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# **DD4-C-class Destroyer**

# I. Background Information

The DD4-C Class Destroyers are based on the fourth destroyer class developed by Phoenix Corporation with the assistance of the Confederation Technological Research Administration (CONTRA). The only difference between the C and the original DD4 is the addition of a medical bay designed to help accommodate casualties.

Designed primarily for the Star Army of Nepleslia, the DD4-C would function in almost any other military as a light cruiser, but it's small size has led military planners to designate it as a destroyer. To accomplish its mission as a ship-killer, the DD4-C is armed with a stunning array of anti-ship cannons designed to be able to take on all manners of enemy defenses. In addition to the standard array of energy wave cannons, plasma and disruptor beams, it also wields the deadly 'Shock Cannon,' a coaxial Aether Shock Array.

### **II. Historical Information**

The budding alliance between the Nerimian Galactic Confederation and Nepleslian Empire has brought forth a sharing of mutual technologies and the rise of Phoenix Corporation as the major defense contractor in the Nepleslian Empire. Phoenix Corporation immediately began to evaluate the fighting prowess of the Star Army of Nepleslia and alongside Confederate military advisors began to realize that the Nepleslian Empire was vastly incapable of defending against any serious attack.

Members of Phoenix's R&D department feverishly began to work on a new ship design that would form the backbone of the new Star Army of Nepleslia. Unlike Confederate vessels, which were truly massive vessels that were exceptionally hard to kill and bristling with enough firepower to lay waste to entire planetary populations in a matter of minutes, this new design was going to be compact, light, and very lightly manned. The carrier-centric warfare of the Nepleslian's Nerimian allies was not a practical option. The Star Army of Nepleslia needed an identity of its own.

The DD4 destroyer program, codenamed "Dangerous Willow", began in the days after the formal signing of the military alliance between the Confederation and Empire. The DD4 actually was a prototype destroyer that was considered for adoption by the Draconian League Alliance, but rejected because it could not carry the requisite numbers of power armor and starfighters the high command had wanted. But for the Nepleslians, the DD4 proved to be a perfect fit. Valued for its amazing speed, superior defenses, and devastating firepower, the DD4 is truly the face of the new Star Army of Nepleslia.

The DD4, following the battle of Nepleslia Prime by the NSS Alliance, was shown to be somewhat lacking in support and medical facilities for ground forces. Though this is typically not an issue for the large and well equipped NDI Forces, the NSA is a relatively new and small fighting force. To help fix this problem the NSS Alliance was refitted with a small medical facility. The wide use of this facility by the NSS Alliance prompted Nepleslian Arms and Munitions engineers to begin refitting all DD4s currently in the Star Army

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of Nepleslia in the same way, leading to the DD4-C design.

### **III. Statistical Information**

#### Basics

Organizations using this vessel:

- Star Army of Nepleslia
- Nerimian Defense Initiative (available for issue)
- Type: Long-Range Attack Destroyer
- Class: DD4-C "Medicinal Blossom"
- Designers: Phoenix Arms Corporation, CONTRA, Wazu, Nam, NSS Alliance 'Ally'
- Manufacturer: Phoenix Corporation "Vulcan" class Shipyard, Tienshinhan star fortress, NAM
- Production: Full Nepleslian Star Army fleet integration;

#### Crew

- Crew: 12
- Starfighter Complement: 18 XF-14E "Tempest" starfighters
- Marine Complement: 56 Marines equipped with M1-3C Phalanx Armor
- Maximum Capacity: In emergencies, the destroyer can accommodate the crew and 220 supernumeraries.

#### **Dimensions**

 Length: 154.566 meters • Width: 145.683 meters

• Height: 22 meters

Mass: Approximately 958,402 kg

### IV. Performance

**Under New Starship Speed Standards:** 

- Speed (STL): .375c using gravimetric drives (Note: While the gravimetric drive theoretically allows the destroyer to achieve this speed, in actual practice, speeds more than .45c consume so much energy bandwidth that utilizing weapons, force fields, and other 'non-essential' systems is largely impossible while operating the drives at this speed)
- Speed (Hyperstream): 18,500c
- Note: Confederate produced hyperstream drives produce a highly unstable propulsion field that

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becomes increasingly more dangerous as speed increases. As such, use extreme caution as hyperstream drive failure can result in damage to the vessel's other propulsion systems, namely the gravimetric drive system.

