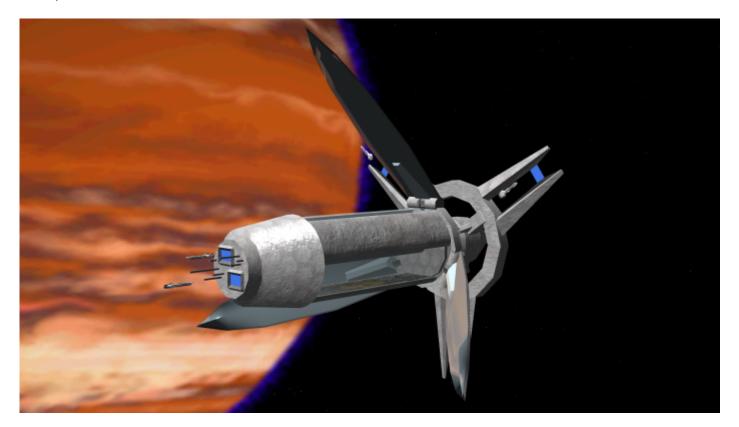
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Island Class Mobile Colony

The Island Class Mobile Colony is a large colonization starship that began construction and development in YE 43. Rather than delivering colonists to a planet's surface like the Ferryman-Class Colony Ship, the Island Class is designed to serve as both an orbiting spaceport for a planet, and an orbital habitat for inhospitable worlds.



History

The Island Class began development and construction in YE 43, in response to a request from the central government for a platform that would allow colonization of underdeveloped areas of NDC systems, such as airless moons and gas giants. In addition to the state corporation Conclave Ship Works, Default Industrial Tools and Manufacturing and Osman Heavy Industries were contracted to help construct the behemoth vessels more quickly.

A design with a rotating cylindrical drum was developed for simplicity and ease of construction, as it allowed for the exclusion of artificial gravity systems in favor of centrifugal force providing artificial gravity. An advantage of this was the fact that different areas of the colony could be kept in different levels of gravity by altering the speed of their spin.

Description

The Island class is a mobile space colony that uses a rotating drum to provide artificial gravity in most areas, and large energy collectors to supplement its main power generation system. The principal upside of the Island class is that its use of simple technologies allow for it to be constructed in a relatively short amount of time, given its size.

Mission Specialization

The Island class is designed principally to make a one way trip to a new star system with all of its passengers already living aboard. While not designed for maximum occupancy in its internal volume, it is also well suited to long-range colonization missions due to having a self-sustaining ecosystem.

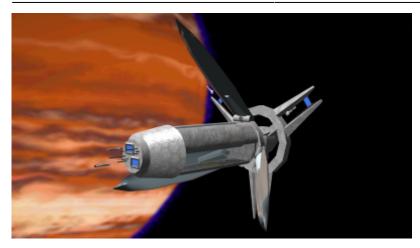
- Self-sufficient space colonization.
- Long-haul colonization missions.

Appearance

The Island class is composed of a cylindrical main drum and a larger diameter industrial ring. The industrial ring also houses the small engine array of the colony and three starport towers. There are also three large energy collection/light reflection arrays attached to the main cylinder. Finally, there are several large docking bays on the "front" of the colony.



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Statistics and Performance

Overall, the Island class is ponderous. It is not intended to move much beyond local relocation and stationkeeping once it has reached its destination.

General

General Statistics for the Island Class Mobile Colony	
Year Introduced	YE 43
Class/Nomenclature	CSW-H1-1A
Alternative Nomenclature	CSW-MC-1
Designers	New Dusk Conclave, Conclave Ship Works
Manufacturer	New Dusk Conclave, Conclave Ship Works, Default, OHI
Fielded By	New Dusk Conclave
Range	20 Years
Maintenance Cycle	Yearly
Lifespan	>200 years, with proper maintenance
Pricing	320,000,000 Duskerian Script (DS), or 40,000,000 KS

Passengers

Crew: 10000 operators are recommended, 1000 are required.

Maximum Capacity: There are accommodations for 2,000,000 people in the city areas, with accommodations for 200,000 or so more people spread out over the agricultural zones. About 20,000,000 people can fit aboard in an emergency, but the colony would be cramped.

