operation must cease immediately.

**[7.5] Optional Rule: SCRAPPING SHIPS**

**[7.51]** Ships may be scrapped for 1/2 their current total BP value, ignoring fractions. Thus, a ship that currently has 15 undamaged BP’s left on its Ship Record may be scrapped for 7 BP’s.

**[7.52]** Ships may only be scrapped at Colonies or Outposts during the Build/Repair Event.

**[7.53]** If the optional Shipyard Rules are in effect, ships may only be scrapped at a Friendly Shipyard during the Build/Repair Event.

*(****Players Note:*** *The intent of this rule is to provide some incentive for players to scrap obsolete or heavily damaged ships which are not cost-effective to repair.)*

**[7.6] STORING AND MOVING BUILD POINTS**

**[7.61]** Build Points may be stored in three locations:

- At Colonies

- In Holds

- At Outposts (if Case 9.6 is in effect)

**[7.62]** An unlimited number of BP’s may be stored at Colonies and Outposts. Holds may each carry up to FIVE Build Points.

**[7.63]** Build Points may be moved from one system to another via HOLDs which are built as part of a WarpShip. This is the only method by which BP’s may be moved from one location to another. (As a note, players may choose to design “freighter” WarpShips composed primarily of HOLDs and PD (for movement) in order to conduct this transport.)

**[7.7] ITEM BUILD POINT COSTS**

The cost to produce each item is listed below:

**Item BP Cost**

1 Pt of POWER/DRIVE (PD) 1

1 Pt of BEAMS (B) 1

1 Pt of SHIELDS (S) 1

1 MISSILE TUBE (T) 1

3 MISSILES (M) 1

1 SYSTEMSHIP RACK (SR) 1

1 COLONY POD (CP) 5

1 WARP GENERATOR (W) (Std) 5

1 WARP GENERATOR (W) (Opt) 20% of total ship cost

1 LAB (LAB) 10

1 FACTORY (F) 10

1 CHEAP FACTORY (Opt) 5

2 Pts of ARMOR (A) (Opt) 1

1 Pt of ECM (E) (Opt) 1

1 HOLD (H) (Opt) 1

1 LAUNCH BAY (LB) (Opt) 1

1 FIGHTER (FTR) (Opt) (Opt) 2

1 MINING DRILL (MD) (Opt) 3

1 REPAIR BAY (RB) (Opt) 5

1 MISSILE BASE (MB) (Opt) 5

1 SHIPYARD (SY) (Opt) 10

**[7.8] Optional Rule: VARIABLE WARP GENERATOR COSTS**

In the original game, the rules tended to fall apart as larger WarpShips were built. Part of this was because the cost of the Warp Generator was a fixed cost that meant it was more economical in the long run to produce much bigger WarpShips than to produce many smaller ones. In order to offset this problem, the cost of a Warp Generator for a given ship is now 20% (one fifth) of the total cost of the other ship systems built into the ship. Fractions are rounded up.

***Example 1:*** *Player A builds a ship with 2PD, 1B, and 1S as it’s components. The total cost is 4 BP’s. The cost to add the Warp Generator to this ship in order to make it a WarpShip is 1 (20% x 4 = 0.8, rounded up to 1 BP).*

***Example 2:*** *Player B decides to create a ship that costs 28 BP’s. In order to make it a WarpShip, he must spend 6 additional BP’s to add the Warp Generator (20% x 28 = 5.6, rounded up to 6 BP’s).*

**[8.0] EXPLORATION**

GENERAL RULE: The first time any player’s forces enter a star hex, that player “explores” the system. During this process, he determines the Habitability Rating of the system. If optional rules are in effect, he may also determine the number of planets present (and HR’s for each of them), the maximum colony size of each planet, and the resources available on each planet.

After the first (or “discovering” player) has determined all of the above information for a given star system, he must pass that information on to any other player who enters the same system. If the “Differing Species” optional rule (see Case 8.5) is in effect, those newly arriving players must determine the HR ratings for *their species* separately, though all other previously determined facts (number of planets, size of planets, and resources of planets) remain the same for all players.

**[8.1] HABITABILITY RATINGS**

**[8.11]** The heart of the system is the Habitability Rating of each planet. It controls how hostile or friendly a given planetary environment is to the player. Habitability Ratings range from 1 to 6. The lower the HR, the more compatible the planet is to the player’s people.

**[8.12]** The first player to enter a system determines the Habitability Rating for that system by simply rolling a die. The result indicates the HR of the system for colonization purposes.

**[8.13]** If the Multiple Planets optional rule (see case 8.2) is in effect, the player must roll separate HR’s for each of the planets in the system.

**[8.14]** See COLONIZATION (Rule 9.0) for details on how HR affects colonization by the players.

**[8.2] Optional Rule: MULTIPLE PLANETS**

**[8.21]** Star systems are composed, generally, of more than one planet, though there are rare exceptions. In order to determine the number of usable planets in a given star system, when that star system is first entered by any player (e.g., “explored”), the exploring player rolls one die. The result indicates the number of usable planets that are present in the system.

*(****Players Note:*** *Note that what is being determined here is the number of “usable” planets – not the total number of planets. Unusable planets, by definition, are of no real importance in the game, though players can certainly make up any additional “unusable” planets they like – they just can’t...well...USE them for anything...)*

**[8.22] Options:**

**(a)** If a “1” is rolled, the player rolls the die again; on another “1,” instead of having one planet, the star has NO usable planets.

**(b)** If a “6” is rolled, the player rolls the die again; on another “6,” the player rolls the die a third time and ADDS the number to 6 to determine the number of usable planets the system actually has (the number of usable planets would then range from “7” to “12”).

These options may be ignored, used separately, or used together, as the players agree prior to beginning play.

**[8.23]** Once the number of usable planets have been determined, the exploring player rolls normally to determine the Habitability Rating (HR) for each planet separately.

**[8.24]** Only determine the number and type of planets when the star system is FIRST entered by any player. Any other players are simply given the information determined by the first player when they first enter the system (however see Case 8.5).

**[8.3] Optional Rule: PLANET SIZE LIMITS**

If all players agree, the size of the colony that may be emplaced on any given planet (see COLONIZATION, Rule 9.0) may be limited.

**[8.31]** When a system is first entered, the exploring player rolls 2 six sided dice and adds the results together to determine the maximum size of any colony emplaced there. Results may therefore range from “2” to “12.”

**[8.32]** If this rule is used, a player’s home planet is always considered to be size 10 at the start of the game.

**[8.33]** If the Multiple Planets optional rule is in effect, the discovering player determines the size of *each* planet in the system separately. Like the number of planets in the system, the size of each of those planets remains constant for ALL players once initially discovered.

**[8.4] Optional Rule: VARIABLE RESOURCES**

Normally all systems are considered equal in the game. However, players may prefer more variation in their game. This optional rule is written for the basic game, however it really comes into its own if “Multiple Planets” (Case 8.2) is also in effect.

**[8.41]** There are *three levels* of “resources” that any system may have. They are POOR, NORMAL and RICH.

**[8.42]** Each level of resources has a multiplier which is used to determine the actual number of BP’s produced by a colony in that system.

POOR systems have a multiplier of ½.

NORMAL systems have a multiplier of 1.

RICH systems have a multiplier of 2.

Simply multiply the number of Colony Points (plus any Factories present) in a system times the resource multiplier in order to determine the number of BP’s produced in that system.

***Example 1:*** *A player has a 4-point colony on a POOR planet. The number of BP’s produced is equal to 4 x ½, or 2 BP’s. Had the planet been RICH instead, the player would have multiplied his 4 Colony Points by 2 for a total of 8 BP’s from the planet.*

***Example 2:*** *A Player is at TL-2; the colony above would be able to have up to EIGHT Factories present. In such a case, the planet would have a production base of 12. Since the planet is POOR, he multiplies this by ½ and for a total production of 6 BP’s from the planet and it’s extra factories.*

**[8.43]** In order to determine a system’s resources, the Discovering Player simply rolls a six-sided die when the system is first explored; on a “1” the planet is POOR; on a “2” through “5,” the system is NORMAL; and on a “6” the planet is RICH.

**[8.44]** If the Multiple Planets optional rule is in effect, the discovering player determines the resources available on *each* planet in the system separately. Like the number and size of planets in the system, the resources of each of those planets remains constant for ALL players once initially discovered.

**[8.5] Optional Rule: DIFFERING SPECIES**

Different species are drawn to different planet types in terms of preferred environment. That is, some species may like hotter planets, while others may prefer colder; some species may breathe different gasses than humans do, and so on.

*(****Players Note:*** *If players wish to assume that only one species is capable of space-faring, and that all of their civilizations are merely independent polities of that same species type, this rule should definitely not be used. If however, they want to simulate a number of differing species, all engaged in trying to expand at the same time, this rule permits that paradigm very simply and easily, and without going into exhaustive detail regarding species design or what planet has what specific atmospheric combination or ambient temperature.)*

**[8.51]** Each Player determines the HR’s of any planets in a star system SEPARATELY. That is, each time a player first enters a given system, that player rolls for HIS HR’s for that system, even if the system has already been explored by someone else in the game. Thus, if Player A has already explored the system and determined the following information (note that all optional rules in Rule 8.0 are being used in this example):

System “X:” four planets;

(1) HR2, Pop7, ResN

(2) HR5, Pop3, ResR

(3) HR3, Pop12, ResN

(4) HR1, Pop6, ResP

Player B then exploring the system would re-roll the HR’s which would then apply only to HIS race. Player B’s numbers might look like the following as a result:

System “X:” four planets;

(1) HR5, Pop7, ResN

(2) HR3, Pop3, ResR

(3) HR4, Pop12, ResN

(4) HR4, Pop6, ResP

**[8.52]** The new HR’s rolled by Player B would NOT change the HR’s for Player A; instead only affecting Player B’s evaluation of the star system. Players C and D (and so on) have not yet explored this system, but if and when they do, they too will re-roll the HR’s the first time they enter the system, in order to determine what the planets are like from *their* species’ perspective. Eventually each player will have their own HR’s for the same system, which would reflect how their species felt about the real estate in question.

**[8.53]** Note that Population Size and Resources would NOT be changed by Player B – the planets are the same size, and have the same usable resources regardless of the player observing them. ONLY Player B’s HR is affected.

*(Players should note that this will affect which real estate is considered most valuable by the players; sometimes significantly!)*

**[8.6] SPECIES DETERMINATION**

**(Really, Really, Optional Rule)**

**[8.61]** For those players who like to dive deeper into the background of the game, the following table is included as a completely optional rule which allows the players to “name” their species type.