- Speed (Hyperspace): .75 ly/m (Note: The Nishida Inter-Phased Drives installed in all Nepleslian warship designs have an integral 'speed governor' that limits the operational speed of the drive to a much slower speed than would be possible in the Milky Way Galaxy).
- Range: Limited only by the lifespan of the vessel. Life-support can support the ship's crew and all supernumeraries for up to 20 years before starting to fail.
- Lifespan: With regular maintenance, the DD4 destroyer class is expected to serve in excess of 50 years.
- Refit Cycle: Minor upgrades on a constant basis; major upgrades on an as-needed basis.

#### Old Values:

- Speed (STL): .99c using gravimetric drives (Note: While the gravimetric drive theoretically allows the destroyer to achieve this speed, in actual practice, speeds more than .45c consume so much energy bandwidth that utilizing weapons, force fields, and other 'non-essential' systems is largely impossible while operating the drives at this speed)
- Speed (Hyperstream): 250,000c
- Note: Confederate produced hyperstream drives produce a highly unstable propulsion field that becomes increasingly more dangerous as speed increases. As such, use extreme caution as hyperstream drive failure can result in damage to the vessel's other propulsion systems, namely the gravimetric drive system.
- Speed (Hyperspace): 8.78 light-years per minute (Note: The Nishida Inter-Phased Drives installed in all Nepleslian warship designs have an integral 'speed governor' that limits the operational speed of the drive to a much slower speed than would be possible in the Milky Way Galaxy).
- Range: Limited only by the lifespan of the vessel. Life-support can support the ship's crew and all supernumeraries for up to 20 years before starting to fail.
- Lifespan: With regular maintenance, the DD4 destroyer class is expected to serve in excess of 50 years.
- Refit Cycle: Minor upgrades on a constant basis; major upgrades on an as-needed basis.

### V. Interior Data

# 1. Deck One (Top)

- a. Quick-Launch Bay for Starfighters (1)
- b. Quick-Launch Bay for Power Armor (1)
- c. 10.7 m x 12.54 m Elevator mainly used for shuttle loads. Descends from top deck to decks two and three.
- d. 11.58 m x 16.11m Elevator used for shuttle loads. Descends to all decks.
- e. Communications and Radar Array (Primary) contains the primary array of passive and active sensors.

#### 2. Deck Two

- a. Armory which contains all small arms used by power armor as well as stored munitions for XF series starfighters.
- b. Starfighter & Shuttle Bay contains the storage stalls for XF series starfighters and shuttles. While a fairly compact area, there are maintenance corridors within that allow personnel to maintain the fighters and shuttles when necessary. Connected to the guick launch bays on the top and bottom of the vessel via high-speed deployment tubes that transport mecha at rapid speeds out of the vessel into combat.
- c. Mess Hall (main)
- d. Kitchen (main)
- e. Lounge
- f. Recreation
- g. Crew's Quarters
- h. Officer's Quarters
- i. Medical Bay

Notes: The ceiling height of the fighter and shuttle bay is roughly 45 feet, crew and officer areas have ceiling height of 25 feet.

#### 3. Deck Three

- a. Power Armor Bay contains the Quanta-Construct platforms necessary to construct M series power armor. Connected to the quick launch bays on the top and bottom of the vessel via highspeed deployment tubes that transport mecha at rapid speeds out of the vessel into combat.
- b. Marine Quarters
- c. Marine Command Center
- d. Command Bridge

#### 4. Deck Four (bottom)

- a. Storage Area (fore)
- b. Storage Area (mid)
- c. Storage Area (aft)
- d. Quick-Launch Bay for Starfighters (1)
- e. Quick-Launch Bay for Power Armor (1)
- f. Elevator to all decks

ALL bulkheads and the hull are reinforced and all sections can be sealed airtight, independently of each other.

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# VI. Weapons Systems

### **Phoenix Arms Type 15 Aetheric Shock Cannon**

A spinal mount weapon that fires from the very front of the vessel is the main reason for the DD4's "Death Blossom" moniker because it's resemblance to a blooming flower. Unlike the more powerful Aether Shock Array weapons used on Alpha-Hotel and Sierra-Romeo vessels, the Type 15 focuses its destructive power on a singular target (typically a warship), creating a destructive blast that can wipe out anything in a 150 mile cubic area. It is primarily designed to destroy individual warships outright instead of targeting entire groups of vessels.

• Location: Forward-facing spinal mount

• Damage: Total destruction in a 150 mile cubic area.

