

REACH FOR THE STARS

Part One

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### THE GAME ROUTINES

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1. INTRODUCTION

Reach for the Stars is a game of galactic exploration, colonization and conquest. Throughout the game you must explore new star systems and colonize the most promising planets. Your colonies produce resources which you must locate to defence, research and development, environmental and social factors, consumer contentment and industrial expansion. You must also develop a (military) policy to deal effectively with the alien threats which are certain to arise.

Part One of this manual, The Game Routines, contains an introductory tutorial and explains all you need to know to play the game. Part Two, The Game Options, describes the options that may be applied to vary the rules of play. You may begin a game of Reach for the Stars immediately by following the instructions in the tutorial chapter (Chapter 3), although it would be advisable to read Chapter 2 first in order to get a little background information.

The complete package consists of one 3.5" disk, a map card, an instruction sheet for your computer type, an album and this player's manual. If this isn't the case, let us know about the missing components, or return defective ones, and we'll replace them immediately. If you live in North America, send defective components to our US Office; if you live elsewhere, send them to our Australian Office.

Please address any questions you may have relating to the play of the game to our Australian Office, regardless of where you live.

Note that the game disk is not copy protected. We recommend you make a backup before playing the game. The instruction sheet for your computer type will tell you how to do this.

2. WHAT'S IT ALL ABOUT

The following information describes the standard game. Information about the advanced game can be found in Part Two.

The galaxy is a 34 by 23 hexagonal grid as displayed on the map card. It is important to note that the map is also wrap around (a toroid), so movement off one edge results in a return on the opposite edge. This would mean, for example, that Pollux is 4 hexes from Capella and that Saiph is 9 hexes from Zosma.

There are always four empires in the game. Any number of these may be controlled by human players and the rest will be controlled by computer players.

In each turn, every empire is given orders by its controlling player. Every odd numbered turn is a production and movement turn, even numbered turns are movement only. Production orders are given and executed first (if it is a production turn), and then movement orders can be given.

While giving your orders, you can examine a number of reports given by the

Status Menu. These show a summary of explored star systems, the current status of all task forces, current victory points and the status of all game options including all production and movement costs and your current spending on technology.

When all four players have completed giving orders, the computer then executes the movement of ships. When ships of different empires end up in the same star system, combat will occur. Each player is given the option of withdrawing his ships after each round. Combat continues until there are only ships belonging to a single player left in the system. When warships are in a system containing an enemy planet, and no enemy ships, the warships may attack the planet's defenses. If they destroy all the defenses on the planet, or there were none on the planet to begin with, then the population in any transport ships may be used to invade and conquer the planet.

After all combat is resolved the next turn begins. This process repeats until the last game turn is executed or an overwhelming victory has occurred. The player with the highest victory point score is the winner.

3. PLAYING YOUR GAME FIRST

Starting the Game

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Following the instructions in this section will take you through a tutorial game for the first nine turns; enough to get your space empire started. You must enter the items exactly as shown, otherwise the tutorial will diverge from the script with undefined results.

Turn on your computer and place the disk in the drive. You will see the Reach for the Stars icon. Use the mouse to double click this and the program will start. You will be presented with a start up window which allows you to change the names of the four empires, select each as a human controlled empire or one of the three levels of computer controlled empire, a slide control for the length of game you wish to play and some buttons that will open various option dialogues.

Player one is highlighted and set as human so select this as your empire. Begin by typing in a name for yourself. When this is done, click on each of the other empires' name fields and after you highlight each, type in a name. For this tutorial, name the empires as follows: 1) Esesgees 2) Esesions 3) Gadawr 4) The Forth. Being your first game you don't want to get wiped out so, for players 2, 3, and 4, click on the Beginner options.

The only thing left to do is turn on the Tutorial option. Use the mouse to select the Optional Rules button and the options window will open. Select the Tutorial option, at the top of the window, by clicking on it. The option name will be highlighted to show that it is active. Then put the window away by clicking on the go-away box on the left hand side of the window's title bar.

That's it. You're ready to go. Pull down the File menu and select the New Game item to start a new game with the parameters you have just set.

#### Turn 1

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You now see before you the space background and the player select window. Since you are the only human player, only the Eseggee button is highlighted. Press it to begin your turn.

You now see the production set up for your home planet. On the space window your home star system, Furud, is indicated by the special colony world icon, the star system window is open giving details of your planet and the production window has also opened.

Select the Advice option found under the Production menu. The computer will fill in its recommendations for production. Note the order for four scout vessels, a good idea for the beginning of a game. For now accept the computer's advice. The End Production command is the last option under the Production menu. Select it to end the Production phase. You will see a ship symbol appear on the space screen to indicate the scouts that have just been built and the star display will update to show any improvements made to your planet. The Task Force Control window also opens to allow you to give orders to your scouts. At the moment it shows 4 scouts in orbit; i.e. without a destination.

Again, let's get the computer to do the work for us. Choose Auto Explore from the Control menu. After a moment you will see that each of your scouts has been placed in a separate task force, each has its own different destination and has an ETA of one turn. That's all you need to do for this turn so select Normal from the End Turn menu.

As each computer controlled empire is given orders you will see a message indicating which empire is active. After all orders are entered you will see ship symbols come and go on the space display, indicating the arrival of task forces at star systems, and then you will be prompted to start your next turn.

Turn 2

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This is a movement only turn so no production windows open; instead the Task Force Control window is open for your scout at Phaeda. Before giving any orders select Explored Systems from the Status menu. The window that opens is a summary report for information on star systems. Use the scroll bar on the side to scroll down the report and you will see data for the star systems you have just explored with your scouts as well as your home system. At this point it may be best to explain what data is available to you in the Star System display.

The star system window shows the name of the star system in the title followed by its spectral class. Under this is the data area for each planet. The owner line will show which empire controls the planet and, if it is conquered, the ID of the original owner to the right of this. The number to the left of the slash for Population and Industry is the actual level whilst the number to the right is the maximum level. The two values for Environment are, from left to right, social and planetary. The last line shows the planet's defenses, normally the number of PDBs. The size of the local army is shown to the right of this in the advanced rules.

The Task Force Control will open if there are any ships on which to report, and will show any enemy ships as a separate task force at the top of the window.