**[8.62] Species Type Determination:**

Roll three dice, adding together the results to determine what the life-form is:

**3:** Avian

**4:** Humanoid Reptilian

**5:** Reptilian

**6:** Humanoid Feline

**7:** Feline

**8:** Humanoid Mammalian

**9:** Mammalian

**10:** Humanoid Aquatic

**11:** Aquatic

**12:** Humanoid Canine

**13:** Canine

**14:** Centauriform

**15:** Humanoid Herbiform

**16:** Herbiform

**17:** Insectiform

**18:** Silicate

**[8.63]** A Player may always simply pick something from the table, or declare his species to be something that isn’t on the table if he so desires.

**[8.64]** Under the rules as written, this information is completely unnecessary; the only thing that matters is the Habitability Ratings of the particular planets, but a lot of Players really enjoyed using this information, and, oddly enough, the type of species they picked seemed to change their personal play styles somewhat as well.

**[8.65]** Of note, this table is provided purely as a starting place for the Players’ and/or Referee’s imaginations; it would be easy enough to detail more species types, or subcategories of the ones provided; e.g., the term “Aquatic” covers a plethora of possibilities: Sponge-like, Crab-like, Starfish-like, Shark-like, etc. Players should permit their imaginations to go where they want for this purpose.

**[8.66] (Even More Optional):** In games with Referees, this information **may** be used to affect the game in various ways; for example, a Humanoid Feline species may look on a Humanoid Canine or Canine species as a natural enemy; or may find it easier to relate to another Humanoid Feline or Feline species in terms of diplomacy. Similarly, if the referee creates some way of finding existing species in a star system that is being explored for the first time (perhaps roll three dice, and if a “3” or “18” is rolled, an indigenous species is discovered on one of the planets), this table could be used to describe the species discovered. Of note, for simplicity’s sake, any “indigenous species” discovered during the course of normal system exploration should be at TL (-1) – that is, pre-space technology – simply in order to avoid the hassle of trying to create a new Interstellar Empire on the fly. Overall, the rules and procedures for such situations are left to the Referee to develop, though if there is enough interest in creating something more formal, I can always take a shot at it. Mind you, the Referee is *encouraged* to create **other** space-faring species at the start of the game, just so the Players have other Empires that are not “Juggernaut” type Empires to deal with on a more equal basis.

*(Players should note that this rule has absolutely* ***no effect*** *in game terms – unless you decide to* ***make*** *it have an effect as noted in case 8.66 – whether your species is mammalian, insectoid, or gaseous, or something else entirely, the only thing that actually matters in game terms are the habitability ratings you roll up for the planets. In other words, this is pure chrome and only for the amusement of the players.)*

**[9.0] COLONIZATION**

GENERAL RULE: Players expand the area they control and exploit by Colonizing suitable systems which they have explored. Players colonize a system by sending one or more Colony Pods (transporting the necessary population and equipment) to that system and disembarking the colonists in the system in question during a regular Game Turn.

**[9.1] EFFECT OF HABITABILITY RATINGS**

Each planet has a habitability rating which reflects the cost to colonize a given system (the lower the better). HR’s range from 1 to 6. A player must produce a Colony Pod (CP) which may then go to colonize a given system. Initially, the number of CP’s required to create a single colony point is equal to the HR of the planet being colonized. Thereafter, the number of CP’s is equal to the HR *PLUS* the number of Colony Points already established on the planet.

***Example 1:*** *A player wishes to colonize a system with an HR of “1.” In order to do so, the player must produce a Colony Pod and move it to the system in question. It may then be exchanged for a single Colony Point. If the planet had a HR of “2,” it would require 2 CP’s to gain a single Colony Point. Similarly, if the HR were “3,” “4,” “5,” or “6,” it would require 3, 4, 5, or 6 CP’s respectively to gain a single Colony point.*

***Example 2:*** *The player wishes to expand an existing colony in a given system. The system in question has an HR of 4. The existing colony has 2 Colony Points. In order to raise the existing colony to three Colony Points, the player must build and send* ***six*** *CP’s to the planet (2 existing CP’s plus 4 for the HR of the planet itself).*

**[9.2] LIMIT ON COLONY SIZE**

There is technically no limit to the size of a colony in any given system, though the law of diminishing returns will eventually incline the player to spend his BP’s elsewhere.

**[9.3] Optional Rule: PLANET SIZE LIMITS**

(See Case 8.3.) If the optional Planet Size Limits rules are in effect, no colony may be greater in size than the size limit the planet it occupies permits (e.g., a player may not build a size 3 colony on a size 2 world). Note that if Case 8.3 is in effect, then Case 9.2 obviously no longer applies.

**[9.4] COLONY FUNCTIONS**

**[9.41]** A colony may do any of the following:

(1) Produce Build Points,

(2) Repair ships,

(3) Store an unlimited number of BP’s,

(4) Build a Base,

(5) Build LABs,

(6) Build Colony Pods,

(7) Build Factories (Tech Level permitting),

(8) Build Ships (and Shipyards if that Optional System is in effect – note that if Shipyards ARE in effect, a Colony may only build, repair and scrap ships if it has a Shipyard.)

(9) If the appropriate Optional Rules are in effect, it may produce Missile Bases, Launch Bays, and Fighters and launch Missiles and Fighters from the planet itself.

**[9.42]** Each Colony Point in a given Colony is destroyed by a single HIT, if the enemy chooses to bombard the Colony. Any Outpost is completely destroyed by a single HIT. If the Missile Base Non-ship System is in play, Colonies and Outposts may NOT be attacked unless and until all Missile Bases on the planet occupied by the Colony or Outpost are destroyed. Factories and Shipyards are each destroyed by a single HIT from a bombarding Enemy ship. Note that the Enemy Ship may choose which facilities to attack (destroying Factories, for example, while ignoring the Shipyard or the Colony Points/Outpost, for example).

**[9.43] Looting Enemy Colonies/Outposts.** Up to one half of all BPs present on an undefended Colony (or Outpost) can be picked up by enemy ships in the system if they have Hold space available. Any BPs not immediately picked up and stored in Friendly Holds are lost. Note that all BP’s not looted are considered destroyed at the time that the looting occurs.

**[9.44] Exploiting Occupied Enemy Colonies.** Enemy Colonies which are not destroyed may be forced to produce for the controlling power, as long as the controlling power maintains control of the star system. All occupied colonies always produce as if their TL was 0; that is, they may not operate any factories, and each Colony Point produces one Build Point, regardless of the overall Tech Level of the Colony’s original owner, or the Tech Level of the occupying power. An occupied Colony may NOT be increased in size by the occupying power. *(Note that this rule is designed to simulate the probability that an occupied colony would be somewhat sullen and uncooperative about the whole thing, and would therefore, through passive resistance, active sabotage, or simple lack of interest, not be a particularly productive part of the conquering species’ empire.)*

**[9.45]** Two players may NOT have Colonies and/or Outposts on the same planet at the same time, even if one of them is occupying a Colony belonging to another Player.

**[9.5] COLONY PODS (CP)**

Colony Pods represent the industrial product and population necessary to start or increase a colony on another planet.

**[9.51]** Each CP is created as a single pod (of enormous size) at some existing populated planet. Each CP costs 5 BP’s to build. They must be transported to the location in which they will be used by a WarpShip. They are transported by SystemShip Racks (SR). Each Colony Pod requires one SR in order to be transported. Any hit destroys them.

**[9.52]** When a CP is expended to create a colony, it is removed from the game (it is considered “consumed” by the colonists for additional materials and equipment).

**[9.53]** A WarpShip may carry as many Colony Pods as it has SystemShip Racks.

**[9.54]** Inevitably the question of whether Colony Pods may be produced and then *used* on the same planet on which they were produced in order to expand the existing Colony will come up during the game. This author concludes that producing Colony Pods to expand the producing Colony itself is entirely permissible – it merely represents the investment of the necessary production to permit a rapid expansion of the population of the Home Colony to a higher level. Therefore, a player may produce Colony Pods for use on the same world on which they were produced. However, all other rules pertaining to Colony Pods remain in effect – the number required to upgrade the Colony does not change simply because they were domestically produced. *(If you prefer to change this; so that Colony Pods must be produced on another world and then moved to the colony you wish to expand, you may certainly do so.)*

**[9.6] Optional Rule: OUTPOSTS**

There are several reasons why players may prefer to build a smaller living space on a given planet than a full-up colony. For example, they may lack the BP’s necessary to build the CP’s necessary to establish a full colony, but still want to claim the territory. Or perhaps they need a forward base for repair and resupply purposes, but don’t want to put a colony so far forward that it is difficult to defend. These rules permit this lower level of effort to the players.

**[9.61]** Players may build an OUTPOST on any planet by expending a single Colony Pod (regardless of the Habitability Rating of the planet being occupied).

**[9.62]** Outposts NEVER produce any Build Points. Outposts MAY store and keep Build Points, Missiles, and any other thing that can be stored at a Friendly planet, and they serve as a source of supply for any SystemShips or WarpShips present in the Star System where they are located.

**[9.63]** Outposts MAY expend Build Points stored at their location to perform any build function that a Colony can – they simply don’t generate any BP of their own. All BP’s expended at an Outpost for any purpose must be brought into the Outpost from somewhere else. This includes building and operating LABs, Missile Bases, Launch Bays and Fighters, and any other non-BP producing item, but does NOT include anything that may produce BPs (e.g., Factories). (Note that if the Shipyards rule is in effect, an Outpost would first need to build a Shipyard before it could conduct building, repair or scrapping of ships of any kind.)

**[9.64]** Outposts may NEVER build a Colony Pod (Outposts lack the spare resources and population to do so).

**[9.65]** Outposts on RICH worlds MAY store any BP’s generated by a Mining WarpShip present at that planet. They may not themselves conduct mining operations however.

**[9.66]** A player MAY *colonize* a planet that already holds a Friendly Outpost. The Outpost counts as a single Colony Pod for the purposes of colonization, HOWEVER in order to upgrade *any* Outpost to Colony status, a minimum of ONE additional CP must always be sent to do so.

***Example 1:*** *If the planet’s HR is 6, and the planet already has a Friendly Outpost on it, the owning player would only need to move 5 additional Colony Pods to the planet in order to establish a full colony there.*

***Example 2:*** *If the player had an Outpost on an HR-1 world, he would STILL need to send one more CP to the planet in order to upgrade the Outpost to a Colony.*

*(****Players’ Note:*** *Outposts are obviously useful to establish a presence – a base, if you will – in an otherwise difficult or expensive to colonize star hex. They serve most functions of a planetary colony, but don’t produce any BP’s of their own. Generally speaking, it is more cost effective to build a full colony on an HR-1 world than it is to create an Outpost and subsequently convert it to a colony; but for any world with an HR of 2 or higher, the Outpost can be a useful interim step.)*

**[9.7] Optional Rule: CONCEALED OUTPOSTS**

This rule should really only be used in games in which Referees are participating. Effectively, one other advantage of an Outpost as opposed to a full colony, is that an Outpost is much more easily overlooked in an area as large as a star system. However, the longer the enemy maintains a presence in the system, the more likely it is the Outpost will be discovered.