• Range: Up to 1 AU (93 million miles)

• Rate of Fire: Once every 20 seconds.

### **Phoenix Arms Type 21 Energy Wave Projection Cannon (6)**

The energy wave projection cannon are the premier anti-warship weapon utilized by the NDI and the Draconian League Alliance. Based loosely off hyperspace tap technology, the weapon generates an incredible amount of energy that is only limited by the platform's power transmission capabilities. The energy release is so potent that shields are considered only moderately effective against a constant barrage of fire and the sheer heat energy has been known to vaporize lightly-armored vessels. The low end of the weapon's power is measured in the mid-gigaton ranges (the equivalent of a 50-75 gigaton fusion weapon) and its high-end output is in excess of 525 gigatons.

- Location: 4 forward-facing heavy turrets (2 port, 2 starboard) capable of rotating 85 degrees off centerline. 2 rear-facing heavy turrets (1 port, 1 starboard) capable of rotating 85 degrees off centerline).
- Damage: Extremely Heavy
- Range: Theoretically unlimited except by the beam's speed (1c)
- Rate of Fire: One blast every 1.5 seconds.

# **Phoenix Arms Type 60 Particle Disruptor Cannons (20)**

The particle disruptor is one of the most feared weapons ever developed by Phoenix Arms Corporation due to its amazing effectiveness against shields and devastating armor degradation capabilities. The particle blasts fired by this weapon have a specific, disruptive effect against all defensive shielding and when impacting matter, will shatter or significantly weaken molecular bonds.

- Location: 12 forward-facing light turrets (6 port, 6 standard) capable of rotating a full 90 degrees
  off centerline. 8 rear-facing light turrets (4 port, 4 starboard) capable of rotating a full 90 degrees
  off centerline.
- Damage: Super-Heavy against shielding, has particularly damaging effects against shielding;

Extremely Heavy against all armor

- Range: 1.4 million miles (any more than this and the particle beam's coherency begins to fail, with damage falling off dramatically past this point)
- · Rate of Fire: One blast every half second

### **Phoenix Arms Type 108 Point-Defense Cannons (48)**

The point-defense cannon is a multi-gun weapons system that fires powerful phased energy pulses or electrogravitic pulses at incoming mecha, fighter, and missile targets. These cannons are mounted on spherical turrets that actually rise up out of the ship's hull (they float along the surface using a powerful electromagnetic field system) and track targets using a dedicated sensor system. Each cannon is rated in the mid to high megaton range (1-250 MT) in terms of destructive energy output.

- Location: Hull, distributed evenly to provide 100 percent coverage against attack
- Weapons: Phased Energy Pulse/Scalar Electrogravitic Pulse
- Damage: Moderate to very heavy against mecha, starfighters, and missiles
- Range: Up to 1.5 million miles
- Rate of Fire: 4 pulses/second

# VII. Ship Systems

#### **Armor & Hull**

The DD4's hull is primarily constructed of highly-durable Hephestium (also known as Nerimium) alloy and composes nearly 60 percent of the ship's entire mass. The ship's armor is the super-resilient Leptonium-B alloy coated with an advanced laminate known as Mercurite that dampens the emissions of electromagnetic radiation. Leptonium-B provides excellent defense against all types of energy weapons, re-radiating and dispersing energy along the entire surface area of the point of impact to reduce damage to negligible amounts. Leptonium-B also has the unique ability to regain veracity from attack over time because of its self-healing molecular bonds. Anti-matter weapons are especially effective against Leptonium-B.

# **Advanced Damage Control System**

Because the DD4 is designed to work with a nominal crew, the ship's damage control systems are completely automated, with multiple nanolathing units installed to provide rapid repairs at any point on the ship.

# **Escape Pods (6)**

The ship's escape pods are found near the bridge, the starfighter and shuttle bay, and in the power

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armor bay to provide escape for crew members on a doomed vessel. The escape pods are autonomously-controlled by advanced piloting AI that has a single-use inter-phased hyperdrive to allow the crew to escape to safety. The AI will download hyperspace coordinates from the mother ship's main computer just before it launches to the nearest friendly world. In the event a hyperspace jump isn't possible, it also has ion impulse drives to allow STL travel. The pods are capable of sustaining life for 120 hours (five days), and over a century of cryogenic stasis if needed. Each pod has a homing device that must be manually activated. The pods will automatically put themselves into a safe descent if there is a habitable planet nearby (rather than burning up in the atmosphere).