These complete details are only visible to a player who has a colony or ships in the system. Otherwise only the factors of maximum population, maximum industry and planetary environment can be seen and the ship display will not open.

O.K. It's time you give a direct order to a starship. First, close the Explored Systems window. The scout at Phaeda has no destination, and is considered in orbit around the system. Click in the title bar of the Task Force Control window to make it active. Click on the destination location of the scout at Phaeda. Now click once at the bottom of the screen and you will see space scroll up one hex. Do that until the star Megrez is visible. Point at Megrez and click, you will see the Task Force window update the destination to say Megrez and give the distance to it as 7 hexes.

Note that while reviewing space you just click near the edge to scroll it, double click near the edge to move that hex to the center. Hold the button down for a continuous scroll. Clicking on a star will open the star display. Double clicks will open production and/or task force control windows for that system if valid.

Now select Auto Explore from the Control Menu to assign the other three scouts and Normal from the End Turn menu, or use their keyboard equivalents if you like. You will again be informed as each computer controlled empire has its turn and then you will see ship symbols moving around, including the arrival of your scout at Megrez.

#### Turn 3

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After pressing the Esesgee button to start your turn you will again see the production window open for Furud. It's time to start building a space armada to go and conquer the first alien you find. Type 1 and press enter. You have ordered one more industry factor to be built on Furud. Now point at the units column on the Mark 1 line and click. The field should highlight. Type in 12 and press enter. Choose End Production from the Production Menu. The beginnings of your star fleet are constructed and appear on the screen. Click on the bottom of the space screen to scroll Megrez up into view and click on Megrez to see what your scout there has discovered.

Look at the star system display; you have come across the Esesions home world! What a co-incidence! Your current fleet of 12 Mark I's is no match for the Esesions' PDB's at this time, and you have no invading troops, but that can be remedied over the next two production cycles. Again select Auto Explore and then End Turn Normal.

Turn 4

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This is a movement only turn and you will only be moving the scouts. First, select the Victory Conditions item to see how things are going. You will see that all the VP scores are very close. That's normal this early in the game. Select Auto Explore and End Turn Normal again.

#### Turn 5

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Production again. This time click on the Mark 1 field and type in 15. That will use up almost all of your resources; the few remaining may as well be saved for next turn so end production now.

Since you are planning an invasion of Megrez and it will take two turns for slow Mark 1's and Transports to reach there, it may be an idea to send one warship to spy on and harass the system, blocking the Esesions off from their global resource points. Select the New Task Force (TF) command from the Movement menu. Click on the Mark 1 field of the new task force and type 1. Select Full Map from the Control menu. You will now see the strategic

display of the game map. Your home system, Furud is highlighted. Find Megrez toward the top, right corner. Click on it and you will see the Mark 1 task force is assigned Megrez as a destination.

Once more select Auto Explore and Normal end turn. You may see brief moments of combat as other computer players fight amongst themselves. It's likely that one of your enemies just lost a scout to enemy action but you have no way of knowing for sure.

Turn 6

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Open the Task Forces display (Select it from the Status Menu). You will see the locations of your scouts, the 26 Mark 1's in orbit about Furud, and one Mark 1 In Flight to Megrez. The Mark 1 In Flight is still in hyperspace; it has not completed its voyage. You will not see it on the map and you cannot give it any new orders until it arrives at Megrez. For now, send your scouts off automatically and then pick End Turn Normal.

As the turn is executed you will be notified that your lone Mark 1 has arrived at Megrez and is in position to attack the planet. What you see is the Star System window for Megrez and the Task Force Control window for your lone Mark 1. One Mark 1 against all those planetary defense bases is not a good idea. It is better to hold off in orbit, blockading the planet so choose Cancel from the Attack Menu and allow the turn to finish executing.

Turn 7

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This production turn your Mark 1 at Megrez is causing the Esesions a few financial problems while you complete the construction of your grand fleet. Order the construction of 10 colonists and 14 Mark 1s and end production. You are now prepared to launch your invasion. Select the destination field on the TF Control window. Now begin to type in the name of the destination, Megrez. The computer will recognize the name before you finish typing and finish it off for you. All your ships should now be on their way to Megrez.

End the turn with automatic scout exploration and select Normal from the End Turn menu.

There is again the sound of laser fire but this time it's bad news. The combat window opens and you see that some newly constructed Esesion Mark 1s have just eliminated your Esegorean "peace mission". With your fleet on the way you know they must pay for this outrage! Press the Continue button on the combat screen to resume play.

Turn 8

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Select Task Forces from the status menu. You will see your fleet In Flight to Megrez. Their ETA shows they will arrive during the execution of this turn. Select Auto Explore and Normal end turn.

The moment you have been waiting for arrives; the combat screen opens and you see that your fleet's initial encounter was a success, the Esesions have lost their entire fleet! Press continue. Your ships are now poised to attack the defenses on the Esesion planet.

Form a new Task Force and allocate all your Mark 1's but none of your transports to it. The destination will be shown as the enemy Planet and the ETA will read Attack (ATK). Select Attack from the Attack Menu. You could

abort the attack by selecting cancel from the Attack Menu but you show no fear. Order the attack!

Notice that you are the only one with the option to withdraw as the Esession defence bases cannot flee. Victory is guaranteed so press continue until the PDBs are all eliminated.

You will then be given the option to bombard the planet. A good idea since you do not have enough troops to easily control a planet with such a large population, and you can get a few victory points for colony destruction. Choose the option and you will see any damage reflected in the star system display.

Now it is time to invade. You should send all ten transports down to plant your flag on alien soil. Type 10 in the invade window and hit the Drone button. Your flag is now planted on alien soil.

Turn 9

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A production turn. This time you may give production orders for the planet at Megrez as well. The best advice here is to create the maximum number of colonists at Megrez in order to reduce the population and, after production is over use the transports to colonize Megrez. This will add those transports to your current garrison and improve your control of the planet (Remember you need 1 garrison per 2 population to hold a conquered world securely). The Production Menu now has Prev Planet and Next Planet buttons highlighted to allow you to cycle through your planets.

Select Victory Conditions from the Status menu and you will see how many victory points you have gained from all this activity. You have now mastered the basics of Reach for the Stars. Plan on from here and enjoy the game!

