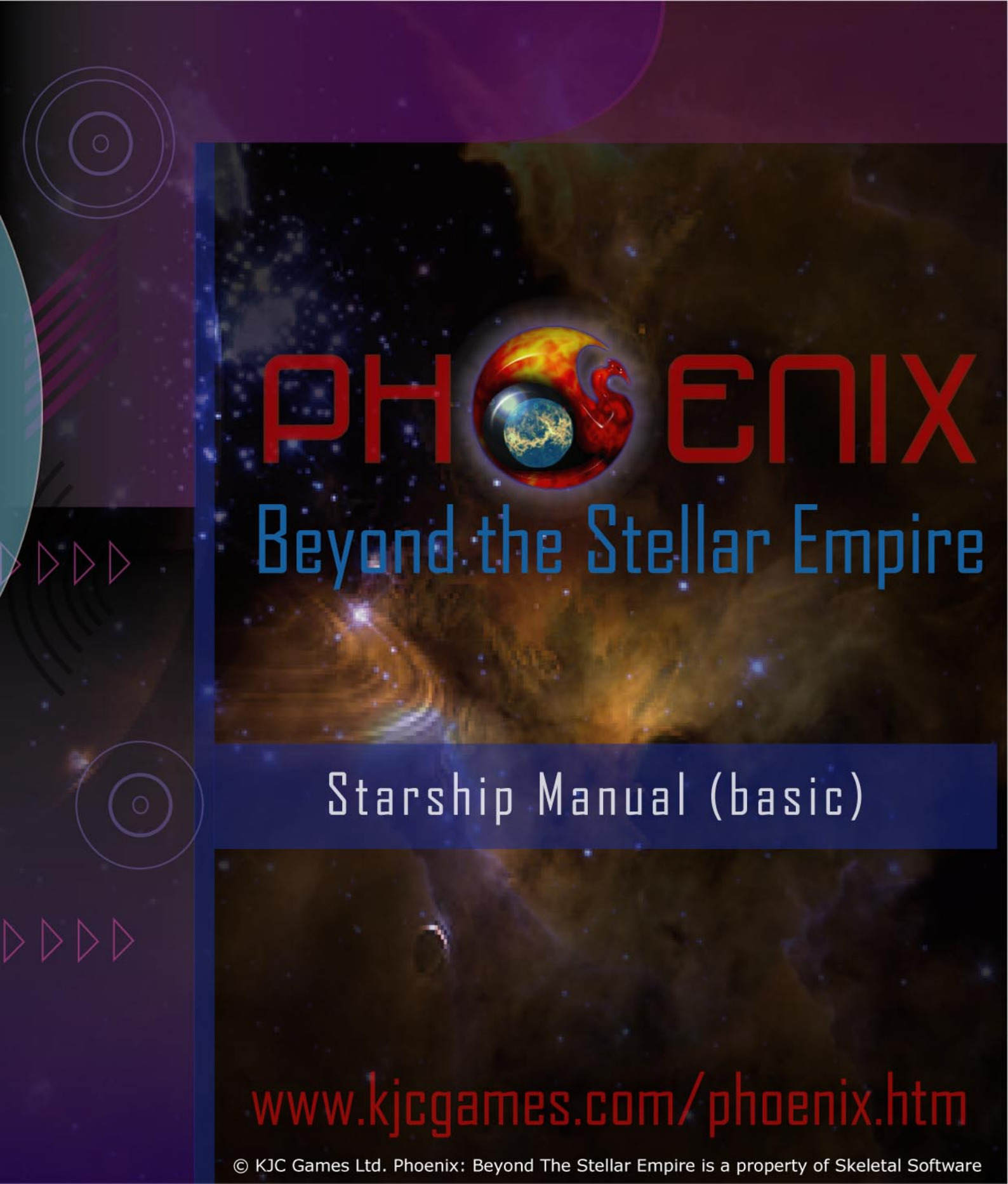

Starships

Starships are vessels capable of travelling through space and even reaching distant stars. There are many different ship specifications reflecting the job they have been designed for. The typical roles they perform range from transport of goods for trading, to exploration of new worlds, to combat. A merchant ship will have many cargo bays while an exploration vessel will have sensors and exploration modules. Warships will be packed with weapons and armour. Travelling through space, trading, exploring and virtually all other actions require time to complete. While certain actions take a set amount of time, such as visiting maintenance complexes, the time requirement for other actions is based on the design of the ship and the type of action performed. Having more thrust engines will increase take-off speed for example.

Time

1 Week has 5 Days. 1 Day equals 60 TU's (roughly equal to 45 standard hours) All actions performed by a ship require time. The amount of time required is measured in Time Units (TU's). A ship can have a maximum of 300 TU's at any one time. The current amount will increase by 60 TU's per day. When orders are sent in, a ship will perform actions until it has no more TU's remaining. Any actions still outstanding will be listed as **pending orders**. These pending orders will not be checked until either the ship has accumulated 300 TU's, or a new batch of orders is sent in.