### Shielding Systems

Argus Millitech Type C Electrostatic Shield: The Type C Electrostatic Shield is the NDI Spacy's standard force field system and provides the primary defense against all forms of attack. It is a potent force field that is created by generating powerful electrostatic fields that can absorb, disperse, and re-radiate energy from enemy weapons in order to sap their destructive power. This shield is functional at all times, though in non-combat situations it is in a low-power setting that allows it to repel micro-meteors and other debris away from the hull. At full-strength, the shield can turn away the equivalent of a fifty teraton detonation before failing.

Argus Millitech Type C Distortion Shield: Known colloquially as the 'Hard' shield, the Type C Distortion Shield creates a very specific space-time distortion that prevents teleportation or phasing across the barrier it creates. When used in conjunction with the Electrostatic Shield it is particularly effective.

Argus Millitech Type C Lightning Field: This shield is an ionized scalar energy field that is useful against any penetrating target. Intense plasma heating will fuse and vaporize metallic bodies on impact. In addition, any target encountering this shell is subjected to intense electromagnetic pulses arising everywhere in its circuitry, making EM shielding of no use. Furthermore, explosive materials are exploded when such interference is encountered and any and all combustible materials are instantly consumed.

Argus Millitech Type D Damper Field: This shield is a by-product of antigravity (repulsor) technology; the damper field has been heralded as the best defense against scalar electrogravitational pulse weaponry, which is notorious for their ability to destroy ammunition, electronics, and organic life forms. While scalar EM waves penetrate conventional shielding because they can travel wherever gravity can go, the damper field uses a low-power antigravity field that negates the force of gravity and consequently provides an effective shielding system against scalar EM weapons systems.

Argus Millitech WS-488 Interdiction Field: The interdiction field is an offshoot of gravimetric and hyperpulse propulsion technology that creates widespread distortions and disruptions in space-time that make the transition to hyperspace and movement at superluminal velocities near-impossible in its area of effect. This field can be centered upon the carrier itself or projected outward to affect an area approximately 100,000 cubic miles.

# Time/Space Anchor

The Time/Space Anchor is a device constructed from psychoactive that firmly anchors whatever it is attached to firmly in the time/space continuum, rendering attacks that use dimensional and planar

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warping capability to deal their damage ineffective. The anchor must be turned off before a warship can execute a hyperspace fold, however.

### **Graviton Beam Projector (2)**

This device creates a stream of gravitons which can be used to tow other spacecraft or shuttles. The projector is ineffective against ships using gravitic shielding.

### **Genesis Propulsion Systems Swiftwind Series Gravimetric Drives**

The ship is equipped with multiple gravimetric drives that manipulate superstrings and the zero-point field to maneuver and accelerate to a far higher degree than other ships. By manipulating and "bending" superstrings, Draconian Alliance ships are able to create distortions in space/time that can be used to push and pull a ship in any given direction. An important byproduct of this means of propulsion is that the effect of inertia is also negated, allowing ships to accelerate, stop and maneuver at velocities that would crush a person using conventional ion propulsion.

### **Genesis Propulsion Systems Eteria Series Ion Impulse Engines**

Long the standard sub-light engine of the Confederate military until the widespread usage of superior gravimetric drive systems, ion impulse engines ionize a gas such as xenon and accelerate the ions using a magnetic accelerator to near the speed of light, which produces thrust. While Ion Engines provide a decent amount of acceleration, they soon became relegated to auxiliary engines as newer technology became available.

### **Medical Bay**

After the operations on planet X the NSS Alliance was forced to create a makeshift med-bay to accommodate the wounded. Once returning from planet X a permanent medical bay was installed into the ship on deck two by removing one of the officer's quarters and slightly shrinking the marine barracks to accommodate the extra room. The entrance to the medbay is a white bulkhead door. Inset into the door are nozzles that spray people down with a fine mist of special chemicals that cleanse them of impurities and kill bacteria, viruses, ect.

The side walls of the medbay are lined with three layer bunk beds for a total of 18 and painted white like the rest of the medbay. Each is padded with memory foam and contains automated systems to perform first aid, defibrillation of the heart, and suspended animation functions in the event that the automated surgery tables and medical staff are overwhelmed. Small drains in the beds are capable of gathering lost blood, cleaning it, and retuning it to the patient.