4. THE GAME FUNCTIONS DESCRIBED

(a). Building Your Forces

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Resource points are the crux of the game. Throughout the game your planetary economies produce RPs; the better developed a planet is, the more RPs it will produce. The player who makes the most of the productive capacity of his planets will invariably win. Production occurs on every second turn of the game, beginning with turn 1. Each populated planet produces RPs according to the following formula.

$$\text{RPs} = (\text{popn} \times 2) + (\text{ind. cap} \times \text{soc level})$$

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16

Note that population in excess of the maximum population capacity for the planet do not contribute to this formula.

Each player is then presented with the production window which shows the production units ordered and resource points available for the current planet. Orders are given for each planet under the empire's control, including conquered planets, and no order is permanent until End Production is chosen.

RPs not consumed in a particular production phase are transferred to Global RPs and become available on subsequent production turns to other planets of

the empire. This represents interstellar trade and Global RPs earn interest at the rate of 6.25% per production phase.

The production order entry window gives a list of items that may be ordered. The first column, under Units, is where the number of units required are entered by the player. The column under the heading RP will show how many RPs that quantity will cost to manufacture. As RPs are spent, they are taken first from RPs produced on the planet this turn, then from Global RPs.

When enemy warships are present in a star system, the planets in that system are interdicted. This means there is a blockade on all interstellar trade to those planets so they have no access to Global RPs during the production phase.

The Production Window identifies the planet currently being given orders, shows available Global and Planet RPs. The GPP (Gross Planetary Product, the total RPs produced by this planet at the beginning of the turn) is shown in the star window. The total RPs spent on research and development since the beginning of the game are shown in the Technology option under the Status Menu.

The Next Planet/Prev Planet option under the Production Menu will cycle through all of the empire's planets. It will probably be easier to use the keyboard equivalents for these commands. When all planets have at least been inspected the End Production option will highlight. Choosing this will cause all production orders for your empire to be carried out and then place you into the movement routines.

The following items may be ordered for production. Note that the RPs necessary for Servicing Population and Maintaining PDBs are automatically entered by the computer. You may, of course, change these but you should be aware of the dire consequences of so doing.

Industry. Each unit of industry ordered will increase the planet's actual industrial capacity. The number of units that may be ordered is limited to the available RPs and the planet's industrial maximum.

Social Environment. The Social Env level is a factor in determining planetary RP production and population growth. If the Social Env is less than 40, the population will decrease, if greater than 40 then the population will increase. The social level will tend to move towards the Planetary Environment from turn to turn and may also be affected by riots, natural disasters and warfare. An uninhabited planet always has a social environment of 0.

Planetary Environment. The Planet Env strongly influences the level of the Social Env and thus, indirectly, production and population growth. Building up planetary environment may well be of greater value than continual investment in the more cheaply improved social level. Planet Env is only increased by ordering units in production but may be decreased by riots, natural disasters and warfare.

Service Popn. This represents the provision of consumer goods and services to your populations. Each unit of population serviced costs 1 RP. You cannot service more than the existing population but if you service less you may cause riots and unrest proportional to the extent of your tyranny. This will manifest itself in a lower birthrate, industrial sabotage and pollution of the environment, possibly reducing a once profitable economy

to a worthless junk-pile.

PDB Maint. Every PDB requires maintenance and will be eliminated without it. The cost is dependent on the current ship tech level.

PDB New. A Maximum of 4 PDBs may be constructed per turn for each planet. Again, the cost of a new PDB is determined by the current ship tech level. The maximum number of PDBs that may be constructed on each planet is 50.

Colonists. These are the population that are to be embarked on transports to become colonists or invading troops. The population unit and transport are constructed together and become inseparable until put down on a planet, at which time the transport is permanently destroyed. Up to 25% of a planet's population will be available for emigration each turn as well as all population in excess of the planet's population capacity. In combat, transports have no fire power but, if escorted by warships, will take on the defensive capability of the highest tech level warships present. Unescorted transports are sure to be atomized in droves during combat.

Other Starships. Scouts are unarmed, exploratory vessels, the Mark I through Mark IV series are warships with progressively greater offensive and defensive strengths as well as higher movement allowances. The total number of these ships that a planet may construct in a turn is limited to the current industrial capacity. Further more, Mark II to Mark IV warships cannot be constructed until the research and developments costs have been paid for the appropriate ship tech level.

Ship Tech. All players begin the game with the technology to produce Mark I warships. To reach Mark II technology, and thus be able to construct Mark II warships, an investment of 400 RPs is necessary. The computer keeps track of your installments and displays the accumulated amount in the Technology window under the Status Menu. The investment of a further 1000 RPs and 2000 RPs respectively, will develop Mark III and Mark IV technology. In addition to enabling the construction of better starships, ship development investment improves the fighting capability (and increases the cost) of all of your PDBs. Note that, regardless of technological development, the maximum rating for PDBs is a Mark III equivalent.

#### (b). Moving Your Ships

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Every turn you may give orders to some, none or all of your ships. They can form Task Forces and travel from star to star to colonize a planet orbiting their current star.

At the beginning of your turn all ships are unassigned. By double clicking on a star where you have ships, the Task Force Control window will open. The leftmost column displays a task force destination, the others detail the number of ships of each type present and the Estimated Time of Arrival at the destination. To get your ships moving you must form some or all of them into a task force and give it a destination. No orders given are permanent until you choose to end the turn.

Once a task force is IN-FLIGHT it is out of contact until the turn it arrives at its destination, so ships cannot be reassigned once they are on their way.

(c). The Task Force Controls

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The task force controls are found under the Movement Menu. Most have



keyboard equivalents. At the start of the turn the computer consolidates all ships present in the system into a single task force without a destination. This may be considered as the pool of ships from which you draw ships for your task forces.

Prev Star/Next Star. This will change the Task Force Control window to show ships about another star system. Repeated selection will eventually bring you full circle to the original system. y9ou may go to another system directly by double clicking on it.

New Task Force. This will create a new line in the Task Force Control window without ships or a destination. Ships are added to a new task force by moving the cursor to the appropriate column and typing in the number os ships desired. The ships will be subtracted from the pool and added to your new new task force. Do this for each type of ship that you wish to include.

