TRAVELLER®
POWER PROJECTION™
ESCORT

BITS

Admiral Detspreflstebr was briefly amused at the lack of imagination shown by the Third Imperium in naming the systems of this region... the Jewell subsector... the planet Emerald... She did not need to enlarge the system holodisplay to see the planet itself - from a previous, covert visit she could picture the ball of thick, green-tinged clouds, broken in places by patches of deeper green vegetation, the glint of algae-green waters and the contrasting iridescent white ice caps. The world was even a source of its namesake precious stones, though the Imperials valued it more for its agricultural wealth and strategic border location. However, she would not be visiting the verdant oceans of Emerald today. Her fleet's intended destination lay forty-nine light-seconds ahead: the swirling red and purple gas giant of Alpheris, distinguished only by its four small moons and orbiting liquid hydrogen refinery. Welcome to the primary refuelling depot of the 23rd Imperial Fleet. Closer in towards the star sparkled the Gashinraa asteroid belt and then Emerald itself.

"Admiral! Post-Jump regrouping is complete, right on target at one-forty-eight point three light-seconds. All task force elements have reported ready to proceed as per operational orders."

The young comms officer looked at her across the bridge, his veneer of professionalism barely masking nervous anticipation of the upcoming battle. The Admiral acknowledged with a brief nod before returning her gaze to the tactical holo-projection of her task force.

Emerald supported just half-a-million groat farmers but its frontier position and its adjacency to the Jewell system - the industrial hub and Imperial subsector dukedom - made it a valuable prize. PsiOps had predicted the bulk of the 23rd would be on tactical manoeuvres in the Mongo system but Detspreflstebr knew there would still be significant Imperial navy assets at Emerald, some visible in space, others hiding in the swirling outer layers of the system's gas giants. She had asked for, and been granted, four reinforced squadrons from the border fleet at Chwistyoch to secure the Emerald star system.

Now, the time was upon her. The glowing images in the tactical viewer were tagged with the essential information needed for fighting a fleet action. Every ship showed an identifier tag, damage indicator, position, current vector and predicted future track. Together, they formed a confusing morass of shifting, glowing data and colours, but years of experience and training allowed her to decipher it instantly. As enemy ships were detected, their angry red indicators would appear in the display, but she knew it would be several minutes before the fleet's combined arrays of passive sensors correlated sufficient data to accurately determine the quantity and type of Imperial ships in the system.

"All vessels are to proceed to point Zephyr at best speed," she commanded. Controls responded to the light touch of the bridge crew - in some cases physical, for others, telekinetic. As one, the traces on the display started to update as the Zhodani fleet began to vector towards the target.

"We're receiving active scans from perimeter satellites," came a report. Detspreflstebr simply nodded, without looking up from her display.

"Go to full active sensors," she said, off-handedly. "It'll only be a couple of minutes before those sat's let them know we're here, anyway."

On the holodisplay, half a light-second ahead of the core of capital ships, the escort screen was deployed to protect their vast charges. Their own missile and beam weapon batteries would contribute little to the offensive strike, but they would provide a useful defensive screen for the capital ships and would engage the Imperial escorts which would be hurriedly manoeuvring to meet the incoming threat.

The real offensive punch was carried aboard the core group of capital ships - huge weapons, mounted along the spine of each vessel. These fired massive pulses of accelerated particles, or focused the destructive decay of mesons, to inflict colossal damage upon their targets. A single hit could annihilate a small ship or incapacitate a capital ship; critical ship systems could be destroyed in an instant, leaving a useless hulk, unable to manoeuvre or return fire. The Admiral's eyes flicked around the tactical display in a quick assessment of the weapons status of the sleek battleships with which she was about to unleash the fury of war on the lying, cheating, mentally unstable Imperials.

"Admiral! We're picking up multiple enemy battleships. Classification to follow. Fleet escorts and destroyers are deploying to meet our escort screen."

Reaching out into the tactical display, she began to pair her capital ships off against the enemy's larger vessels. Data links instantaneously transferred the encrypted instructions to the other squadron flagships. At their present proximity, light-speed communications lag between ships was not an issue and acknowledgement signals came back almost instantly.

"All ships, your targeting priorities have been assigned. Deploy into vertical phalanx and recompute firing solutions. Escort screen commander keep an eye on that group of destroyers on your starboard flank. All ships engage at will."

She leant back slightly from the display, aware that she was already hunching her shoulders. The battle for this gas giant would be fierce and bloody, but given the distances involved in space combat it might be several hours before they vanquished the Imperial aggressors; she wanted to remain fresh for any subsequent conflict as they moved in to secure Emerald itself...

"Power Projection — The employment of military assets to exercise control of the space between stars, typically through the use of capital class starships combined with close orbit and aerospace control operations, ortillery and planetary assault."

— "An Officer Cadet's Primer", Fleet Admiral Sterrett, Imperial Interstellar Navy Academy, Sylea

"Power Projection — The ability of a polity to apply all or some of its elements of national power - political, economic, informational, or military - to rapidly and effectively deploy and sustain forces in and from multiple dispersed locations to respond to crises, to contribute to deterrence, and to enhance regional stability."

— NorAm Dept. of Defence, Definitions & Terms [pre-Second Imperium Terra]

"Power Projection? It's all about going to other peoples' planets and making them do what we want!"

— CPO Dav Vandenbroucke, Dreadnought 'Cleon 1st', Imperial Interstellar Navy

POWER PROJECTION

CONTENTS

CREDITS

BITS and GZG

Welcome to Power Projection

Power Projection is a game of far future space conflict. It focuses on interstellar warfare between large, capable, capital ships such as cruisers and dreadnoughts, playing out battles for worlds and star systems between human and alien races. The game can model combat between the relatively tiny ships used by individual adventurers and traders (as typified in the roleplaying game **Traveller**) but their lives will be very short and end brutally if they cross paths with big naval vessels. At best the smaller ships can hope to help protect their side's capital vessels by shooting down incoming missiles and deploying screens of sand to deflect beam weapon fire. They may also contribute a few extra shots against enemy ships but their firepower is dwarfed by that of the capital ships.

Power Projection can also be used to play out skirmishes between the escort ships, where smaller scout or reconnaissance groups encounter each other. This gives a game with a different feel, where careful manoeuvring can be even more critical.

The capital ships are usually built around their primary weapons - meson and particle accelerator (PA) spinal mounts. These weapons utilise high energy physics to destroy their opponents. Meson weapons fire subatomic particles which pass through normal matter and decay in an explosion inside the hulls of enemy ships; such attacks are only stopped by special screens or carefully crafted hull shapes. Particle accelerators fire high energy particles at tremendous velocity to impact explosively against the enemy's hull; the only defence against PAs is thick hull armour.

Power Projection Escort

Power Projection: Escort allows you to fight escort-level starship battles. It is a game of cat and mouse manoeuvres among the stars (or as Frank Chadwick, one of the original **Traveller** line designers said, "Hide and Seek with Bazookas!") Larger ships, spinal mount weapons, effects of gravity, black globe screens, conversion rules for **Traveller** ship designs and much more are provided in *Power Projection: Fleet*.

Designer's Notes

These rules were developed over the last five years following my acquisition of a copy of *Full Thrust* and Steven Parsonage's conversion rules for **Traveller**. Playing these inspired me to develop the concept further, and over the last few years the project has evolved to something significantly different to both originals. As a guide in developing this game I have followed *High Guard* (second edition), initially published by Game Designer's Workshop in 1980, and now available in *The Classic Books* reprint volume from FarFuture Enterprises. *High Guard* was an abstract

system, so I have used the GDW publications *MayDay* and *Traveller: Book 2 - Starships* as further inspiration.

The game retains the flavour of *Full Thrust*, and some of its conventions. However, it is now significantly different to that game, and far more in line with the universe of **Traveller**. A vector movement system has been adopted, inspired by that in *Full Thrust: Fleet Book 1*; ironically, the changes we made to increase the **Traveller** feel ended up with rules that are similar to the *Full Thrust: Fleet Book 2* corrections, published later on by Ground Zero Games.

What Do You Need To Play?

These are the bare essentials:

- A flat playing table or floor area at least 3 feet (1 metre) square; the larger the better.
- Starship models or counters (from this book).
- Templates, SSDs and counters (from this book).
- A small tape measure (you can use a ruler instead, but a tape measure is far more flexible).
- A six-sided die, hereafter referred to as a "D6".
- A pencil.

Having multiple tape measures, dice, etc. will significantly speed-up playing the game.

The Traveller Universe

This game focuses on starship combat within the universe of the **Traveller** role-playing game. This universe has been in development since 1977 when Game Designer's Workshop published the first 'little black books' written by Marc Miller. The setting is the 57th century, when human kind ("humaniti") has spread far and wide throughout the stars. Several of these human empires also border a variety of major alien domains.

In the traditional time period that **Traveller** is set, conflict between the human empires is far more common than between the aliens and human, and this is reflected in the ship designs presented in this book. However, major human-alien confrontations occurred earlier in **Traveller** history and the full rule book includes a conversion system allowing the ships of any **Traveller** race to be used in *Power Projection*.

Note that the majority of dates given in this book are based on the Imperial standard, with standard 365 day years, numbering from the founding year of the Third Imperium. Earth-standard dates are noted as such.

Star-spanning Empires

The key players in **Traveller** are mostly the "major races" - those which independently developed interstel-

lar travel using "Jump" technology. There are three such human races, the Solomani, Vilani and Zhodani.

Solomani — Originating from Terra (Earth), these humans encountered the star-spanning Vilani empire of the First Imperium just nine years after the Solomani first developed Jump technology in Earth year 2087. The dramatic clash in their cultures led to a series of interstellar wars in which the slow, stale, bureaucratic Vilani were overwhelmed by the fledgling Terrans, leading to the establishment of the Solomani Second Imperium (also known as The Rule of Man) in 2314.

Vilani — Dedicated to slow, stable technological development, these humans spread slowly over 4,000 years from their homeworld Vland to establish the First Imperium (the "Ziru Sirka" or Empire of Stars) in Terran year 473, clashing with most of the neighbouring alien races during this initial expansion. Despite their initial successes, cultural rigidity caused technological stagnation, leading to defeat by the fast-growing Solomani realm. After the Second Imperium suffered internal collapse there was a twilight period of nearly a thousand years, leaving only isolated pocket empires such as the Sylean Federation. On Sylea, the Imperium was reborn in Earth year 4518 (Imperial Year 0) under the leadership of emperor Cleon I. This Third Imperium once again reclaimed the thousands of worlds of the earlier empires and, once again, confronted resistance from other races, in particular the Vargr and Zhodani.

Zhodani — A human empire based upon the power of the mind ("psionics"), where lies and criminal acts are viewed as treatable mental illnesses. By -1000 (Imperial) the Zhodani recognised the limitations on effective rulership of their empire - spanning hundreds of light-years - and so ceased expansion. However, the relatively tranquil Zhodani were disturbed by the aggressive growth of the Third Imperium, leading to repeated clashes between these two human powers from 589 (Imperial) for the next half-millennium.

Periods of Conflict

There are many periods of conflict in **Traveller** history. **Power Projection Escort** focuses on the Fourth and Fifth Frontier Wars (Imperial years 1082-1084 and 1107-1110 respectively) in which the Third Imperium clashed with the Zhodani and their allies.

Task Forces

Starships are grouped into task forces for writing orders and determining the order in which they act during a game turn. A group of ships may be split into as many task forces as you desire - each ship may even be a task force. Movement orders can be written for a task force rather than for each ship but all ships in a task force fire at the same point in a turn, which may be a disadvantage. If multiple players are running a fleet, each player can be given their own task force.

Describing Starships

Starships are described using a Ship Status Diagram (SSD) as per Figure 1. Symbols show the key components of the ship, its combat performance and capabilities for use in **Power Projection**.

Traveller Starship Components

The primary components of a **Traveller** starship are:

Hull — available in a range of shapes, sizes and materials, the total hull volume is measured in displacement tons (dT), i.e. the equivalent mass of liquid hydrogen displaced by the hull. The hull may be armoured for defence and streamlined to allow the ship to manoeuvre in a planet's atmosphere.

Drives — the Jump drive provides interstellar travel and the manoeuvre drive propels the ship while in normal space. The Jump drive requires 10% of the ship's volume in liquid hydrogen fuel per parsec travelled, while a relatively small amount of fuel is required by the power plant which feeds the manoeuvre drive and all other power-consuming systems on the ship.

Control Systems — are key to the operation of even the smallest starship. Multiple computers run everything from navigation and weapons targeting to monitoring life support and crew entertainment. The primary control centre for the ship is the bridge, from where the senior officers usually direct operations.

Weapons — include beam weapons (lasers, plasma and fusion guns, particle accelerators and meson guns) and missiles (conventional, nuclear and bomb-pump laser warheads). Weapons may be mounted in small turrets, weapon bays or may be so large that they effectively form the 'spine' of the ship.

Defences — apart from armour, ships may carry field generators to disrupt nuclear and meson attacks, or use their own weaponry to destroy incoming missiles. The closest that **Traveller** gets to the forcefields of common SF genres is the rare, energy-absorbing "black globe" screens (only available to the military).

Crew — are still key to running any starship, whether commanding the vessel, manning weapons, performing damage control or as ship's troops. Some crew may be 'on ice' in cryogenic berths, to be awakened as replacements for crew casualties.

Cargo — the majority of ships are traders or liners, carrying goods between worlds. **Power Projection** is focused on combat, so cargo is rarely a consideration, though a scenario might revolve around successfully getting critical military supplies past an enemy fleet.