The center of the room contains two tables, each with a spider like machine above them that has a variety of arms filled with drug dispensers, flesh fabricators, and other implements of surgery. These

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robots are capable of performing complex surgery on a patient quickly and efficiently without help from the medical staff. Like the beds on the side walls these tables are capable of blood transfusions and collecting blood lost, cleaning it, and returning it to a patient. Below these tables are cabinets with various pieces of medical equipment for the medical staff to use.

The rear wall contains a diagnosis area. Using inbuilt sensors any patient can be scanned and their vitals displayed upon the flat white wall. Tox screens and brain chemistry checks can also be preformed through the stations located on this wall. Additional equipment storage is built flush against the wall and is opened by a verbal command given to the ship's computer by the medical staff. NOTE: The high resolution screen is for Serious Business not for watching AetherSperm music videos when the XO is not around.

The ceiling contains high powered lights that operate in a variety of spectrums for all conditions as well as four deployable, spherical, bots that float in the air. These bots use magnetic grappling technology to levitate and bring equipment from the storage areas to the medical staff that makes a request for additional equipment. Three hemispherical bots levitate small equipment trays that are 2×4 feet in size beside the medical staff to hold equipment for them.

When not in use the computer will automatically seal the medbay and sterilize the entire room with hot water sprayed from the floor, cleaning chemicals, and microwave radiation. Water drains out through a drain in the floor when the cleaning process is completed.

### **Nishida Inter-Phased Hyperspace Fold Drive**

The biggest and most important discovery of the past 2,000 years of Human history is the ability to travel faster-than-light, which made interstellar travel possible. Professor Kyoshiro Nishida developed the first FTL drive, which pushed a vessel into a dimension adjacent to our own dimension but where distances are far smaller. With this device, speeds in excess of 10 million times the cosmological constant (hereby referred to as 'c'), were possible. Kyoshiro's son, Gendo Nishida, expanded upon his father's work and developed the inter-phased drive, which created a series of asymmetrical dimensional fields around the ship as it traveled through hyperspace to allow it to achieve even higher speeds in excess of 100 million times c. It has been theorized that the Nishida Inter-Phased Drive can propel a vessel through hyperspace many times faster (speeds up to 1 billion c have been achieved utilizing small probes) than this, though the higher the speed, the more perilous hyperspace travel becomes.

#### D.E.I.M.O.S.

The most advanced combat computer suite available to Confederate and Nepleslian military forces in the field, DEIMOS is a highly advanced computer system with near-infinite processing power operating on yoctotronic computer technology. All communications and electronic sensor systems are under the direct control of DEIMOS. The processing and information load capacity of the DEIMOS system is near infinite, using a combination of high-powered electronic components coupled with psychoactive crystal arrays that allow for incredibly high volumes of data to be processed simultaneously on practically limitless separate and complex tasks (an upper limit has not been theorized).

DEIMOS, like its predecessors Oracle and GoldenGate, is completely self-aware within the parameters of

its core operation principles. DEIMOS exists solely for the purpose of defending its home country and all of its citizens and will perform whatever operations are necessary for that task. Because DEIMOS' loyalty rests completely with its country, it will never turn against them under any circumstances. Onboard the ship, DEIMOS manifests itself as a cybernetic female humanoid with distinctive features and personality traits. Holding the rank of Lieutenant Commander, DEIMOS is second only to the ship's commander and his executive officer. DEIMOS oversees all operations of its parent vessel and can instantly access the operational systems of every ship subordinated to it. In this way, the DEIMOS can coordinate the operations of entire squadrons, battle groups, task forces, and even fleets seamlessly and without delay. All information from subordinate ships immediately moves through the Tactical Information Web where to DEIMOS, who translates all data into a form the ship's commander can understand.

### **Argus Macrotechnologies Kalmedia Class Type A Hyperpulse Drive:**

The hyperpulse drive is a relatively new addition to the Draconian Alliance's warships. Using layered asymmetrical warp fields that can envelop the entire vessel, the ship can move at superluminal velocities during combat. While nowhere near as fast as the interphased drives that allows ships to move from planet to planet, it allows for extremely rapid travel during combat.

### **CH-8 "Hermes" Hyperspace Communications Array**

Based on the same technology as the space fold system, the hyperspace communications relay allows near real-time communication between NDI Spacy starships and other vessels or planetary bases. As with all NDI communications, the hyperspace communications array utilizes a proprietary set of signals that changes periodically, allowing secure communications between NDI warships without the fear of enemy interception.