A destination is specified by moving the cursor to the destination column. You may then click on a star or type the star name of your destination. Any task forces without a destination at the end of a turn are considered in orbit, and will be consolidated into the system pool for the next turn.

Reform. This will de-allocate the highlighted task force and return all its ships to the pool It will combine any existing task forces which are without destinations.

Colonize. If you have transport ships present these may be assigned to colonizing uninhabited planets or planets you won within the current star system. Colonize is found under the Movement Menu. Choosing it will open the Colonize Form window which allows you to select how many of your transports you wish to land on each planet.

When you press the Done button, the transports will be placed in a task force for each planet specified with a destination of "Colonize". This is also a method for adding to a garrison on a conquered planet as all colonists put down on such a planet automatically join the garrison.

The Task Force Control window will also show the presence of enemy task forces over your system. These will be highlighted and their destination will read "Enemy". Regrettably, it si not possible to edit an enemy task force.

#### (d). Starship Battles

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(i). Ship to Ship

Whenever ships belonging to different empires are in the same star system and at least one warship is present (Mars Is through Mark IVs), then a round of combat will occur.

Scouts are automatically wiped out on encountering enemy warships and no combat report is given other than to quickly highlight the star where the battle took place and bring you the sound of atomizing metal as the scout is vaporized.

If ships other than scouts are involved and any of the controlling players are human the combat screen will open. For each player it shows how many of each type of ship are still operational under the OP heading and how many ships were destroyed last round under the KIA heading.

At this point players may elect to withdraw some or all of their ships by pressing the appropriate withdraw button. This will enter the normal ship movement system. You are not forced to withdraw all of your ships at once or in the same TF. Once you close the Task Force Control window the Combat screen will then be re-opened. You may continue combat by pressing the Continue button or make further withdrawals. Withdrawn ships move normally to their next destination in the next movement phase.

The winner of a ship to ship combat (i.e. the last player to have ships left in the star system) will receive victory points for all destroyed enemy ships. If you withdraw from a combat, or are eliminated, you receive no points for any ships you may have killed.

The combat system is heavily weighed in favor of the side with the most ships, assuming equal ship types. A fight between a force of 100 ships and one of 75 fought to the finish, should result in the extinction of the 75, with losses of about 50 to 60 for the larger side.

(ii). Ship to Planet

When warships are in a star system containing one or more enemy planets and no enemy ships are present, they may attack enemy planets. The player will be presented with a display of the star system and a window similar to the Task Force Control window. The attack may be canceled by selecting Cancel from the Attack Menu.

For attacks on more than one planet in the same star system, all Task Forces must be assigned to those attacks before selecting Attack from the menu.

If proceeding with the attack, warships are formed into Task Forces in the normal manner. A default target planet is indicated. If there are several planets that may be attacked use the Prev Planet/Next Planet item in the Attack Menu to select the target world.

To initiate all attacks in a star system, choose Attack from the Attack Menu. The Combat window will open in turn for each attack. The planetary defence bases will appear as warships of the appropriate level and combat proceeds as normal, although only the attacking ships may withdraw.

If all the PDBs are wiped out, the attacking warships may then bombard the planet for one round in an attempt to damage industry and reduce the population. Victory points are awarded for colony destruction.

(e). Conquering Worlds

Colonies undefeated by PDBs may be invaded if transport ships are present. The Invade window (similar to the Colonize Form window) will open. Enter the number of transports you wish to use as storm troopers for each valid planet and then press Done. Invasion takes place immediately.

Conquered planets are important both in terms of the additional RP production and the victory points awarded. To keep hold of a conquered planet, a garrison equal in size to at least half the population is required. That garrison then acts as PDBs in defense of the planet. If the garrison is not large enough you will see the rebellion marker in the star system display and the planet will suffer a loss of PDBs due to guerilla activity. If for any reason the PDB garrison is reduced to zero the population has successfully rebelled and the planet rejoins its original

empire.

Transports built on a conquered planet are identical to your own transports.

5. VICTORY CONDITIONS

Each player's performance throughout the game is assessed by the accumulation of victory points. There are four categories for which victory points are awarded, namely colony development, starship battles, planetary conquest and colony destruction. Appendix A details the exact point awards. The computer keeps a running total of the VPs awarded to each player and this total may be reviewed by calling up the victory point display.

At the end of every game, the computer will break in with the final compilation of VPs and declare the winner. You have the option of continuing the game which will extend it for another 100 turns. This means the game could be extended indefinitely for those of you with a desire to try and colonize every planet.

Overwhelming Victory occurs if, at any time, one player's VP total is greater than all other players combined (If variable victory conditions are in effect this means the true VP totals, not the displayed ones).

6. SAVING GAMES

Games may be easily saved to any disk using the standard file saving system, simply select Save As... from the File menu, fill in the name you wish to save the game under, and follow the instructions in the window.

If the game has been previously saved or was loaded from disk you may also pick the Save option from the menu which automatically saves the game to its file without asking any questions.

Loading a saved game is just as simple, Select Restore Game.. from the file menu. This may be done either from the start up screen or while another game is in progress. A dialogue box appears with instructions. The game will return to the same turn in which it was saved, allow any human players who had not finished their turns to enter orders and then proceed as normal.

7. THE MENU BAR

(a). Control

Full Map. This item will open the strategic map. It indicates your colonies as solid markers and other stars as open markers. It also indicates the presence of ships in the correct corner of the marker for the owning player, starting with player one at top left and then moving clockwise through to player four at bottom left (The same order as used for displaying icons on the space screen and locating combat reports in the combat display).

Auto Explore. Upon choosing this item all currently unassigned scout ships will be placed into individual task forces and given an unexplored star as a destination. The auto explore feature is then disabled until your next turn. The choices made are, as usual, not permanent. You may go to the newly created task forces and alter their destinations or reform them if you wish.

(b). Status

Victory Conditions. This will open the victory point display. It shows the VPs accumulated by each player for each of the four categories and the total of these. It also shows the true victory points for your empire under the normal VP line for your empire. When the variable victory point rules are not in effect, the true VP total will be the same as the one shown. When the game ends this screen is displayed with all player's true victory points visible.

Explored Systems. The explored systems list allows you to review all the star systems with details for all planets in systems that have been explored, with the normal visibility restrictions.

