So-M1-1A Erla VANDR

History and Background

The Erla Vandr is the first mass-produced VANDR-type powered frame, and become a considerable boon to the Astral Vanguard's combat capabilities once the design was completed. As with all planned VANDR units, it was originally intended to be a variable deployment fighter, capable of engaging hostile forces as both a fighter craft and humanoid powered frame, but technology constraints and the particularities of the design prevented the transformation mechanisms from functioning properly. Instead, the Erla Vandr was radically redesigned as a high mobility powered frame with potential as both a skirmisher and assault unit, with many of the prototype's features still quite visible.

As the design began to age, many Erla VANDR were converted to the So-M1-1B Erla VANDR Civilian-type. During the early AR 920's, a flawed successor in the form of the experimental Erla VANDR II was designed, and completed in AR 935. As the unit nears it's third century of service, many military officials wish to see it finally retired so that new frames can be designed and brought to the fore.

Erla means *traveler* or *scout*, while *VANDR* is an acronym for *VANguard Deployment Ranger*.

So-M1-1a Erla VANDR

About the Erla Vandr

The Erla Vandr is fast, agile and able strike from many directions, thanks to an array of fin-like plates that act like extensions to the MASC-based funnel propulsion the craft employs and the natural abilities of the MASC Drive it mounts. The drive allows it to make sudden low-speed FTL jumps under conditions that would otherwise hamper other drives, allowing it to effectively cross short and medium distances on the battlefield. This grants the invaluable ability to make decisive jumps in combat to harass a more powerful enemy, and seed confusion in the ranks of a hostile force.

As a direct combat unit, the Erla mounts an array of dual Light Particle Cannons that can inflict respectable amounts of damage after short charging times and multiple high precision laser arrays that can fire for extended amounts of time, even while on the move. The multi-beam laser arrays in particular, while comparatively weaker than most modern weapons, can be used to create a constant defensive

weapons fire grid. When forced into melee combat, the Erla can slice it's way through poorly armored units with its four deadly CIVWS, deadly weapons systems that allow for high degrees of adaptability in close quarters, which replace the feet and hand manipulators.

It is also well armored, mounting a protective layer of Aerudirn colonies that can absorb a high amount of damage, and boasts excellent shielding systems. However, forces should rely on remaining mobile and constantly striking the target with a shower of laser fire to weaken it, and following up with a coup-de-grace in melee or with the LCPAs.

Statistical Information

Government: Iromakuanhe Astral Commonwealth Organization: Astral Vanguard Role: General Purpose/Scout Type: Organoid Powered Frame Class: So-M1-1A Erla VANDR Designer: Solan Staryards Manufacturer: Solan Starworks Production: Full Mass Production

Crew: 1 Iromakuanhe. Entry port inserts restrict the use of a standard model to Iromakuanhe pilots only. Maximum Capacity: There is sufficient room and life support resources to keep 3 people alive inside the cockpit.

Width: 4.2 Meters Height: 8.6 Meters Mass: 12.6 Tonnes

Range: 7 Days of FTL (3500 LD, 9.5 LY), 6 Months STL (45 LD) Lifespan: 35 Years

Speeds

Ground speed (Hover): 80 KM/H Air speed (Flight): Mach 5 Zero Atmosphere (Flight): .3c MASC Drive (FTL): 500c

Damage Capacity

Hull: 20 Shields (VFS): 20 (2/5)

Interior Descriptions

Cockpit

The cockpit is an elegant, slightly spacious chamber dominated by a large oval chair with a cradled headrest and the surrounding control panels and display screens. These are largely for maintenance, as the main controls are done by a series of interface plugs that are connected directly to the Iromakuanhe pilot. The walls of the cockpit are lined in a golden/orange material with a pearly semi-reflective sheen to it. The indentations for the doors of a pair of storage cabinets built into the walls can be seen a foot from

the cockpit on both sides.

