

# Nostrian Conquest

## Player Manual

*A Rust recreation inspired by the classic 1990s BBS door game Esterian Conquest.*

Play in your browser at [play.nostrian-conquest.com](https://play.nostrian-conquest.com), on a BBS, or locally.

All code, UI, and assets in this edition are original. Not affiliated with any original release.

Revision date: October 25, 2026

Version 1.0.0-beta.5 — Beta



New text, layout, and explanatory material in this manual © 2026 Mason A. Green and are licensed under CC BY-NC-SA 4.0. Original historical Esterian Conquest references and other preserved 1992 source material are excluded from that grant and remain credited to their original authors and rights holders.

License text: <https://creativecommons.org/licenses/by-nc-sa/4.0/>

# Contents and Appendices

|                                            |    |
|--------------------------------------------|----|
| 1. Introduction .....                      | 4  |
| 2. Connecting to a Game .....              | 5  |
| 2.1. Choose How to Play .....              | 5  |
| 2.2. Find Other Players .....              | 5  |
| 2.3. Find a Game in Your Browser .....     | 5  |
| 2.4. Play Through the Discord Bot .....    | 7  |
| 2.5. Join Through a BBS or Localhost ..... | 7  |
| 3. Your First Turns .....                  | 8  |
| 3.1. What You Start With .....             | 8  |
| 3.2. How a Year Works .....                | 8  |
| 3.3. Your First Turn .....                 | 8  |
| 3.4. Three Warnings .....                  | 9  |
| 4. Forces at Your Command .....            | 10 |
| 4.1. Planets .....                         | 10 |
| 4.2. Ships .....                           | 10 |
| 4.2.1. Reading a Fleet .....               | 11 |
| 4.3. Starbases .....                       | 11 |
| 4.4. Ground Forces .....                   | 11 |
| 5. Economy and Taxes .....                 | 12 |
| 5.1. Key Terms .....                       | 12 |
| 5.2. Tax Revenue .....                     | 12 |
| 5.3. Growth Toward Potential .....         | 12 |
| 5.4. The 65% Tax Threshold .....           | 12 |
| 5.5. Starbase Economic Effects .....       | 13 |
| 5.6. Treasury .....                        | 13 |
| 5.7. Newly Colonized Planets .....         | 13 |
| 5.8. Conquered Planets .....               | 14 |
| 5.9. Scorch Earth .....                    | 14 |
| 6. Combat .....                            | 15 |
| 6.1. What You Decide .....                 | 15 |
| 6.2. Cripple or Destroy .....              | 15 |
| 6.3. What to Expect .....                  | 16 |
| 6.4. Attacking Worlds .....                | 16 |
| 6.5. Defending Your Worlds .....           | 17 |
| 7. Missions and Orders .....               | 18 |
| 7.1. Movement and Arrival .....            | 19 |
| 7.1.1. Where Missions Operate .....        | 21 |
| 7.1.2. Repairing at a Starbase .....       | 21 |
| 7.2. Mission Details .....                 | 21 |
| 7.2.1. One-Shot Missions .....             | 21 |
| 7.2.2. Persistent Standing Missions .....  | 22 |
| 7.2.3. Hostile Missions .....              | 23 |

|                                                        |    |
|--------------------------------------------------------|----|
| 8. Interface and Commands .....                        | 24 |
| 8.1. Visual Themes .....                               | 24 |
| 8.2. General Command .....                             | 24 |
| 8.3. Defeat, Recovery, and Victory .....               | 25 |
| 8.4. Planet Command .....                              | 25 |
| 8.5. Fleet Command .....                               | 26 |
| 8.6. Building and Commissioning .....                  | 27 |
| 9. Strategy .....                                      | 28 |
| 9.1. Early Game: The Land Grab .....                   | 28 |
| 9.2. Rules of Engagement by Job .....                  | 28 |
| 9.3. Mid-Game: Consolidation .....                     | 29 |
| 9.4. Late Game: Total War .....                        | 29 |
| 10. Historical Context .....                           | 31 |
| A. Economy Formula Reference .....                     | 32 |
| A.1. Yearly Tax Revenue .....                          | 32 |
| A.2. Yearly Growth .....                               | 32 |
| A.3. High-Tax Penalty Above 65% .....                  | 32 |
| A.4. Starbase Growth Bonus .....                       | 32 |
| A.5. Build Capacity, Treasury, and Budget .....        | 32 |
| A.6. New Colonies .....                                | 33 |
| A.7. Scorch Earth .....                                | 33 |
| B. Combat Rules and Tables .....                       | 34 |
| B.1. The Rules of Battle .....                         | 34 |
| B.2. How a Fleet Battle Is Fought .....                | 34 |
| B.3. Who Fights Whom .....                             | 36 |
| B.4. Tactical Roles and Split Fire .....               | 37 |
| B.5. Fleet Limits .....                                | 38 |
| B.6. Rules of Engagement (ROE) .....                   | 38 |
| B.7. Withdrawal and Retreat .....                      | 38 |
| B.8. Planetary Combat .....                            | 39 |
| B.8.1. The Landing Battle .....                        | 40 |
| B.8.2. Captured Worlds .....                           | 40 |
| B.8.3. Failed Assaults .....                           | 41 |
| B.9. Starbase Recovery .....                           | 41 |
| B.10. Rules of Engagement Thresholds .....             | 42 |
| B.11. Unit Combat Values .....                         | 42 |
| B.12. Fleet Battle Effectiveness .....                 | 42 |
| B.13. Fleet Battle Die Modifiers and Hit Formula ..... | 43 |
| B.14. Damage Steps and Carried Hits .....              | 43 |
| B.15. Planetary Force Ratio to CRT Column .....        | 43 |
| B.16. Bombardment Table .....                          | 44 |
| B.17. Planetary Columns and Hit Formula .....          | 44 |
| B.18. Bombardment and Planetary Fire .....             | 44 |
| B.19. Landing Battle .....                             | 45 |

|                                            |    |
|--------------------------------------------|----|
| C. Preservation and Original Sources ..... | 47 |
| C.1. Source Hierarchy .....                | 47 |
| C.2. Preservation Policy .....             | 47 |
| C.3. BBS Drop File Compatibility .....     | 47 |
| C.4. This Manual .....                     | 47 |
| D. Interface Reference .....               | 48 |
| D.1. Table Filters .....                   | 48 |
| D.2. Filtering Procedure .....             | 48 |
| D.3. Value Rules .....                     | 48 |
| D.4. Sorting Procedure .....               | 48 |
| D.5. Fleet List Codes .....                | 49 |
| D.6. Planet List Codes .....               | 49 |
| D.7. Total Planet Database Codes .....     | 50 |
| D.8. Reading Fleet Compositions .....      | 50 |
| D.9. Autopilot .....                       | 51 |

# 1. Introduction

Beyond the mapped frontiers of the old Nostrian dominion lies a small galaxy of contested solar systems. The old masters are gone. Their stations are silent, their patrols vanished, and their subjects left with fleets, industry, and enough knowledge to build empires.

You rise as one of the new Star Masters. From a single world and a few small fleets, you must tax, build, scout, bargain, threaten, and strike before your rivals do the same. Some systems will join your banner willingly. Others will need persuasion from orbit.

Each maintenance marks the passage of a year. In that span, fleets cross the dark between stars, colonies grow or starve, alliances turn cold, and industry, cunning, and will decide the victor.

Nostrian Conquest is a Rust recreation inspired by the classic 1990s BBS door game Esterian Conquest. All code, UI, and assets in this edition are original. It is not affiliated with any original release.

In homage to the 1990s door-game pioneers and to the ancient dreamers, strategists, and storytellers whose visions of galactic dominion still light the way among these stars.

## 2. Connecting to a Game

### 2.1. Choose How to Play

**Browser play** is the best way to join a community game. Open the game list at `play.nostrian-conquest.com`, sign in with Discord, Nostr or Matrix, claim an empire, and play in your browser. You install nothing. The browser terminal uses **xterm.js** to keep the old BBS feel: ANSI colors, text menus, and keyboard commands on an 80×25 screen.

The home page, `nostrian-conquest.com`, links to the game list, the manuals, screenshots and downloads.

**BBS play** still works the old way. Connect to a bulletin board with a terminal client and launch NC from its doors menu. The sysop runs `nc-door` behind the board. See the **Sysop Manual** section **BBS Door Setup** for hosting instructions.

**Localhost play** runs `nc-game` on the same machine as the campaign. Use it for solo play, hotseat testing, or trusted local sessions. See the **Sysop Manual** section **Localhost Session Setup** if you host it yourself.

**NOTE:** Decentralized play through **Nostr GameServer** is on the roadmap. It is not available for players to join yet. Use browser play, a BBS, or a local game today.

### 2.2. Find Other Players

Players gather in two places. Hosts announce new games there and hand out invite codes. Players trade news and strategy.

- **Discord:** the Nostrian Conquest Discord server. Read the pinned start-here post. The game bot runs here too.
- **Matrix:** the `#nostrian:matrix.org` space, the same community for players who don't use Discord.

Whichever place you join, you can sign in to play with Discord, Nostr or Matrix. If a game needs an invite code, ask its host for one.

For questions, bug reports or ideas, message the author at this Nostr public key. The contact page also lists Discord and Matrix.

`npub1cecl2g9z776jvpudpqxajrsrgwuvq4vp7w26q74tx2438zy3q9vq8st7pp`

### 2.3. Find a Game in Your Browser

1. Open the game list at `play.nostrian-conquest.com`.
2. Sign in with Discord, Nostr or Matrix. The sections below explain each.
3. Find a recruiting game. If it asks for an invite code, enter your code on its card and choose **Join**.
4. Choose **Play**, name your empire, and issue your orders.

To return, open the game list, sign in the same way, and choose **Play**.

Each invite code claims one seat. Keep it private. You need it only once. After that, your Discord account, Nostr key or Matrix account owns the seat. Players on all three share the same games. Your player handle comes from your public profile name when you claim the seat, and it stays fixed for that game. Ask the host if you need it changed. Your empire name is a separate name you choose.

**Discord.** Choose **Sign in with Discord** and approve access. Your Discord display name becomes your player handle.

**Nostr.** Install a NIP-07 browser extension such as nos2x and set up your key in it. Choose **Sign in with Nostr** and approve the request in the extension. Your private key stays in the extension. Your player handle comes from your Nostr profile name, or anon plus a number if you have none. This sign-in is separate from relay-based Nostr GameServer play.

**Matrix.** Choose **Sign in with Matrix** and sign in to your matrix.org account if asked. The game learns only your Matrix ID, not your messages or rooms. Your Matrix display name becomes your player handle. If your account is on another Matrix server, choose **Matrix account not on matrix.org?** instead and enter your Matrix ID, such as @you:example.org. The host's bot invites you to a private room and sends a sign-in link and a code. Each works once and expires after ten minutes.

A recruiting game waits for its host to start it. Players can join and prepare orders while they wait. Filling every seat does not start the game, and neither does opening **Play**. The host sets the turn schedule. You need not be online when maintenance runs.

## 2.4. Play Through the Discord Bot

Discord players can also join and play with the bot's slash commands. Give the game ID when a command asks for one. Only you see the bot's replies and your empire downloads.

- `/games` — List games and their IDs.
- `/join` — Claim a seat: `/join game:beta-1 code:YOURCODE`. Replace the example game ID and code with the ones your host gave you. Leave out the code if the game needs none.
- `/play` — Get a link to the game. Sign in with the **same Discord account** you used to claim your seat.
- `/status` — Check the game year and next turn.
- `/map` — Download your known map as a ZIP with text, CSV, ODS, and Excel files.
- `/report` — Download your empire's reports. You can also read them in the game inbox.
- `/manuals` — Open the quick-start guide and this manual.
- `/help` — See all bot commands.

Keep a printed map or spreadsheet beside your terminal to track your plans.

## 2.5. Join Through a BBS or Localhost

For a BBS campaign, connect to the board as usual and launch NC from its doors menu. Your sysop may reserve a seat for your BBS alias, or leave seats open in the game's first-time join menu. A reserved alias takes you straight to its empire. Invite codes are for community browser games, not BBS logins.

For localhost play, your sysop tells you which machine and player slot to use. The normal direct launch is:

```
nc-game --dir /path/to/mygame --player 1
```

Your sysop may give you a different player number or run the command for you.

## 3. Your First Turns

You hold one world and a handful of ships. Somewhere beyond your sensors, other Star Masters hold the same. The galaxy will belong to whoever builds, claims, and strikes fastest. This chapter walks you through your first year in command. Section 4 describes every unit you can build, and Section 7 every mission you can give.

### 3.1. What You Start With

Your empire begins with:

- One homeworld at Potential 100 and Production 100, with 10 armies and 4 ground batteries on its surface and 50 goods in its treasury.
- An empire tax rate of 50%.
- Four fleets in orbit, all on Guard/Blockade a World at ROE 6: two colony fleets, each of one cruiser and one ETAC (an Environmental Transformation And Colonization ship), and two lone destroyers.

The colony fleets move at speed 3, the ETAC's pace. The destroyers move at speed 6, as fast as any ship in the game. Send them out early to see what lies near you.

Your objective is to become Emperor. You win when every rival empire is Defeated and no rogue empire still holds a world (see Section 8.3).

### 3.2. How a Year Works

There is no End Turn button. You read your reports, set your economy, give your fleets their orders, and log off. The host's schedule decides when maintenance runs. When it does, the game resolves every empire at once: fleets move, battles are fought, colonies grow, builds finish, and the year advances. Your next login opens with a fresh set of reports that tell you what happened.

Each maintenance is one year. Reports are dated by week and year, as Stardate WK/YYYY, so a battle report tells you when in the year the fight took place. You need not be online when maintenance runs. The orders you give stand until maintenance resolves them, and a new order replaces the old one.

The pace is slow on purpose. Players log in on their own schedules, which leaves time to plan, to bargain, and to read the map. Other players can be logged in at the same time as you. The game saves each change at once, and no player's change ever undoes another's.

**NOTE:** If maintenance runs while you are logged in, the game cannot save your next change. The menu notice line says: "Maintenance has run; your last change was not saved. Log in again." Log in again to carry on. In a BBS door the session ends and returns you to the BBS.