**[9.71]** If Enemy ships enter a star hex containing a Friendly Outpost *only*, the referee must make a die roll to see if they discover the Outpost. On a “1,” or “2” they discover the Outpost. On a “4” through “6,” the fail to discover it. This die roll is made during EACH Game-Turn (during the Friendly Move Event) which the hostile force spends in the star hex, until either the Outpost is discovered, or the hostile force departs the star system. This die roll is made in secret by the Referee.

*(In effect, it is assumed that the people in charge of the Outpost would shut down all communications and emissions, and would, in effect, “go bush” in order to avoid being destroyed, but if the Enemy remains in the system long enough, he’s quite likely to eventually stumble across the Outpost...)*

**[9.72]** If Friendly SystemShips, WarpShips, Missile Bases, Colonies, or other Outposts are present in the same star system when an Enemy ship enters, the die roll is NOT made; it is assumed these other units and/or Colonies/ Outposts will be in communication with the Outpost and will give it’s presence away…

**[9.73]** If a hidden Outpost expends BP’s for ANY purpose, it is immediately considered discovered.

**[9.74]** Once a hidden Outpost is discovered by enemy forces, it may be immediately destroyed and may be looted in accordance with Case 9.43.

*(****Players Note:*** *Outposts provide no value for an occupying force, and therefore presumably any occupying force would destroy the Enemy Outpost so that a Friendly Outpost or Colony can be built there instead...)*

**[10.0] Optional Rule: DIPLOMACY AND INTERPLAYER AGREEMENTS**

COMMENT: One feature missing from the original game was any guidelines for any kind of player interaction other than outright war. Many players might want to explore other kinds of opportunities. This rule is provided to permit them to do so. Of course, players may simply prefer to remain in a permanent war status, in which case these rules may be freely ignored!

GENERAL RULE: Players may be in one of four different relationships with each other. Initially, their “starting” relationship is determined randomly, and may either be “war” or “cease fire,” but after that, they are free to negotiate any new relationship they like. Players are permitted to reach any kind of agreement they want within the limits outlined by specific cases below. Agreements may include things such as trading, lending, or selling ship designs (and actual ships), selling researched Technology, giving Build Points, permitting transit through Friendly Space, and anything else the players can agree to. Specific rules are included for Trade and Research Agreements since these actions generate “extra” Build Points and Research Points and therefore require some limitations.

**[10.1] DIPLOMACY**

The diplomacy rules are for games with 4 or more

players. Each player has list of the other players and the current state of relations. There are 4 state of relations levels. These levels are:

(1) At War,

(2) Cease fire,

(3) Peace Treaty,

(4) Allies.

**[10.11]** At the end of each turn players negotiate their state of relations. Players may only adjust their relations with another player by ONE level per Game-Turn. That is, a player can not be Allies with another player turn 7 and be at war turn 8. It will three full turns for relations to worsen enough for war to be declared.

**[10.12]** As previously noted, status may only change by a maximum of one level per Game-Turn between two players, however EITHER player may declare relations have been reduced one level (that is, Player A may unilaterally declare that he is no longer Allied with Player B, and instead they are now at Level 3 (Peace Treaty). The other player has no choice in this decision.

**[10.13]** INCREASING the relations Level between two players, however, requires the agreement of BOTH parties to do so. Player B, may, for example, wish to improve relations with Player A by once again becoming Allied with him, however Player A must agree to do this for it to take effect. If Player A refuses to improve relations, Player B has no way of forcing improved relations. Player B’s only recourse in such a situation would be to negotiate with Player A in order to determine what, if anything, Player A wants in exchange for an alliance. Player A may want to make demands on Player B in exchange for improving relations, or he may simply refuse to do so, purely at his discretion.

**[10.14]** The state of relations between any two players determines how they react to one another:

**• At War (Level 1)**: Ships of the two civilizations in the same star hex MUST engage in combat with each other.

**• Cease Fire (Level 2)**: The players cannot attack each other or enter star hexes belonging to the other player. Players may agree to trade ships, already researched technology or star hexes with one another, but may not conclude formal Trade or Research Agreements.

**• Peace Treaty (Level 3)**: The players cannot attack one another. Players may informally trade things as in a Cease Fire agreement. Players may make formal Trade and Research Agreements.

**•Allies (Level 4)**: Players cannot attack one another. Players may informally trade items as in a Cease Fire Agreement. Players may make Trade and Research Agreements, and they may freely move through one another’s star systems and WarpLines.

**[10.15] First Contact.** When two players’ forces meet for the first time, their initial Relationship Level is determined randomly. The initial Relationship Level may ONLY be War (Level 4), or Cease Fire (Level 3) when contact is first made. In order to determine their starting relationship, simply roll 1D6; on a 1-3, the two players begin at War; on a 4-6, they begin at Cease Fire.

**[10.2] TRADE AGREEMENTS**

Two players may agree to a TRADE agreement among themselves, if they are at Peace, or are Allies.

**[10.21]** In order to do so, the players involved must have a colony of at least one Colony Point in a star which has a warp link to a colony (of at least one Colony Point) belonging to the other player involved in the agreement. Trade Agreements may ONLY be made between two players (that is there can’t be any three- or four-way trade agreements).

**[10.22]** Once the condition is met, the players may agree to expend BP’s in trade with one another. Each player expends the agreed upon number of BP’s in trade, and in return receives that amount of BP’s PLUS 10% (ignoring fractions, except that the minimum trade bonus received is always at least 1 BP) back in trade.

***Example:*** *Players A and B discover they have colonies directly linked by one or more warp lines. They agree to trade 7 BP’s each, each game turn. Each Player must expend 7 BP’s in trade, but in return receives back EIGHT BP’s as a result of the trade deal. Had they agreed to 15 BP’s in trade, they would still only receive 16 BP’s back, but had they agreed to 21 BP’s they would receive 23 back (21 x 10% is equal to 2.1, rounded down to 2).*

**[10.23]** Players may *never* agree to trade more than 20% (rounding fractions down) of their total build points in any given Game Turn. (Note that that amount may change from Turn to Turn however, as the player’s production increases or decreases for various reasons.)

***Example:*** *If Player A had a total BP production of 53, while Player B had a total BP production of 69, the most they could agree to trade would be 20% of 53 (rounded down) which is 10 BP’s. In return, they would each gain an extra BP, putting Player A’s new production total to 54, and Player B’s new production total to 70.*

**[10.24]** Players MAY be involved in more than one Trade Agreement at a time, and receive the Trade Bonus for *each* Trade Agreement they hold; however the 20% of total production limit is a hard limit. That is, if Player A in the above example were involved in two or more Trade Agreements, the maximum number of BP’s he could expend in trade is STILL limited to only 10, which he must split between his various trade partners as he sees fit.

*(Note that in this case, if Player A in the example above were able to create three separate Trade Agreements, he would then receive a trade bonus of three additional BP’s, instead of only one, even though he’s still only committing 10 BP’s to total trade – clearly a major bonus for his production.)*

**[10.25]** A player may terminate a trade agreement at any time, with or without the consent of his trading partner.

**[10.26]** Players may *not* attack a Player with which they currently have a Trade Agreement; they must first declare the trade agreement terminated. Players may not declare a Trade Agreement terminated and then attack in the same Game Turn – at least one Game Turn must elapse after terminating the Agreement before an attack can be launched. *(The idea here is that the traders conducting the trade would know that war is coming and that trade would fall off prior to the start of the war.)*

*(****Comment:*** *Rule 10.26 raises the question of surprise attacks – however, even an attack such as Pearl Harbor was preceded by tensions, and trade had fallen off considerably thanks to the US embargo on Japan (which effectively ended the trade relationship between the two countries, with minor exceptions). The case of the Soviet Union and Nazi Germany is a bit different, in that the Soviet Union was “bribing” Nazi Germany by shipping raw materials to them and “trade” between them was highly artificial (and Germany had been consistently failing to meet their obligations under the treaty anyway – in effect canceling the “trade” part of the treaty during the year or so preceding Barbarossa). The Soviets were fully aware of Germany’s unilateral abrogation of their trade agreement, as well as the massing of huge German forces on their mutual border, and nonetheless continued to meet their obligations in an attempt to stave off any precipitate action by Germany. They failed. Note that there are no rules restricting a declaration of war against an empire that is freely sending the attacking player BPs in an effort to bribe him not to attack...)*

**[10.27]** Note that the trade is considered to be carried out by non-player ships (e.g., private companies are conducting the actual trade), thus the players do NOT need to commit actual ships to the trade route in order to ship their BP’s back and forth. The bonus BP’s derived from trade are considered to be a function of taxation, as opposed to strict production – that is, the private companies engaging in the enormously profitable trade between star-faring races are being taxed for the privilege, and the BP’s the Player is expending to support the Trade Agreement represent his “overhead costs” representing both the diversion of resources to manufacture trade goods, and for things like customs personnel, facilities, administrative costs, rules and regulations enforcement, and so on.

**[10.3] RESEARCH AGREEMENTS**

Research Agreements are conducted in precisely the same manner as Trade Agreements are and under the same constraints (e.g., players must have a direct Warp Line connection between two stars).

**[10.31]** No more than 20% (ignoring fractions) of a player’s total **minimum** Research Points may be committed to a Research Agreement.

**[10.32]** “Minimum Research Points” for a given player is equal to the number of LABS the player has in play. (Since each LAB can generate from 1-6 RP’s per turn, the minimum number generated would be 1 RP per LAB.)

**[10.33]** The players involved receive the same bonus as with a Trade Agreement, except instead of BP’s the bonus is in RP’s. All of the same rules and restrictions apply to Research Agreements as apply to Trade Agreements.

***Example:*** *Player A has 12 LABs, and Player B has 7 LABS. The minimum RP’s for Player A is 12, and for Player B is 7. 20% of 7 is 1.4, rounded down to 1, meaning that each player may commit 1 RP to the agreement, expending the RP in the process, and receives back 2 RP’s from the agreement. If both players had 10 LABs, they could each commit 2 RP’s to the agreement, receiving back 3 RP’s.*

**[10.34]** Note however, that in this case, the bonus isn’t from “taxation,” but rather from the exchange of ideas, which in turn leads to other ideas…

**[11.0] Optional Rule: FIGHTERS**

COMMENT: Still one of the most surprisingly frequently asked for options in the author’s gaming experience is the Fighter rules. They add considerable complexity to the game, but everyone seems to love the idea of a group of fighters attacking an enemy star ship, and so despite the extra paperwork, they always seem to be near or at the top of the list for inclusion in games. The rules are therefore provided here “just in case...”.

There is a real controversy among the aficionados of *WarpWar* over whether Fighters should be included in the game or not. The Purist wing insists that a tiny SystemShip IS a fighter, while the other wing of the party (let us refer to them as the “Revisionists”) believe that they are a useful addition to the game. And, after all, what would a space game be without the fast but tiny and very deadly Fighter – a staple of Sci Fi anytime these past eighty-five years? While there has been (and continues to be) considerable debate about whether separate Fighter rules are really required in *WarpWar*, nonetheless this has been one item of “chrome” for the game that keeps making it back into print, time after time. So here it is yet again; still an optional rule, and still very popular with many of us. Personally, with one foot clearly in the Revisionist camp, I *like* them!