Subcraft — are often carried by larger starships. In addition to small, unarmed shuttles, some ships carry fighters, while others are Jump-capable carriers dedicated to transporting 'battle rider' warships.

Hull Components

6☐☐ **Structure boxes** — these boxes represent
5☐☐ the structural integrity of the starship hull.
4☐☐ They are usually split into four rows, as
Kill☐ evenly as possible (any shorter rows are placed at the bottom). As a ship suffers damage, the boxes are crossed off along a row, starting with the top row. When the end of a row is reached, a threshold is crossed which requires a check to see if any systems on the ship have failed due to the accumulated damage. If massive amounts of damage are taken in a single turn, the ship may suffer a catastrophic failure, resulting in its complete destruction.

Each structure box represents a volume of hull of between 500 and 1,000 displacement tonnes (dT).

○○ **Armour boxes** — these boxes (well, actual-
6☐☐ ly circles!) represent a starship's enhanced
5☐☐ structural integrity and hence its ability to
4☐☐ resist damage from most types of attack.

Config LL: Agility A **Configuration Modifier** — this value represents the effectiveness of the shape of the ship in resisting attacks from meson weapons. Ships shaped like needles, wedges, cones or cylinders are quite effective at resisting meson attacks. A meson attack is focused at a given point within its target, so ships with a dispersed structure (such as those with separate sections held together by a structural frame) suffer least damage because the meson attack is likely to arrive in one of the empty spaces within its volume. A starship built within a buffered planetoid hull has large expanses of solid rock and so is similarly resistant to meson attack.

SL PSL USL **Streamlining** — "SL" indicates the ship is streamlined and so capable of entering the atmosphere of any planet or gas giant. "PSL" shows the ship is only partially streamlined and can only enter a gas giant's outer atmosphere (e.g. to skim hydrogen fuel). "USL" ships are designed only for operation in deep space and entering any atmosphere may tear the ship apart.

Drives

Manoeuvre Drive — this symbol shows the number of gravities "G" of thrust a ship can generate for manoeuvring. Each game turn, a commander allocates any or all of his ship's thrust to accelerate, turn, or fire retro-thrusters.

Jump Drive — this symbol displays the ship's interstellar drive capability, i.e. the number of parsecs (3.27 light-year units) it can travel in a game week. Its main impact on the tactical game is the arrival and departure of ships from the field of battle. In the strategic game it is a key measure of how far and fast a fleet can strike at enemy star systems.

To enter Jump, a ship must have as many fuel boxes as the Jump distance (in parsecs) it wishes to achieve.

TL15 PF Sloan Class Fleet Escort - FE - 5,000 dT - PSL

Config L1: Agility -1
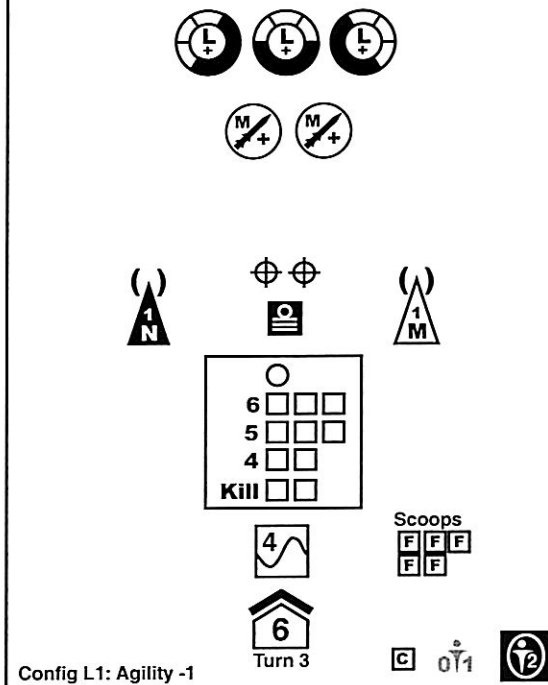
FIGURE 1: EXAMPLE SHIP STATUS DIAGRAM (SSD)

It must also spend at least one turn charging the Jump drive for use (see p.18).

Fuel boxes — each box represents approximately 10% (or part thereof) of a ship's volume dedicated to storing liquid hydrogen fuel. A minimum of one fuel box is required to run the power plant which powers all the ship's systems. Any excess boxes are power plant reserves or fuel for the interstellar Jump drive.

Turn Capability — this value shows the ship's ability to change its facing while manoeuvring, ranging from 0, when a ship can either turn or thrust but not both, to the maximum of three turns during a game turn. This affects a ship's combat effectiveness and ability to out-manoeuvre opponents.

Config LL: Agility A **Agility Modifier** — this number represents the ease with which a ship can execute evasive manoeuvres, ranging from +2 (very poor) to -1 (very agile). This is an inherent feature of the starship design, but relies upon having an operational manoeuvre drive.

Command and Control

Bridge — this symbol represents the nerve centre of the ship from which the commander and senior officers direct the ship's operations. Damage to the bridge usually has catastrophic implications for the ship's ability to fight so some ships also have secondary bridges.

Computers — these symbols represent the ship's computer, avionics and fire control systems. Computers play a critical role in ship operation, for example the maximum Jump distance a ship may make is one parsec per remaining computer box. If all computer systems are destroyed, the ship is unable to Jump or use any weapons system (whether for attack or point defence), including repulsors and sandcasters; only nuclear dampers and meson screens will work.

Crew

Damage Control — this symbol indicates the number of teams a starship crew can allocate to repairing damage during combat.

'D' is the DCP rating.

Offensive Systems

Each battery symbol represents a number of turrets or bays of the given weapon type, which are targeted and fired together. Batteries marked with a '+' contain more, or higher power, weapons than the "standard" batteries. Each battery's fire arc (see p.11) is shown around the edge of the symbol - a battery can only fire in those arcs which are marked as white; black arcs are blocked (by the ship's own superstructure, etc.).

Laser Battery — contains turrets mounting laser weapons that project pulses or beams of coherent light to cause explosive damage to an enemy starship. Lasers are less effective at long range due to spreading and defocusing of the laser beam - this is particularly true of mining lasers (Lm) which are only effective at much shorter ranges than their military equivalents. Laser weapons can also be employed in a point defence role against missiles attacking the ship (or other nearby ships).

Energy Weapon Battery — contains turrets with plasma and/or fusion weapons which project superheated material to cause explosive damage to an enemy starship. These weapons cause more damage than lasers but have fairly limited range as the super-hot plasma rapidly spreads and dissipates. Like lasers, they can also be employed in a point defence role against incoming missiles.

Missile Battery — contains launchers firing missiles with nuclear, high explosive (HE) or bomb-pumped laser warheads. The latter detonate a nuclear device some distance from their target, to generate a burst of x-ray laser beams). HE and nuclear missiles are slightly more effective at longer ranges because they have built up velocity, giving them greater kinetic impact and making them harder to shoot down using point defence weapons. Since missiles have their own thrusters to manoeuvre them towards a target, they have no fire arc limitations. Missile batteries have a limited magazine capacity, and after each salvo is launched an ammunition check must be made.

Particle Accelerator (PA) Battery — contains one or more weapons which accelerate bursts of charged particles at their target, causing a combination of radiation and explosive effects to the enemy vessel. The only effective defence against a PA is thick armour.

Meson Battery — represents one or more weapons which focus a stream of high energy mesons (subatomic particles) at a point within the target ship. These mesons do not pass through intervening space, and therefore are immune to all defences except meson screens (though the target's structural form affects the capability of the attack to cause damage).

Defensive Systems

Starships utilise a wide variety of defences, from the inherent design of the ship (its armour and hull configuration) to defensive screens and dedicated point defence systems. Some offensive systems can also be used to shoot down incoming missiles.

Nuclear Damper — can be focused on incoming nuclear missiles to cause premature detonation of the warheads, or suppress detonation, in either case reducing the effect of the missile attack. Dampers range from Level 1 up to Level 3.

Meson Screen — provides a general screen against all attacks by meson weapons by causing premature decay of the meson bursts, resulting in a harmless explosion outside the ship's hull. Meson screens range from Level 1 up to Level 3.

Sandcaster Battery — these fire canisters which burst or spray out ablative sand to form a cloud which degrades any laser, missile or energy weapon strike which passes through it (the cloud's protective capability is also degraded at the same time). The cloud has the same vector as the starship which launched it, and so will drift away if the ship changes its vector. Sandcasters are either Level 1 or Level 2 (the latter being far more effective).

Repulsor Point Defence Battery — uses a very early form of tractor beam technology to divert or literally shatter incoming missile strikes. Repulsors must be focused against specific missile salvos. Repulsor batteries are Level 1 or Level 2, the latter being more powerful.

Other Systems

Cargo — each box represents approximately 5% of a ship's volume dedicated to cargo.

Game Turns

A game of *Power Projection* is played in turns; during each turn there are distinct movement and combat phases. All movement is plan-ned at the same time, and executed simultaneously. Firing order is determined by the initiative roll, which is influenced by the size and relative agility of the fleets.

Turn Sequence

1. Movement Orders are written (simultaneous).

2. Movement Phase (simultaneous).

a) Move starships and sand clouds (remove sand clouds that contact nuclear detonation counters).

b) Deploy new sand clouds.

c) Move inflight missiles.

3. Combat Phase (sequential).

a) Determine initiative.

b) Player 1, Task Force 1:

 - Fire Orders are written.

 - Fire weapons, launch missiles.

 - Resolve damage (including all Player 1 missiles that contacted their targets this turn).

c) Player 2, Task Force 1:

 - Fire Orders are written.

 - Fire weapons, launch missiles.

 - Resolve damage (including all Player 2 missiles that contacted their targets this turn).

If each player has multiple task forces, repeat b) and c) until all task forces have acted. If there are more than two players, extend the combat order accordingly.

4. Remove Nuclear Detonation counters from the previous turn (simultaneous).

5. Damage Control (simultaneous).

Return to step 1 and repeat until combat is complete.

Space... It's Big

Power Projection space battles take place over relatively large distances; it takes time to manoeuvre across the emptiness of space and at the extremes of weapon range, even laser fire travelling at the speed of light may take half a minute to reach its target.

The basic movement unit (MU) in *Power Projection* represents 75,000 km (i.e. 0.25 light-seconds, given light travels at approximately 300,000 km per second).

1 game turn represents 50 minutes.

A scale of 1 inch = 1 MU works well on a typical gaming table, though for battles where ships wish to manoeuvre beyond their opponents' weapon range, a playing area of at least 3' (1 metre) square is required.

Movement

Movement in *Power Projection* is vector-based... but before you run to hide behind the sofa, this doesn't mean it is hard to do! It doesn't need mathematics or a whole set of complicated geometry tools, just some common sense and a tape measure!

Vector movement simply means that a ship retains a velocity due to its previous manoeuvres. Velocity has two components, a direction and a speed, i.e. the ship travels at the given speed in the given direction.

These ships have the same vector, but different facings
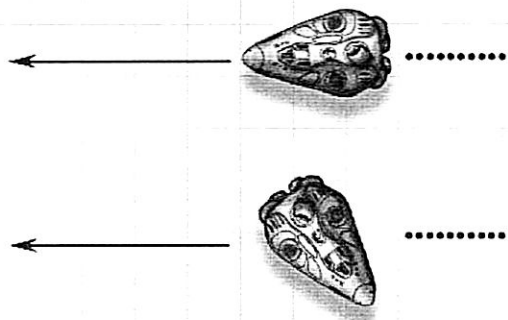
tactical display_

FIGURE 2: THE DIFFERENCE BETWEEN FACING AND VECTOR (DIRECTION OF TRAVEL)

The way the ship points (its "facing") may be different to the direction of its velocity vector, i.e. the direction in which it is moving. In Figure 2, two ships are travelling in the same direction with the same vector (shown by the arrow) but each has a different facing. The ship's facing is key in determining the weapon systems that can bear on a target.

Library Data Search: MANOEUVRE DRIVES

Traveller starships use reaction drives, i.e. their engines produce thrust from the rear of the starship, pushing the ship forwards in its 'facing' direction. These starships comply with Newton's laws - movement of the craft is a 'reaction' to the thrust out the back of the ship. Various types of manoeuvre drive are used in **Traveller** depending on the technology level at which the ship is manufactured - from solar sails to plasma drive. However, the only **Traveller** drives sufficiently effective for space combat are those that can provide massive sustained thrust levels - which for most high technology ships means thruster plates.

Thrust Points

The manoeuvrability of starships is determined by the thrust rating of their manoeuvre drive. This is rated in the number of (Earth) gravities of acceleration the engines can generate, e.g. a "3G" drive is capable of providing three Earth gravities of thrust or, if you want to get technical, an acceleration of up to 29.4 m/s^2 (metres per second, per second).

The number of Thrust Points a ship can use to manoeuvre in a game turn is equal to its thrust rating. Each game turn, a ship can spend any or all of its thrust points on any combination of three basic manoeuvres (within the limits of the ship's performance, e.g. its turn capability):

   a) Fire Main Engines

   b) Turn Ship

   c) Fire Retro-thrusters

Note that thrust points cannot be 'saved' for use in a subsequent turn, nor can they be used for extra manoeuvring at the end of the turn.

a) Fire Main Engines

Each thrust point spent on firing a ship's main engines increases the distance the ship moves in a game turn by 1 MU (as shown in Figure 3).