### 3.3. Your First Turn

Work through these steps each time you log in. The first turn is the longest; later turns go faster.

1. **Read your reports.** The login review scrolls your newest reports and messages. Note which worlds grew, where your fleets are, and whom you have met.
2. **Look at the map.** Press **G**, then **M**, for the full galaxy map. Find your homeworld and the worlds nearest it. Back on the Main Menu, **T** opens the Total Planet Database, which lists what you know about each world. Keep a printed map or a spreadsheet beside you and update it every turn: coordinates, owners, Potential, and where your fleets are going. Localhost players can export a text map and CSV files from the starmap screen. On a BBS, ask your sysop for the export. On Discord, use /map.
3. **Check your tax rate.** Press **P** for Planet Command. Its Tax (**T**) sets one rate for every world you own. You start at 50%. Leave it there, or lower, while your colonies grow. Above 65%, a yearly penalty eats into Production.
4. **Queue builds.** Build (**B**) in Planet Command spends your homeworld's budget. An ETAC colonizes a world and survives to colonize another. A transport carries one army. A ground battery or a few more armies keep your homeworld safe while your fleets are away. Section 4 lists every unit with its cost, and Section 8.6 explains the build queue.
5. **Commission and load.** Builds finish at maintenance, so this step starts on your next visit. Finished ships wait in stardock until you commission them (**C**, or **M** for everything at once) into a fleet. Transports are built empty: Load (**L**) armies aboard before they sail.
6. **Give missions and ROE.** Press **F** for Fleet Command. Its Mission (**O**) sends a fleet out. Send your two colony fleets to Colonize a World (12) at two different promising worlds near you, and a destroyer on Move Fleet (1) or View a World (9) to see what is out there. When an ETAC has founded its colony, send it on to the next. ROE (**C**) sets how much of a fight each fleet will take; set colony fleets to 0. Section 7 describes every mission, and Section 6 explains ROE.
7. **Log off.** Your orders stand until maintenance runs.

### 3.4. Three Warnings

**WARNING:** Troop transports are built empty. A transport with no army aboard lands nothing. Load armies before you send it to invade.

**WARNING:** Ships in stardock are a bombardment target. Commission them as soon as they are built, or an enemy may destroy them before they ever fly.

**WARNING:** Above 65% tax, a yearly penalty eats into Production and mature worlds decline. Held at 65%, a world brings in the most over the years. A higher rate buys cash now and costs you later. No starbase removes the penalty.

## 4. Forces at Your Command

You control five major force types: planets, ships, starbases, armies, and ground batteries. The table below lists everything your worlds can build. **AS** is Attack Strength (firepower) and **DS** is Defense Strength (hull and shields).

| Unit                  | Cost | Speed | Size | AS  | DS  | Role                                                                                                                  |
|-----------------------|------|-------|------|-----|-----|-----------------------------------------------------------------------------------------------------------------------|
| <b>Destroyer</b>      | 05   | 6     | S    | 12  | 07  | Glass cannon: the most firepower per point, the least armor. Fast raider, picket, and finisher. Escapes heavy fleets. |
| <b>Cruiser</b>        | 15   | 5     | M    | 33  | 30  | Balanced fighter and the faster battle line. About 3x the power of a destroyer.                                       |
| <b>Battleship</b>     | 45   | 4     | L    | 90  | 110 | Heavy anchor and siege ship. About 3x the power of a cruiser. Slow, the toughest hull, and the best bombardier.       |
| <b>Scout</b>          | 15   | 6     | S    | 00  | 10  | Stealthy spy. A lone scout is hardest to detect.                                                                      |
| <b>Transport</b>      | 05   | 5     | M    | 00  | 10  | Unarmed. Carries one army. Essential for conquest.                                                                    |
| <b>ETAC</b>           | 20   | 3     | L    | 00  | 20  | Colony ship. Reusable – survives colonization.                                                                        |
| <b>Starbase</b>       | 50   | 1     | L    | 100 | 130 | Orbital fortress. Defense and production boost.                                                                       |
| <b>Ground Battery</b> | 20   | –     | L    | 90  | 66  | Planetary defense. Two steps, like a ship: crippled, then destroyed.                                                  |
| <b>Army</b>           | 02   | –     | S    | 10  | 10  | Surface defense and capture.                                                                                          |

### 4.1. Planets

Planets are the foundation of your empire. Each one has a **Potential Production**, the ceiling it can reach at full efficiency. Potential ranges from 10 to 150 across the galaxy. Each also has a **Production**, which is what the planet delivers right now. Production grows toward Potential over time, and your tax rate sets the speed of that growth.

Taxes turn Production into build points each year. See Section 5 for the full rules on tax rate, growth, and starbase economics.

### 4.2. Ships

Ships travel in fleets. A fleet always moves at the speed of its slowest ship. It can hold from one to **3,000 ships** of mixed types.

### 4.2.1. Reading a Fleet

The game writes a fleet as one line of ship codes, always in the same order. BB2!1 CA12!3 DD8 TT\*4 is two battleships (one crippled), twelve cruisers (three crippled), eight destroyers, and four loaded transports. ! marks crippled ships and \* marks loaded transports. In the Fleet List, a fleet too long for its column ends in +; Review (**R**) shows the rest. Appendix D.8 explains every code.

### 4.3. Starbases

Starbases are large space fortresses (Cost: 50, AS: 100, DS: 130). In orbit, they strengthen a world's defense and economy. They help weak colonies grow at sensible tax rates, and they let a planet spend up to **5x** its Production in one turn when it has saved enough points (see Section 5). They are not a license to tax a world to death. In deep space they serve as watch posts with a little more firepower than a battleship, but they crawl at speed 1.

Unlike ships, starbases do not belong to fleets. You commission them one at a time from stardock and move them through the **Starbase Command** submenu. Warships can escort a base with Guard a Starbase (4), but the base stays its own unit.

Build a starbase where you mean to keep it. A base crawls one sector a year and spends its first year just climbing out of orbit, so a base ordered to a world a few sectors off spends years on the way. It enters orbit only over a world you own; anywhere else it stops in deep space. Its escort, the guard fleet at rest beside it, rides along. Your other fleets guarding it follow wherever it goes.

A base in orbit needs your world beneath it. Lose the world and the base leaves for deep space in its own sector. A base bound for a world you no longer own stops where it is and waits for orders. Moving a base out of orbit also cancels the world's build orders that depend on the base's build capacity, so finish or trim the queue before the base leaves. Appendix A gives the exact condition.

**NOTE:** Starbases must be commissioned from stardock before they can move or give orbital benefits. A starbase sitting in stardock does nothing.

### 4.4. Ground Forces

**Armies** (Cost: 2, AS: 10, DS: 10) defend your planets from invasion and are the only way to capture enemy worlds. Each troop transport carries one army. To take a world, you must land enough armies to beat the garrison.

**Ground Batteries** (Cost: 20, AS: 90, DS: 66) are fixed cannons on the ground. They give huge firepower for the cost: about a battleship's attack at less than half the price. Like a ship, a battery takes two steps. 66 hits cripple it, and it then fires at half strength until 66 more destroy it. Crippled batteries are repaired at the end of any year in which no one attacked the world. During an invasion, all batteries must be destroyed before transports can land. During a blitz, surviving batteries fire on the descending transports and cause heavy losses. If a blitz captures the planet, any surviving batteries pass intact to the new owner.

## 5. Economy and Taxes

Your empire runs on production. Every planet you own pays tax revenue each maintenance, and that revenue pays for ships, defenses, and expansion. Balancing cash today against growth tomorrow is one of the hardest choices in the game.

### 5.1. Key Terms

- **Potential Production:** the most a world can ever produce.
- **Production:** what it produces now. It grows toward Potential.
- **Revenue:** the tax a world will add to its treasury at the next maintenance.
- **Empire Revenue:** the revenue of all your worlds together.
- **Treasury:** the points a world has saved and not yet spent.
- **Budget:** how much of its treasury a world may spend in one turn.

### 5.2. Tax Revenue

**One tax rate applies to every planet you own.** You cannot set separate rates for single worlds. Planet Command's Tax option changes this shared rate, whichever planet you have selected. A planet's yearly revenue is a fixed share of its Production, and your Empire Revenue is the sum of that revenue across all your planets. The screens show next year's revenue, rounded to the nearest whole point, and setting the tax rate reports the new Empire Revenue. Production and the Treasury keep their fractions from year to year; only what you read and spend is a whole number. See Appendix A for the exact formula.

### 5.3. Growth Toward Potential

Each maintenance, every planet you own grows toward its Potential. Lower taxes grow faster: a world taxed at 30% grows twice as fast as one taxed at 65%, and three times as fast if a starbase orbits it. Growth also slows as the planet nears its ceiling. Each year a planet closes a share of its gap to Potential, so it comes close to Potential without reaching it on a fixed date. Every point of tax costs growth, and there is no free yearly minimum.

Growth depends on the gap to Potential and the tax headroom left. See Appendix A for the exact formula.

### 5.4. The 65% Tax Threshold

**WARNING:** Setting taxes above **65%** can directly *reduce* Production on your planets, not just slow growth.

Below 65%, growth is always positive, and lower is faster. Above 65%, a penalty damages Production each year, and a mature planet settles below its Potential. With the empire-wide rate at 70%, a Potential-100 world settles at Production 88 and earns 62 a year. At 71%, it settles at 86 and earns 61. A commissioned starbase does **not** remove this danger. Its value is that it helps young colonies grow faster at sane tax rates, and it still gives the build-capacity bonus described below.

The tax rate is a choice between today and tomorrow. Your empire starts at 50%. Keep it there, or lower, while your colonies grow. Raise it toward 65% as they near their Potential:

held at 65%, a mature world earns its highest revenue over the years. A higher rate raises cash for a short time, but it starts to cut Production at the next maintenance. A starbase's growth bonus is full at 50% or below and gone at 65%, so worlds with bases gain most from a modest rate. See Appendix A for the exact penalty and yearly update formulas.

## 5.5. Starbase Economic Effects

A commissioned starbase in orbit gives two big benefits. First, the planet's yearly growth gets a strong boost when taxes are modest: half again as fast at **50% tax or lower**, fading to nothing as taxes climb toward **65%**. Young planets with starbases catch up much faster when you tax them sensibly, but the bonus is not meant to offset punishing taxes. A planet already at its Potential gains nothing from it. Second, the planet gains a **build capacity multiplier**: it can spend up to **5x** its Production on builds in one turn, drawing from its treasury. Without a starbase, a planet can spend only 1x its Production per turn. See Appendix A for the exact bonus fade and build-capacity formulas.

More starbases at one world add defense, not growth or capacity. A starbase that is crippled in battle but survives keeps both bonuses.

**NOTE:** A starbase helps only once it is commissioned; one waiting in stardock does nothing. A base of yours still on its way down to a world raises its budget a year before it speeds its growth. Another empire's base does neither. Appendix A says exactly what counts.

## 5.6. Treasury

Tax revenue that a planet does not spend piles up in its **Treasury**, the planet's savings. The treasury is what lets a starbase world make large builds: up to 5x Production in one turn. Each turn, a planet's **Budget** is the lesser of its treasury and its build capacity. The build screen shows that as **BUDGET**: how many production points are still free to spend this turn. When maintenance works through a build queue, it takes from the treasury only the points spent that year; unfinished builds keep their remaining cost for later turns. You spend whole points, and the treasury keeps any fraction. Only a world imported from a classic game can start in debt. A negative treasury buys nothing until later revenue pays it off.

## 5.7. Newly Colonized Planets

A new colony starts small: Production 3, or its Potential if that is lower, an empty treasury, and one army on the ground. It earns nothing in the year it is founded. From the next year it grows and pays tax like any other world, so at a moderate tax rate most colonies have a small budget after their first full year. A small world, or one in an empire with a low tax rate, may wait a year or more for its first whole point. The head start comes only with founding, never with capture. A low tax rate grows colonies fastest but fills their treasuries slowest. Appendix A gives the details.

## 5.8. Conquered Planets

When you capture an enemy planet by invasion or blitz, its industry needs **two quiet years** to convert. It pays no revenue and does not grow in the next two maintenances, and it pays full revenue from the third. Its Revenue reads 0 until then. Plan your supply lines around this delay.

## 5.9. Scorch Earth

Scorch Earth denies a world to an invader. The **Scorch** command sets the order, and the same command rescinds it. Setting it asks three confirmations; rescinding it asks one. The order changes nothing at once. It stays in force until you rescind it or the world is captured. It first takes effect at the next maintenance, before the year's fighting, so it is already in force when an assault strikes that year.

Each year the order is in force, the planet's Production falls to between 30% and 49% of itself, never below 1. Its stored points fall to a tenth, or to their square root if that is smaller. The planet neither grows nor pays revenue, and its Revenue reads 0. Debt is left as it is. Potential Production is not touched, so a world that is not captured recovers by the normal growth rules once you rescind the order. Your maintenance report tells you each year what the order cost the planet.

If the world falls while the order stands, the conqueror gets a ruin. Its production and stored goods are halved, its stardock is emptied, and the order is lifted. Debt and the build queue survive. Use Scorch Earth when you expect to lose a world and want the victory to cost your enemy dearly.

## 6. Combat

Battles fight themselves. You decide where your fleets go, what they are made of, and how much risk each one will take. Maintenance does the rest, and your reports tell you what happened. For the full rules, see Appendix B.

### 6.1. What You Decide

**Where each fleet goes and what it does.** A fleet's mission decides whom it meets. Patrols and blockades watch for intruders; bombard, invade, and blitz missions attack a world (see Section 7).

**How bold each fleet is.** Every fleet has a Rules of Engagement (ROE) level from 0 to 10. At 0 a fleet never starts a fight; higher numbers accept worse odds. The same level decides when a fleet breaks off a battle. Your fleets in the same place count together when they weigh the odds.

**IMPORTANT:** A low ROE does not keep a fleet safe. A fleet that is attacked fights at least the first exchange, whatever its ROE.

Every new fleet starts at ROE 6, or at 0 if it has no warships. Change it with ROE (C) in Fleet Command. Scouts, transports, and ETACs never fight, so a fleet of only those ships is always ROE 0. Such a fleet cannot guard a world or a starbase. If a detach or transfer strips a guard fleet of its warships, maintenance sends it home, unless autopilot is running.

