

DEAD RECKONING

THE LONG DRIFT

COLONIST HANDBOOK · GS PERSEVERANCE · MISSION DR-001

FOREWORD

TO THE OFFICER ON WATCH

The Perseverance is a one-way generation ship. One thousand colonists departed Sol aboard her, with no pre-selected destination, to travel outward for as long as the hull holds pressure and the awake crew remembers why they left. If you are reading this, you are part of a bridge watch somewhere along that voyage.

Mission time advances one standard year at a time. In each standard year the ship evaluates mortality, births, resource decay, subsystem integrity, and cultural drift, then draws any outstanding dispatches from the operations log. A bridge officer is required to decide on each dispatch. The decision shapes the next year and every year after it.

This manual describes the ship, the systems that keep her alive, and the classes of decision the watch will be asked to make. It is not a record of past voyages and it does not contain outcomes. No two watches are alike. Read it through once before you take your first watch, and keep it within reach thereafter.

HOW THIS DOCUMENT IS ORGANISED

Chapters 1-3 cover the ship, her crew, and the standard operating year. Chapters 4-6 cover research, dispatches, and navigation. Chapter 7 describes drift, the cultural-erosion that shapes the mid and late phases of the voyage. Chapter 8 covers landing procedure. An appendix at the end lists bridge-console commands, a glossary, and credits.

NOTE: FIGURES IN THIS MANUAL ARE NOMINAL ZERO-YEAR VALUES. THE SHIP WILL DIVERGE FROM THEM ON THE FIRST OPERATIONAL YEAR. THAT IS EXPECTED.

CONTENTS

- 1 THE SHIP six subsystems

- 2 THE CREW complement, factions, stances

- 3 THE VOYAGE standard operating year

- 4 RESEARCH the technology tree

- 5 DISPATCHES operational decisions

- 6 NAVIGATION star chart and probes

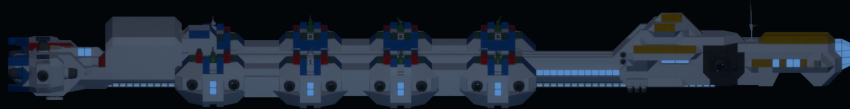
- 7 DRIFT cultural erosion

- 8 LANDING descent profiles and world types

- A APPENDIX commands, glossary, credits

1 THE SHIP

The Perseverance is a closed ecology. Food, power, and hull integrity are drawn down each year by population load and subsystem strain. Hydroponics and the reactor push back against the drain; research into efficiency and regeneration reduces it further. Watch decisions either stabilise the curve or accelerate it.



[GS Perseverance – side profile, game palette]

THE SIX SUBSYSTEMS

The ship is maintained by six independent-but-coupled subsystems. Each begins at 100% nominal integrity. Each decays with time. One subsystem per operational year may be brought back up toward nominal by directing an active repair from the bridge engineering station.

SYSTEM	FUNCTION	CASCADES INTO
REACTOR	Fusion core. Powers all downstream systems.	Cryo, Life Support
ENGINE	Ion drive and course correction.	Transit ETAs
BRIDGE	Nav, sensors, AI core.	Sensor confidence
CRYO BAY	992 stasis pods.	Population, food, power
LIFE SUPPORT	Atmosphere, hydroponics, water.	Food production
HULL	Pressure envelope and shield.	All other systems

DEGRADATION. Subsystems lose integrity from population load, incident damage, and the normal entropy of long transit. A subsystem below roughly forty per cent of nominal will begin to cascade – its failure propagates into any subsystem it is coupled to. A failing reactor starves the cryo bay; a failing cryo bay wakes sleepers and loads life support; and so on down the chain.

REPAIR. The watch may direct one active repair per operational year, restoring integrity to a single subsystem. The maintenance branch of the research archive (Chapter 4) unlocks passive regeneration routines – one per subsystem – which are the most reliable long-term defence against entropy.

2 THE CREW

The Perseverance sails with a complement of one thousand. The roster is updated continuously by the medical station: births and deaths both occur, named colonists are recorded individually in the operations log, and summary population is the figure used for most ship-wide calculations.

WAKING AND CRYO

Eight colonists are awake at any moment, rotating through the bridge watch. The remaining nine hundred and ninety-two sleep in the cryo bay on a staggered revival schedule. Cryo research reduces the annual risk of pod failure; unrepaired cryo damage causes sleepers to wake early, which loads life support and food production with population the ship had not planned for this year.