"Fire main engines"

New position next turn

+1 MU

Original position next turn before 1MU thrust

3 MU

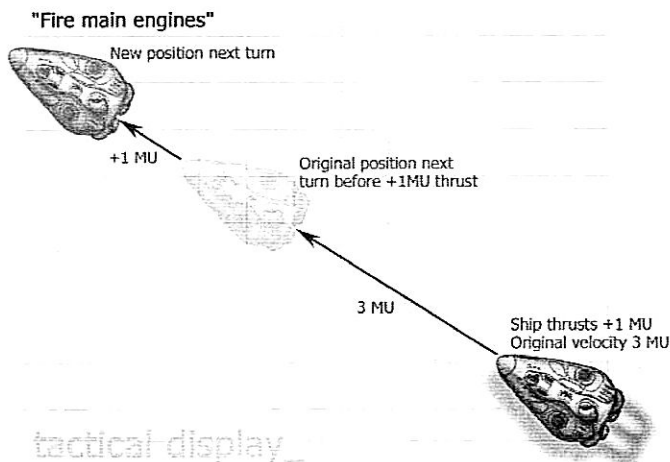Ship thrusts +1 MU Original velocity 3 MU

FIGURE 3: FIRING MAIN ENGINES TO ACCELERATE SHIP

b) Turn Ship

Rotating a ship to face in any direction costs one thrust point. The ship may turn to port (left or anti-clockwise) or starboard (right or clockwise). For simplicity the amount it turns is measured by the number of points it moves around a standard clock face (i.e. each point turned corresponds to a 30 degree change in the ship's facing. For example, if the ship is facing 2 o'clock and turns to face 4 o'clock, this is a starboard turn of 2 points. The direction the ship ends up facing may actually be anywhere between 3 o'clock and 4 o'clock, to

"Turn ship"

A turn command only affects the ship facing, not the vector

3 MU

3 MU

No turn

After a port or starboard 6pt turn

FIGURE 4: TURNING THE SHIP TO CHANGE ITS FACING

allow the ship to be pointed in the exact direction desired. An example of a full 180 degree turn (i.e. 6 clock points) is shown in Figure 4.

A ship's Turn Capability defines the maximum number of turn manoeuvres the ship may perform in a game turn. A ship with a Turn Capability of 0 may either turn, or fire its main engines/retro-thrusters but may not do both in the same game turn.

Changing a ship's facing is achieved by angling the main drive output, firing smaller thrusters distributed around the ship or a combination of the two. This uses only a fractional part of the main drive power but over a 50 minute game turn, even a huge dreadnought can turn itself about without putting excessive stress on its structure or crew. However, less agile, low Turn Capability vessels will still struggle to turn to meet threats. This is particularly important when trying to bring a spinal weapon mount to bear on a target.

ⓘ *A turning template is provided with these rules to simplify and speed-up turning during the game.*

c) Fire Retro-thrusters

Braking is applied by a ship using forward-facing manoeuvring thrusters. This is not particularly effective, so two thrust points must be spent on retro-thrusters to reduce the distance the ship moves in a turn by 1 MU (as shown in Figure 5).

"Fire retros"

Original position next turn before firing retros

After firing retros for 2 thrust points the new vector is now +2 MU long

-1 MU from thrusters

New position next turn

Original vector of +3 MUs

New +2 MU vector
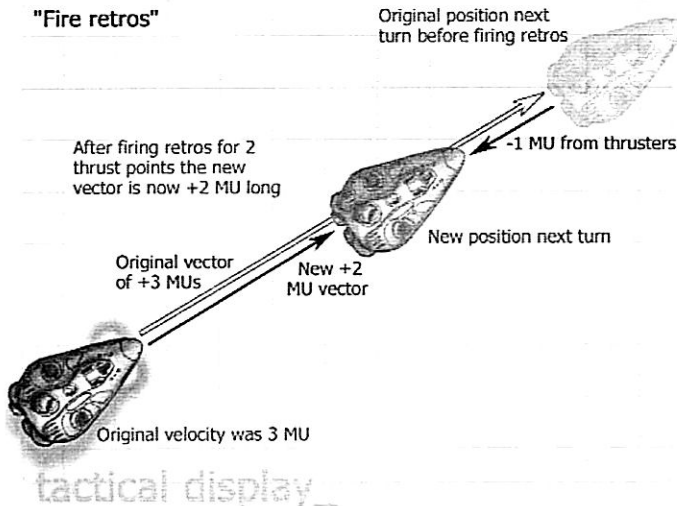
Original velocity was 3 MU

tactical display_

FIGURE 5: FIRE RETRO-THRUSTERS

Writing Movement Orders

For ease of interpretation, movement orders should be written in a specific format, in the order they are to be carried out. The suggested format is as follows:

+X   Fire main engines for X MU acceleration
-X   Fire retro-thrusters for X MU deceleration
P Y   Turn to Port Y clock points
S Y   Turn to Starboard Y clock points

Movement Example

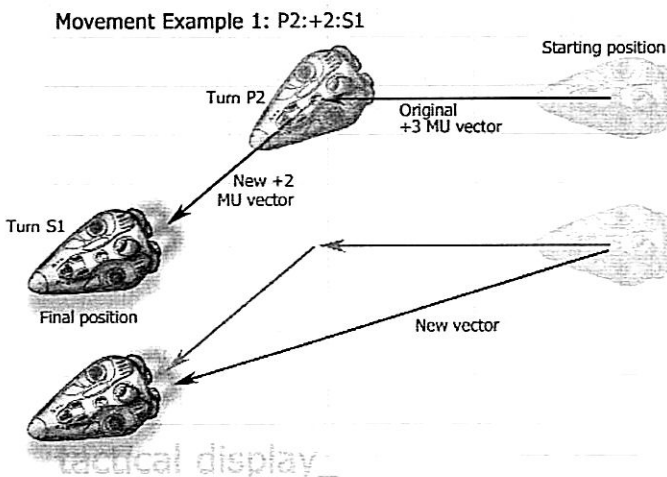An example of one turn's movement orders for a ship is given in Figure 6. A starship with a 5G manoeuvre

Movement Example 1: P2:+2:S1

Starting position

Turn P2

Original +3 MU vector

New +2 MU vector

Turn S1

Final position

New vector

tactical display_

FIGURE 6: MOVEMENT EXAMPLE

drive and a Turn Capability of 2 begins the game turn with a 3 MU vector from right to left. The ship has 5 thrust points to use each game turn, but the player decides to expend only 4 points this turn, and writes the movement order as:

P2 +2 S1

i.e. "P2" - turn 2 clock points (60°) to port (1 thrust point), "+2" - fire main engines for 2 MU acceleration (2 thrust points), "S1" - turn 1 clock point (30°) to starboard (uses 1 thrust point). The remaining thrust point is wasted; it cannot be carried over to the next turn.

The step-by-step process of translating these movement orders into movement of the ship counter/model on the playing surface is shown below.

The Movement Process

In the game, movement is simplified by the use of counters on the playing surface.

A model or counter shows the ship's current position.

A **future position counter** will have been placed at the end of the previous turn to represent the position the ship will have next game turn if it maintains its current course without firing its engines (as shown in Figure 7).

A second counter, the **original position counter**, is used during movement to confirm the original position of the ship while the model itself is being moved and manoeuvres applied.
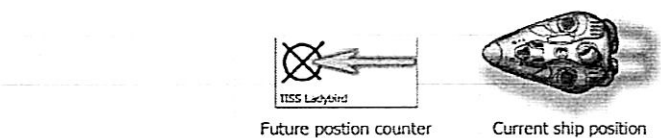
Movement: step one

IISS Ladybird

Future position counter   Current ship position

tactical display_

FIGURE 7: SHIP MODEL AND FUTURE POSITION MARKER AT END OF PREVIOUS GAME TURN

To move a ship you need its movement orders, its future position counter, an original position counter, and a long ruler or tape measure.

The player substitutes the *original position counter* for the ship model (noting the facing of the ship). The ship model is then placed on the *future position counter*, with the same facing it had in its original position, as shown in Figure 8.

Movement: step two

Ship replaces future postion counter (retains same facing)
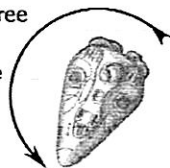
Original position counter replaces ship

FIGURE 8: PLACING THE ORIGINAL POSITION COUNTER

The course manoeuvres are then applied to the ship model in the sequence shown in the movement orders (in this example "P2 +2 S1"), remembering that any thrust actions (firing the main engines or retro-thrusters) are applied in the direction that the ship is facing at that point in the move - see Figure 9.

Movement: step three

Turn before movement

Movement applied to ship

Original position

Turn after movement

FIGURE 9: APPLYING THRUST AND TURN ACTIONS (E.G. "P2, +2, S1")

Once the model is in its final position, the *future position counter* location needs to be identified. This is quite simple to do. Simply measure from the original position counter to the model (Figure 10), and then continue to extend the ruler or tape measure in the same direction by the same amount (Figure 11).

Movement: step four
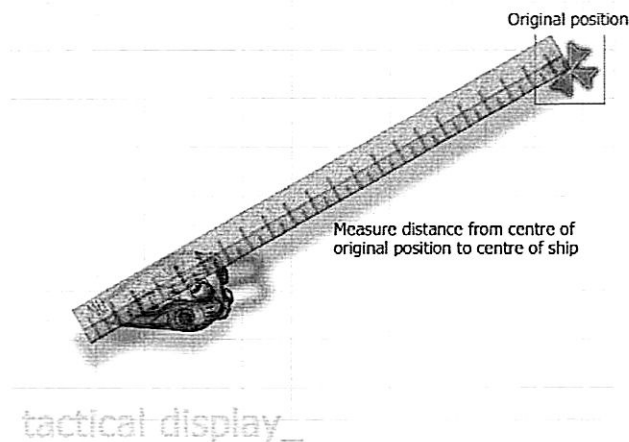
Original position

Measure distance from centre of original position to centre of ship

FIGURE 10: MEASURE CURRENT MOVEMENT VECTOR

The future position counter should be placed at the end of this extended line, facing in the direction of the line, as shown in Figure 11.

Movement: step five
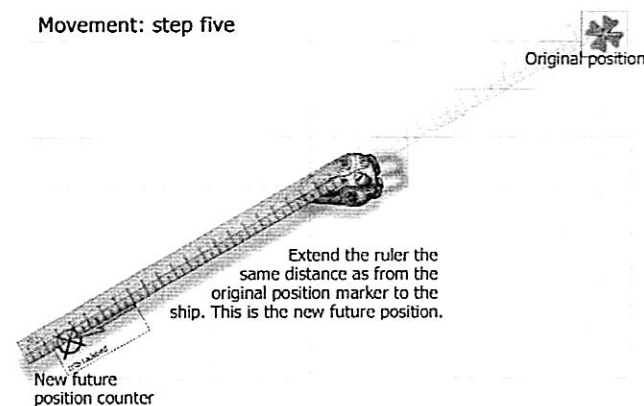
Original position

Extend the ruler the same distance as from the original position marker to the ship. This is the new future position.

New future position counter

FIGURE 11: PLACING THE FUTURE POSITION MARKER

Finally, the original position counter should be removed and placed under the model (removing the need to do this at the start of the next turn) - see Figure 12.

Movement: step six

Remove original position marker and tape. Movement complete.

FIGURE 12: POSITION OF MODEL AND FUTURE POSITION MARKER AT END OF MOVEMENT

Initiative - Who Goes First?

The process of determining which ship acts first is called "initiative" and is performed at the start of each game turn to represent the shifting tactical advantage within a battle. Winning initiative gives you the opportunity to fire first, inflicting damage before your opponent can fire back.

Determine Initiative

<div align="center">

Each fleet rolls D6
+1 if largest fleet
+1 if most agile fleet

</div>

Each fleet rolls a D6.

The largest fleet (greatest *number* of ships, not the greatest *tonnage*) gets a +1 bonus.

The fleet with the best agility gets a +1 bonus. (Fleet agility is determined by the least agile ship in the fleet, i.e. if your fleet has mostly highly manoeuvrable ships with -1 agility but a single sluggish ship with an agility of +2, your *fleet* agility is +2; if your opponent's ships all have an agility of +1, his fleet has the better overall agility and he gets the +1 bonus to initiative.)

If two or more fleets have the same initiative result, roll each again to determine which of them goes first.

The fleet with the highest initiative result chooses whether to go first in the firing sequence.

Multi-Task Force Fleets

Normally, a single initiative roll is made for each fleet. However, if different task forces within a fleet are controlled by different players, each player may roll initiative separately for their task force.

Transfering between Task Forces

Ships may transfer between task forces, but this must be declared in the movement orders, and occurs at the start of the movement phase for that fleet.

Fire Orders

The player with initiative designates which of their task forces will fire first. The player then writes the fire orders for all the ships in that task force, declaring the target(s) that each ship is firing upon, and which weapon system(s) are used. If not declared for offensive purposes, laser and energy weapon batteries may be used for point (or area) defence fire later in the turn.

Once declared, the fire orders may not be changed even if the target ship is destroyed.

Fire is conducted, and damage assessed, then the player with the next highest initiative designates their first task force to fire.

Writing Fire Orders

Writing fire orders is as important as writing movement orders - it avoids any potential arguments, particularly where fire from one of your ships destroys an enemy ship and other ships in your fleet still have orders to fire at the same enemy ship. You might prefer to have switched the other ships' fire to a new target, but the existing fire orders must be followed. In real space combat, the precise order of fire of the ships would vary; some would be firing at the same time; the final destruction of the target might only occur some minutes after the fatal attack; and the ship might still appear combat-capable to the attackers' sensors, even after it had suffered critical internal systems failures.

The fire orders should show the following information: the firing ship, the weapon type (and any specifiers, e.g. whether missiles have standard or nuclear warheads), the number of weapons firing, and their target.