**What each fleet is made of.** The ships you send decide what a victory is worth (see Cripple or Destroy below). Your warships screen your scouts, transports, and ETACs from ordinary fire while any warship stands, though a lucky hit can get through. A fleet holds up to 3,000 ships and moves at the speed of its slowest one.

### 6.2. Cripple or Destroy

Warships deal damage in two ways, and the mix in a fleet decides what its victories are worth.

Cruisers and battleships spread their fire across the enemy line. They cripple the enemy's combat line before they finish it, and a crippled ship fights at half strength. That wins the battle in front of you, but a crippled ship that gets away recovers on its own two turns later. A fleet of heavy ships alone can win a battle and still face the same enemy fleet again.

Destroyers and starbases pick out ships and destroy them outright. Destroying a healthy ship costs them twice its DS. Finishing a crippled one costs half its DS, and what they destroy stays destroyed. Destroyers are also your fastest and most fragile warships. On their own they tend to lose to heavier fleets of the same cost.

Together they do what neither does alone. The heavy ships break the enemy line, and the destroyers turn that damage into lost ships at half price. The heavy ships also stand in front: enemy fire lands on battleships, then cruisers, then destroyers, so destroyers behind a heavy line live to finish what it cripples. A fleet whose cruisers and battleships are worth twice the enemy's adds +1 to its die. Lean on cruisers and battleships to hold a system or win a skirmish. Add destroyers when you mean to wipe out an enemy fleet. Ground batteries

fire the way destroyers do, which is why ships attacking a fortified world are destroyed, not crippled.

### 6.3. What to Expect

Fleets meet only when they share a sector and the same depth in it: deep space, or the solar system around its world. You fight empires you have declared enemies, and any fleet that enters one of your solar systems. Battles happen during the year, wherever fleets are that week, and your report gives the stardate.

Both sides fire at the same moment, so there is no advantage in shooting first. Heavy fire cripples ships before it destroys them. Destroyers, starbases, and ground batteries can destroy them outright. A crippled ship fights at half strength and recovers on its own two turns later, a turn sooner if it rests beside one of your starbases. A fleet that catches the enemy unseen gains an edge in the first round. Once your forces have spotted an empire in a system, keeping a fleet or starbase there keeps that warning against it.

When the odds turn against a fleet, it breaks off and seeks home: it heads for the nearest world you own, measured from where it is, and never the world of the system it is in (see Withdrawal and Retreat in Appendix B). A faster enemy may catch it on the way out, so retreat is not always clean.

### 6.4. Attacking Worlds

You attack a world with one of three missions. First the fleet must win the orbit. The owner's starbase and warships there fight it before it can strike, and a fleet that loses is driven off (see Section 7).

**Bombard** wears a world down. Each year the fleet stays in orbit, it fires three rounds. Its hits go to the ground batteries first. Only when none are left do they reach docked ships, then armies, stored goods, and factories. Bombardment therefore destroys what you might later capture. Use it to break a world's defenses or to ruin a world you cannot hold. All your fleets bombarding the same world fire together as one force. A siege kept up grinds a fortress down: the batteries you cripple stay crippled for as long as you keep bombarding, and recover only after a year without an attack. Battleships make the best bombardiers, because they live through the return fire.

**Invade** takes a world intact. The fleet fires the year's three rounds at the batteries only. If any survive, no troops land: the fleet keeps its armies aboard and its order, and suppresses again next year until the last battery falls. With the batteries gone, your ships soften the defending armies, never more than half of them, and the transports land. Invasion never bombards the economy, but a world taken by invasion keeps only part of its industry.

**Blitz** lands at once. Your warships fire on the batteries first, and the stronger the escort, the fewer batteries are left. Then your armies come down under the survivors' fire, which picks off transports before they reach the ground. If you win, the world's factories, goods, and surviving batteries are yours. Use it against lightly defended worlds, or when speed matters more than losses.

On the ground, invasion and blitz fight the same battle, and the defenders fire first. Equal numbers are a poor bet: one army against one wins a third of the time, and large equal forces about one time in five. Half again as many is an even chance, and twice as many wins nine times in ten. A world with no armies falls to the first army that lands. A failed assault leaves your survivors in orbit on Hold.

**What a capture is worth.** An invasion wrecks most of a world's industry. A blitz that lands in strength takes it almost whole (see Captured Worlds in the combat appendix). Queued builds and any debt pass on either way. The world pays no revenue for two years while its industry converts, then full revenue. If its owner set Scorch Earth, its production and goods are halved and its stardock emptied when it falls (see Section 5.9). In short: bombardment costs you part of the prize; invasion keeps the prize but needs the batteries down first; a blitz keeps everything at the price of armies and transports.

## 6.5. Defending Your Worlds

**Ground batteries** are your cheapest firepower: 20 points buys the attack of a battleship. They destroy ships outright, they must fall before an invader can land, and they fire on transports during a blitz. An attacker needs about three times their cost in warships to take a fortress in a year. With less he must besiege it for years, and an undersized fleet is destroyed. Lift his siege for a year and your crippled batteries are repaired.

**Armies** decide the landing. Your defenders fire first, so an attacker needs about twice your armies to be confident, and a world with none falls to a single transport. At 2 points each, they are cheap insurance for any world worth taking.

**A starbase and warships in orbit** fight every hostile fleet before it can strike. A starbase adds 1 to your die and never retreats. An attacker that loses the orbit is driven off without bombarding or landing. Once your forces there have spotted an empire, keeping a fleet or starbase in the system denies that empire a surprise attack.

**Scorch Earth** is a last resort. It denies a conqueror half the world's production and goods, but every year it is in force the world loses production, grows nothing, and pays no revenue (see Section 5.9).

## 7. Missions and Orders

A fleet always has exactly one standing order. If you give a new order before maintenance, it replaces whatever the fleet was doing. Missions come in three kinds. *One-shot* missions send the fleet to travel, do one thing, and go back to Hold Position. You must give new orders afterward. *Persistent* missions stay in force until you replace them or the rules cancel them (for example, a Join mission is dropped if the host fleet is destroyed). *Hostile* missions send the fleet into orbit around a target world. It attacks the year it arrives. A bombarding fleet stays in orbit and bombards again each year until you change its orders. An invading or blitzing fleet makes one assault and, win or lose, its survivors hold position in orbit.

| No | Mission                | Type       | Description                                                                                                            |
|----|------------------------|------------|------------------------------------------------------------------------------------------------------------------------|
| 00 | Hold Position          | Persistent | Stay at the current position and depth.                                                                                |
| 01 | Move Fleet             | One-shot   | Travel to a specified sector, then revert to Hold.                                                                     |
| 02 | Seek Home              | One-shot   | Return to nearest owned planet; retargets if that planet is captured en route.                                         |
| 03 | Patrol a Sector        | Persistent | Move within sector deep space to intercept enemies.                                                                    |
| 04 | Guard a Starbase       | Persistent | Escort a starbase; fight alongside it. Needs warships.                                                                 |
| 05 | Guard/Blockade a World | Persistent | Watch a world. Attacks assaults, colonizers of an unowned world, and declared enemies. Needs warships.                 |
| 06 | Bombard a World        | Hostile    | Damage factories, batteries, armies, stardock contents, and production.                                                |
| 07 | Invade a World         | Hostile    | Suppress the batteries, soften the armies, then land. Spares industry and goods. Needs warships and loaded transports. |
| 08 | Blitz a World          | Hostile    | Drop armies at once, under battery fire. High army risk.                                                               |
| 09 | View a World           | One-shot   | Quick scan of owner and production; the fleet dives in and climbs back out.                                            |
| 10 | Scout a Sector         | Persistent | Watch a sector closely and identify traffic (requires Scout).                                                          |
| 11 | Scout a Solar System   | Persistent | Active spy mission into a solar system (requires Scout).                                                               |
| 12 | Colonize a World       | One-shot   | Terraform and claim unowned planet (requires ETAC). ETAC survives for reuse.                                           |
| 13 | Join Another Fleet     | Persistent | Chase and merge with target fleet. Abandons if host is destroyed.                                                      |
| 14 | Rendezvous at Sector   | Persistent | Meet other fleets at sector. Lowest fleet ID becomes host.                                                             |
| 15 | Salvage                | One-shot   | Scrap ships at planet for half their build cost.                                                                       |

## 7.1. Movement and Arrival

The map is a grid of **sectors**, each named by its coordinates, such as [21, 21]. A sector may hold a **world**. The space around that world is its **solar system**, and the space between sectors

is **deep space**. Think of each world as one step below its sector. A fleet crosses the map in deep space, descends into the system to reach the world, and climbs back out to leave. A full descent or climb costs one sector of movement. A fleet covers as many sectors a year as its slowest ship allows.

The map shows coordinates, not depth. A fleet in deep space and a starbase in the system can both be at [21, 21] without being together. They cannot see or fight each other, and the fleet gets no repair help from the base.

You choose a mission, not a depth. **Hold Position keeps the fleet exactly where it is**, in deep space or in the system, even partway through a climb or a descent. Move Fleet followed by Hold Position is not an order to enter orbit.

A fleet never moves across and down at once. It climbs out of orbit, crosses the map in a straight line to the center of its target sector, and only then heads down toward the world. A fleet leaving a world spends its first sector of movement on the climb, so it covers one sector less in its first year. Distance is measured in a straight line, so three sectors on a diagonal are about 4.2 sectors of travel.

When a fleet arrives depends on its mission.

- **Sector missions** (Move Fleet, Patrol a Sector, Scout a Sector, Rendezvous at Sector) arrive the year the fleet enters the target sector.
- **World missions** continue down to the world. Guard/Blockade a World, View a World, Scout a Solar System, Salvage, Bombard, Invade, and Blitz arrive when the fleet reaches orbit. Seek Home and Colonize a World finish at the end of the first year the fleet is inside the system.
- **Guard a Starbase** takes up station when it reaches its base, in deep space or inside the system.
- **Join Another Fleet** flies to the host and merges into it, taking the host's position and orders. It is not a way to park an independent fleet at the host's coordinates.

A world mission often takes a year longer than a move to the same sector. The **ETA** command shows the year a fleet will arrive; for a world mission, answer yes to "Include time to enter system?" Appendix B gives the exact rule for when a fleet counts as inside a system.

### 7.1.1. Where Missions Operate

This table shows where each mission does its work, not every layer it crosses on the way. The orders table above gives requirements and duration; this one gives position.

| Mission                                                                                | Operates in      | Notes                                                                                                          |
|----------------------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------|
| Move Fleet (1), Patrol a Sector (3), Scout a Sector (10), Rendezvous at Sector (14)    | Deep space       | These orders do not take you down to the world.                                                                |
| Seek Home (2), Colonize a World (12)                                                   | System           | Finish on Hold inside the system. Seek Home chooses an owned world; Colonize requires an unowned world.        |
| Guard/Blockade a World (5), Bombard a World (6), Invade a World (7), Blitz a World (8) | System           | Continue to the world to guard or attack it.                                                                   |
| Scout a Solar System (11), Salvage (15)                                                | System           | Scout the world, or scrap ships at an owned world.                                                             |
| Hold Position (0)                                                                      | Either           | Keeps the current position. Does not enter or leave a system.                                                  |
| Guard a Starbase (4)                                                                   | Either           | Joins the base in its layer and follows it. A base in deep space gives no recovery bonus.                      |
| View a World (9)                                                                       | Both in sequence | Enters the system to scan, then climbs back into deep space.                                                   |
| Join Another Fleet (13)                                                                | Special          | Approaches the host's sector as a system mission, then merges into the host and takes its position and orders. |

### 7.1.2. Repairing at a Starbase

Crippled ships mend on their own, but a starbase speeds the work. Send a damaged fleet to your starbase with Guard a Starbase (4) and leave it at rest beside the base, inside your own system, for a whole turn. Its older cripples come back a turn early. A fleet that only shares the sector, or that arrives during that turn, gains nothing. Unarmed fleets cannot guard a base. A fleet on Guard a Starbase may merge into the base's escort when it arrives, so check your fleet list afterward. The exact conditions are in Appendix B.9.

## 7.2. Mission Details

### 7.2.1. One-Shot Missions

**Mission 1: Move Fleet.** A plain transit order. The fleet travels to the target sector at the speed of its slowest ship, then stops and goes back to Hold Position. Give it new orders if you want it to do anything else.

**Mission 2: Seek Home.** The fleet travels to the nearest planet you own. It keeps that planet for as long as you own it, even if another becomes nearer on the way. If you lose the planet while the fleet is on the way, the fleet turns at once for the nearest planet you still own, measured from where it is and never the world of a system it is in. With none left, it stops and holds where it is. On arrival, it goes back to Hold Position. The game picks the planet; you enter no coordinates. When you order a single fleet that is already in the system of its nearest planet,

the game asks “Do you wish this fleet to seek the next closest system?” Yes, the default, sends it to the next closest planet. No keeps it at the planet it is at. If that planet is the only one you own, the game says so and gives no order. In a group order each fleet seeks its own nearest planet without asking.

**Mission 9: View a World.** A quick look. The fleet dives into the target system, scans for owner and production, and climbs straight back out into deep space. While it is in the system, the owner’s fleets may spot and attack it. It goes back to Hold Position after reporting.

**Mission 12: Colonize a World.** Needs at least one ETAC (Environmental Transformation And Colonization ship). If the planet is unowned, the ETAC terraforms and claims it. The new colony starts with one garrison army, no treasury, and low production. It gets no revenue or growth in the year it is founded, and then grows faster when the empire-wide tax rate is low. The ETAC is not used up. It survives and can colonize more planets. If the planet is already owned, the ETAC aborts, reports the owner and the world’s Potential, writes that partial result into your Total Planet Database, and waits for new orders.