GENERAL RULE: Players may build Fighters (F) at 2 BP each, and Launch Bays (LB) at 1 BP each in order to launch them from Ships. Fighters and Launch Bays may be built onto both WarpShips and SystemShips. Each Launch Bay may hold up to two Fighters ready for combat at any one time. Additional Fighters could be carried in ships’ Holds or stored at Friendly Colonies or Outposts, but such Fighters may not participate in combat until they are deployed to a Friendly ship equipped with Launch Bays. Players may now also use Beams in a “Point Defense” mode to attack incoming Fighters.

CASES:

**[11.1] FIGHTER SHIP SYSTEMS**

Fighters are small craft carried by another ship or based on a planetary surface. Smaller than SystemShips but larger than Missiles, they function in ways containing elements of both.

**[11.11]** Two new ship systems must be added to the production chart; they are LAUNCH BAYS, and FIGHTERS.

**[11.12] Launch Bays (LB):** (LB) let a Warp or Systemship carry, launch and retrieve FIGHTERS during combat. Launch Bays cost 1 BP to build. They may **only** be used to launch and/or retrieve Fighters during combat operations. It requires one point of PD to power a Launch Bay, regardless of whether it is launching, retrieving, or both launching *and* retrieving Fighters during the combat round. Launch Bays are destroyed by a singly HIT. A Warp or SystemShip may carry twice as many fighters as it has Launch Bays at any one time.

**[11.13] Fighters (FTR):** Fighters are denoted by the letters FTR on WarpShip or SystemShip Ship Record sheets. Fighters cost 2BP to build and cost nothing to store on a ship. However a ship may *never* carry more than twice the number of Fighters as there are Launch Bays on the ship. (Exception: Fighters MAY be carried in Holds, however such Fighters are unavailable during combat and may only be used to replenish ships which have lost Fighters **after** Combat has been resolved, during the next Friendly Build/Repair Event.)

**[11.2] LAUNCHING/RETRIEVING FIGHTERS**

Fighters require a Launch Bay to launch or be retrieved. Up to two Fighters may use a Launch Bay in any Combat Round.

**[11.21]** The same Fighter cannot launch *and* be retrieved in the same Round of combat. However one Fighter may be launched while another is retrieved though the same Launch Bay during the same Combat Round.

**[11.22]** Fighters are launched and retrieved exactly per the SystemShip rule (see Case 5.7). The carrying ship must select D=0 S=0 to launch/retrieve Fighters. Missiles cannot be used. Beams *may* be used. A Launch Bay is required to launch a single Fighter. The Launch Bay must receive a PD allocation of “1” to Launch and/or Retrieve a Fighter.

**[11.3] FIGHTER ATTACKS**

**[11.31]** Like SystemShips, Fighters may only choose the ATTACK or DODGE order, and like Missiles, they may select any Drive number of 1 or more. Fighters do only one point of damage when they HIT, regardless of actual Combat Results (i.e., the number of HITS they obtain from the CRT) or current Tech Level (if it helps, think of Fighters as carrying a *very* small Beam generator).

**[11.32]** All Fighter hits on a given target ship within a single Combat Round are considered *cumulative* for the purpose of breaching Enemy Shields; that is, if 5 Fighters score HITS on the same target during the same combat round, it is treated as a single attack and the Shield only stops the number of hits it would have if the HITS were obtained during a single normal attack. Note that the “cumulative” rule **only** applies to Fighter hits obtained during the same combat round, regardless of any other hits (by Beams or Missiles) achieved during that same combat round.

***Example:*** *WS5 has its Shield powered to “3” during a massed Fighter attack by 7 Fighters. Five of the Fighters obtain HITS against WS5 during that combat round. For the purposes of Shield Defense, it’s as if all five Fighter HITS were inflicted at once, and only 3 of the HITS are stopped. WS5 must mark off two HITS against ship systems after the attacks are concluded. If, during the same Combat Round, WS5 were* ***also*** *hit by a Missile that did 4 HITS damage, and a Beam Attack that did 2 HITS damage, one additional hit would be inflicted by the Missile, and the Beam attack would be stopped by the Shields.*

**[11.33]** Because of this, single Fighters will rarely individually target enemy ships, instead attacking in groups to ensure at least a few HITs get through the enemy’s Screens.

***Example:*** *A TL-0 Fighter achieves a HIT+2 result on the CRT after comparing its tactic and drive setting to that of the target ship. Despite the fact that it should theoretically do 3 points of damage, only one point of damage is actually inflicted.*

**[11.4] FIRING AT FIGHTERS**

A Ship may fire Beams or Missiles at Fighters. Likewise, Fighters may fire at enemy Fighters. Any HIT destroys a fighter.

**[11.5] Optional Rule: POINT DEFENSE**

**[11.51]** A Beam may *split* its fire if all of its targets are Fighters or Missiles (**only**). This is an exception to the normal rule requiring Beams to only be fired at a single target at a time. In effect, this simulates a “Point Defense” mode that allows a ship to focus on defending itself from multiple attacking Fighters and/or Missiles at the expense of being unable to use its Beams for other targets.

**[11.52]** A Beam must be split into Beams with a Beam strength of one each. If a Player has more Beams than attacking Fighters and/or Missiles, the excess Beams are simply wasted.

**[11.53]** A Player is not required to fully Power his Beams to use the Point Defense option, the only requirement is that he must put at least one point of Power into Beams in order to use Point Defense. If he is not attacked by Fighters and/or Missiles in that Combat Round, his Beams are wasted (they may not be directed against any other combatant). An example of the written order would be “B=2 (pd).”

**[11.54]** Combat results are determined as normal with the defending ship's tactic and Drive being compared to the attacking Fighters' or Missiles’ Tactic and Drive Setting to determine the outcome for each targeted Fighter or Missile. A single hit destroys any Fighter or Missile.

***Example of Point Defense:*** *Player A's WarpShip is being attacked by over a dozen Fighters. He has a Beam Strength of 6. He declares he will power his Beam at 6 and use it for Point Defense during this Combat Round. He may attack six of the Enemy Fighters using his Point Defense Beams. Had the Enemy attacked with only four Fighters, he would have been able to attack all four and would have wasted the last two points of Beam strength.*

*(Players should note that the use of the Point Defense rule gives them an opportunity to fire at incoming missiles in a way they couldn’t do before. While this theoretically makes the missiles less effective in attack, it also means the ship using Point Defense cannot attack the enemy ship that launched the missiles. In effect, it’s a tactical trade-off that the players will need to consider when writing their orders.)*

**[11.6] POST-COMBAT FIGHTER LOSS**

Any Fighters left behind after all other Friendly ships with Launch Bays have left/been destroyed, will themselves be destroyed after three Combat Rounds (life support is limited). Fighters can never be left in a hex alone. They must be stored on a ship or at a Friendly inhabited planet at the end of a Game-Turn. The SystemShip Rearrangement Phase may be used for this purpose. Note that Fighters stored at a Colony or Outpost are considered to be in Holds and cannot be used in combat unless and until they are on a suitably equipped ship that can launch and recover them. Fighters may *never* become “Floating Hulks.”

*(****Players Note and Option:*** *Note that based on these rules, there is no difference whatsoever between a TL-0 and a TL-10 Fighter. Since to may players, that seems counterintuitive, the following* ***untested option*** *is provided for player consideration. Fighters do one basic HIT of damage, regardless of CRT result, the same as before, but now, they may add one half their TL, rounded down to the number of HITs they achieve. This means that at TL-1, there is no change – the Fighter still only does one HIT, but at TL-2, the Fighter would now do TWO HITs damage instead of just one. This should provide a limited player advantage based on superior technology.* ***Remember,*** *this option has NOT been playtested!)*

**[11.7] Optional Rule: BASING FIGHTERS ON PLANETS**

Fighters **may** be based on planets. The rules are exactly the same; a Launch Bay (in this case more representing the logistical requirements for housing, maintaining and launching fighters than it does anything else, though catapults may still be used to launch the fighters, even on a planetary surface) is required for every two Fighters based on the planet. All other rules apply normally. There is no limit to the number of Fighters and Launch Bays that may be on a planet.

**[12.0] MAPS AND RANDOM MAPS**

**[12.1] MAPS**

**[12.11]** Players may use the attached Maps (courtesy of the WarpWar Design Group), or may use any number of maps existing in various on-line forums. Many of those maps are already created as “3D” maps. Links to several can be found on Winchell Chung’s web page, and Rick Smith has been creating such maps and posting them for a while now.

**[12.12]** If using the attached maps as semi-random maps (i.e., flipping them in various directions to create “new” maps), the players or Referee should re-roll the existing Warp Lines so that the strategic situation on each of the maps is different for each map.

**[12.2] CREATING RANDOM MAPS**

New maps may be created if players desire a

larger galaxy in which to fight. A blank hex sheet is included in this document.

**[12.21]** Create a large sheet of hex paper with at least 400 hexes (20x20). Players may agree to have any number of hexes above or below the plane of the map, but generally between 10 and 20 levels (+5 or +10, in other words) is considered enough.

**[12.22]** Each hex has an 8.3% chance of containing a Star System; roll 2d6 and give it a Star only on a roll of “11” or “12”.

**[12.23]** Do NOT roll for a hex adjacent to an existing star. Stars are never adjacent. (“Adjacent,” in this case, is defined as any hex adjacent on the planar map, *plus* the hex directly above and its six adjacent hexes, and the hex directly below and *its* six adjacent hexes.)

**[12.24]** Once the location of all the stars have been determined (a lengthy process, admittedly), give each star a 1 in 3 chance of having a Warp Line to each of the 4 nearest stars (roll 1d6; on a “1” or “2” a Warp Line exists between the stars). No star will ever have more than 4 Warp Lines. Note that it IS possible that some stars will have NO Warp Lines at all.

**[12.25]** Players' home worlds should be assigned in one of two ways. Either spread them more or less evenly throughout the map, or distribute them around the periphery of the map with none in the center.

**[12.26]** Note that it would be possible to re-use an existing map without too much redundancy, simply by flipping the map in any of the dimensions (along the X-, Y-, or Z-axis), or even a combination of directions. New Maps can be added along the edge of the originals, or stacked on top of or below the originals. Note that if this technique is used, the Warp Line connections (Case 12.24) should be re-rolled to add some variety, as should any White Dwarfs or Beacon Stars. If more than one map is to be in play, the players or Referee should ensure that there are at least a few Warp Line connections between the separate maps.