Example: The Zhodani cruiser *Yetz* is attacking two targets - the Imperial ships *Agrippa* and *Cassandra*. The *Yetz* decides to fire 2 high power laser batteries at the *Agrippa* and 5 high power missile salvos at the *Cassandra*. The missiles are split into 3 high explosive (HE) and 2 nuclear warhead attacks. These fire orders could be written long-hand as:

Cruiser Yetz - Laser (+) x2 @Agrippa

Cruiser Yetz - Missile (+) Nuclear x2 @Cassandra

Cruiser Yetz - Missile (+) HE x3 @Cassandra

Provided there is no argument over the meaning, this could be written more quickly in shorthand:

Yetz @ Agrippa - 2 L+

Yetz @ Cass - 2 M+(nuke), 3 M+(HE)

Whatever notation you use, ensure that you write clearly and avoid any ambiguity that might lead to disagreement over what the fire orders meant.

Fire Arcs

All weapons are limited in the direction that they may fire, depending on the orientation of the ship, and the part of the ship the weapon is mounted on. The area around a ship is divided into six equal arcs, each of 60 degrees (i.e. one segment is equivalent to two divisions on a clock face) with the Forward arc centred in the direction the ship is facing, as shown in Figure 13.

Those arcs into which a weapon may fire are referred to as its "fire arcs". Most weapons can bear on a number of arcs and some (e.g. missiles) can fire in any direction. The exact number of arcs a weapon bears on depends on the original battery format (turrets, larger bay weapons or spinal weapons) and the size of the starship. Larger ships may have more restrictive arcs.
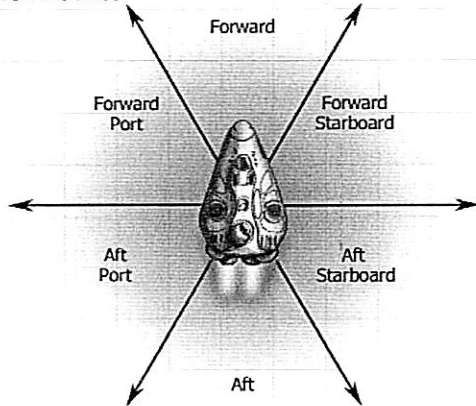
The fire arcs shown on the Ship Status Diagram assume the forward fire arc (i.e. the ship's facing) is

towards the top of the SSD. Remember that fire arcs are referenced against the ship's facing, not the direction of its movement vector.

Standard Fire Arcs

FIGURE 13: FIRE ARCS

(i) *In reality, most ships could roll or turn during a game turn to bring just about any weapon to bear at any target, but we feel this compromises the game play, so weapons are restricted to fire arcs based on the ship's facing at the end of the movement phase.*

Weapon Ranges

The range from the firing ship to its target is measured from the centre of the stand (or counter) of the firing ship, to the centre of the stand (or counter) of the target. The line between these points is the "line of sight".

TABLE 1: WEAPON RANGES

Weapon Type	Short Range (MU)	Long Range (MU)
Energy (Fusion/Plasma)	10	n/a
Lasers	10	30
Lasers, Mining	5	15
Meson Gun	10	30
Missiles	10	30
Particle Accelerator	10	30

Beam Weapon Range Modifiers

Adjust the *effective* range to the target as follows:

+2 MU for each nuclear detonation counter through which the line of sight passes.

+2 MU per G of gravity band through which the line of sight passes.

Nuclear Detonations emit large bursts of electromagnetic radiation which can degrade sensor scans in their vicinity. This affects targeting accuracy for beam weapons, so the effective range to the target for these weapons is increased by 2 MU for every nuclear detonation counter through which the line of sight passes.

Planets, gas giants and stars may degrade sensor scans due to their mass masking a target, or the intense electromagnetic radiation from the stellar body interfering with sensors. The gravity of a gas giant may even deflect a particle beam or plasma bolt, while a star's gravity may be sufficiently great to deflect the light of a laser beam.

To model these gravity-related effects, for each gravity template along the line of sight, increase the effective range for beam weapons by a number of MU equal to twice the maximum gravity field through which the line of sight passes.

Example: In Figure 14, the line of sight between the two ships passes through the 2G boundary of the gravity template around the gas giant, and also passes through a nuclear detonation counter. The actual range between the two ships is 8 MU but the effective range is 14 MU (+4 MU for passing through the 2G field, and +2 MU for passing through a nuclear detonation counter). This changes the range from *short* to *long*; if the target was already at the limit of a weapon's range, this could even put the target just out of range.

Range adjustments

+2MU due to nuclear burst

+ 4MU due to passing through the planet's 2G gravity band
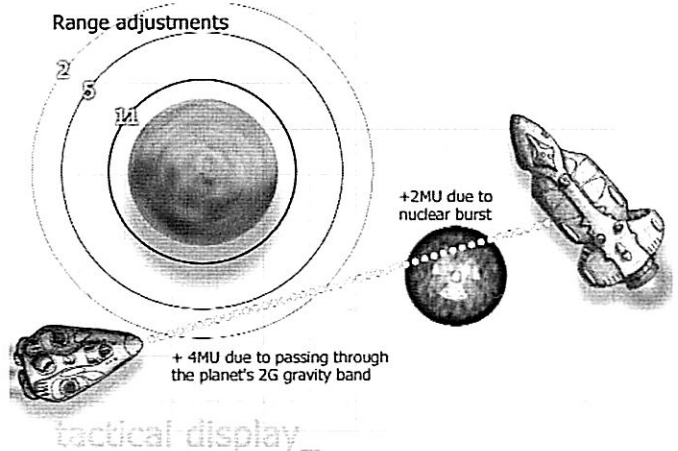
FIGURE 14: BEAM RANGE ADJUSTMENTS DUE TO GRAVITY AND NUCLEAR DETONATIONS

Missile Range Modifiers

Missiles are affected slightly differently by nuclear detonations and gravity, as explained on p.15.

Secondary Weapons

The term "secondary weapons" covers all starship weapons except spinal mounts. Individually, secondary weapons are much weaker than spinal weapons, but can be used *en masse* to overwhelm a target. Such weapons include lasers, energy weapons (plasma and fusion guns) and missiles (of all types), as well as smaller versions of the particle accelerator and meson weapons used by capital ships as spinal mounts. The

smaller weapons are mounted in turrets or barbettes, with larger ones in dedicated weapon bays.

Note that missile fire and impact is handled in the Missiles section (p. 15) but the damage resolution for missiles is identical to all other secondary weapons.

Secondary weapon attacks are resolved using the Secondary Weapon Damage table (Table 2), which combines the chance of hitting, and damage inflicted, into a single D6 roll. Each weapon battery is rated as standard or high power on the ship's SSD (e.g. "L" for a standard laser battery, "L+" for a high power battery). This defines the starting row on the table, which is then adjusted up or down the table subject to offensive modifiers, defensive modifiers and the target's agility.

Positive modifiers increase damage (shift up rows on the table) and negative modifiers decrease the damage potential (shift the row downwards). No attack can be modified to a row higher than *Enhanced Damage 6* or lower than *Reduced Damage 4*.

Once all offensive and defensive factors have been applied to determine the row, the attacker rolls a D6, and cross-references the result on Table 2 to find the number of structural boxes destroyed by the attack. If the result is "-" no damage is caused - this may mean all the weapons in the battery missed their target, were absorbed by sand clouds or failed to penetrate the target's armour, or a combination of these effects.

Example: The *Yetz* fires a high power laser battery (L+) at the *Agrippa,* 20 MU away. The *Agrippa* is a lumbering hulk with a +2 agility modifier, but is heavily armoured (armour rating 2). The line of sight between the ships crosses a level 1 sand cloud. The total row modifier is -1 (+2 for target agility, -2 for target armour, -1 for sand cloud), so the attack is shifted down one row on the table, from the *High Power (+) Battery* row to the *Standard Battery* row. The *Yetz*'s player rolls a 6 on D6, indicating 2 points of damage are inflicted on the *Agrippa* (but there is no re-roll for additional damage, as would have been the case on the row above).

Re-rolls

To model lucky hits and chain-reaction failures of systems, a roll of 6 on some rows in the Secondary Weapon Damage table triggers a re-roll. This re-roll is

TABLE 2: SECONDARY WEAPON DAMAGE

	D6 Die Roll					
Attack Strength	1	2	3	4	5	6
Enhanced Damage 6	-	1	2	2	2	3*
Enhanced Damage 5	-	1	2	2	2	2*
Enhanced Damage 4	-	1	1	2	2	2*
Enhanced Damage 3	-	1	1	1	2	2*
Enhanced Damage 2	-	-	1	1	2	2*
Enhanced Damage 1	-	-	1	1	1	2*
High Power (+) Battery	-	-	-	1	1	2*
Standard Battery	-	-	-	1	1	2
Reduced Damage 1	-	-	-	1	1	1
Reduced Damage 2	-	-	-	-	1	1
Reduced Damage 3	-	-	-	-	-	1
Reduced Damage 4	-	-	-	-	-	0**

*Re-roll on a 6, and add both results. Multiple re-rolls are possible.
**Re-roll on a 6. On a second D6 roll of 4, 5 or 6, one point of damage is scored but no further re-rolls are allowed.

TABLE 3: OFFENSIVE MODIFIERS

Weapon Type	Situation	Modifier
Energy Weapons	**Short range**	+2
Lasers	**Short range**	+1
Meson Guns	**Short range**	+2
Meson Guns	**Long range**	+1
Missiles*	**Nuclear warhead**	+2
Missiles*	**High intensity fire**	+2
Missiles#	**Second movement**	+1
Particle Accelerators	**All ranges**	+1

*These factors must be declared in the fire orders when the missiles are launched - their warhead cannot be changed in flight.
#This modifier does not apply to bomb-pumped laser missiles.

TABLE 4: DEFENSIVE MODIFIERS

Attacker's Weapon Type	Target's Defence System	Effect
Lasers, Energy Weapons, Missiles, PAs	**Armour** Level *N*	-*N*
Lasers, Energy Weapons, Missiles	Line of sight passes through **Sand Cloud** Level 1	-1
Lasers, Energy Weapons, Missiles	Line of sight passes through **Sand Cloud** Level 2	-3
Meson Guns	**Meson Screen** Level *N*	-(2 x *N*)
Meson Guns	**Hull Configuration** Level *N*	-(2 x *N*)
Missiles	**Point Defence** (per standard Laser battery)	-1*
Missiles	**Point Defence** (per high power Laser battery)	-2*#
Missiles	**Point Defence** (per energy weapon battery)	-1*
Missiles (Nuclear & HE warheads)	**Repulsor** Level 1	-6*
Missiles (Nuclear & HE warheads)	**Repulsor** Level 2	-7*
Missiles (Nuclear warheads)	**Nuclear Dampers** Level *N*	-*N*

*Effective against one selected missile strike only.
#May alternatively be allocated as a -1 modifier to two different missile strikes.

made on the same row of the table and any additional damage is added to the first roll. Rolling another 6 triggers a further re-roll, and continues to do so until no re-roll is indicated. On the *Reduced Damage 4* row, rolling a 6 will cause no damage unless a second roll of 4, 5 or 6 on D6 is made, in which case 1 point of damage is inflicted (but no further re-rolls are allowed).

Defensive Modifiers

Table 4 shows the effects of various defences that may be deployed by a ship. Defences may be *general* or *specific*: general defences apply against all attacks during a given game turn; specific defenses are targeted against selected individual attacks. A meson screen is an example of a general defence - all meson weapon attacks against the ship are affected by its meson screen. Point defence using a laser battery is a specific defence - it can only be used once in each game turn against one specified attack, i.e. against one missile salvo within a flight of missiles.

Within these limits, ships may allocate whatever defences they see fit against attacks, and a combination of general and specific defences can be used against each attack. Weapons such as lasers may only be used for point defence if they were not used for offensive fire in the same game turn.

Agility Modifier

All ships have an agility modifier, representing the ability of the ship to manoeuvre to avoid enemy fire. Positive modifiers indicate that the ship is less agile and easier to hit, while negative modifiers indicate that the ship is more manoeuvrable and its position less predictable, so it is less likely to be hit.

The agility modifier of the target ship is applied in the same way as the firing weapon modifiers to shift the attacker's row up (+ve) or down (-ve) Table 2.

Point Defence Fire

Energy weapons and laser batteries allow a starship's commander some flexibility in how they defend against attacks by missiles. Any battery that has not been used for offensive fire may be used to try to shoot down incoming missile salvos instead. Each battery used must be against a specific missile salvo (not a whole group of salvos) and contributes a modifer to the roll on the Secondary Weapons Damage table. A weapon's fire arc is ignored for point defence fire, i.e. it can be used whatever the direction of the missile attack.

Bomb-pumped laser missiles are only subject to point defence fire from the target if the missile detonates within 6 MU of the target.

Example: The *Lisani*, a PF Sloan class Fleet Escort, comes under fire from the Zhodani ship *Chtetiak*, which sends in a strike of four missile salvos. The *Lisani* has three high power laser batteries (L+). The captain of the ship allocates two batteries to fire in defence, keeping the third battery in reserve for offensive or defensive needs later in the turn. The two L+ batteries give a total defensive modifier of -4 (see Table 4), which can be split across the missile salvos. For example, the -4 modifier could be applied to just one missile salvo, though this would allow the other three salvos to hit home unmodified. Alternatively, the defensive fire could be applied to two salvos, giving each a -2 modifier (while the other two salvos would be unmodified) or a −1 modifier could be applied to all four salvos.