Task Forces. A list of all unassigned ships and formed task forces is given showing the number of each ship type present, their location, destination (if any) and ETA to that destination.

Technology. This item shows current spending on technologies, with the RPs left to the next tech level.

Options. This menu item will open the options display to show you what options are currently in effect and the movement and production costs of all elements in the game.

Production Costs. This item shows the production costs of all elements in the game.

Movement Points. Shows the movement points of all ships in the game.

(c). Production

Advice. This enters the computer's figures for what it would produce this turn. You can easily edit this, so it is recommended that you check this from time to time when you are still learning the game, especially in the early game turns.

Next Planet/Previous Planet. Moves you forward or back along the list of planets for which you have production.

End Production. Causes all your decisions to be implemented and advances you to the movement phase. There is no going back, so the command is not active until all planets have at least been inspected.

(d). Movement

New Task Force. Creates a new task force entry in the Task Force Control window. You may create as many empty task forces as you wish using this command and fill in the details in the Task Force Control window.

Next Star/Previous Star. Moves you forward or back along the list of systems at which you have ships.

Reform. De-allocates the current Task Force and returns all ships to the pool. All Task Forces without a destination are consolidated.

Colonize. Brings up a colonize window which allows selection of the target planet and the number of colonists. Transports in a Task Force which has a

destination other than the current system are not eligible for colonization.

(e). End Turn

Normal. This ends your turn and allows other players to enter their orders. Once this is selected you may make no further changes until next turn.

Automatic. This item also ends the turn but before doing so the computer will give any production orders that seem necessary, if the production phase is still in effect, and will give move orders to any unassigned ships that it feels should be moved or assigned to colonization. In effect you may play as a computer player by choosing this item without giving any orders in your turn, or use it to take care of trivial details you are not concerned with.

PART TWO

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### THE GAME OPTIONS

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1. BASIC OPTIONS

Tutorial. Selecting the tutorial option causes the random number component of the game to follow a predictable sequence. This means that once the game is started, if you perform precisely the same actions each time you will get precisely the same results. The tutorial game in Chapter 3 uses this option. If playing with the Tutorial option on you must enter items exactly as they are listed in the example. The results of not doing so are unpredictable.

Novas. This option allows stars to become unstable and means that a few of them will probably go nova in the course of a game. The risk becomes greater as the higher starship technologies are achieved because of their effect on the fabric of time-space. You will usually get some notice of the impending disaster in the star system display and you will be permitted to emigrate most of your population. In addition there is a chance that the star's outer atmosphere will restabilize and the star will revert to normal.

If the star does go nova all planets and ships in the system are obliterated and any ships dropping in from hyperspace in this system on subsequent turns will meet a similar fate.

Natural Disasters. Plague, earthquakes, pollution and other natural and technological disasters can visit a planet in the course of a thousand years. At any time a disaster may hit a planet, damaging population, industry and environment. Plague may linger on a planet for two or three generations.

When a planet has suffered from a disaster the type of disaster is indicated on the star system display.

Xenophobes. Xenophobes are a miasmatic life form which drift in clouds from system to system. Their effect on all known forms of life is to cause extreme xenophobia and interstellar trade with such infested star systems becomes impossible; the planets are, in effect, interdicted. Furthermore, combat in such a system results in a battle frenzy of unparalleled proportions, and losses from combat are greatly increased.

Xenophobes can not be attacked or manipulated in any way. They may be seen in deep space as well as in a star system, but have no effect there.

Solar Debris. Solar debris hexes represent navigational hazards and limit faster than light travel. Whenever a task force enters such a hex it will end its move immediately and continue on next turn.

Random Star Map. The 54 star systems will be scattered about the galaxy. A challenging alternative with the advanced rules since it produces interesting territorial problems in conjunction with the navigation limits.

Task Force Setup. Rather than begin the game established on a planet, each player begins randomly in orbit about a star with no habitable planets. The players each have a fleet of 4 Mark Is, 4 scouts and 60 transports, as well as 400 Global RPs that will become available when there is a colony to use them.

Note that this option is not compatible with the Advanced Scenario option.

Automatic Scout Movement. At the beginning of every player's move phase all scouts will automatically be assigned destinations. This option can really speed up the game. Note that there are no scouts in the Advanced Game.

Hidden Victory Conditions. This will make the Victory display inaccessible until the game is over so everyone is in the dark as to how well they are doing.

2. ADVANCED OPTIONS

Enhanced Veterans. If you ever feel that the computer veteran players aren't presenting you with enough of a challenge try a game or two with these good 'ole boys. Remember, find them early and clobber them or you could be in for a resounding defeat!

Variable Victory Conditions. The actual VPs awarded for the various goals do not change with this option. Rather a multiplier is introduced to allow each player to emphasize some goals at the cost of others. During a normal games the VPs for all four categories have a multiplier of two. You may change any or all of these multipliers as long as the total is equal to eight and no multiplier is reduced below one.

When this option is selected the Victory Conditions button becomes active. Press it and then each human player selects the VP Adjust window by pressing the button for their empire.

Slide the VP multipliers back and forth and you will see that you may only press Done when the total is eight. The computer will assign multipliers for its players without needing access to these windows.

During the game a player will always see his own multipliers and true VP total on the Victory Condition display but must wait until the game is over to see those of the other players.

THE ADVANCED SCENARIO

Selecting this option will cause a number of additions and changes to the normal game mechanics and options. It is recommended that you play a few games with the normal rules before trying these. Here are the changes.

Armies. Each planet may now support an army, drawn from the population during production. The army comes from the same pool of population as colonists so every population put in transport will reduce those available for recruitment and vice versa. Up to one eighth of the population will be available for colonization and recruitment. The army will appear as a value to the right of the PDB value on the star system display.

Armies must be maintained but this is no longer true of PDBs, instead 1 army unit is required in order to support every 2 PDBs.

When a planet is invaded the landing troops must now fight and defeat the local army in the combat system before the planet is conquered. If successful the invading troops become a local garrison.

PDBs. The maximum number of new PDBs that may be purchased during production is altered to one eighth of the planet's industry level. PDBs are not maintained and their production cost is fixed independent of current Ship Tech level. There is no maximum to the number of PDBs that may be constructed, provided they are supported. PDBs will fight at the current ship tech level.