Weapons Systems

Main Weapons

(2): So-M1-W0784 "Shockbite" LCPA Cannon

LCPA (Light Charged Particle Accelerator) Cannon

Location: Forearms Purpose: Anti-Armor, Anti-Vehicle Secondary: Anti-Shield Damage: MDR 4, Electrical Damage

Range: 5 KM in Atmosphere, 15 000 KM in Space Rate of Fire: One burst every 10 seconds of charging Area of Effect: 2 Meters Muzzle Velocity: .25c Ammunition 200 Particle Shots, Replenishes completely after 30 Minutes out of combat

(4): So-M1-W1784 "Divine Fist" CIVWS

CIVW (Close-In Variable Weapon) System

Location: Hands and Feet Purpose: Anti-Vehicle/Anti-Infantry Secondary: Anti-Shield

(4): So-M1-W2784 "Searing Ray" CELB Laser Array

CELB (Compression-Enhanced Light Beam) Laser

Location: Shoulders, Thighs Purpose: Anti-Vehicle/Anti-Starship Secondary: Navigational Protection Damage: MDR 3

Range: 10 KM in Atmosphere, 300 000 KM in Space Rate of Fire: Beam can be maintained for up to 1 minute. Cooldown is 1/4 of projection time. Muzzle Velocity: 1c

Secondary Weapons

(5): So-M1-W3784 "Storm Ray" LEMB Laser Array

LEMB (Light Enhanced Multi-Beam) Laser

Location: Rear Cockpit Pod, Torso Purpose: Point Defense Weapon Secondary: Anti-Infantry Damage:

MDR 2

Range: 5 KM in Atmosphere, 300 000 KM in Space Rate of Fire: Can maintain up to 12 beams simultaneously. Muzzle Velocity: 1c

(4): So-M1-W4784 "Star Locust" PASD Missile Pods

PASD (Particle Swarm Detonation) Missile

Location: Shoulder Pods Purpose: Anti-Armor, Anti-Vehicle Secondary: Anti-Shield Salvo Size: 9 Damage: MDR 3, Electrical Damage

Range: 25KM in Atmosphere, 15 000 KM in Space Rate of Fire: 1 salvo every 8 Seconds Area of Effect: .5 Meters Muzzle Velocity: Mach 6 in Atmosphere, .2c in Space Ammunition 72 Missiles Ammo Replenish: Can refill capacity in hospitable conditions in about 2 hours outside of combat. Any further attempts to refill will require an external source of biomass.

Systems Descriptions

Hull and Hull Integrated Systems

Hull and Chassis

Aerudirn Armor Colonies Aerudirn consists of living colonies that grow out into thick, smooth sheets of a high durability, that are have been bred to be resistant to damages from radiation and can charge themselves with an electrostatic field to enforce their surface tension, thereby inhibiting penetration by weaker solid-ammunition weapons. Should the shell be damaged, the colonies underneath, which are dense enough on their own to survive exposure to vacuum can quickly have other sections stretch to accommodate tears, and regenerate completely with enough time.

Armor Type: Light Structural Points: SP 12

Organoid-type Substructure Highly resilient organoid tissues form the remainder of the body, including an endoskeleton, muscles and primitive organs that perform various functions related to keeping the unit and runner alive. The tissues have exceptional toughness compared to those of normal species, and can even survive in vacuum conditions should the entirety of the upper armor layer be destroyed. Given the living nature of the organoid, the frame will retain the ability it move it's limbs, even in the event of power failure.

Armor Type: None Structural Points: SP 8

Life Support

The Erla VANDR's life support functions are tied in directly with the Organoid's natural bioelectrics and life functions, meaning that should power failure occur, these systems will continue to function until the components expire.

Organoid Integrated Life Support Functions + Prajna The organoid's Prajna glands will fill the cockpit module in the liquid breathing fluid once the pilot has activated the frame, and will withdraw it during the powering down process. The liquid also removes the need to eliminate waste, eat and can greatly assist in the healing process.

So-M1-R0784 KORD System The KORD (Kinetic Force Diffuser) is an essential system that protects the frame runner from the tremendous G-Forces and shocks the Erla VANDR experiences during both before and after FTL travel and during highly perilous combat maneuvers. It also protects from weapons that kill through kinetic force, in a manner similar to maces against armored troops in ancient times.

Shields

So-M1-S1784 Frame-type Vector Shroud Vector Shrouds are sophisticated vector field systems that envelop the craft in a conformal shell of compressed space, allowing one to become relatively invisible to electromagnetic and particle based sensors, and shrinking the frame's profile to other systems. As a shield, it is reliable and particularly effective versus energy weapons. Shares SP with the Vector Barrier Guards.