Escort Defence Fire

Other ships may contribute to a target vessel's anti-missile defence if they are within 6 MU of the direct line of travel of a missile salvo impacting the target that game turn. The additional batteries used for point defence contribute the same defensive modifiers as if they were being fired from the target ship itself but are subject to the same restrictions, i.e. they must not already have been fired that game turn and cannot subsequently be fired again that turn, whether for offensive or defensive purposes. Just as for point defence, the weapon's fire arc is ignored for the purpose of determining whether it can fire at the missiles.

Bomb-pumped laser missiles are subject to escort defence fire if their track comes within 6 MU of an escort, but the line of sight of the laser shot (after detonation) does not count as part of the missile track.

Example: The *Agidda* is escorting the *Lisani* when it is attacked by 4 missile salvos from the Zhodani *Chtetiak* (see the preceding example). The missile salvos pass within 6 MU of the *Agidda* so its commander decides to allocate a single remaining high power laser battery to bolster the *Lisani*'s defence. The *Agidda*'s L+ battery adds a further -2 modifer, to be split against the missile salvos as the *Agidda's* player feels fit.

Sandcasters

Sandcasters differ from other defences in that they protect an area of space rather than a specific ship. With the exception of meson and PA attacks, all secondary weapon fire that passes through a cloud of sand created by a sandcaster is subject to a defensive modifier.

Sandcasters come in two varieties - Level 1 or Level 2. A Level 2 sandcaster produces a denser, more effective cloud, but a ship may opt to deploy the sand more thinly and place two Level 1 clouds in place of a single Level 2 cloud.

Sand is deployed during the movement phase of the game turn. Each sand cloud counter may be placed at any point within 5 MU of the launching ship (sand canisters can be set to burst a defined distance away from the ship). Note that a cloud cannot be placed directly 'under' a ship, i.e. a single sand cloud cannot provide 360° protection for a ship (most ships are just too large for a single sandcaster battery to deploy sand around the entire ship). However, protection against attacks from all directions can be achieved using multiple sand clouds deployed appropriately around the ship.

Each sand cloud has the same velocity vector as the ship which launched it (sand counters have a vector arrow on them to represent this). The cloud's vector cannot be changed, so if the launching ship changes direction, the cloud will drift away from it.

Every attack whose line of sight passes through a sand cloud suffers the defensive modifier of the strongest cloud of all those crossed (the modifiers are not cumulative if the attack passes through multiple clouds).

At the end of each firing phase, all sand clouds which have had a beam weapon attack pass through them are degraded by a single level, i.e. a Level 1 cloud is removed, and a Level 2 cloud is reduced to Level 1.

Sandcasters have limited ammunition and must make a reload check after firing in exactly the same way as missile launchers (see p.16).

Missiles

Unlike other secondary weapons, missiles may take a considerable time to traverse the distance between the firing ship and their target, so they do not always hit home in the same turn that they were fired.

Note that each group of missiles fired by a battery counts as a separate *salvo*; each salvo is a separate attack against the target. However, for ease of play, multiple salvos fired by one ship against one target may be represented using a single missile counter.

Missile warheads may be high explosive (HE), nuclear or bomb-pumped laser (BPL). Nuclear strikes cause more damage to their targets but are susceptible to being disabled by nuclear dampers. Any nuclear salvo (or group of salvos) which explodes, causes a nuclear detonation counter to be placed at the detonation point. This degrades the targeting capability of any attack which passes through the nuclear detonation counter, i.e. friendly fire is affected just as much as enemy fire.

For BPLs, the user must specify the range from the target at which the warhead detonates. The maximum range is 10 MU (if the target is beyond this, the laser beams miss). If detonated within 6 MU of the target the attack gains a +1 bonus on Table 2, but becomes subject to point defence fire. A nuclear detonation counter is placed at the point of detonation of each BPL salvo.

The type of warhead must be declared in the fire orders. Different batteries may target the same opponent with different warhead types.

Missile Movement

Missiles always accelerate at their maximum thrust of 10G, i.e. they move 10 MU in the turn they are launched and 20 MU in the second "inflight" movement turn. Missiles only carry sufficient fuel for two turns of movement. Since this also fuels the power plant which feeds the electronics, the whole missile becomes useless and is simply removed from the table if it does not detonate by the end of its second turn of movement.

Missiles need not be launched directly at the target ship in the first turn, but must move 10 MU in a straight line. This may be used to confuse the opponent as to the intended target of the missiles (by not firing directly towards that target), or may be useful in placing the missiles in the anticipated path of a target for their second "inflight" turn of movement. In the second movement turn, the missiles must move 20 MU in a straight line directly towards their target.

(i) Missiles may manoeuvre to track their targets and evade point defence fire, but to simplify play (and to avoid players trying to curve missiles around sand clouds and other obstacles) missiles must move in a straight line for each of their movement phases.

The designated target of a missile strike may not be changed even if that target is destroyed or crippled; the missiles may strike home, be discarded, or detonated at the end of their movement (this may be used to deliberately place some nuclear detonation counters).

Missile Range Modifiers

Adjust the distance a missile salvo moves in a turn:

- **-2 MU for every nuclear detonation counter** which is in its movement path that game turn.

- **-1 MU per G of gravity band** which is in its movement path that game turn.

The first factor represents degradation of missile sensors by the radiation burst, forcing the missiles to slow down to regain or refine the sensor lock on their target.

The gravity effect is based on the highest gravity band crossed on each gravity template in the missile's path. Missiles passing through a strong gravity field might be sufficiently slowed that they fail to reach their target.

Example: The Imperial *Benella* fires a missile salvo at the Zhodani ship *Chtetiak*, 6 MU away. The line of sight crosses three nuclear detonation counters, each of which reduces the missile salvo's movement by 2 MU, such that its initial 10 MU movement is reduced to just 4 MU in the first turn (the missiles have great trouble maintaining a sensor lock on the *Chtetiak* due to electromagnetic interference from the nuclear blast).

When the inflight missile movement phase is reached in the next game turn, the *Chtetiak* has accelerated away 14 MU from the missiles. The nuclear detonations are old enough to have been removed at the end of the last turn and there are no other obstacles on the line of sight between the missiles and the *Chtetiak*. Since the missiles travel 20 MU this turn, they catch up with the Zhodani ship and the missile salvo counter is placed against its base. Whether the missiles are repulsed or shot down by point defence fire is resolved in the first missile phase of the firing player's turn.

Optionally, all missiles can strike home in the turn they are launched, i.e. they travel their full 30 MU in a straight line towards their target. This eliminates the need to use counters to record their progress.

Missile Reloads

Missile batteries have limited ammunition, and cannot continue firing indefinitely. To simulate this, after each battery fires, the player should roll a D6: if the roll is a 6, all ammunition in that battery's magazine has been expended, and it may not fire again in this game. The battery may still be damaged from a threshold check being failed, whether or not it has ammunition available. The reload check should be made immediately after the battery has fired.

The same ammunition rules apply to sandcasters. For both missile launchers and sandcasters, when their magazine is empty, put a single line through the icon on the SSD to show this (if the weapon is subsequently destroyed, ensure you put a full cross through it, to distinguish it from simply having an empty magazine).

Nuclear and bomb-pumped laser warheads are far more expensive than HE, so you may opt to roll D6 for each ship at the start of the game to determine which warhead types it has available: **1-3** HE only; **4-5** HE and nuclear; **6** HE, nuclear and bomb-pumped laser.

High Intensity Missile Fire

A player may declare a ship is making a high intensity fire attack with one or more of its missile launchers. The ship unleashes every missile stored in the magazines for those launchers, i.e. these launchers automatically fail their reload check. This gives a one-off bonus of +2 when rolling the attack on the Secondary Weapon Damage table. All defences apply as usual.

Nuclear Detonations

Each missile strike using nuclear weapons results in the placement of a nuclear detonation counter. The counter simulates the effects of the radiation (including electromagnetic pulse, or EMP) temporarily interfering with sensor systems, making vessels beyond the nuclear burst harder to detect (reducing the range of beam weapons and slowing missile movement).

Library Data Search: TACTICAL USE OF NUKE BURSTS

A player may opt to fire nuclear missiles at empty space to create a defensive 'wall' of nuclear blasts. Targeting such locations is always successful, and results in a nuclear burst counter being placed at the target. The bursts form a virtual defence, interfering with enemy sensors (as well as the defender's own sensors) so as to increase the effective range to the ship. Such use of missiles is subject to the usual missile reloading rules.

Each nuclear counter remains in place until the end of the following turn and, as it has no retained velocity, it stays in the same place. There is no impact on a ship passing through a counter, although a sand cloud which contacts a nuclear detonation counter during movement will be destroyed by it.

A nuclear detonation counter is also placed in the last location of a ship that has lost all its structure boxes to represent its final catastrophic demise!

Resolving Damage

There are two types of damage in *Power Projection* - structural damage, and threshold damage. Structural damage represents the ongoing degradation of the hull and superstructure of a starship. Threshold damage represents the failure of critical ship systems due to accumulated damage (or a lucky hit).

For each task force firing phase, resolve <u>all</u> structural damage suffered by a ship (i.e. all attacks against that ship) before determining whether a threshold check is required. This simplifies play by avoiding threshold checks part way through a fire phase.

Structural Damage

The amount of structural damage which can be absorbed by a starship is represented by up to four rows of boxes of structure points. Figure 15 shows the structural damage capability of a 30,000 dT ship with an armour rating of 2 (denoted by the two circles above the structural damage boxes).
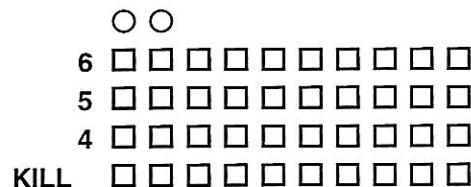
```
        O  O
    6  □ □ □ □ □ □ □ □ □ □
    5  □ □ □ □ □ □ □ □ □ □
    4  □ □ □ □ □ □ □ □ □ □
 KILL  □ □ □ □ □ □ □ □ □ □
```

FIGURE 15: STRUCTURAL DAMAGE POINTS FOR A 30,000 DT SHIP WITH 2 ARMOUR POINTS

Each point of damage from the Secondary Weapon Damage table results in a structural damage box being crossed off, starting at the top row and working from left to right. Once all four rows of boxes are crossed off, the ship is completely destroyed. (Note that armour is only crossed off due to failing a threshold check.)

When the last structure box in a row is crossed off during a firing phase, a **threshold damage** check must be made (see below). If damage is so massive that two or more row ends are crossed off during the same firing phase, a **catastrophic damage** check must be made.

Threshold Damage Checks

Threshold damage occurs when a ship fails a threshold check. When the last box in a row of structural damage boxes is crossed off, the ship's player must make a threshold damage check for every piece of equipment shown on their ship's SSD - the effects of such failures are described in Table 5.

The number at the start of each row of structural boxes is the threshold check number that is rolled against when all the boxes in that row are crossed off, i.e. in Figure 15 the 6 at the start of the first row indicates the threshold check (when the last box is crossed off on that row) fails on a D6 roll of 6; the threshold check for

the second row fails if the roll is 5 or 6; the third row check is failed on a roll of 4, 5 or 6. Clearly, the chance of failing a threshold check increases as the structural damage mounts up. The last row says 'Kill' because when all boxes on that row are crossed off the ship has been destroyed (so no threshold checks are required).

If two or more rows of structure boxes are crossed off in a single firing phase, a **catastrophic damage** check is made <u>before</u> the normal threshold damage check, <u>and</u> the check number for the subsequent threshold damage checks is set by the last row crossed off, reduced by 1 to further increase the likelihood of the checks failing. This reflects the fact that more than one threshold check point has been crossed, but for simplicity only one set of threshold check rolls is made.

Catastrophic Damage Checks

Catastrophic damage checks occur as a result of massive amounts of damage being suffered by a starship

TABLE 5: THRESHOLD DAMAGE CHECK FAILURE EFFECTS

System	Effect of Failure
Agility Modifier	Not subject to threshold checks.
Armour	Crossed off when check failed. Cannot be repaired during battle.
Bridge	Roll a D6: 1-5: Bridge inoperable for a number of turns equal to the number rolled; 6: Bridge inoperable permanently (cannot be repaired during battle). While the bridge is inoperable, the ship cannot manoeuvre or fire and its Agility Modifier is reduced to +2. However, sandcasters, nuclear dampers and meson screens still function.
Cargo	Crossed off when check failed. Cannot be repaired during battle.
Computers	Crossed off when check failed. When all units are crossed off, the ship may not fire or enter Jumpspace. Repulsors, lasers and energy weapons may not be used for area or point defence.
Configuration Modifier	Not subject to threshold checks.
Damage Control	First failed check halves rating (round down); second failed check destroys.
Energy Weapon Battery	Crossed off when check failed.
Frozen Watch	Crossed off when check failed. Cannot be replaced during battle.
Fuel Boxes	Crossed off when check failed. When all units crossed off, may not manoeuvre or fire weapons (except missiles and sandcasters), no screens function, Agility Modifier is reduced to +2, and cannot Jump. Cannot be repaired during battle.
Jump Drive	First failed check halves rating (round down); second failed check destroys (ship cannot enter Jump).
Laser Battery	Crossed off when check failed.
Manoeuvre Drive	First failed check halves rating (round down) and increases Agility Modifier to +1 (unless already worse); second failed check destroys and reduces Agility Modifier to +2.
Meson Battery	Crossed off when check failed.
Meson Screen	Crossed off when check failed.
Missile Battery	Crossed off when check failed.
Nuclear Damper Screen	Crossed off when check failed.
PA Battery	Crossed off when check failed.
Repulsor PD battery	Crossed off when check failed.
Sandcaster Battery	Crossed off when check failed.
Streamlining	Not subject to threshold checks.
Structure Boxes	Not subject to threshold checks.
Turn capability	Not subject to threshold checks.

in a single firing phase, i.e. when two or more rows of structure boxes are crossed off in a single game turn.