FACTIONS

Two factions form aboard the ship in the first operational year, by charter. They are listed below. Further factions may awaken and evolve during the voyage as pressures shift, but they are not catalogued here – the conditions under which a new bloc coalesces, and the stance it advocates, are matters the watch will discover as the years pass. A faction in the record moves through four recorded states: NOT FORMED, EMERGING, ACTIVE, and DISSOLVED.

FACTION	FORMS	STANCE
Charter Committee	Year 1 (automatic)	ORDER
Mission Adaptation Board	Year 1 (automatic)	PRAGMATISM

STANCES

The watch may at any time adopt the stance of any active faction, or remain NEUTRAL. A stance applies a standing modifier to the yearly drift calculations, dampening some measures and amplifying others. The two chartered stances are described below. Additional stances become available if and when new factions take form.

ORDER – reduces ideological and regression drift; raises class drift

PRAGMATISM – reduces class drift; raises ideological drift

No stance is without cost. NEUTRAL is itself a stance – it leaves drift to accumulate unopposed, which is a position, not an absence of one.

3 THE VOYAGE

Mission time advances at the discretion of the watch. Each operational year runs a fixed sequence of evaluations, in the same order every time. The order is reproduced below. Knowing it is how the watch plans research schedules, repair priorities, and stance adjustments in advance of the next year.

THE YEAR-ADVANCEMENT SEQUENCE

#	STEP	WHAT HAPPENS
1	CRYO POD CHECK	Annual chance of a named colonist dying in pod.
2	MORTALITY	Deaths from food, power, population, diversity.
3	BIRTHS	Births, modified by genetic research.
4	RESOURCE DECAY	Food, power, hull decrease under load.
5	RESEARCH	Tech bonuses apply, reducing decay.
6	POWER POLICY	Your chosen power mode modifies draw.
7	SYSTEM DECAY	Six subsystems degrade; cascades tracked.
8	CRYO PHASE-OUT	Failing cryo wakes sleepers.
9	OVERCROWDING	Population over cap drains resources.
10	DRIFT	Five drift meters move.
11	ENDINGS CHECK	Failure conditions tested BEFORE events.
12	THRESHOLD EVENTS	Drift-threshold events fire.
13	DISASTERS	Hull, food, or power crises fire if applicable.
14	REGULAR EVENTS	Scripted, chain, random-find, decision events.
15	PROBE RETURNS	Probes scheduled to return this year report.

Note that mission-failure conditions are evaluated before the dispatch draw. A decision taken in a year the ship has already failed cannot rescue the ship – that year's dispatches become an epilogue, not a reprieve.

4 RESEARCH

The ship's research archive holds thirty-eight catalogued technologies, organised into ten branches. Most are committed directly from the engineering station at a cost in reserves. A smaller group is field-discovered – accessible only after the specific encounter that uncovers the relevant principles.

THE TEN BRANCHES

BRANCH	SCOPE
ENGINE	Efficiency, fusion optimization. Reduces power draw on the drive.
HULL	Stress analysis, composite regen. Passive hull repair.
SOCIAL	Community protocols, cultural archive, assembly rule, memory encoding.
AI	Diagnostics, deep integration, predictive governance, distributed consciousness, stellar cartography.
CRYO	Extended suspension, deep cryo protocol. Reduces annual pod loss.
BIO	Directed genetics, embryo bank, genetic optimization, open-genetics charter, closed-loop ecology.
SENSORS	Enhanced sensors, deep scan array. Sharper route confidence.
NAVIGATION	Route mapping, spectral analysis, deep range survey, interstellar efficiency.
FIELD	Xenobiology, salvaged propulsion, void cartography, crisis medicine. Event-locked.
MAINTENANCE	One passive-repair tech per subsystem. Cuts yearly decay by ~40%.

COSTS AND INCOMPATIBILITIES

Research is committed in power, food, and in some cases hull integrity (engineering literally strips bulkheads to supply the cyclotron). Costs apply each operational year until the technology is complete. Prerequisite chains exist – for example, fusion optimisation cannot begin until efficiency protocols are in place.

A small number of technologies are mutually incompatible. Committing to one forecloses the other. These are deliberate ideological forks, and the archive issues a standing warning before the commitment is entered.

FIELD RESEARCH

Four technologies are not listed in the archive at departure. They become available only after the specific encounter that uncovers the underlying principle. A voyage may be

completed without ever unlocking any of them; that is expected.

5 DISPATCHES

The ship's operations log carries on the order of three hundred and fifty dispatches: individual situations that require a bridge officer to decide. They fall into seven categories, any of which may be drawn in any operational year. No single voyage will see them all. The table below enumerates the categories in current use.

