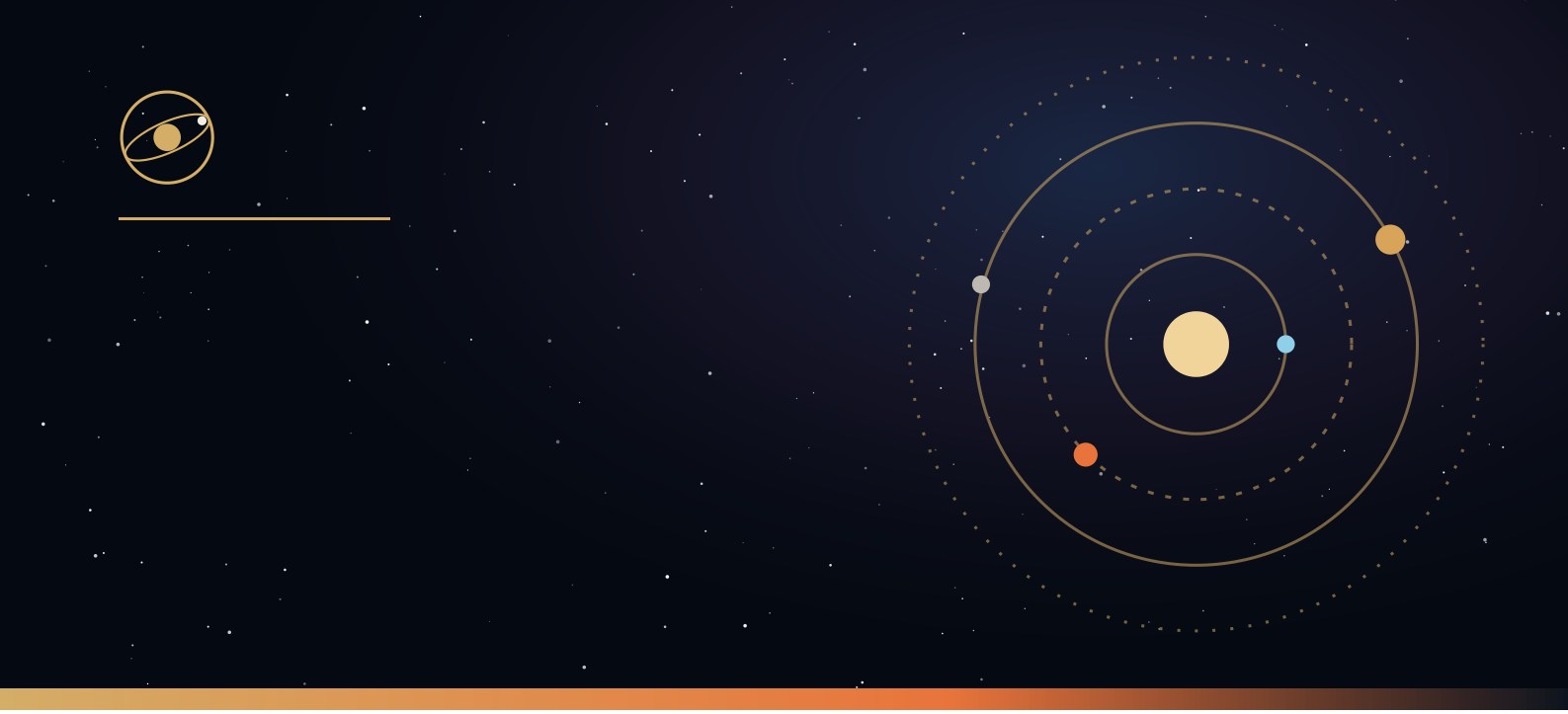


Welcome Aboard — Passenger Guide to Life on the Perihelion Express

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This guide covers daily life on the vessel: how gravity adapts your body in the first few days, how dining works by cabin class, how to use and care for EVA suits, how to stay in contact with Earth, what entertainment and activities are available, and what the medical bay can and cannot do. Read it before departure and return to it during the voyage.

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1. Adapting to Low Gravity

The Perihelion Express maintains a constant 0.15g acceleration throughout each transit leg — roughly one-seventh of Earth's surface gravity. This is substantially lower than what your body is calibrated for, and lower than any destination you will visit except Ceres and Titan (0.14g). Most passengers notice it

immediately on departure: objects feel lighter, liquids behave differently, and your inner ear sends signals that don't quite match what your eyes see. Passengers adapt within 24 to 72 hours of arriving in each new gravity environment — most within 48 hours.