**Mission 15: Salvage.** The fleet travels to one of your planets and scraps its ships for half their build cost, rounded up ship by ship, paid into that planet’s treasury: 23 points for a battleship, 8 for a cruiser, 3 for a destroyer, 3 for a transport (loaded or empty), 10 for an ETAC, and 8 for a scout. Armies aboard loaded transports land on the planet, and the fleet is disbanded. If you lose the planet while the fleet is on the way, the fleet salvages at the nearest planet you still own instead. With none left, it stops and holds where it is. The game offers the planet nearest the fleet as the default target. If you own only one planet, it takes that planet without asking. A group salvages at one planet.

## **7.2.2. Persistent Standing Missions**

**Mission 0: Hold Position.** The default idle state. The fleet stays where it is and acts on its ROE if hostile fleets come near.

**Mission 3: Patrol a Sector.** The fleet watches a sector, looking ten times as hard as an ordinary fleet once it arrives. It identifies everything it spots, sends a report, and attacks what the rules in Who Fights Whom (see Appendix B) allow, as far as your ROE permits. The mission stays in force until you assign a new one.

**Mission 4: Guard a Starbase.** The fleet escorts a starbase and fights beside it. An attack on either one is a battle against both, and the base joins as a defender in any battle its guard is drawn into. A guard stays with its base and does not close on the contacts it spots. It attacks, or joins an attack by your other fleets there, when the ROE odds favor the fight.

**Mission 5: Guard/Blockade a World.** A mission of denial. The blockade watches the world five times as hard as an ordinary fleet. It attacks any fleet that comes to bombard, invade, or blitz the world, or to colonize it while it is unowned. It also attacks any fleet of an empire you have declared an enemy, including ships leaving the world. Neutral fleets come and go. Blockading another player’s world takes your fleet into his solar system, so his fleets there will attack it. The mission stays in force until you assign a new one.

**Missions 10 and 11: Scout a Sector / Scout a Solar System.** Both need at least one Scout ship, and a fleet of a single Scout is the hardest to detect. Scout a Sector is a quiet watch over the sector. A scout on station looks five times as hard as an ordinary fleet and identifies what it spots, and with ROE 0 it never attacks. Scout a Solar System is an active spy run. The Scout enters the system and reports on ground batteries, armies, current production, stardock contents, and orbiting fleets. Entering the system means the owner's fleets there may attack it. Both are persistent missions: the fleet stays on station and sends a new report each maintenance for as long as it stays at its assigned sector. If you identify an **In Civil Disorder** fleet in a system that still belongs to that disorder state, the Total Planet Database marks that world's owner as ICD even before you earn a full scout or view report.

**Missions 13 and 14: Fleet Coordination.** Mission 13 (Join Another Fleet) sends the fleet to chase a chosen host fleet and merge with it when they meet. If the host is destroyed before they meet, the joining fleet drops the mission. Mission 14 (Rendezvous at Sector) sends several fleets to a sector, where the fleet with the lowest Fleet ID becomes the host of the combined force. The rendezvous point stays active so more fleets can keep merging there.

### 7.2.3. Hostile Missions

Bombard a World (6), Invade a World (7), and Blitz a World (8) send a fleet into orbit around another empire's world to attack it. What each one does to the world, and which to choose, is in Section 6.4; the exact rules are in Appendix B. Here is what you need to know about getting there.

**The fleet attacks the year it reaches orbit.** A fleet already in orbit that is told to attack the world attacks at the next maintenance.

**It must first win the orbit.** The owner's starbase and any fleet of his with warships there fight your fleet the week it arrives, whether they had spotted it or not. If your fleet's ROE will not take them on, it turns for home without a shot. If it loses, it is driven off. Only a fleet that holds the orbit attacks. Bring enough to win that fight, or clear the orbit first.

**Bombard repeats; Invade and Blitz are single assaults.** A bombarding fleet stays in orbit and fires again every year until you change its orders. An invading or blitzing fleet makes one assault and then, win or lose, its survivors hold position in orbit. Order any further attack yourself.

**Each bombardment updates your Total Planet Database.** After the attack, the world's entry shows its owner, Potential, armies, and ground batteries as the bombardment left them.

**A fleet in orbit on a hostile mission is easy to see.** It has entered the owner's solar system, where every fleet is easier to spot, and a fleet at its target on an attack mission stands out most of all. Expect his fleets to find it and attack it, and set its ROE to match.

Only destroyers, cruisers, and battleships fire at a world. Scouts, transports, and ETACs carry no guns. Invade needs loaded transports and warships. Blitz needs loaded transports. It can go in without warships, but then it brings no fire of its own, and if the owner has a starbase or a warship fleet in orbit, the transports turn for home.

## 8. Interface and Commands

Three keys on the **Main Menu** open your command menus: General Command (**G**) for autopilot, diplomacy, messages, reports, and the full galaxy map (**M**); Planet Command (**P**) for economy and production; and Fleet Command (**F**) for movement and missions. Other keys act at once: **I** looks up a planet, **T** opens the Total Planet Database, **B** and **D** give brief and detailed empire reports, and **V** shows the part of the map around you.

### 8.1. Visual Themes

The nc-game client has several visual themes. In a local session, open **C>olor Theme** from the Main Menu or First Time Menu to choose one. The game remembers your last local choice for that empire in that campaign.

In BBS door mode, the game keeps the classic **A>nsi color ON/OFF** toggle. Each session starts from the `mag16` theme so ANSI16 terminals stay stable. Press **A** to switch between that view and monochrome for the current session. Saved local theme choices do not apply in door mode.

### 8.2. General Command

General Command handles empire-wide business.

**Autopilot (A)** minds your empire when you cannot. It switches itself on after you miss three turns, and your next return switches it off. Turn it on by hand before a long absence and it stays on until you turn it off. While it runs, it gathers your idle fleets at your best worlds and sets their warships to guard them; fleets on any other mission are left alone. Appendix D.9 gives the details.

**Diplomacy (E)** sets each rival empire to Neutral or Enemy, and the choice decides where your fleets fight. Your fleets attack an Enemy's fleets wherever they meet them, as far as their ROE allows. Your fleets leave a Neutral's fleets alone unless they enter one of your solar systems, come to attack or colonize a world you blockade, race your fleet to colonize the same unowned world, or guard a world your fleet has come to attack or colonize. His declaration against you changes nothing about how your fleets behave. There are no allies. No other empire ever joins your battles, and a battle never changes anyone's diplomacy.

**Messages (C)** lets you write to other empires. In the message editor, **^E** sends, **^X** cancels, and **^G** shows help; **?** types a question mark. Messages reach their recipients at the next maintenance. Your **Sent** folder shows **Queued** until delivery, then the year sent. **Enter** reads a message. **D** asks before it cancels queued mail or removes a delivered copy from your view. Removing your sent copy does not affect the recipient's copy. **D** on the recipient list also opens your queued messages.

You may queue up to three messages to each opponent per turn. The inbox has three folders: **R** for Reports, **M** for received Messages, and **S** for Sent. Each folder lists items oldest first. When the sysop changes a setting you would notice, such as the turn schedule or the autopilot rule, a "Game Notice" report lists the change. **Y** filters the selected folder by year. **D** removes one selected item after confirmation. General Command's **Delete ALL reports** clears only Reports; it leaves Messages and Sent alone. All reports and messages stay in the

game database: removal only hides them from your view. Cancelled mail also stays stored, but is never delivered.

New reports and messages from the latest maintenance appear in the scrolling login review. You can read and remove them there before you reach the main menu.

The empire rankings table shows each joined empire in one of three states: **Active**, **MIA**, or **Defeated**. **MIA** means inactivity autopilot is running because that player missed three turns in a row. **Defeated** means the empire has been removed from active command.

### 8.3. Defeat, Recovery, and Victory

Losing your last planet does not always defeat you at once. If you still have a recovery path, you stay **Active** and get a **three-turn recovery window** to reclaim a world. A recovery path means at least one loaded troop transport (TT\*) somewhere in your surviving fleets, or at least one ETAC while any unowned planet still exists anywhere on the map. If you retake or colonize a world before the window runs out, the countdown clears and your empire goes on as normal.

If your last recovery force is destroyed while you hold no planet, or if the three-turn recovery window runs out first, your empire becomes **Defeated**. Fleet Command sends you a final defeat report, and you get one last review-only login to read the closing reports and messages. After that final review, you may no longer enter the campaign. At the next maintenance, your planetless empire becomes a computer-controlled rogue empire. Its remaining warships patrol. This does not restore your ability to play or take away your final review.

**Rogue empires** are run by the computer. A seat no player has claimed stands “In Civil Disorder”: its empire grows nothing and gives no orders. A defeated empire also falls into civil disorder, and once it holds no world it turns rogue. A rogue that still holds worlds gathers its fleets at its best world and guards it hard. Rogue empires are never eliminated. A rogue empire that loses its last planet sends its warships on patrol, marks every player’s empire an enemy, and disbands its other fleets and starbases. Without a planet it does not contend for the throne, and taking its last planet delivers no final blow.

When you eliminate another empire, Fleet Command reports that you delivered the final blow. This is separate from winning the game. You become Emperor, and the game ends, when no other empire is still in contention: every rival is Defeated, and no rogue empire still holds a world. At that point every still-playable empire gets a game-over report naming the victor. The winner may keep logging in, in **survey mode**, to look over the final state of the galaxy, but may not give orders or submit turns. All other players get one final review-only pass and are then blocked from further play.

### 8.4. Planet Command

Planet Command controls your economy and ground operations. Tax (**T**) sets the rate for every planet you own, not just the selected planet. From the main Planet Command menu, Scorch Earth (**S**) sets or rescinds the order that wears down your own industry to deny it to an invader (see Section 5.9). Build (**B**) spends production points on ships, defenses, or starbases. Commission (**C**) moves newly built ships from stardock into active fleets. **Mass**

**Commission (M)** commissions every ship and starbase waiting in stardock. Load and Unload (**L / U**) move armies between the planet surface and troop transports.

The **Planet List** shows your worlds one row each. Highlight a world and act on it: Build (**B**), Display Queue (**D**), Abort Builds (**A**), Mass Commission (**M**), Commission (**C**), Load / Unload armies (**L / U**), and Scorch Earth (**X**). On that screen, **S** is reserved for **Sort**, while **I** or **Enter** opens planet information for the selected row. Information on a planet you own includes its **Budget** as well as its **Treasury**.

## 8.5. Fleet Command

Fleet Command controls your ships in space. Mission (**O**) assigns missions 0–15. ROE (**C**) changes a fleet's rules of engagement, ID, or speed. A speed change takes 1 up to the fleet's maximum and touches nothing else. A fleet on Hold, or already at its target, keeps speed 0. Merge (**M**) combines fleets that are in the same sector. Transfer (**T**) moves single ships between fleets.

The **Fleet List** lets you work on many fleets at once through its **Sel** column. Press **Space** on a fleet row to check or uncheck it. When one or more fleets are checked, **O** assigns one mission to the checked set, **C** changes their shared ROE or speed, **M** merges the checked fleets with the lowest Fleet ID as the host, and **T** opens ship transfer for a checked pair. Row commands such as **Review**, **ETA**, **Detach**, **Load**, and **Unload** still use the highlighted fleet.

Crippled ships show in the Ships cell of the Fleet List, in **Review**, and in **Detach** and **Transfer**, always in the notation of Appendix D.8. **Review** adds the short legend under the composition of a damaged fleet. Your maintenance report says when ships have recovered.

**Detach (D)** and **Transfer (T)** stage ships one class at a time. Type a class code (BB, CA, DD, TT\*, TT, SC, or ETAC), then a quantity. A plain quantity such as 3 takes healthy ships first and takes crippled ships only when the class has too few healthy ones. A quantity followed by a bang, such as 3!, takes exactly three crippled ships. The game refuses it when the fleet has fewer, and it never fills the gap with healthy ships. When the selected class has crippled ships left to stage, 1! = 1 crippled appears above the quantity prompt. Among crippled ships, those crippled most recently go first, then those with the most recovery time left. The **Staged** line shows the ships that will move, in the same notation: CA3!1 is three cruisers, one of them crippled. Moving crippled ships never repairs them or restarts their recovery, and each keeps the time it has left.

In **Detach**, type **D** to finish staging early. When only one ship remains on the donor, confirmation opens on its own. Press **Enter** or **Y** to detach the staged ships, **N** to go back to editing, or **Q** to cancel. While editing, **X** clears the staged selection. If the donor needs a lower speed after detaching, the game asks for it before moving the ships.

**Transfer** uses the same staging and confirmation steps. Type **T** or press **Enter** at an empty class prompt to finish staging early. Confirmation opens on its own when only one ship remains on the source. Review the staged ships, what remains on the source, and the destination after transfer. Then press **Enter** or **Y** to transfer, **N** to keep editing, or **Q** to cancel. **X** clears staging while editing.

## 8.6. Building and Commissioning

Each planet keeps a build queue, and your **budget** is the only limit on it. You may order any number of units of any kind, so long as the budget covers them. During maintenance, a planet works through as many queued build points as its per-turn build capacity allows. Small orders may finish in one maintenance. Larger ones can stay queued for several years until the remaining cost reaches zero. As enough points go in to finish single units, ships and starbases move to **Stardock**, a holding area on the planet where they sit idle and open to attack until commissioned, even if other units from the same order remain queued. Ships are commissioned into numbered fleets. Starbases are commissioned one at a time and managed through their own Starbase Command submenu. Armies and ground batteries deploy straight to the planet surface and never pass through stardock.

Aborting the queue releases the points still unpaid. Points already spent on a part-built unit are not returned.

A planet without a starbase can spend up to its Production, rounded to the nearest point, in one turn. A planet with an orbiting starbase can spend up to **5x** its Production, drawing from its treasury (see Section 5.6). There is one exception: a world with no starbase in orbit or in its stardock may pay for one starbase from its treasury beyond that limit, so a young world can save for its first base. The build screen shows **BUDGET**: your treasury capped by build capacity, minus what you have already committed this turn.

**NOTE:** A world holds at most 255 armies and 255 ground batteries. An order that would pass either limit waits in the queue and spends nothing until there is room.

**WARNING:** Troop transports are built empty. Load armies onto them yourself before you send them into battle.

**WARNING:** Stardock contents are a prime target for enemy bombardment. Commission your ships promptly or risk losing them before they ever see combat.

**NOTE:** The starmap can be exported as a TXT file, a CSV grid, and a CSV details sheet for offline planning. A local Rust-client session can export it straight from the in-game starmap view. BBS operators can hand the exported files to players out of band.