*(****Players Note:*** *There are also a couple of “3D-Mapping” tools on-line which can be used to create three-dimensional star maps, including for the local space surrounding Sol. One of these is accessible from Winchell Chung’s home page. Of course, if players want to use local space for their game, they can also take a look at the old SPI Starforce Alpha Centauri game, which had a very large map worked out in the three dimensions (and is the prototype for the 3D system used in this game and by Rick Smith) which would save a lot of time – all you need to do is roll up the Warp Lines and you’re all set.)*

**[12.27] Dust Clouds:** Similarly to Stars, there is an 8.3% chance that a given hex has a Dust Cloud present in the hex. Roll 2D6, and on a “2” or “3” the hex has a Dust Cloud in it. Players may choose to increase the odds of a Dust Cloud hex having another Dust Cloud hex adjacent to it, in order to produce the large Dust Clouds typically depicted in these games. A good example of the size of Dust Clouds in the planar ecliptic can be found by examining a copy of the old map from Metagaming or Avalon Hill’s *Stellar Conquest* game, or the much cruder map from TSR’s *Star Empires* game. Note that Dust Clouds should potentially extend vertically as well horizontally.

**[12.28] White Dwarfs:** Once a hex has been determined to have a star in it, the players or Referee should roll 2D6; on a result of “2” or “3” the star is actually a White Dwarf. If the players or Referee wish, they can then roll 1D6 to see if the White Dwarf is a close Binary system (on a “1,” it is) and note the results on the map.

**[12.29] Beacon Stars:** If the 2D6 roll noted in Case 12.28 above is a “12,” then the star is actually a Beacon Star. No Dust Cloud hex may be located within four hexes in any direction of the Beacon Star.

*(****Players Note:*** *The term “Beacon Star” actually comes from another old SPI game;* Outreach*, which described them as unusually bright and energetic giant stars which served as navigational beacons for ships in space. It seems likely they would be used in the same way by ships in this game too, so the term is a natural.)*

**[13.0] SCENARIOS**

GENERAL RULE: Each scenario is self-contained, having separate victory conditions and special rules. Players are not restricted to the below scenarios and may freely develop any additional ones they like.

**[13.1] BASIC LEARNING SCENARIO**

*The purpose of this scenario is to give the players the opportunity to learn the basic combat and movement rules without worrying about things like colonization, production management, research, or anything else much. To that end, the game begins as follows:*

**[13.11] Setup:** Each player starts the game with 40 Build Points and receives 8 Build Points at the start of each turn thereafter. Each player has only one Base, in the middle of his/her end of the map.

**[13.12] Victory Condition:** The first player to destroy the opponent's Base is the winner.

**[13.13] Map Layout:** Use the basic *WarpWar* map.

**[13.14] Special rules:** Use Movement, Combat and Ship construction rules for this scenario. No other rules are required (e.g., players may ignore Production, Research, Colonization, and all Optional rules.

**[13.2] ADVANCED SCENARIO**

*Still a pretty basic game, but this scenario adds in colonization, production, and technology (basic research). By the end of this scenario, players should be ready to tell their own stories of adventure and conquest across the galaxy…*

**[13.21] Setup:** Each player has three Bases, one on each of the three stars at his/her end of the map. Players get 20 Build Points at the start of the first turn and receive Build Points at the start of every turn thereafter in accordance with the economics rules.

**[13.22] Victory Condition:** The first player to destroy the opponent's 3 Bases is the winner.

**[13.23] Maps:** Use the standard *WarpWar* map.

**[13.24] Special rules:** Add production and basic technological research rules to this scenario; do not use any optional rules at this time. Players may not conduct Colonization in this scenario. Semi-hidden movement rule optional.

**[13.3] EXPERT SCENARIO**

*Players may now add in the full rules, including Colonization and any Optional rules they choose to agree to. The scenario is the same as the Advanced Scenario, only now the players have the full range of options available to them in their quest for victory. The map is still the standard* WarpWar *map, simply to restrict the play area as the players learn and enjoy the full game experience.*

**[13.31] Setup:** Each player has one home system, and two additional colonies, one on each of the three stars at his/her end of the map. The home system and the colonies start the game fully exploited (that is, at maximum colony points if planet size is in use, otherwise at 10 CPs each). Players get 20 Build Points at the start of the first turn and receive Build Points at the start of every turn thereafter in accordance with the economics rules.

**[13.32] Victory Condition:** The first player to occupy the enemy home system is the winner.

**[13.33] Maps:** Use the standard *WarpWar* map.

**[13.34] Special rules:** Add the colonization rules to this scenario; players may agree to add whichever optional rules they wish. Semi-hidden movement rule should be used.

*After this, they players will be ready to move on to...*

**[13.4] DIASPORA**

*Players represent a set of colonists fleeing the destruction of their home world. Whether this is due to alien action, a natural catastrophe, or a result of suicidal war amongst their own race (the players can be as creative as they like in describing whatever it was that drove them from home), the Player has only the following:*

**[13.41] Setup:** Each Player begins with 10 Colony Pods and 300 Build Points with which to build whatever he wishes by way of ships. Players should note that the Colony Pods are already paid for, but if, for some reason, one or more SystemShip Racks are not included in a functional WarpShip at the start of the game, any such “orphan” Colony Pod is *removed* from the game. Players are NOT required to expend all 300 BPs and may transport any left over if sufficient Holds exist (they would need to build some) and they so desire. *(Note that it would be incredibly stupid NOT to build the SR’s necessary to carry all 10 of the Colony Pods – in effect, all you’re doing is launching a pirate fleet into the void with little or no chance of founding an actual empire.)*

**[13.42] Technology:** All Players begin at TL-0.

**[13.43] Optional Rules:** Players should agree to any optional rules and/or Ship Systems prior to the start of the game.

**[13.44] Game Length:** Game Length should be determined by mutual agreement among the players prior to start. At a minimum, they should probably plan on about 25 Game-Turns, though they can also simply agree to continue play until one of them “wins” the game conclusively enough that everyone agrees they game is over.

**[13.45]** Player forces begin the game stacked in their Entry Hex. Their Entry Hex should be in one of the corners of the map, in the planar ecliptic (that is, at Zulu “0”). If two players want the same entry hex, they should roll 1D6, with the high roller getting the hex.

**[13.46] Victory Conditions:** Victory in the game can be obtained several ways. One obvious one is to destroy the other players. Assuming that isn’t possible, the players can agree on any of several other victory conditions – largest number of Colony worlds, largest production in BP’s, largest population (in terms of Colony Points), etc.

**[13.47] Maps:** Players may use multiple copies of the standard *WarpWar* Map, may use the optional Random Mapping rules to generate the map prior to play, or may download a suitable map from the various on-line resources available for *WarpWar*.

*(Note that this scenario is consciously modeled on the beginning situation in* Stellar Conquest*...)*

**[13.5] TO BOLDLY GO...**

*The Players each represent a civilization that has just developed Warp technology and discovered that it seems to unlock the reaches of the Galaxy. The great leap into the unknown awaits. Can you successfully lead your Civilization in war and peace and dominate the galaxy?*

**[13.51] Background:**  Each Player is in charge of a civilization that has just discovered TL-0 and is ready to leave its home planet.

**[13.52] Optional Rules:** Players should agree on any optional rules or Ship Systems they wish to use prior to the start of the game.

**[13.53] Setup:** Each Player begins with one Friendly Star System, located in the Player's Entry Hex and with one Warp Line to the nearest Star (note that the nearest star may need to be moved up or down the Zulu scale in order to avoid having two stars adjacent to one another). This system is considered to be their Home World system.

**[13.54] Home System:** Each Player's home system contains their Home World which is a HR1 world (size 10, with NORMAL Resources, if those optional rules are in play). If the Multiple World rules are in play, roll up the rest of the system normally. The player has a 10-point Colony on his Home World, and has 20 BP stored on his Home World at the start of the game.

**[13.55] Pre-Game Turn:** Each Player conducts a Build/Repair Event prior to the first turn of the game. This Build/Repair Event allows them to produce their initial ships, initiate research, or whatever they wish.

**[13.56] Game Length:** Play continues for a minimum of 25 Years or as much longer as the Players desire. The Player with the largest Economy at the end of the Game is the winner.

**[13.57] Maps:** The players should use Random Map Generation to create the map.

**[13.6] THE STARS, LIKE DUST**

*The Empire met many challenges when it first moved outward into the stars. Hostile Civilizations, civil wars, even unknown plagues. None managed to defeat the Empire. It has survived the test of time. However it may now be about to fall victim to time! It has stagnated, turning inward away from the galaxy, lost that vital spark that made it so powerful in the first place. This wouldn't be a problem if there was nothing to fear in the stars, however new, bold races are rising outside the confines of the Empire, barbarians hammering on the gates of civilization, intent on making it's power and wealth their own. These young races are eager to expand – at the expense of the Empire if they can!*

**[13.61] Background and Initial Player Setup:** In this scenario a pre-existing galactic Empire is already in place in this part of the Galaxy. The Player set-up is the same as in “To Boldly Go...,” however they will eventually run into the Empire and be forced to deal with it. The Empire is considerably more technologically advanced than the Players are, however it is also decadent and not interested in much outside its immediate boundaries. It is vast and powerful and will respond if forced to, however, so Players must be careful to avoid awakening the “sleeping giant.” Note that this scenario is intended for play with a Referee.

**[13.62] Referee:** This scenario *requires* a Referee to set up and run, since the Empire must be controlled intelligently, but within the rules outlined below. In addition, all Optional Rules in Rule 9.0 should be in play. Note that the map will need to be randomly generated by the Referee.

**[13.63]** **The Empire:** The Empire needs to be constructed in complete detail before the game begins. This is so the Empire's Star Systems, Colonies and Outposts, and units can be placed before the game begins. The Empire is dormant until it is contacted by a Player.

**[13.64] Generating the Empire:** The Empire should have a minimum of 4 systems with planets of HR1 or 2 for every Player in the game. All Star Systems connected by Warp Lines to those Systems are also the property of the Empire. The Empire has fully colonized all planets with HR’s of 1,2, or 3 within the confines of the Empire, and has established Outposts on all other planets. That means that each usable world will have as Many Colony Points as it can support and every other usable world will have an Imperial Outpost present. Any usable world with an Imperial HR of 1 will also have a Shipyard, if the Shipyard rules are in effect. Star Systems which are not connected by Warp Lines will not be occupied by the Empire, even if they fall within the confines of the Empire.

**[13.65]** The Empire will be 5 TLs ahead of the Players at game start (meaning it will start at TL-5). In each of the Imperial Star Systems, the Empire will have a WarpShip serving as a picket ship.

**[13.66]** The Referee will conduct a single Build/Repair Event for the Empire prior to the start of the game, utilizing the Empire’s FULL production in order to generate the starting Imperial Fleet. Eighty percent of these WarpShips will be evenly distributed among star systems with Colonies. The remaining 20% will be located at the Home World of the Empire.

