Nir-Class Colony Ship

The reason for the Nir was created was to colonize other worlds, to expand a nation or nations. The Nir does this job, and does it efficiently. A majority of the ship is dedicated to housing a sizable number of colonists, other portions of the ship are dedicated to cargo carrying and utility purposes. Inside of its massive cargo holds contain all the needed equipment for getting the colonizing task under way, from the large beasts of burden, the mechanical Bringer of Thunder sent along as a utility machine, to the individual containers of seed and genetic templates for cloning of livestock.

History and Background

The Nir was designed via a collaborative effort from various members and design teams from the United Manufacturing Cooperative in YE 30. The reasons behind it was very simple. A distinct lack of a dedicated colony vessel, and the need for expansion. The Nir was made for that purpose, it combines knowledge, and insight from some of the best minds within the UMC, as well as technology to combine into one design made to seed new worlds with life.

Statistics and Performance

General

Class: UMC-CLS-001 Type: Colony Ship Designers: United Manufacturing Cooperative Manufacturer: United Manufacturing Cooperative Production: Mass Production Fielded by: United Outer Colonies ,Lorath Matriarchy

Passengers

Crew: 200 Colonist Capacity: 500,000 Pilots and Soldiers: 2,500

Dimensions

Length: 5,000m Width: 3,000m Height: 2,550m Decks: 400 decks with a height of 5 meters, and 10 decks with a height of 50 meters for storage of equipment, supplies, and other such utilities.

Propulsion and Range

2 Colony Vessel .20c 10,000c (1.14 ly/h) Fold: .25 LY/min Gravitic Landing Drive: .05c

Inside the Ship

Deck Layout

Deck: 1-400, Colonist Housing Deck:400-410, Cargo

Compartment Layouts

Armory

The armory is located adjacent to the soldier quarters area, and is complimented with the most recent Lorath small arms technologies. The armory is protected by several layers of nerimium armor plate, gravitic shielding, magnetic shielding, and a security system which requires a Pico-jelly reactive key and a neural lock clearance.

Bridge

The bridge is nestled deep between the decks of the Nir on the 225th deck. The bridge has been designed to be a large space which doubles as a 'town hall' of sorts for later use. The bridge serves as the nerve center of space-borne operations while the Nir is in transit to it's destination.

Captain's Suite

Unlike most ships, the Captian's suite is modest in decor and is not very much unlike the rooms utilized by other crew members and civilians. This trait symbolizes the fact of this ship being a civilian ship at heart, and not a military ship. The Captian's suite often is decorated by the owner of the suite however, so appearances may vary.

Cargo Storage Areas

The Nir has massive cargo storage capacity, this is due to its large size, and intended purpose. These bays hold the essentials for starting a colony off, as well as other necessary goods.

Crew Quarters

Decks 1-400 are dedicated to colonist and crew quarters. As such, and with the large compliment, there are ten per room providing the necessary housing. These include beds for the colonists, a bathroom with

a toilet, sink and shower. As well as a Pico-Jelly dispenser, waste disposal slot, and a writing desk and computer terminal.

Crew Recreation

Two decks are dedicated to crew comfort, and recreational needs. The designers did this in style, and basically used the Refitted Harvester-Class Class – "Fruna Ruica" Edition as a template, copying it into the design of the Nir. It is as if the Fruna Ruica were inside the Nir itself, minus the engines, power cores and so on of course.

Nano-Construction Bays

The Nir houses several Nano-Construction Bays and are intended to fill multiple uses and roles, these bays use the fabrication technology Shichou Yuriko brought to the United Manufacturing Cooperative.

Structol Culture Room

A Structol culturing chamber was also added in the Nir design for the express purpose to help breed more if it is required.

Engineering

The engineering section is located on the 250th deck, this compartment spans into the 249th and 251st decks, and holds the primary propulsion and power systems which are utilized for the Nir's functions."

Maintenance Conduits

Between each deck are a series of maintenance conduits which are utilized as a means of running utility supply lines throughout the ship. Along with providing a means of utility delivery, these shafts also provide access to internal system components to aid in maintenance. To add security, these shafts a require clearance from the ship operation crew before the hatchways to the shafts are opened.

Medical Center and Laboratory

Keeping the crew and colonists happy, and healthy is also a concern, and the designers did not skimp in this area. On each deck is a large medical bay equipped with Treatment and Examination Beds, Medical Cabinets and other assorted medical instruments.