## 9. Strategy

The rules are the same for every Star Master. What separates the Emperor from the defeated is judgment: where to send the first ETAC, when to raise taxes, which fights to take and which to walk away from. This chapter gives you a starting doctrine. Your rivals will teach you the rest.

### 9.1. Early Game: The Land Grab

The opening turns are a race for territory. Every unowned world you claim is one a rival cannot, and the sooner a colony is founded, the more years it has to grow.

**Build ETACs first, and escorts to go with them.** An ETAC costs 20, colonizes a world, and survives to colonize the next. One ETAC can found a chain of colonies if you keep it alive, so give each one a warship or two for company and keep the fleet at ROE 0: its job is to arrive, not to fight. The escort shields the ETAC if someone attacks. Your two starting colony fleets already have a cruiser each; send them out on the first turn.

**Choose colonies by Potential and distance.** The Total Planet Database lists the Potential of every world you know. A world of Potential 100 will one day pay five times what a world of Potential 20 pays, but a close world pays sooner than a far one, and an ETAC moves at speed 3, which slows every fleet it travels with. Take the best worlds within a few sectors first, then reach farther. Your destroyers, at speed 6, are pickets for early contact: a View a World (9) order reports a world's owner and production. For a quiet look at a world's defenses, build a scout; a lone scout is the hardest fleet to see.

**Garrison what you take.** A world with no armies falls to the first army that lands. Armies cost 2 points each, and a handful on every colony turns a cheap grab into a real assault. Add ground batteries, at 20 each, to the worlds you cannot afford to lose: each one fires like a battleship and must be destroyed before an invader can land.

**Keep taxes modest.** Your empire starts at 50%, and that is a sound rate while you expand: your colonies grow faster, and any starbase you build gives its full growth bonus at 50% or below. Resist the urge to tax higher for cash. Above 65%, a yearly penalty eats into Production, and no starbase removes it.

### 9.2. Rules of Engagement by Job

ROE decides which fights a fleet starts and when it leaves one. Set it for the job, not the ship. The thresholds are in Appendix B.

- **0** for scouts, colony fleets, and anything carrying cargo you cannot afford to lose. The fleet never starts a fight. A fleet with no warships is 0 whatever you set.
- **2 to 4** for raiders that should pick only easy fights: fast destroyers hunting lone transports and stragglers.
- **6**, the default, for most fleets. They fight at even odds or better.
- **7 to 9** for defenders and blockades that must hold their station at a cost. A fleet at 6 breaks off when the odds turn against it; a guard at 8 stays even when outgunned two to one.
- **10** for a last stand. The fleet accepts any odds against a hostile fleet and never breaks off while it has a warship left.

A low ROE does not keep a fleet safe. Any fleet that is attacked fights at least the first exchange. A low ROE keeps a fleet from starting fights it should not; it does not stop an enemy from starting one.

### 9.3. Mid-Game: Consolidation

When the nearby unowned worlds are gone, the game turns to fortification, intelligence, and the first wars.

**Build starbases on young worlds you will keep.** A starbase speeds a world's growth at modest tax rates and lets it spend five times its Production in one year from its savings. Both bonuses pay most on a world with a long way to grow and a treasury to draw on. A world already at its Potential gains only the build capacity and the defense. A world can save for its first base and pay for it from its treasury, even when the base costs more than its Production. Build the base where you mean to keep it: it crawls one sector a year.

**Raise taxes as worlds mature.** A world near its Potential has little growth left to lose. Move the rate toward 65% as most of your worlds get there. Held at 65%, a mature world earns its best revenue over the years. Tax higher only in an emergency: you get cash now and smaller worlds later. One rate covers every world, so time the change for the empire as a whole.

**Scout before you invade.** Never attack a world blind. Scout a Solar System (11) reports its batteries, armies, production, stardock, and the fleets in orbit; View a World (9) reports only its owner and production. Count the batteries and the armies, then bring what the count demands: the batteries must be down before an invasion can land, and you want twice the defender's armies to be confident of the landing (see Section 6.4).

**Choose your enemies.** Diplomacy knows only Neutral and Enemy. Declare an empire Enemy and your fleets attack its fleets wherever they meet, as far as their ROE allows. Leave it Neutral and your fleets let its fleets pass, except in your own solar systems and at worlds you are guarding or attacking. There are no alliances. Nobody ever joins your battles, and any pact you make rests on the other empire's word alone. You cannot fight everyone at once, so fight one rival at a time and keep the rest Neutral until you are ready.

### 9.4. Late Game: Total War

Once the raw worlds are gone, the only way to grow is to take worlds from others.

**Match the fleet to the job.** Cruisers and battleships cripple the enemy line and hold the field; destroyers destroy what is crippled, and what they destroy stays destroyed. Every warship buys the same firepower per point, but the heavier ships last longer. Battleships bombard best; cruisers are faster. An empire that builds nothing but destroyers tends to fall behind rivals with heavier fleets. Build destroyers for speed, scouting, and the kill, not as your whole navy (see Section 6.2).

**Match the attack to the prize.** Bombard a world you mean to ruin or whose batteries you must break; it destroys what you might capture. Invade a world you want intact, once its batteries are down. Blitz a lightly defended world when speed matters more than losses; it keeps everything, surviving batteries included. A captured world pays nothing for two years,

so take worlds early rather than late, and do not count on their revenue to fund the next campaign.

**Deny what you cannot take.** A blockade attacks an Enemy's fleets as they come and go, and a bombarding fleet grinds a world's production down year by year. If you cannot hold a world, scorch it. Scorch Earth wears your own world down while the order stands, but a conqueror gets only half its production and goods, and an empty stardock. Use it as a last resort, when the world is lost whatever you do (see Section 5.9).

You become Emperor when every rival is Defeated and no rogue empire holds a world. Every world you keep and every fleet you bring home whole is a year closer to the throne.

## 10. Historical Context

### The BBS Era (1990–1992)

The original game appeared between 1990 and 1992 as a “door game” for Bulletin Board Systems. Before the World Wide Web, players dialed into servers over phone lines to play strategy games against dozens of strangers. Everything ran through strict 80x25 text terminals. Every menu, every star map, and every battle report fit into that small screen. It stood beside classics like *TradeWars 2002* and *Solar Realms Elite*, but it stood out for its depth, its hands-off design, and the sheer scale of its campaigns.

### What Made It Special

Most multiplayer games of the era demanded constant attention. Esterian Conquest was different. You checked in once a day, gave your orders, and went about your life. Overnight, the engine processed every empire at once: fleets moved, economies grew, battles resolved, and alliances were tested. When you logged in the next day, a stack of reports was waiting. Campaigns ran for months, and the stories they produced (surprise invasions, desperate blockades, betrayals at the worst possible moment) stuck with players for years.

### The Rust Port (2026)

This edition rebuilds the game for modern machines and keeps the old campaign rhythm. The core rules were recovered from the original game and manuals, then rewritten into a clear modern engine. Where the old game hid things inside its code, this edition uses explicit, documented rules. If you played the original game on a BBS, it should feel familiar. If you are new to it, this manual gives you the rules straight.

## A. Economy Formula Reference

This appendix collects the exact economy formulas in one place. In every formula, `tax_rate` is the same empire-wide setting for all owned planets.

### A.1. Yearly Tax Revenue

```
revenue = present_production * tax_rate / 100
```

Maintenance credits this revenue to the planet's treasury after the year's growth and any high-tax penalty, so `present_production` here is the updated value. Nothing is rounded: production and the treasury keep their fractions. The Revenue shown on the planet and empire screens is next year's figure, rounded to the nearest whole point, assuming the tax rate, the owner, and the starbase stay as they are. Empire Revenue is the sum of those figures over all your planets.

### A.2. Yearly Growth

```
gap = potential_production - present_production
tax_headroom = 100 - min(tax_rate, 95)
growth = gap * tax_headroom / 400
```

Growth never exceeds the gap, and there is no yearly minimum.

### A.3. High-Tax Penalty Above 65%

```
if tax_rate > 65:
    penalty = present_production * (tax_rate - 65) / 500
```

Final yearly Production is:

```
present_production = present_production + growth - penalty
```

and never more than Potential. At a steady tax rate above 65%, Production settles at  $\text{potential} * a / (a + b)$ , where  $a = \text{tax\_headroom} / 400$  and  $b = (\text{tax\_rate} - 65) / 500$ . For Potential 100 that is 88.2 at 70% tax (income 61.8) and 85.8 at 71% (income 60.9). Settled income is highest at 65% and falls with every point above it.

### A.4. Starbase Growth Bonus

A commissioned starbase boosts growth at low and moderate tax rates, and the bonus fades to nothing by 65%. Only a base of yours resting in orbit over the world when the year begins counts. A base under way gives no growth bonus, even one that arrives during the year, and neither does a base in deep space. More than one base does not add to the bonus.

```
bonus = 0.5 if tax_rate <= 50
bonus = (65 - tax_rate) / 30 if 50 < tax_rate < 65
bonus = 0 if tax_rate >= 65
growth = gap * tax_headroom / 400 * (1 + bonus)
```

The bonus does not change the high-tax penalty.

### A.5. Build Capacity, Treasury, and Budget

Per-turn build capacity is:

```
build_capacity = round(present_production) without starbase
build_capacity = round(present_production) * 5 with starbase
```

Production is rounded to the nearest whole point. Here “with starbase” means one of your bases in orbit over the world and bound there, or descending to it. A base ordered elsewhere, or one in deep space, does not count. One base is enough; more add nothing.

Moving a base out of orbit cancels every build order of the world beneath it that relies on the base. An order relies on the base when a queued unit, or the whole queue, costs more than the world's Production and no other starbase of yours rests in orbit there.

A planet's **treasury** collects unspent production points across turns, with their fractions. You can spend only its whole points:

```
spendable = floor(max(0, treasury))  
budget = min(spendable, build_capacity)
```

A negative treasury is a debt. It stays negative, and later revenue pays it down.

**The first starbase.** A world with no starbase in orbit or in its stardock may pay for one starbase, 50 points, from its treasury outside its build capacity. Without this, a world of Production 30 could never buy the base that would raise its capacity. The base still needs the points: a world with 30 whole points in its treasury pays 30 this year and the rest later. Other orders keep the full build capacity but share what is left of the treasury. A second base at the same world follows the standard rules.

The BUDGET field on the build screen shows how many points remain after the committed queue entries are subtracted. Maintenance deducts only the build points it processes that year. Any remaining build cost stays queued for later turns, and blocked builds do not touch the treasury. Aborting the queue releases the points still unpaid, not points already spent.

## A.6. New Colonies

A colony starts with `present_production = min(3, potential_production)`, no treasury, and one army on the ground as its garrison. The army comes with the founding; no transport lands it, and the colony fleet keeps its own ships. This applies only when the colony is founded, never on capture, recapture, or recovery, and the tax rate does not change it. A captured world gets no such army: its garrison is the attacking armies that survived the landing. The maintenance that founds the colony credits it no growth and no revenue. Both begin the next year, growth first and then revenue on the grown Production. The treasury counts whole points only, so a small colony, or one taxed at a low rate, can sit at zero budget for a year or more.

## A.7. Scorch Earth

While a planet's Scorch Earth order is in force, each yearly pass does this, after the build queue and in place of growth and revenue:

```
present_production = max(1, present_production * (0.30 + Random(20) / 100))  
treasury = min(treasury / 10, sqrt(treasury)) if treasury > 0
```

`Random(20)` is a whole number from 0 to 19. A planet with Potential 0 stays at Production 0. A debt (a negative treasury) is left as it is. Potential Production is unchanged, and the planet's Revenue reads 0.

## B. Combat Rules and Tables

Battles resolve on their own during maintenance. This appendix gives the exact rules and tables behind them. Battle reports are short, but the fighting is not a random brawl. Combat follows rules, and both sides fire in the same round. Losses are then applied. This keeps battle outcomes clear, severe, and consistent.

### B.1. The Rules of Battle

Each round, both sides fire at the same instant, and nobody fires first. Each side rolls one ten-sided die, and the roll decides how much of its total **Attack Strength (AS)** lands on the enemy: a quarter on 0–2, half on 3–5, and all of it on 6–9. A bigger fleet wins by bringing more AS, not by rolling on a better table. Rounds repeat until one side is destroyed or breaks off.

Ships take damage in two steps, from “Nominal” to “Crippled” and then destroyed. Under suppression fire, every nominal ship in the current target group (the combat line first, auxiliaries after) must be crippled before any crippled ship in it is destroyed. Execution fire and critical hits destroy ships directly (see Tactical Roles and Split Fire). A crippled ship fights at half strength and keeps its speed. It recovers on its own at the end of the second maintenance after the one that damaged it, with no order, payment, or shipyard. It fights crippled during those two turns and is whole for the next. A fleet that rests in orbit of your world beside your starbase for a whole turn gets its older cripples back one turn sooner. The bonus does not apply to fresh damage or to fleets that only share the sector. The fleet screens show how many ships of each kind are crippled (see Appendix D.8).

Ordinary fleet fire targets the combat line first, heaviest hull first: battleships, cruisers, destroyers, and starbases. The heavy ships cover the destroyers behind them, and fire too weak for the ship in front cannot reach those behind it. Scouts, transports, and ETACs are safe from it as long as any combat-line ship remains. Your non-combat ships survive as long as your warships hold the line, except against a critical hit.

Each damage step costs the target’s full **Defense Strength (DS)**: once to cripple a ship and again to finish it. Execution fire from destroyers and starbases finishes a crippled ship for half its DS, rounded up. Hits too few for the next step are not wasted. They carry over to the next round of the same battle, so even a small force wears down a big ship if it stays in the fight. Leftover hits last only as long as the battle. When it ends, whether by destruction, withdrawal, or the round limit, they are lost. The next battle starts from zero, even against the same enemy fleet. A fleet that breaks off forfeits the hits it has built up against the enemy.