A catastrophic damage check is a single roll for the whole ship. The check number is reduced by 1 from the equivalent threshold damage check. For example, if the first two rows have been crossed off in a single firing phase, the check number for the second row is normally 5; this is reduced by 1, to give a catastrophic damage check of 4.

If this catastrophic damage check is failed, the entire next row of structural damage boxes is immediately crossed off, and another catastrophic damage check is made (with the subsequently increased chance of failing the check). A catastrophic damage check can easily result in a starship being destroyed due to a chain reaction of internal failures and explosions!

Example: The *Lisani* has half its first row of structure boxes crossed off when it takes a massive burst of damage from concentrated Zhodani fire. It takes enough damage to cross off the rest of the first row and the whole of the second row, i.e. it has lost two rows of structure boxes in one firing phase. The ship first makes a catastrophic damage check, (the check number is normally 5 for the second row of structure boxes but for the catastrophic check this is reduced to 4). The player rolls a 5 on D6, failing the check and causing the *Lisani's* third row of structure boxes to be crossed off immediately. The player must roll another catastrophic damage check (target number now 3!) but thankfully rolls a 1, avoiding a cataclysmic explosion engulfing the *Lisani*. However, the ship must still make the usual threshold damage checks for its entire SSD, this time at the reduced threshold check number of 3, i.e. rolls of 3, 4, 5 or 6 on D6 indicate that a system has failed.

Damage Control

A ship's crew can try to jury-rig repairs to damaged systems, during a battle to get them up and running again. Such repairs only last the duration of the battle being fought; more permanent repairs must be made at the end of a battle (such repairs are detailed in the full *Power Projection* rules).

Damage Control Procedure

Each damage control party on a ship may make one attempt to repair any eligible system per game turn. All teams must be allocated their repair tasks before the rolls are made. Multiple damage control parties may work on the same system, but only one level of damage may be repaired per turn. If two parties are working on the same system and one party succeeds before the other party has made its roll, the latter party may <u>not</u> be reallocated to repair a different system -

they are assumed to have been working alongside the successful team.

Damage control parties may only repair damage on their own ship. Some systems cannot be repaired in battle (see Table 5).

Each damage control party rolls a D6; if the result is a 6, the system is immediately repaired by a single level.

Example: Two damage control parties are allocated to the *Lisani's* Jump-2 drive, which is currently inoperative due to severe battle damage. The first crew is lucky and rolls a 6 - they manage to repair one point of damage to the Jump drive, i.e. the drive is restored to Jump-1 capability. The other team may not make another roll this turn to repair the Jump drive further, though in the following turn either team could now attempt to restore it to full Jump-2 operation.

You may opt to limit battlefield repairs as follows:

If a system is successfully repaired using damage control, but then suffers damage again, it may not be repaired back to the same level during a battle. It will require permanent repairs to be carried out.

Frozen Watch

Once per game, any ship of 1,000 dT or more may activate its frozen watch - these are crew members who have been cryogenically frozen in low berths, awaiting awakening to replace battle casualties.

Upon activating the frozen watch, the number of damage control parties is restored to its normal value.

Jump Drive Operations

Traveller starships move between the stars using a faster-than-light (FTL) propulsion system known as a Jump drive. Such drives require a significant expenditure of power (and hence fuel) to transfer the ship into the Jumpspace continuum and bring it out again at the intended destination point.

The *Power Projection: Fleet* rules describe how to run strategic wars across many star systems, but these *Escort* rules focus only on one-off, in-system battles. As a result, the key usage of Jump drives in *Escort* battles is for sudden entry of ships into the battlefield (as they exit Jump) or escape from the battle (by Jumping out of the star system). The latter is a useful tactic if your fleet is taking a hammering!

Jump Drive Parameters

Jump drives have a range listed in parsecs (parallax seconds; one parsec is approximately 3.27 light years). In the era that *Power Projection* is set, Jump technology is limited to manufacturing drives with a maximum range of 6 parsecs. Jumps further than 6 parsecs have

only been achieved during accidents, i.e. misjumps where the ship may travel in a random direction for many parsecs.

For each parsec to be travelled, the Jump drive consumes fuel equal to 10% of the ship's volume, i.e. one fuel box on the SSD for each parsec.

Every Jump takes approximately one standard week, no matter the distance travelled.

The gravity of massive bodies affects Jumpspace such that ships may not safely enter nor exit Jump within 100 diameters of a planet, sun or other massive object. Table 6 shows the typical 100 diameter limits (in MU) for various massive bodies.

TABLE 6: JUMP EXIT LIMITS

Planetary Size		100 diameter
UPP Code	Example	limit (MU)
1	-	2
2	Luna	4
3	Mercury	6
4	Mars	9
5	-	11
6	-	13
7	-	15
8	Earth	17
9	-	19
10 (A)	-	21
SGG	Uranus	70
LGG	Jupiter	185

Ships are totally isolated while in Jumpspace - they may not communicate with other ships in Jumpspace, nor with ships in normal space, during Jump.

Once in Jump, a ship may not break out of Jumpspace until it reaches its destination... at least, no ship that has done so has survived to tell the tale.

Jump Entry

The planned use of a Jump drive must be noted during movement orders by writing "Jump-*N*", where *N* is the number of parsecs to be travelled.

Jump entry may be performed within 100 diameters of a massive body. However, this results in a significant chance that the ship could suffer a major mishap or be totally destroyed.

To determine whether a misjump occurs, roll 2D6 and apply the following modifiers:

   +4 if entering Jump within 100 diameters of a world

   +9 if entering Jump within 10 diameters of a world

   +1 if the ship is civilian

If the result is 13+ the ship misjumps; if the result is 16+ the ship is destroyed.

A ship may only enter Jump if it has sufficient fuel available, i.e. one fuel box for each parsec to be travelled. An additional fuel box is always required to support the power plant for other key functions such as life support, computers, etc.

It takes time for the drive to build up sufficient energy to initiate Jump:

   - If nothing more than missiles or sandcasters are used while preparing for Jump, the ship may enter Jump the turn after it declared its intent to do so.

   - If other weapons are used while the ship is preparing to Jump, it will enter Jumpspace two turns after declaring its intent to do so.

A ship may perform normal manoeuvre operations up to the point that it enters Jump.

A ship may also cancel its Jump at any point prior to entering Jumpspace (the player notes this cancellation in their movement orders).

Misjump Effects

If a misjump occurs, the ship is effectively lost, as it will exit from Jumpspace many parsecs from its colleagues. It may arrive behind enemy lines and, without support, quickly be destroyed by an enemy fleet. It may arrive in an area of empty space with no planets or gas giants to refuel from and thus be stranded. Even if it arrives in friendly territory, it will take many weeks to find and rejoin its fleet.

In any event, a ship that misjumps suffers the equivalent of a failed threshold check on its Jump drive, i.e. its Jump rating is halved.

Jump Exit

Jump exit into a system may not be performed within 100 diameters of a sun, planet or other massive body - trying to arrive any closer to such a gravity source causes the ship to be precipitated out of Jumpspace at the 100 diameter limit.

The player controlling the emerging ship designates a target Jump exit point. This can be done in secret by recording the exit point in the movement orders (for example noting the distance of the emergence point in MU from the two nearest edges of the playing area). If a referee is running the game, they should also be notified of the intended emergence point.

Note that the ship will emerge from Jump during the movement phase of the game turn.

If it has not already done so when entering Jumpspace, any ship exiting Jump must cross off a number of fuel boxes equal to the number of parsecs it has travelled (these fuel boxes are not damaged, but were expended fueling the Jump drive).

SCENARIOS

Tactical Game Scenarios

The following scenarios present a mix of small fleet conflicts for use with **Power Projection Escort**. The sides should be fairly balanced, but feel free to change the mixes of ships.

The following ship class abbreviations are used: CC (Cruiser, Colonial), CP (Cruiser, Mercenary), DD (Destroyer), DE (Destroyer, Escort), DL (Destroyer, Light), EM (Escort, Missile), FE (Escort, Fleet), FP (Frigate, Patrol), MB (Missile Boat), SDB (System Defence Boat), TT (Tender/Tanker).

Set Up

Assuming the playing surface is rectangular, each side is usually deployed at one of the narrow ends of the table. Ideally, the forces should be at least 40 MU (40") apart at the start, to allow a little manoeuvre before coming into weapons range. Ships may enter the table with any facing, moving in any direction, with a maximum speed of 10 MU (place future position counters accordingly before the first turn starts). Missiles and sand may not be deployed before the game starts.

There is some benefit to seeing how your opponent deploys his fleet before deciding where to place your own ships. Each player should roll a D6 - the highest roll wins and sets up second. If it is a tie, re-roll.

Victory Conditions

Unless there are specific mission objectives, the winner is the player with the highest victory points. Victory points are usually earned by destroying your enemy's ships - the point value (PV) of each destroyed ship is added to your victory points. To ensure balance, some sides start with bonus victory points.

If a ship leaves the edge of the table, it is assumed to have left the battle, and the opponent gains victory points as if it had been destroyed (unless the mission objectives require the ship to escape off the table). This encourages players to manoeuvre carefully!

1. 'A Good Clean Fight'

Throughout the Frontier Wars in the Spinward Marches, conflict between Imperial and Zhodani Escort Squadrons has been more common than battles between capital ships. This is because there are far more escorts than capital vessels, and they are often used to scout in force, or picket a star system to provide basic defence and warning of enemy war fleets.

Imperial Forces (total PV 60): 2x *Chrysanthemum* DE (PV 15), 2x *Fer-de-Lance* DE (PV 15).

Zhodani Forces (total PV 56): 1x *Zhdiak* DL (PV 28), 2 x *Plokl* EM (PV 14).

Victory Conditions: Highest victory points wins. The Zhodani start with 4 victory points.

Variations: Increase the number of ships involved, or substitute either a *Midu Agashaam* DD (PV 26, Zhodani victory points reduced to 0 at start) or a *PF Sloan* FE (PV 33, Zhodani VP increased to 7 at start) for two of the Imperial Escorts.

2. 'Breaking the Blockade'

Key Frontier Wars missions included the denial of facilities to the enemy, and planetary sieges. When the fleet was stretched thin, or the target was low value, escort class ships were used for such operations.

Set Up: The winner of the set up roll chooses whether to blockade. The blockaded player decides whether they will break in or out. The blockaded player's forces are deployed <u>after</u> the blockading forces have been placed and had their first movement orders written.

Place a planet on the centre-line of the table, one-third of the way along the table. Note: **Power Projection Escort** assumes no gravity effects from the planet; it does not interfere with combat either.

<u>For a "break out" game</u>, the blockaded player's ships start on the planet and must escape to the furthest edge of the gaming table. Each ship's maximum initial vector is its ship's thrust minus 1, to account for the gravity of the world. The blockading player may not set up within 10 MU of the planet but can otherwise deploy their ships wherever they like on the table.

Victory Conditions: Each ship that escapes with a usable Jump drive, bridge and at least two fuel boxes gains the blockaded player its value in victory points. If no ships escape, the blockaded player loses!

<u>For a "break in" game</u>, the blockaded player's ships start at the furthest edge from the planet and must reach the safety of the planet's orbital defences by achieving a zero vector (i.e. their future position is the same as their current position) while within 5 MU of the planet. The game ends when all the blockade-running ships are at rest by the planet or have been destroyed.

Victory Conditions: Each ship at rest within 5 MU of the planet at the game's end gains the blockaded player its value in victory points. A ship may stop near the planet then move off again, but the game does not end (nor does the ship count towards the points score) until it returns to rest within 5 MU of the planet.

Alternatively, play a break-in, followed by a break-out, but in the break-out, the blockading forces retain the losses/damage they suffered during the break-in.

(a) Zhodani Blockade

Zhodani Forces (total PV 110): 4 x *Shivva* FP (PV 10), 3 x *Plokl* EM (PV 14), 1 x *Zhdiak* DL (PV 28).

Imperial Forces (total PV 78): 1 x *PF Sloan* FE (PV 33), 2 x *Fer-De-Lance* DE (PV 15), 1 x *Chrysanthemum* DE (PV 15).

(b) Imperial Blockade

Imperial Forces (total PV 111): 2 x *Midu Agashaam* DD (PV 26), 1 x *Kinunir* CC (PV 17), 2 x *Fer-de-Lance* DE (PV 15), 2 x *Viper* SDB (PV 7).

Zhodani Forces (total PV 76): 1 x *Zhdiak* DL (PV 28), 2 x *Plokl* EM (PV 14), 2 x *Shivva* FP (PV 10)

Note that the blockaded player has less points than his opponent, but his aim is not to destroy the opposition, rather to break the blockade. If breaking in, it is key to bring your ships to a rest by the planet as soon as possible to avoid the opponent destroying the stationary vessels while they await the arrival of their colleagues.

Optionally, the players may agree that any blockading ships foolish enough to come within 10 MU of the planet suffer attacks by the planetary defences (effectively 2 L+ batteries fire at each intruding ship per turn).

3. 'Makeshift Battle Riders'

In this scenario, two Zhodani tenders are delivering reinforcements to a frontier world which, unknown to them, has been overrun by Imperials. The tenders are out of fuel so need to deploy their carried vessels to engage and drive off the Imperials.