The most common early symptoms are mild head congestion and facial puffiness from fluid shifting toward the upper body, a subtle sense of floating even while seated, and occasional nausea in the first 12 to 24 hours. These are normal physiological responses, not signs of a medical problem. The medical officer monitors all passengers during the first 72 hours and is available for anyone who develops more severe symptoms. Motion sickness medication is available from the medical bay without an appointment; most passengers who need it find that a single dose on the first evening is sufficient.

During the **first 48 hours** of each new transit leg, access to the outer observation deck and the EVA suit storage area is restricted. This is not because these spaces are dangerous, but because the combination of reduced gravity and vestibular adjustment raises the risk of falls and disorientation in those areas. The main cabin, dining spaces, and inner common areas are open without restriction from departure.

Readapting to higher gravity is also a process. Passengers on the Inner Planets Survey will move through three distinct gravity environments: 0.15g in transit, 0.38g on Mars, and 0.88g at The Aphrodite resort above Venus. The Venus arrival is frequently described as the most physically noticeable transition of the voyage — after days in Mars's lower gravity, 0.88g feels heavy in the arms and legs. Pelorus Voyages provides a gravity re-adaptation orientation at each higher-gravity arrival with stretching guidance, hydration recommendations, and a suggested first-day activity pace. The 24 hours after Venus arrival is not the right time to push physical limits; GST passengers should plan their Venus rest day accordingly.

Passengers with vestibular conditions or a history of motion sickness should declare this in their medical clearance form. The vessel carries a full range of antiemetic (anti-nausea) medicines and can adjust cabin assignment to minimise vestibular triggers for affected passengers.

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2. Dining and Nutrition

All three cabin classes eat well aboard the Perihelion Express. The differences are in flexibility and setting rather than food quality.

Pioneer class — main dining hall on a fixed schedule. Breakfast: 0700–0900 UTC. Lunch: 1200–1400 UTC. Dinner: 1800–2000 UTC. Breakfast and lunch are cafeteria style; dinner is table service. The menu rotates on a seven-day cycle, updated by day three of each transit leg to incorporate fresh produce loaded at the last stop. Pioneer passengers cannot order to their cabin and do not have access to the Navigator lounge or Pathfinder dining room.

Navigator class — flexible access to the main dining hall at any service time, plus the option to order selected items for cabin delivery during dining hours (20 to 30 minutes delivery time). Navigator passengers also have access to the Navigator dining lounge, a quieter space with a more limited but consistently available menu throughout service hours.

Pathfinder class — private dining room with on-demand à la carte service at any hour, not limited to service windows. A dedicated steward is available around the clock for Pathfinder cabin requests. The

Pathfinder menu is prepared separately from the main dining service and uses a higher proportion of fresh produce loaded at destination stops.

Nutrition in low gravity — the galley team calibrates portion sizes to the transit gravity level. At 0.15g, the body requires fewer calories than at Earth gravity; default portions reflect this. During stays at higher-gravity destinations (Mars at 0.38g, Venus at 0.88g), portions increase slightly. If you feel you need more food at any point, ask — the galley does not restrict quantities.

Dietary requirements must be registered in the passenger portal before departure. The galley accommodates vegetarian, vegan, gluten-free, halal, kosher, and most medical dietary requirements. Food allergies should be registered as allergies specifically, not preferences — allergy passengers are handled under a separate preparation protocol. Passengers with severe allergies should also bring supplementary snacks in personal baggage as an additional precaution.

Fresh produce highlights — the most notable menu additions come at Mars Colony 1, where the colony's hydroponics programme loads fresh leafy greens, tomatoes, and herbs for the Mars-to-Venus transit. The first salad after MC-1 is a recurring highlight in passenger reviews.

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3. EVA Suit Orientation

EVA suit orientation is mandatory for all passengers who will participate in any surface excursion requiring a suit. This includes Moon Base 7 surface excursions (GST only), all Mars surface excursions, the Ceres surface walk and The Leap, and the Titan ice flats excursion. Passengers on IPS-only who are not doing Mars surface EVA excursions are not required to attend, though they are welcome.