Also per deck are two minor treatment rooms equipped to handle a majority of medical issues.

Passageways

Passageways on board are usually spartan in appearance, metal decks, overhead lighting. Since a majority of these lead to quarters you'll usually just see doors, and more of the same spartan corridors.

Multi-Function Bays

The Nir contains several of these. The primary purpose of these bays is to house the Nir's on board vehicle compliment. But, due to their nature they can also serve other uses as well.

Mess Hall and Galleys

Due to the Nirs enormous size, there are more then one galley, and mess hall. There are two galleys per deck per mess hall. Each galley is equipped with the Emfratec "The Hot One" as well as a large scale Organic Tissue Culture Device to suppliment on board food stores. Each galley is placed on either side of the messhall on each deck.

Ship Systems

Space Frame and Hull

Frame

The frame of the Nir is made primarily of Structol A&B colonies. The use of Structol was decided on the relative cheapness, and inherent strengths this most unusual of materials offers. The Frame has been augmented in design by using a truss reliant frame. This was chosen as a way to strengthen the overall frame design, and allow it to properly re-enter a planet's atmosphere with little trouble despite the overall weight of the craft, including Structol's resistance to heat.

Hull

The Primary element within the Hull Plate is Structol A the reasons for using this material are the same as the frame itself.

Structural Points: 50

Computer System

The Nir uses a combination of two systems to serve its computational and data storage needs. This system is a combination of a Neural Processor Packs, and a number of semi-conductor driven computer systems working in tandem to help keep things running smoothly, and efficiently.

Power Systems

The Nir uses Anti-matter, Energy To Matter, and QNC systems to power it. It also includes a Lorath Plasma Gathering and Containment Systems.

Emergency Systems

The Nir features a robust series of emergency systems, and includes a cargo deck dedicated to the Harbinger-Series Drop Pod intended to be used as a escape pod system. These pods also can be used as housing when the Nir has landed.

Emergency Shutters

The Nir has been complimented with an emergency shutter system which utilizes nerimium shutters in combination with forcefield projectors to create sturdy barriers against decompressions and other harmful events. Shutters are placed at every corridor intersection and every ten meters.

Emergency Forcefields

The interior hull of the Nir includes a series of forcefield projector units which are utilized to rapidly cover hull breaches with a protective barrier which prevents atmosphere decompression or interior contamination.

Emergency Atmosphere Preservation System

Each deck includes an emergency atmosphere preservation system which consists of a series of back up filters, and several high-capacity pressurized atmosphere gas containers. In the event of a decompression which results in the loss of atmosphere gases from the interior of the Nir, the atmosphere preservation system is automatically activated and is used to replenish the ambient air. In the event of atmosphere contamination, contaminated air is rapidly cycled out of circulation and replaced with reserve supplies.

Emergency Pathogen Removal System

The emergency pathogen removal system consists of a multi-stage system which is utilized to rapidly neutralize and dispose of harmful pathogens. The task is accomplished through the use of a nanomachine distribution system which is included in the Nir's atmosphere control system. The nanomachine system can be used to rapidly administer medicinal nanomachines, or to distribute nanomachines designed to attack harmful pathogens. Additionally, a plasma wash system is included in the air recycling system which is utilized to cleanse recycled atmosphere of harmful materials.

Emergency Intrusion Neutralization System

To prevent harm from befalling the civilians and crew of the Nir, an intruder neutralizing system has been included. Each corridor (In 5 meter intervals), and each room of the Nir are protected by crew controlled turrets which can be utilized to rapidly neutralize threats. The turrets are designed to utilize tri-mounted variants of the standard Lorath service rifles. Along with the turret systems, Lorath Plasma Arc Disruptor strips are placed to protect vents, and key systems.

Fire Suppression

To prevent fires from becoming a threat to the Nir, a forcefield projection system is utilized to contain fires and deprive them of oxygen. This system can also be utilized to neutralize harmful reactions and plasma fires by preventing their spreading and continued reaction by confining the event within the bounds of the projected forcefield.

Crew Stasis

In the event of a catastrophic emergency, all crew areas of the Nir can be utilized as stasis chambers. Through the use of an atmosphere distributed cryonic-state assisting drug and a rapid freezing process, the crew of the Nir can be suspended in stasis for up to fifty years time.