Three bonuses add to your die roll. A starbase fighting on your side adds +1. An attack that catches the enemy unprepared adds +1 to the attacker’s first round (see **Surprise** under Who Fights Whom). A heavy line adds +1: your cruisers, battleships, and starbases in the battle cost at least twice the enemy’s, crippled ones at full price, judged again every round. Destroyers count for neither side, and a side with no heavies never gets it. A roll pushed past 9 counts as 9. An unmodified 9 is a critical hit that destroys one more enemy ship outright. In a draw, the defender wins. The exact ROE thresholds, combat values, effectiveness table, and assault formulas follow later in this appendix.

### B.2. How a Fleet Battle Is Fought

This is the whole procedure, step by step, with every price and every rounding rule. You could rebuild the game from it. The sections after it say who takes part and when a fleet leaves. The tables at the end of this appendix give the numbers.

1. **Sides.** All the fleets and starbases one empire has in the sector and layer fight as one side. The roster is set when the battle starts. If more than two empires are present, each side picks one enemy

to fire at in each exchange. It picks in this order: an enemy guarding the world (the world's owner, or a fleet on Guard a Starbase); then, at your own world, an enemy attacking it; then the enemy with the most attack strength; then the lowest empire number.

2. **Strength.** Add up the AS of every ship on the side, from the Unit Combat Values table. A crippled hull counts half, rounded down: destroyer 6, cruiser 16, battleship 45, starbase 50. Scouts, transports, and ETACs count nothing. The cruisers' and battleships' part of the total is the side's suppression strength. The destroyers' and starbases' part is its execution strength.
3. **The exchange.** Both sides fire at the same instant. Each side rolls one ten-sided die and adds its bonuses (see Fleet Battle Die Modifiers). A result above 9 reads as 9. The result sets the effectiveness: a quarter on 0–2, half on 3–5, all on 6–9. Hits are  $\text{ceil}(\text{AS} \times \text{effectiveness})$ . Split the hits into two pools. Suppression hits are  $\text{round}(\text{hits} \times \text{suppression AS} / \text{total AS})$ , with a half rounding up. The rest are execution hits. A natural 9 adds one critical hit. Hits the side carried from earlier exchanges of this battle join their pools now.
4. **Where the hits land.** The target group is the enemy's combat line while any of it stands: battleships, then cruisers, then destroyers, then starbases. Once the line is gone, the group is the auxiliaries: scouts, then transports, then ETACs. Both sides' hits land after both have fired, so a ship destroyed this exchange still fired in it.
  - **Suppression.** Go down the target group in order. Skip a class with no healthy hull. If the hits cannot pay the next class's DS, stop. That class shields every class behind it. Otherwise cripple as many of its healthy hulls as the hits can pay for, one DS each, and go on. Start over at the top while the walk still buys something. Once no healthy hull is left in the group, the same walk finishes crippled hulls at their full DS, with the same shielding. When the group is wiped out, move on to the next group.
  - **Execution.** Go down the target group in order. In each class, first finish crippled hulls at half DS, rounded up (destroyer 4, cruiser 15, battleship 55, starbase 65). Then destroy healthy hulls at twice DS. Buy as many of each as the hits can pay for. A class the hits cannot pay for is passed over. It shields nothing. Start over at the top while the walk still buys something.
  - **Criticals.** Each critical destroys one hull outright, and the screen does not protect against it. It takes the first crippled hull in this order: destroyer, scout, transport, ETAC, cruiser, battleship, starbase. If no hull is crippled, it takes the first healthy hull in that order.
  - **Carry.** Hits a pool could not spend stay in that pool for the side's next exchange of this battle. They are lost when the battle ends.
5. **Sharing the losses.** Each side's losses are shared among its fleets. Each fleet loses in proportion to how many hulls it has of the class and state that was hit. Loaded transports go before empty ones. Ties are drawn at random. See Withdrawal and Retreat.
6. **Who stays.** After every exchange, the first one included, each fleet checks its ROE against the odds as they now stand: its side's attack strength against the enemy's. Every fleet whose ROE fails leaves at once, on both sides together. The fleets that stay check the odds again without them, until no fleet fails. A fleet with no armed ship left leaves at once, whatever its ROE. A starbase never leaves. A fleet that has left is out of the battle for good.
7. **Pursuit.** When one whole side has broken off and the other still has armed ships, the other side may chase each fleeing fleet, once. A pursuer whose slowest surviving ship class is faster than the fleeing fleet's catches it for certain. Otherwise it catches it with probability  $\sin(\pi \times u) \times \text{pursuer speed} / \text{fleeing speed}$ , where  $u$  is a uniform draw from 0 to 1; a second uniform draw decides. A fleet that is caught stands for one more exchange, fought exactly as above, with both sides' bonuses (but never surprise) and carried hits. Then the battle ends. When both sides break off, nobody pursues.

8. **End.** The battle ends when a side has no ship left, when a side has broken off and any pursuit is done, or, unresolved, after 64 exchanges. Carried hits are thrown away. Each surviving fleet's speed is worked out again from the ships it has left. A fleet that did not hold the field seeks home (see Withdrawal and Retreat).

### B.3. Who Fights Whom

Fleets meet only when they share a sector **and** a depth. Each sector has two layers: deep space, and the solar system around its world (see Section 7.1). A fleet at least halfway down to a world is in its system. A fleet in orbit cannot see a fleet passing overhead in deep space, and neither can fight the other. Movement is 2.5D: the map is a flat board with each world one step below its sector, and a full descent or climb costs one sector of movement. Seek Home and Colonize a World finish at the end of the first year the fleet is at least halfway down. Every other world mission acts only from full orbit.

A year is 52 weeks. Each week, every fleet and starbase takes a turn, in an order drawn at random once a year. In its turn a fleet moves one week's distance, scans the alien fleets and starbases that share its sector and layer, and then carries out its order. Battles therefore happen in the middle of the year, wherever fleets are that week, and the report carries that week's stardate.

**Sighting.** Each week a fleet has a chance of spotting each alien unit near it. Big fleets are easier to see than small ones: battleships and ETACs show most, then cruisers and transports, then destroyers; scouts add a little. A fleet in a solar system is five times easier to see than one in deep space, and a fast-moving fleet is easier to see than a slow one. A fleet at its target on a bombard, invade, or blitz mission is twenty times easier again (a hundred times, counting the solar system). Patrols, colonizers, and system scouts are twice as easy. Starbases are fairly easy to see.

How hard a fleet looks depends on its order. A patrol that has reached its sector looks ten times as hard as an ordinary fleet; a scout or a blockade on station, five times. Starbases look hardest of all. Spotting a unit once makes it easier to spot again. What one of your fleets or starbases learns about an alien unit, all of them know, until that unit moves to another sector or layer.

**Identification.** A fleet with ROE above 0 closes to identify what it spots, and so do patrols, scouts, and blockades on station. Any other fleet only reports a sensor contact. A fleet guarding a starbase stays with its base and does not close.

**The decision.** A fleet that identifies an alien fleet attacks it when:

- your empire has declared the fleet's owner an enemy (his declaration against you does not count);
- the alien fleet is in one of your solar systems, whatever its order, and even if its owner is neutral;
- your fleet is blockading a world and the alien fleet has come to bombard, invade, or blitz it, or to colonize it while it is unowned (this holds at any world, yours or not);
- both fleets are colonizing the same unowned world; or
- your fleet is on a bombard, invade, blitz, or colonize mission and the alien fleet guards the target world. If your ROE forbids that fight, your fleet aborts its mission and seeks home instead.

Any other alien fleet is ignored. A sector with no world is nobody's system.

Whether your fleet then attacks depends on its ROE and the odds, the first time it identifies a target and on every later week (see Rules of Engagement Thresholds below). Identifying an enemy first commits nothing. A cautious fleet does not attack a stronger enemy just because it saw it first. For these odds each warship counts its attack strength (a destroyer 12, a cruiser 33, a battleship 90) and a starbase 100, the same values the battle fires with. Scouts, transports, and ETACs count nothing, and a fleet without warships never attacks, whatever its ROE.

The odds are those of the sides as they would fight. Your fleets in the same sector and layer fight together, so each of them weighs all of them against all of the enemy's there. Two fleets of five cruisers at ROE 6 would each refuse ten cruisers alone, and take them on together. Each of your fleets there volunteers under its own ROE. One that refuses the combined odds stays out, and the others check again without it. If the fleet that spotted the enemy is the one that refuses, there is no attack that week. Another willing fleet of yours attacks only when it spots and catches the enemy itself.

**Intercept.** A fleet with a higher maximum speed always catches its target. Otherwise the target may notice the attack and run. A stopped target cannot run. A moving one escapes more often the faster it moves and the slower its pursuer. A target that already knows the attacker rarely notices it coming, and then it stays to fight only if its own ROE accepts the odds.

**Battle.** Every battle is between two empires. Your side is your fleets in the sector and layer that volunteered. The enemy's side is all of his fleets there, whatever their ROE (a fleet that is attacked fights, ROE 0 included), plus the starbase that was attacked or that a guard fleet among them guards. Nobody else joins: not a third empire, not allies, not fleets that arrive later in the week. The fleet that started the attack spends the week fighting instead of moving. A fight does not change the empires' diplomacy.

**Surprise.** Your empire remembers, in each sector and layer where it has a fleet or a starbase, which opposing empires it has spotted there. Whenever any of your fleets or starbases there spots an alien unit, its empire goes into that memory, and so does the empire of any fleet you fight there. All of your fleets and starbases in that sector and layer share it. The memory lasts, from week to week and year to year, for as long as you keep a fleet or a starbase in that sector and layer. When the last one leaves or is destroyed, it is gone. An opponent that leaves and comes back does not erase it. It is local readiness, not knowledge of the whole empire: what a scout learned in another sector does nothing here.

An attack is a **surprise** when the defending empire's memory there does not include the attacker's empire: none of its fleets or starbases there has spotted the attacker, and the two have not fought there. The attacking side then adds 1 to its die in the first round of the battle. The bonus adds to the other die bonuses, a result above 9 still reads as 9, an unmodified 9 is still the only critical hit, and a pursuit round never gets it. Only the attacker can surprise. A defender that was hidden earns nothing for it. Spotting is not the same as identifying, and a fleet that spots an enemy and declines to attack, because of its ROE or because the odds are against it, still remembers. The battle report says "We attacked by surprise." or "The enemy attacked by surprise." Staying unseen therefore keeps your chance of a surprise, and watching a system keeps your defenders ready.

**Starbases** scan, and every fleet of their empire knows what they identify, but they never start a fight and never join one to attack. A fleet attacks a starbase only if its empire has declared the base's owner an enemy, or if the base protects the world the fleet has come to bombard, invade, or blitz. Either way the fleet weighs the base, its guard, and the owner's other fleets there against its own side. If the odds are against it, it avoids the base or aborts its mission.

**Blockades.** A blockade does not stop a neutral fleet leaving the world or arriving at it, unless the arrival comes to attack or colonize it. A blockade catches a departing fleet only if your empire has declared that fleet's owner an enemy, and only if it spots and intercepts the fleet in the few weeks the fleet takes to climb out of orbit.

## **B.4. Tactical Roles and Split Fire**

Combat is more than a numbers game. Each ship class has a tactical role set by how it delivers fire. The hits a side generates are split into two pools:

- **Suppression Fire (Cruisers and Battleships):** These heavy ships bring volume. Their hits are spread across the enemy fleet, knocking nominal ships down to **crippled**. This takes enemy guns offline and wins the field in front of you, but it does not always kill for good.
- **Execution Fire (Destroyers and Starbases):** These units use **focus fire** to pick off single targets. Their hits skip the crippled state and go straight to **destroyed**, paying 2x DS for a healthy ship and half DS, rounded up, for a crippled one. They blow ships up one by one.

Together they are a deadly pair. Heavy ships soften the line and stand in front of it. Destroyers finish it from behind them. Each pool carries its own leftover hits: suppression hits never pay for an execution kill, and execution hits never pay for a cripple.

**NOTE:** All return fire from ground batteries counts as **Execution Fire**, at the full prices: 2x DS for a healthy ship and 1x DS for a crippled one, destroyers first. Fortified worlds do not “soften” an attacker; they destroy him.

## B.5. Fleet Limits

A fleet can hold as few as one ship and as many as **3,000 ships** of mixed types. A fleet always moves at the speed of its slowest ship. A fleet sent to guard a starbase joins the escort already beside it when it arrives, unless the two together would pass 3,000 ships.

## B.6. Rules of Engagement (ROE)

You give each fleet an ROE level (0–10) to control when it attacks. ROE 0 never attacks, but a fleet on ROE 0 that is attacked still fights the first exchange. Any higher ROE attacks a hostile fleet when the force ratio of the two sides, your fleets in the sector and layer against the enemy’s, meets the ROE threshold (see Who Fights Whom). Seeing the enemy first changes nothing. ROE also decides when your fleet breaks off a battle. After the compulsory first exchange it checks the same odds after every exchange and leaves as soon as they fail (see Withdrawal and Retreat).

The full ROE threshold table follows below.

Non-combat fleets (scouts, transports, and ETACs only) count as ROE 0 on their own. Giving such a fleet any order sets its ROE to 0, and so does a detach or transfer that leaves a fleet without a battleship, cruiser, or destroyer. A fleet that gains warships keeps its ROE, even ROE 0; set a new one with ROE (C). A fleet that Detach creates starts at ROE 6, or at 0 when it has no warships, whatever the donor’s ROE is.

## B.7. Withdrawal and Retreat

**IMPORTANT:** Low ROE does not guarantee safety once combat begins.

Every battle opens with one compulsory exchange: both sides fire once, whatever their ROE. After it, and after every exchange that follows, each of your fleets in the battle checks its own ROE against the odds as they now stand, your side’s attack strength against the enemy’s, and breaks off as soon as they fail. Every fleet whose ROE fails leaves at once, on both sides together, and the fleets that stay check the odds again without them. A fleet that has left does not come back, even if the odds later turn in your favor. A fleet with no armed ship left, including one that has just lost its last warship, tries to escape at once, whatever its ROE. A starbase never breaks off. The fleets beside it, its guard included, leave under their own ROE like any other.

Losses are shared among your fleets in proportion to each fleet's eligible ships. Of the ships the enemy's fire reaches, a fleet with eight cruisers and one with two share three losses as two and one. Ties are broken at random. Splitting or merging fleets can shift a rounding loss by one hull. Loaded transports are hit before empty ones across all your fleets there, so moving cargo into another fleet does not shelter it.