The session is conducted by the vessel's EVA systems officer: - For **GST passengers**: during the Moon Base 7 layover - For **IPS passengers**: in person at the Earth departure gate before launch (first EVA stop: Mars Colony 1) - For **ORT passengers**: in person at the Earth departure gate before launch (first EVA stop: Ceres)

The session takes 90 minutes and covers: 1. Suit-up procedure and self-check 2. Buddy-check protocol — each passenger verifies a partner's suit seals, connections, and life support status 3. Helmet seal and communications system operation 4. Suit environmental controls and the meaning of alert tones 5. Emergency procedures for suit breach or pressure loss 6. The buddy-hold protocol for assisting another passenger in difficulty on the surface

Completion of orientation is logged in your voyage record. Passengers who have not completed orientation are not permitted to participate in any EVA surface excursion, regardless of prior EVA experience, prior training certificates from other operators, or any other qualification. The orientation is vessel-specific — it cannot be substituted by training completed elsewhere.

The ClearSuit Pro is a third-generation articulated pressure suit designed specifically for expedition passenger use. It accommodates a wide range of body sizes via an adjustable inner layer; fitting takes place during the orientation session. The suit provides full range of motion for walking, bending, and the arm movements needed for activities like golf and surface sports. The onboard life support provides six hours of atmosphere. All Pelorus Voyages surface excursions are planned within this window.

If you miss the orientation session for any reason, contact the expedition coordinator immediately. A supplementary session may be possible during the first transit leg to the first EVA stop, but this depends on the EVA systems officer's schedule and is not guaranteed.

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4. Communications with Earth

Communication between the vessel and Earth is governed by the speed of light, which the fusion drive does not change. The delay between sending a message and receiving a reply depends entirely on how far the vessel is from Earth at the time.

Lunar leg (Earth–Moon) — one-way light delay: 1.3 seconds. Voice calls, video calls, and real-time messaging function normally throughout the lunar transit and Moon Base 7 layover.

Mars leg — one-way delay: 3 to 22 minutes depending on orbital position. Round-trip reply time: 6 to 44 minutes. Voice calls are technically possible but practically uncomfortable. Most passengers and their Earth contacts adapt to asynchronous message exchange. The vessel transmits messages at scheduled uplink windows; messages to Earth are typically delivered within one to two hours of composition.

Venus leg — one-way delay: 2 to 15 minutes. Venus orbits closer to the Sun than Earth, so the delay is sometimes shorter than the Mars leg and sometimes similar, depending on alignment. Conditions are generally slightly better than Mars for communications.

Outer system legs (Ceres to Enceladus) — one-way delay: 4 to 84 minutes. At Saturn specifically, one-way delay is 43 to 84 minutes; round-trip reply time is 86 to 168 minutes. Real-time conversation is not feasible. Plan for asynchronous exchange with reply windows of two to three hours minimum. Important messages home should be sent early in each leg rather than just before arrival, when bandwidth demand peaks.

Bandwidth — the vessel's communication channel is shared across all passengers. During high-demand periods (major Earth news events, family milestones), the system queues messages and delivers them in order. Video messages are supported but lower priority than text; during congested periods, video delivery may lag by several additional hours. Real-time video calling is not supported beyond the lunar leg.

Personal satellite communication devices may be brought aboard but must operate on authorised frequencies, declared at Earth check-in, and cannot be connected to the vessel's relay system. Devices operating on unauthorised frequencies will be deactivated for the duration of the voyage.

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5. Transit Times and What to Expect

The vessel uses continuous-thrust fusion drives that accelerate for the first half of each leg and decelerate for the second half at 0.15g throughout. This makes transit times days rather than months.

Leg	Typical transit	Light delay at arrival	Notes

Earth → Moon	2 days	1.3 seconds	All itineraries. Moon Base 7 is the staging hub for all further departures.
Moon → Mars	4 days	3–22 minutes	IPS and GST only.
Mars → Venus	3 days	2–15 minutes	IPS and GST only.
Moon → Ceres (ORT outbound)	4 days	4–20 minutes	ORT direct; GST connects via Venus.
Venus → Ceres (GST)	4 days	4–20 minutes	GST only. Connects inner system to outer system sequence.
Ceres → Saturn	5 days	43–84 minutes	Longest outbound leg.
Saturn → Titan	8 hours	~4 seconds additional	Short hop; Titan orbits Saturn at 1.2 million km.
Titan → Enceladus	20 hours	~1 second additional	
Enceladus → Earth (return)	8–9 days	43–84 minutes	Does not retrace the outbound route.
Venus → Earth (IPS return)	2 days	2–15 minutes	
Mars → Earth (IPS alternative return)	3 days	3–22 minutes	Direct return; rarely used.