Special Rules: The tenders may launch all carried craft of one type in one turn, but the tender may not fire offensively or defensively whilst doing so. The launched ships are placed anywhere within 6 MU of the tender in the movement phase. They have the same vector as the tender but cannot move that turn.

Set Up: Place a planet as per the Blockade scenario. The Imperials must deploy within 15 MU of the planet; the Zhodani start on the edge furthest from the planet.

Victory Conditions: The Imperials start with 1 extra victory point.

Zhodani Forces (total PV 208): 2 x *Chtierabl* TT (PV 44). Each *Chtierabl* carries 3 x *Zhodatl* MB (PV 12) and 2 *Zhodq* SDB (PV 12).

Imperial Forces (Total PV 207): 2 x *PF Sloan* FE (PV 33), 2 x *Midu Agashaam* (PV 26), 2 x *Chrysanthemum* DE (PV 15), 4x *Broadsword* CP (PV 11).

4. 'Refuel and Rearm'

This scenario has an Imperial escort squadron ambushing a small Zhodani task force as it is re-arming from an otherwise unprotected tender.

Set Up: The tender starts on the centre-line of the table, one-third of the way along the table. The

Zhodani set up on the edge closest to the tender, the Imperials on the furthest edge.

Special Rules: It takes 1 turn to reload and rearm an escort. A maximum of 4 escorts can be rearmed at once. While reloading, neither escort nor tender may fire offensively or defensively (including sandcasters and point defence fire). The escort must be within 6 MU of the tender at the start of the reloading turn, and both ships' future position markers must be with 6 MU of each other after movement is carried out.

Zhodani Forces (total PV 152): 1x *Chtierabl* TT (PV 44), 8x *Plokl* EM (PV 14, all missile magazines <u>empty</u>).

Imperial Forces (total PV 115): 1 x *PF Sloan* FE (PV 33), 2 x *Midu Agashaam* DD (PV 26), 2 x *Chrysanthemum* DE (PV 15).

Victory Conditions: If the tender is destroyed, the Imperials win. The tender may break off by moving off the edge of the table and does not count towards the Imperial victory points total provided it has a bridge, a working Jump drive and at least two fuel boxes.

Tactical Thinking

Players need to understand and exploit the strengths and weaknesses of each ship design. All the ships presented here are intentionally small and relatively easy to destroy, making for fast, exciting space battles. They provide a selection of tech levels (TL), weapons and defences to play with. (The earlier 'Classic' **Traveller** designs tend to be less optimised than the later ones.)

Combining good armour and agility makes some ships in this book quite hard to damage. All ships can also gain a degree of protection from beam weapons and missiles by using sandcaster systems and point defence fire. The key to destroying a ship is to overwhelm its defensive capabilities with large numbers of attacks, high intensity missile fire or nuclear weapons.

For example, on first appearances, the Imperial *Viper* SDB appears nearly invulnerable due to its -4 shift on the combat table (3 points of armour, and an Agility modifier of -1). However, it does not have nuclear dampers, so the use of nuclear missiles against it can quickly halve its defensive ability, plus it is destroyed by just a single point of damage. The Zhodani *Zhdoq* SDB is far more defensively competent, but it is nearly four times bigger and more costly (in points terms, it is a 12 point ship against the Imperial SDB's 7 points).

Another key factor to consider is ensuring that you engage at your weapon systems' optimal range as this gains you a bonus modifier. Also, when using missiles remember that their delayed impact can be used to double up your attacks on a target if you manoeuvre correctly. For example, a *Fer-de-Lance* class Destroyer Escort can hit a target simultaneously with 8 missile salvos if it is careful with the launch timings.
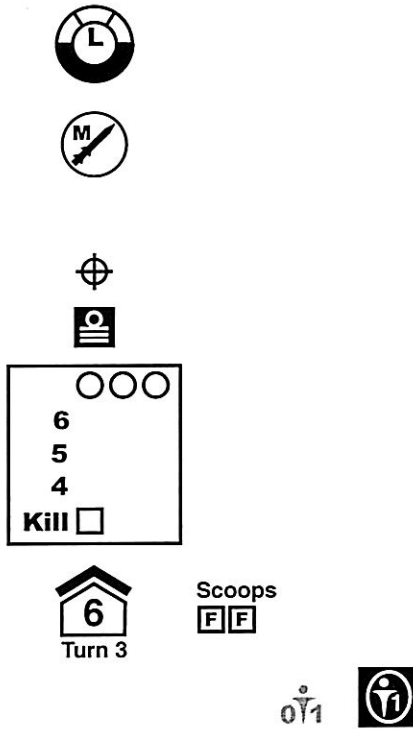
VIPER System Defence Boat

200 dT	TL 15	MCr 255	PV 7

This is a typical Imperial TL15 smaller SDB – it relies upon agility, computing power and armour to ensure survivability whilst it harrasses enemy ships. A solid hit by the enemy will usually kill it due to its small size. This type of SDB is most effectively deployed in "wolf packs" to swarm opponents. Often, these ships do not have an official name, just a number. Crews often name their ships unofficially.

TL15 Imperial System Defense Boat - SDB - 200 dT - SL

6
5
4
Kill ☐

6
Turn 3

Scoops
F F

Config L1: Agility -1

*You are granted permission to photocopy this page for your personal use as a **Power Projection** gaming aid.*

BROADSWORD Mercenary Cruiser

800 dT	TL 15	MCr 446	PV 11

A vessel favoured by mercenaries on the Imperial borders, this ship was originally designed as a light support vessel for planetary assault. As a result, it is only capable of performing light military duties and will usually be beaten by a similar size military opponent.

TL12 Broadsword Mercenary Cruiser - CP - 800 dT - PSL
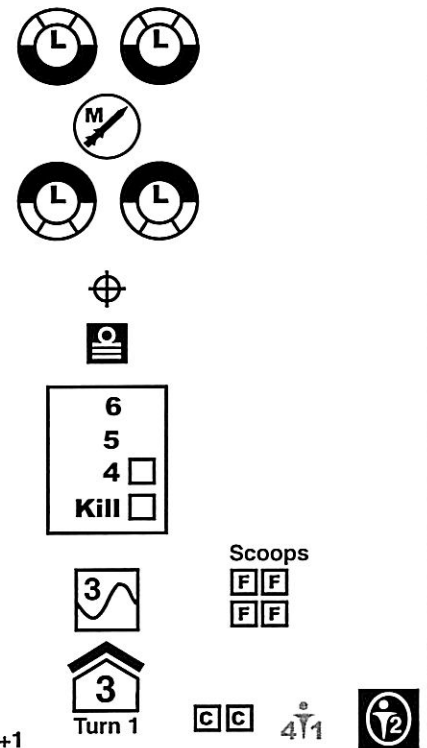
6
5
4 ☐
Kill ☐

3

3
Turn 1

Scoops
F F
F F

C C

Config N/A: Agility +1

*You are granted permission to photocopy this page for your personal use as a **Power Projection** gaming aid.*

FER-DE-LANCE Destroyer Escort

1,000 dT	TL 15	MCr 744	PV 15

The *Fer-de-Lance* class destroyer escort grew out of the Imperium's need to develop a mid-sized escort vessel to escort civilian vessels during the Third Frontier War. The ship is built to be able to stay with Imperial Main Battle Fleets as well as with convoys and so may be found throughout the Imperium.

TL15 Fer-De-Lance Class Destroyer Escort - DE - 1,000 dT - PSL

6
5
4 ☐
Kill ☐

4

Scoops/Purifier
F F F
F F

6
Turn 3

Config N/A: Agility -1

*You are granted permission to photocopy this page for your personal use as a **Power Projection** gaming aid.*

CHRYSANTHEMUM Destroyer Escort

1,000 dT	TL 15	MCr 729	PV 15

The *Chrysanthemum* Destroyer Escort fills a similar role to the *Fer-de-Lance,* but was originally designed to operate with the Battle Fleet, rather than on civilian duties. It is slightly newer than the *Fer-de-Lance*, only having been in production for a century, and once again is found all over the Imperium. It also serves in number of non-fleet escort duties (such as patrols and police operations).
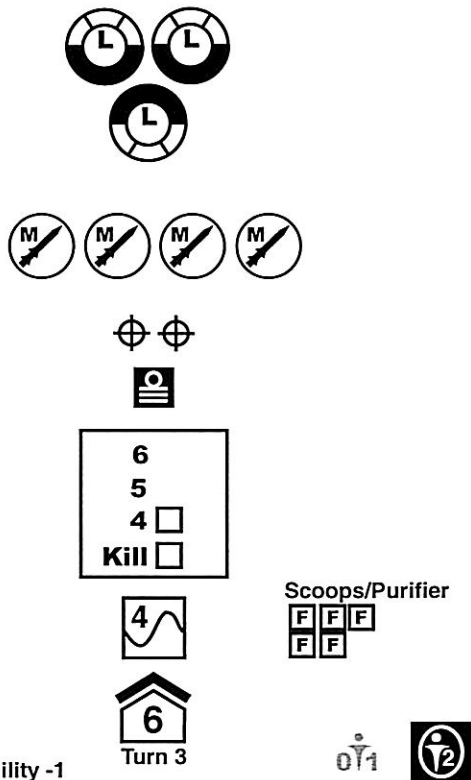
TL15 Chrysanthemum Class Destroyer Escort - DE - 1,000 dT - PSL
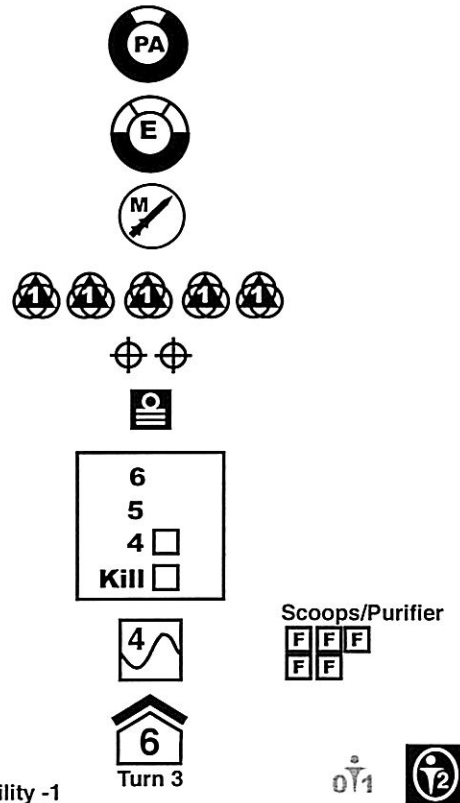
6
5
4 ☐
Kill ☐

4

Scoops/Purifier
F F F
F F

6
Turn 3

Config N/A: Agility -1

*You are granted permission to photocopy this page for your personal use as a **Power Projection** gaming aid.*

KINUNIR Colonial Cruiser

1,250 dT	TL 15	MCr 1080	PV 17

Part of an ill-fated production run of ships also known as vanguard cruisers, battlecruisers and vanguard escorts, the *Kinunir* class is really an escort. They are designed to show the flag in border systems with a substantial Imperial Marine presence for anti-piracy operations. They are the back up to the smaller *Type T* Patrol Cruisers. This particular class only had 20 examples built, of which several have been lost.

TL15 Kinunir Class Colonial Cruiser - CC - 1,250dT - SL

```
6
5  □
4  □
Kill □
```

Scoops/Purifier
```
F F F
F F
```

Config L1: Agility +1   Turn 1

MIDU AGASHAAM Destroyer

3,000 dT	TL 15	MCr 2,189	PV 26

This is a streamlined escort vessel intended to operate against fighters and smaller ships. As yet, the vessel is still considered a developmental unit and has not been put into full production. Typically, they have been deployed in large squadrons of up to 10 or 20 ships, usually alongside Batrons to provide a protective point defence screen.

TL15 Midu Agashaam Class Destroyer - DD - 3,000 dT - SL

```
6  □ □
5  □ □
4  □
Kill □
```

Scoops/Purifier
```
F F F
F F F
```

Config L1: Agility -1   Turn 3

*You are granted permission to photocopy this page for your personal use as a **Power Projection** gaming aid.*

*You are granted permission to photocopy this page for your personal use as a **Power Projection** gaming aid.*

PF *Sloan* class Fleet Escort

5,000 dT	TL 13	MCr 3,335	PV 33

This is one of the more powerful fleet escorts used by the Imperium. The ship has been designed from easily manufacturable components to speed repair work and original build. They are typically deployed in numbers whereever fleet elements are present, and are capable of standing in the Line of Battle for a short period.

Vlezhdatl class Pocket Strike Cruiser

2,000 dT	TL 14	MCr 1,857	PV 20

This is one of the more common Zhodani warships in the Tloql (Spinward Marches) sector. Following the Fourth Frontier War, the Iadr Nsobl Provincial Council concluded that a range of 'pocket' cruisers were need for use at the very edge of the Zhodani Consulate. Such vessels could be used in local operations without the provocative political impact on strained Zhodani-Imperial relations that their larger cousins could create. In addition, their particle accelerator bay provides a devastating punch against smaller ships and escorts, lending the *Vlezhdatl* a menacing reputation as a commerce raider.

Note: the example shown has an extra energy weapon battery compared to the normal design - this represents the attacking punch of the small fighter squadron that it carries (fighter rules are included in **Power Projection: Fleet**).