Navigation Technology. Each empire has a maximum navigation range based on the current navigation tech level. All players start at Nav Tech 1. This means that no ship can be given a destination outside of navigation range from a friendly colony. When assigning a destination to a task force stars that cannot be reached are highlighted, on the strategic map their names are blanked out. RPs may be allocated to R&D for Nav Tech just as with Ship Tech. Each new level of Nav Tech increases the radius from 3 to 4, then 5 and finally 7. All computer players get a bonus of one hex to their navigation range at each new Nav Tech level except level four.

Industrial Technology. Each empire begins with an Ind Tech level of 1. RPs may be allocated to R&D for Ind Tech just as with Ship Tech. Each level of industrial technology gives planets in the empire a bonus to their GPP (Gross Planetary Product). This can be very important due to the high production costs with the advanced rules. The bonus at each tech level is; 2 - 25%, 3 - 50%, 4 - 100%.

Overpopulation. There is no overpopulation in the advanced scenario. At the end of each turn excess population are simply removed. Excess population may be placed in transports during the production phase as with the basic game but it is no longer an urgent problem.

Servicing the Population. The cost of providing consumer goods to the population increases as the social environment gets higher. For a Soc Env of 0 to 60 the service cost is still only 1 RP/Population, for 61 to 75 it becomes 2 RP/Population, for 76 to 90 it is 3 RPs and for 91 and higher it becomes 4 RPs.

Conquered Planets. These become much harder to maintain, here are the changes.

To hold on to a conquered planet you must maintain an army equal to at least once quarter of the population. You may not recruit conquered population into this army but must land more troops if you do not have sufficient for a garrison.

The following items have their production cost doubled on conquered planets; Industry, PDBs, starships, social and planetary environment, army

maintenance, Ship and Nav technology.

Conquered planets may not contribute to Ind Tech R&D.

Planet Improvement. Once a planet's social and planetary environments are both at 80 or higher the planet's maximum population and industry both begin to increase. This is more likely for primary class planets and becomes less likely in order for secondary, tertiary and hostile planets. The ultimate maximum for Population and Environment is 100, and for Industry is 200.

Production Costs. Many of these are altered. Consult the variable production cost screen with the advanced rules option turned on to see the full list or consult Appendix A. Be warned that major changes to the production costs can have a profound on the game. There is no interest on saved RPs in the advanced game.

VARYING THE PRODUCTION COSTS

Just press the button and you will be presented with a window with slide controls for the level of RP expenditure for the production items. Experiment with changing these and record combinations that you find satisfying.

VARYING THE MOVEMENT FACTORS

Again, just press the button to get a window with slide controls for the different ship class movement allowances. Remember that the game is often limited to the speed of the transport vessels, so a game with 1 MP for transports will be very long...and very interesting!

3. WINNING STRATEGIES

PREPARATION

It is useful to have a copy of the map on which to scribble notes and make plans. Your computer may also have a screen dump or print function.

If playing with other humans then it is never too early to begin making treaties, secret or otherwise, planning double crosses and playing Machiavelli in general.

THE BASIC GAME

The first key to the economics of the basic game is population control. Each point of population produces 2 RPs but costs 1 RP to maintain for a net gain of 1 RP per point of population. The rate of population growth increases with Social Level and also with the absolute population level. Social Level is one of the main determinants of RP production so it has to be made as high as possible. The problem is that your subjects respond to the good life by breeding like rabbits, leading to the disaster of over-population.

The only solutions are to ship 'volunteers' off planet or to not maintain your population. It is possible to create enough transports in each production turn to get rid of excess population, however each transport costs 10 RPs, so unless your pioneers are actually needed for starting another colony, this procedure is wasteful of RPs. Your initial colony will start with a population of 50 and should not be allowed to rise too much

above this level. Some players like to keep the population even lower.

The act of not maintaining your population is a desperate one. The ungrateful populace will riot, reducing industry and social level and possibly (hopefully) killing some of themselves off in the process. If economic circumstances are such that you must deny your subjects some of the necessities of life, keep the shortfall small. A large deficit could see the population go ape and the planet back in the stone age.

Once you've sorted out your home world, it's time to deal with the rest of the universe. You should have had your explorers scouting out likely spots. You want something with a reasonable industry and environment that is not too far away. Soon after starting your second colony you should think about moving to Mark II technology, something you should achieve around turn 20.

In order to have the luxury of continuing to run an economy, you will need a long term military plan. This will depend on the type of opponent you are facing. We will describe the behaviour of veterans, as the others are lesser opponents. In fact beginners deliberately make mistakes, in order to make themselves easier to beat.

Veterans work from a hate index. All veterans hate human players simply because they exist (for which you can't blame them). They also hate any player who takes a colony from them (very sensible) and the player coming first (quite human really).

If you are a human player, coming first, who takes a colony from a veteran, you have just guaranteed retribution. In such circumstances, veteran computer players will hunt you down mercilessly.

Conceivably you could do this to more than one computer player. This is what we call a high risk (or certain death!) option. The best way to win is to come from behind.

Sometimes the burden of choosing an opponent will be lifted from you, as an invasion fleet pays a courtesy call. Sometimes you might be left alone for a while but, as Clark Kent continually discovers, being inoffensive yourself is no guarantee of a peaceful existence. Choice of opponents is an art and depends on a number of factors.

Your first task is to locate them. The disappearance of explorers as they are vaporized by real warships over a star system is one clue. As your economy progresses you can start sending MK Is on lone recon missions.

These will force a real space battle and at least reveal the number of enemy ships before they are valiantly but inevitably reduced to their component atoms. If there are no enemy warships you will get a report on the star system and interdict it, cutting it off from all Global RPs. (This is why you should always maintain a standing patrol over all of your planets).

There are many other ways to find the enemy. The location of space battles between other players should always be noted, as there is almost certainly a colony there.

Finding home planets is not difficult if you take into account the start-up conditions. All players, computer or human, start on a system with one and only one planet, relatively high population and industry between 30 and 45. There are not too many systems in the universe that will fit the bill. Simply send a MK 1 to all of the candidates and observe the results.