Locations: Integral Shield Points: SP 20 (2) Runtime: Limited by Power Source Only

So-M1-S1784 Vector Barrier Guards More powerful but considerably less reliable than the Vector Shroud, the Vector Barrier is the first line of defense in the field, and an excellent last resort. They employ advanced space compression to generate a long 4m oval shield that is separate of the main unit and acts as a kind of disposable barrier. These are generated at various locations on the frame unit and remain fixed in proximity to the module that formed it.

Locations: Forearm and Shin Guards Shield Points: SP 20 (5) Runtime 3 Minutes

So-M1-S2784 Frame-type Repulsor Burst Array Repulsor systems work by creating a temporary vector field, which at regular intervals can be overcharged and super-expanded, which generates an omni-directional concussive blast that is fully capable of causing tractor beams be dispersed and unwanted hangers to disengage, allowing one to temporarily shrug off the effects of such devices. It is commonly used to force boarding craft away from hulls, knock away incoming projectiles and can potentially kill or disable poorly protected infantry with pure kinetic force.

Location: Integral Purpose: Defensive Countermeasure Secondary: Deterrent Damage: MDR 1, Kills through Kinetic Force Range: 1m radius Rate of Fire: One pulse every 6 seconds

Power

Primary Power

So-M1-G0784 Frame-class COFU Reactor COFU reactors use advanced space compression to collapse the atomic structure of matter into itself and induce nuclear fusion. They run on a finite combination of tritium and deuterium, meaning that runtimes are limited. The Frame-class COFU reactor powers all systems onboard the Erla VANDR and produces enough surplus power to recharge any one of the Zaiflar Supercapacitors in roughly 90 minutes.

Emergency Power Sources

So-M1-G1784 Zaiflar Supercapacitor x3 Zaiflar Supercapacitors are over-sized versions of the power storage units employed by Solan Starworks in their small arms designs. Roughly the size of a scuba tank, a trio of them have been inserted beneath the back pod of the VANDR unit, giving a rechargeable source of emergency power. On their own, each Supercapacitor can provide power outputs equivalent to the COFU Reactor for 45 Minutes.

Electronics and Propulsion

Control Systems

So-M1-E0784 VANDR-type Immersion Control Pod w/ VCANIOS Core

Due to their natural interface abilities, designing a responsive and intuitive control system for an Iromakuanhe was relatively easy. This system, know as the Immersion Control Pod, allows easy and natural control of most vehicles, including large units such as powered frames and starships. The Control Pod is the seat component of the cockpit, and is composed of a rounded chair in which the pilot is most comfortable in a reclining position, and multiple entry port plugs. The chair itself is lined in a soft, organic material lined in a highly flexible rubbery skin that is smooth to the touch and has a light golden reflective sheen. It will naturally conform to the user's body, and can even form cushioned indentations for the tips of horns.

Use

To connect with the machine, one must connect the plugs to their entry ports, which can be done manually, or automatically by the organoid. The pilot's senses and ability to move will then quickly begin to fade as they are rerouted to those of the frame, which they will be able to control as extensions of their own bodies. Weapons systems and certain functions may have to be practiced.

Note

Transfer of pain cannot occur because organoids lack developed tactile senses in most cases, however, the have been uncomfortable sensations reported by pilots when their units lost limbs or took heavy damage, similar to a sort of strong pressure. On very rare occasions, the sensory redirection effect caused by the control module lasts after disconnection from the craft, which will require immediate medical attention.

STL/FTL Propulsion

So-M1-P0784 Tactical MASC Drive

The MASC drive is an advanced multi-purpose propulsion system that enables multiple different forms of mobility through the application of advanced space compression. It generates a constant effect that pushes outwards off all surfaces of the craft, giving it perfect neutral buoyancy, can funnel space behind the craft to propel it at supersonic speeds and catapult it through compressed space for faster-than-light movement. Unless it charges for several minutes, the only FTL-like capability the unit has is 'Sublight Jumping', which allows a low number of sensors range-limited sub-FTL jumps per minute. While comparatively slower than a more potent subspace-based or hyperspace-based drive, it lacks the weaknesses to natural gravity and artificial space stabilization fields that plague those systems.