TL15 PF Sloan Class Fleet Escort - FE - 5,000 dT - PSL

Config L1: Agility -1   Turn 3

TL14 Vlezhdatl Class Strike Cruiser - CS - 2,000 dT - SL

Config L1: Agility 0   Turn 2

*You are granted permission to photocopy this page for your personal use as a **Power Projection** gaming aid.*

*You are granted permission to photocopy this page for your personal use as a **Power Projection** gaming aid.*

ZHODANI CONSULATE SHIPS

SHIVVA Patrol Frigate

600 dT   **TL 13**   **MCr 494**   **PV 10**

A ubiquitous Zhodani Navy design – the most frequently encountered of the types deployed on and beyond the Consulate frontier districts. The class is deployed on various independent picket, communications, and patrol duties, often well beyond Zhodani borders. The crew is known to include a Psionic Adept.

TL13 Shivva Class Patrol Frigate - FP - 600 dT - USL

```
6
5
4 □
Kill □
```

4

Purifiers
F F F
F F

2
Turn 1

Config L2: Agility 0

C

*You are granted permission to photocopy this page for your personal use as a **Power Projection** gaming aid.*

ZHODQ System Defence Boat

700 dT   **TL 14**   **MCr 1,231**   **PV 12**

This is the most modern class of Zhodani SDB's. The *Zhdoq* class has very sophisticated weapons, defences and electronics, and can give even the best comparable Imperial ships a hard time. Since the Zhodani have a rather aggressive strategic doctrine, they have also deployed these vessels in an offensive manner, carried by riders. In this role, *Zhdoq* class boats have participated in assaults, supporting Consulate ground troops with their lasers and energy weapons.

TL14 Zhdoq System Defense Boat - SDB - 700 dT - SL

```
6
5
4 □
Kill □
```

2 N   2 M

6
Turn 3

Scoops/Purifiers
F F

Config L1: Agility -1

*You are granted permission to photocopy this page for your personal use as a **Power Projection** gaming aid.*

26

ZHODATL Missile Boat

1,000 dT	TL 12	MCr 1,342	PV 12

This ship is an example of a type that has been around for hundreds of Olympiads, both in the Consular Navy and other space forces. It is little more than a basic slab hull, coated with thick armour plates, with a powerful manoeuvre drive at the rear and a row of missile canisters with basic fire control equipment added to it. This ship can be used as a system defence boat, as a patrol vessel, or as a rider on a carrier ship. It can be constructed with comparably low technology, and is widely used by planetary and subsector navies throughout the Consulate.

TL12 Zhodatl Class Missile Boat - MB - 1,000 dT - SL

6
5
4 ☐
Kill ☐

6
Turn 3

Scoops/Purifiers
F

Config L1: Agility -1

PLOKL Escort

1,000 dT	TL 14	MCr 1,011	PV 14

The *Plokl* is a basic escort ship for merchant convoys and auxiliary vessels. Ships like this are less common in the Consulate than in Imperial space, because interstellar piracy and smuggling are exceptionally rare in Zhodani space. Nevertheless, on the frontier, they are essential for defence against enemy commerce raiders or criminals operating from bases in the Imperium and other "less developed" societies. The *Plokl* also has a role in regulating merchant traffic from extra-Consular space. Because it is occasionally necessary to board and seize traders, it carries a fairly large troop contingent which can also be used to project force in thinly-populated areas. The *Plokl* is amongst the smallest ships to be organized into regular destroyer squadrons, and to be commanded by a Destroyer Officer.

TL14 Plokl Class Escort (Missile) - EM - 1,000 dT - SL
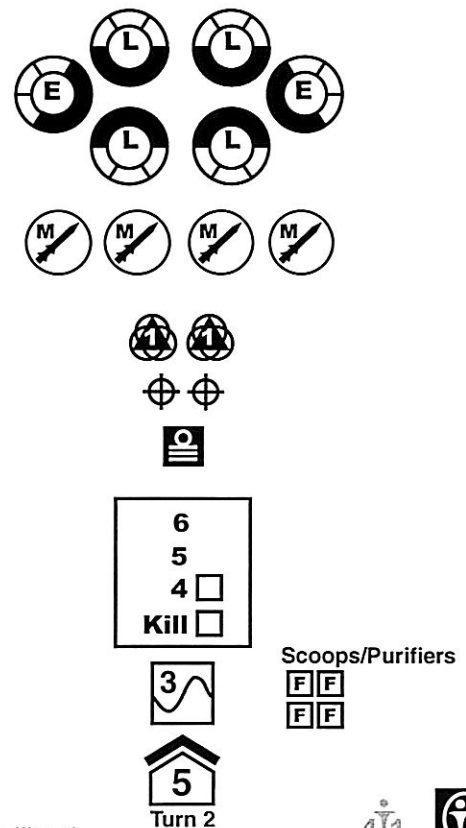
6
5
4 ☐
Kill ☐

3

5
Turn 2

Scoops/Purifiers
F F
F F

Config L1: Agility -1

ZHDIAK Light Destroyer

4,000 dT	TL 14	MCr 4,533	PV 28

The *Zhdiak* is a very common class of light destroyers, designed to escort merchant and auxiliary vessels and to defend them against raiders. 4,000 tons is considered to be the minimum size for mounting a viable mixed armament of missiles and beams. The ship also has good screens, and light armour. The vessel is very agile, and has the Jump-3 performance necessary for following Consular fleets.

TL14 Zhdiak Class Light Destroyer - DL - 4,000 dT - SL

Config L1: Agility -1

CHTIERABL Transport

10,000 dT	TL 13	MCr 5,271	PV 44

This is a typical bulk transport vessel employed by the Consular Navy. The ship was originally designed for the Priantqlovr Drafr merchant corporation. Like most vessels of this company, it has self-defence armament and screens, and thus it was well suited for regular naval service. The ship can easily be modified to act as a fuel tanker, a carrier for bulk materials or as a regular freighter. It carries 4,500 dT of cargo, which can be configured as freight, fuel or missile magazines. In some vessels, 3,000 dT are reserved for an additional Jump-3, while the remaining 1,500 tons are fitted as a missile magazine.

TL14 Chtierabl Class Tender/Tanker - TT - 10 kdT - PSL
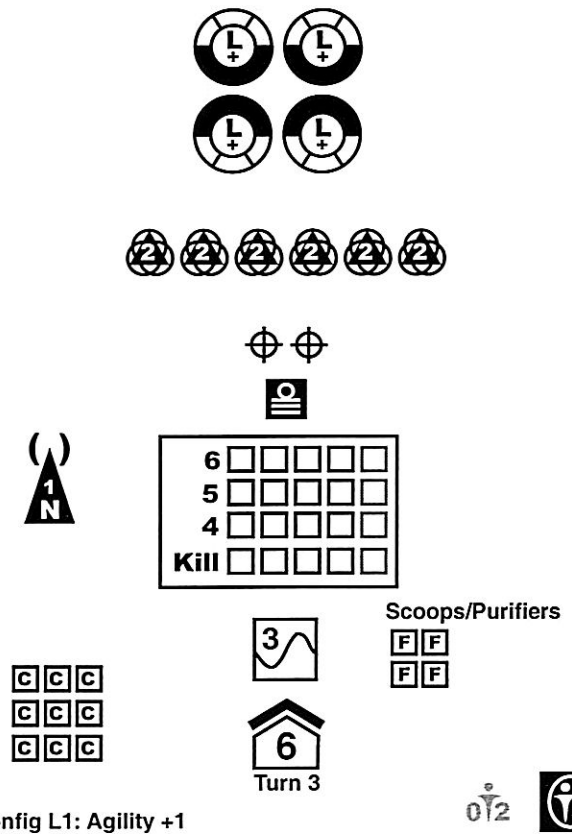
Config L1: Agility +1

*You are granted permission to photocopy this page for your personal use as a **Power Projection** gaming aid.*

*You are granted permission to photocopy this page for your personal use as a **Power Projection** gaming aid.*

TRAVELLER®
POWER PROJECTION™
ESCORT

Tactical Starship Combat for Marc Miller's *Traveller*

Power Projection allows one or more players to run fast and exciting space battles between small fleets. *Power Projection* combines the rich sci-fi universe of Marc Miller's *Traveller* and Ground Zero Games' renowned *Full Thrust* space combat system.

This book includes:
▶ Ship combat statistics for a range of *Traveller* starships
▶ Simple but realistic vector-based movement
▶ Starship weaponry, from lasers to particle accelerators
▶ Defensive systems from sandcasters to nuclear dampers
▶ Missiles and point defence weapons
▶ Damage control, Jump drives and other special rules
▶ Special effects of nuclear warhead detonations
▶ Starter *Power Projection* scenarios

Also included are two sheets of counters including starships, sandcaster clouds, nuclear detonations, a turning circle and movement vector markers...

...so you can start playing *Power Projection* immediately!

If you enjoy *Power Projection: Escort*, you'll want to expand your interstellar combat experience with *Power Projection: Fleet*, which adds spinal mount weapons, black globe screens, boarding actions, effects of gravity wells, planetary attacks, full strategic gaming rules, more ship designs, rules for creating new *Power Projection* warships using the Traveller *High Guard* and *d20 Traveller* design systems... and much, much more!

		Published by	**BITS UK Limited**
Written by	**Dominic Mooney**		PO Box 4222
Edited by	**Andy Lilly**		Sawbridgeworth
Front Cover by	**Jesse DeGraff**		Hertfordshire
Internal Art by	**Paul Lesack**		CM21 0DP
Special thanks to	**Jon Tuffley**		England
	of *Ground Zero Games*		

BITS

www.powerprojection.net

www.bits.org.uk

Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L2 -3

Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L2 -3

Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L2 -3

ID:
ID:
ID:
ID:

Sand Cloud L2 -3

FORWARD
FRONT
FORWARD
SPINAL
FORWARD FWD PORT P1
FWD STBD S1
FWD PORT P2
FWD STBD S2
FWD PORT P3
AFT STBD S3
AFT PORT P4
AFT STBD S4
AFT PORT P5
AFT P6
AFT S6
AFT STBD S5

ID:
ID:
ID:
ID:
ID:
ID:
ID:
ID:
ID:
ID:
ID:
ID:
ID:

CUT OUT CENTRE SECTION
AND HOLD OVER SHIP TO BE
MOVED / TURNED

Sand Cloud L2 -3

Sand Cloud L2 -3

ID:
ID:

Sand Cloud L2 -3

+2mu Los Nuclear Detonation

+2mu Los Nuclear Detonation

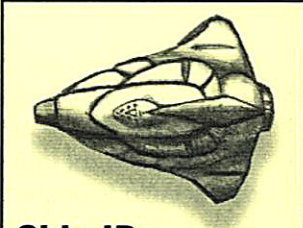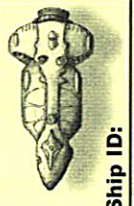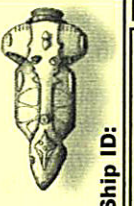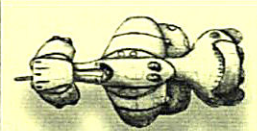+2mu Los Nuclear Detonation
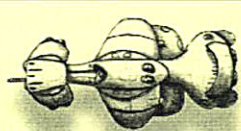
+2mu Los Nuclear Detonation

+2mu Los Nuclear Detonation

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:
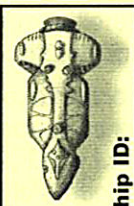
Ship ID:

Ship ID:

Ship ID:
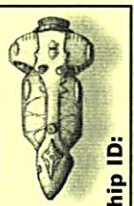
Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:
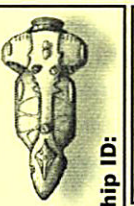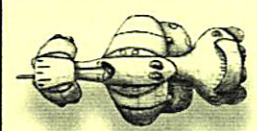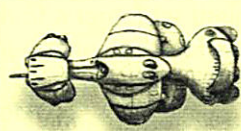
Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

Ship ID:

L Missile Lock
L Missile Salvo
K Missile Lock
K Missile Salvo

A Missile Salvo | A Missile Lock
B Missile Salvo | B Missile Lock
C Missile Salvo | C Missile Lock
D Missile Salvo | D Missile Lock
E Missile Salvo | E Missile Lock
F Missile Salvo | F Missile Lock
G Missile Salvo | G Missile Lock
H Missile Salvo | H Missile Lock
I Missile Salvo | I Missile Lock
J Missile Salvo | J Missile Lock

Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L2 -3

Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L2 -3

Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L7 -1
Sand Cloud L2 -3

ID:
ID:

ID:
ID:

Sand Cloud L2 -3

Sand Cloud L2 -3

Sand Cloud L2 -3

Sand Cloud L2 -3

FORWARD FORWARD
FRONT
SPINAL
FWD PORT P1
FWD STBD S1
FWD PORT P2
FWD STBD S2
FWD PORT P3
AFT STBD S3
AFT PORT P4
AFT STBD S4
AFT PORT P5
AFT P6 S6 AFT S5

ID:
ID:
ID:
ID:
ID:
ID:
ID:
ID:
ID:
ID:
ID:
ID:

CUT OUT CENTRE SECTION
AND HOLD OVER SHIP TO BE
MOVED / TURNED

ID:
ID:

ID:
ID:

Nuclear Detonation +2mu Los (×5, circular tokens)

Ship ID: (repeated across multiple ship counter illustrations)

Missile Salvo / Missile Lock tokens labeled A–L

A Missile Salvo — A Missile Lock
B Missile Salvo — B Missile Lock
C Missile Salvo — C Missile Lock
D Missile Salvo — D Missile Lock
E Missile Salvo — E Missile Lock
F Missile Salvo — F Missile Lock
G Missile Salvo — G Missile Lock
H Missile Salvo — H Missile Lock
I Missile Salvo — I Missile Lock
J Missile Salvo — J Missile Lock
K Missile Salvo — K Missile Lock
L Missile Salvo — L Missile Lock