Dimensions

• Length:

- Total; 32,000 meters (19.88 miles)
- Main drum; 24,000 meters (14.91 miles)
- Diameter:
 - Total With Reflectors; 34,000 meters (21.12 miles)
 - Industrial Ring; 12,000 meters (7.45 miles)
 - Main Drum; 8,000 meters (4.97 miles)
- Decks:
 - Spaceport Towers; 200 (20 meters)
 - Industrial Ring; 50 (20 meters)
 - Main Drum Subsurface; 20 (20 meters)

Propulsion

Falcon Tunnel Drive: 0.2 ly/min
Hyperspace Fold Drive: 0.25 ly/min

• Sublight Engines: .005c

Damage Capacity

See Damage Rating (Version 3) for a guide to damage ratings to include.

DRv3 Tier: 15

Inside the Ship

Deck Layout

Due to the nature of the Island class, decks are not oriented vertically as with many other ships. For simplicity, decks closest to the center of the colony have the lowest numbers, and those furthest away have the highest.

Spaceport Towers

The Island class's spaceport towers are located on the outer surface of the industrial ring, and the floor is oriented "away" from the central rotating point.

Deck numbers	Contents
1-10	Transit systems
11-80	Cargo handling and storage
81-170	Embarkation
171-190	Hotels and shopping

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Deck numbers	Contents
191-200	Traffic control and sensors

Industrial Ring

The Industrial Ring of the Island class is kept in low gravity by lowering the rate of rotation.

Deck numbers	Contents
1-10	Personnel and cargo transit systems
11-30	Refining and Manufacturing facilities
31-40	Office spaces and laboratories
41-50	Personnel and cargo transit systems

Main Cylinder Subsurface

The subsurface decks of the main cylinder of the Island Class contain mostly support infrastructure, such as roadways, maintenance corridors, waste treatment facilities, and others. In addition to these, some residential facilities are housed below the surface of the main deck in city zones.

Deck numbers	Contents
1-10	Subsurface roadways and transit, subsurface housing
11-20	Support infrastructure

Compartment Layouts

The Island class is too large to give a detailed description of each type of compartment. Therefore, this guide will detail the larger sections of the colony, as well as certain compartments.

Agricultural Sections

The Island Class's agricultural sections make up the majority of the surface in the main cylinder excluding the large windows, covering about 2/3 of the habitable land, or about 90 square kilometers total. These sections house the farmland used to feed the population of the colony, as well as low-density residential buildings, generally occupied by the farmers tending to the farmland.

Control Center

The Island Class's control center is located towards the 'front' of the colony, near the large docking bays. This large complex is accessible via zero-gravity tram from the central zone, or by hybrid tram-elevators from the habitable strips of the main cylinder. The control center includes security checkpoints before any visitors or workers can enter it.

The control center contains control rooms, each pertaining to important aspects of the colony such as life

support, engineering and repairs, space traffic control, and so on. Each critical department has its control room, from which it can monitor colony systems and send out work orders.

Central Zone

The central zone of the colony is, due to being on the axis of rotation of the colony, in near zero-gravity. This section of the colony houses the high-speed tram which runs from one end of the colony to the other, as well as attractions such as zero-gravity shopping centers and swimming areas.

The Central Zone can be accessed by several lifts available on each habitable strip of the main cylinder, from the control center, and from the industrial zone.

Some attractions typical of the central zone are:

- MicroGravity Laser Tag
- MicroGravity Swimming
- MicroGravity Food courts
- MicroGravity Sport Courts

City Sections

The Island Class includes roughly 96 square kilometers of city space divided across the three habitable strips. These city sections are composed primarily of high-density housing and commercial buildings. The architectural style is very similar to NDC cities such as Dawn City, with aesthetically simple and elegant buildings, bordering on brutalist in some cases, when viewed by someone not connected to the NDC's DawnNet internet via a geist or other form of mindware.

Housing is primarily in the form of high-rise apartments, which tend on the smaller side, between 30 and 40 square meters on average. Most shops and commercial venues in these city sections are located in integrated 'vertical malls', which are high-rise buildings that house a shopping and entertainment complex in a smaller footprint.