If the enemy is maintaining a space patrol you will still not see the planet but will force a battle. If you are using Auto Explore then by Turn 20 all of the galaxy should have been explored. The only stars not explored are probably those pulverizing your scouts. This calls for a reconnaissance in force.

When it comes to space battles, the overwhelmingly important principle is that of concentration. As the range of warships increases markedly at higher technologies it becomes impossible to defend all parts of your empire at all times. Your opponents will simply concentrate and crush your detachments. You cannot stop this. You must be able to respond in kind or you are doomed.

The basic game moves very quickly so all actions must be adjusted to the game length. The usually winner in a basic game against three veterans keeps out of trouble for as long as possible, building an economic base. He then comes from behind in a withering burst, gaining enough points to leap into the lead just at the very end of the game. Sometimes this can be done at the expense of the weakest of the computer players, who may have already suffered at the hands of the others.

THE ADVANCED GAME

The Advanced Game has a slower and more strategic feel. The restrictions on movement and the higher production costs combine to make a game where position is much more important. Moreover, the new rules for PDBs and Armies mean that planets can be made much more resistant to attack.

Classic Opening. Resource points are, as always, the key to winning the game. In the advanced game a problem occurs as the planet's social environment climbs, increasing the cost for maintaining your population. As a result it is important that you do not spend RPs to increase the planet's social level, as it will drift up towards the planetary environment anyway. Your first priority is to increase industrial technology as early as possible to level two and to maximize the planet's industry.

After reaching the second level of industrial technology, increase the planetary environment to 85 or 80. The social environment will again climb towards this new level although you may choose to push it along a bit. Once both the social and planetary environments cross the 80 mark the planet's industrial capacity will begin to increase and you will rapidly climb out of the "resource hole".

Note that once you start paying three or more resource points per population your inhabitants are consuming more RPs than they produce in the RP formula.

At most, build one Mark I for initial exploration purposes. This should be delayed until turn ten. The cost of such a vessel whilst still struggling with your initial resource problems can be prohibitive.

The Trout Variant. This variation on the Classic Opening involves eliminating your initial planetary army on the first production round. This means you will also lose the twelve PDBs that the army is supporting. The advantage is that you save on the army's maintenance cost (four RPs apiece) at an early stage of the game, giving you that extra edge on initial development. It is unlikely that you will find yourself in need of planetary defenses until turn 20 or later in the advanced game, due to the

navigation limitation placed on space travel.

Gilligan's Island. Once in a while you may begin a game in a star system that has no neighbors within range for navigation technology one. Don't Panic! This is an excellent position from which to use the Trout Variant with a Classic Opening, based on the assumption that if you can't get to them, they can't get to you. Do be aware of the fact that computer players, presumably through the employment of fiendish cybernetic technology, have a one hex bonus on all Nav Tech levels except level four. Once you have acquired the second level of industrial technology, switch your R&D efforts to attaining navigation technology two.

The Bell Colonization Technique. When picking early colonization targets, consider the fact that population becomes a drag on economy. It is often best to choose a planet that has a population capacity of between 15 and 20 with a high industrial capacity.

A planetary environment as low as 35 will suffice, as long as you land with enough global resource points allotted to increase this to a minimum of 40, give a quick boost to the social environment and perhaps some initial industrial development. Unless you wish to force the population or industrial capacity up, by going over 80 in both social and planetary environments, do not increase the planetary environment above 59. Your social level will then remain low enough so as not to increase your population consumption requirements.

The Picket Play. Unlike basic Reach for the Stars there is a great emphasis on territory, based on navigation range and colony location. This means it is possible to place patrol ships in a cloud about your own territory that can detect and perhaps repel alien interlopers. This is achieved by placing one or two Mark I vessels about each star system within range. If any aliens wish to colonize in your region of space, or build up for an attack on one of your worlds, you are then likely to know about it.

Beware, the cost in setting up your picket is minimal once you have three or four planets fully industrialized but setting up a picket early in the game can be detrimental to your economic foundation.

A more complicated variation on this is to create patrol squadrons of around six ships, each squadron moving continuously around three star systems assigned to it. This requires much more administration on your part but such patrols are more effective when they come across enemy fleets.

Fortress Whiley. The object of this game play is to determine where your nearest opponents are and then colonize away from them. The planets closest to your opponents, initially your oldest worlds and later in the game worlds around the edge of your empire, become fortress planets, heavily armoured and patrolled while your inner worlds may be significantly free of defence spending. Thus your inner worlds become efficient RP producers that subsidize all your other colonization and conquest efforts.

The danger with this strategy is the potential for an alien break through when one of your fortress worlds is conquered, allowing a strike into the soft interior. Be prepared for this and respond quickly if it occurs. The premise behind this strategy is that the RPs saved by not fortifying all planets will allow a larger space navy to be built when your system is finally threatened.

The Isolationist. Occasionally it is possible to avoid contact with other

players for a considerable time. You may then choose to "lay low" for a while, colonizing and building up your space fleets whilst keeping an eye on the victory points.

There is a danger that your opponents, having found each other will generate huge victory points by going to war, and will quickly outdistance you, so timing and control is important. When playing computer opponents especially, the idea is to keep your own victory points from placing you in the first place position until you are ready to make a major push from which you hope your opponents will not have time to recover. This will often involve knowing where your opponents have their best worlds and leaving them alone for some time, watching them across the gulf of space with envious eyes, and slowly but surely drawing your plans against them.

A Note on Invasions. To successfully invade a planet you must have enough ships to survive all four stages of such a task. First you must defeat any space fleet in the star system. This will result in losses to your warships and transports. Secondly you must defeat the planetary defense bases. This will only involve warship losses and these ships are not needed after this.

It may be an idea to hold back a few ships to ensure cover for the planet if you succeed, and interdict vessels if you fail. Thirdly, you must invade the planet with your transports and overcome the native army. This will involve losses in the troops that you will need for the final stage.

Once the enemy army is defeated you must have enough remaining troops to hold the planet's population in check.

Such a conquered colony can be hard to hold. Be prepared to send back-up colonists to the planet to increase the garrison because you can't conscript the locals.

In general you want slightly more warships than the expected number of PDBs and a number of transports greater than the defending army size plus one quarter of the planet's population.