CATEGORY	COUNT	CHARACTER
Scripted	~80	Year-locked observations and keystone decisions
Running	~31	Multi-year situations that continue across operational years
Incidents	~85	Hull breach, epidemic, mutiny, resource cascades
Encounters	~50	Deep-space finds and anomalies
Procedural	~22	Tribunals and research-conditional procedures
Positive	~44	Breakthroughs, milestones, discoveries
Approach	~43	Planet staging and founding procedures

READING A DISPATCH

A dispatch presents a short situation report and three to five numbered options. Each option carries a predicted outcome – resource deltas, drift movements, procedural flags. The predictions are best-guess forecasts produced by the bridge heuristics, not commitments. A dispatch that forecasts a small loss may be followed next year by a larger one generated from the same chain of causes. The watch is expected to read the forecasts critically.

RUNNING DISPATCHES

Some dispatches continue across multiple operational years and multiple decision points. A running dispatch is flagged in the operations log and carries its history forward. Some running dispatches defuse mission-failure conditions; others accelerate them. Declining to respond is itself a decision within the running dispatch, and the dispatch continues regardless.

6 NAVIGATION

The Perseverance sails with no pre-selected destination. Candidate routes are generated from long-range survey data as the ship travels. The star chart at the navigation station displays the current heading, pending stellar encounters, outstanding survey probes, and the confidence level of each candidate system report.



[deep transit – candidate system in the bridge optics]

CANDIDATE ROUTES

Each stellar encounter resolves to two candidate routes, or three if the deep range survey protocol has been completed. Each candidate on the star chart is annotated with:

- Star type (G, K, M, F, and unusual classes)
- Estimated habitability (0-100%) with a margin of error
- Route classification – nominal, hazard, or void corridor
- Confidence level (improvable by SPECTRAL ANALYSIS and DEEP SCAN ARRAY)

REJECTION PENALTY

The watch may decline a candidate system and continue on course. Each rejection adds approximately eight years of transit before the next encounter is resolved, capped at five rejections (forty years total). Rejection is never without cost, but when instrument confidence is low it is frequently the correct decision.

SURVEY PROBES

A survey probe may be dispatched at any candidate from the navigation station. A probe reports back approximately ten years after launch with sharpened habitability and composition data. Probes consume reserves and cannot be recalled once sent.

7 DRIFT

Drift is the name the bridge gives to cumulative cultural and cognitive deviation from the founding state of the mission. Five independent measures are maintained, each scaled 0-100. They rise over time from the normal entropy of the operational year, from dispatch outcomes, from resource scarcity, from certain research commitments, and from the standing stance of the watch. Crossing a threshold on any one measure issues a corresponding dispatch.

THE FIVE METERS

METER	CHARACTER
GENETIC	Inverse of genetic diversity. Rises as the population loses breeding variety.
IDEOLOGICAL	Loss of coherent mission purpose. Shifts in belief, schism risk, cult formation.
AI	How much the bridge AI acts without consulting the crew. Rises with AI research.
REGRESSION	Technical-literacy loss across generations. Rises with isolation and scarcity.
CLASS	Hierarchy hardening between crew groups. Rises with unequal resource distribution.

PARADIGMS

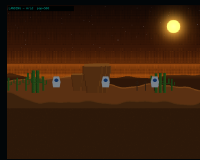
At extreme combinations of drift, the colony may enter a paradigm – a named systemic cultural state that recolours the character of subsequent dispatches. A paradigm is not reversible by a single decision. Once entered, the remainder of the voyage proceeds from inside it.

WHAT MOVES DRIFT

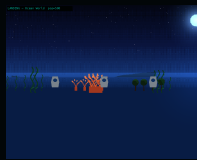
- standard yearly decay (all measures tick upward without intervention)
- dispatch outcomes carrying explicit drift modifiers
- resource scarcity (accelerates ideological, regression, class)
- research commitments (some push a measure on completion)
- the standing stance of the watch (per Chapter 2)

8 LANDING

Landing is the end-point of the voyage. The watch has committed to a candidate world, the ship has completed her approach, and a controlled descent is now required. Landing proceeds in stages. The profiles available to any given descent depend on the type of world below, on the remaining power and hull margin, on the standing drift measures, and on any landing-preparation research that has been completed in transit.



ARID



OCEAN



ICE



JUNGLE / HIGH O2



BARREN ROCK



GAS GIANT MOON

[six catalogued world types – each with its own entry profile]

THE FOUR DESCENT PROFILES

Four entry profiles are catalogued. Availability at any given descent is filtered by power reserves, hull integrity, AI drift, and applicable research.