Industrial Ring

The Industrial Ring is located towards the rear of the colony. This section is kept in low gravity by reducing its rotation speed. It houses the industrial centers of the colony, including materials refinement, research and development centers, and heavy industrial manufacturing. Most freight that enters the colony also tends to pass through this section, with the exception of freight and cargo which enters through the spaceports at the front of the colony.

Spaceports

The Island class contains 4 spaceports, 3 mixed-use spaceport towers at the 'rear' end of the colony, and

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one cargo spaceport at the 'front'. The three towers at the back handle passenger and light-cargo/freight transfer, and have built-in accommodations and entertainment/shopping complexes.

In contrast, the two massive bays at the front of the colony exist to facilitate the handling of heavy and bulky cargo which cannot be safely or quickly transferred in the smaller facilities at the rear of the colony.

Ship Systems

Armored Hull and Hull Integrated Systems

The Island Class's hull is basic and durable, composed of printed honeycombed Durandium Alloy layers which are many meters thick, sandwiching with Osmanium and Madite-S layers. The structure of the hull is composed of many circular 'ribs' and lengthwise struts between said ribs, upon which the main hull segments are fixed. This makes construction and repair simpler, as damaged portions of hull can be easily replaced, and ensures that damage to one hull segment does not compromise the entire structure.

The transparent "windows" are composed of thick Transparent Durandium plates, on a similar rib structure to the main hull. However, these segments do not have self-sealing Madite and Osmanium layers as that would compromise their ability to reflect heat and light into the main cylinder.

Computers and Electronics

Taking cues from Noval's Hibiscus class station, the majority of the Island Class 'computing and sensory capability is provided by a King class computer. While most of the combat capabilities of this computer system go unused, its tracking capabilities are utilized for local traffic control. Subordinate to the main computer system are several EVE Als which serve as guides and aides to citizens.

Emergency Systems

As a residential construct, the Island Class's damage control and emergency systems are robust, including a multitude of fire suppression systems, auto-sealing bulkheads, and backup systems for air purification. However, as the main concern is the hull of the colony being breached, there are self-sealing measures put in place into the hull itself in the form of layers of Madite-S and Osmanium, as well as repair drones located in small hangars throughout the colony's structure.

Life Support Systems

The vast majority of the colony's normal life support comes from its self-sustaining ecosystem, complete with weather patterns. However, it does have the ability to regulate chemical balances in the atmosphere, conduct basic weather regulation, and the ability to generate heat from its extensive

battery stores. These supplemental life support systems are designed to sustain the colony in emergency events.

Propulsion

Propulsion is provided by several Helix Plasma Engines. These engines were chosen for their relative simplicity in comparison to many other methods. The main propulsion array is located at the rear of the colony and is composed of one main unit and three smaller units.

While large in size, these versions focus more on propellant efficiency than raw thrust. Maneuvering thrust is provided by smaller Helix engines located across the exterior of the colony.

Power Generation

The Island Class generates its power in two ways. The first of these methods is the passive energy collection arrays which serve double duty as light reflectors. These arrays collect light and energy during night cycles and reflect light into the colony during day cycles. The supplementary method of power generation is through the use of fusion reactors kept supplied by fuel refined from nearby sources such as gas giants or, in emergencies, by Hyperspace Fuel Tap.

Shield Systems

Rather than using standard military shielding such as the Paladin Barrier System, the Island class uses comparatively simple Gravitic and Electromagnetic shields designed primarily to protect against debris and harmful radiation. These shields are not rated to withstand combat.

Weapons Systems

The Island class carries a small complement of weaponry for light self-defense and asteroid-defense.

- S6-Linear Rail Accelerated Tri-Barreled Plasma Cannon "Cerberus" x 30, Tier 9
- S6-TLAC "Cavalry" x 90, Tier 7

Vehicle Complement

The Island class has no set vehicle complement, but is capable of holding and servicing a vast number of shuttlecraft, and many mid-sized starships.

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OOC Notes

Alex Hart created this article on 2021/01/27 17:58.

Approved by Andrew on 03/15/2021. 1)

Products & Items Database	
Product Categories	space stations
Product Name	Island Class Mobile Colony
Nomenclature	CSW-H1-1A
Manufacturer	Conclave Ship Works, New Dusk Conclave
Year Released	YE 43
Price (KS)	40,000,000.00 KS

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https://stararmy.com/roleplay-forum/threads/island-class-colony-ship.67353/

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