System Co-ordinates

A system is the region of space around a star. This is broken down into orbital rings. There are 15 in a system, 1 being the inner one and 15 being the outer one. A system in also split into 4 quadrants, alpha, beta, gamma and delta. This gives a total of 60 (=4*15) locations, each being referenced by their orbital ring number and its quadrant. Each location is therefore referred to as an **orbital quadrant**, e.g. Alpha 6 is the sixth orbital ring in the alpha quadrant of the system. Orbital quadrants are not defined by a specific size, but rather the amount of time it takes to travel through the system.

Moving through Space

There are three types of movement that a ship can undertake:
1.Moving to a new star system (Jumping). This uses a jump drive. As long as the destination system is less than 4 jump links away, a single jump can be used. If it is further than 4 jump links, multiple jumps (into intermediate systems) will be necessary. In order to jump successfully, a ship needs to be in at least the10th Orbital Ring. If the ship is not, it will move out automatically before jumping
2.Moving through a star system. Moving directly in or out (across orbital rings) requires time equal to the rating of the ship's ISR drive (1 being the fastest, 4 the slowest). Crossing quadrants requires this rating multiplied by the orbital number the ship is in. The ship will automatically take the route that costs the least TU's overall. If a different route is desired, two or more movement orders need to be used, to fix waypoints.
3.Movement close to planets. The Navigation Report lists the TU's required for landing and taking off from worlds. Leaving orbit costs the same as entering orbit. The ship can only land on worlds if the Manoeuvre Speed is equal to or larger than the world gravity rating (but see Docking).

Ship Configuration

Most of the report should be fairly obvious or is probably not needed in order to begin with.

Command Report

While ships do not need a ranking officer having one will be beneficial in times of trouble.
***Hulls** - size of ship. Type determines internal capacity and damage resistance.*
Xlight: 90mu per hull, but very weak
Light: 70mu per hull. Weak.
Normal: 50mu per hull Reasonable
Heavy: 30mu per hull Excellent

Heavier hulls can also utilise more armour and are less affected by wear and tear.

***Integrity** - condition of the ship. Standard wear and tear reduces integrity. Receiving hull damage when integrity is low can result in the destruction of the ship. Hull integrity will drop if the internal configuration of the ship is altered, but can be restored back to 100% by visiting maintenance complexes.*

Navigation Report

Sensors - chance of scanning a position with a 100% profile if it is within sensor range.

Crew Report

Anyone capable of aiding in the running of the ship is listed here. Each person is paid 1 stellar per week. As troops provide varying crew factors each, it is obvious that veteran crew are the best value for money.
***Mercenaries, Soldiers, Startroopers & Scouts**: 1 factor*
***Veterans of the above**: 2 factors*
***Marines**: 2 factors*
***Veteran Marines & Crew**: 4 factors*
***Veteran Crew**: 8 factors*

Cargo Report

Lists cargo space capabilities and current loads.

Space Combat Report & Enemy Reports

There is too much to cover here, see combat document.

Efficiency

If the ship's efficiency is less than 100% (generally due to lack of crew) all time requirements will be proportionately increased, i.e. 50% efficiency equates to double TU costs to all actions. **If the efficiency is zero, the ship cannot perform any actions.** Items such as crew will have to be delivered to the ship in order to increase the efficiency.

Items

All items have a mass (measured in Mass Units, or **mu's**). These items can be functional parts of the ship, cargo or crew. Functional items on a ship are those that are installed, the hulls themselves and the armour coating the hulls. Functional items require crew to operate them. This is called their crew factor cost. Mercenaries and other troops provide crew factors. Cargo space indicates how much space is available. Certain cargo can only be placed in specific types of storage facility. For example, living things can only be carried is there is sufficient life support. Specialised holds exist allowing for either more efficient storage of goods (such as minerals in ore bays), or to perform a specific task, such as fighter bays (used for the launching of space fighters).

Installed and Cargo

While the same item can exist in both the cargo and installed section of the ship, items in cargo cannot be used by the ship. Therefore carrying weapons and shields in the cargo section will not be of any use should the ship be attacked. Removing items that have been installed in the ship can be achieved either by destroying the item, or keeping the item intact. The latter option reduces the integrity of the ship (see advanced rules).

Emergency

If there are insufficient crew factors to run a ship, they can be overpaid although doubling the wages will not give double the crew factors. This should only ever be done in an emergency.