PROFILE	AVAILABILITY
Powered Descent	Requires fuel margin and healthy reactor
Gradual Approach	Requires stable hull and time
AI-Managed	Requires high AI drift and ceded authority
Ballistic Hard Land	Always available; highest risk

Landing casualties are calculated from world type, hull integrity at final approach, standing drift measures, research bonuses, and the profile in effect. A well-prepared ship can set down on a hostile world with low losses. An unprepared ship can lose dozens of colonists on a benign one.

APPENDIX

BRIDGE CONSOLE COMMANDS

KEY	ACTION
Space	Advance one operational year
Tab / 1-5	Cycle bridge stations
Ctrl+S	Commit current state to log
Ctrl+L	Recall most recent committed state
Ctrl+F12	Capture console readout
Esc	Suspend watch

STARTING STATE (YEAR 0)

RESOURCE	VALUE	NOTES
Colonists (awake)	8	Watch rotation
Colonists (cryo)	992	Staggered revival
Food stores	85	Hydroponics produce
Power reserve	90	Reactor-fed
Hull integrity	100	
Mission year	0	Departure
First encounter	Y+15 to Y+35	Varies

GLOSSARY

- CASCADE** - Subsystem failure propagating into coupled subsystems.
- DISPATCH** - An operational situation drawn from the log, requiring a decision.
- DRIFT** - Cumulative deviation from mission baseline. Five measures. Ch. 7.
- FACTION** - An organised crew bloc. Two form by charter; others may emerge.
- PARADIGM** - Systemic cultural state at extreme drift. Not reversible.
- PROBE** - Unmanned survey drone. Reports back years after launch.
- STANCE** - Active-faction alignment. Modifies yearly drift calculations.

CREDITS

Dead Reckoning is produced by Selenodrome. Released on Steam and itch.io. Localised to English, German, French, Italian, and Spanish.

TEAM

Lead writer, design, code	Garan Lorn
Game artist	Kelly Aaron Taylor
Writing	John Oakman
Writing	Michael "Efflixi" Arnold
Writing	Nico Fasan

ENGINE

Godot Engine 4	godotengine.org – MIT License
Blender	blender.org – GPL (3D renders and intro animation)

3D ASSETS (Sketchfab, CC-BY unless noted)

Spaceship 003 Control Room	Mixmamo.studio
Colony Ship Explorer	neilken
Spaceship Corridor	the_table
Cryopod	Epilogue Ronin
Server Racking System	wpanayides
Sci-Fi Crates	jakuza
TF-DS-ENGINEERING	Binkley-Spacetrucker
Sci-Fi Terminal	Tronin Dmitry (kosmotron)
Spacesuit (Confederation of Planets)	tnnv
Monster	sarpefe – CC-BY-4.0
DISCOVERY (Astronaut)	Domenico D'Alisa – commercial license
Solar System Planets Scale	engine9

MUSIC

Timebender	Christian DeTamble – CC-BY 3.0
Narrow Corridors	TinyWorlds – CC0
Grief and Anger	TinyWorlds – CC0
Space Graveyard	TinyWorlds – CC0
Drifting Beyond the Stars	Hitctrl – CC-BY 3.0
Pondering the Cosmos	Ruskerdax – CC0
Claimed by the Void	Vitalezzz – CC0
Continuum	Grossman / Grove / migfus20 – CC-BY 4.0
Awakening	Maxstack – CC-BY-SA 3.0
Inevitable	Maxstack – CC-BY-SA 3.0

Deprecation	Maxstack - CC-BY-SA 3.0
Advanced Simulacra	Maxstack - CC-BY-SA 3.0
Stay the Course	Kevin MacLeod - CC-BY 4.0
The Long Dark	Scott Buckley - CC-BY 4.0
Decoherence	Scott Buckley - CC-BY 4.0
Permafrost	Scott Buckley - CC-BY 4.0

TYPOGRAPHY

Orbitron	Matt McInerney - SIL Open Font License
JetBrains Mono	JetBrains - SIL Open Font License
Press Start 2P	CodeMan38 - SIL Open Font License
VT323	Peter Hull - SIL Open Font License

All licensed assets above are used in accordance with their respective licenses. Source URLs and full attribution texts are recorded in the in-game credits panel and in the asset attribution files shipped with the game's source tree.

DEAD RECKONING

THE LONG DRIFT

— END OF DOCUMENT —

GS PERSEVERANCE · MISSION DR-001