Breaking off is not always a clean escape. A fleet that leaves while the rest of your side fights on gets away for now, but the enemy may still catch it once later. When your whole side has broken off and the enemy stays with armed ships, he may pursue each fleeing fleet. A pursuer whose ships are faster than yours catches you for certain. Otherwise it is a roll, likelier the faster he is and the slower you are. A catch is one more exchange for the fleets caught, with die bonuses and carried hits on both sides, and then the battle is over. When both sides break off, nobody pursues. Each enemy empire catches an escaping fleet at most once: in the battle it left, or, if that pursuit failed, in one more attack while the fleet is still leaving the sector. After that the fleet has got away from that empire until it leaves the sector or you give it a new order. Your warships still screen your auxiliaries during a pursuit exchange; only a critical hit reaches past the line. A battle still undecided after 64 exchanges just ends: nobody wins, nobody retreats, and the next week's encounter rules decide whether the fleets meet again.

A fleet that retreats, or aborts a mission its ROE will not let it fight for, is put on Seek Home at full speed. It heads for the nearest planet you own, measured from where it is. If the fleet is in a solar system, that system's world is never chosen, even when you own it. A fleet beaten in deep space may go down to the world below it. The game picks the planet the same way when a fleet on Seek Home loses its target on the way. With no planet to go to, the fleet holds where it is, with one exception: a fleet that backs away from an enemy fleet climbs out to the deep space of its own sector at full speed on Move Only. On arrival it goes back to Hold Position. Its report says why it left (its ROE, or no warships left) and whether it was caught on the way out.

## **B.8. Planetary Combat**

When fleets attack planets by bombardment, invasion, or blitz, different rules apply. Orbital fire at a planet reads its die on a table that compares the two sides' strength, and leftover hits do not carry from round to round. The landing battle between armies has its own rules (see The Landing Battle below). Ground batteries are the planet's shield wall. While they stand, they draw orbital fire and shoot back, protecting the stardock, armies, production, and industry behind them. Only combat ships (destroyers, cruisers, and battleships) add bombardment firepower. Scouts, transports, and ETACs do not.

**Winning the orbit.** Before a fleet on a bombard, invade, or blitz mission can strike, it must get past whatever the owner keeps in orbit. His starbase and his fleets there with warships fight it the week it reaches orbit, spotted or not, and your other fleets in that orbit join it under their own ROE. If its ROE will not take them on with the side it has, it turns for home without a shot. If it loses, it is driven off, and the batteries do not fire on it as it goes. Only a fleet that holds the orbit attacks, in that same week. Your fleets in orbit there under Bombard join it and bombard as one force, once a year. An invading or blitzing fleet attacks on its own as it arrives, and a second one need not fight defenders the first has beaten. A fleet told to attack the world it already orbits attacks at the next maintenance. A fleet of loaded transports may try a blitz without warships, but then it brings no orbital fire of its own. The owner's ships without warships do not stop it, but his starbase or any fleet of his with warships in orbit does, and the transports turn for home.

**WARNING:** Planetary defenses use **focus fire**. Hits from ground batteries skip the crippled state and destroy ships outright, which makes them far deadlier than spread ship-to-ship fire. A commander who parks a large fleet over a fortified world will watch ground fire pick his ships off one by one.

Each bombardment turn resolves three rounds of fire. In rounds 1 and 2, your ships trade fire with the planet's batteries. While batteries stand at the start of a round, your hits land on the batteries only. They cripple healthy batteries first, and only when every battery is crippled do they destroy crippled ones. Hits beyond what the batteries can take are wasted. Ships in the stardock are exposed from the next round, the first that begins with no batteries standing. Armies, stored goods, and factories are shielded in these rounds. In round 3, if all batteries have been destroyed, your remaining firepower breaks through to the stardock, then armies, stored goods, and factories. If batteries still stand, round 3 is another suppression exchange and the planet's soft targets survive another turn.

Planetary targets have defense strength just like ships. Crippling a ground battery takes 66 hits and destroying a crippled one 66 more. An army takes 10 hits, and a ship in the stardock as many hits as its own DS. Orbital fire is far less effective than ship-to-ship fire: ships firing at dug-in guns read the bombardment table at a third of fleet strength. Guns firing at ships in orbit read it at full strength. A lone cruiser cannot level a fortified world in a single volley.

Crippled batteries stay crippled from one year to the next while the world is under attack, and recover at the end of any year in which no fleet bombarded, invaded, or blitzed it. A siege kept up therefore grinds a fortress down. Roughly, a force of three times the batteries' cost in warships takes any fortress in a year or so. Twice their cost, kept on station and reinforced, takes it in two or three years. A force no larger than the batteries' cost is destroyed. Build batteries to buy time; bring heavy fleets to break through faster.

Section 7 explains when a hostile fleet arrives and attacks, and Section 6.4 what each attack is for. The bombardment table, the two-step battery rule, the batteries-only return-fire rule, and the other combat tables follow below.

### **B.8.1. The Landing Battle**

Armies that land fight on the same table as fleets, army against army, with no force-ratio columns. Each round the **defenders fire first**. Each side rolls one d10 for its whole army: 0–2 deals 25%, 3–5 deals 50%, and 6–9 deals 100% of its armies' strength. The attackers' losses come off, and the attackers who survive fire back the same way. Rounds repeat until one side has no armies left.

Damage short of a whole army carries into the next round of the same landing and is lost when the landing ends. There is no defender bonus, no homeworld bonus, and no critical hit. Firing first is the defender's advantage. The attackers fire only with what survives, so both sides are never destroyed together. Your reports show whole armies lost and remaining; the carried fractions stay hidden.

Capture odds follow the ratio of landed armies to defending armies, about the same at any scale. Equal numbers take a world about one time in five. At 1.5 to 1 the odds are about even, and at 2 to 1 the attackers win nine times in ten. Overwhelming numbers still win every time. The Landing Battle table below gives the figures.

### **B.8.2. Captured Worlds**

A world falls when its last defending army is destroyed, and your surviving armies become its garrison. The fight wrecks part of what it was worth, as in classic Esterian Conquest. An **invasion** leaves 20–40% of the world's production, 10–50% of its stored goods, a share of its docked ships, and

no batteries. The slow assault gives the defenders time to sabotage. A **blitz** keeps most of the world intact. Production, goods, docked ships, and batteries are kept in proportion to how well the landing went,  $f = \min(1, \sqrt{\text{surviving attackers} / \text{starting defenders}})$ : production 85--100%  $\times f$ , goods 55--100%  $\times f$ , batteries 35--100%  $\times f$ . A blitz that lands in strength takes a world almost whole. Each share is a seeded roll. Production never falls below 1.0 on a world with potential, the queued build work survives, and debt is never forgiven. Your capture report lists the goods, the docked ships, and the queued work you inherit.

A defender can set Scorch Earth to deny a world to the invader. If the world falls with the order set, its production and positive goods are halved, its stardock is emptied, the order is lifted, and production is raised to at least 1.0. A world with no potential stays at 0, debt is untouched, and the build queue is not burned. The capture report says when the defenders had scorched the world. A failed assault leaves the order set.

### **B.8.3. Failed Assaults**

Failure is not defeat. A fleet whose landing fails keeps its survivors in orbit on Hold and gets a failure report. An Invade blocked because batteries survived its year lands nothing, keeps its armies aboard, and keeps its order. It suppresses again next year. The fleet does not blockade the world on its own, and like any fleet in orbit it is open to the ordinary encounter rules. A fleet beaten in the orbital battle before it can strike turns for home under the withdrawal rules above. The world's batteries fire on no fleet except one that strikes.

## **B.9. Starbase Recovery**

Suppose your world and commissioned starbase are at [21, 21]. A fleet on Move to Sector (1) stops in deep space there. Hold (0) leaves it in deep space. Matching coordinates does not put it beside the base inside the system.

For a damaged fleet with warships, use Guard a Starbase (4) and select your base. Let the fleet reach the base inside your own system. Keep the fleet and base at rest there for the whole following turn. You may leave Guard a Starbase in force, or change to Hold after it reaches the base. Guard fleets may merge with an existing escort; check your fleet list after maintenance.

The bonus comes on its own. It is not a reward for Guard a Starbase: any qualifying fleet resting there can get it. Unarmed fleets cannot use Guard a Starbase. Seek Home (2) brings a fleet into its nearest owned system and finishes on Hold, but the world it picks may not have a base. Guard/Blockade a World (5) is another way for a combat fleet to enter a chosen owned system. View (9) is not a parking order; after scanning it climbs back out.

You must keep the world, the fleet, and the same assisting base through the whole resting turn. The base must stay at rest inside the system too. A fleet that arrives or merges into position during that turn gets no bonus that turn. Ships crippled during that turn get no extra recovery then. Older cripples can recover one turn sooner. A starbase cannot speed its own recovery.

## B.10. Rules of Engagement Thresholds

| ROE | Force Requirement     | Behavior                                                               |
|-----|-----------------------|------------------------------------------------------------------------|
| 00  | Never engage          | <b>Pacifist:</b> Flee from all hostile fleets.                         |
| 01  | Enemy defenseless     | <b>Opportunist:</b> Engage only if the enemy has no combat capability. |
| 02  | 4:1 or better         | <b>Very Cautious:</b> Engage only with overwhelming advantage.         |
| 03  | 3:1 or better         | <b>Cautious:</b> Engage only with strong advantage.                    |
| 04  | 2:1 or better         | <b>Favorable:</b> Engage with clear superiority.                       |
| 05  | 3:2 or better         | <b>Confident:</b> Engage with moderate advantage.                      |
| 06  | 1:1 or better         | <b>Balanced:</b> Engage equal or inferior forces.                      |
| 07  | Even if outgunned 3:2 | <b>Bold:</b> Accept moderate disadvantage.                             |
| 08  | Even if outgunned 2:1 | <b>Aggressive:</b> Accept significant disadvantage.                    |
| 09  | Even if outgunned 3:1 | <b>Reckless:</b> Accept severe disadvantage.                           |
| 10  | Always                | <b>Suicidal:</b> Attack regardless of the odds.                        |

## B.11. Unit Combat Values

The combat tables use a **10x internal scale**. That keeps losses fine-grained and lets crippled light ships keep adding fire.

| Unit       | AS  | DS  | Notes                                        |
|------------|-----|-----|----------------------------------------------|
| Destroyer  | 12  | 7   | Glass cannon, raider, and finisher           |
| Cruiser    | 33  | 30  | Balanced brawler                             |
| Battleship | 90  | 110 | Primary battle line and siege ship           |
| Scout      | 0   | 10  | Non-combat hull                              |
| Transport  | 0   | 10  | Non-combat hull                              |
| ETAC       | 0   | 20  | Colonization hull                            |
| Starbase   | 100 | 130 | Heavy orbital defender                       |
| Battery    | 90  | 66  | Planetary defense; two steps, 45 AS crippled |
| Army       | 10  | 10  | Ground combatant                             |

## B.12. Fleet Battle Effectiveness

| Modified d10 | Effectiveness |
|--------------|---------------|
| 0–2          | 25% of AS     |
| 3–5          | 50% of AS     |
| 6–9          | 100% of AS    |

Fleet battles, the pursuit exchange included, read the modified d10 on this table. The force ratio plays no part in a volley. It decides only whether a fleet attacks and whether it stays, as attack strength against attack strength, a starbase counting 100.

### B.13. Fleet Battle Die Modifiers and Hit Formula

- Starbase on your side: +1
- Surprise (the defending empire had not spotted the attacker in that sector and layer): +1 to the attacker, in the first exchange only
- Heavy line (your cruisers, battleships, and starbases cost at least twice the enemy's, crippled hulls at full price; destroyers do not count): +1, judged every exchange
- A modified roll above 9 counts as 9
- Pursuit exchange: the same modifiers, except surprise, which it never gets

$\text{hits} = \text{ceil}(\text{total\_AS} * \text{effectiveness})$

An unmodified 9 on the d10 is a critical hit and destroys one more ship outright, a crippled ship first.

### B.14. Damage Steps and Carried Hits

- Crippling a nominal ship costs its full DS.
- Finishing a crippled ship costs its full DS again under suppression fire and battery fire; execution fire from destroyers and starbases finishes it for half DS, rounded up (DD 4, CA 15, BB 55, SB 65).
- Execution fire that destroys a nominal ship pays both:  $2 \times \text{DS}$ .
- Ship and starbase fire lands on the combat line heaviest hull first: battleships, cruisers, destroyers, starbases. A class that stands but cannot be afforded shields those behind it. Battery return fire lands destroyers first.
- Hits a pool cannot spend carry over, in that pool, to the side's next exchange in the same battle, including the pursuit exchange.
- Suppression and execution hits carry separately.
- Carried hits are lost when the battle ends: by destruction, by a side breaking off, or at the 64-round limit. The next battle starts from zero, a pursuit on a later week included.
- A crippled hull stays crippled after the battle and fights at half its AS (a crippled starbase at 50) in every later battle, the attack decision and the ROE checks included. It recovers on its own at the end of the second year after the year that crippled it, and fights whole from the third, for every class. A starbase brings it back a year early when the hull was crippled before the year began and its fleet rested in orbit of your own world beside that starbase for the whole year. Finishing fire takes the newest damage first, then the hulls with the most time left. Detach and Transfer take healthy hulls first for a plain quantity and crippled hulls, newest damage first, for n!.