**[13.67]** Much of the Empire’s income is wasted on non-military expenditures. As a result, until fully mobilized, the Empire may never spend more than 10% (rounding fractions UP) of its income on Ship and Non-Ship Systems.

**[13.68] Imperial Weaknesses:** The Empire has grown indolent and stagnant and is mired in bureaucracy and political infighting with factions contending for political control and ignoring outside threats for the most part. It's population lacks any real sense of loyalty to the Empire and is dissatisfied with the way the Empire is being run. Think Ancient Rome during the reign of Caligula, for example. Specific weaknesses follow:

• The Empire has a sluggish Research system. Each item to be researched costs *twice* as much as it would normally. No more than 10% of the Empire's already reduced production may ever be devoted to research.

• The Empire has lost interest in expansion. It will never send ships outside its own space unless it is attacked by a Player. Even then, it will only fight the Player that attacked them. The Empire will not colonize or build Outposts on new usable worlds outside its own space.

• The Empire has split itself administratively into “sectors,” each of which consists of 4 fully populated systems, plus any connecting systems between them (e.g. there will be as many sectors as there are Players at a minimum – the Referee can always decide to make the Empire even bigger...). The Home World or “Capital” sector consists of the Home system and any systems connected to it via Warp Lines. Sectors will consist of their 4 Major Systems and any Systems adjacent to them via Warp Line. Due to internal political squabbling, the sectors are unable to effectively support one another except in the most dire circumstances. Each sector must “make do” with only its own internal production for the purposes of fighting off barbarian incursions until a major colony world (i.e. fully Colonized planet) is lost to an enemy. At that point, the Sector comes under control of the Capital Sector and 50% of all ships in each of the other sectors may be moved to the threatened sector to regain control.

**[13.69] Game Length and Victory Condition:** Play continues until the Empire is destroyed (or destroys all Player Civilizations). When the Empire is finally destroyed, the Player with the largest number of BP’s being produced each Game-Turn is the winner.

*(Note that this situation could be considered a variant of that situation depicted in the game* Imperium*...)*

**[13.7] JUGGERNAUT**

*Through the long years, the People slowly, inexorably, expanded into the dark reaches of space. They were unhurried, taking the time to fully explore and exploit each system as they entered it. In due time, they met other species, and annihilated them, uprooting them root and branch and slaying or enslaving every member of them. They then exploited such of the worlds these other species had occupied as seemed good for them, and left the others barren, occupied only by the ruins of dead civilizations. The People saw other creatures as simply another source of food or raw materials or as a group of natural slaves, who existed only to benefit the People.*

*This Scenario requires a Referee to set up and run the nemesis Civilization.*

**[13.71]Background and Player Setup:** In this scenario a pre-existing “Nemesis” species is already in place in the Players' part of the Galaxy. The Player set-up is the same as in “To Boldly Go...,” however they will eventually run into the Nemesis and be forced to deal with it. The Nemesis, by its very nature has the potential to become enormously powerful and dangerous to the Players' Civilizations, however even monstrous Civilizations have weaknesses and the Players will need to capitalize on them in order to triumph.

**[13.72] Optional Rules:** Players should agree on which specific optional rules they will use prior to the start of the game. At a minimum, they will need to use the Hold Optional Ship System, and the Referee Optional Rule.

**[13.73] Nemesis Species:** There are several possible candidates for the Nemesis species. The Referee should choose one prior to the start of the game so the players don’t know quite what they’re getting into.

**(a)** **The Hivemind:** *Hivemind species are an unusually dangerous type of species to encounter. If not stopped, they can quickly become an uncontrollable monster that devours every other species they chance upon. A Hivemind is usually a semi-telepathic insectoid or arachnid type species that views all other life as a somewhat challenging food source. They will never attempt any type of Diplomacy or Agreement with any of the players – Hiveminds consider all other species to be a resource to be exploited. Would you negotiate with a beefsteak?*

§ Hiveminds have the following characteristics:

* Hiveminds will attack immediately if confronting a smaller force. If confronting a larger Force, they will attempt to RETREAT towards Friendly forces until such time as they can move sufficient ships to the “front” to gain superiority and *then* attack immediately. A Hivemind will never attempt to negotiate. A Hivemind is characterized by the following special abilities and weaknesses:
* Hivemind Civilizations have a greatly accelerated growth rate and are able to accept significantly more crowded conditions than more “normal” species. All usable worlds are considered to have a Size Limit of half again the indicated amount (rolling fractions down). Thus, a size 5 world would be a size 7 world to a Hivemenind, and a size 12 world would be a size 18 world to a Hivemind. Because of their methodical nature, once a new Colony has been established, They will produce Colony Pods sufficient to upgrade the size of the Colony by one Colony Point each year (if possible) until the maximum Colony size permitted has been reached.
* Hivemind Civilizations produce more BP’s than “normal” species do. Any Hivemind Colony produces half again as many BP’s as their TL would indicate (rounding fractions down). Thus, a TL-0 Hivemind Colony of 7 Colony Points would actually produce 10 BP’s.
* Due to a lack of individuality, Hiveminds are less effective at using tools than most “normal” species – they use brute force to make up much of the effort than other species routinely use tools and equipment to accomplish. Hiveminds may only produce and use half the number of Factories indicated by their TL (rounding Fractions down). Thus, if a Hivemind Colony of 7 Colony Points went from TL-0 to TL-1, instead of producing and using 7 Factories, they could only produce and use 3 factories. Likewise, a Hivemind Colony of 18 Colony Points could only produce and use use 9 Factories under TL-1.

***Example:*** *A TL-0 Hivemind colony of 7 Colony Points would normally produce 10 BP’s per Game-Turn (7 + 7/2 = 10.5, rounding fractions down to 10). Once the Colony is elevated to TL-1 (through successfully research), it may produce and use 3 factories. Like the Colony Points, the Factories produce at 150% of the normal rate (rounding fractions down. The new production level for the Colony would be 15 (7 + 3 = 10 for ten basic BP’s, and then 10/2 = 5 for five additional BP’s). By comparison, a “normal” species Colony would produce 7 BP’s to begin with, and then could build and use up to 7 Factories once TL-1 was reached, for a grand total of 14 BP’s.*

* Hiveminds may not build and use Fighters. Due to their lack of individual initiative, they are unable to use them effectively.
* Research is considerably hampered due the lack of individual creativity inherent in a Hivemind species. As a result, all Research costs are **Tripled** for a Hivemind species.
* Hiveminds do not “occupy” captured populations the same way other species do. Since all other species are nothing but either a food source or a waste of space, they in fact either eat them or destroy them from orbit. Either way, they’re gone. Any Colony or Outpost in a system occupied by a Hivemind is looted and destroyed.
* Because Hiveminds are telepathic, the destruction of a large number of their Population can have severe traumatic effects on them. If more than 2 Colony Points in a single Star System are destroyed in a single Game-Turn, any space combat in **that** system (only) during the **next** Game-Turn will require the Hivemind to subtract 2 HITs from *each* attack that successfully HITs an opponent. This may result in no damage to the opposing ship despite an otherwise successful HIT.

§ The Referee first selects a Home System for the Hivemind, preferably assigning it a System far enough away from the Player Civilizations to give both the players and the Hivemind a chance to develop. He then selects one of the system bodies in the system as the Hivemind's Home World.

§ The Referee sets this world up so that it is fully populated and by the Hivemind, to include the “extra” population that the Hivemind is permitted on each usable world. He then “fully exploits” the system by fully populating any other planets within it's home system. He then calculates the Hivemind's Production and conducts one Build/Repair Event for the Hivemind.

§ The Referee then runs turns for the Hivemind as if it were a regular species he were running, except as described in the Hivemind characteristics above. He must try to fully produce for the Hivemind each Game-Turn (e.g., not save any BP’s if possible). The Referee should systematically (if you'll pardon the pun) explore each Warp Point in the home system, securing any suitable systems on the other side by at least one Outpost and placing a picket WarpShip in the system. Any systems suitable for colonization will be fully exploited by the Hivemind (i.e. have the maximum possible Colony Points emplaced before the Hivemind will move on to the next system.

§ The Hivemind should be very methodical in its expansion and should make every effort to secure its frontiers and fully exploit any suitable systems it runs across before moving to further expand. The Hivemind will conduct research in all areas equally. The Hivemind always immediately attacks any Player or Autonomous Civilization it stumbles upon.

**(b) The Cyborgs:** The Referee will create a Cyborg Civilization by granting it 50 Factory Ships, 10 Construction Ships, 10 Scavenger Ships and 500 BPs to build any other forces he wants. He will then generate a system, assigning it a system number far enough from any Player Civilization to permit the Cyborgs some time to grow, and place the fleet there. From there, the Cyborg fleet is prepared to begin exploring and consuming the Galaxy.

Cyborgs combine machine and organic parts into a frighteningly effective being. They never seek Contact and always attack immediately. They are a totally mobile Civilization and do not require Populated Planets to produce BPs. Effectively their fleet of ships **are** the Cyborgs. Cyborgs have the following special abilities and weaknesses:

* Cyborgs may not build and use Fighters (they're too small to contain an effective Cyborg brain unit). Cyborgs may not build Bases (they have no need of them).
* Cyborgs may build “Factory Ships.” These ships are Warp capable ships that cost 100 BPs and one Colony Point each to build. Each Factory Ship generates the same number of BPs that a Population Point of a “normal” species would at the same TSL. These ships do not need to be “refit” or replaced when the Cyborg TSL increases, automatically improving their productivity instead at no BP cost to the Cyborg Civilization. Factory Ships have no defenses and single HIT destroys them.
* Cyborgs may build “Construction Ships.” These ships are Warp capable and cost 100 BPs and one Colony Point each to build. Each Construction Ship is able to build up to 20 BPs worth of ships per Game Turn. They function precisely as Shipyards do in all other ways.
* Cyborgs may build “Scavenger Ships.” Scavenger Ships are Warp capable and cost 50 BPs and one Colony Point each to build. The only purpose of Scavenger Ships is to “scavenge” occupied Colony Points for use in creating other Cyborg ships.
* Cyborgs do not have Colony Points. In order to gain Colony Points for further growth (the construction of Factory Ships and Construction Ships) they must successfully occupy a system with Colony Points present in it. Once a system has been occupied, the indigenous population may be “scavenged” by the Cyborg Civilization at the rate of one Colony Point per Game Turn per Scavenger Ship. The Player or Referee controlling the Cyborg Civilization must keep track of the number of Colony Points the Cyborgs have successfully “scavenged” and then track their expenditure to produce ships.
* Cyborgs that occupy a system with Colonies or Outposts present may loot those Colonies or Outposts normally, storing any BPs gained that way normally (if they have the holds available).
* Each Cyborg WarpShip or SystemShip the usual number of BPs to construct, plus one extra BP which must be spent on a Cyborg “Brain” to run the ship. This brain unit is integrated throughout the ship and is only destroyed when the ship itself is, so does not get recorded as a ship system – it merely increases the expense of the ship slightly.
* Cyborgs may not conduct Research, however if they successfully take and occupy an inhabited planet with a Colony of at least one Colony Point, which has a TL higher than the current Cyborg TL, they may increase their TL by **one** after six Game Turns have passed. They may only increase their TL by one, regardless of how much more advanced that particular Civilization was, however if they take a second populated system from the same Civilization and it still has a higher TL than the current Cyborg TL, the Cyborgs may again advance one TL, and so on until they have reached the same TL as the Civilization in question or can no longer capture inhabited systems from it. Each Game Turn after a TL advance, one ship system (chosen randomly) is available at the higher level until all ship systems have advanced to the new level. If the Cyborgs advance another TL before completing the upgrade of their Ship Systems, they must still advance each of those items one level at a time until they reach the new maximum TL (i.e. they may not simply skip the intervening TL and go strait to the highest one available).
* The Cyborgs will split their fleet into two main components. The Defense Fleet (which is equal to 25% of all Warp and SystemShips by BP count), and the Offensive Fleet. The Defense Fleet, in addition to its specified Warp and SystemShips, includes all Factory, Construction and Scavenger Ships. The Offensive Fleet consists of all other Warp and SystemShips. As the size of the Cyborg fleet increases, the relative proportions must be maintained, with all new construction first going to the Defense Fleet and then to the Offense Fleet. If the Offense Fleet suffers significant casualties, the Defense Fleet will be maintained at 25% of the pre-casualty size of the Offense Fleet (i.e. the Defense Fleet will never shrink in size except due to combat losses). If the Offense Fleet is ever so reduced in size by casualties that it is smaller than the Defense Fleet, the Cyborgs will immediately cease attacking the Civilization that inflicted the losses and will seek to avoid them in the future; until the Offense Fleet is at least 150% of the size it was when they first began to fight the victorious Civilization. When that situation is reached, the Cyborgs will return to the attack against the Civilization.
* If the Cyborgs are being run by a Referee, then they may break up their Defense Fleet and its accompanying Factory, Construction and Scavenger Ships into more than one “Main Body,” however the Cyborgs must likewise break the Offense Fleet into proportionally similar sized Forces. In any case where a “Main Body” is being split in this way, it **must** be split into two **equal** parts. In general, this only becomes a good idea when the “Main Body” has become relatively large, since otherwise such a splitting up will only enable the Players to defeat the Cyborgs in detail.

Clearly, a Cyborg Autonomous Force, if left alone long enough, can become incredibly powerful and dangerous.

**(c)** **The Empire:** The Referee will create an Empire just as in Scenario 13.6 above, only in this case the Referee will run the Empire as an expanding state. The Empire will, like the Hivemind, seek to fully exploit any suitable systems it comes across as it grows and will be very deliberate and methodical in its expansion, but none of the “weaknesses” described in section 13.68 apply to this Empire. It is a totalitarian Empire (of whatever description the players prefer) intent on conquering the Galaxy and crushing anyone who gets in the way. The Empire's starting position, due to its significant TL advantage, should be far from any Player Civilization to give them time to develop before meeting the Empire. Of course, that gives the Empire a chance to develop as well, so players would be well advised to work hard to improve and expand their own empires. Once a Player Civilization encounters the Empire, the Empire will attack immediately and bend every effort to conquering that Player. If another Player Civilization is encountered, the Empire will likewise immediately attack that Civilization, diverting forces from the first enemy to handle the second, and so on. The Empire could, literally, be fighting half a dozen wars at once.

**[13.74] Game Length and Victory Condition:** Play continues until the nemesis is destroyed or destroys the Player Civilizations. Assuming the Players win, the Player with the largest Base Economy is the overall winner (though merely surviving these challenges should be victory enough for the Players…

*(Players and Referees should note that these various “nemeses” (the plural of nemesis) could easily each exist and be scattered across a large, refereed galaxy. The players begin with the standard “To Boldly Go...” game and simply blunder across these monstrous species in the natural course of the game. If this option is used, the Referee should be sure to scatter the nemesis species as widely as possible; it would be truly a horrible event if a single player ran across two, or even all three, of them at the same time!)*

**[13.8] PUTTING IT ALL TOGETHER…**

It should be obvious by now that the game system is capable of allowing the players to explore pretty much any kind of situation they want. Indeed, if the have a willing referee, he could easily get them started with either Diaspora or To Boldly Go…, while seeding the galaxy with all of the threats listed above – a moribund empire with much higher technology; an empire that isn’t moribund; a hivemind; a cyborg nemesis; and a few regular species, just like the players; all of which they players can stumble across and deal with as they see fit, with the referee all the while mapping randomly to keep ahead of the players. A clever referee can also throw in automated space weapons (*ala* the old “Doomsday Machine” episode of the original *Star Trek,* or the “Berserker” type craft from Fred Saberhagen’s novels), strange worlds, strange ruins, anything they can think of. As far as maps go, the sky is (literally) the limit. Our own galaxy is estimated to contain several billion stars, and even smaller galaxies like the Lesser Magellanic Cloud have millions. Heck, the smallest galaxy that I’m aware of has 100,000 stars in it – plenty to keep the campaign going until the referee and the players all die of old age… The bottom line is; the only limit here is the players’ imaginations and the time they have available. If all the optional rules are added, you have a system complex enough to keep everyone engaged at all times, yet simple enough to allow the successful management of a fairly large empire. So pull out all the stops, and enjoy!

**[14.0] Optional Rule: REFEREED PLAY**

COMMENTARY:

Players may wish to appoint one of their number as the Referee. The Referee is not a Player in the regular sense, instead serving as the manager and creator of the Galaxy. A Referee adds much greater flexibility and danger to the Game since he can create and actively manage Non-player Empires, and can even design them to function with specific Player Civilizations in order to affect those Civilizations in their quest for superiority. Certain of the existing Scenarios actually **require** the use of a Referee in order to be played, but generally the Game is written so as to allow Players to function without a Referee if that is preferred. Players are reminded that the scenarios provided with the game are merely “typical” of the genre and they are encouraged to develop their own scenarios as they desire.

While the Players' rewards for playing the Game are both visceral and self-evident, one may wonder what satisfaction the Referee derives from the Game. The Referee's reward is usually to have a “God's-eye view” of the events of the Game (and thus sit back and enjoy the spectacle as the Players flounder around dealing with the unknown) and to be able to spring special surprises (both good and bad) on his Players. Also, since in games with a Referee, the Referee usually gets to run the Autonomous Forces as if they were his own personal Civilizations, he may also derive some satisfaction from doing well with them, though he should never grow so attached to them that he isn't willing to let them go if the needs and results of the Game so dictate.

**[14.1] THE REFEREE’S ROLE**

**[14.11]** A referee (and, possibly, assistants) will be required to create the galaxy, keep records on the ships and worlds, and give information to the Players as they earn it. The simplest manual record-keeping system is simply to establish one 3 X 5 file card for each system, ship, Base, and Non-Player Empire, keeping all relevant information on it and updating it turn by turn. If the referee has access to a personal computer, this record-keeping may be simplified enormously by using spreadsheets to manage the information. If the game is being played by mail, the referee will also have to handle combat; see PBM Combat, below.

The Referee may also find it useful to create a “map” for the Galaxy. While there are many 3D mapping utilities out there, none provide precisely the information the Referee will need. Therefore the Referee may make do with something as simple as a large sheet of hex paper on which he notes the number of the system in a hex, and it’s planar level (0, +1, -2, etc.) and nothing else. He may choose to note White Dwarfs and Beacon Stars directly on the map, for ease of recognition, as well. (He should number the systems so he can correlate them with their index card for future reference.) He may denote warp connections between the systems by drawing lines between them on the hex paper.

**[14.12]** For a system, the card or spreadsheet entry should include System Number, the number, resources, and size of any usable planets present, and the number of Warp Points along with a cross-reference (by System Number) as to which system each of those Warp Points connects to.

**[14.13]** For a ship, the card should include ship name/number, configuration, Missiles/Fighters/ SystemShips/Colony Pods carried, TL level, special characteristics (such as Repair Bays, Holds, etc),any cargo being carried and current location.

**[14.14]** For a Non-Player Empire, the same records are required as for a Player Empire to include System, and ship information. In addition, the Referee should keep records of the Non-Player Empire's production and research programs noting expenditures on a turn-by-turn basis.

**[14.15]** Perhaps the single most important part of the Referee’s role is to remain an impartial judge and observer of events. This means that even if the Referee is controlling a Non-Player Empire, he should never be so invested in that empire, or the outcome of the game, that he manipulates the game in order to achieve a “victory.” The Referee isn’t a “Player” and should always avoid acting like one. Indeed, the Referee’s role is much akin to that of “Dungeon Master” in a traditional Roleplaying Game – he creates and describes the universe, acting the part of Non-Player Species that the Players interact with, but generally letting the chips fall where they may with neither fear nor favor.

**[14.16]** Finally, remember, in a refereed game (unlike a non-refereed game), if a Player is eliminated from the game, it doesn’t mean he can no longer play. The Referee allows him to create a new Empire, somewhere out there beyond the fringe of known space, and the Player gets to start all over. Mind you, the Player is at a bit of a disadvantage in that he starts off brand new, at TL-0 again, but at the same time, he is now much more experienced than he was before and is less likely to make the same mistakes he made previously, so, overall, things will tend to average out over time. Either way though, the game can continue indefinitely if the Players and Referee desire it.

**[14.2] PLAYER RECORDS**

**[14.21]** Players will also need to keep similar records to those the Referee keeps (though in case of dispute, the Referee's records are always “correct”). In addition, the Players will need to track the following:

1. RESEARCH PROGRAMS to include what is being researched, and the number of Research Points expended.
2. PRODUCTION to include the current number of BP’s being produced at a given planet and any stored there.

**[14.22]** Players must produce their records for the Referee's perusal on demand. In the case of any disagreement between the Player's records and the Referee's records, the Referee's Records are considered to be the records of choice and any decision by the Referee is final. Players should ensure they keep the Referee up to date on all changes in their records as often as possible.

**[14.3] REFEREE-PLAYER COMMUNICATIONS**

**[14.31]** Each Game Turn the Players must provide the Referee with all movement orders. If playing by mail, they must provide this information in written form and also must provide the Referee with written Combat orders. These orders may be as detailed as they like. Finally, they must provide the Referee with orders on how they wish to allocate their resources, again, in writing if playing by mail. If the referee has any question in his mind about what a player’s intentions are, it’s incumbent on the referee to clarify the situation, if at all possible, before taking action.

**[14.32]** Each Game Turn, after all Player and Non-Player Empire activities have been completed, the Referee provides a report to each player (in writing if necessary). This report includes:

FOR EACH STAR SYSTEM WHERE HE HAS SHIPS: ships present; their owners; number of Warp Points out, and any other Exploration information (number and types of planets, Non-Player Empires present, etc) that player has had the opportunity to collect.