Installed Items

All installed items require crew factors to function at normal rate. Several required items are listed below
Bridge: Main command station of a ship. While a ship can be flown without one, crew factor requirements are doubled.
Quarters: House life forms. They include recreational, sanitary, sleeping and dining regions.
***ISR Drive**: Intra-system movement. Recommended 1 per 10 hulls to avoid overload.*
***Jump Drive**: Inter-system movement.*
Thrust Engines: Total number compared with mass of ship to give manoeuvre rating.
***Cargo Bay**: Quantity determines total cargo capacity.*
***Sensors**: Used to scan other positions. Having more than one Sensor can increase the amount of information received by a scan. They are also used for scanning for minerals.*

Transactions

All transactions utilise the cargo space of the ship. Do not use the install/uninstall option as this may detrimentally alter the internal configuration of the ship (see advanced rules).
Buy/Sell can only be undertaken with starbases. All items have to be on the appropriate market.
Pick-up/Deliver requires the use of the security code of the position being interacted with or for that target position to have given specific authorisation for the transaction in advance. If the security code is left blank in the submitted order, authorisations will be automatically checked for at the time of the transaction.

Wages

Each crewmember is automatically paid 1 stellar per week. This amount should not be changed without extreme care, as it will have a detrimental effect on the efficiency of the ship.

Issuing Orders

A front end program has been designed to allow for easy generation of orders. The program has its own documentation explaining how to use it. All orders can be generated using the front end and the resulting file can be emailed as an attachment directly to KJC Games.

Restricted Knowledge

An important note to consider at all times is whether information used to generate orders is common information - that is known to all players in the game - or if it is restricted, i.e. known only to a select group of players.
If it is restricted information, then it must always be the case that you have to control a political position and that this political position must be registered as knowing the information.
Issuing orders which make use of information that is unknown to your political position will always fail.

Docking

Docking with starbases and outposts is necessary if the ship or crew intend to make use of the complexes. Docking will move the ship into the starport of the starbase. If the gravity rating of the world is larger than the manoeuvre rating of the ship the ship can only dock if the Orbital Dock Capacity of the starbase is at least equal to the number of hulls of the ship.

Maintenance (ship needs to dock with the starbase)

Integrity represents the current state of the ship. This will decrease each week. The rate at which the integrity drops is greater for lighter hulls. If the integrity is less than 80% the ship has a greater chance of blowing up during combat before it is very heavily damaged. Maintenance visits cost the patch price (set by the starbase and shown in it's public market report), multiplied by the number of hulls, multiplied by the difference between the current and 100%. Refits enable the ship to alter its configuration to a new design (Note: the new design must have the same number and type of hulls), or restore it's original layout. Repair visits are only necessary if the ship has been damaged.

Recreation (ship needs to dock with the starbase)

Crew like shore leave at least twice a year. Visiting a recreation complex will ensure that they remain at peak performance i.e. maximum efficiency. Crew will spend some of the wages they have been paid over the previous months during this visit.

Exploration

There are two primary aspects to exploration, the first covers seeking new mineral resources to exploit and the second covers searches for non-standard resources. Both generally begin by mapping the world in order to ascertain basic parameters. From this a survey ship will conduct either a search for minerals (commonly known as **GPI'ing** - see below) or visit various terrain types and conduct special actions.

Mineral Exploration

GPI is the acronym for Geological Probability Indication. It refers to the likelihood of a specific mineral occurring naturally within the region scanned. A GPI of the whole world will reveal the presence of the specified ores. (Ores are used by factories, to produce items.) The most commonly needed ores are Metals, Basic Elements and Hydrocarbons. GPI'ing an area will give the average yield over the area scanned. Using the GPI order, mineral locations can be narrowed down to specific sectors. When the GPI results indicate that a specific sector seems to contain a likely source of the desired ore, prospecting a sector will reveal accurate data on the best deposit accessible in the sector. Yield values for the three most common minerals of 150+ are considered good. Rarer ores have values much lower but a thorlium yield of 50+ and a celesium yield of 10+ are considered good.
Once the ore has been discovered, either a starbase or an outpost can exploit it using mining complexes (see order editor - build starbase).

Movement Example

Where XXXX is a starbase/system/planet etc.
Move to XXXX - this will only work if the XXXX is either commonly known or is known about by your political position. The order automatically calculates the fastest route to take to arrive at XXXX

Order Details

Explanation on each order, including the information required, is shown within the front end when the order in question is selected.
A listing of all orders is also present in the order manual.
The manual can be used by players without internet access to generate written orders. These can then be posted in to KJC Games. Each set of orders inputted costs £0.30 per multiple of 10 orders.
The manual also indicates the specific format the order should be written.
KJC take no responsibility for failed orders except where a mistake has been made by the KJC staff. Make sure that the correct format has been used, as mistakes may be impossible to rectify.