Emergency Beacon

An emergency transmitter beacon has been included on the Nir, this beacon utilizes hyperspace communications and focused subspace laser transmissions to allow for the ship to be tracked and located in the event of an emergency or disappearance.

Life Support Systems

The Nir's life support system has been designed to utilize four independent life support supplies per deck.

Each deck is complimented with its own water recycling, air purification, environmental control system, and waste disposal systems.

Atmospheric Control System

The Nir utilizes a complex series of Atmospheric Generation and Revitalization Systems where oxygen and other atmospheric components are derived from inorganic matter through a series of chemical reactions and circulated through a ship-wide duct system which runs in conjunction with interior room modules and maintenance tunnels. Nanoscopic scrubbers, chemical filters and ultraviolet radiation sterilizers remove harmful materials such as bacteria and viral pathogens. Contaminants are transported to the recycling system.

Water Circulation System

Deionized, Distilled water is passed from storage tanks through nanoscopic scrubbers and is then is pumped throughout the ship through a controlled membrane piping system derived from technology found on Sfrarabla Mishhuvurthyar Xhrafuklurp (SMX) ships through research done at the Chie Research Base. Wastewater is filtered and purified and sent back into the system. Contaminants pulled from the water are then transported to the recycling system.

Nanomechanized Cleaning System

Nanomachines are released into areas when there are no personnel present or at controlled times scheduled by the logistical staff or the AI. These simple nanomachines are designed to transport dirt, dead skin cells, hair and other waste products from surfaces of the ship into the MDRS.

Molecular Disruption Recycling System (MDRS)

Contaminants, waste and other products collected through the water, atmospheric and mechanized cleaning system are transported to the Molecular Disruption Recycling System, referred to as the MDRS. MDRS is a two-stage system that recycles as much material as possible for use in on board systems.

Stage 1: Molecular Sorting and First Stage Separation

Waste is separated into basic molecular forms, useful forms that can be utilized directly by the water circulation system or atmospheric generation and revitalization system are separated and put back into those systems.

Stage 2: Molecular Disruptor and Final Separation

A confined plasma beam is utilized in this stage. When waste is passed through the superheated plasma it is broken down on the molecular level; molecular bonds are broken and thus the waste is broken down into basic elemental components. Those elemental components are then either assembled or passed as is back into other ships systems for utilization.

Hazard Handling System

In the event that a compound is determined to be too dangerous to remain in the system; such as foreign nanomachinery, or other materials, it is immediately isolated in a subspace and magnetic containment field and is jettisoned from the ship and into space.

Sensors

The Nir has been equipped with a full Sensor Package.

Communications

The Nir uses a series of Radio, Laser, Subspace communications packages as its source of communication.

Hydroponics

Lorath Hydroponics

Propulsion

The Nir uses a three fold system as far as its propulsion needs are concerned.

For Sublight a rescale of one of the present Plasma Drives was reused, and designed to be up to par. This includes it being bigger, and offering more output to provide the necessary thrust required for the Nir to plow the space ways.

Faster then Light travel is a necessity for a colony vessel, and the designers of the Nir knew this by heart. The Nir uses the Enhanced Subspace Wave Drive to serve its conventional FTL needs, as well as a Fold based drive for the other.

An additional gravitic drive is included to provide the Nir with the necessary means to allow it to

manipulate it's mass. Without the gravitic drive, it would prove quite difficult for the Nir to manage planetary maneuvers.

Shield Systems

The Nir uses only two forms of shielding. Gravity & Electromagnetic to protect against scalar, raw energy and projectile based attacks.

Shield Points: 40

Weapons Systems

- 24xPlasma Vent Strips spaced evenly, and strategically over the hull to allow for maximum coverage.
- 8x Pivoting Missile Racks loaded with Mi Size Countermeasure Missiles Each rack contains 100 missiles each. Four launchers are located bow, and four aft.

Vehicle Complement

- 2,500xLo-M1-3 (SDI-M3) Hunter Powered Suit
- 1,000xAMX-102
- 20xBringer of Thunder
- 2500xPaa-Zem Advanced Construction Pod
- 1xTATC 0002 Transport
- 20xJourney-Class Shuttle
- 2xHawk Fighter Bomber

OOC Notes

This page was originally made by Soresu.

• It was approved by Wes on 8/3/2008 in this thread.

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