

Lunar Tanker Fleet

The Supply Chain for Space

Purpose

The Lunar Tanker Fleet is the **logistical backbone** of Aegis Station. Its mission is singular but monumental:

Lift 1.65 million metric tons of lunar water into orbit to shield and sustain humanity’s first true orbital city.

This fleet enables that goal—not through one giant launch, but through steady, relentless movement. Day after day. Year after year.

Mission Profile

- **Surface to orbit water delivery**
- Fully autonomous operation
- Cryogenic or pressurized tankage
- Docking-compatible with Aegis Station shield reservoirs

Tankers operate in continuous cycles: launch, orbit, offload, return, refuel, repeat.

Updated Fleet Specifications

Parameter	Value
Number of tankers	30
Payload per trip	30 metric tons
Daily throughput	900 metric tons/day
Target fill time	~5 years (1.65M tons total)
Operation mode	Autonomous, rotational launch cycle

This capacity ensures that shielding keeps pace with phased ring deployment and allows for system redundancy.

Design Characteristics

Feature	Description
Structure	Cylindrical tankage; modular systems pod; compact lander chassis
Landing	Vertical takeoff and landing; wide stance for regolith
Docking	Compatible with Aegis Station ring ports or intermediary depots
Propulsion	Methalox or hypergolic main engines; cold-gas or RCS for docking
Power	Solar + battery hybrid; limited night operations

Autonomous Flight Operations

Each tanker is fully capable of:

- Navigation
- Terrain-relative landing
- Payload verification
- Docking alignment
- Data relay and remote override

They operate independently or as part of coordinated fleets.

Maintenance and Support

- Onboard self-diagnostic systems
- Field-repairable by Rover crews or automated arms
- Orbital staging and servicing via Aegis Station or Shuttle delivery
- Software updates beamed from mission control or Aegis uplink

Fleet health is tracked from orbit via telemetry and analytics.

Integration with Other Systems

The tanker fleet works in concert with:

- **Aegis Station:** Delivers directly to shield reservoirs
- **ISRU Processing Nodes:** Loads water from lunar extraction hubs
- **Aegis-Class Rovers:** Supports mobile field operations and tanker recovery
- **Luna–Aegis Shuttle:** Delivers crews or parts for field servicing
- **Orbital Storage Depots:** Optional for excess or mission-specific reserves

Economic Impact

Metric	Value
Total shielding mass	1.65 million tons
Delivery cost (@\$150/kg)	~\$247.5 billion
Missions per tanker/year	60–100+ (optimizing reuse)
Years to completion	~5 years with margin

This fleet is the **first industrial logistics operation off Earth**. It is not a one-off—it is the **first link in a cislunar economy**.

Long-Term Applications

After shielding is complete, the tankers can:

- Sell water to orbital customers
- Fuel long-haul missions to Mars or deep space
- Deliver propellant to tugs, shuttles, or depots
- Support orbital agriculture and closed-loop life support

This is a **forever fleet**. Once built, it keeps giving.