### B.15. Planetary Force Ratio to CRT Column

Bombardment, invasion suppression and softening, and blitz cover and landing fire read the d10 on the Bombardment Table below. The landing battle between armies does not; see Landing Battle.

| Force Ratio  | CRT Column    |
|--------------|---------------|
| < 0.5        | Disadvantaged |
| 0.5 .. < 1.0 | Pressed       |
| 1.0 .. < 1.5 | Even          |
| 1.5 .. < 3.0 | Advantaged    |
| >= 3.0       | Overwhelming  |

## B.16. Bombardment Table

Every orbital exchange reads this table: bombardment and invasion suppression, invasion softening, blitz cover fire, the batteries' return fire, and blitz landing fire. Each entry is a share of the firing side's AS, in twelfths for fire that hits poorly and in quarters for fire that does not:

- Ships firing at dug-in guns and armies, and batteries firing at descending transports, read it in **twelfths**: a third of its strength.
- Batteries firing at ships in orbit read it in **quarters**: full strength. Big guns on the ground rarely miss large ships overhead.

| d10 | Disadvantaged | Pressed | Even | Advantaged | Overwhelming |
|-----|---------------|---------|------|------------|--------------|
| 0   | 0             | 1       | 2    | 3          | 4            |
| 1   | 1             | 2       | 3    | 4          | 5            |
| 2   | 1             | 2       | 4    | 5          | 6            |
| 3   | 2             | 3       | 4    | 5          | 6            |
| 4   | 2             | 3       | 4    | 6          | 7            |
| 5   | 2             | 4       | 5    | 6          | 7            |
| 6   | 3             | 4       | 5    | 6          | 8            |
| 7   | 3             | 4       | 6    | 7          | 8            |
| 8   | 4             | 5       | 6    | 7          | 8            |
| 9   | 4             | 6       | 7    | 8          | 10           |

## B.17. Planetary Columns and Hit Formula

- The force ratio alone picks the column; nothing shifts it

hits =  $\text{ceil}(\text{total\_AS} * \text{table\_entry} / 12)$  (ships' fire, landing fire)  
hits =  $\text{ceil}(\text{total\_AS} * \text{table\_entry} / 4)$  (battery return fire)

An unmodified 9 on the d10 is a critical hit and forces one extra bypass loss allocation.

## B.18. Bombardment and Planetary Fire

Only destroyers, cruisers, and battleships contribute bombardment attack strength, each with its own AS (destroyer 12, cruiser 33, battleship 90), half while crippled. All of an empire's fleets bombarding the same world in a year fire together as one force, and share its losses as a battle side does.

Planetary return fire is:

$\text{return\_fire\_AS} = 90 * \text{healthy\_batteries} + 45 * \text{crippled\_batteries}$

Return fire from batteries uses the **focus fire** rule. Hits skip the crippled state and go straight to the destroyed pool, paying 2x DS for a healthy ship and 1x DS for a crippled one.

Orbital hits on a world pay each target's DS on the same 10x scale:

- Ground battery: 66 hits to cripple, then 66 to destroy. Hits cripple every healthy battery before they destroy a crippled one.
- Army: 10 hits
- Ship in the stardock: its own DS from the unit table (docked batteries 66, armies 10)

- Stored goods and factories: remaining hits are divided by 10, and each point then destroys 25 stored goods and 1 factory

Hits below one unit's cost do not destroy it, and partial hits do not carry over to the next round. Once the stardock is exposed, hits too few for one docked item pass on to the next stardock entry. Invasion suppression and blitz cover fire pay the same battery cost and never reach the stardock.

Crippled batteries stay crippled from year to year while the world is attacked, and are repaired at the end of any year in which no fleet bombarded, invaded, or blitzed it.

Blitz landing fire is one exchange of the surviving batteries' AS against the escorts' bombardment AS. It is focus fire aimed at the descending transports first: each transport destroyed costs 20 hits (2x its DS) and takes its army with it, and any hits left over fall on the escorts.

Each bombardment turn runs three rounds. Batteries shield the stardock: an exchange that begins with batteries standing hits batteries only, and hits beyond what destroys them expire. Docked ships are exposed from the next exchange.

- **Rounds 1–2 (Suppression):** While batteries stand at the start of the round, attacker hits go to batteries only; with none standing, they go to the stardock. Batteries fire back each round. Armies, stored goods, and industry are shielded.
- **Round 3 (Breakthrough):** If batteries reached zero before this round, attacker hits go to the stardock, then cascade into armies, stored goods, and industry. If batteries still stand, round 3 is another suppression exchange.

Invasion suppresses for up to three rounds, as a bombardment does, but its hits strike the batteries only and never the stardock, armies, or industry. It stops as soon as the last battery falls. Once the batteries are cleared, the softening pass targets armies only. Industry and stored goods take no damage during an invasion. Its CRT column compares bombardment AS against  $\text{armies} \times 10$ . Orbital softening may destroy at most half of the defender's starting armies, so there is always a real landing battle when a world began the assault with a garrison. Once armies land, the landing battle in invasion and blitz is fought as described next.

A fleet whose landing fails holds in orbit on Hold with a failure report. An Invade blocked by surviving batteries keeps its order and its armies, and tries again next year. Neither blockades the world on its own.

## B.19. Landing Battle

Armies (AS 10, DS 10) fight on the same table as fleet battles, unmodified, in rounds. In each round the defenders roll and fire first, the attackers' losses come off, and the surviving attackers roll and fire back. A side with  $n$  armies deals  $n \times 1$ ,  $n \times 2$ , or  $n \times 4$  quarters of an army on a roll of 0–2, 3–5, or 6–9. Four quarters destroy one army. Damage short of an army carries into the next round of the same landing and is lost when the landing ends. There is no defender modifier, homeworld bonus, or critical hit, and one side always survives. Rounds repeat until one side has no armies.

| <b>Attackers vs defenders</b> | <b>Capture</b> |
|-------------------------------|----------------|
| 1 vs 1                        | 33.6%          |
| 2 vs 1                        | 85.1%          |
| 3 vs 2                        | 55.6%          |
| 3 vs 1                        | 99.4%          |
| 5 vs 5                        | 22.6%          |
| 10 vs 10                      | 19.9%          |
| 11 vs 10                      | 27.6%          |
| 15 vs 10                      | 56.1%          |
| 20 vs 10                      | 91.8%          |
| 20 vs 20                      | 19.0%          |
| 40 vs 20                      | 92.3%          |

The armies that land are those left after blitz landing fire, and the defenders are those left after invasion softening. Capture odds follow that ratio at every scale; overwhelming ratios still win every time.

## C. Preservation and Original Sources

This edition preserves the game in a playable modern form. The aim is simple: keep the campaign rules readable, playable, and documented.

### C.1. Source Hierarchy

This manual is the authoritative player manual for the Rust edition of Nostrian Conquest.

The preserved originals in `original/v1.5/` remain historical references and a fallback when a rule is unclear:

- `ECQSTART.DOC` — Quick-start guide
- `ECPLAYER.DOC` — Detailed player manual
- `ECREADME.DOC` — Release and package information
- `ECGAME.EXE` — The original 1992 player client
- `ECMAINT.EXE` — The original yearly maintenance program
- `ECUTIL.EXE` — The original sysop utility for game initialization and management

### C.2. Preservation Policy

- This manual is the authoritative player manual for the Rust edition.
- The original manuals are preserved historical references and a fallback for classic intent and terms when a rule is unclear.
- The original DOS binaries remain the final compatibility check.
- This edition keeps the player-visible classic behavior that matters.
- When an exact classic formula is still unknown, this manual states the rule plainly instead of pretending otherwise.
- When the preserved originals clear up an unclear rule, that answer should be folded back into the current manuals and specs rather than left only in the old `.doc` set.

### C.3. BBS Drop File Compatibility

Rust BBS hosting uses `nc-door`, not the old DOS binary. It reads `D00R32.SYS`, `D00R.SYS`, and `CHAIN.TXT` directly. For a player, the point is simple: log into the board, launch the door, and play. If you are the sysop, see the **Sysop Manual** for setup details.

### C.4. This Manual

This manual combines the original player guidance with the reference tables in Appendix A, Appendix B, and Appendix D. The main body is written for the player. The appendices collect formulas, tables, list-screen codes, and interface details.

## D. Interface Reference

This appendix covers the list-screen filters, the fleet notation, and the details of autopilot.

### D.1. Table Filters

The main list screens all use the same command-line filter. It lets you cut a long table down to the rows you want instead of paging through dead weight.

One filter is active at a time on each table. A new filter replaces the old one. If a filter matches nothing, the table stays filtered and tells you no rows match.

### D.2. Filtering Procedure

1. Open the table you want.
2. Press `F`.
3. Type the column code, the visible column name, or the shortest unique prefix, and press `Enter`.
4. Type the value for that column and press `Enter`.
5. Type `all` at the column prompt to clear the current filter.

NOTE: `q` or `Esc` cancels the current filter prompt without changing the active filter.

If your prefix matches more than one code, the command line stays open and shows the matching codes so you can narrow it down.

### D.3. Value Rules

- **Text columns:** Enter plain text. Case does not matter, and the filter looks for that text anywhere in the cell.
- **Number columns:** Enter a bare number for an exact match, or use `>`, `>=`, `<`, `<=`, `=`, or `!=`.
- **Coordinate columns:** Enter `xx,yy` for one exact sector, or `xx,yy/r` for a radius filter.
- **Database unknown values:** Enter `?` to match worlds where that value is still unknown.

Examples:

- Fleet list, `ord: holding`
- Fleet list, `sel: yes`
- Fleet list, `roe: >=4`
- Planet list, `coo: 12,7/3`
- Total planet database, `own: #3`
- Total planet database, `max: >=100`

### D.4. Sorting Procedure

1. Open the table you want.
2. Press `s`.
3. Type the column code, the visible column name, or the shortest unique prefix, and press `Enter`.
4. Press `s` again and submit the same code, or just press `Enter` on the default code, to flip `ASC/DESC`.

NOTE: On the Total Planet Database, `rng` or `range` is also accepted at the sort prompt to sort by distance from a chosen sector.

The active sort and active filter both appear in the table title.

## D.5. Fleet List Codes

| Code | Column   | Notes                                    |
|------|----------|------------------------------------------|
| id   | Fleet ID | Fleet number                             |
| loc  | Location | Current sector                           |
| ord  | Order    | Also accepts holding, moving, and combat |
| tar  | Target   | Mission target sector                    |
| spd  | Speed    | Current speed                            |
| eta  | ETA      | Text match on the ETA column             |
| roe  | ROE      | Rules of engagement value                |
| ars  | Armies   | Loaded armies                            |
| shi  | Ships    | Ship and force summary text              |
| sel  | Selected | Use yes OR no                            |

## D.6. Planet List Codes

| Code | Column | Notes                  |
|------|--------|------------------------|
| coo  | Coord  | Planet coordinates     |
| pla  | Planet | Planet name            |
| max  | Max    | Maximum production     |
| cur  | Curr   | Current production     |
| trs  | Points | Stored treasury points |
| bdg  | Bdgt   | Build budget           |
| rev  | Rev    | Revenue                |
| gro  | Grow   | Growth                 |
| bui  | Queue  | Build queue size       |
| sta  | Dock   | Docked ships           |
| sbs  | SBs    | Friendly starbases     |
| ars  | ARs    | Planet armies          |
| gbs  | GBs    | Ground batteries       |

## D.7. Total Planet Database Codes

| Code | Column | Notes                                  |
|------|--------|----------------------------------------|
| coo  | Coord  | World coordinates                      |
| pla  | Planet | Known planet name                      |
| own  | Owner  | Known owner text such as #3 or Unowned |
| max  | Max    | Known maximum production               |
| see  | Seen   | Last year seen                         |
| ars  | ARs    | Known armies                           |
| gbs  | GBs    | Known ground batteries                 |
| sbs  | SBs    | Known starbase count                   |
| cur  | Curr   | Known current production               |
| trs  | Points | Known stored points                    |
| sco  | Scout  | Last scout year                        |

## D.8. Reading Fleet Compositions

Wherever the game lists ships in one line, it uses one notation, and always the same order: scouts, battleships, cruisers, destroyers, loaded transports, empty transports, ETACs, starbases. A planet's stardock and build queue read the same way, with armies (AR) and ground batteries (GB) after the starbases. Each token is a ship code, the total number of ships of that kind, and, when some of them are crippled, a ! and the number crippled. The total always includes the crippled ships. A single ship still shows its count. A kind the fleet lacks is left out, and !0 is never written.

| Token  | Meaning                                             |
|--------|-----------------------------------------------------|
| SC1    | One scout.                                          |
| BB2!1  | Two battleships; one is crippled.                   |
| CA12!3 | Twelve cruisers in all; three of them are crippled. |
| DD8    | Eight destroyers, none crippled.                    |
| TT*4!1 | Four loaded transports; one is crippled.            |
| TT5    | Five empty transports.                              |
| ETAC2  | Two ETACs.                                          |
| SB1!1  | One starbase, crippled.                             |

A fleet of BB2!1 CA12!3 DD8 TT\*4!1 TT5 ETAC2 therefore holds nine transports, five empty and four loaded. The star marks cargo, the bang marks damage, and the two never mix. The short legend, repeated in the in-game help, is: ! = crippled; \* = loaded.

Loaded and empty transports are damaged separately, so TT\*4!1 TT5!2 says exactly which transports are crippled. Loading an army uses your healthy empty transports first and a crippled one only when no healthy one is left. Unloading or landing puts the armies aboard crippled transports ashore first. A crippled transport keeps its recovery time either way.

In the Fleet List the Ships cell is narrow. When it cannot hold the whole composition, it ends in +. Review shows the full composition, including any crippled ships left out of the table.

## **D.9. Autopilot**

Autopilot switches on after three missed turns (the sysop can choose another number, and you get a Game Notice if it changes), and a report from your Fleet Command Center, dated week 1, tells you it has. Your first real return that year turns that inactivity autopilot back off: logging into `nc-game`, entering through `nc-door`, or submitting a valid turn file. Manual autopilot stays on until you change it yourself.

Before giving orders, autopilot merges stationary Hold and Guard/Blockade fleets in orbit of your own worlds, up to 3,000 ships per fleet. A stationary Guard a Starbase fleet can take those fleets in when its base is at rest, but this automatic merge never absorbs it. While autopilot runs, each year it sends every fleet on Hold Position to the planet of yours that is best for its distance and production. Warships already in orbit there take Guard/Blockade, and an ROE of 0 rises to 6. Any fleet of yours on Guard/Blockade that sits still in orbit with a starbase of yours that has no escort becomes that starbase's escort, whether or not autopilot gave it the order. Fleets with any other order are left alone. Under autopilot, a fleet without warships that is on Guard/Blockade a World or Guard a Starbase stays on it. Without autopilot, maintenance sends such a fleet home.