Special Actions

Phoenix incorporates human moderators. These will generate responses to special action orders. Each special action costs £1.50 so should only be used when standard actions will not suffice.
Typical special actions include:
Surface Exploration - a quick reconnaissance of the location.
Investigation - a follow-up to a surface exploration in order to obtain more information of a feature revealed by the surface exploration or previous investigation. These are most often used to identify non-standard resources that can be tapped and exploited using resource complexes. Examples may include rare herbs, food sources and unusual crystal formations.
Low Pass Scan - a flyby of the world looking for anomalies on the surface such as ruins.
Orbital Scan - a scan of the orbit looking for anomalies such as planetary rings of minor planetesimals that are too small to be classed as moons.
Other Actions - Special actions can be used only to achieve results that are not covered by standard orders, i.e. a special action to open fire on another position and fly away before they get time to respond will fail.

Combat

ISR drives only work when the ship attains sufficient distance from all other objects, including other ships. For this reason they cannot be used to escape combat. A ship is therefore reliant on combat speed in order to obtain the necessary distance to engage the ISR/Jump drives. Even in orbit a ship needs to be far enough away from enemy ships to make a co-ordinated landing.
Relative combat speeds only come into question in the situation where one position is attacking a position that is attempting to flee. If the attacker is faster, the target will be locked in combat and cannot escape until the lock is broken.
In combat a position will either be pinning another position or be locked. It cannot be both locked and pinning.

Combat Terms

*In combat a position can either be **pinning** or lock**ed in combat**.*
***locked:** a position that cannot leave combat. Being pinned does not prevent the use of weapons.*
***Pinning**: this is locking another position, preventing it from leaving combat.*
Pinning can only be achieved when a ship targets a slower ship. This in no way prevents the pinned ship from firing against a designated target.
Only interaction with the pinning position will break a lock.

Locked in Combat

Pinning is the situation where a fast ship targets a slower vessel. The slower vessel is considered locked in combat. Being locked in combat prevents the vessel (i.e. the slower one) from leaving combat. It can never leave combat until it is no longer locked. The pinning vessel can at any time leave combat.
Being locked does not in anyway prevent the use of weaponry. It is sometimes the case that a small but fast ship will lock a much larger one. This is the case when pirates take on huge lumbering freighters. As the destruction of the pinning ship will break a lock, using light fast ships to lock a huge warship is rarely strategically sound.

Tractor Beams

Tractor beams effectively increase the mass of the ship they are fired at. As a consequence they are relatively more effective against smaller ships. This can mean that although a ship is locked at the start of combat, the use of tractor beams may break the lock as the pinning ship's speed drops below that of the locked ship.

Dump Cargo

Another method of breaking a lock is to increase the speed of the locked ship. In order to gain an extra boost of speed, the cargo of a ship can be jettisoned backwards in order to push the ship forwards. The amount of cargo relative to the size of ship determines the extra boost in combat speed.

Counter Pin

The last method of breaking a lock is pin the ship that is locking. This is achieved by using a faster ship to attack the one currently pinning. Fast interception ships can accompany a convoy of large slow freighters. The interception ships should be specifically ordered to defend individual freighters. When a freighter is attacked, the interception ship will then in turn target the attacker. If it is faster than the attacker, it will prevent the freighter from becoming locked in combat.

Defence

Shields and armour provide protection, but this is not perfect. Shields will absorb damage but become depleted. While shield generators can restore the factors, ships without any will have shield regenerated to maximum during a maintenance visit. Bigger weapons can penetrate through shields and armour and damage the hulls of the ship - along with installed items, crew and cargo. Once the hulls have taken their maximum damage the ship will explode. If a ship is has taken more than half its maximum damage then there is a chance it will blow up, based on the ship's current hull integrity.

Boarding

If a position is set to attempt to board, by having an enemy position on it's ground enemy list, locking a position will initiate a boarding attempt irrespective of location.

This is only a general overview of ship combat. See the detailed combat rules for more explanation.

Credits

Phoenix Initial Concept

KJC Games

Design and Implementation

David Bethel (Skeletal Software) Mica Goldstone (KJC Games)

Phoenix Website Design

David Dixon

Rulebook Documentation

Mica Goldstone

Rulebook Design and Creation

David Dixon

Rulebook Integrity

Dan Reed (danreed@blueyonder.co.uk) David Dixon (david@alpha-fleet.co.uk)

Graphic Design (Rulebook and Publicity)

Martin Dixon David Dixon

Phoenix Beta Testers

Dan Reed Geoff Jollye Thomas Franz Lee Carter
Mica Goldstone Pedro Martins Phil Sara Nick Maggs
Milton Papadopoulos

Special Thanks

All the Beyond the Stellar Empire Players that devoted so much time to ensuring that the Phoenix dream became a reality!