FOR EACH STAR SYSTEM HE OWNS: all the above, plus its Exploration Information (number and types of planets), current Population (Outpost or number of Colony Points), current Factories, BP value, and the presence of Shipyards, LABs and Missile Bases/Fighter bays (if any), and stockpiled BPs present on the planets.

FOR EACH SHIP HE HAS: its present location; it's current condition, any other ships in the stellar system; and who owns them.

SYSTEM NAMES (OR NUMBERS) for any new star systems his ships discovered that turn. If the ship stopped to explore, he receives the Exploration information (as per 1 above). If it has not explored, he will simply be told that a star exists, and whether or not it is a White Dwarf, Beacon Star, or normal star.

CURRENT POSITIONS for any allied/neutral ships his ships encountered during movement.

WARPLINES that he has now learned about.

PRODUCTION that is completed.

RESEARCH results or special events, where necessary.

ANYTHING ELSE the referee feels he should know about – but the Referee must treat all players equally. Typically this takes the form of a “newspaper” reporting rumors or other information that the players would all be likely to know.

**[14.33]** If the game is being played by mail, the Referee's Report will include an account of each combat the Player's ships participated in during that Game Turn. The amount of information a Referee allows a ship to report on the turn it is destroyed in combat is up to the Referee. He may assume that it beamed all new data back to base before its destruction – or that NONE of the information it collected that turn, even to the combat, is relayed to the player...the ship simply vanishes if no allies survive to report; or any level of information in between the two extremes. The “no information” option makes for a cloudy but interesting game. Regardless, the Referee should establish some standard approach to how much information gets back to a player, and should apply that standard equally to all players (for example; for every round after Round One that combat lasts, 10% of the information from that combat and/or star system gets transmitted to each of the opposing players).

**[14.4] PLAYING BY MAIL (PBM) OR E-MAIL (PBEM)**

**[14.41]** If the game is being conducted by mail, it is impractical to have Players choose options each round of a long combat – it would require months to resolve each combat. Instead, the Referee should recruit “assistants” (one for each Player) who will serve as “proxies” for the actual Players during Combat resolution. The assistant Referees represent the ship captains and fleet admirals of their respective Players.

**[14.42]** The Players may write standing orders of as much complexity as they wish, to be followed by the captains when battle is joined. Captains are free to use their own judgment on any matters not covered by the standing orders. Thus, on a Game Turn when Players A and B have a battle, the Referee will meet with his assistants who captain for A and B, and work out the battle.

**[14.43]** If the standing orders include provisions for attempting diplomacy, the battle may be unnecessary; the Referee himself will be familiar with all standing orders and will know this. Of course, no captain is familiar with the standing orders the other Players have given their own captains.

**[14.44]** While the Players may communicate with the Referee verbally (and probably should) during a PBM or PBEM game, the only authoritative source for Player decisions and directions is whatever they have provided in the way of **written** directions. It behooves the Players to write their orders very carefully and as unambiguously as possible. Note that the Assistant Referees serving as the Players' Proxies are expected to use their imagination and initiative in any cases where they must judge what the owning Player intended by his orders. Poorly written orders may result in considerable latitude on the part of the Proxy. Any poorly written orders that result in a situation not to the Players satisfaction due to a misunderstanding by the Referee or his assistants is **not** subject to review.

**[14.45]** Players may, in the interests of greater enjoyment include news releases they would like to “publish” to the other Players. Generally, in order to receive such news releases, a Player must be in “contact” with the Player releasing the news item, however at the Referee's discretion he may choose to forgo that requirement, depending on the nature of the news release. Referees may find it useful to lay out some ground rules concerning Player news releases if they are going to permit them in the game. Such information will be included in the Referee Reports sent to the various players.

**[14.46]** While the Referee is the final authority for rules and action interpretations during the Game, it is strongly recommended to Referees to avoid being arbitrary or unfair. Any such behavior on their part will generally have the effect of ending the Game prematurely and with considerable bad feeling on the part of the other Players. Referees should strive to avoid this if possible. Likewise, Players should understand that not everything will go precisely as they hoped, but generally speaking, such things tend to even out over time. Ending the Game over a minor squabble is immature at best, besides wasting all the time and effort put into the Game to that point.

**[15.0] NOTES**

Campaign games of *WarpWar* have been an idea that many people have talked about almost since the day that *WarpWar* was first published back in 1977. Indeed, Steve Jackson (one of my favorite game designers) and Joseph Powers published a brief version in the Space Gamer in 1980. However there always seemed to be room for more.

For example, how about a coherent yet simple way to explore star systems and find useful real estate that didn't limit you to a single planet in the whole system, or require you to spend a day and a half rolling-up and creating a single system? Or a way to define that real estate in such a way that one person's desert is another's paradise? Or a Technological system that not only left the ingenious *WarpWar* mechanisms intact, but also impacted everything else. Or a way to handle colonization that gives players the feel for what colonizing a world takes, but doesn’t involve massive amounts of record keeping.

It seems like almost half the rules provided here are “optional.” This is because there were significant objections to an earlier version of these rules that was both more complex, and which *required* many of the things now made optional. While those earlier rules, for example, had a much more “realistic” (or perhaps “more scientifically correct”) set of rules for system generation (for example), they were a good deal more complex. The most telling critique I received was “this is a great set of rules, but it’s not WarpWar.” Well, it WAS WarpWar, but on steroids. Recently, Rick Smith published some very basic rules about colonization, 3d Movement, random mapping and production for an “Empires” type game of WarpWar – all of which had appeared in my earlier rules in a much more complex way. As I read them, I realized that there were some significant ways to simply and effectively do many of the things I’d done before, but in a way which “turned off” my audience. At the same time, even though the KISS principle is much more rigorously applied than in my previous effort, many selectable options are provided which serve as guidelines for more complex games, and allow the players to tailor their experience all the way from original WarpWar, about a 3 on the complexity scale, straight up to something a good deal more involved, but still probably a 5 or less on the complexity scale.

The Optional Rules were more a labor of love in some ways than the rest of the game combined. They add a great deal of “flavor” to the game, but can make for a lot of extra work. They add in the nuts and bolts that players seem to like, but do so in a way that doesn’t significantly slow the game, and they can be ignored by the players who just want a fast, simple game without a lot of extra chrome. Really, the only truly complex optional rule is the Fighter rule; and that one is complex only in terms of how much it complicated a player’s decisions during Combat. But, it was always the most popular option in the playtesting group, even though it tended to slow the game more than any other optional rule. (It should be noted that it was a rule originally published by the WarpWar Design Group, and is merely copied here.)

The Scenarios are really just a starting place, though they will give the Players many, many hours of fun. Nonetheless, Players or a good Referee will be able to throw together many more variants based on them. What about a dead “Empire” with automated defense systems that is a technology treasure trove? The Players would squabble over the bones...at least until the original owners, not dead after all, show back up and get mad that someone is looting the graveyards of their people... Will the Players be able to overcome their recent enmity in time to prevail? Or perhaps two massive warring “Empires” exist, with our unfortunate Players simply caught in the middle.... The beauty of the game is that in reality, you could start with one of the scenarios (say, “Diaspora”) as your beginning premise, and, over time, use ALL of them to create a continuing campaign with ever increasing dangers and challenges for the Players.

Above all else, the elements of the design offered here can be used, selected from, ignored, and put together in different ways to create the level of interstellar wargame that the Players want to enjoy. The basic rules as presented offer a nice little game of interstellar warfare and competition, with enough extra information to make different strategies and tactics possible. When you add in some of the optional rules, the game gets a bit more complex, but also provides richer details and new opportunities for the Players to exploit. When you add in all the optional rules, you have a more complex (but still easily managed) game that permits you to write your own history of the galaxy, all still based on the simple and effective *WarpWar* rules.

But even more, the rules offered here provide a solid foundation on which players can add as much chrome as they want. Want to add interstellar trade? Figure out what goods are bought and sold at the various worlds and go for it (that old Metagaming classic, *Trailblazer*, is perfect for that; though it adds a LOT of record keeping!). Pirates to raid that commerce? By all means. Planetary Defense Shields? Sure (*30 BP per Shield Point, unless Optional Rule 8.3, Planetary Size Limits, is in effect, in which case it’s Planet Size x 5 BP’s per Point. The cost includes the power system necessary to power a planet-sized Shield generator, and don’t forget you can’t fire missiles or launch Fighters at the same time a Shield is up!*). *Starship Trooper* style planetary assaults? Espionage and Sabotage (and Counter-Espionage)? All of these add a lot of new rules, but could be done. Doomsday machines? It’s easy. Asteroid fortresses? Gas Giants? Resource rich asteroid belts? Habitable moons? All a simple matter.

Players can also use something like GURPS *Space* or *Stars Without Number* (by Sine Nomine Publishing) to generate even more detail about the star systems and planets they find; it serves absolutely no purpose in game terms (unless you’re using this game to work out the background for a starfaring Roleplaying Game – see below), but it sure adds a lot of descriptive chrome to the game and fires the imaginations of the players!

You can even take something like Dark City Games’ *Legends of Time and Space* (which I mention solely because it is based on the old *Fantasy Trip* system, another Metagaming product, that sooner or later, had Metagaming hung around, would have probably evolved for use in a space RPG; Howard Thompson was trying to go there when he closed up shop in ‘84 or ‘85) or some other RPG system and use it to stage role-playing scenarios in the universe you create (this works particularly well if you want to play a *Traveler*- or *Firefly*-like game of tramp freighters moving through an empire and are using the *Trailblazer* economic system to model the cargoes that are available and wanted). But be warned; each additional bit you add increases the complexity and record keeping by leaps and bounds; Players should look for the “sweet spot” for their own games, where there is enough chrome to keep everyone involved, but not so much extra paperwork that they are completely swamped!

This design puts together many ideas that have been floating around for decades now, both in my head and on various fora on the net, however, I can hardly take much in the way or original credit for the things in this game. The design concepts in this game are the results of 40+ years(!) of gaming experience, what worked, what didn't, what was annoying, what made it more fun, and so on. The skills and imaginations of the design stable at the original SPI, Metagaming, the WarpWar Design Group, and the many fine designers now working for Decision Games and several other smaller game companies are incredible and have provided endless hours of pleasure and challenge to me. Hopefully this game, in some small way, will repay the favor to at least some of them.

A particular note of thanks needs to be given to Rick Smith, as previously noted, for his recent series of optional rules and maps published in the WarpWar forum on Yahoo and elsewhere. His articles are what finally inspired me to go back yet again and simplify the colonization and planetary exploration systems, and his revised production rules are the heart of the production system given here.

A final note needs to be stated here, just in case. Players should feel free to change, adapt, re-write, ignore, expand, or completely redevelop any of the rules provided herein. If it’s not fun, don’t do it. If it could be more fun, change it. It’s your game, and space is limitless!

* *JLV*