Mobility Information		
Function	**Speed/Distance**	**Detectability**
Atmospheric Flight	Mach 5	Low
Zero Atmosphere	.25c	Low
FTL	500c	Medium
Sublight Jump	270 000 KM	Medium

Communications Systems

So-M1-E1784 Frame-type Communications Package

Location: Torso, Cockpit Pod

Includes:

- Laser
- Radio
- MASC-Assisted Laser
- MASC-Assisted Radio

Sensors

So-M1-E2784 Frame-type Sensors Package

Location: Head, Torso, Cockpit Pod

Includes:

- Vector Wave Sensors
- Subspace Mass Sensors
- LADAR
- RADAR
- MASC Particle Scanner
- Thermal Sensors

Electronic Warfare

(3): So-M1-E3784 ERP Projectors The Empty Resonance Pulse, or ERP, is a potent electronic warfare system that could be seen as a modern analogue to the flashbang, by generating short burst that temporarily render space void of traceable emissions. It employs a combination of space compression and exotic charged particles that generates a short-lived effect, however, lingering particles may continue to hamper sensors for some time.

Location: Head, Hands Max Pulse Range: 800 M Max Pulse AoE: 50 M Duration: 5 Seconds Rate of Fire: 1 Pulse per 20 Seconds

So-M1-E4784 Listening Deveice The Listening Device is a system employed to passively intercept and sample data being transmitted through unsecured methods. It is also a critical component in many important electronic warfare devices, and allows Astral Vanguard starships and vehicles to track the communications of hostile forces. As the unit approaches the source of the transmissions, it becomes increasingly easier to track, until a positive match can be made at a certain threshold.

Location: Head Can Intercept:

- Radio
- Microwave
- Subspace (requires Vector Wave Sensors)

Specifications		
Medium	**Maximum Interception/Detection Range**	**Tracking Range**
Radio	1 200 000 KM	30 000 KM
Microwave	600 000 KM	15 000 KM
Subspace	15 000 KM of Receiver or Sender	5000 KM

So-M1-E5784 Muted Resonance Shroud The Muted Resonance Shroud, or MRS, is a squad-assist stealth system that uses a combination of Vector Shroud-type space compression and exotic charged particles to create sections of space that appear very dim to sensors systems. These areas do not stick out as emptier than vacuum as with some related systems, but creates a signature similar to that of the space a significant distance from a star. The results in high difficulty in achieving targeting locks on and

determining the nature of objects inside the field. Unfortunately, this has similar effects on the units deploying the field, forcing the runner to rely on FTL sensors such as MASC Particle, which may reveal his presence, though not necessarily his position.

Field Size can be lowered or raised, though it is suggested to limit the area of the field to the approximate area of the frame employing it, as to hide effectively, but not arouse suspicion by creating overly large zones that the enemy cannot scan properly.

Detection Range: 250 M Max Field Size: 1 KM

Countermeasures

(2): So-M1-E6784 Regenerative Beacon Flares

Location: Rear Hip Pods Purpose: Anti-Missile, Anti-Targeting Lock Secondary: Misdirection Salvo Size: 1, 2 or 3 Damage: MDR 1

Range: 25KM in Atmosphere, 15 000 KM in Space Rate of Fire: 1 salvo every 2 Seconds Area of Effect: 500M in Atmosphere, 2500 KM in Space Muzzle Velocity: Mach 6 in Atmosphere, .2c in Space Ammunition 24 Missiles Ammo Replenish: Can refill capacity in hospitable conditions in about 1 hour outside of combat. Any further attempts to refill will require an external source of biomass.

Misc

Internal Storage

There are internal storage compartments within arms reach of the pilot on the left and right, with each roughly 50cm x 25cm x 25cm in size. By default, they contain:

- Rations
- 2 Litres of water
- (4) Leyflar Supercapacitor
- (1) Solanii Laiz Carbine

BHS

Biomass Harvest System (BHS)

OOC Notes

Authored by Exhack and approved by Wes on Oct 10, 2008 [1)]

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https://stararmy.com/roleplay-forum/index.php?threads/m1-erla-vandr.2964/page-2