All durations are in Earth days. The vessel clock runs on UTC, and all muster times are given in UTC.

What each leg feels like — the short Saturn-to-Titan hop (8 hours) feels like a brief connecting flight. The Enceladus-to-Earth return (8 to 9 days) is the longest leg on the ORT and GST and is typically the most relaxed stretch of the voyage — the excursion schedule is complete, social connections among passengers have formed, and the bar hosts the voyage retrospective social event during this return leg.

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6. Medical Bay — Capabilities and Access

The medical bay is staffed by a licensed flight surgeon and two medical technicians for the whole voyage. It is on **Deck 3, Midship**, accessible from both Pioneer and Navigator berth corridors. Pathfinder passengers have priority access for non-emergency visits. All passengers have immediate access for emergencies regardless of class.

What the medical bay can do: - Blood work and urinalysis - Digital radiography - Cardiac monitoring and defibrillation - Minor surgical procedures (suturing, wound debridement) - Pain management including injectable analgesics - Intravenous fluid therapy - Full pharmaceutical inventory for common acute conditions, antimicrobials, cardiovascular emergencies, psychiatric medicines (maintenance prescriptions only), and passengers' pre-declared medication requirements

What the medical bay cannot do: - Major surgery or intensive care - Obstetric delivery - Advanced cancer treatment - Sustained ICU-level life support - Acute psychiatric care beyond stabilisation

In a serious emergency, the flight surgeon's role is stabilisation and assessment, not definitive treatment. Where a condition is beyond the bay's capacity, the flight surgeon advises the captain on whether diversion to the nearest facility is warranted. See Section 10 of the Medical Clearance and Pre-Voyage Fitness Guide for diversion points by leg.

Medical bay consultation is available **24 hours a day**. Non-urgent consultations should be booked through the vessel's internal communication system. Urgent and emergency presentations proceed directly to the bay at any time. Consultations are documented in your voyage medical record and are held confidentially — records are not shared with Pelorus Voyages administration without your written consent, except in cases of communicable disease or immediate safety risk.

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7. Entertainment and Activities

Transit legs range from 8 hours (Saturn to Titan) to 9 days (Enceladus to Earth return). The vessel's programming is designed for the longer legs.

In-berth terminals — each berth has an individual entertainment terminal with on-demand access to films, series, books, music, and games. The library is updated at each destination stop: Mars Colony 1 loads Martian colonist documentary material and literature; Ceres Waystation contributes mining-era audio journals and engineering history. The terminal also connects to the vessel's messaging system for Earth communications.

Common area programming — the science officer delivers two or three lectures per transit leg on topics including planetary geology, astrobiology, and navigation theory. These are consistently the most popular scheduled activity. All lectures are recorded and available on berth terminals for passengers who miss the live session. Questions can be submitted in advance through the terminal.

Observation deck — the principal communal space during transit, open around the clock. During the outer system legs, the night sky at this distance from the Sun is unlike anything visible from Earth — the Milky Way is vivid, Jupiter and Saturn are visible as distinct discs to the naked eye, and reduced solar glare makes deep-sky objects accessible. Passenger-accessible telescopes are available on the deck; booking slots are available through the berth terminal.

Fitness suite — Deck 2, open to all passengers. Equipment is calibrated for low-gravity conditions and includes resistance training machines, a treadmill with harness for running at simulated higher gravity, and stretching and yoga areas. Fitness classes run twice daily and are open to all cabin classes. Pathfinder passengers have unrestricted suite access; Navigator and Pioneer passengers should book time slots during high-demand periods (early in each transit leg).

Bar — open 0800 to 0100 UTC daily on all legs. During the Enceladus-to-Earth return transit, the bar hosts an informal voyage retrospective social event — the timing is set by the expedition coordinator and announced during the leg. This is typically the best-attended social event of any voyage.

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