### **Integrated Sensors Suite**

The integrated sensor suite of the Nerimian Defense Initiative is actually a subsystem of the Oracle and DEIMOS computer systems on the ship in question, tying directly into the computer's vast resources and processing power to facilitate operations. A wide array of sensor systems are supported, the primary of which being the WydeSCAN hyperwave radar array which operates like standard radar and like a hyperspace communications array, sending intensely powerful radar pulses as far as five parsecs away. The speed at which these hyperwave pulses travel is many thousands of times faster than even a interphased drive, which means that even at the instrument's maximum range, the operation takes only a matter of microseconds. Other systems include a dual tachyonic/neutrino wave sensor system that serve to detect ships who are cloaked or phased and can also detect vessels who are traveling through hyperspace with relative ease. The ISS' passive sensors include: full-spectrum optical and electromagnetic spectrum sensors, zero-point field distortion and interferometry sensors, magnetic resonance, gravitic distortion sensors, and sub-quantum particle wave sensors. All of these systems work in tandem with each other and propagate and process data far beyond the speed of light.

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#### **Integrated Countermeasures Suite**

The Nerimian Defense Initiative's integrated countermeasures suite is another subsystem of the Oracle and DEIMOS computer systems, tying directly into the computer's vast resources and processing power to facilitate operations. The primary purpose of the ICS is to defeat enemy sensor systems using active electronic countermeasures—primarily using jamming techniques. The ICS can successfully jam all forms of radar, tachyon, neutrino, and quantum-based sensors, though it is not 100% efficient at this operation.

#### Fire Control System

The Achilles Targeting Unit is a subroutine that coordinates all the warship's fire, giving the commander a detailed report on the charge status of its beam weapons and how many of its ballistic munitions have been expended. During combat, it processes information provided to it by the ship's sensors to select the proper weapons system, rate of fire, and the optimum output and targeting data to deliver the most damage to the target. Missile and torpedo guidance systems are automatically updated by the Achilles to defeat enemy countermeasures and better track enemy units.

### **Fortitude Point-Defense System**

The Fortitude PDS is an active defense system that has its own feral targeting subroutines that operate as its own separate FCS outside of the standard weapons systems. Utilizing the fast-tracking laser turrets as its primary weapons, the Fortitude has its own sub-quantum Class V AI controlling its operations. The Fortitude automatically engages functions usually performed by separate, independent systems such as search, detection, threat level evaluation, target acquisition, target track, weapon firing, target damage assessment, target destruction confirmation, kill assessment, next target detection and / or cease fire.

# **Argus Macrotechnologies Orlando Series ZPF Hyperspace Tap**

The Zero-Point Energy Reactor is the most advanced form of reactor conceived of, and is the theoretical basis for power plants used by advanced races such as the Draconians. Essentially ancient races tap into the tidal forces of Hyperspace its self as a power source. Having been compared to the galactic equivalent to a hydro-electrical power system, the Hyperspace tap operates by some how using gravimetric fields to create a constant and stable access point between Hyperspace and real space, which is open at all times.

### Argus Macrotechnologies Reno Series Quantum/Gravitic Generators

Quantum/Gravitic reactor is the primary power plant utilized by the Nerimian Confederation. This system uses a complex series of graviton beams to mimic the destructive power of a black hole on a local scale, creating an artificial quantum singularity. This self sustaining reactor system destroys all matter introduced into the singularity, creating a 100% energy release. Efficiency of a given ship to exploit this energy release varies. Process begins with a series of high-energy fusion reactors, which are used to

manipulate zero-point energy to mimic gravity and create the singularity. Once the singularity is formed, any and all matter introduced into the reactor is destroyed, creating a massive energy release.

As any form of matter can be used as fuel for the singularity, this form of reactor has a near infinite run time - so long as there is matter to be used as fuel, the Quantum/Gravitic reactor will continue to produce power. In addition, a key byproduct of this form of reaction is antimatter, which can be used both as a weapon or a secondary power source. Key advantage of the Quantum/Gravitic reactor over a matter/antimatter reactor is system is efficiency and stability. The Quantum/Gravitic reactor only uses half the fuel of antimatter based system and, unlike a matter/antimatter reactor, should this form of reactor breech the singularity will simply collapse with almost no adverse effects. Once the singularity is shut down all form of mass compression will cease and, with the exception of one final burst of antimatter, energy production stops almost instantaneously.

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