Note, also, that to rescue your own planet from the clutches of some conquering space slime you will need not only to wipe out any PDBs they may have built but also land troops to take on their garrison (You may just bombard the planet from space but you are more likely to decimate your own population than damage the conquering garrison).

The End Game. As that last turn approaches you may already know whether you have won or lost. It is only when the points are close that you can do much about the outcome. Remember, now is the time for the Isolationist to strike, beware, look to consolidating and holding what you have got if you are the winner, consider mad and ambitious schemes worthy of Ming The Merciless if you are not.

The Long Game. 150 turns is the maximum game length that you may select when playing Reach for the Stars but there is no theoretical limit on the number of turns you may play by striking the continue game button on the last turn. Many of the game testers have found it enjoyable to set themselves the task of eliminating all opposition and colonizing the entire universe. When playing against computer opponents, if you are at least holding your own by turn 150 you will probably succeed in an indefinite length game.

When playing the Long Game the game itself becomes more of a lifestyle than

a pastime, one game on record having gone on for several weeks, up to a record 405 turns, before victory was assured. Try it....you'll love it.

4. WHO'S DONE WHAT?

Reach for the Stars is the first game published by Roger Keating and myself; back in the days when SSG was just Roger and I...and whichever of our luckless friends we could rope in for some help.

Now, some five years and two major revisions later, the game is still going strong. This third edition has been mulling around in our heads for nearly two years. A lot of things have been done to make it more enjoyable than its predecessors.

The advanced scenario is a demanding test of your ability to manage and develop a dynamic economy in a galaxy where space is at a premium, budget surpluses seem impossible to generate and your populations grow ever more greedy as the years go by. It's almost a relief to build a few warships and embark on a simple head-kicking mission.

One thing for certain. The advanced scenario has had plenty of testing. It's addictive! The superior graphics ability of the larger machines and their friendlier interfaces make the Amiga, IIgs and MacIntosh versions a delight to play. IBM users, especially in EGA mode, will enjoy most of these advantages.

For Apple II and C64/128 users, the interface has been radically improved, speeding up game play considerably.

No matter which computer type you own, you're in for a treat.

Some very talented people have worked with us on the conversions.

Danny Stevens created the Macintosh version as well as providing the C code for the Amiga, IBM ad IIgs versions.

Mark Twigg created the Amiga version.

Alan Bell created the IIgs version.

Gregor Whiley had the invidious job of co-ordinating the project.

Roger and I did the work on the Apple II and C64/128 revisions.

APPENDIX A

Advanced Scenario Development Costs

Industrial Capacity	10	Planetary Envir. Inc.	10
Transports	25	Mark II Tech.	+700
Mark I Starships	40	Mark III Tech	+2,000
Mark II Starships	90	Mark IV Tech	+5,000
Mark III Starships	200	Nav II Tech.	+400
Mark IV Starships	500	Nav III Tech.	+1,500
PDBs	50	Nav IV Tech.	+4,000
Armies	12	Indust II Tech.	+500
Army Maint.	4	Indust III Tech.	+1,800
Social Level Inc.	4	Indust IV Tech.	+6,500

Victory Point Awards

Colony Development

Each player receives 1 VP for every 16 population and industrial units on controlled native planets. These points are awarded every turn.

Starship Battles

Only the winner of a battle receives VPs for destroying enemy ships.

Transports=10, Mk Is=4, Mk IIs=8, Mk IIIs=12, Mk IVs=20.

Planetary Conquest

Each player receives 1 VP for every 4 population, 8 industrial units and 16 garrisons on conquered enemy planets. These points are awarded every turn.

Colony Destruction

Each player receives 4 VPs for the destruction of each unit of enemy population, industry and occupying garrison.

Distribution of Planet Types

Spectral Class	Planet Type (%)			
	Prim.	Sec.	Tert.	Host.
B Class	2	13	37	48
F Class	19	25	13	43
G Class	55	13	13	19
K Class	13	31	19	37
M Class	7	10	37	37

Planetary Characteristics

Planetary Charac.	Planet Type			
	Prim.	Sec.	Tert.	Host.
Population	70-100	40-80	20-50	20-30
Industry	25-60	25-70	25-80	25-100
Environment	55-100	30-80	10-55	5-20

Standard Scenario

Production Costs

Item	RP
~~~~~	~~~~~
Industrial Capacity	10

Explorers		3
Transports	5	
Mark I Starships	14	
Mark II Starships	30	
Mark III Starships	80	
Mark IV Starships	120	
Planetary Defense Bases	4/8/16*	
Defense Base Maintenance	1/2/2*	
Social Level Increment	4	
Planetary Environment Increment	8	

* Cost per item at Starship Levels I-III respectively

#### Development Costs

Mark II Technology	+400
Mark III Technology	+1,000
Mark IV Technology	+2,000

#### Movement Allowances

Explorers		10
Transports	5	
Mark I Starships	5	
Mark II Starships	8	
Mark III Starships	12	
Mark IV Starships	17	

### Reach for the Stars (3rd Ed.)

#### Amiga Version Operating Instructions

**System Requirements.** Reach for the Stars requires an Amiga with Kickstart 1.2 and 512K of memory. Reach for the Stars should work normally with other multi-tasking programs but at least 1 Megabyte of memory will be required to run Reach for the Stars in conjunction with another substantial program.

**Backup and Hard Disk Install.** Reach for the Stars is not copy protected. Floppy Disk users should use the normal Workbench disk copying procedures to make a backup of the program disk. Do not use the original disk for game playing.

**Hard disk users** should copy the contents of the RFTS/ directory to a single directory on their hard disk. There are three files, RFTS, RFTS.PIC and RFTS.SND, which must all be located in the same directory.

**Startup.** Reach for the Stars will appear on the program disk as a normal Workbench icon and can be started by double-clicking the Reach For the Stars icon.

**Loading and Saving Games.** Reach for the Stars uses the standard Amiga file requestors to load and save games. Games can be saved to the copy of the program disk but it will not have much free space. If using a separate save game disk, it must be initialized before starting the game.

**Graphics Dump.** The Graphic Dump command under the File menu will attempt to print the current screen contents. This requires that you have a graphics capable printer and the appropriate printer driver. The driver must be installed on the Reach for the Stars disk using the Preferences program.

